



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

May 15, 2024

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

RE: Notice of Exempt Modification for Verizon: 5000382911
Crown Site ID# 806370
570 New Park Ave, W. Hartford, CT 06110
Latitude: 41° 44' 10.5"/ Longitude: -72° 43' 14.2"

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless currently maintains twelve(12) antennas at the 147-foot mount on the existing 150-foot monopole tower located at 570 New Park Ave, West Hartford, CT. The property is owned by 570 New Park LLC. Cellco Partnership d/b/a Verizon Wireless now intends to remove six(6) antennas and replace with three(3) new antennas with nine(9) remaining antennas, and ancillary antenna equipment at the 147-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.

Panned Modification:

Tower:

Install New:

- (3) Samsung – MT6413-77A ANTENNAS
- (3) Samsung – RF4461D-13A RADIOS

Remove:

- (3) Antel – BXA-70063-6CF-4-850MHZ (275131) ANTENNAS
- (3) Samsung – B5/B13 RRH-BR04C (RFV01U-D2A) RADIOS

The facility was originally approved by the Connecticut Siting Council, Docket No. 131 on February 19, 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 Town Manager Rick Ledwith, Town of West Hartford, Building Official Tim Mikloiche, Town of West Hartford, as well as 570 New Park LLC, property owner, and 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.

Attachments are as follows:

Exhibit A – (3) Original Facility Approval
Exhibit B – (3) Property Card
Exhibit C – (3) Property Map
Exhibit D – (3) Construction Drawings
Exhibit E – (3) Structural Analysis Report
Exhibit F – (3) Mount Analysis Report
Exhibit G – (3) Power Density / RF Emissions Report
Exhibit H – (3) Recipient Mailing Records
Check #2960731 for \$625 Application Fee

Sincerely,

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

cc:

Via Fedex # 776383831661
Town Manager Rick Ledwith
50 South Main Street, Room 310
West Hartford, CT 06107
860-561-7440

Via Fedex # 776383929024
Building Official Tim Mikloiche
50 South Main Street, Room 310
West Hartford, CT 06107
860-561-7440

Via Fedex # 776384055549
570 New Park LLC
ATTN Michael Reiner
40 Jansen Court
West Hartford, CT 06127

Check Application Fee \$625

EXHIBIT A

Original Facility Approval



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

10 Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

February 20, 1997

Jennifer Young Gaudet
Regulatory Manager
Bell Atlantic NYNEX Mobile
20 Alexander Drive, P.O. Box 5029
Wallingford, CT 06492

Re: **DOCKET NO. 131** - Bell Atlantic NYNEX Mobile Certificate of Environmental Compatibility and Public Need for a cellular telephone tower located in the Town of West Hartford. Notice of Intent to Modify.

Dear Ms. Gaudet:

At a public meeting held on February 19, 1997, the Connecticut Siting Council (Council) acknowledged your notice to modify an existing telecommunications facility in West Hartford, Connecticut, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modification is to be implemented as specified in your notice dated February 7, 1997. The modification is in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequency electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This change has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequency now used and proposed for use on this tower. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Science and Technology, Bulletin No. 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/RKE/ss

c: Honorable Nan Glass, Mayor, Town of West Hartford

Bell Atlantic NYNEX Mobile
20 Alexander Drive
P.O. Box 5029
Wallingford, CT 06492
Telephone: 203-269-8858

Jennifer Young Gaudet
Manager - Regulatory

February 7, 1997

RECEIVED

FEB 07 1997

HAND DELIVERED

Mr. Joel M. Rinebold, Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

CONNECTICUT
SITING COUNCIL

Re: Bell Atlantic NYNEX Mobile - West Hartford Cell Site

Dear Mr. Rinebold:

Bell Atlantic NYNEX Mobile ("BANM" or the "Company") plans to allow Sprint Spectrum L.P. ("Sprint") to install antennas and related equipment at the existing BANM facility in West Hartford, Connecticut. Please accept this letter as notification, pursuant to R.C.S.A. § 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b). In compliance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to the Mayor of West Hartford.

The existing facility consists of a 150' monopole and related equipment building located off of New Park Avenue in West Hartford. This facility was approved by the Connecticut Siting Council in its April 9, 1990 Decision and Order in Docket No. 131.

Sprint plans to attach to the tower nine panel antennas, Decibel Model DB980H90, approximately 5' in height, and one small related Global Positioning Satellite System ("GPS") receive-only antenna; and to install up to six equipment cabinets on a frame adjacent to the tower. At approximately the same time, BANM will mount a small GPS receive-only antenna on the existing equipment building for its own use.

The addition of Sprint's antennas and equipment and BANM's GPS antenna to the tower site does not constitute a modification as defined in C.G.S. § 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b).

First, the height of the tower will be unaffected. Sprint's antennas will be placed on the tower with the center of radiation at the 136' level of the tower; the GPS antenna will also be placed at that level. Each panel antenna will extend up and down approximately 2 1/2 feet from its center of radiation. Thus, the additional antennas will extend no higher than the 139' level of the 150' tower.

Second, the proposed additions, as reflected on the attached site plan, will not extend the site boundaries. The proposed equipment cabinets will be located on a frame, approximately 9' x 15', to be constructed adjacent to the tower within the existing fenced area. In order to accommodate the frame, the existing chain link fence will be moved; its location will continue to be well within the site boundary. The proposed changes will have no effect on the site boundary.

Third, the proposed additions will not increase the noise levels at the existing facility by six decibels or more. The only additional noise will be from cooling mechanisms for the equipment cabinets.

Mr. Joel M. Rinebold
February 7, 1997
Page 2

Fourth, operation of the additional antennas will not increase the total radio frequency electromagnetic radiation power density, measured at the tower base, to a level at or above the ANSI standard. A "worst-case" calculation for a point at the base of the tower indicates that BANM's cellular operations result in 0.030 mW/cm^2 , or 5.15% of the standard (0.583 for BANM's cellular frequencies). A "worst-case" calculation for a point at the base of the tower indicates that Sprint's antennas would add 0.021 mW/cm^2 , or 1.68% of the standard (1.253 mW/cm^2 for Sprint's frequencies). Thus, the calculated "worst-case" power density for the combined operations at the site is 6.83% of the ANSI standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, BANM respectfully submits that the proposed additions of antennas and associated equipment at the West Hartford facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b).

Respectfully yours,



Jennifer Young Gaudet
Manager - Regulatory

Enclosure

cc: Honorable Nan Glass, Mayor

EXHIBIT B

Property Card

570 NEW PARK AVENUE

Location 570 NEW PARK AVENUE

Mblu H14/ 3776/ 570/ /

Parcel ID 3776 2 570 0001

Owner 570 NEW PARK LLC

Assessment \$586,530

Appraisal \$837,900

Vision Id # 19109

Building Count 3

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2023	\$417,100	\$420,800	\$837,900

Assessment			
Valuation Year	Improvements	Land	Total
2023	\$291,970	\$294,560	\$586,530

Owner of Record

Owner 570 NEW PARK LLC
 Co-Owner
 Address C/O MICHAEL REINER
 PO BOX 271763
 WEST HARTFORD, CT 06127

Sale Price \$550,000
 Book & Page 4487/0322
 Sale Date 05/25/2010
 Instrument Q

Ownership History

Ownership History				
Owner	Sale Price	Book & Page	Instrument	Sale Date
570 NEW PARK LLC	\$550,000	4487/0322	Q	05/25/2010
CONNECTICUT TAR AND ASPHALT SERVICE INC	\$0	4487/0321	25	05/25/2010
CONN TAR & ASPHALT SERVICE INC	\$30,670	2940/0034	U	08/02/2002
CONN TAR & ASPHALT SERVICE INC	\$0	0322/0042	U	

Building Information

Building 1 : Section 1

Year Built: 1929
 Living Area: 2,698
 Replacement Cost: \$122,954

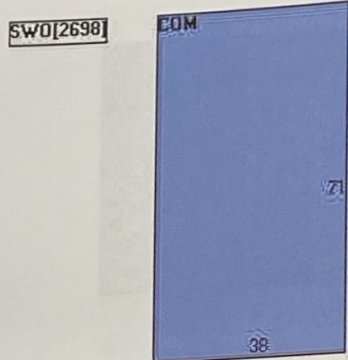
Building Percent Good: 39
 Replacement Cost
 Less Depreciation: \$48,000

Building Photo



(https://images.vgsi.com/photos/WestHartfordCTPhotos/\00\01\24\37.JPG)

Building Layout



(https://images.vgsi.com/photos/WestHartfordCTPhotos//Sketches/19109_)

Building Attributes	
Field	Description
Style:	Storage Area
Model	Comm/Ind
Grade	C 0.80
Stories:	1
Occupancy	
Exterior Wall 1	Precast Panel
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	Built Up
Interior Wall 1	Typical
Interior Wall 2	
Floor Type	Concrete Slab
Floor Cover	None
Heating Fuel	Typical
Heating Type	Steam - No Blr
AC Type	None
As Built Use	MLTR
Bldg Use	Commercial
Num of Bedrooms	
Total Baths	
Type	
Wet Sprinkler	
Dry Sprinkler	
1st Floor Use:	
Class	Class C
Frame Type	Masonry
Plumbing	LIGHT
Ceiling	Not Applicable
Group1	IND
Wall Height	15.00
Adjustment	

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
SWO	STORAGE/WHSE/DIST	2,698	2,698
COM	COMMERCIAL - NV	2,698	0
		5,396	2,698

Building 2 : Section 1

Year Built: 1966
 Living Area: 936
 Replacement Cost: \$196,466
 Building Percent Good: 71

Replacement Cost
Less Depreciation:

\$275,000

Building Attributes : Bldg 2 of 3

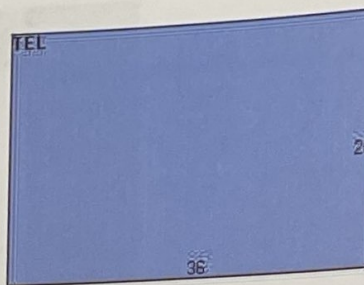
Field	Description
Style:	Telephone Exchange
Model	Comm/Ind
Grade	B 1.00
Stories:	1
Occupancy	
Exterior Wall 1	Concrete Block
Exterior Wall 2	
Roof Structure	Shed
Roof Cover	Built Up
Interior Wall 1	Typical
Interior Wall 2	
Floor Type	Concrete Slab
Floor Cover	Carpet
Heating Fuel	Typical
Heating Type	Steam Boiler
AC Type	None
As Built Use	TSGR
Bldg Use	Commercial
Num of Bedrooms	
Total Baths	
Type	
Wet Sprinkler	
Dry Sprinkler	
1st Floor Use:	
Class	Class C
Frame Type	Rigid Steel
Plumbing	LIGHT
Ceiling	Acoustic Panel
Group1	IND
Wall Height	13.00
Adjustment	

Building Photo



(<https://images.vgsi.com/photos/WestHartfordCTPhotos//default.jpg>)

Building Layout



(https://images.vgsi.com/photos/WestHartfordCTPhotos//Sketches/19109_)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
TEL	TELEPHONE BUILDING	936	936
		936	936

Building 3 : Section 1

Year Built: 1929
 Living Area: 4,798
 Replacement Cost: \$218,680
 Building Percent Good: 39
 Replacement Cost
 Less Depreciation: \$85,300

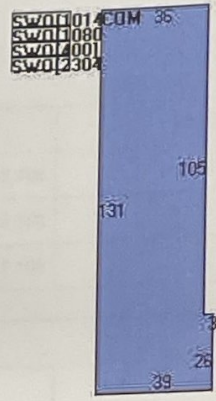
Building Attributes : Bldg 3 of 3

Field	Description
Style:	Light Manufacturing
Model	Comm/Ind
Grade	C 0.80
Stories:	1
Occupancy	
Exterior Wall 1	Concrete Block
Exterior Wall 2	Brick Veneer
Roof Structure	Flat
Roof Cover	Built Up
Interior Wall 1	Typical
Interior Wall 2	
Floor Type	Concrete Slab
Floor Cover	Asphalt
Heating Fuel	Typical
Heating Type	Forced Hot Air
AC Type	Not Applicable
As Built Use	LMAN
Bldg Use	Commercial
Num of Bedrooms	
Total Baths	
Type	
Wet Sprinkler	
Dry Sprinkler	
1st Floor Use:	
Class	Class C
Frame Type	Rigid Steel
Plumbing	LIGHT
Ceiling	Acoustic Panel
Group1	IND
Wall Height	11.00
Adjustment	

Building Photo



Building Layout



(https://images.vgsi.com/photos/WestHartfordCTPhotos/Sketches/19109_)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
SWO	STORAGE/WHSE/DIST	4,798	4,798
COM	COMMERCIAL - NV	4,794	0
		9,592	4,798

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code 201
Description Commercial
Zone IG
Neighborhood
Alt Land Appr No
Category

Land Line Valuation

Size (Acres) 0.96
Frontage
Depth
Assessed Value \$294,560
Appraised Value \$420,800

Outbuildings

Outbuildings					Legend	
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
CLP4	Paving, Asphalt			10000.00 SF	\$8,800	1

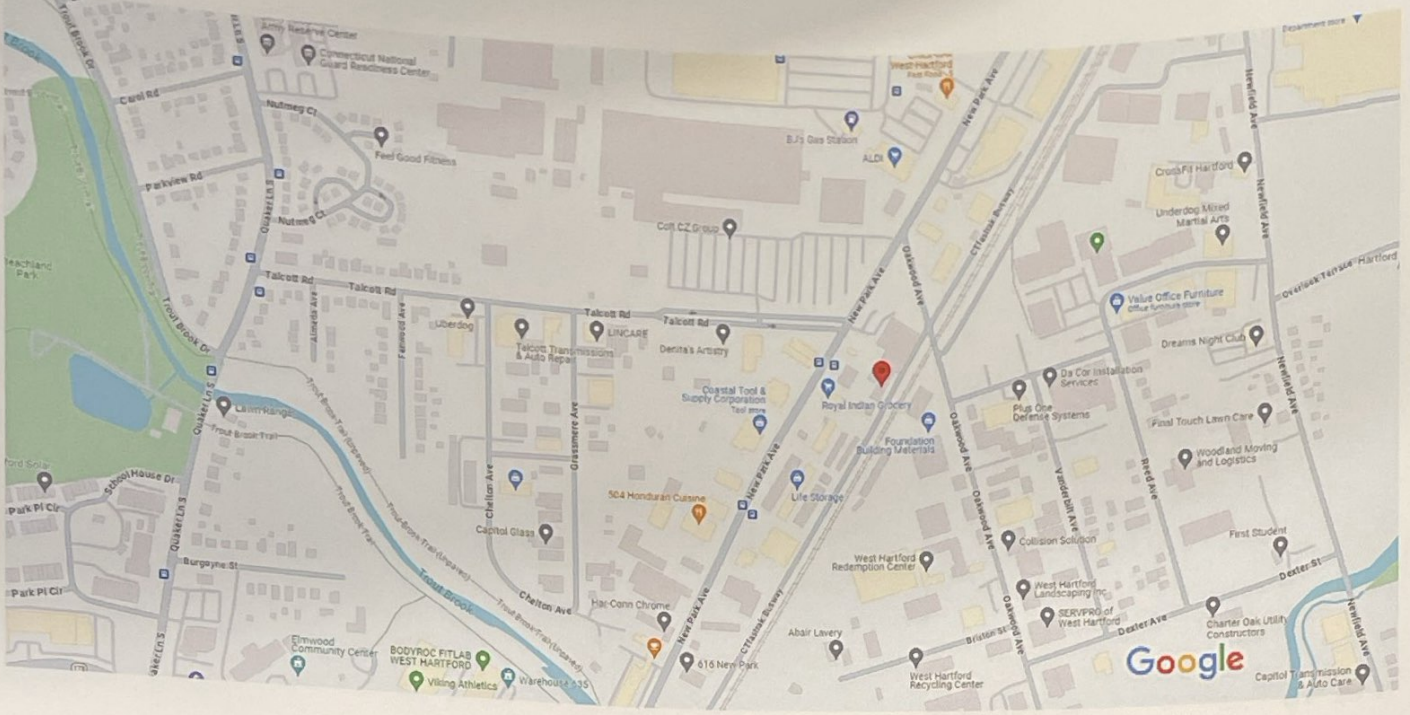
Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2023	\$417,100	\$420,800	\$837,900
2022	\$417,100	\$420,800	\$837,900
2021	\$417,100	\$420,800	\$837,900

Assessment			
Valuation Year	Improvements	Land	Total
2023	\$291,970	\$294,560	\$586,530
2022	\$291,970	\$294,560	\$586,530
2021	\$291,970	\$294,560	\$586,530

EXHIBIT C

Property Map



Map data ©2024 Google 200 ft



570 New Park Ave Building



Directions



Save



Nearby



Send to
phone



Share



570 New Park Ave, West Hartford, CT 06110

At this place

EXHIBIT D

Construction Drawings

N
A
LOC
OR
SIN
EC
PROJ
APAC
A
NA 7
B5/
MTD
RF4



VERIZON SITE NUMBER: 5000382911
VERIZON SITE NAME: WEST HARTFORD CT
VERIZON PROJECT: 16232030
SITE TYPE: MONOPOLE
TOWER HEIGHT: 150'-0"

BUSINESS UNIT #: 806370
SITE ADDRESS: 570 NEW PARK AVE
W. HARTFORD, CT 06110
COUNTY: HARTFORD
JURISDICTION: CONNECTICUT SITING COUNCIL



VERIZON SITE NUMBER:
5000382911
BU #: 806370
CROWN CASTLE SITE NAME
HRT 099 943226
570 NEW PARK AVE
W. HARTFORD, CT 06110
EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	3/27/24	LAW	FINAL	GMA

SITE INFORMATION

CROWN CASTLE USA INC.
SITE NAME: HRT 099 943226
BU NUMBER: 806370
TOWER OWNER: CROWN CASTLE
 2000 CORPORATE DRIVE
 CANONSBURG, PA 15317
CARRIER/APPLICANT: VERIZON WIRELESS
 20 ALEXANDER DRIVE
 WALLINGFORD, CT 06492
SITE ADDRESS: 570 NEW PARK AVE
 W. HARTFORD, CT 06110
COUNTY: HARTFORD
LATITUDE: 41° 44' 10.5" / 41.7362°
LONGITUDE: -72° 43' 14.2" / -72.7206°
LAT/LONG TYPE: NAD83
GROUND ELEVATION: 69'+/- AMSL
AREA OF CONSTRUCTION: EXISTING
CURRENT ZONING: ----
MAP/PARCEL #: WHAR-037762-000570-000001
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: CONNECTICUT SITING COUNCIL
 TEN FRANKLIN SQUARE
 NEW BRITAIN, CT 06051
ELECTRIC PROVIDER: LIGHTOWER
 855-933-4897
TELCO PROVIDER: CONNECTICUT LIGHT & POWER CO
 800-922-4455

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-5.1	EQUIPMENT DETAILS & SPECIFICATIONS
C-6	COLOR CODE MATRIX
G-1	GROUNDING DETAILS
ATTACHED	MOUNT MODIFICATION (BY OTHERS)
ATTACHED	RFDS

APPROVALS

VERIZON SIGNATURE BLOCK	SIGNATURE	DATE
APPROVAL		
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		

LOCATION MAP

DIRECTIONS

NO SCALE

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) ANTEL - BXA-70063-GCF-4- 850MHZ (275131) ANTENNA
 • REMOVE (3) SAMSUNG - B5/B13 RRH-BR04C (RFV01U-D2A) RADIO
 • INSTALL (3) SAMSUNG - MT6413-77A ANTENNA
 • INSTALL (3) SAMSUNG - RF4461D-13A RADIO

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 CT STATE CODE/2021 IBC W/CT AMMENDMENTS
MECHANICAL	2022 CT STATE CODE/2021 IMC W/CT AMMENDMENTS
ELECTRICAL	2022 CT STATE CODE/2021 NEC W/CT AMMENDMENTS

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	TOWER ENGINEERING PROFESSIONALS
DATED:	3/14/24
MOUNT ANALYSIS:	COLLIERS ENGINEERING & DESIGN
DATED:	1/31/24
RFDS REVISION:	0
DATED:	9/20/23
ORDER ID:	664148
REVISION:	0

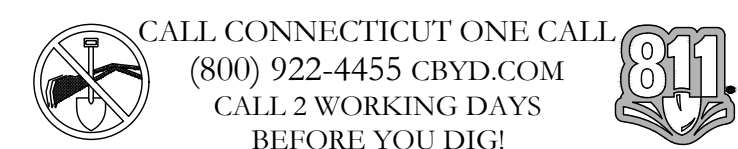
INSTALLER NOTE:
 NO PROPOSED LOADING TO BE ADDED UNTIL TOWER MODIFICATIONS ARE INSTALLED PER TOWER MODIFICATION DESIGN BY COLLIERS ENGINEERING & DESIGN DATED 1/31/24.

PROJECT TEAM

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

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

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.



CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT	https://pmi.vzsmart.com
SMART TOOL VENDOR	
PROJECT NUMBER	10220905
VzW LOCATION CODE (PSLC)	468977

*** 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



3/28/2024 | 12:21:35 PM CDT

CROWN CASTLE USA INC.
 CERTIFICATE OF REGISTRATION #PEC.0001101
 IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: 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 RIGGING 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." 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.

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-POTENTIAL 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).

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. 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.
13. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

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

ELECTRICAL INSTALLATION NOTES:

- 1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY 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/IEEC 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/90° 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/IEEC AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREFOLD SPECIMATE 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 AVOID ROUND 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.

Table with 3 columns: SYSTEM, CONDUCTOR, COLOR CODE. Rows include 120/240V, 10; 120/208V, 3Ø; 277/480V, 3Ø; and DC VOLTAGE.

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

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

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 SITE NUMBER: 5000382911

BU #: 806370

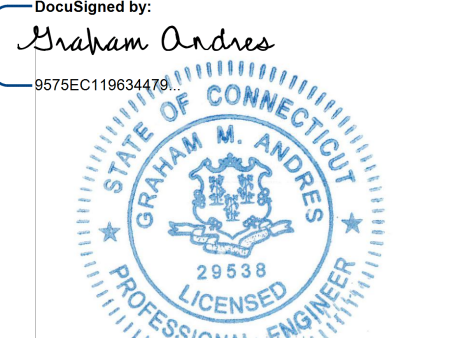
CROWN CASTLE SITE NAME HRT 099 943226

570 NEW PARK AVE W. HARTFORD, CT 06110

EXISTING 150'-0" MONOPOLE

ISSUED FOR:

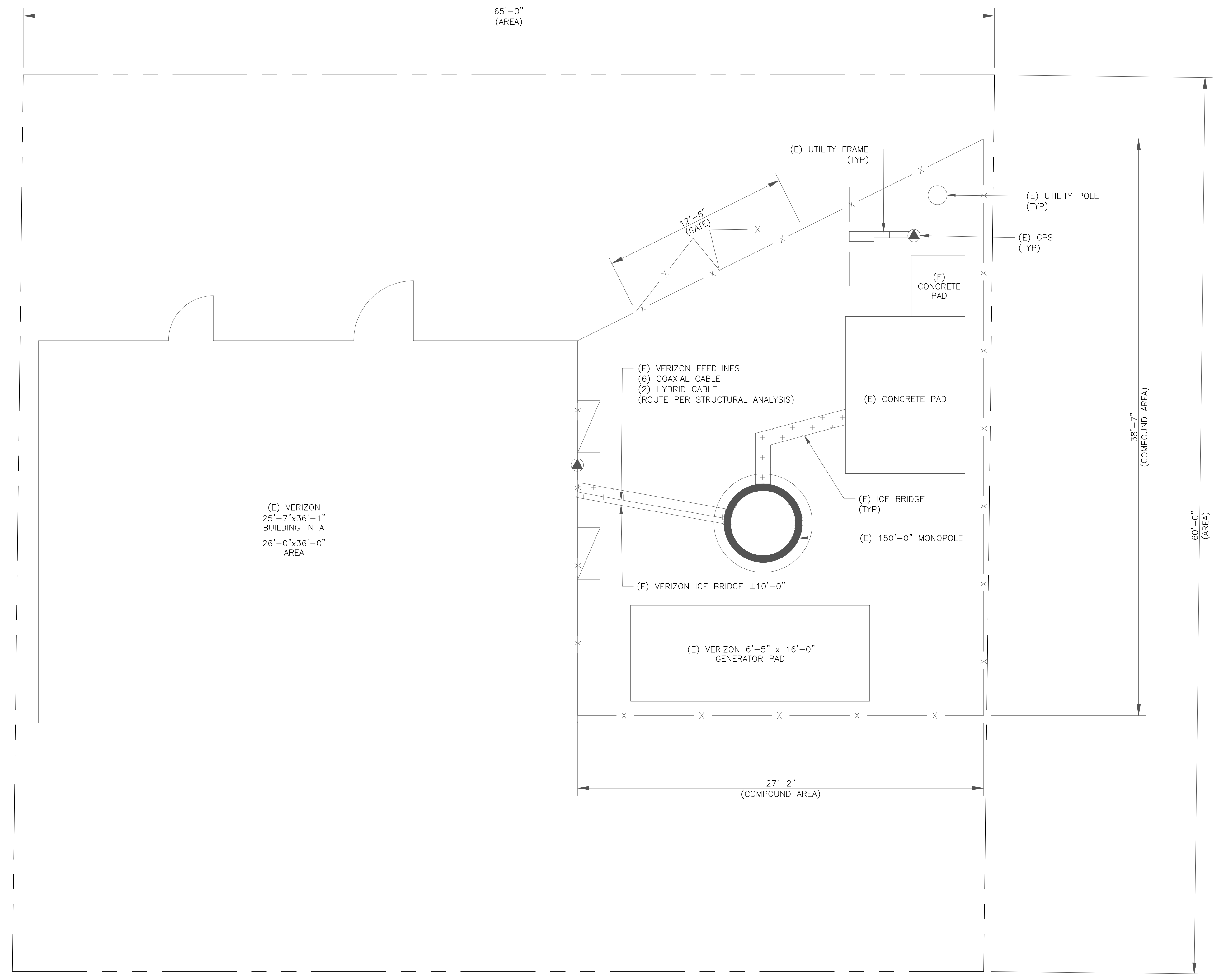
Table with 5 columns: REV, DATE, DRWN, DESCRIPTION, DES./QA. Row 1: 0, 3/27/24, LAW, FINAL, GMA



3/28/2024 | 12:21:35 PM CDT

CROWN CASTLE USA INC. CERTIFICATE OF REGISTRATION #PECC0001101 IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: T-2 REVISION: 0



VERIZON SITE NUMBER:
5000382911

BU #: **806370**

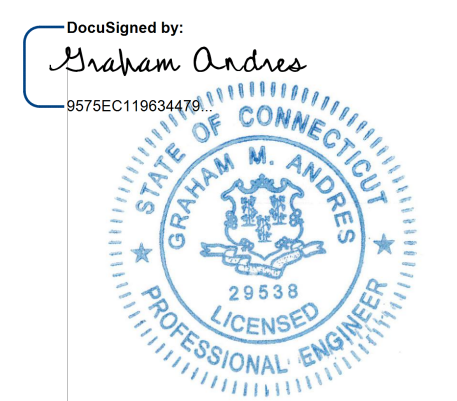
CROWN CASTLE SITE NAME
HRT 099 943226

570 NEW PARK AVE
W. HARTFORD, CT 06110

EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	3/27/24	LAW	FINAL	GMA



3/28/2024 | 12:21:35 PM CDT

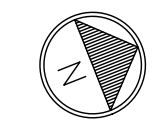
CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101

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

SHEET NUMBER:
C-1

REVISION:
0

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



INSTALL MOUNT MODIFICATION BY COLLIERS ENGINEERING & DESIGN DATED JANUARY 31, 2024

- TOP OF STRUCTURE WITH APPURTENANCE
ELEV. = 150'-1"
- TOP OF TOWER
ELEV. = 150'-0"
- VERIZON MOUNT CENTERLINE
ELEV. = 147'-0"
- VERIZON ANTENNA CENTERLINE
ELEV. = 147'-0"

- (E) VERIZON EQUIPMENT TO REMOVE
- (3) ANTEL - BXA-70063-6CF-4- 850MHZ (275131) ANTENNA
 - (3) SAMSUNG - B5/B13 RRH-BR04C (RFV01U-D2A) RADIO

- (E) VERIZON EQUIPMENT TO REMAIN
- (6) ANDREW - SBNHH-1D65B ANTENNA
 - (3) ANTEL - BXA-70063-6CF- 4850MHZ (275131) ANTENNA
 - (3) SAMSUNG - B2/B66A RRH-BR049 (RFV01U-D1A) RADIO
 - (1) 12 OVP BOX

EXISTING EQUIPMENT BY OTHERS
MCL = 139'-0"

EXISTING EQUIPMENT BY OTHERS
MCL = 137'-0"

EXISTING EQUIPMENT BY OTHERS
MCL = 117'-0"

(E) VERIZON FEEDLINES
(6) COAXIAL CABLE
(2) HYBRID CABLE
(ROUTE PER STRUCTURAL ANALYSIS)

(E) 150'-0" MONOPOLE

BOTTOM OF TOWER
ELEV. = 0"

VERIZON EQUIPMENT

ANTENNA CL: 147'-0"
MOUNT CL: 147'-0"

FAA APPROVED HEIGHT:
152'-0"

INSTALL MOUNT MODIFICATION BY COLLIERS ENGINEERING & DESIGN DATED JANUARY 31, 2024

- TOP OF STRUCTURE WITH APPURTENANCE
ELEV. = 150'-1"
- TOP OF TOWER
ELEV. = 150'-0"
- VERIZON MOUNT CENTERLINE
ELEV. = 147'-0"
- VERIZON ANTENNA CENTERLINE
ELEV. = 147'-0"

- (N) VERIZON EQUIPMENT TO INSTALL
- (3) SAMSUNG - MT6413-77A ANTENNA
 - (3) SAMSUNG - RF4461D-13A RADIO

- (E) VERIZON EQUIPMENT TO REMAIN
- (6) ANDREW - SBNHH-1D65B ANTENNA
 - (3) ANTEL - BXA-70063-6CF- 4850MHZ (275131) ANTENNA
 - (3) SAMSUNG - B2/B66A RRH-BR049 (RFV01U-D1A) RADIO
 - (1) 12 OVP BOX

EXISTING EQUIPMENT BY OTHERS
MCL = 139'-0"

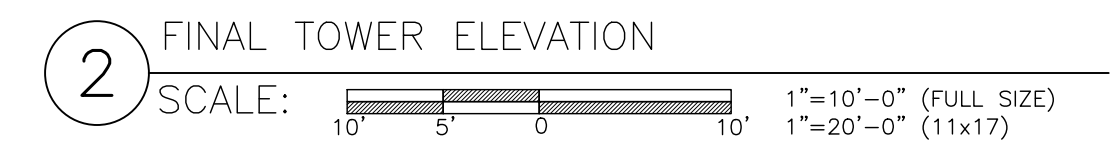
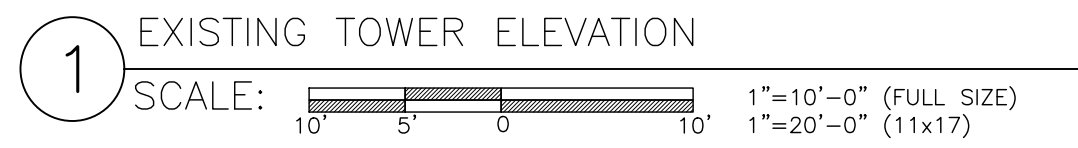
EXISTING EQUIPMENT BY OTHERS
MCL = 137'-0"

EXISTING EQUIPMENT BY OTHERS
MCL = 117'-0"

(E) VERIZON FEEDLINES
(6) COAXIAL CABLE
(2) HYBRID CABLE
(ROUTE PER STRUCTURAL ANALYSIS)

(E) 150'-0" MONOPOLE

BOTTOM OF TOWER
ELEV. = 0"



INSTALLER NOTE:

NO PROPOSED LOADING TO BE ADDED UNTIL TOWER MODIFICATIONS ARE INSTALLED PER TOWER MODIFICATION DESIGN BY COLLIERS ENGINEERING & DESIGN DATED 1/31/24.



VERIZON SITE NUMBER:
5000382911

BU #: **806370**

CROWN CASTLE SITE NAME
HRT 099 943226

570 NEW PARK AVE
W. HARTFORD, CT 06110

EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	3/27/24	LAW	FINAL	GMA

DocuSigned by:
Graham Andres
2575EC11983420

3/28/2024 | 12:21:35 PM CDT

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

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

SHEET NUMBER: **C-2**

REVISION: **0**



VERIZON SITE NUMBER:
5000382911

BU #: **806370**

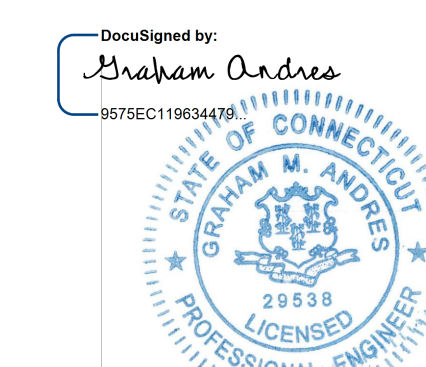
CROWN CASTLE SITE NAME
HRT 099 943226

570 NEW PARK AVE
W. HARTFORD, CT 06110

EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	3/27/24	LAW	FINAL	GMA



3/28/2024 | 12:21:35 PM CDT

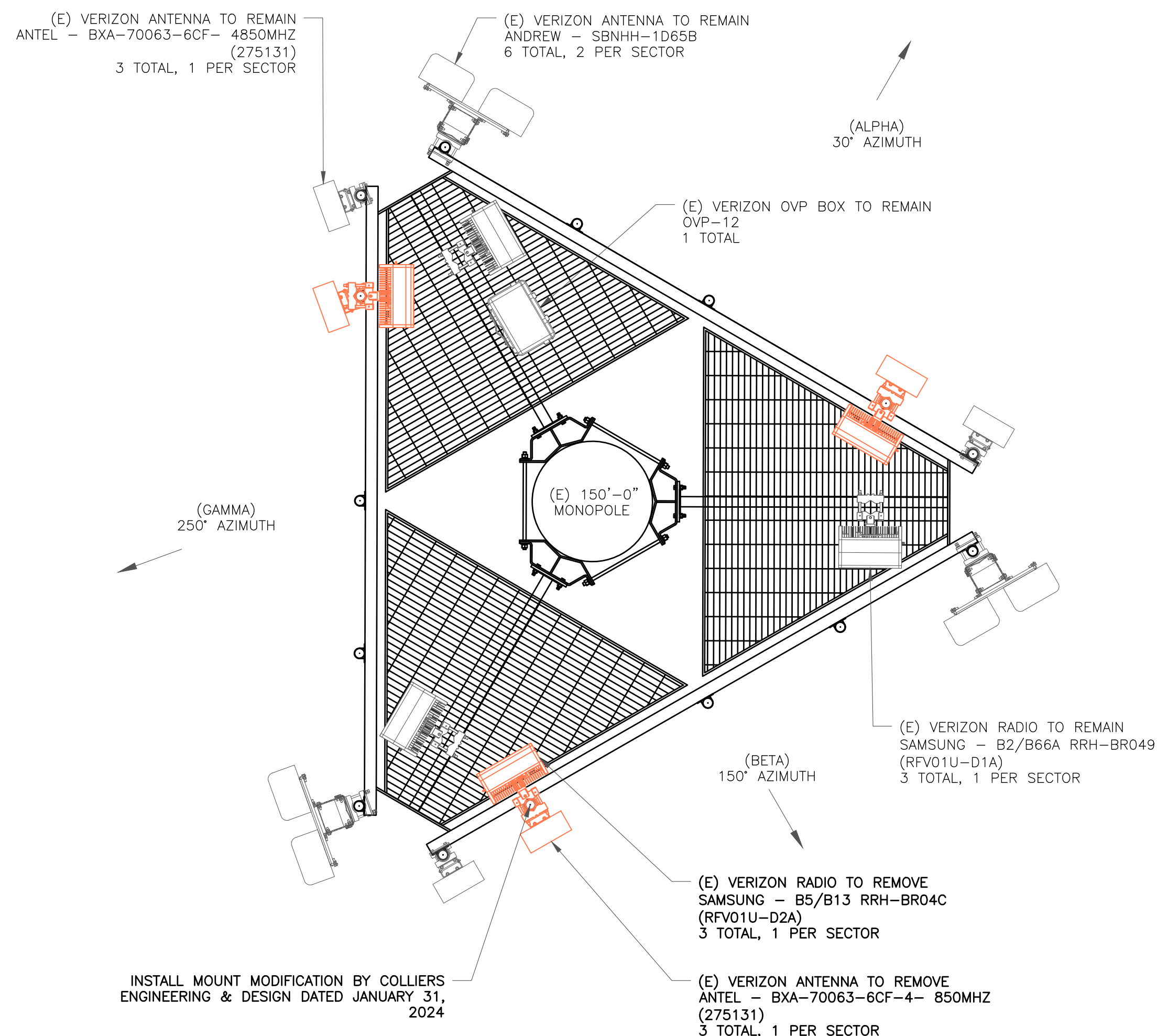
CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER:

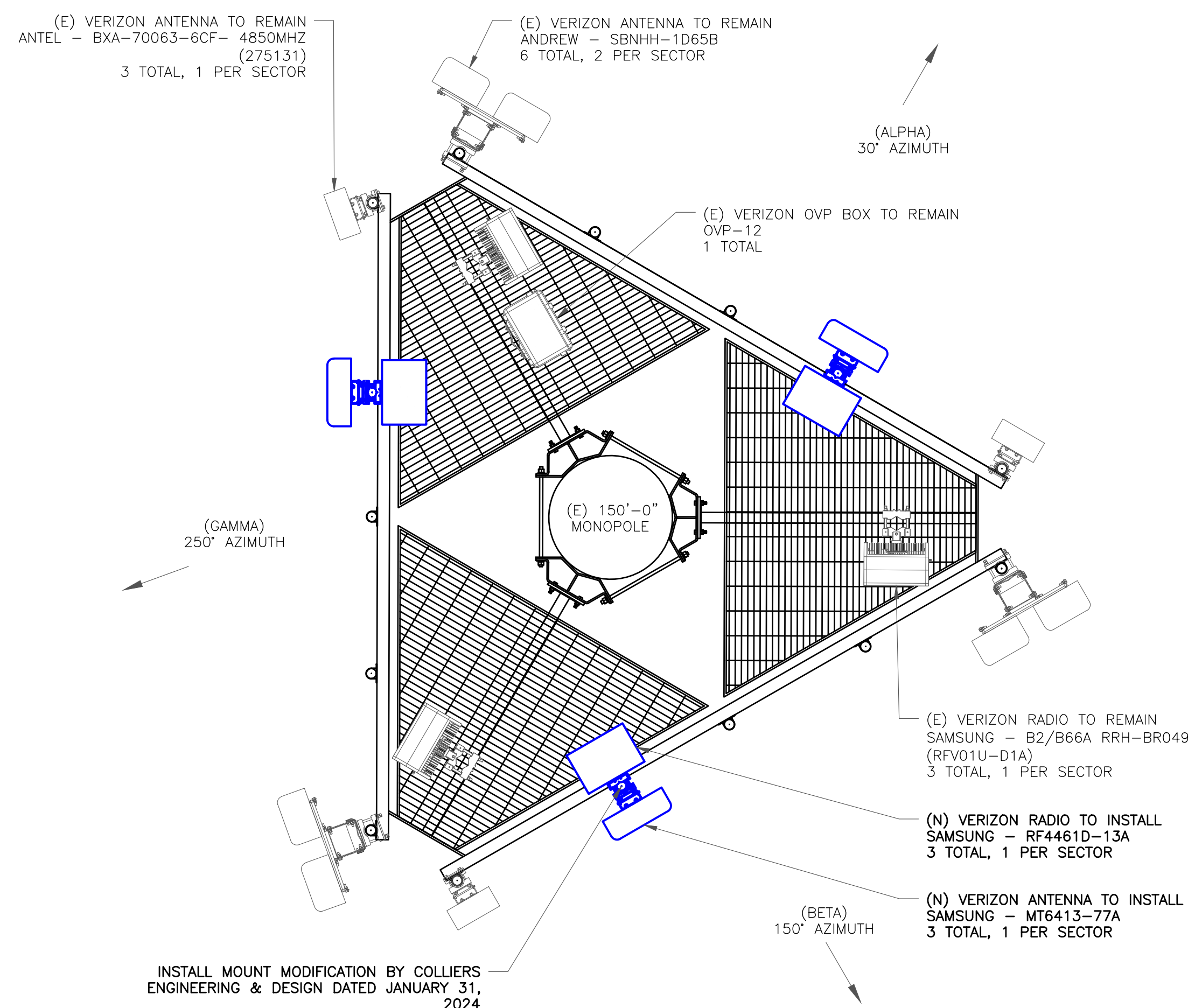
C-3

REVISION:

0



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



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

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	700 850 1900 AWS	(E) ANDREW - SBNHH-1D65B	30°	147'-0"	1	(E) SAMSUNG - B2/B66A RRH-BR049 (RFV01U-D1A)	TOWER	-	-	-	-	-	1	(E) OVP-12	6	(E) COAXIAL CABLE	-	-
		(E) ANDREW - SBNHH-1D65B	30°	147'-0"														
A2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	(E) HYBRID CABLE	-	-
A3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A4	L-SUB6	(N) SAMSUNG - MT6413-77A	30°	147'-0"	1	(N) SAMSUNG - RF4461D-13A	TOWER	-	-	-	-	-	-	-	-	-	-	-
A5	-	(E) ANTEL - BXA-70063-6CF- 4850MHZ (275131)	30°	147'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1	700 850 1900 AWS	(E) ANDREW - SBNHH-1D65B	150°	147'-0"	1	(E) SAMSUNG - B2/B66A RRH-BR049 (RFV01U-D1A)	TOWER	-	-	-	-	-	-	-	-	-	-	-
		(E) ANDREW - SBNHH-1D65B	150°	147'-0"														
B2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B4	L-SUB6	(N) SAMSUNG - MT6413-77A	150°	147'-0"	1	(N) SAMSUNG - RF4461D-13A	TOWER	-	-	-	-	-	-	-	-	-	-	-
B5	-	(E) ANTEL - BXA-70063-6CF- 4850MHZ (275131)	120°	147'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G1	700 850 1900 AWS	(E) ANDREW - SBNHH-1D65B	250°	147'-0"	1	(E) SAMSUNG - B2/B66A RRH-BR049 (RFV01U-D1A)	TOWER	-	-	-	-	-	-	-	-	-	-	-
		(E) ANDREW - SBNHH-1D65B	250°	147'-0"														
G2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G4	L-SUB6	(N) SAMSUNG - MT6413-77A	250°	147'-0"	1	(N) SAMSUNG - RF4461D-13A	TOWER	-	-	-	-	-	-	-	-	-	-	-
G5	-	(E) ANTEL - BXA-70063-6CF- 4850MHZ (275131)	240°	147'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-



VERIZON SITE NUMBER:
5000382911

BU #: **806370**

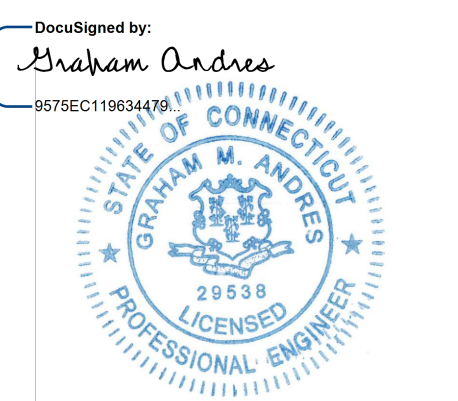
CROWN CASTLE SITE NAME
HRT 099 943226

570 NEW PARK AVE
W. HARTFORD, CT 06110

EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	3/27/24	LAW	FINAL	GMA



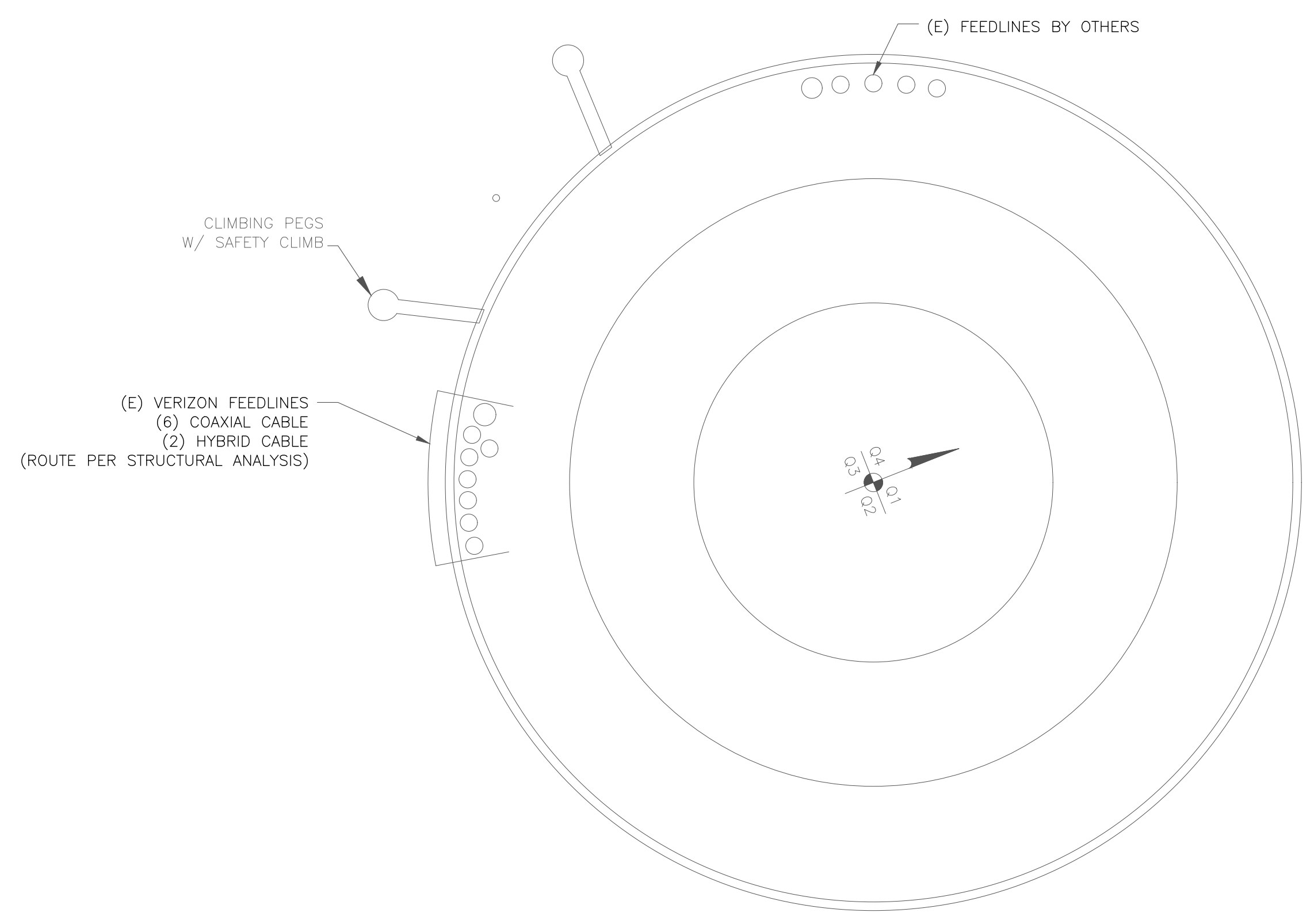
3/28/2024 | 12:21:35 PM CDT

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

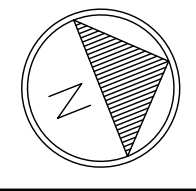
SHEET NUMBER: **C-4** REVISION: **0**

UNUSED FEEDLINES			
-	-	-	-
-	-	-	-

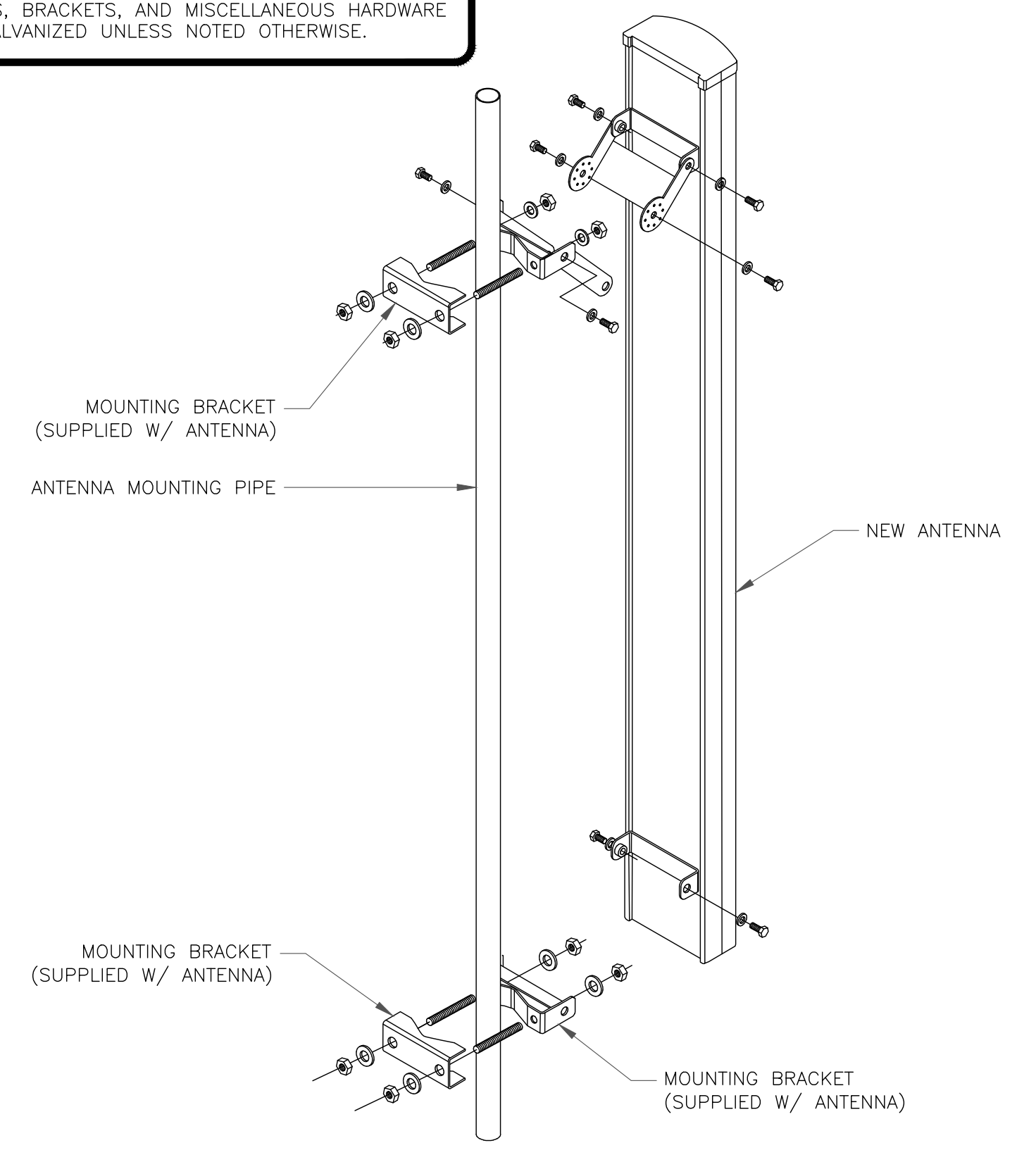
1 FINAL EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE



1 BASE LEVEL DETAIL
SCALE: NOT TO SCALE

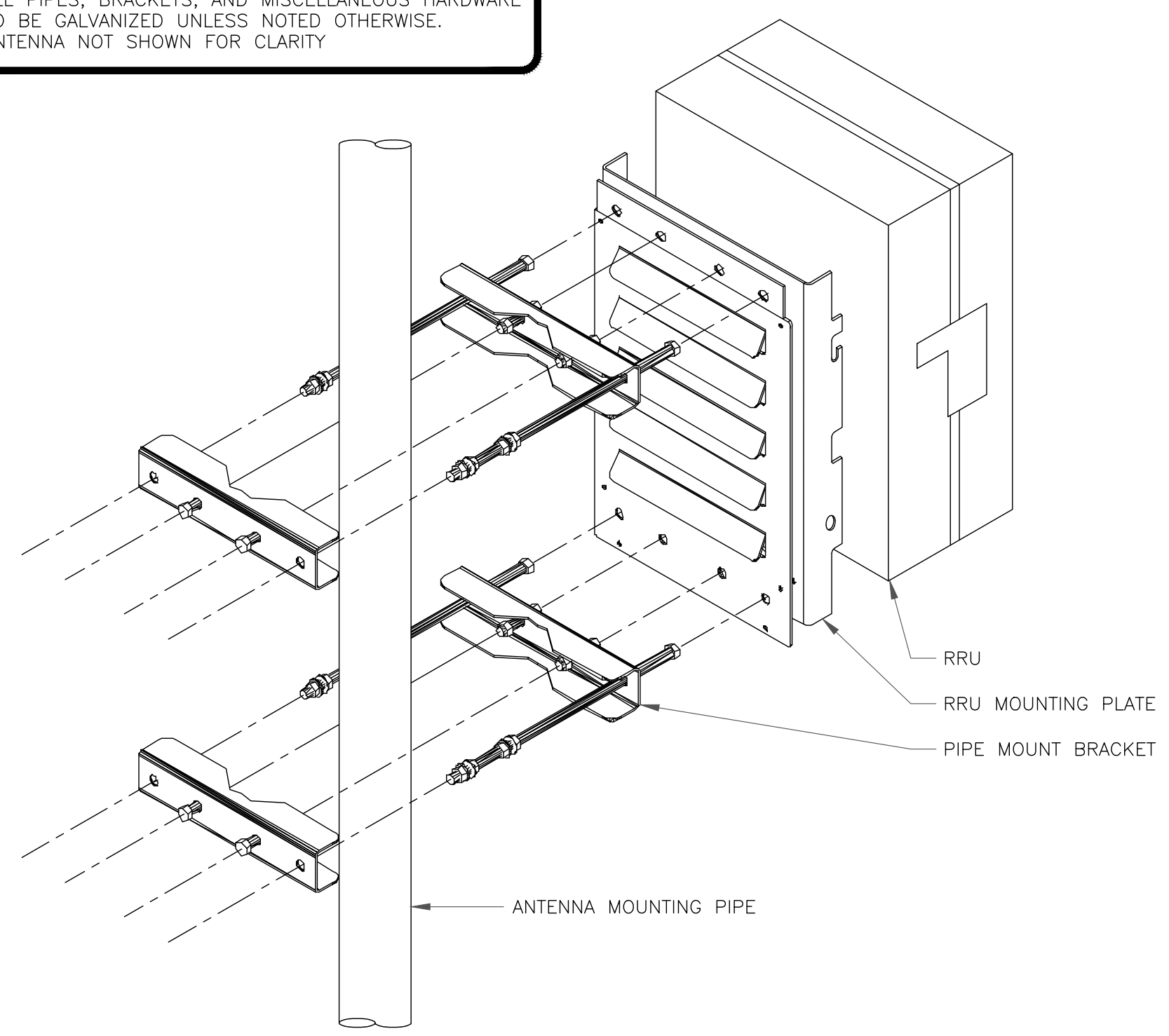


INSTALLER NOTE:
1. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.

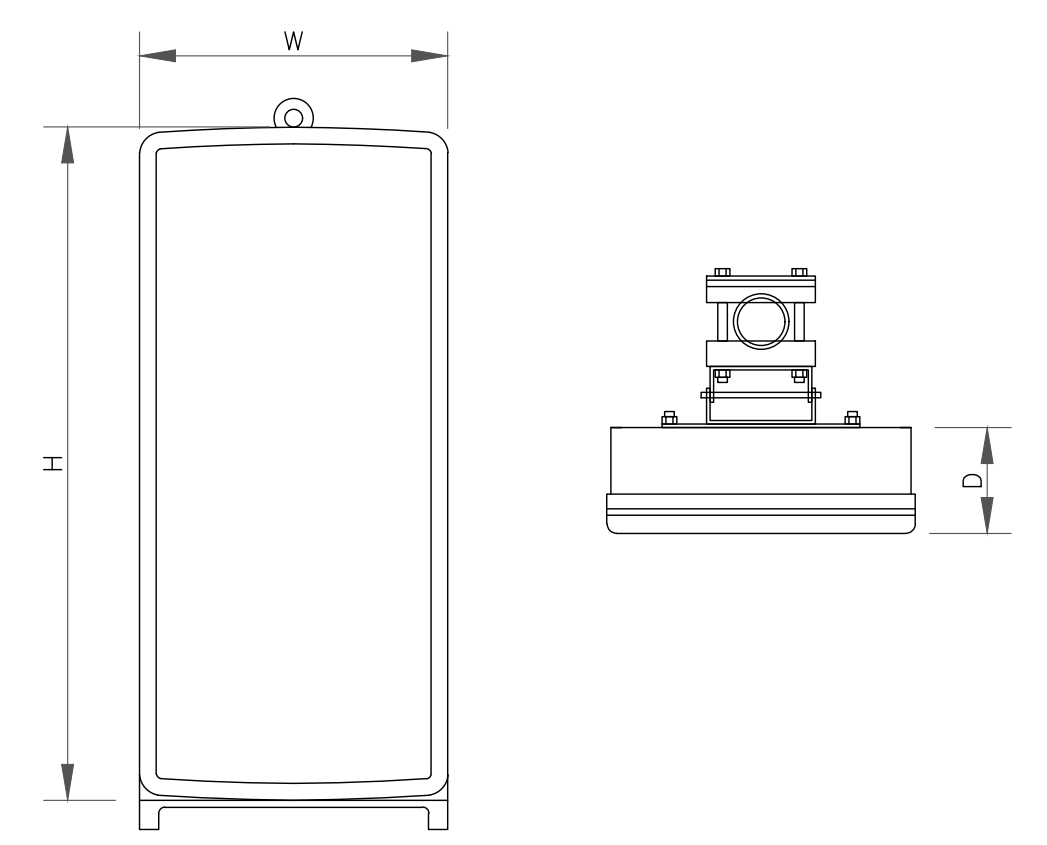


2 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

INSTALLER NOTES:
1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRU'S 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

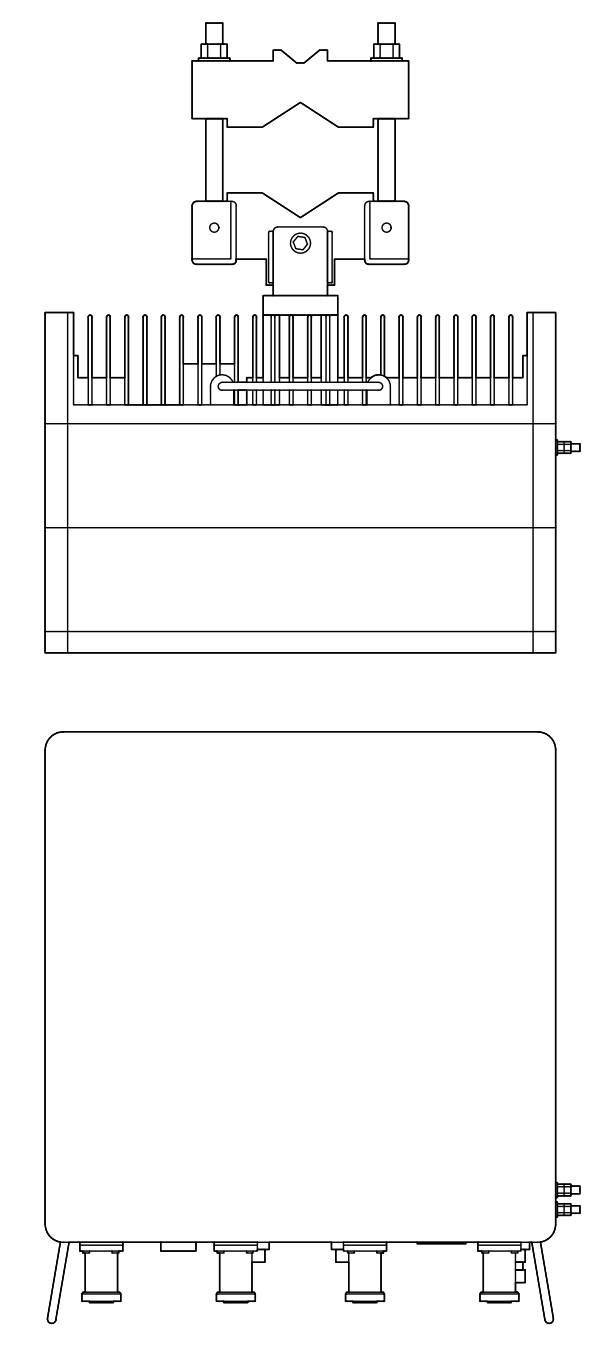


3 RRU MOUNTING DETAIL
SCALE: NOT TO SCALE



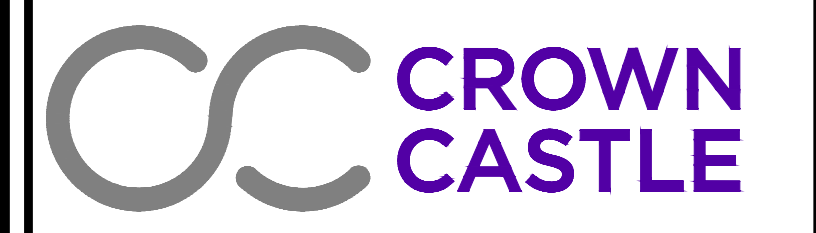
ANTENNA SPECS	
MANUFACTURER	SAMSUNG
MODEL #	MT6413-77A
HxWxD	28.9" x 15.75" x 5.51"
WEIGHT	57.3 LBS

X 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

X SAMSUNG - RF4461D-13A
SCALE: NOT TO SCALE



VERIZON SITE NUMBER:
5000382911

BU #: **806370**

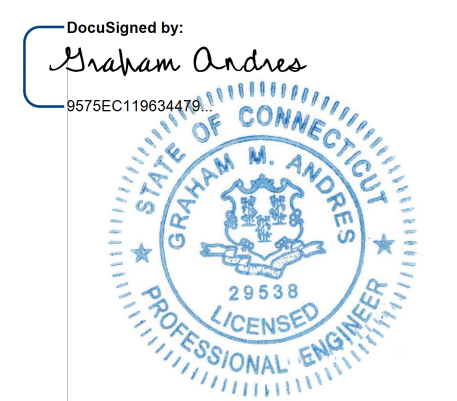
CROWN CASTLE SITE NAME
HRT 099 943226

570 NEW PARK AVE
W. HARTFORD, CT 06110

EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	3/27/24	LAW	FINAL	GMA



3/28/2024 | 12:21:35 PM CDT

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: **C-5.1** REVISION: **0**



VERIZON SITE NUMBER:
5000382911

BU #: 806370

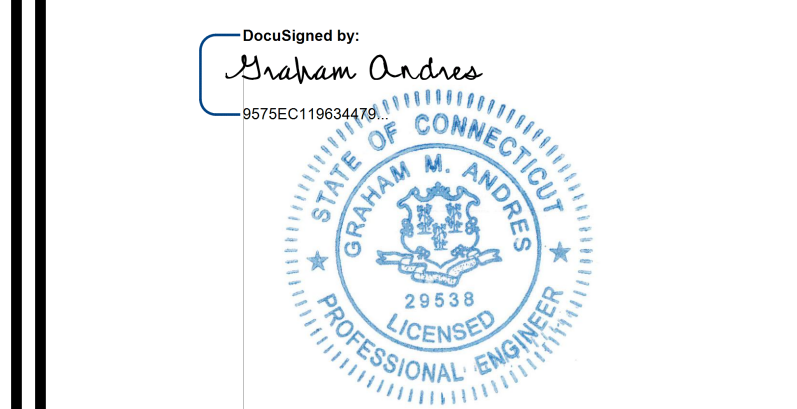
CROWN CASTLE SITE NAME
HRT 099 943226

570 NEW PARK AVE
W. HARTFORD, CT 06110

EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	3/27/24	LAW	FINAL	GMA



3/28/2024 | 12:21:35 PM CDT

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER: **C-6** 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		

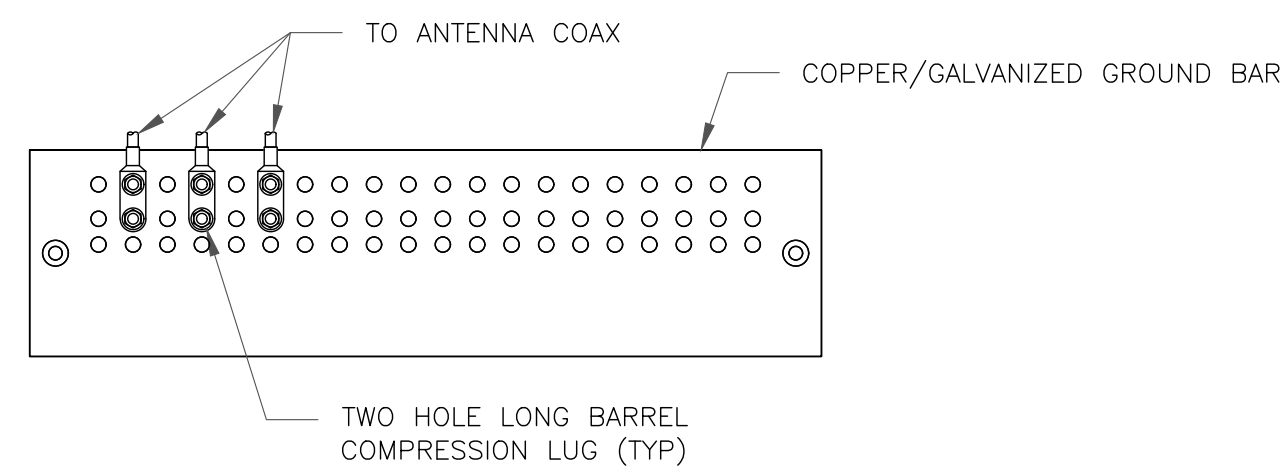
Azimuth (2) Beta					
Cell (850 CDMA)	Blue				
PCS2 (1900 LTE)	Pink	Blue	Pink		
700 LTE	Lt. Green	Blue	Lt. Green		
850 LTE	Purple	Blue	Purple		
2100 LTE	Orange	Blue	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Blue	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Blue	Lt. Green	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		

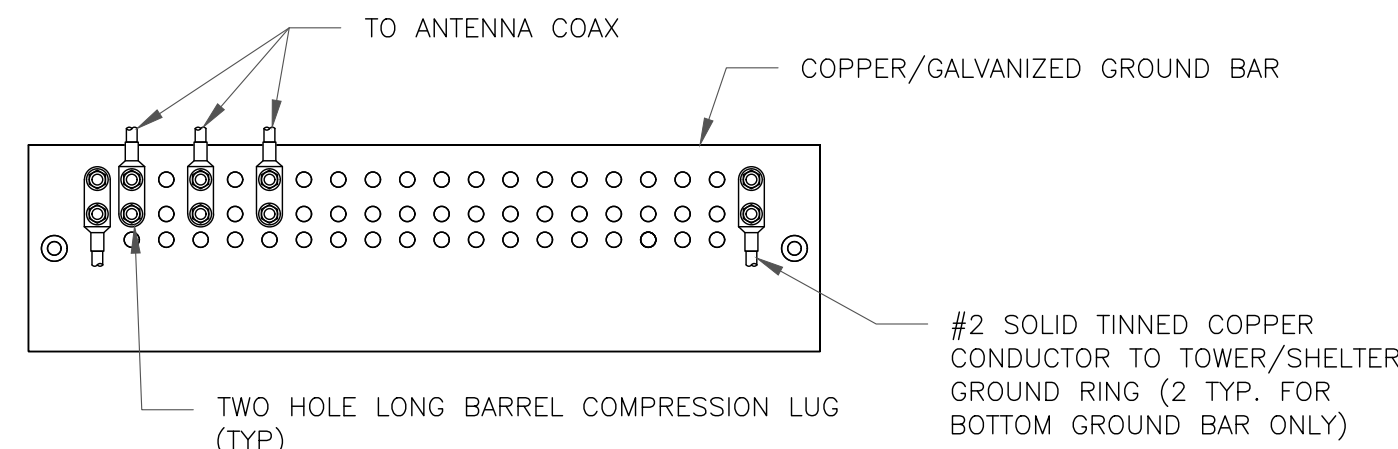
Azimuth (5) Epsilon					
Cell (850 CDMA)	White				
PCS2 (1900 LTE)	Pink	White	Pink		
700 LTE	Lt. Green	White	Lt. Green		
850 LTE	Purple	White	Purple		
2100 LTE	Orange	White	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	White	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	White	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		



- 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.

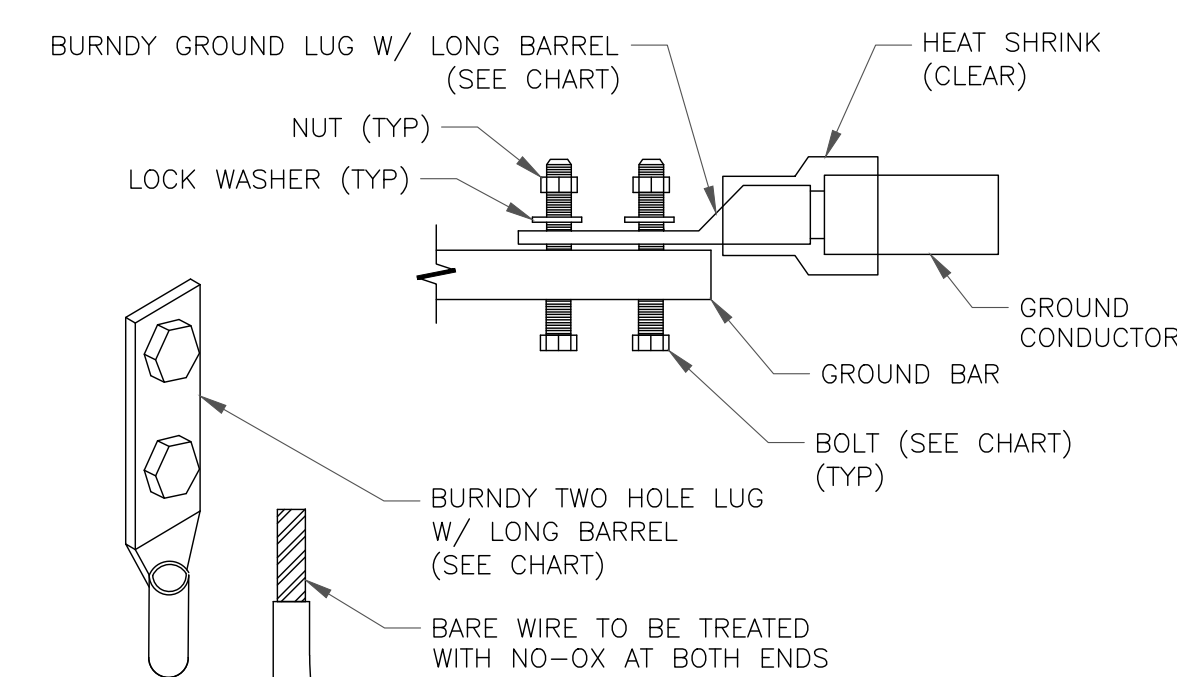
1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE



- 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.

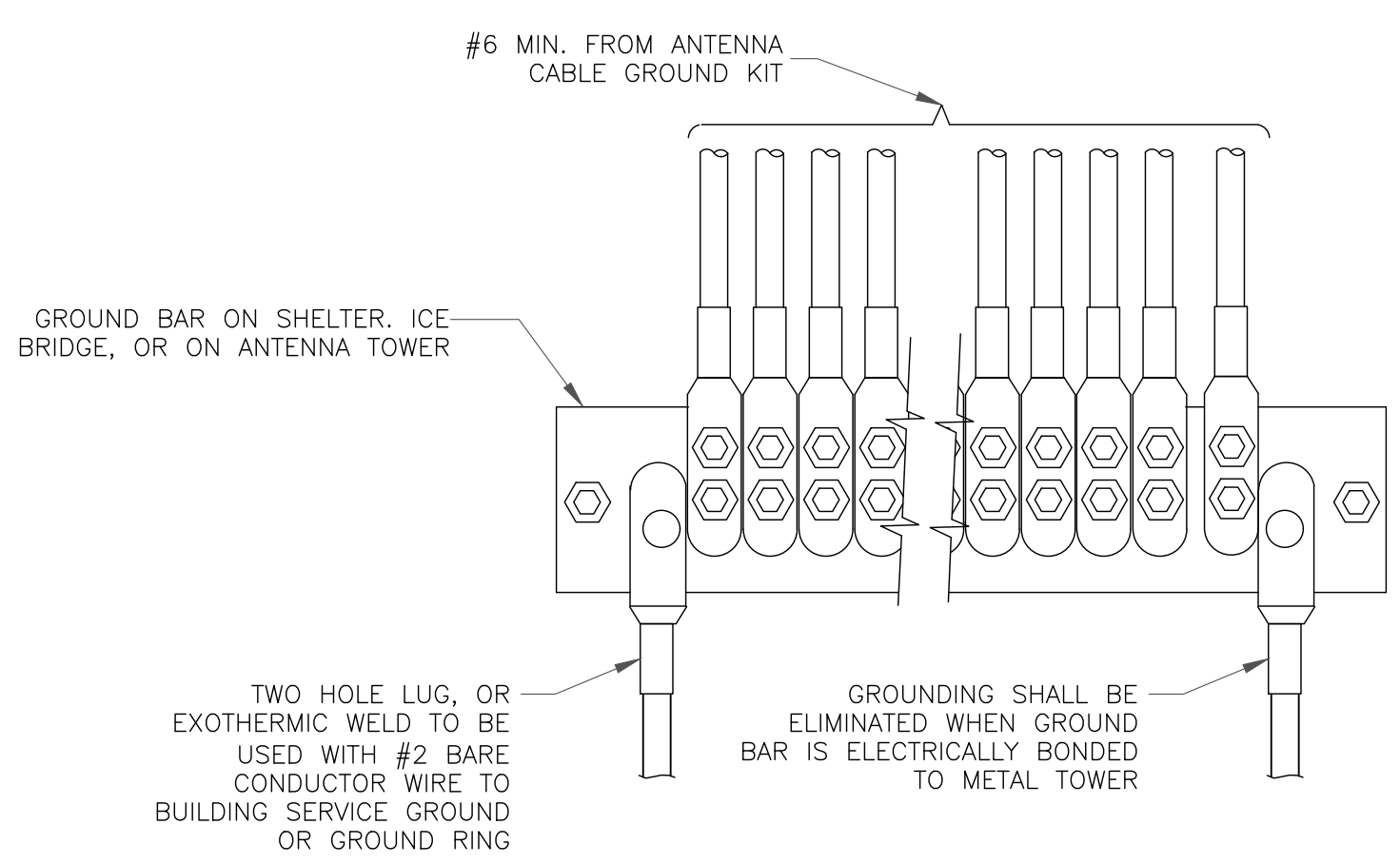
2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE

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

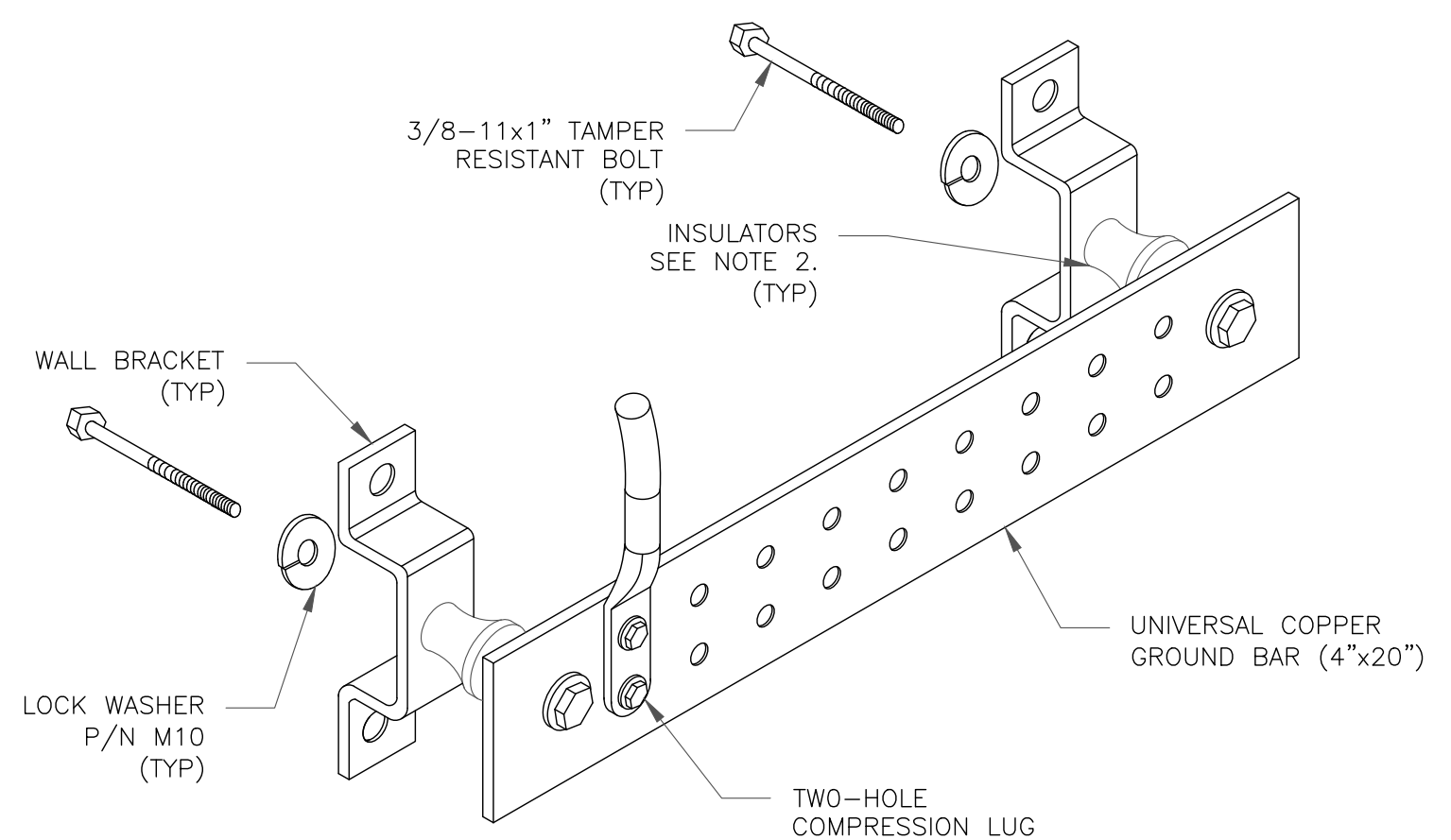


- NOTE:**
- ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

3 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE

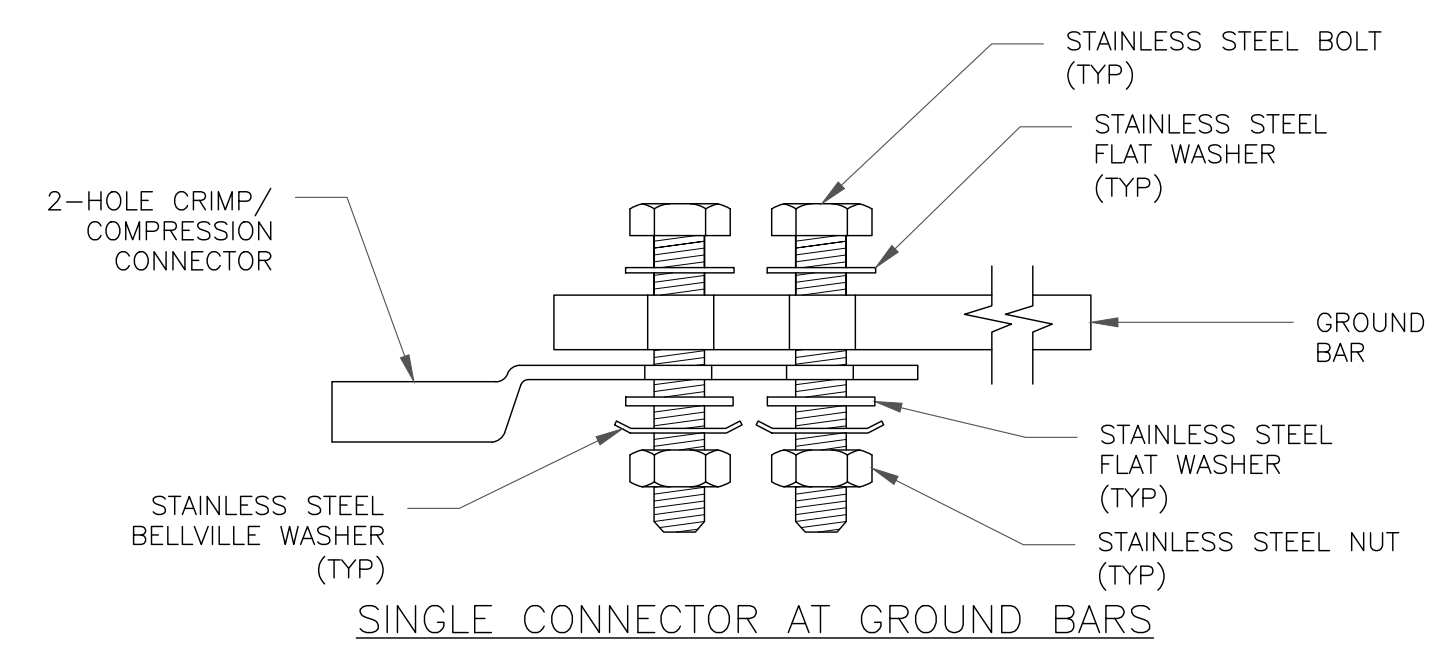


4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE

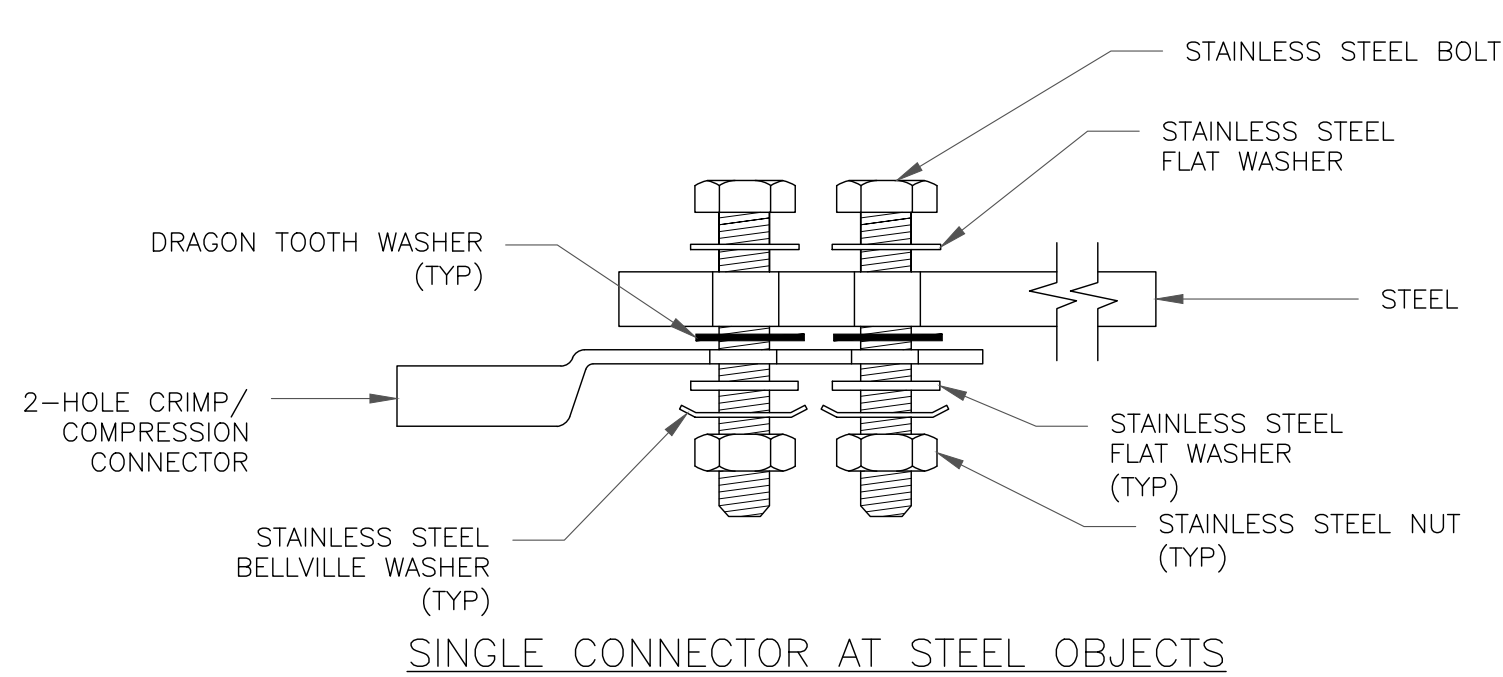


- NOTES:**
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
 2.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

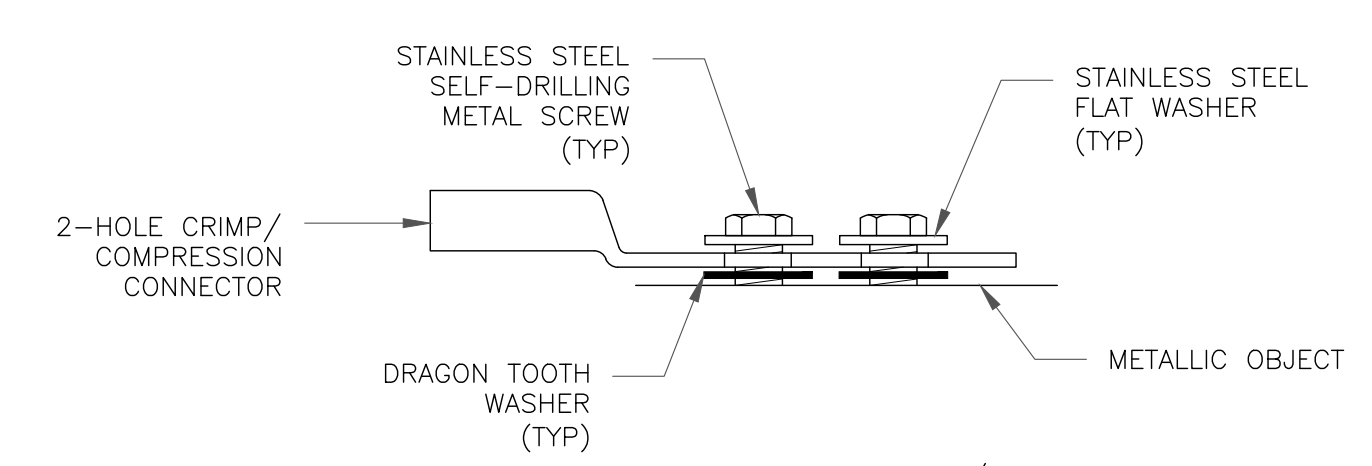
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



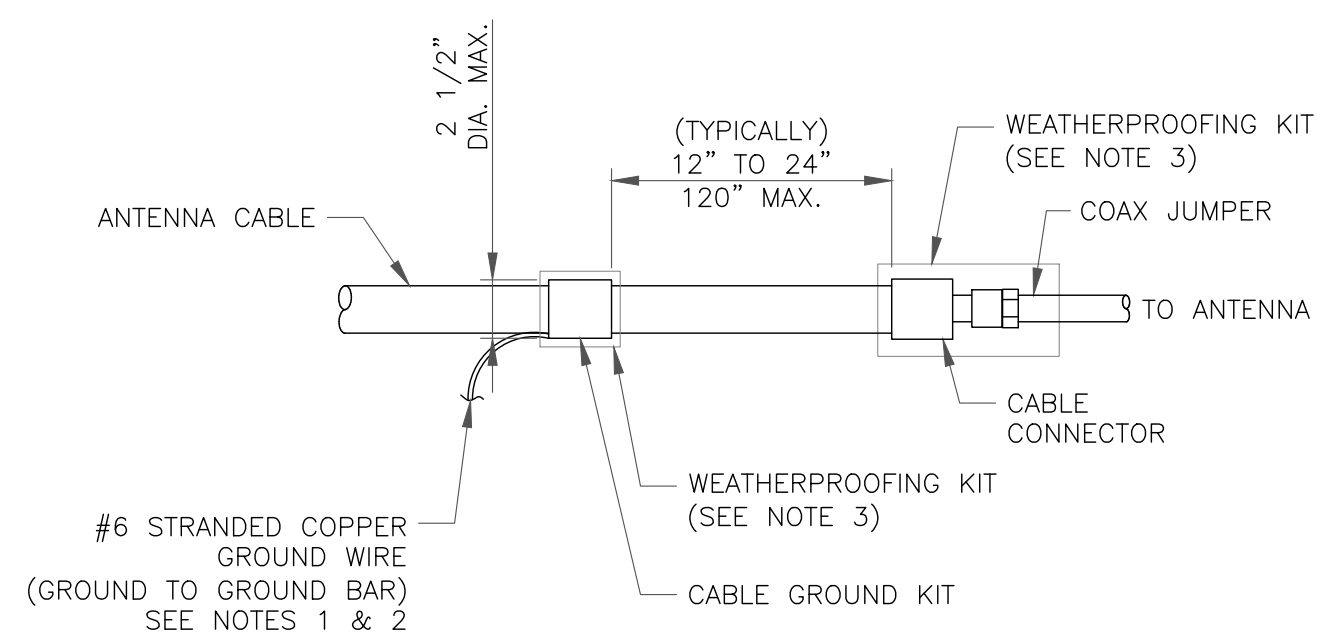
SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS

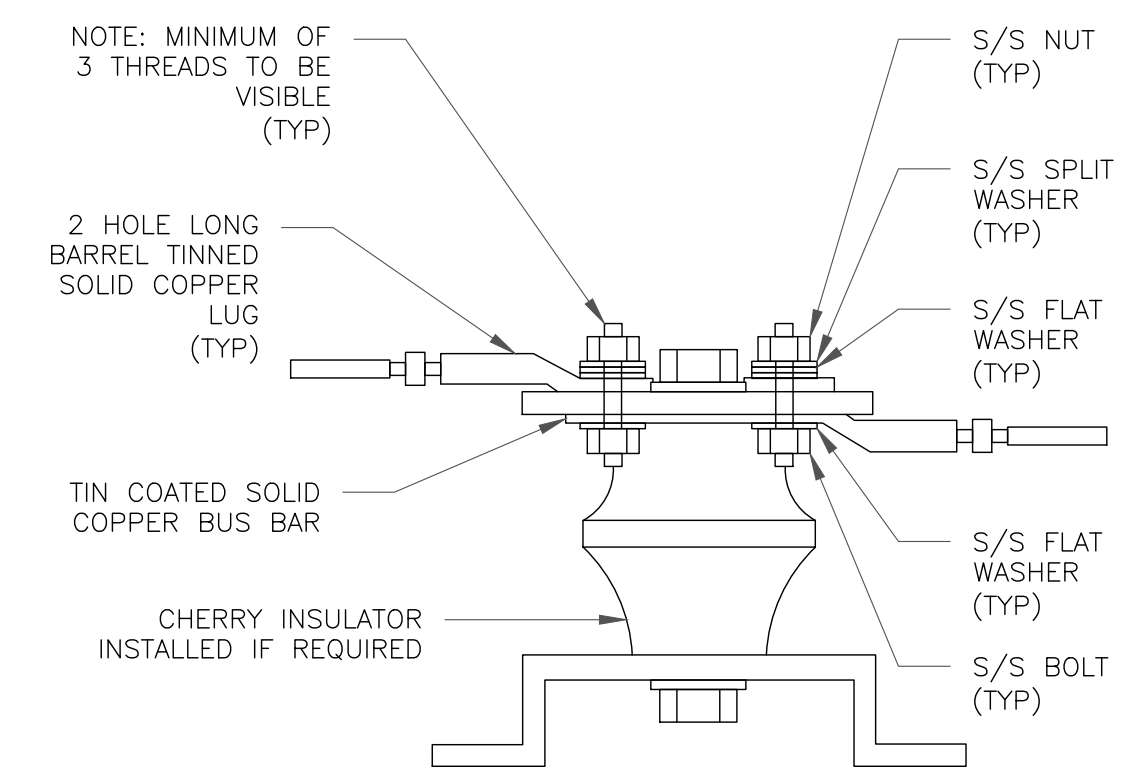


SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS



- 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

8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



VERIZON SITE NUMBER:
5000382911

BU #: **806370**

CROWN CASTLE SITE NAME
HRT 099 943226

570 NEW PARK AVE
W. HARTFORD, CT 06110

EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	3/27/24	LAW	FINAL	GMA

DocuSigned by:
Braham Andros
2075EC11983420

3/28/2024 | 12:21:35 PM CDT

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: G-1	REVISION: 0
-----------------------------	-----------------------

EXHIBIT E

Structural Analysis Report

Date: **March 14, 2024**



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

Subject: Structural Analysis Report

Carrier Designation: **Verizon Wireless Co-Locate**
Site Number: 5000382911
Site Name: West Hartford CT

Crown Castle Designation: **BU Number:** 806370
Site Name: HRT 099 943226
JDE Job Number: 2109256
Work Order Number: 2289017
Order Number: 664148 Rev. 0

Engineering Firm Designation: **TEP Project Number:** 131666.940294

Site Data: **570 New Park Avenue, West Hartford, Hartford County, CT 06110**
Latitude 41° 44' 10.50", Longitude -72° 43' 14.20"
150 Foot - Monopole Tower

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

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

LC5: Proposed Equipment Configuration

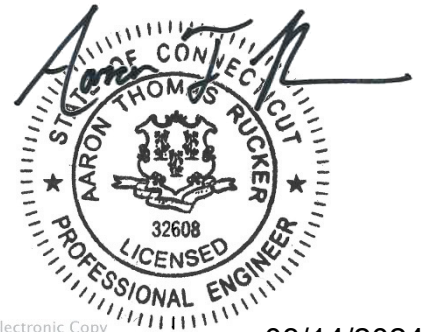
Sufficient Capacity – 47.1%

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: VT / SW

Respectfully submitted by:

Aaron T. Rucker, P.E.



Electronic Copy

03/14/2024

TABLE OF CONTENTS

1) INTRODUCTION

2) ANALYSIS CRITERIA

Table 1 - Proposed Equipment Configuration

Table 2 - Other Considered Equipment

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

3.1) Analysis Method

3.2) Assumptions

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Table 5 - Tower Component Stresses vs. Capacity

4.1) Recommendations

5) APPENDIX A

tnxTower Output

6) APPENDIX B

Base Level Drawing

7) APPENDIX C

Additional Calculations

1) INTRODUCTION

This is a 150-ft monopole tower designed by Valmont.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	117 mph
Exposure Category:	C
Topographic Factor:	1.0
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)
147.0	147.0	3	Commscope	SBNHH-1D65B w/ Mount Pipe	7 1	1-1/4 1-5/8
		3	Commscope	SBNHH-1D65B		
		3	Samsung Telecom.	MT6413-77A w/ Mount Pipe		
		3	Antel	BXA-70063-6CF-EDIN-5 w/ Mount Pipe		
		3	Samsung Telecom.	RFV01U-D1A		
		3	Samsung Telecom.	RF4461D-13A		
		1	Raycap	RVZDC-6627-PF-48		
		1	Tower Mounts	Platform Mount [LP 713-1]		

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)
139.0	140.0	3	Alcatel Lucent	800MHz 2X50W RRH W/FILTER	-	-
		3	Alcatel Lucent	PCS 1900MHz 4x45W-65MHz		
	139.0	1	Tower Mounts	Side Arm Mount [SO 104-3]		
137.0	138.0	3	RFS Celwave	APXVSPP18-C-A20 w/ Mount Pipe	3 1	1-1/4 1-1/2
		3	Nokia	AAHC w/ Mount Pipe		
		3	RFS Celwave	IBC1900BB-1		
		3	RFS Celwave	IBC1900HG-2A		
	137.0	1	Tower Mounts	Platform Mount [LP 713-1]		
117.0	122.0	1	Antel	BCD-87010	1	1-1/4
	117.0	1	Tower Mounts	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Geotechnical Report	2308053	CCISites
Tower Foundation Drawings	2308022	CCISites
Tower Manufacturer Drawings	260794	CCISites

3.1) Analysis Method

tnxTower (version 8.2.4.3), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 Standard.

3.2) Assumptions

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

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

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (k)	ϕP_{allow} (k)	% Capacity	Pass / Fail	
L1	150 - 96.8333	Pole	TP39.21x26.19x0.3125	1	-13.60	2318.44	24.6	Pass	
L2	96.8333 - 48	Pole	TP50.55x37.1973x0.4063	2	-26.11	3891.32	31.1	Pass	
L3	48 - 0	Pole	TP61.5x48.0225x0.5	3	-48.70	6032.54	32.8	Pass	
							Summary		
							Pole (L3)	32.8	Pass
							RATING =	32.8	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	-	28.0	Pass
1,2	Base Plate	-	19.5	Pass
1,2	Base Foundation Structural	-	17.2	Pass
1,2	Base Foundation Soil Interaction	-	47.1	Pass

Structure Rating (max from all components) =	47.1%
---	--------------

Notes:

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

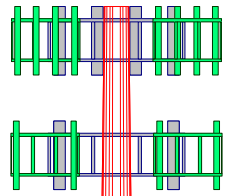
4.1) Recommendations

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

APPENDIX A
TNXTOWER OUTPUT

Section	1	2	3
Length (ft)	53.17	54.50	55.00
Number of Sides	12	12	12
Thickness (in)	0.3125	0.4062	0.5000
Socket Length (ft)	5.67	7.00	48.0225
Top Dia (in)	26.1900	37.1973	61.5000
Bot Dia (in)	39.2100	50.5500	61.5000
Grade	A572-65	A572-65	A572-65
Weight (K)	5.9	10.5	16.3

150.0 ft



96.8 ft

48.0 ft

0.0 ft

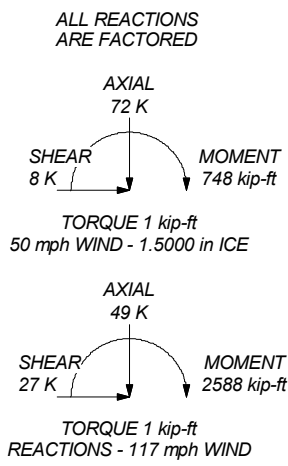



MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure C 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: 32.8%



 Tower Engineering Professionals	Tower Engineering Professionals		Job: HRT 099 943226 (BU 806370)		
	326 Tryon Road		Project: TEP No. 131666.940294		
	Raleigh, NC 27603		Client: Crown Castle	Drawn by: TLI	App'd:
	Phone: (919) 661-6351		Code: TIA-222-H	Date: 03/14/24	Scale: NTS
	FAX: (919) 661-6350		Path:		Dwg No. E-1

C:\Users\lirinfante\Desktop\131666.940294 HRT 099 943226\InvTower\806370_2289017_LC5.dwg

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job HRT 099 943226 (BU 806370)	Page 1 of 14
	Project TEP No. 131666.940294	Date 15:31:42 03/14/24
	Client Crown Castle	Designed by TLI

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: 68.00 ft.

Basic wind speed of 117 mph.

Risk Category II.

Exposure Category C.

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

Topographic Category: 1.

Crest Height: 0.00 ft.

Nominal ice thickness of 1.5000 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

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

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

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

Pressures are calculated at each section.

Stress ratio used in pole design is 1.

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

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

Maximum demand-capacity ratio is: 1.05.

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

Options

Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification √ Use Code Stress Ratios √ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile Include Bolts In Member Capacity Leg Bolts Are At Top Of Section Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric Distribute Leg Loads As Uniform	Assume Legs Pinned √ Assume Rigid Index Plate √ Use Clear Spans For Wind Area Use Clear Spans For KL/r Retension Guys To Initial Tension √ Bypass Mast Stability Checks √ Use Azimuth Dish Coefficients √ Project Wind Area of Appurtenances √ Alternative Appurt. EPA Calculation Autocalc Torque Arm Areas Add IBC .6D+W Combination √ Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs Use ASCE 10 X-Brace Ly Rules	Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation √ Consider Feed Line Torque Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption <div style="background-color: #e0e0e0; text-align: center; padding: 2px;">Poles</div> √ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets √ Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known
---	---	--

Tapered Pole Section Geometry

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job HRT 099 943226 (BU 806370)	Page 2 of 14
	Project TEP No. 131666.940294	Date 15:31:42 03/14/24
	Client Crown Castle	Designed by TLI

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	150.00-96.83	53.17	5.67	12	26.1900	39.2100	0.3125	1.2500	A572-65 (65 ksi)
L2	96.83-48.00	54.50	7.00	12	37.1973	50.5500	0.4062	1.6250	A572-65 (65 ksi)
L3	48.00-0.00	55.00		12	48.0225	61.5000	0.5000	2.0000	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L1	27.0036	26.0392	2225.6599	9.2641	13.5664	164.0565	4509.7903	12.8157	6.1814	19.781
	40.4829	39.1406	7558.8706	13.9253	20.3108	372.1605	15316.3212	19.2638	9.6708	30.946
L2	39.8035	48.1273	8314.9774	13.1712	19.2682	431.5391	16848.3986	23.6868	8.8801	21.859
	52.1899	65.5943	21051.6250	17.9515	26.1849	803.9605	42656.2996	32.2835	12.4587	30.667
L3	51.3160	76.5112	22055.0930	17.0130	24.8756	886.6141	44689.5979	37.6565	11.5300	23.06
	63.4931	98.2100	46644.5955	21.8380	31.8570	1464.1867	94514.5965	48.3360	15.1420	30.284

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _f	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 150.00-96.83				1	1	1			
L2 96.83-48.00				1	1	1			
L3 48.00-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C _A A _A ft ² /ft	Weight plf
Safety Line 3/8	C	No	No	CaAa (Out Of Face)	150.00 - 0.00	1	No Ice	0.22
							1/2" Ice	0.75
							1" Ice	1.28
							2" Ice	2.34
Step Pegs (5/8" SR) 7-in. w/30" step	C	No	No	CaAa (Out Of Face)	150.00 - 0.00	1	No Ice	0.49
							1/2" Ice	1.01
							1" Ice	2.07
							2" Ice	6.09

LDF6-50A(1-1/4)	C	No	No	Inside Pole	147.00 - 0.00	6	No Ice	0.60
							1/2" Ice	0.60
							1" Ice	0.60
							2" Ice	0.60
HB114-U6S12-XXX -LI(1-1/4)	C	No	No	Inside Pole	147.00 - 0.00	1	No Ice	1.70
							1/2" Ice	1.70
							1" Ice	1.70
							2" Ice	1.70
HB158-1-08U8-S8J	C	No	No	Inside Pole	147.00 - 0.00	1	No Ice	1.30

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job HRT 099 943226 (BU 806370)	Page 3 of 14
	Project TEP No. 131666.940294	Date 15:31:42 03/14/24
	Client Crown Castle	Designed by TLI

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C _{AA} ft ² /ft	Weight plf
18(1-5/8)							1/2" Ice 0.00	1.30
							1" Ice 0.00	1.30
							2" Ice 0.00	1.30
MLC6C-06C-008R-008R(1-1/2)	A	No	No	Inside Pole	137.00 - 0.00	1	No Ice 0.00	1.52
							1/2" Ice 0.00	1.52
							1" Ice 0.00	1.52
							2" Ice 0.00	1.52
HB114-1-08U4-M5J(1-1/4)	A	No	No	Inside Pole	137.00 - 0.00	3	No Ice 0.00	1.08
							1/2" Ice 0.00	1.08
							1" Ice 0.00	1.08
							2" Ice 0.00	1.08
LDF6-50A(1-1/4)	A	No	No	Inside Pole	117.00 - 0.00	1	No Ice 0.00	0.60
							1/2" Ice 0.00	0.60
							1" Ice 0.00	0.60
							2" Ice 0.00	0.60

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight K
L1	150.00-96.83	A	0.000	0.000	0.000	0.000	0.20
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	3.855	0.37
L2	96.83-48.00	A	0.000	0.000	0.000	0.000	0.26
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	3.540	0.36
L3	48.00-0.00	A	0.000	0.000	0.000	0.000	0.26
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	3.480	0.35

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} In Face ft ²	C _{AA} Out Face ft ²	Weight K
L1	150.00-96.83	A	1.453	0.000	0.000	0.000	0.000	0.20
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	34.756	0.63
L2	96.83-48.00	A	1.378	0.000	0.000	0.000	0.000	0.26
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	31.923	0.60
L3	48.00-0.00	A	1.236	0.000	0.000	0.000	0.000	0.26
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	29.937	0.57

Feed Line Center of Pressure

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	HRT 099 943226 (BU 806370)	Page	4 of 14
	Project	TEP No. 131666.940294	Date	15:31:42 03/14/24
	Client	Crown Castle	Designed by	TLI

Section	Elevation	CP _x	CP _z	CP _x	CP _z
	ft	in	in	Ice in	Ice in
L1	150.00-96.83	-0.4169	0.2407	-2.1433	1.2374
L2	96.83-48.00	-0.4201	0.2425	-2.2817	1.3174
L3	48.00-0.00	-0.4219	0.2436	-2.2720	1.3117

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

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			ft ft ft	°	ft	ft ²	ft ²	K	
SBNHH-1D65B	A	From Centroid-Le g	4.00	0.0000	147.00	No Ice	4.16	2.49	0.04
			0.00			1/2" Ice	4.57	2.88	0.09
			0.00			1" Ice	4.99	3.27	0.15
			0.00			2" Ice	5.85	4.09	0.28
SBNHH-1D65B	B	From Centroid-Le g	4.00	0.0000	147.00	No Ice	4.16	2.49	0.04
			0.00			1/2" Ice	4.57	2.88	0.09
			0.00			1" Ice	4.99	3.27	0.15
			0.00			2" Ice	5.85	4.09	0.28
SBNHH-1D65B	C	From Centroid-Le g	4.00	0.0000	147.00	No Ice	4.16	2.49	0.04
			0.00			1/2" Ice	4.57	2.88	0.09
			0.00			1" Ice	4.99	3.27	0.15
			0.00			2" Ice	5.85	4.09	0.28
SBNHH-1D65B w/ Mount Pipe	A	From Centroid-Le g	4.00	0.0000	147.00	No Ice	4.09	3.30	0.07
			0.00			1/2" Ice	4.49	3.68	0.13
			0.00			1" Ice	4.89	4.07	0.20
			0.00			2" Ice	5.72	4.87	0.39
SBNHH-1D65B w/ Mount Pipe	B	From Centroid-Le g	4.00	0.0000	147.00	No Ice	4.09	3.30	0.07
			0.00			1/2" Ice	4.49	3.68	0.13
			0.00			1" Ice	4.89	4.07	0.20
			0.00			2" Ice	5.72	4.87	0.39
SBNHH-1D65B w/ Mount Pipe	C	From Centroid-Le g	4.00	0.0000	147.00	No Ice	4.09	3.30	0.07
			0.00			1/2" Ice	4.49	3.68	0.13
			0.00			1" Ice	4.89	4.07	0.20
			0.00			2" Ice	5.72	4.87	0.39
MT6413-77A w/ Mount Pipe	A	From Centroid-Le g	4.00	0.0000	147.00	No Ice	4.00	2.15	0.07
			0.00			1/2" Ice	4.31	2.55	0.10
			0.00			1" Ice	4.63	2.97	0.14
			0.00			2" Ice	5.31	3.85	0.23
MT6413-77A w/ Mount Pipe	B	From Centroid-Le g	4.00	0.0000	147.00	No Ice	4.00	2.15	0.07
			0.00			1/2" Ice	4.31	2.55	0.10
			0.00			1" Ice	4.63	2.97	0.14
			0.00			2" Ice	5.31	3.85	0.23
MT6413-77A w/ Mount Pipe	C	From Centroid-Le g	4.00	0.0000	147.00	No Ice	4.00	2.15	0.07
			0.00			1/2" Ice	4.31	2.55	0.10
			0.00			1" Ice	4.63	2.97	0.14
			0.00			2" Ice	5.31	3.85	0.23
BXA-70063-6CF-EDIN-5 w/ Mount Pipe	A	From Centroid-Le g	4.00	0.0000	147.00	No Ice	7.40	5.39	0.04
			0.00			1/2" Ice	8.14	6.10	0.10
			0.00			1" Ice	8.90	6.83	0.16

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	HRT 099 943226 (BU 806370)	Page	5 of 14
	Project	TEP No. 131666.940294	Date	15:31:42 03/14/24
	Client	Crown Castle	Designed by	TLI

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			Horz	Lateral						°	ft	ft^{2}	ft^{2}	K
BXA-70063-6CF-EDIN-5 w/ Mount Pipe	B	From Centroid-Le g	4.00	0.0000	147.00	2" Ice	10.46	8.34	0.33
			0.00	0.0000	147.00	No Ice	7.40	5.39	0.04
			0.00	0.0000	147.00	1/2" Ice	8.14	6.10	0.10
			0.00	0.0000	147.00	1" Ice	8.90	6.83	0.16
			0.00	0.0000	147.00	2" Ice	10.46	8.34	0.33
BXA-70063-6CF-EDIN-5 w/ Mount Pipe	C	From Centroid-Le g	4.00	0.0000	147.00	No Ice	7.40	5.39	0.04
			0.00	0.0000	147.00	1/2" Ice	8.14	6.10	0.10
			0.00	0.0000	147.00	1" Ice	8.90	6.83	0.16
			0.00	0.0000	147.00	2" Ice	10.46	8.34	0.33
			0.00	0.0000	147.00	No Ice	1.88	1.25	0.08
RFV01U-D1A	A	From Centroid-Le g	4.00	0.0000	147.00	1/2" Ice	2.05	1.39	0.10
			0.00	0.0000	147.00	1" Ice	2.22	1.54	0.12
			0.00	0.0000	147.00	2" Ice	2.60	1.86	0.18
			0.00	0.0000	147.00	No Ice	1.88	1.25	0.08
			0.00	0.0000	147.00	1/2" Ice	2.05	1.39	0.10
RFV01U-D1A	B	From Centroid-Le g	4.00	0.0000	147.00	1" Ice	2.22	1.54	0.12
			0.00	0.0000	147.00	2" Ice	2.60	1.86	0.18
			0.00	0.0000	147.00	No Ice	1.88	1.25	0.08
			0.00	0.0000	147.00	1/2" Ice	2.05	1.39	0.10
			0.00	0.0000	147.00	1" Ice	2.22	1.54	0.12
RFV01U-D1A	C	From Centroid-Le g	4.00	0.0000	147.00	2" Ice	2.60	1.86	0.18
			0.00	0.0000	147.00	No Ice	1.88	1.25	0.08
			0.00	0.0000	147.00	1/2" Ice	2.05	1.39	0.10
			0.00	0.0000	147.00	1" Ice	2.22	1.54	0.12
			0.00	0.0000	147.00	2" Ice	2.60	1.86	0.18
RF4461D-13A	A	From Centroid-Le g	4.00	0.0000	147.00	No Ice	1.87	1.28	0.08
			0.00	0.0000	147.00	1/2" Ice	2.03	1.42	0.10
			0.00	0.0000	147.00	1" Ice	2.21	1.57	0.12
			0.00	0.0000	147.00	2" Ice	2.59	1.89	0.17
			0.00	0.0000	147.00	No Ice	1.87	1.28	0.08
RF4461D-13A	B	From Centroid-Le g	4.00	0.0000	147.00	1/2" Ice	2.03	1.42	0.10
			0.00	0.0000	147.00	1" Ice	2.21	1.57	0.12
			0.00	0.0000	147.00	2" Ice	2.59	1.89	0.17
			0.00	0.0000	147.00	No Ice	1.87	1.28	0.08
			0.00	0.0000	147.00	1/2" Ice	2.03	1.42	0.10
RF4461D-13A	C	From Centroid-Le g	4.00	0.0000	147.00	1" Ice	2.21	1.57	0.12
			0.00	0.0000	147.00	2" Ice	2.59	1.89	0.17
			0.00	0.0000	147.00	No Ice	1.87	1.28	0.08
			0.00	0.0000	147.00	1/2" Ice	2.03	1.42	0.10
			0.00	0.0000	147.00	1" Ice	2.21	1.57	0.12
RVZDC-6627-PF-48	A	From Centroid-Le g	4.00	0.0000	147.00	2" Ice	2.59	1.89	0.17
			0.00	0.0000	147.00	No Ice	3.79	2.51	0.03
			0.00	0.0000	147.00	1/2" Ice	4.04	2.73	0.06
			0.00	0.0000	147.00	1" Ice	4.30	2.95	0.10
			0.00	0.0000	147.00	2" Ice	4.84	3.42	0.18
2.4" Dia x 4-ft Mount Pipe	A	From Centroid-Le g	4.00	0.0000	147.00	No Ice	0.87	0.87	0.01
			0.00	0.0000	147.00	1/2" Ice	1.11	1.11	0.02
			0.00	0.0000	147.00	1" Ice	1.36	1.36	0.03
			0.00	0.0000	147.00	2" Ice	1.90	1.90	0.06
			0.00	0.0000	147.00	No Ice	1.20	1.20	0.02
(2) 2.4" Dia x 5-ft Pipe	A	From Centroid-Le g	4.00	0.0000	147.00	1/2" Ice	1.50	1.50	0.03
			0.00	0.0000	147.00	1" Ice	1.81	1.81	0.04
			0.00	0.0000	147.00	2" Ice	2.47	2.47	0.08
			0.00	0.0000	147.00	No Ice	1.20	1.20	0.02
			0.00	0.0000	147.00	1/2" Ice	1.50	1.50	0.03
(2) 2.4" Dia x 5-ft Pipe	B	From Centroid-Le g	4.00	0.0000	147.00	1" Ice	1.81	1.81	0.04
			0.00	0.0000	147.00	2" Ice	2.47	2.47	0.08
			0.00	0.0000	147.00	No Ice	1.20	1.20	0.02
			0.00	0.0000	147.00	1/2" Ice	1.50	1.50	0.03
			0.00	0.0000	147.00	1" Ice	1.81	1.81	0.04
(2) 2.4" Dia x 5-ft Pipe	C	From Centroid-Le g	4.00	0.0000	147.00	2" Ice	2.47	2.47	0.08
			0.00	0.0000	147.00	No Ice	1.20	1.20	0.02
			0.00	0.0000	147.00	1/2" Ice	1.50	1.50	0.03
			0.00	0.0000	147.00	1" Ice	1.81	1.81	0.04
			0.00	0.0000	147.00	2" Ice	2.47	2.47	0.08
2.4" Dia x 6-ft Pipe	A	From Centroid-Le g	4.00	0.0000	147.00	No Ice	1.43	1.43	0.02
			0.00	0.0000	147.00	1/2" Ice	1.92	1.92	0.03
			0.00	0.0000	147.00	1" Ice	2.29	2.29	0.05
			0.00	0.0000	147.00	2" Ice	3.06	3.06	0.09
			0.00	0.0000	147.00	No Ice	1.43	1.43	0.02

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	HRT 099 943226 (BU 806370)	Page	6 of 14
	Project	TEP No. 131666.940294	Date	15:31:42 03/14/24
	Client	Crown Castle	Designed by	TLI

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA}		Weight
			Horz	Vert			Front	Side	
			ft	ft	°	ft	ft ²	ft ²	K
2.4" Dia x 6-ft Pipe	B	From Centroid-Leg	4.00	0.0000	147.00	No Ice	1.43	1.43	0.02
			0.00	1/2" Ice		1.92	1.92	0.03	
			0.00	1" Ice		2.29	2.29	0.05	
				2" Ice		3.06	3.06	0.09	
2.4" Dia x 6-ft Pipe	C	From Centroid-Leg	4.00	0.0000	147.00	No Ice	1.43	1.43	0.02
			0.00	1/2" Ice		1.92	1.92	0.03	
			0.00	1" Ice		2.29	2.29	0.05	
				2" Ice		3.06	3.06	0.09	
Platform Mount [LP 713-1]	C	None		0.0000	147.00	No Ice	32.89	32.89	1.51
				1/2" Ice		35.76	35.76	2.23	
				1" Ice		38.76	38.76	3.03	
				2" Ice		45.26	45.26	4.86	

800MHz 2X50W RRH W/FILTER	A	From Leg	2.00	0.0000	139.00	No Ice	2.06	1.93	0.06
			0.00	1/2" Ice		2.24	2.11	0.09	
			1.00	1" Ice		2.43	2.29	0.11	
				2" Ice		2.83	2.68	0.17	
800MHz 2X50W RRH W/FILTER	B	From Leg	2.00	0.0000	139.00	No Ice	2.06	1.93	0.06
			0.00	1/2" Ice		2.24	2.11	0.09	
			1.00	1" Ice		2.43	2.29	0.11	
				2" Ice		2.83	2.68	0.17	
800MHz 2X50W RRH W/FILTER	C	From Leg	2.00	0.0000	139.00	No Ice	2.06	1.93	0.06
			0.00	1/2" Ice		2.24	2.11	0.09	
			1.00	1" Ice		2.43	2.29	0.11	
				2" Ice		2.83	2.68	0.17	
PCS 1900MHz 4x45W-65MHz	A	From Leg	2.00	0.0000	139.00	No Ice	2.32	2.24	0.06
			0.00	1/2" Ice		2.53	2.44	0.08	
			1.00	1" Ice		2.74	2.65	0.11	
				2" Ice		3.19	3.09	0.17	
PCS 1900MHz 4x45W-65MHz	B	From Leg	2.00	0.0000	139.00	No Ice	2.32	2.24	0.06
			0.00	1/2" Ice		2.53	2.44	0.08	
			1.00	1" Ice		2.74	2.65	0.11	
				2" Ice		3.19	3.09	0.17	
PCS 1900MHz 4x45W-65MHz	C	From Leg	2.00	0.0000	139.00	No Ice	2.32	2.24	0.06
			0.00	1/2" Ice		2.53	2.44	0.08	
			1.00	1" Ice		2.74	2.65	0.11	
				2" Ice		3.19	3.09	0.17	
(2) 2.4" Dia x 4-ft Mount Pipe	A	From Leg	2.00	0.0000	139.00	No Ice	0.87	0.87	0.01
			0.00	1/2" Ice		1.11	1.11	0.02	
			0.00	1" Ice		1.36	1.36	0.03	
				2" Ice		1.90	1.90	0.06	
(2) 2.4" Dia x 4-ft Mount Pipe	B	From Leg	2.00	0.0000	139.00	No Ice	0.87	0.87	0.01
			0.00	1/2" Ice		1.11	1.11	0.02	
			0.00	1" Ice		1.36	1.36	0.03	
				2" Ice		1.90	1.90	0.06	
(2) 2.4" Dia x 4-ft Mount Pipe	C	From Leg	2.00	0.0000	139.00	No Ice	0.87	0.87	0.01
			0.00	1/2" Ice		1.11	1.11	0.02	
			0.00	1" Ice		1.36	1.36	0.03	
				2" Ice		1.90	1.90	0.06	
Side Arm Mount [SO 104-3]	C	None		0.0000	139.00	No Ice	2.62	2.62	0.29
				1/2" Ice		3.30	3.30	0.41	
				1" Ice		3.98	3.98	0.53	
				2" Ice		5.35	5.35	0.77	

APXVSPP18-C-A20 w/ Mount Pipe	A	From Centroid-Leg	4.00	0.0000	137.00	No Ice	4.60	4.01	0.10
			0.00	1/2" Ice		5.05	4.45	0.16	
			1.00	1" Ice		5.50	4.89	0.23	

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	HRT 099 943226 (BU 806370)	Page	7 of 14
	Project	TEP No. 131666.940294	Date	15:31:42 03/14/24
	Client	Crown Castle	Designed by	TLI

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA}		Weight
			Horz	Lateral			Front	Side	
			ft	ft	°	ft	ft ²	ft ²	K
APXVSPP18-C-A20 w/ Mount Pipe	B	From Centroid-Le g	4.00	0.0000	137.00	2" Ice	6.44	5.82	0.42
			0.00			No Ice	4.60	4.01	0.10
			1.00			1/2" Ice	5.05	4.45	0.16
						1" Ice	5.50	4.89	0.23
						2" Ice	6.44	5.82	0.42
APXVSPP18-C-A20 w/ Mount Pipe	C	From Centroid-Le g	4.00	0.0000	137.00	2" Ice	6.44	5.82	0.42
			0.00			No Ice	4.60	4.01	0.10
			1.00			1/2" Ice	5.05	4.45	0.16
						1" Ice	5.50	4.89	0.23
						2" Ice	6.44	5.82	0.42
AAHC w/ Mount Pipe	A	From Centroid-Le g	4.00	0.0000	137.00	2" Ice	6.44	5.82	0.42
			0.00			No Ice	4.12	2.44	0.12
			1.00			1/2" Ice	4.48	2.75	0.15
						1" Ice	4.87	3.06	0.20
						2" Ice	5.67	3.74	0.30
AAHC w/ Mount Pipe	B	From Centroid-Le g	4.00	0.0000	137.00	2" Ice	6.44	5.82	0.42
			0.00			No Ice	4.12	2.44	0.12
			1.00			1/2" Ice	4.48	2.75	0.15
						1" Ice	4.87	3.06	0.20
						2" Ice	5.67	3.74	0.30
AAHC w/ Mount Pipe	C	From Centroid-Le g	4.00	0.0000	137.00	2" Ice	6.44	5.82	0.42
			0.00			No Ice	4.12	2.44	0.12
			1.00			1/2" Ice	4.48	2.75	0.15
						1" Ice	4.87	3.06	0.20
						2" Ice	5.67	3.74	0.30
(2) IBC1900BB-1	B	From Centroid-Le g	4.00	0.0000	137.00	2" Ice	6.44	5.82	0.42
			0.00			No Ice	0.97	0.46	0.02
			1.00			1/2" Ice	1.09	0.56	0.03
						1" Ice	1.22	0.66	0.04
						2" Ice	1.51	0.89	0.06
IBC1900BB-1	C	From Centroid-Le g	4.00	0.0000	137.00	2" Ice	6.44	5.82	0.42
			0.00			No Ice	0.97	0.46	0.02
			1.00			1/2" Ice	1.09	0.56	0.03
						1" Ice	1.22	0.66	0.04
						2" Ice	1.51	0.89	0.06
(2) IBC1900HG-2A	B	From Centroid-Le g	4.00	0.0000	137.00	2" Ice	6.44	5.82	0.42
			0.00			No Ice	0.97	0.46	0.02
			1.00			1/2" Ice	1.09	0.56	0.03
						1" Ice	1.22	0.66	0.04
						2" Ice	1.51	0.89	0.06
IBC1900HG-2A	C	From Centroid-Le g	4.00	0.0000	137.00	2" Ice	6.44	5.82	0.42
			0.00			No Ice	0.97	0.46	0.02
			1.00			1/2" Ice	1.09	0.56	0.03
						1" Ice	1.22	0.66	0.04
						2" Ice	1.51	0.89	0.06
2.4" Dia x 6-ft Pipe	A	From Centroid-Le g	4.00	0.0000	137.00	2" Ice	6.44	5.82	0.42
			0.00			No Ice	1.43	1.43	0.02
			0.00			1/2" Ice	1.92	1.92	0.03
						1" Ice	2.29	2.29	0.05
						2" Ice	3.06	3.06	0.09
2.4" Dia x 6-ft Pipe	B	From Centroid-Le g	4.00	0.0000	137.00	2" Ice	6.44	5.82	0.42
			0.00			No Ice	1.43	1.43	0.02
			0.00			1/2" Ice	1.92	1.92	0.03
						1" Ice	2.29	2.29	0.05
						2" Ice	3.06	3.06	0.09
2.4" Dia x 6-ft Pipe	C	From Centroid-Le g	4.00	0.0000	137.00	2" Ice	6.44	5.82	0.42
			0.00			No Ice	1.43	1.43	0.02
			0.00			1/2" Ice	1.92	1.92	0.03
						1" Ice	2.29	2.29	0.05
						2" Ice	3.06	3.06	0.09
Platform Mount [LP 713-1]	C	None		0.0000	137.00	2" Ice	6.44	5.82	0.42
						No Ice	32.89	32.89	1.51
						1/2" Ice	35.76	35.76	2.23
						1" Ice	38.76	38.76	3.03
						2" Ice	45.26	45.26	4.86
*** BCD-87010	A	From Leg	3.00	0.0000	117.00	2" Ice	6.44	5.82	0.42
			0.00			No Ice	2.90	2.90	0.03
			5.00			1/2" Ice	4.05	4.05	0.05
						1" Ice	5.21	5.21	0.08

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	HRT 099 943226 (BU 806370)	Page	8 of 14
	Project	TEP No. 131666.940294	Date	15:31:42 03/14/24
	Client	Crown Castle	Designed by	TLI

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			Horz	Lateral					
			ft	ft	°	ft	ft ²	ft ²	K
2.4" Dia x 3-ft Mount Pipe	A	From Leg	3.00	0.0000	117.00	2" Ice	7.01	7.01	0.16
			0.00	No Ice		0.58	0.58	0.01	
			0.00	1/2" Ice		0.77	0.77	0.02	
			0.00	1" Ice		0.97	0.97	0.02	
Side Arm Mount [SO 701-1]	A	From Leg	1.50	0.0000	117.00	2" Ice	1.39	1.39	0.05
			0.00	No Ice		0.85	1.67	0.07	
			0.00	1/2" Ice		1.14	2.34	0.08	
			0.00	1" Ice		1.43	3.01	0.09	
			0.00	2" Ice		2.01	4.35	0.12	

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job HRT 099 943226 (BU 806370)	Page 9 of 14
	Project TEP No. 131666.940294	Date 15:31:42 03/14/24
	Client Crown Castle	Designed by TLI

Comb. No.	Description
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	Axial	Major Axis Moment	Minor Axis Moment
				Comb.	K	kip-ft	kip-ft
L1	150 - 96.8333	Pole	Max Tension	30	0.00	0.00	-0.00
			Max. Compression	26	-27.61	-0.06	0.96
			Max. Mx	8	-13.60	-462.01	-0.29
			Max. My	2	-13.60	0.48	461.81
			Max. Vy	8	13.92	-462.01	-0.29
			Max. Vx	2	-13.88	0.48	461.81
			Max. Torque	8			1.16
L2	96.8333 - 48	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-44.38	0.37	0.71
			Max. Mx	8	-26.11	-1272.24	-1.11
			Max. My	2	-26.11	1.34	1269.87
			Max. Vy	8	20.27	-1272.24	-1.11
			Max. Vx	2	-20.22	1.34	1269.87
			Max. Torque	8			1.11
L3	48 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-72.32	0.96	0.37
			Max. Mx	20	-48.70	2587.44	2.55
			Max. My	2	-48.70	2.34	2582.54
			Max. Vy	20	-27.32	2587.44	2.55
			Max. Vx	2	-27.27	2.34	2582.54
			Max. Torque	33			-1.04

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	36	72.32	7.89	0.00
	Max. H _x	20	48.71	27.30	0.02
	Max. H _z	2	48.71	0.02	27.26
	Max. M _x	2	2582.54	0.02	27.26
	Max. M _z	8	2587.37	-27.30	-0.02
	Max. Torsion	27	1.04	0.00	7.87
	Min. Vert	17	36.53	13.64	-23.60
	Min. H _x	8	48.71	-27.30	-0.02
	Min. H _z	14	48.71	-0.02	-27.26

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job HRT 099 943226 (BU 806370)	Page 10 of 14
	Project TEP No. 131666.940294	Date 15:31:42 03/14/24
	Client Crown Castle	Designed by TLI

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
	Min. M _x	14	-2582.06	-0.02	-27.26
	Min. M _z	20	-2587.44	27.30	0.02
	Min. Torsion	33	-1.04	-0.00	-7.87

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	40.59	0.00	0.00	-0.19	0.03	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	48.71	-0.02	-27.26	-2582.54	2.34	-0.54
0.9 Dead+1.0 Wind 0 deg - No Ice	36.53	-0.02	-27.26	-2569.74	2.32	-0.54
1.2 Dead+1.0 Wind 30 deg - No Ice	48.71	13.64	-23.60	-2235.42	-1291.67	-0.90
0.9 Dead+1.0 Wind 30 deg - No Ice	36.53	13.64	-23.60	-2224.33	-1285.31	-0.90
1.2 Dead+1.0 Wind 60 deg - No Ice	48.71	23.63	-13.61	-1289.39	-2239.57	-1.01
0.9 Dead+1.0 Wind 60 deg - No Ice	36.53	23.63	-13.61	-1282.97	-2228.53	-1.01
1.2 Dead+1.0 Wind 90 deg - No Ice	48.71	27.30	0.02	2.07	-2587.37	-0.85
0.9 Dead+1.0 Wind 90 deg - No Ice	36.53	27.30	0.02	2.12	-2574.62	-0.85
1.2 Dead+1.0 Wind 120 deg - No Ice	48.71	23.65	13.64	1292.91	-2241.88	-0.46
0.9 Dead+1.0 Wind 120 deg - No Ice	36.53	23.65	13.64	1286.59	-2230.83	-0.46
1.2 Dead+1.0 Wind 150 deg - No Ice	48.71	13.66	23.61	2237.25	-1295.67	0.05
0.9 Dead+1.0 Wind 150 deg - No Ice	36.53	13.66	23.61	2226.27	-1289.29	0.05
1.2 Dead+1.0 Wind 180 deg - No Ice	48.71	0.02	27.26	2582.06	-2.28	0.54
0.9 Dead+1.0 Wind 180 deg - No Ice	36.53	0.02	27.26	2569.38	-2.27	0.54
1.2 Dead+1.0 Wind 210 deg - No Ice	48.71	-13.64	23.60	2234.94	1291.74	0.90
0.9 Dead+1.0 Wind 210 deg - No Ice	36.53	-13.64	23.60	2223.98	1285.36	0.90
1.2 Dead+1.0 Wind 240 deg - No Ice	48.71	-23.63	13.61	1288.91	2239.64	1.01
0.9 Dead+1.0 Wind 240 deg - No Ice	36.53	-23.63	13.61	1282.61	2228.58	1.01
1.2 Dead+1.0 Wind 270 deg - No Ice	48.71	-27.30	-0.02	-2.55	2587.44	0.85
0.9 Dead+1.0 Wind 270 deg - No Ice	36.53	-27.30	-0.02	-2.47	2574.67	0.85
1.2 Dead+1.0 Wind 300 deg - No Ice	48.71	-23.65	-13.64	-1293.39	2241.95	0.46
0.9 Dead+1.0 Wind 300 deg - No Ice	36.53	-23.65	-13.64	-1286.94	2230.88	0.46
1.2 Dead+1.0 Wind 330 deg - No Ice	48.71	-13.66	-23.61	-2237.73	1295.74	-0.05
0.9 Dead+1.0 Wind 330 deg - No Ice	36.53	-13.66	-23.61	-2226.63	1289.34	-0.05

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job HRT 099 943226 (BU 806370)	Page 11 of 14
	Project TEP No. 131666.940294	Date 15:31:42 03/14/24
	Client Crown Castle	Designed by TLI

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
No Ice						
1.2 Dead+1.0 Ice+1.0 Temp	72.32	0.00	0.00	-0.37	0.96	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	72.32	-0.00	-7.87	-745.26	1.48	-1.04
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	72.32	3.94	-6.82	-645.22	-372.10	-0.80
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	72.32	6.83	-3.93	-372.40	-645.71	-0.35
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	72.32	7.89	0.00	0.08	-746.05	0.20
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	72.32	6.84	3.94	372.43	-646.22	0.69
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	72.32	3.95	6.82	644.88	-372.97	1.00
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	72.32	0.00	7.87	744.41	0.48	1.04
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	72.32	-3.94	6.82	644.37	374.06	0.80
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	72.32	-6.83	3.93	371.56	647.67	0.35
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	72.32	-7.89	-0.00	-0.93	748.01	-0.20
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	72.32	-6.84	-3.94	-373.28	648.18	-0.69
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	72.32	-3.95	-6.82	-645.72	374.93	-1.00
Dead+Wind 0 deg - Service	40.59	-0.00	-6.75	-637.80	0.60	-0.13
Dead+Wind 30 deg - Service	40.59	3.38	-5.84	-552.09	-318.91	-0.22
Dead+Wind 60 deg - Service	40.59	5.85	-3.37	-318.51	-552.96	-0.25
Dead+Wind 90 deg - Service	40.59	6.76	0.00	0.37	-638.84	-0.21
Dead+Wind 120 deg - Service	40.59	5.86	3.38	319.10	-553.53	-0.11
Dead+Wind 150 deg - Service	40.59	3.38	5.85	552.27	-319.90	0.01
Dead+Wind 180 deg - Service	40.59	0.00	6.75	637.41	-0.54	0.13
Dead+Wind 210 deg - Service	40.59	-3.38	5.84	551.70	318.97	0.22
Dead+Wind 240 deg - Service	40.59	-5.85	3.37	318.11	553.02	0.25
Dead+Wind 270 deg - Service	40.59	-6.76	-0.00	-0.77	638.89	0.21
Dead+Wind 300 deg - Service	40.59	-5.86	-3.38	-319.49	553.59	0.11
Dead+Wind 330 deg - Service	40.59	-3.38	-5.85	-552.66	319.95	-0.01

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-40.59	0.00	0.00	40.59	0.00	0.000%
2	-0.02	-48.71	-27.26	0.02	48.71	27.26	0.000%
3	-0.02	-36.53	-27.26	0.02	36.53	27.26	0.000%
4	13.64	-48.71	-23.60	-13.64	48.71	23.60	0.000%
5	13.64	-36.53	-23.60	-13.64	36.53	23.60	0.000%
6	23.63	-48.71	-13.61	-23.63	48.71	13.61	0.000%
7	23.63	-36.53	-13.61	-23.63	36.53	13.61	0.000%
8	27.30	-48.71	0.02	-27.30	48.71	-0.02	0.000%
9	27.30	-36.53	0.02	-27.30	36.53	-0.02	0.000%
10	23.65	-48.71	13.64	-23.65	48.71	-13.64	0.000%
11	23.65	-36.53	13.64	-23.65	36.53	-13.64	0.000%
12	13.66	-48.71	23.61	-13.66	48.71	-23.61	0.000%
13	13.66	-36.53	23.61	-13.66	36.53	-23.61	0.000%
14	0.02	-48.71	27.26	-0.02	48.71	-27.26	0.000%

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job HRT 099 943226 (BU 806370)	Page 12 of 14
	Project TEP No. 131666.940294	Date 15:31:42 03/14/24
	Client Crown Castle	Designed by TLI

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
15	0.02	-36.53	27.26	-0.02	36.53	-27.26	0.000%
16	-13.64	-48.71	23.60	13.64	48.71	-23.60	0.000%
17	-13.64	-36.53	23.60	13.64	36.53	-23.60	0.000%
18	-23.63	-48.71	13.61	23.63	48.71	-13.61	0.000%
19	-23.63	-36.53	13.61	23.63	36.53	-13.61	0.000%
20	-27.30	-48.71	-0.02	27.30	48.71	0.02	0.000%
21	-27.30	-36.53	-0.02	27.30	36.53	0.02	0.000%
22	-23.65	-48.71	-13.64	23.65	48.71	13.64	0.000%
23	-23.65	-36.53	-13.64	23.65	36.53	13.64	0.000%
24	-13.66	-48.71	-23.61	13.66	48.71	23.61	0.000%
25	-13.66	-36.53	-23.61	13.66	36.53	23.61	0.000%
26	0.00	-72.32	0.00	0.00	72.32	0.00	0.000%
27	-0.00	-72.32	-7.87	0.00	72.32	7.87	0.000%
28	3.94	-72.32	-6.82	-3.94	72.32	6.82	0.000%
29	6.83	-72.32	-3.93	-6.83	72.32	3.93	0.000%
30	7.89	-72.32	0.00	-7.89	72.32	-0.00	0.000%
31	6.84	-72.32	3.94	-6.84	72.32	-3.94	0.000%
32	3.95	-72.32	6.82	-3.95	72.32	-6.82	0.000%
33	0.00	-72.32	7.87	-0.00	72.32	-7.87	0.000%
34	-3.94	-72.32	6.82	3.94	72.32	-6.82	0.000%
35	-6.83	-72.32	3.93	6.83	72.32	-3.93	0.000%
36	-7.89	-72.32	-0.00	7.89	72.32	0.00	0.000%
37	-6.84	-72.32	-3.94	6.84	72.32	3.94	0.000%
38	-3.95	-72.32	-6.82	3.95	72.32	6.82	0.000%
39	-0.00	-40.59	-6.75	0.00	40.59	6.75	0.000%
40	3.38	-40.59	-5.84	-3.38	40.59	5.84	0.000%
41	5.85	-40.59	-3.37	-5.85	40.59	3.37	0.000%
42	6.76	-40.59	0.00	-6.76	40.59	-0.00	0.000%
43	5.86	-40.59	3.38	-5.86	40.59	-3.38	0.000%
44	3.38	-40.59	5.85	-3.38	40.59	-5.85	0.000%
45	0.00	-40.59	6.75	-0.00	40.59	-6.75	0.000%
46	-3.38	-40.59	5.84	3.38	40.59	-5.84	0.000%
47	-5.85	-40.59	3.37	5.85	40.59	-3.37	0.000%
48	-6.76	-40.59	-0.00	6.76	40.59	0.00	0.000%
49	-5.86	-40.59	-3.38	5.86	40.59	3.38	0.000%
50	-3.38	-40.59	-5.85	3.38	40.59	5.85	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00001963
3	Yes	4	0.00000001	0.00001121
4	Yes	4	0.00000001	0.00044692
5	Yes	4	0.00000001	0.00029212
6	Yes	4	0.00000001	0.00048483
7	Yes	4	0.00000001	0.00031775
8	Yes	4	0.00000001	0.00004688
9	Yes	4	0.00000001	0.00003062
10	Yes	4	0.00000001	0.00044790
11	Yes	4	0.00000001	0.00029270
12	Yes	4	0.00000001	0.00047081
13	Yes	4	0.00000001	0.00030823
14	Yes	4	0.00000001	0.00001855
15	Yes	4	0.00000001	0.00001037

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	HRT 099 943226 (BU 806370)	Page	13 of 14
	Project	TEP No. 131666.940294	Date	15:31:42 03/14/24
	Client	Crown Castle	Designed by	TLI

16	Yes	4	0.00000001	0.00047678
17	Yes	4	0.00000001	0.00031246
18	Yes	4	0.00000001	0.00044079
19	Yes	4	0.00000001	0.00028807
20	Yes	4	0.00000001	0.00004892
21	Yes	4	0.00000001	0.00003200
22	Yes	4	0.00000001	0.00048201
23	Yes	4	0.00000001	0.00031572
24	Yes	4	0.00000001	0.00045720
25	Yes	4	0.00000001	0.00029896
26	Yes	4	0.00000001	0.00000001
27	Yes	4	0.00000001	0.00045489
28	Yes	4	0.00000001	0.00047531
29	Yes	4	0.00000001	0.00047622
30	Yes	4	0.00000001	0.00045430
31	Yes	4	0.00000001	0.00047528
32	Yes	4	0.00000001	0.00047400
33	Yes	4	0.00000001	0.00045264
34	Yes	4	0.00000001	0.00047475
35	Yes	4	0.00000001	0.00047470
36	Yes	4	0.00000001	0.00045502
37	Yes	4	0.00000001	0.00047702
38	Yes	4	0.00000001	0.00047746
39	Yes	4	0.00000001	0.00000001
40	Yes	4	0.00000001	0.00000886
41	Yes	4	0.00000001	0.00001073
42	Yes	4	0.00000001	0.00000441
43	Yes	4	0.00000001	0.00000885
44	Yes	4	0.00000001	0.00000979
45	Yes	4	0.00000001	0.00000001
46	Yes	4	0.00000001	0.00001024
47	Yes	4	0.00000001	0.00000871
48	Yes	4	0.00000001	0.00000443
49	Yes	4	0.00000001	0.00001044
50	Yes	4	0.00000001	0.00000915

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	150 - 96.8333 (1)	TP39.21x26.19x0.3125	53.17	0.00	0.0	37.7442	-13.60	2208.04	0.006
L2	96.8333 - 48 (2)	TP50.55x37.1973x0.4063	54.50	0.00	0.0	63.3508	-26.11	3706.02	0.007
L3	48 - 0 (3)	TP61.5x48.0225x0.5	55.00	0.00	0.0	98.2100	-48.70	5745.28	0.008

Pole Bending Design Data

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job HRT 099 943226 (BU 806370)	Page 14 of 14
	Project TEP No. 131666.940294	Date 15:31:42 03/14/24
	Client Crown Castle	Designed by TLI

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	150 - 96.8333 (1)	TP39.21x26.19x0.3125	462.37	1837.12	0.252	0.00	1837.12	0.000
L2	96.8333 - 48 (2)	TP50.55x37.1973x0.4063	1272.83	3994.35	0.319	0.00	3994.35	0.000
L3	48 - 0 (3)	TP61.5x48.0225x0.5	2588.28	7711.57	0.336	0.00	7711.57	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	150 - 96.8333 (1)	TP39.21x26.19x0.3125	13.93	662.41	0.021	0.96	2185.61	0.000
L2	96.8333 - 48 (2)	TP50.55x37.1973x0.4063	20.27	1111.81	0.018	0.74	4736.23	0.000
L3	48 - 0 (3)	TP61.5x48.0225x0.5	27.32	1723.59	0.016	0.47	9248.33	0.000

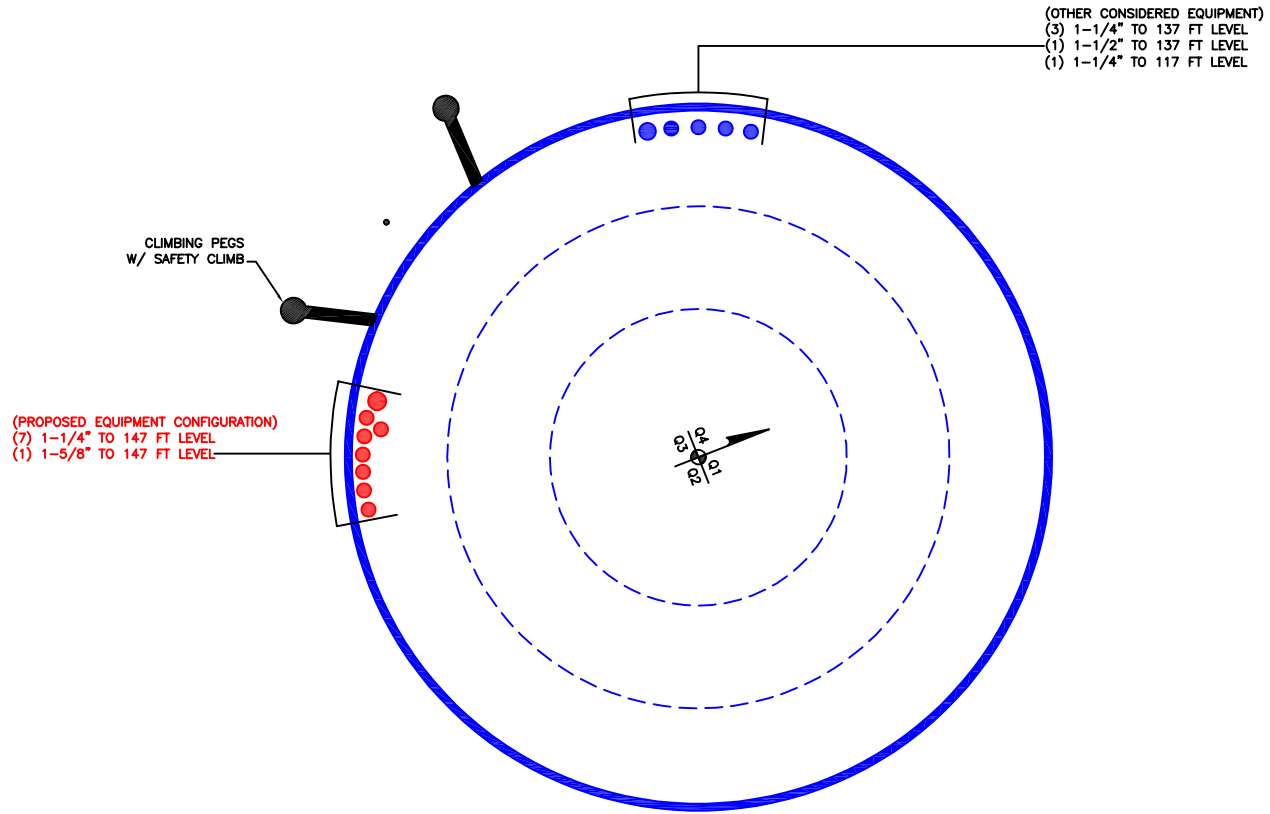
Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	150 - 96.8333 (1)	0.006	0.252	0.000	0.021	0.000	0.258	1.050	
L2	96.8333 - 48 (2)	0.007	0.319	0.000	0.018	0.000	0.326	1.050	
L3	48 - 0 (3)	0.008	0.336	0.000	0.016	0.000	0.344	1.050	

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	150 - 96.8333	Pole	TP39.21x26.19x0.3125	1	-13.60	2318.44	24.6	Pass
L2	96.8333 - 48	Pole	TP50.55x37.1973x0.4063	2	-26.11	3891.32	31.1	Pass
L3	48 - 0	Pole	TP61.5x48.0225x0.5	3	-48.70	6032.54	32.8	Pass
Summary								
Pole (L3)							32.8	Pass
RATING =							32.8	Pass

APPENDIX B
BASE LEVEL DRAWING



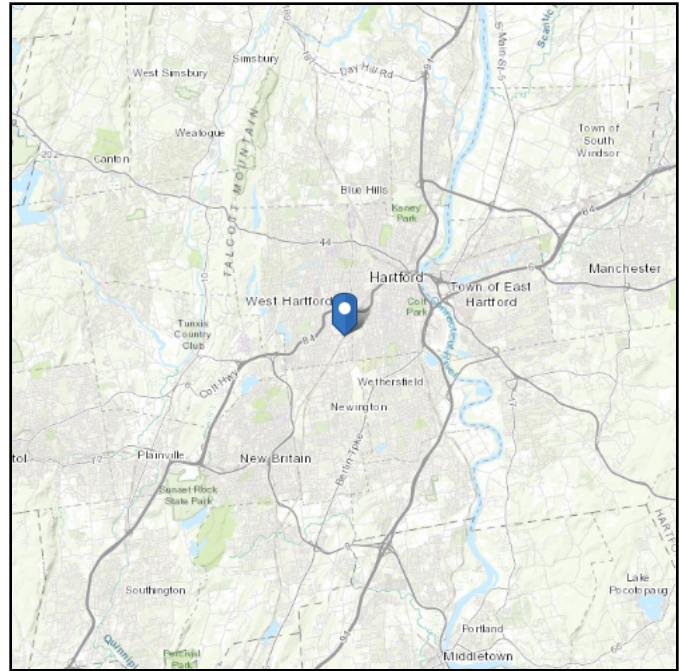
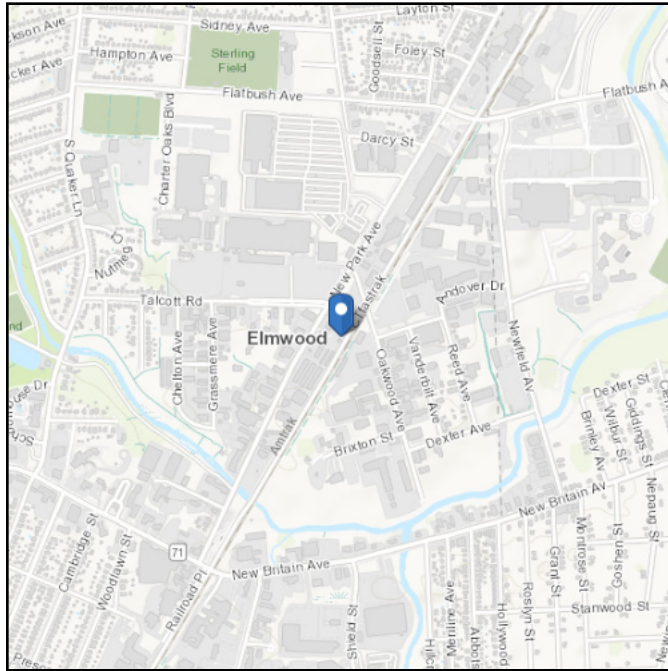
APPENDIX C
ADDITIONAL CALCULATIONS

ASCE Hazards Report

Address:
No Address at This Location

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

Latitude: 41.73625
Longitude: -72.720611
Elevation: 68.24821530402156 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 Mar 14 2024

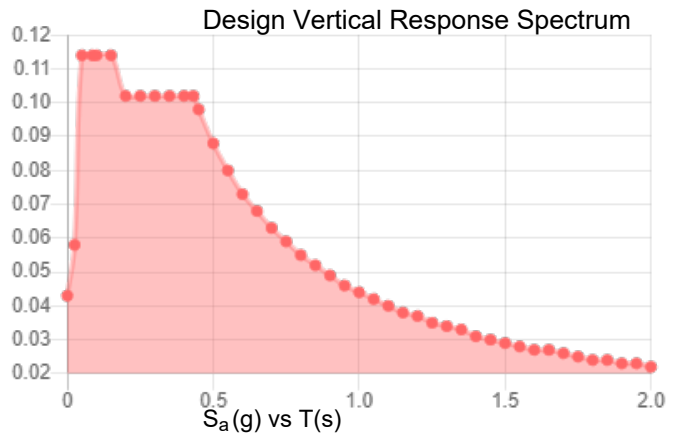
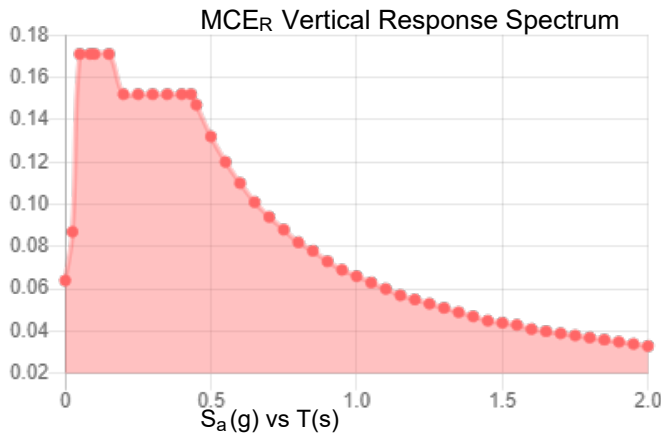
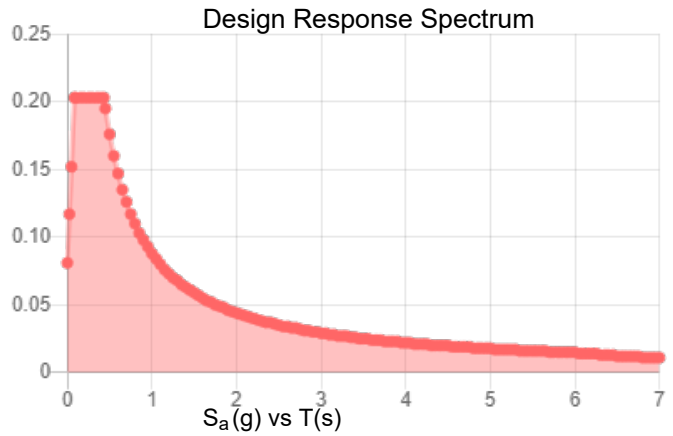
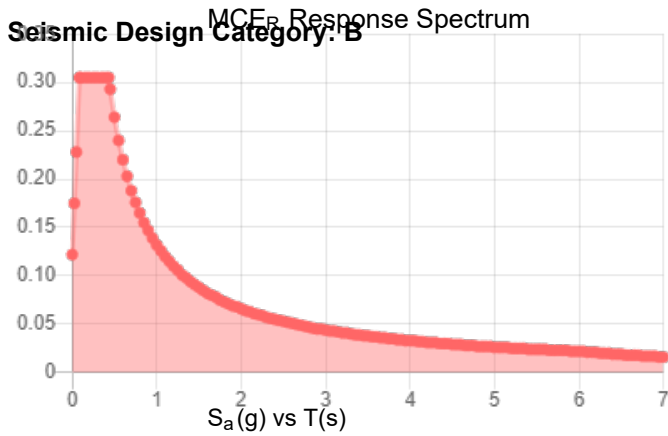
Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance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

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

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

Results:

S_s :	0.191	S_{D1} :	0.088
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.103
F_v :	2.4	PGA _M :	0.164
S_{MS} :	0.305	F_{PGA} :	1.594
S_{M1} :	0.132	I_e :	1
S_{DS} :	0.203	C_v :	0.7



Data Accessed: Thu Mar 14 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 Mar 14 2024

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

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

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

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE Hazard Tool.

Monopole Base Plate Connection

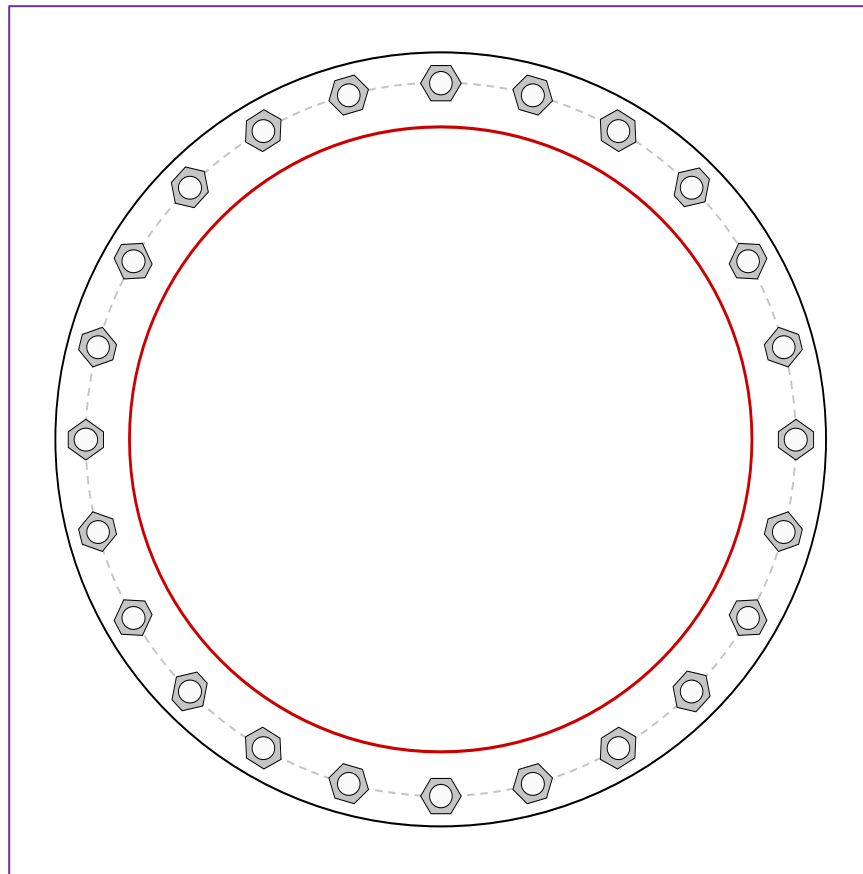


Site Info	
BU #	806370
Site Name	HRT 099 943226
Order #	664148 Rev. 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	1.25

Applied Loads	
Moment (kip-ft)	2588.00
Axial Force (kips)	49.00
Shear Force (kips)	27.00

*TIA-222-H Section 15.5 Applied



Connection Properties	Analysis Results
-----------------------	------------------

Anchor Rod Data
(24) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 70.17" BC
Base Plate Data
76.17" OD x 3" Plate (S-128; $F_y=60$ ksi, $F_u=80$ ksi)
Stiffener Data
N/A
Pole Data
61.5" x 0.5" 12-sided pole (A572-65; $F_y=65$ ksi, $F_u=80$ ksi)

Anchor Rod Summary		
<i>(units of kips, kip-in)</i>		
$P_{u,t} = 71.69$	$\phi P_{n,t} = 243.75$	Stress Rating
$V_u = 1.13$	$\phi V_n = 149.1$	28.0%
$M_u = n/a$	$\phi M_n = n/a$	Pass
Base Plate Summary		
Max Stress (ksi):	11.05	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	19.5%	Pass

Drilled Pier Foundation

BU # :	806370
Site Name:	HRT 099 943226
Order Number:	664148 Rev. 0
TIA-222 Revision:	H
Tower Type:	Monopole



Applied Loads		
	Comp.	Uplift
Moment (kip-ft)	2588	
Axial Force (kips)	49	
Shear Force (kips)	27	

Material Properties		
Concrete Strength, f _c :	3	ksi
Rebar Strength, F _y :	60	ksi
Tie Yield Strength, F _{yt} :	40	ksi

Pier Design Data		
Depth	24.5	ft
Ext. Above Grade	0.5	ft
Pier Section 1		
<i>From 0.5' above grade to 24.5' below grade</i>		
Pier Diameter	9	ft
Rebar Quantity	60	
Rebar Size	10	
Clear Cover to Ties	3	in
Tie Size		
Tie Spacing		in

Rebar & Pier Options

Embedded Pole Inputs

Belled Pier Inputs

Analysis Results

Soil Lateral Check	Compression	Uplift
D _{v=0} (ft from TOC)	6.76	-
Soil Safety Factor	3.10	-
Max Moment (kip-ft)	2756.70	-
Rating*	40.8%	-

Soil Vertical Check	Compression	Uplift
Skin Friction (kips)	290.52	-
End Bearing (kips)	286.28	-
Weight of Concrete (kips)	236.26	-
Total Capacity (kips)	576.80	-
Axial (kips)	285.26	-
Rating*	47.1%	-

Reinforced Concrete Flexure	Compression	Uplift
Critical Depth (ft from TOC)	6.76	-
Critical Moment (kip-ft)	2756.70	-
Critical Moment Capacity	15300.06	-
Rating*	17.2%	-

Reinforced Concrete Shear	Compression	Uplift
Critical Depth (ft from TOC)	20.90	-
Critical Shear (kip)	145.95	-
Critical Shear Capacity	1172.06	-
Rating*	11.9%	-

Shear-Friction Methodology is Applied

Structural Foundation Rating*	17.2%
Soil Interaction Rating*	47.1%

*Rating per TIA-222-H Section 15.5

Check Limitation	
Apply TIA-222-H Section 15.5:	<input checked="" type="checkbox"/>
N/A	<input type="checkbox"/>
Design Options	
Input Effective Depths (else Actual):	<input type="checkbox"/>
Consider non-tapered moment capacity:	<input type="checkbox"/>
Check Shear along Depth of Pier:	<input checked="" type="checkbox"/>
Utilize Shear-Friction Methodology:	<input checked="" type="checkbox"/>
Override Critical Depth:	<input type="checkbox"/>

[Go to Soil Calculations](#)

Soil Profile			
Groundwater Depth	14	# of Layers	4

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ _{soil} (pcf)	γ _{concrete} (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	5	5	100	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	5	14	9	100	150	0.3	30	0.000	0.000	0.80	0.80			Cohesionless
3	14	15	1	36	87.6	0.1	23	0.363	0.363	0.80	0.80			Silty
4	15	24.5	9.5	36	87.6	0.1	23	0.465	0.465	0.60	0.60	6		Silty

EXHIBIT F

Mount Analysis Report

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

Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements

Mount ReAnalysis-VZW

SMART Tool Project #: 10220905
Colliers Engineering & Design Project #: 21777057 (Rev 2)

January 31, 2024

Site Information

Site ID: 5000382911-VZW / WEST HARTFORD CT
Site Name: WEST HARTFORD CT
Carrier Name: Verizon Wireless
Address: 570 New Park Drive
West Hartford, Connecticut 6110
Hartford County
Latitude: 41.736250°
Longitude: -72.720611°

Structure Information

Tower Type: 151-Ft Monopole
Mount Type: 12.88-Ft Platform

FUZE ID # 16232030

Analysis Results

Platform: 99.7% **Pass w/ Hardware Upgrades***

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

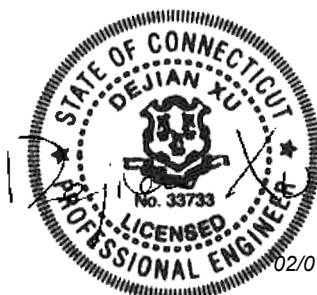
***Contractor PMI Requirements:

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: Vincent DiGirolamo



02/01/2024

Executive Summary:

The objective of this report is to determine the capacity of the antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

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
<i>Radio Frequency Data Sheet (RFDS)</i>	<i>Verizon RFDS Site ID: 325092 Dated September 20, 2023</i>
<i>Mount Mapping Report</i>	<i>RKS Design & Engineering, LLC Site ID: VZW: 468977; West Hartford CT Dated April 11, 2021</i>

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: C Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.998
Seismic Parameters:	S_s : 0.187 g S_1 : 0.055 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Load, L_v : 250 lbs. Maintenance Load, L_m : 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
145.00	147.00	3	Samsung	MT6413-77A	Added
		3	Samsung	RF4461d-13A	
		6	Andrew	SBNHH-1D65B	Retained
		3	Amphenol Antel	BXA-70063-6CF-4	
		3	Samsung	B2/B66A RRH-BR049	
		1	Raycap	RRFDC-6627-PF-48	

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:
 - o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325

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
Mount Pipe	60.3	Pass
Support Rail	36.5	Pass
Support Rail Plate	11.7	Pass
Standoff Tab	92.3	Pass
Corner Plate	35.0	Pass
Standoff	66.5	Pass
Standoff Brace	99.7	Pass
Face Horizontal	93.1	Pass
Threaded rod	57.0	Pass
Mount Connection	48.4	Pass

Structure Rating – (Controlling Utilization of all Components)	99.7%
---	--------------

* Results valid after hardware upgrades noted in the PMI Requirements are installed.

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 B Standoff	145	N153 A	2241	4665	6.525	3.015	3680	7153	7.794	0.968
Sector A Standoff	145	N171	2099	4693	5.767	3.063	3421	6932	7.235	0.976
Sector C Standoff	145	N185	2075	4740	5.681	3.040	3351	6823	6.964	0.962

Notes:

- Axial loads act along the axis of the tower
- Lateral reactions act perpendicular to the tower
- Moment loads introduce bending moment to the tower
- Torsion loads introduce twisting moment to the tower
- 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	39.7	39.7	53.5	53.5
0.5	47.6	47.6	67.3	67.3
1	55.4	55.4	80.9	80.9

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 shown in attachment 2 upon the completion of the requirements listed below.

Contractor shall relocate existing mount pipe in position 4 on all sectors (position 1 being on the left side when looking from behind) to be a minimum of 42" from the position 5 mount pipe. Drill holes in existing face horizontal and support rail members as required.

Contractor shall replace the existing threaded rods attached to the position 1 mount pipe (as seen from behind panels) with new VZWSMART-MSK3 pipe to pipe assembly connections. Contractor shall install the clamps in place of the existing clamps.

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 Post Installation Inspection (PMI) Report Deliverables
2. Antenna Placement Diagrams
3. Mount Photos
4. Mount Mapping Report (for reference only)
5. Analysis Calculations

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – **Passing Mount Analysis**

Passing Mount Analysis requires a PMI due to a modification in loading.

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

MDG #: 5000382911

SMART Project #: 10220905

Fuze Project ID: 16232030

Purpose – to provide SMART Tool structural vendor the proper documentation in order 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 installation was completed in accordance with this Passing Mount Analysis.
- Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.

Base Requirements:

- If installation 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 mount drawings” showing contractor’s name, contact information, 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 passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is supported and 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.
 - Photos of the mount after installation; if the mounts are at different rad elevations, pictures must be provided for all elevations that equipment was installed.
- Photos taken at Mount Elevation
 - Photos showing the safety climb wire rope above and below the mount prior to installation.
 - Photos showing the climbing facility and safety climb if present.
 - Photos showing each individual sector after installation. Each entire sector shall 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.

Antenna & equipment placement and Geometry Confirmation:

- The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.
 - 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.

Special Instructions / Validation as required from the MA or any other information the contractor deems necessary to share that was identified:

Issue:

Contractor shall relocate existing mount pipe in position 4 on all sectors (position 1 being on the left side when looking from behind) to be a minimum of 42" from the position 5 mount pipe. Drill holes in existing face horizontal and support rail members as required.

Contractor shall replace the existing threaded rods attached to the position 1 mount pipe (as seen from behind panels) with new VZWSMART-MSK3 pipe to pipe assembly connections. Contractor shall install the clamps in place of the existing clamps.

Response:

Special Instruction Confirmation:

- The contractor has read and acknowledges the above special instructions.
- All hardware listed in the Special Instructions above (if applicable) has been properly installed, and the existing hardware was inspected.
- The material utilized was as specified in the SMART Tool engineering vendor Special Instructions above (if applicable) 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.

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

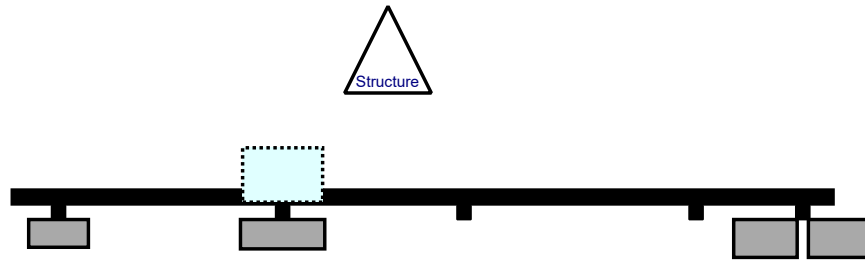
Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

Safety Climb in Good Condition Safety Climb Damaged

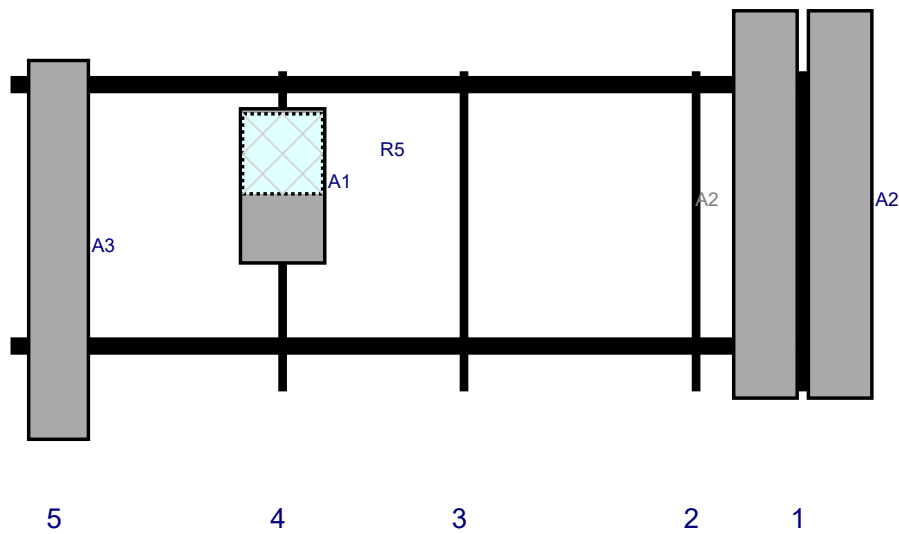
Certifying Individual:

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

Plan View

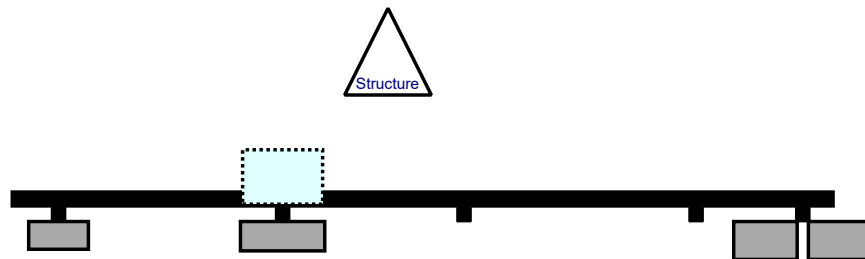


Front View - Looking at Structure

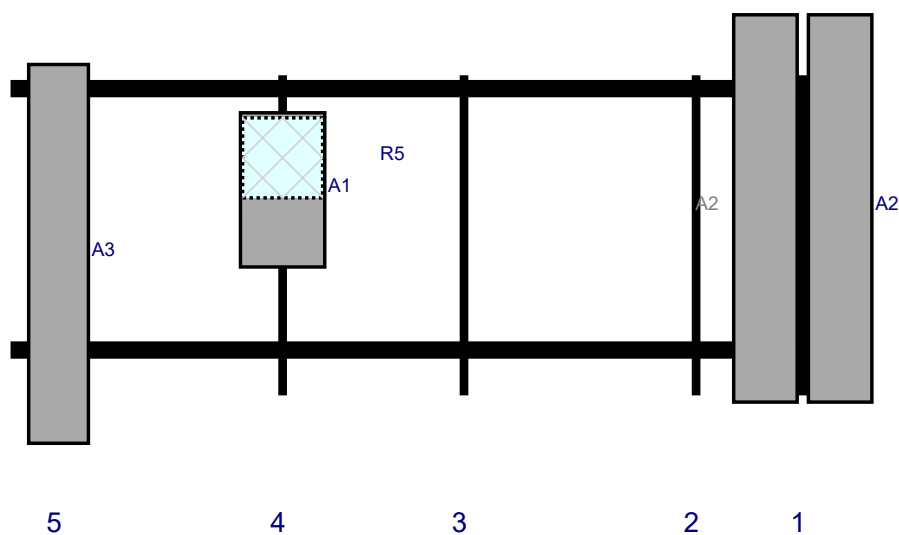


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	SBNHH-1D65B	72.6	11.9	148.5	1	a	Front	24.96	7	Retained	04/11/2021
A2	SBNHH-1D65B	72.6	11.9	148.5	1	b	Front	24.96	-7	Retained	04/11/2021
A1	MT6413-77A	28.9	15.8	51	4	a	Front	21.48	0	Added	
R5	RF4461d-13A	15	15	51	4	a	Behind	15.48	0	Added	
A3	BXA-70063-6CF-4	71	11.2	9	5	a	Front	33.48	0	Retained	04/11/2021
M51	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15				Member			Retained	04/11/2021
OVP	RRFDC-6627-PF-48	28.9	15.7				Member			Retained	04/11/2021
M109	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15				Member			Retained	04/11/2021
M80A	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15				Member			Retained	04/11/2021

Plan View

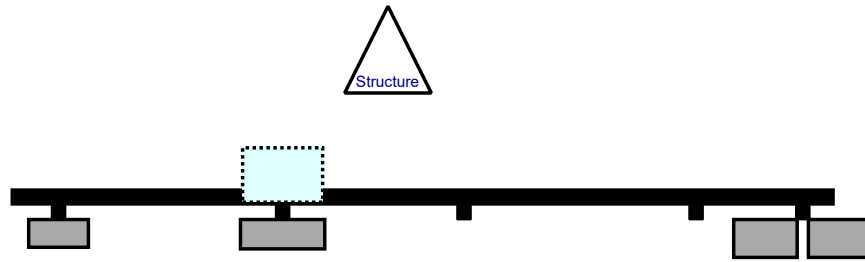


Front View - Looking at Structure

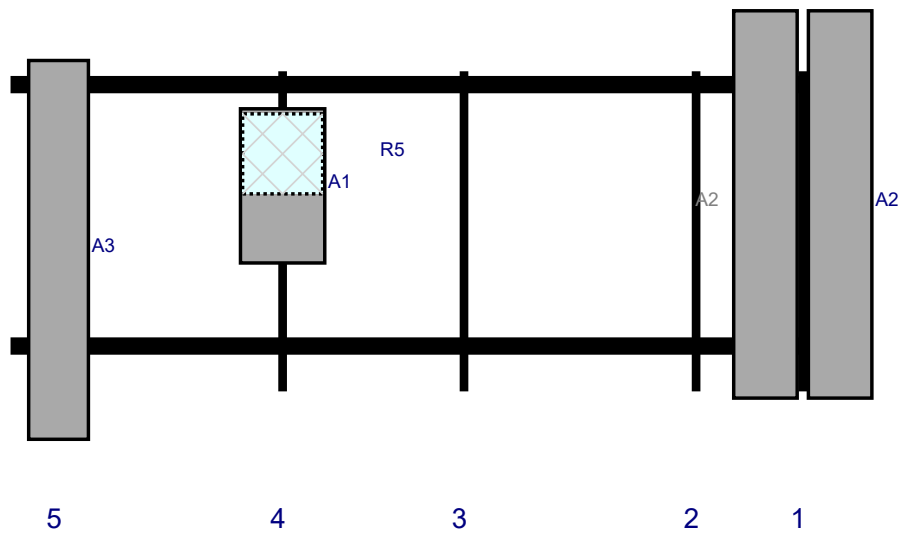


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	SBNHH-1D65B	72.6	11.9	148.5	1	a	Front	24.96	7	Retained	04/11/2021
A2	SBNHH-1D65B	72.6	11.9	148.5	1	b	Front	24.96	-7	Retained	04/11/2021
A1	MT6413-77A	28.9	15.8	51	4	a	Front	21.48	0	Added	
R5	RF4461d-13A	15	15	51	4	a	Behind	15.48	0	Added	
A3	BXA-70063-6CF-4	71	11.2	9	5	a	Front	33.48	0	Retained	04/11/2021

Plan View



Front View - Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	SBNHH-1D65B	72.6	11.9	148.5	1	a	Front	24.96	7	Retained	04/11/2021
A2	SBNHH-1D65B	72.6	11.9	148.5	1	b	Front	24.96	-7	Retained	04/11/2021
A1	MT6413-77A	28.9	15.8	51	4	a	Front	21.48	0	Added	
R5	RF4461d-13A	15	15	51	4	a	Behind	15.48	0	Added	
A3	BXA-70063-6CF-4	71	11.2	9	5	a	Front	33.48	0	Retained	04/11/2021





Antenna Mount Mapping Form (PATENT PENDING)

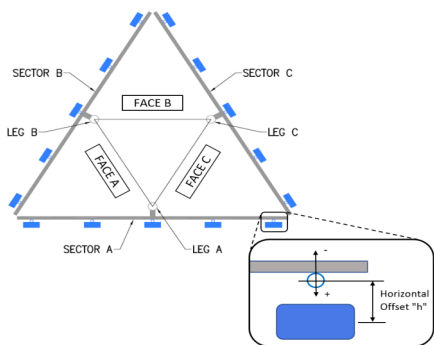
FCC #
1055335

Tower Owner:	CC	Mapping Date:	4/11/2021
Site Name:	CC-WEST HARTFORD CT 806370	Tower Type:	Monopole
Site Number or ID:	VZW: 468977; West Hartford CT	Tower Height (Ft.):	151
Mapping Contractor:	RKS Design & Engineering, LLC	Mount Elevation (Ft.):	144.83

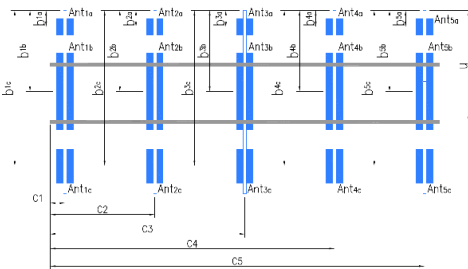
This antenna mapping form is the property of TES and under PATENT PENDING. The formation contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is prohibited except by express written permission of TES. All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warranting the usability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements.

Please insert the sketches of the antenna mount from the "Sketches" tab with dimensions and members here.

Mount Pipe Configuration and Geometries (Unit = Inches)							
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	PIPE 2.375" Ø X 0.15" X 71" LON	50.00	6.00	C1	PIPE 2.375" Ø X 0.15" X 71" LON	50.00	6.00
A2	PIPE 2.375" Ø X 0.18" X 60" LON	51.50	26.00	C2	PIPE 2.375" Ø X 0.18" X 60" LON	51.50	26.00
A3	PIPE 2.375" Ø X 0.18" X 60" LON	51.50	69.50	C3	PIPE 2.375" Ø X 0.18" X 60" LON	51.50	69.50
A4	PIPE 2.375" Ø X 0.18" X 60" LON	51.50	125.50	C4	PIPE 2.375" Ø X 0.18" X 60" LON	51.50	125.50
A5	PIPE 2.375" Ø X 0.18" X 60" LON	51.50	145.50	C5	PIPE 2.375" Ø X 0.18" X 60" LON	51.50	145.50
A6				C6			
B1	PIPE 2.375" Ø X 0.15" X 71" LON	50.00	6.00	D1			
B2	PIPE 2.375" Ø X 0.18" X 60" LON	51.50	26.00	D2			
B3	PIPE 2.375" Ø X 0.18" X 60" LON	51.50	69.50	D3			
B4	PIPE 2.375" Ø X 0.18" X 60" LON	51.50	125.50	D4			
B5	PIPE 2.375" Ø X 0.18" X 60" LON	51.50	145.50	D5			
B6				D6			
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :							
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :							
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :							
Please enter additional information or comments below.							
Tower Face Width at Mount Elev. (ft.):				Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):			
				26			
For T-Arms/Platforms on monopoles, report the weld size from the main standoff to the plate bolting into the collar mount.							
				0.375			



Ants. Items	Enter antenna model. If not labeled, enter "Unknown".					Mounting Locations (Units are inches and degrees)				Photos of antennas
	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances "b _{3a} , b _{2a} , b _{1a} ,..." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)		Photo Numbers
Sector A										
Ant _{1a}	(2)SBNHH-1D65B	11.90	7.10	72.00		146.913	25.00	10.50	30.00	50, 72
Ant _{1b}	RFV01U-D1A	15.00	10.00	15.00		147.372	19.50	-8.50		72, 155
Ant _{2a}										
Ant _{2b}										
Ant _{2c}										
Ant _{3a}										
Ant _{3b}										
Ant _{3c}										
Ant _{4a}										
Ant _{4b}	BXA-70063-6CF-EDIN	11.20	5.20	71.00		146.163	35.50	9.00	30.00	50, 74
Ant _{4c}	RFV01U-D2A	15.00	8.00	15.00		147.83	15.50	-8.50		74
Ant _{5a}										
Ant _{5b}	BXA-70063-6CF-EDIN	11.20	5.20	71.00		146.163	35.50	11.00	30.00	50, 74
Ant _{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										



Antenna Layout (Looking Out From Tower)

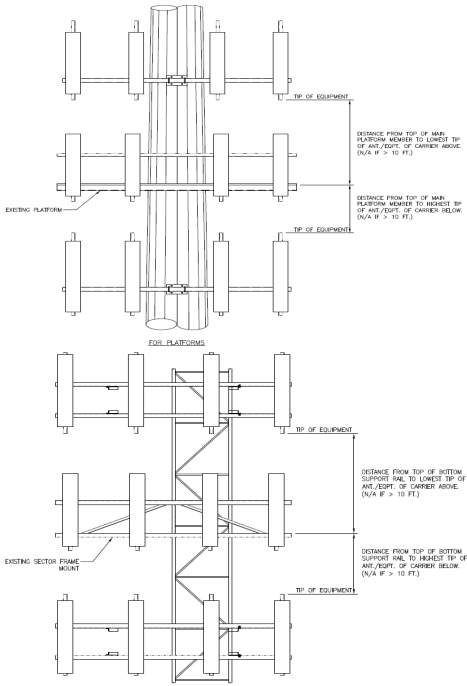
Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector			
Sector A:	30.00	Deg	Leg A:		Deg		
Sector B:	150.00	Deg	Leg B:		Deg		
Sector C:	270.00	Deg	Leg C:		Deg		
Sector D:		Deg	Leg D:		Deg		

Sector B												
Ant _{1a}												
Ant _{1b}	(2)SBNHH-1D65B	11.90	7.10	72.00		146.913	25.00	10.50	150.00	57,207		
Ant _{1c}	RFV01U-D1A	15.00	10.00	15.00		147.372	19.50	-8.50		207		
Ant _{2a}												
Ant _{2b}												
Ant _{2c}												
Ant _{3a}												
Ant _{3b}												
Ant _{3c}												
Ant _{4a}												
Ant _{4b}	BXA-70063-6CF-EDIN	11.20	5.20	71.00		146.163	35.50	9.00	150.00	57,208		
Ant _{4c}	RFV01U-D2A	15.00	8.00	15.00		147.83	15.50	-8.50		208,219		
Ant _{5a}												
Ant _{5b}	BXA-70063-6CF-EDIN	11.20	5.20	71.00		146.163	35.50	11.00	150.00	208		
Ant _{5c}												
Ant on Standoff												
Ant on Standoff												
Ant on Tower												
Ant on Tower												

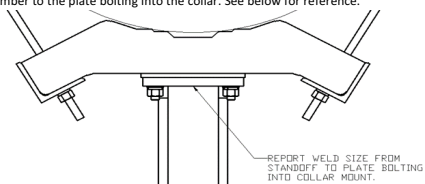
Please insert a photo of the mount centerline measurement here.

Sector C												
Ant _{1a}												
Ant _{1b}	(2)SBNHH-1D65B	11.90	7.10	72.00		146.913	25.00	10.50	270.00	65,231		
Ant _{1c}	RFV01U-D1A	15.00	10.00	15.00		147.372	19.50	-8.50		231		
Ant _{2a}												
Ant _{2b}												
Ant _{2c}												
Ant _{3a}												
Ant _{3b}												
Ant _{3c}												
Ant _{4a}												
Ant _{4b}	BXA-70063-6CF-EDIN	11.20	5.20	71.00		146.163	35.50	9.00	270.00	65,233		
Ant _{4c}	RFV01U-D2A	15.00	8.00	15.00		147.83	15.50	-8.50		233,245		
Ant _{5a}												
Ant _{5b}	BXA-70063-6CF-EDIN	11.20	5.20	71.00		146.163	35.50	11.00	270.00	65,233		
Ant _{5c}												
Ant on Standoff	RRFDC-6627-PF-48	15.75	10.25	18.50			59.50	7.50		233,255		
Ant on Standoff												
Ant on Tower												
Ant on Tower												

Sector D												
Ant _{1a}												
Ant _{1b}												
Ant _{1c}												
Ant _{2a}												
Ant _{2b}												
Ant _{2c}												
Ant _{3a}												
Ant _{3b}												
Ant _{3c}												
Ant _{4a}												
Ant _{4b}												
Ant _{4c}												
Ant _{5a}												
Ant _{5b}												
Ant _{5c}												
Ant on Standoff												
Ant on Standoff												
Ant on Tower												
Ant on Tower												



For T-Arms/Platforms on monopoles, record the weld size from the main standoff member to the plate bolting into the collar. See below for reference.



Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #
1	COAX TOTAL(8): (6) 1.5" Ø, (2) 1.52" Ø HYBRID	
2	GAP BETWEEN COLLAR MOUNT AND POLE SHAFT	342
3		
4		
5		
6		
7		
8		

Observed Obstructions to Tower Lighting System			
If the tower lighting system is being obstructed by the carrier's equipment (for example: a light nested by the antennas), please provide photos and fill in the information below.			Photo #
Description of Obstruction:			
Type of Light:		Photo #	Additional Comments:
Lighting Technology:		Photo #	
Elevation (AGL) at base of light (Ft.):		Photo #	
Is a service loop available?		Photo #	
Is beacon installed on an extension?		Photo #	

Mapping Notes
<p>1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)</p> <p>2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness</p> <p>3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab</p> <p>4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type</p> <p>5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required</p> <p>6. Please measure and report the size and length of all existing antenna mounting pipes.</p> <p>7. Please measure and report the antenna information for all sectors.</p> <p>8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.</p>

Standard Conditions
1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.



**PAUL J. FORD
& COMPANY**

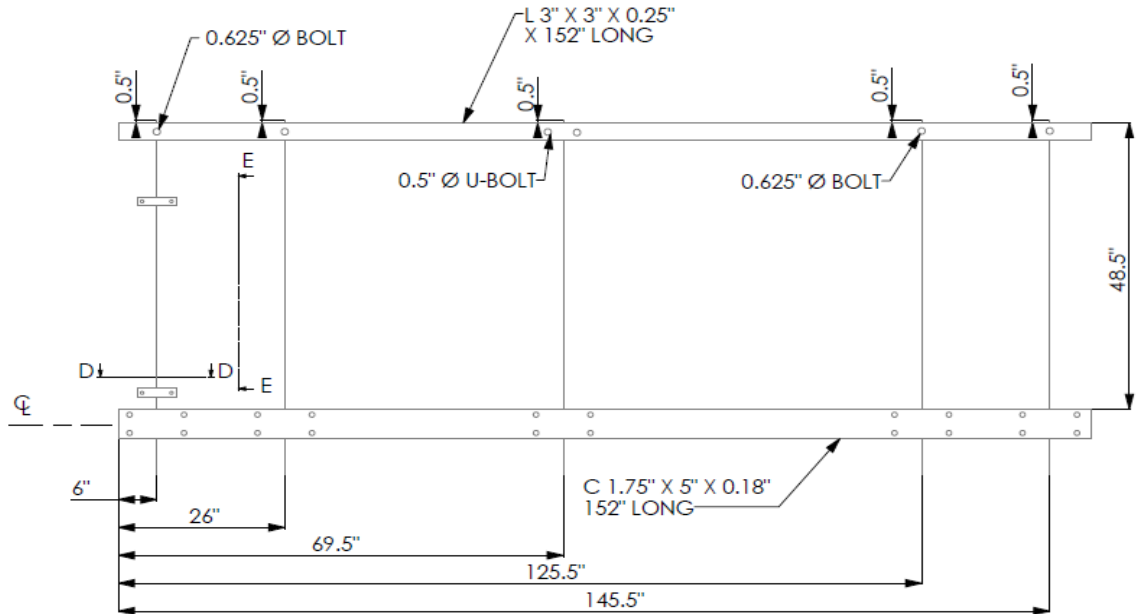
Antenna Mount Mapping Form (PATENT PENDING)

FCC #
1055335

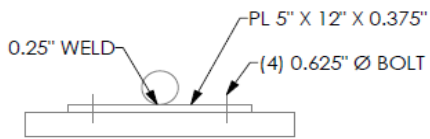
Tower Owner:	CC	Mapping Date:	4/11/2021
Site Name:	CC:WEST HARTFORD CT 806370	Tower Type:	Monopole
Site Number or ID:	VZW: 468977; West Hartford CT	Tower Height (Ft.):	151
Mapping Contractor:	RKS Design & Engineering, LLC	Mount Elevation (Ft.):	144.83

This antenna mapping form is the property of TES and under **PATENT PENDING**. The formation contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is prohibited except by express written permission of TES. All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warranting the usability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements.

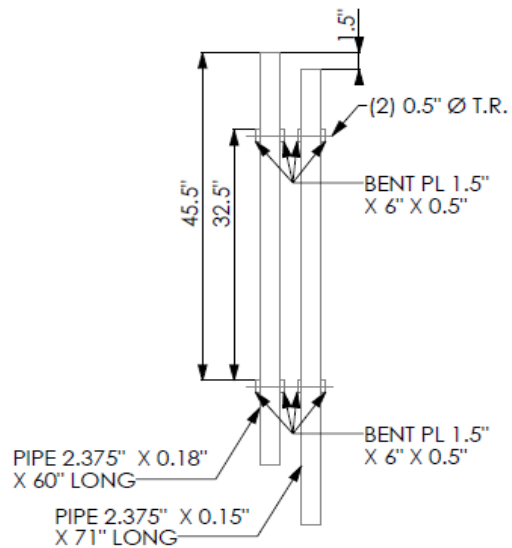
Please Insert Sketches of the Antenna Mount



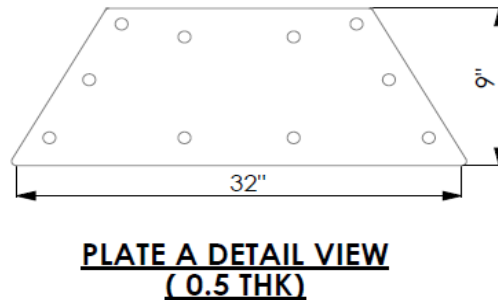
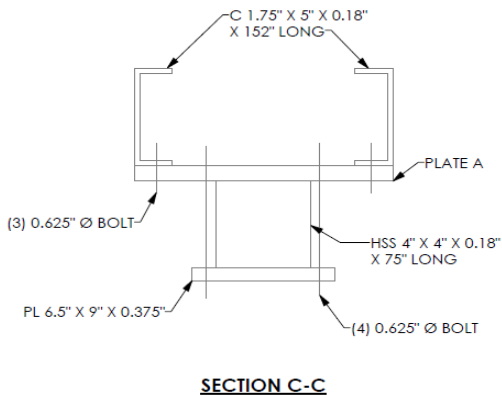
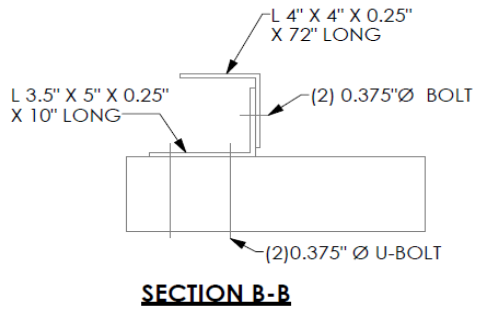
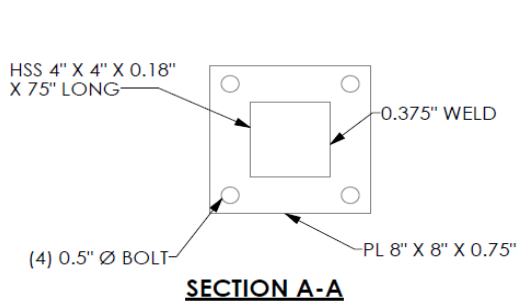
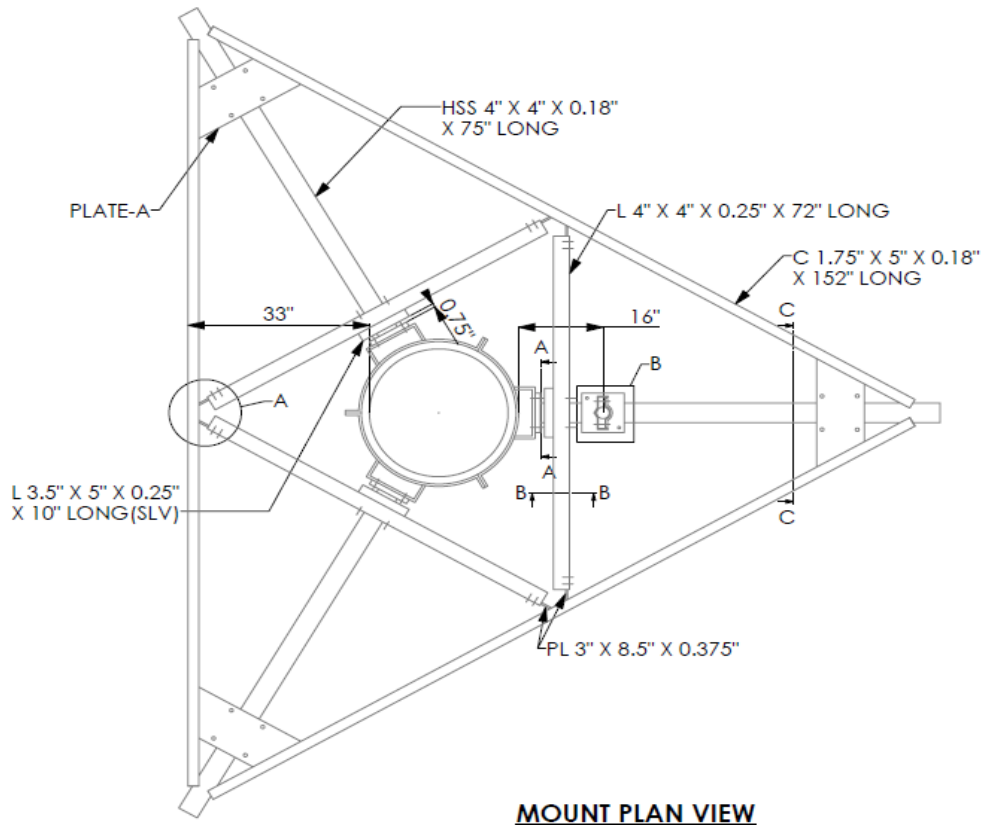
SECTION A, B & C

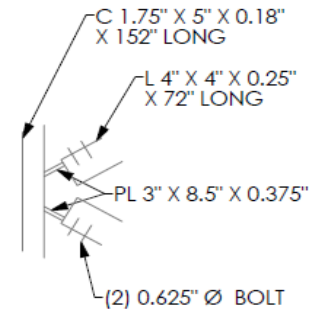


SECTION D-D

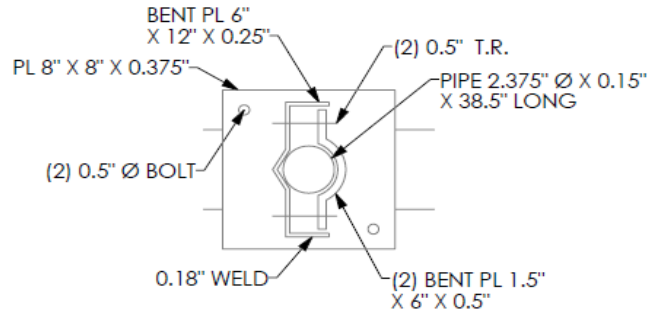


SECTION E-E





DETAIL-A



DETAIL-B

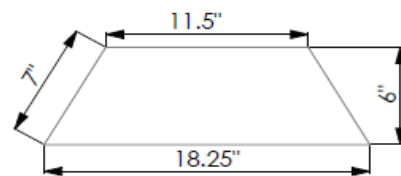
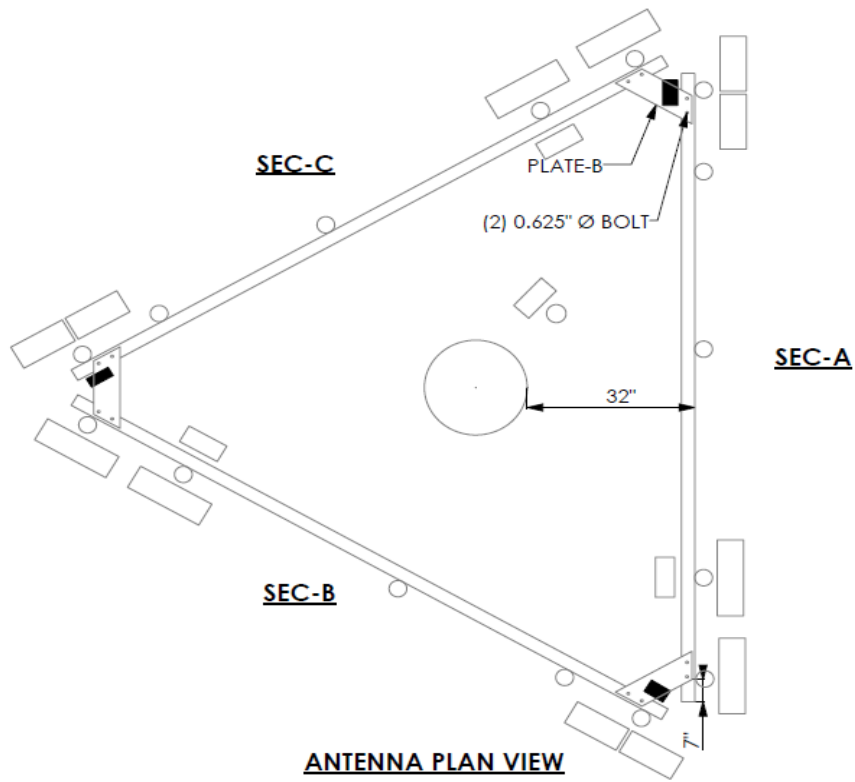
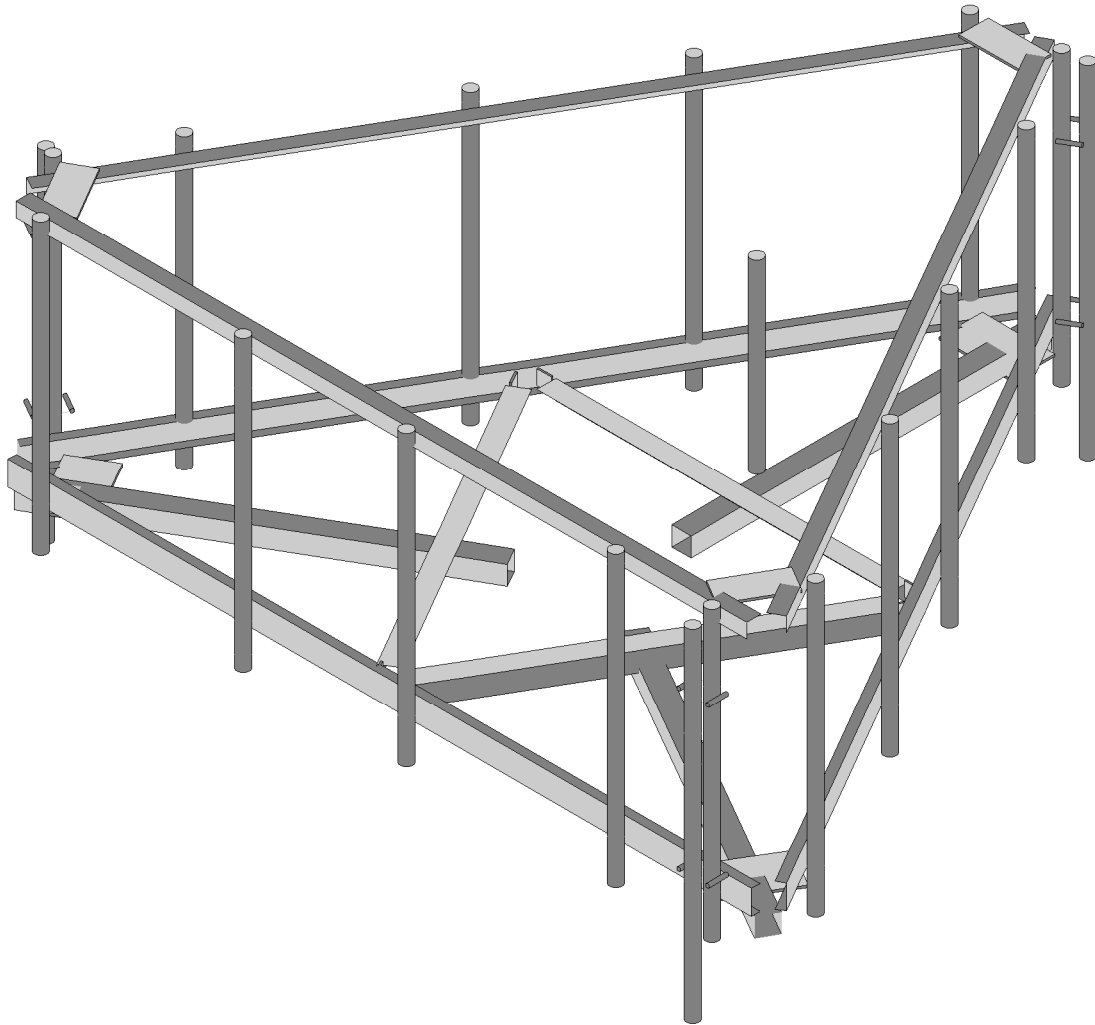


PLATE-B DETAIL VIEW
(0.5" THK)



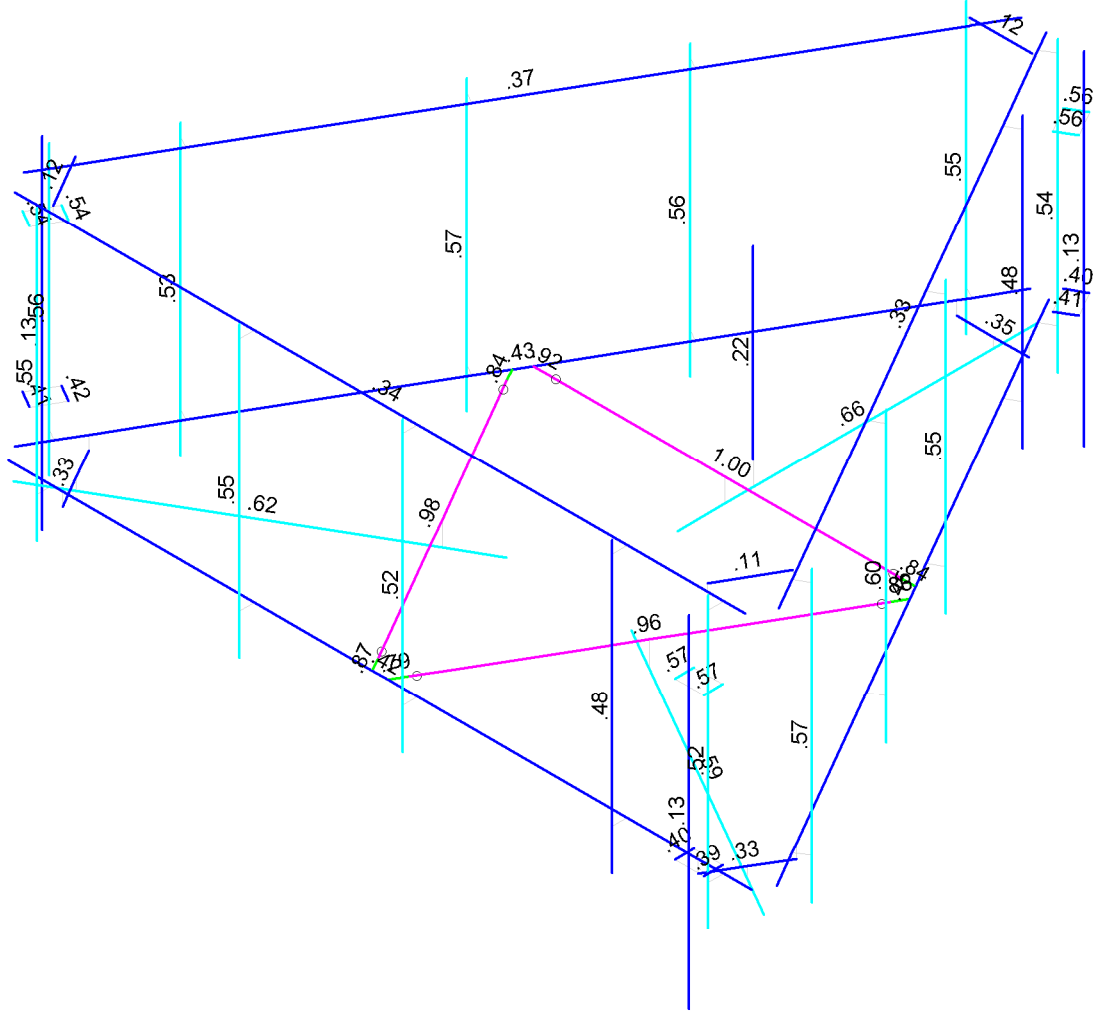


Envelope Only Solution

		SK - 1
		Jan 31, 2024 at 10:56 AM
	Rendered Model	5000382911-VZW_MT_LO_H.r3d

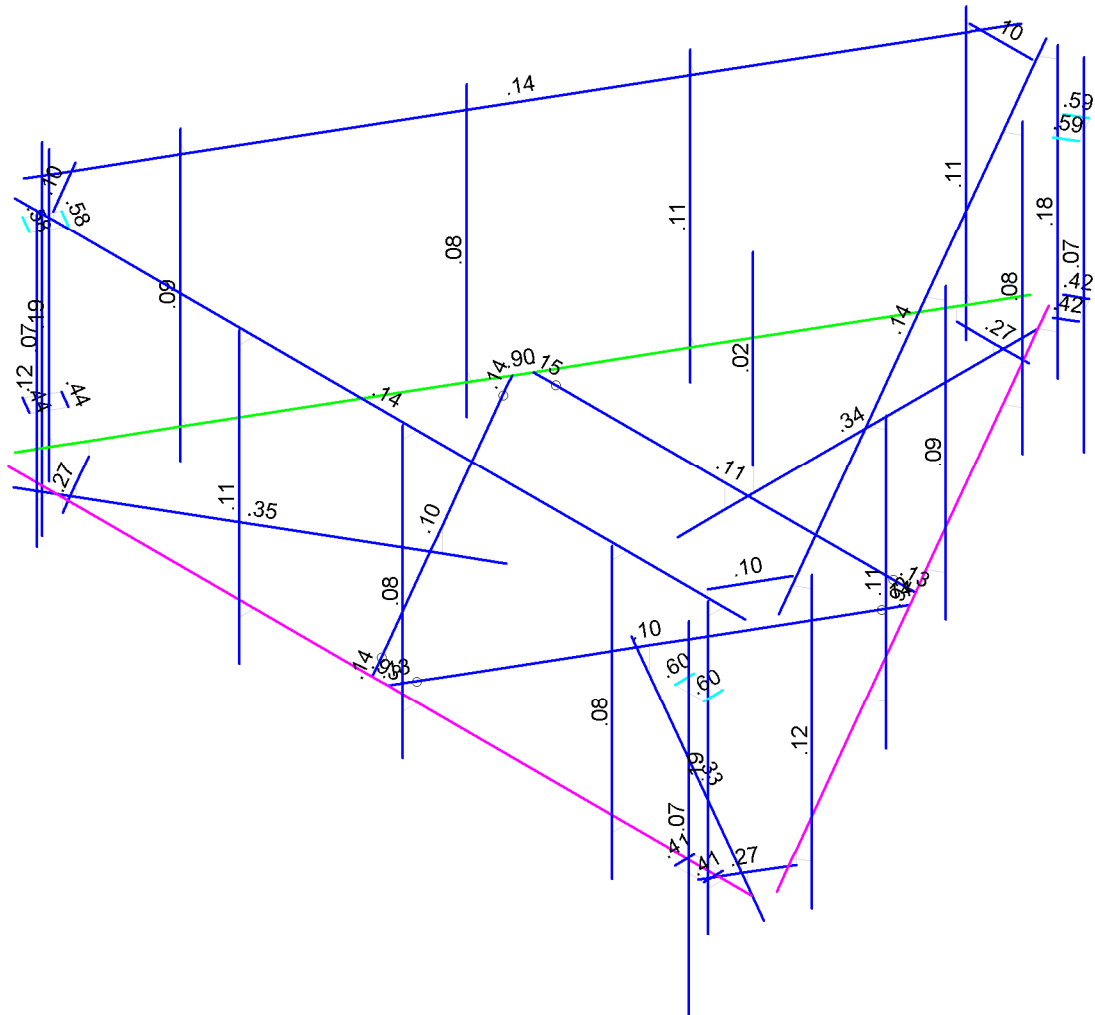


Code Check	
(Env.)	
■	No Calc
■	> 1.0
■	90-1.0
■	75-90
■	50-75
■	0-50



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

		SK - 2
		Jan 31, 2024 at 10:56 AM
	Bending Check	5000382911-VZW_MT_LO_H.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

		SK - 3
		Jan 31, 2024 at 10:57 AM
	Shear Check	5000382911-VZW_Mt_LO_H.r3d



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
1	Antenna D	None					93		
2	Antenna Di	None					93		
3	Antenna Wo (0 Deg)	None					93		
4	Antenna Wo (30 Deg)	None					93		
5	Antenna Wo (60 Deg)	None					93		
6	Antenna Wo (90 Deg)	None					93		
7	Antenna Wo (120 Deg)	None					93		
8	Antenna Wo (150 Deg)	None					93		
9	Antenna Wo (180 Deg)	None					93		
10	Antenna Wo (210 Deg)	None					93		
11	Antenna Wo (240 Deg)	None					93		
12	Antenna Wo (270 Deg)	None					93		
13	Antenna Wo (300 Deg)	None					93		
14	Antenna Wo (330 Deg)	None					93		
15	Antenna Wi (0 Deg)	None					93		
16	Antenna Wi (30 Deg)	None					93		
17	Antenna Wi (60 Deg)	None					93		
18	Antenna Wi (90 Deg)	None					93		
19	Antenna Wi (120 Deg)	None					93		
20	Antenna Wi (150 Deg)	None					93		
21	Antenna Wi (180 Deg)	None					93		
22	Antenna Wi (210 Deg)	None					93		
23	Antenna Wi (240 Deg)	None					93		
24	Antenna Wi (270 Deg)	None					93		
25	Antenna Wi (300 Deg)	None					93		
26	Antenna Wi (330 Deg)	None					93		
27	Antenna Wm (0 Deg)	None					93		
28	Antenna Wm (30 Deg)	None					93		
29	Antenna Wm (60 Deg)	None					93		
30	Antenna Wm (90 Deg)	None					93		
31	Antenna Wm (120 Deg)	None					93		
32	Antenna Wm (150 Deg)	None					93		
33	Antenna Wm (180 Deg)	None					93		
34	Antenna Wm (210 Deg)	None					93		
35	Antenna Wm (240 Deg)	None					93		
36	Antenna Wm (270 Deg)	None					93		
37	Antenna Wm (300 Deg)	None					93		
38	Antenna Wm (330 Deg)	None					93		
39	Structure D	None		-1				6	
40	Structure Di	None						55	6
41	Structure Wo (0 Deg)	None						110	
42	Structure Wo (30 Deg)	None						110	
43	Structure Wo (60 Deg)	None						110	
44	Structure Wo (90 Deg)	None						110	
45	Structure Wo (120 D...	None						110	
46	Structure Wo (150 D...	None						110	
47	Structure Wo (180 D...	None						110	
48	Structure Wo (210 D...	None						110	
49	Structure Wo (240 D...	None						110	
50	Structure Wo (270 D...	None						110	
51	Structure Wo (300 D...	None						110	
52	Structure Wo (330 D...	None						110	
53	Structure Wi (0 Deg)	None						110	

Basic Load Cases (Continued)

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
54 Structure Wi (30 Deg)	None						110	
55 Structure Wi (60 Deg)	None						110	
56 Structure Wi (90 Deg)	None						110	
57 Structure Wi (120 De..)	None						110	
58 Structure Wi (150 De..)	None						110	
59 Structure Wi (180 De..)	None						110	
60 Structure Wi (210 De..)	None						110	
61 Structure Wi (240 De..)	None						110	
62 Structure Wi (270 De..)	None						110	
63 Structure Wi (300 De..)	None						110	
64 Structure Wi (330 De..)	None						110	
65 Structure Wm (0 Deg)	None						110	
66 Structure Wm (30 De..)	None						110	
67 Structure Wm (60 De..)	None						110	
68 Structure Wm (90 De..)	None						110	
69 Structure Wm (120 D..)	None						110	
70 Structure Wm (150 D..)	None						110	
71 Structure Wm (180 D..)	None						110	
72 Structure Wm (210 D..)	None						110	
73 Structure Wm (240 D..)	None						110	
74 Structure Wm (270 D..)	None						110	
75 Structure Wm (300 D..)	None						110	
76 Structure Wm (330 D..)	None						110	
77 Lm1	None					1		
78 Lm2	None					1		
79 Lv1	None					1		
80 Lv2	None					1		
81 Antenna Ev	None					93		
82 Antenna Eh (0 Deg)	None					62		
83 Antenna Eh (90 Deg)	None					62		
84 Structure Ev	ELY		-.04					6
85 Structure Eh (0 Deg)	ELZ			-.1				6
86 Structure Eh (90 Deg)	ELX	.1						6
87 BLC 39 Transient Are..	None						66	
88 BLC 40 Transient Are..	None						66	
89 BLC 84 Transient Are..	None						90	
90 BLC 85 Transient Are..	None						90	
91 BLC 86 Transient Are..	None						90	

Load Combinations

Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
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								
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				

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
72	0.9D - 1.0Ev + 1.0Eh (240 Deg)	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.5	83	-.8...	E...	-.5	E...	-.8...
73	0.9D - 1.0Ev + 1.0Eh (270 Deg)	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82		83	-1	E...		E...	-1
74	0.9D - 1.0Ev + 1.0Eh (300 Deg)	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.5	83	-.8...	E...	.5	E...	-.8...
75	0.9D - 1.0Ev + 1.0Eh (330 Deg)	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.866	83	-.5	E...	.866	E...	-.5

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	TES Plate	PL1/2x10	Beam	RECT	A36 Gr.36	Typical	5	.104	41.667	.404
2	Mount Pipe	PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
3	Pipe Vertical	PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
4	Support Rail	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.44	1.23	1.23	.031
5	Support Rail Plate	PL1/2x6	Beam	RECT	A36 Gr.36	Typical	3	.063	9	.237
6	Standoff Tab	PL3/8X3	Beam	RECT	A36 Gr.36	Typical	1.125	.013	.844	.049
7	Corner Plate	PL1/2x9	Beam	RECT	A36 Gr.36	Typical	4.5	.094	30.375	.362
8	Standoff	HSS4X4X3	Beam	Tube	A500 Gr.B Rect	Typical	2.58	6.21	6.21	10
9	Standoff Brace	L4X4X4	Beam	Single Angle	A36 Gr.36	Typical	1.93	3	3	.044
10	Face Horizontal	C5X6.7	Beam	Channel	A36 Gr.36	Typical	1.97	.47	7.48	.055
11	Threaded rod	SR_0.625	Beam	BAR	A36 Gr.36	Typical	.307	.007	.007	.015

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

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M73	N142A	N141A		180	Face Horizontal	Beam	Channel	A36 Gr.36	Typical
2	M74	N147	N146			Face Horizontal	Beam	Channel	A36 Gr.36	Typical
3	M75	N152A	N151		180	Face Horizontal	Beam	Channel	A36 Gr.36	Typical
4	M76	N153A	N154A			Standoff	Beam	Tube	A500 Gr.B...	Typical
5	M77	N161B	N162A		90	Standoff Brace	Beam	Single Angle	A36 Gr.36	Typical
6	M78	N162	N161B			Standoff Tab	Beam	RECT	A36 Gr.36	Typical
7	M79	N162A	N158			Standoff Tab	Beam	RECT	A36 Gr.36	Typical
8	M80	N164	N163			RIGID	None	None	RIGID	Typical
9	M81	N170	N169			RIGID	None	None	RIGID	Typical
10	M82	N169A	N168			RIGID	None	None	RIGID	Typical
11	M83	N170A	N168A			RIGID	None	None	RIGID	Typical
12	M84	N170	N169A		90	Corner Plate	Beam	RECT	A36 Gr.36	Typical
13	M85	N171	N172			Standoff	Beam	Tube	A500 Gr.B...	Typical
14	M86	N222A	N223		90	Standoff Brace	Beam	Single Angle	A36 Gr.36	Typical
15	M87	N156	N222A			Standoff Tab	Beam	RECT	A36 Gr.36	Typical
16	M88	N223	N161			Standoff Tab	Beam	RECT	A36 Gr.36	Typical
17	M89	N178	N177			RIGID	None	None	RIGID	Typical
18	M90	N183	N180			RIGID	None	None	RIGID	Typical
19	M91	N182	N179			RIGID	None	None	RIGID	Typical
20	M92	N184	N181			RIGID	None	None	RIGID	Typical
21	M93	N183	N182		90	Corner Plate	Beam	RECT	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
22	M94	N185	N186			Standoff	Beam	Tube	A500 Gr.B...	Typical
23	M95	N225	N226		90	Standoff Brace	Beam	Single Angle	A36 Gr.36	Typical
24	M96	N159	N225			Standoff Tab	Beam	RECT	A36 Gr.36	Typical
25	M97	N226	N155			Standoff Tab	Beam	RECT	A36 Gr.36	Typical
26	M98	N192	N191			RIGID	None	None	RIGID	Typical
27	M99	N197	N194			RIGID	None	None	RIGID	Typical
28	M100	N196	N193			RIGID	None	None	RIGID	Typical
29	M101	N198	N195			RIGID	None	None	RIGID	Typical
30	M102	N197	N196		90	Corner Plate	Beam	RECT	A36 Gr.36	Typical
31	M103	N199	N198A		180	Support Rail	Beam	Single Angle	A36 Gr.36	Typical
32	M104	N204	N203		180	Support Rail	Beam	Single Angle	A36 Gr.36	Typical
33	M105	N209	N208		180	Support Rail	Beam	Single Angle	A36 Gr.36	Typical
34	M37	N93	N83			RIGID	None	None	RIGID	Typical
35	M38	N92	N82			RIGID	None	None	RIGID	Typical
36	M39	N90	N80			RIGID	None	None	RIGID	Typical
37	M40	N91	N81			RIGID	None	None	RIGID	Typical
38	M41	N89	N79			RIGID	None	None	RIGID	Typical
39	M42	N88	N78			RIGID	None	None	RIGID	Typical
40	M43	N86	N76			RIGID	None	None	RIGID	Typical
41	M44	N87	N77			RIGID	None	None	RIGID	Typical
42	M45	N85	N75			RIGID	None	None	RIGID	Typical
43	M46	N84	N74			RIGID	None	None	RIGID	Typical
44	MP5A	N97	N101			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
45	MP4A	N96	N100			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
46	MP3A	N95	N99			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
47	MP2A	N94	N98			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
48	M51	N102	N103			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
49	MP1A	N104	N105			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
50	M53	N106	N107			RIGID	None	None	RIGID	Typical
51	M54	N106	N108			RIGID	None	None	RIGID	Typical
52	M55	N112	N113			RIGID	None	None	RIGID	Typical
53	M56	N112	N114			RIGID	None	None	RIGID	Typical
54	M57	N115	N116			RIGID	None	None	RIGID	Typical
55	M58	N115	N117			RIGID	None	None	RIGID	Typical
56	M59	N109	N110			RIGID	None	None	RIGID	Typical
57	M60	N110	N109			RIGID	None	None	RIGID	Typical
58	M61	N109	N111			RIGID	None	None	RIGID	Typical
59	M62	N107	N110			Threaded rod	Beam	BAR	A36 Gr.36	Typical
60	M63	N108	N111			Threaded rod	Beam	BAR	A36 Gr.36	Typical
61	M64	N113	N116			Threaded rod	Beam	BAR	A36 Gr.36	Typical
62	M65	N114	N117			Threaded rod	Beam	BAR	A36 Gr.36	Typical
63	M66	N138A	N128			RIGID	None	None	RIGID	Typical
64	M67	N137	N127			RIGID	None	None	RIGID	Typical
65	M70	N134	N124			RIGID	None	None	RIGID	Typical
66	M71	N133	N123			RIGID	None	None	RIGID	Typical
67	M72	N131	N121			RIGID	None	None	RIGID	Typical
68	M73A	N132	N122			RIGID	None	None	RIGID	Typical
69	M74A	N130	N120			RIGID	None	None	RIGID	Typical
70	M75A	N129	N119			RIGID	None	None	RIGID	Typical
71	MP5C	N142C	N146A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
72	MP3C	N140B	N144A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
73	MP2C	N139A	N143B			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
74	M80A	N147A	N148			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
75	MP1C	N149	N150			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
76	M82A	N151A	N152			RIGID	None	None	RIGID	Typical
77	M83A	N151A	N153			RIGID	None	None	RIGID	Typical
78	M84A	N157	N158A			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
79	M85A	N157	N159A			RIGID	None	None	RIGID	Typical
80	M86A	N160	N161A			RIGID	None	None	RIGID	Typical
81	M87A	N160	N162B			RIGID	None	None	RIGID	Typical
82	M88A	N154	N155A			RIGID	None	None	RIGID	Typical
83	M89A	N155A	N154			RIGID	None	None	RIGID	Typical
84	M90A	N154	N156A			RIGID	None	None	RIGID	Typical
85	M91A	N152	N155A			Threaded rod	Beam	BAR	A36 Gr.36	Typical
86	M92A	N153	N156A			Threaded rod	Beam	BAR	A36 Gr.36	Typical
87	M93A	N158A	N161A			Threaded rod	Beam	BAR	A36 Gr.36	Typical
88	M94A	N159A	N162B			Threaded rod	Beam	BAR	A36 Gr.36	Typical
89	M95A	N183A	N173			RIGID	None	None	RIGID	Typical
90	M96A	N182A	N172A			RIGID	None	None	RIGID	Typical
91	M99A	N179A	N169B			RIGID	None	None	RIGID	Typical
92	M100A	N178A	N168B			RIGID	None	None	RIGID	Typical
93	M101A	N176A	N166			RIGID	None	None	RIGID	Typical
94	M102A	N177A	N167			RIGID	None	None	RIGID	Typical
95	M103A	N175A	N165			RIGID	None	None	RIGID	Typical
96	M104A	N174	N164A			RIGID	None	None	RIGID	Typical
97	MP5B	N187	N191A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
98	MP3B	N185A	N189A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
99	MP2B	N184A	N188			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
100	M109	N192A	N193A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
101	MP1B	N194A	N195A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
102	M111	N196A	N197A			RIGID	None	None	RIGID	Typical
103	M112	N196A	N198B			RIGID	None	None	RIGID	Typical
104	M113	N202	N203A			RIGID	None	None	RIGID	Typical
105	M114	N202	N204A			RIGID	None	None	RIGID	Typical
106	M115	N205	N206			RIGID	None	None	RIGID	Typical
107	M116	N205	N207			RIGID	None	None	RIGID	Typical
108	M117	N199A	N200			RIGID	None	None	RIGID	Typical
109	M118	N200	N199A			RIGID	None	None	RIGID	Typical
110	M119	N199A	N201			RIGID	None	None	RIGID	Typical
111	M120	N197A	N200			Threaded rod	Beam	BAR	A36 Gr.36	Typical
112	M121	N198B	N201			Threaded rod	Beam	BAR	A36 Gr.36	Typical
113	M122	N203A	N206			Threaded rod	Beam	BAR	A36 Gr.36	Typical
114	M123	N204A	N207			Threaded rod	Beam	BAR	A36 Gr.36	Typical
115	M130	N221A	N219			RIGID	None	None	RIGID	Typical
116	OVP	N220	N219			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
117	M123A	N211	N210A			RIGID	None	None	RIGID	Typical
118	M124	N212	N211A			RIGID	None	None	RIGID	Typical
119	M125	N216A	N214A			RIGID	None	None	RIGID	Typical
120	M126	N217A	N215A			RIGID	None	None	RIGID	Typical
121	M127	N221	N219A			RIGID	None	None	RIGID	Typical
122	M128	N222	N220A			RIGID	None	None	RIGID	Typical
123	M129	N222	N211		90	Support Rail Pl...	Beam	RECT	A36 Gr.36	Typical
124	M130A	N221	N217A		90	Support Rail Pl...	Beam	RECT	A36 Gr.36	Typical
125	M131	N212	N216A		90	Support Rail Pl...	Beam	RECT	A36 Gr.36	Typical
126	M126A	N213	N211B			RIGID	None	None	RIGID	Typical
127	M127A	N214B	N212B			RIGID	None	None	RIGID	Typical
128	MP4C	N215B	N216B			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
129	M129A	N220B	N218A			RIGID	None	None	RIGID	Typical
130	M130B	N221B	N219B			RIGID	None	None	RIGID	Typical
131	MP4B	N222B	N223A			Mount Pipe	Beam	Pipe	A53 Gr.B	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	M73						Yes				None
2	M74						Yes				None
3	M75						Yes				None
4	M76						Yes				None
5	M77	OOOOOX	OOOOOX				Yes				None
6	M78						Yes				None
7	M79						Yes				None
8	M80						Yes	** NA **			None
9	M81						Yes	** NA **			None
10	M82						Yes	** NA **			None
11	M83						Yes	** NA **			None
12	M84						Yes				None
13	M85						Yes				None
14	M86	OOOOOX	OOOOOX				Yes				None
15	M87						Yes				None
16	M88						Yes				None
17	M89						Yes	** NA **			None
18	M90						Yes	** NA **			None
19	M91						Yes	** NA **			None
20	M92						Yes	** NA **			None
21	M93						Yes				None
22	M94						Yes				None
23	M95	OOOOOX	OOOOOX				Yes				None
24	M96						Yes				None
25	M97						Yes				None
26	M98						Yes	** NA **			None
27	M99						Yes	** NA **			None
28	M100						Yes	** NA **			None
29	M101						Yes	** NA **			None
30	M102						Yes	** NA **			None
31	M103						Yes				None
32	M104						Yes				None
33	M105						Yes				None
34	M37	OOOXOX					Yes	** NA **			None
35	M38						Yes	** NA **			None
36	M39						Yes	** NA **			None
37	M40	OOOXOX					Yes	** NA **			None
38	M41	OOOXOX					Yes	** NA **			None
39	M42						Yes	** NA **			None
40	M43						Yes	** NA **			None
41	M44	OOOXOX					Yes	** NA **			None
42	M45	OOOXOX					Yes	** NA **			None
43	M46						Yes	** NA **			None
44	MP5A						Yes				None
45	MP4A						Yes				None
46	MP3A						Yes				None
47	MP2A						Yes				None
48	M51						Yes				None
49	MP1A						Yes	Default			None
50	M53	OOOXOX					Yes	** NA **			None
51	M54	OOOXOX					Yes	** NA **			None
52	M55	OOOXOX					Yes	** NA **			None
53	M56	OOOXOX					Yes	** NA **			None
54	M57						Yes	** NA **			None
55	M58						Yes	** NA **			None
56	M59						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..
57	M60						Yes	** NA **			None
58	M61						Yes	** NA **			None
59	M62						Yes				None
60	M63						Yes				None
61	M64						Yes				None
62	M65						Yes				None
63	M66	OOOXOX					Yes	** NA **			None
64	M67						Yes	** NA **			None
65	M70	OOOXOX					Yes	** NA **			None
66	M71						Yes	** NA **			None
67	M72						Yes	** NA **			None
68	M73A	OOOXOX					Yes	** NA **			None
69	M74A	OOOXOX					Yes	** NA **			None
70	M75A						Yes	** NA **			None
71	MP5C						Yes				None
72	MP3C						Yes				None
73	MP2C						Yes				None
74	M80A						Yes				None
75	MP1C						Yes				None
76	M82A	OOOXOX					Yes	** NA **			None
77	M83A	OOOXOX					Yes	** NA **			None
78	M84A	OOOXOX					Yes	** NA **			None
79	M85A	OOOXOX					Yes	** NA **			None
80	M86A						Yes	** NA **			None
81	M87A						Yes	** NA **			None
82	M88A						Yes	** NA **			None
83	M89A						Yes	** NA **			None
84	M90A						Yes	** NA **			None
85	M91A						Yes				None
86	M92A						Yes				None
87	M93A						Yes				None
88	M94A						Yes				None
89	M95A	OOOXOX					Yes	** NA **			None
90	M96A						Yes	** NA **			None
91	M99A	OOOXOX					Yes	** NA **			None
92	M100A						Yes	** NA **			None
93	M101A						Yes	** NA **			None
94	M102A	OOOXOX					Yes	** NA **			None
95	M103A	OOOXOX					Yes	** NA **			None
96	M104A						Yes	** NA **			None
97	MP5B						Yes				None
98	MP3B						Yes				None
99	MP2B						Yes				None
100	M109						Yes				None
101	MP1B						Yes				None
102	M111	OOOXOX					Yes	** NA **			None
103	M112	OOOXOX					Yes	** NA **			None
104	M113	OOOXOX					Yes	** NA **			None
105	M114	OOOXOX					Yes	** NA **			None
106	M115						Yes	** NA **			None
107	M116						Yes	** NA **			None
108	M117						Yes	** NA **			None
109	M118						Yes	** NA **			None
110	M119						Yes	** NA **			None
111	M120						Yes				None
112	M121						Yes				None
113	M122						Yes				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...
114	M123						Yes				None
115	M130						Yes	** NA **			None
116	OVP						Yes				None
117	M123A						Yes	** NA **			None
118	M124						Yes	** NA **			None
119	M125						Yes	** NA **			None
120	M126						Yes	** NA **			None
121	M127						Yes	** NA **			None
122	M128						Yes	** NA **			None
123	M129						Yes				None
124	M130A						Yes				None
125	M131						Yes				None
126	M126A						Yes	** NA **			None
127	M127A	OOOXOX					Yes	** NA **			None
128	MP4C						Yes				None
129	M129A						Yes	** NA **			None
130	M130B	OOOXOX					Yes	** NA **			None
131	MP4B						Yes				None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	Y	-28.65	.79
2	MP4A	My	-.021	.79
3	MP4A	Mz	0	.79
4	MP4A	Y	-28.65	2.79
5	MP4A	My	-.021	2.79
6	MP4A	Mz	0	2.79
7	MP4B	Y	-28.65	.79
8	MP4B	My	.011	.79
9	MP4B	Mz	-.019	.79
10	MP4B	Y	-28.65	2.79
11	MP4B	My	.011	2.79
12	MP4B	Mz	-.019	2.79
13	MP4C	Y	-28.65	.79
14	MP4C	My	.016	.79
15	MP4C	Mz	.014	.79
16	MP4C	Y	-28.65	2.79
17	MP4C	My	.016	2.79
18	MP4C	Mz	.014	2.79
19	MP1A	Y	-20	.33
20	MP1A	My	-.015	.33
21	MP1A	Mz	.012	.33
22	MP1A	Y	-20	3.83
23	MP1A	My	-.015	3.83
24	MP1A	Mz	.012	3.83
25	MP1B	Y	-20	.33
26	MP1B	My	-.003	.33
27	MP1B	Mz	-.019	.33
28	MP1B	Y	-20	3.83
29	MP1B	My	-.003	3.83
30	MP1B	Mz	-.019	3.83
31	MP1C	Y	-20	.33
32	MP1C	My	.019	.33
33	MP1C	Mz	.000705	.33
34	MP1C	Y	-20	3.83

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
35	MP1C	My	.019	3.83
36	MP1C	Mz	.000705	3.83
37	MP1A	Y	-20	.33
38	MP1A	My	-.015	.33
39	MP1A	Mz	-.012	.33
40	MP1A	Y	-20	3.83
41	MP1A	My	-.015	3.83
42	MP1A	Mz	-.012	3.83
43	MP1B	Y	-20	.33
44	MP1B	My	.018	.33
45	MP1B	Mz	-.007	.33
46	MP1B	Y	-20	3.83
47	MP1B	My	.018	3.83
48	MP1B	Mz	-.007	3.83
49	MP1C	Y	-20	.33
50	MP1C	My	.004	.33
51	MP1C	Mz	.019	.33
52	MP1C	Y	-20	3.83
53	MP1C	My	.004	3.83
54	MP1C	Mz	.019	3.83
55	MP5A	Y	-8.5	.79
56	MP5A	My	-.006	.79
57	MP5A	Mz	0	.79
58	MP5A	Y	-8.5	4.79
59	MP5A	My	-.006	4.79
60	MP5A	Mz	0	4.79
61	MP5B	Y	-8.5	.79
62	MP5B	My	0	.79
63	MP5B	Mz	-.006	.79
64	MP5B	Y	-8.5	4.79
65	MP5B	My	0	4.79
66	MP5B	Mz	-.006	4.79
67	MP5C	Y	-8.5	.79
68	MP5C	My	.006	.79
69	MP5C	Mz	.003	.79
70	MP5C	Y	-8.5	4.79
71	MP5C	My	.006	4.79
72	MP5C	Mz	.003	4.79
73	M51	Y	-84.4	1.63
74	M51	My	.037	1.63
75	M51	Mz	-.021	1.63
76	MP4A	Y	-79.1	1.29
77	MP4A	My	.034	1.29
78	MP4A	Mz	-.02	1.29
79	MP4B	Y	-79.1	1.29
80	MP4B	My	.034	1.29
81	MP4B	Mz	-.02	1.29
82	MP4C	Y	-79.1	1.29
83	MP4C	My	.034	1.29
84	MP4C	Mz	-.02	1.29
85	OVP	Y	-32	.5
86	OVP	My	0	.5
87	OVP	Mz	0	.5
88	M109	Y	-84.4	1.63
89	M109	My	.037	1.63
90	M109	Mz	-.021	1.63
91	M80A	Y	-84.4	1.63



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
92	M80A	My	.037	1.63
93	M80A	Mz	-.021	1.63

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	Y	-47.684	.79
2	MP4A	My	-.036	.79
3	MP4A	Mz	0	.79
4	MP4A	Y	-47.684	2.79
5	MP4A	My	-.036	2.79
6	MP4A	Mz	0	2.79
7	MP4B	Y	-47.684	.79
8	MP4B	My	.018	.79
9	MP4B	Mz	-.031	.79
10	MP4B	Y	-47.684	2.79
11	MP4B	My	.018	2.79
12	MP4B	Mz	-.031	2.79
13	MP4C	Y	-47.684	.79
14	MP4C	My	.027	.79
15	MP4C	Mz	.023	.79
16	MP4C	Y	-47.684	2.79
17	MP4C	My	.027	2.79
18	MP4C	Mz	.023	2.79
19	MP1A	Y	-96.978	.33
20	MP1A	My	-.073	.33
21	MP1A	Mz	.057	.33
22	MP1A	Y	-96.978	3.83
23	MP1A	My	-.073	3.83
24	MP1A	Mz	.057	3.83
25	MP1B	Y	-96.978	.33
26	MP1B	My	-.013	.33
27	MP1B	Mz	-.091	.33
28	MP1B	Y	-96.978	3.83
29	MP1B	My	-.013	3.83
30	MP1B	Mz	-.091	3.83
31	MP1C	Y	-96.978	.33
32	MP1C	My	.092	.33
33	MP1C	Mz	.003	.33
34	MP1C	Y	-96.978	3.83
35	MP1C	My	.092	3.83
36	MP1C	Mz	.003	3.83
37	MP1A	Y	-96.978	.33
38	MP1A	My	-.073	.33
39	MP1A	Mz	-.057	.33
40	MP1A	Y	-96.978	3.83
41	MP1A	My	-.073	3.83
42	MP1A	Mz	-.057	3.83
43	MP1B	Y	-96.978	.33
44	MP1B	My	.085	.33
45	MP1B	Mz	-.035	.33
46	MP1B	Y	-96.978	3.83
47	MP1B	My	.085	3.83
48	MP1B	Mz	-.035	3.83
49	MP1C	Y	-96.978	.33
50	MP1C	My	.019	.33
51	MP1C	Mz	.09	.33

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
52	MP1C	Y	-96.978	3.83
53	MP1C	My	.019	3.83
54	MP1C	Mz	.09	3.83
55	MP5A	Y	-82.733	.79
56	MP5A	My	-.062	.79
57	MP5A	Mz	0	.79
58	MP5A	Y	-82.733	4.79
59	MP5A	My	-.062	4.79
60	MP5A	Mz	0	4.79
61	MP5B	Y	-82.733	.79
62	MP5B	My	0	.79
63	MP5B	Mz	-.062	.79
64	MP5B	Y	-82.733	4.79
65	MP5B	My	0	4.79
66	MP5B	Mz	-.062	4.79
67	MP5C	Y	-82.733	.79
68	MP5C	My	.054	.79
69	MP5C	Mz	.031	.79
70	MP5C	Y	-82.733	4.79
71	MP5C	My	.054	4.79
72	MP5C	Mz	.031	4.79
73	M51	Y	-72.219	1.63
74	M51	My	.031	1.63
75	M51	Mz	-.018	1.63
76	MP4A	Y	-72.957	1.29
77	MP4A	My	.032	1.29
78	MP4A	Mz	-.018	1.29
79	MP4B	Y	-72.957	1.29
80	MP4B	My	.032	1.29
81	MP4B	Mz	-.018	1.29
82	MP4C	Y	-72.957	1.29
83	MP4C	My	.032	1.29
84	MP4C	Mz	-.018	1.29
85	OVP	Y	-120.561	.5
86	OVP	My	0	.5
87	OVP	Mz	0	.5
88	M109	Y	-72.219	1.63
89	M109	My	.031	1.63
90	M109	Mz	-.018	1.63
91	M80A	Y	-72.219	1.63
92	M80A	My	.031	1.63
93	M80A	Mz	-.018	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	0	.79
2	MP4A	Z	-67.989	.79
3	MP4A	Mx	0	.79
4	MP4A	X	0	2.79
5	MP4A	Z	-67.989	2.79
6	MP4A	Mx	0	2.79
7	MP4B	X	0	.79
8	MP4B	Z	-34.909	.79
9	MP4B	Mx	.023	.79
10	MP4B	X	0	2.79
11	MP4B	Z	-34.909	2.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
12	MP4B	Mx	.023	2.79
13	MP4C	X	0	.79
14	MP4C	Z	-49.765	.79
15	MP4C	Mx	-.024	.79
16	MP4C	X	0	2.79
17	MP4C	Z	-49.765	2.79
18	MP4C	Mx	-.024	2.79
19	MP1A	X	0	.33
20	MP1A	Z	-118.551	.33
21	MP1A	Mx	-.069	.33
22	MP1A	X	0	3.83
23	MP1A	Z	-118.551	3.83
24	MP1A	Mx	-.069	3.83
25	MP1B	X	0	.33
26	MP1B	Z	-67.882	.33
27	MP1B	Mx	.064	.33
28	MP1B	X	0	3.83
29	MP1B	Z	-67.882	3.83
30	MP1B	Mx	.064	3.83
31	MP1C	X	0	.33
32	MP1C	Z	-90.637	.33
33	MP1C	Mx	-.003	.33
34	MP1C	X	0	3.83
35	MP1C	Z	-90.637	3.83
36	MP1C	Mx	-.003	3.83
37	MP1A	X	0	.33
38	MP1A	Z	-118.551	.33
39	MP1A	Mx	.069	.33
40	MP1A	X	0	3.83
41	MP1A	Z	-118.551	3.83
42	MP1A	Mx	.069	3.83
43	MP1B	X	0	.33
44	MP1B	Z	-67.882	.33
45	MP1B	Mx	.024	.33
46	MP1B	X	0	3.83
47	MP1B	Z	-67.882	3.83
48	MP1B	Mx	.024	3.83
49	MP1C	X	0	.33
50	MP1C	Z	-90.637	.33
51	MP1C	Mx	-.084	.33
52	MP1C	X	0	3.83
53	MP1C	Z	-90.637	3.83
54	MP1C	Mx	-.084	3.83
55	MP5A	X	0	.79
56	MP5A	Z	-162.873	.79
57	MP5A	Mx	0	.79
58	MP5A	X	0	4.79
59	MP5A	Z	-162.873	4.79
60	MP5A	Mx	0	4.79
61	MP5B	X	0	.79
62	MP5B	Z	-89.464	.79
63	MP5B	Mx	.067	.79
64	MP5B	X	0	4.79
65	MP5B	Z	-89.464	4.79
66	MP5B	Mx	.067	4.79
67	MP5C	X	0	.79
68	MP5C	Z	-144.521	.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
69	MP5C	Mx	-.054	.79
70	MP5C	X	0	4.79
71	MP5C	Z	-144.521	4.79
72	MP5C	Mx	-.054	4.79
73	M51	X	0	1.63
74	M51	Z	-61.212	1.63
75	M51	Mx	.015	1.63
76	MP4A	X	0	1.29
77	MP4A	Z	-74.067	1.29
78	MP4A	Mx	.019	1.29
79	MP4B	X	0	1.29
80	MP4B	Z	-74.067	1.29
81	MP4B	Mx	.019	1.29
82	MP4C	X	0	1.29
83	MP4C	Z	-74.067	1.29
84	MP4C	Mx	.019	1.29
85	OVP	X	0	.5
86	OVP	Z	-128.233	.5
87	OVP	Mx	0	.5
88	M109	X	0	1.63
89	M109	Z	-61.212	1.63
90	M109	Mx	.015	1.63
91	M80A	X	0	1.63
92	M80A	Z	-61.212	1.63
93	M80A	Mx	.015	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	28.481	.79
2	MP4A	Z	-49.331	.79
3	MP4A	Mx	-.021	.79
4	MP4A	X	28.481	2.79
5	MP4A	Z	-49.331	2.79
6	MP4A	Mx	-.021	2.79
7	MP4B	X	11.941	.79
8	MP4B	Z	-20.683	.79
9	MP4B	Mx	.018	.79
10	MP4B	X	11.941	2.79
11	MP4B	Z	-20.683	2.79
12	MP4B	Mx	.018	2.79
13	MP4C	X	33.33	.79
14	MP4C	Z	-57.729	.79
15	MP4C	Mx	-.009	.79
16	MP4C	X	33.33	2.79
17	MP4C	Z	-57.729	2.79
18	MP4C	Mx	-.009	2.79
19	MP1A	X	50.831	.33
20	MP1A	Z	-88.041	.33
21	MP1A	Mx	-.089	.33
22	MP1A	X	50.831	3.83
23	MP1A	Z	-88.041	3.83
24	MP1A	Mx	-.089	3.83
25	MP1B	X	25.496	.33
26	MP1B	Z	-44.16	.33
27	MP1B	Mx	.038	.33
28	MP1B	X	25.496	3.83

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
29	MP1B	Z	-44.16	3.83
30	MP1B	Mx	.038	3.83
31	MP1C	X	58.257	.33
32	MP1C	Z	-100.904	.33
33	MP1C	Mx	.052	.33
34	MP1C	X	58.257	3.83
35	MP1C	Z	-100.904	3.83
36	MP1C	Mx	.052	3.83
37	MP1A	X	50.831	.33
38	MP1A	Z	-88.041	.33
39	MP1A	Mx	.013	.33
40	MP1A	X	50.831	3.83
41	MP1A	Z	-88.041	3.83
42	MP1A	Mx	.013	3.83
43	MP1B	X	25.496	.33
44	MP1B	Z	-44.16	.33
45	MP1B	Mx	.038	.33
46	MP1B	X	25.496	3.83
47	MP1B	Z	-44.16	3.83
48	MP1B	Mx	.038	3.83
49	MP1C	X	58.257	.33
50	MP1C	Z	-100.904	.33
51	MP1C	Mx	-.082	.33
52	MP1C	X	58.257	3.83
53	MP1C	Z	-100.904	3.83
54	MP1C	Mx	-.082	3.83
55	MP5A	X	72.26	.79
56	MP5A	Z	-125.159	.79
57	MP5A	Mx	-.054	.79
58	MP5A	X	72.26	4.79
59	MP5A	Z	-125.159	4.79
60	MP5A	Mx	-.054	4.79
61	MP5B	X	53.908	.79
62	MP5B	Z	-93.372	.79
63	MP5B	Mx	.07	.79
64	MP5B	X	53.908	4.79
65	MP5B	Z	-93.372	4.79
66	MP5B	Mx	.07	4.79
67	MP5C	X	81.436	.79
68	MP5C	Z	-141.052	.79
69	MP5C	Mx	0	.79
70	MP5C	X	81.436	4.79
71	MP5C	Z	-141.052	4.79
72	MP5C	Mx	0	4.79
73	M51	X	25.119	1.63
74	M51	Z	-43.508	1.63
75	M51	Mx	.022	1.63
76	MP4A	X	30.633	1.29
77	MP4A	Z	-53.058	1.29
78	MP4A	Mx	.027	1.29
79	MP4B	X	30.633	1.29
80	MP4B	Z	-53.058	1.29
81	MP4B	Mx	.027	1.29
82	MP4C	X	30.633	1.29
83	MP4C	Z	-53.058	1.29
84	MP4C	Mx	.027	1.29
85	OVP	X	55.94	.5



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
86	OVP	Z	-96.892	.5
87	OVP	Mx	0	.5
88	M109	X	25.119	1.63
89	M109	Z	-43.508	1.63
90	M109	Mx	.022	1.63
91	M80A	X	25.119	1.63
92	M80A	Z	-43.508	1.63
93	M80A	Mx	.022	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	30.232	.79
2	MP4A	Z	-17.455	.79
3	MP4A	Mx	-.023	.79
4	MP4A	X	30.232	2.79
5	MP4A	Z	-17.455	2.79
6	MP4A	Mx	-.023	2.79
7	MP4B	X	30.232	.79
8	MP4B	Z	-17.455	.79
9	MP4B	Mx	.023	.79
10	MP4B	X	30.232	2.79
11	MP4B	Z	-17.455	2.79
12	MP4B	Mx	.023	2.79
13	MP4C	X	54.412	.79
14	MP4C	Z	-31.415	.79
15	MP4C	Mx	.016	.79
16	MP4C	X	54.412	2.79
17	MP4C	Z	-31.415	2.79
18	MP4C	Mx	.016	2.79
19	MP1A	X	58.787	.33
20	MP1A	Z	-33.941	.33
21	MP1A	Mx	-.064	.33
22	MP1A	X	58.787	3.83
23	MP1A	Z	-33.941	3.83
24	MP1A	Mx	-.064	3.83
25	MP1B	X	58.787	.33
26	MP1B	Z	-33.941	.33
27	MP1B	Mx	.024	.33
28	MP1B	X	58.787	3.83
29	MP1B	Z	-33.941	3.83
30	MP1B	Mx	.024	3.83
31	MP1C	X	95.824	.33
32	MP1C	Z	-55.324	.33
33	MP1C	Mx	.089	.33
34	MP1C	X	95.824	3.83
35	MP1C	Z	-55.324	3.83
36	MP1C	Mx	.089	3.83
37	MP1A	X	58.787	.33
38	MP1A	Z	-33.941	.33
39	MP1A	Mx	-.024	.33
40	MP1A	X	58.787	3.83
41	MP1A	Z	-33.941	3.83
42	MP1A	Mx	-.024	3.83
43	MP1B	X	58.787	.33
44	MP1B	Z	-33.941	.33
45	MP1B	Mx	.064	.33

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
46	MP1B	X	58.787	3.83
47	MP1B	Z	-33.941	3.83
48	MP1B	Mx	.064	3.83
49	MP1C	X	95.824	.33
50	MP1C	Z	-55.324	.33
51	MP1C	Mx	-.032	.33
52	MP1C	X	95.824	3.83
53	MP1C	Z	-55.324	3.83
54	MP1C	Mx	-.032	3.83
55	MP5A	X	93.372	.79
56	MP5A	Z	-53.908	.79
57	MP5A	Mx	-.07	.79
58	MP5A	X	93.372	4.79
59	MP5A	Z	-53.908	4.79
60	MP5A	Mx	-.07	4.79
61	MP5B	X	125.159	.79
62	MP5B	Z	-72.26	.79
63	MP5B	Mx	.054	.79
64	MP5B	X	125.159	4.79
65	MP5B	Z	-72.26	4.79
66	MP5B	Mx	.054	4.79
67	MP5C	X	125.159	.79
68	MP5C	Z	-72.26	.79
69	MP5C	Mx	.054	.79
70	MP5C	X	125.159	4.79
71	MP5C	Z	-72.26	4.79
72	MP5C	Mx	.054	4.79
73	M51	X	38.757	1.63
74	M51	Z	-22.376	1.63
75	M51	Mx	.022	1.63
76	MP4A	X	47.514	1.29
77	MP4A	Z	-27.432	1.29
78	MP4A	Mx	.027	1.29
79	MP4B	X	47.514	1.29
80	MP4B	Z	-27.432	1.29
81	MP4B	Mx	.027	1.29
82	MP4C	X	47.514	1.29
83	MP4C	Z	-27.432	1.29
84	MP4C	Mx	.027	1.29
85	OVP	X	89.811	.5
86	OVP	Z	-51.853	.5
87	OVP	Mx	0	.5
88	M109	X	38.757	1.63
89	M109	Z	-22.376	1.63
90	M109	Mx	.022	1.63
91	M80A	X	38.757	1.63
92	M80A	Z	-22.376	1.63
93	M80A	Mx	.022	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	23.882	.79
2	MP4A	Z	0	.79
3	MP4A	Mx	-.018	.79
4	MP4A	X	23.882	2.79
5	MP4A	Z	0	2.79

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

Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]	
6	MP4A	Mx	-0.18	2.79
7	MP4B	X	56.962	.79
8	MP4B	Z	0	.79
9	MP4B	Mx	.021	.79
10	MP4B	X	56.962	2.79
11	MP4B	Z	0	2.79
12	MP4B	Mx	.021	2.79
13	MP4C	X	42.106	.79
14	MP4C	Z	0	.79
15	MP4C	Mx	.024	.79
16	MP4C	X	42.106	2.79
17	MP4C	Z	0	2.79
18	MP4C	Mx	.024	2.79
19	MP1A	X	50.992	.33
20	MP1A	Z	0	.33
21	MP1A	Mx	-.038	.33
22	MP1A	X	50.992	3.83
23	MP1A	Z	0	3.83
24	MP1A	Mx	-.038	3.83
25	MP1B	X	101.661	.33
26	MP1B	Z	0	.33
27	MP1B	Mx	-.013	.33
28	MP1B	X	101.661	3.83
29	MP1B	Z	0	3.83
30	MP1B	Mx	-.013	3.83
31	MP1C	X	78.906	.33
32	MP1C	Z	0	.33
33	MP1C	Mx	.075	.33
34	MP1C	X	78.906	3.83
35	MP1C	Z	0	3.83
36	MP1C	Mx	.075	3.83
37	MP1A	X	50.992	.33
38	MP1A	Z	0	.33
39	MP1A	Mx	-.038	.33
40	MP1A	X	50.992	3.83
41	MP1A	Z	0	3.83
42	MP1A	Mx	-.038	3.83
43	MP1B	X	101.661	.33
44	MP1B	Z	0	.33
45	MP1B	Mx	.089	.33
46	MP1B	X	101.661	3.83
47	MP1B	Z	0	3.83
48	MP1B	Mx	.089	3.83
49	MP1C	X	78.906	.33
50	MP1C	Z	0	.33
51	MP1C	Mx	.016	.33
52	MP1C	X	78.906	3.83
53	MP1C	Z	0	3.83
54	MP1C	Mx	.016	3.83
55	MP5A	X	89.464	.79
56	MP5A	Z	0	.79
57	MP5A	Mx	-.067	.79
58	MP5A	X	89.464	4.79
59	MP5A	Z	0	4.79
60	MP5A	Mx	-.067	4.79
61	MP5B	X	162.873	.79
62	MP5B	Z	0	.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
63	MP5B	Mx	0	.79
64	MP5B	X	162.873	4.79
65	MP5B	Z	0	4.79
66	MP5B	Mx	0	4.79
67	MP5C	X	107.816	.79
68	MP5C	Z	0	.79
69	MP5C	Mx	.07	.79
70	MP5C	X	107.816	4.79
71	MP5C	Z	0	4.79
72	MP5C	Mx	.07	4.79
73	M51	X	50.239	1.63
74	M51	Z	0	1.63
75	M51	Mx	.022	1.63
76	MP4A	X	61.266	1.29
77	MP4A	Z	0	1.29
78	MP4A	Mx	.027	1.29
79	MP4B	X	61.266	1.29
80	MP4B	Z	0	1.29
81	MP4B	Mx	.027	1.29
82	MP4C	X	61.266	1.29
83	MP4C	Z	0	1.29
84	MP4C	Mx	.027	1.29
85	OVP	X	111.881	.5
86	OVP	Z	0	.5
87	OVP	Mx	0	.5
88	M109	X	50.239	1.63
89	M109	Z	0	1.63
90	M109	Mx	.022	1.63
91	M80A	X	50.239	1.63
92	M80A	Z	0	1.63
93	M80A	Mx	.022	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	30.232	.79
2	MP4A	Z	17.455	.79
3	MP4A	Mx	-.023	.79
4	MP4A	X	30.232	2.79
5	MP4A	Z	17.455	2.79
6	MP4A	Mx	-.023	2.79
7	MP4B	X	58.88	.79
8	MP4B	Z	33.995	.79
9	MP4B	Mx	0	.79
10	MP4B	X	58.88	2.79
11	MP4B	Z	33.995	2.79
12	MP4B	Mx	0	2.79
13	MP4C	X	21.834	.79
14	MP4C	Z	12.606	.79
15	MP4C	Mx	.019	.79
16	MP4C	X	21.834	2.79
17	MP4C	Z	12.606	2.79
18	MP4C	Mx	.019	2.79
19	MP1A	X	58.787	.33
20	MP1A	Z	33.941	.33
21	MP1A	Mx	-.024	.33
22	MP1A	X	58.787	3.83

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
23	MP1A	Z	33.941	3.83
24	MP1A	Mx	-.024	3.83
25	MP1B	X	102.668	.33
26	MP1B	Z	59.275	.33
27	MP1B	Mx	-.069	.33
28	MP1B	X	102.668	3.83
29	MP1B	Z	59.275	3.83
30	MP1B	Mx	-.069	3.83
31	MP1C	X	45.925	.33
32	MP1C	Z	26.515	.33
33	MP1C	Mx	.045	.33
34	MP1C	X	45.925	3.83
35	MP1C	Z	26.515	3.83
36	MP1C	Mx	.045	3.83
37	MP1A	X	58.787	.33
38	MP1A	Z	33.941	.33
39	MP1A	Mx	-.064	.33
40	MP1A	X	58.787	3.83
41	MP1A	Z	33.941	3.83
42	MP1A	Mx	-.064	3.83
43	MP1B	X	102.668	.33
44	MP1B	Z	59.275	.33
45	MP1B	Mx	.069	.33
46	MP1B	X	102.668	3.83
47	MP1B	Z	59.275	3.83
48	MP1B	Mx	.069	3.83
49	MP1C	X	45.925	.33
50	MP1C	Z	26.515	.33
51	MP1C	Mx	.034	.33
52	MP1C	X	45.925	3.83
53	MP1C	Z	26.515	3.83
54	MP1C	Mx	.034	3.83
55	MP5A	X	93.372	.79
56	MP5A	Z	53.908	.79
57	MP5A	Mx	-.07	.79
58	MP5A	X	93.372	4.79
59	MP5A	Z	53.908	4.79
60	MP5A	Mx	-.07	4.79
61	MP5B	X	125.159	.79
62	MP5B	Z	72.26	.79
63	MP5B	Mx	-.054	.79
64	MP5B	X	125.159	4.79
65	MP5B	Z	72.26	4.79
66	MP5B	Mx	-.054	4.79
67	MP5C	X	77.478	.79
68	MP5C	Z	44.732	.79
69	MP5C	Mx	.067	.79
70	MP5C	X	77.478	4.79
71	MP5C	Z	44.732	4.79
72	MP5C	Mx	.067	4.79
73	M51	X	53.011	1.63
74	M51	Z	30.606	1.63
75	M51	Mx	.015	1.63
76	MP4A	X	64.144	1.29
77	MP4A	Z	37.034	1.29
78	MP4A	Mx	.019	1.29
79	MP4B	X	64.144	1.29

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
80	MP4B	Z	37.034	1.29
81	MP4B	Mx	.019	1.29
82	MP4C	X	64.144	1.29
83	MP4C	Z	37.034	1.29
84	MP4C	Mx	.019	1.29
85	OVP	X	111.053	.5
86	OVP	Z	64.116	.5
87	OVP	Mx	0	.5
88	M109	X	53.011	1.63
89	M109	Z	30.606	1.63
90	M109	Mx	.015	1.63
91	M80A	X	53.011	1.63
92	M80A	Z	30.606	1.63
93	M80A	Mx	.015	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	28.481	.79
2	MP4A	Z	49.331	.79
3	MP4A	Mx	-.021	.79
4	MP4A	X	28.481	2.79
5	MP4A	Z	49.331	2.79
6	MP4A	Mx	-.021	2.79
7	MP4B	X	28.481	.79
8	MP4B	Z	49.331	.79
9	MP4B	Mx	-.021	.79
10	MP4B	X	28.481	2.79
11	MP4B	Z	49.331	2.79
12	MP4B	Mx	-.021	2.79
13	MP4C	X	14.521	.79
14	MP4C	Z	25.151	.79
15	MP4C	Mx	.02	.79
16	MP4C	X	14.521	2.79
17	MP4C	Z	25.151	2.79
18	MP4C	Mx	.02	2.79
19	MP1A	X	50.831	.33
20	MP1A	Z	88.041	.33
21	MP1A	Mx	.013	.33
22	MP1A	X	50.831	3.83
23	MP1A	Z	88.041	3.83
24	MP1A	Mx	.013	3.83
25	MP1B	X	50.831	.33
26	MP1B	Z	88.041	.33
27	MP1B	Mx	-.089	.33
28	MP1B	X	50.831	3.83
29	MP1B	Z	88.041	3.83
30	MP1B	Mx	-.089	3.83
31	MP1C	X	29.447	.33
32	MP1C	Z	51.004	.33
33	MP1C	Mx	.03	.33
34	MP1C	X	29.447	3.83
35	MP1C	Z	51.004	3.83
36	MP1C	Mx	.03	3.83
37	MP1A	X	50.831	.33
38	MP1A	Z	88.041	.33
39	MP1A	Mx	-.089	.33



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
40	MP1A	X	50.831	3.83
41	MP1A	Z	88.041	3.83
42	MP1A	Mx	-.089	3.83
43	MP1B	X	50.831	.33
44	MP1B	Z	88.041	.33
45	MP1B	Mx	.013	.33
46	MP1B	X	50.831	3.83
47	MP1B	Z	88.041	3.83
48	MP1B	Mx	.013	3.83
49	MP1C	X	29.447	.33
50	MP1C	Z	51.004	.33
51	MP1C	Mx	.053	.33
52	MP1C	X	29.447	3.83
53	MP1C	Z	51.004	3.83
54	MP1C	Mx	.053	3.83
55	MP5A	X	72.26	.79
56	MP5A	Z	125.159	.79
57	MP5A	Mx	-.054	.79
58	MP5A	X	72.26	4.79
59	MP5A	Z	125.159	4.79
60	MP5A	Mx	-.054	4.79
61	MP5B	X	53.908	.79
62	MP5B	Z	93.372	.79
63	MP5B	Mx	-.07	.79
64	MP5B	X	53.908	4.79
65	MP5B	Z	93.372	4.79
66	MP5B	Mx	-.07	4.79
67	MP5C	X	53.908	.79
68	MP5C	Z	93.372	.79
69	MP5C	Mx	.07	.79
70	MP5C	X	53.908	4.79
71	MP5C	Z	93.372	4.79
72	MP5C	Mx	.07	4.79
73	M51	X	33.349	1.63
74	M51	Z	57.762	1.63
75	M51	Mx	0	1.63
76	MP4A	X	40.234	1.29
77	MP4A	Z	69.688	1.29
78	MP4A	Mx	0	1.29
79	MP4B	X	40.234	1.29
80	MP4B	Z	69.688	1.29
81	MP4B	Mx	0	1.29
82	MP4C	X	40.234	1.29
83	MP4C	Z	69.688	1.29
84	MP4C	Mx	0	1.29
85	OVP	X	68.204	.5
86	OVP	Z	118.133	.5
87	OVP	Mx	0	.5
88	M109	X	33.349	1.63
89	M109	Z	57.762	1.63
90	M109	Mx	0	1.63
91	M80A	X	33.349	1.63
92	M80A	Z	57.762	1.63
93	M80A	Mx	0	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
--	--------------	-----------	--------------------	----------------

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	0	.79
2	MP4A	Z	67.989	.79
3	MP4A	Mx	0	.79
4	MP4A	X	0	2.79
5	MP4A	Z	67.989	2.79
6	MP4A	Mx	0	2.79
7	MP4B	X	0	.79
8	MP4B	Z	34.909	.79
9	MP4B	Mx	-.023	.79
10	MP4B	X	0	2.79
11	MP4B	Z	34.909	2.79
12	MP4B	Mx	-.023	2.79
13	MP4C	X	0	.79
14	MP4C	Z	49.765	.79
15	MP4C	Mx	.024	.79
16	MP4C	X	0	2.79
17	MP4C	Z	49.765	2.79
18	MP4C	Mx	.024	2.79
19	MP1A	X	0	.33
20	MP1A	Z	118.551	.33
21	MP1A	Mx	.069	.33
22	MP1A	X	0	3.83
23	MP1A	Z	118.551	3.83
24	MP1A	Mx	.069	3.83
25	MP1B	X	0	.33
26	MP1B	Z	67.882	.33
27	MP1B	Mx	-.064	.33
28	MP1B	X	0	3.83
29	MP1B	Z	67.882	3.83
30	MP1B	Mx	-.064	3.83
31	MP1C	X	0	.33
32	MP1C	Z	90.637	.33
33	MP1C	Mx	.003	.33
34	MP1C	X	0	3.83
35	MP1C	Z	90.637	3.83
36	MP1C	Mx	.003	3.83
37	MP1A	X	0	.33
38	MP1A	Z	118.551	.33
39	MP1A	Mx	-.069	.33
40	MP1A	X	0	3.83
41	MP1A	Z	118.551	3.83
42	MP1A	Mx	-.069	3.83
43	MP1B	X	0	.33
44	MP1B	Z	67.882	.33
45	MP1B	Mx	-.024	.33
46	MP1B	X	0	3.83
47	MP1B	Z	67.882	3.83
48	MP1B	Mx	-.024	3.83
49	MP1C	X	0	.33
50	MP1C	Z	90.637	.33
51	MP1C	Mx	.084	.33
52	MP1C	X	0	3.83
53	MP1C	Z	90.637	3.83
54	MP1C	Mx	.084	3.83
55	MP5A	X	0	.79
56	MP5A	Z	162.873	.79
57	MP5A	Mx	0	.79



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
58	MP5A	X	0	4.79
59	MP5A	Z	162.873	4.79
60	MP5A	Mx	0	4.79
61	MP5B	X	0	.79
62	MP5B	Z	89.464	.79
63	MP5B	Mx	-.067	.79
64	MP5B	X	0	4.79
65	MP5B	Z	89.464	4.79
66	MP5B	Mx	-.067	4.79
67	MP5C	X	0	.79
68	MP5C	Z	144.521	.79
69	MP5C	Mx	.054	.79
70	MP5C	X	0	4.79
71	MP5C	Z	144.521	4.79
72	MP5C	Mx	.054	4.79
73	M51	X	0	1.63
74	M51	Z	61.212	1.63
75	M51	Mx	-.015	1.63
76	MP4A	X	0	1.29
77	MP4A	Z	74.067	1.29
78	MP4A	Mx	-.019	1.29
79	MP4B	X	0	1.29
80	MP4B	Z	74.067	1.29
81	MP4B	Mx	-.019	1.29
82	MP4C	X	0	1.29
83	MP4C	Z	74.067	1.29
84	MP4C	Mx	-.019	1.29
85	OVP	X	0	.5
86	OVP	Z	128.233	.5
87	OVP	Mx	0	.5
88	M109	X	0	1.63
89	M109	Z	61.212	1.63
90	M109	Mx	-.015	1.63
91	M80A	X	0	1.63
92	M80A	Z	61.212	1.63
93	M80A	Mx	-.015	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-28.481	.79
2	MP4A	Z	49.331	.79
3	MP4A	Mx	.021	.79
4	MP4A	X	-28.481	2.79
5	MP4A	Z	49.331	2.79
6	MP4A	Mx	.021	2.79
7	MP4B	X	-11.941	.79
8	MP4B	Z	20.683	.79
9	MP4B	Mx	-.018	.79
10	MP4B	X	-11.941	2.79
11	MP4B	Z	20.683	2.79
12	MP4B	Mx	-.018	2.79
13	MP4C	X	-33.33	.79
14	MP4C	Z	57.729	.79
15	MP4C	Mx	.009	.79
16	MP4C	X	-33.33	2.79
17	MP4C	Z	57.729	2.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
18	MP4C	Mx	.009	2.79
19	MP1A	X	-50.831	.33
20	MP1A	Z	88.041	.33
21	MP1A	Mx	.089	.33
22	MP1A	X	-50.831	3.83
23	MP1A	Z	88.041	3.83
24	MP1A	Mx	.089	3.83
25	MP1B	X	-25.496	.33
26	MP1B	Z	44.16	.33
27	MP1B	Mx	-.038	.33
28	MP1B	X	-25.496	3.83
29	MP1B	Z	44.16	3.83
30	MP1B	Mx	-.038	3.83
31	MP1C	X	-58.257	.33
32	MP1C	Z	100.904	.33
33	MP1C	Mx	-.052	.33
34	MP1C	X	-58.257	3.83
35	MP1C	Z	100.904	3.83
36	MP1C	Mx	-.052	3.83
37	MP1A	X	-50.831	.33
38	MP1A	Z	88.041	.33
39	MP1A	Mx	-.013	.33
40	MP1A	X	-50.831	3.83
41	MP1A	Z	88.041	3.83
42	MP1A	Mx	-.013	3.83
43	MP1B	X	-25.496	.33
44	MP1B	Z	44.16	.33
45	MP1B	Mx	-.038	.33
46	MP1B	X	-25.496	3.83
47	MP1B	Z	44.16	3.83
48	MP1B	Mx	-.038	3.83
49	MP1C	X	-58.257	.33
50	MP1C	Z	100.904	.33
51	MP1C	Mx	.082	.33
52	MP1C	X	-58.257	3.83
53	MP1C	Z	100.904	3.83
54	MP1C	Mx	.082	3.83
55	MP5A	X	-72.26	.79
56	MP5A	Z	125.159	.79
57	MP5A	Mx	.054	.79
58	MP5A	X	-72.26	4.79
59	MP5A	Z	125.159	4.79
60	MP5A	Mx	.054	4.79
61	MP5B	X	-53.908	.79
62	MP5B	Z	93.372	.79
63	MP5B	Mx	-.07	.79
64	MP5B	X	-53.908	4.79
65	MP5B	Z	93.372	4.79
66	MP5B	Mx	-.07	4.79
67	MP5C	X	-81.436	.79
68	MP5C	Z	141.052	.79
69	MP5C	Mx	0	.79
70	MP5C	X	-81.436	4.79
71	MP5C	Z	141.052	4.79
72	MP5C	Mx	0	4.79
73	M51	X	-25.119	1.63
74	M51	Z	43.508	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
75	M51	Mx	-.022	1.63
76	MP4A	X	-30.633	1.29
77	MP4A	Z	53.058	1.29
78	MP4A	Mx	-.027	1.29
79	MP4B	X	-30.633	1.29
80	MP4B	Z	53.058	1.29
81	MP4B	Mx	-.027	1.29
82	MP4C	X	-30.633	1.29
83	MP4C	Z	53.058	1.29
84	MP4C	Mx	-.027	1.29
85	OVP	X	-55.94	.5
86	OVP	Z	96.892	.5
87	OVP	Mx	0	.5
88	M109	X	-25.119	1.63
89	M109	Z	43.508	1.63
90	M109	Mx	-.022	1.63
91	M80A	X	-25.119	1.63
92	M80A	Z	43.508	1.63
93	M80A	Mx	-.022	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-30.232	.79
2	MP4A	Z	17.455	.79
3	MP4A	Mx	.023	.79
4	MP4A	X	-30.232	2.79
5	MP4A	Z	17.455	2.79
6	MP4A	Mx	.023	2.79
7	MP4B	X	-30.232	.79
8	MP4B	Z	17.455	.79
9	MP4B	Mx	-.023	.79
10	MP4B	X	-30.232	2.79
11	MP4B	Z	17.455	2.79
12	MP4B	Mx	-.023	2.79
13	MP4C	X	-54.412	.79
14	MP4C	Z	31.415	.79
15	MP4C	Mx	-.016	.79
16	MP4C	X	-54.412	2.79
17	MP4C	Z	31.415	2.79
18	MP4C	Mx	-.016	2.79
19	MP1A	X	-58.787	.33
20	MP1A	Z	33.941	.33
21	MP1A	Mx	.064	.33
22	MP1A	X	-58.787	3.83
23	MP1A	Z	33.941	3.83
24	MP1A	Mx	.064	3.83
25	MP1B	X	-58.787	.33
26	MP1B	Z	33.941	.33
27	MP1B	Mx	-.024	.33
28	MP1B	X	-58.787	3.83
29	MP1B	Z	33.941	3.83
30	MP1B	Mx	-.024	3.83
31	MP1C	X	-95.824	.33
32	MP1C	Z	55.324	.33
33	MP1C	Mx	-.089	.33
34	MP1C	X	-95.824	3.83

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
35	MP1C	Z	55.324	3.83
36	MP1C	Mx	-.089	3.83
37	MP1A	X	-58.787	.33
38	MP1A	Z	33.941	.33
39	MP1A	Mx	.024	.33
40	MP1A	X	-58.787	3.83
41	MP1A	Z	33.941	3.83
42	MP1A	Mx	.024	3.83
43	MP1B	X	-58.787	.33
44	MP1B	Z	33.941	.33
45	MP1B	Mx	-.064	.33
46	MP1B	X	-58.787	3.83
47	MP1B	Z	33.941	3.83
48	MP1B	Mx	-.064	3.83
49	MP1C	X	-95.824	.33
50	MP1C	Z	55.324	.33
51	MP1C	Mx	.032	.33
52	MP1C	X	-95.824	3.83
53	MP1C	Z	55.324	3.83
54	MP1C	Mx	.032	3.83
55	MP5A	X	-93.372	.79
56	MP5A	Z	53.908	.79
57	MP5A	Mx	.07	.79
58	MP5A	X	-93.372	4.79
59	MP5A	Z	53.908	4.79
60	MP5A	Mx	.07	4.79
61	MP5B	X	-125.159	.79
62	MP5B	Z	72.26	.79
63	MP5B	Mx	-.054	.79
64	MP5B	X	-125.159	4.79
65	MP5B	Z	72.26	4.79
66	MP5B	Mx	-.054	4.79
67	MP5C	X	-125.159	.79
68	MP5C	Z	72.26	.79
69	MP5C	Mx	-.054	.79
70	MP5C	X	-125.159	4.79
71	MP5C	Z	72.26	4.79
72	MP5C	Mx	-.054	4.79
73	M51	X	-38.757	1.63
74	M51	Z	22.376	1.63
75	M51	Mx	-.022	1.63
76	MP4A	X	-47.514	1.29
77	MP4A	Z	27.432	1.29
78	MP4A	Mx	-.027	1.29
79	MP4B	X	-47.514	1.29
80	MP4B	Z	27.432	1.29
81	MP4B	Mx	-.027	1.29
82	MP4C	X	-47.514	1.29
83	MP4C	Z	27.432	1.29
84	MP4C	Mx	-.027	1.29
85	OVP	X	-89.811	.5
86	OVP	Z	51.853	.5
87	OVP	Mx	0	.5
88	M109	X	-38.757	1.63
89	M109	Z	22.376	1.63
90	M109	Mx	-.022	1.63
91	M80A	X	-38.757	1.63



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
92	M80A	Z	22.376	1.63
93	M80A	Mx	-.022	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-23.882	.79
2	MP4A	Z	0	.79
3	MP4A	Mx	.018	.79
4	MP4A	X	-23.882	2.79
5	MP4A	Z	0	2.79
6	MP4A	Mx	.018	2.79
7	MP4B	X	-56.962	.79
8	MP4B	Z	0	.79
9	MP4B	Mx	-.021	.79
10	MP4B	X	-56.962	2.79
11	MP4B	Z	0	2.79
12	MP4B	Mx	-.021	2.79
13	MP4C	X	-42.106	.79
14	MP4C	Z	0	.79
15	MP4C	Mx	-.024	.79
16	MP4C	X	-42.106	2.79
17	MP4C	Z	0	2.79
18	MP4C	Mx	-.024	2.79
19	MP1A	X	-50.992	.33
20	MP1A	Z	0	.33
21	MP1A	Mx	.038	.33
22	MP1A	X	-50.992	3.83
23	MP1A	Z	0	3.83
24	MP1A	Mx	.038	3.83
25	MP1B	X	-101.661	.33
26	MP1B	Z	0	.33
27	MP1B	Mx	.013	.33
28	MP1B	X	-101.661	3.83
29	MP1B	Z	0	3.83
30	MP1B	Mx	.013	3.83
31	MP1C	X	-78.906	.33
32	MP1C	Z	0	.33
33	MP1C	Mx	-.075	.33
34	MP1C	X	-78.906	3.83
35	MP1C	Z	0	3.83
36	MP1C	Mx	-.075	3.83
37	MP1A	X	-50.992	.33
38	MP1A	Z	0	.33
39	MP1A	Mx	.038	.33
40	MP1A	X	-50.992	3.83
41	MP1A	Z	0	3.83
42	MP1A	Mx	.038	3.83
43	MP1B	X	-101.661	.33
44	MP1B	Z	0	.33
45	MP1B	Mx	-.089	.33
46	MP1B	X	-101.661	3.83
47	MP1B	Z	0	3.83
48	MP1B	Mx	-.089	3.83
49	MP1C	X	-78.906	.33
50	MP1C	Z	0	.33
51	MP1C	Mx	-.016	.33

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
52	MP1C	X	-78.906	3.83
53	MP1C	Z	0	3.83
54	MP1C	Mx	-.016	3.83
55	MP5A	X	-89.464	.79
56	MP5A	Z	0	.79
57	MP5A	Mx	.067	.79
58	MP5A	X	-89.464	4.79
59	MP5A	Z	0	4.79
60	MP5A	Mx	.067	4.79
61	MP5B	X	-162.873	.79
62	MP5B	Z	0	.79
63	MP5B	Mx	0	.79
64	MP5B	X	-162.873	4.79
65	MP5B	Z	0	4.79
66	MP5B	Mx	0	4.79
67	MP5C	X	-107.816	.79
68	MP5C	Z	0	.79
69	MP5C	Mx	-.07	.79
70	MP5C	X	-107.816	4.79
71	MP5C	Z	0	4.79
72	MP5C	Mx	-.07	4.79
73	M51	X	-50.239	1.63
74	M51	Z	0	1.63
75	M51	Mx	-.022	1.63
76	MP4A	X	-61.266	1.29
77	MP4A	Z	0	1.29
78	MP4A	Mx	-.027	1.29
79	MP4B	X	-61.266	1.29
80	MP4B	Z	0	1.29
81	MP4B	Mx	-.027	1.29
82	MP4C	X	-61.266	1.29
83	MP4C	Z	0	1.29
84	MP4C	Mx	-.027	1.29
85	OVP	X	-111.881	.5
86	OVP	Z	0	.5
87	OVP	Mx	0	.5
88	M109	X	-50.239	1.63
89	M109	Z	0	1.63
90	M109	Mx	-.022	1.63
91	M80A	X	-50.239	1.63
92	M80A	Z	0	1.63
93	M80A	Mx	-.022	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-30.232	.79
2	MP4A	Z	-17.455	.79
3	MP4A	Mx	.023	.79
4	MP4A	X	-30.232	2.79
5	MP4A	Z	-17.455	2.79
6	MP4A	Mx	.023	2.79
7	MP4B	X	-58.88	.79
8	MP4B	Z	-33.995	.79
9	MP4B	Mx	0	.79
10	MP4B	X	-58.88	2.79
11	MP4B	Z	-33.995	2.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
12	MP4B	Mx	0	2.79
13	MP4C	X	-21.834	.79
14	MP4C	Z	-12.606	.79
15	MP4C	Mx	-.019	.79
16	MP4C	X	-21.834	2.79
17	MP4C	Z	-12.606	2.79
18	MP4C	Mx	-.019	2.79
19	MP1A	X	-58.787	.33
20	MP1A	Z	-33.941	.33
21	MP1A	Mx	.024	.33
22	MP1A	X	-58.787	3.83
23	MP1A	Z	-33.941	3.83
24	MP1A	Mx	.024	3.83
25	MP1B	X	-102.668	.33
26	MP1B	Z	-59.275	.33
27	MP1B	Mx	.069	.33
28	MP1B	X	-102.668	3.83
29	MP1B	Z	-59.275	3.83
30	MP1B	Mx	.069	3.83
31	MP1C	X	-45.925	.33
32	MP1C	Z	-26.515	.33
33	MP1C	Mx	-.045	.33
34	MP1C	X	-45.925	3.83
35	MP1C	Z	-26.515	3.83
36	MP1C	Mx	-.045	3.83
37	MP1A	X	-58.787	.33
38	MP1A	Z	-33.941	.33
39	MP1A	Mx	.064	.33
40	MP1A	X	-58.787	3.83
41	MP1A	Z	-33.941	3.83
42	MP1A	Mx	.064	3.83
43	MP1B	X	-102.668	.33
44	MP1B	Z	-59.275	.33
45	MP1B	Mx	-.069	.33
46	MP1B	X	-102.668	3.83
47	MP1B	Z	-59.275	3.83
48	MP1B	Mx	-.069	3.83
49	MP1C	X	-45.925	.33
50	MP1C	Z	-26.515	.33
51	MP1C	Mx	-.034	.33
52	MP1C	X	-45.925	3.83
53	MP1C	Z	-26.515	3.83
54	MP1C	Mx	-.034	3.83
55	MP5A	X	-93.372	.79
56	MP5A	Z	-53.908	.79
57	MP5A	Mx	.07	.79
58	MP5A	X	-93.372	4.79
59	MP5A	Z	-53.908	4.79
60	MP5A	Mx	.07	4.79
61	MP5B	X	-125.159	.79
62	MP5B	Z	-72.26	.79
63	MP5B	Mx	.054	.79
64	MP5B	X	-125.159	4.79
65	MP5B	Z	-72.26	4.79
66	MP5B	Mx	.054	4.79
67	MP5C	X	-77.478	.79
68	MP5C	Z	-44.732	.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
69	MP5C	Mx	-.067	.79
70	MP5C	X	-77.478	4.79
71	MP5C	Z	-44.732	4.79
72	MP5C	Mx	-.067	4.79
73	M51	X	-53.011	1.63
74	M51	Z	-30.606	1.63
75	M51	Mx	-.015	1.63
76	MP4A	X	-64.144	1.29
77	MP4A	Z	-37.034	1.29
78	MP4A	Mx	-.019	1.29
79	MP4B	X	-64.144	1.29
80	MP4B	Z	-37.034	1.29
81	MP4B	Mx	-.019	1.29
82	MP4C	X	-64.144	1.29
83	MP4C	Z	-37.034	1.29
84	MP4C	Mx	-.019	1.29
85	OVP	X	-111.053	.5
86	OVP	Z	-64.116	.5
87	OVP	Mx	0	.5
88	M109	X	-53.011	1.63
89	M109	Z	-30.606	1.63
90	M109	Mx	-.015	1.63
91	M80A	X	-53.011	1.63
92	M80A	Z	-30.606	1.63
93	M80A	Mx	-.015	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	-28.481	.79
2	MP4A	Z	-49.331	.79
3	MP4A	Mx	.021	.79
4	MP4A	X	-28.481	2.79
5	MP4A	Z	-49.331	2.79
6	MP4A	Mx	.021	2.79
7	MP4B	X	-28.481	.79
8	MP4B	Z	-49.331	.79
9	MP4B	Mx	.021	.79
10	MP4B	X	-28.481	2.79
11	MP4B	Z	-49.331	2.79
12	MP4B	Mx	.021	2.79
13	MP4C	X	-14.521	.79
14	MP4C	Z	-25.151	.79
15	MP4C	Mx	-.02	.79
16	MP4C	X	-14.521	2.79
17	MP4C	Z	-25.151	2.79
18	MP4C	Mx	-.02	2.79
19	MP1A	X	-50.831	.33
20	MP1A	Z	-88.041	.33
21	MP1A	Mx	-.013	.33
22	MP1A	X	-50.831	3.83
23	MP1A	Z	-88.041	3.83
24	MP1A	Mx	-.013	3.83
25	MP1B	X	-50.831	.33
26	MP1B	Z	-88.041	.33
27	MP1B	Mx	.089	.33
28	MP1B	X	-50.831	3.83

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
29	MP1B	Z	-88.041	3.83
30	MP1B	Mx	.089	3.83
31	MP1C	X	-29.447	.33
32	MP1C	Z	-51.004	.33
33	MP1C	Mx	-.03	.33
34	MP1C	X	-29.447	3.83
35	MP1C	Z	-51.004	3.83
36	MP1C	Mx	-.03	3.83
37	MP1A	X	-50.831	.33
38	MP1A	Z	-88.041	.33
39	MP1A	Mx	.089	.33
40	MP1A	X	-50.831	3.83
41	MP1A	Z	-88.041	3.83
42	MP1A	Mx	.089	3.83
43	MP1B	X	-50.831	.33
44	MP1B	Z	-88.041	.33
45	MP1B	Mx	-.013	.33
46	MP1B	X	-50.831	3.83
47	MP1B	Z	-88.041	3.83
48	MP1B	Mx	-.013	3.83
49	MP1C	X	-29.447	.33
50	MP1C	Z	-51.004	.33
51	MP1C	Mx	-.053	.33
52	MP1C	X	-29.447	3.83
53	MP1C	Z	-51.004	3.83
54	MP1C	Mx	-.053	3.83
55	MP5A	X	-72.26	.79
56	MP5A	Z	-125.159	.79
57	MP5A	Mx	.054	.79
58	MP5A	X	-72.26	4.79
59	MP5A	Z	-125.159	4.79
60	MP5A	Mx	.054	4.79
61	MP5B	X	-53.908	.79
62	MP5B	Z	-93.372	.79
63	MP5B	Mx	.07	.79
64	MP5B	X	-53.908	4.79
65	MP5B	Z	-93.372	4.79
66	MP5B	Mx	.07	4.79
67	MP5C	X	-53.908	.79
68	MP5C	Z	-93.372	.79
69	MP5C	Mx	-.07	.79
70	MP5C	X	-53.908	4.79
71	MP5C	Z	-93.372	4.79
72	MP5C	Mx	-.07	4.79
73	M51	X	-33.349	1.63
74	M51	Z	-57.762	1.63
75	M51	Mx	0	1.63
76	MP4A	X	-40.234	1.29
77	MP4A	Z	-69.688	1.29
78	MP4A	Mx	0	1.29
79	MP4B	X	-40.234	1.29
80	MP4B	Z	-69.688	1.29
81	MP4B	Mx	0	1.29
82	MP4C	X	-40.234	1.29
83	MP4C	Z	-69.688	1.29
84	MP4C	Mx	0	1.29
85	OVP	X	-68.204	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
86	OVP	Z	-118.133	.5
87	OVP	Mx	0	.5
88	M109	X	-33.349	1.63
89	M109	Z	-57.762	1.63
90	M109	Mx	0	1.63
91	M80A	X	-33.349	1.63
92	M80A	Z	-57.762	1.63
93	M80A	Mx	0	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	0	.79
2	MP4A	Z	-17.257	.79
3	MP4A	Mx	0	.79
4	MP4A	X	0	2.79
5	MP4A	Z	-17.257	2.79
6	MP4A	Mx	0	2.79
7	MP4B	X	0	.79
8	MP4B	Z	-10.035	.79
9	MP4B	Mx	.007	.79
10	MP4B	X	0	2.79
11	MP4B	Z	-10.035	2.79
12	MP4B	Mx	.007	2.79
13	MP4C	X	0	.79
14	MP4C	Z	-13.278	.79
15	MP4C	Mx	-.006	.79
16	MP4C	X	0	2.79
17	MP4C	Z	-13.278	2.79
18	MP4C	Mx	-.006	2.79
19	MP1A	X	0	.33
20	MP1A	Z	-35.319	.33
21	MP1A	Mx	-.021	.33
22	MP1A	X	0	3.83
23	MP1A	Z	-35.319	3.83
24	MP1A	Mx	-.021	3.83
25	MP1B	X	0	.33
26	MP1B	Z	-27.461	.33
27	MP1B	Mx	.026	.33
28	MP1B	X	0	3.83
29	MP1B	Z	-27.461	3.83
30	MP1B	Mx	.026	3.83
31	MP1C	X	0	.33
32	MP1C	Z	-30.99	.33
33	MP1C	Mx	-.001	.33
34	MP1C	X	0	3.83
35	MP1C	Z	-30.99	3.83
36	MP1C	Mx	-.001	3.83
37	MP1A	X	0	.33
38	MP1A	Z	-35.319	.33
39	MP1A	Mx	.021	.33
40	MP1A	X	0	3.83
41	MP1A	Z	-35.319	3.83
42	MP1A	Mx	.021	3.83
43	MP1B	X	0	.33
44	MP1B	Z	-27.461	.33
45	MP1B	Mx	.01	.33

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
46	MP1B	X	0	3.83
47	MP1B	Z	-27.461	3.83
48	MP1B	Mx	.01	3.83
49	MP1C	X	0	.33
50	MP1C	Z	-30.99	.33
51	MP1C	Mx	-.029	.33
52	MP1C	X	0	3.83
53	MP1C	Z	-30.99	3.83
54	MP1C	Mx	-.029	3.83
55	MP5A	X	0	.79
56	MP5A	Z	-32.967	.79
57	MP5A	Mx	0	.79
58	MP5A	X	0	4.79
59	MP5A	Z	-32.967	4.79
60	MP5A	Mx	0	4.79
61	MP5B	X	0	.79
62	MP5B	Z	-19.917	.79
63	MP5B	Mx	.015	.79
64	MP5B	X	0	4.79
65	MP5B	Z	-19.917	4.79
66	MP5B	Mx	.015	4.79
67	MP5C	X	0	.79
68	MP5C	Z	-29.704	.79
69	MP5C	Mx	-.011	.79
70	MP5C	X	0	4.79
71	MP5C	Z	-29.704	4.79
72	MP5C	Mx	-.011	4.79
73	M51	X	0	1.63
74	M51	Z	-16.912	1.63
75	M51	Mx	.004	1.63
76	MP4A	X	0	1.29
77	MP4A	Z	-16.965	1.29
78	MP4A	Mx	.004	1.29
79	MP4B	X	0	1.29
80	MP4B	Z	-16.965	1.29
81	MP4B	Mx	.004	1.29
82	MP4C	X	0	1.29
83	MP4C	Z	-16.965	1.29
84	MP4C	Mx	.004	1.29
85	OVP	X	0	.5
86	OVP	Z	-31.722	.5
87	OVP	Mx	0	.5
88	M109	X	0	1.63
89	M109	Z	-16.912	1.63
90	M109	Mx	.004	1.63
91	M80A	X	0	1.63
92	M80A	Z	-16.912	1.63
93	M80A	Mx	.004	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	7.425	.79
2	MP4A	Z	-12.86	.79
3	MP4A	Mx	-.006	.79
4	MP4A	X	7.425	2.79
5	MP4A	Z	-12.86	2.79



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
6	MP4A	Mx	-.006	2.79
7	MP4B	X	3.814	.79
8	MP4B	Z	-6.605	.79
9	MP4B	Mx	.006	.79
10	MP4B	X	3.814	2.79
11	MP4B	Z	-6.605	2.79
12	MP4B	Mx	.006	2.79
13	MP4C	X	8.483	.79
14	MP4C	Z	-14.693	.79
15	MP4C	Mx	-.002	.79
16	MP4C	X	8.483	2.79
17	MP4C	Z	-14.693	2.79
18	MP4C	Mx	-.002	2.79
19	MP1A	X	16.35	.33
20	MP1A	Z	-28.318	.33
21	MP1A	Mx	-.029	.33
22	MP1A	X	16.35	3.83
23	MP1A	Z	-28.318	3.83
24	MP1A	Mx	-.029	3.83
25	MP1B	X	12.421	.33
26	MP1B	Z	-21.513	.33
27	MP1B	Mx	.019	.33
28	MP1B	X	12.421	3.83
29	MP1B	Z	-21.513	3.83
30	MP1B	Mx	.019	3.83
31	MP1C	X	17.501	.33
32	MP1C	Z	-30.313	.33
33	MP1C	Mx	.016	.33
34	MP1C	X	17.501	3.83
35	MP1C	Z	-30.313	3.83
36	MP1C	Mx	.016	3.83
37	MP1A	X	16.35	.33
38	MP1A	Z	-28.318	.33
39	MP1A	Mx	.004	.33
40	MP1A	X	16.35	3.83
41	MP1A	Z	-28.318	3.83
42	MP1A	Mx	.004	3.83
43	MP1B	X	12.421	.33
44	MP1B	Z	-21.513	.33
45	MP1B	Mx	.019	.33
46	MP1B	X	12.421	3.83
47	MP1B	Z	-21.513	3.83
48	MP1B	Mx	.019	3.83
49	MP1C	X	17.501	.33
50	MP1C	Z	-30.313	.33
51	MP1C	Mx	-.025	.33
52	MP1C	X	17.501	3.83
53	MP1C	Z	-30.313	3.83
54	MP1C	Mx	-.025	3.83
55	MP5A	X	14.852	.79
56	MP5A	Z	-25.725	.79
57	MP5A	Mx	-.011	.79
58	MP5A	X	14.852	4.79
59	MP5A	Z	-25.725	4.79
60	MP5A	Mx	-.011	4.79
61	MP5B	X	11.59	.79
62	MP5B	Z	-20.074	.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
63	MP5B	Mx	.015	.79
64	MP5B	X	11.59	4.79
65	MP5B	Z	-20.074	4.79
66	MP5B	Mx	.015	4.79
67	MP5C	X	16.483	.79
68	MP5C	Z	-28.55	.79
69	MP5C	Mx	0	.79
70	MP5C	X	16.483	4.79
71	MP5C	Z	-28.55	4.79
72	MP5C	Mx	0	4.79
73	M51	X	7.131	1.63
74	M51	Z	-12.351	1.63
75	M51	Mx	.006	1.63
76	MP4A	X	7.21	1.29
77	MP4A	Z	-12.488	1.29
78	MP4A	Mx	.006	1.29
79	MP4B	X	7.21	1.29
80	MP4B	Z	-12.488	1.29
81	MP4B	Mx	.006	1.29
82	MP4C	X	7.21	1.29
83	MP4C	Z	-12.488	1.29
84	MP4C	Mx	.006	1.29
85	OVP	X	13.261	.5
86	OVP	Z	-22.969	.5
87	OVP	Mx	0	.5
88	M109	X	7.131	1.63
89	M109	Z	-12.351	1.63
90	M109	Mx	.006	1.63
91	M80A	X	7.131	1.63
92	M80A	Z	-12.351	1.63
93	M80A	Mx	.006	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	8.69	.79
2	MP4A	Z	-5.017	.79
3	MP4A	Mx	-.007	.79
4	MP4A	X	8.69	2.79
5	MP4A	Z	-5.017	2.79
6	MP4A	Mx	-.007	2.79
7	MP4B	X	8.69	.79
8	MP4B	Z	-5.017	.79
9	MP4B	Mx	.007	.79
10	MP4B	X	8.69	2.79
11	MP4B	Z	-5.017	2.79
12	MP4B	Mx	.007	2.79
13	MP4C	X	13.969	.79
14	MP4C	Z	-8.065	.79
15	MP4C	Mx	.004	.79
16	MP4C	X	13.969	2.79
17	MP4C	Z	-8.065	2.79
18	MP4C	Mx	.004	2.79
19	MP1A	X	23.782	.33
20	MP1A	Z	-13.73	.33
21	MP1A	Mx	-.026	.33
22	MP1A	X	23.782	3.83

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
23	MP1A	Z	-13.73	3.83
24	MP1A	Mx	-.026	3.83
25	MP1B	X	23.782	.33
26	MP1B	Z	-13.73	.33
27	MP1B	Mx	.01	.33
28	MP1B	X	23.782	3.83
29	MP1B	Z	-13.73	3.83
30	MP1B	Mx	.01	3.83
31	MP1C	X	29.525	.33
32	MP1C	Z	-17.047	.33
33	MP1C	Mx	.027	.33
34	MP1C	X	29.525	3.83
35	MP1C	Z	-17.047	3.83
36	MP1C	Mx	.027	3.83
37	MP1A	X	23.782	.33
38	MP1A	Z	-13.73	.33
39	MP1A	Mx	-.01	.33
40	MP1A	X	23.782	3.83
41	MP1A	Z	-13.73	3.83
42	MP1A	Mx	-.01	3.83
43	MP1B	X	23.782	.33
44	MP1B	Z	-13.73	.33
45	MP1B	Mx	.026	.33
46	MP1B	X	23.782	3.83
47	MP1B	Z	-13.73	3.83
48	MP1B	Mx	.026	3.83
49	MP1C	X	29.525	.33
50	MP1C	Z	-17.047	.33
51	MP1C	Mx	-.01	.33
52	MP1C	X	29.525	3.83
53	MP1C	Z	-17.047	3.83
54	MP1C	Mx	-.01	3.83
55	MP5A	X	20.074	.79
56	MP5A	Z	-11.59	.79
57	MP5A	Mx	-.015	.79
58	MP5A	X	20.074	4.79
59	MP5A	Z	-11.59	4.79
60	MP5A	Mx	-.015	4.79
61	MP5B	X	25.725	.79
62	MP5B	Z	-14.852	.79
63	MP5B	Mx	.011	.79
64	MP5B	X	25.725	4.79
65	MP5B	Z	-14.852	4.79
66	MP5B	Mx	.011	4.79
67	MP5C	X	25.725	.79
68	MP5C	Z	-14.852	.79
69	MP5C	Mx	.011	.79
70	MP5C	X	25.725	4.79
71	MP5C	Z	-14.852	4.79
72	MP5C	Mx	.011	4.79
73	M51	X	11.203	1.63
74	M51	Z	-6.468	1.63
75	M51	Mx	.006	1.63
76	MP4A	X	11.387	1.29
77	MP4A	Z	-6.574	1.29
78	MP4A	Mx	.007	1.29
79	MP4B	X	11.387	1.29

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
80	MP4B	Z	-6.574	1.29
81	MP4B	Mx	.007	1.29
82	MP4C	X	11.387	1.29
83	MP4C	Z	-6.574	1.29
84	MP4C	Mx	.007	1.29
85	OVP	X	20.718	.5
86	OVP	Z	-11.962	.5
87	OVP	Mx	0	.5
88	M109	X	11.203	1.63
89	M109	Z	-6.468	1.63
90	M109	Mx	.006	1.63
91	M80A	X	11.203	1.63
92	M80A	Z	-6.468	1.63
93	M80A	Mx	.006	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	7.627	.79
2	MP4A	Z	0	.79
3	MP4A	Mx	-.006	.79
4	MP4A	X	7.627	2.79
5	MP4A	Z	0	2.79
6	MP4A	Mx	-.006	2.79
7	MP4B	X	14.849	.79
8	MP4B	Z	0	.79
9	MP4B	Mx	.006	.79
10	MP4B	X	14.849	2.79
11	MP4B	Z	0	2.79
12	MP4B	Mx	.006	2.79
13	MP4C	X	11.606	.79
14	MP4C	Z	0	.79
15	MP4C	Mx	.007	.79
16	MP4C	X	11.606	2.79
17	MP4C	Z	0	2.79
18	MP4C	Mx	.007	2.79
19	MP1A	X	24.841	.33
20	MP1A	Z	0	.33
21	MP1A	Mx	-.019	.33
22	MP1A	X	24.841	3.83
23	MP1A	Z	0	3.83
24	MP1A	Mx	-.019	3.83
25	MP1B	X	32.699	.33
26	MP1B	Z	0	.33
27	MP1B	Mx	-.004	.33
28	MP1B	X	32.699	3.83
29	MP1B	Z	0	3.83
30	MP1B	Mx	-.004	3.83
31	MP1C	X	29.17	.33
32	MP1C	Z	0	.33
33	MP1C	Mx	.028	.33
34	MP1C	X	29.17	3.83
35	MP1C	Z	0	3.83
36	MP1C	Mx	.028	3.83
37	MP1A	X	24.841	.33
38	MP1A	Z	0	.33
39	MP1A	Mx	-.019	.33



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
40	MP1A	X	24.841	3.83
41	MP1A	Z	0	3.83
42	MP1A	Mx	-.019	3.83
43	MP1B	X	32.699	.33
44	MP1B	Z	0	.33
45	MP1B	Mx	.029	.33
46	MP1B	X	32.699	3.83
47	MP1B	Z	0	3.83
48	MP1B	Mx	.029	3.83
49	MP1C	X	29.17	.33
50	MP1C	Z	0	.33
51	MP1C	Mx	.006	.33
52	MP1C	X	29.17	3.83
53	MP1C	Z	0	3.83
54	MP1C	Mx	.006	3.83
55	MP5A	X	19.917	.79
56	MP5A	Z	0	.79
57	MP5A	Mx	-.015	.79
58	MP5A	X	19.917	4.79
59	MP5A	Z	0	4.79
60	MP5A	Mx	-.015	4.79
61	MP5B	X	32.967	.79
62	MP5B	Z	0	.79
63	MP5B	Mx	0	.79
64	MP5B	X	32.967	4.79
65	MP5B	Z	0	4.79
66	MP5B	Mx	0	4.79
67	MP5C	X	23.18	.79
68	MP5C	Z	0	.79
69	MP5C	Mx	.015	.79
70	MP5C	X	23.18	4.79
71	MP5C	Z	0	4.79
72	MP5C	Mx	.015	4.79
73	M51	X	14.261	1.63
74	M51	Z	0	1.63
75	M51	Mx	.006	1.63
76	MP4A	X	14.42	1.29
77	MP4A	Z	0	1.29
78	MP4A	Mx	.006	1.29
79	MP4B	X	14.42	1.29
80	MP4B	Z	0	1.29
81	MP4B	Mx	.006	1.29
82	MP4C	X	14.42	1.29
83	MP4C	Z	0	1.29
84	MP4C	Mx	.006	1.29
85	OVP	X	26.523	.5
86	OVP	Z	0	.5
87	OVP	Mx	0	.5
88	M109	X	14.261	1.63
89	M109	Z	0	1.63
90	M109	Mx	.006	1.63
91	M80A	X	14.261	1.63
92	M80A	Z	0	1.63
93	M80A	Mx	.006	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
--	--------------	-----------	--------------------	----------------

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	8.69	.79
2	MP4A	Z	5.017	.79
3	MP4A	Mx	-.007	.79
4	MP4A	X	8.69	2.79
5	MP4A	Z	5.017	2.79
6	MP4A	Mx	-.007	2.79
7	MP4B	X	14.945	.79
8	MP4B	Z	8.628	.79
9	MP4B	Mx	0	.79
10	MP4B	X	14.945	2.79
11	MP4B	Z	8.628	2.79
12	MP4B	Mx	0	2.79
13	MP4C	X	6.857	.79
14	MP4C	Z	3.959	.79
15	MP4C	Mx	.006	.79
16	MP4C	X	6.857	2.79
17	MP4C	Z	3.959	2.79
18	MP4C	Mx	.006	2.79
19	MP1A	X	23.782	.33
20	MP1A	Z	13.73	.33
21	MP1A	Mx	-.01	.33
22	MP1A	X	23.782	3.83
23	MP1A	Z	13.73	3.83
24	MP1A	Mx	-.01	3.83
25	MP1B	X	30.587	.33
26	MP1B	Z	17.659	.33
27	MP1B	Mx	-.021	.33
28	MP1B	X	30.587	3.83
29	MP1B	Z	17.659	3.83
30	MP1B	Mx	-.021	3.83
31	MP1C	X	21.787	.33
32	MP1C	Z	12.579	.33
33	MP1C	Mx	.021	.33
34	MP1C	X	21.787	3.83
35	MP1C	Z	12.579	3.83
36	MP1C	Mx	.021	3.83
37	MP1A	X	23.782	.33
38	MP1A	Z	13.73	.33
39	MP1A	Mx	-.026	.33
40	MP1A	X	23.782	3.83
41	MP1A	Z	13.73	3.83
42	MP1A	Mx	-.026	3.83
43	MP1B	X	30.587	.33
44	MP1B	Z	17.659	.33
45	MP1B	Mx	.021	.33
46	MP1B	X	30.587	3.83
47	MP1B	Z	17.659	3.83
48	MP1B	Mx	.021	3.83
49	MP1C	X	21.787	.33
50	MP1C	Z	12.579	.33
51	MP1C	Mx	.016	.33
52	MP1C	X	21.787	3.83
53	MP1C	Z	12.579	3.83
54	MP1C	Mx	.016	3.83
55	MP5A	X	20.074	.79
56	MP5A	Z	11.59	.79
57	MP5A	Mx	-.015	.79



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
58	MP5A	X	20.074	4.79
59	MP5A	Z	11.59	4.79
60	MP5A	Mx	-.015	4.79
61	MP5B	X	25.725	.79
62	MP5B	Z	14.852	.79
63	MP5B	Mx	-.011	.79
64	MP5B	X	25.725	4.79
65	MP5B	Z	14.852	4.79
66	MP5B	Mx	-.011	4.79
67	MP5C	X	17.249	.79
68	MP5C	Z	9.959	.79
69	MP5C	Mx	.015	.79
70	MP5C	X	17.249	4.79
71	MP5C	Z	9.959	4.79
72	MP5C	Mx	.015	4.79
73	M51	X	14.646	1.63
74	M51	Z	8.456	1.63
75	M51	Mx	.004	1.63
76	MP4A	X	14.692	1.29
77	MP4A	Z	8.482	1.29
78	MP4A	Mx	.004	1.29
79	MP4B	X	14.692	1.29
80	MP4B	Z	8.482	1.29
81	MP4B	Mx	.004	1.29
82	MP4C	X	14.692	1.29
83	MP4C	Z	8.482	1.29
84	MP4C	Mx	.004	1.29
85	OVP	X	27.472	.5
86	OVP	Z	15.861	.5
87	OVP	Mx	0	.5
88	M109	X	14.646	1.63
89	M109	Z	8.456	1.63
90	M109	Mx	.004	1.63
91	M80A	X	14.646	1.63
92	M80A	Z	8.456	1.63
93	M80A	Mx	.004	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	7.425	.79
2	MP4A	Z	12.86	.79
3	MP4A	Mx	-.006	.79
4	MP4A	X	7.425	2.79
5	MP4A	Z	12.86	2.79
6	MP4A	Mx	-.006	2.79
7	MP4B	X	7.425	.79
8	MP4B	Z	12.86	.79
9	MP4B	Mx	-.006	.79
10	MP4B	X	7.425	2.79
11	MP4B	Z	12.86	2.79
12	MP4B	Mx	-.006	2.79
13	MP4C	X	4.377	.79
14	MP4C	Z	7.581	.79
15	MP4C	Mx	.006	.79
16	MP4C	X	4.377	2.79
17	MP4C	Z	7.581	2.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
18	MP4C	Mx	.006	2.79
19	MP1A	X	16.35	.33
20	MP1A	Z	28.318	.33
21	MP1A	Mx	.004	.33
22	MP1A	X	16.35	3.83
23	MP1A	Z	28.318	3.83
24	MP1A	Mx	.004	3.83
25	MP1B	X	16.35	.33
26	MP1B	Z	28.318	.33
27	MP1B	Mx	-.029	.33
28	MP1B	X	16.35	3.83
29	MP1B	Z	28.318	3.83
30	MP1B	Mx	-.029	3.83
31	MP1C	X	13.033	.33
32	MP1C	Z	22.575	.33
33	MP1C	Mx	.013	.33
34	MP1C	X	13.033	3.83
35	MP1C	Z	22.575	3.83
36	MP1C	Mx	.013	3.83
37	MP1A	X	16.35	.33
38	MP1A	Z	28.318	.33
39	MP1A	Mx	-.029	.33
40	MP1A	X	16.35	3.83
41	MP1A	Z	28.318	3.83
42	MP1A	Mx	-.029	3.83
43	MP1B	X	16.35	.33
44	MP1B	Z	28.318	.33
45	MP1B	Mx	.004	.33
46	MP1B	X	16.35	3.83
47	MP1B	Z	28.318	3.83
48	MP1B	Mx	.004	3.83
49	MP1C	X	13.033	.33
50	MP1C	Z	22.575	.33
51	MP1C	Mx	.024	.33
52	MP1C	X	13.033	3.83
53	MP1C	Z	22.575	3.83
54	MP1C	Mx	.024	3.83
55	MP5A	X	14.852	.79
56	MP5A	Z	25.725	.79
57	MP5A	Mx	-.011	.79
58	MP5A	X	14.852	4.79
59	MP5A	Z	25.725	4.79
60	MP5A	Mx	-.011	4.79
61	MP5B	X	11.59	.79
62	MP5B	Z	20.074	.79
63	MP5B	Mx	-.015	.79
64	MP5B	X	11.59	4.79
65	MP5B	Z	20.074	4.79
66	MP5B	Mx	-.015	4.79
67	MP5C	X	11.59	.79
68	MP5C	Z	20.074	.79
69	MP5C	Mx	.015	.79
70	MP5C	X	11.59	4.79
71	MP5C	Z	20.074	4.79
72	MP5C	Mx	.015	4.79
73	M51	X	9.118	1.63
74	M51	Z	15.794	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
75	M51	Mx	0	1.63
76	MP4A	X	9.118	1.29
77	MP4A	Z	15.794	1.29
78	MP4A	Mx	0	1.29
79	MP4B	X	9.118	1.29
80	MP4B	Z	15.794	1.29
81	MP4B	Mx	0	1.29
82	MP4C	X	9.118	1.29
83	MP4C	Z	15.794	1.29
84	MP4C	Mx	0	1.29
85	OVP	X	17.161	.5
86	OVP	Z	29.723	.5
87	OVP	Mx	0	.5
88	M109	X	9.118	1.63
89	M109	Z	15.794	1.63
90	M109	Mx	0	1.63
91	M80A	X	9.118	1.63
92	M80A	Z	15.794	1.63
93	M80A	Mx	0	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	0	.79
2	MP4A	Z	17.257	.79
3	MP4A	Mx	0	.79
4	MP4A	X	0	2.79
5	MP4A	Z	17.257	2.79
6	MP4A	Mx	0	2.79
7	MP4B	X	0	.79
8	MP4B	Z	10.035	.79
9	MP4B	Mx	-.007	.79
10	MP4B	X	0	2.79
11	MP4B	Z	10.035	2.79
12	MP4B	Mx	-.007	2.79
13	MP4C	X	0	.79
14	MP4C	Z	13.278	.79
15	MP4C	Mx	.006	.79
16	MP4C	X	0	2.79
17	MP4C	Z	13.278	2.79
18	MP4C	Mx	.006	2.79
19	MP1A	X	0	.33
20	MP1A	Z	35.319	.33
21	MP1A	Mx	.021	.33
22	MP1A	X	0	3.83
23	MP1A	Z	35.319	3.83
24	MP1A	Mx	.021	3.83
25	MP1B	X	0	.33
26	MP1B	Z	27.461	.33
27	MP1B	Mx	-.026	.33
28	MP1B	X	0	3.83
29	MP1B	Z	27.461	3.83
30	MP1B	Mx	-.026	3.83
31	MP1C	X	0	.33
32	MP1C	Z	30.99	.33
33	MP1C	Mx	.001	.33
34	MP1C	X	0	3.83

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
35	MP1C	Z	30.99	3.83
36	MP1C	Mx	.001	3.83
37	MP1A	X	0	.33
38	MP1A	Z	35.319	.33
39	MP1A	Mx	-.021	.33
40	MP1A	X	0	3.83
41	MP1A	Z	35.319	3.83
42	MP1A	Mx	-.021	3.83
43	MP1B	X	0	.33
44	MP1B	Z	27.461	.33
45	MP1B	Mx	-.01	.33
46	MP1B	X	0	3.83
47	MP1B	Z	27.461	3.83
48	MP1B	Mx	-.01	3.83
49	MP1C	X	0	.33
50	MP1C	Z	30.99	.33
51	MP1C	Mx	.029	.33
52	MP1C	X	0	3.83
53	MP1C	Z	30.99	3.83
54	MP1C	Mx	.029	3.83
55	MP5A	X	0	.79
56	MP5A	Z	32.967	.79
57	MP5A	Mx	0	.79
58	MP5A	X	0	4.79
59	MP5A	Z	32.967	4.79
60	MP5A	Mx	0	4.79
61	MP5B	X	0	.79
62	MP5B	Z	19.917	.79
63	MP5B	Mx	-.015	.79
64	MP5B	X	0	4.79
65	MP5B	Z	19.917	4.79
66	MP5B	Mx	-.015	4.79
67	MP5C	X	0	.79
68	MP5C	Z	29.704	.79
69	MP5C	Mx	.011	.79
70	MP5C	X	0	4.79
71	MP5C	Z	29.704	4.79
72	MP5C	Mx	.011	4.79
73	M51	X	0	1.63
74	M51	Z	16.912	1.63
75	M51	Mx	-.004	1.63
76	MP4A	X	0	1.29
77	MP4A	Z	16.965	1.29
78	MP4A	Mx	-.004	1.29
79	MP4B	X	0	1.29
80	MP4B	Z	16.965	1.29
81	MP4B	Mx	-.004	1.29
82	MP4C	X	0	1.29
83	MP4C	Z	16.965	1.29
84	MP4C	Mx	-.004	1.29
85	OVP	X	0	.5
86	OVP	Z	31.722	.5
87	OVP	Mx	0	.5
88	M109	X	0	1.63
89	M109	Z	16.912	1.63
90	M109	Mx	-.004	1.63
91	M80A	X	0	1.63



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
92	M80A	Z	16.912	1.63
93	M80A	Mx	-0.04	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-7.425	.79
2	MP4A	Z	12.86	.79
3	MP4A	Mx	.006	.79
4	MP4A	X	-7.425	2.79
5	MP4A	Z	12.86	2.79
6	MP4A	Mx	.006	2.79
7	MP4B	X	-3.814	.79
8	MP4B	Z	6.605	.79
9	MP4B	Mx	-.006	.79
10	MP4B	X	-3.814	2.79
11	MP4B	Z	6.605	2.79
12	MP4B	Mx	-.006	2.79
13	MP4C	X	-8.483	.79
14	MP4C	Z	14.693	.79
15	MP4C	Mx	.002	.79
16	MP4C	X	-8.483	2.79
17	MP4C	Z	14.693	2.79
18	MP4C	Mx	.002	2.79
19	MP1A	X	-16.35	.33
20	MP1A	Z	28.318	.33
21	MP1A	Mx	.029	.33
22	MP1A	X	-16.35	3.83
23	MP1A	Z	28.318	3.83
24	MP1A	Mx	.029	3.83
25	MP1B	X	-12.421	.33
26	MP1B	Z	21.513	.33
27	MP1B	Mx	-.019	.33
28	MP1B	X	-12.421	3.83
29	MP1B	Z	21.513	3.83
30	MP1B	Mx	-.019	3.83
31	MP1C	X	-17.501	.33
32	MP1C	Z	30.313	.33
33	MP1C	Mx	-.016	.33
34	MP1C	X	-17.501	3.83
35	MP1C	Z	30.313	3.83
36	MP1C	Mx	-.016	3.83
37	MP1A	X	-16.35	.33
38	MP1A	Z	28.318	.33
39	MP1A	Mx	-.004	.33
40	MP1A	X	-16.35	3.83
41	MP1A	Z	28.318	3.83
42	MP1A	Mx	-.004	3.83
43	MP1B	X	-12.421	.33
44	MP1B	Z	21.513	.33
45	MP1B	Mx	-.019	.33
46	MP1B	X	-12.421	3.83
47	MP1B	Z	21.513	3.83
48	MP1B	Mx	-.019	3.83
49	MP1C	X	-17.501	.33
50	MP1C	Z	30.313	.33
51	MP1C	Mx	.025	.33



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
52	MP1C	X	-17.501	3.83
53	MP1C	Z	30.313	3.83
54	MP1C	Mx	.025	3.83
55	MP5A	X	-14.852	.79
56	MP5A	Z	25.725	.79
57	MP5A	Mx	.011	.79
58	MP5A	X	-14.852	4.79
59	MP5A	Z	25.725	4.79
60	MP5A	Mx	.011	4.79
61	MP5B	X	-11.59	.79
62	MP5B	Z	20.074	.79
63	MP5B	Mx	-.015	.79
64	MP5B	X	-11.59	4.79
65	MP5B	Z	20.074	4.79
66	MP5B	Mx	-.015	4.79
67	MP5C	X	-16.483	.79
68	MP5C	Z	28.55	.79
69	MP5C	Mx	0	.79
70	MP5C	X	-16.483	4.79
71	MP5C	Z	28.55	4.79
72	MP5C	Mx	0	4.79
73	M51	X	-7.131	1.63
74	M51	Z	12.351	1.63
75	M51	Mx	-.006	1.63
76	MP4A	X	-7.21	1.29
77	MP4A	Z	12.488	1.29
78	MP4A	Mx	-.006	1.29
79	MP4B	X	-7.21	1.29
80	MP4B	Z	12.488	1.29
81	MP4B	Mx	-.006	1.29
82	MP4C	X	-7.21	1.29
83	MP4C	Z	12.488	1.29
84	MP4C	Mx	-.006	1.29
85	OVP	X	-13.261	.5
86	OVP	Z	22.969	.5
87	OVP	Mx	0	.5
88	M109	X	-7.131	1.63
89	M109	Z	12.351	1.63
90	M109	Mx	-.006	1.63
91	M80A	X	-7.131	1.63
92	M80A	Z	12.351	1.63
93	M80A	Mx	-.006	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	-8.69	.79
2	MP4A	Z	5.017	.79
3	MP4A	Mx	.007	.79
4	MP4A	X	-8.69	2.79
5	MP4A	Z	5.017	2.79
6	MP4A	Mx	.007	2.79
7	MP4B	X	-8.69	.79
8	MP4B	Z	5.017	.79
9	MP4B	Mx	-.007	.79
10	MP4B	X	-8.69	2.79
11	MP4B	Z	5.017	2.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
12	MP4B	Mx	-.007	2.79
13	MP4C	X	-13.969	.79
14	MP4C	Z	8.065	.79
15	MP4C	Mx	-.004	.79
16	MP4C	X	-13.969	2.79
17	MP4C	Z	8.065	2.79
18	MP4C	Mx	-.004	2.79
19	MP1A	X	-23.782	.33
20	MP1A	Z	13.73	.33
21	MP1A	Mx	.026	.33
22	MP1A	X	-23.782	3.83
23	MP1A	Z	13.73	3.83
24	MP1A	Mx	.026	3.83
25	MP1B	X	-23.782	.33
26	MP1B	Z	13.73	.33
27	MP1B	Mx	-.01	.33
28	MP1B	X	-23.782	3.83
29	MP1B	Z	13.73	3.83
30	MP1B	Mx	-.01	3.83
31	MP1C	X	-29.525	.33
32	MP1C	Z	17.047	.33
33	MP1C	Mx	-.027	.33
34	MP1C	X	-29.525	3.83
35	MP1C	Z	17.047	3.83
36	MP1C	Mx	-.027	3.83
37	MP1A	X	-23.782	.33
38	MP1A	Z	13.73	.33
39	MP1A	Mx	.01	.33
40	MP1A	X	-23.782	3.83
41	MP1A	Z	13.73	3.83
42	MP1A	Mx	.01	3.83
43	MP1B	X	-23.782	.33
44	MP1B	Z	13.73	.33
45	MP1B	Mx	-.026	.33
46	MP1B	X	-23.782	3.83
47	MP1B	Z	13.73	3.83
48	MP1B	Mx	-.026	3.83
49	MP1C	X	-29.525	.33
50	MP1C	Z	17.047	.33
51	MP1C	Mx	.01	.33
52	MP1C	X	-29.525	3.83
53	MP1C	Z	17.047	3.83
54	MP1C	Mx	.01	3.83
55	MP5A	X	-20.074	.79
56	MP5A	Z	11.59	.79
57	MP5A	Mx	.015	.79
58	MP5A	X	-20.074	4.79
59	MP5A	Z	11.59	4.79
60	MP5A	Mx	.015	4.79
61	MP5B	X	-25.725	.79
62	MP5B	Z	14.852	.79
63	MP5B	Mx	-.011	.79
64	MP5B	X	-25.725	4.79
65	MP5B	Z	14.852	4.79
66	MP5B	Mx	-.011	4.79
67	MP5C	X	-25.725	.79
68	MP5C	Z	14.852	.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
69	MP5C	Mx	-.011	.79
70	MP5C	X	-25.725	4.79
71	MP5C	Z	14.852	4.79
72	MP5C	Mx	-.011	4.79
73	M51	X	-11.203	1.63
74	M51	Z	6.468	1.63
75	M51	Mx	-.006	1.63
76	MP4A	X	-11.387	1.29
77	MP4A	Z	6.574	1.29
78	MP4A	Mx	-.007	1.29
79	MP4B	X	-11.387	1.29
80	MP4B	Z	6.574	1.29
81	MP4B	Mx	-.007	1.29
82	MP4C	X	-11.387	1.29
83	MP4C	Z	6.574	1.29
84	MP4C	Mx	-.007	1.29
85	OVP	X	-20.718	.5
86	OVP	Z	11.962	.5
87	OVP	Mx	0	.5
88	M109	X	-11.203	1.63
89	M109	Z	6.468	1.63
90	M109	Mx	-.006	1.63
91	M80A	X	-11.203	1.63
92	M80A	Z	6.468	1.63
93	M80A	Mx	-.006	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	-7.627	.79
2	MP4A	Z	0	.79
3	MP4A	Mx	.006	.79
4	MP4A	X	-7.627	2.79
5	MP4A	Z	0	2.79
6	MP4A	Mx	.006	2.79
7	MP4B	X	-14.849	.79
8	MP4B	Z	0	.79
9	MP4B	Mx	-.006	.79
10	MP4B	X	-14.849	2.79
11	MP4B	Z	0	2.79
12	MP4B	Mx	-.006	2.79
13	MP4C	X	-11.606	.79
14	MP4C	Z	0	.79
15	MP4C	Mx	-.007	.79
16	MP4C	X	-11.606	2.79
17	MP4C	Z	0	2.79
18	MP4C	Mx	-.007	2.79
19	MP1A	X	-24.841	.33
20	MP1A	Z	0	.33
21	MP1A	Mx	.019	.33
22	MP1A	X	-24.841	3.83
23	MP1A	Z	0	3.83
24	MP1A	Mx	.019	3.83
25	MP1B	X	-32.699	.33
26	MP1B	Z	0	.33
27	MP1B	Mx	.004	.33
28	MP1B	X	-32.699	3.83

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
29	MP1B	Z	0	3.83
30	MP1B	Mx	.004	3.83
31	MP1C	X	-29.17	.33
32	MP1C	Z	0	.33
33	MP1C	Mx	-.028	.33
34	MP1C	X	-29.17	3.83
35	MP1C	Z	0	3.83
36	MP1C	Mx	-.028	3.83
37	MP1A	X	-24.841	.33
38	MP1A	Z	0	.33
39	MP1A	Mx	.019	.33
40	MP1A	X	-24.841	3.83
41	MP1A	Z	0	3.83
42	MP1A	Mx	.019	3.83
43	MP1B	X	-32.699	.33
44	MP1B	Z	0	.33
45	MP1B	Mx	-.029	.33
46	MP1B	X	-32.699	3.83
47	MP1B	Z	0	3.83
48	MP1B	Mx	-.029	3.83
49	MP1C	X	-29.17	.33
50	MP1C	Z	0	.33
51	MP1C	Mx	-.006	.33
52	MP1C	X	-29.17	3.83
53	MP1C	Z	0	3.83
54	MP1C	Mx	-.006	3.83
55	MP5A	X	-19.917	.79
56	MP5A	Z	0	.79
57	MP5A	Mx	.015	.79
58	MP5A	X	-19.917	4.79
59	MP5A	Z	0	4.79
60	MP5A	Mx	.015	4.79
61	MP5B	X	-32.967	.79
62	MP5B	Z	0	.79
63	MP5B	Mx	0	.79
64	MP5B	X	-32.967	4.79
65	MP5B	Z	0	4.79
66	MP5B	Mx	0	4.79
67	MP5C	X	-23.18	.79
68	MP5C	Z	0	.79
69	MP5C	Mx	-.015	.79
70	MP5C	X	-23.18	4.79
71	MP5C	Z	0	4.79
72	MP5C	Mx	-.015	4.79
73	M51	X	-14.261	1.63
74	M51	Z	0	1.63
75	M51	Mx	-.006	1.63
76	MP4A	X	-14.42	1.29
77	MP4A	Z	0	1.29
78	MP4A	Mx	-.006	1.29
79	MP4B	X	-14.42	1.29
80	MP4B	Z	0	1.29
81	MP4B	Mx	-.006	1.29
82	MP4C	X	-14.42	1.29
83	MP4C	Z	0	1.29
84	MP4C	Mx	-.006	1.29
85	OVP	X	-26.523	.5



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
86	OVP	Z	0	.5
87	OVP	Mx	0	.5
88	M109	X	-14.261	1.63
89	M109	Z	0	1.63
90	M109	Mx	-.006	1.63
91	M80A	X	-14.261	1.63
92	M80A	Z	0	1.63
93	M80A	Mx	-.006	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-8.69	.79
2	MP4A	Z	-5.017	.79
3	MP4A	Mx	.007	.79
4	MP4A	X	-8.69	2.79
5	MP4A	Z	-5.017	2.79
6	MP4A	Mx	.007	2.79
7	MP4B	X	-14.945	.79
8	MP4B	Z	-8.628	.79
9	MP4B	Mx	0	.79
10	MP4B	X	-14.945	2.79
11	MP4B	Z	-8.628	2.79
12	MP4B	Mx	0	2.79
13	MP4C	X	-6.857	.79
14	MP4C	Z	-3.959	.79
15	MP4C	Mx	-.006	.79
16	MP4C	X	-6.857	2.79
17	MP4C	Z	-3.959	2.79
18	MP4C	Mx	-.006	2.79
19	MP1A	X	-23.782	.33
20	MP1A	Z	-13.73	.33
21	MP1A	Mx	.01	.33
22	MP1A	X	-23.782	3.83
23	MP1A	Z	-13.73	3.83
24	MP1A	Mx	.01	3.83
25	MP1B	X	-30.587	.33
26	MP1B	Z	-17.659	.33
27	MP1B	Mx	.021	.33
28	MP1B	X	-30.587	3.83
29	MP1B	Z	-17.659	3.83
30	MP1B	Mx	.021	3.83
31	MP1C	X	-21.787	.33
32	MP1C	Z	-12.579	.33
33	MP1C	Mx	-.021	.33
34	MP1C	X	-21.787	3.83
35	MP1C	Z	-12.579	3.83
36	MP1C	Mx	-.021	3.83
37	MP1A	X	-23.782	.33
38	MP1A	Z	-13.73	.33
39	MP1A	Mx	.026	.33
40	MP1A	X	-23.782	3.83
41	MP1A	Z	-13.73	3.83
42	MP1A	Mx	.026	3.83
43	MP1B	X	-30.587	.33
44	MP1B	Z	-17.659	.33
45	MP1B	Mx	-.021	.33

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
46	MP1B	X	-30.587	3.83
47	MP1B	Z	-17.659	3.83
48	MP1B	Mx	-.021	3.83
49	MP1C	X	-21.787	.33
50	MP1C	Z	-12.579	.33
51	MP1C	Mx	-.016	.33
52	MP1C	X	-21.787	3.83
53	MP1C	Z	-12.579	3.83
54	MP1C	Mx	-.016	3.83
55	MP5A	X	-20.074	.79
56	MP5A	Z	-11.59	.79
57	MP5A	Mx	.015	.79
58	MP5A	X	-20.074	4.79
59	MP5A	Z	-11.59	4.79
60	MP5A	Mx	.015	4.79
61	MP5B	X	-25.725	.79
62	MP5B	Z	-14.852	.79
63	MP5B	Mx	.011	.79
64	MP5B	X	-25.725	4.79
65	MP5B	Z	-14.852	4.79
66	MP5B	Mx	.011	4.79
67	MP5C	X	-17.249	.79
68	MP5C	Z	-9.959	.79
69	MP5C	Mx	-.015	.79
70	MP5C	X	-17.249	4.79
71	MP5C	Z	-9.959	4.79
72	MP5C	Mx	-.015	4.79
73	M51	X	-14.646	1.63
74	M51	Z	-8.456	1.63
75	M51	Mx	-.004	1.63
76	MP4A	X	-14.692	1.29
77	MP4A	Z	-8.482	1.29
78	MP4A	Mx	-.004	1.29
79	MP4B	X	-14.692	1.29
80	MP4B	Z	-8.482	1.29
81	MP4B	Mx	-.004	1.29
82	MP4C	X	-14.692	1.29
83	MP4C	Z	-8.482	1.29
84	MP4C	Mx	-.004	1.29
85	OVP	X	-27.472	.5
86	OVP	Z	-15.861	.5
87	OVP	Mx	0	.5
88	M109	X	-14.646	1.63
89	M109	Z	-8.456	1.63
90	M109	Mx	-.004	1.63
91	M80A	X	-14.646	1.63
92	M80A	Z	-8.456	1.63
93	M80A	Mx	-.004	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-7.425	.79
2	MP4A	Z	-12.86	.79
3	MP4A	Mx	.006	.79
4	MP4A	X	-7.425	2.79
5	MP4A	Z	-12.86	2.79



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
6	MP4A	Mx	.006	2.79
7	MP4B	X	-7.425	.79
8	MP4B	Z	-12.86	.79
9	MP4B	Mx	.006	.79
10	MP4B	X	-7.425	2.79
11	MP4B	Z	-12.86	2.79
12	MP4B	Mx	.006	2.79
13	MP4C	X	-4.377	.79
14	MP4C	Z	-7.581	.79
15	MP4C	Mx	-.006	.79
16	MP4C	X	-4.377	2.79
17	MP4C	Z	-7.581	2.79
18	MP4C	Mx	-.006	2.79
19	MP1A	X	-16.35	.33
20	MP1A	Z	-28.318	.33
21	MP1A	Mx	-.004	.33
22	MP1A	X	-16.35	3.83
23	MP1A	Z	-28.318	3.83
24	MP1A	Mx	-.004	3.83
25	MP1B	X	-16.35	.33
26	MP1B	Z	-28.318	.33
27	MP1B	Mx	.029	.33
28	MP1B	X	-16.35	3.83
29	MP1B	Z	-28.318	3.83
30	MP1B	Mx	.029	3.83
31	MP1C	X	-13.033	.33
32	MP1C	Z	-22.575	.33
33	MP1C	Mx	-.013	.33
34	MP1C	X	-13.033	3.83
35	MP1C	Z	-22.575	3.83
36	MP1C	Mx	-.013	3.83
37	MP1A	X	-16.35	.33
38	MP1A	Z	-28.318	.33
39	MP1A	Mx	.029	.33
40	MP1A	X	-16.35	3.83
41	MP1A	Z	-28.318	3.83
42	MP1A	Mx	.029	3.83
43	MP1B	X	-16.35	.33
44	MP1B	Z	-28.318	.33
45	MP1B	Mx	-.004	.33
46	MP1B	X	-16.35	3.83
47	MP1B	Z	-28.318	3.83
48	MP1B	Mx	-.004	3.83
49	MP1C	X	-13.033	.33
50	MP1C	Z	-22.575	.33
51	MP1C	Mx	-.024	.33
52	MP1C	X	-13.033	3.83
53	MP1C	Z	-22.575	3.83
54	MP1C	Mx	-.024	3.83
55	MP5A	X	-14.852	.79
56	MP5A	Z	-25.725	.79
57	MP5A	Mx	.011	.79
58	MP5A	X	-14.852	4.79
59	MP5A	Z	-25.725	4.79
60	MP5A	Mx	.011	4.79
61	MP5B	X	-11.59	.79
62	MP5B	Z	-20.074	.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
63	MP5B	Mx	.015	.79
64	MP5B	X	-11.59	4.79
65	MP5B	Z	-20.074	4.79
66	MP5B	Mx	.015	4.79
67	MP5C	X	-11.59	.79
68	MP5C	Z	-20.074	.79
69	MP5C	Mx	-.015	.79
70	MP5C	X	-11.59	4.79
71	MP5C	Z	-20.074	4.79
72	MP5C	Mx	-.015	4.79
73	M51	X	-9.118	1.63
74	M51	Z	-15.794	1.63
75	M51	Mx	0	1.63
76	MP4A	X	-9.118	1.29
77	MP4A	Z	-15.794	1.29
78	MP4A	Mx	0	1.29
79	MP4B	X	-9.118	1.29
80	MP4B	Z	-15.794	1.29
81	MP4B	Mx	0	1.29
82	MP4C	X	-9.118	1.29
83	MP4C	Z	-15.794	1.29
84	MP4C	Mx	0	1.29
85	OVP	X	-17.161	.5
86	OVP	Z	-29.723	.5
87	OVP	Mx	0	.5
88	M109	X	-9.118	1.63
89	M109	Z	-15.794	1.63
90	M109	Mx	0	1.63
91	M80A	X	-9.118	1.63
92	M80A	Z	-15.794	1.63
93	M80A	Mx	0	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	0	.79
2	MP4A	Z	-4.249	.79
3	MP4A	Mx	0	.79
4	MP4A	X	0	2.79
5	MP4A	Z	-4.249	2.79
6	MP4A	Mx	0	2.79
7	MP4B	X	0	.79
8	MP4B	Z	-2.182	.79
9	MP4B	Mx	.001	.79
10	MP4B	X	0	2.79
11	MP4B	Z	-2.182	2.79
12	MP4B	Mx	.001	2.79
13	MP4C	X	0	.79
14	MP4C	Z	-3.11	.79
15	MP4C	Mx	-.001	.79
16	MP4C	X	0	2.79
17	MP4C	Z	-3.11	2.79
18	MP4C	Mx	-.001	2.79
19	MP1A	X	0	.33
20	MP1A	Z	-7.409	.33
21	MP1A	Mx	-.004	.33
22	MP1A	X	0	3.83

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
23	MP1A	Z	-7.409	3.83
24	MP1A	Mx	-.004	3.83
25	MP1B	X	0	.33
26	MP1B	Z	-4.243	.33
27	MP1B	Mx	.004	.33
28	MP1B	X	0	3.83
29	MP1B	Z	-4.243	3.83
30	MP1B	Mx	.004	3.83
31	MP1C	X	0	.33
32	MP1C	Z	-5.665	.33
33	MP1C	Mx	-.0002	.33
34	MP1C	X	0	3.83
35	MP1C	Z	-5.665	3.83
36	MP1C	Mx	-.0002	3.83
37	MP1A	X	0	.33
38	MP1A	Z	-7.409	.33
39	MP1A	Mx	.004	.33
40	MP1A	X	0	3.83
41	MP1A	Z	-7.409	3.83
42	MP1A	Mx	.004	3.83
43	MP1B	X	0	.33
44	MP1B	Z	-4.243	.33
45	MP1B	Mx	.002	.33
46	MP1B	X	0	3.83
47	MP1B	Z	-4.243	3.83
48	MP1B	Mx	.002	3.83
49	MP1C	X	0	.33
50	MP1C	Z	-5.665	.33
51	MP1C	Mx	-.005	.33
52	MP1C	X	0	3.83
53	MP1C	Z	-5.665	3.83
54	MP1C	Mx	-.005	3.83
55	MP5A	X	0	.79
56	MP5A	Z	-10.18	.79
57	MP5A	Mx	0	.79
58	MP5A	X	0	4.79
59	MP5A	Z	-10.18	4.79
60	MP5A	Mx	0	4.79
61	MP5B	X	0	.79
62	MP5B	Z	-5.591	.79
63	MP5B	Mx	.004	.79
64	MP5B	X	0	4.79
65	MP5B	Z	-5.591	4.79
66	MP5B	Mx	.004	4.79
67	MP5C	X	0	.79
68	MP5C	Z	-9.033	.79
69	MP5C	Mx	-.003	.79
70	MP5C	X	0	4.79
71	MP5C	Z	-9.033	4.79
72	MP5C	Mx	-.003	4.79
73	M51	X	0	1.63
74	M51	Z	-3.826	1.63
75	M51	Mx	.000956	1.63
76	MP4A	X	0	1.29
77	MP4A	Z	-4.629	1.29
78	MP4A	Mx	.001	1.29
79	MP4B	X	0	1.29

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
80	MP4B	Z	-4.629	1.29
81	MP4B	Mx	.001	1.29
82	MP4C	X	0	1.29
83	MP4C	Z	-4.629	1.29
84	MP4C	Mx	.001	1.29
85	OVP	X	0	.5
86	OVP	Z	-8.015	.5
87	OVP	Mx	0	.5
88	M109	X	0	1.63
89	M109	Z	-3.826	1.63
90	M109	Mx	.000956	1.63
91	M80A	X	0	1.63
92	M80A	Z	-3.826	1.63
93	M80A	Mx	.000956	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	1.78	.79
2	MP4A	Z	-3.083	.79
3	MP4A	Mx	-.001	.79
4	MP4A	X	1.78	2.79
5	MP4A	Z	-3.083	2.79
6	MP4A	Mx	-.001	2.79
7	MP4B	X	.746	.79
8	MP4B	Z	-1.293	.79
9	MP4B	Mx	.001	.79
10	MP4B	X	.746	2.79
11	MP4B	Z	-1.293	2.79
12	MP4B	Mx	.001	2.79
13	MP4C	X	2.083	.79
14	MP4C	Z	-3.608	.79
15	MP4C	Mx	-.000543	.79
16	MP4C	X	2.083	2.79
17	MP4C	Z	-3.608	2.79
18	MP4C	Mx	-.000543	2.79
19	MP1A	X	3.177	.33
20	MP1A	Z	-5.503	.33
21	MP1A	Mx	-.006	.33
22	MP1A	X	3.177	3.83
23	MP1A	Z	-5.503	3.83
24	MP1A	Mx	-.006	3.83
25	MP1B	X	1.593	.33
26	MP1B	Z	-2.76	.33
27	MP1B	Mx	.002	.33
28	MP1B	X	1.593	3.83
29	MP1B	Z	-2.76	3.83
30	MP1B	Mx	.002	3.83
31	MP1C	X	3.641	.33
32	MP1C	Z	-6.306	.33
33	MP1C	Mx	.003	.33
34	MP1C	X	3.641	3.83
35	MP1C	Z	-6.306	3.83
36	MP1C	Mx	.003	3.83
37	MP1A	X	3.177	.33
38	MP1A	Z	-5.503	.33
39	MP1A	Mx	.000827	.33



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
40	MP1A	X	3.177	3.83
41	MP1A	Z	-5.503	3.83
42	MP1A	Mx	.000827	3.83
43	MP1B	X	1.593	.33
44	MP1B	Z	-2.76	.33
45	MP1B	Mx	.002	.33
46	MP1B	X	1.593	3.83
47	MP1B	Z	-2.76	3.83
48	MP1B	Mx	.002	3.83
49	MP1C	X	3.641	.33
50	MP1C	Z	-6.306	.33
51	MP1C	Mx	-.005	.33
52	MP1C	X	3.641	3.83
53	MP1C	Z	-6.306	3.83
54	MP1C	Mx	-.005	3.83
55	MP5A	X	4.516	.79
56	MP5A	Z	-7.822	.79
57	MP5A	Mx	-.003	.79
58	MP5A	X	4.516	4.79
59	MP5A	Z	-7.822	4.79
60	MP5A	Mx	-.003	4.79
61	MP5B	X	3.369	.79
62	MP5B	Z	-5.836	.79
63	MP5B	Mx	.004	.79
64	MP5B	X	3.369	4.79
65	MP5B	Z	-5.836	4.79
66	MP5B	Mx	.004	4.79
67	MP5C	X	5.09	.79
68	MP5C	Z	-8.816	.79
69	MP5C	Mx	0	.79
70	MP5C	X	5.09	4.79
71	MP5C	Z	-8.816	4.79
72	MP5C	Mx	0	4.79
73	M51	X	1.57	1.63
74	M51	Z	-2.719	1.63
75	M51	Mx	.001	1.63
76	MP4A	X	1.915	1.29
77	MP4A	Z	-3.316	1.29
78	MP4A	Mx	.002	1.29
79	MP4B	X	1.915	1.29
80	MP4B	Z	-3.316	1.29
81	MP4B	Mx	.002	1.29
82	MP4C	X	1.915	1.29
83	MP4C	Z	-3.316	1.29
84	MP4C	Mx	.002	1.29
85	OVP	X	3.496	.5
86	OVP	Z	-6.056	.5
87	OVP	Mx	0	.5
88	M109	X	1.57	1.63
89	M109	Z	-2.719	1.63
90	M109	Mx	.001	1.63
91	M80A	X	1.57	1.63
92	M80A	Z	-2.719	1.63
93	M80A	Mx	.001	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
--	--------------	-----------	--------------------	----------------

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	1.89	.79
2	MP4A	Z	-1.091	.79
3	MP4A	Mx	-.001	.79
4	MP4A	X	1.89	2.79
5	MP4A	Z	-1.091	2.79
6	MP4A	Mx	-.001	2.79
7	MP4B	X	1.89	.79
8	MP4B	Z	-1.091	.79
9	MP4B	Mx	.001	.79
10	MP4B	X	1.89	2.79
11	MP4B	Z	-1.091	2.79
12	MP4B	Mx	.001	2.79
13	MP4C	X	3.401	.79
14	MP4C	Z	-1.963	.79
15	MP4C	Mx	.001	.79
16	MP4C	X	3.401	2.79
17	MP4C	Z	-1.963	2.79
18	MP4C	Mx	.001	2.79
19	MP1A	X	3.674	.33
20	MP1A	Z	-2.121	.33
21	MP1A	Mx	-.004	.33
22	MP1A	X	3.674	3.83
23	MP1A	Z	-2.121	3.83
24	MP1A	Mx	-.004	3.83
25	MP1B	X	3.674	.33
26	MP1B	Z	-2.121	.33
27	MP1B	Mx	.002	.33
28	MP1B	X	3.674	3.83
29	MP1B	Z	-2.121	3.83
30	MP1B	Mx	.002	3.83
31	MP1C	X	5.989	.33
32	MP1C	Z	-3.458	.33
33	MP1C	Mx	.006	.33
34	MP1C	X	5.989	3.83
35	MP1C	Z	-3.458	3.83
36	MP1C	Mx	.006	3.83
37	MP1A	X	3.674	.33
38	MP1A	Z	-2.121	.33
39	MP1A	Mx	-.002	.33
40	MP1A	X	3.674	3.83
41	MP1A	Z	-2.121	3.83
42	MP1A	Mx	-.002	3.83
43	MP1B	X	3.674	.33
44	MP1B	Z	-2.121	.33
45	MP1B	Mx	.004	.33
46	MP1B	X	3.674	3.83
47	MP1B	Z	-2.121	3.83
48	MP1B	Mx	.004	3.83
49	MP1C	X	5.989	.33
50	MP1C	Z	-3.458	.33
51	MP1C	Mx	-.002	.33
52	MP1C	X	5.989	3.83
53	MP1C	Z	-3.458	3.83
54	MP1C	Mx	-.002	3.83
55	MP5A	X	5.836	.79
56	MP5A	Z	-3.369	.79
57	MP5A	Mx	-.004	.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
58	MP5A	X	5.836	4.79
59	MP5A	Z	-3.369	4.79
60	MP5A	Mx	-.004	4.79
61	MP5B	X	7.822	.79
62	MP5B	Z	-4.516	.79
63	MP5B	Mx	.003	.79
64	MP5B	X	7.822	4.79
65	MP5B	Z	-4.516	4.79
66	MP5B	Mx	.003	4.79
67	MP5C	X	7.822	.79
68	MP5C	Z	-4.516	.79
69	MP5C	Mx	.003	.79
70	MP5C	X	7.822	4.79
71	MP5C	Z	-4.516	4.79
72	MP5C	Mx	.003	4.79
73	M51	X	2.422	1.63
74	M51	Z	-1.399	1.63
75	M51	Mx	.001	1.63
76	MP4A	X	2.97	1.29
77	MP4A	Z	-1.715	1.29
78	MP4A	Mx	.002	1.29
79	MP4B	X	2.97	1.29
80	MP4B	Z	-1.715	1.29
81	MP4B	Mx	.002	1.29
82	MP4C	X	2.97	1.29
83	MP4C	Z	-1.715	1.29
84	MP4C	Mx	.002	1.29
85	OVP	X	5.613	.5
86	OVP	Z	-3.241	.5
87	OVP	Mx	0	.5
88	M109	X	2.422	1.63
89	M109	Z	-1.399	1.63
90	M109	Mx	.001	1.63
91	M80A	X	2.422	1.63
92	M80A	Z	-1.399	1.63
93	M80A	Mx	.001	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	1.493	.79
2	MP4A	Z	0	.79
3	MP4A	Mx	-.001	.79
4	MP4A	X	1.493	2.79
5	MP4A	Z	0	2.79
6	MP4A	Mx	-.001	2.79
7	MP4B	X	3.56	.79
8	MP4B	Z	0	.79
9	MP4B	Mx	.001	.79
10	MP4B	X	3.56	2.79
11	MP4B	Z	0	2.79
12	MP4B	Mx	.001	2.79
13	MP4C	X	2.632	.79
14	MP4C	Z	0	.79
15	MP4C	Mx	.002	.79
16	MP4C	X	2.632	2.79
17	MP4C	Z	0	2.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
18	MP4C	Mx	.002	2.79
19	MP1A	X	3.187	.33
20	MP1A	Z	0	.33
21	MP1A	Mx	-.002	.33
22	MP1A	X	3.187	3.83
23	MP1A	Z	0	3.83
24	MP1A	Mx	-.002	3.83
25	MP1B	X	6.354	.33
26	MP1B	Z	0	.33
27	MP1B	Mx	-.000827	.33
28	MP1B	X	6.354	3.83
29	MP1B	Z	0	3.83
30	MP1B	Mx	-.000827	3.83
31	MP1C	X	4.932	.33
32	MP1C	Z	0	.33
33	MP1C	Mx	.005	.33
34	MP1C	X	4.932	3.83
35	MP1C	Z	0	3.83
36	MP1C	Mx	.005	3.83
37	MP1A	X	3.187	.33
38	MP1A	Z	0	.33
39	MP1A	Mx	-.002	.33
40	MP1A	X	3.187	3.83
41	MP1A	Z	0	3.83
42	MP1A	Mx	-.002	3.83
43	MP1B	X	6.354	.33
44	MP1B	Z	0	.33
45	MP1B	Mx	.006	.33
46	MP1B	X	6.354	3.83
47	MP1B	Z	0	3.83
48	MP1B	Mx	.006	3.83
49	MP1C	X	4.932	.33
50	MP1C	Z	0	.33
51	MP1C	Mx	.000984	.33
52	MP1C	X	4.932	3.83
53	MP1C	Z	0	3.83
54	MP1C	Mx	.000984	3.83
55	MP5A	X	5.591	.79
56	MP5A	Z	0	.79
57	MP5A	Mx	-.004	.79
58	MP5A	X	5.591	4.79
59	MP5A	Z	0	4.79
60	MP5A	Mx	-.004	4.79
61	MP5B	X	10.18	.79
62	MP5B	Z	0	.79
63	MP5B	Mx	0	.79
64	MP5B	X	10.18	4.79
65	MP5B	Z	0	4.79
66	MP5B	Mx	0	4.79
67	MP5C	X	6.739	.79
68	MP5C	Z	0	.79
69	MP5C	Mx	.004	.79
70	MP5C	X	6.739	4.79
71	MP5C	Z	0	4.79
72	MP5C	Mx	.004	4.79
73	M51	X	3.14	1.63
74	M51	Z	0	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
75	M51	Mx	.001	1.63
76	MP4A	X	3.829	1.29
77	MP4A	Z	0	1.29
78	MP4A	Mx	.002	1.29
79	MP4B	X	3.829	1.29
80	MP4B	Z	0	1.29
81	MP4B	Mx	.002	1.29
82	MP4C	X	3.829	1.29
83	MP4C	Z	0	1.29
84	MP4C	Mx	.002	1.29
85	OVP	X	6.993	.5
86	OVP	Z	0	.5
87	OVP	Mx	0	.5
88	M109	X	3.14	1.63
89	M109	Z	0	1.63
90	M109	Mx	.001	1.63
91	M80A	X	3.14	1.63
92	M80A	Z	0	1.63
93	M80A	Mx	.001	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	1.89	.79
2	MP4A	Z	1.091	.79
3	MP4A	Mx	-.001	.79
4	MP4A	X	1.89	2.79
5	MP4A	Z	1.091	2.79
6	MP4A	Mx	-.001	2.79
7	MP4B	X	3.68	.79
8	MP4B	Z	2.125	.79
9	MP4B	Mx	0	.79
10	MP4B	X	3.68	2.79
11	MP4B	Z	2.125	2.79
12	MP4B	Mx	0	2.79
13	MP4C	X	1.365	.79
14	MP4C	Z	.788	.79
15	MP4C	Mx	.001	.79
16	MP4C	X	1.365	2.79
17	MP4C	Z	.788	2.79
18	MP4C	Mx	.001	2.79
19	MP1A	X	3.674	.33
20	MP1A	Z	2.121	.33
21	MP1A	Mx	-.002	.33
22	MP1A	X	3.674	3.83
23	MP1A	Z	2.121	3.83
24	MP1A	Mx	-.002	3.83
25	MP1B	X	6.417	.33
26	MP1B	Z	3.705	.33
27	MP1B	Mx	-.004	.33
28	MP1B	X	6.417	3.83
29	MP1B	Z	3.705	3.83
30	MP1B	Mx	-.004	3.83
31	MP1C	X	2.87	.33
32	MP1C	Z	1.657	.33
33	MP1C	Mx	.003	.33
34	MP1C	X	2.87	3.83

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
35	MP1C	Z	1.657	3.83
36	MP1C	Mx	.003	3.83
37	MP1A	X	3.674	.33
38	MP1A	Z	2.121	.33
39	MP1A	Mx	-.004	.33
40	MP1A	X	3.674	3.83
41	MP1A	Z	2.121	3.83
42	MP1A	Mx	-.004	3.83
43	MP1B	X	6.417	.33
44	MP1B	Z	3.705	.33
45	MP1B	Mx	.004	.33
46	MP1B	X	6.417	3.83
47	MP1B	Z	3.705	3.83
48	MP1B	Mx	.004	3.83
49	MP1C	X	2.87	.33
50	MP1C	Z	1.657	.33
51	MP1C	Mx	.002	.33
52	MP1C	X	2.87	3.83
53	MP1C	Z	1.657	3.83
54	MP1C	Mx	.002	3.83
55	MP5A	X	5.836	.79
56	MP5A	Z	3.369	.79
57	MP5A	Mx	-.004	.79
58	MP5A	X	5.836	4.79
59	MP5A	Z	3.369	4.79
60	MP5A	Mx	-.004	4.79
61	MP5B	X	7.822	.79
62	MP5B	Z	4.516	.79
63	MP5B	Mx	-.003	.79
64	MP5B	X	7.822	4.79
65	MP5B	Z	4.516	4.79
66	MP5B	Mx	-.003	4.79
67	MP5C	X	4.842	.79
68	MP5C	Z	2.796	.79
69	MP5C	Mx	.004	.79
70	MP5C	X	4.842	4.79
71	MP5C	Z	2.796	4.79
72	MP5C	Mx	.004	4.79
73	M51	X	3.313	1.63
74	M51	Z	1.913	1.63
75	M51	Mx	.000956	1.63
76	MP4A	X	4.009	1.29
77	MP4A	Z	2.315	1.29
78	MP4A	Mx	.001	1.29
79	MP4B	X	4.009	1.29
80	MP4B	Z	2.315	1.29
81	MP4B	Mx	.001	1.29
82	MP4C	X	4.009	1.29
83	MP4C	Z	2.315	1.29
84	MP4C	Mx	.001	1.29
85	OVP	X	6.941	.5
86	OVP	Z	4.007	.5
87	OVP	Mx	0	.5
88	M109	X	3.313	1.63
89	M109	Z	1.913	1.63
90	M109	Mx	.000956	1.63
91	M80A	X	3.313	1.63



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
92	M80A	Z	1.913	1.63
93	M80A	Mx	.000956	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	1.78	.79
2	MP4A	Z	3.083	.79
3	MP4A	Mx	-.001	.79
4	MP4A	X	1.78	2.79
5	MP4A	Z	3.083	2.79
6	MP4A	Mx	-.001	2.79
7	MP4B	X	1.78	.79
8	MP4B	Z	3.083	.79
9	MP4B	Mx	-.001	.79
10	MP4B	X	1.78	2.79
11	MP4B	Z	3.083	2.79
12	MP4B	Mx	-.001	2.79
13	MP4C	X	.908	.79
14	MP4C	Z	1.572	.79
15	MP4C	Mx	.001	.79
16	MP4C	X	.908	2.79
17	MP4C	Z	1.572	2.79
18	MP4C	Mx	.001	2.79
19	MP1A	X	3.177	.33
20	MP1A	Z	5.503	.33
21	MP1A	Mx	.000827	.33
22	MP1A	X	3.177	3.83
23	MP1A	Z	5.503	3.83
24	MP1A	Mx	.000827	3.83
25	MP1B	X	3.177	.33
26	MP1B	Z	5.503	.33
27	MP1B	Mx	-.006	.33
28	MP1B	X	3.177	3.83
29	MP1B	Z	5.503	3.83
30	MP1B	Mx	-.006	3.83
31	MP1C	X	1.84	.33
32	MP1C	Z	3.188	.33
33	MP1C	Mx	.002	.33
34	MP1C	X	1.84	3.83
35	MP1C	Z	3.188	3.83
36	MP1C	Mx	.002	3.83
37	MP1A	X	3.177	.33
38	MP1A	Z	5.503	.33
39	MP1A	Mx	-.006	.33
40	MP1A	X	3.177	3.83
41	MP1A	Z	5.503	3.83
42	MP1A	Mx	-.006	3.83
43	MP1B	X	3.177	.33
44	MP1B	Z	5.503	.33
45	MP1B	Mx	.000827	.33
46	MP1B	X	3.177	3.83
47	MP1B	Z	5.503	3.83
48	MP1B	Mx	.000827	3.83
49	MP1C	X	1.84	.33
50	MP1C	Z	3.188	.33
51	MP1C	Mx	.003	.33



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
52	MP1C	X	1.84	3.83
53	MP1C	Z	3.188	3.83
54	MP1C	Mx	.003	3.83
55	MP5A	X	4.516	.79
56	MP5A	Z	7.822	.79
57	MP5A	Mx	-.003	.79
58	MP5A	X	4.516	4.79
59	MP5A	Z	7.822	4.79
60	MP5A	Mx	-.003	4.79
61	MP5B	X	3.369	.79
62	MP5B	Z	5.836	.79
63	MP5B	Mx	-.004	.79
64	MP5B	X	3.369	4.79
65	MP5B	Z	5.836	4.79
66	MP5B	Mx	-.004	4.79
67	MP5C	X	3.369	.79
68	MP5C	Z	5.836	.79
69	MP5C	Mx	.004	.79
70	MP5C	X	3.369	4.79
71	MP5C	Z	5.836	4.79
72	MP5C	Mx	.004	4.79
73	M51	X	2.084	1.63
74	M51	Z	3.61	1.63
75	M51	Mx	0	1.63
76	MP4A	X	2.515	1.29
77	MP4A	Z	4.355	1.29
78	MP4A	Mx	0	1.29
79	MP4B	X	2.515	1.29
80	MP4B	Z	4.355	1.29
81	MP4B	Mx	0	1.29
82	MP4C	X	2.515	1.29
83	MP4C	Z	4.355	1.29
84	MP4C	Mx	0	1.29
85	OVP	X	4.263	.5
86	OVP	Z	7.383	.5
87	OVP	Mx	0	.5
88	M109	X	2.084	1.63
89	M109	Z	3.61	1.63
90	M109	Mx	0	1.63
91	M80A	X	2.084	1.63
92	M80A	Z	3.61	1.63
93	M80A	Mx	0	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	0	.79
2	MP4A	Z	4.249	.79
3	MP4A	Mx	0	.79
4	MP4A	X	0	2.79
5	MP4A	Z	4.249	2.79
6	MP4A	Mx	0	2.79
7	MP4B	X	0	.79
8	MP4B	Z	2.182	.79
9	MP4B	Mx	-.001	.79
10	MP4B	X	0	2.79
11	MP4B	Z	2.182	2.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
12	MP4B	Mx	-.001	2.79
13	MP4C	X	0	.79
14	MP4C	Z	3.11	.79
15	MP4C	Mx	.001	.79
16	MP4C	X	0	2.79
17	MP4C	Z	3.11	2.79
18	MP4C	Mx	.001	2.79
19	MP1A	X	0	.33
20	MP1A	Z	7.409	.33
21	MP1A	Mx	.004	.33
22	MP1A	X	0	3.83
23	MP1A	Z	7.409	3.83
24	MP1A	Mx	.004	3.83
25	MP1B	X	0	.33
26	MP1B	Z	4.243	.33
27	MP1B	Mx	-.004	.33
28	MP1B	X	0	3.83
29	MP1B	Z	4.243	3.83
30	MP1B	Mx	-.004	3.83
31	MP1C	X	0	.33
32	MP1C	Z	5.665	.33
33	MP1C	Mx	.0002	.33
34	MP1C	X	0	3.83
35	MP1C	Z	5.665	3.83
36	MP1C	Mx	.0002	3.83
37	MP1A	X	0	.33
38	MP1A	Z	7.409	.33
39	MP1A	Mx	-.004	.33
40	MP1A	X	0	3.83
41	MP1A	Z	7.409	3.83
42	MP1A	Mx	-.004	3.83
43	MP1B	X	0	.33
44	MP1B	Z	4.243	.33
45	MP1B	Mx	-.002	.33
46	MP1B	X	0	3.83
47	MP1B	Z	4.243	3.83
48	MP1B	Mx	-.002	3.83
49	MP1C	X	0	.33
50	MP1C	Z	5.665	.33
51	MP1C	Mx	.005	.33
52	MP1C	X	0	3.83
53	MP1C	Z	5.665	3.83
54	MP1C	Mx	.005	3.83
55	MP5A	X	0	.79
56	MP5A	Z	10.18	.79
57	MP5A	Mx	0	.79
58	MP5A	X	0	4.79
59	MP5A	Z	10.18	4.79
60	MP5A	Mx	0	4.79
61	MP5B	X	0	.79
62	MP5B	Z	5.591	.79
63	MP5B	Mx	-.004	.79
64	MP5B	X	0	4.79
65	MP5B	Z	5.591	4.79
66	MP5B	Mx	-.004	4.79
67	MP5C	X	0	.79
68	MP5C	Z	9.033	.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
69	MP5C	Mx	.003	.79
70	MP5C	X	0	4.79
71	MP5C	Z	9.033	4.79
72	MP5C	Mx	.003	4.79
73	M51	X	0	1.63
74	M51	Z	3.826	1.63
75	M51	Mx	-.000956	1.63
76	MP4A	X	0	1.29
77	MP4A	Z	4.629	1.29
78	MP4A	Mx	-.001	1.29
79	MP4B	X	0	1.29
80	MP4B	Z	4.629	1.29
81	MP4B	Mx	-.001	1.29
82	MP4C	X	0	1.29
83	MP4C	Z	4.629	1.29
84	MP4C	Mx	-.001	1.29
85	OVP	X	0	.5
86	OVP	Z	8.015	.5
87	OVP	Mx	0	.5
88	M109	X	0	1.63
89	M109	Z	3.826	1.63
90	M109	Mx	-.000956	1.63
91	M80A	X	0	1.63
92	M80A	Z	3.826	1.63
93	M80A	Mx	-.000956	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-1.78	.79
2	MP4A	Z	3.083	.79
3	MP4A	Mx	.001	.79
4	MP4A	X	-1.78	2.79
5	MP4A	Z	3.083	2.79
6	MP4A	Mx	.001	2.79
7	MP4B	X	-.746	.79
8	MP4B	Z	1.293	.79
9	MP4B	Mx	-.001	.79
10	MP4B	X	-.746	2.79
11	MP4B	Z	1.293	2.79
12	MP4B	Mx	-.001	2.79
13	MP4C	X	-2.083	.79
14	MP4C	Z	3.608	.79
15	MP4C	Mx	.000543	.79
16	MP4C	X	-2.083	2.79
17	MP4C	Z	3.608	2.79
18	MP4C	Mx	.000543	2.79
19	MP1A	X	-3.177	.33
20	MP1A	Z	5.503	.33
21	MP1A	Mx	.006	.33
22	MP1A	X	-3.177	3.83
23	MP1A	Z	5.503	3.83
24	MP1A	Mx	.006	3.83
25	MP1B	X	-1.593	.33
26	MP1B	Z	2.76	.33
27	MP1B	Mx	-.002	.33
28	MP1B	X	-1.593	3.83

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
29	MP1B	Z	2.76	3.83
30	MP1B	Mx	-.002	3.83
31	MP1C	X	-3.641	.33
32	MP1C	Z	6.306	.33
33	MP1C	Mx	-.003	.33
34	MP1C	X	-3.641	3.83
35	MP1C	Z	6.306	3.83
36	MP1C	Mx	-.003	3.83
37	MP1A	X	-3.177	.33
38	MP1A	Z	5.503	.33
39	MP1A	Mx	-.000827	.33
40	MP1A	X	-3.177	3.83
41	MP1A	Z	5.503	3.83
42	MP1A	Mx	-.000827	3.83
43	MP1B	X	-1.593	.33
44	MP1B	Z	2.76	.33
45	MP1B	Mx	-.002	.33
46	MP1B	X	-1.593	3.83
47	MP1B	Z	2.76	3.83
48	MP1B	Mx	-.002	3.83
49	MP1C	X	-3.641	.33
50	MP1C	Z	6.306	.33
51	MP1C	Mx	.005	.33
52	MP1C	X	-3.641	3.83
53	MP1C	Z	6.306	3.83
54	MP1C	Mx	.005	3.83
55	MP5A	X	-4.516	.79
56	MP5A	Z	7.822	.79
57	MP5A	Mx	.003	.79
58	MP5A	X	-4.516	4.79
59	MP5A	Z	7.822	4.79
60	MP5A	Mx	.003	4.79
61	MP5B	X	-3.369	.79
62	MP5B	Z	5.836	.79
63	MP5B	Mx	-.004	.79
64	MP5B	X	-3.369	4.79
65	MP5B	Z	5.836	4.79
66	MP5B	Mx	-.004	4.79
67	MP5C	X	-5.09	.79
68	MP5C	Z	8.816	.79
69	MP5C	Mx	0	.79
70	MP5C	X	-5.09	4.79
71	MP5C	Z	8.816	4.79
72	MP5C	Mx	0	4.79
73	M51	X	-1.57	1.63
74	M51	Z	2.719	1.63
75	M51	Mx	-.001	1.63
76	MP4A	X	-1.915	1.29
77	MP4A	Z	3.316	1.29
78	MP4A	Mx	-.002	1.29
79	MP4B	X	-1.915	1.29
80	MP4B	Z	3.316	1.29
81	MP4B	Mx	-.002	1.29
82	MP4C	X	-1.915	1.29
83	MP4C	Z	3.316	1.29
84	MP4C	Mx	-.002	1.29
85	OVP	X	-3.496	.5



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
86	OVP	Z	6.056	.5
87	OVP	Mx	0	.5
88	M109	X	-1.57	1.63
89	M109	Z	2.719	1.63
90	M109	Mx	-.001	1.63
91	M80A	X	-1.57	1.63
92	M80A	Z	2.719	1.63
93	M80A	Mx	-.001	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-1.89	.79
2	MP4A	Z	1.091	.79
3	MP4A	Mx	.001	.79
4	MP4A	X	-1.89	2.79
5	MP4A	Z	1.091	2.79
6	MP4A	Mx	.001	2.79
7	MP4B	X	-1.89	.79
8	MP4B	Z	1.091	.79
9	MP4B	Mx	-.001	.79
10	MP4B	X	-1.89	2.79
11	MP4B	Z	1.091	2.79
12	MP4B	Mx	-.001	2.79
13	MP4C	X	-3.401	.79
14	MP4C	Z	1.963	.79
15	MP4C	Mx	-.001	.79
16	MP4C	X	-3.401	2.79
17	MP4C	Z	1.963	2.79
18	MP4C	Mx	-.001	2.79
19	MP1A	X	-3.674	.33
20	MP1A	Z	2.121	.33
21	MP1A	Mx	.004	.33
22	MP1A	X	-3.674	3.83
23	MP1A	Z	2.121	3.83
24	MP1A	Mx	.004	3.83
25	MP1B	X	-3.674	.33
26	MP1B	Z	2.121	.33
27	MP1B	Mx	-.002	.33
28	MP1B	X	-3.674	3.83
29	MP1B	Z	2.121	3.83
30	MP1B	Mx	-.002	3.83
31	MP1C	X	-5.989	.33
32	MP1C	Z	3.458	.33
33	MP1C	Mx	-.006	.33
34	MP1C	X	-5.989	3.83
35	MP1C	Z	3.458	3.83
36	MP1C	Mx	-.006	3.83
37	MP1A	X	-3.674	.33
38	MP1A	Z	2.121	.33
39	MP1A	Mx	.002	.33
40	MP1A	X	-3.674	3.83
41	MP1A	Z	2.121	3.83
42	MP1A	Mx	.002	3.83
43	MP1B	X	-3.674	.33
44	MP1B	Z	2.121	.33
45	MP1B	Mx	-.004	.33

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
46	MP1B	X	-3.674	3.83
47	MP1B	Z	2.121	3.83
48	MP1B	Mx	-.004	3.83
49	MP1C	X	-5.989	.33
50	MP1C	Z	3.458	.33
51	MP1C	Mx	.002	.33
52	MP1C	X	-5.989	3.83
53	MP1C	Z	3.458	3.83
54	MP1C	Mx	.002	3.83
55	MP5A	X	-5.836	.79
56	MP5A	Z	3.369	.79
57	MP5A	Mx	.004	.79
58	MP5A	X	-5.836	4.79
59	MP5A	Z	3.369	4.79
60	MP5A	Mx	.004	4.79
61	MP5B	X	-7.822	.79
62	MP5B	Z	4.516	.79
63	MP5B	Mx	-.003	.79
64	MP5B	X	-7.822	4.79
65	MP5B	Z	4.516	4.79
66	MP5B	Mx	-.003	4.79
67	MP5C	X	-7.822	.79
68	MP5C	Z	4.516	.79
69	MP5C	Mx	-.003	.79
70	MP5C	X	-7.822	4.79
71	MP5C	Z	4.516	4.79
72	MP5C	Mx	-.003	4.79
73	M51	X	-2.422	1.63
74	M51	Z	1.399	1.63
75	M51	Mx	-.001	1.63
76	MP4A	X	-2.97	1.29
77	MP4A	Z	1.715	1.29
78	MP4A	Mx	-.002	1.29
79	MP4B	X	-2.97	1.29
80	MP4B	Z	1.715	1.29
81	MP4B	Mx	-.002	1.29
82	MP4C	X	-2.97	1.29
83	MP4C	Z	1.715	1.29
84	MP4C	Mx	-.002	1.29
85	OVP	X	-5.613	.5
86	OVP	Z	3.241	.5
87	OVP	Mx	0	.5
88	M109	X	-2.422	1.63
89	M109	Z	1.399	1.63
90	M109	Mx	-.001	1.63
91	M80A	X	-2.422	1.63
92	M80A	Z	1.399	1.63
93	M80A	Mx	-.001	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-1.493	.79
2	MP4A	Z	0	.79
3	MP4A	Mx	.001	.79
4	MP4A	X	-1.493	2.79
5	MP4A	Z	0	2.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
6	MP4A	Mx	.001	2.79
7	MP4B	X	-3.56	.79
8	MP4B	Z	0	.79
9	MP4B	Mx	-.001	.79
10	MP4B	X	-3.56	2.79
11	MP4B	Z	0	2.79
12	MP4B	Mx	-.001	2.79
13	MP4C	X	-2.632	.79
14	MP4C	Z	0	.79
15	MP4C	Mx	-.002	.79
16	MP4C	X	-2.632	2.79
17	MP4C	Z	0	2.79
18	MP4C	Mx	-.002	2.79
19	MP1A	X	-3.187	.33
20	MP1A	Z	0	.33
21	MP1A	Mx	.002	.33
22	MP1A	X	-3.187	3.83
23	MP1A	Z	0	3.83
24	MP1A	Mx	.002	3.83
25	MP1B	X	-6.354	.33
26	MP1B	Z	0	.33
27	MP1B	Mx	.000827	.33
28	MP1B	X	-6.354	3.83
29	MP1B	Z	0	3.83
30	MP1B	Mx	.000827	3.83
31	MP1C	X	-4.932	.33
32	MP1C	Z	0	.33
33	MP1C	Mx	-.005	.33
34	MP1C	X	-4.932	3.83
35	MP1C	Z	0	3.83
36	MP1C	Mx	-.005	3.83
37	MP1A	X	-3.187	.33
38	MP1A	Z	0	.33
39	MP1A	Mx	.002	.33
40	MP1A	X	-3.187	3.83
41	MP1A	Z	0	3.83
42	MP1A	Mx	.002	3.83
43	MP1B	X	-6.354	.33
44	MP1B	Z	0	.33
45	MP1B	Mx	-.006	.33
46	MP1B	X	-6.354	3.83
47	MP1B	Z	0	3.83
48	MP1B	Mx	-.006	3.83
49	MP1C	X	-4.932	.33
50	MP1C	Z	0	.33
51	MP1C	Mx	-.000984	.33
52	MP1C	X	-4.932	3.83
53	MP1C	Z	0	3.83
54	MP1C	Mx	-.000984	3.83
55	MP5A	X	-5.591	.79
56	MP5A	Z	0	.79
57	MP5A	Mx	.004	.79
58	MP5A	X	-5.591	4.79
59	MP5A	Z	0	4.79
60	MP5A	Mx	.004	4.79
61	MP5B	X	-10.18	.79
62	MP5B	Z	0	.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
63	MP5B	Mx	0	.79
64	MP5B	X	-10.18	4.79
65	MP5B	Z	0	4.79
66	MP5B	Mx	0	4.79
67	MP5C	X	-6.739	.79
68	MP5C	Z	0	.79
69	MP5C	Mx	-.004	.79
70	MP5C	X	-6.739	4.79
71	MP5C	Z	0	4.79
72	MP5C	Mx	-.004	4.79
73	M51	X	-3.14	1.63
74	M51	Z	0	1.63
75	M51	Mx	-.001	1.63
76	MP4A	X	-3.829	1.29
77	MP4A	Z	0	1.29
78	MP4A	Mx	-.002	1.29
79	MP4B	X	-3.829	1.29
80	MP4B	Z	0	1.29
81	MP4B	Mx	-.002	1.29
82	MP4C	X	-3.829	1.29
83	MP4C	Z	0	1.29
84	MP4C	Mx	-.002	1.29
85	OVP	X	-6.993	.5
86	OVP	Z	0	.5
87	OVP	Mx	0	.5
88	M109	X	-3.14	1.63
89	M109	Z	0	1.63
90	M109	Mx	-.001	1.63
91	M80A	X	-3.14	1.63
92	M80A	Z	0	1.63
93	M80A	Mx	-.001	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-1.89	.79
2	MP4A	Z	-1.091	.79
3	MP4A	Mx	.001	.79
4	MP4A	X	-1.89	2.79
5	MP4A	Z	-1.091	2.79
6	MP4A	Mx	.001	2.79
7	MP4B	X	-3.68	.79
8	MP4B	Z	-2.125	.79
9	MP4B	Mx	0	.79
10	MP4B	X	-3.68	2.79
11	MP4B	Z	-2.125	2.79
12	MP4B	Mx	0	2.79
13	MP4C	X	-1.365	.79
14	MP4C	Z	-.788	.79
15	MP4C	Mx	-.001	.79
16	MP4C	X	-1.365	2.79
17	MP4C	Z	-.788	2.79
18	MP4C	Mx	-.001	2.79
19	MP1A	X	-3.674	.33
20	MP1A	Z	-2.121	.33
21	MP1A	Mx	.002	.33
22	MP1A	X	-3.674	3.83

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
23	MP1A	Z	-2.121	3.83
24	MP1A	Mx	.002	3.83
25	MP1B	X	-6.417	.33
26	MP1B	Z	-3.705	.33
27	MP1B	Mx	.004	.33
28	MP1B	X	-6.417	3.83
29	MP1B	Z	-3.705	3.83
30	MP1B	Mx	.004	3.83
31	MP1C	X	-2.87	.33
32	MP1C	Z	-1.657	.33
33	MP1C	Mx	-.003	.33
34	MP1C	X	-2.87	3.83
35	MP1C	Z	-1.657	3.83
36	MP1C	Mx	-.003	3.83
37	MP1A	X	-3.674	.33
38	MP1A	Z	-2.121	.33
39	MP1A	Mx	.004	.33
40	MP1A	X	-3.674	3.83
41	MP1A	Z	-2.121	3.83
42	MP1A	Mx	.004	3.83
43	MP1B	X	-6.417	.33
44	MP1B	Z	-3.705	.33
45	MP1B	Mx	-.004	.33
46	MP1B	X	-6.417	3.83
47	MP1B	Z	-3.705	3.83
48	MP1B	Mx	-.004	3.83
49	MP1C	X	-2.87	.33
50	MP1C	Z	-1.657	.33
51	MP1C	Mx	-.002	.33
52	MP1C	X	-2.87	3.83
53	MP1C	Z	-1.657	3.83
54	MP1C	Mx	-.002	3.83
55	MP5A	X	-5.836	.79
56	MP5A	Z	-3.369	.79
57	MP5A	Mx	.004	.79
58	MP5A	X	-5.836	4.79
59	MP5A	Z	-3.369	4.79
60	MP5A	Mx	.004	4.79
61	MP5B	X	-7.822	.79
62	MP5B	Z	-4.516	.79
63	MP5B	Mx	.003	.79
64	MP5B	X	-7.822	4.79
65	MP5B	Z	-4.516	4.79
66	MP5B	Mx	.003	4.79
67	MP5C	X	-4.842	.79
68	MP5C	Z	-2.796	.79
69	MP5C	Mx	-.004	.79
70	MP5C	X	-4.842	4.79
71	MP5C	Z	-2.796	4.79
72	MP5C	Mx	-.004	4.79
73	M51	X	-3.313	1.63
74	M51	Z	-1.913	1.63
75	M51	Mx	-.000956	1.63
76	MP4A	X	-4.009	1.29
77	MP4A	Z	-2.315	1.29
78	MP4A	Mx	-.001	1.29
79	MP4B	X	-4.009	1.29

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
80	MP4B	Z	-2.315	1.29
81	MP4B	Mx	-.001	1.29
82	MP4C	X	-4.009	1.29
83	MP4C	Z	-2.315	1.29
84	MP4C	Mx	-.001	1.29
85	OVP	X	-6.941	.5
86	OVP	Z	-4.007	.5
87	OVP	Mx	0	.5
88	M109	X	-3.313	1.63
89	M109	Z	-1.913	1.63
90	M109	Mx	-.000956	1.63
91	M80A	X	-3.313	1.63
92	M80A	Z	-1.913	1.63
93	M80A	Mx	-.000956	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-1.78	.79
2	MP4A	Z	-3.083	.79
3	MP4A	Mx	.001	.79
4	MP4A	X	-1.78	2.79
5	MP4A	Z	-3.083	2.79
6	MP4A	Mx	.001	2.79
7	MP4B	X	-1.78	.79
8	MP4B	Z	-3.083	.79
9	MP4B	Mx	.001	.79
10	MP4B	X	-1.78	2.79
11	MP4B	Z	-3.083	2.79
12	MP4B	Mx	.001	2.79
13	MP4C	X	-.908	.79
14	MP4C	Z	-1.572	.79
15	MP4C	Mx	-.001	.79
16	MP4C	X	-.908	2.79
17	MP4C	Z	-1.572	2.79
18	MP4C	Mx	-.001	2.79
19	MP1A	X	-3.177	.33
20	MP1A	Z	-5.503	.33
21	MP1A	Mx	-.000827	.33
22	MP1A	X	-3.177	3.83
23	MP1A	Z	-5.503	3.83
24	MP1A	Mx	-.000827	3.83
25	MP1B	X	-3.177	.33
26	MP1B	Z	-5.503	.33
27	MP1B	Mx	.006	.33
28	MP1B	X	-3.177	3.83
29	MP1B	Z	-5.503	3.83
30	MP1B	Mx	.006	3.83
31	MP1C	X	-1.84	.33
32	MP1C	Z	-3.188	.33
33	MP1C	Mx	-.002	.33
34	MP1C	X	-1.84	3.83
35	MP1C	Z	-3.188	3.83
36	MP1C	Mx	-.002	3.83
37	MP1A	X	-3.177	.33
38	MP1A	Z	-5.503	.33
39	MP1A	Mx	.006	.33



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
40	MP1A	X	-3.177	3.83
41	MP1A	Z	-5.503	3.83
42	MP1A	Mx	.006	3.83
43	MP1B	X	-3.177	.33
44	MP1B	Z	-5.503	.33
45	MP1B	Mx	-.000827	.33
46	MP1B	X	-3.177	3.83
47	MP1B	Z	-5.503	3.83
48	MP1B	Mx	-.000827	3.83
49	MP1C	X	-1.84	.33
50	MP1C	Z	-3.188	.33
51	MP1C	Mx	-.003	.33
52	MP1C	X	-1.84	3.83
53	MP1C	Z	-3.188	3.83
54	MP1C	Mx	-.003	3.83
55	MP5A	X	-4.516	.79
56	MP5A	Z	-7.822	.79
57	MP5A	Mx	.003	.79
58	MP5A	X	-4.516	4.79
59	MP5A	Z	-7.822	4.79
60	MP5A	Mx	.003	4.79
61	MP5B	X	-3.369	.79
62	MP5B	Z	-5.836	.79
63	MP5B	Mx	.004	.79
64	MP5B	X	-3.369	4.79
65	MP5B	Z	-5.836	4.79
66	MP5B	Mx	.004	4.79
67	MP5C	X	-3.369	.79
68	MP5C	Z	-5.836	.79
69	MP5C	Mx	-.004	.79
70	MP5C	X	-3.369	4.79
71	MP5C	Z	-5.836	4.79
72	MP5C	Mx	-.004	4.79
73	M51	X	-2.084	1.63
74	M51	Z	-3.61	1.63
75	M51	Mx	0	1.63
76	MP4A	X	-2.515	1.29
77	MP4A	Z	-4.355	1.29
78	MP4A	Mx	0	1.29
79	MP4B	X	-2.515	1.29
80	MP4B	Z	-4.355	1.29
81	MP4B	Mx	0	1.29
82	MP4C	X	-2.515	1.29
83	MP4C	Z	-4.355	1.29
84	MP4C	Mx	0	1.29
85	OVP	X	-4.263	.5
86	OVP	Z	-7.383	.5
87	OVP	Mx	0	.5
88	M109	X	-2.084	1.63
89	M109	Z	-3.61	1.63
90	M109	Mx	0	1.63
91	M80A	X	-2.084	1.63
92	M80A	Z	-3.61	1.63
93	M80A	Mx	0	1.63

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
--	--------------	-----------	--------------------	----------------



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

Member Point Loads (BLC 77 : Lm1) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M73	Y	-500	%96

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M73	Y	-500	%33

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M73	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M73	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	Y	-1.143	.79
2	MP4A	My	-.000857	.79
3	MP4A	Mz	0	.79
4	MP4A	Y	-1.143	2.79
5	MP4A	My	-.000857	2.79
6	MP4A	Mz	0	2.79
7	MP4B	Y	-1.143	.79
8	MP4B	My	.000429	.79
9	MP4B	Mz	-.000742	.79
10	MP4B	Y	-1.143	2.79
11	MP4B	My	.000429	2.79
12	MP4B	Mz	-.000742	2.79
13	MP4C	Y	-1.143	.79
14	MP4C	My	.000657	.79
15	MP4C	Mz	.000551	.79
16	MP4C	Y	-1.143	2.79
17	MP4C	My	.000657	2.79
18	MP4C	Mz	.000551	2.79
19	MP1A	Y	-.798	.33
20	MP1A	My	-.000598	.33
21	MP1A	Mz	.000465	.33
22	MP1A	Y	-.798	3.83
23	MP1A	My	-.000598	3.83
24	MP1A	Mz	.000465	3.83
25	MP1B	Y	-.798	.33
26	MP1B	My	-.000104	.33
27	MP1B	Mz	-.000751	.33
28	MP1B	Y	-.798	3.83
29	MP1B	My	-.000104	3.83
30	MP1B	Mz	-.000751	3.83
31	MP1C	Y	-.798	.33
32	MP1C	My	.000758	.33
33	MP1C	Mz	2.8e-5	.33
34	MP1C	Y	-.798	3.83
35	MP1C	My	.000758	3.83
36	MP1C	Mz	2.8e-5	3.83
37	MP1A	Y	-.798	.33
38	MP1A	My	-.000598	.33
39	MP1A	Mz	-.000465	.33



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
40	MP1A	Y	-.798	3.83
41	MP1A	My	-.000598	3.83
42	MP1A	Mz	-.000465	3.83
43	MP1B	Y	-.798	.33
44	MP1B	My	.000702	.33
45	MP1B	Mz	-.000286	.33
46	MP1B	Y	-.798	3.83
47	MP1B	My	.000702	3.83
48	MP1B	Mz	-.000286	3.83
49	MP1C	Y	-.798	.33
50	MP1C	My	.000159	.33
51	MP1C	Mz	.000741	.33
52	MP1C	Y	-.798	3.83
53	MP1C	My	.000159	3.83
54	MP1C	Mz	.000741	3.83
55	MP5A	Y	-.339	.79
56	MP5A	My	-.000254	.79
57	MP5A	Mz	0	.79
58	MP5A	Y	-.339	4.79
59	MP5A	My	-.000254	4.79
60	MP5A	Mz	0	4.79
61	MP5B	Y	-.339	.79
62	MP5B	My	0	.79
63	MP5B	Mz	-.000254	.79
64	MP5B	Y	-.339	4.79
65	MP5B	My	0	4.79
66	MP5B	Mz	-.000254	4.79
67	MP5C	Y	-.339	.79
68	MP5C	My	.00022	.79
69	MP5C	Mz	.000127	.79
70	MP5C	Y	-.339	4.79
71	MP5C	My	.00022	4.79
72	MP5C	Mz	.000127	4.79
73	M51	Y	-3.367	1.63
74	M51	My	.001	1.63
75	M51	Mz	-.000842	1.63
76	MP4A	Y	-3.156	1.29
77	MP4A	My	.001	1.29
78	MP4A	Mz	-.000789	1.29
79	MP4B	Y	-3.156	1.29
80	MP4B	My	.001	1.29
81	MP4B	Mz	-.000789	1.29
82	MP4C	Y	-3.156	1.29
83	MP4C	My	.001	1.29
84	MP4C	Mz	-.000789	1.29
85	OVP	Y	-1.277	.5
86	OVP	My	0	.5
87	OVP	Mz	0	.5
88	M109	Y	-3.367	1.63
89	M109	My	.001	1.63
90	M109	Mz	-.000842	1.63
91	M80A	Y	-3.367	1.63
92	M80A	My	.001	1.63
93	M80A	Mz	-.000842	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
--	--------------	-----------	--------------------	----------------

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	Z	-2.857	.79
2	MP4A	Mx	0	.79
3	MP4A	Z	-2.857	2.79
4	MP4A	Mx	0	2.79
5	MP4B	Z	-2.857	.79
6	MP4B	Mx	.002	.79
7	MP4B	Z	-2.857	2.79
8	MP4B	Mx	.002	2.79
9	MP4C	Z	-2.857	.79
10	MP4C	Mx	-.001	.79
11	MP4C	Z	-2.857	2.79
12	MP4C	Mx	-.001	2.79
13	MP1A	Z	-1.995	.33
14	MP1A	Mx	-.001	.33
15	MP1A	Z	-1.995	3.83
16	MP1A	Mx	-.001	3.83
17	MP1B	Z	-1.995	.33
18	MP1B	Mx	.002	.33
19	MP1B	Z	-1.995	3.83
20	MP1B	Mx	.002	3.83
21	MP1C	Z	-1.995	.33
22	MP1C	Mx	-7e-5	.33
23	MP1C	Z	-1.995	3.83
24	MP1C	Mx	-7e-5	3.83
25	MP1A	Z	-1.995	.33
26	MP1A	Mx	.001	.33
27	MP1A	Z	-1.995	3.83
28	MP1A	Mx	.001	3.83
29	MP1B	Z	-1.995	.33
30	MP1B	Mx	.000714	.33
31	MP1B	Z	-1.995	3.83
32	MP1B	Mx	.000714	3.83
33	MP1C	Z	-1.995	.33
34	MP1C	Mx	-.002	.33
35	MP1C	Z	-1.995	3.83
36	MP1C	Mx	-.002	3.83
37	MP5A	Z	-.848	.79
38	MP5A	Mx	0	.79
39	MP5A	Z	-.848	4.79
40	MP5A	Mx	0	4.79
41	MP5B	Z	-.848	.79
42	MP5B	Mx	.000636	.79
43	MP5B	Z	-.848	4.79
44	MP5B	Mx	.000636	4.79
45	MP5C	Z	-.848	.79
46	MP5C	Mx	-.000318	.79
47	MP5C	Z	-.848	4.79
48	MP5C	Mx	-.000318	4.79
49	M51	Z	-8.417	1.63
50	M51	Mx	.002	1.63
51	MP4A	Z	-7.889	1.29
52	MP4A	Mx	.002	1.29
53	MP4B	Z	-7.889	1.29
54	MP4B	Mx	.002	1.29
55	MP4C	Z	-7.889	1.29
56	MP4C	Mx	.002	1.29
57	OVP	Z	-3.191	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
58	OVP	Mx	0	.5
59	M109	Z	-8.417	1.63
60	M109	Mx	.002	1.63
61	M80A	Z	-8.417	1.63
62	M80A	Mx	.002	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	2.857	.79
2	MP4A	Mx	-.002	.79
3	MP4A	X	2.857	2.79
4	MP4A	Mx	-.002	2.79
5	MP4B	X	2.857	.79
6	MP4B	Mx	.001	.79
7	MP4B	X	2.857	2.79
8	MP4B	Mx	.001	2.79
9	MP4C	X	2.857	.79
10	MP4C	Mx	.002	.79
11	MP4C	X	2.857	2.79
12	MP4C	Mx	.002	2.79
13	MP1A	X	1.995	.33
14	MP1A	Mx	-.001	.33
15	MP1A	X	1.995	3.83
16	MP1A	Mx	-.001	3.83
17	MP1B	X	1.995	.33
18	MP1B	Mx	-.00026	.33
19	MP1B	X	1.995	3.83
20	MP1B	Mx	-.00026	3.83
21	MP1C	X	1.995	.33
22	MP1C	Mx	.002	.33
23	MP1C	X	1.995	3.83
24	MP1C	Mx	.002	3.83
25	MP1A	X	1.995	.33
26	MP1A	Mx	-.001	.33
27	MP1A	X	1.995	3.83
28	MP1A	Mx	-.001	3.83
29	MP1B	X	1.995	.33
30	MP1B	Mx	.002	.33
31	MP1B	X	1.995	3.83
32	MP1B	Mx	.002	3.83
33	MP1C	X	1.995	.33
34	MP1C	Mx	.000398	.33
35	MP1C	X	1.995	3.83
36	MP1C	Mx	.000398	3.83
37	MP5A	X	.848	.79
38	MP5A	Mx	-.000636	.79
39	MP5A	X	.848	4.79
40	MP5A	Mx	-.000636	4.79
41	MP5B	X	.848	.79
42	MP5B	Mx	0	.79
43	MP5B	X	.848	4.79
44	MP5B	Mx	0	4.79
45	MP5C	X	.848	.79
46	MP5C	Mx	.000551	.79
47	MP5C	X	.848	4.79
48	MP5C	Mx	.000551	4.79

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
49	M51	X	8.417	1.63
50	M51	Mx	.004	1.63
51	MP4A	X	7.889	1.29
52	MP4A	Mx	.003	1.29
53	MP4B	X	7.889	1.29
54	MP4B	Mx	.003	1.29
55	MP4C	X	7.889	1.29
56	MP4C	Mx	.003	1.29
57	OVP	X	3.191	.5
58	OVP	Mx	0	.5
59	M109	X	8.417	1.63
60	M109	Mx	.004	1.63
61	M80A	X	8.417	1.63
62	M80A	Mx	.004	1.63

Joint Loads and Enforced Displacements

Joint Label	L,D,M	Direction	Magnitude[(lb.k-ft), (in.rad), (lb*s^2/ft, lb*s^2*ft)]
No Data to Print ...			

Member Area Loads (BLC 39 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N180	N179	N161	N156	Y	C-D	-.009
2	N155	N159	N194	N193	Y	A-B	-.009
3	N162	N158	N168	N169	Y	A-B	-.009
4	N161	N144	N142B	N162	Y	B-C	-.009
5	N140	N156	N155	N142	Y	A-D	-.009
6	N138	N140A	N158	N159	Y	A-B	-.009

Member Area Loads (BLC 40 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N180	N179	N161	N156	Y	C-D	-.016
2	N155	N159	N194	N193	Y	A-B	-.016
3	N162	N158	N168	N169	Y	A-B	-.016
4	N161	N144	N142B	N162	Y	B-C	-.016
5	N140	N156	N155	N142	Y	A-D	-.016
6	N138	N140A	N158	N159	Y	A-B	-.016

Member Area Loads (BLC 84 : Structure Ev)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N180	N179	N161	N156	Y	Two Way	-.000207
2	N155	N159	N194	N193	Y	Two Way	-.000207
3	N162	N158	N168	N169	Y	Two Way	-.000207
4	N161	N144	N142B	N162	Y	Two Way	-.000207
5	N140	N156	N155	N142	Y	Two Way	-.000207
6	N138	N140A	N158	N159	Y	Two Way	-.000207

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N180	N179	N161	N156	Z	Two Way	-.000519
2	N155	N159	N194	N193	Z	Two Way	-.000519
3	N162	N158	N168	N169	Z	Two Way	-.000519
4	N161	N144	N142B	N162	Z	Two Way	-.000519

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
5	N140	N156	N155	N142	Z	Two Way	-0.00519
6	N138	N140A	N158	N159	Z	Two Way	-0.00519

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N180	N179	N161	N156	X	Two Way	.000519
2	N155	N159	N194	N193	X	Two Way	.000519
3	N162	N158	N168	N169	X	Two Way	.000519
4	N161	N144	N142B	N162	X	Two Way	.000519
5	N140	N156	N155	N142	X	Two Way	.000519
6	N138	N140A	N158	N159	X	Two Way	.000519

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	N153A	max	4038.773	10	3679.915	13	-1568.027	66	7.794	13	2.958	4	2.143	4
2		min	-3986.968	4	72.159	7	-7065.566	13	-2.105	7	-3.015	10	-2.082	10
3	N171	max	515.715	12	3421.424	21	4662.892	12	1.581	1	3.063	12	1.338	3
4		min	-6454.135	18	55.724	3	-2429.03	6	-3.573	20	-2.97	6	-6.381	21
5	N185	max	6270.063	20	3351.454	17	4734.11	2	1.445	1	2.957	8	6.004	17
6		min	-229.895	2	15.087	11	-2623.232	8	-3.699	19	-3.04	2	-1.65	11
7	Totals:	max	4835.13	10	9524.639	16	5237.96	1						
8		min	-4835.141	4	2375.186	73	-5237.961	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	N153A	66.502	2241.178	-2378.811	6.524	.015	-.091
2	1	N171	-117.066	546.292	3592.874	1.581	2.055	-.875
3	1	N185	50.549	512.458	4023.896	1.445	-2.498	.837
4	1	Totals:	-.015	3299.928	5237.96			
5	1	COG (ft):	X: .005	Y: 1.403	Z: -.04			
6	2	N153A	-1249.028	2072.266	-2320.873	5.773	.91	.854
7	2	N171	-1093.463	154.463	2042.519	1.56	.71	.691
8	2	N185	-229.895	1073.225	4734.11	.722	-3.04	2.752
9	2	Totals:	-2572.386	3299.954	4455.755			
10	2	COG (ft):	X: .005	Y: 1.403	Z: -.04			
11	3	N153A	-3196.223	1670.68	-2132.63	4.112	2.368	1.746
12	3	N171	-1586.53	55.724	1203.19	1.045	.125	1.338
13	3	N185	501.544	1573.566	3401.316	-.615	-1.834	4.089
14	3	Totals:	-4281.209	3299.971	2471.876			
15	3	COG (ft):	X: .005	Y: 1.403	Z: -.04			
16	4	N153A	-3986.968	1175.344	-2013.516	2.132	2.958	2.143
17	4	N171	-2221.917	207.214	156.7	.043	-6.79	1.222
18	4	N185	1373.744	1917.42	1856.804	-1.892	-.5	4.809
19	4	Totals:	-4835.141	3299.978	-.013			
20	4	COG (ft):	X: .005	Y: 1.403	Z: -.04			
21	5	N153A	-2733.353	662.366	-2032.046	.126	1.931	1.817
22	5	N171	-3389.256	562.241	-1593.761	-1.399	-2.227	.53
23	5	N185	1854.825	2075.369	1161.661	-2.755	.013	4.968
24	5	Totals:	-4267.783	3299.976	-2464.146			
25	5	COG (ft):	X: .005	Y: 1.403	Z: -.04			
26	6	N153A	-1034.972	239.369	-2038.017	-1.507	.607	1.046
27	6	N171	-4016.01	1082.027	-2429.03	-2.74	-2.97	-.876
28	6	N185	2486.359	1978.565	24.712	-3.283	.868	4.21



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
29	6	Totals:	-2564.623	3299.961	-4442.334			
30	6	COG (ft):	X: .005	Y: 1.403	Z: -.04			
31	7	N153A	-16.65	72.159	-1990.367	-2.105	-.069	.15
32	7	N171	-3380.192	1628.024	-1347.084	-3.409	-1.967	-2.776
33	7	N185	3396.847	1599.752	-1900.51	-3.371	2.421	2.492
34	7	Totals:	.004	3299.935	-5237.961			
35	7	COG (ft):	X: .005	Y: 1.403	Z: -.04			
36	8	N153A	1310.314	244.37	-2043.328	-1.365	-.96	-.825
37	8	N171	-2416.007	2003.503	210.804	-3.394	-.62	-4.341
38	8	N185	3678.068	1052.037	-2623.232	-2.683	2.957	.567
39	8	Totals:	2572.375	3299.909	-4455.756			
40	8	COG (ft):	X: .005	Y: 1.403	Z: -.04			
41	9	N153A	3258.356	666.864	-2221.157	.302	-2.419	-1.716
42	9	N171	-1936.171	2099.136	1044.743	-2.909	-.03	-4.979
43	9	N185	2959.012	533.892	-1295.463	-1.365	1.747	-.795
44	9	Totals:	4281.197	3299.893	-2471.877			
45	9	COG (ft):	X: .005	Y: 1.403	Z: -.04			
46	10	N153A	4038.773	1175.106	-2335.634	2.291	-3.015	-2.082
47	10	N171	-1302.749	1948.422	2081.343	-1.923	.778	-4.839
48	10	N185	2099.106	176.358	254.303	-.085	.416	-1.51
49	10	Totals:	4835.13	3299.885	.012			
50	10	COG (ft):	X: .005	Y: 1.403	Z: -.04			
51	11	N153A	2774.452	1672.778	-2320.682	4.285	-1.992	-1.728
52	11	N171	-125.387	1612.023	3823.948	-.487	2.326	-4.15
53	11	N185	1618.708	15.087	960.878	.795	-.094	-1.65
54	11	Totals:	4267.772	3299.888	2464.144			
55	11	COG (ft):	X: .005	Y: 1.403	Z: -.04			
56	12	N153A	1073.801	2079.059	-2324.603	5.919	-.666	-.958
57	12	N171	515.715	1108.302	4662.892	.877	3.063	-2.768
58	12	N185	975.096	112.541	2104.044	1.355	-.945	-.886
59	12	Totals:	2564.612	3299.902	4442.333			
60	12	COG (ft):	X: .005	Y: 1.403	Z: -.04			
61	13	N153A	37.886	3679.915	-7065.566	7.794	-.029	.065
62	13	N171	-5232.226	2960.882	4338.363	-2.014	.72	-5.095
63	13	N185	5194.322	2883.825	4284.866	-2.214	-.819	4.71
64	13	Totals:	-.018	9524.623	1557.664			
65	13	COG (ft):	X: .004	Y: 1.425	Z: -.054			
66	14	N153A	-393.111	3633.552	-7035.308	7.575	.26	.364
67	14	N171	-5509.477	2845.621	3873.03	-2.013	.322	-4.609
68	14	N185	5134.489	3045.457	4492.697	-2.434	-.962	5.298
69	14	Totals:	-768.099	9524.631	1330.42			
70	14	COG (ft):	X: .004	Y: 1.425	Z: -.054			
71	15	N153A	-920.532	3517.115	-6970.939	7.077	.642	.627
72	15	N171	-5712.219	2810.218	3543.285	-2.178	.073	-4.379
73	15	N185	5334.867	3197.304	4177.005	-2.83	-.663	5.739
74	15	Totals:	-1297.883	9524.637	749.352			
75	15	COG (ft):	X: .004	Y: 1.425	Z: -.054			
76	16	N153A	-1144.945	3367.592	-6916.163	6.457	.803	.748
77	16	N171	-5940.36	2851.707	3199.442	-2.497	-.195	-4.403
78	16	N185	5602.755	3305.34	3716.708	-3.236	-.264	5.978
79	16	Totals:	-1482.551	9524.639	-.013			
80	16	COG (ft):	X: .004	Y: 1.425	Z: -.054			
81	17	N153A	-823.638	3215.175	-6896.144	5.83	.54	.657
82	17	N171	-6268.43	2958.009	2740.798	-2.939	-.596	-4.638
83	17	N185	5789.592	3351.454	3403.319	-3.529	-.027	6.004
84	17	Totals:	-1302.476	9524.638	-752.027			
85	17	COG (ft):	X: .004	Y: 1.425	Z: -.054			



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
86	18	N153A	-300.464	3095	-6890.134	5.34	.139	.414
87	18	N171	-6454.135	3112.096	2528.831	-3.352	-.787	-5.087
88	18	N185	5983.857	3317.538	3026.266	-3.694	.246	5.744
89	18	Totals:	-770.743	9524.634	-1335.038			
90	18	COG (ft):	X: .004	Y: 1.425	Z: -.054			
91	19	N153A	102.206	3049.012	-6889.048	5.17	-.136	.12
92	19	N171	-6312.492	3272.987	2813.329	-3.571	-.532	-5.666
93	19	N185	6210.275	3202.628	2518.036	-3.699	.638	5.218
94	19	Totals:	-.011	9524.626	-1557.682			
95	19	COG (ft):	X: .004	Y: 1.425	Z: -.054			
96	20	N153A	534.258	3096.011	-6918.885	5.389	-.425	-.182
97	20	N171	-6036.251	3386.464	3279.342	-3.573	-.133	-6.152
98	20	N185	6270.063	3042.143	2309.105	-3.483	.78	4.628
99	20	Totals:	768.07	9524.618	-1330.438			
100	20	COG (ft):	X: .004	Y: 1.425	Z: -.054			
101	21	N153A	1061.845	3214.438	-6982.191	5.887	-.807	-.446
102	21	N171	-5834.704	3421.424	3608.665	-3.411	.116	-6.381
103	21	N185	6070.712	2888.75	2624.157	-3.088	.48	4.185
104	21	Totals:	1297.854	9524.612	-749.37			
105	21	COG (ft):	X: .004	Y: 1.425	Z: -.054			
106	22	N153A	1285.394	3365.149	-7036.355	6.507	-.968	-.564
107	22	N171	-5606.754	3380.345	3951.527	-3.094	.385	-6.355
108	22	N185	5803.882	2779.116	3084.822	-2.683	.082	3.946
109	22	Totals:	1482.522	9524.61	-.006			
110	22	COG (ft):	X: .004	Y: 1.425	Z: -.054			
111	23	N153A	963.037	3516.15	-7056.705	7.134	-.706	-.469
112	23	N171	-5277.8	3275.884	4409.447	-2.652	.785	-6.121
113	23	N185	5617.21	2732.577	3399.267	-2.387	-.154	3.922
114	23	Totals:	1302.447	9524.61	752.008			
115	23	COG (ft):	X: .004	Y: 1.425	Z: -.054			
116	24	N153A	439.632	3634.484	-7063.72	7.623	-.305	-.226
117	24	N171	-5090.865	3123.193	4621.732	-2.236	.976	-5.673
118	24	N185	5421.946	2766.938	3777.007	-2.22	-.428	4.183
119	24	Totals:	770.714	9524.615	1335.019			
120	24	COG (ft):	X: .004	Y: 1.425	Z: -.054			
121	25	N153A	-981.603	1165.642	-2655.243	2.019	.607	.674
122	25	N171	-2471.842	1019.477	626.518	-1.177	-.401	-1.042
123	25	N185	3453.461	1864.821	2356.091	-2.304	-.244	3.74
124	25	Totals:	.016	4049.94	327.367			
125	25	COG (ft):	X: 1.101	Y: 1.143	Z: .689			
126	26	N153A	-1064.364	1155.28	-2651.528	1.972	.663	.734
127	26	N171	-2532.405	995.866	529.1	-1.179	-.486	-.944
128	26	N185	3436.014	1898.796	2400.906	-2.348	-.278	3.86
129	26	Totals:	-160.755	4049.942	278.477			
130	26	COG (ft):	X: 1.101	Y: 1.143	Z: .689			
131	27	N153A	-1186.251	1129.942	-2639.78	1.869	.754	.79
132	27	N171	-2562.845	989.995	476.482	-1.21	-.522	-.904
133	27	N185	3481.538	1930.005	2317.783	-2.431	-.202	3.944
134	27	Totals:	-267.558	4049.943	154.485			
135	27	COG (ft):	X: 1.101	Y: 1.143	Z: .689			
136	28	N153A	-1235.534	1098.815	-2632.263	1.745	.791	.815
137	28	N171	-2602.533	999.571	411.088	-1.273	-.573	-.912
138	28	N185	3535.883	1951.557	2221.167	-2.511	-.119	3.989
139	28	Totals:	-302.184	4049.943	-.008			
140	28	COG (ft):	X: 1.101	Y: 1.143	Z: .689			
141	29	N153A	-1156.946	1067.19	-2633.254	1.62	.727	.794
142	29	N171	-2675.772	1021.39	301.789	-1.363	-.67	-.955

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
143	29	N185	3566	1961.363	2177.447	-2.565	-0.087	3.999
144	29	Totals:	-266.719	4049.943	-154.017			
145	29	COG (ft):	X: 1.101	Y: 1.143	Z: .689			
146	30	N153A	-1050.622	1041.15	-2633.379	1.518	.644	.746
147	30	N171	-2715.401	1053.42	249.586	-1.447	-.716	-1.042
148	30	N185	3605.753	1955.371	2106.139	-2.599	-.033	3.951
149	30	Totals:	-160.27	4049.942	-277.655			
150	30	COG (ft):	X: 1.101	Y: 1.143	Z: .689			
151	31	N153A	-987.056	1030.704	-2630.333	1.48	.601	.69
152	31	N171	-2675.9	1087.698	317.098	-1.489	-.653	-1.161
153	31	N185	3662.973	1931.538	1985.854	-2.604	.064	3.844
154	31	Totals:	.017	4049.94	-327.381			
155	31	COG (ft):	X: 1.101	Y: 1.143	Z: .689			
156	32	N153A	-904.25	1041.079	-2634.028	1.526	.546	.63
157	32	N171	-2615.384	1111.246	414.547	-1.488	-.569	-1.259
158	32	N185	3680.422	1897.615	1940.991	-2.56	.098	3.724
159	32	Totals:	160.788	4049.939	-278.491			
160	32	COG (ft):	X: 1.101	Y: 1.143	Z: .689			
161	33	N153A	-782.36	1066.498	-2645.736	1.63	.454	.573
162	33	N171	-2584.996	1117.104	467.143	-1.456	-.532	-1.299
163	33	N185	3634.948	1866.335	2024.094	-2.477	.022	3.64
164	33	Totals:	267.592	4049.938	-154.499			
165	33	COG (ft):	X: 1.101	Y: 1.143	Z: .689			
166	34	N153A	-733.118	1097.677	-2653.236	1.754	.417	.549
167	34	N171	-2545.316	1107.532	532.498	-1.394	-.482	-1.291
168	34	N185	3580.651	1844.729	2120.731	-2.397	-.061	3.594
169	34	Totals:	302.217	4049.937	-.006			
170	34	COG (ft):	X: 1.101	Y: 1.143	Z: .689			
171	35	N153A	-811.748	1129.242	-2652.259	1.879	.482	.57
172	35	N171	-2472.038	1085.786	641.766	-1.304	-.385	-1.248
173	35	N185	3550.538	1834.909	2164.496	-2.343	-.094	3.585
174	35	Totals:	266.752	4049.937	154.003			
175	35	COG (ft):	X: 1.101	Y: 1.143	Z: .689			
176	36	N153A	-918.08	1155.216	-2652.172	1.981	.564	.618
177	36	N171	-2432.353	1053.818	693.984	-1.219	-.339	-1.161
178	36	N185	3510.736	1840.904	2235.829	-2.309	-.147	3.633
179	36	Totals:	160.304	4049.938	277.641			
180	36	COG (ft):	X: 1.101	Y: 1.143	Z: .689			
181	37	N153A	346.494	1127.539	-2289.945	2.091	-.221	-.198
182	37	N171	-2095.34	1643.576	1599.807	-1.93	.353	-2.748
183	37	N185	1748.832	1278.799	1017.505	-1.553	-.177	1.528
184	37	Totals:	-.014	4049.914	327.367			
185	37	COG (ft):	X: -.401	Y: 1.143	Z: .689			
186	38	N153A	263.737	1116.845	-2286.529	2.045	-.165	-.138
187	38	N171	-2155.893	1619.891	1502.526	-1.931	.269	-2.65
188	38	N185	1731.371	1313.18	1062.481	-1.597	-.211	1.648
189	38	Totals:	-160.784	4049.916	278.478			
190	38	COG (ft):	X: -.401	Y: 1.143	Z: .689			
191	39	N153A	141.947	1091.088	-2275.09	1.941	-.074	-.082
192	39	N171	-2186.224	1613.89	1450.187	-1.962	.232	-2.61
193	39	N185	1776.689	1344.939	979.389	-1.68	-.135	1.732
194	39	Totals:	-267.588	4049.917	154.486			
195	39	COG (ft):	X: -.401	Y: 1.143	Z: .689			
196	40	N153A	92.853	1059.736	-2267.723	1.817	-.037	-.058
197	40	N171	-2225.844	1623.302	1385.076	-2.024	.182	-2.618
198	40	N185	1830.778	1366.879	882.64	-1.76	-.052	1.777
199	40	Totals:	-302.214	4049.917	-.007			

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
200	40	COG (ft):	X: -.401	Y: 1.143	Z: .689			
201	41	N153A	171.553	1028.203	-2268.688	1.692	-.101	-.08
202	41	N171	-2299.091	1644.843	1275.89	-2.114	.085	-2.661
203	41	N185	1860.789	1376.871	838.782	-1.814	-.02	1.786
204	41	Totals:	-266.748	4049.917	-154.016			
205	41	COG (ft):	X: -.401	Y: 1.143	Z: .689			
206	42	N153A	277.862	1002.38	-2268.706	1.59	-.184	-.128
207	42	N171	-2338.692	1676.566	1223.658	-2.198	.039	-2.749
208	42	N185	1900.53	1370.97	767.394	-1.848	.033	1.739
209	42	Totals:	-160.3	4049.916	-277.654			
210	42	COG (ft):	X: -.401	Y: 1.143	Z: .689			
211	43	N153A	341.404	992.155	-2265.478	1.553	-.226	-.183
212	43	N171	-2299.116	1710.715	1291.11	-2.241	.102	-2.867
213	43	N185	1957.7	1347.044	646.987	-1.854	.13	1.631
214	43	Totals:	-.012	4049.914	-327.38			
215	43	COG (ft):	X: -.401	Y: 1.143	Z: .689			
216	44	N153A	424.206	1002.862	-2268.874	1.599	-.282	-.244
217	44	N171	-2238.612	1734.336	1388.422	-2.24	.186	-2.965
218	44	N185	1975.165	1312.715	601.963	-1.811	.164	1.511
219	44	Totals:	160.759	4049.913	-278.49			
220	44	COG (ft):	X: -.401	Y: 1.143	Z: .689			
221	45	N153A	545.995	1028.698	-2280.265	1.703	-.373	-.299
222	45	N171	-2208.32	1740.329	1440.733	-2.209	.223	-3.005
223	45	N185	1929.887	1280.885	685.034	-1.728	.088	1.427
224	45	Totals:	267.562	4049.912	-154.498			
225	45	COG (ft):	X: -.401	Y: 1.143	Z: .689			
226	46	N153A	595.053	1060.103	-2287.621	1.827	-.41	-.323
227	46	N171	-2168.72	1730.916	1505.811	-2.147	.273	-2.997
228	46	N185	1875.854	1258.892	781.805	-1.648	.005	1.382
229	46	Totals:	302.188	4049.911	-.006			
230	46	COG (ft):	X: -.401	Y: 1.143	Z: .689			
231	47	N153A	516.31	1091.576	-2286.67	1.952	-.347	-.302
232	47	N171	-2095.433	1709.448	1614.966	-2.057	.37	-2.954
233	47	N185	1845.846	1248.887	825.708	-1.593	-.027	1.373
234	47	Totals:	266.722	4049.911	154.004			
235	47	COG (ft):	X: -.401	Y: 1.143	Z: .689			
236	48	N153A	409.992	1117.334	-2286.69	2.054	-.264	-.253
237	48	N171	-2055.776	1677.788	1667.213	-1.972	.416	-2.867
238	48	N185	1806.058	1254.791	897.119	-1.559	-.08	1.42
239	48	Totals:	160.274	4049.912	277.641			
240	48	COG (ft):	X: -.401	Y: 1.143	Z: .689			
241	49	N153A	586.434	1130.922	-2456.411	1.968	-.38	-.326
242	49	N171	-2799.057	1525.238	1750.362	-1.672	.054	-2.975
243	49	N185	2212.607	1018.754	706.043	-1.163	.294	1.261
244	49	Totals:	-.015	3674.914	-.005			
245	49	COG (ft):	X: -.652	Y: 1.26	Z: .362			
246	50	N153A	25.307	1109.182	-2212.04	2.026	-.027	.029
247	50	N171	-1812.251	1296.449	1138.12	-1.396	.122	-2.012
248	50	N185	1786.938	1269.297	1073.917	-1.457	-.119	1.846
249	50	Totals:	-.006	3674.927	-.003			
250	50	COG (ft):	X: .005	Y: 1.26	Z: .362			
251	51	N153A	30.12	1359.515	-2562.237	2.581	-.033	.034
252	51	N171	-2066.211	1263.894	1317.724	-1.088	.055	-2.125
253	51	N185	2036.084	1226.51	1244.512	-1.144	-.048	1.936
254	51	Totals:	-.006	3849.92	0			
255	51	COG (ft):	X: .005	Y: 1.403	Z: -.04			
256	52	N153A	21.223	1248.543	-2262.647	2.462	-.021	.026



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
257	52	N171	-1750.105	1092.14	1288.085	-.848	.149	-1.834
258	52	N185	1728.875	1059.009	1224.071	-.905	-.145	1.67
259	52	Totals:	-.006	3399.692	249.509			
260	52	COG (ft):	X: .005	Y: 1.407	Z: -.04			
261	53	N153A	-63.177	1242.091	-2261.291	2.436	.039	.073
262	53	N171	-1781.095	1074.351	1237.526	-.841	.106	-1.764
263	53	N185	1719.517	1083.252	1239.84	-.938	-.155	1.753
264	53	Totals:	-124.755	3399.693	216.075			
265	53	COG (ft):	X: .005	Y: 1.407	Z: -.04			
266	54	N153A	-123.55	1224.586	-2260.406	2.367	.081	.108
267	54	N171	-1823.825	1067.748	1167.224	-.867	.048	-1.724
268	54	N185	1731.305	1107.361	1217.936	-.99	-.135	1.825
269	54	Totals:	-216.07	3399.694	124.754			
270	54	COG (ft):	X: .005	Y: 1.407	Z: -.04			
271	55	N153A	-143.732	1200.7	-2260.234	2.274	.093	.122
272	55	N171	-1866.848	1074.107	1096.005	-.917	-.01	-1.725
273	55	N185	1761.078	1124.888	1164.229	-1.048	-.09	1.865
274	55	Totals:	-249.503	3399.694	0			
275	55	COG (ft):	X: .005	Y: 1.407	Z: -.04			
276	56	N153A	-118.297	1176.828	-2260.833	2.182	.073	.112
277	56	N171	-1898.631	1091.721	1042.969	-.979	-.052	-1.766
278	56	N185	1800.859	1131.145	1093.108	-1.094	-.033	1.863
279	56	Totals:	-216.07	3399.694	-124.756			
280	56	COG (ft):	X: .005	Y: 1.407	Z: -.04			
281	57	N153A	-54.071	1159.375	-2262.03	2.116	.025	.079
282	57	N171	-1910.658	1115.853	1022.324	-1.035	-.067	-1.836
283	57	N185	1839.975	1124.466	1023.63	-1.118	.022	1.819
284	57	Totals:	-124.753	3399.693	-216.076			
285	57	COG (ft):	X: .005	Y: 1.407	Z: -.04			
286	58	N153A	31.753	1153.028	-2263.506	2.093	-.037	.033
287	58	N171	-1899.717	1140.033	1039.599	-1.072	-.051	-1.916
288	58	N185	1867.959	1106.631	974.396	-1.113	.06	1.746
289	58	Totals:	-.005	3399.692	-249.51			
290	58	COG (ft):	X: .005	Y: 1.407	Z: -.04			
291	59	N153A	116.169	1159.5	-2264.854	2.119	-.097	-.013
292	59	N171	-1868.734	1157.786	1090.168	-1.078	-.008	-1.986
293	59	N185	1877.308	1082.405	958.61	-1.08	.07	1.662
294	59	Totals:	124.743	3399.691	-216.076			
295	59	COG (ft):	X: .005	Y: 1.407	Z: -.04			
296	60	N153A	176.55	1177.044	-2265.727	2.189	-.138	-.048
297	60	N171	-1826.024	1164.368	1160.471	-1.053	.05	-2.026
298	60	N185	1865.534	1058.278	980.501	-1.028	.05	1.591
299	60	Totals:	216.059	3399.69	-124.755			
300	60	COG (ft):	X: .005	Y: 1.407	Z: -.04			
301	61	N153A	196.723	1200.949	-2265.885	2.282	-.151	-.062
302	61	N171	-1783.008	1158.026	1231.676	-1.003	.107	-2.025
303	61	N185	1835.776	1040.715	1034.209	-.97	.005	1.55
304	61	Totals:	249.491	3399.69	0			
305	61	COG (ft):	X: .005	Y: 1.407	Z: -.04			
306	62	N153A	171.271	1224.801	-2265.29	2.373	-.13	-.052
307	62	N171	-1751.214	1140.449	1284.699	-.941	.15	-1.984
308	62	N185	1796.001	1034.439	1105.345	-.923	-.052	1.553
309	62	Totals:	216.058	3399.69	124.754			
310	62	COG (ft):	X: .005	Y: 1.407	Z: -.04			
311	63	N153A	107.038	1242.215	-2264.109	2.44	-.083	-.019
312	63	N171	-1739.171	1116.338	1305.346	-.884	.165	-1.914
313	63	N185	1756.875	1041.138	1174.837	-.899	-.107	1.596

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
314	63	Totals:	124.742	3399.691	216.075			
315	63	COG (ft):	X: .005	Y: 1.407	Z: -.04			
316	64	N153A	12.929	886.779	-1569.95	1.773	-.012	.018
317	64	N171	-1193.003	755.605	931.871	-.559	.133	-1.266
318	64	N185	1180.069	732.803	887.588	-.601	-.131	1.154
319	64	Totals:	-.005	2375.188	249.509			
320	64	COG (ft):	X: .005	Y: 1.397	Z: -.04			
321	65	N153A	-71.252	880.283	-1568.696	1.746	.048	.064
322	65	N171	-1224.014	737.715	881.554	-.552	.091	-1.197
323	65	N185	1170.513	757.191	903.217	-.634	-.141	1.238
324	65	Totals:	-124.753	2375.189	216.075			
325	65	COG (ft):	X: .005	Y: 1.397	Z: -.04			
326	66	N153A	-131.485	862.66	-1568.027	1.677	.09	.099
327	66	N171	-1266.636	731.084	811.482	-.577	.033	-1.157
328	66	N185	1182.053	781.445	881.299	-.686	-.122	1.309
329	66	Totals:	-216.069	2375.19	124.754			
330	66	COG (ft):	X: .005	Y: 1.397	Z: -.04			
331	67	N153A	-151.646	838.617	-1568.128	1.584	.102	.113
332	67	N171	-1309.45	737.496	740.418	-.627	-.025	-1.158
333	67	N185	1211.595	799.078	827.709	-.743	-.077	1.349
334	67	Totals:	-249.501	2375.19	0			
335	67	COG (ft):	X: .005	Y: 1.397	Z: -.04			
336	68	N153A	-126.312	814.589	-1568.973	1.493	.082	.103
337	68	N171	-1340.974	755.228	687.416	-.689	-.067	-1.199
338	68	N185	1251.218	805.373	756.802	-.79	-.02	1.347
339	68	Totals:	-216.068	2375.19	-124.755			
340	68	COG (ft):	X: .005	Y: 1.397	Z: -.04			
341	69	N153A	-62.283	797.023	-1570.338	1.426	.034	.07
342	69	N171	-1352.768	779.513	666.681	-.745	-.082	-1.269
343	69	N185	1290.299	798.653	687.581	-.814	.035	1.304
344	69	Totals:	-124.752	2375.189	-216.076			
345	69	COG (ft):	X: .005	Y: 1.397	Z: -.04			
346	70	N153A	23.3	790.637	-1571.851	1.404	-.028	.025
347	70	N171	-1341.68	803.84	683.764	-.782	-.066	-1.349
348	70	N185	1318.377	780.711	638.577	-.808	.073	1.23
349	70	Totals:	-.003	2375.188	-249.51			
350	70	COG (ft):	X: .005	Y: 1.397	Z: -.04			
351	71	N153A	107.497	797.153	-1573.1	1.43	-.088	-.021
352	71	N171	-1310.678	821.694	734.092	-.788	-.023	-1.418
353	71	N185	1327.926	756.341	622.933	-.775	.083	1.147
354	71	Totals:	124.745	2375.187	-216.076			
355	71	COG (ft):	X: .005	Y: 1.397	Z: -.04			
356	72	N153A	167.738	814.814	-1573.753	1.499	-.129	-.056
357	72	N171	-1268.074	828.304	804.162	-.763	.035	-1.458
358	72	N185	1316.397	732.068	644.836	-.723	.063	1.075
359	72	Totals:	216.061	2375.186	-124.755			
360	72	COG (ft):	X: .005	Y: 1.397	Z: -.04			
361	73	N153A	187.889	838.876	-1573.639	1.592	-.142	-.07
362	73	N171	-1225.266	821.91	875.212	-.713	.092	-1.457
363	73	N185	1286.87	714.399	698.427	-.666	.019	1.035
364	73	Totals:	249.493	2375.186	0			
365	73	COG (ft):	X: .005	Y: 1.397	Z: -.04			
366	74	N153A	162.539	862.885	-1572.796	1.684	-.121	-.06
367	74	N171	-1193.732	804.214	928.202	-.651	.134	-1.417
368	74	N185	1247.253	708.087	769.348	-.619	-.039	1.037
369	74	Totals:	216.06	2375.186	124.755			
370	74	COG (ft):	X: .005	Y: 1.397	Z: -.04			

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
371	75 N153A	98.503	880.412	-1571.447	1.75	-.074	-.028
372	75 N171	-1181.921	779.949	948.939	-.595	.149	-1.347
373	75 N185	1208.162	714.826	838.583	-.595	-.094	1.081
374	75 Totals:	124.744	2375.187	216.075			
375	75 COG (ft):	X: .005	Y: 1.397	Z: -.04			

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

Member	Shape	Code Check	L...	LC	Shear Check	Loc[...Dir	LC	phi*Pn...	phi*Pnt...	phi*Mn...	phi*Mn...	Cb	Eqn
1	M77	L4X4X4	.997	3..	24	.105	3.057 z	24	39384....	62532	3.138	6.012	1...H2-1
2	M86	L4X4X4	.978	3..	22	.101	3.057 z	20	39384....	62532	3.138	6.015	1...H2-1
3	M95	L4X4X4	.961	3..	16	.101	3.057 z	16	39384....	62532	3.138	6.014	1...H2-1
4	M78	PL3/8X3	.923	0	24	.149	.25 y	24	34985....	36450	.284	2.279	2...H1-1b
5	M87	PL3/8X3	.871	0	20	.142	.25 y	20	34985....	36450	.284	2.279	2...H1-1b
6	M96	PL3/8X3	.860	0	16	.141	.25 y	16	34985....	36450	.284	2.279	2...H1-1b
7	M88	PL3/8X3	.844	....	22	.136	0 y	22	34985....	36450	.284	2.279	2...H1-1b
8	M79	PL3/8X3	.838	....	14	.135	0 y	14	34985....	36450	.284	2.279	2...H1-1b
9	M97	PL3/8X3	.789	....	18	.129	0 y	18	34985....	36450	.284	2.279	2...H1-1b
10	M76	HSS4X4X3	.665	0	24	.336	0 z	4	91274....	106812	12.662	12.662	2...H1-1b
11	M85	HSS4X4X3	.625	0	22	.346	0 z	12	91274....	106812	12.662	12.662	2...H1-1b
12	MP4C	PIPE 2.0	.603	4..	1	.108	4.271	4	23808....	32130	1.872	1.872	1...H1-1b
13	M94	HSS4X4X3	.595	0	18	.330	0 z	8	91274....	106812	12.662	12.662	2...H1-1b
14	M63	SR 0.625	.570	....	18	.600	.333	19	9603.0...	9940.19	.104	.104	1...H1-1b
15	M62	SR 0.625	.568	....	19	.601	.333	19	9603.0...	9940.19	.104	.104	1...H1-1b
16	MP3B	PIPE 2.0	.567	4..	2	.080	4.271	9	23808....	32130	1.872	1.872	1...H1-1b
17	MP5C	PIPE 2.0	.566	4..	1	.117	.729	1	23808....	32130	1.872	1.872	1...H1-1b
18	MP4B	PIPE 2.0	.564	4..	2	.112	.208	11	23808....	32130	1.872	1.872	1...H1-1b
19	M92A	SR 0.625	.564	....	14	.590	.333	14	9603.0...	9940.19	.104	.104	1...H1-1b
20	M91A	SR 0.625	.559	....	14	.590	.333	14	9603.0...	9940.19	.104	.104	1...H1-1b
21	M109	PIPE 2.0	.557	4..	2	.190	.208	1	23808....	32130	1.872	1.872	1...H1-1b
22	MP5A	PIPE 2.0	.549	4..	11	.117	.729	5	23808....	32130	1.872	1.872	1...H1-1b
23	MP5B	PIPE 2.0	.549	4..	3	.110	.729	8	23808....	32130	1.872	1.872	1...H1-1b
24	MP3C	PIPE 2.0	.547	4..	12	.088	4.271	1	23808....	32130	1.872	1.872	1...H1-1b
25	MP4A	PIPE 2.0	.546	4..	11	.109	.208	7	23808....	32130	1.872	1.872	1...H1-1b
26	M121	SR 0.625	.545	....	22	.576	.333	23	9603.0...	9940.19	.104	.104	1...H1-1b
27	M120	SR 0.625	.545	....	23	.577	.333	23	9603.0...	9940.19	.104	.104	1...H1-1b
28	M80A	PIPE 2.0	.536	4..	6	.176	1.198	11	23808....	32130	1.872	1.872	1...H1-1b
29	MP2B	PIPE 2.0	.526	4..	2	.087	4.271	12	23808....	32130	1.872	1.872	1...H1-1b
30	MP3A	PIPE 2.0	.524	4..	10	.084	4.271	11	23808....	32130	1.872	1.872	1...H1-1b
31	M51	PIPE 2.0	.516	4..	10	.189	4.271	12	23808....	32130	1.872	1.872	1...H1-1b
32	MP2A	PIPE 2.0	.483	4..	10	.083	4.271	8	23808....	32130	1.872	1.872	1...H1-1b
33	MP2C	PIPE 2.0	.483	4..	12	.078	4.271	2	23808....	32130	1.872	1.872	1...H1-1b
34	M74	C5X6.7	.453	6..	1	.918	6.169 y	21	4448.1...	63828	1.604	6.998	1...H1-1b
35	M75	C5X6.7	.427	6..	13	.898	6.706 y	17	4448.1...	63828	1.604	7.487	1...H1-1b
36	M123	SR 0.625	.422	....	16	.436	.333	17	9603.0...	9940.19	.104	.104	1...H1-1b
37	M73	C5X6.7	.418	1..	12	.931	6.706 y	13	4448.1...	63828	1.604	6.859	1...H1-1b
38	M122	SR 0.625	.414	....	17	.437	.333	17	9603.0...	9940.19	.104	.104	1...H1-1b
39	M94A	SR 0.625	.413	....	20	.423	.333	20	9603.0...	9940.19	.104	.104	1...H1-1b
40	M93A	SR 0.625	.404	....	20	.423	.333	20	9603.0...	9940.19	.104	.104	1...H1-1b
41	M65	SR 0.625	.399	....	24	.412	.333	13	9603.0...	9940.19	.104	.104	1...H1-1b
42	M64	SR 0.625	.390	....	24	.412	.333	13	9603.0...	9940.19	.104	.104	1...H1-1b
43	M105	L3X3X4	.365	4..	11	.137	11.99 z	21	4832.6...	46656	1.688	2.708	1...H2-1
44	M84	PL1/2x9	.350	....	13	.266	0 y	16	82502....	145800	1.519	27.338	1...H1-1b
45	M103	L3X3X4	.342	4..	7	.137	11.99 z	17	4832.6...	46656	1.688	2.692	1...H2-1
46	M93	PL1/2x9	.333	....	21	.273	0 y	24	82502....	145800	1.519	27.338	1...H1-1b
47	M102	PL1/2x9	.327	....	17	.269	0 y	20	82502....	145800	1.519	27.338	1...H1-1b



Company :
 Designer :
 Job Number :
 Model Name :

Jan 31, 2024
 10:59 AM
 Checked By: _____

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

Member	Shape	Code Check	L...	LC	Shear Check	Loc[...Dir	LC	phi*Pn...	phi*Pnt...	phi*Mn...	phi*Mn...	Cb	Eqn
48	M104	L3X3X4	.327	4...	2	.142	11.99 z	13	4832.6...	46656	1.688	2.82	1... H2-1
49	OVP	PIPE 2.0	.222	3...	12	.017	3.208	12	28399...	32130	1.872	1.872	1... H1-1b
50	MP1A	PIPE 2.0	.132	1...	19	.069	3.821	11	21116...	32130	1.872	1.872	1... H1-1b
51	MP1B	PIPE 2.0	.132	1...	23	.068	1.048	1	21116...	32130	1.872	1.872	2... H1-1b
52	MP1C	PIPE 2.0	.131	1...	14	.073	1.048	1	21116...	32130	1.872	1.872	2... H1-1b
53	M130A	PL1/2x6	.117	1...	14	.099	0 y	4	63408...	97200	1.012	12.15	1... H1-1b
54	M129	PL1/2x6	.115	0	22	.101	0 y	12	63408...	97200	1.012	12.15	1... H1-1b
55	M131	PL1/2x6	.111	0	18	.101	1.083 y	7	63408...	97200	1.012	12.15	1... H1-1b

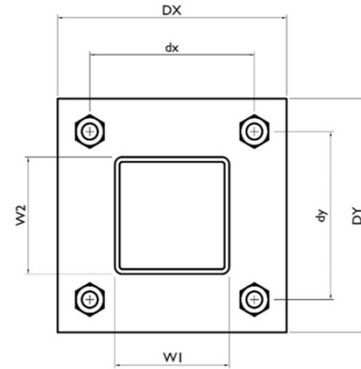
I. Mount-to-Tower Connection Check

Custom Orientation Required

Tower Connection Bolt Checks

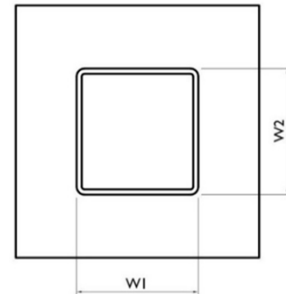
Bolt Orientation

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):	5.9
Required Shear Strength / bolt (kips):	2.1
Tensile Capacity / bolt (kips):	20.7
Shear Capacity / bolt (kips):	12.4
Bolt Overall Utilization:	29.8%



Tower Connection Baseplate Checks

Connecting Standoff Member Shape:	Rect Tube
Weld Stiffener Configuration:	No Stiffeners
Plate Width, D_x (in):	8
Plate Height, D_y (in):	8
W_1 (in):	4
W_2 (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):	0.75
Length of Yield Line, L_y (in):	5.85
Bolt Eccentricity, e (in):	1.65
M_u (kip-in):	10.15
$\Phi * M_n$ (kip-in):	26.65
Plate Bending Utilization:	38.1%



Tower Connection Weld Checks

Weld Shape:
 Weld Stiffener Configuration:
 Stiffener Notch Length, n (in):
 Weld Size (1/16 in):
 W1 (in):
 W2 (in):
 Weld Total Length (in):
 Z_x (in³/in):
 Z_y (in³/in):
 J_p (in⁴/in):
 c_x (in)
 c_y (in)
 Required combined strength (kip/in):
 Weld Capacity (kip/in):
 Weld Utilization:

Yes
Rectangle
None
4
4
4
16.00
21.33
21.33
85.33
2.25
2.25
2.70
5.57
48.4%

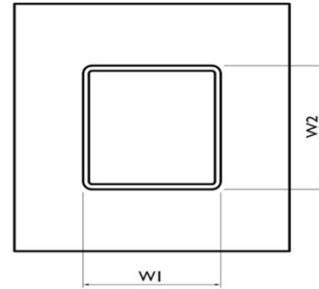


EXHIBIT G

Power Density / RF Emissions Report



FOX HILL TELECOM

Radio Frequency Emissions Analysis Report

Prepared for:



Crown Site ID: 806370_HRT 099 943226

Verizon Wireless Site Name: West Hartford CT

Verizon Wireless FUZE ID: 16232030

Site Address:

570 New Park Avenue
West Hartford, CT 06110

May 1, 2024

Fox Hill Telecom Project Number: 240120

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	7.84 %



May 1, 2024

Crown Castle
1800 W. Park Drive
Westborough, MA 01581

Emissions Analysis for:

Crown Castle Site: **806370 – HRT 099 943226**

Verizon Wireless Site: West Hartford CT

Fox Hill Telecom, Inc (“Fox Hill”) was directed to analyze the proposed upgrades for Verizon Wireless to the Crown Castle facility located at **570 New Park Avenue, West Hartford, 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 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ 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 ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 700 MHz band & the 850 MHz cellular band are approximately $497 \mu\text{W}/\text{cm}^2$ and $586 \mu\text{W}/\text{cm}^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 3700 MHz (C band) frequency bands is $1000 \mu\text{W}/\text{cm}^2$. 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 **570 New Park Avenue, West Hartford, 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

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

S = Power Density (in $\mu\text{w}/\text{cm}^2$)

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
5G	3700 MHz (C Band)	2	160

Table 1: Channel Data Table



FOX HILL TELECOM

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) 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	147
A	2	Commscope SBNHH-1D65B	147
A	3	Samsung MT6413-77A	147
A	4	Antel BXA-70063-6CF-EDIN-5 (Dormant)	147
B	1	Commscope SBNHH-1D65B	147
B	2	Commscope SBNHH-1D65B	147
B	3	Samsung MT6407-77A	147
B	4	Antel BXA-70063-6CF-EDIN-5 (Dormant)	147
C	1	Commscope SBNHH-1D65B	147
C	2	Commscope SBNHH-1D65B	147
C	3	Samsung MT6407-77A	147
C	4	Antel BXA-70063-6CF-EDIN-5 (Dormant)	147

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	1.13
Antenna A2	Commscope SBNHH-1D65B	1900 MHz (PCS) / 2100 MHz (AWS)	15.05 / 15.15	8	320	10,355.68	0.58
Antenna A3	Samsung MT6413-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	2.30
Antenna A4	Antel BXA-70063-6CF-EDIN-5 (Dormant)	NA	NA	0	0	0.00	0.00
Sector A Composite MPE%							4.01
Antenna B1	Commscope SBNHH-1D65B	700 MHz / 850 MHz	12.15 / 12.45	8	320	5,437.62	1.13
Antenna B2	Commscope SBNHH-1D65B	1900 MHz (PCS) / 2100 MHz (AWS)	15.05 / 15.15	8	320	10,355.68	0.58
Antenna B3	Samsung MT6407-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	2.30
Antenna B4	Antel BXA-70063-6CF-EDIN-5 (Dormant)	NA	NA	0	0	0.00	0.00
Sector B Composite MPE%							4.01
Antenna C1	Commscope SBNHH-1D65B	700 MHz / 850 MHz	12.15 / 12.45	8	320	5,437.62	1.13
Antenna C2	Commscope SBNHH-1D65B	1900 MHz (PCS) / 2100 MHz (AWS)	15.05 / 15.15	8	320	10,355.68	0.58
Antenna C3	Samsung MT6407-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	2.30
Antenna C4	Antel BXA-70063-6CF-EDIN-5 (Dormant)	NA	NA	0	0	0.00	0.00
Sector C Composite MPE%							4.01

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	4.01 %
Sprint	2.94 %
Omni Antenna	0.89 %
Site Total MPE %:	7.84 %

Table 4: All Carrier MPE Contributions

Verizon Wireless Sector A Total:	4.01 %
Verizon Wireless Sector B Total:	4.01 %
Verizon Wireless Sector C Total:	4.01 %
Site Total:	7.84 %

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 ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
Verizon Wireless 700 MHz LTE	4	656.24	147	3.08	700 MHz	497	0.62%
Verizon Wireless 850 MHz LTE / 5G	4	703.17	147	2.99	850 MHz	586	0.51%
Verizon Wireless 1900 MHz (PCS) LTE	4	1,279.56	147	2.90	1900 MHz (PCS)	1000	0.29%
Verizon Wireless 2100 MHz (AWS) LTE	4	1,309.36	147	2.90	2100 MHz (AWS)	1000	0.29%
Verizon Wireless 3700 MHz (C Band) 5G	2	33,046.08	147	23.00	3700 MHz (C Band)	1000	2.30%
						Total:	4.01 %

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:	4.01 %
Sector B:	4.01 %
Sector C:	4.01 %
Verizon Wireless Maximum Total (per sector):	4.01 %
Site Total:	7.84 %
Site Compliance Status:	COMPLIANT

The estimated composite emissions value for this site, assuming all carriers present, is **7.84 %** 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



May 15, 2024

Dear Customer,

The following is the proof-of-delivery for tracking number: 776383831661

Delivery Information:

Status:	Delivered	Delivered To:	
Signed for by:	Signature release on file	Delivery Location:	50 S MAIN ST
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday		WEST HARTFORD, CT, 06107
		Delivery date:	May 15, 2024 10:00

Shipping Information:

Tracking number:	776383831661	Ship Date:	May 14, 2024
		Weight:	1.0 LB/0.45 KG

Recipient:
Rick Ledwith, Town Manager, Town of West Hartford
50 South Main Street
Suite 310
WEST HARTFORD, CT, US, 06107

Shipper:
Jenifer Bachi, Crown Castle
3200 Horizon Drive
Suite 150
KING OF PRUSSIA, PA, US, 19406

Reference	1766.668
Purchase Order	806370_VERIZON

Proof-of-delivery details appear below; however, no signature is available for this FedEx Express shipment because a signature was not required.

Thank you for choosing FedEx



May 15, 2024

Dear Customer,

The following is the proof-of-delivery for tracking number: 776383929024

Delivery Information:

Status:	Delivered	Delivered To:	
Signed for by:	Signature release on file	Delivery Location:	50 S MAIN ST
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday		WEST HARTFORD, CT, 06107
		Delivery date:	May 15, 2024 10:00

Shipping Information:

Tracking number:	776383929024	Ship Date:	May 14, 2024
		Weight:	1.0 LB/0.45 KG

Recipient:
Tim Mikloiche, Building Official, Town of West Hartford
50 South Main Street
Suite 310
WEST HARTFORD, CT, US, 06107

Shipper:
Jenifer Bachi, Crown Castle
3200 Horizon Drive
Suite 150
KING OF PRUSSIA, PA, US, 19406

Reference	1766.668
Purchase Order	806370_VERIZON

Proof-of-delivery details appear below; however, no signature is available for this FedEx Express shipment because a signature was not required.

Thank you for choosing FedEx

Dear Customer,

The following is the proof-of-delivery for tracking number: 776384055549

Delivery Information:

Status:	Delivered	Delivered To:	Receptionist/Front Desk
Signed for by:	A.MARKANTONE	Delivery Location:	40 JANSEN CT
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday		WEST HARTFORD, CT, 06127
		Delivery date:	May 15, 2024 10:14

Shipping Information:

Tracking number:	776384055549	Ship Date:	May 14, 2024
		Weight:	1.0 LB/0.45 KG

Recipient:
ATTN: Michael Reiner, 570 New Park LLC
40 Jansen Court
WEST HARTFORD, CT, US, 06127

Shipper:
Jenifer Bachi, Crown Castle
3200 Horizon Drive
Suite 150
KING OF PRUSSIA, PA, US, 19406

Reference 1766.668
Purchase Order 806370_VERIZON



Thank you for choosing FedEx

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: 15MAY24
ACTWGT: 2.00 LB
CAD: 104924192/NET4730

BILL SENDER

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

NEW BRITAIN CT 06051

(860) 827-2935

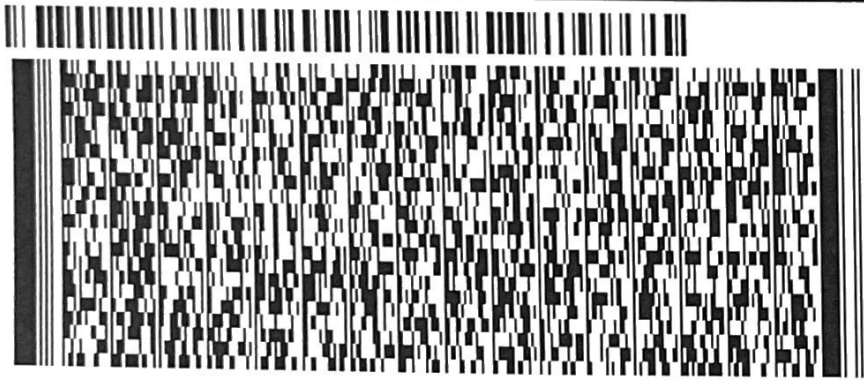
REF 1766 668

INV

PO 806370_VERIZON

DEPT

583J4/C458/9AE3



FedEx
Express



J242024032601uv

THU - 16 MAY 10:30A

PRIORITY OVERNIGHT

TRK#

0201

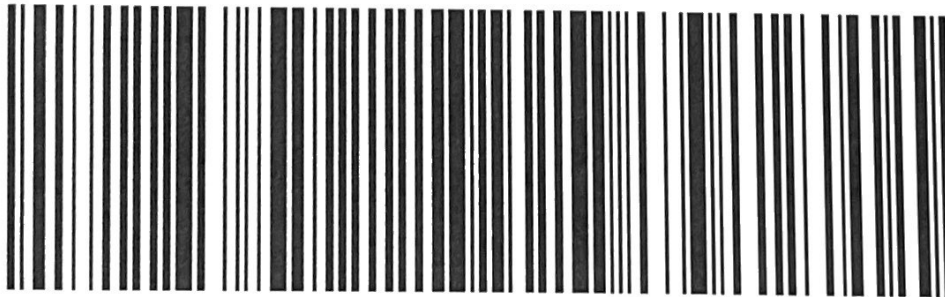
7763 9463 0174

EB BDLA

06051

CT-US

BDL



FedEx Ship Manager - Print Your Label(s)

5/15/24, 10:37 AM

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.