Robinson+Cole

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April 14, 2022

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

Re: **Notice of Exempt Modification – Facility Modification**
100 (a/k/a 130) Old Tatnic Hill Road, Brooklyn, Connecticut

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains an existing wireless telecommunications facility at the above-referenced property address (the "Property"). The facility consists of antennas and remote radio heads attached to a tower and associated equipment on the ground near the base of the tower. The tower was approved by the Town of Brooklyn ("Town") in August of 1999. Cellco's use of the tower were approved by the Siting Council ("Council") in July of 2001 (EM-VER-019-010614). A copy of the Town's and the Council's approvals are included in Attachment 1.

Cellco now intends to modify its facility by removing nine (9) existing antennas and installing three (3) new Samsung MT6407-77A antennas and six (6) MX06FRO660-03 antennas on its existing antenna platform. Cellco also intends to remove three (3) remote radio heads ("RRHs') with six (6) new RRHs behind its antennas. A set of project plans showing Cellco's proposed facility modifications and new antennas and RRH specifications are included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Brooklyn's Chief Elected Official and Land Use Officer.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing tower. Cellco's replacement antennas will be installed on its existing antenna platform mount.

2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, will not require the extension of the site boundary.

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

4. The installation of Cellco's new antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative General Power Density table for Cellco's modified facility is included in Attachment 3. The modified facility will be capable of providing Cellco's 5G wireless service.

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

6. According to the attached Structural Analysis ("SA") and Mount Analysis ("MA"), the existing tower, tower foundation and antenna platform with certain modifications can support Cellco's proposed modifications. Copies of the SA and MA are included in Attachment 4.

A copy of the parcel map and Property owner information is included in Attachment 5. A Certificate of Mailing verifying that this filing was sent to municipal officials and the property owner is included in Attachment 6.

For the foregoing reasons, Cellco respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:

Austin Tanner, Brooklyn First Selectman
Jana Butts-Roberson, Director of Community Development/Town Planner
Benjamin and Sophie Davidson, Property Owners
Karla Hanna, Verizon Wireless

ATTACHMENT 1

PLANNING AND ZONING COMMISSION
TOWN OF BROOKLYN
CONNECTICUT 06234

Norwich Bulletin Classified/Legals Department
Please run the following Legal Ad One Time Only:
Monday, August 9, 1999

(Bill to the Town of Brooklyn, Account #10089300)
Contact Chuck Dobrowski at 779-3411 with any question/problems
Thank you.)

Town of Brooklyn
Planning and Zoning Commission
Notice of Decision

At the Regular Meeting of the Brooklyn Planning and Zoning Commission held on August 4, 1999, the following decisions were rendered.

Zone Change Application 99-02 of Angela C. Revera, request for Zone Change at 207 Day Street, from R30 to RA. – APPLICATION WAS DENIED

SPR-99-17 of SBA Inc./Sprint PCS, construction of telecommunications facility at 130 Old Tatnic Hill Road, Map 15, Lot 16. – APPLICATION WAS APPROVED

SPR-99-18 of Nextel Communications, construction of telecommunications facility at Tatnic Hill Road, Map 14, Lot 10. – APPLICATION WAS WITHDRAWN

SD-99-06, Theodore Stever, Allen Hill Road, three lot subdivision. – APPLICATION WAS APPROVED WITH CONDITIONS

SPR99-19 Kenyon Oil Company, 409 Providence Road, construction of Convenience Store and Gas Station. – APPLICATION TABLED.

Madeline J. Adams

for Bruce Parsons
Chairman

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

July 13, 2001

Sandy M. Carter
Verizon Wireless
20 Alexander Drive
P.O. Box 5029
Wallingford, CT 06492

RE: **TS-VER-019-010614** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 130 Tatnic Hill Road, Brooklyn, Connecticut.

Dear Ms. Carter:

At a public meeting held July 11, 2001, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility may require an explicit request to this agency pursuant to General Statutes § 16-50aa or notice pursuant to Regulations of Connecticut State Agencies Section 16-50j-73, as applicable. Such request or notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 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.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated June 14, 2001.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/RKE/laf

c: Honorable Maurice F. Bowen, First Selectman, Town of Brooklyn
Chester Dobrowski, Zoning Enforcement Officer, Town of Brooklyn
Esther McNany, SBA, Inc.
Julie M. Donaldson, Esq., Hurwitz & Sagarin LLC
Ronald C. Clark, Nextel Communications
Peter W. van Wilgen, SNET Mobility, LLC

ATTACHMENT 2

verizon

BROOKLYN CT
130 OLD TATNIC HILL ROAD
BROOKLYN, CT 06095

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT SUPPLEMENT, INCLUDING THE TIA/EIA-222 REVISION "G" STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES, 2017 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE, AND LOCAL CODES.
2. SHOULD ANY FIELD CONDITIONS PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT PROCEED WITH ANY AFFECTED WORK.
3. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
4. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
5. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
6. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, AND ALL TRADES AS APPLICABLE PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
7. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN "AS-BUILT" SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
8. LOCATION OF EQUIPMENT, AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
9. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY. MAINTAIN EXISTING BUILDING'S/PROPERTY'S OPERATIONS, COORDINATE WORK WITH BUILDING/PROPERTY OWNER.
10. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
11. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
12. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MFR.'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
13. ANY AND ALL ERRORS, DISCREPANCIES, AND "MISSED" ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE VERIZON WIRELESS CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO "EXTRA" WILL BE ALLOWED FOR MISSED ITEMS.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
15. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
16. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
17. COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUIT AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
18. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB- CONTRACTORS FOR ANY CONDITION PER THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
19. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
20. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED PRIOR TO ANY EXCAVATION WORK. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.

SITE DIRECTIONS

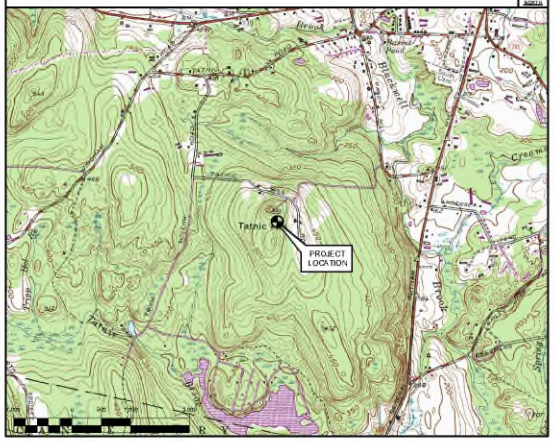
FROM: 20 ALEXANDER DRIVE, WALLINGFORD, CONNECTICUT

TO: 130 OLD TATNIC HILL RD, BROOKLYN, CT 06234

1.	START OUT GOING NORTH ON ALEXANDER DR TOWARD BARNES INDUSTRIAL RD.	0.18 MI
2.	TURN RIGHT ONTO BARNES INDUSTRIAL RD.	0.11 MI
3.	TAKE THE 1ST LEFT ONTO CT-68.	0.35 MI
4.	TURN RIGHT ONTO RAMP.	0.17 MI
5.	TURN RIGHT ONTO N COLONY RD/US-5 N.	0.30 MI
6.	MERGE ONTO CT-15 N TOWARD HARTFORD.	3.58 MI
7.	MERGE ONTO I-91 N VIA EXIT 69N-E TOWARD MIDDLETOWN/HARTFORD/CT-66 E.	13.95 MI
8.	MERGE ONTO CT-3 N VIA EXIT 25 TOWARD GLASTONBURY.	2.35 MI
9.	MERGE ONTO CT-2 E TOWARD NORWICH.	10.96 MI
10.	TAKE THE CT-85 EXIT, EXIT 13, TOWARD WILLIMANTIC/MARLBOROUGH.	0.24 MI
11.	KEEP LEFT TO TAKE THE RAMP TOWARD WILLIMANTIC/HEBRON.	0.04 MI
12.	TURN LEFT ONTO HEBRON RD/CT-66. CONTINUE TO FOLLOW CT-66.	11.80 MI
13.	CT-66 BECOMES US-6 E.	5.32 MI
14.	MERGE ONTO US-6 E TOWARD DANIELSON/WINDHAM AIRPORT/PROVIDENCE.	13.57 MI
15.	TURN RIGHT ONTO MASON RD.	0.87 MI
16.	TAKE THE 3RD RIGHT ONTO OLD TATNIC HILL RD (PORTIONS UNPAVED).	0.19 MI
17.	130 OLD TATNIC HILL RD, BROOKLYN, CT 06234-2304, 130 OLD TATNIC HILL RD IS ON THE LEFT ON DIRT ROAD. FOLLOW SERVICE ROAD TO TOWER AT END.	

VICINITY MAP

SCALE: 1" = 1000'



PROJECT SUMMARY

1. THE PROPOSED UPGRADE SCOPE OF WORK AT THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY GENERALLY INCLUDES THE FOLLOWING:

A. AT THE EXISTING MONOPOLE MOUNTED ANTENNA SECTORS:

- REMOVE (3) EXISTING ANTEL – BXA-70063-6CF ANTENNAS.
- REMOVE (3) EXISTING AMPHENOL – BXA-171085-12CF ANTENNAS.
- REMOVE (3) EXISTING AMPHENOL – WBX065X19R050 ANTENNAS.
- REMOVE (1) EXISTING 1-5/8" COAXIAL CABLE.
- REMOVE (1) EXISTING OVP-6 BOX.
- REMOVE (1) EXISTING NOKIA – UHBC B13 TRDU 2x40.
- RETAIN (3) EXISTING ANTEL – BXA-70080-6CF-EDIN-0 ANTENNAS.
- RETAIN (11) EXISTING 1-5/8"" CDMA COAXIAL CABLES.
- RETAIN (1) EXISTING 6x12 HYBRIFLEX non-LI CABLE.
- INSTALL (6) JMA – MX06FRO660-03 ANTENNAS.
- INSTALL (3) SAMSUNG – MT6407-77A ALL-IN-ONE ANTENNA/ RRUs.
- INSTALL (3) SAMSUNG – B2/B66A RRH-BR049 RRUs.
- INSTALL (3) SAMSUNG – B5/B13 RRH-BR04C RRUs.
- INSTALL (3) JMA – 91900314-02 ANTENNA MOUNTS.
- INSTALL (1) 6x12 HYBRIFLEX LI CABLE.
- INSTALL (1) OVP-12 BOX.
- PERFORM TOWER ALL TOWER AND TOWER FOUNDATION MODIFICATIONS AS DESIGNED BY OTHERS AND REFERENCED HEREIN.

B. AT THE EXISTING VERIZON WIRELESS EQUIPMENT SHELTER:

- REMOVE (3) EXISTING NOKIA – UHID B4 RRH 2x40.

PROJECT INFORMATION

SITE NAME:	BROOKLYN CT
SITE ADDRESS:	130 OLD TATNIC HILL RD, BROOKLYN, CT 06095
LESSEE/TENANT:	CELLCO PARTNERSHIP d.b.a. VERIZON WIRELESS 20 ALEXANDER DRIVE WALLINGFORD, CT 06492
CONTACT PERSON:	WALTER CHARCZINSKI (CONSTRUCTION MANAGER) VERIZON WIRELESS (860) 306-1806
ENGINEER:	CENTEK ENGINEERING, INC. 63-2 NORTH BRANFORD RD. BRANFORD, CT. 06405 (203) 488-0580
PROJECT COORDINATES:	LATITUDE: 41°-46'-1.7796"N LONGITUDE: 71°-58'-19.02"W COORDINATES BASED ON VERIZON WIRELESS RFDS, DATED JUNE 11, 2021.

SHEET INDEX

SHT. NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
N-1	NOTES AND SPECIFICATIONS	1
B-1	RF BILL OF MATERIALS	1
C-1	COMPOUND PLAN AND ELEVATION	1
C-2	ANTENNA SECTOR CONFIGURATION DETAILS	1
C-3	RF DETAILS	1
E-1	ELECTRICAL DETAILS AND SPECIFICATIONS	1

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
1	09/17/22	AMC	DMD	CONSTRUCTION DRAWINGS – REVISED STRUCTURAL ANALYSIS REPORT NOTE(S)
0	11/12/21	AMC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION
B	09/20/21	AMC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
A	09/17/21	JLW	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW

PROFESSIONAL ENGINEER SEAL

verizon

CENTEK Engineering
Centered on Solutions
(203) 488-0580
(203) 488-8587 Fax
63-2 North Branford Road
Branford, CT 06405
www.CentekEng.com

Cellco Partnership d/b/a Verizon Wireless

BROOKLYN, CT

130 OLD TATNIC HILL ROAD
BROOKLYN, CT 06095

DATE: 09/17/21
SCALE: AS NOTED
JOB NO. 21007.27

TITLE SHEET

T-1

Sheet No. 1 of 7

NOTES AND SPECIFICATIONS

DESIGN BASIS:

GOVERNING CODE: 2015 INTERNATIONAL BUILDING (IBC) AS MODIFIED BY THE 2018 CT STATE BUILDING CODE AND AMENDMENTS.

1. DESIGN CRITERIA:

- RISK CATEGORY: I (BASED ON TABLE 1604.5 OF THE 2015 IBC)
- NOMINAL DESIGN SPEED (TOWER): 101 MPH (Vasd) (EXPOSURE B/IMPORTANCE FACTOR 1.0 BASED ON ASCE 7-10) PER 2015 INTERNATIONAL BUILDING CODE (IBC) AS MODIFIED BY THE 2018 CONNECTICUT STATE BUILDING CODE.
- SEISMIC LOAD (DOES NOT CONTROL): PER ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES.

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE GOVERNING BUILDING CODE.
2. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
3. BEFORE BEGINNING THE WORK, THE CONTRACTOR IS RESPONSIBLE FOR MAKING SUCH INVESTIGATIONS CONCERNING PHYSICAL CONDITIONS (SURFACE AND SUBSURFACE) AT OR CONTIGUOUS TO THE SITE WHICH MAY AFFECT PERFORMANCE AND COST OF THE WORK.
4. DIMENSIONS AND DETAILS SHALL BE CHECKED AGAINST EXISTING FIELD CONDITIONS.
5. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES AND ANCHOR BOLTS AS REQUIRED BY ALL TRADES.
6. ALL DIMENSIONS, ELEVATIONS, AND OTHER REFERENCES TO EXISTING STRUCTURES, SURFACE, AND SUBSURFACE CONDITIONS ARE APPROXIMATE. NO GUARANTEE IS MADE FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS, ELEVATIONS, ANGLES WITH EXISTING CONDITIONS AND WITH ARCHITECTURAL AND SITE DRAWINGS BEFORE PROCEEDING WITH ANY WORK.
7. AS THE WORK PROGRESSES, THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY CONDITIONS WHICH ARE IN CONFLICT OR OTHERWISE NOT CONSISTENT WITH THE CONSTRUCTION DOCUMENTS AND SHALL NOT PROCEED WITH SUCH WORK UNTIL THE CONFLICT IS SATISFACTORILY RESOLVED.
8. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING AND MAINTAINING ADEQUATE SHORING, BRACING, AND BARRICADES AS MAY BE REQUIRED FOR THE PROTECTION OF EXISTING PROPERTY, CONSTRUCTION WORKERS, AND FOR PUBLIC SAFETY.
9. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY. MAINTAIN EXISTING SITE OPERATIONS, COORDINATE WORK WITH NORTHEAST UTILITIES
10. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
11. REFER TO DRAWING T1 FOR ADDITIONAL NOTES AND REQUIREMENTS.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
A	09/17/21	JLW	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW
0	09/20/21	AMC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
1	09/27/22	AMC	DMD	CONSTRUCTION DRAWINGS – REVISED STRUCTURAL ANALYSIS REPORT NOTE(S)
	11/13/21	AMC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER SEAL

verizon

CENTEK Engineering
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Cellco Partnership d/b/a Verizon Wireless

BROOKLYN, CT

130 OLD TATNIC HILL ROAD
BROOKLYN, CT 06095

DATE: 09/17/21
SCALE: AS NOTED
JOB NO. 21007.27

NOTES AND SPECIFICATIONS

N-1

Sheet No. 2 of 7

PLUMBING DIAGRAM NOTES:

1. PORTS 1 & 2 ARE FOR LOW BAND (698–896 MHz).
2. PORTS 3, 4, 5 & 5 ARE FOR HIGH BAND (1695–2360 MHz).
3. SMART BIAS TEE (SBT) IS THROUGH ANTENNA PORTS 1 & 3 (1 FOR LOW BAND AND 3 FOR HIGH BAND).
4. AISG CABLE IS ONLY NEEDED WHEN DRAWN IN THE DIAGRAMS ABOVE. IF IT IS NOT DRAWN THEN SBT IS ENOUGH TO CONTROL ALL RET MOTORS.
5. NOT ALL SBT PORTS ARE NEEDED TO CONTROL RET. ONLY GREEN PORT CONNECTION TO GREEN PORT WILL CONTROL RET.

RET DC SIGNAL PASS FOR RET (PORT THAT WILL CONTROL RET)

PLUMBING DIAGRAM COMMENTS:

A. DIAGRAMS SHOW ANTENNA PORT CONFIGURATIONS AS VIEWED FROM BELOW ANTENNAS.

B. ANTENNA POSITIONS ARE INDICATED AS VIEWED FROM IN FRONT OF ANTENNAS.

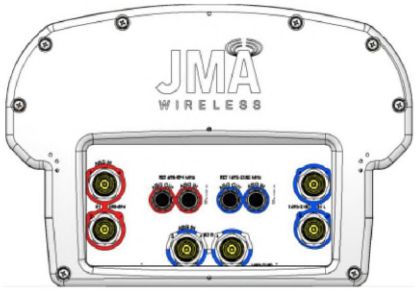
C. CAP AND WEATHERPROOF UNUSED ANTENNA PORTS.

D. ALL PLUMBING DIAGRAM COLORS ARE IRRELEVANT EXCEPT FOR AISG AND HYBRIFLEX CABLE. (FOR THE COAX COLORS, FOLLOW COAX COLORS GUIDE ABOVE)

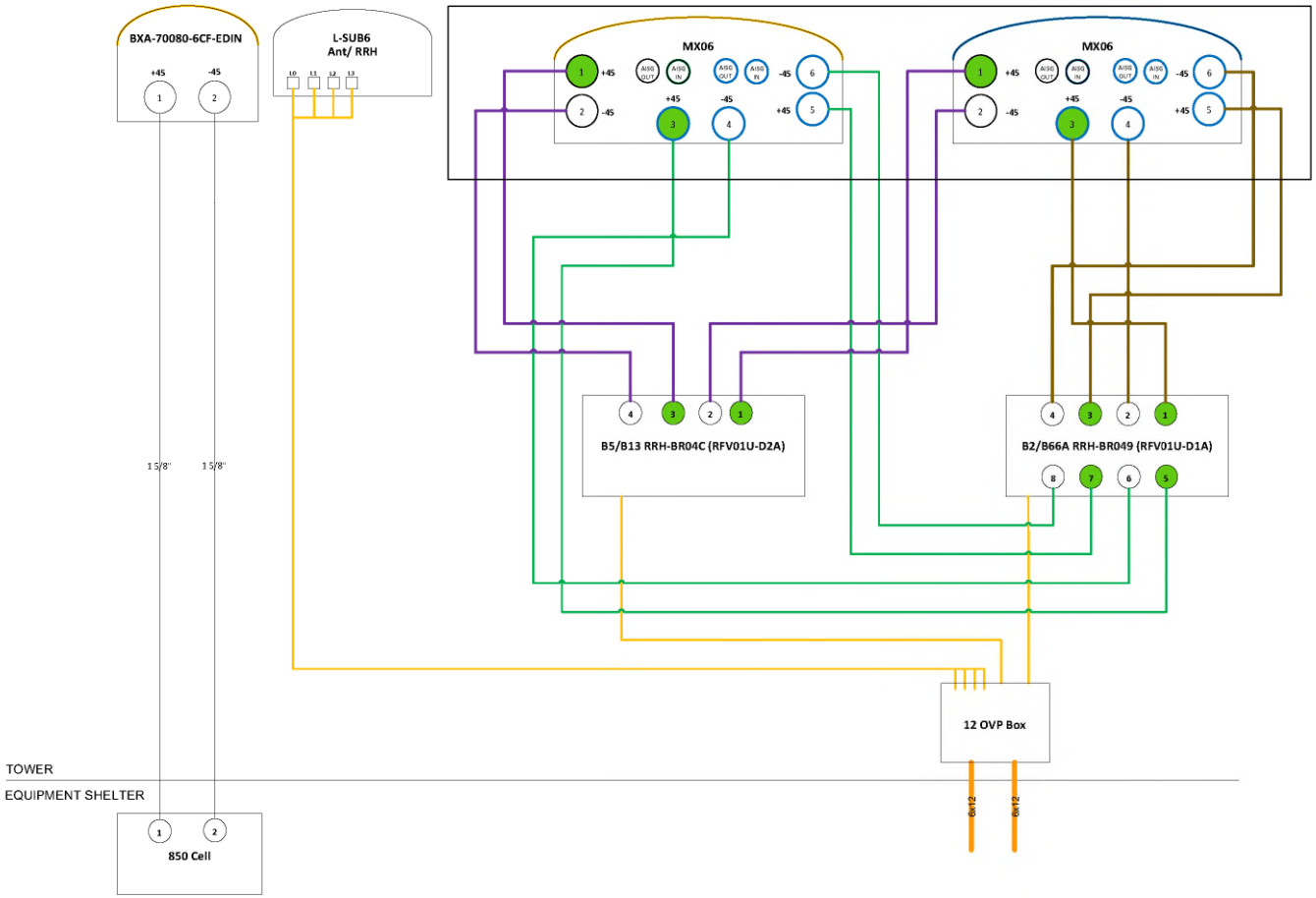
DC SIGNAL CAPABLE PORT

AISG CABLE

RET DC SIGNAL PASS FOR RET (PORT THAT WILL CONTROL RET)



91900314-02



NOTES:

1. INFORMATION SHOWN HEREIN IS FOR USE BY VERIZON WIRELESS EQUIPMENT OPERATIONS.
2. THIS B.O.M. DRAWING IS BASED ON FACILITY UPGRADE DESIGN DRAWINGS PREPARED BY CENTEK ENGINEERING (REV.1 DATED: 02/17/2022), & VERIZON WIRELESS RF ANTENNA EQUIPMENT RECOMMENDATION (DATED 06/11/2021).

BILL OF MATERIALS

TECHNOLOGY	QUANTITY	ANTENNA
LTE 700	6	JMA ANTENNA MODEL: MX06FRO660-03
LTE 850		
LTE PCS 1900		
LTE AWS 2100		
5G	3	SAMSUNG ANTENNA MODEL: MT6407-77A

CABLES	QUANTITY	LENGTH EA	COMMENTS
HYBRID CABLE	1	±230 FT	6X12 LI HYBRID CABLE

RADIOS	QUANTITY	COMMENTS
LTE 700	3	SAMSUNG MODEL: B5/B13 RRH-BR04C
LTE 850		
LTE PCS 1900	3	SAMSUNG MODEL: B2/B66A RRH-BR049
LTE AWS 2100		
5G	3	INTEGRATED INTO MT6407-77A ANTENNA

OVP BOXES	QUANTITY	COMMENTS
OVP	1	OVP-12

ANTENNA MOUNT	QUANTITY	COMMENTS
SIDE-BY-SIDE MOUNTING KIT	3	JMA MODEL: 91900314-02

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
1	02/11/22	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED STRUCTURAL ANALYSIS REPORT NOTE(S)
0	11/12/21	ANC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION
B	09/20/21	ANC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
A	09/17/21	JLW	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW

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DATE: 09/17/21
SCALE: AS NOTED
JOB NO. 21007.27

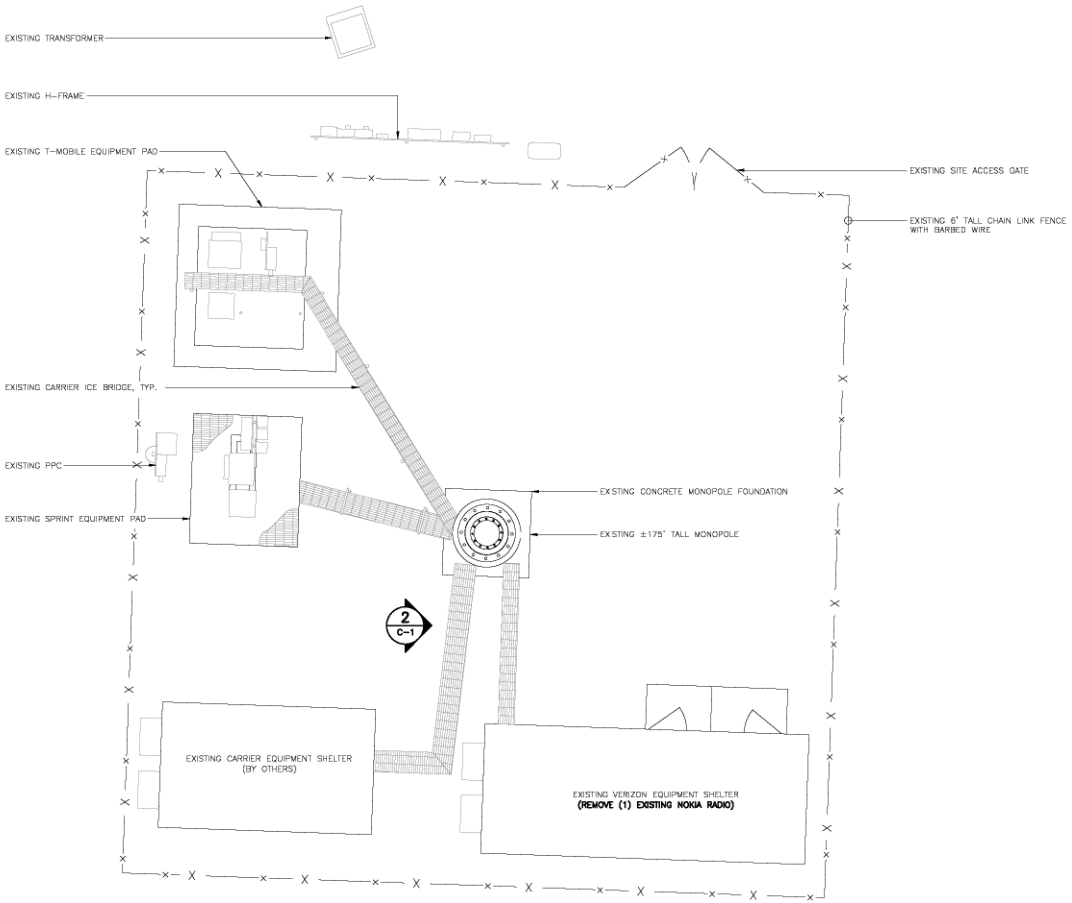
RF BILL OF MATERIALS

B-1

Sheet No. 3 of 7

TOWER POST-MOD STRUCTURAL ANALYSIS AND MOD DESIGN (See reference NOTES)

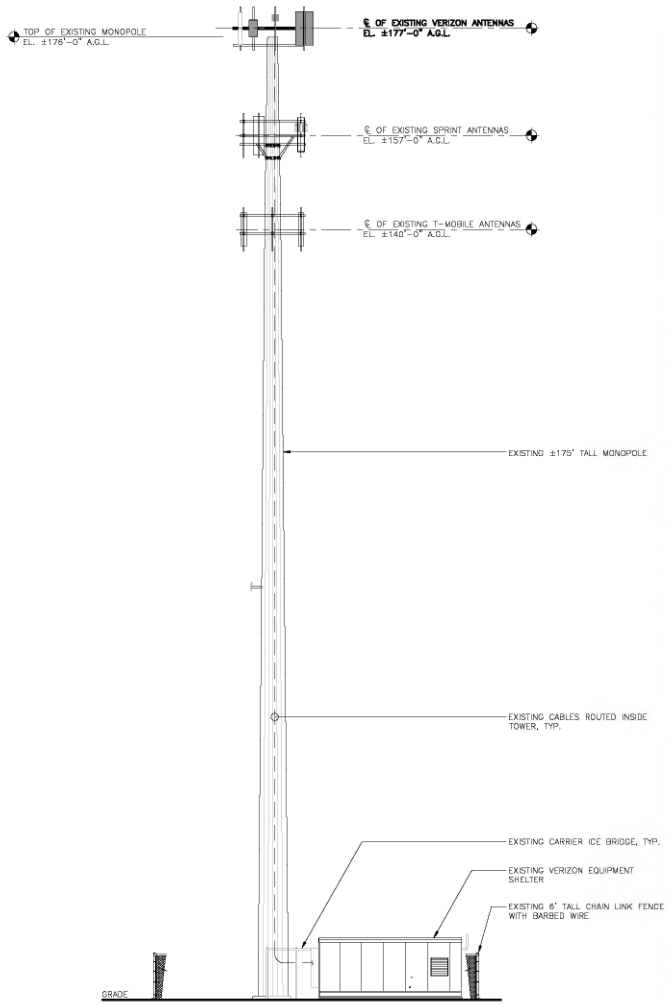
1. REFER TO PASSING TOWER STRUCTURAL ANALYSIS REPORT PREPARED FOR SBA COMMUNICATION CORP., BY TOWER ENGINEERING SOLUTIONS (TES), DATED 01/13/2022, TES PROJECT NUMBER 118205.
2. PERFORM ALL TOWER AND FOUNDATION MODIFICATIONS AS DESIGNED IN "THE MODIFICATION AND DESIGN DRAWINGS FOR AN EXISTING 175' SLEEK MONOPOLE TOWER" PREPARED FOR SBA COMMUNICATIONS CORP., BY TOWER ENGINEERING SOLUTIONS (TES), DATED 01/15/2022, TES PROJECT NUMBER 118205-K.



1 C-1 **COMPOUND PLAN - PROPOSED**
SCALE: 1" = 10'-0"

APPROX. NORTH

GRAPHIC SCALE
(IN FEET)
1 inch = 10 ft.



2 C-1 **WEST COMPOUND ELEVATION - PROPOSED**
SCALE: 1" = 10'-0"

GRAPHIC SCALE
(IN FEET)
1 inch = 10 ft.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
-	09/17/21	JLW	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW
A	09/20/21	AMC	DMD	CONSTRUCTION DRAWINGS – REVISED PER CLIENT COMMENTS
0	11/12/21	AMC	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION
1	02/11/22	AMC	DMD	CONSTRUCTION DRAWINGS – REVISED STRUCTURAL ANALYSIS REPORT NOTE(S)

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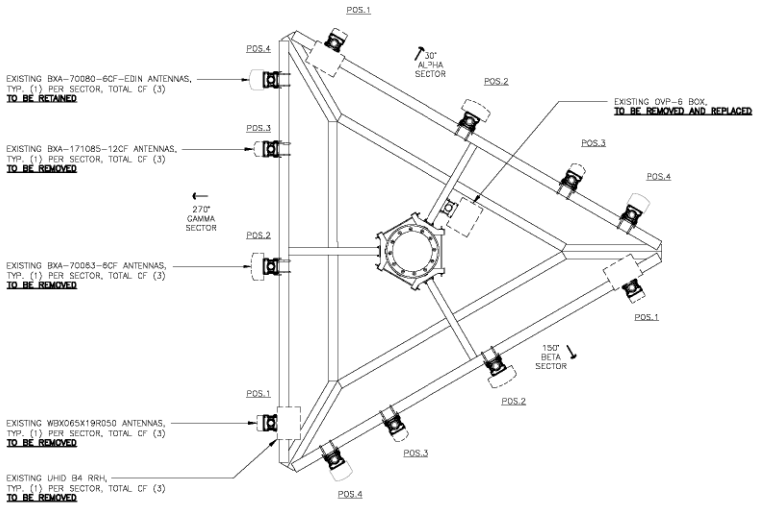
DATE: 09/17/21
SCALE: AS NOTED
JOB NO. 21007.27

COMPOUND PLAN AND ELEVATION

C-1

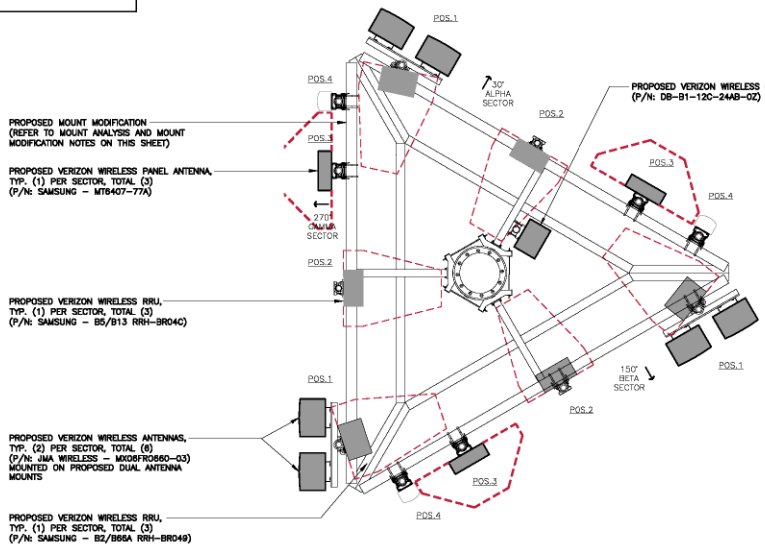
Sheet No. 1 of 1

EXISTING ANTENNA CONFIGURATIONS



1 / C-2 **EXISTING SECTOR CONFIGURATION PLAN**
SCALE: 1/2" = 1'-0"

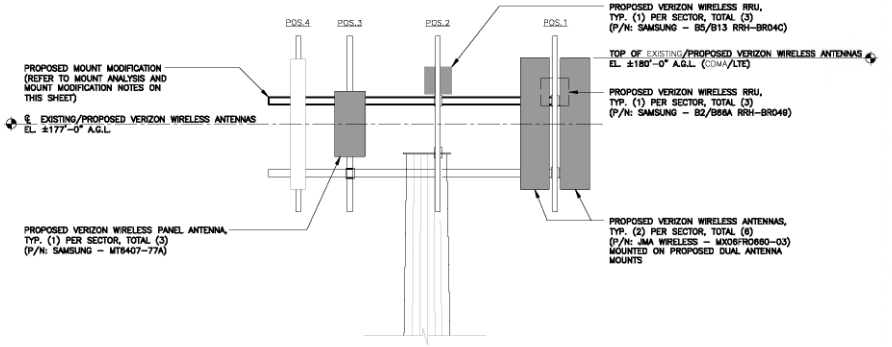
PROPOSED ANTENNA CONFIGURATIONS



LEGEND		
- - -	VERIZON WIRELESS MT6407-77A REQUIRED ANTENNA CLEARANCE LIMITS (PER DETAILS ON SHEET C-3)	
ANTENNA CLEARANCE STATUS	ALPHA SECTOR: COMPLIANT BETA SECTOR: COMPLIANT GAMMA SECTOR: COMPLIANT	
- - -	VERIZON WIRELESS RRU REQUIRED ANTENNA CLEARANCE LIMITS (PER DETAILS ON SHEET C-3)	
RRU CLEARANCE STATUS	ALPHA SECTOR: COMPLIANT BETA SECTOR: COMPLIANT GAMMA SECTOR: COMPLIANT	

ANTENNA MOUNT ANALYSIS AND MOD NOTES:

1. REFER TO PASSING VERIZON WIRELESS MOUNT ANALYSIS REPORT PREPARED BY MASER CONSULTING CONNECTICUT DATED 09/02/2021 FOR ADDITIONAL INFORMATION.
2. REFER TO FINAL VERIZON WIRELESS MOUNT MODIFICATION DESIGN PREPARED BY MASER CONSULTING CONNECTICUT DATED 09/02/2021 FOR ANTENNA MOUNT MODIFICATIONS.



TYPICAL SECTOR

1A / C-2 **PROPOSED SECTOR CONFIGURATION PLAN**
SCALE: 1/2" = 1'-0"

2 / C-2 **PROPOSED SECTOR CONFIGURATION ELEVATION**
SCALE: 3/8" = 1'-0"

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
-	09/17/21	JLW	DMD	CONSTRUCTION DRAWINGS - ISSUED FOR CLIENT REVIEW
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0	11/12/21	AMC	DMD	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION
1	05/11/22	AMC	DMD	CONSTRUCTION DRAWINGS - REVISED STRUCTURAL ANALYSIS REPORT NOTE(S)

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ANTENNA SECTOR CONFIGURATION DETAILS

C-2

Sheet No. 2 of 7

ANTENNA FRONT

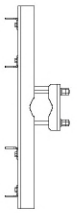
SECTOR ANTENNA		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: SAMSUNG MODEL: MT6407-77A	35.1"h x 16.1"W x 5.5"D (NOT TO EXCEED)	87 LBS. (NOT TO EXCEED)
CLEARANCES AND SERVICE AREA		
TOP: 31.5"	HORIZONTAL DISTANCE: 31.5" (ANT. TO ANT.)	
FRONT, SIDES & BOTTOM: 15.7"	VERTICAL DISTANCE: 63.0" (ANT. TO ANT.)	
NOTES: 1. THIS ANTENNA HAS ITS OWN BUILT-IN RRH.		

1 C-3 **SECTOR ANTENNA DETAIL**
NOT TO SCALE

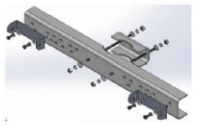
ELEVATION - ISOMETRIC BOTTOM

8-PORT SECTOR ANTENNA		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: JMA MODEL: MXD8FRO660-03	71.3"L x 15.4"W x 10.7"D	60.0 LBS. (W/OUT MOUNT KIT)

2 C-3 **SECTOR ANTENNA DETAIL**
NOT TO SCALE



PLAN VIEW



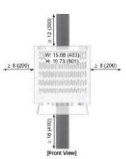
ANTENNA MOUNT ISOMETRIC

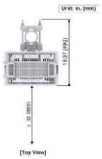
DUAL ANTENNA MOUNTING KIT	
EQUIPMENT	DESCRIPTION
MOUNT MAKE: JMA MODEL: 919003314-02	• SIDE-BY-SIDE MOUNTING KIT, ACCOMMODATES (2) COMPATABLE ANTENNAS • 2 BRACKETS REQUIRED FOR 4'-6' ANTENNAS • 3 BRACKETS REQUIRED FOR 6'-8' ANTENNAS

3 C-3 **DUAL ANTENNA MOUNT DETAIL**
NOT TO SCALE

OVP BOX		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: RAYCAP MODEL: DB-C1-12C-24AB-0Z	29.5"H x 16.5"W x 12.6"D	32 LBS.
NOTES: 1. CONTRACTOR TO CONFIRM OVP BOX MAKE/MODEL AND QUANTITY WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING.		

4 C-3 **PROPOSED OVER-VOLTAGE PROTECTION BOX**
NOT TO SCALE

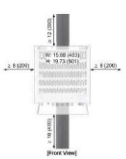


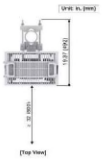


RRH ISOMETRIC RRH CLEARANCES

DUAL BAND RRU (REMOTE RADIO UNIT)			
EQUIPMENT	BANDS	DIMENSIONS	WEIGHT
MAKE: SAMSUNG MODEL: B2/B66A RRH-BR049 (RFV01U-D1A)	B2: PCS (1900 MHz) B66: AWS (2100 MHz)	15.0"H x 15.0"W x 10.0"D	84.4 LBS.
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING.			

5 C-3 **DUAL-BAND AWS/PCS RADIO UNIT DETAIL**
NOT TO SCALE





RRH ISOMETRIC RRH CLEARANCES

DUAL BAND RRU (REMOTE RADIO UNIT)			
EQUIPMENT	BANDS	DIMENSIONS	WEIGHT
MAKE: SAMSUNG MODEL: B5/B13 RRH-BR04C (RFV01U-D2A)	B5: 850 MHz B13: 700 MHz	15.0"H x 15.0"W x 8.1"D	70.3 LBS.
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING.			

6 C-3 **DUAL-BAND 700/850 MHZ RADIO UNIT DETAIL**
NOT TO SCALE

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
1	09/17/21	AMC	DMD	CONSTRUCTION DRAWINGS – REVISED STRUCTURAL ANALYSIS REPORT NOTE(S)
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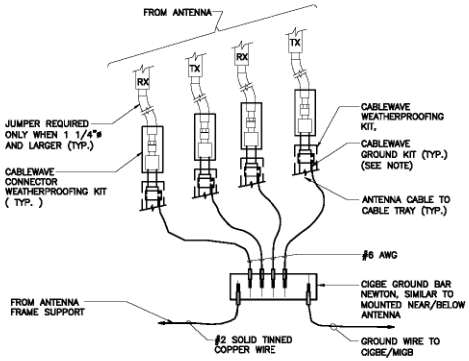
RF DETAILS

C-3

Sheet No. 8 of 12

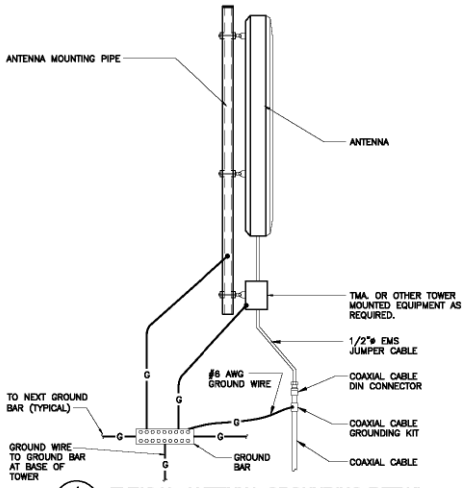


NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE

1 E-1 CONNECTION OF GROUND WIRES TO GROUND BAR

NOT TO SCALE

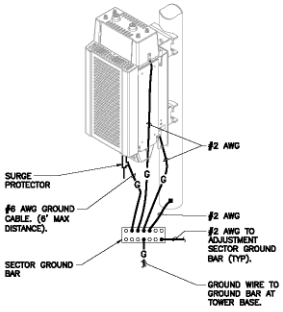


4 E-1 TYPICAL ANTENNA GROUNDING DETAIL

NOT TO SCALE

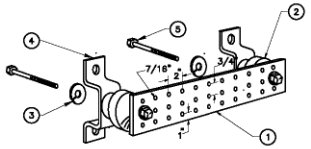
EACH RRH CABINET SHALL BE GROUNDED IN THE FOLLOWING MANNER:

1. AT TOP OF THE CABINET
2. AT RIGHT SIDE OF THE CABINET.



2 E-1 RRH POLE MOUNT GROUNDING

NOT TO SCALE

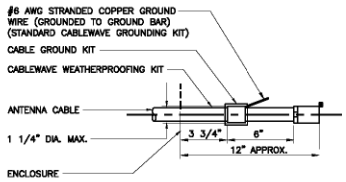


NOTES

1. TINNED COPPER GROUND BAR, 1/4" x 4" x 20", NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
2. INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4.
3. 5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8.
4. WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A-6056.
5. 5/8-11 x 1" STAINLESS STEEL TRUSS SPANNER MACHINE SCREWS.

5 E-1 GROUND BAR DETAIL

NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

3 E-1 ANTENNA CABLE GROUNDING DETAIL

NOT TO SCALE

ELECTRICAL SPECIFICATIONS

SECTION 16010

1.01. SCOPE OF WORK

A. WORK SHALL INCLUDE ALL LABOR, EQUIPMENT AND SERVICES REQUIRED TO COMPLETE (MAKE READY FOR OPERATION) ALL THE ELECTRICAL WORK INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

1. CELLULAR GROUNDING SYSTEMS CONSISTING OF ANTENNA GROUNDING, GROUND BARS, ETC.

1.02. GENERAL REQUIREMENTS

A. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE INTERPRETED AS AN INFRINGEMENT OF SUCH CODES OR REGULATIONS.

B. THE ELECTRICAL CONTRACTOR IS TO BE RESPONSIBLE FOR THE COMPLETE INSTALLATION AND COORDINATION OF THE ENTIRE ELECTRICAL SERVICE. ALL ACTIVITIES TO BE COORDINATED THROUGH OWNERS REPRESENTATIVE, DESIGN ENGINEER AND OTHER AUTHORITIES HAVING JURISDICTION OF TRADES.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES THAT MAY BE REQUIRED FOR THE ELECTRICAL WORK AND FOR SCHEDULING OF ALL INSPECTIONS THAT MAY BE REQUIRED BY THE LOCAL AUTHORITY.

D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE BUILDING OWNER FOR NEW AND/OR DEMOLITION WORK INVOLVED.

E. NO MATERIAL OTHER THAN THAT CONTAINED IN THE "LATEST LIST OF ELECTRICAL FITTINGS" APPROVED BY THE UNDERWRITERS' LABORATORIES, SHALL BE USED IN ANY PART OF THE WORK. ALL MATERIAL FOR WHICH LABEL SERVICE HAS BEEN ESTABLISHED SHALL BEAR THE U.L. LABEL.

F. THE CONTRACTOR SHALL GUARANTEE ALL NEW WORK FOR A PERIOD OF ONE YEAR FROM THE ACCEPTANCE DATE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WARRANTIES FROM ALL EQUIPMENT MANUFACTURERS FOR SUBMISSION TO THE OWNER.

G. DRAWINGS INDICATE GENERAL ARRANGEMENT OF WORK INCLUDED IN CONTRACT. CONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE MODIFICATIONS TO THE LAYOUT OF THE WORK TO PREVENT CONFLICT WITH WORK OF OTHER TRADES AND FOR THE PROPER INSTALLATION OF WORK. CHECK ALL DRAWINGS AND VISIT JOB SITE TO VERIFY SPACE AND TYPE OF EXISTING CONDITIONS IN WHICH WORK WILL BE DONE, PRIOR TO SUBMITTAL OF BID.

H. THE ELECTRICAL CONTRACTOR SHALL SUPPLY THREE (3) COMPLETE SETS OF APPROVED DRAWINGS, ENGINEERING DATA SHEETS, MAINTENANCE AND OPERATING INSTRUCTION MANUALS FOR ALL SYSTEMS AND THEIR RESPECTIVE EQUIPMENT. THESE MANUALS SHALL BE INSERTED IN VINYL COVERED 3-RING BINDERS AND TURNED OVER TO OWNER'S REPRESENTATIVE ONE (1) WEEK PRIOR TO FINAL PUNCH LIST.

I. ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER AND WILL BE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE.

J. ALL EQUIPMENT AND MATERIALS TO BE INSTALLED SHALL BE NEW, UNLESS OTHERWISE NOTED.

K. BEFORE FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF PRINTS (AS-BUILTS), LEGIBLY MARKED IN RED PENCIL TO SHOW ALL CHANGES FROM THE ORIGINAL PLANS.

L. ENTIRE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH OWNER'S SPECIFICATIONS, AND REQUIREMENTS OF ALL LOCAL AUTHORITIES HAVING JURISDICTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH APPROPRIATE INDIVIDUALS TO OBTAIN ALL SUCH SPECIFICATIONS AND REQUIREMENTS. NOTHING CONTAINED IN, OR OMITTED FROM, THESE DOCUMENTS SHALL RELIEVE CONTRACTOR FROM THIS OBLIGATION.

SECTION 16450

1.01. GROUNDING

A. ALL NON-CURRENT CARRYING PARTS OF THE ELECTRICAL AND TELEPHONE CONDUIT SYSTEMS SHALL BE MECHANICALLY AND ELECTRICALLY CONNECTED TO PROVIDE AN INDEPENDENT RETURN PATH TO THE EQUIPMENT GROUNDING SOURCES.

B. GROUNDING SYSTEM WILL BE IN ACCORDANCE WITH THE LATEST ACCEPTABLE EDITION OF THE NATIONAL ELECTRICAL CODE AND REQUIREMENTS PER LOCAL INSPECTOR HAVING JURISDICTION.

C. EQUIPMENT GROUNDING CONDUCTOR:

1. EACH EQUIPMENT GROUND CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. ARTICLE 250-122.

2. THE MINIMUM SIZE OF EQUIPMENT GROUND CONDUCTOR SHALL BE #12 AWG COPPER.

D. CELLULAR GROUNDING SYSTEM:

PROVIDE THE CELLULAR GROUNDING SYSTEM AS SPECIFIED ON DRAWINGS, INCLUDING, BUT NOT LIMITED TO:

1. GROUND BARS
2. ANTENNA GROUND CONNECTIONS AND PLATES.

E. ALL EQUIPMENT SHALL BE BONDED TO GROUND AS REQUIRED BY N.E.C., MFG. SPECIFICATIONS, AND OWNER'S SPECIFICATIONS.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
A	06/17/21	JJW	DMD	CONSTRUCTION DRAWINGS – ISSUED FOR CLIENT REVIEW
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ELECTRICAL DETAILS AND SPECIFICATIONS

E-1

Sheet No. 7 of 7

SAMSUNG

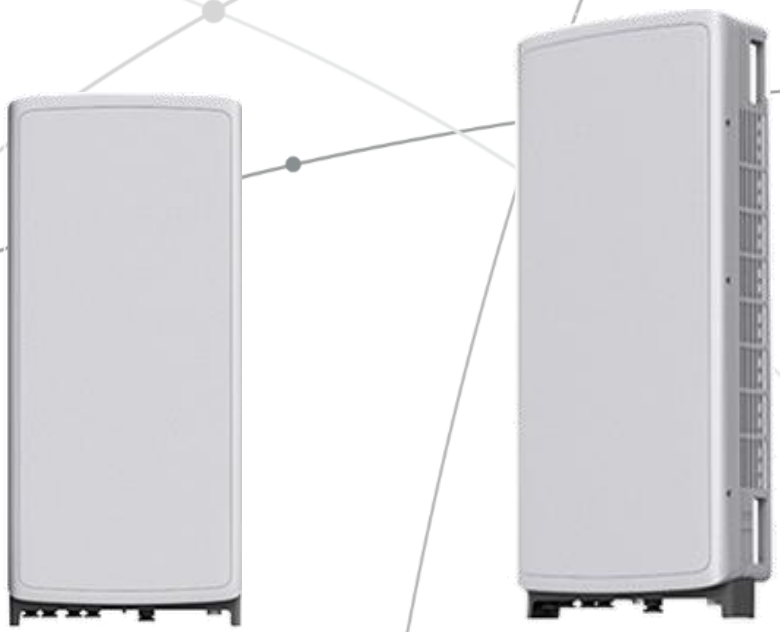
SAMSUNG

C-Band 64T64R Massive MIMO Radio

for High Capacity and Wide Coverage

Samsung C-Band 64T64R Massive MIMO Radio enables mobile operators to increase coverage range, boost data speeds and ultimately offer enriched 5G experiences to users in the U.S..

Model Code : MT6407-77A

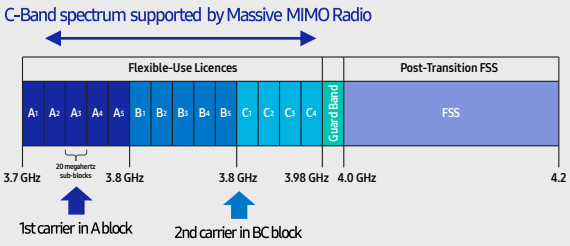


Points of Differentiation

Wide Bandwidth

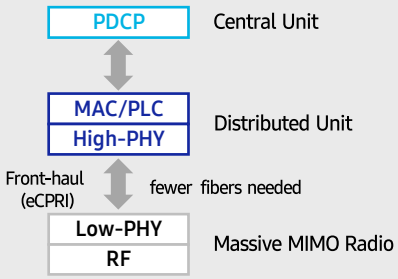
With capability to support up to 2 CC carrier configuration, Samsung C-Band massive MIMO Radio supports 200 MHz bandwidth in the C-Band spectrum.

Samsung C-Band massive MIMO Radio covers the entire C-Band 280 MHz spectrum, so it can meet the operator's needs in current A block and future B/C blocks



Future Proof Product

Samsung C-Band 64T64R Massive MIMO radio supports not only CPRI but also eCPRI as front-haul interface.
It enables operators can cut down on OPEX/CAPEX by reducing front-haul bandwidth through low layer split and using ethernet based higher efficient line.



Enhanced Performance

C-Band massive MIMO Radio creates sharp beams and extends networks' coverage on the critical mid-band spectrum using a large number of antenna elements and high output power to boost data speeds.

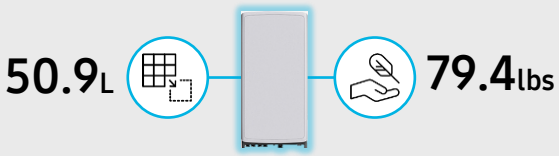
This helps operators reduce their CAPEX as they now need less products to cover the same area than before.

Furthermore, as C-Band massive MIMO Radio supports MU-MIMO(Multi-user MIMO) , it enables to increase user throughput by minimizing interference.

Well Matched Design

Samsung C-Band Massive MIMO radio utilizes 64 antennas, supports up to 280MHz bandwidth, and delivers a 200W output power. despite the above advanced performance, the Radio has a compact size of 50.9L and 79.4lbs. This makes it easy to install the Radio.

It is designed to look solid and compact, with a low profile appearance so that, when installed, harmonizes well with the surrounding environment..



Technical Specifications

Item	Specification
Tech	NR
Band	n77
Frequency Band	3700 - 3980 MHz
EIRP	78.5dBm (53.0 dBm+25.5 dBi)
IBW/OBW	280 MHz / 200 MHz
Installation	Pole/Wall
Size/ Weight	16.06 x 35.06 x 5.51 inch (50.86L)/ 79.4 lbs

SAMSUNG

About Samsung Electronics Co., Ltd.

Samsung inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, digital appliances, network systems, and memory, system LSI, foundry and LED solutions.

129 Samsung-ro, Yeongtong-gu, Suwon-si Gyeonggi-do, Korea

SAMSUNG

Dual-Band Radio Unit
700/850MHz (B13/B5)
RFV01U-D2A

Samsung's RFV01U-D2A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.

The RFV01U-D2A RU targets dual-band support across Band 13 (700MHz) and Band 5 (850MHz), making it an ideal product for broad coverage footprints across multiple common low-end, long-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation

Key Technical Specifications

Duplex Type: FDD
Operating Frequencies:
B13: DL(746-756MHz)/UL(777-787MHz)
B5: DL(869-894MHz)/UL(824-849MHz)
Instantaneous Bandwidth: 10MHz(B13) + 25MHz(B5)
RF Chain: 4T4R/2T4R/2T2R
Output Power: Total 320W
DU-RU Interface: CPRI (10Gbps)
Dimensions: 380 x 380 x 207mm (29.9L)
Weight: 31.9kg
Input Power: -48V DC
Operating Temp.: -40 - 55°(w/o solar load)
Cooling: Natural convection

SAMSUNG

Dual-Band Radio Unit
AWS/PCS (B66/B2)
RFV01U-D1A

Samsung's RFV01U-D1A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.

The RFV01U-D1A RU targets dual-band support across Band 66 (AWS) and Band 2 (PCS), making it an ideal product for broad coverage footprints across multiple common mid-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation
- Built-in Broadcast Auxiliary Services (BAS) filter ensures compliant AWS operation without impacting footprint

Key Technical Specifications

Duplex Type: FDD
Operating Frequencies:
    B66: DL(2,110-2,180MHz)/UL(1,710-1,780MHz)
    B2: DL(1,930-1,990MHz)/UL(1,850-1,910MHz)
Instantaneous Bandwidth:
    70MHz(B66) + 60MHz(B2)
RF Chain: 4T4R/2T4R/2T2R
Output Power: Total 320W
DU-RU Interface: CPRI (10Gbps)
Dimensions: 380 x 380 x 255mm (36.8L)
Weight: 38.3kg
Input Power: -48V DC
Operating Temp.: -40 - 55°(w/o solar load)
Cooling: Natural convection

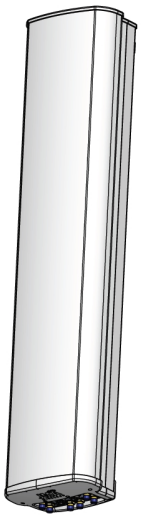
MX06FRO660-03

NWAV™ X-Pol Hex-Port Antenna

X-Pol Hex-Port 6 ft 60° Fast Roll Off antenna with independent tilt on 700 & 850 MHz:

2 ports 698-798, 824-894 MHz and 4 ports 1695-2180 MHz

- Fast Roll Off (FRO™) azimuth beam pattern improves Intra- and Inter-cell SINR
- Compatible with dual band 700/850 MHz radios with independent low band EDT without external diplexers
- Fully integrated (iRETs) with independent RET control for low and high bands for ease of network optimization
- SON-Ready array spacing supports beamforming capabilities
- Suitable for LTE/CDMA/PCS/UMTS/GSM air interface technologies
- Integrated Smart Bias-Ts reduce leasing costs

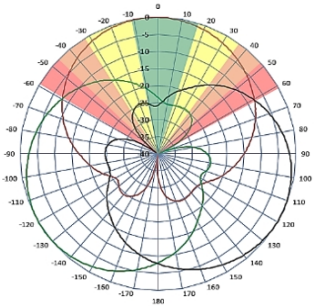


nwav

Fast Roll-Off antennas increase data throughput without compromising coverage

The horizontal beam produced by Fast Roll-Off (FRO) technology increases the Signal to Interference & Noise Ratio (SINR) by eliminating overlap between sectors .

Non-FRO antenna



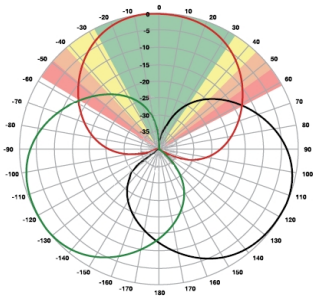
Large traditional antenna pattern overlap creates harmful interference.

JMA's FRO antenna pattern minimizes overlap, thereby minimizing interference.

LTE throughput	SINR	Speed (bps/Hz)	Speed increase	CQI
Excellent	>18	>4.5	333+%	8-10
Good	15-18	3.3-4.5	277%	6-7
Fair	10-15	2-3.3	160%	4-6
Poor	<10	<2	0%	1-3

The LTE radio automatically selects the best throughput based on measured SINR.

JMA FRO antenna



Electrical specification (minimum/maximum)	Ports 1, 2		Ports 3, 4, 5, 6		
Frequency bands, MHz	698-798	824-894	1695-1880	1850-1990	1920-2180
Polarization	± 45°		± 45°		
Average gain over all tilts, dBi	14.4	14.0	17.6	18.0	18.2
Horizontal beamwidth (HBW), degrees	60.5	53.0	55.0	55.0	55.5
Front-to-back ratio, co-polar power @180°± 30°, dB	>24	>24.0	>25.0	>25.0	>25.0
X-Pol discrimination (CPR) at boresight, dB	>15.0	>14.2	>18	>18	>15
Sector power ratio, percent	<3.5	<3.0	<3.7	<3.8	<3.6
Vertical beamwidth (VBW), degrees[1]	13.1	11.8	6.0	5.5	5.5
Electrical downtilt (EDT) range, degrees	2-14	2-14	0-9		
First upper side lobe (USLS) suppression, dB[1]	≤-15.0	≤-16.5	≤-16.0	≤-16.0	≤-16.0
Cross-polar isolation, port-to-port, dB[1]	25	25	25	25	25
Max VSWR / return loss, dB	1.5:1 / -14.0		1.5:1 / -14.0		
Max passive intermodulation (PIM), 2x20W carrier, dBc	-153		-153		
Max input power per any port, watts	300		250		
Total composite power all ports, watts	1500				

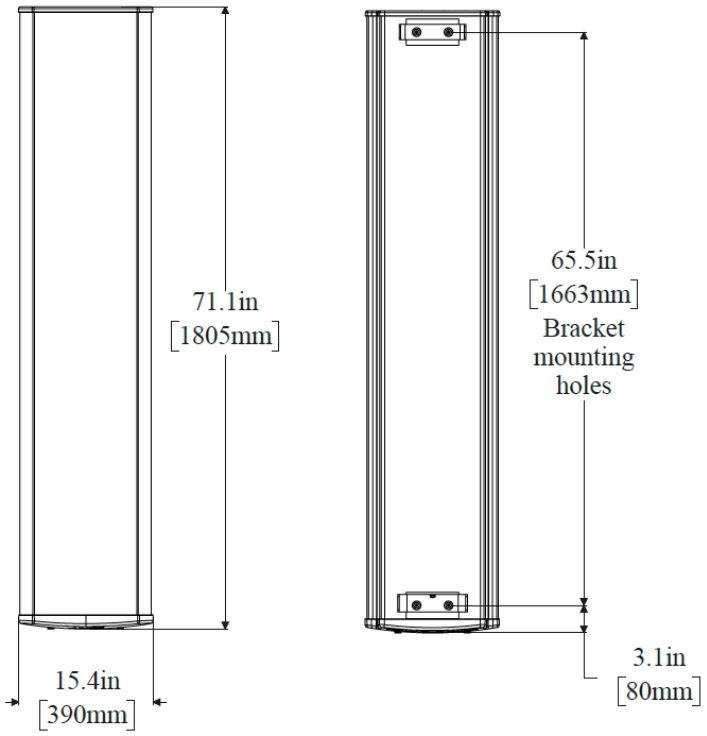
[1] Typical value over frequency and tilt

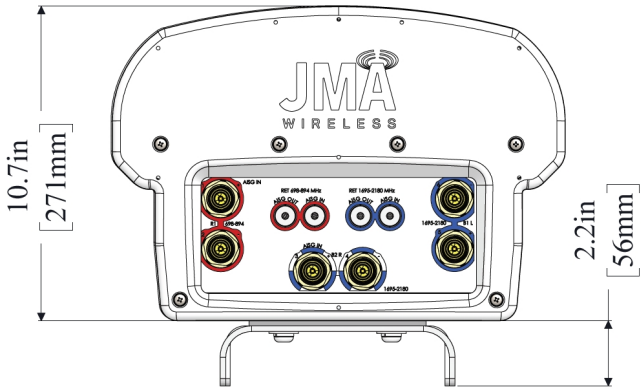
MX06FRO660-03

NWAV™ X-Pol Hex-Port Antenna

Mechanical specifications	
Dimensions height/width/depth, inches (mm)	71.3/ 15.4/ 10.7 (1811/ 392/ 273)
Shipping dimensions length/width/height, inches (mm)	82/ 20/ 15 (2083/ 508/ 381)
No. of RF input ports, connector type, and location	6 x 4.3-10 female, bottom
RF connector torque	96 lbf·in (10.85 N·m or 8 lbf·ft)
Net antenna weight, lb (kg)	60 (27.0)
Shipping weight, lb (kg)	90 (41.0)
Antenna mounting and downtilt kit included with antenna	91900318
Net weight of the mounting and downtilt kit, lb (kg)	18 (8.18)
Range of mechanical up/down tilt	-2° to 14°
Rated wind survival speed, mph (km/h)	150 (241)
Frontal, lateral, and rear wind loading @ 150 km/h, lbf (N)	154 (685), 73 (325), 158 (703)
Equivalent flat plate @ 100 mph and Cd=2, sq ft	2.6

Front view | **Back view** | **Bottom view**





Ordering information	
Antenna model	**Description**
MX06FRO660-03	6F X-Pol HEX FRO 60° independent tilt 700/850 RET, 4.3-10 & SBT
Optional accessories	
AISG cables	M/F cables for AISG connections
PCU-1000 RET controller	Stand-alone controller for RET control and configurations

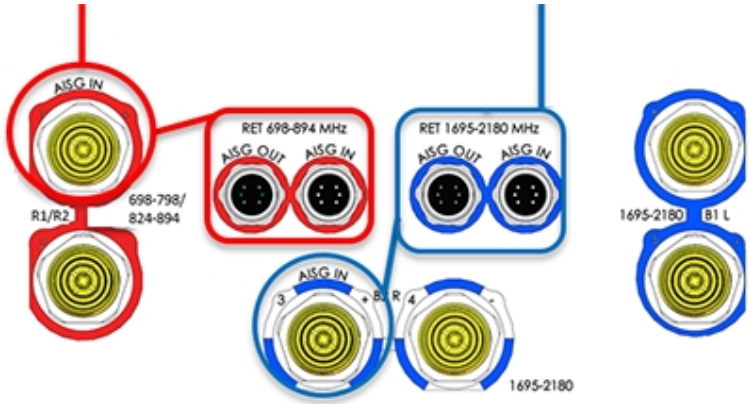
Remote electrical tilt (RET 1000) information	
RET location	Integrated into antenna
RET interface connector type	8-pin AISG connector per IEC 60130-9
RET connector torque	Min 0.5 N·m to max 1.0 N·m (hand pressure & finger tight)
RET interface connector quantity	2 pairs of AISG male/female connectors
RET interface connector location	Bottom of the antenna
Total no. of internal RETs (low bands)	2
Total no. of internal RETs (high bands)	1
RET input operating voltage, vdc	10-30
RET max power consumption, idle state, W	≤ 2.0
RET max power consumption, normal operating conditions, W	≤ 13.0
RET communication protocol	AISG 2.0 / 3GPP

RET and RF connector topology

Each RET device can be controlled either via the designated external AISG connector or RF port as shown below:

RET device	Band	RF port
R1	698-798	1-2
R2	824-894	1-2

RET device	Band	RF port
B1/B2	1695-2180	3-6

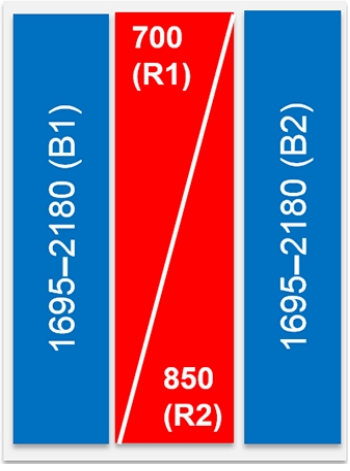


Array topology

3 sets of radiating arrays

R1/R2: 698-894 MHz
B1: 1695-2180 MHz
B2: 1695-2180 MHz

Band	RF port
1695-2180	3-4
698-894	1-2
1695-2180	5-6



ATTACHMENT 3

	General	Power	Density					
Site Name: Brooklyn								
Tower Height: Verizon @ 177ft								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**FREQ.**	**CALC. POWER DENS**	**MAX. PERMISS.EXP.**	**FRACTION MPE**	**Total**
*Sprint	1	377	157	850	0.00594609	0.566666667	0.10%	
*Sprint	2	942	157	850	0.029714678	0.566666667	0.52%	
*Sprint	5	512	157	1900	0.040376632	1	0.40%	
*Sprint	2	1280	157	1900	0.040376632	1	0.40%	
*Sprint	8	778	157	2500	0.098165688	1	0.98%	
*Nextel	9	100	153	851	0.014977932	0.567333333	0.26%	
*T-Mobile	2	592	140	600	0.0237	0.4000	0.59%	
*T-Mobile	1	1578	140	600	0.0316	0.4000	0.79%	
*T-Mobile	2	649	140	700	0.0260	0.4667	0.56%	
*T-Mobile	4	1102	140	1900	0.0883	1.0000	0.88%	
*T-Mobile	2	2204	140	1900	0.0883	1.0000	0.88%	
*T-Mobile	2	2589	140	2100	0.1037	1.0000	1.04%	
*T-Mobile	1	11045	140	2500	0.2212	1.0000	2.21%	
*T-Mobile	1	1074	140	2500	0.0215	1.0000	0.22%	
*T-Mobile	1	22089	140	2500	0.4424	1.0000	4.42%	
*T-Mobile	1	2148	140	2500	0.0430	1.0000	0.43%	
VZW 700	**4**	**609**	**177**	**751**	**0.0028**	**0.5007**	**0.56%**	
VZW CDMA	**2**	**422**	**177**	**877.26**	**0.0010**	**0.5848**	**0.17%**	
VZW Cellular	**4**	**623**	**177**	**874**	**0.0029**	**0.5827**	**0.49%**	
VZW PCS	**4**	**1462**	**177**	**1977.5**	**0.0067**	**1.0000**	**0.67%**	
VZW AWS	**4**	**1530**	**177**	**2120**	**0.0070**	**1.0000**	**0.70%**	
VZW CBAND	**2**	**21627**	**177**	**3730.08**	**0.0497**	**1.0000**	**4.97%**	
								22.27%
* Source: Siting Council								

ATTACHMENT 4

Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Post-Mod Structural Analysis Report

Existing 175 ft SUMMIT Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT01915-S

Customer Site Name: South Brooklyn

Carrier Name: (App#: 165546-1)

Carrier Site ID / Name: 118589 / BROOKLYN_CT

Site Location: 100 Old Tatnic Hill Road

Brooklyn, Connecticut

Windham County

Latitude: 41.767160

Longitude: -71.971949

Analysis Result:

Max Structural Usage: 79.2% [Pass]

Max Foundation Usage: 59.0% [Pass]

Report Prepared By: Mohammed Al Rubaye

Tower Engineering Solutions
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Report Prepared By: Mohammed Al Rubaye

Introduction

The purpose of this report is to summarize the analysis results on the 175 ft SUMMIT Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any existing modification listed under Sources of Information was assumed completed and was included in this analysis.

The proposed modification by **TES** listed under Sources of Information was considered completed and was included in this analysis.

Sources of Information

Tower Drawings	Tower Drawings prepared by Paul J. Ford and Company, Job # 29200-401 Dated 04/05/2000
Foundation Drawing	Foundation Drawings prepared by Paul J. Ford and Company, Job # 29200-401 Dated 04/05/2000
Geotechnical Report	Geotechnical Report prepared by FDH Engineering, Project # 1201186EG1 Dated 08/16/2012
Existing Modification	N/A
Mount Analysis	Maser Consulting Connecticut Project #: 21777249A, dated 09/02/2021
Mount Mod Drawings	Maser Consulting Connecticut Project #: 21777249A, dated 09/02/2021
Proposed Modification	TES Job # 121972

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA-222-G-2**.** In accordance with this standard, the structure was analyzed using **TESPoles,** a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed V_{ult} = 130.0 mph (3-Sec. Gust)/ Nominal Design Wind Speed V_{asd} = 101.0 mph (3-Sec. Gust)
Basic Wind Speed with Ice:	50 mph (3-Sec. Gust) with 1" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	SS = 0.171, S1 = 0.062

This structural analysis is based upon the tower being classified as a Structure Class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft.)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
-	176.0	3	Antel - WBX065X19R050 - Panel	LP Platform	(12) 1 5/8" (1) 1 5/8" Hybrid	Verizon
-		3	Antel - BXA-70063/6CF - Panel			
-		3	Antel - BXA-171085/12CF - Panel			
-		3	Antel - BXA-70080/6CF - Panel			
-		3	Alcatel Lucent - RRH2x40-AWS - RRH			
-		6	RFS - FD9R60042C-3L - Diplexer			
-		1	RFS - DB-T1-6Z-8AB-0Z - Distribution Box			
8	157.0	3	RFS - APXVTM14-C-I20 - Panel	(1) LP Platform w/ handrail kit & v-brace kit [(1) SitePro PRK-1245L (1) SitePro HRK-14-U & (1) SitePro PRK-SFS-H-L]	(4) 1 1/4" Fiber	Sprint Nextel
9		3	Commscope - NNVV-65B-R4 - Panel			
10		3	ALU - 1900 MHz - RRU			
11		6	ALU - 800 MHz - RRU			
12		3	ALU - TD-RRH8x20-25 - RRU			
13	140.0	3	RFS APXV18-206516S-C-A20	Platform w/ Handrails Commscope MT-195-12	(9) 1 5/8" (3) 1 5/8"Fiber	T-Mobile
14		3	RFS APXVAARR24_43-U-NA20			
15		3	Ericsson KRY 112 489/2			
16		3	Ericsson Radio 4449 B71+B12			
17		3	Kathrein 782 11056			
18	110.0	3	Commscope FFVV-65B-R2 - Panel	Commscope MC-PK8-DSH (Platform)	(1) 1.6" Hybrid	Dish Wireless
19		3	Fujitsu TA08025-B605 RRU			
20		3	Fujitsu TA08025-B604 RRU			
21		1	Raycap RDIDC-9181-PF-48-OVP			
22	75.0	1	GPS	Direct	(1) 1/2"	Sprint Nextel

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	177.0	3	Samsung MT6407-77A - Panel	LP Platform w/ Mount Mods [(12) VZWSMART-MSK1, (6) VZWSMART-PLK3 Support Rail, (1) ZWSMART-PLK5 Kicker Kit, (1) VZWSMART-PLK7 Collar Mount, (3) 24" P2 1/2 STD, (3) 14' P2 1/2 STD, (1) HSS 3x2 1/2x1/4 SHIM]	(1) 1 5/8" 6x12 Hybriflex LI (11) 1 5/8" (1) 1 5/8" Hybrid	Verizon
2		3	Antel BXA-70080-6CF - Panel			
3		6	JMA Wireless MX06FRO660-03 - Panel			
4		3	Samsung B2/B66A RRU			
5		3	Samsung B5/B13 RRU			
6		1	Raycap RVZDC-6627-PF-48 OVP			

All transmission lines are considered running inside of the pole shafts.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

	Pole shafts	Anchor Bolts	Base Plate	Bridge Stiffener	Flange Bolts
Max. Usage:	**79.2%**	**39.7%**	**77.5%**	**48.9%**	**21.8%**
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	4186.7	32.6	98.2

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 1.7359 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the structure and its foundation will be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the TIA-222-G-2 Standard after the following proposed modification is successfully completed.

- Proposed modification design drawing by **TES** Job # 121972

Pre-Mod Installation Determination

We have also checked this tower to determine if the proposed equipment loading can be installed prior to the completion of the required modifications. We ran a reduced wind loading case as required by TIA-322 considering a construction period of no more than 6 months.

The tower and/or foundations failed, so the Carrier cannot install their proposed loading prior to the mods completion.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC.** Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.

2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.

3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the EIA/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.

4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.

5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.

6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Usage Diagram - Max Ratio 79.18% at 83.8ft

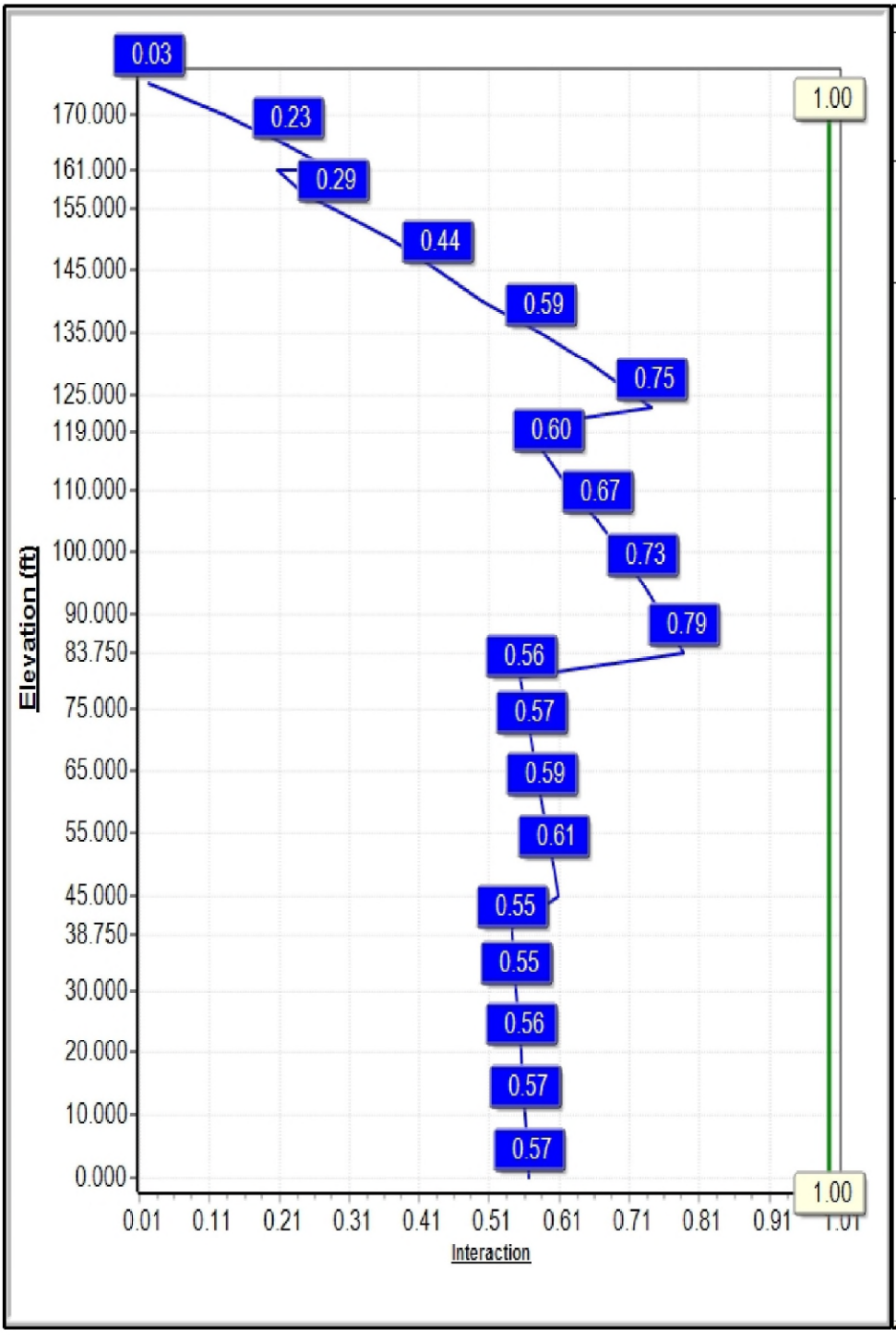
Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022
Site Name:	South Brooklyn	**Exposure:**	B	
Height:	175.00 (ft)	**Gh:**	1.1	
Base Elev:	0.000 (ft)			Page: 1

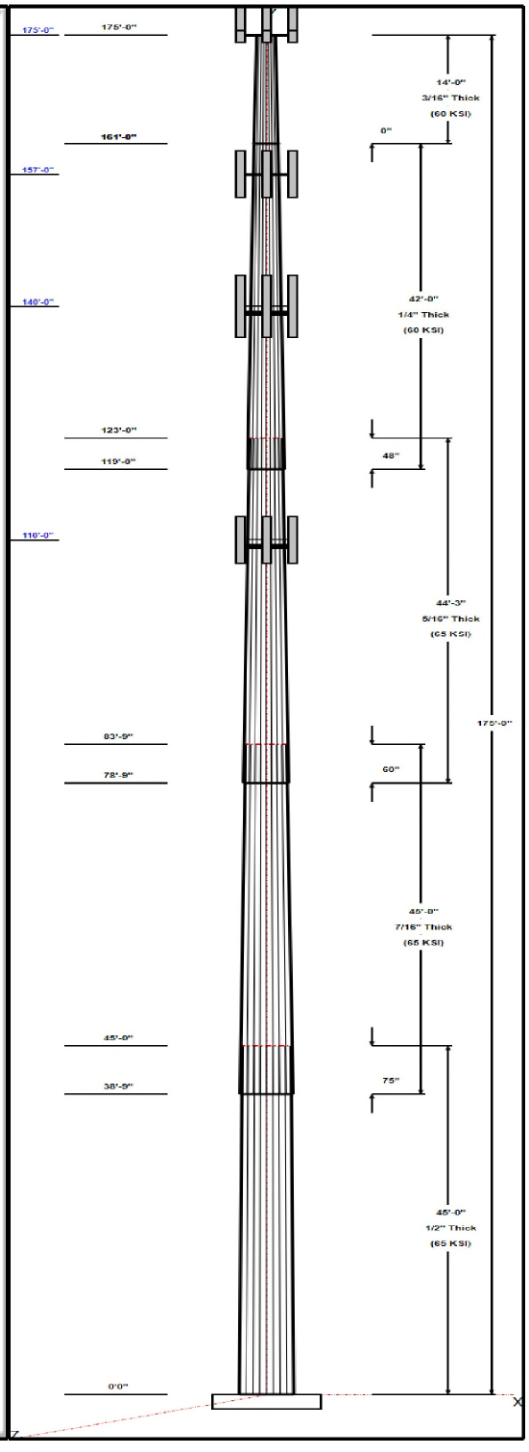
Tower Engineering Solutions

Dead Load Factor:	1.20
Wind Load Factor:	1.60

Load Case : 1.2D + 1.6W 101 mph Wind

Iterations: 26





Structure: CT01915-S-SBA

Type: Tapered
Site Name: South Brooklyn
Height: 175.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.23000

1/13/2022

Tower Engineering Solutions

Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	45.00	46.68	57.03	0.500		0.23000	65
2	45.00	38.64	48.99	0.438	Slip	0.23000	65
3	44.25	30.24	40.42	0.313	Slip	0.23000	65
4	42.00	22.00	31.66	0.250	Slip	0.23000	60
5	14.00	18.78	22.00	0.188	Butt	0.23000	60

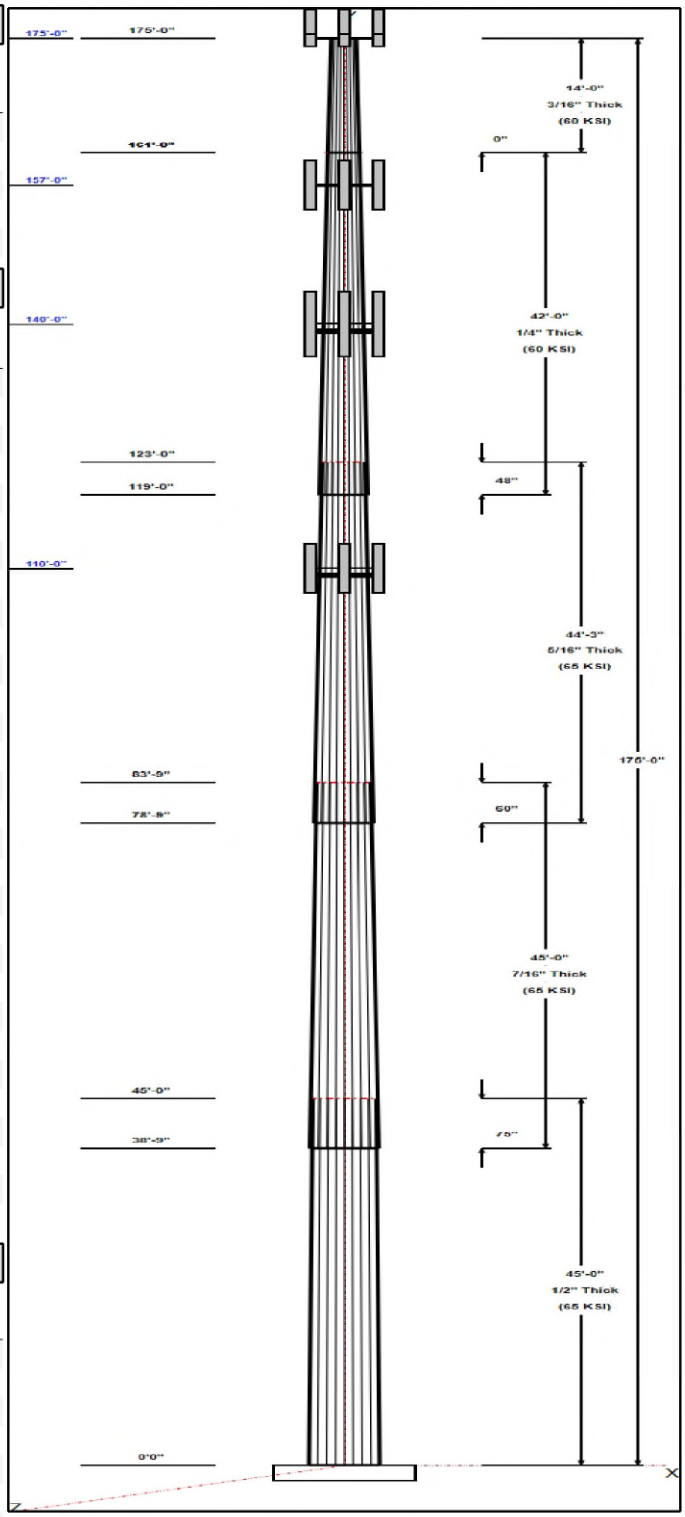
Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
175.00	175.00	1	6' Lightning rod	
175.00	175.00	1	Low Profile Platform-flat	Verizon
175.00	177.00	3	Samsung MT6407-77A	Verizon
175.00	177.00	3	Antel BXA-70080-6CF	Verizon
175.00	177.00	6	JMA Wireless	Verizon
175.00	177.00	3	Samsung B2/B66A	Verizon
175.00	177.00	3	Samsung B5/B13	Verizon
175.00	177.00	1	RVZDC-6627-PF-48	Verizon
175.00	175.00	1	MS-KI22-5 (Kickers w/o	Verizon
175.00	177.00	1	MS-HRECP	Verizon
175.00	175.00	1	MS-H1242 (Heavy Collar	Verizon
161.00	161.00	1	Bridge Stiffener	
157.00	157.00	3	APXVTM14-C-I20	Sprint Nextel
157.00	157.00	3	NNVV-65B-R4	Sprint Nextel
157.00	157.00	3	ALU - 1900 MHz - RRU	Sprint Nextel
157.00	157.00	6	ALU - 800 MHz - RRU	Sprint Nextel
157.00	157.00	3	ALU - TD-RRH8x20-25 -	Sprint Nextel
157.00	157.00	1	Platform w/ Handrail +	Sprint Nextel
140.00	140.00	3	APXV18-206516S-C-A20	T-Mobile
140.00	140.00	3	APXVAARR24_43-U-NA20	T-Mobile
140.00	140.00	3	KRY 112 489/2	T-Mobile
140.00	140.00	1	MT-195-12	T-Mobile
140.00	140.00	3	4449	T-Mobile
140.00	140.00	3	Kathrein 782 11056	T-Mobile
110.00	110.00	3	Commscope	Dish Wireless
110.00	110.00	1	MC-PK8-DSH	Dish Wireless
110.00	110.00	3	Fujitsu TA08025-B605	Dish Wireless
110.00	110.00	3	Fujitsu TA08025-B604	Dish Wireless
110.00	110.00	1	Raycap	Dish Wireless
75.00	75.00	1	GPS	Sprint Nextel

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	175.00	Inside	1 5/8" 6x12 Hybriflex LI	Verizon
0.00	175.00	Inside	1 5/8" Coax	Verizon
0.00	175.00	Inside	1 5/8" Hybrid	Verizon
0.00	157.00	Inside	1 1/4" Fiber	Sprint Nextel
0.00	140.00	Inside	1 5/8" Coax	T-Mobile
0.00	140.00	Inside	1 5/8" Fiber	T-Mobile
0.00	140.00	Inside	1.9" Fiber	T-Mobile
0.00	110.00	Inside	1.6" Hybrid	Dish Wireless
0.00	75.00	Inside	1/2" Coax	Sprint Nextel

Anchor Bolts



Qty	Specifications	Grade (ksi)	Arrangement
32	2.25" 18J	75.0	Cluster

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.5000	68.0	50.0	Clipped

Reactions

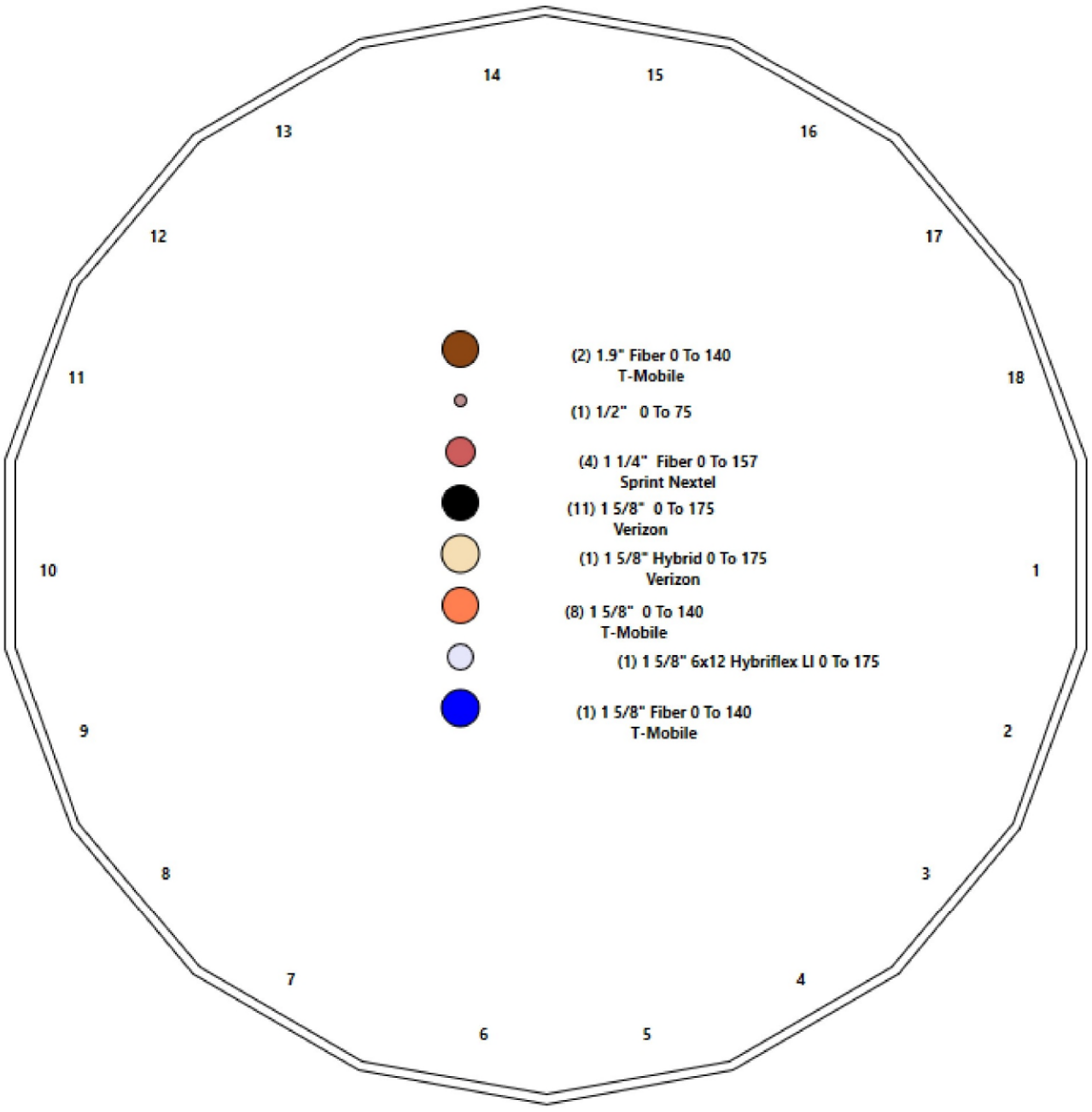
Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 101 mph Wind	4186.7	32.6	57.3
0.9D + 1.6W 101 mph Wind	4129.9	32.6	43.0
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1262.7	9.4	98.2
1.2D + 1.0E	266.4	2.0	57.4
0.9D + 1.0E	262.5	2.0	43.0
1.0D + 1.0W 60 mph Wind	916.9	7.2	47.8

Structure: CT01915-S-SBA - Coax Line Placement

Type: Monopole
Site Name: South Brooklyn
Height: 175.00 (ft)

1/13/2022

Tower Engineering Solutions



Shaft Properties

Structure:	CT01915-S-SBA		**Code:**	EIA/TIA-222-G	1/13/2022
Site Name:	South Brooklyn		**Exposure:**	B	
Height:	175.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 5

Tower Engineering Solutions

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	45.000	0.5000	65		0.00	12,479
2	18	45.000	0.4375	65	Slip	75.00	9,224
3	18	44.250	0.3125	65	Slip	60.00	5,229
4	18	42.000	0.2500	60	Slip	48.00	3,014
5	18	14.000	0.1875	60	Flange	0.00	573
					Total Shaft Weight:		**30,519**

	Bottom						Top						
Sec. No.	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Taper**
1	57.03	0.00	89.71	36220.24	18.70	114.06	46.68	45.00	73.29	19745.8	15.05	93.36	0.230000
2	48.99	38.75	67.42	20082.80	18.33	111.98	38.64	83.75	53.05	9783.25	14.16	88.33	0.230000
3	40.42	78.75	39.78	8083.32	21.39	129.34	30.24	123.00	29.68	3358.97	15.65	96.77	0.230000
4	31.66	119.0	24.92	3106.62	20.92	126.64	22.00	161.00	17.26	1031.48	14.11	88.00	0.230000
5	22.00	161.0	12.98	780.30	19.28	117.33	18.78	175.00	11.06	483.24	16.25	100.1	0.230000

Load Summary

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 6	

Tower Engineering Solutions

Discrete Appurtenances

				No Ice			Ice				
No.	Elev (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
1	175.00	6' Lightning rod	1	6.50	0.38	1.00	55.65	1.853	1.00	0.00	0.00
2	175.00	Low Profile Platform-flat	1	1200.00	37.00	1.00	2617.86	78.969	1.00	0.00	0.00
3	175.00	Samsung MT6407-77A	3	79.40	4.69	0.70	253.55	5.994	0.70	0.00	2.00
4	175.00	Antel BXA-70080-6CF	3	18.00	5.76	0.87	189.54	8.972	0.87	0.00	2.00
5	175.00	JMA Wireless MX06FRO660-03	6	46.00	9.87	0.87	430.19	11.769	0.87	0.00	2.00
6	175.00	Samsung B2/B66A	3	84.40	1.87	0.67	197.19	2.673	0.67	0.00	2.00
7	175.00	Samsung B5/B13	3	70.30	1.87	0.67	172.98	2.673	0.67	0.00	2.00
8	175.00	RVZDC-6627-PF-48	1	32.00	4.06	1.00	186.26	5.173	1.00	0.00	2.00
9	175.00	MS-KI22-5 (Kickers w/o Collar)	1	146.00	5.33	1.00	422.01	12.887	1.00	0.00	0.00
10	175.00	MS-HRECP	1	514.00	12.00	1.00	1339.95	27.880	1.00	0.00	2.00
11	175.00	MS-H1242 (Heavy Collar Mount)	1	150.60	2.50	1.00	435.31	6.045	1.00	0.00	0.00
12	161.00	Bridge Stiffener	1	204.17	2.89	1.00	395.56	5.599	1.00	0.00	0.00
13	157.00	APXVTM14-C-I20	3	56.20	6.34	0.77	286.02	7.864	0.77	0.00	0.00
14	157.00	NNVV-65B-R4	3	84.70	12.27	0.74	503.26	14.220	0.74	0.00	0.00
15	157.00	ALU - 1900 MHz - RRU	3	60.00	2.77	0.67	171.76	4.469	0.67	0.00	0.00
16	157.00	ALU - 800 MHz - RRU	6	53.00	2.49	0.67	152.06	4.022	0.67	0.00	0.00
17	157.00	ALU - TD-RRH8x20-25 - RRU	3	70.00	4.05	0.67	228.65	5.168	0.67	0.00	0.00
18	157.00	Platform w/ Handrail +	1	2800.00	54.00	1.00	6072.63	14.590	1.00	0.00	0.00
19	140.00	APXV18-206516S-C-A20	3	18.70	3.61	0.73	111.49	6.069	0.73	0.00	0.00
20	140.00	APXVAARR24_43-U-NA20	3	128.00	20.24	0.70	704.43	22.787	0.70	0.00	0.00
21	140.00	KRY 112 489/2	3	15.40	0.67	0.67	43.19	1.522	0.67	0.00	0.00
22	140.00	MT-195-12	1	2000.00	40.00	1.00	4773.15	67.731	1.00	0.00	0.00
23	140.00	4449	3	70.00	1.65	0.67	168.10	2.387	0.67	0.00	0.00
24	140.00	Kathrein 782 11056	3	1.80	0.28	0.67	7.79	0.811	0.67	0.00	0.00
25	110.00	Commscope FFVV-65B-R2	3	70.80	12.27	0.74	408.44	14.152	0.74	0.00	0.00
26	110.00	MC-PK8-DSH	1	1727.00	37.59	1.00	3908.72	98.645	1.00	0.00	0.00
27	110.00	Fujitsu TA08025-B605 RRU	3	75.00	1.96	0.67	142.61	2.685	0.67	0.00	0.00
28	110.00	Fujitsu TA08025-B604 RRU	3	63.90	1.96	0.67	129.34	2.685	0.67	0.00	0.00
29	110.00	Raycap RDIDC-9181-PF-48-OVP	1	21.90	2.01	1.00	90.73	2.745	1.00	0.00	0.00
30	75.00	GPS	1	10.00	1.00	1.00	46.47	1.886	1.00	0.00	0.00
		Totals:	**72**	**12,305.97**			**34,992.85**				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	175.00	(1) 1 5/8" 6x12 Hybriflex LI	0.00	Inside
0.00	175.00	(11) 1 5/8" Coax	0.00	Inside
0.00	175.00	(1) 1 5/8" Hybrid	0.00	Inside
0.00	157.00	(4) 1 1/4" Fiber	0.00	Inside
0.00	140.00	(8) 1 5/8" Coax	0.00	Inside
0.00	140.00	(1) 1 5/8" Fiber	0.00	Inside
0.00	140.00	(2) 1.9" Fiber	0.00	Inside
0.00	110.00	(1) 1.6" Hybrid	0.00	Inside
0.00	75.00	(1) 1/2" Coax	0.00	Inside

Shaft Section Properties

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 7	

Tower Engineering Solutions

Increment Length: **5 (ft)**

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.5000	57.030	89.710	36220.2	18.70	114.06	79.4	1250.	0.0
5.00		0.5000	55.880	87.885	34054.4	18.30	111.76	79.9	1200.	1510.8
10.00		0.5000	54.730	86.060	31976.7	17.89	109.46	80.4	1150.	1479.7
15.00		0.5000	53.580	84.235	29985.2	17.48	107.16	80.8	1102.	1448.7
20.00		0.5000	52.430	82.410	28078.2	17.08	104.86	81.3	1054.	1417.6
25.00		0.5000	51.280	80.585	26253.8	16.67	102.56	81.8	1008.	1386.6
30.00		0.5000	50.130	78.760	24510.2	16.27	100.26	82.3	963.0	1355.5
35.00		0.5000	48.980	76.935	22845.6	15.86	97.96	82.5	918.7	1324.5
38.75	Bot - Section 2	0.5000	48.117	75.566	21647.8	15.56	96.23	82.5	886.1	973.0
40.00		0.5000	47.830	75.110	21258.1	15.46	95.66	82.5	875.4	606.4
45.00	Top - Section 1	0.4375	47.555	65.426	18351.4	17.76	108.70	0.0	0.0	2389.1
50.00		0.4375	46.405	63.829	17040.2	17.29	106.07	81.1	723.3	1099.6
55.00		0.4375	45.255	62.232	15793.0	16.83	103.44	81.6	687.4	1072.4
60.00		0.4375	44.105	60.636	14608.2	16.37	100.81	82.2	652.4	1045.2
65.00		0.4375	42.955	59.039	13484.2	15.90	98.18	82.5	618.3	1018.1
70.00		0.4375	41.805	57.442	12419.4	15.44	95.55	82.5	585.1	990.9
75.00		0.4375	40.655	55.845	11412.2	14.97	92.93	82.5	552.9	963.7
78.75	Bot - Section 3	0.4375	39.792	54.647	10693.6	14.63	90.95	82.5	529.3	705.0
80.00		0.4375	39.505	54.248	10460.9	14.51	90.30	82.5	521.6	400.2
83.75	Top - Section 2	0.3125	39.267	38.637	7407.7	20.75	125.66	0.0	0.0	1183.1
85.00		0.3125	38.980	38.352	7244.9	20.58	124.74	77.2	366.1	163.7
90.00		0.3125	37.830	37.211	6617.5	19.93	121.06	78.0	344.5	642.8
95.00		0.3125	36.680	36.071	6027.5	19.29	117.38	78.7	323.7	623.4
100.00		0.3125	35.530	34.930	5473.6	18.64	113.70	79.5	303.4	604.0
105.00		0.3125	34.380	33.789	4954.7	17.99	110.02	80.2	283.9	584.6
110.00		0.3125	33.230	32.649	4469.7	17.34	106.34	81.0	264.9	565.2
115.00		0.3125	32.080	31.508	4017.4	16.69	102.66	81.8	246.7	545.8
119.00	Bot - Section 4	0.3125	31.160	30.596	3678.4	16.17	99.71	82.4	232.5	422.7
120.00		0.3125	30.930	30.368	3596.7	16.04	98.98	82.5	229.0	188.2
123.00	Top - Section 3	0.2500	30.740	24.193	2841.6	20.27	122.96	0.0	0.0	556.3
125.00		0.2500	30.280	23.828	2714.9	19.95	121.12	72.8	176.6	163.4
130.00		0.2500	29.130	22.915	2414.8	19.14	116.52	73.6	163.3	397.6
135.00		0.2500	27.980	22.003	2137.6	18.32	111.92	74.5	150.5	382.1
140.00		0.2500	26.830	21.090	1882.6	17.51	107.32	75.3	138.2	366.6
145.00		0.2500	25.680	20.178	1648.6	16.70	102.72	76.2	126.4	351.1
150.00		0.2500	24.530	19.265	1434.9	15.89	98.12	76.2	115.2	335.5
155.00		0.2500	23.380	18.353	1240.5	15.08	93.52	76.2	104.5	320.0
157.00		0.2500	22.920	17.988	1168.0	14.76	91.68	76.2	100.4	123.7
160.00		0.2500	22.230	17.441	1064.6	14.27	88.92	76.2	94.3	180.8
161.00	Top - Section 4	0.2500	22.000	17.258	1031.5	14.11	88.00	76.2	92.3	59.0
161.00	Bot - Section 5	0.1875	22.000	12.981	780.3	18.81	117.33	73.5	69.9	
165.00		0.1875	21.080	12.433	685.7	18.41	112.43	74.4	64.1	173.0
170.00		0.1875	19.930	11.749	578.6	17.33	106.29	75.5	57.2	205.7
175.00		0.1875	18.780	11.064	483.2	16.25	100.16	76.2	50.7	194.1
										30519.4

Wind Loading - Shaft

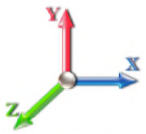
Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 8	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 26

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	17.366	19.10	407.79	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	17.366	19.10	399.57	0.650	0.000	5.00	23.886	15.53	474.5	0.0	1812.9
10.00		1.00	0.70	17.366	19.10	391.35	0.650	0.000	5.00	23.399	15.21	464.9	0.0	1775.7
15.00		1.00	0.70	17.366	19.10	383.12	0.650	0.000	5.00	22.913	14.89	455.2	0.0	1738.4
20.00		1.00	0.70	17.366	19.10	374.90	0.650	0.000	5.00	22.426	14.58	445.5	0.0	1701.2
25.00		1.00	0.70	17.366	19.10	366.68	0.650	0.000	5.00	21.940	14.26	435.9	0.0	1663.9
30.00		1.00	0.70	17.381	19.12	358.61	0.650	0.000	5.00	21.453	13.94	426.6	0.0	1626.6
35.00		1.00	0.73	18.163	19.98	358.18	0.650	0.000	5.00	20.966	13.63	435.7	0.0	1589.4
38.75	Bot - Section 2	1.00	0.75	18.699	20.57	357.03	0.650	0.000	3.75	15.406	10.01	329.6	0.0	1167.6
40.00		1.00	0.76	18.870	20.76	356.51	0.650	0.000	1.25	5.167	3.36	111.5	0.0	727.7
45.00	Top - Section 1	1.00	0.79	19.516	21.47	353.84	0.650	0.000	5.00	20.364	13.24	454.6	0.0	2867.0
50.00		1.00	0.81	20.112	22.12	357.09	0.650	0.000	5.00	19.877	12.92	457.3	0.0	1319.5
55.00		1.00	0.83	20.667	22.73	353.02	0.650	0.000	5.00	19.390	12.60	458.5	0.0	1286.9
60.00		1.00	0.85	21.187	23.31	348.35	0.650	0.000	5.00	18.904	12.29	458.2	0.0	1254.3
65.00		1.00	0.87	21.678	23.85	343.17	0.650	0.000	5.00	18.417	11.97	456.7	0.0	1221.7
70.00		1.00	0.89	22.142	24.36	337.53	0.650	0.000	5.00	17.931	11.65	454.2	0.0	1189.1
75.00	Appurtenance(s)	1.00	0.91	22.582	24.84	331.50	0.650	0.000	5.00	17.444	11.34	450.7	0.0	1156.5
78.75	Bot - Section 3	1.00	0.92	22.899	25.19	326.74	0.650	0.000	3.75	12.764	8.30	334.4	0.0	846.0
80.00		1.00	0.93	23.003	25.30	325.11	0.650	0.000	1.25	4.260	2.77	112.1	0.0	480.2
83.75	Top - Section 2	1.00	0.94	23.306	25.64	320.10	0.650	0.000	3.75	12.597	8.19	335.9	0.0	1419.7
85.00		1.00	0.94	23.404	25.74	323.58	0.650	0.000	1.25	4.138	2.69	110.8	0.0	196.5
90.00		1.00	0.96	23.790	26.17	316.60	0.650	0.000	5.00	16.249	10.56	442.2	0.0	771.4
95.00		1.00	0.97	24.160	26.58	309.36	0.650	0.000	5.00	15.762	10.25	435.7	0.0	748.1
100.00		1.00	0.99	24.517	26.97	301.87	0.650	0.000	5.00	15.276	9.93	428.4	0.0	724.8
105.00		1.00	1.00	24.861	27.35	294.14	0.650	0.000	5.00	14.789	9.61	420.6	0.0	701.5
110.00	Appurtenance(s)	1.00	1.02	25.194	27.71	286.19	0.650	0.000	5.00	14.303	9.30	412.2	0.0	678.2
115.00		1.00	1.03	25.516	28.07	278.05	0.650	0.000	5.00	13.816	8.98	403.3	0.0	654.9
119.00	Bot - Section 4	1.00	1.04	25.766	28.34	271.40	0.650	0.000	4.00	10.703	6.96	315.5	0.0	507.2
120.00		1.00	1.04	25.828	28.41	269.72	0.650	0.000	1.00	2.669	1.74	78.9	0.0	225.9
123.00	Top - Section 3	1.00	1.05	26.011	28.61	264.63	0.650	0.000	3.00	7.891	5.13	234.8	0.0	667.5
125.00		1.00	1.05	26.131	28.74	265.59	0.650	0.000	2.00	5.163	3.36	154.4	0.0	196.1
130.00		1.00	1.07	26.425	29.07	256.94	0.650	0.000	5.00	12.568	8.17	379.9	0.0	477.2
135.00		1.00	1.08	26.712	29.38	248.13	0.650	0.000	5.00	12.081	7.85	369.2	0.0	458.5
140.00	Appurtenance(s)	1.00	1.09	26.991	29.69	239.17	0.650	0.000	5.00	11.595	7.54	358.0	0.0	439.9
145.00		1.00	1.10	27.263	29.99	230.07	0.650	0.000	5.00	11.108	7.22	346.5	0.0	421.3
150.00		1.00	1.11	27.528	30.28	220.84	0.650	0.000	5.00	10.622	6.90	334.5	0.0	402.7
155.00		1.00	1.12	27.787	30.57	211.47	0.650	0.000	5.00	10.135	6.59	322.2	0.0	384.0
157.00	Appurtenance(s)	1.00	1.12	27.889	30.68	207.69	0.650	0.000	2.00	3.918	2.55	125.0	0.0	148.4
160.00		1.00	1.13	28.040	30.84	201.98	0.650	0.000	3.00	5.731	3.73	183.8	0.0	217.0
161.00	Top - Section 4	1.00	1.13	28.090	30.90	200.07	0.650	0.000	1.00	1.871	1.22	60.1	0.0	70.8
165.00		1.00	1.14	28.288	31.12	192.38	0.650	0.000	4.00	7.291	4.74	235.9	0.0	207.5
170.00		1.00	1.15	28.530	31.38	182.66	0.650	0.000	5.00	8.676	5.64	283.2	0.0	246.9
175.00	Appurtenance(s)	1.00	1.16	28.768	31.64	172.84	0.650	0.000	5.00	8.189	5.32	269.5	0.0	232.9
								Totals:	**175.00**			**14,256.5**		**36,623.3**

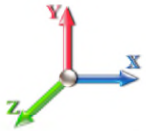
Discrete Appurtenance Forces

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 9	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 26

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	175.00	JMA Wireless	6	28.861	31.747	0.65	0.75	38.64	331.20	0.000	2.000	1962.80	0.00	3925.60
2	175.00	6' Lightning rod	1	28.768	31.644	1.00	1.00	0.38	7.80	0.000	0.000	19.24	0.00	0.00
3	175.00	Low Profile Platform-flat	1	28.768	31.644	1.00	1.00	37.00	1440.00	0.000	0.000	1873.35	0.00	0.00
4	175.00	Samsung MT6407-77A	3	28.861	31.747	0.52	0.75	7.39	285.84	0.000	2.000	375.22	0.00	750.43
5	175.00	Antel BXA-70080-6CF	3	28.861	31.747	0.65	0.75	11.28	64.80	0.000	2.000	572.73	0.00	1145.46
6	175.00	MS-H1242 (Heavy Collar	1	28.768	31.644	1.00	1.00	2.50	180.72	0.000	0.000	126.58	0.00	0.00
7	175.00	Samsung B2/B66A	3	28.861	31.747	0.50	0.75	2.82	303.84	0.000	2.000	143.19	0.00	286.39
8	175.00	Samsung B5/B13	3	28.861	31.747	0.50	0.75	2.82	253.08	0.000	2.000	143.19	0.00	286.39
9	175.00	RVZDC-6627-PF-48	1	28.861	31.747	0.75	0.75	3.04	38.40	0.000	2.000	154.67	0.00	309.35
10	175.00	MS-KI22-5 (Kickers w/o	1	28.768	31.644	1.00	1.00	5.33	175.20	0.000	0.000	269.86	0.00	0.00
11	175.00	MS-HRECP	1	28.861	31.747	1.00	1.00	12.00	616.80	0.000	2.000	609.55	0.00	1219.10
12	161.00	Bridge Stiffener	1	28.090	30.899	1.00	1.00	2.89	245.00	0.000	0.000	142.88	0.00	0.00
13	157.00	Platform w/ Handrail +	1	27.889	30.678	1.00	1.00	54.00	3360.00	0.000	0.000	2650.59	0.00	0.00
14	157.00	ALU - TD-RRH8x20-25 -	3	27.889	30.678	0.50	0.75	6.11	252.00	0.000	0.000	299.68	0.00	0.00
15	157.00	ALU - 800 MHz - RRU	6	27.889	30.678	0.50	0.75	7.51	381.60	0.000	0.000	368.50	0.00	0.00
16	157.00	ALU - 1900 MHz - RRU	3	27.889	30.678	0.50	0.75	4.18	216.00	0.000	0.000	204.97	0.00	0.00
17	157.00	APXVTM14-C-I20	3	27.889	30.678	0.58	0.75	10.98	202.32	0.000	0.000	539.15	0.00	0.00
18	157.00	NNVV-65B-R4	3	27.889	30.678	0.55	0.75	20.43	304.92	0.000	0.000	1002.78	0.00	0.00
19	140.00	KRY 112 489/2	3	26.991	29.690	0.50	0.75	1.01	55.44	0.000	0.000	47.98	0.00	0.00
20	140.00	APXV18-206516S-C-A20	3	26.991	29.690	0.55	0.75	5.93	67.32	0.000	0.000	281.67	0.00	0.00
21	140.00	APXVAARR24_43-U-NA2	3	26.991	29.690	0.52	0.75	31.88	460.80	0.000	0.000	1514.33	0.00	0.00
22	140.00	4449	3	26.991	29.690	0.50	0.75	2.49	252.00	0.000	0.000	118.16	0.00	0.00
23	140.00	MT-195-12	1	26.991	29.690	1.00	1.00	40.00	2400.00	0.000	0.000	1900.15	0.00	0.00
24	140.00	Kathrein 782 11056	3	26.991	29.690	0.50	0.75	0.42	6.48	0.000	0.000	20.05	0.00	0.00
25	110.00	Raycap	1	25.194	27.713	1.00	1.00	2.01	26.28	0.000	0.000	89.13	0.00	0.00
26	110.00	Fujitsu TA08025-B604	3	25.194	27.713	0.50	0.75	2.95	230.04	0.000	0.000	131.01	0.00	0.00
27	110.00	Fujitsu TA08025-B605	3	25.194	27.713	0.50	0.75	2.95	270.00	0.000	0.000	131.01	0.00	0.00
28	110.00	MC-PK8-DSH	1	25.194	27.713	1.00	1.00	37.59	2072.40	0.000	0.000	1666.77	0.00	0.00
29	110.00	Commscope	3	25.194	27.713	0.55	0.75	20.43	254.88	0.000	0.000	905.86	0.00	0.00
30	75.00	GPS	1	22.582	24.841	1.00	1.00	1.00	12.00	0.000	0.000	39.74	0.00	0.00
							Totals:		**14,767.16**			**18,304.82**		

Total Applied Force Summary

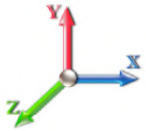
Structure:	CT01915-S-SBA		**Code:**	EIA/TIA-222-G	1/13/2022
Site Name:	South Brooklyn		**Exposure:**	B	
Height:	175.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 10

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 26

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		474.54	2006.08	0.00	0.00
10.00		464.87	1968.82	0.00	0.00
15.00		455.20	1931.56	0.00	0.00
20.00		445.54	1894.30	0.00	0.00
25.00		435.87	1857.04	0.00	0.00
30.00		426.56	1819.78	0.00	0.00
35.00		435.66	1782.52	0.00	0.00
38.75		329.56	1312.44	0.00	0.00
40.00		111.54	775.94	0.00	0.00
45.00		454.63	3060.09	0.00	0.00
50.00		457.33	1512.62	0.00	0.00
55.00		458.45	1480.01	0.00	0.00
60.00		458.20	1447.41	0.00	0.00
65.00		456.73	1414.81	0.00	0.00
70.00		454.18	1382.21	0.00	0.00
75.00	(1) attachments	490.40	1361.60	0.00	0.00
78.75		334.37	990.09	0.00	0.00
80.00		112.10	528.26	0.00	0.00
83.75		335.86	1563.82	0.00	0.00
85.00		110.80	244.53	0.00	0.00
90.00		442.22	963.55	0.00	0.00
95.00		435.66	940.26	0.00	0.00
100.00		428.45	916.97	0.00	0.00
105.00		420.62	893.69	0.00	0.00
110.00	(11) attachments	3336.02	3724.00	0.00	0.00
115.00		403.29	836.19	0.00	0.00
119.00		315.47	652.19	0.00	0.00
120.00		78.87	262.11	0.00	0.00
123.00		234.81	776.28	0.00	0.00
125.00		154.35	268.59	0.00	0.00
130.00		379.94	658.43	0.00	0.00
135.00		369.19	639.80	0.00	0.00
140.00	(16) attachments	4240.36	3863.21	0.00	0.00
145.00		346.45	522.12	0.00	0.00
150.00		334.50	503.49	0.00	0.00
155.00		322.18	484.86	0.00	0.00
157.00	(19) attachments	5190.68	4905.57	0.00	0.00
160.00		183.83	268.00	0.00	0.00
161.00	(1) attachments	203.02	332.85	0.00	0.00
165.00		235.94	275.55	0.00	0.00
170.00		283.16	331.86	0.00	0.00
175.00	(24) attachments	6519.89	4015.57	0.00	7922.71
	Totals:	**32,561.33**	**57,369.05**	**0.00**	**7,922.71**

Calculated Forces

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 11	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 26

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-57.32	-32.64	0.00	-4186.7	0.00	4186.71	6411.04	3205.52	14877.2	7449.66	0.00	0.000	0.000	0.571
5.00	-55.22	-32.32	0.00	-4023.5	0.00	4023.50	6318.35	3159.17	14361.2	7191.28	0.09	-0.161	0.000	0.568
10.00	-53.17	-32.00	0.00	-3861.8	0.00	3861.88	6224.09	3112.04	13850.5	6935.58	0.34	-0.326	0.000	0.565
15.00	-51.14	-31.69	0.00	-3701.8	0.00	3701.86	6128.26	3064.13	13345.4	6682.66	0.78	-0.494	0.000	0.562
20.00	-49.16	-31.37	0.00	-3543.4	0.00	3543.43	6030.87	3015.43	12846.2	6432.65	1.38	-0.666	0.000	0.559
25.00	-47.21	-31.06	0.00	-3386.5	0.00	3386.57	5931.91	2965.95	12352.9	6185.64	2.18	-0.842	0.000	0.556
30.00	-45.30	-30.75	0.00	-3231.2	0.00	3231.28	5831.38	2915.69	11865.8	5941.76	3.15	-1.021	0.000	0.552
35.00	-43.44	-30.40	0.00	-3077.5	0.00	3077.56	5715.88	2857.94	11358.6	5687.79	4.32	-1.204	0.000	0.549
38.75	-42.09	-30.11	0.00	-2963.5	0.00	2963.57	5614.19	2807.10	10956.1	5486.19	5.32	-1.345	0.000	0.548
40.00	-41.25	-30.07	0.00	-2925.9	0.00	2925.94	5580.30	2790.15	10823.5	5419.80	5.68	-1.393	0.000	0.547
45.00	-38.11	-29.66	0.00	-2775.6	0.00	2775.61	4741.11	2370.56	9166.15	4589.89	7.24	-1.584	0.000	0.613
50.00	-36.50	-29.29	0.00	-2627.3	0.00	2627.32	4656.71	2328.36	8781.22	4397.14	9.01	-1.779	0.000	0.606
55.00	-34.93	-28.91	0.00	-2480.8	0.00	2480.88	4570.75	2285.37	8401.44	4206.97	10.98	-1.992	0.000	0.598
60.00	-33.39	-28.53	0.00	-2336.3	0.00	2336.32	4483.21	2241.61	8027.05	4019.49	13.19	-2.209	0.000	0.589
65.00	-31.89	-28.14	0.00	-2193.6	0.00	2193.68	4386.28	2193.14	7644.63	3828.00	15.62	-2.429	0.000	0.580
70.00	-30.42	-27.74	0.00	-2052.9	0.00	2052.98	4267.64	2133.82	7234.64	3622.70	18.28	-2.653	0.000	0.574
75.00	-28.99	-27.29	0.00	-1914.2	0.00	1914.26	4149.01	2074.50	6835.94	3423.05	21.18	-2.881	0.000	0.566
78.75	-27.96	-26.96	0.00	-1811.9	0.00	1811.92	4060.03	2030.01	6544.34	3277.03	23.51	-3.055	0.000	0.560
80.00	-27.38	-26.88	0.00	-1778.2	0.00	1778.22	4030.37	2015.18	6448.55	3229.07	24.32	-3.115	0.000	0.558
83.75	-25.79	-26.51	0.00	-1677.4	0.00	1677.43	2677.54	1338.77	4285.17	2145.77	26.84	-3.291	0.000	0.792
85.00	-25.46	-26.47	0.00	-1644.2	0.00	1644.29	2664.37	1332.18	4232.36	2119.33	27.71	-3.351	0.000	0.786
90.00	-24.39	-26.10	0.00	-1511.9	0.00	1511.96	2610.69	1305.34	4022.76	2014.37	31.38	-3.661	0.000	0.760
95.00	-23.34	-25.73	0.00	-1381.4	0.00	1381.46	2555.44	1277.72	3815.94	1910.80	35.38	-3.972	0.000	0.733
100.00	-22.32	-25.36	0.00	-1252.8	0.00	1252.82	2498.62	1249.31	3612.11	1808.74	39.70	-4.283	0.000	0.702
105.00	-21.32	-24.98	0.00	-1126.0	0.00	1126.03	2440.24	1220.12	3411.50	1708.29	44.35	-4.592	0.000	0.668
110.00	-17.78	-21.44	0.00	-1001.1	0.00	1001.12	2380.29	1190.15	3214.34	1609.56	49.32	-4.897	0.000	0.630
115.00	-16.88	-21.05	0.00	-893.90	0.00	893.90	2318.78	1159.39	3020.85	1512.67	54.60	-5.199	0.000	0.599
119.00	-16.21	-20.72	0.00	-809.70	0.00	809.70	2268.44	1134.22	2868.85	1436.56	59.06	-5.440	0.000	0.571
120.00	-15.91	-20.65	0.00	-788.98	0.00	788.98	2255.69	1127.85	2831.25	1417.73	60.20	-5.502	0.000	0.564
123.00	-15.11	-20.38	0.00	-727.04	0.00	727.04	1577.63	788.82	1975.86	989.40	63.71	-5.682	0.000	0.745
125.00	-14.77	-20.26	0.00	-686.29	0.00	686.29	1561.09	780.55	1925.40	964.13	66.12	-5.802	0.000	0.722
130.00	-14.04	-19.89	0.00	-585.01	0.00	585.01	1518.76	759.38	1800.86	901.77	72.36	-6.135	0.000	0.659
135.00	-13.35	-19.52	0.00	-485.56	0.00	485.56	1475.03	737.52	1678.77	840.64	78.95	-6.450	0.000	0.587
140.00	-9.92	-14.92	0.00	-387.94	0.00	387.94	1429.92	714.96	1559.34	780.83	85.85	-6.741	0.000	0.504
145.00	-9.38	-14.55	0.00	-313.36	0.00	313.36	1383.42	691.71	1442.75	722.45	93.04	-7.006	0.000	0.441
150.00	-8.87	-14.19	0.00	-240.61	0.00	240.61	1321.23	660.61	1314.97	658.46	100.49	-7.245	0.000	0.373
155.00	-8.40	-13.83	0.00	-169.65	0.00	169.65	1258.65	629.32	1192.75	597.26	108.17	-7.448	0.000	0.291
157.00	-4.20	-8.05	0.00	-142.00	0.00	142.00	1233.62	616.81	1145.53	573.62	111.29	-7.519	0.000	0.251
160.00	-3.95	-7.84	0.00	-117.85	0.00	117.85	1196.07	598.03	1076.49	539.05	116.04	-7.614	0.000	0.222
161.00	-3.64	-7.59	0.00	-110.01	0.00	110.01	1183.55	591.78	1053.96	527.76	117.63	-7.645	0.000	0.212
161.00	-3.64	-7.59	0.00	-110.01	0.00	110.01	858.57	429.28	768.96	385.05	117.63	-7.645	0.000	0.290
165.00	-3.38	-7.33	0.00	-79.63	0.00	79.63	832.45	416.23	713.85	357.46	124.06	-7.749	0.000	0.227
170.00	-3.08	-7.01	0.00	-42.98	0.00	42.98	798.56	399.28	646.76	323.86	132.23	-7.877	0.000	0.137
175.00	0.00	-6.52	0.00	-7.92	0.00	7.92	758.80	379.40	578.42	289.64	140.49	-7.939	0.000	0.028

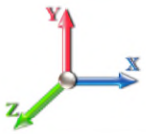
Wind Loading - Shaft

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 12	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	17.366	19.10	407.79	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	17.366	19.10	399.57	0.650	0.000	5.00	23.886	15.53	474.5	0.0	1359.7
10.00		1.00	0.70	17.366	19.10	391.35	0.650	0.000	5.00	23.399	15.21	464.9	0.0	1331.8
15.00		1.00	0.70	17.366	19.10	383.12	0.650	0.000	5.00	22.913	14.89	455.2	0.0	1303.8
20.00		1.00	0.70	17.366	19.10	374.90	0.650	0.000	5.00	22.426	14.58	445.5	0.0	1275.9
25.00		1.00	0.70	17.366	19.10	366.68	0.650	0.000	5.00	21.940	14.26	435.9	0.0	1247.9
30.00		1.00	0.70	17.381	19.12	358.61	0.650	0.000	5.00	21.453	13.94	426.6	0.0	1220.0
35.00		1.00	0.73	18.163	19.98	358.18	0.650	0.000	5.00	20.966	13.63	435.7	0.0	1192.0
38.75	Bot - Section 2	1.00	0.75	18.699	20.57	357.03	0.650	0.000	3.75	15.406	10.01	329.6	0.0	875.7
40.00		1.00	0.76	18.870	20.76	356.51	0.650	0.000	1.25	5.167	3.36	111.5	0.0	545.7
45.00	Top - Section 1	1.00	0.79	19.516	21.47	353.84	0.650	0.000	5.00	20.364	13.24	454.6	0.0	2150.2
50.00		1.00	0.81	20.112	22.12	357.09	0.650	0.000	5.00	19.877	12.92	457.3	0.0	989.6
55.00		1.00	0.83	20.667	22.73	353.02	0.650	0.000	5.00	19.390	12.60	458.5	0.0	965.2
60.00		1.00	0.85	21.187	23.31	348.35	0.650	0.000	5.00	18.904	12.29	458.2	0.0	940.7
65.00		1.00	0.87	21.678	23.85	343.17	0.650	0.000	5.00	18.417	11.97	456.7	0.0	916.3
70.00		1.00	0.89	22.142	24.36	337.53	0.650	0.000	5.00	17.931	11.65	454.2	0.0	891.8
75.00	Appurtenance(s)	1.00	0.91	22.582	24.84	331.50	0.650	0.000	5.00	17.444	11.34	450.7	0.0	867.4
78.75	Bot - Section 3	1.00	0.92	22.899	25.19	326.74	0.650	0.000	3.75	12.764	8.30	334.4	0.0	634.5
80.00		1.00	0.93	23.003	25.30	325.11	0.650	0.000	1.25	4.260	2.77	112.1	0.0	360.2
83.75	Top - Section 2	1.00	0.94	23.306	25.64	320.10	0.650	0.000	3.75	12.597	8.19	335.9	0.0	1064.8
85.00		1.00	0.94	23.404	25.74	323.58	0.650	0.000	1.25	4.138	2.69	110.8	0.0	147.4
90.00		1.00	0.96	23.790	26.17	316.60	0.650	0.000	5.00	16.249	10.56	442.2	0.0	578.5
95.00		1.00	0.97	24.160	26.58	309.36	0.650	0.000	5.00	15.762	10.25	435.7	0.0	561.1
100.00		1.00	0.99	24.517	26.97	301.87	0.650	0.000	5.00	15.276	9.93	428.4	0.0	543.6
105.00		1.00	1.00	24.861	27.35	294.14	0.650	0.000	5.00	14.789	9.61	420.6	0.0	526.1
110.00	Appurtenance(s)	1.00	1.02	25.194	27.71	286.19	0.650	0.000	5.00	14.303	9.30	412.2	0.0	508.7
115.00		1.00	1.03	25.516	28.07	278.05	0.650	0.000	5.00	13.816	8.98	403.3	0.0	491.2
119.00	Bot - Section 4	1.00	1.04	25.766	28.34	271.40	0.650	0.000	4.00	10.703	6.96	315.5	0.0	380.4
120.00		1.00	1.04	25.828	28.41	269.72	0.650	0.000	1.00	2.669	1.74	78.9	0.0	169.4
123.00	Top - Section 3	1.00	1.05	26.011	28.61	264.63	0.650	0.000	3.00	7.891	5.13	234.8	0.0	500.6
125.00		1.00	1.05	26.131	28.74	265.59	0.650	0.000	2.00	5.163	3.36	154.4	0.0	147.1
130.00		1.00	1.07	26.425	29.07	256.94	0.650	0.000	5.00	12.568	8.17	379.9	0.0	357.9
135.00		1.00	1.08	26.712	29.38	248.13	0.650	0.000	5.00	12.081	7.85	369.2	0.0	343.9
140.00	Appurtenance(s)	1.00	1.09	26.991	29.69	239.17	0.650	0.000	5.00	11.595	7.54	358.0	0.0	329.9
145.00		1.00	1.10	27.263	29.99	230.07	0.650	0.000	5.00	11.108	7.22	346.5	0.0	316.0
150.00		1.00	1.11	27.528	30.28	220.84	0.650	0.000	5.00	10.622	6.90	334.5	0.0	302.0
155.00		1.00	1.12	27.787	30.57	211.47	0.650	0.000	5.00	10.135	6.59	322.2	0.0	288.0
157.00	Appurtenance(s)	1.00	1.12	27.889	30.68	207.69	0.650	0.000	2.00	3.918	2.55	125.0	0.0	111.3
160.00		1.00	1.13	28.040	30.84	201.98	0.650	0.000	3.00	5.731	3.73	183.8	0.0	162.7
161.00	Top - Section 4	1.00	1.13	28.090	30.90	200.07	0.650	0.000	1.00	1.871	1.22	60.1	0.0	53.1
165.00		1.00	1.14	28.288	31.12	192.38	0.650	0.000	4.00	7.291	4.74	235.9	0.0	155.7
170.00		1.00	1.15	28.530	31.38	182.66	0.650	0.000	5.00	8.676	5.64	283.2	0.0	185.1
175.00	Appurtenance(s)	1.00	1.16	28.768	31.64	172.84	0.650	0.000	5.00	8.189	5.32	269.5	0.0	174.7
								Totals:	**175.00**			**14,256.5**		**27,467.4**

Discrete Appurtenance Forces

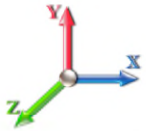
Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 13	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	175.00	JMA Wireless	6	28.861	31.747	0.65	0.75	38.64	248.40	0.000	2.000	1962.80	0.00	3925.60
2	175.00	6' Lightning rod	1	28.768	31.644	1.00	1.00	0.38	5.85	0.000	0.000	19.24	0.00	0.00
3	175.00	Low Profile Platform-flat	1	28.768	31.644	1.00	1.00	37.00	1080.00	0.000	0.000	1873.35	0.00	0.00
4	175.00	Samsung MT6407-77A	3	28.861	31.747	0.52	0.75	7.39	214.38	0.000	2.000	375.22	0.00	750.43
5	175.00	Antel BXA-70080-6CF	3	28.861	31.747	0.65	0.75	11.28	48.60	0.000	2.000	572.73	0.00	1145.46
6	175.00	MS-H1242 (Heavy Collar	1	28.768	31.644	1.00	1.00	2.50	135.54	0.000	0.000	126.58	0.00	0.00
7	175.00	Samsung B2/B66A	3	28.861	31.747	0.50	0.75	2.82	227.88	0.000	2.000	143.19	0.00	286.39
8	175.00	Samsung B5/B13	3	28.861	31.747	0.50	0.75	2.82	189.81	0.000	2.000	143.19	0.00	286.39
9	175.00	RVZDC-6627-PF-48	1	28.861	31.747	0.75	0.75	3.04	28.80	0.000	2.000	154.67	0.00	309.35
10	175.00	MS-KI22-5 (Kickers w/o	1	28.768	31.644	1.00	1.00	5.33	131.40	0.000	0.000	269.86	0.00	0.00
11	175.00	MS-HRECP	1	28.861	31.747	1.00	1.00	12.00	462.60	0.000	2.000	609.55	0.00	1219.10
12	161.00	Bridge Stiffener	1	28.090	30.899	1.00	1.00	2.89	183.75	0.000	0.000	142.88	0.00	0.00
13	157.00	Platform w/ Handrail +	1	27.889	30.678	1.00	1.00	54.00	2520.00	0.000	0.000	2650.59	0.00	0.00
14	157.00	ALU - TD-RRH8x20-25 -	3	27.889	30.678	0.50	0.75	6.11	189.00	0.000	0.000	299.68	0.00	0.00
15	157.00	ALU - 800 MHz - RRU	6	27.889	30.678	0.50	0.75	7.51	286.20	0.000	0.000	368.50	0.00	0.00
16	157.00	ALU - 1900 MHz - RRU	3	27.889	30.678	0.50	0.75	4.18	162.00	0.000	0.000	204.97	0.00	0.00
17	157.00	APXVTM14-C-I20	3	27.889	30.678	0.58	0.75	10.98	151.74	0.000	0.000	539.15	0.00	0.00
18	157.00	NNVV-65B-R4	3	27.889	30.678	0.55	0.75	20.43	228.69	0.000	0.000	1002.78	0.00	0.00
19	140.00	KRY 112 489/2	3	26.991	29.690	0.50	0.75	1.01	41.58	0.000	0.000	47.98	0.00	0.00
20	140.00	APXV18-206516S-C-A20	3	26.991	29.690	0.55	0.75	5.93	50.49	0.000	0.000	281.67	0.00	0.00
21	140.00	APXVAARR24_43-U-NA2	3	26.991	29.690	0.52	0.75	31.88	345.60	0.000	0.000	1514.33	0.00	0.00
22	140.00	4449	3	26.991	29.690	0.50	0.75	2.49	189.00	0.000	0.000	118.16	0.00	0.00
23	140.00	MT-195-12	1	26.991	29.690	1.00	1.00	40.00	1800.00	0.000	0.000	1900.15	0.00	0.00
24	140.00	Kathrein 782 11056	3	26.991	29.690	0.50	0.75	0.42	4.86	0.000	0.000	20.05	0.00	0.00
25	110.00	Raycap	1	25.194	27.713	1.00	1.00	2.01	19.71	0.000	0.000	89.13	0.00	0.00
26	110.00	Fujitsu TA08025-B604	3	25.194	27.713	0.50	0.75	2.95	172.53	0.000	0.000	131.01	0.00	0.00
27	110.00	Fujitsu TA08025-B605	3	25.194	27.713	0.50	0.75	2.95	202.50	0.000	0.000	131.01	0.00	0.00
28	110.00	MC-PK8-DSH	1	25.194	27.713	1.00	1.00	37.59	1554.30	0.000	0.000	1666.77	0.00	0.00
29	110.00	Commscope	3	25.194	27.713	0.55	0.75	20.43	191.16	0.000	0.000	905.86	0.00	0.00
30	75.00	GPS	1	22.582	24.841	1.00	1.00	1.00	9.00	0.000	0.000	39.74	0.00	0.00
							Totals:		**11,075.37**			**18,304.82**		

Total Applied Force Summary

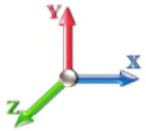
Structure:	CT01915-S-SBA		**Code:**	EIA/TIA-222-G	1/13/2022
Site Name:	South Brooklyn		**Exposure:**	B	
Height:	175.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 14

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		474.54	1504.56	0.00	0.00
10.00		464.87	1476.62	0.00	0.00
15.00		455.20	1448.67	0.00	0.00
20.00		445.54	1420.73	0.00	0.00
25.00		435.87	1392.78	0.00	0.00
30.00		426.56	1364.84	0.00	0.00
35.00		435.66	1336.89	0.00	0.00
38.75		329.56	984.33	0.00	0.00
40.00		111.54	581.95	0.00	0.00
45.00		454.63	2295.06	0.00	0.00
50.00		457.33	1134.46	0.00	0.00
55.00		458.45	1110.01	0.00	0.00
60.00		458.20	1085.56	0.00	0.00
65.00		456.73	1061.11	0.00	0.00
70.00		454.18	1036.66	0.00	0.00
75.00	(1) attachments	490.40	1021.20	0.00	0.00
78.75		334.37	742.57	0.00	0.00
80.00		112.10	396.19	0.00	0.00
83.75		335.86	1172.86	0.00	0.00
85.00		110.80	183.39	0.00	0.00
90.00		442.22	722.66	0.00	0.00
95.00		435.66	705.20	0.00	0.00
100.00		428.45	687.73	0.00	0.00
105.00		420.62	670.26	0.00	0.00
110.00	(11) attachments	3336.02	2793.00	0.00	0.00
115.00		403.29	627.14	0.00	0.00
119.00		315.47	489.14	0.00	0.00
120.00		78.87	196.59	0.00	0.00
123.00		234.81	582.21	0.00	0.00
125.00		154.35	201.44	0.00	0.00
130.00		379.94	493.82	0.00	0.00
135.00		369.19	479.85	0.00	0.00
140.00	(16) attachments	4240.36	2897.40	0.00	0.00
145.00		346.45	391.59	0.00	0.00
150.00		334.50	377.62	0.00	0.00
155.00		322.18	363.65	0.00	0.00
157.00	(19) attachments	5190.68	3679.18	0.00	0.00
160.00		183.83	201.00	0.00	0.00
161.00	(1) attachments	203.02	249.64	0.00	0.00
165.00		235.94	206.66	0.00	0.00
170.00		283.16	248.90	0.00	0.00
175.00	(24) attachments	6519.89	3011.68	0.00	7922.71
	Totals:	**32,561.33**	**43,026.79**	**0.00**	**7,922.71**

Calculated Forces

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 15	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 25

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-42.98	-32.62	0.00	-4129.8	0.00	4129.89	6411.04	3205.52	14877.2	7449.66	0.00	0.000	0.000	0.561
5.00	-41.39	-32.26	0.00	-3966.7	0.00	3966.79	6318.35	3159.17	14361.2	7191.28	0.09	-0.159	0.000	0.558
10.00	-39.82	-31.90	0.00	-3805.4	0.00	3805.49	6224.09	3112.04	13850.5	6935.58	0.34	-0.321	0.000	0.555
15.00	-38.28	-31.55	0.00	-3645.9	0.00	3645.97	6128.26	3064.13	13345.4	6682.66	0.76	-0.487	0.000	0.552
20.00	-36.77	-31.20	0.00	-3488.2	0.00	3488.23	6030.87	3015.43	12846.2	6432.65	1.37	-0.656	0.000	0.548
25.00	-35.29	-30.85	0.00	-3332.2	0.00	3332.23	5931.91	2965.95	12352.9	6185.64	2.15	-0.829	0.000	0.545
30.00	-33.84	-30.51	0.00	-3177.9	0.00	3177.96	5831.38	2915.69	11865.8	5941.76	3.11	-1.005	0.000	0.541
35.00	-32.43	-30.14	0.00	-3025.4	0.00	3025.40	5715.88	2857.94	11358.6	5687.79	4.26	-1.185	0.000	0.538
38.75	-31.40	-29.84	0.00	-2912.3	0.00	2912.38	5614.19	2807.10	10956.1	5486.19	5.24	-1.324	0.000	0.537
40.00	-30.76	-29.78	0.00	-2875.0	0.00	2875.08	5580.30	2790.15	10823.5	5419.80	5.60	-1.372	0.000	0.536
45.00	-28.38	-29.36	0.00	-2726.1	0.00	2726.19	4741.11	2370.56	9166.15	4589.89	7.13	-1.559	0.000	0.600
50.00	-27.16	-28.96	0.00	-2579.4	0.00	2579.40	4656.71	2328.36	8781.22	4397.14	8.87	-1.750	0.000	0.593
55.00	-25.96	-28.57	0.00	-2434.5	0.00	2434.58	4570.75	2285.37	8401.44	4206.97	10.81	-1.959	0.000	0.585
60.00	-24.79	-28.16	0.00	-2291.7	0.00	2291.75	4483.21	2241.61	8027.05	4019.49	12.98	-2.172	0.000	0.576
65.00	-23.64	-27.75	0.00	-2150.9	0.00	2150.94	4386.28	2193.14	7644.63	3828.00	15.37	-2.389	0.000	0.567
70.00	-22.52	-27.34	0.00	-2012.1	0.00	2012.18	4267.64	2133.82	7234.64	3622.70	17.99	-2.608	0.000	0.561
75.00	-21.43	-26.88	0.00	-1875.4	0.00	1875.47	4149.01	2074.50	6835.94	3423.05	20.84	-2.831	0.000	0.553
78.75	-20.65	-26.55	0.00	-1774.6	0.00	1774.68	4060.03	2030.01	6544.34	3277.03	23.13	-3.001	0.000	0.547
80.00	-20.21	-26.45	0.00	-1741.5	0.00	1741.50	4030.37	2015.18	6448.55	3229.07	23.92	-3.060	0.000	0.545
83.75	-19.00	-26.09	0.00	-1642.3	0.00	1642.30	2677.54	1338.77	4285.17	2145.77	26.40	-3.232	0.000	0.773
85.00	-18.74	-26.03	0.00	-1609.6	0.00	1609.68	2664.37	1332.18	4232.36	2119.33	27.25	-3.292	0.000	0.767
90.00	-17.91	-25.64	0.00	-1479.5	0.00	1479.52	2610.69	1305.34	4022.76	2014.37	30.86	-3.595	0.000	0.742
95.00	-17.11	-25.25	0.00	-1351.3	0.00	1351.31	2555.44	1277.72	3815.94	1910.80	34.79	-3.899	0.000	0.714
100.00	-16.32	-24.86	0.00	-1225.0	0.00	1225.05	2498.62	1249.31	3612.11	1808.74	39.03	-4.203	0.000	0.684
105.00	-15.55	-24.48	0.00	-1100.7	0.00	1100.73	2440.24	1220.12	3411.50	1708.29	43.59	-4.505	0.000	0.651
110.00	-12.93	-20.99	0.00	-978.36	0.00	978.36	2380.29	1190.15	3214.34	1609.56	48.47	-4.804	0.000	0.614
115.00	-12.25	-20.59	0.00	-873.40	0.00	873.40	2318.78	1159.39	3020.85	1512.67	53.65	-5.099	0.000	0.583
119.00	-11.74	-20.26	0.00	-791.04	0.00	791.04	2268.44	1134.22	2868.85	1436.56	58.02	-5.334	0.000	0.556
120.00	-11.51	-20.19	0.00	-770.78	0.00	770.78	2255.69	1127.85	2831.25	1417.73	59.14	-5.395	0.000	0.549
123.00	-10.90	-19.93	0.00	-710.21	0.00	710.21	1577.63	788.82	1975.86	989.40	62.58	-5.570	0.000	0.725
125.00	-10.64	-19.80	0.00	-670.35	0.00	670.35	1561.09	780.55	1925.40	964.13	64.94	-5.687	0.000	0.703
130.00	-10.08	-19.42	0.00	-571.37	0.00	571.37	1518.76	759.38	1800.86	901.77	71.06	-6.013	0.000	0.641
135.00	-9.54	-19.06	0.00	-474.24	0.00	474.24	1475.03	737.52	1678.77	840.64	77.51	-6.321	0.000	0.571
140.00	-7.07	-14.55	0.00	-378.97	0.00	378.97	1429.92	714.96	1559.34	780.83	84.28	-6.604	0.000	0.491
145.00	-6.66	-14.19	0.00	-306.22	0.00	306.22	1383.42	691.71	1442.75	722.45	91.32	-6.863	0.000	0.429
150.00	-6.28	-13.83	0.00	-235.28	0.00	235.28	1321.23	660.61	1314.97	658.46	98.62	-7.097	0.000	0.363
155.00	-5.92	-13.48	0.00	-166.11	0.00	166.11	1258.65	629.32	1192.75	597.26	106.14	-7.296	0.000	0.283
157.00	-2.93	-7.87	0.00	-139.14	0.00	139.14	1233.62	616.81	1145.53	573.62	109.21	-7.366	0.000	0.245
160.00	-2.74	-7.66	0.00	-115.54	0.00	115.54	1196.07	598.03	1076.49	539.05	113.85	-7.459	0.000	0.217
161.00	-2.51	-7.43	0.00	-107.87	0.00	107.87	1183.55	591.78	1053.96	527.76	115.42	-7.489	0.000	0.207
161.00	-2.51	-7.43	0.00	-107.87	0.00	107.87	858.57	429.28	768.96	385.05	115.42	-7.489	0.000	0.283
165.00	-2.32	-7.18	0.00	-78.14	0.00	78.14	832.45	416.23	713.85	357.46	121.72	-7.591	0.000	0.222
170.00	-2.10	-6.87	0.00	-42.26	0.00	42.26	798.56	399.28	646.76	323.86	129.72	-7.716	0.000	0.133
175.00	0.00	-6.52	0.00	-7.92	0.00	7.92	758.80	379.40	578.42	289.64	137.82	-7.778	0.000	0.028

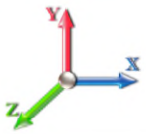
Wind Loading - Shaft

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 16	

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	4.256	4.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	4.256	4.68	0.00	1.200	1.656	5.00	25.266	30.32	141.9	596.8	2409.8
10.00		1.00	0.70	4.256	4.68	0.00	1.200	1.775	5.00	24.878	29.85	139.8	628.2	2403.9
15.00		1.00	0.70	4.256	4.68	0.00	1.200	1.848	5.00	24.453	29.34	137.4	641.7	2380.1
20.00		1.00	0.70	4.256	4.68	0.00	1.200	1.902	5.00	24.011	28.81	134.9	647.4	2348.5
25.00		1.00	0.70	4.256	4.68	0.00	1.200	1.945	5.00	23.561	28.27	132.4	648.5	2312.4
30.00		1.00	0.70	4.260	4.69	0.00	1.200	1.981	5.00	23.104	27.72	129.9	646.6	2273.2
35.00		1.00	0.73	4.451	4.90	0.00	1.200	2.012	5.00	22.643	27.17	133.0	642.5	2231.9
38.75	Bot - Section 2	1.00	0.75	4.583	5.04	0.00	1.200	2.032	3.75	16.676	20.01	100.9	478.7	1646.3
40.00		1.00	0.76	4.625	5.09	0.00	1.200	2.039	1.25	5.592	6.71	34.1	162.0	889.6
45.00	Top - Section 1	1.00	0.79	4.783	5.26	0.00	1.200	2.063	5.00	22.083	26.50	139.4	641.1	3508.0
50.00		1.00	0.81	4.929	5.42	0.00	1.200	2.085	5.00	21.614	25.94	140.6	633.1	1952.6
55.00		1.00	0.83	5.065	5.57	0.00	1.200	2.105	5.00	21.144	25.37	141.4	624.3	1911.1
60.00		1.00	0.85	5.193	5.71	0.00	1.200	2.123	5.00	20.673	24.81	141.7	614.7	1868.9
65.00		1.00	0.87	5.313	5.84	0.00	1.200	2.140	5.00	20.201	24.24	141.7	604.4	1826.1
70.00		1.00	0.89	5.426	5.97	0.00	1.200	2.156	5.00	19.728	23.67	141.3	593.6	1782.6
75.00	Appurtenance(s)	1.00	0.91	5.534	6.09	0.00	1.200	2.171	5.00	19.253	23.10	140.7	582.2	1738.7
78.75	Bot - Section 3	1.00	0.92	5.612	6.17	0.00	1.200	2.182	3.75	14.127	16.95	104.7	430.1	1276.0
80.00		1.00	0.93	5.637	6.20	0.00	1.200	2.185	1.25	4.715	5.66	35.1	144.7	625.0
83.75	Top - Section 2	1.00	0.94	5.712	6.28	0.00	1.200	2.195	3.75	13.969	16.76	105.3	427.4	1847.1
85.00		1.00	0.94	5.736	6.31	0.00	1.200	2.198	1.25	4.596	5.52	34.8	141.7	338.2
90.00		1.00	0.96	5.830	6.41	0.00	1.200	2.211	5.00	18.092	21.71	139.2	554.3	1325.7
95.00		1.00	0.97	5.921	6.51	0.00	1.200	2.223	5.00	17.615	21.14	137.7	541.5	1289.6
100.00		1.00	0.99	6.008	6.61	0.00	1.200	2.234	5.00	17.138	20.57	135.9	528.3	1253.1
105.00		1.00	1.00	6.093	6.70	0.00	1.200	2.245	5.00	16.660	19.99	134.0	514.9	1216.4
110.00	Appurtenance(s)	1.00	1.02	6.174	6.79	0.00	1.200	2.256	5.00	16.183	19.42	131.9	501.2	1179.4
115.00		1.00	1.03	6.253	6.88	0.00	1.200	2.266	5.00	15.704	18.85	129.6	487.2	1142.2
119.00	Bot - Section 4	1.00	1.04	6.315	6.95	0.00	1.200	2.274	4.00	12.218	14.66	101.8	380.7	887.9
120.00		1.00	1.04	6.330	6.96	0.00	1.200	2.276	1.00	3.049	3.66	25.5	96.0	321.9
123.00	Top - Section 3	1.00	1.05	6.375	7.01	0.00	1.200	2.281	3.00	9.032	10.84	76.0	282.9	950.5
125.00		1.00	1.05	6.404	7.04	0.00	1.200	2.285	2.00	5.925	7.11	50.1	186.3	382.4
130.00		1.00	1.07	6.476	7.12	0.00	1.200	2.294	5.00	14.480	17.38	123.8	451.2	928.4
135.00		1.00	1.08	6.546	7.20	0.00	1.200	2.303	5.00	14.000	16.80	121.0	436.5	895.0
140.00	Appurtenance(s)	1.00	1.09	6.615	7.28	0.00	1.200	2.311	5.00	13.521	16.22	118.1	421.5	861.4
145.00		1.00	1.10	6.681	7.35	0.00	1.200	2.319	5.00	13.041	15.65	115.0	406.4	827.7
150.00		1.00	1.11	6.746	7.42	0.00	1.200	2.327	5.00	12.561	15.07	111.9	391.1	793.8
155.00		1.00	1.12	6.810	7.49	0.00	1.200	2.335	5.00	12.081	14.50	108.6	375.7	759.7
157.00	Appurtenance(s)	1.00	1.12	6.835	7.52	0.00	1.200	2.338	2.00	4.697	5.64	42.4	147.8	296.2
160.00		1.00	1.13	6.872	7.56	0.00	1.200	2.342	3.00	6.902	8.28	62.6	216.1	433.1
161.00	Top - Section 4	1.00	1.13	6.884	7.57	0.00	1.200	2.343	1.00	2.262	2.71	20.6	71.4	142.2
165.00		1.00	1.14	6.933	7.63	0.00	1.200	2.349	4.00	8.857	10.63	81.1	275.5	483.1
170.00		1.00	1.15	6.992	7.69	0.00	1.200	2.356	5.00	10.639	12.77	98.2	328.5	575.4
175.00	Appurtenance(s)	1.00	1.16	7.050	7.76	0.00	1.200	2.363	5.00	10.158	12.19	94.5	312.6	545.5
								Totals:	**175.00**			**4,510.2**		**55,060.6**

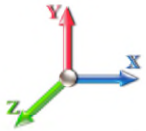
Discrete Appurtenance Forces

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 17	

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	175.00	JMA Wireless	6	7.073	7.780	0.65	0.75	46.07	2636.36	0.000	2.000	358.48	0.00	716.96
2	175.00	6' Lightning rod	1	7.050	7.755	1.00	1.00	1.85	51.65	0.000	0.000	14.37	0.00	0.00
3	175.00	Low Profile Platform-flat	1	7.050	7.755	1.00	1.00	78.97	2557.86	0.000	0.000	612.42	0.00	0.00
4	175.00	Samsung MT6407-77A	3	7.073	7.780	0.52	0.75	9.44	808.29	0.000	2.000	73.45	0.00	146.91
5	175.00	Antel BXA-70080-6CF	3	7.073	7.780	0.65	0.75	17.56	470.52	0.000	2.000	136.65	0.00	273.30
6	175.00	MS-H1242 (Heavy Collar	1	7.050	7.755	1.00	1.00	6.04	399.13	0.000	0.000	46.88	0.00	0.00
7	175.00	Samsung B2/B66A	3	7.073	7.780	0.50	0.75	4.03	642.20	0.000	2.000	31.35	0.00	62.70
8	175.00	Samsung B5/B13	3	7.073	7.780	0.50	0.75	4.03	561.13	0.000	2.000	31.35	0.00	62.70
9	175.00	RVZDC-6627-PF-48	1	7.073	7.780	0.75	0.75	3.88	167.46	0.000	2.000	30.19	0.00	60.37
10	175.00	MS-KI22-5 (Kickers w/o	1	7.050	7.755	1.00	1.00	12.89	387.21	0.000	0.000	99.94	0.00	0.00
11	175.00	MS-HRECP	1	7.073	7.780	1.00	1.00	27.88	1956.75	0.000	2.000	216.92	0.00	433.84
12	161.00	Bridge Stiffener	1	6.884	7.573	1.00	1.00	5.60	640.56	0.000	0.000	42.40	0.00	0.00
13	157.00	Platform w/ Handrail +	1	6.835	7.518	1.00	1.00	114.59	7932.63	0.000	0.000	861.54	0.00	0.00
14	157.00	ALU - TD-RRH8x20-25 -	3	6.835	7.518	0.50	0.75	7.79	727.95	0.000	0.000	58.57	0.00	0.00
15	157.00	ALU - 800 MHz - RRU	6	6.835	7.518	0.50	0.75	12.13	849.39	0.000	0.000	91.17	0.00	0.00
16	157.00	ALU - 1900 MHz - RRU	3	6.835	7.518	0.50	0.75	6.74	479.57	0.000	0.000	50.65	0.00	0.00
17	157.00	APXVTM14-C-I20	3	6.835	7.518	0.58	0.75	13.62	891.79	0.000	0.000	102.43	0.00	0.00
18	157.00	NNVV-65B-R4	3	6.835	7.518	0.55	0.75	23.68	1385.10	0.000	0.000	178.01	0.00	0.00
19	140.00	KRY 112 489/2	3	6.615	7.276	0.50	0.75	2.29	130.10	0.000	0.000	16.69	0.00	0.00
20	140.00	APXV18-206516S-C-A20	3	6.615	7.276	0.55	0.75	9.97	285.69	0.000	0.000	72.54	0.00	0.00
21	140.00	APXVAARR24_43-U-NA2	3	6.615	7.276	0.52	0.75	35.89	2190.09	0.000	0.000	261.13	0.00	0.00
22	140.00	4449	3	6.615	7.276	0.50	0.75	3.60	546.30	0.000	0.000	26.19	0.00	0.00
23	140.00	MT-195-12	1	6.615	7.276	1.00	1.00	67.73	4573.15	0.000	0.000	492.83	0.00	0.00
24	140.00	Kathrein 782 11056	3	6.615	7.276	0.50	0.75	1.22	16.34	0.000	0.000	8.90	0.00	0.00
25	110.00	Raycap	1	6.174	6.792	1.00	1.00	2.74	82.41	0.000	0.000	18.64	0.00	0.00
26	110.00	Fujitsu TA08025-B604	3	6.174	6.792	0.50	0.75	4.05	390.07	0.000	0.000	27.49	0.00	0.00
27	110.00	Fujitsu TA08025-B605	3	6.174	6.792	0.50	0.75	4.05	435.03	0.000	0.000	27.49	0.00	0.00
28	110.00	MC-PK8-DSH	1	6.174	6.792	1.00	1.00	98.65	3881.12	0.000	0.000	669.97	0.00	0.00
29	110.00	Commscope	3	6.174	6.792	0.55	0.75	23.56	1050.61	0.000	0.000	160.04	0.00	0.00
30	75.00	GPS	1	5.534	6.088	1.00	1.00	1.89	40.47	0.000	0.000	11.48	0.00	0.00
							Totals:		**37,166.92**			**4,830.16**		

Total Applied Force Summary

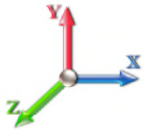
Structure:	CT01915-S-SBA		**Code:**	EIA/TIA-222-G	1/13/2022
Site Name:	South Brooklyn		**Exposure:**	B	
Height:	175.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 18

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		141.94	2602.93	0.00	0.00
10.00		139.76	2597.01	0.00	0.00
15.00		137.37	2573.26	0.00	0.00
20.00		134.89	2541.66	0.00	0.00
25.00		132.36	2505.50	0.00	0.00
30.00		129.91	2466.33	0.00	0.00
35.00		133.05	2425.00	0.00	0.00
38.75		100.88	1791.18	0.00	0.00
40.00		34.13	937.92	0.00	0.00
45.00		139.41	3701.15	0.00	0.00
50.00		140.63	2145.73	0.00	0.00
55.00		141.37	2104.28	0.00	0.00
60.00		141.70	2062.07	0.00	0.00
65.00		141.66	2019.21	0.00	0.00
70.00		141.30	1975.77	0.00	0.00
75.00	(1) attachments	152.13	1972.31	0.00	0.00
78.75		104.65	1420.16	0.00	0.00
80.00		35.09	673.01	0.00	0.00
83.75		105.32	1991.26	0.00	0.00
85.00		34.80	386.24	0.00	0.00
90.00		139.23	1517.89	0.00	0.00
95.00		137.67	1481.75	0.00	0.00
100.00		135.92	1445.31	0.00	0.00
105.00		133.99	1408.57	0.00	0.00
110.00	(11) attachments	1035.52	7210.81	0.00	0.00
115.00		129.63	1323.41	0.00	0.00
119.00		101.84	1032.90	0.00	0.00
120.00		25.47	358.15	0.00	0.00
123.00		76.00	1059.22	0.00	0.00
125.00		50.09	454.90	0.00	0.00
130.00		123.78	1109.64	0.00	0.00
135.00		120.98	1076.25	0.00	0.00
140.00	(16) attachments	996.33	8784.35	0.00	0.00
145.00		115.01	928.52	0.00	0.00
150.00		111.86	894.61	0.00	0.00
155.00		108.59	860.55	0.00	0.00
157.00	(19) attachments	1384.75	12602.93	0.00	0.00
160.00		62.61	484.07	0.00	0.00
161.00	(1) attachments	62.95	799.80	0.00	0.00
165.00		81.05	551.07	0.00	0.00
170.00		98.19	660.41	0.00	0.00
175.00	(24) attachments	1746.53	11269.02	0.00	1756.78
	Totals:	**9,340.38**	**98,206.11**	**0.00**	**1,756.78**

Calculated Forces

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 19	

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 26

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-98.20	-9.38	0.00	-1262.6	0.00	1262.68	6411.04	3205.52	14877.2	7449.66	0.00	0.000	0.000	0.185
5.00	-95.59	-9.32	0.00	-1215.7	0.00	1215.77	6318.35	3159.17	14361.2	7191.28	0.03	-0.049	0.000	0.184
10.00	-92.99	-9.26	0.00	-1169.1	0.00	1169.16	6224.09	3112.04	13850.5	6935.58	0.10	-0.098	0.000	0.184
15.00	-90.41	-9.20	0.00	-1122.8	0.00	1122.86	6128.26	3064.13	13345.4	6682.66	0.23	-0.149	0.000	0.183
20.00	-87.86	-9.14	0.00	-1076.8	0.00	1076.86	6030.87	3015.43	12846.2	6432.65	0.42	-0.202	0.000	0.182
25.00	-85.34	-9.08	0.00	-1031.1	0.00	1031.18	5931.91	2965.95	12352.9	6185.64	0.66	-0.255	0.000	0.181
30.00	-82.87	-9.01	0.00	-985.80	0.00	985.80	5831.38	2915.69	11865.8	5941.76	0.95	-0.310	0.000	0.180
35.00	-80.44	-8.94	0.00	-940.74	0.00	940.74	5715.88	2857.94	11358.6	5687.79	1.31	-0.366	0.000	0.179
38.75	-78.64	-8.86	0.00	-907.23	0.00	907.23	5614.19	2807.10	10956.1	5486.19	1.61	-0.409	0.000	0.179
40.00	-77.70	-8.87	0.00	-896.16	0.00	896.16	5580.30	2790.15	10823.5	5419.80	1.72	-0.424	0.000	0.179
45.00	-73.99	-8.78	0.00	-851.80	0.00	851.80	4741.11	2370.56	9166.15	4589.89	2.20	-0.482	0.000	0.201
50.00	-71.83	-8.70	0.00	-807.91	0.00	807.91	4656.71	2328.36	8781.22	4397.14	2.73	-0.542	0.000	0.199
55.00	-69.72	-8.62	0.00	-764.42	0.00	764.42	4570.75	2285.37	8401.44	4206.97	3.34	-0.607	0.000	0.197
60.00	-67.65	-8.53	0.00	-721.34	0.00	721.34	4483.21	2241.61	8027.05	4019.49	4.01	-0.674	0.000	0.195
65.00	-65.62	-8.44	0.00	-678.69	0.00	678.69	4386.28	2193.14	7644.63	3828.00	4.75	-0.743	0.000	0.192
70.00	-63.64	-8.35	0.00	-636.48	0.00	636.48	4267.64	2133.82	7234.64	3622.70	5.57	-0.812	0.000	0.191
75.00	-61.66	-8.24	0.00	-594.72	0.00	594.72	4149.01	2074.50	6835.94	3423.05	6.45	-0.882	0.000	0.189
78.75	-60.24	-8.15	0.00	-563.82	0.00	563.82	4060.03	2030.01	6544.34	3277.03	7.17	-0.937	0.000	0.187
80.00	-59.56	-8.14	0.00	-553.64	0.00	553.64	4030.37	2015.18	6448.55	3229.07	7.42	-0.955	0.000	0.186
83.75	-57.57	-8.04	0.00	-523.11	0.00	523.11	2677.54	1338.77	4285.17	2145.77	8.19	-1.010	0.000	0.265
85.00	-57.17	-8.06	0.00	-513.06	0.00	513.06	2664.37	1332.18	4232.36	2119.33	8.46	-1.029	0.000	0.264
90.00	-55.64	-7.98	0.00	-472.78	0.00	472.78	2610.69	1305.34	4022.76	2014.37	9.59	-1.126	0.000	0.256
95.00	-54.15	-7.91	0.00	-432.88	0.00	432.88	2555.44	1277.72	3815.94	1910.80	10.82	-1.223	0.000	0.248
100.00	-52.70	-7.83	0.00	-393.35	0.00	393.35	2498.62	1249.31	3612.11	1808.74	12.15	-1.321	0.000	0.239
105.00	-51.28	-7.75	0.00	-354.21	0.00	354.21	2440.24	1220.12	3411.50	1708.29	13.59	-1.418	0.000	0.228
110.00	-44.09	-6.60	0.00	-315.48	0.00	315.48	2380.29	1190.15	3214.34	1609.56	15.12	-1.514	0.000	0.215
115.00	-42.76	-6.50	0.00	-282.48	0.00	282.48	2318.78	1159.39	3020.85	1512.67	16.76	-1.609	0.000	0.205
119.00	-41.72	-6.40	0.00	-256.48	0.00	256.48	2268.44	1134.22	2868.85	1436.56	18.14	-1.685	0.000	0.197
120.00	-41.36	-6.39	0.00	-250.08	0.00	250.08	2255.69	1127.85	2831.25	1417.73	18.50	-1.705	0.000	0.195
123.00	-40.30	-6.32	0.00	-230.90	0.00	230.90	1577.63	788.82	1975.86	989.40	19.58	-1.762	0.000	0.259
125.00	-39.84	-6.31	0.00	-218.27	0.00	218.27	1561.09	780.55	1925.40	964.13	20.33	-1.800	0.000	0.252
130.00	-38.72	-6.22	0.00	-186.74	0.00	186.74	1518.76	759.38	1800.86	901.77	22.27	-1.906	0.000	0.233
135.00	-37.64	-6.12	0.00	-155.66	0.00	155.66	1475.03	737.52	1678.77	840.64	24.32	-2.007	0.000	0.211
140.00	-28.89	-4.86	0.00	-125.05	0.00	125.05	1429.92	714.96	1559.34	780.83	26.48	-2.100	0.000	0.180
145.00	-27.96	-4.75	0.00	-100.77	0.00	100.77	1383.42	691.71	1442.75	722.45	28.72	-2.186	0.000	0.160
150.00	-27.06	-4.63	0.00	-77.04	0.00	77.04	1321.23	660.61	1314.97	658.46	31.05	-2.262	0.000	0.138
155.00	-26.21	-4.51	0.00	-53.87	0.00	53.87	1258.65	629.32	1192.75	597.26	33.46	-2.327	0.000	0.111
157.00	-13.67	-2.62	0.00	-44.86	0.00	44.86	1233.62	616.81	1145.53	573.62	34.44	-2.350	0.000	0.089
160.00	-13.19	-2.54	0.00	-37.00	0.00	37.00	1196.07	598.03	1076.49	539.05	35.93	-2.380	0.000	0.080
161.00	-12.39	-2.45	0.00	-34.46	0.00	34.46	1183.55	591.78	1053.96	527.76	36.43	-2.389	0.000	0.076
161.00	-12.39	-2.45	0.00	-34.46	0.00	34.46	858.57	429.28	768.96	385.05	36.43	-2.389	0.000	0.104
165.00	-11.84	-2.35	0.00	-24.67	0.00	24.67	832.45	416.23	713.85	357.46	38.44	-2.422	0.000	0.083
170.00	-11.18	-2.23	0.00	-12.91	0.00	12.91	798.56	399.28	646.76	323.86	41.00	-2.461	0.000	0.054
175.00	0.00	-1.75	0.00	-1.76	0.00	1.76	758.80	379.40	578.42	289.64	43.59	-2.479	0.000	0.006

Seismic Segment Forces (Factored)

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 20	

Tower Engineering Solutions

Load Case:	1.2D + 1.0E							**Iterations**	23
Gust Response Factor	1.10				**Sds**	0.18		**Ss**	0.17
Dead Load Factor	1.20	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.31		**SA**	0.03	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1510.7	0.00	0.03	0.02	25.32	
10.00		1479.7	0.01	0.05	0.03	36.68	
15.00		1448.6	0.01	0.06	0.03	42.08	
20.00		1417.6	0.02	0.07	0.04	44.50	
25.00		1386.5	0.04	0.07	0.04	45.40	
30.00		1355.5	0.06	0.07	0.04	45.60	
35.00		1324.4	0.08	0.07	0.04	45.53	
38.75	Bot - Section 2	972.99	0.09	0.07	0.04	33.97	
40.00		606.38	0.10	0.07	0.04	21.28	
45.00	Top - Section 1	2389.1	0.12	0.07	0.03	85.55	
50.00		1099.5	0.15	0.07	0.03	40.06	
55.00		1072.4	0.19	0.06	0.02	39.42	
60.00		1045.2	0.22	0.06	0.02	38.12	
65.00		1018.0	0.26	0.05	0.02	35.80	
70.00		990.89	0.30	0.04	0.01	32.03	
75.00	Appurtenance(s)	973.73	0.35	0.03	0.01	26.70	
78.75	Bot - Section 3	704.96	0.38	0.02	0.01	15.61	
80.00		400.18	0.39	0.02	0.01	8.03	
83.75	Top - Section 2	1183.0	0.43	0.01	0.01	15.26	
85.00		163.74	0.45	0.00	0.01	1.68	
90.00		642.81	0.50	-0.02	0.01	-0.86	
95.00		623.41	0.56	-0.04	0.01	-8.31	
100.00		604.00	0.62	-0.06	0.02	-14.54	
105.00		584.59	0.68	-0.08	0.03	-18.82	
110.00	Appurtenance(s)	2943.1	0.75	-0.10	0.04	-108.63	
115.00		545.78	0.82	-0.11	0.06	-20.71	
119.00	Bot - Section 4	422.65	0.87	-0.12	0.08	-15.26	
120.00		188.22	0.89	-0.12	0.08	-6.64	
123.00	Top - Section 3	556.27	0.93	-0.12	0.10	-17.76	
125.00		163.40	0.96	-0.12	0.11	-4.74	
130.00		397.64	1.04	-0.10	0.15	-7.63	
135.00		382.12	1.12	-0.05	0.20	-2.26	
140.00	Appurtenance(s)	3068.2	1.21	0.01	0.26	33.17	
145.00		351.07	1.30	0.12	0.33	10.89	
150.00		335.54	1.39	0.26	0.42	18.38	
155.00		320.02	1.48	0.46	0.52	26.27	
157.00	Appurtenance(s)	4054.3	1.52	0.55	0.57	381.32	
160.00		180.83	1.58	0.72	0.64	20.45	
161.00	Top - Section 4	263.21	1.60	0.78	0.67	31.51	
165.00		172.96	1.68	1.05	0.78	25.56	
170.00		205.72	1.78	1.46	0.95	38.33	
175.00	Appurtenance(s)	3275.4	1.89	1.98	1.14	749.23	
	Totals:	**42,825.4**				**1,787.6**	**Total Wind:** **32,561.3**

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 21	

Tower Engineering Solutions

Load Case: 1.2D + 1.0E

Iterations 23

Gust Response Factor	1.10			**Sds**	0.18			**Ss**	0.17
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.31	**SA**	0.03	**Seismic Importance Factor**			1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-57.37	-2.02	0.00	-266.41	0.00	266.41	6411.04	3205.52	14877.2	7449.66		0.00	0.00	0.045
5.00	-55.36	-2.00	0.00	-256.32	0.00	256.32	6318.35	3159.17	14361.2	7191.28		0.01	-0.01	0.044
10.00	-53.39	-1.98	0.00	-246.31	0.00	246.31	6224.09	3112.04	13850.5	6935.58		0.02	-0.02	0.044
15.00	-51.46	-1.94	0.00	-236.44	0.00	236.44	6128.26	3064.13	13345.4	6682.66		0.05	-0.03	0.044
20.00	-49.57	-1.91	0.00	-226.73	0.00	226.73	6030.87	3015.43	12846.2	6432.65		0.09	-0.04	0.043
25.00	-47.71	-1.87	0.00	-217.20	0.00	217.20	5931.91	2965.95	12352.9	6185.64		0.14	-0.05	0.043
30.00	-45.89	-1.83	0.00	-207.86	0.00	207.86	5831.38	2915.69	11865.8	5941.76		0.20	-0.07	0.043
35.00	-44.11	-1.79	0.00	-198.70	0.00	198.70	5715.88	2857.94	11358.6	5687.79		0.28	-0.08	0.043
38.75	-42.79	-1.76	0.00	-191.99	0.00	191.99	5614.19	2807.10	10956.1	5486.19		0.34	-0.09	0.043
40.00	-42.02	-1.74	0.00	-189.79	0.00	189.79	5580.30	2790.15	10823.5	5419.80		0.36	-0.09	0.043
45.00	-38.96	-1.66	0.00	-181.08	0.00	181.08	4741.11	2370.56	9166.15	4589.89		0.46	-0.10	0.048
50.00	-37.44	-1.63	0.00	-172.78	0.00	172.78	4656.71	2328.36	8781.22	4397.14		0.58	-0.11	0.047
55.00	-35.96	-1.59	0.00	-164.65	0.00	164.65	4570.75	2285.37	8401.44	4206.97		0.70	-0.13	0.047
60.00	-34.52	-1.56	0.00	-156.68	0.00	156.68	4483.21	2241.61	8027.05	4019.49		0.85	-0.14	0.047
65.00	-33.10	-1.53	0.00	-148.88	0.00	148.88	4386.28	2193.14	7644.63	3828.00		1.00	-0.16	0.046
70.00	-31.72	-1.50	0.00	-141.24	0.00	141.24	4267.64	2133.82	7234.64	3622.70		1.18	-0.17	0.046
75.00	-30.36	-1.48	0.00	-133.73	0.00	133.73	4149.01	2074.50	6835.94	3423.05		1.37	-0.19	0.046
78.75	-29.37	-1.46	0.00	-128.18	0.00	128.18	4060.03	2030.01	6544.34	3277.03		1.52	-0.20	0.046
80.00	-28.84	-1.46	0.00	-126.36	0.00	126.36	4030.37	2015.18	6448.55	3229.07		1.57	-0.21	0.046
83.75	-27.27	-1.44	0.00	-120.89	0.00	120.89	2677.54	1338.77	4285.17	2145.77		1.74	-0.22	0.067
85.00	-27.03	-1.44	0.00	-119.09	0.00	119.09	2664.37	1332.18	4232.36	2119.33		1.80	-0.22	0.066
90.00	-26.07	-1.45	0.00	-111.87	0.00	111.87	2610.69	1305.34	4022.76	2014.37		2.04	-0.25	0.066
95.00	-25.12	-1.46	0.00	-104.61	0.00	104.61	2555.44	1277.72	3815.94	1910.80		2.31	-0.27	0.065
100.00	-24.21	-1.46	0.00	-97.32	0.00	97.32	2498.62	1249.31	3612.11	1808.74		2.61	-0.29	0.063
105.00	-23.31	-1.47	0.00	-90.01	0.00	90.01	2440.24	1220.12	3411.50	1708.29		2.92	-0.32	0.062
110.00	-19.59	-1.46	0.00	-82.67	0.00	82.67	2380.29	1190.15	3214.34	1609.56		3.27	-0.34	0.060
115.00	-18.75	-1.46	0.00	-75.39	0.00	75.39	2318.78	1159.39	3020.85	1512.67		3.64	-0.37	0.058
119.00	-18.10	-1.46	0.00	-69.56	0.00	69.56	2268.44	1134.22	2868.85	1436.56		3.96	-0.39	0.056
120.00	-17.84	-1.46	0.00	-68.10	0.00	68.10	2255.69	1127.85	2831.25	1417.73		4.04	-0.39	0.056
123.00	-17.06	-1.46	0.00	-63.72	0.00	63.72	1577.63	788.82	1975.86	989.40		4.29	-0.41	0.075
125.00	-16.79	-1.46	0.00	-60.81	0.00	60.81	1561.09	780.55	1925.40	964.13		4.46	-0.42	0.074
130.00	-16.13	-1.47	0.00	-53.50	0.00	53.50	1518.76	759.38	1800.86	901.77		4.92	-0.45	0.070
135.00	-15.49	-1.47	0.00	-46.18	0.00	46.18	1475.03	737.52	1678.77	840.64		5.40	-0.48	0.065
140.00	-11.63	-1.41	0.00	-38.84	0.00	38.84	1429.92	714.96	1559.34	780.83		5.92	-0.51	0.058
145.00	-11.10	-1.40	0.00	-31.80	0.00	31.80	1383.42	691.71	1442.75	722.45		6.46	-0.53	0.052
150.00	-10.60	-1.38	0.00	-24.82	0.00	24.82	1321.23	660.61	1314.97	658.46		7.03	-0.56	0.046
155.00	-10.12	-1.35	0.00	-17.93	0.00	17.93	1258.65	629.32	1192.75	597.26		7.63	-0.58	0.038
157.00	-5.21	-0.92	0.00	-15.23	0.00	15.23	1233.62	616.81	1145.53	573.62		7.87	-0.59	0.031
160.00	-4.95	-0.90	0.00	-12.48	0.00	12.48	1196.07	598.03	1076.49	539.05		8.25	-0.60	0.027
161.00	-4.61	-0.86	0.00	-11.58	0.00	11.58	1183.55	591.78	1053.96	527.76		8.37	-0.60	0.026
161.00	-4.61	-0.86	0.00	-11.58	0.00	11.58	858.57	429.28	768.96	385.05		8.37	-0.60	0.035
165.00	-4.34	-0.83	0.00	-8.14	0.00	8.14	832.45	416.23	713.85	357.46		8.88	-0.61	0.028
170.00	-4.01	-0.79	0.00	-3.96	0.00	3.96	798.56	399.28	646.76	323.86		9.52	-0.62	0.017
175.00	0.00	-0.75	0.00	0.00	0.00	0.00	758.80	379.40	578.42	289.64		10.18	-0.63	0.000

Seismic Segment Forces (Factored)

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 22	

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Load Case:	0.9D + 1.0E							**Iterations**	23
Gust Response Factor	1.10				**Sds**	0.18		**Ss**	0.17
Dead Load Factor	0.90	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.31		**SA**	0.03	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1510.7	0.00	0.03	0.02	25.32	
10.00		1479.7	0.01	0.05	0.03	36.68	
15.00		1448.6	0.01	0.06	0.03	42.08	
20.00		1417.6	0.02	0.07	0.04	44.50	
25.00		1386.5	0.04	0.07	0.04	45.40	
30.00		1355.5	0.06	0.07	0.04	45.60	
35.00		1324.4	0.08	0.07	0.04	45.53	
38.75	Bot - Section 2	972.99	0.09	0.07	0.04	33.97	
40.00		606.38	0.10	0.07	0.04	21.28	
45.00	Top - Section 1	2389.1	0.12	0.07	0.03	85.55	
50.00		1099.5	0.15	0.07	0.03	40.06	
55.00		1072.4	0.19	0.06	0.02	39.42	
60.00		1045.2	0.22	0.06	0.02	38.12	
65.00		1018.0	0.26	0.05	0.02	35.80	
70.00		990.89	0.30	0.04	0.01	32.03	
75.00	Appurtenance(s)	973.73	0.35	0.03	0.01	26.70	
78.75	Bot - Section 3	704.96	0.38	0.02	0.01	15.61	
80.00		400.18	0.39	0.02	0.01	8.03	
83.75	Top - Section 2	1183.0	0.43	0.01	0.01	15.26	
85.00		163.74	0.45	0.00	0.01	1.68	
90.00		642.81	0.50	-0.02	0.01	-0.86	
95.00		623.41	0.56	-0.04	0.01	-8.31	
100.00		604.00	0.62	-0.06	0.02	-14.54	
105.00		584.59	0.68	-0.08	0.03	-18.82	
110.00	Appurtenance(s)	2943.1	0.75	-0.10	0.04	-108.63	
115.00		545.78	0.82	-0.11	0.06	-20.71	
119.00	Bot - Section 4	422.65	0.87	-0.12	0.08	-15.26	
120.00		188.22	0.89	-0.12	0.08	-6.64	
123.00	Top - Section 3	556.27	0.93	-0.12	0.10	-17.76	
125.00		163.40	0.96	-0.12	0.11	-4.74	
130.00		397.64	1.04	-0.10	0.15	-7.63	
135.00		382.12	1.12	-0.05	0.20	-2.26	
140.00	Appurtenance(s)	3068.2	1.21	0.01	0.26	33.17	
145.00		351.07	1.30	0.12	0.33	10.89	
150.00		335.54	1.39	0.26	0.42	18.38	
155.00		320.02	1.48	0.46	0.52	26.27	
157.00	Appurtenance(s)	4054.3	1.52	0.55	0.57	381.32	
160.00		180.83	1.58	0.72	0.64	20.45	
161.00	Top - Section 4	263.21	1.60	0.78	0.67	31.51	
165.00		172.96	1.68	1.05	0.78	25.56	
170.00		205.72	1.78	1.46	0.95	38.33	
175.00	Appurtenance(s)	3275.4	1.89	1.98	1.14	749.23	
	Totals:	**42,825.4**				**1,787.6**	**Total Wind:** **32,561.3**

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 23

Tower Engineering Solutions

Load Case: 0.9D + 1.0E

Iterations 23

Gust Response Factor	1.10			**Sds**	0.18			**Ss**	0.17
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.31	**SA**	0.03	**Seismic Importance Factor**			1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-43.03	-2.02	0.00	-262.47	0.00	262.47	6411.04	3205.52	14877.2	7449.66		0.00	0.00	0.042
5.00	-41.52	-2.00	0.00	-252.39	0.00	252.39	6318.35	3159.17	14361.2	7191.28		0.01	-0.01	0.042
10.00	-40.04	-1.97	0.00	-242.39	0.00	242.39	6224.09	3112.04	13850.5	6935.58		0.02	-0.02	0.041
15.00	-38.60	-1.93	0.00	-232.55	0.00	232.55	6128.26	3064.13	13345.4	6682.66		0.05	-0.03	0.041
20.00	-37.17	-1.90	0.00	-222.88	0.00	222.88	6030.87	3015.43	12846.2	6432.65		0.09	-0.04	0.041
25.00	-35.78	-1.86	0.00	-213.41	0.00	213.41	5931.91	2965.95	12352.9	6185.64		0.14	-0.05	0.041
30.00	-34.42	-1.82	0.00	-204.13	0.00	204.13	5831.38	2915.69	11865.8	5941.76		0.20	-0.06	0.040
35.00	-33.08	-1.77	0.00	-195.05	0.00	195.05	5715.88	2857.94	11358.6	5687.79		0.27	-0.08	0.040
38.75	-32.09	-1.74	0.00	-188.40	0.00	188.40	5614.19	2807.10	10956.1	5486.19		0.33	-0.08	0.040
40.00	-31.51	-1.72	0.00	-186.22	0.00	186.22	5580.30	2790.15	10823.5	5419.80		0.36	-0.09	0.040
45.00	-29.22	-1.64	0.00	-177.60	0.00	177.60	4741.11	2370.56	9166.15	4589.89		0.46	-0.10	0.045
50.00	-28.08	-1.61	0.00	-169.40	0.00	169.40	4656.71	2328.36	8781.22	4397.14		0.57	-0.11	0.045
55.00	-26.97	-1.57	0.00	-161.37	0.00	161.37	4570.75	2285.37	8401.44	4206.97		0.69	-0.13	0.044
60.00	-25.89	-1.54	0.00	-153.52	0.00	153.52	4483.21	2241.61	8027.05	4019.49		0.83	-0.14	0.044
65.00	-24.83	-1.50	0.00	-145.84	0.00	145.84	4386.28	2193.14	7644.63	3828.00		0.99	-0.16	0.044
70.00	-23.79	-1.48	0.00	-138.32	0.00	138.32	4267.64	2133.82	7234.64	3622.70		1.16	-0.17	0.044
75.00	-22.77	-1.45	0.00	-130.94	0.00	130.94	4149.01	2074.50	6835.94	3423.05		1.34	-0.19	0.044
78.75	-22.02	-1.44	0.00	-125.50	0.00	125.50	4060.03	2030.01	6544.34	3277.03		1.49	-0.20	0.044
80.00	-21.63	-1.43	0.00	-123.70	0.00	123.70	4030.37	2015.18	6448.55	3229.07		1.55	-0.20	0.044
83.75	-20.45	-1.41	0.00	-118.34	0.00	118.34	2677.54	1338.77	4285.17	2145.77		1.71	-0.21	0.063
85.00	-20.27	-1.42	0.00	-116.58	0.00	116.58	2664.37	1332.18	4232.36	2119.33		1.77	-0.22	0.063
90.00	-19.55	-1.42	0.00	-109.50	0.00	109.50	2610.69	1305.34	4022.76	2014.37		2.01	-0.24	0.062
95.00	-18.84	-1.42	0.00	-102.40	0.00	102.40	2555.44	1277.72	3815.94	1910.80		2.27	-0.26	0.061
100.00	-18.15	-1.43	0.00	-95.27	0.00	95.27	2498.62	1249.31	3612.11	1808.74		2.56	-0.29	0.060
105.00	-17.48	-1.43	0.00	-88.13	0.00	88.13	2440.24	1220.12	3411.50	1708.29		2.87	-0.31	0.059
110.00	-14.69	-1.42	0.00	-80.96	0.00	80.96	2380.29	1190.15	3214.34	1609.56		3.21	-0.33	0.056
115.00	-14.06	-1.43	0.00	-73.85	0.00	73.85	2318.78	1159.39	3020.85	1512.67		3.57	-0.36	0.055
119.00	-13.57	-1.43	0.00	-68.15	0.00	68.15	2268.44	1134.22	2868.85	1436.56		3.88	-0.38	0.053
120.00	-13.38	-1.43	0.00	-66.72	0.00	66.72	2255.69	1127.85	2831.25	1417.73		3.96	-0.38	0.053
123.00	-12.79	-1.43	0.00	-62.44	0.00	62.44	1577.63	788.82	1975.86	989.40		4.21	-0.40	0.071
125.00	-12.59	-1.43	0.00	-59.59	0.00	59.59	1561.09	780.55	1925.40	964.13		4.38	-0.41	0.070
130.00	-12.10	-1.43	0.00	-52.45	0.00	52.45	1518.76	759.38	1800.86	901.77		4.82	-0.44	0.066
135.00	-11.62	-1.43	0.00	-45.30	0.00	45.30	1475.03	737.52	1678.77	840.64		5.30	-0.47	0.062
140.00	-8.72	-1.38	0.00	-38.14	0.00	38.14	1429.92	714.96	1559.34	780.83		5.81	-0.50	0.055
145.00	-8.33	-1.37	0.00	-31.24	0.00	31.24	1383.42	691.71	1442.75	722.45		6.34	-0.52	0.049
150.00	-7.95	-1.35	0.00	-24.40	0.00	24.40	1321.23	660.61	1314.97	658.46		6.90	-0.55	0.043
155.00	-7.58	-1.32	0.00	-17.65	0.00	17.65	1258.65	629.32	1192.75	597.26		7.48	-0.57	0.036
157.00	-3.91	-0.90	0.00	-15.01	0.00	15.01	1233.62	616.81	1145.53	573.62		7.72	-0.57	0.029
160.00	-3.71	-0.88	0.00	-12.29	0.00	12.29	1196.07	598.03	1076.49	539.05		8.09	-0.58	0.026
161.00	-3.46	-0.85	0.00	-11.41	0.00	11.41	1183.55	591.78	1053.96	527.76		8.21	-0.59	0.025
161.00	-3.46	-0.85	0.00	-11.41	0.00	11.41	858.57	429.28	768.96	385.05		8.21	-0.59	0.034
165.00	-3.25	-0.82	0.00	-8.02	0.00	8.02	832.45	416.23	713.85	357.46		8.71	-0.60	0.026
170.00	-3.00	-0.78	0.00	-3.91	0.00	3.91	798.56	399.28	646.76	323.86		9.34	-0.61	0.016
175.00	0.00	-0.75	0.00	0.00	0.00	0.00	758.80	379.40	578.42	289.64		9.99	-0.62	0.000

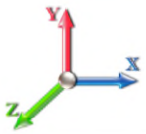
Wind Loading - Shaft

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 24	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	6.129	6.74	242.25	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	6.129	6.74	237.37	0.650	0.000	5.00	23.886	15.53	104.7	0.0	1510.8
10.00		1.00	0.70	6.129	6.74	232.48	0.650	0.000	5.00	23.399	15.21	102.5	0.0	1479.7
15.00		1.00	0.70	6.129	6.74	227.60	0.650	0.000	5.00	22.913	14.89	100.4	0.0	1448.7
20.00		1.00	0.70	6.129	6.74	222.71	0.650	0.000	5.00	22.426	14.58	98.3	0.0	1417.6
25.00		1.00	0.70	6.129	6.74	217.83	0.650	0.000	5.00	21.940	14.26	96.1	0.0	1386.6
30.00		1.00	0.70	6.134	6.75	213.03	0.650	0.000	5.00	21.453	13.94	94.1	0.0	1355.5
35.00		1.00	0.73	6.410	7.05	212.78	0.650	0.000	5.00	20.966	13.63	96.1	0.0	1324.5
38.75	Bot - Section 2	1.00	0.75	6.599	7.26	212.10	0.650	0.000	3.75	15.406	10.01	72.7	0.0	973.0
40.00		1.00	0.76	6.659	7.33	211.79	0.650	0.000	1.25	5.167	3.36	24.6	0.0	606.4
45.00	Top - Section 1	1.00	0.79	6.887	7.58	210.20	0.650	0.000	5.00	20.364	13.24	100.3	0.0	2389.1
50.00		1.00	0.81	7.098	7.81	212.13	0.650	0.000	5.00	19.877	12.92	100.9	0.0	1099.6
55.00		1.00	0.83	7.294	8.02	209.71	0.650	0.000	5.00	19.390	12.60	101.1	0.0	1072.4
60.00		1.00	0.85	7.477	8.22	206.94	0.650	0.000	5.00	18.904	12.29	101.1	0.0	1045.2
65.00		1.00	0.87	7.650	8.42	203.86	0.650	0.000	5.00	18.417	11.97	100.7	0.0	1018.1
70.00		1.00	0.89	7.814	8.60	200.52	0.650	0.000	5.00	17.931	11.65	100.2	0.0	990.9
75.00	Appurtenance(s)	1.00	0.91	7.969	8.77	196.93	0.650	0.000	5.00	17.444	11.34	99.4	0.0	963.7
78.75	Bot - Section 3	1.00	0.92	8.081	8.89	194.10	0.650	0.000	3.75	12.764	8.30	73.8	0.0	705.0
80.00		1.00	0.93	8.118	8.93	193.13	0.650	0.000	1.25	4.260	2.77	24.7	0.0	400.2
83.75	Top - Section 2	1.00	0.94	8.225	9.05	190.16	0.650	0.000	3.75	12.597	8.19	74.1	0.0	1183.1
85.00		1.00	0.94	8.260	9.09	192.22	0.650	0.000	1.25	4.138	2.69	24.4	0.0	163.7
90.00		1.00	0.96	8.396	9.24	188.08	0.650	0.000	5.00	16.249	10.56	97.5	0.0	642.8
95.00		1.00	0.97	8.526	9.38	183.78	0.650	0.000	5.00	15.762	10.25	96.1	0.0	623.4
100.00		1.00	0.99	8.652	9.52	179.33	0.650	0.000	5.00	15.276	9.93	94.5	0.0	604.0
105.00		1.00	1.00	8.774	9.65	174.74	0.650	0.000	5.00	14.789	9.61	92.8	0.0	584.6
110.00	Appurtenance(s)	1.00	1.02	8.891	9.78	170.02	0.650	0.000	5.00	14.303	9.30	90.9	0.0	565.2
115.00		1.00	1.03	9.005	9.91	165.18	0.650	0.000	5.00	13.816	8.98	89.0	0.0	545.8
119.00	Bot - Section 4	1.00	1.04	9.093	10.00	161.23	0.650	0.000	4.00	10.703	6.96	69.6	0.0	422.7
120.00		1.00	1.04	9.115	10.03	160.23	0.650	0.000	1.00	2.669	1.74	17.4	0.0	188.2
123.00	Top - Section 3	1.00	1.05	9.179	10.10	157.21	0.650	0.000	3.00	7.891	5.13	51.8	0.0	556.3
125.00		1.00	1.05	9.222	10.14	157.78	0.650	0.000	2.00	5.163	3.36	34.0	0.0	163.4
130.00		1.00	1.07	9.326	10.26	152.64	0.650	0.000	5.00	12.568	8.17	83.8	0.0	397.6
135.00		1.00	1.08	9.427	10.37	147.41	0.650	0.000	5.00	12.081	7.85	81.4	0.0	382.1
140.00	Appurtenance(s)	1.00	1.09	9.525	10.48	142.08	0.650	0.000	5.00	11.595	7.54	79.0	0.0	366.6
145.00		1.00	1.10	9.621	10.58	136.68	0.650	0.000	5.00	11.108	7.22	76.4	0.0	351.1
150.00		1.00	1.11	9.715	10.69	131.19	0.650	0.000	5.00	10.622	6.90	73.8	0.0	335.5
155.00		1.00	1.12	9.806	10.79	125.63	0.650	0.000	5.00	10.135	6.59	71.1	0.0	320.0
157.00	Appurtenance(s)	1.00	1.12	9.842	10.83	123.38	0.650	0.000	2.00	3.918	2.55	27.6	0.0	123.7
160.00		1.00	1.13	9.896	10.89	119.99	0.650	0.000	3.00	5.731	3.73	40.5	0.0	180.8
161.00	Top - Section 4	1.00	1.13	9.913	10.90	118.85	0.650	0.000	1.00	1.871	1.22	13.3	0.0	59.0
165.00		1.00	1.14	9.983	10.98	114.28	0.650	0.000	4.00	7.291	4.74	52.0	0.0	173.0
170.00		1.00	1.15	10.069	11.08	108.51	0.650	0.000	5.00	8.676	5.64	62.5	0.0	205.7
175.00	Appurtenance(s)	1.00	1.16	10.152	11.17	102.67	0.650	0.000	5.00	8.189	5.32	59.4	0.0	194.1
								Totals:	**175.00**			**3,144.5**		**30,519.4**

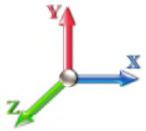
Discrete Appurtenance Forces

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 25	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	175.00	JMA Wireless	6	10.185	11.204	0.65	0.75	38.64	276.00	0.000	2.000	432.93	0.00	865.86
2	175.00	6' Lightning rod	1	10.152	11.168	1.00	1.00	0.38	6.50	0.000	0.000	4.24	0.00	0.00
3	175.00	Low Profile Platform-flat	1	10.152	11.168	1.00	1.00	37.00	1200.00	0.000	0.000	413.20	0.00	0.00
4	175.00	Samsung MT6407-77A	3	10.185	11.204	0.52	0.75	7.39	238.20	0.000	2.000	82.76	0.00	165.52
5	175.00	Antel BXA-70080-6CF	3	10.185	11.204	0.65	0.75	11.28	54.00	0.000	2.000	126.33	0.00	252.65
6	175.00	MS-H1242 (Heavy Collar	1	10.152	11.168	1.00	1.00	2.50	150.60	0.000	0.000	27.92	0.00	0.00
7	175.00	Samsung B2/B66A	3	10.185	11.204	0.50	0.75	2.82	253.20	0.000	2.000	31.58	0.00	63.17
8	175.00	Samsung B5/B13	3	10.185	11.204	0.50	0.75	2.82	210.90	0.000	2.000	31.58	0.00	63.17
9	175.00	RVZDC-6627-PF-48	1	10.185	11.204	0.75	0.75	3.04	32.00	0.000	2.000	34.12	0.00	68.23
10	175.00	MS-KI22-5 (Kickers w/o	1	10.152	11.168	1.00	1.00	5.33	146.00	0.000	0.000	59.52	0.00	0.00
11	175.00	MS-HRECP	1	10.185	11.204	1.00	1.00	12.00	514.00	0.000	2.000	134.45	0.00	268.89
12	161.00	Bridge Stiffener	1	9.913	10.905	1.00	1.00	2.89	204.17	0.000	0.000	31.51	0.00	0.00
13	157.00	Platform w/ Handrail +	1	9.842	10.827	1.00	1.00	54.00	2800.00	0.000	0.000	584.63	0.00	0.00
14	157.00	ALU - TD-RRH8x20-25 -	3	9.842	10.827	0.50	0.75	6.11	210.00	0.000	0.000	66.10	0.00	0.00
15	157.00	ALU - 800 MHz - RRU	6	9.842	10.827	0.50	0.75	7.51	318.00	0.000	0.000	81.28	0.00	0.00
16	157.00	ALU - 1900 MHz - RRU	3	9.842	10.827	0.50	0.75	4.18	180.00	0.000	0.000	45.21	0.00	0.00
17	157.00	APXVTM14-C-I20	3	9.842	10.827	0.58	0.75	10.98	168.60	0.000	0.000	118.92	0.00	0.00
18	157.00	NNVV-65B-R4	3	9.842	10.827	0.55	0.75	20.43	254.10	0.000	0.000	221.18	0.00	0.00
19	140.00	KRY 112 489/2	3	9.525	10.478	0.50	0.75	1.01	46.20	0.000	0.000	10.58	0.00	0.00
20	140.00	APXV18-206516S-C-A20	3	9.525	10.478	0.55	0.75	5.93	56.10	0.000	0.000	62.13	0.00	0.00
21	140.00	APXVAARR24_43-U-NA2	3	9.525	10.478	0.52	0.75	31.88	384.00	0.000	0.000	334.01	0.00	0.00
22	140.00	4449	3	9.525	10.478	0.50	0.75	2.49	210.00	0.000	0.000	26.06	0.00	0.00
23	140.00	MT-195-12	1	9.525	10.478	1.00	1.00	40.00	2000.00	0.000	0.000	419.11	0.00	0.00
24	140.00	Kathrein 782 11056	3	9.525	10.478	0.50	0.75	0.42	5.40	0.000	0.000	4.42	0.00	0.00
25	110.00	Raycap	1	8.891	9.780	1.00	1.00	2.01	21.90	0.000	0.000	19.66	0.00	0.00
26	110.00	Fujitsu TA08025-B604	3	8.891	9.780	0.50	0.75	2.95	191.70	0.000	0.000	28.90	0.00	0.00
27	110.00	Fujitsu TA08025-B605	3	8.891	9.780	0.50	0.75	2.95	225.00	0.000	0.000	28.90	0.00	0.00
28	110.00	MC-PK8-DSH	1	8.891	9.780	1.00	1.00	37.59	1727.00	0.000	0.000	367.63	0.00	0.00
29	110.00	Commscope	3	8.891	9.780	0.55	0.75	20.43	212.40	0.000	0.000	199.80	0.00	0.00
30	75.00	GPS	1	7.969	8.766	1.00	1.00	1.00	10.00	0.000	0.000	8.77	0.00	0.00
							Totals:		**12,305.97**			**4,037.43**		

Total Applied Force Summary

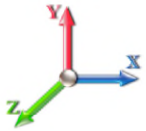
Structure:	CT01915-S-SBA		**Code:**	EIA/TIA-222-G	1/13/2022
Site Name:	South Brooklyn		**Exposure:**	B	
Height:	175.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 26

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		104.67	1671.73	0.00	0.00
10.00		102.53	1640.68	0.00	0.00
15.00		100.40	1609.63	0.00	0.00
20.00		98.27	1578.58	0.00	0.00
25.00		96.14	1547.53	0.00	0.00
30.00		94.09	1516.48	0.00	0.00
35.00		96.09	1485.43	0.00	0.00
38.75		72.69	1093.70	0.00	0.00
40.00		24.60	646.61	0.00	0.00
45.00		100.28	2550.07	0.00	0.00
50.00		100.87	1260.51	0.00	0.00
55.00		101.12	1233.35	0.00	0.00
60.00		101.06	1206.18	0.00	0.00
65.00		100.74	1179.01	0.00	0.00
70.00		100.18	1151.84	0.00	0.00
75.00	(1) attachments	108.17	1134.67	0.00	0.00
78.75		73.75	825.07	0.00	0.00
80.00		24.73	440.22	0.00	0.00
83.75		74.08	1303.18	0.00	0.00
85.00		24.44	203.77	0.00	0.00
90.00		97.54	802.96	0.00	0.00
95.00		96.09	783.55	0.00	0.00
100.00		94.50	764.14	0.00	0.00
105.00		92.78	744.74	0.00	0.00
110.00	(11) attachments	735.81	3103.33	0.00	0.00
115.00		88.95	696.83	0.00	0.00
119.00		69.58	543.49	0.00	0.00
120.00		17.40	218.43	0.00	0.00
123.00		51.79	646.90	0.00	0.00
125.00		34.05	223.82	0.00	0.00
130.00		83.80	548.69	0.00	0.00
135.00		81.43	533.16	0.00	0.00
140.00	(16) attachments	935.28	3219.34	0.00	0.00
145.00		76.42	435.10	0.00	0.00
150.00		73.78	419.58	0.00	0.00
155.00		71.06	404.05	0.00	0.00
157.00	(19) attachments	1144.89	4087.97	0.00	0.00
160.00		40.55	223.33	0.00	0.00
161.00	(1) attachments	44.78	277.37	0.00	0.00
165.00		52.04	229.62	0.00	0.00
170.00		62.46	276.55	0.00	0.00
175.00	(24) attachments	1438.07	3346.31	0.00	1747.49
	Totals:	**7,181.94**	**47,807.54**	**0.00**	**1,747.49**

Calculated Forces

Structure:	CT01915-S-SBA	**Code:**	EIA/TIA-222-G	1/13/2022	
Site Name:	South Brooklyn	**Exposure:**	B		
Height:	175.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 27	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 24

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-47.81	-7.20	0.00	-916.87	0.00	916.87	6411.04	3205.52	14877.2	7449.66	0.00	0.000	0.000	0.131
5.00	-46.13	-7.12	0.00	-880.89	0.00	880.89	6318.35	3159.17	14361.2	7191.28	0.02	-0.035	0.000	0.130
10.00	-44.48	-7.04	0.00	-845.29	0.00	845.29	6224.09	3112.04	13850.5	6935.58	0.08	-0.071	0.000	0.129
15.00	-42.87	-6.97	0.00	-810.07	0.00	810.07	6128.26	3064.13	13345.4	6682.66	0.17	-0.108	0.000	0.128
20.00	-41.29	-6.89	0.00	-775.23	0.00	775.23	6030.87	3015.43	12846.2	6432.65	0.30	-0.146	0.000	0.127
25.00	-39.74	-6.82	0.00	-740.76	0.00	740.76	5931.91	2965.95	12352.9	6185.64	0.48	-0.184	0.000	0.126
30.00	-38.21	-6.75	0.00	-706.66	0.00	706.66	5831.38	2915.69	11865.8	5941.76	0.69	-0.223	0.000	0.125
35.00	-36.73	-6.67	0.00	-672.92	0.00	672.92	5715.88	2857.94	11358.6	5687.79	0.95	-0.263	0.000	0.125
38.75	-35.63	-6.60	0.00	-647.91	0.00	647.91	5614.19	2807.10	10956.1	5486.19	1.17	-0.294	0.000	0.124
40.00	-34.98	-6.59	0.00	-639.66	0.00	639.66	5580.30	2790.15	10823.5	5419.80	1.24	-0.305	0.000	0.124
45.00	-32.43	-6.50	0.00	-606.71	0.00	606.71	4741.11	2370.56	9166.15	4589.89	1.59	-0.347	0.000	0.139
50.00	-31.16	-6.42	0.00	-574.21	0.00	574.21	4656.71	2328.36	8781.22	4397.14	1.97	-0.389	0.000	0.137
55.00	-29.92	-6.33	0.00	-542.13	0.00	542.13	4570.75	2285.37	8401.44	4206.97	2.40	-0.436	0.000	0.135
60.00	-28.71	-6.24	0.00	-510.49	0.00	510.49	4483.21	2241.61	8027.05	4019.49	2.89	-0.483	0.000	0.133
65.00	-27.53	-6.16	0.00	-479.27	0.00	479.27	4386.28	2193.14	7644.63	3828.00	3.42	-0.531	0.000	0.131
70.00	-26.37	-6.07	0.00	-448.50	0.00	448.50	4267.64	2133.82	7234.64	3622.70	4.00	-0.580	0.000	0.130
75.00	-25.24	-5.97	0.00	-418.16	0.00	418.16	4149.01	2074.50	6835.94	3423.05	4.63	-0.630	0.000	0.128
78.75	-24.41	-5.89	0.00	-395.79	0.00	395.79	4060.03	2030.01	6544.34	3277.03	5.14	-0.668	0.000	0.127
80.00	-23.97	-5.87	0.00	-388.43	0.00	388.43	4030.37	2015.18	6448.55	3229.07	5.32	-0.681	0.000	0.126
83.75	-22.66	-5.79	0.00	-366.40	0.00	366.40	2677.54	1338.77	4285.17	2145.77	5.87	-0.719	0.000	0.179
85.00	-22.45	-5.78	0.00	-359.16	0.00	359.16	2664.37	1332.18	4232.36	2119.33	6.06	-0.733	0.000	0.178
90.00	-21.65	-5.70	0.00	-330.24	0.00	330.24	2610.69	1305.34	4022.76	2014.37	6.86	-0.800	0.000	0.172
95.00	-20.86	-5.62	0.00	-301.74	0.00	301.74	2555.44	1277.72	3815.94	1910.80	7.74	-0.868	0.000	0.166
100.00	-20.09	-5.54	0.00	-273.65	0.00	273.65	2498.62	1249.31	3612.11	1808.74	8.69	-0.936	0.000	0.159
105.00	-19.34	-5.45	0.00	-245.97	0.00	245.97	2440.24	1220.12	3411.50	1708.29	9.70	-1.004	0.000	0.152
110.00	-16.24	-4.68	0.00	-218.71	0.00	218.71	2380.29	1190.15	3214.34	1609.56	10.79	-1.070	0.000	0.143
115.00	-15.54	-4.59	0.00	-195.31	0.00	195.31	2318.78	1159.39	3020.85	1512.67	11.95	-1.136	0.000	0.136
119.00	-15.00	-4.52	0.00	-176.94	0.00	176.94	2268.44	1134.22	2868.85	1436.56	12.92	-1.189	0.000	0.130
120.00	-14.78	-4.51	0.00	-172.42	0.00	172.42	2255.69	1127.85	2831.25	1417.73	13.17	-1.202	0.000	0.128
123.00	-14.13	-4.45	0.00	-158.90	0.00	158.90	1577.63	788.82	1975.86	989.40	13.94	-1.242	0.000	0.170
125.00	-13.90	-4.42	0.00	-150.00	0.00	150.00	1561.09	780.55	1925.40	964.13	14.47	-1.268	0.000	0.165
130.00	-13.35	-4.34	0.00	-127.89	0.00	127.89	1518.76	759.38	1800.86	901.77	15.83	-1.341	0.000	0.151
135.00	-12.82	-4.26	0.00	-106.18	0.00	106.18	1475.03	737.52	1678.77	840.64	17.28	-1.410	0.000	0.135
140.00	-9.62	-3.26	0.00	-84.87	0.00	84.87	1429.92	714.96	1559.34	780.83	18.79	-1.473	0.000	0.115
145.00	-9.18	-3.18	0.00	-68.58	0.00	68.58	1383.42	691.71	1442.75	722.45	20.36	-1.531	0.000	0.102
150.00	-8.76	-3.10	0.00	-52.69	0.00	52.69	1321.23	660.61	1314.97	658.46	21.99	-1.584	0.000	0.087
155.00	-8.36	-3.02	0.00	-37.19	0.00	37.19	1258.65	629.32	1192.75	597.26	23.68	-1.628	0.000	0.069
157.00	-4.30	-1.76	0.00	-31.14	0.00	31.14	1233.62	616.81	1145.53	573.62	24.36	-1.644	0.000	0.058
160.00	-4.08	-1.72	0.00	-25.85	0.00	25.85	1196.07	598.03	1076.49	539.05	25.40	-1.665	0.000	0.051
161.00	-3.81	-1.66	0.00	-24.14	0.00	24.14	1183.55	591.78	1053.96	527.76	25.75	-1.671	0.000	0.049
161.00	-3.81	-1.66	0.00	-24.14	0.00	24.14	858.57	429.28	768.96	385.05	25.75	-1.671	0.000	0.067
165.00	-3.58	-1.61	0.00	-17.48	0.00	17.48	832.45	416.23	713.85	357.46	27.16	-1.694	0.000	0.053
170.00	-3.30	-1.54	0.00	-9.44	0.00	9.44	798.56	399.28	646.76	323.86	28.95	-1.722	0.000	0.033
175.00	0.00	-1.44	0.00	-1.75	0.00	1.75	758.80	379.40	578.42	289.64	30.76	-1.736	0.000	0.006

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 101 mph Wind	32.6	0.00	57.32	0.00	0.00	4186.71
0.9D + 1.6W 101 mph Wind	32.6	0.00	42.98	0.00	0.00	4129.89
1.2D + 1.0Di + 1.0Wi 50 mph Wind	9.4	0.00	98.20	0.00	0.00	1262.68
1.2D + 1.0E	2.0	0.00	57.37	0.00	0.00	266.41
0.9D + 1.0E	2.0	0.00	43.03	0.00	0.00	262.47
1.0D + 1.0W 60 mph Wind	7.2	0.00	47.81	0.00	0.00	916.87

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 101 mph Wind	-25.79	-26.51	0.00	-1677.4	0.00	-1677.4	2677.54	1338.7	4285.17	2145.77	83.75	0.792
0.9D + 1.6W 101 mph Wind	-19.00	-26.09	0.00	-1642.3	0.00	-1642.3	2677.54	1338.7	4285.17	2145.77	83.75	0.773
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-57.57	-8.04	0.00	-523.11	0.00	-523.11	2677.54	1338.7	4285.17	2145.77	83.75	0.265
1.2D + 1.0E	-17.06	-1.46	0.00	-63.72	0.00	-63.72	1577.63	788.82	1975.86	989.40	123.00	0.075
0.9D + 1.0E	-12.79	-1.43	0.00	-62.44	0.00	-62.44	1577.63	788.82	1975.86	989.40	123.00	0.071
1.0D + 1.0W 60 mph Wind	-22.66	-5.79	0.00	-366.40	0.00	-366.40	2677.54	1338.7	4285.17	2145.77	83.75	0.179

Base Plate Summary

Structure:	CT01915-S-SB		**Code:**	EIA/TIA-222-G	1/13/2022
Site Name:	South Brooklyn		**Exposure:**	B	
Height:	175.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 29

Tower Engineering Solutions

Reactions	
Original Design	
Moment (kip-ft):	3710.00
Axial (kip):	38.30
Shear (kip):	29.70
Analysis (1.2D + 1.6W)	
Moment (kip-ft):	4186.71
Axial (kip):	57.32
Shear (kip):	32.64

Base Plate	
Yield (ksi):	50.00
Width (in):	68.00
Style:	Clipped
Polygon Sides:	8.00
Clip Length (in):	18.50
Effective Len (in):	6.47
Moment (kip-in):	352.66
Allow Stress (ksi):	67.50
Applied Stress (ksi):	51.98
Stress Ratio:	0.77

Anchor Bolts	
Bolt Circle:	64.00
Number Bolts:	32.00
Bolt Type:	2.25" 18J
Bolt Diameter (in):	2.25
Yield (ksi):	75.00
Ultimate (ksi):	100.00
Arrangement:	Clustered
Cluster Dist (in):	6.00
Start Angle (deg):	45.00
Compression	
Force (kip):	101.19
Allowable (kip):	260.00
Ratio:	0.40
Tension	
Force (kip):	95.06
Allowable (kip):	260.00
Ratio:	0.37

Monopole Mat Foundation Design

				Date
				1/13/2022
Customer Name:	Verizon	**TIA Standard:**	EIA-222-G
Site Name:		**Structure Height (Ft.):**	175
Site Number:	CT01915-S-SBA	**Engineer Name:**	M. Al Rubaye
Engr. Number:	121972	**Engineer Login ID:**	

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

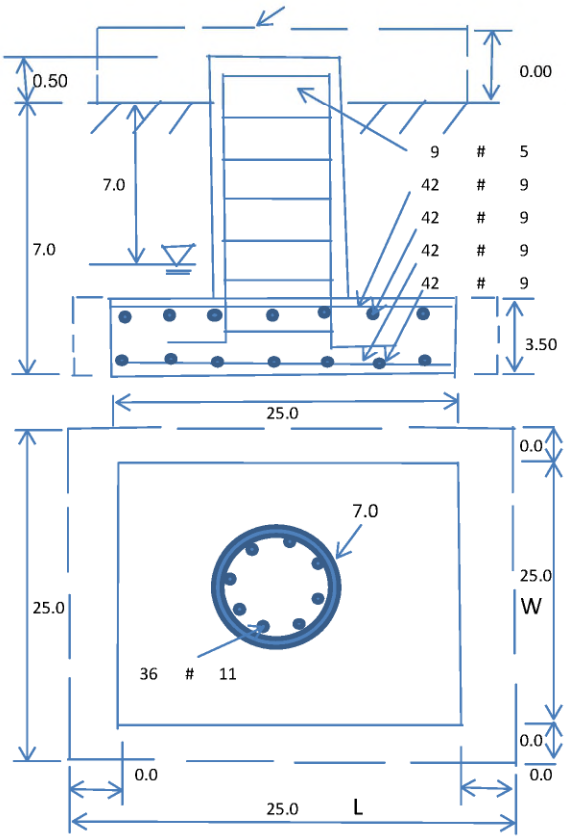
Analysis or Design? Analysis

Base Reactions (Factored):

Axial Load (Kips):	57.3	Shear Force (Kips):	32.6
Uplift Force (Kips):	0.0	Moment (Kips-ft):	4186.7
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	7.0	Depth of Base BG (ft.):	7.0
Pier Height A. G. (ft.):	0.50	Thickness of Pad (ft):	3.50
Length of Pad (ft.):	25	Width of Pad (ft.):	25
Final Length of pad (ft)	25.0	Final width of pad (ft):	25.0



Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	11	Tie / Stirrup Size #:	5	
Qty. of Vertical Rebars:	36	Tie Spacing (in):	11.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	9	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	42	Qty. of Rebar in Pad (W):	42	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	42	Qty. of Rebar in Pad (W):	42	
Apply 1.35 factor for e/w Per G:	1.35			

Soil Design Parameters:

Soil Unit Weight (pcf):	125.0	Soil Buoyant Weight:	50.0	Pcf		
Water Table B.G.S. (ft):	7.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	30000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:			1.00	

Foundation Analysis and Design: Uplift Strength Reduction Factor: 0.75 — Compression Strength Reduction Factor: 0.75

Total Dry Soil Volume (cu. Ft.):	2052.80	Total Dry Soil Weight (Kips):	256.60
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	256.60	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	2341.44	Total Dry Concrete Weight (Kips):	351.22
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	351.22	Total Vertical Load on Base (Kips):	665.14

Check Soil Capacities:

					Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	3551	<	Allowable Factored Soil Bearing (psf):	22500	0.16	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	7554.4	>	Design Factored Momont (kips-ft):	4432	0.59	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.70	OK!				

Check the capacities of Reinforceing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90		Strength reduction factor (Shear):	0.75		
Strength reduction factor (Axial compresion):	0.65		Wind Load Factor on Concrete Design:	1.00		
					Load/ Capacity Ratio	
(1) Concrete Pier:						
Vertical Steel Rebar Area (sq. in./each):	1.56		Tie / Stirrup Area (sq. in./each):	0.31		
Calculated Moment Capacity (Mn,Kips-Ft):	8832.5	>	Design Factored Moment (Mu, Kips-F	4317.3	0.49	OK!
Calculated Shear Capacity (Kips):	682.6	>	Design Factored Shear (Kips):	32.6	0.05	OK!
Calculated Tension Capacity (Tn, Kips):	3032.6	>	Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	7273.9	>	Design Factored Axial Load (Pu Kips):	57.3	0.01	OK!
Moment & Axial Strength Combination:	0.49	OK!	Check Tie Spacing (Design/Required):		0.9167	OK!
Pier Reinforcement Ratio:	0.010		Reinforcement Ratio is satisfied per ACI			
(2).Concrete Pad:						
One-Way Design Shear Capacity (L-Direction, Kips):	947.4	>	One-Way Factored Shear (L-D. Kips):	326.8	0.34	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	947.4	>	One-Way Factored Shear (W-D., Kips)	326.8	0.34	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	831.8	>	One-Way Factored Shear (C-C, Kips):	303.2	0.36	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0036	OK!	Lower Steel Pad Reinf. Ratio (W-Direc	0.0036		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	6953.4	>	Moment at Bottom (L-Dir. K-Ft):	1982.2	0.29	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	6953.4	>	Moment at Bottom (W-Dir. K-Ft):	1982.2	0.29	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	9724.9	>	Moment at Bottom (C-C Dir. K-Ft):	2803.2	0.29	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0036	OK!	Upper Steel Reinf. Ratio (W-Dir.):	0.0036		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	6953.4	>	Moment at the top (L-Dir K-Ft):	686.0	0.10	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	6953.4	>	Moment at the top (W-Dir K-Ft):	686.0	0.10	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	9724.9	>	Moment at the top (C-C Dir. K-Ft):	643.6	0.07	OK!
(3).Check Punching Shear Capacity due to Moment in the Pier:						
Moment transferred by punching shear:	1674.7	k-ft.	Max. factored shear stress v_{u_CD}:		4.0	Psi
Max. factored shear stress v_{u_AB}:	9.9	Psi	Factored shear Strength ϕv_n:		164.3	Psi
Max. factored shear stress v_u:	9.9	Psi	Check Usage of Punching Shear Capacity:		0.06	OK!

PER THE INTERNATIONAL BUILDING CODE THIS STRUCTURE IS CLASSIFIED AS:

1. CONSTRUCTION TYPE II-B (TABLE 601)
2. GROUP U OCCUPANCY (SECTION 312.1 UNOCCUPIED TOWER SITE)

MODIFICATION AND DESIGN DRAWINGS FOR AN EXISTING 175' SUMMIT MONOPOLE TOWER

PROPOSED CARRIER: VERIZON

SITE: CT01915-S-SBA / SOUTH BROOKLYN

COORDINATES (LATITUDE: 41.767160°, LONGITUDE: -71.971949°)

CONSTRUCTION CLASS

THE RIGGING PLAN FOR THIS SITE WOULD BE A MINIMUM OF A CLASS I AND THE CONTRACTOR SHALL MAKE FINAL DETERMINATION

PLEASE NOTE THIS SET OF DRAWINGS IS FOR INSTALLATION AND ASSEMBLY ONLY. FABRICATION DETAIL DRAWINGS ARE NOT PROVIDED AND MUST BE COMPLETED BY THE STEEL FABRICATOR SELECTED. TES CAN PROVIDE THE FABRICATION DETAIL DRAWINGS FOR AN ADDITIONAL FEE.

SHEET	SHEET TITLE	REV
T-1	TITLE SHEET	0
BOM	BILL OF MATERIALS	0
GN-1	GENERAL NOTES	0
A-1	TOWER PROFILE	0
A-2	FLANGE STIFFENER INSTALLATION DETAILS	0

NOTE:

1. THE MODIFICATION DRAWINGS ARE BASED ON THE TES PROJECT NO. 118205-R, DATED 12/09/2021.

Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PHONE: (972) 483-0607

SBA
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800)-487-SITE

TES JOB NO:
121972

CUSTOMER SITE NO:
CT01915-S-SBA
CUSTOMER SITE NAME:
SOUTH BROOKLYN
100 OLD TATNIC HILL ROAD
BROOKLYN, CT 06234

STATE OF CONNECTICUT
JARRYD TIBBETTS
No. 31170
LICENSED
PROFESSIONAL ENGINEER

DRAWN BY: BS | CHECKED BY: RK/AD

REV	DESCRIPTION	BY	DATE
1	FIRST ISSUE	BS	01/18/22

SHEET TITLE:
TITLE SHEET

SHEET NUMBER: T-1
REV #: 0

BILL OF MATERIALS

QUANTITY COUNTED	QUANTITY PROVIDED	PART NUMBER	DESCRIPTIONS	LENGTH	SHEET LIST (INSTALLATION)	SHEET LIST (FABRICATE)	PIECE WEIGHT (LBS)	WEIGHT (LB)	NOTES
			MATERIAL & HARDWARE						
			Following Items are Non-standard Parts						
3	3	FPL-1	PL 3/4" X 7" X 3'-6" A572-50	---	A-2	F-1	240.2	720.6	GALVANIZED
3	3	---	LANCO /HENRY 287 WHITE ACRYLIC ELASTOMERIC COATING AND SEALER OR EQUIV (GALLON)	---	A-1	---	---	---	PROVIDED BY CONTRACTOR
2	2	120-123/115-317	TUF-TUG ANGLE CLIP STAND OFF ASSEMBLY	---	A-1	---	---	---	GALVANIZED

ALL APLXXXX, LPXXXX AND RLPXXXX ARE PATENTED PRODUCTS AND CANNOT BE FABRICATED BY THIRD PARTIES. THESE PARTS ARE AVAILABLE FROM:

METROSITE, LLC.
180 IND PARK BLVD COMMERCE, GA 30529
OFFICE: (706) 335-7045
FAX: (706) 335-7056

NOTE: ALL MATERIALS, WHICH WEREN'T LISTED IN THIS SHEET, ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.

TOTAL WEIGHT (LBS) = **720.6**

Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
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SBA
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800)-487-SITE

TES JOB NO:
121972

CUSTOMER SITE NO:
CT01915-S-SBA
CUSTOMER SITE NAME:
SOUTH BROOKLYN
100 OLD TATNIC HILL ROAD
BROOKLYN, CT 06234

DRAWN BY: BS | CHECKED BY: RK/AD

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	BS	01/18/22

SHEET TITLE:
BILL OF MATERIALS

SHEET NUMBER: BOM
REV #: 0

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE ANSI/TIA-222-G, ANSI/ASSP A10.48, 2018 CONNECTICUT STATE BUILDING AND ANY OTHER GOVERNING BUILDING CODES AND OSHA SAFETY REGULATIONS.
2. ALL WORK INDICATED ON THE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TELECOMMUNICATIONS TOWER, POLE AND FOUNDATION CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND FABRICATION OF ALL MISCELLANEOUS PARTS (SUCH AS SHIMS), TEMPORARY SUPPORTS, AND GUYINGS, ETC., PER ANSI/ASSP A10.48, TO COMPLETE THE ASSEMBLY AS SHOWN IN THE DRAWINGS.
4. CONTRACTOR SHALL PROCEED WITH THE INSTALLATION WORK CAREFULLY SO THE WORK WILL NOT DAMAGE ANY EXISTING CABLE, EQUIPMENT OR THE STRUCTURE.
5. THE USE OF GAS TORCH OR WELDER, ARE NOT ALLOWED ON ANY TOWER STRUCTURE WITHOUT THE CONSENT OF THE TOWER OWNER.
6. GENERALLY THE CONTRACTOR IS RESPONSIBLE TO CONDUCT AN ONSITE VISIT SURVEY OF THE JOB SITE AFTER AWARD, AND REPORT ANY ISSUES WITH THE SITE TO **TES** BEFORE PROCEEDING CONSTRUCTION.

FABRICATION

1. ALL STEEL SHALL MEET OR EXCEED THE MINIMUM STRENGTH AS SPECIFIED IN THE DRAWINGS. IF YIELD STRENGTH WAS NOT NOTED IN THE DRAWINGS, CONTRACTORS SHALL CONTACT TES FOR DIRECTION.
2. ALL FIELD CUT EDGES SHALL BE GROUND SMOOTH. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

WELDING

1. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNO. (E70XX UNLESS NOTED OTHERWISE).
2. PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING APPROX. 0.5" BEYOND THE PROPOSED FIELD WELD SURFACES.
3. ALL WELDS SHALL BE INSPECTED VISUALLY. A MINIMUM OF 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. 100% OF WELDS SHALL BE INSPECTED IF DEFECTS ARE FOUND.
4. WELD INSPECTIONS SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
5. AFTER INSPECTION, ALL FIELD WELDED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

BOLTED ASSEMBLIES AND TIGHTENING OF CONNECTIONS

1. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS AS APPROVED BY THE RCSC.
2. FLANGE BOLTS SHALL BE TIGHTENED BY THE AISC "TURN-OF-THE-NUT" METHOD. THE FOLLOWING TABLE SHOULD BE USED FOR THE "TURN-OF-THE-NUT" TIGHTENING.
3. SPLICE BOLTS AND ALL OTHER BOLTS IN BEARING TYPE CONNECTIONS SHALL BE TIGHTENED TO A SNUG-TIGHT CONDITION.
4. THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS ATTAINED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER WITH AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
5. HB HOLLO-BOLT SHALL BE INSTALLED PER ICC ESR-3330 INSTRUCTIONS.

VERIFICATION AND INSPECTION

1. IF APPLICABLE, VERIFICATION INSPECTION TO BE PERFORMED SHALL BE IN ACCORDANCE TO IBC-2015 SECTION 1705 – FOR STEEL CONSTRUCTION & TABLE 1705.3 FOR CONCRETE CONSTRUCTION.

POST INSTALLED EPOXY INJECTED ANCHOR BOLTS:

1. CONCRETE MUST BE A MINIMUM OF 28 DAYS OLD.
2. FOLLOW MANUFACTURER'S REQUIREMENTS FOR CURE TIME VS. AMBIENT TEMPERATURE.
3. DRILL HOLE TO REQUIRED DIAMETER AND DEPTH. ALL WATER, DIRT, OIL, DEBRIS, GREASE OR DUST MUST BE REMOVED FROM EACH CORE HOLE. FOLLOW MANUFACTURER'S RECOMMENDATION FOR CORRECT TYPE OF CORE BIT. AVOID DAMAGING EXISTING REINFORCING STEEL OR OTHER EMBEDDED ITEMS. NOTIFY TES ENGINEERING IF VOIDS IN THE CONCRETE, REINFORCING STEEL OR OTHER EMBEDDED ITEMS ARE ENCOUNTERED. STOP CORING IMMEDIATELY IF THIS OCCURS.
4. A HOLE ROUGHENING DEVICE FROM EITHER HILTI OR ALLFASTENERS SHALL BE USED WITH ALL HOLES. FOLLOW ALL MANUFACTURER'S RECOMMENDED CORING AND INSTALLATION INSTRUCTIONS.
5. AFTER CORING AND ROUGHENING, FLUSH EACH HOLE WITH RUNNING WATER TO REMOVE ANY SLURRY OR DEBRIS. REMOVE ALL WATER FROM THE HOLE BY MECHANICAL PUMPING.
6. BRUSH EACH HOLE WITH AN APPROPRIATE SIZED NYLON BRUSH AND FLUSH WITH RUNNING WATER A SECOND TIME. REMOVE ALL WATER FROM THE HOLE.
7. AFTER THE SECOND WATER FLUSH BRUSH THE HOLE AGAIN WITH THE APPROPRIATE SIZED NYLON BRUSH.
8. BLOW EACH HOLE WITH COMPRESSED AIR TWO TIMES MINIMUM.
9. CONFIRM THAT EACH HOLE IS PROPERLY ROUGHED AND DRY.
10. NO EPOXY INJECTION SHALL TAKE PLACE IN RAINY CONDITIONS.
11. EPOXY SHOULD BE VISIBLE AT THE TOP OF THE CORE HOLE AFTER INSTALLATION.
12. CONTRACTOR TO SUPPLY ONE PHOTO OF EACH ROUGHED AND CLEANED HOLE IN CLOSEOUT PHOTO PACKAGE.

TABLE 8.2 NUT ROTATION FROM SNUG-TIGHT CONDITION FOR TURN-OF-NUT PRETENSIONING[a,b]

BOLT LENGTH[f]	DISPOSITION OF OUTER FACE OF BOLTED PARTS		
	BOTH FACES NORMAL TO BOLT AXIS	ONE FACE NORMAL TO BOLT AXIS, OTHER SLOPED NOT MORE THAN 1:20 [d]	BOTH FACES SLOPED NOT MORE THAN 1:20 FROM NORMAL TO BOLT AXIS [d]
NOT MORE THAN $4d_b$	1/3 TURN	1/2 TURN	2/3 TURN
MORE THAN $4d_b$ BUT NOT MORE THAN $8d_b$	1/2 TURN	2/3 TURN	5/6 TURN
MORE THAN $8d_b$ BUT NOT MORE THAN $12d_b$	2/3 TURN	5/6 TURN	1 TURN

[a] NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR REQUIRED NUT ROTATIONS OF 1/2 TURN AND LESS, THE TOLERANCE IS PLUS OR MINUS 30 DEGREES; FOR REQUIRED NUT ROTATIONS OF 2/3 TURN AND MORE, THE TOLERANCE IS PLUS OR MINUS 45 DEGREES.

[b] APPLICABLE ONLY TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.

[c] WHEN THE BOLT LENGTH EXCEEDS $12d_b$, THE REQUIRED NUT ROTATION SHALL BE DETERMINED BY ACTUAL TESTING IN A SUITABLE TENSION CALIBRATOR THAT SIMULATES THE CONDITIONS OF SOLIDLY FITTING STEEL.

[d] BEVELED WASHER NOT USED.

SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004
RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS

INSTALLATION TORQUE REQUIRED FOR HOLLO BOLTS AND AJAX BOLTS:

1. HB12 HOLLO BOLT: 59 FT-LBS
2. HB16 HOLLO BOLT: 140 FT-LBS
3. HB20 HOLLO BOLT: 221 FT-LBS
4. M20 AJAX BOLT: 280 FT-LBS.

FIELD HOT WORK PLAN NOTES:

FOLLOWING GUIDELINES SHALL BE COMPLIED WITH:

1. CONTRACTOR'S RESPONSIBILITY TO COMPLETE A HOT WORK PLAN IF AWARDED PER CUSTOMER SPECIFICATIONS GUIDELINES FOR WELDING, CUTTING & SPARK PRODUCING WORK.
2. HAVE A FIRE PLAN APPROVED BY THE CUSTOMER AND THEIR SAFETY MANAGEMENT DEPT.
3. CONTRACTOR MUST OBTAIN THE CONTACT INFO OF THE LOCAL FIRE DEPARTMENT AND THE 911 ADDRESS OF THE TOWER SITE BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL MAKE SURE THAT CELL PHONE COVERAGE IS AVAILABLE IN THE TOWER SITE. IF CELL COVERAGE IS NOT AVAILABLE, AN IMMEDIATE AVAILABLE MEANS OF DIRECT COMMUNICATION WITH THE FIRE DEPARTMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION START.
5. ALL CONSTRUCTION SHALL BE PERFORMED UNDER WIND SPEED LESS THAN 10 MPH ON THE GROUND LEVEL. IF WIND SPEED INCREASE, CONTRACTOR MUST DETERMINE IF CONSTRUCTION SHALL BE DISCONTINUED.
6. FIRE SUPPRESSION EQUIPMENT MUST BE MADE AVAILABLE ON SITE AND READY TO USE.
7. CONTRACTOR SHALL ASSIGN A FIRE WATCHER TO PERFORM FIRE-FIGHTING DUTIES.
8. ALL WELDERS SHALL BE AWS OR STATE CERTIFIED. THEY MUST ALSO BE EXPERIENCED IN WELDING ON GALVANIZED MATERIALS.
9. IF IT IS POSSIBLE, ALL EXISTING COAX NEAR WELDING AREA SHALL BE TEMPORARILY MOVED AWAY FROM THE WELDING AREA BEFORE WELDING THE PLATES.
10. PLEASE REPORT ANY FIELD ISSUE TO TES @ 972-483-0607.

TES
Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PHONE: (972) 483-0607

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BOCA RATON, FL 33487
(800)-487-SITE

TES JOB NO:
121972

CUSTOMER SITE NO:
CT01915-S-SBA
CUSTOMER SITE NAME:
SOUTH BROOKLYN
100 OLD TATNIC HILL ROAD
BROOKLYN, CT 06234

DRAWN BY: BS | CHECKED BY: RK/AD

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BS	01/18/22

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER: GN-1
REV #: 0

NOTES:

1. TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE MONOPOLE AND ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
2. TEMPORARY RELOCATION OF EXISTING EQUIPMENT AROUND THE FOUNDATION MAY BE REQUIRED DURING CONSTRUCTION.

SCOPE OF WORK

1. INSTALL NEW FLANGE BYPASS REINFORCEMENTS AT ±161'-0" ELEV. SEE SHEET A-2 FOR DETAILS.

   NOTE:
   INSTALL PROVIDED TUG-TUF ANGLE CLIP STAND OFF ASSEMBLY (MODEL # 120-123/115-317) TO BYPASS NEW REINFORCEMENT ON FLAT #1 AS REQUIRED TO AVOID INTERFERENCE WITH EXISTING SAFETY CLIMB CABLE.

2. APPLY FOUNDATION COATING
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP, REMOVAL AND DISPOSAL OF EXCESS MATERIALS USED AND REMOVED FROM THE STRUCTURE AT THE COMPLETION OF THE PROJECT.

PHOTO 1
FOUNDATION

PHOTO 2

FOUNDATION COATING NOTES:

1. THE COATING MATERIALS SHALL BE LANCO WHITE ACRYLIC ELASTOMERIC COATING AND SEALER, OR HYDRO ARMOR COATING.
2. THE COATING CAN BE PLACED AT LEAST (2) DAYS AFTER THE PLACEMENT OF THE CONCRETE FOR FOUNDATION REINFORCEMENT, AND MINIMUM (4) DAYS FOR NEW FOUNDATION CONSTRUCTION.
3. THE CONCRETE SURFACE SHALL BE CLEAN AND DRY PRIOR TO THE APPLICATION OF THE COATING.
4. THE COATING SHALL BE APPLIED TO ALL THE SURFACES OF THE CONCRETE ABOVE THE GROUND AND 6" BELOW THE GRADE SURFACE IF APPLICABLE.
5. MINIMUM 30 MILS COATING IS REQUIRED.
6. APPLY COLD GALVANIZE AT LEAST 2'-3" ABOVE FOUNDATION.

TES
Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PHONE: (972) 483-0607

SBA
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800)-487-SITE

TES JOB NO:
121972

CUSTOMER SITE NO:
CT01915-S-SBA
CUSTOMER SITE NAME:
SOUTH BROOKLYN
100 OLD TATNIC HILL ROAD
BROOKLYN, CT 06234

DRAWN BY: BS | CHECKED BY: RK/AD

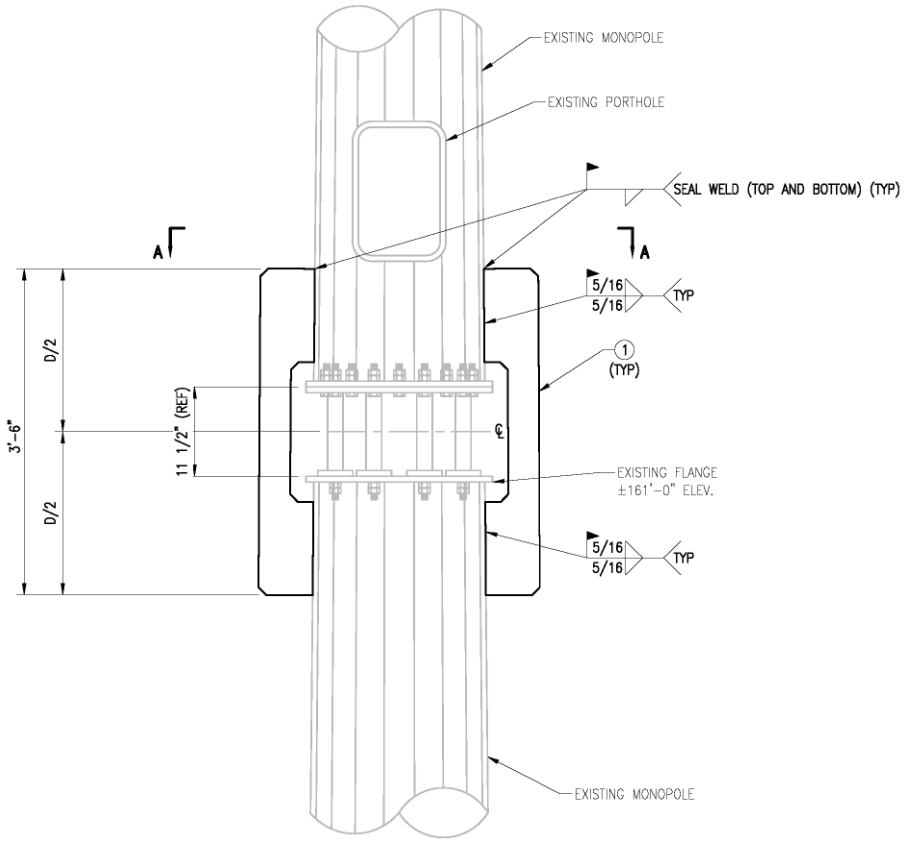
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BS	01/18/22

SHEET TITLE:
TOWER PROFILE

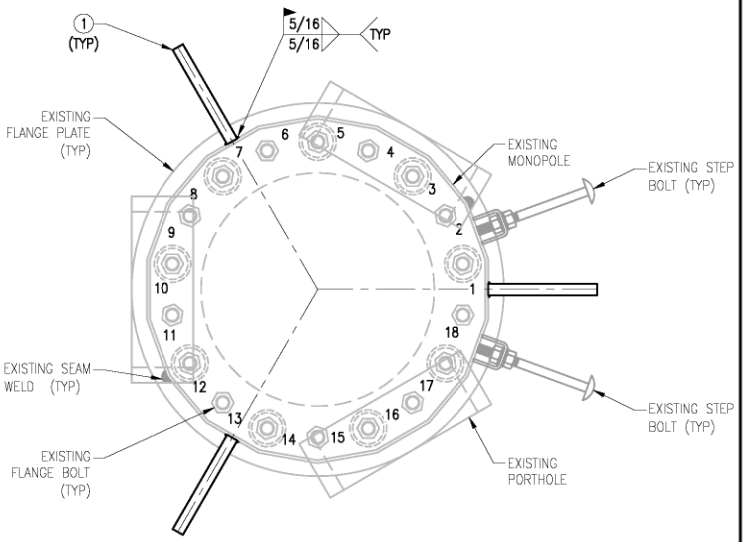
SHEET NUMBER: A-1
REV #: 0

NOTES:

1. WELD TYPE: E70XX
2. APPLY (2) COATS ZINGA COLD GALVANIZING COMPOUND ON ALL FIELD WELDED AREAS



ELEVATION VIEW



SECTION "A–A"

FIELD WELD NOTES:

FOLLOWING GUIDELINES SHALL BE COMPLIED WITH:

1. CONTRACTOR'S RESPONSIBILITY TO COMPLETE A HOT WORK PLAN IF AWARDED PER CUSTOMER SPECIFICATIONS GUIDELINES FOR WELDING, CUTTING & SPARK PRODUCING WORK.
2. HAVE A FIRE PLAN APPROVED BY THE CUSTOMER AND THEIR SAFETY MANAGEMENT DEPT.
3. CONTRACTOR MUST OBTAIN THE CONTACT INFO OF THE LOCAL FIRE DEPARTMENT AND THE 911 ADDRESS OF THE TOWER SITE BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL MAKE SURE THAT CELL PHONE COVERAGE IS AVAILABLE IN THE TOWER SITE. IF CELL COVERAGE IS NOT AVAILABLE, AN IMMEDIATE AVAILABLE MEANS OF DIRECT COMMUNICATION WITH THE FIRE DEPARTMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION START.
5. ALL CONSTRUCTION SHALL BE PERFORMED UNDER WIND SPEED LESS THAN 10 MPH ON THE GROUND LEVEL. IF WIND SPEED INCREASE, CONTRACTOR MUST DETERMINE IF CONSTRUCTION SHALL BE DISCONTINUED.
6. FIRE SUPPRESSION EQUIPMENT MUST BE MADE AVAILABLE ON SITE AND READY TO USE.
7. CONTRACTOR SHALL ASSIGN A FIRE WATCHER TO PERFORM FIRE–FIGHTING DUTIES.
8. ALL WELDERS SHALL BE AWS OR STATE CERTIFIED. THEY MUST ALSO BE EXPERIENCED IN WELDING ON GALVANIZED MATERIALS.
9. IF IT IS POSSIBLE, ALL EXISTING COAX NEAR WELDING AREA SHALL BE TEMPORARILY MOVED AWAY FROM THE WELDING AREA BEFORE WELDING THE PLATES.
10. REFER TO GN–1 SHEET FOR ADDITIONAL CONSTRUCTION INSTRUCTION AND REQUIREMENT.
11. PLEASE REPORT ANY FIELD ISSUE TO TES @ 972–483–0607.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	3	FPL–1	PL 3/4" X 7" X 3'–6" A572–50

TES
Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PHONE: (972) 483–0607

SBA
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800)–487–SITE

TES JOB NO:
121972

CUSTOMER SITE NO:
CT01915–S–SBA
CUSTOMER SITE NAME:
SOUTH BROOKLYN
100 OLD TATNIC HILL ROAD
BROOKLYN, CT 06234

DRAWN BY: BS | CHECKED BY: RK/AD

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BS	01/18/22

SHEET TITLE:

FLANGE STIFFENER INSTALLATION DETAILS

SHEET NUMBER: A–2 | REV #: 0

Maser Consulting Connecticut
2000 Midlantic Drive Suite 100
Mt. Laurel, NJ 08054
856.797.0412
Peter.Albano@colliersengineering.com

Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10099557
Maser Consulting Connecticut Project #: 21777249A

September 2, 2021

Site Information	*Site ID:*	*467252-VZW / BROOKLYN CT*
	Site Name:	*BROOKLYN CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*130 Old Tatnic Hill Rd* *Brooklyn, Connecticut 06095* *Windham County*
	Latitude:	*41.767161°*
	Longitude:	*-71.971950°*
Structure Information	*Tower Type:*	*176-Ft Monopole*
	Mount Type:	*14.36-Ft Platform*

FUZE ID # 16272042

Analysis Results

Platform: **78.9% Pass**

******Contractor PMI Requirements*:**
Included at the end of this MA report
Available & Submitted via portal at https://pmi.vzwsmart.com
Contractor - Please Review Specific Site PMI Requirements Upon Award
Requirements also Noted on Mount Modification Drawings
Requirements may also be Noted on A & E drawings

Report Prepared By: Lauren Luzier

STATE OF CONNECTICUT
ERIC T. ANDERSON
32224
LICENSED PROFESSIONAL ENGINEER

Digitally signed by Eric Anderson
Date: 2021.09.07 14:54:17-04'00'

Executive Summary:

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

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

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS Site ID: 323501, dated March 3, 2021*
Mount Mapping Report	*Hudson Design Group, LLC, Site ID: 467252, dated August 10, 2021*
Previous Mount Analysis Report	*Maser Consulting Connecticut Project #: 21777249A, dated August 27, 2021*
Mount Modification Drawings	*Maser Consulting Connecticut Project #: 21777249A, dated September 7, 2021*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	122 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	B
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.981
Seismic Parameters:	S_S:	0.185
	S_1:	0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
175.50	177.00	6	JMA Wireless	MX06FRO660-03	Added
		3	Samsung	MT6407-77A	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		1	Raycap	RVZDC-6627-PF-48	
		3	Amphenol Antel	BXA-70080-6CF-EDIN	Retained

The recent mount mapping did report existing OVP units. However, 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.

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 Maser Consulting Connecticut 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 Maser Consulting 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 by Maser Consulting Connecticut, 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. Maser Consulting is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

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

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

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Maser Consulting.

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff_1	*24.5 %*	*Pass*
Standoff_2	*10.1 %*	*Pass*
Grating Angle	*32.9 %*	*Pass*
Cross Members	*22.6 %*	*Pass*
Face Horizontal	*78.9 %*	*Pass*
Mount Pipe	*41.0 %*	*Pass*
Support Rail	*22.4 %*	*Pass*
Support Rail Corner	*31.8 %*	*Pass*
Kicker	*7.5 %*	*Pass*
Mount Connection	*24.3 %*	*Pass*

Structure Rating – *(Controlling Utilization of all Components)*	**78.9%**

Recommendation:

The existing mount will be **SUFFICIENT** for the final loading after the proposed modifications are successfully completed.

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

Attachments:

1. Mount Photos
2. Mount Mapping Report (for reference only)
3. Analysis Calculations
4. **Contractor Required PMI Report Deliverables**
5. Antenna Placement Diagrams
6. TIA Adoption and Wind Speed Usage Letter

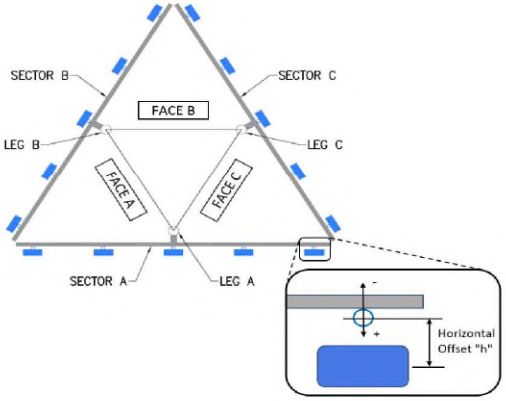
V4.0 Updated on 3-31-2021

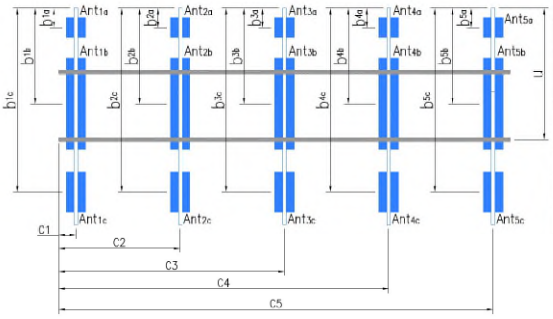
Antenna Mount Mapping Form (PATENT PENDING)

FCC # 1231795

Tower Owner:	OTHER	**Mapping Date:**	8/10/2021
Site Name:	BROOKLYN CT	**Tower Type:**	Monopole
Site Number or ID:	467252	**Tower Height (Ft.):**	177'-0"
Mapping Contractor:	HUDSON DESIGHN GROUP LLC,	**Mount Elevation (Ft.):**	176.8

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





Antenna Layout (Looking Out From Tower)

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	2" STD. PIPE X 96" LONG	48.00	16.00	C1	2" STD. PIPE X 96" LONG	48.00	16.00
A2	2" STD. PIPE X 96" LONG	48.00	80.00	C2	2" STD. PIPE X 96" LONG	48.00	80.00
A3	2" STD. PIPE X 96" LONG	48.00	128.00	C3	2" STD. PIPE X 96" LONG	48.00	128.00
A4	2" STD. PIPE X 96" LONG	48.00	132.00	C4	2" STD. PIPE X 96" LONG	48.00	132.00
A5				C5			
A6				C6			
B1	2" STD. PIPE X 96" LONG	48.00	16.00	D1			
B2	2" STD. PIPE X 96" LONG	48.00	80.00	D2			
B3	2" STD. PIPE X 96" LONG	48.00	128.00	D3			
B4	2" STD. PIPE X 96" LONG	48.00	132.00	D4			
B5				D5			
B6				D6			

Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	16.00
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 infomation or comments below.

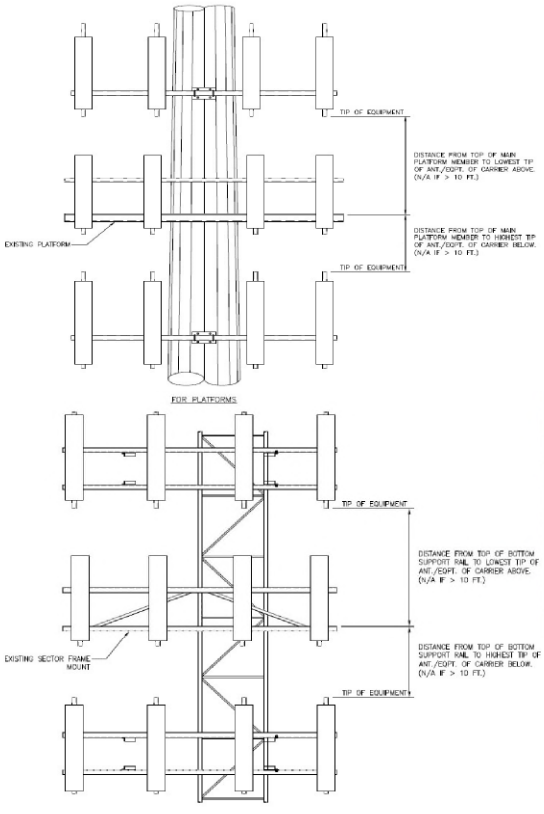
Tower Face Width at Mount Elev. (ft.):		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	22
For T-Arms/Platforms on monopoles, report the weld size from the main standoff to the plate bolting into the collar mount.			0.375

	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant_{1a}	9442 RRH2x40-AWS	12.00	8.00	25.00		177.717	21.00	-7.00		58
Ant_{1b}	W8X066X19R050G	7.00	3.00	77.00		176.467	36.00	6.00	45.00	26,58
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	BXA-70063-6CF-EDIN-	11.00	7.00	72.00		173.467	72.00	12.00	45.00	27,59
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BXA-171085-12CF-EDI	6.00	4.00	72.00		173.467	72.00	7.00	45.00	28,60
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	BXA-70080-6CF-EDIN	8.00	5.00	72.00		173.467	72.00	10.00	45.00	29,60
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

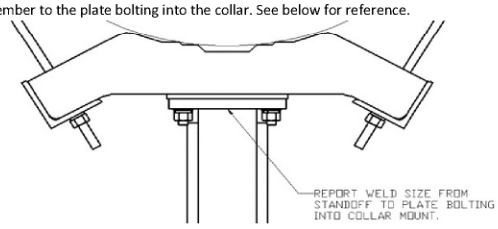
Mount Azimuth (Degree) for Each Sector			Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	45.00	Deg	Leg A:	Deg
Sector B:	165.00	Deg	Leg B:	Deg
Sector C:	285.00	Deg	Leg C:	Deg
Sector D:		Deg	Leg D:	Deg

Climbing Facility Information		
Location:	40.00 Deg	N/A
Climbing Facility	Corrosion Type:	Good condition.
	Access:	Climbing path was obstructed.
	Condition:	Good condition.

Please insert a photo of the mount centerline measurement here.



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.



Sector B										
Ant_{1a}	9442 RRH2x40-AWS	12.00	8.00	25.00		177.717	21.00	-7.00		61
Ant_{1b}	W8X066X19R050G	7.00	3.00	77.00		176.467	36.00	6.00	165.00	34,61
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	BXA-70063-6CF-EDIN-	11.00	7.00	72.00		176.967	30.00	12.00	165.00	35,62
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BXA-171085-12CF-EDI	6.00	4.00	72.00		173.467	72.00	7.00	165.00	36,63
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	BXA-70080-6CF-EDIN	8.00	5.00	72.00		173.467	72.00	10.00	165.00	36,63
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}	9442 RRH2x40-AWS	12.00	8.00	25.00		177.717	21.00	-7.00		64
Ant_{1b}	W8X066X19R050G	7.00	3.00	77.00		176.467	36.00	6.00	285.00	41,64
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	BXA-70063-6CF-EDIN-	11.00	7.00	72.00		176.967	30.00	12.00	285.00	42,65
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BXA-171085-12CF-EDI	6.00	4.00	72.00		176.633	34.00	7.00	285.00	43,66
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	BXA-70080-6CF-EDIN	8.00	5.00	72.00		176.967	30.00	10.00	285.00	43,66
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
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										

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #
1	BENT CLIMBING PEG	140
2	SAFETY CLIMB IS TWISTED AT TOP	57
3	SAFETY CLIMB IS TRAPPED BEHIND RING MOUNT	139
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
1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)
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.
3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.
4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.
5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.
6. Please measure and report the size and length of all existing antenna mounting pipes.
7. Please measure and report the antenna information for all sectors.
8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

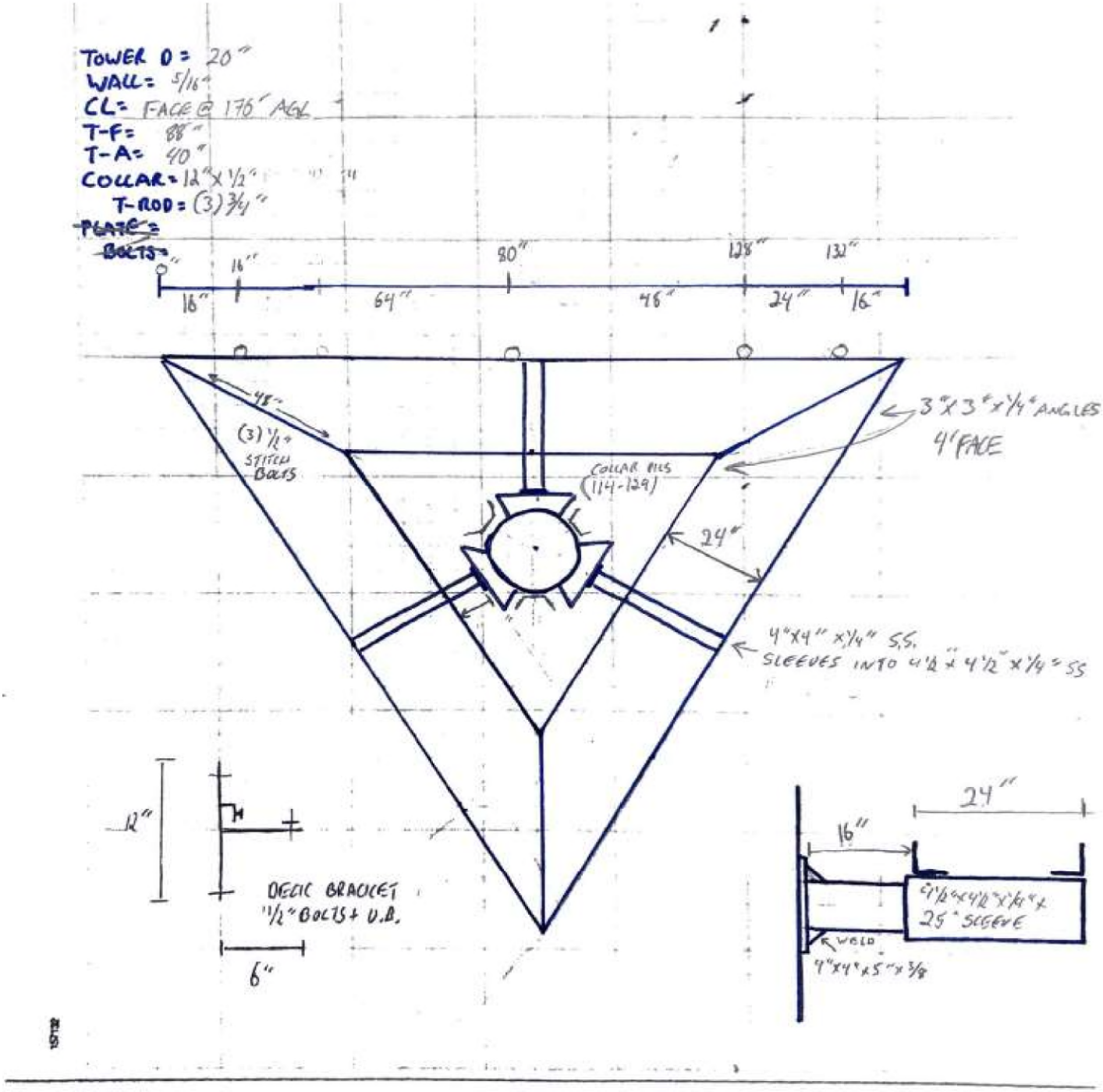
Standard Conditions
1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.

Antenna Mount Mapping Form (PATENT PENDING)

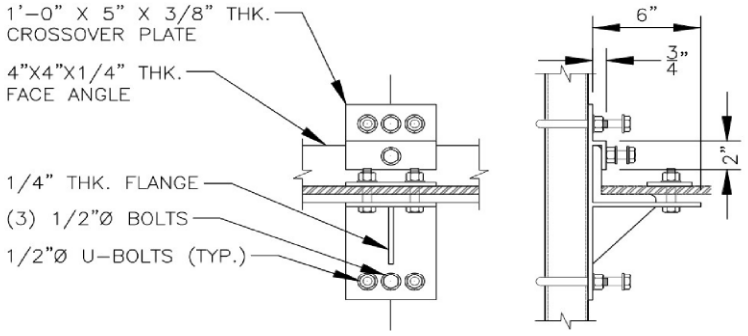
FCC # 1231795

Tower Owner:	OTHER	Mapping Date:	8/10/2021
Site Name:	BROOKLYN CT	Tower Type:	Monopole
Site Number or ID:	467252	Tower Height (Ft.):	177'-0"
Mapping Contractor:	HUDSON DESIGHN GROUP LLC,	Mount Elevation (Ft.):	176.8

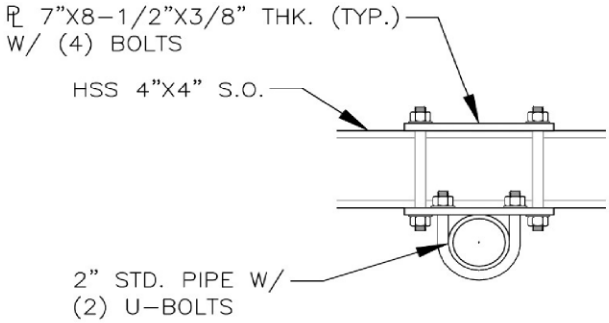
Please Insert Sketches of the Antenna Mount



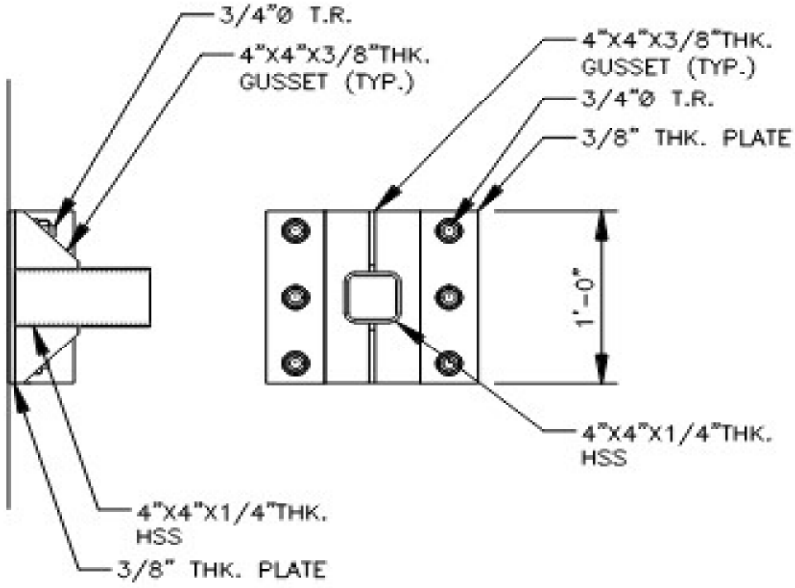
Please Insert Sketches of the Antenna Mount, cont'd



CROSSOVER PLATE DETAIL



S.O. MOUNT DETAIL



RING MOUNT STANDOFF DETAIL

Please Insert Sketches of the Antenna Mount, cont'd

Please Insert Sketches of the Antenna Mount, cont'd

Please Insert Sketches of the Antenna Mount, cont'd

Antenna Mount Mapping Form (PATENT PENDING)

FCC # 1231795

Tower Owner:	OTHER	**Mapping Date:**	8/10/2021
Site Name:	BROOKLYN CT	**Tower Type:**	Monopole
Site Number or ID:	467252	**Tower Height (Ft.):**	177'-0"
Mapping Contractor:	HUDSON DESIGHN GROUP LLC,	**Mount Elevation (Ft.):**	176.8

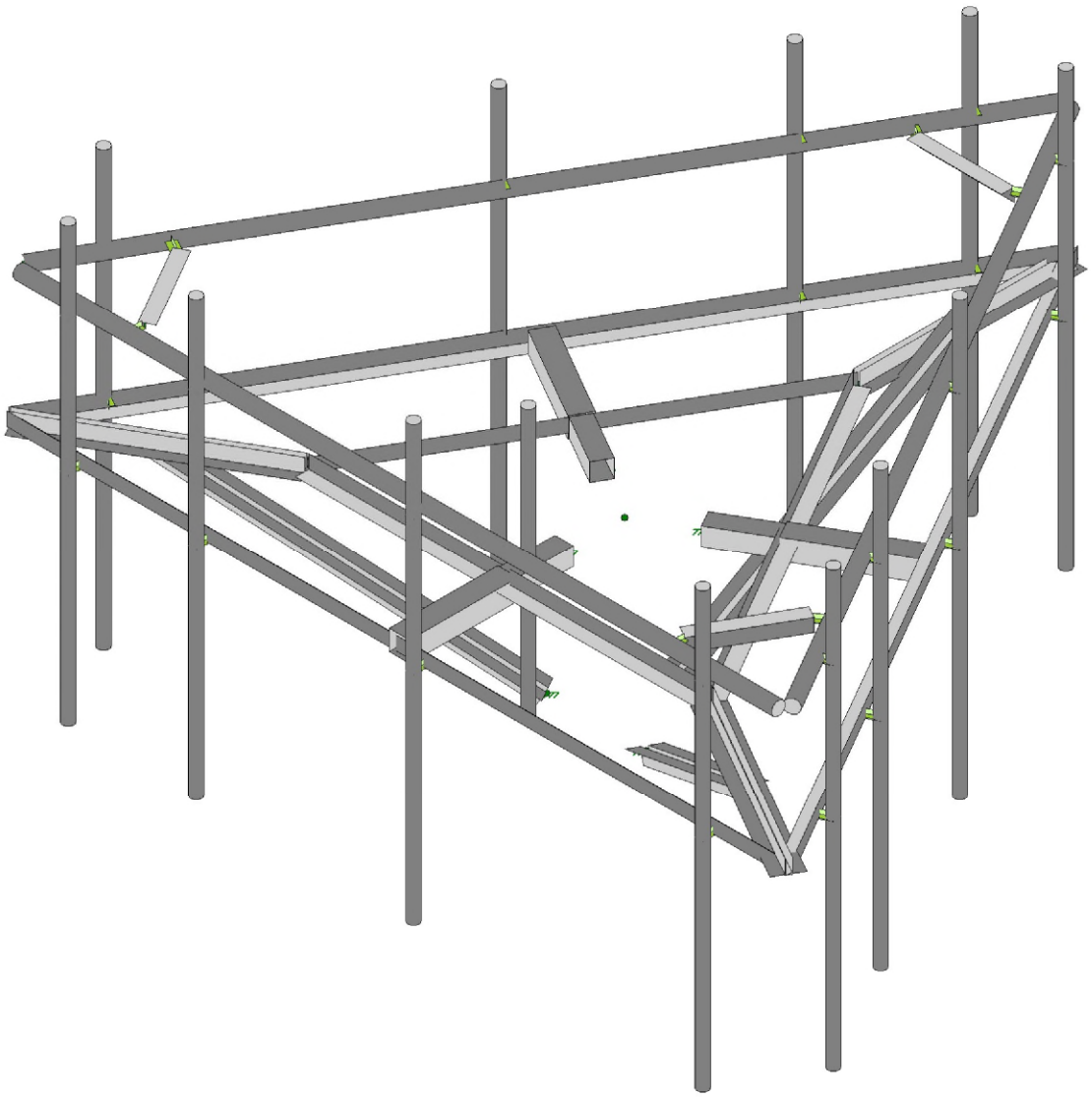
Please enter information about transmission lines.

Transmission Line Type (Pick from List)	Quantity	Diameter/Size (in.) Please add a description if using type "Other".	Located on Tower Face	Photo #	Additional Comments
All Sectors					
Coax	12	1-5/8"	INSIDE	22	
Hybrid	1	1-1/4"	INSIDE	22	

Please enter information about additional RF equipment.

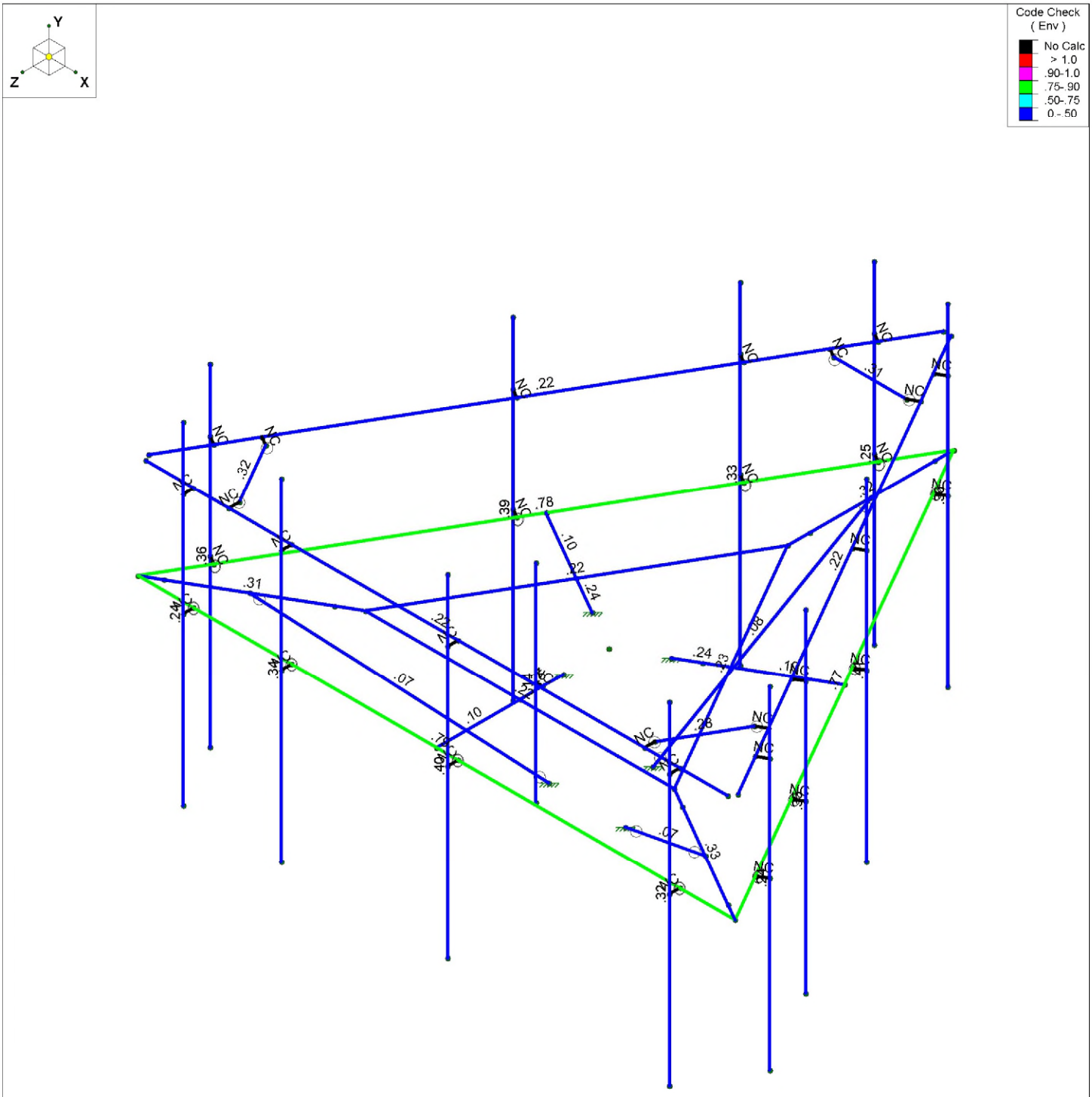
Equipment Type (Pick from List)	Quantity	Model Numbers if Known	Width (in.)	Depth (in.)	Height (in.)	Location	Photo #	Additional Comments
Sector A								
OVP	1	RHSDC-3315-PF-48	15.00	10.00	28.00	MOUNT STAND OFF	103	2" STD. PIPE X 36" LONG "U" = 31"
Sector B								
Sector C								

Equipment Type (Pick from List)	Quantity	Model Numbers if Known	Width (in.)	Depth (in.)	Height (in.)	Location	Photo #	Additional Comments
Sector D								
Ground Equipment								



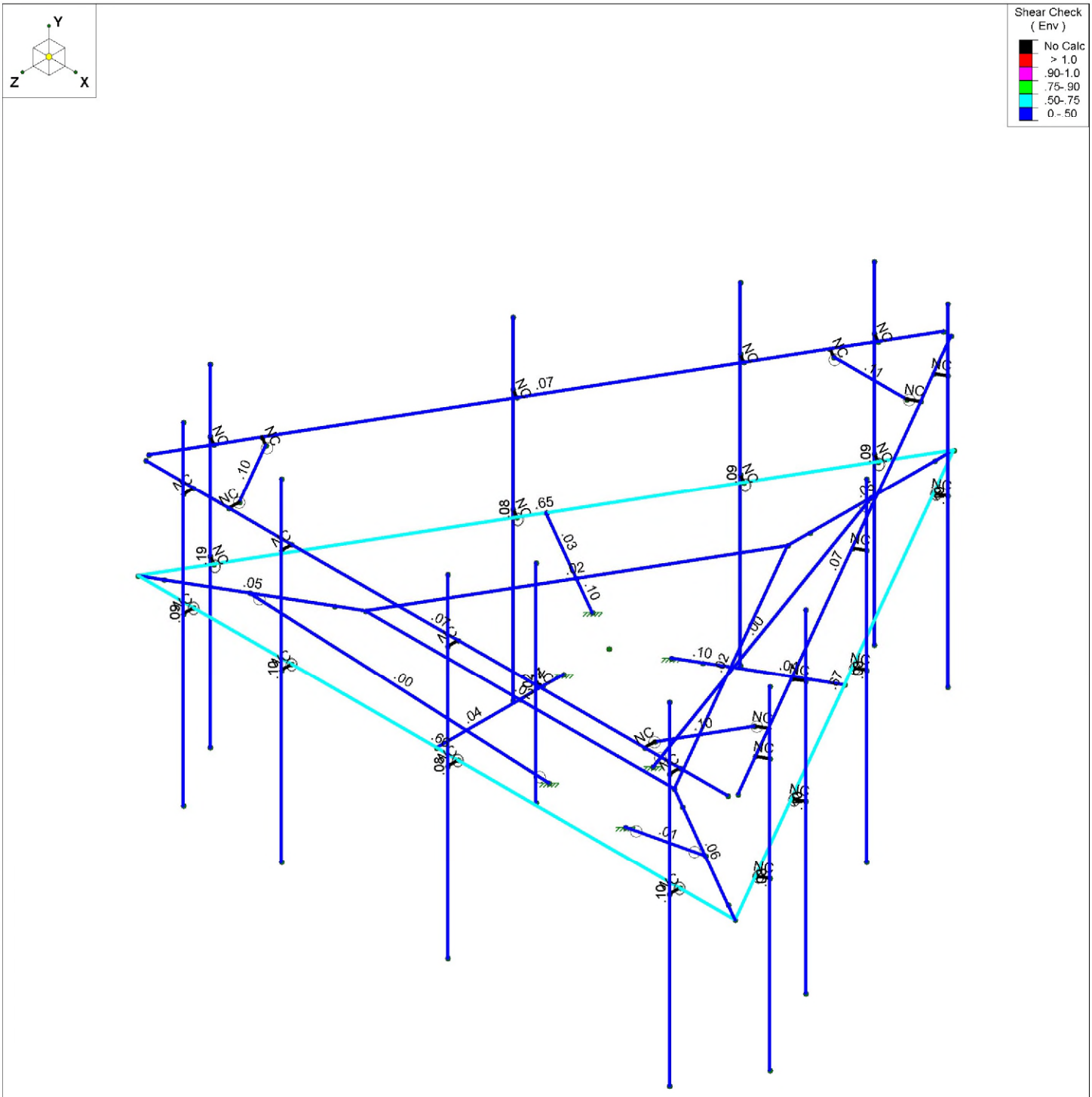
Envelope Only Solution

Maser Consulting	467252-VZW_MT_LO_H	SK - 1
MNC		Sept 2, 2021 at 8:53 AM
Project No. 10044616		Option 1 - 467252-VZW_MT_LO_H....



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	467252-VZW_MT_LO_H	SK - 2
MNC		Sept 2, 2021 at 8:53 AM
Project No. 10044616		Option 1 - 467252-VZW_MT_LO_H....



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	467252-VZW_MT_LO_H	SK - 3
MNC		Sept 2, 2021 at 8:54 AM
Project No. 10044616		Option 1 - 467252-VZW_MT_LO_H....

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					3	
40	Structure Di	None						37	3	
41	Structure Wo (0 Deg)	None						74		
42	Structure Wo (30 Deg)	None						74		
43	Structure Wo (60 Deg)	None						74		
44	Structure Wo (90 Deg)	None						74		
45	Structure Wo (120 D...	None						74		
46	Structure Wo (150 D...	None						74		
47	Structure Wo (180 D...	None						74		
48	Structure Wo (210 D...	None						74		
49	Structure Wo (240 D...	None						74		
50	Structure Wo (270 D...	None						74		
51	Structure Wo (300 D...	None						74		
52	Structure Wo (330 D...	None						74		
53	Structure Wi (0 Deg)	None						74		

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						74		
55	Structure Wi (60 Deg)	None						74		
56	Structure Wi (90 Deg)	None						74		
57	Structure Wi (120 De...	None						74		
58	Structure Wi (150 De...	None						74		
59	Structure Wi (180 De...	None						74		
60	Structure Wi (210 De...	None						74		
61	Structure Wi (240 De...	None						74		
62	Structure Wi (270 De...	None						74		
63	Structure Wi (300 De...	None						74		
64	Structure Wi (330 De...	None						74		
65	Structure Wm (0 Deg)	None						74		
66	Structure Wm (30 De...	None						74		
67	Structure Wm (60 De...	None						74		
68	Structure Wm (90 De...	None						74		
69	Structure Wm (120 D...	None						74		
70	Structure Wm (150 D...	None						74		
71	Structure Wm (180 D...	None						74		
72	Structure Wm (210 D...	None						74		
73	Structure Wm (240 D...	None						74		
74	Structure Wm (270 D...	None						74		
75	Structure Wm (300 D...	None						74		
76	Structure Wm (330 D...	None						74		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	BLC 39 Transient Are...	None						30		
82	BLC 40 Transient Are...	None						30		

Load Combinations

	Description	S...	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.2D+1.0Wo (0 ...	Yes	Y		1	1.2	39	1.2	3	1	41	1														
2	1.2D+1.0Wo (30...	Yes	Y		1	1.2	39	1.2	4	1	42	1														
3	1.2D+1.0Wo (60...	Yes	Y		1	1.2	39	1.2	5	1	43	1														
4	1.2D+1.0Wo (90...	Yes	Y		1	1.2	39	1.2	6	1	44	1														
5	1.2D+1.0Wo (12...	Yes	Y		1	1.2	39	1.2	7	1	45	1														
6	1.2D+1.0Wo (15...	Yes	Y		1	1.2	39	1.2	8	1	46	1														
7	1.2D+1.0Wo (18...	Yes	Y		1	1.2	39	1.2	9	1	47	1														
8	1.2D+1.0Wo (21...	Yes	Y		1	1.2	39	1.2	10	1	48	1														
9	1.2D+1.0Wo (24...	Yes	Y		1	1.2	39	1.2	11	1	49	1														
10	1.2D+1.0Wo (27...	Yes	Y		1	1.2	39	1.2	12	1	50	1														
11	1.2D+1.0Wo (30...	Yes	Y		1	1.2	39	1.2	13	1	51	1														
12	1.2D+1.0Wo (33...	Yes	Y		1	1.2	39	1.2	14	1	52	1														
13	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1										
14	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1										
15	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1										
16	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1										
17	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1										
18	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1										
19	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1										
20	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1										
21	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1										
22	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1										
23	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1										

Load Combinations (Continued)

	Description	S...	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
24	1.2D + 1.0Di + 1..	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										
26	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										
27	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1										
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5														
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5														
51	1.4D	Yes	Y		1	1.4	39	1.4																
52	Seismic Mass		Y		1	1	39	1																
53	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX		SY	1	SZ	-1										
54	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	-.866										
55	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5										
56	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	1	SY	1	SZ											
57	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	.5										
58	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	.866										
59	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX		SY	1	SZ	1										
60	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866										
61	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	.5										
62	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	-1	SY	1	SZ											
63	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	-.5										
64	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	-.866										

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	CP	0.	0	-0.	0	
2	N2	0.	0	1.095417	0	
3	N10	-0.	0	-4.291667	0	
4	N11	-0.	0	-4.833334	0	
5	N12	-0.	0	-6.333334	0	
6	N13	-0.	0	-7.833334	0	
7	N14	-0.	0	-8.291667	0	
8	N15	-3.716693	0	2.145833	0	
9	N16	-7.180794	0	4.145833	0	
10	N17	3.716693	0	2.145833	0	
11	N18	7.180794	0	4.145833	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
12	N15A	0.	0	2.145833	0	
13	N16A	0.	0	4.145833	0	
14	N15B	-4.18579	0	2.416667	0	
15	N16B	-5.484828	0	3.166667	0	
16	N17A	-6.783866	0	3.916667	0	
17	N18A	4.18579	0	2.416667	0	
18	N19	5.484828	0	3.166667	0	
19	N20	6.783866	0	3.916667	0	
20	N67	3.597461	0	-2.060682	0	
21	N77	0.948658	0	-0.547709	0	
22	N78	1.858346	0	-1.072917	0	
23	N91	-3.583333	0	-2.085151	0	
24	N109	-0.948659	0	-0.547708	0	
25	N110	-1.858346	0	-1.072917	0	
26	N108A	3.590397	0	-2.072917	0	
27	N110A	-3.590397	0	-2.072917	0	
28	N119B	1.425334	0	-0.822917	0	
29	N35	5.847461	0	4.145833	0	
30	N36	5.847461	0	4.395833	0	
31	N34	5.847461	4	4.395833	0	
32	N35A	5.847461	-4	4.395833	0	
33	N36A	0.514127	0	4.145833	0	
34	N37	0.514127	0	4.395833	0	
35	N38	0.514127	4	4.395833	0	
36	N39	0.514127	-4	4.395833	0	
37	N40	-3.485873	0	4.145833	0	
38	N41	-3.485873	0	4.395833	0	
39	N42	-3.485873	4	4.395833	0	
40	N43	-3.485873	-4	4.395833	0	
41	N44	-5.847464	0	4.145833	0	
42	N45	-5.847464	0	4.395833	0	
43	N46	-5.847464	4	4.395833	0	
44	N47	-5.847464	-4	4.395833	0	
45	N48	0.666667	0	-7.136966	0	
46	N49	0.883173	0	-7.261966	0	
47	N50	0.883173	4	-7.261966	0	
48	N51	0.883173	-4	-7.261966	0	
49	N52	3.333333	0	-2.518164	0	
50	N53	3.54984	0	-2.643164	0	
51	N54	3.54984	4	-2.643164	0	
52	N55	3.54984	-4	-2.643164	0	
53	N56	5.333333	0	0.945937	0	
54	N57	5.54984	0	0.820937	0	
55	N58	5.54984	4	0.820937	0	
56	N59	5.54984	-4	0.820937	0	
57	N60	6.514129	0	2.991136	0	
58	N61	6.730636	0	2.866136	0	
59	N62	6.730636	4	2.866136	0	
60	N63	6.730636	-4	2.866136	0	
61	N64	-6.514127	0	2.991133	0	
62	N65	-6.730634	0	2.866133	0	
63	N66	-6.730634	4	2.866133	0	
64	N67A	-6.730634	-4	2.866133	0	
65	N68	-3.847461	0	-1.627669	0	
66	N69	-4.063967	0	-1.752669	0	
67	N70	-4.063967	4	-1.752669	0	
68	N71	-4.063967	-4	-1.752669	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
69	N72	-1.847461	0	-5.091771	0	
70	N73	-2.063967	0	-5.216771	0	
71	N74	-2.063967	4	-5.216771	0	
72	N75	-2.063967	-4	-5.216771	0	
73	N76	-0.666665	0	-7.136969	0	
74	N77A	-0.883171	0	-7.261969	0	
75	N78A	-0.883171	4	-7.261969	0	
76	N79	-0.883171	-4	-7.261969	0	
77	N80	0.	0	1.595417	0	
78	N81	-0.166666	0	1.595417	0	
79	N82	-0.166666	2.5	1.595417	0	
80	N84	-0.166666	-2.5	1.595417	0	
81	N84A	-6.999794	2.5	4.145833	0	
82	N85	6.999794	2.5	4.145833	0	
83	N86	5.847461	2.5	4.145833	0	
84	N87	5.847461	2.5	4.395833	0	
85	N88	0.514127	2.5	4.145833	0	
86	N89	0.514127	2.5	4.395833	0	
87	N90A	-3.485873	2.5	4.145833	0	
88	N91A	-3.485873	2.5	4.395833	0	
89	N92	-5.847464	2.5	4.145833	0	
90	N93	-5.847464	2.5	4.395833	0	
91	N94	-4.999794	2.5	4.145833	0	
92	N95	-4.999794	2.5	3.895833	0	
93	N96	4.999794	2.5	4.145833	0	
94	N97	4.999794	2.5	3.895833	0	
95	N98	7.090294	2.5	3.989083	0	
96	N99	0.0905	2.5	-8.134916	0	
97	N100	0.666667	2.5	-7.136966	0	
98	N101	0.883173	2.5	-7.261966	0	
99	N102A	3.333333	2.5	-2.518164	0	
100	N103	3.54984	2.5	-2.643164	0	
101	N104	5.333333	2.5	0.945937	0	
102	N105	5.54984	2.5	0.820937	0	
103	N106	6.514129	2.5	2.991136	0	
104	N107	6.730636	2.5	2.866136	0	
105	N108B	6.090294	2.5	2.257032	0	
106	N109A	5.873788	2.5	2.382032	0	
107	N110B	1.0905	2.5	-6.402865	0	
108	N111	0.873994	2.5	-6.277865	0	
109	N112	-0.0905	2.5	-8.134916	0	
110	N113	-7.090294	2.5	3.989083	0	
111	N114	-6.514127	2.5	2.991133	0	
112	N115	-6.730634	2.5	2.866133	0	
113	N116	-3.847461	2.5	-1.627669	0	
114	N117	-4.063967	2.5	-1.752669	0	
115	N118	-1.847461	2.5	-5.091771	0	
116	N119	-2.063967	2.5	-5.216771	0	
117	N120	-0.666665	2.5	-7.136969	0	
118	N121	-0.883171	2.5	-7.261969	0	
119	N122	-1.0905	2.5	-6.402865	0	
120	N123	-0.873994	2.5	-6.277865	0	
121	N124	-6.090294	2.5	2.257032	0	
122	N125	-5.873788	2.5	2.382032	0	
123	N123A	-0.	0	-6.291667	0	
124	N124A	0	-3	-1.058091	0	
125	N126	-0.916334	-3	0.529045	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
126	N128	0.916334	-3	0.529045	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design L...	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Mount Pipe	PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
2	Support Rail	PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
3	Bottom Corner Plate	L15X6.5X6	Beam	Single A...	A36 Gr.36	Typical	7.922	24.473	192.705	.363
4	Standoff_2	HSS4.5X4.5X4	Beam	Tube	A500 Gr.B Rect	Typical	3.84	11.4	11.4	18.5
5	Cross Members	L3X3X4	Beam	Channel	A36 Gr.36	Typical	1.44	1.23	1.23	.031
6	Face Horizontal	L3X3X4	Beam	Single A...	A36 Gr.36	Typical	1.44	1.23	1.23	.031
7	Standoff_1	HSS4X4X4	Beam	Tube	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
8	Grating Angle	LL3x3x4x0	Beam	Double ...	A36 Gr.36	Typical	2.88	4.5	2.46	.063
9	Top Corner Plate	L2.5x2.5x4	Beam	Single A...	A36 Gr.36	Typical	1.19	.692	.692	.026
10	Support Rail Corner	L3X3X4	Beam	Single A...	A36 Gr.36	Typical	1.44	1.23	1.23	.031
11	Support Bracing	L2.5x2.5x4	Column	Single A...	A36 Gr.36	Typical	1.19	.692	.692	.026
12	Kicker	LL3x3x3x3	Column	Double ...	A36 Gr.36	Typical	2.18	4.09	1.9	.027

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	M1	N2	N15A			Standoff_1	Beam	Tube	A500 Gr.B...	Typical
2	M2	N15A	N16A			Standoff_2	Beam	Tube	A500 Gr.B...	Typical
3	M5	N14	N10		180	Grating Angle	Beam	Double Angle (...	A36 Gr.36	Typical
4	M6	N16	N15		180	Grating Angle	Beam	Double Angle (...	A36 Gr.36	Typical
5	M7	N18	N17		180	Grating Angle	Beam	Double Angle (...	A36 Gr.36	Typical
6	M6A	N17	N15		270	Cross Members	Beam	Channel	A36 Gr.36	Typical
7	M7A	N16	N18		270	Face Horizontal	Beam	Single Angle	A36 Gr.36	Typical
8	M23A	N10	N17		270	Cross Members	Beam	Channel	A36 Gr.36	Typical
9	M24	N18	N14		270	Face Horizontal	Beam	Single Angle	A36 Gr.36	Typical
10	M38	N77	N78			Standoff_1	Beam	Tube	A500 Gr.B...	Typical
11	M39A	N15	N10		270	Cross Members	Beam	Channel	A36 Gr.36	Typical
12	M40	N14	N16		270	Face Horizontal	Beam	Single Angle	A36 Gr.36	Typical
13	M54	N109	N110			Standoff_1	Beam	Tube	A500 Gr.B...	Typical
14	M55	N78	N108A			Standoff_2	Beam	Tube	A500 Gr.B...	Typical
15	M56	N110	N110A			Standoff_2	Beam	Tube	A500 Gr.B...	Typical
16	M16	N35	N36			RIGID	None	None	RIGID	Typical
17	MP1A	N34	N35A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
18	M18	N36A	N37			RIGID	None	None	RIGID	Typical
19	MP2A	N38	N39			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
20	M20	N40	N41			RIGID	None	None	RIGID	Typical
21	MP3A	N42	N43			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
22	M22	N44	N45			RIGID	None	None	RIGID	Typical
23	MP4A	N46	N47			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
24	M24A	N48	N49			RIGID	None	None	RIGID	Typical
25	MP1C	N50	N51			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
26	M26	N52	N53			RIGID	None	None	RIGID	Typical
27	MP2C	N54	N55			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
28	M28	N56	N57			RIGID	None	None	RIGID	Typical
29	MP3C	N58	N59			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
30	M30	N60	N61			RIGID	None	None	RIGID	Typical
31	MP4C	N62	N63			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
32	M32	N64	N65			RIGID	None	None	RIGID	Typical
33	MP1B	N66	N67A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
34	M34	N68	N69			RIGID	None	None	RIGID	Typical
35	MP2B	N70	N71			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
36	M36	N72	N73			RIGID	None	None	RIGID	Typical
37	MP3B	N74	N75			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
38	M38A	N76	N77A			RIGID	None	None	RIGID	Typical
39	MP4B	N78A	N79			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
40	M40A	N80	N81			RIGID	None	None	RIGID	Typical
41	M41	N82	N84			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
42	M42	N84A	N85		270	Support Rail	Beam	Pipe	A53 Gr.B	Typical
43	M43	N86	N87			RIGID	None	None	RIGID	Typical
44	M44	N88	N89			RIGID	None	None	RIGID	Typical
45	M45	N90A	N91A			RIGID	None	None	RIGID	Typical
46	M46	N92	N93			RIGID	None	None	RIGID	Typical
47	M47	N94	N95			RIGID	None	None	RIGID	Typical
48	M48	N96	N97			RIGID	None	None	RIGID	Typical
49	M49	N98	N99		270	Support Rail	Beam	Pipe	A53 Gr.B	Typical
50	M50	N100	N101			RIGID	None	None	RIGID	Typical
51	M51	N102A	N103			RIGID	None	None	RIGID	Typical
52	M52	N104	N105			RIGID	None	None	RIGID	Typical
53	M53	N106	N107			RIGID	None	None	RIGID	Typical
54	M54A	N108B	N109A			RIGID	None	None	RIGID	Typical
55	M55A	N110B	N111			RIGID	None	None	RIGID	Typical
56	M56A	N112	N113		270	Support Rail	Beam	Pipe	A53 Gr.B	Typical
57	M57	N114	N115			RIGID	None	None	RIGID	Typical
58	M58	N116	N117			RIGID	None	None	RIGID	Typical
59	M59	N118	N119			RIGID	None	None	RIGID	Typical
60	M60	N120	N121			RIGID	None	None	RIGID	Typical
61	M61	N122	N123			RIGID	None	None	RIGID	Typical
62	M62	N124	N125			RIGID	None	None	RIGID	Typical
63	M63	N95	N125		90	Support Rail C...	Beam	Single Angle	A36 Gr.36	Typical
64	M64	N123	N111		90	Support Rail C...	Beam	Single Angle	A36 Gr.36	Typical
65	M65	N109A	N97		90	Support Rail C...	Beam	Single Angle	A36 Gr.36	Typical
66	M66	N12	N124A			Kicker	Column	Double Angle (...	A36 Gr.36	Typical
67	M67	N16B	N126			Kicker	Column	Double Angle (...	A36 Gr.36	Typical
68	M68	N19	N128			Kicker	Column	Double Angle (...	A36 Gr.36	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes				None
2	M2						Yes				None
3	M5						Yes				None
4	M6						Yes				None
5	M7						Yes				None
6	M6A						Yes				None
7	M7A						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...
8	M23A						Yes				None
9	M24						Yes				None
10	M38						Yes				None
11	M39A						Yes				None
12	M40						Yes				None
13	M54						Yes				None
14	M55						Yes				None
15	M56						Yes				None
16	M16		OOOXOO				Yes	** NA **			None
17	MP1A						Yes				None
18	M18		OOOXOO				Yes	** NA **			None
19	MP2A						Yes				None
20	M20		OOOXOO				Yes	** NA **			None
21	MP3A						Yes				None
22	M22		OOOXOO				Yes	** NA **			None
23	MP4A						Yes				None
24	M24A		OOOXOO				Yes	** NA **			None
25	MP1C						Yes				None
26	M26		OOOXOO				Yes	** NA **			None
27	MP2C						Yes				None
28	M28		OOOXOO				Yes	** NA **			None
29	MP3C						Yes				None
30	M30		OOOXOO				Yes	** NA **			None
31	MP4C						Yes				None
32	M32		OOOXOO				Yes	** NA **			None
33	MP1B						Yes				None
34	M34		OOOXOO				Yes	** NA **			None
35	MP2B						Yes				None
36	M36		OOOXOO				Yes	** NA **			None
37	MP3B						Yes				None
38	M38A		OOOXOO				Yes	** NA **			None
39	MP4B						Yes				None
40	M40A						Yes	** NA **			None
41	M41						Yes	Default			None
42	M42						Yes				None
43	M43						Yes	** NA **			None
44	M44						Yes	** NA **			None
45	M45						Yes	** NA **			None
46	M46						Yes	** NA **			None
47	M47	OOOOOX					Yes	** NA **			None
48	M48	OOOOOX					Yes	** NA **			None
49	M49						Yes				None
50	M50						Yes	** NA **			None
51	M51						Yes	** NA **			None
52	M52						Yes	** NA **			None
53	M53						Yes	** NA **			None
54	M54A	OOOOOX					Yes	** NA **			None
55	M55A	OOOOOX					Yes	** NA **			None
56	M56A						Yes				None
57	M57						Yes	** NA **			None
58	M58						Yes	** NA **			None
59	M59						Yes	** NA **			None
60	M60						Yes	** NA **			None
61	M61	OOOOOX					Yes	** NA **			None
62	M62	OOOOOX					Yes	** NA **			None
63	M63						Yes				None
64	M64						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...
65	M65						Yes				None
66	M66	BenPIN	BenPIN				Yes	** NA **			None
67	M67	BenPIN	BenPIN				Yes	** NA **			None
68	M68	BenPIN	BenPIN				Yes	** NA **			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-23	.5
2	MP1A	My	-.021	.5
3	MP1A	Mz	.015	.5
4	MP1A	Y	-23	5.5
5	MP1A	My	-.021	5.5
6	MP1A	Mz	.015	5.5
7	MP1B	Y	-23	.5
8	MP1B	My	-.003	.5
9	MP1B	Mz	-.026	.5
10	MP1B	Y	-23	5.5
11	MP1B	My	-.003	5.5
12	MP1B	Mz	-.026	5.5
13	MP1C	Y	-23	.5
14	MP1C	My	.024	.5
15	MP1C	Mz	.011	.5
16	MP1C	Y	-23	5.5
17	MP1C	My	.024	5.5
18	MP1C	Mz	.011	5.5
19	MP1A	Y	-23	.5
20	MP1A	My	.024	.5
21	MP1A	Mz	-.011	.5
22	MP1A	Y	-23	5.5
23	MP1A	My	.024	5.5
24	MP1A	Mz	-.011	5.5
25	MP1B	Y	-23	.5
26	MP1B	My	.024	.5
27	MP1B	Mz	-.011	.5
28	MP1B	Y	-23	5.5
29	MP1B	My	.024	5.5
30	MP1B	Mz	-.011	5.5
31	MP1C	Y	-23	.5
32	MP1C	My	-.003	.5
33	MP1C	Mz	.026	.5
34	MP1C	Y	-23	5.5
35	MP1C	My	-.003	5.5
36	MP1C	Mz	.026	5.5
37	MP3A	Y	-43.55	1.5
38	MP3A	My	-.018	1.5
39	MP3A	Mz	0	1.5
40	MP3A	Y	-43.55	3.5
41	MP3A	My	-.018	3.5
42	MP3A	Mz	0	3.5
43	MP3B	Y	-43.55	1.5
44	MP3B	My	.009	1.5
45	MP3B	Mz	-.016	1.5
46	MP3B	Y	-43.55	3.5
47	MP3B	My	.009	3.5
48	MP3B	Mz	-.016	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
49	MP3C	Y	-43.55	1.5
50	MP3C	My	.009	1.5
51	MP3C	Mz	.016	1.5
52	MP3C	Y	-43.55	3.5
53	MP3C	My	.009	3.5
54	MP3C	Mz	.016	3.5
55	MP1A	Y	-84.4	3
56	MP1A	My	.042	3
57	MP1A	Mz	0	3
58	MP1B	Y	-84.4	3
59	MP1B	My	-.021	3
60	MP1B	Mz	.037	3
61	MP1C	Y	-84.4	3
62	MP1C	My	-.021	3
63	MP1C	Mz	-.037	3
64	MP2A	Y	-70.3	3
65	MP2A	My	.035	3
66	MP2A	Mz	0	3
67	MP2B	Y	-70.3	3
68	MP2B	My	-.018	3
69	MP2B	Mz	.03	3
70	MP2C	Y	-70.3	3
71	MP2C	My	-.018	3
72	MP2C	Mz	-.03	3
73	M41	Y	-32	1
74	M41	My	0	1
75	M41	Mz	0	1
76	MP4A	Y	-9	.5
77	MP4A	My	-.004	.5
78	MP4A	Mz	0	.5
79	MP4A	Y	-9	5.5
80	MP4A	My	-.004	5.5
81	MP4A	Mz	0	5.5
82	MP4B	Y	-9	.5
83	MP4B	My	.002	.5
84	MP4B	Mz	-.004	.5
85	MP4B	Y	-9	5.5
86	MP4B	My	.002	5.5
87	MP4B	Mz	-.004	5.5
88	MP4C	Y	-9	.5
89	MP4C	My	.002	.5
90	MP4C	Mz	.004	.5
91	MP4C	Y	-9	5.5
92	MP4C	My	.002	5.5
93	MP4C	Mz	.004	5.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-84.627	.5
2	MP1A	My	-.078	.5
3	MP1A	Mz	.056	.5
4	MP1A	Y	-84.627	5.5
5	MP1A	My	-.078	5.5
6	MP1A	Mz	.056	5.5
7	MP1B	Y	-84.627	.5
8	MP1B	My	-.01	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP1B	Mz	-.095	.5
10	MP1B	Y	-84.627	5.5
11	MP1B	My	-.01	5.5
12	MP1B	Mz	-.095	5.5
13	MP1C	Y	-84.627	.5
14	MP1C	My	.088	.5
15	MP1C	Mz	.039	.5
16	MP1C	Y	-84.627	5.5
17	MP1C	My	.088	5.5
18	MP1C	Mz	.039	5.5
19	MP1A	Y	-84.627	.5
20	MP1A	My	.088	.5
21	MP1A	Mz	-.039	.5
22	MP1A	Y	-84.627	5.5
23	MP1A	My	.088	5.5
24	MP1A	Mz	-.039	5.5
25	MP1B	Y	-84.627	.5
26	MP1B	My	.088	.5
27	MP1B	Mz	-.039	.5
28	MP1B	Y	-84.627	5.5
29	MP1B	My	.088	5.5
30	MP1B	Mz	-.039	5.5
31	MP1C	Y	-84.627	.5
32	MP1C	My	-.01	.5
33	MP1C	Mz	.095	.5
34	MP1C	Y	-84.627	5.5
35	MP1C	My	-.01	5.5
36	MP1C	Mz	.095	5.5
37	MP3A	Y	-36.574	1.5
38	MP3A	My	-.015	1.5
39	MP3A	Mz	0	1.5
40	MP3A	Y	-36.574	3.5
41	MP3A	My	-.015	3.5
42	MP3A	Mz	0	3.5
43	MP3B	Y	-36.574	1.5
44	MP3B	My	.008	1.5
45	MP3B	Mz	-.013	1.5
46	MP3B	Y	-36.574	3.5
47	MP3B	My	.008	3.5
48	MP3B	Mz	-.013	3.5
49	MP3C	Y	-36.574	1.5
50	MP3C	My	.008	1.5
51	MP3C	Mz	.013	1.5
52	MP3C	Y	-36.574	3.5
53	MP3C	My	.008	3.5
54	MP3C	Mz	.013	3.5
55	MP1A	Y	-46.13	3
56	MP1A	My	.023	3
57	MP1A	Mz	0	3
58	MP1B	Y	-46.13	3
59	MP1B	My	-.012	3
60	MP1B	Mz	.02	3
61	MP1C	Y	-46.13	3
62	MP1C	My	-.012	3
63	MP1C	Mz	-.02	3
64	MP2A	Y	-41.493	3
65	MP2A	My	.021	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
66	MP2A	Mz	0	3
67	MP2B	Y	-41.493	3
68	MP2B	My	-.01	3
69	MP2B	Mz	.018	3
70	MP2C	Y	-41.493	3
71	MP2C	My	-.01	3
72	MP2C	Mz	-.018	3
73	M41	Y	-90.244	1
74	M41	My	0	1
75	M41	Mz	0	1
76	MP4A	Y	-45.757	.5
77	MP4A	My	-.023	.5
78	MP4A	Mz	0	.5
79	MP4A	Y	-45.757	5.5
80	MP4A	My	-.023	5.5
81	MP4A	Mz	0	5.5
82	MP4B	Y	-45.757	.5
83	MP4B	My	.011	.5
84	MP4B	Mz	-.02	.5
85	MP4B	Y	-45.757	5.5
86	MP4B	My	.011	5.5
87	MP4B	Mz	-.02	5.5
88	MP4C	Y	-45.757	.5
89	MP4C	My	.011	.5
90	MP4C	Mz	.02	.5
91	MP4C	Y	-45.757	5.5
92	MP4C	My	.011	5.5
93	MP4C	Mz	.02	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.5
2	MP1A	Z	-183.081	.5
3	MP1A	Mx	-.122	.5
4	MP1A	X	0	5.5
5	MP1A	Z	-183.081	5.5
6	MP1A	Mx	-.122	5.5
7	MP1B	X	0	.5
8	MP1B	Z	-147.856	.5
9	MP1B	Mx	.167	.5
10	MP1B	X	0	5.5
11	MP1B	Z	-147.856	5.5
12	MP1B	Mx	.167	5.5
13	MP1C	X	0	.5
14	MP1C	Z	-147.856	.5
15	MP1C	Mx	-.068	.5
16	MP1C	X	0	5.5
17	MP1C	Z	-147.856	5.5
18	MP1C	Mx	-.068	5.5
19	MP1A	X	0	.5
20	MP1A	Z	-147.856	.5
21	MP1A	Mx	.068	.5
22	MP1A	X	0	5.5
23	MP1A	Z	-147.856	5.5
24	MP1A	Mx	.068	5.5
25	MP1B	X	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP1B	Z	-147.856	.5
27	MP1B	Mx	.068	.5
28	MP1B	X	0	5.5
29	MP1B	Z	-147.856	5.5
30	MP1B	Mx	.068	5.5
31	MP1C	X	0	.5
32	MP1C	Z	-147.856	.5
33	MP1C	Mx	-.167	.5
34	MP1C	X	0	5.5
35	MP1C	Z	-147.856	5.5
36	MP1C	Mx	-.167	5.5
37	MP3A	X	0	1.5
38	MP3A	Z	-87.182	1.5
39	MP3A	Mx	0	1.5
40	MP3A	X	0	3.5
41	MP3A	Z	-87.182	3.5
42	MP3A	Mx	0	3.5
43	MP3B	X	0	1.5
44	MP3B	Z	-47.394	1.5
45	MP3B	Mx	.017	1.5
46	MP3B	X	0	3.5
47	MP3B	Z	-47.394	3.5
48	MP3B	Mx	.017	3.5
49	MP3C	X	0	1.5
50	MP3C	Z	-47.394	1.5
51	MP3C	Mx	-.017	1.5
52	MP3C	X	0	3.5
53	MP3C	Z	-47.394	3.5
54	MP3C	Mx	-.017	3.5
55	MP1A	X	0	3
56	MP1A	Z	-69.374	3
57	MP1A	Mx	0	3
58	MP1B	X	0	3
59	MP1B	Z	-52.123	3
60	MP1B	Mx	-.023	3
61	MP1C	X	0	3
62	MP1C	Z	-52.123	3
63	MP1C	Mx	.023	3
64	MP2A	X	0	3
65	MP2A	Z	-69.374	3
66	MP2A	Mx	0	3
67	MP2B	X	0	3
68	MP2B	Z	-45.515	3
69	MP2B	Mx	-.02	3
70	MP2C	X	0	3
71	MP2C	Z	-45.515	3
72	MP2C	Mx	.02	3
73	M41	X	0	1
74	M41	Z	-141.693	1
75	M41	Mx	0	1
76	MP4A	X	0	.5
77	MP4A	Z	-106.844	.5
78	MP4A	Mx	0	.5
79	MP4A	X	0	5.5
80	MP4A	Z	-106.844	5.5
81	MP4A	Mx	0	5.5
82	MP4B	X	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
83	MP4B	Z	-90.16	.5
84	MP4B	Mx	.039	.5
85	MP4B	X	0	5.5
86	MP4B	Z	-90.16	5.5
87	MP4B	Mx	.039	5.5
88	MP4C	X	0	.5
89	MP4C	Z	-90.16	.5
90	MP4C	Mx	-.039	.5
91	MP4C	X	0	5.5
92	MP4C	Z	-90.16	5.5
93	MP4C	Mx	-.039	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	85.67	.5
2	MP1A	Z	-148.384	.5
3	MP1A	Mx	-.177	.5
4	MP1A	X	85.67	5.5
5	MP1A	Z	-148.384	5.5
6	MP1A	Mx	-.177	5.5
7	MP1B	X	68.057	.5
8	MP1B	Z	-117.878	.5
9	MP1B	Mx	.125	.5
10	MP1B	X	68.057	5.5
11	MP1B	Z	-117.878	5.5
12	MP1B	Mx	.125	5.5
13	MP1C	X	85.67	.5
14	MP1C	Z	-148.384	.5
15	MP1C	Mx	.02	.5
16	MP1C	X	85.67	5.5
17	MP1C	Z	-148.384	5.5
18	MP1C	Mx	.02	5.5
19	MP1A	X	68.057	.5
20	MP1A	Z	-117.878	.5
21	MP1A	Mx	.125	.5
22	MP1A	X	68.057	5.5
23	MP1A	Z	-117.878	5.5
24	MP1A	Mx	.125	5.5
25	MP1B	X	68.057	.5
26	MP1B	Z	-117.878	.5
27	MP1B	Mx	.125	.5
28	MP1B	X	68.057	5.5
29	MP1B	Z	-117.878	5.5
30	MP1B	Mx	.125	5.5
31	MP1C	X	85.67	.5
32	MP1C	Z	-148.384	.5
33	MP1C	Mx	-.177	.5
34	MP1C	X	85.67	5.5
35	MP1C	Z	-148.384	5.5
36	MP1C	Mx	-.177	5.5
37	MP3A	X	36.96	1.5
38	MP3A	Z	-64.016	1.5
39	MP3A	Mx	-.015	1.5
40	MP3A	X	36.96	3.5
41	MP3A	Z	-64.016	3.5
42	MP3A	Mx	-.015	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
43	MP3B	X	17.066	1.5
44	MP3B	Z	-29.559	1.5
45	MP3B	Mx	.014	1.5
46	MP3B	X	17.066	3.5
47	MP3B	Z	-29.559	3.5
48	MP3B	Mx	.014	3.5
49	MP3C	X	36.96	1.5
50	MP3C	Z	-64.016	1.5
51	MP3C	Mx	-.015	1.5
52	MP3C	X	36.96	3.5
53	MP3C	Z	-64.016	3.5
54	MP3C	Mx	-.015	3.5
55	MP1A	X	31.812	3
56	MP1A	Z	-55.1	3
57	MP1A	Mx	.016	3
58	MP1B	X	23.187	3
59	MP1B	Z	-40.16	3
60	MP1B	Mx	-.023	3
61	MP1C	X	31.812	3
62	MP1C	Z	-55.1	3
63	MP1C	Mx	.016	3
64	MP2A	X	30.711	3
65	MP2A	Z	-53.192	3
66	MP2A	Mx	.015	3
67	MP2B	X	18.781	3
68	MP2B	Z	-32.53	3
69	MP2B	Mx	-.019	3
70	MP2C	X	30.711	3
71	MP2C	Z	-53.192	3
72	MP2C	Mx	.015	3
73	M41	X	61.92	1
74	M41	Z	-107.248	1
75	M41	Mx	0	1
76	MP4A	X	50.641	.5
77	MP4A	Z	-87.713	.5
78	MP4A	Mx	-.025	.5
79	MP4A	X	50.641	5.5
80	MP4A	Z	-87.713	5.5
81	MP4A	Mx	-.025	5.5
82	MP4B	X	42.299	.5
83	MP4B	Z	-73.265	.5
84	MP4B	Mx	.042	.5
85	MP4B	X	42.299	5.5
86	MP4B	Z	-73.265	5.5
87	MP4B	Mx	.042	5.5
88	MP4C	X	50.641	.5
89	MP4C	Z	-87.713	.5
90	MP4C	Mx	-.025	.5
91	MP4C	X	50.641	5.5
92	MP4C	Z	-87.713	5.5
93	MP4C	Mx	-.025	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	128.047	.5
2	MP1A	Z	-73.928	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
3	MP1A	Mx	-.167	.5
4	MP1A	X	128.047	5.5
5	MP1A	Z	-73.928	5.5
6	MP1A	Mx	-.167	5.5
7	MP1B	X	128.047	.5
8	MP1B	Z	-73.928	.5
9	MP1B	Mx	.068	.5
10	MP1B	X	128.047	5.5
11	MP1B	Z	-73.928	5.5
12	MP1B	Mx	.068	5.5
13	MP1C	X	158.553	.5
14	MP1C	Z	-91.541	.5
15	MP1C	Mx	.122	.5
16	MP1C	X	158.553	5.5
17	MP1C	Z	-91.541	5.5
18	MP1C	Mx	.122	5.5
19	MP1A	X	128.047	.5
20	MP1A	Z	-73.928	.5
21	MP1A	Mx	.167	.5
22	MP1A	X	128.047	5.5
23	MP1A	Z	-73.928	5.5
24	MP1A	Mx	.167	5.5
25	MP1B	X	128.047	.5
26	MP1B	Z	-73.928	.5
27	MP1B	Mx	.167	.5
28	MP1B	X	128.047	5.5
29	MP1B	Z	-73.928	5.5
30	MP1B	Mx	.167	5.5
31	MP1C	X	158.553	.5
32	MP1C	Z	-91.541	.5
33	MP1C	Mx	-.122	.5
34	MP1C	X	158.553	5.5
35	MP1C	Z	-91.541	5.5
36	MP1C	Mx	-.122	5.5
37	MP3A	X	41.044	1.5
38	MP3A	Z	-23.697	1.5
39	MP3A	Mx	-.017	1.5
40	MP3A	X	41.044	3.5
41	MP3A	Z	-23.697	3.5
42	MP3A	Mx	-.017	3.5
43	MP3B	X	41.044	1.5
44	MP3B	Z	-23.697	1.5
45	MP3B	Mx	.017	1.5
46	MP3B	X	41.044	3.5
47	MP3B	Z	-23.697	3.5
48	MP3B	Mx	.017	3.5
49	MP3C	X	75.501	1.5
50	MP3C	Z	-43.591	1.5
51	MP3C	Mx	0	1.5
52	MP3C	X	75.501	3.5
53	MP3C	Z	-43.591	3.5
54	MP3C	Mx	0	3.5
55	MP1A	X	45.14	3
56	MP1A	Z	-26.062	3
57	MP1A	Mx	.023	3
58	MP1B	X	45.14	3
59	MP1B	Z	-26.062	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
60	MP1B	Mx	-.023	3
61	MP1C	X	60.08	3
62	MP1C	Z	-34.687	3
63	MP1C	Mx	0	3
64	MP2A	X	39.417	3
65	MP2A	Z	-22.758	3
66	MP2A	Mx	.02	3
67	MP2B	X	39.417	3
68	MP2B	Z	-22.758	3
69	MP2B	Mx	-.02	3
70	MP2C	X	60.08	3
71	MP2C	Z	-34.687	3
72	MP2C	Mx	0	3
73	M41	X	99.517	1
74	M41	Z	-57.456	1
75	M41	Mx	0	1
76	MP4A	X	78.081	.5
77	MP4A	Z	-45.08	.5
78	MP4A	Mx	-.039	.5
79	MP4A	X	78.081	5.5
80	MP4A	Z	-45.08	5.5
81	MP4A	Mx	-.039	5.5
82	MP4B	X	78.081	.5
83	MP4B	Z	-45.08	.5
84	MP4B	Mx	.039	.5
85	MP4B	X	78.081	5.5
86	MP4B	Z	-45.08	5.5
87	MP4B	Mx	.039	5.5
88	MP4C	X	92.529	.5
89	MP4C	Z	-53.422	.5
90	MP4C	Mx	0	.5
91	MP4C	X	92.529	5.5
92	MP4C	Z	-53.422	5.5
93	MP4C	Mx	0	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	136.114	.5
2	MP1A	Z	0	.5
3	MP1A	Mx	-.125	.5
4	MP1A	X	136.114	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	-.125	5.5
7	MP1B	X	171.339	.5
8	MP1B	Z	0	.5
9	MP1B	Mx	-.02	.5
10	MP1B	X	171.339	5.5
11	MP1B	Z	0	5.5
12	MP1B	Mx	-.02	5.5
13	MP1C	X	171.339	.5
14	MP1C	Z	0	.5
15	MP1C	Mx	.177	.5
16	MP1C	X	171.339	5.5
17	MP1C	Z	0	5.5
18	MP1C	Mx	.177	5.5
19	MP1A	X	171.339	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	MP1A	Z	0	.5
21	MP1A	Mx	.177	.5
22	MP1A	X	171.339	5.5
23	MP1A	Z	0	5.5
24	MP1A	Mx	.177	5.5
25	MP1B	X	171.339	.5
26	MP1B	Z	0	.5
27	MP1B	Mx	.177	.5
28	MP1B	X	171.339	5.5
29	MP1B	Z	0	5.5
30	MP1B	Mx	.177	5.5
31	MP1C	X	171.339	.5
32	MP1C	Z	0	.5
33	MP1C	Mx	-.02	.5
34	MP1C	X	171.339	5.5
35	MP1C	Z	0	5.5
36	MP1C	Mx	-.02	5.5
37	MP3A	X	34.131	1.5
38	MP3A	Z	0	1.5
39	MP3A	Mx	-.014	1.5
40	MP3A	X	34.131	3.5
41	MP3A	Z	0	3.5
42	MP3A	Mx	-.014	3.5
43	MP3B	X	73.919	1.5
44	MP3B	Z	0	1.5
45	MP3B	Mx	.015	1.5
46	MP3B	X	73.919	3.5
47	MP3B	Z	0	3.5
48	MP3B	Mx	.015	3.5
49	MP3C	X	73.919	1.5
50	MP3C	Z	0	1.5
51	MP3C	Mx	.015	1.5
52	MP3C	X	73.919	3.5
53	MP3C	Z	0	3.5
54	MP3C	Mx	.015	3.5
55	MP1A	X	46.373	3
56	MP1A	Z	0	3
57	MP1A	Mx	.023	3
58	MP1B	X	63.624	3
59	MP1B	Z	0	3
60	MP1B	Mx	-.016	3
61	MP1C	X	63.624	3
62	MP1C	Z	0	3
63	MP1C	Mx	-.016	3
64	MP2A	X	37.562	3
65	MP2A	Z	0	3
66	MP2A	Mx	.019	3
67	MP2B	X	61.421	3
68	MP2B	Z	0	3
69	MP2B	Mx	-.015	3
70	MP2C	X	61.421	3
71	MP2C	Z	0	3
72	MP2C	Mx	-.015	3
73	M41	X	123.84	1
74	M41	Z	0	1
75	M41	Mx	0	1
76	MP4A	X	84.599	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
77	MP4A	Z	0	.5
78	MP4A	Mx	-.042	.5
79	MP4A	X	84.599	5.5
80	MP4A	Z	0	5.5
81	MP4A	Mx	-.042	5.5
82	MP4B	X	101.283	.5
83	MP4B	Z	0	.5
84	MP4B	Mx	.025	.5
85	MP4B	X	101.283	5.5
86	MP4B	Z	0	5.5
87	MP4B	Mx	.025	5.5
88	MP4C	X	101.283	.5
89	MP4C	Z	0	.5
90	MP4C	Mx	.025	.5
91	MP4C	X	101.283	5.5
92	MP4C	Z	0	5.5
93	MP4C	Mx	.025	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	128.047	.5
2	MP1A	Z	73.928	.5
3	MP1A	Mx	-.068	.5
4	MP1A	X	128.047	5.5
5	MP1A	Z	73.928	5.5
6	MP1A	Mx	-.068	5.5
7	MP1B	X	158.553	.5
8	MP1B	Z	91.541	.5
9	MP1B	Mx	-.122	.5
10	MP1B	X	158.553	5.5
11	MP1B	Z	91.541	5.5
12	MP1B	Mx	-.122	5.5
13	MP1C	X	128.047	.5
14	MP1C	Z	73.928	.5
15	MP1C	Mx	.167	.5
16	MP1C	X	128.047	5.5
17	MP1C	Z	73.928	5.5
18	MP1C	Mx	.167	5.5
19	MP1A	X	158.553	.5
20	MP1A	Z	91.541	.5
21	MP1A	Mx	.122	.5
22	MP1A	X	158.553	5.5
23	MP1A	Z	91.541	5.5
24	MP1A	Mx	.122	5.5
25	MP1B	X	158.553	.5
26	MP1B	Z	91.541	.5
27	MP1B	Mx	.122	.5
28	MP1B	X	158.553	5.5
29	MP1B	Z	91.541	5.5
30	MP1B	Mx	.122	5.5
31	MP1C	X	128.047	.5
32	MP1C	Z	73.928	.5
33	MP1C	Mx	.068	.5
34	MP1C	X	128.047	5.5
35	MP1C	Z	73.928	5.5
36	MP1C	Mx	.068	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
37	MP3A	X	41.044	1.5
38	MP3A	Z	23.697	1.5
39	MP3A	Mx	-.017	1.5
40	MP3A	X	41.044	3.5
41	MP3A	Z	23.697	3.5
42	MP3A	Mx	-.017	3.5
43	MP3B	X	75.501	1.5
44	MP3B	Z	43.591	1.5
45	MP3B	Mx	0	1.5
46	MP3B	X	75.501	3.5
47	MP3B	Z	43.591	3.5
48	MP3B	Mx	0	3.5
49	MP3C	X	41.044	1.5
50	MP3C	Z	23.697	1.5
51	MP3C	Mx	.017	1.5
52	MP3C	X	41.044	3.5
53	MP3C	Z	23.697	3.5
54	MP3C	Mx	.017	3.5
55	MP1A	X	45.14	3
56	MP1A	Z	26.062	3
57	MP1A	Mx	.023	3
58	MP1B	X	60.08	3
59	MP1B	Z	34.687	3
60	MP1B	Mx	0	3
61	MP1C	X	45.14	3
62	MP1C	Z	26.062	3
63	MP1C	Mx	-.023	3
64	MP2A	X	39.417	3
65	MP2A	Z	22.758	3
66	MP2A	Mx	.02	3
67	MP2B	X	60.08	3
68	MP2B	Z	34.687	3
69	MP2B	Mx	0	3
70	MP2C	X	39.417	3
71	MP2C	Z	22.758	3
72	MP2C	Mx	-.02	3
73	M41	X	122.71	1
74	M41	Z	70.847	1
75	M41	Mx	0	1
76	MP4A	X	78.081	.5
77	MP4A	Z	45.08	.5
78	MP4A	Mx	-.039	.5
79	MP4A	X	78.081	5.5
80	MP4A	Z	45.08	5.5
81	MP4A	Mx	-.039	5.5
82	MP4B	X	92.529	.5
83	MP4B	Z	53.422	.5
84	MP4B	Mx	0	.5
85	MP4B	X	92.529	5.5
86	MP4B	Z	53.422	5.5
87	MP4B	Mx	0	5.5
88	MP4C	X	78.081	.5
89	MP4C	Z	45.08	.5
90	MP4C	Mx	.039	.5
91	MP4C	X	78.081	5.5
92	MP4C	Z	45.08	5.5
93	MP4C	Mx	.039	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	85.67	.5
2	MP1A	Z	148.384	.5
3	MP1A	Mx	.02	.5
4	MP1A	X	85.67	5.5
5	MP1A	Z	148.384	5.5
6	MP1A	Mx	.02	5.5
7	MP1B	X	85.67	.5
8	MP1B	Z	148.384	.5
9	MP1B	Mx	-.177	.5
10	MP1B	X	85.67	5.5
11	MP1B	Z	148.384	5.5
12	MP1B	Mx	-.177	5.5
13	MP1C	X	68.057	.5
14	MP1C	Z	117.878	.5
15	MP1C	Mx	.125	.5
16	MP1C	X	68.057	5.5
17	MP1C	Z	117.878	5.5
18	MP1C	Mx	.125	5.5
19	MP1A	X	85.67	.5
20	MP1A	Z	148.384	.5
21	MP1A	Mx	.02	.5
22	MP1A	X	85.67	5.5
23	MP1A	Z	148.384	5.5
24	MP1A	Mx	.02	5.5
25	MP1B	X	85.67	.5
26	MP1B	Z	148.384	.5
27	MP1B	Mx	.02	.5
28	MP1B	X	85.67	5.5
29	MP1B	Z	148.384	5.5
30	MP1B	Mx	.02	5.5
31	MP1C	X	68.057	.5
32	MP1C	Z	117.878	.5
33	MP1C	Mx	.125	.5
34	MP1C	X	68.057	5.5
35	MP1C	Z	117.878	5.5
36	MP1C	Mx	.125	5.5
37	MP3A	X	36.96	1.5
38	MP3A	Z	64.016	1.5
39	MP3A	Mx	-.015	1.5
40	MP3A	X	36.96	3.5
41	MP3A	Z	64.016	3.5
42	MP3A	Mx	-.015	3.5
43	MP3B	X	36.96	1.5
44	MP3B	Z	64.016	1.5
45	MP3B	Mx	-.015	1.5
46	MP3B	X	36.96	3.5
47	MP3B	Z	64.016	3.5
48	MP3B	Mx	-.015	3.5
49	MP3C	X	17.066	1.5
50	MP3C	Z	29.559	1.5
51	MP3C	Mx	.014	1.5
52	MP3C	X	17.066	3.5
53	MP3C	Z	29.559	3.5
54	MP3C	Mx	.014	3.5
55	MP1A	X	31.812	3
56	MP1A	Z	55.1	3
57	MP1A	Mx	.016	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP1B	X	31.812	3
59	MP1B	Z	55.1	3
60	MP1B	Mx	.016	3
61	MP1C	X	23.187	3
62	MP1C	Z	40.16	3
63	MP1C	Mx	-.023	3
64	MP2A	X	30.711	3
65	MP2A	Z	53.192	3
66	MP2A	Mx	.015	3
67	MP2B	X	30.711	3
68	MP2B	Z	53.192	3
69	MP2B	Mx	.015	3
70	MP2C	X	18.781	3
71	MP2C	Z	32.53	3
72	MP2C	Mx	-.019	3
73	M41	X	75.31	1
74	M41	Z	130.441	1
75	M41	Mx	0	1
76	MP4A	X	50.641	.5
77	MP4A	Z	87.713	.5
78	MP4A	Mx	-.025	.5
79	MP4A	X	50.641	5.5
80	MP4A	Z	87.713	5.5
81	MP4A	Mx	-.025	5.5
82	MP4B	X	50.641	.5
83	MP4B	Z	87.713	.5
84	MP4B	Mx	-.025	.5
85	MP4B	X	50.641	5.5
86	MP4B	Z	87.713	5.5
87	MP4B	Mx	-.025	5.5
88	MP4C	X	42.299	.5
89	MP4C	Z	73.265	.5
90	MP4C	Mx	.042	.5
91	MP4C	X	42.299	5.5
92	MP4C	Z	73.265	5.5
93	MP4C	Mx	.042	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.5
2	MP1A	Z	183.081	.5
3	MP1A	Mx	.122	.5
4	MP1A	X	0	5.5
5	MP1A	Z	183.081	5.5
6	MP1A	Mx	.122	5.5
7	MP1B	X	0	.5
8	MP1B	Z	147.856	.5
9	MP1B	Mx	-.167	.5
10	MP1B	X	0	5.5
11	MP1B	Z	147.856	5.5
12	MP1B	Mx	-.167	5.5
13	MP1C	X	0	.5
14	MP1C	Z	147.856	.5
15	MP1C	Mx	.068	.5
16	MP1C	X	0	5.5
17	MP1C	Z	147.856	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP1C	Mx	.068	5.5
19	MP1A	X	0	.5
20	MP1A	Z	147.856	.5
21	MP1A	Mx	-.068	.5
22	MP1A	X	0	5.5
23	MP1A	Z	147.856	5.5
24	MP1A	Mx	-.068	5.5
25	MP1B	X	0	.5
26	MP1B	Z	147.856	.5
27	MP1B	Mx	-.068	.5
28	MP1B	X	0	5.5
29	MP1B	Z	147.856	5.5
30	MP1B	Mx	-.068	5.5
31	MP1C	X	0	.5
32	MP1C	Z	147.856	.5
33	MP1C	Mx	.167	.5
34	MP1C	X	0	5.5
35	MP1C	Z	147.856	5.5
36	MP1C	Mx	.167	5.5
37	MP3A	X	0	1.5
38	MP3A	Z	87.182	1.5
39	MP3A	Mx	0	1.5
40	MP3A	X	0	3.5
41	MP3A	Z	87.182	3.5
42	MP3A	Mx	0	3.5
43	MP3B	X	0	1.5
44	MP3B	Z	47.394	1.5
45	MP3B	Mx	-.017	1.5
46	MP3B	X	0	3.5
47	MP3B	Z	47.394	3.5
48	MP3B	Mx	-.017	3.5
49	MP3C	X	0	1.5
50	MP3C	Z	47.394	1.5
51	MP3C	Mx	.017	1.5
52	MP3C	X	0	3.5
53	MP3C	Z	47.394	3.5
54	MP3C	Mx	.017	3.5
55	MP1A	X	0	3
56	MP1A	Z	69.374	3
57	MP1A	Mx	0	3
58	MP1B	X	0	3
59	MP1B	Z	52.123	3
60	MP1B	Mx	.023	3
61	MP1C	X	0	3
62	MP1C	Z	52.123	3
63	MP1C	Mx	-.023	3
64	MP2A	X	0	3
65	MP2A	Z	69.374	3
66	MP2A	Mx	0	3
67	MP2B	X	0	3
68	MP2B	Z	45.515	3
69	MP2B	Mx	.02	3
70	MP2C	X	0	3
71	MP2C	Z	45.515	3
72	MP2C	Mx	-.02	3
73	M41	X	0	1
74	M41	Z	141.693	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	M41	Mx	0	1
76	MP4A	X	0	.5
77	MP4A	Z	106.844	.5
78	MP4A	Mx	0	.5
79	MP4A	X	0	5.5
80	MP4A	Z	106.844	5.5
81	MP4A	Mx	0	5.5
82	MP4B	X	0	.5
83	MP4B	Z	90.16	.5
84	MP4B	Mx	-.039	.5
85	MP4B	X	0	5.5
86	MP4B	Z	90.16	5.5
87	MP4B	Mx	-.039	5.5
88	MP4C	X	0	.5
89	MP4C	Z	90.16	.5
90	MP4C	Mx	.039	.5
91	MP4C	X	0	5.5
92	MP4C	Z	90.16	5.5
93	MP4C	Mx	.039	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-85.67	.5
2	MP1A	Z	148.384	.5
3	MP1A	Mx	.177	.5
4	MP1A	X	-85.67	5.5
5	MP1A	Z	148.384	5.5
6	MP1A	Mx	.177	5.5
7	MP1B	X	-68.057	.5
8	MP1B	Z	117.878	.5
9	MP1B	Mx	-.125	.5
10	MP1B	X	-68.057	5.5
11	MP1B	Z	117.878	5.5
12	MP1B	Mx	-.125	5.5
13	MP1C	X	-85.67	.5
14	MP1C	Z	148.384	.5
15	MP1C	Mx	-.02	.5
16	MP1C	X	-85.67	5.5
17	MP1C	Z	148.384	5.5
18	MP1C	Mx	-.02	5.5
19	MP1A	X	-68.057	.5
20	MP1A	Z	117.878	.5
21	MP1A	Mx	-.125	.5
22	MP1A	X	-68.057	5.5
23	MP1A	Z	117.878	5.5
24	MP1A	Mx	-.125	5.5
25	MP1B	X	-68.057	.5
26	MP1B	Z	117.878	.5
27	MP1B	Mx	-.125	.5
28	MP1B	X	-68.057	5.5
29	MP1B	Z	117.878	5.5
30	MP1B	Mx	-.125	5.5
31	MP1C	X	-85.67	.5
32	MP1C	Z	148.384	.5
33	MP1C	Mx	.177	.5
34	MP1C	X	-85.67	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP1C	Z	148.384	5.5
36	MP1C	Mx	.177	5.5
37	MP3A	X	-36.96	1.5
38	MP3A	Z	64.016	1.5
39	MP3A	Mx	.015	1.5
40	MP3A	X	-36.96	3.5
41	MP3A	Z	64.016	3.5
42	MP3A	Mx	.015	3.5
43	MP3B	X	-17.066	1.5
44	MP3B	Z	29.559	1.5
45	MP3B	Mx	-.014	1.5
46	MP3B	X	-17.066	3.5
47	MP3B	Z	29.559	3.5
48	MP3B	Mx	-.014	3.5
49	MP3C	X	-36.96	1.5
50	MP3C	Z	64.016	1.5
51	MP3C	Mx	.015	1.5
52	MP3C	X	-36.96	3.5
53	MP3C	Z	64.016	3.5
54	MP3C	Mx	.015	3.5
55	MP1A	X	-31.812	3
56	MP1A	Z	55.1	3
57	MP1A	Mx	-.016	3
58	MP1B	X	-23.187	3
59	MP1B	Z	40.16	3
60	MP1B	Mx	.023	3
61	MP1C	X	-31.812	3
62	MP1C	Z	55.1	3
63	MP1C	Mx	-.016	3
64	MP2A	X	-30.711	3
65	MP2A	Z	53.192	3
66	MP2A	Mx	-.015	3
67	MP2B	X	-18.781	3
68	MP2B	Z	32.53	3
69	MP2B	Mx	.019	3
70	MP2C	X	-30.711	3
71	MP2C	Z	53.192	3
72	MP2C	Mx	-.015	3
73	M41	X	-61.92	1
74	M41	Z	107.248	1
75	M41	Mx	0	1
76	MP4A	X	-50.641	.5
77	MP4A	Z	87.713	.5
78	MP4A	Mx	.025	.5
79	MP4A	X	-50.641	5.5
80	MP4A	Z	87.713	5.5
81	MP4A	Mx	.025	5.5
82	MP4B	X	-42.299	.5
83	MP4B	Z	73.265	.5
84	MP4B	Mx	-.042	.5
85	MP4B	X	-42.299	5.5
86	MP4B	Z	73.265	5.5
87	MP4B	Mx	-.042	5.5
88	MP4C	X	-50.641	.5
89	MP4C	Z	87.713	.5
90	MP4C	Mx	.025	.5
91	MP4C	X	-50.641	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
92	MP4C	Z	87.713	5.5
93	MP4C	Mx	.025	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-128.047	.5
2	MP1A	Z	73.928	.5
3	MP1A	Mx	.167	.5
4	MP1A	X	-128.047	5.5
5	MP1A	Z	73.928	5.5
6	MP1A	Mx	.167	5.5
7	MP1B	X	-128.047	.5
8	MP1B	Z	73.928	.5
9	MP1B	Mx	-.068	.5
10	MP1B	X	-128.047	5.5
11	MP1B	Z	73.928	5.5
12	MP1B	Mx	-.068	5.5
13	MP1C	X	-158.553	.5
14	MP1C	Z	91.541	.5
15	MP1C	Mx	-.122	.5
16	MP1C	X	-158.553	5.5
17	MP1C	Z	91.541	5.5
18	MP1C	Mx	-.122	5.5
19	MP1A	X	-128.047	.5
20	MP1A	Z	73.928	.5
21	MP1A	Mx	-.167	.5
22	MP1A	X	-128.047	5.5
23	MP1A	Z	73.928	5.5
24	MP1A	Mx	-.167	5.5
25	MP1B	X	-128.047	.5
26	MP1B	Z	73.928	.5
27	MP1B	Mx	-.167	.5
28	MP1B	X	-128.047	5.5
29	MP1B	Z	73.928	5.5
30	MP1B	Mx	-.167	5.5
31	MP1C	X	-158.553	.5
32	MP1C	Z	91.541	.5
33	MP1C	Mx	.122	.5
34	MP1C	X	-158.553	5.5
35	MP1C	Z	91.541	5.5
36	MP1C	Mx	.122	5.5
37	MP3A	X	-41.044	1.5
38	MP3A	Z	23.697	1.5
39	MP3A	Mx	.017	1.5
40	MP3A	X	-41.044	3.5
41	MP3A	Z	23.697	3.5
42	MP3A	Mx	.017	3.5
43	MP3B	X	-41.044	1.5
44	MP3B	Z	23.697	1.5
45	MP3B	Mx	-.017	1.5
46	MP3B	X	-41.044	3.5
47	MP3B	Z	23.697	3.5
48	MP3B	Mx	-.017	3.5
49	MP3C	X	-75.501	1.5
50	MP3C	Z	43.591	1.5
51	MP3C	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
52	MP3C	X	-75.501	3.5
53	MP3C	Z	43.591	3.5
54	MP3C	Mx	0	3.5
55	MP1A	X	-45.14	3
56	MP1A	Z	26.062	3
57	MP1A	Mx	-.023	3
58	MP1B	X	-45.14	3
59	MP1B	Z	26.062	3
60	MP1B	Mx	.023	3
61	MP1C	X	-60.08	3
62	MP1C	Z	34.687	3
63	MP1C	Mx	0	3
64	MP2A	X	-39.417	3
65	MP2A	Z	22.758	3
66	MP2A	Mx	-.02	3
67	MP2B	X	-39.417	3
68	MP2B	Z	22.758	3
69	MP2B	Mx	.02	3
70	MP2C	X	-60.08	3
71	MP2C	Z	34.687	3
72	MP2C	Mx	0	3
73	M41	X	-99.517	1
74	M41	Z	57.456	1
75	M41	Mx	0	1
76	MP4A	X	-78.081	.5
77	MP4A	Z	45.08	.5
78	MP4A	Mx	.039	.5
79	MP4A	X	-78.081	5.5
80	MP4A	Z	45.08	5.5
81	MP4A	Mx	.039	5.5
82	MP4B	X	-78.081	.5
83	MP4B	Z	45.08	.5
84	MP4B	Mx	-.039	.5
85	MP4B	X	-78.081	5.5
86	MP4B	Z	45.08	5.5
87	MP4B	Mx	-.039	5.5
88	MP4C	X	-92.529	.5
89	MP4C	Z	53.422	.5
90	MP4C	Mx	0	.5
91	MP4C	X	-92.529	5.5
92	MP4C	Z	53.422	5.5
93	MP4C	Mx	0	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-136.114	.5
2	MP1A	Z	0	.5
3	MP1A	Mx	.125	.5
4	MP1A	X	-136.114	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	.125	5.5
7	MP1B	X	-171.339	.5
8	MP1B	Z	0	.5
9	MP1B	Mx	.02	.5
10	MP1B	X	-171.339	5.5
11	MP1B	Z	0	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP1B	Mx	.02	5.5
13	MP1C	X	-171.339	.5
14	MP1C	Z	0	.5
15	MP1C	Mx	-.177	.5
16	MP1C	X	-171.339	5.5
17	MP1C	Z	0	5.5
18	MP1C	Mx	-.177	5.5
19	MP1A	X	-171.339	.5
20	MP1A	Z	0	.5
21	MP1A	Mx	-.177	.5
22	MP1A	X	-171.339	5.5
23	MP1A	Z	0	5.5
24	MP1A	Mx	-.177	5.5
25	MP1B	X	-171.339	.5
26	MP1B	Z	0	.5
27	MP1B	Mx	-.177	.5
28	MP1B	X	-171.339	5.5
29	MP1B	Z	0	5.5
30	MP1B	Mx	-.177	5.5
31	MP1C	X	-171.339	.5
32	MP1C	Z	0	.5
33	MP1C	Mx	.02	.5
34	MP1C	X	-171.339	5.5
35	MP1C	Z	0	5.5
36	MP1C	Mx	.02	5.5
37	MP3A	X	-34.131	1.5
38	MP3A	Z	0	1.5
39	MP3A	Mx	.014	1.5
40	MP3A	X	-34.131	3.5
41	MP3A	Z	0	3.5
42	MP3A	Mx	.014	3.5
43	MP3B	X	-73.919	1.5
44	MP3B	Z	0	1.5
45	MP3B	Mx	-.015	1.5
46	MP3B	X	-73.919	3.5
47	MP3B	Z	0	3.5
48	MP3B	Mx	-.015	3.5
49	MP3C	X	-73.919	1.5
50	MP3C	Z	0	1.5
51	MP3C	Mx	-.015	1.5
52	MP3C	X	-73.919	3.5
53	MP3C	Z	0	3.5
54	MP3C	Mx	-.015	3.5
55	MP1A	X	-46.373	3
56	MP1A	Z	0	3
57	MP1A	Mx	-.023	3
58	MP1B	X	-63.624	3
59	MP1B	Z	0	3
60	MP1B	Mx	.016	3
61	MP1C	X	-63.624	3
62	MP1C	Z	0	3
63	MP1C	Mx	.016	3
64	MP2A	X	-37.562	3
65	MP2A	Z	0	3
66	MP2A	Mx	-.019	3
67	MP2B	X	-61.421	3
68	MP2B	Z	0	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
69	MP2B	Mx	.015	3
70	MP2C	X	-61.421	3
71	MP2C	Z	0	3
72	MP2C	Mx	.015	3
73	M41	X	-123.84	1
74	M41	Z	0	1
75	M41	Mx	0	1
76	MP4A	X	-84.599	.5
77	MP4A	Z	0	.5
78	MP4A	Mx	.042	.5
79	MP4A	X	-84.599	5.5
80	MP4A	Z	0	5.5
81	MP4A	Mx	.042	5.5
82	MP4B	X	-101.283	.5
83	MP4B	Z	0	.5
84	MP4B	Mx	-.025	.5
85	MP4B	X	-101.283	5.5
86	MP4B	Z	0	5.5
87	MP4B	Mx	-.025	5.5
88	MP4C	X	-101.283	.5
89	MP4C	Z	0	.5
90	MP4C	Mx	-.025	.5
91	MP4C	X	-101.283	5.5
92	MP4C	Z	0	5.5
93	MP4C	Mx	-.025	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-128.047	.5
2	MP1A	Z	-73.928	.5
3	MP1A	Mx	.068	.5
4	MP1A	X	-128.047	5.5
5	MP1A	Z	-73.928	5.5
6	MP1A	Mx	.068	5.5
7	MP1B	X	-158.553	.5
8	MP1B	Z	-91.541	.5
9	MP1B	Mx	.122	.5
10	MP1B	X	-158.553	5.5
11	MP1B	Z	-91.541	5.5
12	MP1B	Mx	.122	5.5
13	MP1C	X	-128.047	.5
14	MP1C	Z	-73.928	.5
15	MP1C	Mx	-.167	.5
16	MP1C	X	-128.047	5.5
17	MP1C	Z	-73.928	5.5
18	MP1C	Mx	-.167	5.5
19	MP1A	X	-158.553	.5
20	MP1A	Z	-91.541	.5
21	MP1A	Mx	-.122	.5
22	MP1A	X	-158.553	5.5
23	MP1A	Z	-91.541	5.5
24	MP1A	Mx	-.122	5.5
25	MP1B	X	-158.553	.5
26	MP1B	Z	-91.541	.5
27	MP1B	Mx	-.122	.5
28	MP1B	X	-158.553	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
29	MP1B	Z	-91.541	5.5
30	MP1B	Mx	-.122	5.5
31	MP1C	X	-128.047	.5
32	MP1C	Z	-73.928	.5
33	MP1C	Mx	-.068	.5
34	MP1C	X	-128.047	5.5
35	MP1C	Z	-73.928	5.5
36	MP1C	Mx	-.068	5.5
37	MP3A	X	-41.044	1.5
38	MP3A	Z	-23.697	1.5
39	MP3A	Mx	.017	1.5
40	MP3A	X	-41.044	3.5
41	MP3A	Z	-23.697	3.5
42	MP3A	Mx	.017	3.5
43	MP3B	X	-75.501	1.5
44	MP3B	Z	-43.591	1.5
45	MP3B	Mx	0	1.5
46	MP3B	X	-75.501	3.5
47	MP3B	Z	-43.591	3.5
48	MP3B	Mx	0	3.5
49	MP3C	X	-41.044	1.5
50	MP3C	Z	-23.697	1.5
51	MP3C	Mx	-.017	1.5
52	MP3C	X	-41.044	3.5
53	MP3C	Z	-23.697	3.5
54	MP3C	Mx	-.017	3.5
55	MP1A	X	-45.14	3
56	MP1A	Z	-26.062	3
57	MP1A	Mx	-.023	3
58	MP1B	X	-60.08	3
59	MP1B	Z	-34.687	3
60	MP1B	Mx	0	3
61	MP1C	X	-45.14	3
62	MP1C	Z	-26.062	3
63	MP1C	Mx	.023	3
64	MP2A	X	-39.417	3
65	MP2A	Z	-22.758	3
66	MP2A	Mx	-.02	3
67	MP2B	X	-60.08	3
68	MP2B	Z	-34.687	3
69	MP2B	Mx	0	3
70	MP2C	X	-39.417	3
71	MP2C	Z	-22.758	3
72	MP2C	Mx	.02	3
73	M41	X	-122.71	1
74	M41	Z	-70.847	1
75	M41	Mx	0	1
76	MP4A	X	-78.081	.5
77	MP4A	Z	-45.08	.5
78	MP4A	Mx	.039	.5
79	MP4A	X	-78.081	5.5
80	MP4A	Z	-45.08	5.5
81	MP4A	Mx	.039	5.5
82	MP4B	X	-92.529	.5
83	MP4B	Z	-53.422	.5
84	MP4B	Mx	0	.5
85	MP4B	X	-92.529	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
86	MP4B	Z	-53.422	5.5
87	MP4B	Mx	0	5.5
88	MP4C	X	-78.081	.5
89	MP4C	Z	-45.08	.5
90	MP4C	Mx	-.039	.5
91	MP4C	X	-78.081	5.5
92	MP4C	Z	-45.08	5.5
93	MP4C	Mx	-.039	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-85.67	.5
2	MP1A	Z	-148.384	.5
3	MP1A	Mx	-.02	.5
4	MP1A	X	-85.67	5.5
5	MP1A	Z	-148.384	5.5
6	MP1A	Mx	-.02	5.5
7	MP1B	X	-85.67	.5
8	MP1B	Z	-148.384	.5
9	MP1B	Mx	.177	.5
10	MP1B	X	-85.67	5.5
11	MP1B	Z	-148.384	5.5
12	MP1B	Mx	.177	5.5
13	MP1C	X	-68.057	.5
14	MP1C	Z	-117.878	.5
15	MP1C	Mx	-.125	.5
16	MP1C	X	-68.057	5.5
17	MP1C	Z	-117.878	5.5
18	MP1C	Mx	-.125	5.5
19	MP1A	X	-85.67	.5
20	MP1A	Z	-148.384	.5
21	MP1A	Mx	-.02	.5
22	MP1A	X	-85.67	5.5
23	MP1A	Z	-148.384	5.5
24	MP1A	Mx	-.02	5.5
25	MP1B	X	-85.67	.5
26	MP1B	Z	-148.384	.5
27	MP1B	Mx	-.02	.5
28	MP1B	X	-85.67	5.5
29	MP1B	Z	-148.384	5.5
30	MP1B	Mx	-.02	5.5
31	MP1C	X	-68.057	.5
32	MP1C	Z	-117.878	.5
33	MP1C	Mx	-.125	.5
34	MP1C	X	-68.057	5.5
35	MP1C	Z	-117.878	5.5
36	MP1C	Mx	-.125	5.5
37	MP3A	X	-36.96	1.5
38	MP3A	Z	-64.016	1.5
39	MP3A	Mx	.015	1.5
40	MP3A	X	-36.96	3.5
41	MP3A	Z	-64.016	3.5
42	MP3A	Mx	.015	3.5
43	MP3B	X	-36.96	1.5
44	MP3B	Z	-64.016	1.5
45	MP3B	Mx	.015	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
46	MP3B	X	-36.96	3.5
47	MP3B	Z	-64.016	3.5
48	MP3B	Mx	.015	3.5
49	MP3C	X	-17.066	1.5
50	MP3C	Z	-29.559	1.5
51	MP3C	Mx	-.014	1.5
52	MP3C	X	-17.066	3.5
53	MP3C	Z	-29.559	3.5
54	MP3C	Mx	-.014	3.5
55	MP1A	X	-31.812	3
56	MP1A	Z	-55.1	3
57	MP1A	Mx	-.016	3
58	MP1B	X	-31.812	3
59	MP1B	Z	-55.1	3
60	MP1B	Mx	-.016	3
61	MP1C	X	-23.187	3
62	MP1C	Z	-40.16	3
63	MP1C	Mx	.023	3
64	MP2A	X	-30.711	3
65	MP2A	Z	-53.192	3
66	MP2A	Mx	-.015	3
67	MP2B	X	-30.711	3
68	MP2B	Z	-53.192	3
69	MP2B	Mx	-.015	3
70	MP2C	X	-18.781	3
71	MP2C	Z	-32.53	3
72	MP2C	Mx	.019	3
73	M41	X	-75.31	1
74	M41	Z	-130.441	1
75	M41	Mx	0	1
76	MP4A	X	-50.641	.5
77	MP4A	Z	-87.713	.5
78	MP4A	Mx	.025	.5
79	MP4A	X	-50.641	5.5
80	MP4A	Z	-87.713	5.5
81	MP4A	Mx	.025	5.5
82	MP4B	X	-50.641	.5
83	MP4B	Z	-87.713	.5
84	MP4B	Mx	.025	.5
85	MP4B	X	-50.641	5.5
86	MP4B	Z	-87.713	5.5
87	MP4B	Mx	.025	5.5
88	MP4C	X	-42.299	.5
89	MP4C	Z	-73.265	.5
90	MP4C	Mx	-.042	.5
91	MP4C	X	-42.299	5.5
92	MP4C	Z	-73.265	5.5
93	MP4C	Mx	-.042	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.5
2	MP1A	Z	-33.603	.5
3	MP1A	Mx	-.022	.5
4	MP1A	X	0	5.5
5	MP1A	Z	-33.603	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
6	MP1A	Mx	-.022	5.5
7	MP1B	X	0	.5
8	MP1B	Z	-27.475	.5
9	MP1B	Mx	.031	.5
10	MP1B	X	0	5.5
11	MP1B	Z	-27.475	5.5
12	MP1B	Mx	.031	5.5
13	MP1C	X	0	.5
14	MP1C	Z	-27.475	.5
15	MP1C	Mx	-.013	.5
16	MP1C	X	0	5.5
17	MP1C	Z	-27.475	5.5
18	MP1C	Mx	-.013	5.5
19	MP1A	X	0	.5
20	MP1A	Z	-27.475	.5
21	MP1A	Mx	.013	.5
22	MP1A	X	0	5.5
23	MP1A	Z	-27.475	5.5
24	MP1A	Mx	.013	5.5
25	MP1B	X	0	.5
26	MP1B	Z	-27.475	.5
27	MP1B	Mx	.013	.5
28	MP1B	X	0	5.5
29	MP1B	Z	-27.475	5.5
30	MP1B	Mx	.013	5.5
31	MP1C	X	0	.5
32	MP1C	Z	-27.475	.5
33	MP1C	Mx	-.031	.5
34	MP1C	X	0	5.5
35	MP1C	Z	-27.475	5.5
36	MP1C	Mx	-.031	5.5
37	MP3A	X	0	1.5
38	MP3A	Z	-16.59	1.5
39	MP3A	Mx	0	1.5
40	MP3A	X	0	3.5
41	MP3A	Z	-16.59	3.5
42	MP3A	Mx	0	3.5
43	MP3B	X	0	1.5
44	MP3B	Z	-9.458	1.5
45	MP3B	Mx	.003	1.5
46	MP3B	X	0	3.5
47	MP3B	Z	-9.458	3.5
48	MP3B	Mx	.003	3.5
49	MP3C	X	0	1.5
50	MP3C	Z	-9.458	1.5
51	MP3C	Mx	-.003	1.5
52	MP3C	X	0	3.5
53	MP3C	Z	-9.458	3.5
54	MP3C	Mx	-.003	3.5
55	MP1A	X	0	3
56	MP1A	Z	-14.001	3
57	MP1A	Mx	0	3
58	MP1B	X	0	3
59	MP1B	Z	-10.812	3
60	MP1B	Mx	-.005	3
61	MP1C	X	0	3
62	MP1C	Z	-10.812	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
63	MP1C	Mx	.005	3
64	MP2A	X	0	3
65	MP2A	Z	-14.001	3
66	MP2A	Mx	0	3
67	MP2B	X	0	3
68	MP2B	Z	-9.6	3
69	MP2B	Mx	-.004	3
70	MP2C	X	0	3
71	MP2C	Z	-9.6	3
72	MP2C	Mx	.004	3
73	M41	X	0	1
74	M41	Z	-27.175	1
75	M41	Mx	0	1
76	MP4A	X	0	.5
77	MP4A	Z	-20.574	.5
78	MP4A	Mx	0	.5
79	MP4A	X	0	5.5
80	MP4A	Z	-20.574	5.5
81	MP4A	Mx	0	5.5
82	MP4B	X	0	.5
83	MP4B	Z	-17.645	.5
84	MP4B	Mx	.008	.5
85	MP4B	X	0	5.5
86	MP4B	Z	-17.645	5.5
87	MP4B	Mx	.008	5.5
88	MP4C	X	0	.5
89	MP4C	Z	-17.645	.5
90	MP4C	Mx	-.008	.5
91	MP4C	X	0	5.5
92	MP4C	Z	-17.645	5.5
93	MP4C	Mx	-.008	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	15.78	.5
2	MP1A	Z	-27.332	.5
3	MP1A	Mx	-.033	.5
4	MP1A	X	15.78	5.5
5	MP1A	Z	-27.332	5.5
6	MP1A	Mx	-.033	5.5
7	MP1B	X	12.716	.5
8	MP1B	Z	-22.025	.5
9	MP1B	Mx	.023	.5
10	MP1B	X	12.716	5.5
11	MP1B	Z	-22.025	5.5
12	MP1B	Mx	.023	5.5
13	MP1C	X	15.78	.5
14	MP1C	Z	-27.332	.5
15	MP1C	Mx	.004	.5
16	MP1C	X	15.78	5.5
17	MP1C	Z	-27.332	5.5
18	MP1C	Mx	.004	5.5
19	MP1A	X	12.716	.5
20	MP1A	Z	-22.025	.5
21	MP1A	Mx	.023	.5
22	MP1A	X	12.716	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP1A	Z	-22.025	5.5
24	MP1A	Mx	.023	5.5
25	MP1B	X	12.716	.5
26	MP1B	Z	-22.025	.5
27	MP1B	Mx	.023	.5
28	MP1B	X	12.716	5.5
29	MP1B	Z	-22.025	5.5
30	MP1B	Mx	.023	5.5
31	MP1C	X	15.78	.5
32	MP1C	Z	-27.332	.5
33	MP1C	Mx	-.033	.5
34	MP1C	X	15.78	5.5
35	MP1C	Z	-27.332	5.5
36	MP1C	Mx	-.033	5.5
37	MP3A	X	7.106	1.5
38	MP3A	Z	-12.309	1.5
39	MP3A	Mx	-.003	1.5
40	MP3A	X	7.106	3.5
41	MP3A	Z	-12.309	3.5
42	MP3A	Mx	-.003	3.5
43	MP3B	X	3.541	1.5
44	MP3B	Z	-6.133	1.5
45	MP3B	Mx	.003	1.5
46	MP3B	X	3.541	3.5
47	MP3B	Z	-6.133	3.5
48	MP3B	Mx	.003	3.5
49	MP3C	X	7.106	1.5
50	MP3C	Z	-12.309	1.5
51	MP3C	Mx	-.003	1.5
52	MP3C	X	7.106	3.5
53	MP3C	Z	-12.309	3.5
54	MP3C	Mx	-.003	3.5
55	MP1A	X	6.469	3
56	MP1A	Z	-11.204	3
57	MP1A	Mx	.003	3
58	MP1B	X	4.874	3
59	MP1B	Z	-8.442	3
60	MP1B	Mx	-.005	3
61	MP1C	X	6.469	3
62	MP1C	Z	-11.204	3
63	MP1C	Mx	.003	3
64	MP2A	X	6.267	3
65	MP2A	Z	-10.855	3
66	MP2A	Mx	.003	3
67	MP2B	X	4.066	3
68	MP2B	Z	-7.043	3
69	MP2B	Mx	-.004	3
70	MP2C	X	6.267	3
71	MP2C	Z	-10.855	3
72	MP2C	Mx	.003	3
73	M41	X	12.024	1
74	M41	Z	-20.827	1
75	M41	Mx	0	1
76	MP4A	X	9.799	.5
77	MP4A	Z	-16.972	.5
78	MP4A	Mx	-.005	.5
79	MP4A	X	9.799	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
80	MP4A	Z	-16.972	5.5
81	MP4A	Mx	-.005	5.5
82	MP4B	X	8.334	.5
83	MP4B	Z	-14.435	.5
84	MP4B	Mx	.008	.5
85	MP4B	X	8.334	5.5
86	MP4B	Z	-14.435	5.5
87	MP4B	Mx	.008	5.5
88	MP4C	X	9.799	.5
89	MP4C	Z	-16.972	.5
90	MP4C	Mx	-.005	.5
91	MP4C	X	9.799	5.5
92	MP4C	Z	-16.972	5.5
93	MP4C	Mx	-.005	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	23.794	.5
2	MP1A	Z	-13.737	.5
3	MP1A	Mx	-.031	.5
4	MP1A	X	23.794	5.5
5	MP1A	Z	-13.737	5.5
6	MP1A	Mx	-.031	5.5
7	MP1B	X	23.794	.5
8	MP1B	Z	-13.737	.5
9	MP1B	Mx	.013	.5
10	MP1B	X	23.794	5.5
11	MP1B	Z	-13.737	5.5
12	MP1B	Mx	.013	5.5
13	MP1C	X	29.101	.5
14	MP1C	Z	-16.801	.5
15	MP1C	Mx	.022	.5
16	MP1C	X	29.101	5.5
17	MP1C	Z	-16.801	5.5
18	MP1C	Mx	.022	5.5
19	MP1A	X	23.794	.5
20	MP1A	Z	-13.737	.5
21	MP1A	Mx	.031	.5
22	MP1A	X	23.794	5.5
23	MP1A	Z	-13.737	5.5
24	MP1A	Mx	.031	5.5
25	MP1B	X	23.794	.5
26	MP1B	Z	-13.737	.5
27	MP1B	Mx	.031	.5
28	MP1B	X	23.794	5.5
29	MP1B	Z	-13.737	5.5
30	MP1B	Mx	.031	5.5
31	MP1C	X	29.101	.5
32	MP1C	Z	-16.801	.5
33	MP1C	Mx	-.022	.5
34	MP1C	X	29.101	5.5
35	MP1C	Z	-16.801	5.5
36	MP1C	Mx	-.022	5.5
37	MP3A	X	8.191	1.5
38	MP3A	Z	-4.729	1.5
39	MP3A	Mx	-.003	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
40	MP3A	X	8.191	3.5
41	MP3A	Z	-4.729	3.5
42	MP3A	Mx	-.003	3.5
43	MP3B	X	8.191	1.5
44	MP3B	Z	-4.729	1.5
45	MP3B	Mx	.003	1.5
46	MP3B	X	8.191	3.5
47	MP3B	Z	-4.729	3.5
48	MP3B	Mx	.003	3.5
49	MP3C	X	14.367	1.5
50	MP3C	Z	-8.295	1.5
51	MP3C	Mx	0	1.5
52	MP3C	X	14.367	3.5
53	MP3C	Z	-8.295	3.5
54	MP3C	Mx	0	3.5
55	MP1A	X	9.363	3
56	MP1A	Z	-5.406	3
57	MP1A	Mx	.005	3
58	MP1B	X	9.363	3
59	MP1B	Z	-5.406	3
60	MP1B	Mx	-.005	3
61	MP1C	X	12.125	3
62	MP1C	Z	-7	3
63	MP1C	Mx	0	3
64	MP2A	X	8.313	3
65	MP2A	Z	-4.8	3
66	MP2A	Mx	.004	3
67	MP2B	X	8.313	3
68	MP2B	Z	-4.8	3
69	MP2B	Mx	-.004	3
70	MP2C	X	12.125	3
71	MP2C	Z	-7	3
72	MP2C	Mx	0	3
73	M41	X	19.473	1
74	M41	Z	-11.243	1
75	M41	Mx	0	1
76	MP4A	X	15.281	.5
77	MP4A	Z	-8.822	.5
78	MP4A	Mx	-.008	.5
79	MP4A	X	15.281	5.5
80	MP4A	Z	-8.822	5.5
81	MP4A	Mx	-.008	5.5
82	MP4B	X	15.281	.5
83	MP4B	Z	-8.822	.5
84	MP4B	Mx	.008	.5
85	MP4B	X	15.281	5.5
86	MP4B	Z	-8.822	5.5
87	MP4B	Mx	.008	5.5
88	MP4C	X	17.817	.5
89	MP4C	Z	-10.287	.5
90	MP4C	Mx	0	.5
91	MP4C	X	17.817	5.5
92	MP4C	Z	-10.287	5.5
93	MP4C	Mx	0	5.5

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

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	25.432	.5
2	MP1A	Z	0	.5
3	MP1A	Mx	-.023	.5
4	MP1A	X	25.432	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	-.023	5.5
7	MP1B	X	31.56	.5
8	MP1B	Z	0	.5
9	MP1B	Mx	-.004	.5
10	MP1B	X	31.56	5.5
11	MP1B	Z	0	5.5
12	MP1B	Mx	-.004	5.5
13	MP1C	X	31.56	.5
14	MP1C	Z	0	.5
15	MP1C	Mx	.033	.5
16	MP1C	X	31.56	5.5
17	MP1C	Z	0	5.5
18	MP1C	Mx	.033	5.5
19	MP1A	X	31.56	.5
20	MP1A	Z	0	.5
21	MP1A	Mx	.033	.5
22	MP1A	X	31.56	5.5
23	MP1A	Z	0	5.5
24	MP1A	Mx	.033	5.5
25	MP1B	X	31.56	.5
26	MP1B	Z	0	.5
27	MP1B	Mx	.033	.5
28	MP1B	X	31.56	5.5
29	MP1B	Z	0	5.5
30	MP1B	Mx	.033	5.5
31	MP1C	X	31.56	.5
32	MP1C	Z	0	.5
33	MP1C	Mx	-.004	.5
34	MP1C	X	31.56	5.5
35	MP1C	Z	0	5.5
36	MP1C	Mx	-.004	5.5
37	MP3A	X	7.081	1.5
38	MP3A	Z	0	1.5
39	MP3A	Mx	-.003	1.5
40	MP3A	X	7.081	3.5
41	MP3A	Z	0	3.5
42	MP3A	Mx	-.003	3.5
43	MP3B	X	14.213	1.5
44	MP3B	Z	0	1.5
45	MP3B	Mx	.003	1.5
46	MP3B	X	14.213	3.5
47	MP3B	Z	0	3.5
48	MP3B	Mx	.003	3.5
49	MP3C	X	14.213	1.5
50	MP3C	Z	0	1.5
51	MP3C	Mx	.003	1.5
52	MP3C	X	14.213	3.5
53	MP3C	Z	0	3.5
54	MP3C	Mx	.003	3.5
55	MP1A	X	9.748	3
56	MP1A	Z	0	3
57	MP1A	Mx	.005	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP1B	X	12.938	3
59	MP1B	Z	0	3
60	MP1B	Mx	-.003	3
61	MP1C	X	12.938	3
62	MP1C	Z	0	3
63	MP1C	Mx	-.003	3
64	MP2A	X	8.132	3
65	MP2A	Z	0	3
66	MP2A	Mx	.004	3
67	MP2B	X	12.534	3
68	MP2B	Z	0	3
69	MP2B	Mx	-.003	3
70	MP2C	X	12.534	3
71	MP2C	Z	0	3
72	MP2C	Mx	-.003	3
73	M41	X	24.048	1
74	M41	Z	0	1
75	M41	Mx	0	1
76	MP4A	X	16.668	.5
77	MP4A	Z	0	.5
78	MP4A	Mx	-.008	.5
79	MP4A	X	16.668	5.5
80	MP4A	Z	0	5.5
81	MP4A	Mx	-.008	5.5
82	MP4B	X	19.597	.5
83	MP4B	Z	0	.5
84	MP4B	Mx	.005	.5
85	MP4B	X	19.597	5.5
86	MP4B	Z	0	5.5
87	MP4B	Mx	.005	5.5
88	MP4C	X	19.597	.5
89	MP4C	Z	0	.5
90	MP4C	Mx	.005	.5
91	MP4C	X	19.597	5.5
92	MP4C	Z	0	5.5
93	MP4C	Mx	.005	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	23.794	.5
2	MP1A	Z	13.737	.5
3	MP1A	Mx	-.013	.5
4	MP1A	X	23.794	5.5
5	MP1A	Z	13.737	5.5
6	MP1A	Mx	-.013	5.5
7	MP1B	X	29.101	.5
8	MP1B	Z	16.801	.5
9	MP1B	Mx	-.022	.5
10	MP1B	X	29.101	5.5
11	MP1B	Z	16.801	5.5
12	MP1B	Mx	-.022	5.5
13	MP1C	X	23.794	.5
14	MP1C	Z	13.737	.5
15	MP1C	Mx	.031	.5
16	MP1C	X	23.794	5.5
17	MP1C	Z	13.737	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP1C	Mx	.031	5.5
19	MP1A	X	29.101	.5
20	MP1A	Z	16.801	.5
21	MP1A	Mx	.022	.5
22	MP1A	X	29.101	5.5
23	MP1A	Z	16.801	5.5
24	MP1A	Mx	.022	5.5
25	MP1B	X	29.101	.5
26	MP1B	Z	16.801	.5
27	MP1B	Mx	.022	.5
28	MP1B	X	29.101	5.5
29	MP1B	Z	16.801	5.5
30	MP1B	Mx	.022	5.5
31	MP1C	X	23.794	.5
32	MP1C	Z	13.737	.5
33	MP1C	Mx	.013	.5
34	MP1C	X	23.794	5.5
35	MP1C	Z	13.737	5.5
36	MP1C	Mx	.013	5.5
37	MP3A	X	8.191	1.5
38	MP3A	Z	4.729	1.5
39	MP3A	Mx	-.003	1.5
40	MP3A	X	8.191	3.5
41	MP3A	Z	4.729	3.5
42	MP3A	Mx	-.003	3.5
43	MP3B	X	14.367	1.5
44	MP3B	Z	8.295	1.5
45	MP3B	Mx	0	1.5
46	MP3B	X	14.367	3.5
47	MP3B	Z	8.295	3.5
48	MP3B	Mx	0	3.5
49	MP3C	X	8.191	1.5
50	MP3C	Z	4.729	1.5
51	MP3C	Mx	.003	1.5
52	MP3C	X	8.191	3.5
53	MP3C	Z	4.729	3.5
54	MP3C	Mx	.003	3.5
55	MP1A	X	9.363	3
56	MP1A	Z	5.406	3
57	MP1A	Mx	.005	3
58	MP1B	X	12.125	3
59	MP1B	Z	7	3
60	MP1B	Mx	0	3
61	MP1C	X	9.363	3
62	MP1C	Z	5.406	3
63	MP1C	Mx	-.005	3
64	MP2A	X	8.313	3
65	MP2A	Z	4.8	3
66	MP2A	Mx	.004	3
67	MP2B	X	12.125	3
68	MP2B	Z	7	3
69	MP2B	Mx	0	3
70	MP2C	X	8.313	3
71	MP2C	Z	4.8	3
72	MP2C	Mx	-.004	3
73	M41	X	23.534	1
74	M41	Z	13.588	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	M41	Mx	0	1
76	MP4A	X	15.281	.5
77	MP4A	Z	8.822	.5
78	MP4A	Mx	-.008	.5
79	MP4A	X	15.281	5.5
80	MP4A	Z	8.822	5.5
81	MP4A	Mx	-.008	5.5
82	MP4B	X	17.817	.5
83	MP4B	Z	10.287	.5
84	MP4B	Mx	0	.5
85	MP4B	X	17.817	5.5
86	MP4B	Z	10.287	5.5
87	MP4B	Mx	0	5.5
88	MP4C	X	15.281	.5
89	MP4C	Z	8.822	.5
90	MP4C	Mx	.008	.5
91	MP4C	X	15.281	5.5
92	MP4C	Z	8.822	5.5
93	MP4C	Mx	.008	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	15.78	.5
2	MP1A	Z	27.332	.5
3	MP1A	Mx	.004	.5
4	MP1A	X	15.78	5.5
5	MP1A	Z	27.332	5.5
6	MP1A	Mx	.004	5.5
7	MP1B	X	15.78	.5
8	MP1B	Z	27.332	.5
9	MP1B	Mx	-.033	.5
10	MP1B	X	15.78	5.5
11	MP1B	Z	27.332	5.5
12	MP1B	Mx	-.033	5.5
13	MP1C	X	12.716	.5
14	MP1C	Z	22.025	.5
15	MP1C	Mx	.023	.5
16	MP1C	X	12.716	5.5
17	MP1C	Z	22.025	5.5
18	MP1C	Mx	.023	5.5
19	MP1A	X	15.78	.5
20	MP1A	Z	27.332	.5
21	MP1A	Mx	.004	.5
22	MP1A	X	15.78	5.5
23	MP1A	Z	27.332	5.5
24	MP1A	Mx	.004	5.5
25	MP1B	X	15.78	.5
26	MP1B	Z	27.332	.5
27	MP1B	Mx	.004	.5
28	MP1B	X	15.78	5.5
29	MP1B	Z	27.332	5.5
30	MP1B	Mx	.004	5.5
31	MP1C	X	12.716	.5
32	MP1C	Z	22.025	.5
33	MP1C	Mx	.023	.5
34	MP1C	X	12.716	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP1C	Z	22.025	5.5
36	MP1C	Mx	.023	5.5
37	MP3A	X	7.106	1.5
38	MP3A	Z	12.309	1.5
39	MP3A	Mx	-.003	1.5
40	MP3A	X	7.106	3.5
41	MP3A	Z	12.309	3.5
42	MP3A	Mx	-.003	3.5
43	MP3B	X	7.106	1.5
44	MP3B	Z	12.309	1.5
45	MP3B	Mx	-.003	1.5
46	MP3B	X	7.106	3.5
47	MP3B	Z	12.309	3.5
48	MP3B	Mx	-.003	3.5
49	MP3C	X	3.541	1.5
50	MP3C	Z	6.133	1.5
51	MP3C	Mx	.003	1.5
52	MP3C	X	3.541	3.5
53	MP3C	Z	6.133	3.5
54	MP3C	Mx	.003	3.5
55	MP1A	X	6.469	3
56	MP1A	Z	11.204	3
57	MP1A	Mx	.003	3
58	MP1B	X	6.469	3
59	MP1B	Z	11.204	3
60	MP1B	Mx	.003	3
61	MP1C	X	4.874	3
62	MP1C	Z	8.442	3
63	MP1C	Mx	-.005	3
64	MP2A	X	6.267	3
65	MP2A	Z	10.855	3
66	MP2A	Mx	.003	3
67	MP2B	X	6.267	3
68	MP2B	Z	10.855	3
69	MP2B	Mx	.003	3
70	MP2C	X	4.066	3
71	MP2C	Z	7.043	3
72	MP2C	Mx	-.004	3
73	M41	X	14.369	1
74	M41	Z	24.888	1
75	M41	Mx	0	1
76	MP4A	X	9.799	.5
77	MP4A	Z	16.972	.5
78	MP4A	Mx	-.005	.5
79	MP4A	X	9.799	5.5
80	MP4A	Z	16.972	5.5
81	MP4A	Mx	-.005	5.5
82	MP4B	X	9.799	.5
83	MP4B	Z	16.972	.5
84	MP4B	Mx	-.005	.5
85	MP4B	X	9.799	5.5
86	MP4B	Z	16.972	5.5
87	MP4B	Mx	-.005	5.5
88	MP4C	X	8.334	.5
89	MP4C	Z	14.435	.5
90	MP4C	Mx	.008	.5
91	MP4C	X	8.334	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
92	MP4C	Z	14.435	5.5
93	MP4C	Mx	.008	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.5
2	MP1A	Z	33.603	.5
3	MP1A	Mx	.022	.5
4	MP1A	X	0	5.5
5	MP1A	Z	33.603	5.5
6	MP1A	Mx	.022	5.5
7	MP1B	X	0	.5
8	MP1B	Z	27.475	.5
9	MP1B	Mx	-.031	.5
10	MP1B	X	0	5.5
11	MP1B	Z	27.475	5.5
12	MP1B	Mx	-.031	5.5
13	MP1C	X	0	.5
14	MP1C	Z	27.475	.5
15	MP1C	Mx	.013	.5
16	MP1C	X	0	5.5
17	MP1C	Z	27.475	5.5
18	MP1C	Mx	.013	5.5
19	MP1A	X	0	.5
20	MP1A	Z	27.475	.5
21	MP1A	Mx	-.013	.5
22	MP1A	X	0	5.5
23	MP1A	Z	27.475	5.5
24	MP1A	Mx	-.013	5.5
25	MP1B	X	0	.5
26	MP1B	Z	27.475	.5
27	MP1B	Mx	-.013	.5
28	MP1B	X	0	5.5
29	MP1B	Z	27.475	5.5
30	MP1B	Mx	-.013	5.5
31	MP1C	X	0	.5
32	MP1C	Z	27.475	.5
33	MP1C	Mx	.031	.5
34	MP1C	X	0	5.5
35	MP1C	Z	27.475	5.5
36	MP1C	Mx	.031	5.5
37	MP3A	X	0	1.5
38	MP3A	Z	16.59	1.5
39	MP3A	Mx	0	1.5
40	MP3A	X	0	3.5
41	MP3A	Z	16.59	3.5
42	MP3A	Mx	0	3.5
43	MP3B	X	0	1.5
44	MP3B	Z	9.458	1.5
45	MP3B	Mx	-.003	1.5
46	MP3B	X	0	3.5
47	MP3B	Z	9.458	3.5
48	MP3B	Mx	-.003	3.5
49	MP3C	X	0	1.5
50	MP3C	Z	9.458	1.5
51	MP3C	Mx	.003	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
52	MP3C	X	0	3.5
53	MP3C	Z	9.458	3.5
54	MP3C	Mx	.003	3.5
55	MP1A	X	0	3
56	MP1A	Z	14.001	3
57	MP1A	Mx	0	3
58	MP1B	X	0	3
59	MP1B	Z	10.812	3
60	MP1B	Mx	.005	3
61	MP1C	X	0	3
62	MP1C	Z	10.812	3
63	MP1C	Mx	-.005	3
64	MP2A	X	0	3
65	MP2A	Z	14.001	3
66	MP2A	Mx	0	3
67	MP2B	X	0	3
68	MP2B	Z	9.6	3
69	MP2B	Mx	.004	3
70	MP2C	X	0	3
71	MP2C	Z	9.6	3
72	MP2C	Mx	-.004	3
73	M41	X	0	1
74	M41	Z	27.175	1
75	M41	Mx	0	1
76	MP4A	X	0	.5
77	MP4A	Z	20.574	.5
78	MP4A	Mx	0	.5
79	MP4A	X	0	5.5
80	MP4A	Z	20.574	5.5
81	MP4A	Mx	0	5.5
82	MP4B	X	0	.5
83	MP4B	Z	17.645	.5
84	MP4B	Mx	-.008	.5
85	MP4B	X	0	5.5
86	MP4B	Z	17.645	5.5
87	MP4B	Mx	-.008	5.5
88	MP4C	X	0	.5
89	MP4C	Z	17.645	.5
90	MP4C	Mx	.008	.5
91	MP4C	X	0	5.5
92	MP4C	Z	17.645	5.5
93	MP4C	Mx	.008	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-15.78	.5
2	MP1A	Z	27.332	.5
3	MP1A	Mx	.033	.5
4	MP1A	X	-15.78	5.5
5	MP1A	Z	27.332	5.5
6	MP1A	Mx	.033	5.5
7	MP1B	X	-12.716	.5
8	MP1B	Z	22.025	.5
9	MP1B	Mx	-.023	.5
10	MP1B	X	-12.716	5.5
11	MP1B	Z	22.025	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP1B	Mx	-.023	5.5
13	MP1C	X	-15.78	.5
14	MP1C	Z	27.332	.5
15	MP1C	Mx	-.004	.5
16	MP1C	X	-15.78	5.5
17	MP1C	Z	27.332	5.5
18	MP1C	Mx	-.004	5.5
19	MP1A	X	-12.716	.5
20	MP1A	Z	22.025	.5
21	MP1A	Mx	-.023	.5
22	MP1A	X	-12.716	5.5
23	MP1A	Z	22.025	5.5
24	MP1A	Mx	-.023	5.5
25	MP1B	X	-12.716	.5
26	MP1B	Z	22.025	.5
27	MP1B	Mx	-.023	.5
28	MP1B	X	-12.716	5.5
29	MP1B	Z	22.025	5.5
30	MP1B	Mx	-.023	5.5
31	MP1C	X	-15.78	.5
32	MP1C	Z	27.332	.5
33	MP1C	Mx	.033	.5
34	MP1C	X	-15.78	5.5
35	MP1C	Z	27.332	5.5
36	MP1C	Mx	.033	5.5
37	MP3A	X	-7.106	1.5
38	MP3A	Z	12.309	1.5
39	MP3A	Mx	.003	1.5
40	MP3A	X	-7.106	3.5
41	MP3A	Z	12.309	3.5
42	MP3A	Mx	.003	3.5
43	MP3B	X	-3.541	1.5
44	MP3B	Z	6.133	1.5
45	MP3B	Mx	-.003	1.5
46	MP3B	X	-3.541	3.5
47	MP3B	Z	6.133	3.5
48	MP3B	Mx	-.003	3.5
49	MP3C	X	-7.106	1.5
50	MP3C	Z	12.309	1.5
51	MP3C	Mx	.003	1.5
52	MP3C	X	-7.106	3.5
53	MP3C	Z	12.309	3.5
54	MP3C	Mx	.003	3.5
55	MP1A	X	-6.469	3
56	MP1A	Z	11.204	3
57	MP1A	Mx	-.003	3
58	MP1B	X	-4.874	3
59	MP1B	Z	8.442	3
60	MP1B	Mx	.005	3
61	MP1C	X	-6.469	3
62	MP1C	Z	11.204	3
63	MP1C	Mx	-.003	3
64	MP2A	X	-6.267	3
65	MP2A	Z	10.855	3
66	MP2A	Mx	-.003	3
67	MP2B	X	-4.066	3
68	MP2B	Z	7.043	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
69	MP2B	Mx	.004	3
70	MP2C	X	-6.267	3
71	MP2C	Z	10.855	3
72	MP2C	Mx	-.003	3
73	M41	X	-12.024	1
74	M41	Z	20.827	1
75	M41	Mx	0	1
76	MP4A	X	-9.799	.5
77	MP4A	Z	16.972	.5
78	MP4A	Mx	.005	.5
79	MP4A	X	-9.799	5.5
80	MP4A	Z	16.972	5.5
81	MP4A	Mx	.005	5.5
82	MP4B	X	-8.334	.5
83	MP4B	Z	14.435	.5
84	MP4B	Mx	-.008	.5
85	MP4B	X	-8.334	5.5
86	MP4B	Z	14.435	5.5
87	MP4B	Mx	-.008	5.5
88	MP4C	X	-9.799	.5
89	MP4C	Z	16.972	.5
90	MP4C	Mx	.005	.5
91	MP4C	X	-9.799	5.5
92	MP4C	Z	16.972	5.5
93	MP4C	Mx	.005	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-23.794	.5
2	MP1A	Z	13.737	.5
3	MP1A	Mx	.031	.5
4	MP1A	X	-23.794	5.5
5	MP1A	Z	13.737	5.5
6	MP1A	Mx	.031	5.5
7	MP1B	X	-23.794	.5
8	MP1B	Z	13.737	.5
9	MP1B	Mx	-.013	.5
10	MP1B	X	-23.794	5.5
11	MP1B	Z	13.737	5.5
12	MP1B	Mx	-.013	5.5
13	MP1C	X	-29.101	.5
14	MP1C	Z	16.801	.5
15	MP1C	Mx	-.022	.5
16	MP1C	X	-29.101	5.5
17	MP1C	Z	16.801	5.5
18	MP1C	Mx	-.022	5.5
19	MP1A	X	-23.794	.5
20	MP1A	Z	13.737	.5
21	MP1A	Mx	-.031	.5
22	MP1A	X	-23.794	5.5
23	MP1A	Z	13.737	5.5
24	MP1A	Mx	-.031	5.5
25	MP1B	X	-23.794	.5
26	MP1B	Z	13.737	.5
27	MP1B	Mx	-.031	.5
28	MP1B	X	-23.794	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
29	MP1B	Z	13.737	5.5
30	MP1B	Mx	-.031	5.5
31	MP1C	X	-29.101	.5
32	MP1C	Z	16.801	.5
33	MP1C	Mx	.022	.5
34	MP1C	X	-29.101	5.5
35	MP1C	Z	16.801	5.5
36	MP1C	Mx	.022	5.5
37	MP3A	X	-8.191	1.5
38	MP3A	Z	4.729	1.5
39	MP3A	Mx	.003	1.5
40	MP3A	X	-8.191	3.5
41	MP3A	Z	4.729	3.5
42	MP3A	Mx	.003	3.5
43	MP3B	X	-8.191	1.5
44	MP3B	Z	4.729	1.5
45	MP3B	Mx	-.003	1.5
46	MP3B	X	-8.191	3.5
47	MP3B	Z	4.729	3.5
48	MP3B	Mx	-.003	3.5
49	MP3C	X	-14.367	1.5
50	MP3C	Z	8.295	1.5
51	MP3C	Mx	0	1.5
52	MP3C	X	-14.367	3.5
53	MP3C	Z	8.295	3.5
54	MP3C	Mx	0	3.5
55	MP1A	X	-9.363	3
56	MP1A	Z	5.406	3
57	MP1A	Mx	-.005	3
58	MP1B	X	-9.363	3
59	MP1B	Z	5.406	3
60	MP1B	Mx	.005	3
61	MP1C	X	-12.125	3
62	MP1C	Z	7	3
63	MP1C	Mx	0	3
64	MP2A	X	-8.313	3
65	MP2A	Z	4.8	3
66	MP2A	Mx	-.004	3
67	MP2B	X	-8.313	3
68	MP2B	Z	4.8	3
69	MP2B	Mx	.004	3
70	MP2C	X	-12.125	3
71	MP2C	Z	7	3
72	MP2C	Mx	0	3
73	M41	X	-19.473	1
74	M41	Z	11.243	1
75	M41	Mx	0	1
76	MP4A	X	-15.281	.5
77	MP4A	Z	8.822	.5
78	MP4A	Mx	.008	.5
79	MP4A	X	-15.281	5.5
80	MP4A	Z	8.822	5.5
81	MP4A	Mx	.008	5.5
82	MP4B	X	-15.281	.5
83	MP4B	Z	8.822	.5
84	MP4B	Mx	-.008	.5
85	MP4B	X	-15.281	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
86	MP4B	Z	8.822	5.5
87	MP4B	Mx	-.008	5.5
88	MP4C	X	-17.817	.5
89	MP4C	Z	10.287	.5
90	MP4C	Mx	0	.5
91	MP4C	X	-17.817	5.5
92	MP4C	Z	10.287	5.5
93	MP4C	Mx	0	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-25.432	.5
2	MP1A	Z	0	.5
3	MP1A	Mx	.023	.5
4	MP1A	X	-25.432	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	.023	5.5
7	MP1B	X	-31.56	.5
8	MP1B	Z	0	.5
9	MP1B	Mx	.004	.5
10	MP1B	X	-31.56	5.5
11	MP1B	Z	0	5.5
12	MP1B	Mx	.004	5.5
13	MP1C	X	-31.56	.5
14	MP1C	Z	0	.5
15	MP1C	Mx	-.033	.5
16	MP1C	X	-31.56	5.5
17	MP1C	Z	0	5.5
18	MP1C	Mx	-.033	5.5
19	MP1A	X	-31.56	.5
20	MP1A	Z	0	.5
21	MP1A	Mx	-.033	.5
22	MP1A	X	-31.56	5.5
23	MP1A	Z	0	5.5
24	MP1A	Mx	-.033	5.5
25	MP1B	X	-31.56	.5
26	MP1B	Z	0	.5
27	MP1B	Mx	-.033	.5
28	MP1B	X	-31.56	5.5
29	MP1B	Z	0	5.5
30	MP1B	Mx	-.033	5.5
31	MP1C	X	-31.56	.5
32	MP1C	Z	0	.5
33	MP1C	Mx	.004	.5
34	MP1C	X	-31.56	5.5
35	MP1C	Z	0	5.5
36	MP1C	Mx	.004	5.5
37	MP3A	X	-7.081	1.5
38	MP3A	Z	0	1.5
39	MP3A	Mx	.003	1.5
40	MP3A	X	-7.081	3.5
41	MP3A	Z	0	3.5
42	MP3A	Mx	.003	3.5
43	MP3B	X	-14.213	1.5
44	MP3B	Z	0	1.5
45	MP3B	Mx	-.003	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
46	MP3B	X	-14.213	3.5
47	MP3B	Z	0	3.5
48	MP3B	Mx	-.003	3.5
49	MP3C	X	-14.213	1.5
50	MP3C	Z	0	1.5
51	MP3C	Mx	-.003	1.5
52	MP3C	X	-14.213	3.5
53	MP3C	Z	0	3.5
54	MP3C	Mx	-.003	3.5
55	MP1A	X	-9.748	3
56	MP1A	Z	0	3
57	MP1A	Mx	-.005	3
58	MP1B	X	-12.938	3
59	MP1B	Z	0	3
60	MP1B	Mx	.003	3
61	MP1C	X	-12.938	3
62	MP1C	Z	0	3
63	MP1C	Mx	.003	3
64	MP2A	X	-8.132	3
65	MP2A	Z	0	3
66	MP2A	Mx	-.004	3
67	MP2B	X	-12.534	3
68	MP2B	Z	0	3
69	MP2B	Mx	.003	3
70	MP2C	X	-12.534	3
71	MP2C	Z	0	3
72	MP2C	Mx	.003	3
73	M41	X	-24.048	1
74	M41	Z	0	1
75	M41	Mx	0	1
76	MP4A	X	-16.668	.5
77	MP4A	Z	0	.5
78	MP4A	Mx	.008	.5
79	MP4A	X	-16.668	5.5
80	MP4A	Z	0	5.5
81	MP4A	Mx	.008	5.5
82	MP4B	X	-19.597	.5
83	MP4B	Z	0	.5
84	MP4B	Mx	-.005	.5
85	MP4B	X	-19.597	5.5
86	MP4B	Z	0	5.5
87	MP4B	Mx	-.005	5.5
88	MP4C	X	-19.597	.5
89	MP4C	Z	0	.5
90	MP4C	Mx	-.005	.5
91	MP4C	X	-19.597	5.5
92	MP4C	Z	0	5.5
93	MP4C	Mx	-.005	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-23.794	.5
2	MP1A	Z	-13.737	.5
3	MP1A	Mx	.013	.5
4	MP1A	X	-23.794	5.5
5	MP1A	Z	-13.737	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
6	MP1A	Mx	.013	5.5
7	MP1B	X	-29.101	.5
8	MP1B	Z	-16.801	.5
9	MP1B	Mx	.022	.5
10	MP1B	X	-29.101	5.5
11	MP1B	Z	-16.801	5.5
12	MP1B	Mx	.022	5.5
13	MP1C	X	-23.794	.5
14	MP1C	Z	-13.737	.5
15	MP1C	Mx	-.031	.5
16	MP1C	X	-23.794	5.5
17	MP1C	Z	-13.737	5.5
18	MP1C	Mx	-.031	5.5
19	MP1A	X	-29.101	.5
20	MP1A	Z	-16.801	.5
21	MP1A	Mx	-.022	.5
22	MP1A	X	-29.101	5.5
23	MP1A	Z	-16.801	5.5
24	MP1A	Mx	-.022	5.5
25	MP1B	X	-29.101	.5
26	MP1B	Z	-16.801	.5
27	MP1B	Mx	-.022	.5
28	MP1B	X	-29.101	5.5
29	MP1B	Z	-16.801	5.5
30	MP1B	Mx	-.022	5.5
31	MP1C	X	-23.794	.5
32	MP1C	Z	-13.737	.5
33	MP1C	Mx	-.013	.5
34	MP1C	X	-23.794	5.5
35	MP1C	Z	-13.737	5.5
36	MP1C	Mx	-.013	5.5
37	MP3A	X	-8.191	1.5
38	MP3A	Z	-4.729	1.5
39	MP3A	Mx	.003	1.5
40	MP3A	X	-8.191	3.5
41	MP3A	Z	-4.729	3.5
42	MP3A	Mx	.003	3.5
43	MP3B	X	-14.367	1.5
44	MP3B	Z	-8.295	1.5
45	MP3B	Mx	0	1.5
46	MP3B	X	-14.367	3.5
47	MP3B	Z	-8.295	3.5
48	MP3B	Mx	0	3.5
49	MP3C	X	-8.191	1.5
50	MP3C	Z	-4.729	1.5
51	MP3C	Mx	-.003	1.5
52	MP3C	X	-8.191	3.5
53	MP3C	Z	-4.729	3.5
54	MP3C	Mx	-.003	3.5
55	MP1A	X	-9.363	3
56	MP1A	Z	-5.406	3
57	MP1A	Mx	-.005	3
58	MP1B	X	-12.125	3
59	MP1B	Z	-7	3
60	MP1B	Mx	0	3
61	MP1C	X	-9.363	3
62	MP1C	Z	-5.406	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
63	MP1C	Mx	.005	3
64	MP2A	X	-8.313	3
65	MP2A	Z	-4.8	3
66	MP2A	Mx	-.004	3
67	MP2B	X	-12.125	3
68	MP2B	Z	-7	3
69	MP2B	Mx	0	3
70	MP2C	X	-8.313	3
71	MP2C	Z	-4.8	3
72	MP2C	Mx	.004	3
73	M41	X	-23.534	1
74	M41	Z	-13.588	1
75	M41	Mx	0	1
76	MP4A	X	-15.281	.5
77	MP4A	Z	-8.822	.5
78	MP4A	Mx	.008	.5
79	MP4A	X	-15.281	5.5
80	MP4A	Z	-8.822	5.5
81	MP4A	Mx	.008	5.5
82	MP4B	X	-17.817	.5
83	MP4B	Z	-10.287	.5
84	MP4B	Mx	0	.5
85	MP4B	X	-17.817	5.5
86	MP4B	Z	-10.287	5.5
87	MP4B	Mx	0	5.5
88	MP4C	X	-15.281	.5
89	MP4C	Z	-8.822	.5
90	MP4C	Mx	-.008	.5
91	MP4C	X	-15.281	5.5
92	MP4C	Z	-8.822	5.5
93	MP4C	Mx	-.008	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-15.78	.5
2	MP1A	Z	-27.332	.5
3	MP1A	Mx	-.004	.5
4	MP1A	X	-15.78	5.5
5	MP1A	Z	-27.332	5.5
6	MP1A	Mx	-.004	5.5
7	MP1B	X	-15.78	.5
8	MP1B	Z	-27.332	.5
9	MP1B	Mx	.033	.5
10	MP1B	X	-15.78	5.5
11	MP1B	Z	-27.332	5.5
12	MP1B	Mx	.033	5.5
13	MP1C	X	-12.716	.5
14	MP1C	Z	-22.025	.5
15	MP1C	Mx	-.023	.5
16	MP1C	X	-12.716	5.5
17	MP1C	Z	-22.025	5.5
18	MP1C	Mx	-.023	5.5
19	MP1A	X	-15.78	.5
20	MP1A	Z	-27.332	.5
21	MP1A	Mx	-.004	.5
22	MP1A	X	-15.78	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP1A	Z	-27.332	5.5
24	MP1A	Mx	-.004	5.5
25	MP1B	X	-15.78	.5
26	MP1B	Z	-27.332	.5
27	MP1B	Mx	-.004	.5
28	MP1B	X	-15.78	5.5
29	MP1B	Z	-27.332	5.5
30	MP1B	Mx	-.004	5.5
31	MP1C	X	-12.716	.5
32	MP1C	Z	-22.025	.5
33	MP1C	Mx	-.023	.5
34	MP1C	X	-12.716	5.5
35	MP1C	Z	-22.025	5.5
36	MP1C	Mx	-.023	5.5
37	MP3A	X	-7.106	1.5
38	MP3A	Z	-12.309	1.5
39	MP3A	Mx	.003	1.5
40	MP3A	X	-7.106	3.5
41	MP3A	Z	-12.309	3.5
42	MP3A	Mx	.003	3.5
43	MP3B	X	-7.106	1.5
44	MP3B	Z	-12.309	1.5
45	MP3B	Mx	.003	1.5
46	MP3B	X	-7.106	3.5
47	MP3B	Z	-12.309	3.5
48	MP3B	Mx	.003	3.5
49	MP3C	X	-3.541	1.5
50	MP3C	Z	-6.133	1.5
51	MP3C	Mx	-.003	1.5
52	MP3C	X	-3.541	3.5
53	MP3C	Z	-6.133	3.5
54	MP3C	Mx	-.003	3.5
55	MP1A	X	-6.469	3
56	MP1A	Z	-11.204	3
57	MP1A	Mx	-.003	3
58	MP1B	X	-6.469	3
59	MP1B	Z	-11.204	3
60	MP1B	Mx	-.003	3
61	MP1C	X	-4.874	3
62	MP1C	Z	-8.442	3
63	MP1C	Mx	.005	3
64	MP2A	X	-6.267	3
65	MP2A	Z	-10.855	3
66	MP2A	Mx	-.003	3
67	MP2B	X	-6.267	3
68	MP2B	Z	-10.855	3
69	MP2B	Mx	-.003	3
70	MP2C	X	-4.066	3
71	MP2C	Z	-7.043	3
72	MP2C	Mx	.004	3
73	M41	X	-14.369	1
74	M41	Z	-24.888	1
75	M41	Mx	0	1
76	MP4A	X	-9.799	.5
77	MP4A	Z	-16.972	.5
78	MP4A	Mx	.005	.5
79	MP4A	X	-9.799	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
80	MP4A	Z	-16.972	5.5
81	MP4A	Mx	.005	5.5
82	MP4B	X	-9.799	.5
83	MP4B	Z	-16.972	.5
84	MP4B	Mx	.005	.5
85	MP4B	X	-9.799	5.5
86	MP4B	Z	-16.972	5.5
87	MP4B	Mx	.005	5.5
88	MP4C	X	-8.334	.5
89	MP4C	Z	-14.435	.5
90	MP4C	Mx	-.008	.5
91	MP4C	X	-8.334	5.5
92	MP4C	Z	-14.435	5.5
93	MP4C	Mx	-.008	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.5
2	MP1A	Z	-11.07	.5
3	MP1A	Mx	-.007	.5
4	MP1A	X	0	5.5
5	MP1A	Z	-11.07	5.5
6	MP1A	Mx	-.007	5.5
7	MP1B	X	0	.5
8	MP1B	Z	-8.94	.5
9	MP1B	Mx	.01	.5
10	MP1B	X	0	5.5
11	MP1B	Z	-8.94	5.5
12	MP1B	Mx	.01	5.5
13	MP1C	X	0	.5
14	MP1C	Z	-8.94	.5
15	MP1C	Mx	-.004	.5
16	MP1C	X	0	5.5
17	MP1C	Z	-8.94	5.5
18	MP1C	Mx	-.004	5.5
19	MP1A	X	0	.5
20	MP1A	Z	-8.94	.5
21	MP1A	Mx	.004	.5
22	MP1A	X	0	5.5
23	MP1A	Z	-8.94	5.5
24	MP1A	Mx	.004	5.5
25	MP1B	X	0	.5
26	MP1B	Z	-8.94	.5
27	MP1B	Mx	.004	.5
28	MP1B	X	0	5.5
29	MP1B	Z	-8.94	5.5
30	MP1B	Mx	.004	5.5
31	MP1C	X	0	.5
32	MP1C	Z	-8.94	.5
33	MP1C	Mx	-.01	.5
34	MP1C	X	0	5.5
35	MP1C	Z	-8.94	5.5
36	MP1C	Mx	-.01	5.5
37	MP3A	X	0	1.5
38	MP3A	Z	-5.272	1.5
39	MP3A	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
40	MP3A	X	0	3.5
41	MP3A	Z	-5.272	3.5
42	MP3A	Mx	0	3.5
43	MP3B	X	0	1.5
44	MP3B	Z	-2.866	1.5
45	MP3B	Mx	.001	1.5
46	MP3B	X	0	3.5
47	MP3B	Z	-2.866	3.5
48	MP3B	Mx	.001	3.5
49	MP3C	X	0	1.5
50	MP3C	Z	-2.866	1.5
51	MP3C	Mx	-.001	1.5
52	MP3C	X	0	3.5
53	MP3C	Z	-2.866	3.5
54	MP3C	Mx	-.001	3.5
55	MP1A	X	0	3
56	MP1A	Z	-4.195	3
57	MP1A	Mx	0	3
58	MP1B	X	0	3
59	MP1B	Z	-3.152	3
60	MP1B	Mx	-.001	3
61	MP1C	X	0	3
62	MP1C	Z	-3.152	3
63	MP1C	Mx	.001	3
64	MP2A	X	0	3
65	MP2A	Z	-4.195	3
66	MP2A	Mx	0	3
67	MP2B	X	0	3
68	MP2B	Z	-2.752	3
69	MP2B	Mx	-.001	3
70	MP2C	X	0	3
71	MP2C	Z	-2.752	3
72	MP2C	Mx	.001	3
73	M41	X	0	1
74	M41	Z	-8.568	1
75	M41	Mx	0	1
76	MP4A	X	0	.5
77	MP4A	Z	-6.461	.5
78	MP4A	Mx	0	.5
79	MP4A	X	0	5.5
80	MP4A	Z	-6.461	5.5
81	MP4A	Mx	0	5.5
82	MP4B	X	0	.5
83	MP4B	Z	-5.452	.5
84	MP4B	Mx	.002	.5
85	MP4B	X	0	5.5
86	MP4B	Z	-5.452	5.5
87	MP4B	Mx	.002	5.5
88	MP4C	X	0	.5
89	MP4C	Z	-5.452	.5
90	MP4C	Mx	-.002	.5
91	MP4C	X	0	5.5
92	MP4C	Z	-5.452	5.5
93	MP4C	Mx	-.002	5.5

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

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	5.18	.5
2	MP1A	Z	-8.972	.5
3	MP1A	Mx	-.011	.5
4	MP1A	X	5.18	5.5
5	MP1A	Z	-8.972	5.5
6	MP1A	Mx	-.011	5.5
7	MP1B	X	4.115	.5
8	MP1B	Z	-7.128	.5
9	MP1B	Mx	.008	.5
10	MP1B	X	4.115	5.5
11	MP1B	Z	-7.128	5.5
12	MP1B	Mx	.008	5.5
13	MP1C	X	5.18	.5
14	MP1C	Z	-8.972	.5
15	MP1C	Mx	.001	.5
16	MP1C	X	5.18	5.5
17	MP1C	Z	-8.972	5.5
18	MP1C	Mx	.001	5.5
19	MP1A	X	4.115	.5
20	MP1A	Z	-7.128	.5
21	MP1A	Mx	.008	.5
22	MP1A	X	4.115	5.5
23	MP1A	Z	-7.128	5.5
24	MP1A	Mx	.008	5.5
25	MP1B	X	4.115	.5
26	MP1B	Z	-7.128	.5
27	MP1B	Mx	.008	.5
28	MP1B	X	4.115	5.5
29	MP1B	Z	-7.128	5.5
30	MP1B	Mx	.008	5.5
31	MP1C	X	5.18	.5
32	MP1C	Z	-8.972	.5
33	MP1C	Mx	-.011	.5
34	MP1C	X	5.18	5.5
35	MP1C	Z	-8.972	5.5
36	MP1C	Mx	-.011	5.5
37	MP3A	X	2.235	1.5
38	MP3A	Z	-3.871	1.5
39	MP3A	Mx	-.000931	1.5
40	MP3A	X	2.235	3.5
41	MP3A	Z	-3.871	3.5
42	MP3A	Mx	-.000931	3.5
43	MP3B	X	1.032	1.5
44	MP3B	Z	-1.787	1.5
45	MP3B	Mx	.00086	1.5
46	MP3B	X	1.032	3.5
47	MP3B	Z	-1.787	3.5
48	MP3B	Mx	.00086	3.5
49	MP3C	X	2.235	1.5
50	MP3C	Z	-3.871	1.5
51	MP3C	Mx	-.000931	1.5
52	MP3C	X	2.235	3.5
53	MP3C	Z	-3.871	3.5
54	MP3C	Mx	-.000931	3.5
55	MP1A	X	1.924	3
56	MP1A	Z	-3.332	3
57	MP1A	Mx	.000962	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP1B	X	1.402	3
59	MP1B	Z	-2.428	3
60	MP1B	Mx	-.001	3
61	MP1C	X	1.924	3
62	MP1C	Z	-3.332	3
63	MP1C	Mx	.000962	3
64	MP2A	X	1.857	3
65	MP2A	Z	-3.216	3
66	MP2A	Mx	.000928	3
67	MP2B	X	1.136	3
68	MP2B	Z	-1.967	3
69	MP2B	Mx	-.001	3
70	MP2C	X	1.857	3
71	MP2C	Z	-3.216	3
72	MP2C	Mx	.000928	3
73	M41	X	3.744	1
74	M41	Z	-6.485	1
75	M41	Mx	0	1
76	MP4A	X	3.062	.5
77	MP4A	Z	-5.304	.5
78	MP4A	Mx	-.002	.5
79	MP4A	X	3.062	5.5
80	MP4A	Z	-5.304	5.5
81	MP4A	Mx	-.002	5.5
82	MP4B	X	2.558	.5
83	MP4B	Z	-4.43	.5
84	MP4B	Mx	.003	.5
85	MP4B	X	2.558	5.5
86	MP4B	Z	-4.43	5.5
87	MP4B	Mx	.003	5.5
88	MP4C	X	3.062	.5
89	MP4C	Z	-5.304	.5
90	MP4C	Mx	-.002	.5
91	MP4C	X	3.062	5.5
92	MP4C	Z	-5.304	5.5
93	MP4C	Mx	-.002	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	7.743	.5
2	MP1A	Z	-4.47	.5
3	MP1A	Mx	-.01	.5
4	MP1A	X	7.743	5.5
5	MP1A	Z	-4.47	5.5
6	MP1A	Mx	-.01	5.5
7	MP1B	X	7.743	.5
8	MP1B	Z	-4.47	.5
9	MP1B	Mx	.004	.5
10	MP1B	X	7.743	5.5
11	MP1B	Z	-4.47	5.5
12	MP1B	Mx	.004	5.5
13	MP1C	X	9.587	.5
14	MP1C	Z	-5.535	.5
15	MP1C	Mx	.007	.5
16	MP1C	X	9.587	5.5
17	MP1C	Z	-5.535	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP1C	Mx	.007	5.5
19	MP1A	X	7.743	.5
20	MP1A	Z	-4.47	.5
21	MP1A	Mx	.01	.5
22	MP1A	X	7.743	5.5
23	MP1A	Z	-4.47	5.5
24	MP1A	Mx	.01	5.5
25	MP1B	X	7.743	.5
26	MP1B	Z	-4.47	.5
27	MP1B	Mx	.01	.5
28	MP1B	X	7.743	5.5
29	MP1B	Z	-4.47	5.5
30	MP1B	Mx	.01	5.5
31	MP1C	X	9.587	.5
32	MP1C	Z	-5.535	.5
33	MP1C	Mx	-.007	.5
34	MP1C	X	9.587	5.5
35	MP1C	Z	-5.535	5.5
36	MP1C	Mx	-.007	5.5
37	MP3A	X	2.482	1.5
38	MP3A	Z	-1.433	1.5
39	MP3A	Mx	-.001	1.5
40	MP3A	X	2.482	3.5
41	MP3A	Z	-1.433	3.5
42	MP3A	Mx	-.001	3.5
43	MP3B	X	2.482	1.5
44	MP3B	Z	-1.433	1.5
45	MP3B	Mx	.001	1.5
46	MP3B	X	2.482	3.5
47	MP3B	Z	-1.433	3.5
48	MP3B	Mx	.001	3.5
49	MP3C	X	4.565	1.5
50	MP3C	Z	-2.636	1.5
51	MP3C	Mx	0	1.5
52	MP3C	X	4.565	3.5
53	MP3C	Z	-2.636	3.5
54	MP3C	Mx	0	3.5
55	MP1A	X	2.73	3
56	MP1A	Z	-1.576	3
57	MP1A	Mx	.001	3
58	MP1B	X	2.73	3
59	MP1B	Z	-1.576	3
60	MP1B	Mx	-.001	3
61	MP1C	X	3.633	3
62	MP1C	Z	-2.097	3
63	MP1C	Mx	0	3
64	MP2A	X	2.383	3
65	MP2A	Z	-1.376	3
66	MP2A	Mx	.001	3
67	MP2B	X	2.383	3
68	MP2B	Z	-1.376	3
69	MP2B	Mx	-.001	3
70	MP2C	X	3.633	3
71	MP2C	Z	-2.097	3
72	MP2C	Mx	0	3
73	M41	X	6.018	1
74	M41	Z	-3.474	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	M41	Mx	0	1
76	MP4A	X	4.721	.5
77	MP4A	Z	-2.726	.5
78	MP4A	Mx	-.002	.5
79	MP4A	X	4.721	5.5
80	MP4A	Z	-2.726	5.5
81	MP4A	Mx	-.002	5.5
82	MP4B	X	4.721	.5
83	MP4B	Z	-2.726	.5
84	MP4B	Mx	.002	.5
85	MP4B	X	4.721	5.5
86	MP4B	Z	-2.726	5.5
87	MP4B	Mx	.002	5.5
88	MP4C	X	5.595	.5
89	MP4C	Z	-3.23	.5
90	MP4C	Mx	0	.5
91	MP4C	X	5.595	5.5
92	MP4C	Z	-3.23	5.5
93	MP4C	Mx	0	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	8.23	.5
2	MP1A	Z	0	.5
3	MP1A	Mx	-.008	.5
4	MP1A	X	8.23	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	-.008	5.5
7	MP1B	X	10.36	.5
8	MP1B	Z	0	.5
9	MP1B	Mx	-.001	.5
10	MP1B	X	10.36	5.5
11	MP1B	Z	0	5.5
12	MP1B	Mx	-.001	5.5
13	MP1C	X	10.36	.5
14	MP1C	Z	0	.5
15	MP1C	Mx	.011	.5
16	MP1C	X	10.36	5.5
17	MP1C	Z	0	5.5
18	MP1C	Mx	.011	5.5
19	MP1A	X	10.36	.5
20	MP1A	Z	0	.5
21	MP1A	Mx	.011	.5
22	MP1A	X	10.36	5.5
23	MP1A	Z	0	5.5
24	MP1A	Mx	.011	5.5
25	MP1B	X	10.36	.5
26	MP1B	Z	0	.5
27	MP1B	Mx	.011	.5
28	MP1B	X	10.36	5.5
29	MP1B	Z	0	5.5
30	MP1B	Mx	.011	5.5
31	MP1C	X	10.36	.5
32	MP1C	Z	0	.5
33	MP1C	Mx	-.001	.5
34	MP1C	X	10.36	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP1C	Z	0	5.5
36	MP1C	Mx	-.001	5.5
37	MP3A	X	2.064	1.5
38	MP3A	Z	0	1.5
39	MP3A	Mx	-.00086	1.5
40	MP3A	X	2.064	3.5
41	MP3A	Z	0	3.5
42	MP3A	Mx	-.00086	3.5
43	MP3B	X	4.47	1.5
44	MP3B	Z	0	1.5
45	MP3B	Mx	.000931	1.5
46	MP3B	X	4.47	3.5
47	MP3B	Z	0	3.5
48	MP3B	Mx	.000931	3.5
49	MP3C	X	4.47	1.5
50	MP3C	Z	0	1.5
51	MP3C	Mx	.000931	1.5
52	MP3C	X	4.47	3.5
53	MP3C	Z	0	3.5
54	MP3C	Mx	.000931	3.5
55	MP1A	X	2.804	3
56	MP1A	Z	0	3
57	MP1A	Mx	.001	3
58	MP1B	X	3.847	3
59	MP1B	Z	0	3
60	MP1B	Mx	-.000962	3
61	MP1C	X	3.847	3
62	MP1C	Z	0	3
63	MP1C	Mx	-.000962	3
64	MP2A	X	2.271	3
65	MP2A	Z	0	3
66	MP2A	Mx	.001	3
67	MP2B	X	3.714	3
68	MP2B	Z	0	3
69	MP2B	Mx	-.000928	3
70	MP2C	X	3.714	3
71	MP2C	Z	0	3
72	MP2C	Mx	-.000928	3
73	M41	X	7.488	1
74	M41	Z	0	1
75	M41	Mx	0	1
76	MP4A	X	5.115	.5
77	MP4A	Z	0	.5
78	MP4A	Mx	-.003	.5
79	MP4A	X	5.115	5.5
80	MP4A	Z	0	5.5
81	MP4A	Mx	-.003	5.5
82	MP4B	X	6.124	.5
83	MP4B	Z	0	.5
84	MP4B	Mx	.002	.5
85	MP4B	X	6.124	5.5
86	MP4B	Z	0	5.5
87	MP4B	Mx	.002	5.5
88	MP4C	X	6.124	.5
89	MP4C	Z	0	.5
90	MP4C	Mx	.002	.5
91	MP4C	X	6.124	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
92	MP4C	Z	0	5.5
93	MP4C	Mx	.002	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	7.743	.5
2	MP1A	Z	4.47	.5
3	MP1A	Mx	-.004	.5
4	MP1A	X	7.743	5.5
5	MP1A	Z	4.47	5.5
6	MP1A	Mx	-.004	5.5
7	MP1B	X	9.587	.5
8	MP1B	Z	5.535	.5
9	MP1B	Mx	-.007	.5
10	MP1B	X	9.587	5.5
11	MP1B	Z	5.535	5.5
12	MP1B	Mx	-.007	5.5
13	MP1C	X	7.743	.5
14	MP1C	Z	4.47	.5
15	MP1C	Mx	.01	.5
16	MP1C	X	7.743	5.5
17	MP1C	Z	4.47	5.5
18	MP1C	Mx	.01	5.5
19	MP1A	X	9.587	.5
20	MP1A	Z	5.535	.5
21	MP1A	Mx	.007	.5
22	MP1A	X	9.587	5.5
23	MP1A	Z	5.535	5.5
24	MP1A	Mx	.007	5.5
25	MP1B	X	9.587	.5
26	MP1B	Z	5.535	.5
27	MP1B	Mx	.007	.5
28	MP1B	X	9.587	5.5
29	MP1B	Z	5.535	5.5
30	MP1B	Mx	.007	5.5
31	MP1C	X	7.743	.5
32	MP1C	Z	4.47	.5
33	MP1C	Mx	.004	.5
34	MP1C	X	7.743	5.5
35	MP1C	Z	4.47	5.5
36	MP1C	Mx	.004	5.5
37	MP3A	X	2.482	1.5
38	MP3A	Z	1.433	1.5
39	MP3A	Mx	-.001	1.5
40	MP3A	X	2.482	3.5
41	MP3A	Z	1.433	3.5
42	MP3A	Mx	-.001	3.5
43	MP3B	X	4.565	1.5
44	MP3B	Z	2.636	1.5
45	MP3B	Mx	0	1.5
46	MP3B	X	4.565	3.5
47	MP3B	Z	2.636	3.5
48	MP3B	Mx	0	3.5
49	MP3C	X	2.482	1.5
50	MP3C	Z	1.433	1.5
51	MP3C	Mx	.001	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
52	MP3C	X	2.482	3.5
53	MP3C	Z	1.433	3.5
54	MP3C	Mx	.001	3.5
55	MP1A	X	2.73	3
56	MP1A	Z	1.576	3
57	MP1A	Mx	.001	3
58	MP1B	X	3.633	3
59	MP1B	Z	2.097	3
60	MP1B	Mx	0	3
61	MP1C	X	2.73	3
62	MP1C	Z	1.576	3
63	MP1C	Mx	-.001	3
64	MP2A	X	2.383	3
65	MP2A	Z	1.376	3
66	MP2A	Mx	.001	3
67	MP2B	X	3.633	3
68	MP2B	Z	2.097	3
69	MP2B	Mx	0	3
70	MP2C	X	2.383	3
71	MP2C	Z	1.376	3
72	MP2C	Mx	-.001	3
73	M41	X	7.42	1
74	M41	Z	4.284	1
75	M41	Mx	0	1
76	MP4A	X	4.721	.5
77	MP4A	Z	2.726	.5
78	MP4A	Mx	-.002	.5
79	MP4A	X	4.721	5.5
80	MP4A	Z	2.726	5.5
81	MP4A	Mx	-.002	5.5
82	MP4B	X	5.595	.5
83	MP4B	Z	3.23	.5
84	MP4B	Mx	0	.5
85	MP4B	X	5.595	5.5
86	MP4B	Z	3.23	5.5
87	MP4B	Mx	0	5.5
88	MP4C	X	4.721	.5
89	MP4C	Z	2.726	.5
90	MP4C	Mx	.002	.5
91	MP4C	X	4.721	5.5
92	MP4C	Z	2.726	5.5
93	MP4C	Mx	.002	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	5.18	.5
2	MP1A	Z	8.972	.5
3	MP1A	Mx	.001	.5
4	MP1A	X	5.18	5.5
5	MP1A	Z	8.972	5.5
6	MP1A	Mx	.001	5.5
7	MP1B	X	5.18	.5
8	MP1B	Z	8.972	.5
9	MP1B	Mx	-.011	.5
10	MP1B	X	5.18	5.5
11	MP1B	Z	8.972	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP1B	Mx	-.011	5.5
13	MP1C	X	4.115	.5
14	MP1C	Z	7.128	.5
15	MP1C	Mx	.008	.5
16	MP1C	X	4.115	5.5
17	MP1C	Z	7.128	5.5
18	MP1C	Mx	.008	5.5
19	MP1A	X	5.18	.5
20	MP1A	Z	8.972	.5
21	MP1A	Mx	.001	.5
22	MP1A	X	5.18	5.5
23	MP1A	Z	8.972	5.5
24	MP1A	Mx	.001	5.5
25	MP1B	X	5.18	.5
26	MP1B	Z	8.972	.5
27	MP1B	Mx	.001	.5
28	MP1B	X	5.18	5.5
29	MP1B	Z	8.972	5.5
30	MP1B	Mx	.001	5.5
31	MP1C	X	4.115	.5
32	MP1C	Z	7.128	.5
33	MP1C	Mx	.008	.5
34	MP1C	X	4.115	5.5
35	MP1C	Z	7.128	5.5
36	MP1C	Mx	.008	5.5
37	MP3A	X	2.235	1.5
38	MP3A	Z	3.871	1.5
39	MP3A	Mx	-.000931	1.5
40	MP3A	X	2.235	3.5
41	MP3A	Z	3.871	3.5
42	MP3A	Mx	-.000931	3.5
43	MP3B	X	2.235	1.5
44	MP3B	Z	3.871	1.5
45	MP3B	Mx	-.000931	1.5
46	MP3B	X	2.235	3.5
47	MP3B	Z	3.871	3.5
48	MP3B	Mx	-.000931	3.5
49	MP3C	X	1.032	1.5
50	MP3C	Z	1.787	1.5
51	MP3C	Mx	.00086	1.5
52	MP3C	X	1.032	3.5
53	MP3C	Z	1.787	3.5
54	MP3C	Mx	.00086	3.5
55	MP1A	X	1.924	3
56	MP1A	Z	3.332	3
57	MP1A	Mx	.000962	3
58	MP1B	X	1.924	3
59	MP1B	Z	3.332	3
60	MP1B	Mx	.000962	3
61	MP1C	X	1.402	3
62	MP1C	Z	2.428	3
63	MP1C	Mx	-.001	3
64	MP2A	X	1.857	3
65	MP2A	Z	3.216	3
66	MP2A	Mx	.000928	3
67	MP2B	X	1.857	3
68	MP2B	Z	3.216	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
69	MP2B	Mx	.000928	3
70	MP2C	X	1.136	3
71	MP2C	Z	1.967	3
72	MP2C	Mx	-.001	3
73	M41	X	4.554	1
74	M41	Z	7.887	1
75	M41	Mx	0	1
76	MP4A	X	3.062	.5
77	MP4A	Z	5.304	.5
78	MP4A	Mx	-.002	.5
79	MP4A	X	3.062	5.5
80	MP4A	Z	5.304	5.5
81	MP4A	Mx	-.002	5.5
82	MP4B	X	3.062	.5
83	MP4B	Z	5.304	.5
84	MP4B	Mx	-.002	.5
85	MP4B	X	3.062	5.5
86	MP4B	Z	5.304	5.5
87	MP4B	Mx	-.002	5.5
88	MP4C	X	2.558	.5
89	MP4C	Z	4.43	.5
90	MP4C	Mx	.003	.5
91	MP4C	X	2.558	5.5
92	MP4C	Z	4.43	5.5
93	MP4C	Mx	.003	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.5
2	MP1A	Z	11.07	.5
3	MP1A	Mx	.007	.5
4	MP1A	X	0	5.5
5	MP1A	Z	11.07	5.5
6	MP1A	Mx	.007	5.5
7	MP1B	X	0	.5
8	MP1B	Z	8.94	.5
9	MP1B	Mx	-.01	.5
10	MP1B	X	0	5.5
11	MP1B	Z	8.94	5.5
12	MP1B	Mx	-.01	5.5
13	MP1C	X	0	.5
14	MP1C	Z	8.94	.5
15	MP1C	Mx	.004	.5
16	MP1C	X	0	5.5
17	MP1C	Z	8.94	5.5
18	MP1C	Mx	.004	5.5
19	MP1A	X	0	.5
20	MP1A	Z	8.94	.5
21	MP1A	Mx	-.004	.5
22	MP1A	X	0	5.5
23	MP1A	Z	8.94	5.5
24	MP1A	Mx	-.004	5.5
25	MP1B	X	0	.5
26	MP1B	Z	8.94	.5
27	MP1B	Mx	-.004	.5
28	MP1B	X	0	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
29	MP1B	Z	8.94	5.5
30	MP1B	Mx	-.004	5.5
31	MP1C	X	0	.5
32	MP1C	Z	8.94	.5
33	MP1C	Mx	.01	.5
34	MP1C	X	0	5.5
35	MP1C	Z	8.94	5.5
36	MP1C	Mx	.01	5.5
37	MP3A	X	0	1.5
38	MP3A	Z	5.272	1.5
39	MP3A	Mx	0	1.5
40	MP3A	X	0	3.5
41	MP3A	Z	5.272	3.5
42	MP3A	Mx	0	3.5
43	MP3B	X	0	1.5
44	MP3B	Z	2.866	1.5
45	MP3B	Mx	-.001	1.5
46	MP3B	X	0	3.5
47	MP3B	Z	2.866	3.5
48	MP3B	Mx	-.001	3.5
49	MP3C	X	0	1.5
50	MP3C	Z	2.866	1.5
51	MP3C	Mx	.001	1.5
52	MP3C	X	0	3.5
53	MP3C	Z	2.866	3.5
54	MP3C	Mx	.001	3.5
55	MP1A	X	0	3
56	MP1A	Z	4.195	3
57	MP1A	Mx	0	3
58	MP1B	X	0	3
59	MP1B	Z	3.152	3
60	MP1B	Mx	.001	3
61	MP1C	X	0	3
62	MP1C	Z	3.152	3
63	MP1C	Mx	-.001	3
64	MP2A	X	0	3
65	MP2A	Z	4.195	3
66	MP2A	Mx	0	3
67	MP2B	X	0	3
68	MP2B	Z	2.752	3
69	MP2B	Mx	.001	3
70	MP2C	X	0	3
71	MP2C	Z	2.752	3
72	MP2C	Mx	-.001	3
73	M41	X	0	1
74	M41	Z	8.568	1
75	M41	Mx	0	1
76	MP4A	X	0	.5
77	MP4A	Z	6.461	.5
78	MP4A	Mx	0	.5
79	MP4A	X	0	5.5
80	MP4A	Z	6.461	5.5
81	MP4A	Mx	0	5.5
82	MP4B	X	0	.5
83	MP4B	Z	5.452	.5
84	MP4B	Mx	-.002	.5
85	MP4B	X	0	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
86	MP4B	Z	5.452	5.5
87	MP4B	Mx	-.002	5.5
88	MP4C	X	0	.5
89	MP4C	Z	5.452	.5
90	MP4C	Mx	.002	.5
91	MP4C	X	0	5.5
92	MP4C	Z	5.452	5.5
93	MP4C	Mx	.002	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-5.18	.5
2	MP1A	Z	8.972	.5
3	MP1A	Mx	.011	.5
4	MP1A	X	-5.18	5.5
5	MP1A	Z	8.972	5.5
6	MP1A	Mx	.011	5.5
7	MP1B	X	-4.115	.5
8	MP1B	Z	7.128	.5
9	MP1B	Mx	-.008	.5
10	MP1B	X	-4.115	5.5
11	MP1B	Z	7.128	5.5
12	MP1B	Mx	-.008	5.5
13	MP1C	X	-5.18	.5
14	MP1C	Z	8.972	.5
15	MP1C	Mx	-.001	.5
16	MP1C	X	-5.18	5.5
17	MP1C	Z	8.972	5.5
18	MP1C	Mx	-.001	5.5
19	MP1A	X	-4.115	.5
20	MP1A	Z	7.128	.5
21	MP1A	Mx	-.008	.5
22	MP1A	X	-4.115	5.5
23	MP1A	Z	7.128	5.5
24	MP1A	Mx	-.008	5.5
25	MP1B	X	-4.115	.5
26	MP1B	Z	7.128	.5
27	MP1B	Mx	-.008	.5
28	MP1B	X	-4.115	5.5
29	MP1B	Z	7.128	5.5
30	MP1B	Mx	-.008	5.5
31	MP1C	X	-5.18	.5
32	MP1C	Z	8.972	.5
33	MP1C	Mx	.011	.5
34	MP1C	X	-5.18	5.5
35	MP1C	Z	8.972	5.5
36	MP1C	Mx	.011	5.5
37	MP3A	X	-2.235	1.5
38	MP3A	Z	3.871	1.5
39	MP3A	Mx	.000931	1.5
40	MP3A	X	-2.235	3.5
41	MP3A	Z	3.871	3.5
42	MP3A	Mx	.000931	3.5
43	MP3B	X	-1.032	1.5
44	MP3B	Z	1.787	1.5
45	MP3B	Mx	-.00086	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
46	MP3B	X	-1.032	3.5
47	MP3B	Z	1.787	3.5
48	MP3B	Mx	-.00086	3.5
49	MP3C	X	-2.235	1.5
50	MP3C	Z	3.871	1.5
51	MP3C	Mx	.000931	1.5
52	MP3C	X	-2.235	3.5
53	MP3C	Z	3.871	3.5
54	MP3C	Mx	.000931	3.5
55	MP1A	X	-1.924	3
56	MP1A	Z	3.332	3
57	MP1A	Mx	-.000962	3
58	MP1B	X	-1.402	3
59	MP1B	Z	2.428	3
60	MP1B	Mx	.001	3
61	MP1C	X	-1.924	3
62	MP1C	Z	3.332	3
63	MP1C	Mx	-.000962	3
64	MP2A	X	-1.857	3
65	MP2A	Z	3.216	3
66	MP2A	Mx	-.000928	3
67	MP2B	X	-1.136	3
68	MP2B	Z	1.967	3
69	MP2B	Mx	.001	3
70	MP2C	X	-1.857	3
71	MP2C	Z	3.216	3
72	MP2C	Mx	-.000928	3
73	M41	X	-3.744	1
74	M41	Z	6.485	1
75	M41	Mx	0	1
76	MP4A	X	-3.062	.5
77	MP4A	Z	5.304	.5
78	MP4A	Mx	.002	.5
79	MP4A	X	-3.062	5.5
80	MP4A	Z	5.304	5.5
81	MP4A	Mx	.002	5.5
82	MP4B	X	-2.558	.5
83	MP4B	Z	4.43	.5
84	MP4B	Mx	-.003	.5
85	MP4B	X	-2.558	5.5
86	MP4B	Z	4.43	5.5
87	MP4B	Mx	-.003	5.5
88	MP4C	X	-3.062	.5
89	MP4C	Z	5.304	.5
90	MP4C	Mx	.002	.5
91	MP4C	X	-3.062	5.5
92	MP4C	Z	5.304	5.5
93	MP4C	Mx	.002	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-7.743	.5
2	MP1A	Z	4.47	.5
3	MP1A	Mx	.01	.5
4	MP1A	X	-7.743	5.5
5	MP1A	Z	4.47	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
6	MP1A	Mx	.01	5.5
7	MP1B	X	-7.743	.5
8	MP1B	Z	4.47	.5
9	MP1B	Mx	-.004	.5
10	MP1B	X	-7.743	5.5
11	MP1B	Z	4.47	5.5
12	MP1B	Mx	-.004	5.5
13	MP1C	X	-9.587	.5
14	MP1C	Z	5.535	.5
15	MP1C	Mx	-.007	.5
16	MP1C	X	-9.587	5.5
17	MP1C	Z	5.535	5.5
18	MP1C	Mx	-.007	5.5
19	MP1A	X	-7.743	.5
20	MP1A	Z	4.47	.5
21	MP1A	Mx	-.01	.5
22	MP1A	X	-7.743	5.5
23	MP1A	Z	4.47	5.5
24	MP1A	Mx	-.01	5.5
25	MP1B	X	-7.743	.5
26	MP1B	Z	4.47	.5
27	MP1B	Mx	-.01	.5
28	MP1B	X	-7.743	5.5
29	MP1B	Z	4.47	5.5
30	MP1B	Mx	-.01	5.5
31	MP1C	X	-9.587	.5
32	MP1C	Z	5.535	.5
33	MP1C	Mx	.007	.5
34	MP1C	X	-9.587	5.5
35	MP1C	Z	5.535	5.5
36	MP1C	Mx	.007	5.5
37	MP3A	X	-2.482	1.5
38	MP3A	Z	1.433	1.5
39	MP3A	Mx	.001	1.5
40	MP3A	X	-2.482	3.5
41	MP3A	Z	1.433	3.5
42	MP3A	Mx	.001	3.5
43	MP3B	X	-2.482	1.5
44	MP3B	Z	1.433	1.5
45	MP3B	Mx	-.001	1.5
46	MP3B	X	-2.482	3.5
47	MP3B	Z	1.433	3.5
48	MP3B	Mx	-.001	3.5
49	MP3C	X	-4.565	1.5
50	MP3C	Z	2.636	1.5
51	MP3C	Mx	0	1.5
52	MP3C	X	-4.565	3.5
53	MP3C	Z	2.636	3.5
54	MP3C	Mx	0	3.5
55	MP1A	X	-2.73	3
56	MP1A	Z	1.576	3
57	MP1A	Mx	-.001	3
58	MP1B	X	-2.73	3
59	MP1B	Z	1.576	3
60	MP1B	Mx	.001	3
61	MP1C	X	-3.633	3
62	MP1C	Z	2.097	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
63	MP1C	Mx	0	3
64	MP2A	X	-2.383	3
65	MP2A	Z	1.376	3
66	MP2A	Mx	-.001	3
67	MP2B	X	-2.383	3
68	MP2B	Z	1.376	3
69	MP2B	Mx	.001	3
70	MP2C	X	-3.633	3
71	MP2C	Z	2.097	3
72	MP2C	Mx	0	3
73	M41	X	-6.018	1
74	M41	Z	3.474	1
75	M41	Mx	0	1
76	MP4A	X	-4.721	.5
77	MP4A	Z	2.726	.5
78	MP4A	Mx	.002	.5
79	MP4A	X	-4.721	5.5
80	MP4A	Z	2.726	5.5
81	MP4A	Mx	.002	5.5
82	MP4B	X	-4.721	.5
83	MP4B	Z	2.726	.5
84	MP4B	Mx	-.002	.5
85	MP4B	X	-4.721	5.5
86	MP4B	Z	2.726	5.5
87	MP4B	Mx	-.002	5.5
88	MP4C	X	-5.595	.5
89	MP4C	Z	3.23	.5
90	MP4C	Mx	0	.5
91	MP4C	X	-5.595	5.5
92	MP4C	Z	3.23	5.5
93	MP4C	Mx	0	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-8.23	.5
2	MP1A	Z	0	.5
3	MP1A	Mx	.008	.5
4	MP1A	X	-8.23	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	.008	5.5
7	MP1B	X	-10.36	.5
8	MP1B	Z	0	.5
9	MP1B	Mx	.001	.5
10	MP1B	X	-10.36	5.5
11	MP1B	Z	0	5.5
12	MP1B	Mx	.001	5.5
13	MP1C	X	-10.36	.5
14	MP1C	Z	0	.5
15	MP1C	Mx	-.011	.5
16	MP1C	X	-10.36	5.5
17	MP1C	Z	0	5.5
18	MP1C	Mx	-.011	5.5
19	MP1A	X	-10.36	.5
20	MP1A	Z	0	.5
21	MP1A	Mx	-.011	.5
22	MP1A	X	-10.36	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP1A	Z	0	5.5
24	MP1A	Mx	-.011	5.5
25	MP1B	X	-10.36	.5
26	MP1B	Z	0	.5
27	MP1B	Mx	-.011	.5
28	MP1B	X	-10.36	5.5
29	MP1B	Z	0	5.5
30	MP1B	Mx	-.011	5.5
31	MP1C	X	-10.36	.5
32	MP1C	Z	0	.5
33	MP1C	Mx	.001	.5
34	MP1C	X	-10.36	5.5
35	MP1C	Z	0	5.5
36	MP1C	Mx	.001	5.5
37	MP3A	X	-2.064	1.5
38	MP3A	Z	0	1.5
39	MP3A	Mx	.00086	1.5
40	MP3A	X	-2.064	3.5
41	MP3A	Z	0	3.5
42	MP3A	Mx	.00086	3.5
43	MP3B	X	-4.47	1.5
44	MP3B	Z	0	1.5
45	MP3B	Mx	-.000931	1.5
46	MP3B	X	-4.47	3.5
47	MP3B	Z	0	3.5
48	MP3B	Mx	-.000931	3.5
49	MP3C	X	-4.47	1.5
50	MP3C	Z	0	1.5
51	MP3C	Mx	-.000931	1.5
52	MP3C	X	-4.47	3.5
53	MP3C	Z	0	3.5
54	MP3C	Mx	-.000931	3.5
55	MP1A	X	-2.804	3
56	MP1A	Z	0	3
57	MP1A	Mx	-.001	3
58	MP1B	X	-3.847	3
59	MP1B	Z	0	3
60	MP1B	Mx	.000962	3
61	MP1C	X	-3.847	3
62	MP1C	Z	0	3
63	MP1C	Mx	.000962	3
64	MP2A	X	-2.271	3
65	MP2A	Z	0	3
66	MP2A	Mx	-.001	3
67	MP2B	X	-3.714	3
68	MP2B	Z	0	3
69	MP2B	Mx	.000928	3
70	MP2C	X	-3.714	3
71	MP2C	Z	0	3
72	MP2C	Mx	.000928	3
73	M41	X	-7.488	1
74	M41	Z	0	1
75	M41	Mx	0	1
76	MP4A	X	-5.115	.5
77	MP4A	Z	0	.5
78	MP4A	Mx	.003	.5
79	MP4A	X	-5.115	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
80	MP4A	Z	0	5.5
81	MP4A	Mx	.003	5.5
82	MP4B	X	-6.124	.5
83	MP4B	Z	0	.5
84	MP4B	Mx	-.002	.5
85	MP4B	X	-6.124	5.5
86	MP4B	Z	0	5.5
87	MP4B	Mx	-.002	5.5
88	MP4C	X	-6.124	.5
89	MP4C	Z	0	.5
90	MP4C	Mx	-.002	.5
91	MP4C	X	-6.124	5.5
92	MP4C	Z	0	5.5
93	MP4C	Mx	-.002	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-7.743	.5
2	MP1A	Z	-4.47	.5
3	MP1A	Mx	.004	.5
4	MP1A	X	-7.743	5.5
5	MP1A	Z	-4.47	5.5
6	MP1A	Mx	.004	5.5
7	MP1B	X	-9.587	.5
8	MP1B	Z	-5.535	.5
9	MP1B	Mx	.007	.5
10	MP1B	X	-9.587	5.5
11	MP1B	Z	-5.535	5.5
12	MP1B	Mx	.007	5.5
13	MP1C	X	-7.743	.5
14	MP1C	Z	-4.47	.5
15	MP1C	Mx	-.01	.5
16	MP1C	X	-7.743	5.5
17	MP1C	Z	-4.47	5.5
18	MP1C	Mx	-.01	5.5
19	MP1A	X	-9.587	.5
20	MP1A	Z	-5.535	.5
21	MP1A	Mx	-.007	.5
22	MP1A	X	-9.587	5.5
23	MP1A	Z	-5.535	5.5
24	MP1A	Mx	-.007	5.5
25	MP1B	X	-9.587	.5
26	MP1B	Z	-5.535	.5
27	MP1B	Mx	-.007	.5
28	MP1B	X	-9.587	5.5
29	MP1B	Z	-5.535	5.5
30	MP1B	Mx	-.007	5.5
31	MP1C	X	-7.743	.5
32	MP1C	Z	-4.47	.5
33	MP1C	Mx	-.004	.5
34	MP1C	X	-7.743	5.5
35	MP1C	Z	-4.47	5.5
36	MP1C	Mx	-.004	5.5
37	MP3A	X	-2.482	1.5
38	MP3A	Z	-1.433	1.5
39	MP3A	Mx	.001	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
40	MP3A	X	-2.482	3.5
41	MP3A	Z	-1.433	3.5
42	MP3A	Mx	.001	3.5
43	MP3B	X	-4.565	1.5
44	MP3B	Z	-2.636	1.5
45	MP3B	Mx	0	1.5
46	MP3B	X	-4.565	3.5
47	MP3B	Z	-2.636	3.5
48	MP3B	Mx	0	3.5
49	MP3C	X	-2.482	1.5
50	MP3C	Z	-1.433	1.5
51	MP3C	Mx	-.001	1.5
52	MP3C	X	-2.482	3.5
53	MP3C	Z	-1.433	3.5
54	MP3C	Mx	-.001	3.5
55	MP1A	X	-2.73	3
56	MP1A	Z	-1.576	3
57	MP1A	Mx	-.001	3
58	MP1B	X	-3.633	3
59	MP1B	Z	-2.097	3
60	MP1B	Mx	0	3
61	MP1C	X	-2.73	3
62	MP1C	Z	-1.576	3
63	MP1C	Mx	.001	3
64	MP2A	X	-2.383	3
65	MP2A	Z	-1.376	3
66	MP2A	Mx	-.001	3
67	MP2B	X	-3.633	3
68	MP2B	Z	-2.097	3
69	MP2B	Mx	0	3
70	MP2C	X	-2.383	3
71	MP2C	Z	-1.376	3
72	MP2C	Mx	.001	3
73	M41	X	-7.42	1
74	M41	Z	-4.284	1
75	M41	Mx	0	1
76	MP4A	X	-4.721	.5
77	MP4A	Z	-2.726	.5
78	MP4A	Mx	.002	.5
79	MP4A	X	-4.721	5.5
80	MP4A	Z	-2.726	5.5
81	MP4A	Mx	.002	5.5
82	MP4B	X	-5.595	.5
83	MP4B	Z	-3.23	.5
84	MP4B	Mx	0	.5
85	MP4B	X	-5.595	5.5
86	MP4B	Z	-3.23	5.5
87	MP4B	Mx	0	5.5
88	MP4C	X	-4.721	.5
89	MP4C	Z	-2.726	.5
90	MP4C	Mx	-.002	.5
91	MP4C	X	-4.721	5.5
92	MP4C	Z	-2.726	5.5
93	MP4C	Mx	-.002	5.5

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

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-5.18	.5
2	MP1A	Z	-8.972	.5
3	MP1A	Mx	-.001	.5
4	MP1A	X	-5.18	5.5
5	MP1A	Z	-8.972	5.5
6	MP1A	Mx	-.001	5.5
7	MP1B	X	-5.18	.5
8	MP1B	Z	-8.972	.5
9	MP1B	Mx	.011	.5
10	MP1B	X	-5.18	5.5
11	MP1B	Z	-8.972	5.5
12	MP1B	Mx	.011	5.5
13	MP1C	X	-4.115	.5
14	MP1C	Z	-7.128	.5
15	MP1C	Mx	-.008	.5
16	MP1C	X	-4.115	5.5
17	MP1C	Z	-7.128	5.5
18	MP1C	Mx	-.008	5.5
19	MP1A	X	-5.18	.5
20	MP1A	Z	-8.972	.5
21	MP1A	Mx	-.001	.5
22	MP1A	X	-5.18	5.5
23	MP1A	Z	-8.972	5.5
24	MP1A	Mx	-.001	5.5
25	MP1B	X	-5.18	.5
26	MP1B	Z	-8.972	.5
27	MP1B	Mx	-.001	.5
28	MP1B	X	-5.18	5.5
29	MP1B	Z	-8.972	5.5
30	MP1B	Mx	-.001	5.5
31	MP1C	X	-4.115	.5
32	MP1C	Z	-7.128	.5
33	MP1C	Mx	-.008	.5
34	MP1C	X	-4.115	5.5
35	MP1C	Z	-7.128	5.5
36	MP1C	Mx	-.008	5.5
37	MP3A	X	-2.235	1.5
38	MP3A	Z	-3.871	1.5
39	MP3A	Mx	.000931	1.5
40	MP3A	X	-2.235	3.5
41	MP3A	Z	-3.871	3.5
42	MP3A	Mx	.000931	3.5
43	MP3B	X	-2.235	1.5
44	MP3B	Z	-3.871	1.5
45	MP3B	Mx	.000931	1.5
46	MP3B	X	-2.235	3.5
47	MP3B	Z	-3.871	3.5
48	MP3B	Mx	.000931	3.5
49	MP3C	X	-1.032	1.5
50	MP3C	Z	-1.787	1.5
51	MP3C	Mx	-.00086	1.5
52	MP3C	X	-1.032	3.5
53	MP3C	Z	-1.787	3.5
54	MP3C	Mx	-.00086	3.5
55	MP1A	X	-1.924	3
56	MP1A	Z	-3.332	3
57	MP1A	Mx	-.000962	3

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP1B	X	-1.924	3
59	MP1B	Z	-3.332	3
60	MP1B	Mx	-.000962	3
61	MP1C	X	-1.402	3
62	MP1C	Z	-2.428	3
63	MP1C	Mx	.001	3
64	MP2A	X	-1.857	3
65	MP2A	Z	-3.216	3
66	MP2A	Mx	-.000928	3
67	MP2B	X	-1.857	3
68	MP2B	Z	-3.216	3
69	MP2B	Mx	-.000928	3
70	MP2C	X	-1.136	3
71	MP2C	Z	-1.967	3
72	MP2C	Mx	.001	3
73	M41	X	-4.554	1
74	M41	Z	-7.887	1
75	M41	Mx	0	1
76	MP4A	X	-3.062	.5
77	MP4A	Z	-5.304	.5
78	MP4A	Mx	.002	.5
79	MP4A	X	-3.062	5.5
80	MP4A	Z	-5.304	5.5
81	MP4A	Mx	.002	5.5
82	MP4B	X	-3.062	.5
83	MP4B	Z	-5.304	.5
84	MP4B	Mx	.002	.5
85	MP4B	X	-3.062	5.5
86	MP4B	Z	-5.304	5.5
87	MP4B	Mx	.002	5.5
88	MP4C	X	-2.558	.5
89	MP4C	Z	-4.43	.5
90	MP4C	Mx	-.003	.5
91	MP4C	X	-2.558	5.5
92	MP4C	Z	-4.43	5.5
93	MP4C	Mx	-.003	5.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M7A	Y	-500	%91

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M7A	Y	-500	%26

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M7A	Y	-250	%50

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M7A	Y	-250	%100

Member Area Loads (BLC 39 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N16	N15	N17	N18	Y	Two Way	-.005
2	N18	N17	N10	N14	Y	Two Way	-.005
3	N14	N10	N15	N16	Y	Two Way	-.005

Member Area Loads (BLC 40 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N16	N15	N17	N18	Y	Two Way	-.011
2	N18	N17	N10	N14	Y	Two Way	-.011
3	N14	N10	N15	N16	Y	Two Way	-.011

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	N2	max	3503.291	10	1010.051	14	759.741	1	-1.126	12	2.562	11	.324	5
2		min	-3468.396	4	360.605	8	-732.108	7	-2.756	17	-2.584	5	-.304	47
3	N77	max	1778.437	11	825.286	22	2936.75	12	1.525	23	2.435	5	2.212	22
4		min	-1749.279	5	241.142	28	-2936.933	6	.503	5	-2.5	11	.742	28
5	N109	max	1849.833	9	813.598	18	2863.408	2	1.153	16	2.626	3	-.856	37
6		min	-1913.003	3	289.802	48	-2820.321	8	.435	10	-2.622	9	-2.39	19
7	N124A	max	54.844	10	1802.436	13	-442.741	7	0	51	0	4	0	22
8		min	-54.785	4	266.143	7	-3060.876	13	0	1	0	22	0	4
9	N126	max	-341.897	3	1726.763	21	1463.832	21	0	18	0	48	0	48
10		min	-2535.318	21	238.849	3	197.376	3	0	48	0	18	0	18
11	N128	max	2538.707	17	1728.976	17	1465.768	17	0	8	0	8	0	8
12		min	316.628	11	222.252	11	182.8	11	0	26	0	26	0	26
13	Totals:	max	5518.996	10	7579.619	14	5395.716	1						
14		min	-5518.991	4	3260.225	8	-5395.727	7						

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	L...	Dir	LC	phi*Pnc...	phi*Pnt ...	phi*Mn ...	phi*Mn ...	Cb	Eqn
1	M1	HSS4X4X4	.245	0	5	.114	0	z	5	138875...	139518	16.181	16.181	1...	H1-1b
2	M2	HSS4.5X4...	.101	0	4	.042	0	y	46	156914...	158976	20.907	20.907	1...	H1-1b
3	M5	LL3x3x4x0	.321	0	15	.053	1...	y	13	76288.1...	93312	6.48	4.357	1...	H1-1b
4	M6	LL3x3x4x0	.307	0	23	.050	1...	y	21	76288.1...	93312	6.48	4.357	1...	H1-1b
5	M7	LL3x3x4x0	.329	0	30	.059	1...	y	29	76288.1...	93312	6.48	4.357	1...	H1-1b
6	M6A	L3X3X4	.217	3.639	11	.015	7...	z	23	13991.9...	46656	1.688	3.168	1...	H2-1
7	M7A	L3X3X4	.789	14.3...	6	.661	7...	z	17	3748.406	46656	1.688	2.859	1...	H2-1
8	M23A	L3X3X4	.226	3.717	11	.015	0	z	22	13991.9...	46656	1.688	3.194	1...	H2-1
9	M24	L3X3X4	.773	14.3...	2	.672	7...	z	24	3748.406	46656	1.688	2.788	1...	H2-1
10	M38	HSS4X4X4	.242	0	11	.100	0	z	12	138875...	139518	16.181	16.181	1...	H1-1b
11	M39A	L3X3X4	.218	3.639	3	.016	7...	z	16	13991.9...	46656	1.688	3.177	1.4	H2-1
12	M40	L3X3X4	.781	14.3...	10	.655	7...	z	21	3748.406	46656	1.688	2.823	1...	H2-1
13	M54	HSS4X4X4	.240	0	9	.100	0	z	9	138875...	139518	16.181	16.181	1...	H1-1b
14	M55	HSS4.5X4...	.099	0	18	.037	0	y	24	156914...	158976	20.907	20.907	1...	H1-1b
15	M56	HSS4.5X4...	.099	0	14	.035	0	y	20	156914...	158976	20.907	20.907	1...	H1-1b
16	MP1A	PIPE_2.0	.321	4	6	.098	4		4	14916.0...	32130	1.872	1.872	1...	H1-1b
17	MP2A	PIPE_2.0	.399	1.5	4	.077	2...		5	14916.0...	32130	1.872	1.872	2...	H1-1b
18	MP3A	PIPE_2.0	.340	1.5	4	.099	4		2	14916.0...	32130	1.872	1.872	2...	H1-1b
19	MP4A	PIPE_2.0	.245	1.5	10	.086	4		11	14916.0...	32130	1.872	1.872	1...	H1-1b
20	MP1C	PIPE_2.0	.364	4	9	.193	4		6	14916.0...	32130	1.872	1.872	1...	H1-1b
21	MP2C	PIPE_2.0	.410	1.5	12	.076	2...		1	14916.0...	32130	1.872	1.872	2...	H1-1b
22	MP3C	PIPE_2.0	.351	1.5	12	.100	4		10	14916.0...	32130	1.872	1.872	2...	H1-1b
23	MP4C	PIPE_2.0	.243	1.5	6	.081	4		7	14916.0...	32130	1.872	1.872	2...	H1-1b

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	L...	Dir	LC	phi*Pnc...	phi*Pnt ...	phi*Mn ...	phi*Mn ...	Cb	Eqn
24	MP1B	PIPE_2.0	.364	4	5	.194	4		2	14916.0...	32130	1.872	1.872	1...	H1-1b
25	MP2B	PIPE_2.0	.388	1.5	2	.078	2...		9	14916.0...	32130	1.872	1.872	2...	H1-1b
26	MP3B	PIPE_2.0	.328	1.5	8	.095	4		6	14916.0...	32130	1.872	1.872	2...	H1-1b
27	MP4B	PIPE_2.0	.252	1.5	2	.089	4		3	14916.0...	32130	1.872	1.872	1...	H1-1b
28	M41	PIPE_2.0	.137	2.5	6	.018	2.5		6	23808.54	32130	1.872	1.872	1...	H1-1b
29	M42	PIPE_2.5	.217	12.8...	10	.070	7...		2	11606.8...	50715	3.596	3.596	2...	H1-1b
30	M49	PIPE_2.5	.219	12.8...	6	.070	7...		10	11606.8...	50715	3.596	3.596	2...	H1-1b
31	M56A	PIPE_2.5	.224	12.8...	2	.066	7...		6	11606.8...	50715	3.596	3.596	2...	H1-1b
32	M63	L3X3X4	.318	1.748	1	.103	0	y	6	43602.6...	46656	1.688	3.756	2...	H2-1
33	M64	L3X3X4	.315	1.748	5	.107	0	y	10	43602.6...	46656	1.688	3.756	2...	H2-1
34	M65	L3X3X4	.282	1.748	2	.105	0	y	2	43602.6...	46656	1.688	3.756	2...	H2-1
35	M66	LL3x3x3x3	.075	6.069	13	.005	0	z	10	47182.8...	70632	5.543	3.741	1	H1-1b*
36	M67	LL3x3x3x3	.072	6.069	21	.005	0	z	6	47182.8...	70632	5.543	3.741	1	H1-1b*
37	M68	LL3x3x3x3	.072	6.069	17	.005	0	y	27	47182.8...	70632	5.543	3.741	1	H1-1b*

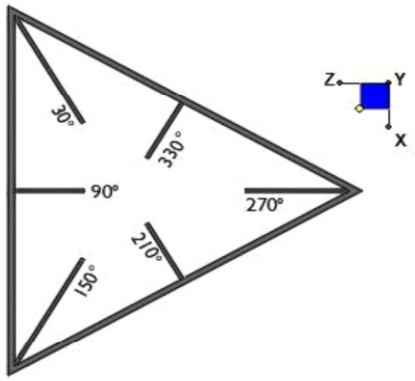
Client:	Verizon Wireless	Date:	9/2/2021
Site Name:	BROOKLYN CT		
Project No.	21777249A		
Title:	Mount Fix	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check

RISA Model Data

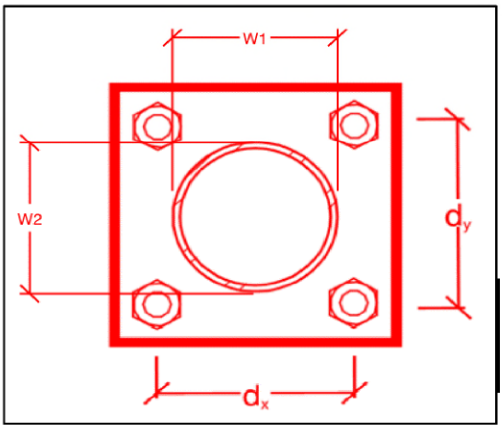
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N2	90
N77	210
N109	330



TYPICAL PLATFORM

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:	Rect
W1 (in):	4
W2 (in):	4
Weld Size (1/16 in):	5
Phi*Rn (kip/in):	6.96
Required Weld Strength (kip/in):	1.69
Weld Capacity:	**24.3%**



Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

Purpose – to provide MASER CONSULTING CONNECTICUT 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 modification was completed in accordance with the modification drawings.
- Contractor shall relay any data that can impact the performance of the mount or the mount modification, this includes safety issues.

Base Requirements:

- Any special photos outside of the standard requirements will be indicated on the drawings
- Provide "as built drawings" showing contractor's name, preparer's signature, and date. Any deviations from the drawings (proposed modification) must be shown.
- Notation that all hardware was properly installed, and the existing hardware was inspected for any issues.
- Verification that loading is as communicated in the modification drawings. NOTE If loading is different than what is conveyed in the modification drawing contact MASER CONSULTING CONNECTICUT immediately.
- Each photo should be time and date stamped
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- 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.
- The photos in the file structure should be uploaded **to** https://pmi.vzwsmart.com as depicted on the drawings

Photo Requirements:

- *Base and "During Installation Photos"*
  - Base pictures include
    - Photo of Gate Signs showing the tower owner, site name, and number
    - Photo of carrier shelter showing the carrier site name and number if available
    - Photos of the galvanizing compound and/or paint used (if applicable), clearly showing the label and name
  - "During Installation Photos if provided - must be placed only in this folder
- *Photos taken at ground level*
  - Overall tower structure before and after installation of the modifications
  - Photos of the appropriate mount before and after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed

- *Photos taken at Mount Elevation*
    - Photos showing each individual sector before and also after installation of modifications. Each entire sector must be in one photo to show in the inter-connection of members.
        - These photos should also certify that the placement and geometry of the equipment on the mount is as depicted on the sketch and table in the mount analysis
    - Close-up photos of each installed modification per the modification drawings; pictures should also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
    - Photos showing the measurements of the installed modification member sizes (i.e. lengths, widths, depths, diameters, thicknesses)
    - Photos showing the elevation or distances of the installed modifications from the appropriate reference locations shown in the modification drawings
    - Photos showing the installed modifications onto the tower with tape drop measurements (if applicable) (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, a tape drop measurement shall be provided before the elevation change
    - Photos showing the safety climb wire rope above and below the mount prior to modification.
    - Photos showing the climbing facility and safety climb if present.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by MASER CONSULTING CONNECTICUT.
    - If the drawings are as specified on the drawings
        - The contractor should provide the packing list or the materials utilized to perform the mount modification
    - If an equivalent is utilized
        - It is required that the MASER CONSULTING CONNECTICUT certification of such is included in the contractor submission package. There may be an additional charge for this certification if the equivalent submission doesn't meet specifications as prescribed in the drawings.
- The contractor must certify that the materials meet these specifications by one of these methods.

☐ The Material utilized was as specified on the MASER CONSULTING CONNECTICUT Mount Modification Drawings and included
in the Material certification folder is a packing list or invoice for these materials

☐ The material utilized was an "equivalent" and included as part of the contractor submission is the MASER CONSULTING CONNECTICUT certification, invoices, or specifications validating accepted status

Certifying Individual: Company _____

Name _____

Signature _____

Antenna & equipment placement and Geometry Confirmation:

- The contractor must certify that the antenna & equipment placement and geometry is in accordance with the antenna placement diagrams as included in this mount analysis.

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the antenna placement diagrams as included in this mount analysis.

☐ The contractor notes that the equipment on the mount is not in accordance with the antenna placement diagrams and has accordingly marked up the diagrams or provided a diagram outlining the differences.

Certifying Individual: Company _____

Name _____

Signature _____

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

Issue:

Install the proposed OVP unit on to the existing standoff OVP pipe replacing the existing. Contractor shall install safety climb wire rope guide (Part #: Site Pro 1 - 120-203/317 or EOR approved equal) in locations where the wire rope is rubbing against mount to tower attachments. Contractor shall provide photos of safety climb wire rope guide installation.

Response:

Schedule A – Photo & Document File Structure

- VzW Site Number / Name
  - Base & "During Installation" Photos
  - Pre-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Ground Level
    - Tape Drop
  - Post-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Ground Level
    - Tape Drop
    - Photos of climbing facility and safety climb – If Present
  - Certifications – Submission of this document including certifications
  - Specific Required Additional Photos

Structure: 467252-VZW - BROOKLYN CT

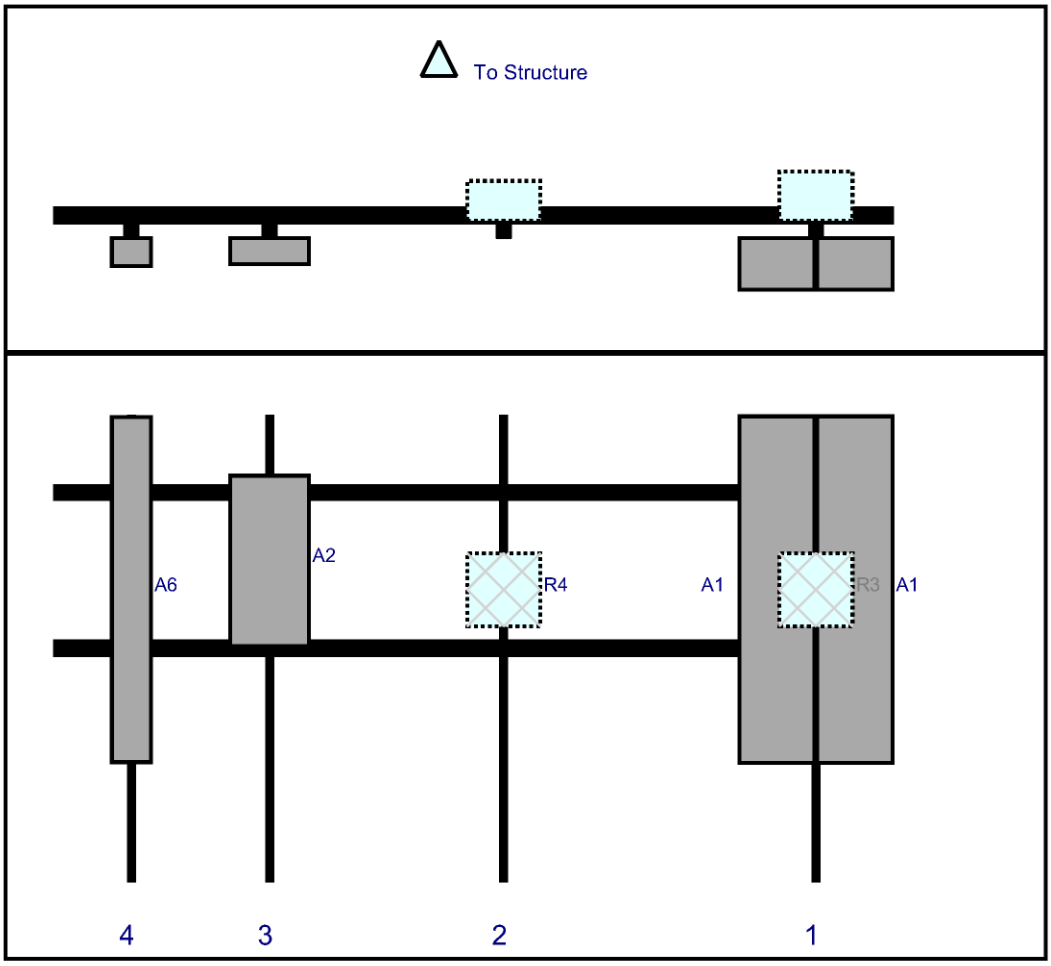
Sector: **A** 9/2/2021

Structure Type: Monopole 10044616

Mount Elev: 175.50 Page: 1

Plan View

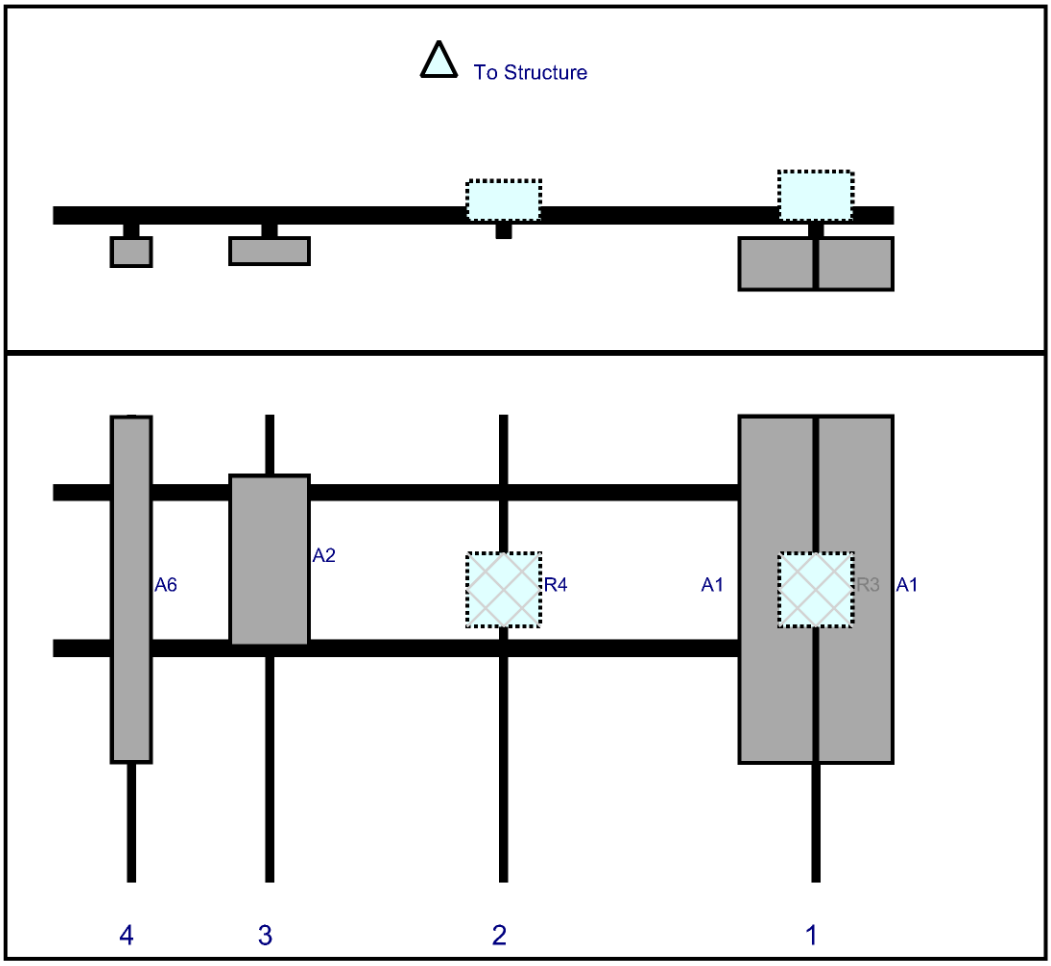
Front View
Looking at Structure



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
A1	MX06FRO660-03	71.3	15.4	156.339	1	a	Front	36	8	Added	
A1	MX06FRO660-03	71.3	15.4	156.339	1	b	Front	36	-8	Added	
R3	B2/B66A RRH-BR049	15	15	156.339	1	a	Behind	36	0	Added	
R4	B5/B13 RRH-BR04C	15	15	92.3391	2	a	Behind	36	0	Added	
A2	MT6407-77A	35.1	16.1	44.3391	3	a	Front	30	0	Added	
A6	BXA-70080-6CF-EDIN	71	8	16	4	a	Front	36	0	Retained	08/10/2021

Plan View

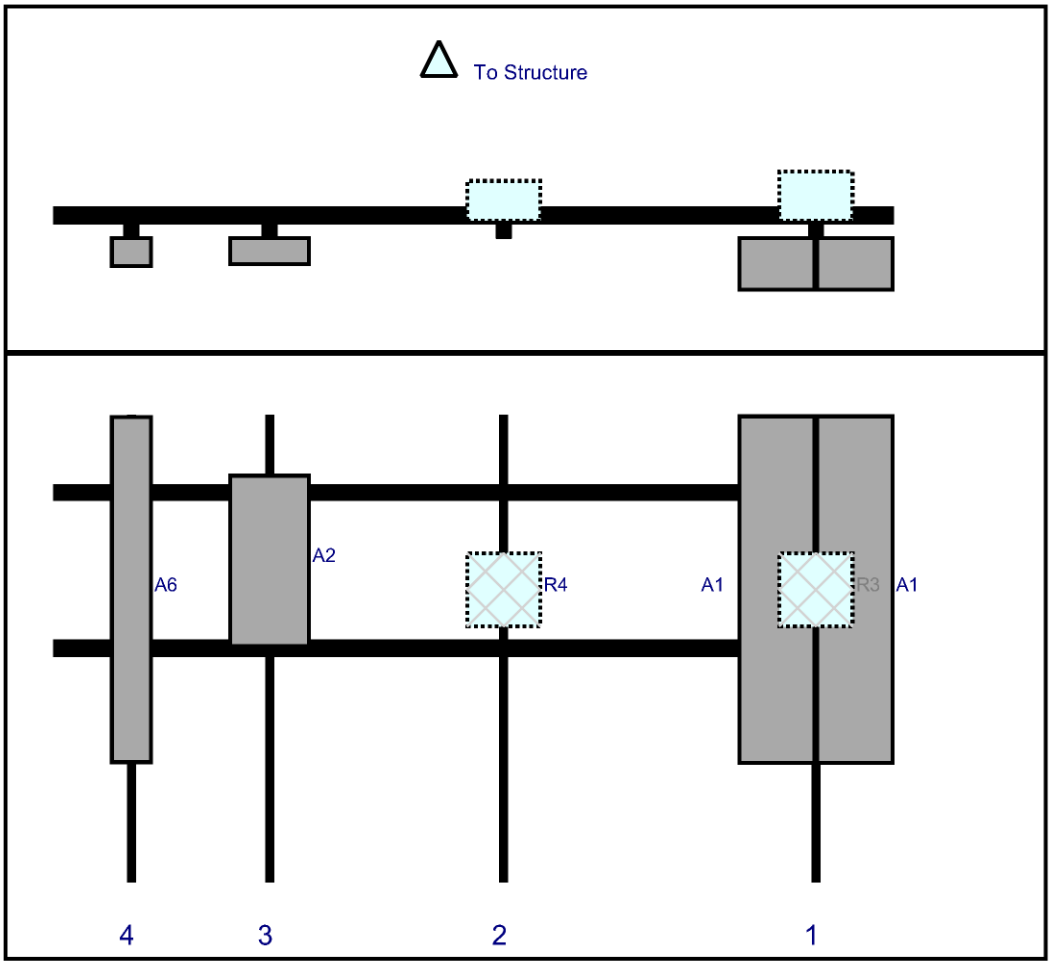
Front View
Looking at Structure



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
A1	MX06FRO660-03	71.3	15.4	156.339	1	a	Front	36	8	Added	
A1	MX06FRO660-03	71.3	15.4	156.339	1	b	Front	36	-8	Added	
R3	B2/B66A RRH-BR049	15	15	156.339	1	a	Behind	36	0	Added	
R4	B5/B13 RRH-BR04C	15	15	92.3391	2	a	Behind	36	0	Added	
A2	MT6407-77A	35.1	16.1	44.3391	3	a	Front	30	0	Added	
A6	BXA-70080-6CF-EDIN	71	8	16	4	a	Front	36	0	Retained	08/10/2021

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
A1	MX06FRO660-03	71.3	15.4	156.339	1	a	Front	36	8	Added	
A1	MX06FRO660-03	71.3	15.4	156.339	1	b	Front	36	-8	Added	
R3	B2/B66A RRH-BR049	15	15	156.339	1	a	Behind	36	0	Added	
R4	B5/B13 RRH-BR04C	15	15	92.3391	2	a	Behind	36	0	Added	
A2	MT6407-77A	35.1	16.1	44.3391	3	a	Front	30	0	Added	
A6	BXA-70080-6CF-EDIN	71	8	16	4	a	Front	36	0	Retained	08/10/2021

Maser Consulting Connecticut

Subject	TIA-222-H Usage	
Site Information	Site ID:	*467252-VZW / BROOKLYN CT*
	Site Name:	*BROOKLYN CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*130 Old Tatnic Hill Rd* *Brooklyn, Connecticut 06095* *Windham County*
	Latitude:	*41.767161°*
	Longitude:	*-71.97195°*
Structure Information	Tower Type:	176-Ft Monopole
	Mount Type:	*14.36-Ft Platform*

To Whom It May Concern,

We respectfully submit the above referenced Antenna Mount Structural Analysis report in conformance with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.

The 2015 International Building Code states that, in Section 3108, telecommunication towers shall be designed and constructed in accordance with the provisions of TIA-222. TIA-222-H is the latest revision of the TIA-222 Standard, effective as of January 01, 2018.

As with all ANSI standards and engineering best practice is to apply the most current revision of the standard. This ensures the engineer is applying all updates. As an example, the TIA-222-H Standard includes updates to bring it in line with the latest AISC and ACI standards and it also incorporates the latest wind speed maps by ASCE 7 based on updated studies of the wind data.

The TIA-222-H standard clarifies these specific requirements for the antenna mount analysis such as modeling methods, seismic analysis, 30-degree increment wind directions and maintenance loading. Therefore, it is our opinion that TIA-222-H is the most appropriate standard for antenna mount structural analysis and is acceptable for use at this site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,

Eric Anderson, PE
Technical Specialist

verizon

MOUNT MODIFICATION DRAWINGS
EXISTING 14.36' PLATFORM

TOWER OWNER: SBA TOWERS
TOWER OWNER SITE NUMBER: CTO1915

CARRIER SITE NAME: BROOKLYN CT
CARRIER SITE NUMBER: 467252
FUZE ID: 16272042

130 OLD TATNIC HILL RD
BROOKLYN, CT 06095
WINDHAM COUNTY

LATITUDE: 41.767161° N
LONGITUDE: -71.97195° W

DESIGN CRITERIA

WIND LOADS

BASIC WIND SPEED (3 SECOND GUST), V = 122 MPH
EXPOSURE CATEGORY B
TOPOGRAPHIC CATEGORY 1
MEAN BASE ELEVATION (AMSL) = 522.9'

ICE LOADS

ICE WIND SPEED (3 SECOND GUST), V = 50 MPH
ICE THICKNESS = 1.00 IN

SEISMIC LOADS

SEISMIC DESIGN CATEGORY B
SHORT TERM MCER GROUND MOTION, S_S = .185
LONG TERM MCER GROUND MOTION, S_1 = .054

PROJECT INFORMATION

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON WIRELESS
ADDRESS: 118 FLANDERS ROAD, THIRD FLOOR
CITY, STATE, ZIP: WESTBOROUGH, MA 01581
CONTACT: ANDREW CANDIELLO
EMAIL: ANDREW.CANDIELLO@VERIZONWIRELESS.COM

PROJECT MANAGER

COMPANY: MASER CONSULTING CONNECTICUT
CONTACT: PETER ALBANO
PHONE: 856-797-0412
E-MAIL: PETER.ALBANO@COLLIERSENGINEERING.COM

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 10099557
VZW LOCATION CODE (PSLC): 467252
ANALYSIS DATE: 9/2/2021

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

SHEET INDEX

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

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SCALE:	JOB NUMBER:
AS SHOWN	21777249A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	9/29/2021	ISSUED FOR CONSTRUCTION	DEH	ETA

STATE OF CONNECTICUT — ERIC T. ANDERSON — 31292 — LICENSED PROFESSIONAL ENGINEER

Digitally signed by Eric Anderson
Date: 2021.09.07 14:46:49 -04'00'

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

SITE NAME:
BROOKLYN CT
467252
130 OLD TATNIC HILL RD
BROOKLYN, CT 06095
WINDHAM COUNTY

MT. LAUREL OFFICE
2000 Midtown Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: TITLE SHEET

SHEET NUMBER: ST-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

SECTION 1 - VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
12	VZWSMART	VZWSMART-MSK1	CROSSOVER PLATE		14	168
6		VZWSMART-PLK3	SUPPORT RAIL CORNER BRACKET		30	180
1		VZWSMART-PLK5	KICKER KIT	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1	291	291
1		VZWSMART-PLK7	MONOPOLE COLLAR MOUNT ASSEMBLY		150	150

SECTION 2 - OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	-	-	24" LONG, L3x3x1/4	GALVANIZED. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1.	10	29
3	-	-	168" LONG, P2 1/2 STD	GALVANIZED	77	230
6	-	-	6" LONG HSS 3x2 1/2x1/4 SHIM	GALVANIZED	10	60
					TOTAL:	1108

VZWSMART KITS - APPROVED VENDORS

COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM
METROSITE FABRICATORS, LLC	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM
PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM
SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM
SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

NOTES:

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

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SITE NAME:

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467252

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BROOKLYN, CT 06095
WINDHAM COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE:
BILL OF MATERIALS

SHEET NUMBER:
SBOM-1

PROJECT NOTES

1. SEE MODIFICATION NOTES
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC/GOVERNING AUTHORITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
4. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE AS A RESULT OF CONSTRUCTION OF THIS FACILITY AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
6. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CONSTRUCTION DRAWINGS.
8. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THESE DRAWINGS MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
9. SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY POTENTIALLY DANGEROUS EXPOSURE LEVELS.
10. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY AS TO CAUSE A NUISANCE.
11. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS IS REQUIRED).

GENERAL NOTES

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

STRUCTURAL STEEL

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

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

3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR VERIFYING THE SUBSTITUTE IS SUITABLE FOR USE AND MEETS ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
   a. SUBMIT SHOP DRAWINGS TO
      PETER.ALBANO@COLLIERSENGINEERING.COM
   b. PROVIDE MASER CONSULTING PROJECT # AND MASER CONSULTING PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
7. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
8. CONTRACTOR SHALL PROTECT CUT ENDS OF ALL FIELD-CUT STEEL WITH TWO (2) COATS OF COLD GALVANIZATION (ZINGA OR ZINC COTE).
9. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4.9.2 REQUIREMENTS.
10. WHERE CONNECTIONS ARE NOT FULLY DETAILED ON THESE DRAWINGS, FABRICATOR SHALL DESIGN CONNECTIONS TO RESIST LOADS AND FORCES WHERE SHOWN ON DRAWINGS AND AS OUTLINED IN SPECIFICATIONS.
11. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
12. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT IS AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
13. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
14. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINGA OR ZINC COTE), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.

WELDING NOTES

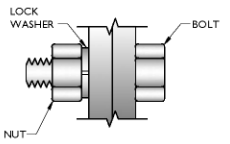
1. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AWS D1.0 (LATEST EDITION). THIS SHALL INCLUDE A CERTIFIED WELD INSPECTION (CWI) FOR ACCEPTANCE OR REJECTION OF ALL WELDING OPERATIONS, PRE, DURING, AND POST INSTALLATION, USING THE ACCEPTANCE CRITERIA OF AWS D1.1.
2. CONTRACTOR IS RESPONSIBLE FOR COMMISSIONING A THIRD PARTY CERTIFIED WELD INSPECTOR (CWI) THROUGHOUT THE ENTIRETY OF THE PROJECT. A PASSING CWI REPORT SHALL BE PROVIDED TO THE ENGINEER UPON COMPLETION OF THE PROJECT.
3. THE CERTIFIED WELD INSPECTOR SHALL INDICATE, IN A WRITTEN CWI REPORT, THAT ALL WELDING OPERATIONS PRE, DURING, AND POST INSTALLATION WERE CONDUCTED IN ACCORDANCE WITH AWS D1.1 WITH PHOTOGRAPHS AND DOCUMENTATION SUPPORTING THE ACCEPTANCE OR REJECTION OF ALL WELDING. ALL CWI WELD INSPECTION DOCUMENTATION AND PHOTOS SHALL BE SUBMITTED DURING THE PMI.
4. IN CASES WHERE A WELD IS SPECIFIED BETWEEN TWO MEMBERS IN WHICH THERE IS A GAP IN BETWEEN, THE WELD IS TO BE BUILT-UP SUCH THAT THE SIZE OF WELD ON THE MEMBER IS EQUAL TO THAT SHOWN IN THE DRAWINGS.
5. OXY FUEL GAS WELDING OR BRAZING IS STRICTLY PROHIBITED. SPECIFICALLY, NO TORCH CUTTING IS PERMITTED ON SITE. ALL HOLES SHALL BE CUT WITH A GRINDER.
6. CONTRACTOR SHALL EXERCISE CAUTION WHEN WELDING A GALVANIZED SURFACE.

BOLT SCHEDULE (IN.)

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

WORKABLE GAGES (IN.)

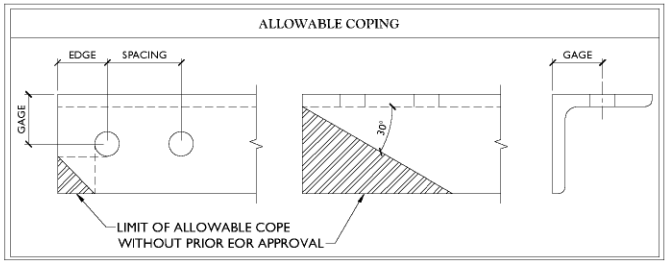
LEG	GAGE
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8



TYP. BOLT ASSEMBLY

NOTES:

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



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SITE NAME:

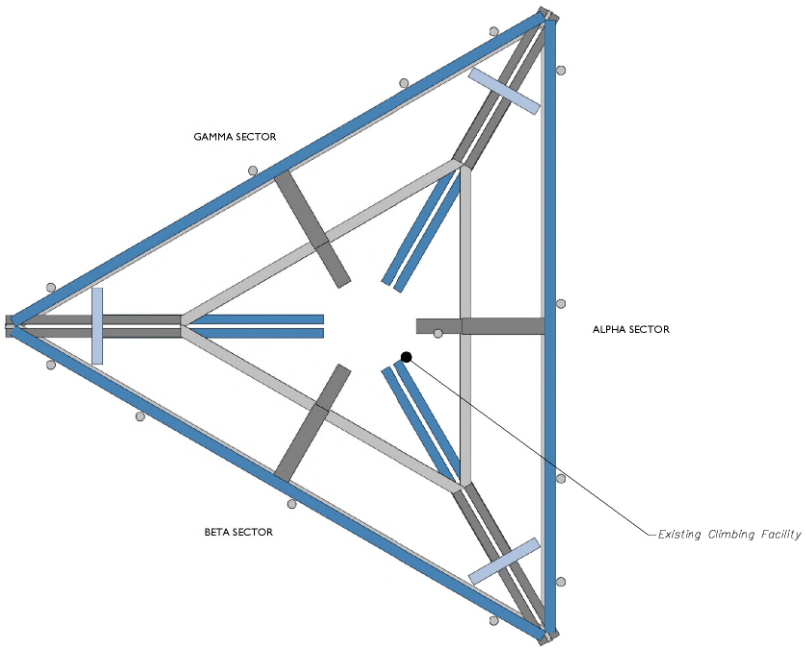
BROOKLYN CT
467252
130 OLD TATNIC HILL RD
BROOKLYN, CT 06095
WINDHAM COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

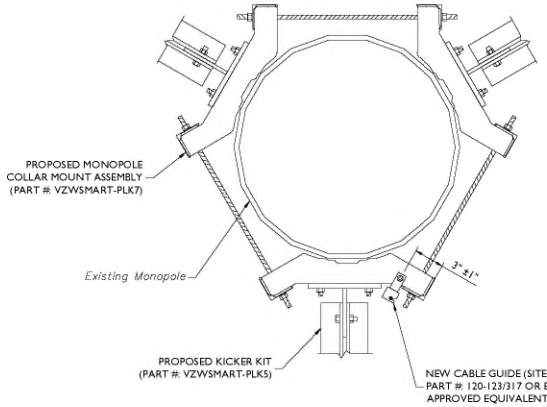
SHEET TITLE: MODIFICATION NOTES

SHEET NUMBER: SGN-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



1 CLIMBING FACILITY LOCATION
SCALE : N.T.S.



2 PROPOSED (KICKER) GUIDE CABLE COLLAR ATTACHMENT - PLAN VIEW
SCALE : N.T.S.

CLIMBING FACILITY PHOTO

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY HUDSON DESIGN GROUP, LLC ON 8/10/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (175'-6") ARE IN GOOD CONDITION. MASER DOES NOT WARRANT THIS INFORMATION.

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

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SCALE	JOB NUMBER
AS SHOWN	21777249A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	9/9/2021	ISSUED FOR CONSTRUCTION	DBH	ETA

STATE OF CONNECTICUT — ERIC T. ANDERSON — 28324 — LICENSED PROFESSIONAL ENGINEER

Digitally signed by Eric Anderson
Date: 2021.09.07 14:47:00-04'00'

SITE NAME:

BROOKLYN CT
467252
130 OLD TATNIC HILL RD
BROOKLYN, CT 06095
WINDHAM COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE:
CLIMBING FACILITY DETAIL

SHEET NUMBER:
SCF-1

LEGEND:

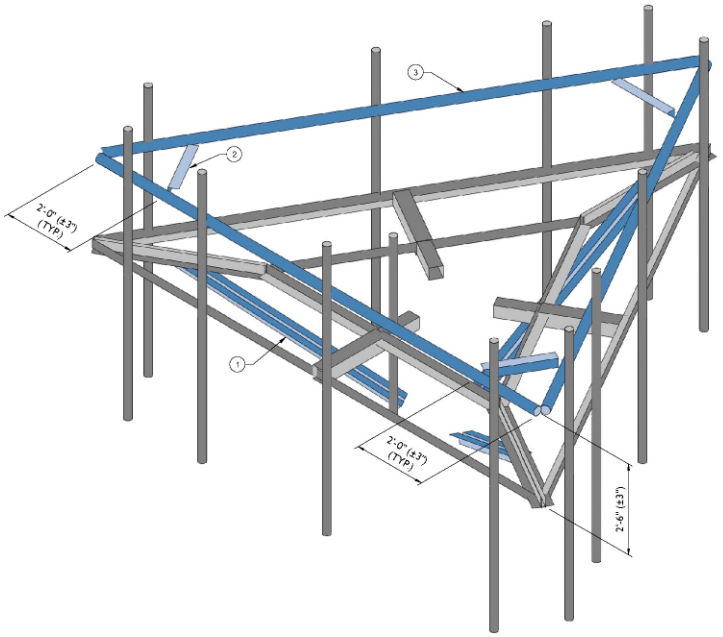
- PROPOSED
- RELOCATED
- EXISTING

MOUNT MODIFICATION SCHEDULE

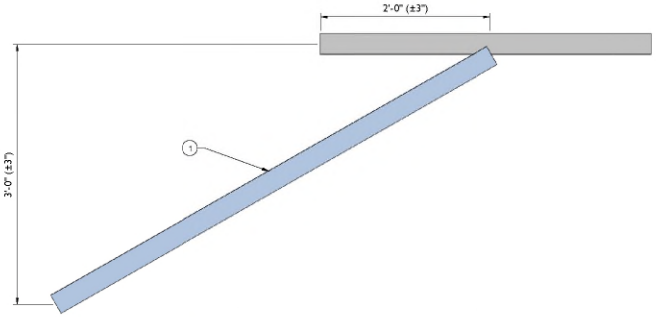
NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1		1	PROPOSED KICKER KIT (PART #: VZWSMART-PLK5)	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1
2		3	24" LONG, L3x3x1/4	GALVANIZED CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1. CONTRACTOR SHALL CONNECT PROPOSED L3x3x1/4 ANGLES TO CORNER BRACKETS (PART #: VZWSMART-PLK3) USING THE PROVIDED (8) 5/8" DIA. BOLTS, (4) BOLTS PER CONNECTION
3		3	168" LONG, P2 1/2 STD	GALVANIZED RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE. CONNECT NEW SUPPORT RAIL TO ALL EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).

NOTES:

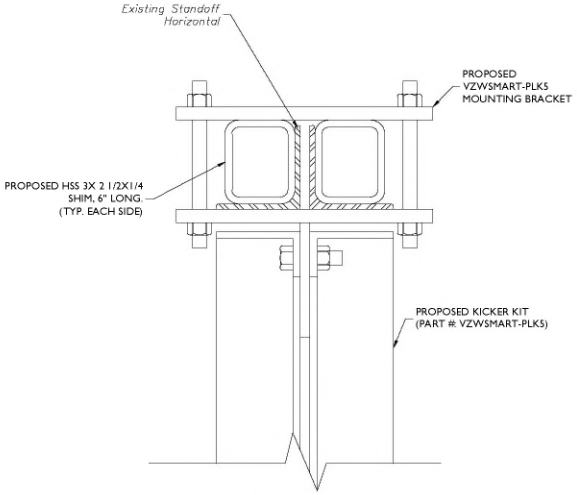
MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
CONTRACTOR TO TRIM GRATING AS NECESSARY FOR PROPOER INSTALLATION OF HSS SHIM MEMBERS AS DETAILED ON SS-1



1 PROPOSED ISOMETRIC VIEW
SCALE: N.T.S.



2 PROPOSED SIDE ELEVATION VIEW (TYP. ALL SECTORS)
SCALE: N.T.S.



3 KICKER TO STANDOFF CONNECTION DETAIL
SCALE: N.T.S.

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SCALE	JOB NUMBER
AS SHOWN	21777249A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	9/29/2021	ISSUED FOR CONSTRUCTION	DBH	ETA

STATE OF CONNECTICUT — ERIC T. ANDERSON — 30424 — LICENSED PROFESSIONAL ENGINEER

Digitally signed by Eric Anderson
Date: 2021.09.07 14:47:55-04'00'

SITE NAME:

BROOKLYN CT
467252
130 OLD TATNIC HILL RD
BROOKLYN, CT 06095
WINDHAM COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: MODIFICATION DETAILS

SHEET NUMBER: SS-1

MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3

MOUNT PHOTO 4

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SCALE:	JOB NUMBER:
AS SHOWN	21777249A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	9/29/21	ISSUED FOR CONSTRUCTION	DBH	ETA

STATE OF CONNECTICUT · ERIC T. ANDERSON · 31324 · LICENSED PROFESSIONAL ENGINEER

Digitally signed by Eric Anderson
Date: 2021.09.07 14:48:27 -04'00'

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

SITE NAME:

BROOKLYN CT
467252
130 OLD TATNIC HILL RD
BROOKLYN, CT 06095
WINDHAM COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
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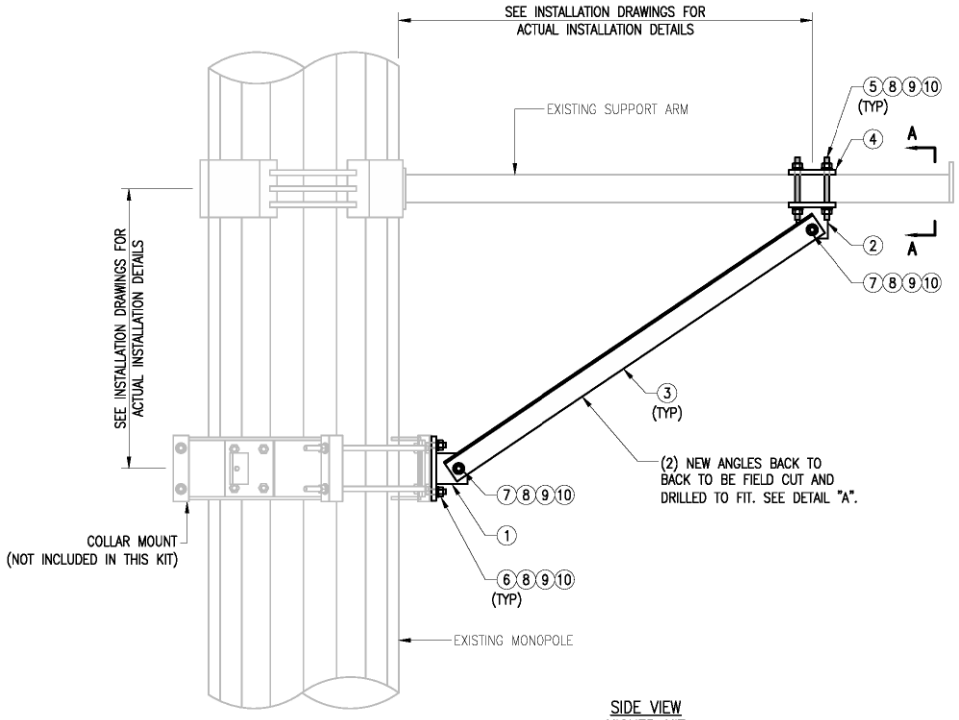
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

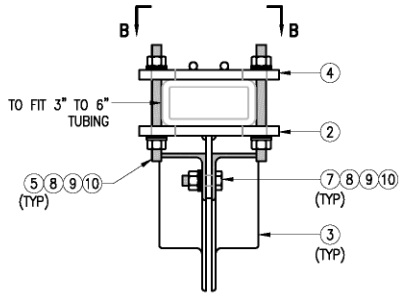
SHEET TITLE:
MOUNT PHOTOS

SHEET NUMBER:
SS-2

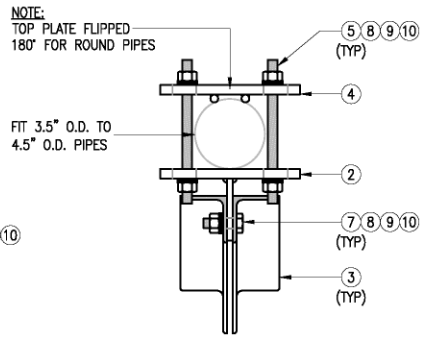
NOTE:
THE LOCATION OF KICKER AND EXISTING ANTENNA MOUNT SHOWN ON THE DRAWING IS FOR REPRESENTATION PURPOSE ONLY. SEE INSTALLATION DRAWINGS FOR ACTUAL INSTALLATION OF DETAILS.



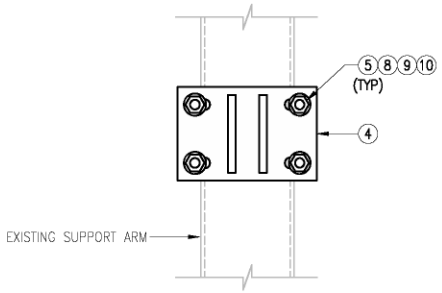
SIDE VIEW
KICKER KIT



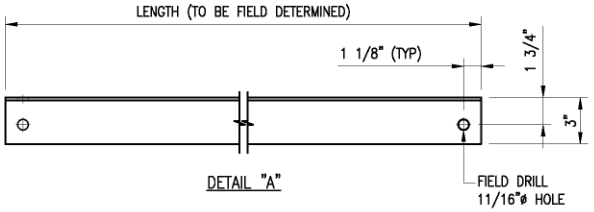
SECTION "A-A"
RECT. HSS MOUNTING



SECTION "A-A"
ROUND PIPE MOUNTING



SECTION "B-B"



DETAIL "A"

NOTES:
1. ALL HOLES ARE 11/16" DIA. U.N.O
2. HOT-DIPPED GALVANIZED PER ASTM A123.
3. FIT UP TO 6" SQ. TUBING OR 4 1/2" O.D. PIPE

VZWSMART-PLK5 (KICKER KIT)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	3	BRKW-XXX	BRACKET WELDMENT A36	PLK5-F3	43.8
2	3	BRKW-XXXX	BRACKET WELDMENT A36	PLK5-F2	35.7
3	6	L331875-8	L 3" X 3" X 3/16" X 8'-0" A36	PLK5-F4	182.9
4	3	PL-KI	PL 5/8" X 6" X 9" A36	PLK5-F1	29.0
5	12	---	THREADED ROD 5/8" DIA. X 1'-0" F1554-36 HDG	---	--
6	6	---	BOLT 5/8" X 2" A325	---	--
7	12	---	BOLT 5/8" X 2 1/2" A325	---	--
8	42	FW-625	5/8" HDG USS FLAT WASHER	---	3
9	42	LW-625	5/8" HDG LOCK WASHER	---	1
10	42	NUT-625	5/8" HDG HEX NUT	---	5
				GALVANIZED WT	291

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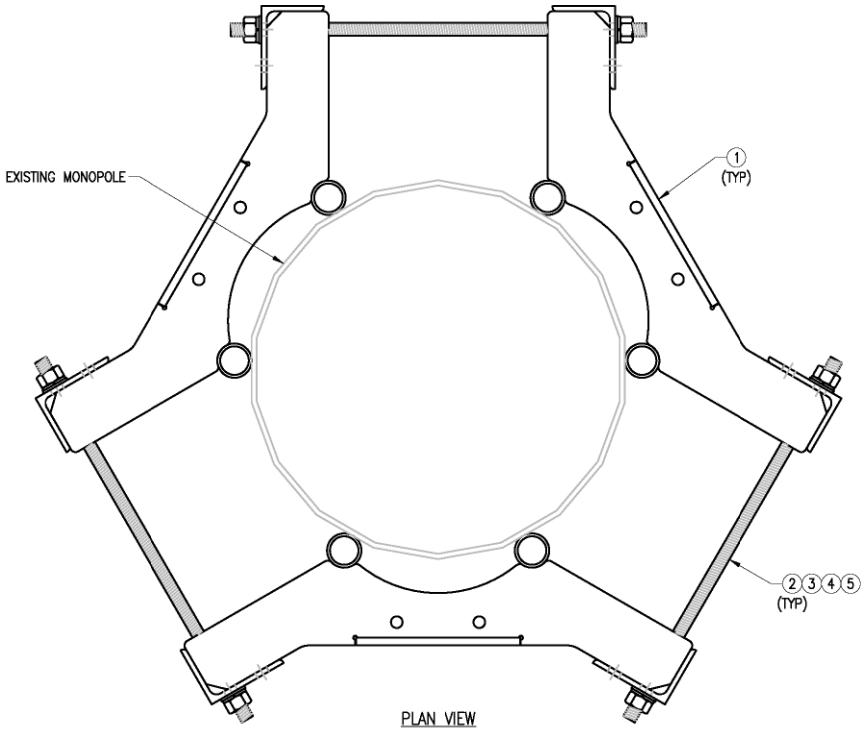
DRAWN BY: MN | CHECKED BY: HMA/KW

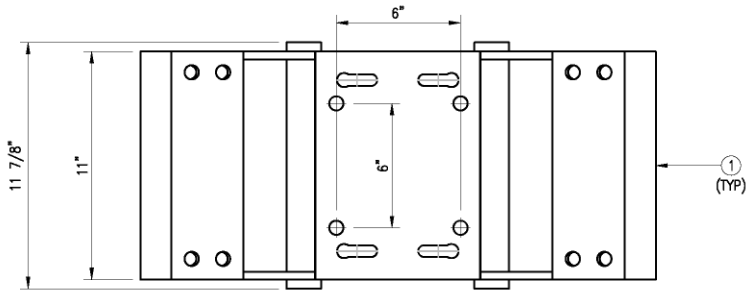
REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	MN	05/08/20

SHEET TITLE:
VZWSMART-PLK5
KICKER KIT

SHEET NUMBER: VZWSMART-PLK5
REV #: 0



PLAN VIEW
MONOPOLE COLLAR MOUNT ASSEMBLY



FRONT VIEW

NOTES:
1. FIT 12" TO 45" DIA MONOPOLE.
2. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-PLK7 (MONOPOLE COLLAR MOUNT ASSEMBLY)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	3	CM-1245	COLLAR MOUNT ASSEMBLY	PLK7-F1	147
2	6	---	THREADED ROD 5/8" X 4'-0" A193-B7	---	
3	12	FW-625	5/8" HDG USS FLAT WASHER	---	1
4	12	LW-625	5/8" HDG LOCK WASHER	---	0
5	12	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	150

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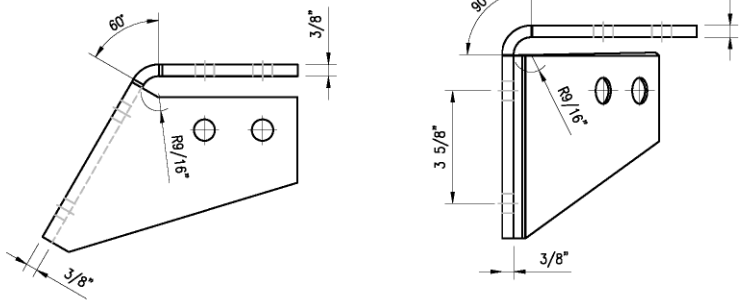
DRAWN BY: BT | CHECKED BY: HMA/KW

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	BT	05/11/20

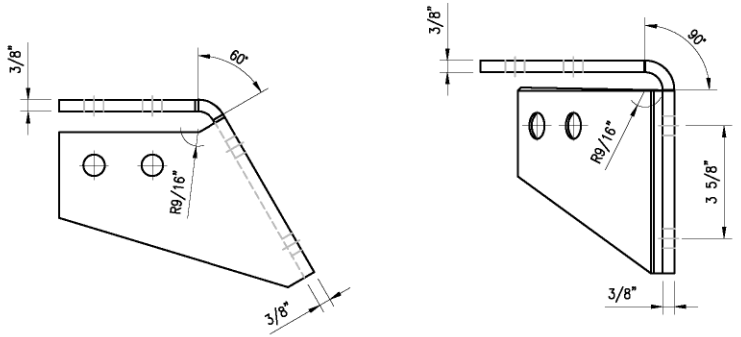
SHEET TITLE:
VZWSMART-PLK7
MONOPOLE COLLAR
MOUNT ASSEMBLY

SHEET NUMBER: VZWSMART-PLK7

REV #: 0



CBP–L



CBP–R

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

VZWSMART–PLK3 (SUPPORT RAIL CORNER BRACKET)

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

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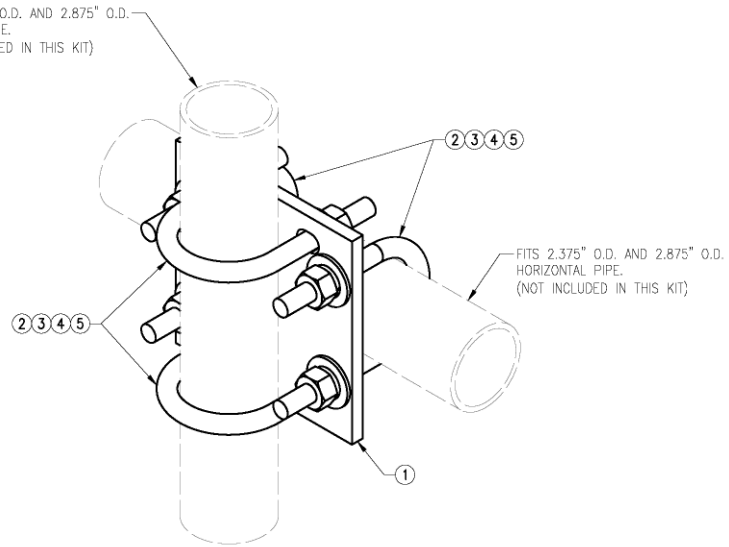
DRAWN BY: H.R | CHECKED BY: HMA

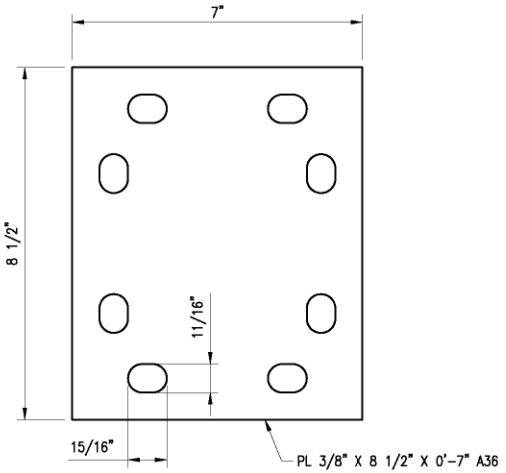
REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	H.R	05/08/20

SHEET TITLE:
VZWSMART–PLK3
SUPPORT RAIL CORNER BRACKET

SHEET NUMBER: VZWSMART–PLK3

REV #: 0





PL375-857

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

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

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DRAWN BY: H.R | CHECKED BY: HMA

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

SHEET TITLE:
VZWSMART-MSK1
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK1

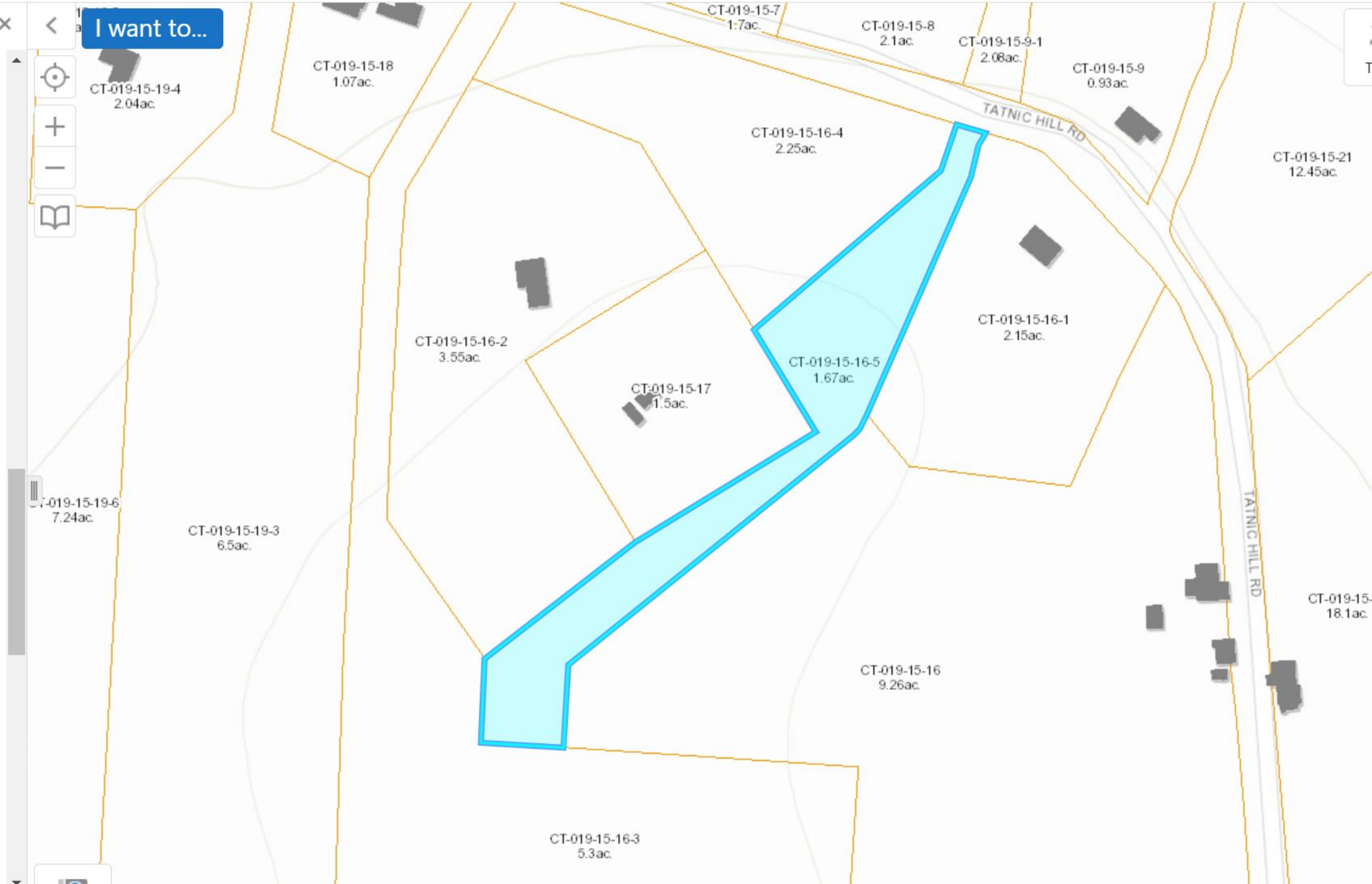
REV #: 0

ATTACHMENT 5

100 TATNIC HILL RD

Sign in

I want to...



100 TATNIC HILL RD

Sales | Print | Field Card | Map It

Location	100 TATNIC HILL RD	**Mblu**	15/ / 16-5/ /
Acct#	00116805	**Owner**	DAVIDSON BENJAMIN & SOPHIE
Assessment	$187,000	**Appraisal**	$267,100
PID	1241	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$0	$267,100	$267,100
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$0	$187,000	$187,000

Owner of Record

Owner	DAVIDSON BENJAMIN & SOPHIE
Co-Owner	C/O SBA TOWERS
Care Of	
Address	ATTN: TAX DEPT CT01915-S 8051 CONGRESS AVE BOCA RATON, FL 33487-1307

Sale Price	$0
Certificate	
Book	0216
Page	0006
Sale Date	09/09/1999
Instrument	
Qualified	

ATTACHMENT 6

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Certificate of Mailing — Firm

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	Postmaster, per *(name of receiving employee)*		

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2.	Jana Butts-Roberson, Director of Community Development/Town Planner Town of Brooklyn ~~Clifford B. Green Memorial Center~~ ~~69 South Main Street, Suite 22~~ Brooklyn, CT 06234				
3.	Benjamin and Sophie Davidson c/o SBA Towers ~~Attn: Tax Department CT 01915-S~~ 8051 Congress Avenue Boca Raton, FL 33487-1307				
4.					
5.					
6.					

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