Derek Maheux Program Manager
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Suite 301
West Bridgewater, MA 02379
Mobile: (508)649-3407
Dmaheux@clinellc.com

September 22, 2023

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

RE: Notice of Exempt Modification // Site: COLCHESTER CT (ATC: 302465)
355 Route 85, Colchester CT 06415
N 41.54486136 // W -72.30490542

Dear Ms. Bachman,

Cellco Partnership d/b/a Verizon Wireless currently maintains nine (9) antenna at the 163-ft level on the existing 181ft Tower, located at 355 Route 85, Colchester, CT. The tower is owned by American Tower. Verizon Wireless proposed modification involves the installation of two (2) interference mitigation filters on Verizon Wireless existing antenna platform and mounting assembly.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Bethany'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). Enclosed to accommodate this filing are construction drawings dated September 15, 2023, by A.T Engineering Services, LLC, a structural analysis dated September 6, 2023, by American Tower Corp., and a structural mount analysis by Colliers Engineering and Design dated August 2, 2023, and Non-Ionizing Electromagnetic Radiation (NIER) Study dated August 27, 2023, by Tower Engineering Professionals.

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

2. The proposed modifications 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 operation of the new antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

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

6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis and a structural mount analysis, pursuant to certain conditions defined therein. Design and engineering are fully illustrated within final construction drawings.

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

Sincerely,

Derek Maheux

_____

Derek Maheux, Program Manager
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Suite 301
West Bridgewater, MA 02379
Mobile: (508) 649 2307
Dmaheux@clinellc.com

Attachments:
Exhibit 1 – Construction Drawings
Exhibit 2 – Property Card and GIS
Exhibit 3 – Structural Analysis
Exhibit 4 – Mount Analysis
Exhibit 5 – RF Emissions Analysis Report Evaluation
Exhibit 6 – Available Original Tower Approval Records
Exhibit 7 – Notice Deliver Confirmations

cc: Andreas Bisbikos – First Selectman – Chief Elected Official
Demian Sorrentino, Planning Director - as P&Z official
American Tower Corporation - as tower owner
M+J Auto Recycling – as ground owner

EXHIBIT 1

VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: COLCHESTER CT 6
ATC SITE NUMBER: 302465
VERIZON SITE NAME: COLCHESTER S 2 CT
VERIZON SITE NUMBER: 5000245762
VERIZON FUZE PID: 17123860
SITE ADDRESS: 355 ROUTE 85
COLCHESTER, CT 06415

LOCATION MAP

VERIZON AMENDMENT DRAWINGS

COMPLIANCE CODE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. 2020 NFPA 70, NATIONAL ELECTRIC CODE (NEC)
2. 2022 CONNECTICUT STATE BUILDING CODE
3. 2021 INTERNATIONAL BUILDING CODE (IBC)

DESIGN CRITERIA FROM TOWER STRUCTUAL ANALYSIS:

BASIC WIND SPEED:	125 MPH (3-SECOND GUST)
BASIC WIND SPEED W/ ICE:	50 MPH (3-SECOND GUST) W/ 1.00" RADIAL ICE CONURRENT
CODE(S):	ANSI/TIA-222-H / 2021 IBC / 2022 CONNECTICUT STATE BUILDING CODE
EXPOSURE CATEGORY:	B
RISK CATEGORY:	II
TOPO FACTOR PROCEDURE:	METHOD 1
TOPOGRAPHIC CATEGORY:	1
SPECTRAL RESPONSE:	S_S=0.21, S_1=0.06
SITE CLASS:	D - STIFF SOIL- DEFAULT

INFORMATION TAKEN FROM STRUCTURAL ANALYSIS COMPLETED BY ATC, DATED 08/07/23.

UTILITY COMPANIES

POWER COMPANY: EVER SOURCE
PHONE: (877) 659-6326

TELEPHONE COMPANY: FRONTIER COMMUNICATIONS
PHONE: (800) 376-6843

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

PROJECT SUMMARY

SITE ADDRESS:

355 ROUTE 85
COLCHESTER, CT 06415
COUNTY: NEW LONDON

GEOGRAPHIC COORDINATES:

LATITUDE: 41.54486136
LONGITUDE: -72.30490542
GROUND ELEVATION: 559' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

VERIZON WIRELESS

ENGINEER:

ATC TOWER SERVICES, LLC
3500 REGENCY PKWY STE 100
CARY, NC 27518

PROPERTY OWNER:

M & J AUTO RECYCLING INC
355 ROUTE 85
COLCHESTER, CT 06415

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

INSTALL MOUNT MODIFICATION(s) AND (2) FILTER(s)

EXISTING (9) ANTENNA(s), (6) RRH(s), (3) DIPLEXER(s), (2) OVP(s), AND (2) 1-5/8" HYBRID CABLE(s) TO REMAIN

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.
6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).

PROJECT LOCATION DIRECTIONS

FROM NEW LONDON. TAKE I 395 NORTH TO RT 2 WEST. FOLLOW RT WEST TO RT 85 SOUTH. FOLLOW RT 2 SOUTH TO DUTTON RD. TURN ON TO DUTTON RD AND ROAD GATE ON RIGHT.

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	09/15/23	AP
G-002	GENERAL NOTES	0	09/15/23	AP
C-101	DETAILED SITE PLAN	0	09/15/23	AP
C-201	TOWER ELEVATION	0	09/15/23	AP
C-401	ANTENNA INFORMATION & SCHEDULE	0	09/15/23	AP
C-501	CONSTRUCTION DETAILS	0	09/15/23	AP
E-501	GROUNDING DETAILS	0	09/15/23	AP
R-601	SUPPLEMENTAL			

CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT:	HTTPS://PMI.VZWSMART.COM
SMART TOOL VENDOR PROJECT NUMBER:	10208055
VZW LOCATION CODE (PSLC):	5000245762

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

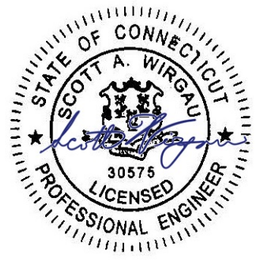
MOUNT MODIFICATION REQUIRED:	YES
VZW APPROVED SMART KIT VENDORS:	REFER TO MOUNT MODIFICATION DRAWINGS PAGES FOR VZW SMART KIT APPROVED VENDORS

AMERICAN TOWER®
A.T. ENGINEERING SERVICES LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	09/15/23

ATC SITE NUMBER:
302465
ATC SITE NAME:
COLCHESTER CT 6
VERIZON SITE NAME:
COLCHESTER S 2 CT
SITE ADDRESS:
355 ROUTE 85
COLCHESTER, CT 06415

SEAL:



verizon

ATC JOB NO:	14519481_G0
CUSTOMER ID:	COLCHESTER S 2 CT
CUSTOMER #:	5000245762

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, VERIZON "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
   - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
   - B. AC/TELCO INTERFACE BOX (PPC)
   - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
   - D. TOWERS, MONOPOLES
   - E. TOWER LIGHTING
   - F. GENERATORS & LIQUID PROPANE TANK
   - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
   - H. ANTENNAS (INSTALLED BY OTHERS)
   - I. TRANSMISSION LINE
   - J. TRANSMISSION LINE JUMPERS
   - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
   - L. TRANSMISSION LINE GROUND KITS
   - M. HANGERS
   - N. HOISTING GRIPS
   - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF VERIZON TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE VERIZON REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE VERIZON REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH VERIZON AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY VERIZON REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. WHEN THE PROJECT SCOPE REQUIRES THE USE OF THE SAFETY CLIMB, THE GENERAL CONTRACTOR SHALL ENSURE THE SAFETY CLIMB IS FREE OF OBSTRUCTIONS, NOT RUBBING ON OR TRAPPED BY ANY INSTALLED CUSTOMER EQUIPMENT, IS VISUALLY TAUT, MEETS MANUFACTURER INSTALLATION SPECIFICATIONS, AND IS FIRMLY SECURED AT ALL CABLE GUIDE LOCATIONS UPON PROJECT COMPLETION.
29. COMPLETION OF PROJECT SHALL NOT OBSTRUCT, TRAP, LOOSEN, OR OTHERWISE CAUSE FAILURE TO MEET MANUFACTURER INSTALLATION REQUIREMENTS FOR THE SAFETY CLIMB.
30. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
31. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
32. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE VERIZON REP. ANY WORK FOUND BY THE VERIZON REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
33. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
34. VERIZON FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE VERIZON WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
35. VERIZON OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO VERIZON OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
   - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY VERIZON UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL.
   - B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND VERIZON SPECIFICATIONS.
   - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
   - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
   - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
   - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
   - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

AMERICAN TOWER®
A.T. ENGINEERING SERVICES LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	09/15/23

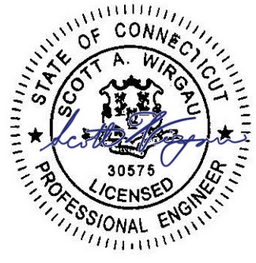
ATC SITE NUMBER:
302465

ATC SITE NAME:
COLCHESTER CT 6

VERIZON SITE NAME:
COLCHESTER S 2 CT

SITE ADDRESS:
355 ROUTE 85
COLCHESTER, CT 06415

SEAL:



Digitally Signed: 2023-09-15

verizon

ATC JOB NO:	14519481_G0
CUSTOMER ID:	COLCHESTER S 2 CT
CUSTOMER #:	5000245762

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

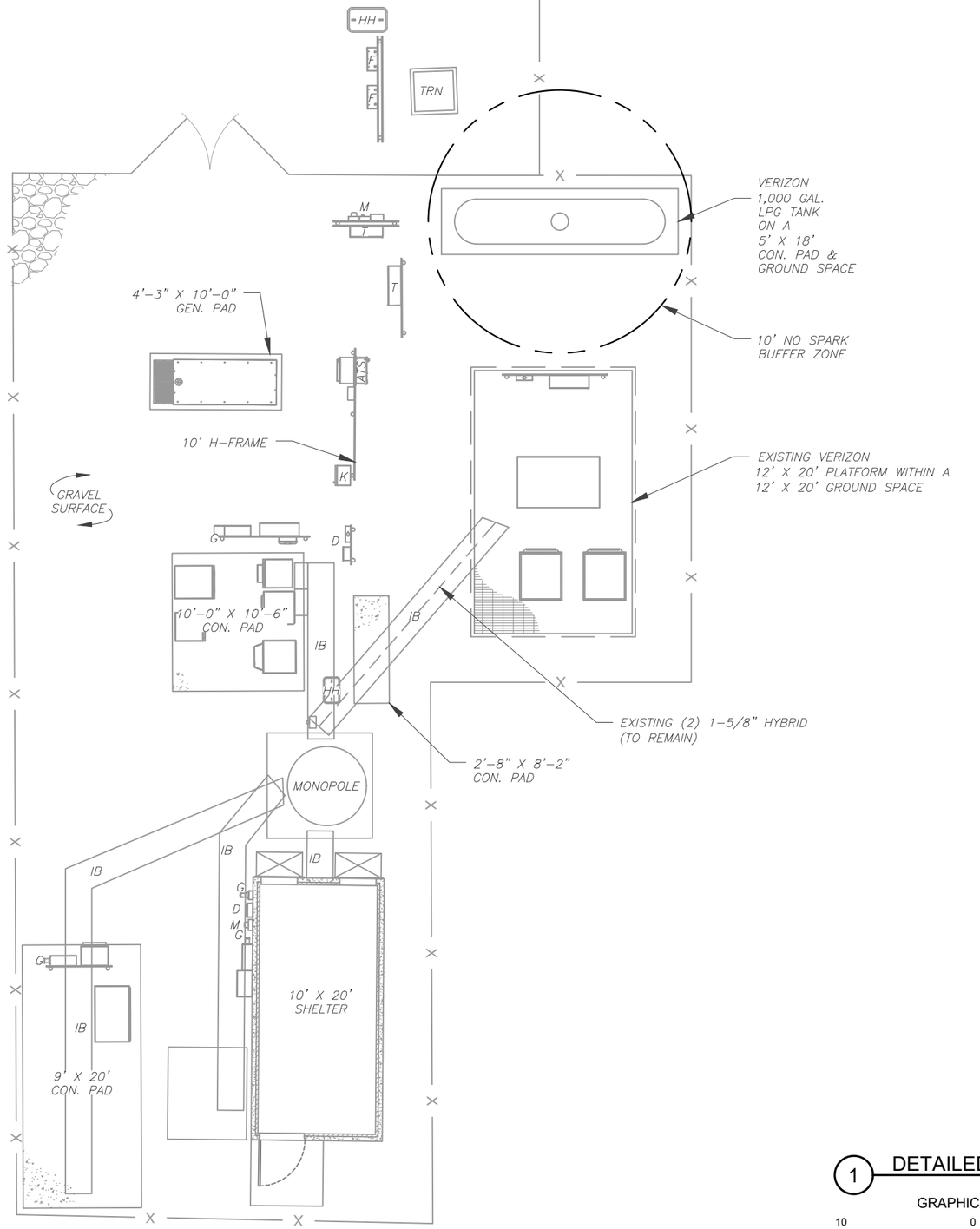
1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.

2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.

3. NO ELECTRICAL SCOPE IS INCLUDED IN THIS PROJECT.

LEGEND

⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACLE
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
———	CHAINLINK FENCE



1 DETAILED SITE PLAN

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 UNIT = 10 FEET

AMERICAN TOWER®

A.T. ENGINEERING SERVICES LLC

3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	09/15/23

ATC SITE NUMBER:
302465

ATC SITE NAME:
COLCHESTER CT 6

VERIZON SITE NAME:
COLCHESTER S 2 CT

ATC LEASE AREA = 100' X 100'

SITE ADDRESS:
355 ROUTE 85
COLCHESTER, CT 06415

SEAL:

Digitally Signed: 2023-09-15

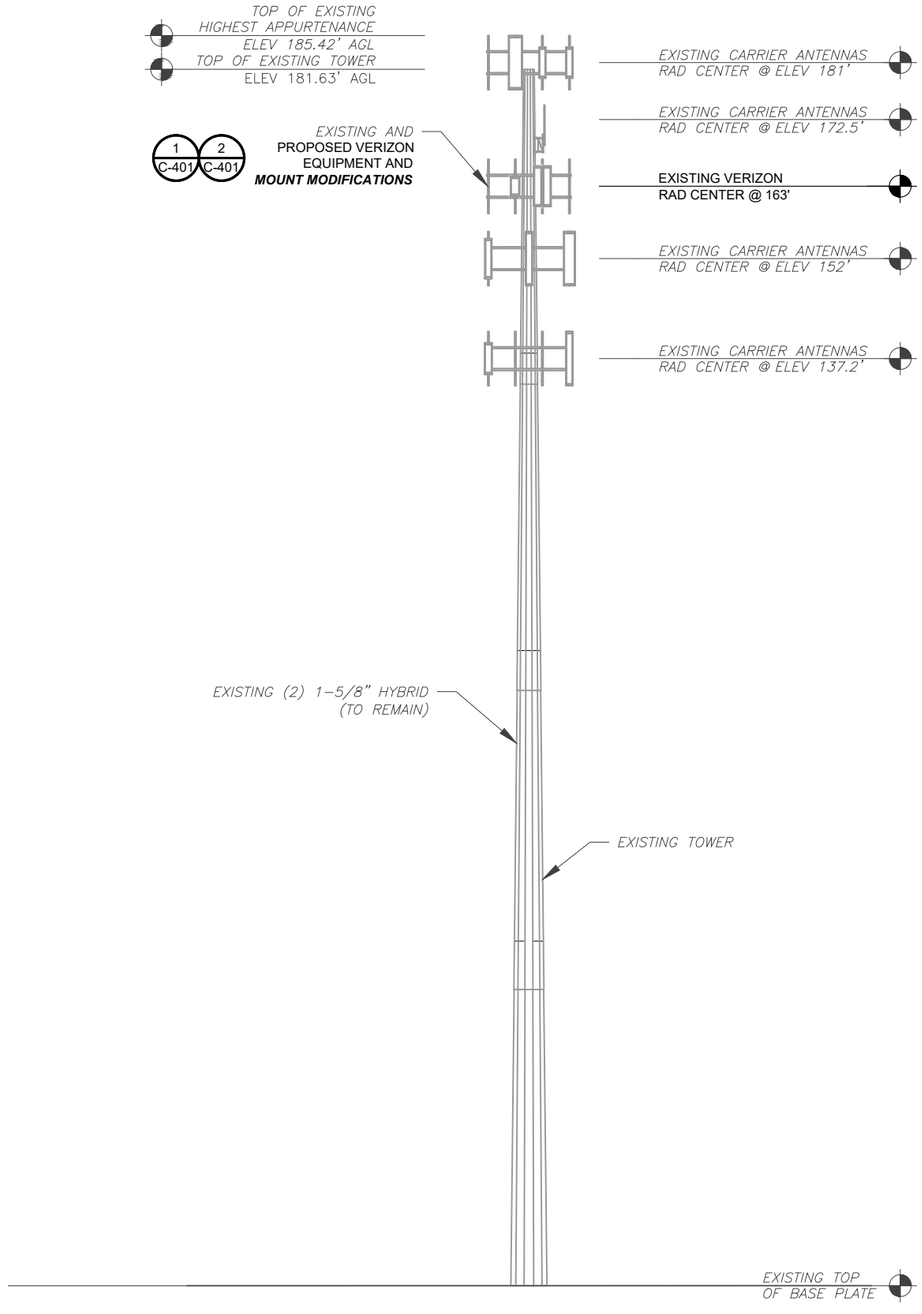
verizon

ATC JOB NO:	14519481_G0
CUSTOMER ID:	COLCHESTER S 2 CT
CUSTOMER #:	5000245762

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

PER MOUNT ANALYSIS COMPLETED BY COLLIERS ENGINEERING & DESIGN, DATED 08/02/23, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.



1 TOWER ELEVATION
SCALE: N.T.S.

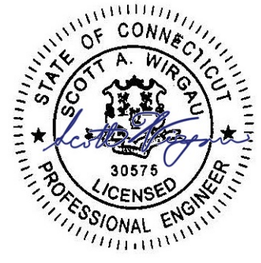
TOWER NOTE:
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
3. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)
4. TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

AMERICAN TOWER®
A.T. ENGINEERING SERVICES LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	09/15/23

ATC SITE NUMBER:
302465
ATC SITE NAME:
COLCHESTER CT 6
VERIZON SITE NAME:
COLCHESTER S 2 CT
SITE ADDRESS:
355 ROUTE 85
COLCHESTER, CT 06415

SEAL:



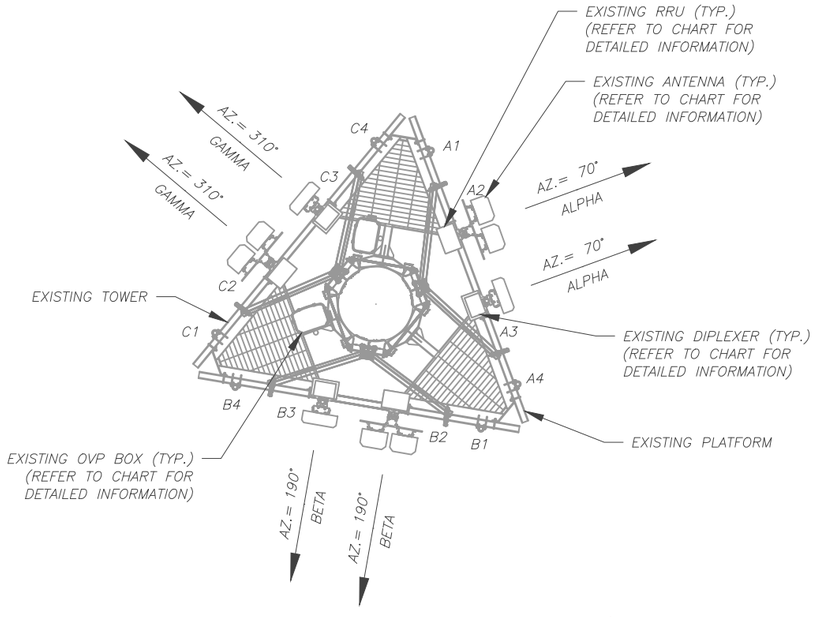
Digitally Signed: 2023-09-15

verizon

ATC JOB NO:	14519481_G0
CUSTOMER ID:	COLCHESTER S 2 CT
CUSTOMER #:	5000245762

TOWER ELEVATION

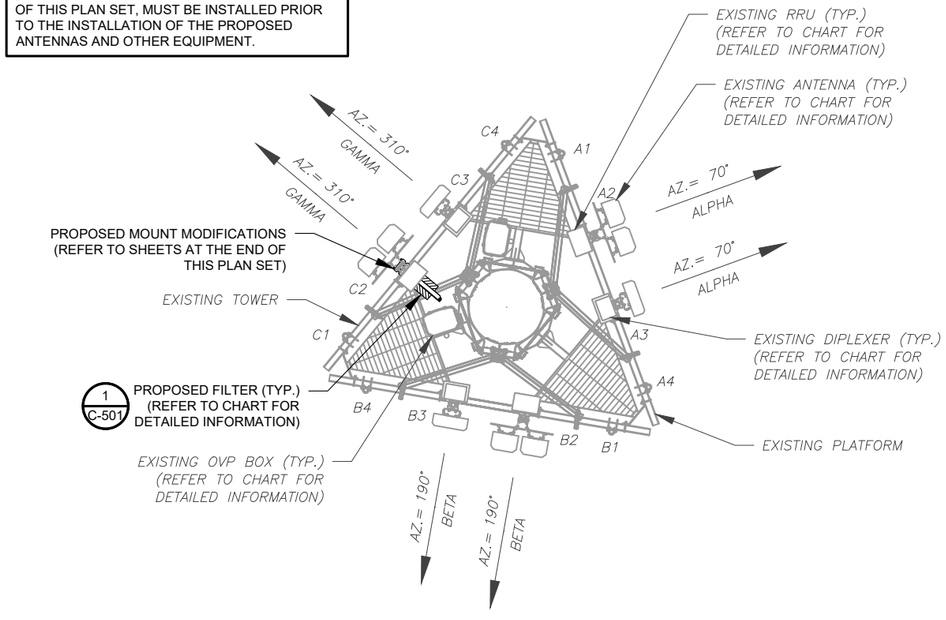
SHEET NUMBER:	REVISION:
C-201	0



1 EXISTING ANTENNA PLAN

SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY COLLIERS ENGINEERING & DESIGN, DATED 08/02/23, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.



2 FINAL ANTENNA PLAN

SCALE: N.T.S.

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	163'	70°	A1	–	–	–	–	–
			A2	(2) JAHH-65B-R3B	LTE 700/850/1900/AWS	RMN	B5/B13 RRH-BR04C	RMN
			A3	MT6407-77A	5G L-SUB6	RMN	B2/B66A RRH-BR049 CBC78T-DS-43-2X	RMN RMN
			A4	–	–	–	–	–
BETA	163'	190°	B1	–	–	–	–	–
			B2	(2) JAHH-65B-R3B	LTE 700/850/1900/AWS	RMN	B5/B13 RRH-BR04C	RMN
			B3	MT6407-77A	5G L-SUB6	RMN	B2/B66A RRH-BR049 CBC78T-DS-43-2X	RMN RMN
			B4	–	–	–	–	–
GAMMA	163'	310°	C1	–	–	–	–	–
			C2	(2) JAHH-65B-R3B	LTE 700/850/1900/AWS	RMN	B5/B13 RRH-BR04C	RMN
			C3	MT6407-77A	5G L-SUB6	RMN	B2/B66A RRH-BR049 CBC78T-DS-43-2X	RMN RMN
			C4	–	–	–	–	–

NOTES

1. CONFIRM WITH VERIZON REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	163'	70°	A1	-	-	-	-	-
			A2	(2) JAHH-65B-R3B	LTE 700/850/1900/AWS	RMN	B5/B13 RRH-BR04C	RMN
			A3	MT6407-77A	5G L-SUB6	RMN	B2/B66A RRH-BR049 CBC78T-DS-43-2X	RMN RMN
			A4	-	-	-	-	-
BETA	163'	190°	B1	-	-	-	-	-
			B2	(2) JAHH-65B-R3B	LTE 700/850/1900/AWS	RMN	B5/B13 RRH-BR04C	RMN
			B3	MT6407-77A	5G L-SUB6	RMN	B2/B66A RRH-BR049 CBC78T-DS-43-2X	RMN RMN
			B4	-	-	-	-	-
GAMMA	163'	310°	C1	-	-	-	-	-
			C2	(2) JAHH-65B-R3B	LTE 700/850/1900/AWS	RMN	B5/B13 RRH-BR04C (2) KA-6030	RMN ADD
			C3	MT6407-77A	5G L-SUB6	RMN	B2/B66A RRH-BR049 CBC78T-DS-43-2X	RMN RMN
			C4	-	-	-	-	-

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
(2) DB-B1-6C-12AB-0Z	RMN	(2) 1-5/8" HYBRID	RMN
–	–	----	–

3 EQUIPMENT SCHEDULES

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
(2) DB-B1-6C-12AB-0Z	RMN	(2) 1-5/8" HYBRID	RMN
-	-	----	-

AMERICAN TOWER®
A.T. ENGINEERING SERVICES LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	09/15/23

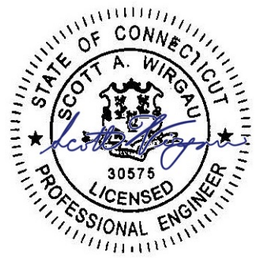
ATC SITE NUMBER:
302465

ATC SITE NAME:
COLCHESTER CT 6

VERIZON SITE NAME:
COLCHESTER S 2 CT

SITE ADDRESS:
355 ROUTE 85
COLCHESTER, CT 06415

SEAL:



Digitally Signed: 2023-09-15

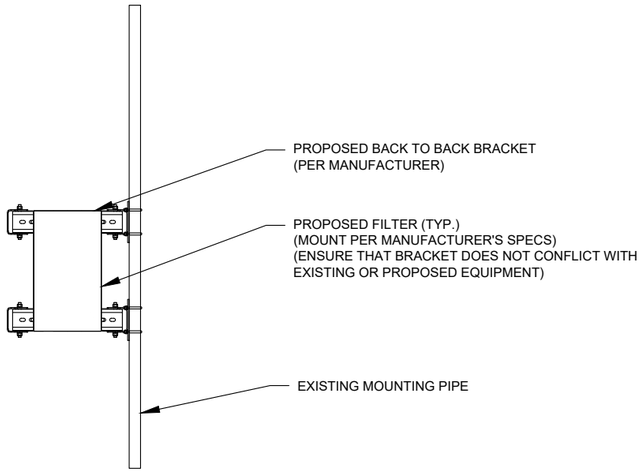
verizon

ATC JOB NO:	14519481_G0
CUSTOMER ID:	COLCHESTER S 2 CT
CUSTOMER #:	5000245762

ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-501	0

EXISTING/PROPOSED MOUNTS AND/OR MOUNT MODIFICATIONS NOT SHOWN FOR CLARITY. REFER TO ANTENNA PLANS, MOUNT ANALYSES AND/OR MOUNT MODIFICATION DOCUMENTS FOR ADDITIONAL DETAIL.



1 PROPOSED FILTER MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.

AMERICAN TOWER®

A.T. ENGINEERING SERVICES LLC

3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	09/15/23

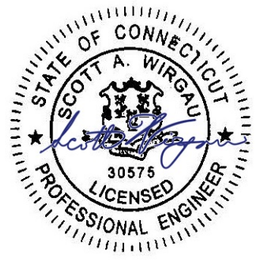
ATC SITE NUMBER:
302465

ATC SITE NAME:
COLCHESTER CT 6

VERIZON SITE NAME:
COLCHESTER S 2 CT

SITE ADDRESS:
355 ROUTE 85
COLCHESTER, CT 06415

SEAL:



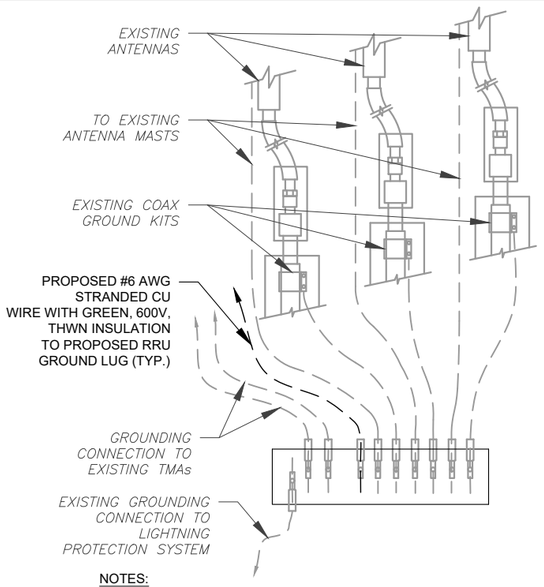
Digitally Signed: 2023-09-15

verizon

ATC JOB NO:	14519481_G0
CUSTOMER ID:	COLCHESTER S 2 CT
CUSTOMER #:	5000245762

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

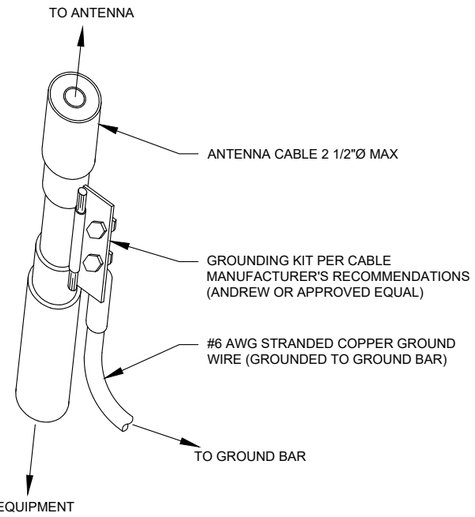


NOTES:

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH VERIZON GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH VERIZON GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

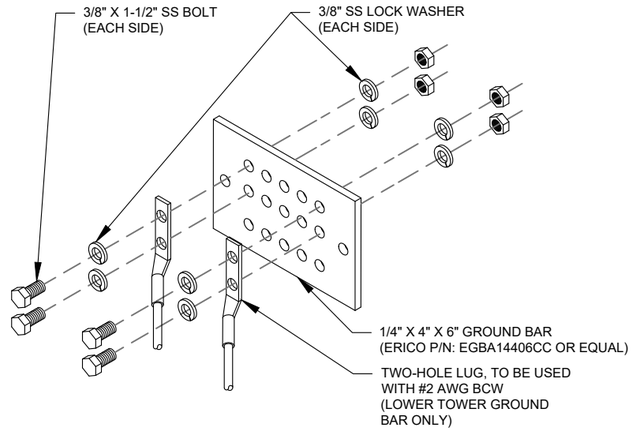


GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.



GROUND BAR NOTES:

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

AMERICAN TOWER®
A.T. ENGINEERING SERVICES LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	09/15/23

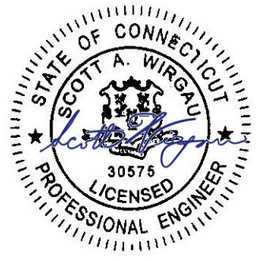
ATC SITE NUMBER:
302465

ATC SITE NAME:
COLCHESTER CT 6

VERIZON SITE NAME:
COLCHESTER S 2 CT

SITE ADDRESS:
355 ROUTE 85
COLCHESTER, CT 06415

SEAL:



Digitally Signed: 2023-09-15

verizon

ATC JOB NO:	14519481_G0
CUSTOMER ID:	COLCHESTER S 2 CT
CUSTOMER #:	5000245762

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

Colliers Engineering & Design CT, PC
1055 Washington Boulevard
Stamford, CT 06901
203.324.0800
Peter.albano@collierseng.com

Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements

Mount ReAnalysis

SMART Tool Project #: 10208055
Colliers Engineering & Design CT, PC Project #: 23777210

August 2, 2023

Site Information

Site ID:	*5000245762-VZW / COLCHESTER S 2 CT ATC monopole*
Site Name:	*COLCHESTER S 2 CT - ATC monopole*
Carrier Name:	*Verizon Wireless*
Address:	*355 Route 85 Colchester, Connecticut 06415 New London County*
Latitude:	*41.544820°*
Longitude:	*-72.304891°*

Structure Information

Tower Type:	*180-Ft Monopole*
Mount Type:	*12.58-Ft Platform*

FUZE ID # 17123860

Analysis Results

Platform: **99.4 % Pass w/ Hardware Upgrades***

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

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

Report Prepared By: Lauren Luzier

STATE OF CONNECTICUT DEJIAN XU No. 33733 LICENSED PROFESSIONAL ENGINEER 08/02/2023

- Ka factors included in (EPA)a calculations

Requirements:

The existing mount will be **SUFFICIENT** for the final loading configuration shown in attachment 2 upon the completion of the requirements listed below.

Contractor shall remove the existing equipment pipe to pipe in position 4 on all sectors.

Contractor shall install the proposed filter units on new Site Pro 1 Dual Swivel Mount Kit (Part #: RRUDSM or EOR approved equivalent) in the location shown in the placement diagrams.

Contractor shall inspect support rail corners and install missing U-bolts as needed.

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

Attachments:

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

1 MOUNT ANALYSIS

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERYIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-601	0

KA-6030

TWIN BANDSTOP 900MHZ INTERFERENCE MITIGATION FILTER

The KA-6030 is ideal for co-located 700, 850 and 900 networks. Utilising a 2.6MHz guardband the KA-6030 provides rejection of the 900 UL band while passing 700/850 UL and DL bands. Capable of being used in an outdoor environment the KA-6030 contains two identical bandstop filters, suitable for 2x2 MIMO configuration, offering excellent insertion loss, group delay and rejection.

FEATURES

- Passes full 700 and 850 bands
- Low insertion loss
- Rejection of 900MHz uplink
- DC/AISG pass
- Twin unit
- Dual twin mounting available

TECHNICAL SPECIFICATIONS

BAND NAME	700 PATH / 850 UPLINK PATH	850 DOWNLINK PATH
Passband	698 - 849MHz	869 - 891.5MHz
Insertion loss	0.1dB typical / 0.3dB maximum	0.5dB typical, 1.45dB maximum
Return loss	24dB typical, 18dB minimum	
Maximum input power (Per Port)	100W average	200W average and 66W per 5MHz
Rejection	53dB minimum @ 894.1 - 896.5MHz	

ELECTRICAL	
Impedance	50Ohms
Intermodulation products	-160dBc maximum in UL Band (assuming 20MHz Signal), with 2 x 43dBm carriers -153dBc maximum with 2 x 43dBm

DC / AISG	
Passband	0 - 13MHz
Insertion loss	0.3dB maximum
Return loss	15dB minimum
Input voltage range	± 33V
DC current rating	2A continuous, 4A peak
Compliance	3GPP TS 25.461

ENVIRONMENTAL	
For further details of environmental compliance, please contact Kaelus.	
Temperature range	-20ºC to +60ºC | -4°F to +140°F
Ingress protection	IP67
Altitude	2600m | 8530ft
Lightning protection	RF port: ±5kA maximum (8/20us), IEC 61000-4-5 – Unit must be terminated with some lightning protection circuits.
MTBF	>1,000,000 hours
Compliance	ETSI EN 300 019 class 4.1H, RoHS, NEBS GR-487-CORE

MECHANICAL	
Dimensions H x D x W	269 x 277 x 80mm | 10.60 x 10.90 x 3.15in (Excluding brackets and connectors)
Weight	8.0 kg | 17.6 lbs (no bracket)
Finish	Powder coated, light grey (RAL7035)
Connectors	RF: 4.3-10 (F) x 4
Mounting	Optional pole/wall bracket supplied with two metal clamps 45-178mm diameter poles or custom bracket. See ordering information.

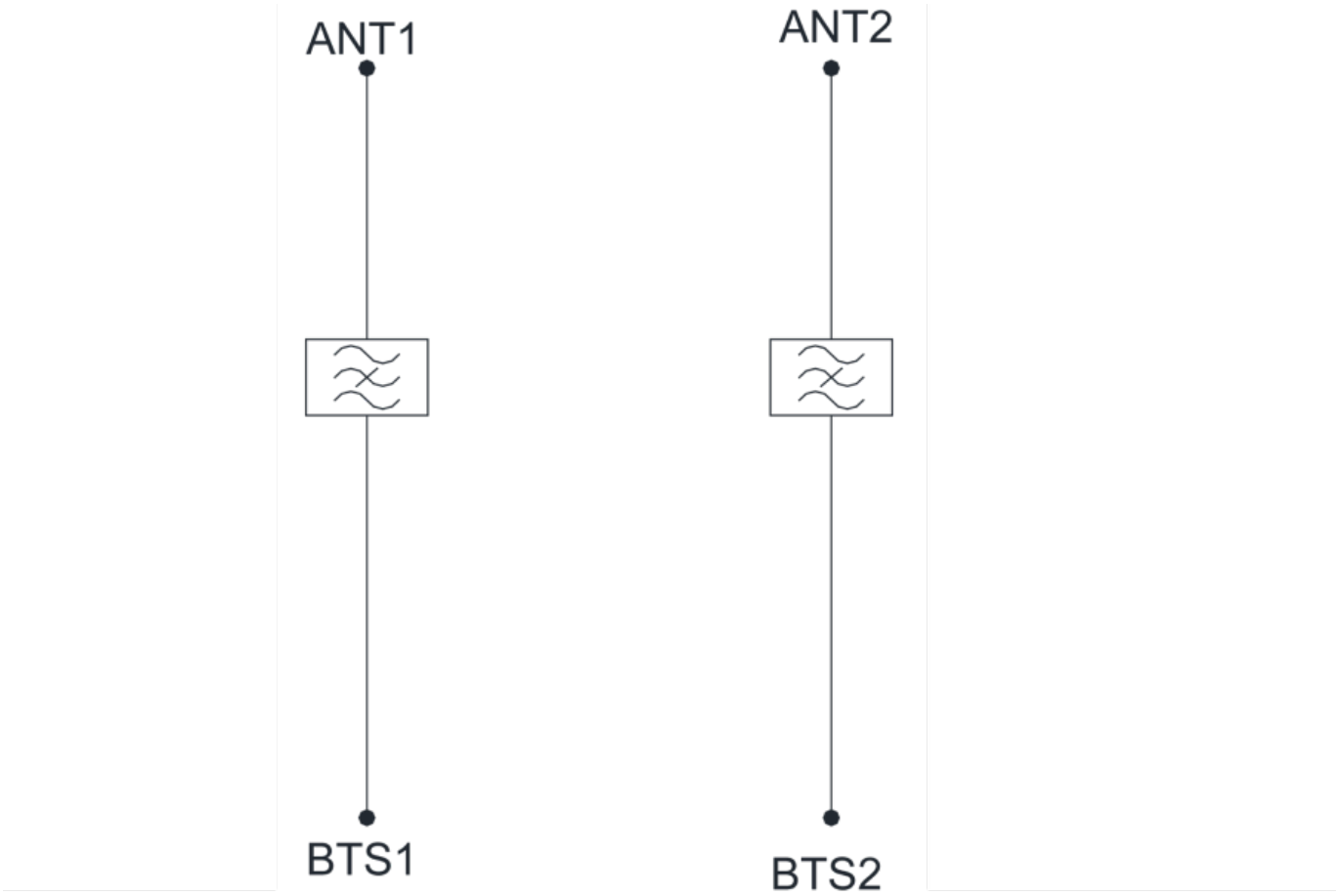
Contact Us: +1 303 768 8080 | +61 (0) 7 3907 1200 | www.kaelus.com

ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS
KA-6030-2032	TWIN, 2 in / 2 out	DC/AISG PASS	4.3-10 (F)

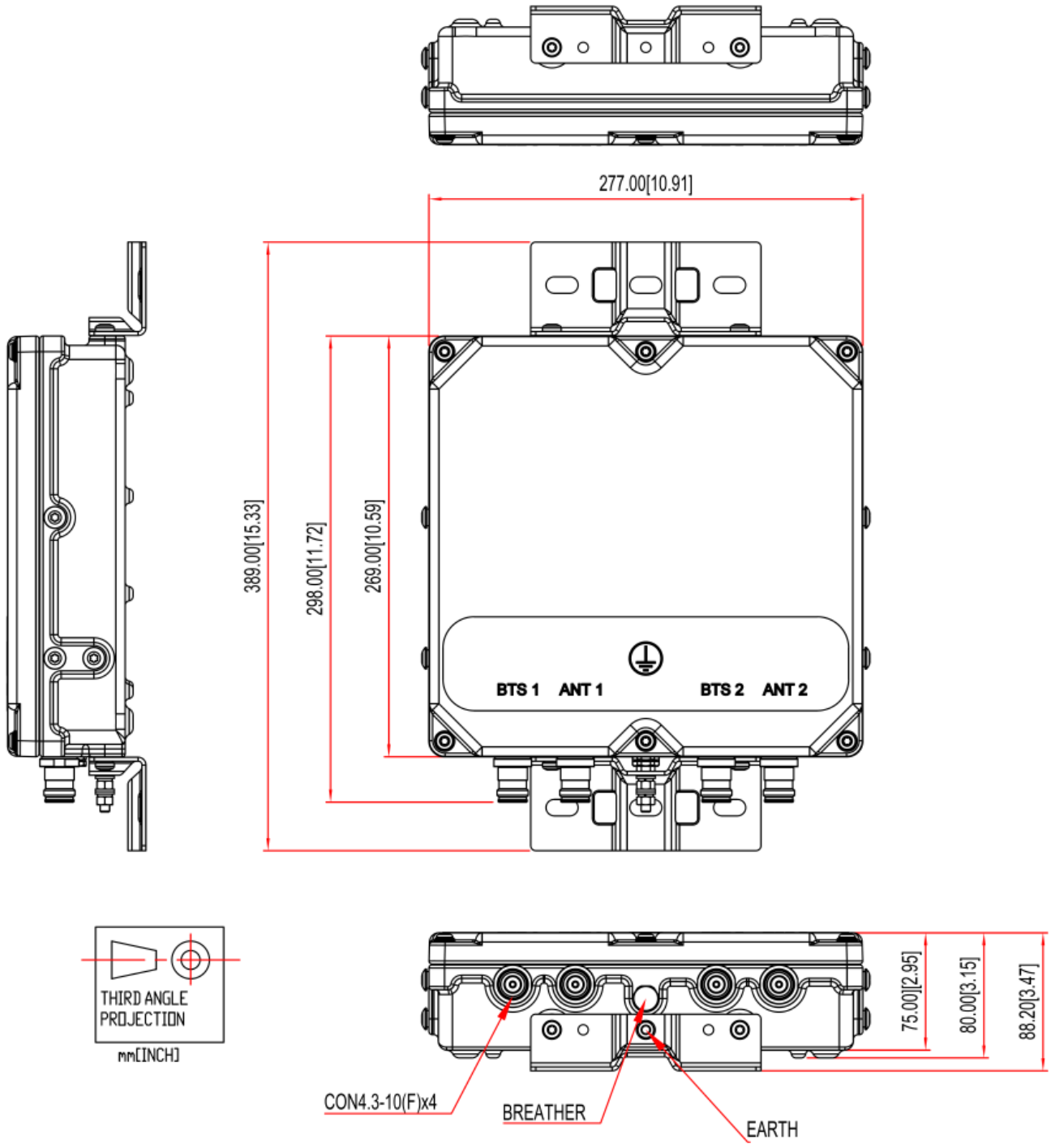
Contact Us: +1 303 768 8080 | +61 (0) 7 3907 1200 | www.kaelus.com

ELECTRICAL BLOCK DIAGRAM



Contact Us: +1 303 768 8080 | +61 (0) 7 3907 1200 | www.kaelus.com

MECHANICAL BLOCK DIAGRAM



Contact Us: +1 303 768 8080 | +61 (0) 7 3907 1200 | www.kaelus.com

EXHIBIT 2

Town of Colchester, CT

Property Report

Map Block Lot	PID	Building #	Section #	Account
02-08/003-000	3051	1	1	M0062200

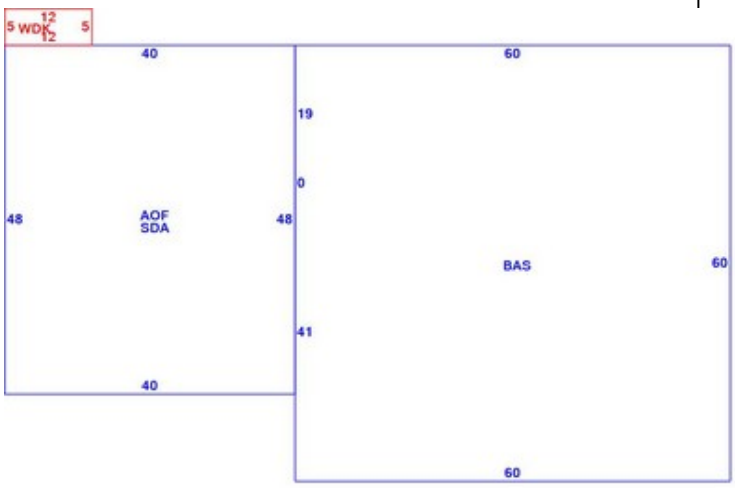
Property Information

Property Location	355 NEW LONDON RD
Owner	M+J AUTO RECYCLING INC
Co-Owner	na
Mailing Address	PO BOX 908 COLCHESTER CT 06415
Land Use	3320 Auto Repr
Land Class	C
Zoning Code	R60
Census Tract	

Neighborhood	
Acreage	36.1
Utilities	UNKNOWN
Lot Setting/Desc	UNKNOWN UNKNOWN
Additional Info	

Photo

Sketch



Primary Construction Details

Year Built	1981
Stories	2
Building Style	Service Shop
Building Use	Serv Station
Building Condition	
Interior Floors 1	Linoleum
Interior Floors 2	Concrete Slab
Total Rooms	0
Basement Garages	
Occupancy	1.00
Building Grade	

Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Bath Style	
Kitchen Style	
Roof Style	Gable
Roof Cover	Metal/Tin
AC Type	Central
Fireplaces	0

Exterior Walls	Pre-finsh Metl
Exterior Walls 2	NA
Interior Walls	Wall Brd/Wood
Interior Walls 2	NA
Heating Type	Forced Air-Duc
Heating Fuel	Gas
Sq. Ft. Basement	
Fin BSMT Quality	
Extra Kitchens	

Report Created On 7/12/2021

Town of Colchester, CT

Property Report | Map Block Lot **02-08/003-000** | PID **3051** | Building # **1** | Section # **1** | Account **M0062200**

Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	354000	247800
Extras	0	0
Improvements		
Outbuildings	114000	79900
Land	562400	393700
Total	1030400	721400

Outbuilding and Extra Features

Type	Description
Paving Asphalt	45000 S.F.
Fence 6' Chain	300 L.F.
Lights (1)	4 UNITS
Lights (2)	1 UNITS
Shed Metal	1600 S.F.
3000-10000 GAL	1 GALS

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Office	1920	1920
First Floor	3600	3600
Store Display Area	1920	1920
Wood Deck	60	0
Total Area		7440

Sales History

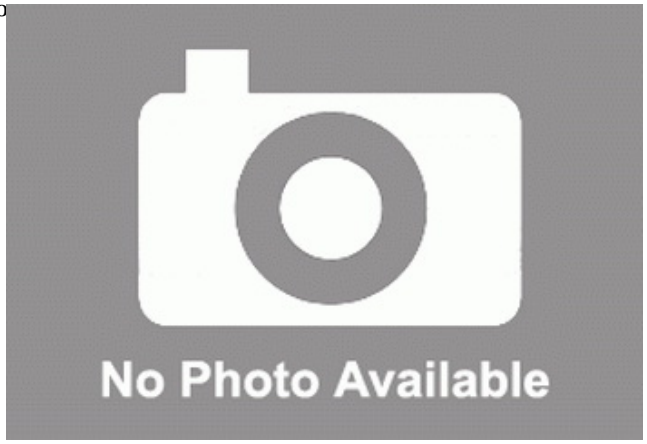
Owner of Record	Book/ Page	Sale Date	Sale Price
M+J AUTO RECYCLING INC	0309/0212	9/21/1992	0

Report Created On **7/12/2021**

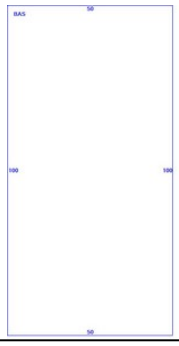
Town of Colchester, CT

Property Report | Map Block Lot 02-08/003-000 | PID 3051 | Building # 2 | Section # 1 | Account M0062200

Photo



Sketch



Primary Construction Details

Year Built	2009	Bedrooms	0	Exterior Walls	Pre-finsh Metl
Stories	1	Full Bathrooms	0	Exterior Walls 2	NA
Building Style	Warehouse	Half Bathrooms	0	Interior Walls	Minimum
Building Use	Commercial	Extra Fixtures	0	Interior Walls 2	NA
Building Condition		Bath Style		Heating Type	None
Interior Floors 1	Concrete Slab	Kitchen Style		Heating Fuel	Coal or Wood
Interior Floors 2	NA	Roof Style	Gable	Sq. Ft. Basement	
Total Rooms	1	Roof Cover	Asphalt	Fin BSMT Quality	
Basement Garages		AC Type	None	Extra Kitchens	
Occupancy	1.00	Fireplaces	0		
Building Grade					

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	5000	5000

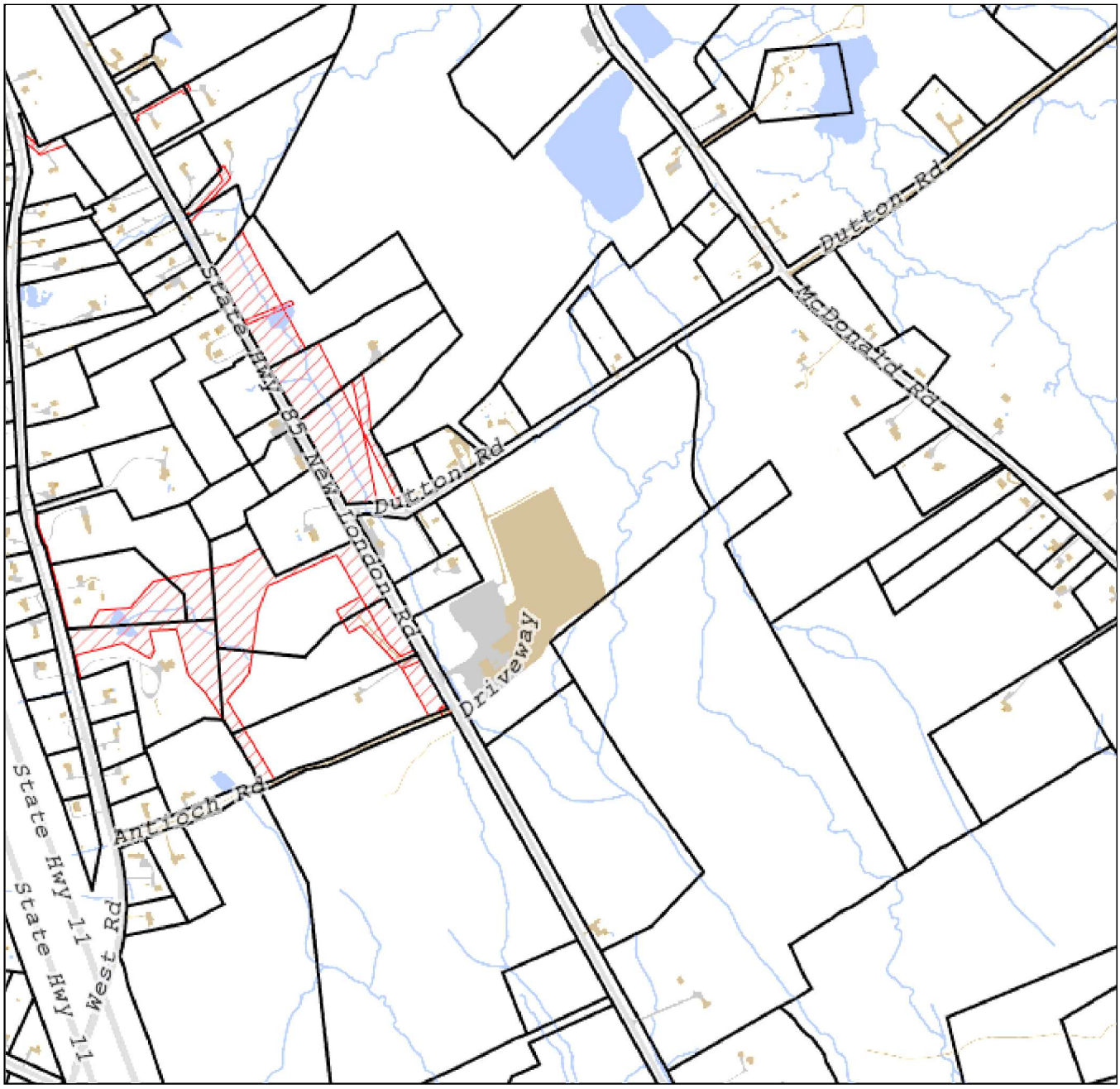
Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area		5000

Report Created On

Town of Colchester

Geographic Information System (GIS)

Date Printed: 7/12/2021



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Colchester and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 800 feet

0 800 Feet

N W E S

EXHIBIT 3

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	180 ft Monopole
ATC Asset Name	:	Colchester CT 6
ATC Asset Number	:	302465
Engineering Number	:	14535640_C3_01
Proposed Carrier	:	VERIZON WIRELESS
Carrier Site Name	:	COLCHESTER S 2 CT
Carrier Site Number	:	5000245762
Site Location	:	355 Route 85 Colchester, CT 06415-1825 41.5449° N, 72.3049° W
County	:	New London
Date	:	September 6, 2023
Max Usage	:	67%
Analysis Result	:	Pass

COA: PEC.0001553

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 180 ft Monopole tower to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower:	Valmont order #17494-98, dated June 8, 1998
Foundation:	Valmont drawing #17494-S-01, dated July 10, 1998
Geotechnical:	Tectonic Engineering Consultants Project #1170.C877, dated June 5, 1998
Modification:	ATC Project #13711921_C8_03, dated August 19, 2021

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	125 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.00" radial ice concurrent
Code(s):	ANSI/TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	Ss = 0.21, S_1 = 0.06
Site Class:	D - Stiff Soil - Default

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower Engineering via email at **Engineering@americantower.com.** Please include the American Tower asset name, asset number, and engineering number in the subject line for any questions.

Structure Usages

Structural Component	Usage	Control	Result
Pole Shaft	67.7%	1.2D + 1.0W	Pass
Base Plate @ 0.0 ft	50.8%	Rods	Pass
Mat & Pier	58.4%	Flexure [Steel (Pier)]	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Shear (k)
Monopole Base	4,336.4	61.8	36.7

Reactions shown reflect the results from the Load Case with maximum Moment

Structure base reactions were analyzed using available geotechnical and foundation information.

VERIZON WIRELESS Final Loading

Elev (ft)	Qty	Equipment	Lines
163.0	1	Platform with Handrails	(2) 1 5/8" Hybriflex
	2	Kaelus KA-6030	
	2	RFS DB-B1-6C-12AB-0Z	
	3	Samsung B2/B66A RRH-BR049	
	3	Samsung B5/B13 RRH-BR04C	
	3	Samsung MT6407-77A	
	6	Commscope JAHH-65B-R3B	

Other Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines	Carrier
180.0	1	Platform with Handrails	(3) 1.99" (50.7mm) Hybrid	T-MOBILE
	3	Commscope VV-65A-R1B		
	3	Ericsson 4460 BAND 2/25		
	3	Ericsson 4480 BAND 71		
	3	Ericsson AIR 6419 B41		
	3	RFS APXVAALL24 43-U-NA20		
172.6	2	6' Omni	-	SENET, INC.
169.0	2	Side Arm	-	SENET, INC.
150.0	1	CCI HPA65R-BU6A	(2) 0.39" (10mm) Fiber Trunk (2) 0.65" (16.4mm) 8 AWG 2C (2) 0.78" (19.7mm) 8 AWG 6 (12) 1 1/4" Coax	AT&T MOBILITY
	1	Platform with Handrails		
	1	Kathrein Scala 80010965		
	2	CCI HPA65R-BU8A		
	2	Kathrein Scala 80010966		
	2	Raycap DC6-48-60-18-8F (23.5" Height)		
	3	Ericsson RRUS 4449 B5, B12		
	3	Ericsson Radio 8843 - B2 + B66A		
	3	Powerwave Allgon 7770.00		
	6	LGP Allgon LGP21903		
	6	Powerwave Allgon LGP21401		
120.0	1	Commscope RDIDC-9181-PF-48	(1) 1.60" (40.6mm) Hybrid	DISH WIRELESS L.L.C.
	1	Platform with Handrails		
	3	Fujitsu TA08025-B604		
	3	Fujitsu TA08025-B605		
	3	JMA Wireless MX08FRO665-21		

(If table breaks across pages, please see previous page for data in merged cells)

Standard Conditions

All engineering services performed by A.T. Engineering Services LLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts, and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Services LLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Services LLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Services LLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

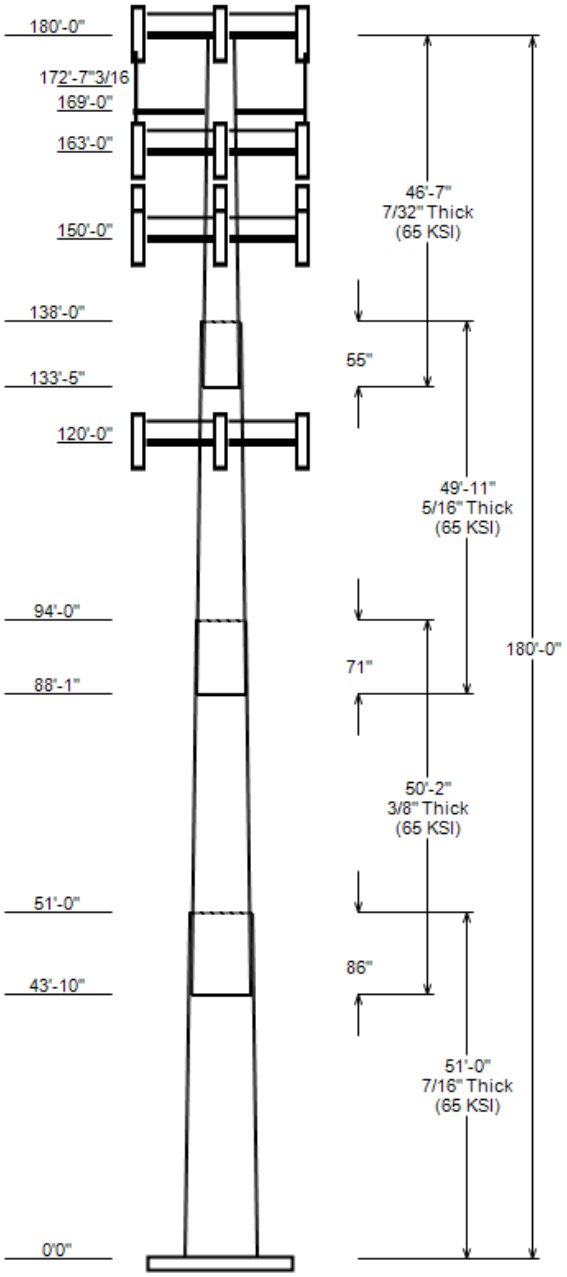
All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Services LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

ANALYSIS PARAMETERS

Nominal Wind:	125 mph	**Ice Wind:**	50 mph w/ 1" ice	**Service Wind:**	60 mph
Risk Category:	II	**Exposure:**	B	**S_s:** 0.205	**S_1:** 0.055
Topo Category:	1	**Topo Factor:**	Method 1	**Topo Feature:**	
Structure Height:	180 ft	**Base Elevation:**	0.00 ft	**Structure Type:**	Taper
Base Diameter:	64 in	**Base Rotation:**	0°	**Taper:**	0.2610 (in/ft)

POLE SECTION PROPERTIES

Section	Length (ft)	Flat Diameter (in) Top	Flat Diameter (in) Bottom	Thick (in)	Joint Type	Joint Length (in)	Pole Shape	Yield Strength (ksi)
1	51.000	50.70	64.00	0.438		0.000	12 Sides	65
2	50.167	40.24	53.32	0.375	Slip Joint	86.000	12 Sides	65
3	49.917	29.39	42.40	0.312	Slip Joint	71.000	12 Sides	65
4	46.583	18.87	31.02	0.219	Slip Joint	55.000	12 Sides	65



DISCRETE APPURTENANCE

Elev (ft)	Description
180.0	(3) Ericsson 4460 BAND 2/25
180.0	(3) Ericsson 4480 BAND 71
180.0	(3) Ericsson AIR 6419 B41
180.0	(3) Commscope VV-65A-R1B
180.0	(3) RFS APXVAALL24 43-U-NA20
180.0	(1) Generic Round Platform with Ha
172.6	(2) Generic 6' Omni
169.0	(2) Generic Round Side Arm
163.0	(2) Kaelus KA-6030
163.0	(3) Samsung B5/B13 RRH-BR04C
163.0	(3) Samsung B2/B66A RRH-BR049
163.0	(2) RFS DB-B1-6C-12AB-0Z
163.0	(3) Samsung MT6407-77A
163.0	(6) Commscope JAHH-65B-R3B
163.0	(1) Generic Round Platform with Ha
150.0	(6) LGP Allgon LGP21903
150.0	(6) Powerwave Allgon LGP21401
150.0	(2) Raycap DC6-48-60-18-8F (23.5"
150.0	(3) Ericsson Radio 8843 - B2 + B66
150.0	(3) Ericsson RRUS 4449 B5, B12
150.0	(3) Powerwave Allgon 7770.00
150.0	(1) CCI HPA65R-BU6A
150.0	(2) CCI HPA65R-BU8A
150.0	(1) Kathrein Scala 80010965
150.0	(2) Kathrein Scala 80010966
150.0	(1) Generic Round Platform with Ha
120.0	(1) Commscope RDIDC-9181-PF-48
120.0	(3) Fujitsu TA08025-B605
120.0	(3) Fujitsu TA08025-B604
120.0	(3) JMA Wireless MX08FRO665-21
120.0	(1) Generic Flat Platform with Han

LINEAR APPURTENANCE

Elev To (ft)	Description
180.0	(3) 1.99" (50.7mm) Hybrid
170.0	(2) 0.405" (10.3mm) Coax
163.0	(2) 1 5/8" Hybriflex
153.0	(1) 3" conduit
153.0	(1) 2" Carflex Non-Metallic Conduit
153.0	(2) 0.78" (19.7mm) 8 AWG 6
150.0	(12) 1 1/4" Coax
150.0	(2) 0.78" (19.7mm) 8 AWG 6
150.0	(2) 0.65" (16.4mm) 8 AWG 2C
150.0	(2) 0.39" (10mm) Fiber Trunk
120.0	(1) 1.60" (40.6mm) Hybrid

GLOBAL BASE REACTIONS

Load Case	Moment (kip-ft)	Axial (kip)	Shear (kip)
1.2D + 1.0W	4336.43	61.82	36.73
0.9D + 1.0W	4282.88	46.35	36.71
1.2D + 1.0Di + 1.0Wi	949.34	80.11	7.82
1.2D + 1.0Ev + 1.0Eh	231.11	62.05	1.55
0.9D - 1.0Ev + 1.0Eh	227.23	42.72	1.55
1.0D + 1.0W	887.50	51.55	7.57

ANALYSIS PARAMETERS

Location:	New London County,CT	**Height:**	180 ft
Type and Shape:	Taper, 12 Sides	**Base Diameter:**	64.00 in
Manufacturer:	Valmont	**Top Diameter:**	18.87 in
K_d (non-service):	0.95	**Taper:**	0.2610 in/ft
K_e:	0.98	**Rotation:**	0.000º

ICE & WIND PARAMETERS

Risk Category:	II	**Design Wind Speed:**	125 mph
Exposure Category:	B	**Design Wind Speed w/ Ice:**	50 mph
Topo Factor Procedure:	Method 1	**Design Ice Thickness:**	1.00 in
Topographic Category:	1	**Service Wind Speed:**	60 mph
Crest Height:	0 ft	**HMSL:**	559.00 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil		**Period Based on Rayleigh Method (sec):**		2.73
T_L (sec):	6	**P:**	1	**$C_{s:}$**	0.030
$S_{s:}$	0.205	**$S_{1:}$**	0.055	**C_s Max:**	0.030
$F_{a:}$	1.600	**$F_{v:}$**	2.400	**C_s Min:**	0.030
$S_{ds:}$	0.219	**$S_{d1:}$**	0.088		

LOAD CASES

1.2D + 1.0W	125 mph Wind with No Ice
0.9D + 1.0W	125 mph Wind with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph Wind with 1" Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	60 mph Wind with No Ice

SHAFT SECTION PROPERTIES

							Bottom						Top						
Section	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Joint Len (in)	Weight (lb)	Dia (in)	Elev (ft)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-12	51.00	0.4375	65		0.00	13,914	64.00	0.000	89.54	46,176.7	36.52	146.29	50.70	51.00	70.81	22,831.	28.37	115.89	0.2608
2-12	50.17	0.3750	65	Slip	86.00	9,565	53.32	43.833	63.93	22,872.5	35.42	142.18	40.24	94.00	48.13	9,761.2	26.07	107.30	0.2608
3-12	49.92	0.3125	65	Slip	71.00	6,082	42.40	88.083	42.35	9,577.7	33.68	135.69	29.39	138.00	29.25	3,156.3	22.52	94.04	0.2608
4-12	46.58	0.2188	65	Slip	55.00	2,761	31.02	133.417	21.70	2,627.4	35.31	141.77	18.87	180.00	13.14	583.5	20.43	86.24	0.2608
			Total Shaft Weight			**32,322**													

DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor
180.00	Ericsson 4460 BAND 2/25	3	0.75	0.000	109.00	2.564	0.67	169.05	3.280	0.67
180.00	Ericsson 4480 BAND 71	3	0.75	0.000	81.00	2.878	0.67	132.72	3.641	0.67
180.00	Ericsson AIR 6419 B41	3	0.75	0.000	68.50	5.600	0.63	150.59	6.676	0.63
180.00	Commscope VV-65A-R1B	3	0.75	0.000	24.70	5.887	0.63	104.11	7.325	0.63
180.00	RFS APXVAALL24 43-U-NA20	3	0.75	0.000	122.80	20.243	0.63	387.42	22.763	0.63
180.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	3600.40	43.807	1.00
172.60	Generic 6' Omni	2	1.00	0.000	25.00	1.760	1.00	56.21	2.612	1.00
169.00	Generic Round Side Arm	2	1.00	0.000	187.50	5.200	1.00	249.24	7.035	1.00
163.00	Kaelus KA-6030	2	0.80	0.000	17.60	0.963	0.50	33.47	1.403	0.50
163.00	Samsung B2/B66A RRH-BR049	3	0.75	0.000	84.40	1.875	0.50	127.33	2.482	0.50
163.00	RFS DB-B1-6C-12AB-0Z	2	0.75	0.000	21.40	2.512	0.67	75.12	3.213	0.67
163.00	Samsung MT6407-77A	3	0.80	0.000	81.60	4.709	0.61	150.20	5.731	0.61
163.00	Commscope JAHH-65B-R3B	6	0.75	0.000	60.60	9.113	0.69	196.75	10.980	0.69
163.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	3590.06	43.651	1.00
163.00	Samsung B5/B13 RRH-BR04C	3	0.75	0.000	70.30	1.875	0.50	108.80	2.482	0.50
150.00	Kathrein Scala 80010966	2	0.75	0.000	114.60	17.363	0.72	328.75	19.823	0.72
150.00	Kathrein Scala 80010965	1	0.75	0.000	97.60	13.814	1.00	275.40	15.849	1.00
150.00	CCI HPA65R-BU8A	2	0.75	0.000	54.00	11.230	0.78	208.92	13.380	0.78
150.00	CCI HPA65R-BU6A	1	0.75	0.000	41.90	7.864	1.00	158.78	9.705	1.00
150.00	Powerwave Allgon 7770.00	3	0.75	3.000	35.00	5.508	0.65	110.81	6.926	0.65
150.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	113.98	2.591	0.50
150.00	Ericsson Radio 8843 - B2 + B66	3	0.75	0.000	71.90	1.650	0.50	112.99	2.215	0.50
150.00	Raycap DC6-48-60-18-8F (23.5"	2	0.75	3.000	20.00	1.260	1.00	55.12	1.699	1.00
150.00	Powerwave Allgon LGP21401	6	0.75	3.000	14.10	1.104	0.50	30.74	1.580	0.50
150.00	LGP Allgon LGP21903	6	0.75	2.000	5.50	0.231	0.50	11.11	0.457	0.50
150.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	3580.22	43.502	1.00
120.00	JMA Wireless MX08FRO665-21	3	0.75	0.000	64.50	12.489	0.64	232.06	14.321	0.64
120.00	Fujitsu TA08025-B604	3	0.75	0.000	63.90	1.962	0.50	101.92	2.562	0.50
120.00	Fujitsu TA08025-B605	3	0.75	0.000	75.00	1.962	0.50	115.84	2.562	0.50
120.00	Commscope RDIDC-9181-PF-48	1	0.75	0.000	21.90	1.867	1.00	59.00	2.454	1.00
120.00	Generic Flat Platform with Han	1	1.00	0.000	2500.00	42.400	1.00	3658.12	56.072	1.00
Totals	**Row Count: 31**	**81**			**14,593.60**			**24,720.70**		

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg): 0.00

Elev From (ft)	Elev To (ft)	Qty	Description	Diameter (in)	Weight (lb/ft)	Flat	Max/ Row	Distance Between Rows(in)	Distance Between Cols(in)	Azimuth (deg)	Distance From Face (in)	Exposed To Wind	Carrier
0.00	180.00	3	1.99" (50.7mm) Hybrid	1.99	1.9	N	0	0	0	0	0	N	T-MOBILE
0.00	170.00	2	0.405" (10.3mm) Coax	0.41	0.11	N	0	0	0	0	0	N	SENET, INC.
0.00	163.00	2	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	VERIZON WIRELESS
0.00	153.00	2	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	153.00	1	3" conduit	3.5	7.58	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	153.00	1	2" Carflex Non-Metall	2.36	0.68	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	150.00	12	1 1/4" Coax	1.55	0.63	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	150.00	2	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	150.00	2	0.65" (16.4mm) 8 AWG	0.65	0.31	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	150.00	2	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	120.00	1	1.60" (40.6mm) Hybrid	1.6	2.34	N	0	0	0	0	0	N	DISH WIRELESS L.L.C.

SEGMENT PROPERTIES

Seg Top Elev (ft)	Description	(Max Length: 5 ft)	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in^3)	Z (in^3)	Weight (lb)
0.00			0.4375	64.000	89.544	46,176.70	36.52	146.29	64.9	1393.9	0.0	0.0
5.00			0.4375	62.696	87.707	43,392.70	35.72	143.31	65.8	1337.1	0.0	1,507.9
10.00			0.4375	61.392	85.870	40,722.90	34.92	140.32	66.6	1281.4	0.0	1,476.6
15.00			0.4375	60.088	84.033	38,165.00	34.12	137.34	67.5	1227.0	0.0	1,445.4
20.00			0.4375	58.784	82.196	35,716.40	33.32	134.36	68.4	1173.8	0.0	1,414.1
25.00			0.4375	57.480	80.359	33,374.90	32.52	131.38	69.2	1121.7	0.0	1,382.8
30.00			0.4375	56.176	78.522	31,138.10	31.73	128.40	70.1	1070.8	0.0	1,351.6
35.00			0.4375	54.872	76.685	29,003.40	30.93	125.42	71	1021.1	0.0	1,320.3
40.00			0.4375	53.568	74.848	26,968.70	30.13	122.44	71.9	972.6	0.0	1,289.1
43.83	Bot - Section 2		0.4375	52.569	73.440	25,474.80	29.52	120.16	72.5	936.2	0.0	967.1
45.00			0.4375	52.264	73.011	25,031.40	29.33	119.46	72.7	925.2	0.0	543.8
50.00			0.4375	50.960	71.174	23,189.20	28.53	116.48	73.6	879.1	0.0	2,294.6
51.00	Top - Section 1		0.3750	51.450	61.673	20,534.70	34.08	137.20	67.5	771.0	0.0	452.0
55.00			0.3750	50.406	60.413	19,302.00	33.34	134.42	68.4	739.8	0.0	830.9
60.00			0.3750	49.103	58.838	17,831.80	32.41	130.94	69.4	701.6	0.0	1,014.5
65.00			0.3750	47.799	57.264	16,438.20	31.47	127.46	70.4	664.4	0.0	987.7
70.00			0.3750	46.495	55.689	15,119.20	30.54	123.99	71.4	628.2	0.0	960.9
75.00			0.3750	45.191	54.115	13,872.70	29.61	120.51	72.4	593.0	0.0	934.1
80.00			0.3750	43.887	52.540	12,696.70	28.68	117.03	73.4	558.9	0.0	907.3
85.00			0.3750	42.583	50.966	11,589.10	27.75	113.55	74.5	525.8	0.0	880.5
88.08	Bot - Section 3		0.3750	41.779	49.995	10,939.20	27.17	111.41	75.1	505.8	0.0	529.6
90.00			0.3750	41.279	49.391	10,547.80	26.82	110.08	75.5	493.6	0.0	598.7
94.00	Top - Section 2		0.3125	40.861	40.802	8,562.50	32.36	130.75	69.4	404.8	0.0	1,226.2
95.00			0.3125	40.600	40.539	8,398.40	32.13	129.92	69.7	399.6	0.0	138.4
100.00			0.3125	39.296	39.227	7,609.00	31.01	125.75	70.9	374.1	0.0	678.6
105.00			0.3125	37.992	37.915	6,870.70	29.90	121.57	72.1	349.4	0.0	656.2
110.00			0.3125	36.688	36.603	6,181.80	28.78	117.40	73.3	325.5	0.0	633.9
115.00			0.3125	35.384	35.291	5,540.60	27.66	113.23	74.5	302.5	0.0	611.6
120.00			0.3125	34.080	33.979	4,945.30	26.54	109.06	75.8	280.3	0.0	589.3
125.00			0.3125	32.776	32.666	4,394.20	25.42	104.88	77	259.0	0.0	566.9
130.00			0.3125	31.472	31.354	3,885.70	24.31	100.71	78.2	238.5	0.0	544.6
133.42	Bot - Section 4		0.3125	30.581	30.458	3,561.80	23.54	97.86	79	225.0	0.0	359.3
135.00			0.3125	30.168	30.042	3,418.00	23.19	96.54	79.4	218.9	0.0	279.1
138.00	Top - Section 3		0.2188	29.823	20.857	2,333.30	33.84	136.30	67.8	151.1	0.0	518.4
140.00			0.2188	29.302	20.490	2,212.10	33.20	133.92	68.5	145.8	0.0	140.7
145.00			0.2188	27.998	19.571	1,927.70	31.61	127.96	70.2	133.0	0.0	340.8
150.00			0.2188	26.694	18.653	1,668.80	30.01	122.00	72	120.8	0.0	325.2
155.00			0.2188	25.390	17.734	1,434.20	28.41	116.04	73.7	109.1	0.0	309.5
160.00			0.2188	24.086	16.815	1,222.60	26.82	110.08	75.5	98.1	0.0	293.9
163.00			0.2188	23.304	16.264	1,106.30	25.86	106.51	76.5	91.7	0.0	168.8
165.00			0.2188	22.782	15.897	1,033.00	25.22	104.12	77.2	87.6	0.0	109.4
169.00			0.2188	21.739	15.162	896.20	23.94	99.35	78.6	79.6	0.0	211.4
170.00			0.2188	21.478	14.978	864.00	23.62	98.16	79	77.7	0.0	51.3
172.60			0.2188	20.800	14.500	784.00	22.79	95.06	79.9	72.8	0.0	130.4
175.00			0.2188	20.174	14.059	714.60	22.03	92.20	80.7	68.4	0.0	116.6
180.00			0.2188	18.870	13.141	583.50	20.43	86.24	81.9	59.7	0.0	231.4
											Total:	**32,321.4**

CALCULATED FORCES

Load Case: 1.2D + 1.0W — 125 mph Wind with No Ice — 25 Iterations

Gust Response Factor: 1.10
Dead load Factor: 1.20
Wind Load 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 (deg)	Ratio
0.00	-61.82	-36.73	0.00	-4,336.4	0.00	4,336.43	5,229.17	1,571.49	9,421.69	6,783.18	0	0	0.652
5.00	-59.75	-36.13	0.00	-4,152.8	0.00	4,152.77	5,190.65	1,539.25	9,039.18	6,594.14	0.07	-0.13	0.642
10.00	-57.71	-35.54	0.00	-3,972.1	0.00	3,972.11	5,149.25	1,507.01	8,664.60	6,403.58	0.28	-0.26	0.632

CALCULATED FORCES

15.00	-55.72	-34.96	0.00	-3,794.4	0.00	3,794.42	5,104.97	1,474.78	8,297.94	6,211.74	0.63	-0.4	0.622
20.00	-53.77	-34.38	0.00	-3,619.6	0.00	3,619.65	5,057.81	1,442.54	7,939.21	6,018.84	1.12	-0.54	0.613
25.00	-51.85	-33.81	0.00	-3,447.8	0.00	3,447.76	5,007.77	1,410.30	7,588.41	5,825.12	1.76	-0.68	0.603
30.00	-49.98	-33.25	0.00	-3,278.7	0.00	3,278.69	4,954.85	1,378.06	7,245.53	5,630.81	2.55	-0.82	0.593
35.00	-48.14	-32.67	0.00	-3,112.4	0.00	3,112.45	4,899.05	1,345.82	6,910.58	5,436.14	3.49	-0.97	0.583
40.00	-46.35	-32.14	0.00	-2,949.1	0.00	2,949.10	4,840.37	1,313.58	6,583.55	5,241.34	4.58	-1.12	0.573
43.83	-45.02	-31.83	0.00	-2,825.9	0.00	2,825.89	4,793.44	1,288.87	6,338.20	5,092.06	5.53	-1.23	0.565
45.00	-44.28	-31.46	0.00	-2,788.8	0.00	2,788.75	4,778.81	1,281.35	6,264.45	5,046.65	5.83	-1.27	0.562
50.00	-41.31	-31.04	0.00	-2,631.5	0.00	2,631.46	4,714.38	1,249.11	5,953.28	4,852.29	7.25	-1.42	0.552
51.00	-40.70	-30.73	0.00	-2,600.4	0.00	2,600.42	3,748.95	1,082.35	5,214.40	3,905.86	7.55	-1.46	0.677
55.00	-39.50	-30.17	0.00	-2,477.5	0.00	2,477.52	3,716.58	1,060.25	5,003.62	3,792.47	8.82	-1.58	0.665
60.00	-38.03	-29.54	0.00	-2,326.7	0.00	2,326.70	3,673.53	1,032.61	4,746.27	3,650.12	10.58	-1.76	0.649
65.00	-36.60	-28.91	0.00	-2,179.0	0.00	2,179.00	3,627.60	1,004.98	4,495.71	3,507.29	12.51	-1.94	0.632
70.00	-35.20	-28.28	0.00	-2,034.4	0.00	2,034.44	3,578.79	977.35	4,251.95	3,364.21	14.64	-2.12	0.615
75.00	-33.84	-27.65	0.00	-1,893.0	0.00	1,893.04	3,527.09	949.72	4,014.98	3,221.11	16.96	-2.31	0.598
80.00	-32.52	-27.02	0.00	-1,754.8	0.00	1,754.78	3,472.52	922.08	3,784.80	3,078.24	19.48	-2.49	0.580
85.00	-31.24	-26.51	0.00	-1,619.7	0.00	1,619.67	3,415.07	894.45	3,561.42	2,935.81	22.19	-2.68	0.562
88.08	-30.46	-26.18	0.00	-1,538.0	0.00	1,537.95	3,378.20	877.41	3,427.05	2,848.30	23.96	-2.8	0.550
90.00	-29.64	-25.81	0.00	-1,487.8	0.00	1,487.76	3,354.74	866.82	3,344.83	2,794.06	25.1	-2.88	0.542
94.00	-28.01	-25.44	0.00	-1,384.5	0.00	1,384.53	2,549.41	716.07	2,738.82	2,107.92	27.58	-3.03	0.669
95.00	-27.77	-25.10	0.00	-1,359.1	0.00	1,359.09	2,541.91	711.46	2,703.72	2,088.10	28.22	-3.07	0.663
100.00	-26.72	-24.49	0.00	-1,233.6	0.00	1,233.61	2,502.69	688.43	2,531.57	1,988.82	31.56	-3.29	0.632
105.00	-25.70	-23.90	0.00	-1,111.2	0.00	1,111.15	2,460.58	665.41	2,365.09	1,889.44	35.12	-3.51	0.600
110.00	-24.72	-23.31	0.00	-991.7	0.00	991.67	2,415.60	642.38	2,204.27	1,790.18	38.91	-3.73	0.565
115.00	-23.76	-22.72	0.00	-875.1	0.00	875.14	2,367.74	619.35	2,049.12	1,691.27	42.93	-3.94	0.529
120.00	-19.30	-19.06	0.00	-761.5	0.00	761.52	2,317.00	596.32	1,899.62	1,592.95	47.17	-4.15	0.487
125.00	-18.44	-18.48	0.00	-666.2	0.00	666.24	2,263.38	573.30	1,755.79	1,495.45	51.63	-4.36	0.455
130.00	-17.61	-17.99	0.00	-573.8	0.00	573.84	2,206.88	550.27	1,617.62	1,398.99	56.3	-4.56	0.419
133.42	-17.06	-17.70	0.00	-512.4	0.00	512.36	2,166.61	534.53	1,526.45	1,333.80	59.61	-4.7	0.393
135.00	-16.66	-17.45	0.00	-484.3	0.00	484.33	2,147.49	527.24	1,485.11	1,303.81	61.18	-4.76	0.380
138.00	-15.94	-17.14	0.00	-432.0	0.00	432.00	1,272.79	366.05	1,022.18	768.59	64.2	-4.87	0.577
140.00	-15.69	-16.79	0.00	-397.7	0.00	397.72	1,263.21	359.60	986.49	749.27	66.26	-4.95	0.545
145.00	-15.11	-16.29	0.00	-313.8	0.00	313.75	1,237.26	343.48	900.03	700.72	71.56	-5.18	0.462
150.00	-10.57	-11.18	0.00	-230.6	0.00	230.58	1,208.42	327.35	817.54	652.01	77.09	-5.38	0.364
155.00	-10.13	-10.69	0.00	-174.7	0.00	174.66	1,176.70	311.23	739.02	603.37	82.81	-5.55	0.299
160.00	-9.74	-10.31	0.00	-121.2	0.00	121.19	1,142.10	295.11	664.45	555.03	88.69	-5.7	0.228
163.00	-5.49	-6.39	0.00	-90.3	0.00	90.28	1,119.95	285.43	621.62	526.27	92.29	-5.77	0.177
165.00	-5.37	-6.12	0.00	-77.5	0.00	77.50	1,104.62	278.98	593.85	507.22	94.72	-5.81	0.158
169.00	-4.71	-5.35	0.00	-53.0	0.00	53.00	1,072.56	266.09	540.23	469.51	99.61	-5.89	0.118
170.00	-4.65	-5.20	0.00	-47.6	0.00	47.65	1,064.26	262.86	527.22	460.18	100.84	-5.9	0.108
172.60	-4.45	-4.81	0.00	-34.1	0.00	34.13	1,042.13	254.48	494.14	436.09	104.06	-5.94	0.083
175.00	-4.33	-4.51	0.00	-22.6	0.00	22.57	1,021.02	246.74	464.55	414.13	107.05	-5.96	0.059
180.00	0.00	-4.04	0.00	0.0	0.00	0.00	968.59	230.62	405.84	366.91	113.3	-5.98	0.000

CALCULATED FORCES

Load Case: 0.9D + 1.0W — 125 mph Wind with No Ice (Reduced DL) — 25 Iterations

Gust Response Factor: 1.10
Dead load Factor: 0.90
Wind Load 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 (deg)	Ratio
0.00	-46.35	-36.71	0.00	-4,282.9	0.00	4,282.88	5,229.17	1,571.49	9,421.69	6,783.18	0	0	0.641
5.00	-44.78	-36.08	0.00	-4,099.3	0.00	4,099.32	5,190.65	1,539.25	9,039.18	6,594.14	0.07	-0.13	0.631
10.00	-43.24	-35.45	0.00	-3,918.9	0.00	3,918.93	5,149.25	1,507.01	8,664.60	6,403.58	0.28	-0.26	0.621
15.00	-41.72	-34.84	0.00	-3,741.7	0.00	3,741.68	5,104.97	1,474.78	8,297.94	6,211.74	0.62	-0.39	0.611
20.00	-40.24	-34.23	0.00	-3,567.5	0.00	3,567.50	5,057.81	1,442.54	7,939.21	6,018.84	1.11	-0.53	0.601
25.00	-38.79	-33.64	0.00	-3,396.4	0.00	3,396.35	5,007.77	1,410.30	7,588.41	5,825.12	1.74	-0.67	0.591
30.00	-37.36	-33.04	0.00	-3,228.2	0.00	3,228.18	4,954.85	1,378.06	7,245.53	5,630.81	2.52	-0.81	0.581
35.00	-35.97	-32.44	0.00	-3,063.0	0.00	3,062.97	4,899.05	1,345.82	6,910.58	5,436.14	3.44	-0.95	0.571
40.00	-34.61	-31.89	0.00	-2,900.8	0.00	2,900.77	4,840.37	1,313.58	6,583.55	5,241.34	4.52	-1.1	0.561
43.83	-33.61	-31.57	0.00	-2,778.5	0.00	2,778.52	4,793.44	1,288.87	6,338.20	5,092.06	5.45	-1.22	0.553
45.00	-33.05	-31.18	0.00	-2,741.7	0.00	2,741.69	4,778.81	1,281.35	6,264.45	5,046.65	5.75	-1.25	0.551
50.00	-30.81	-30.76	0.00	-2,585.8	0.00	2,585.78	4,714.38	1,249.11	5,953.28	4,852.29	7.14	-1.4	0.540
51.00	-30.34	-30.44	0.00	-2,555.0	0.00	2,555.02	3,748.95	1,082.35	5,214.40	3,905.86	7.44	-1.43	0.663
55.00	-29.43	-29.86	0.00	-2,433.3	0.00	2,433.27	3,716.58	1,060.25	5,003.62	3,792.47	8.7	-1.56	0.650
60.00	-28.31	-29.21	0.00	-2,284.0	0.00	2,283.98	3,673.53	1,032.61	4,746.27	3,650.12	10.42	-1.73	0.634
65.00	-27.22	-28.56	0.00	-2,137.9	0.00	2,137.92	3,627.60	1,004.98	4,495.71	3,507.29	12.33	-1.91	0.618
70.00	-26.16	-27.91	0.00	-1,995.1	0.00	1,995.11	3,578.79	977.35	4,251.95	3,364.21	14.43	-2.09	0.601
75.00	-25.13	-27.27	0.00	-1,855.5	0.00	1,855.54	3,527.09	949.72	4,014.98	3,221.11	16.71	-2.27	0.584
80.00	-24.12	-26.62	0.00	-1,719.2	0.00	1,719.20	3,472.52	922.08	3,784.80	3,078.24	19.18	-2.45	0.566
85.00	-23.15	-26.10	0.00	-1,586.1	0.00	1,586.09	3,415.07	894.45	3,561.42	2,935.81	21.85	-2.64	0.548
88.08	-22.56	-25.77	0.00	-1,505.6	0.00	1,505.62	3,378.20	877.41	3,427.05	2,848.30	23.59	-2.75	0.536
90.00	-21.94	-25.39	0.00	-1,456.2	0.00	1,456.22	3,354.74	866.82	3,344.83	2,794.06	24.71	-2.83	0.529
94.00	-20.71	-25.03	0.00	-1,354.7	0.00	1,354.66	2,549.41	716.07	2,738.82	2,107.92	27.15	-2.98	0.652
95.00	-20.52	-24.67	0.00	-1,329.6	0.00	1,329.64	2,541.91	711.46	2,703.72	2,088.10	27.78	-3.02	0.646
100.00	-19.73	-24.05	0.00	-1,206.3	0.00	1,206.28	2,502.69	688.43	2,531.57	1,988.82	31.05	-3.23	0.616
105.00	-18.95	-23.45	0.00	-1,086.0	0.00	1,086.01	2,460.58	665.41	2,365.09	1,889.44	34.55	-3.45	0.584
110.00	-18.20	-22.85	0.00	-968.8	0.00	968.78	2,415.60	642.38	2,204.27	1,790.18	38.28	-3.66	0.550
115.00	-17.48	-22.25	0.00	-854.6	0.00	854.56	2,367.74	619.35	2,049.12	1,691.27	42.22	-3.87	0.514
120.00	-14.18	-18.65	0.00	-743.3	0.00	743.29	2,317.00	596.32	1,899.62	1,592.95	46.38	-4.08	0.474
125.00	-13.52	-18.08	0.00	-650.0	0.00	650.03	2,263.38	573.30	1,755.79	1,495.45	50.76	-4.28	0.442
130.00	-12.90	-17.59	0.00	-559.7	0.00	559.66	2,206.88	550.27	1,617.62	1,398.99	55.34	-4.47	0.407
133.42	-12.49	-17.30	0.00	-499.6	0.00	499.55	2,166.61	534.53	1,526.45	1,333.80	58.58	-4.6	0.381
135.00	-12.19	-17.05	0.00	-472.2	0.00	472.16	2,147.49	527.24	1,485.11	1,303.81	60.12	-4.67	0.369
138.00	-11.65	-16.75	0.00	-421.0	0.00	421.02	1,272.79	366.05	1,022.18	768.59	63.08	-4.78	0.559
140.00	-11.46	-16.40	0.00	-387.5	0.00	387.53	1,263.21	359.60	986.49	749.27	65.1	-4.85	0.528
145.00	-11.02	-15.88	0.00	-305.6	0.00	305.55	1,237.26	343.48	900.03	700.72	70.3	-5.07	0.447
150.00	-7.70	-10.89	0.00	-224.4	0.00	224.39	1,208.42	327.35	817.54	652.01	75.71	-5.27	0.352
155.00	-7.38	-10.41	0.00	-169.9	0.00	169.92	1,176.70	311.23	739.02	603.37	81.32	-5.44	0.289
160.00	-7.10	-10.02	0.00	-117.9	0.00	117.89	1,142.10	295.11	664.45	555.03	87.08	-5.58	0.220
163.00	-3.99	-6.23	0.00	-87.8	0.00	87.82	1,119.95	285.43	621.62	526.27	90.61	-5.65	0.171
165.00	-3.90	-5.96	0.00	-75.4	0.00	75.37	1,104.62	278.98	593.85	507.22	92.98	-5.69	0.153
169.00	-3.42	-5.21	0.00	-51.5	0.00	51.52	1,072.56	266.09	540.23	469.51	97.77	-5.76	0.113
170.00	-3.38	-5.06	0.00	-46.3	0.00	46.31	1,064.26	262.86	527.22	460.18	98.98	-5.78	0.104
172.60	-3.24	-4.68	0.00	-33.2	0.00	33.15	1,042.13	254.48	494.14	436.09	102.13	-5.81	0.079
175.00	-3.15	-4.38	0.00	-21.9	0.00	21.92	1,021.02	246.74	464.55	414.13	105.06	-5.84	0.056
180.00	0.00	-4.04	0.00	0.0	0.00	0.00	968.59	230.62	405.84	366.91	111.17	-5.86	0.000

CALCULATED FORCES

Load Case: 1.2D + 1.0Di + 1.0Wi — 50 mph Wind with 1" Radial Ice — 24 Iterations

Gust Response Factor: 1.10 — Ice Dead Load Factor 1.00
Dead load Factor: 1.20 — Ice Importance Factor 1.00
Wind Load 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 (deg)	Ratio
0.00	-80.11	-7.82	0.00	-949.3	0.00	949.34	5,229.17	1,571.49	9,421.69	6,783.18	0	0	0.155
5.00	-77.80	-7.71	0.00	-910.2	0.00	910.23	5,190.65	1,539.25	9,039.18	6,594.14	0.02	-0.03	0.153
10.00	-75.50	-7.60	0.00	-871.7	0.00	871.69	5,149.25	1,507.01	8,664.60	6,403.58	0.06	-0.06	0.151
15.00	-73.22	-7.48	0.00	-833.7	0.00	833.72	5,104.97	1,474.78	8,297.94	6,211.74	0.14	-0.09	0.149
20.00	-70.98	-7.37	0.00	-796.3	0.00	796.30	5,057.81	1,442.54	7,939.21	6,018.84	0.25	-0.12	0.146
25.00	-68.77	-7.27	0.00	-759.4	0.00	759.43	5,007.77	1,410.30	7,588.41	5,825.12	0.39	-0.15	0.144
30.00	-66.61	-7.16	0.00	-723.1	0.00	723.10	4,954.85	1,378.06	7,245.53	5,630.81	0.56	-0.18	0.142
35.00	-64.48	-7.05	0.00	-687.3	0.00	687.31	4,899.05	1,345.82	6,910.58	5,436.14	0.77	-0.21	0.140
40.00	-62.39	-6.94	0.00	-652.1	0.00	652.09	4,840.37	1,313.58	6,583.55	5,241.34	1.01	-0.25	0.137
43.83	-60.82	-6.88	0.00	-625.5	0.00	625.48	4,793.44	1,288.87	6,338.20	5,092.06	1.21	-0.27	0.136
45.00	-60.04	-6.81	0.00	-617.4	0.00	617.45	4,778.81	1,281.35	6,264.45	5,046.65	1.28	-0.28	0.135
50.00	-56.75	-6.72	0.00	-583.4	0.00	583.41	4,714.38	1,249.11	5,953.28	4,852.29	1.59	-0.31	0.132
51.00	-56.10	-6.66	0.00	-576.7	0.00	576.68	3,748.95	1,082.35	5,214.40	3,905.86	1.66	-0.32	0.163
55.00	-54.68	-6.55	0.00	-550.0	0.00	550.03	3,716.58	1,060.25	5,003.62	3,792.47	1.94	-0.35	0.160
60.00	-52.93	-6.43	0.00	-517.3	0.00	517.26	3,673.53	1,032.61	4,746.27	3,650.12	2.33	-0.39	0.156
65.00	-51.23	-6.31	0.00	-485.1	0.00	485.11	3,627.60	1,004.98	4,495.71	3,507.29	2.76	-0.43	0.152
70.00	-49.56	-6.18	0.00	-453.6	0.00	453.57	3,578.79	977.35	4,251.95	3,364.21	3.23	-0.47	0.149
75.00	-47.94	-6.06	0.00	-422.7	0.00	422.66	3,527.09	949.72	4,014.98	3,221.11	3.74	-0.51	0.145
80.00	-46.35	-5.93	0.00	-392.4	0.00	392.37	3,472.52	922.08	3,784.80	3,078.24	4.3	-0.55	0.141
85.00	-44.80	-5.83	0.00	-362.7	0.00	362.71	3,415.07	894.45	3,561.42	2,935.81	4.9	-0.59	0.137
88.08	-43.87	-5.76	0.00	-344.8	0.00	344.75	3,378.20	877.41	3,427.05	2,848.30	5.29	-0.62	0.134
90.00	-42.96	-5.69	0.00	-333.7	0.00	333.70	3,354.74	866.82	3,344.83	2,794.06	5.54	-0.64	0.132
94.00	-41.10	-5.61	0.00	-311.0	0.00	310.95	2,549.41	716.07	2,738.82	2,107.92	6.09	-0.67	0.164
95.00	-40.84	-5.55	0.00	-305.3	0.00	305.34	2,541.91	711.46	2,703.72	2,088.10	6.23	-0.68	0.162
100.00	-39.55	-5.42	0.00	-277.6	0.00	277.61	2,502.69	688.43	2,531.57	1,988.82	6.97	-0.73	0.155
105.00	-38.30	-5.30	0.00	-250.5	0.00	250.49	2,460.58	665.41	2,365.09	1,889.44	7.77	-0.78	0.148
110.00	-37.08	-5.19	0.00	-224.0	0.00	223.97	2,415.60	642.38	2,204.27	1,790.18	8.61	-0.83	0.141
115.00	-35.90	-5.07	0.00	-198.0	0.00	198.05	2,367.74	619.35	2,049.12	1,691.27	9.5	-0.88	0.132
120.00	-29.50	-4.29	0.00	-172.7	0.00	172.71	2,317.00	596.32	1,899.62	1,592.95	10.45	-0.93	0.121
125.00	-28.40	-4.17	0.00	-151.3	0.00	151.28	2,263.38	573.30	1,755.79	1,495.45	11.44	-0.97	0.114
130.00	-27.34	-4.06	0.00	-130.4	0.00	130.45	2,206.88	550.27	1,617.62	1,398.99	12.49	-1.02	0.106
133.42	-26.63	-4.00	0.00	-116.6	0.00	116.57	2,166.61	534.53	1,526.45	1,333.80	13.23	-1.05	0.100
135.00	-26.17	-3.95	0.00	-110.2	0.00	110.23	2,147.49	527.24	1,485.11	1,303.81	13.58	-1.06	0.097
138.00	-25.31	-3.88	0.00	-98.4	0.00	98.39	1,272.79	366.05	1,022.18	768.59	14.25	-1.09	0.148
140.00	-24.99	-3.81	0.00	-90.6	0.00	90.63	1,263.21	359.60	986.49	749.27	14.71	-1.11	0.141
145.00	-24.19	-3.70	0.00	-71.6	0.00	71.58	1,237.26	343.48	900.03	700.72	15.9	-1.16	0.122
150.00	-16.85	-2.56	0.00	-52.7	0.00	52.70	1,208.42	327.35	817.54	652.01	17.14	-1.2	0.095
155.00	-16.20	-2.45	0.00	-39.9	0.00	39.89	1,176.70	311.23	739.02	603.37	18.42	-1.24	0.080
160.00	-15.60	-2.37	0.00	-27.6	0.00	27.62	1,142.10	295.11	664.45	555.03	19.75	-1.28	0.063
163.00	-8.93	-1.45	0.00	-20.5	0.00	20.52	1,119.95	285.43	621.62	526.27	20.55	-1.29	0.047
165.00	-8.72	-1.39	0.00	-17.6	0.00	17.61	1,104.62	278.98	593.85	507.22	21.1	-1.3	0.043
169.00	-7.75	-1.22	0.00	-12.0	0.00	12.03	1,072.56	266.09	540.23	469.51	22.2	-1.32	0.033
170.00	-7.65	-1.18	0.00	-10.8	0.00	10.82	1,064.26	262.86	527.22	460.18	22.47	-1.32	0.031
172.60	-7.28	-1.09	0.00	-7.7	0.00	7.74	1,042.13	254.48	494.14	436.09	23.2	-1.33	0.025
175.00	-7.05	-1.02	0.00	-5.1	0.00	5.11	1,021.02	246.74	464.55	414.13	23.87	-1.34	0.019
180.00	0.00	-0.86	0.00	0.0	0.00	0.00	968.59	230.62	405.84	366.91	25.27	-1.34	0.000

CALCULATED FORCES

Load Case: 1.0D + 1.0W 60 mph Wind with No Ice 24 Iterations

Gust Response Factor: 1.10
Dead load Factor: 1.00
Wind Load 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 (deg)	Ratio
0.00	-51.55	-7.57	0.00	-887.5	0.00	887.50	5,229.17	1,571.49	9,421.69	6,783.18	0	0	0.141
5.00	-49.89	-7.44	0.00	-849.6	0.00	849.65	5,190.65	1,539.25	9,039.18	6,594.14	0.01	-0.03	0.138
10.00	-48.26	-7.31	0.00	-812.4	0.00	812.45	5,149.25	1,507.01	8,664.60	6,403.58	0.06	-0.05	0.136
15.00	-46.66	-7.19	0.00	-775.9	0.00	775.88	5,104.97	1,474.78	8,297.94	6,211.74	0.13	-0.08	0.134
20.00	-45.09	-7.07	0.00	-739.9	0.00	739.94	5,057.81	1,442.54	7,939.21	6,018.84	0.23	-0.11	0.132
25.00	-43.56	-6.95	0.00	-704.6	0.00	704.61	5,007.77	1,410.30	7,588.41	5,825.12	0.36	-0.14	0.130
30.00	-42.06	-6.83	0.00	-669.9	0.00	669.88	4,954.85	1,378.06	7,245.53	5,630.81	0.52	-0.17	0.127
35.00	-40.58	-6.70	0.00	-635.8	0.00	635.75	4,899.05	1,345.82	6,910.58	5,436.14	0.71	-0.2	0.125
40.00	-39.14	-6.59	0.00	-602.2	0.00	602.23	4,840.37	1,313.58	6,583.55	5,241.34	0.94	-0.23	0.123
43.83	-38.06	-6.53	0.00	-577.0	0.00	576.96	4,793.44	1,288.87	6,338.20	5,092.06	1.13	-0.25	0.121
45.00	-37.48	-6.45	0.00	-569.3	0.00	569.34	4,778.81	1,281.35	6,264.45	5,046.65	1.19	-0.26	0.121
50.00	-35.03	-6.36	0.00	-537.1	0.00	537.10	4,714.38	1,249.11	5,953.28	4,852.29	1.48	-0.29	0.118
51.00	-34.55	-6.30	0.00	-530.7	0.00	530.74	3,748.95	1,082.35	5,214.40	3,905.86	1.54	-0.3	0.145
55.00	-33.60	-6.18	0.00	-505.6	0.00	505.55	3,716.58	1,060.25	5,003.62	3,792.47	1.8	-0.32	0.142
60.00	-32.43	-6.05	0.00	-474.7	0.00	474.66	3,673.53	1,032.61	4,746.27	3,650.12	2.16	-0.36	0.139
65.00	-31.29	-5.92	0.00	-444.4	0.00	444.43	3,627.60	1,004.98	4,495.71	3,507.29	2.56	-0.4	0.135
70.00	-30.18	-5.78	0.00	-414.8	0.00	414.85	3,578.79	977.35	4,251.95	3,364.21	2.99	-0.43	0.132
75.00	-29.10	-5.65	0.00	-385.9	0.00	385.94	3,527.09	949.72	4,014.98	3,221.11	3.47	-0.47	0.128
80.00	-28.04	-5.52	0.00	-357.7	0.00	357.68	3,472.52	922.08	3,784.80	3,078.24	3.98	-0.51	0.124
85.00	-27.01	-5.41	0.00	-330.1	0.00	330.08	3,415.07	894.45	3,561.42	2,935.81	4.54	-0.55	0.120
88.08	-26.38	-5.35	0.00	-313.4	0.00	313.39	3,378.20	877.41	3,427.05	2,848.30	4.9	-0.57	0.118
90.00	-25.73	-5.27	0.00	-303.1	0.00	303.14	3,354.74	866.82	3,344.83	2,794.06	5.13	-0.59	0.116
94.00	-24.38	-5.19	0.00	-282.1	0.00	282.06	2,549.41	716.07	2,738.82	2,107.92	5.64	-0.62	0.143
95.00	-24.21	-5.12	0.00	-276.9	0.00	276.87	2,541.91	711.46	2,703.72	2,088.10	5.77	-0.63	0.142
100.00	-23.38	-5.00	0.00	-251.3	0.00	251.26	2,502.69	688.43	2,531.57	1,988.82	6.45	-0.67	0.136
105.00	-22.57	-4.87	0.00	-226.3	0.00	226.28	2,460.58	665.41	2,365.09	1,889.44	7.18	-0.72	0.129
110.00	-21.79	-4.75	0.00	-201.9	0.00	201.91	2,415.60	642.38	2,204.27	1,790.18	7.95	-0.76	0.122
115.00	-21.03	-4.63	0.00	-178.2	0.00	178.16	2,367.74	619.35	2,049.12	1,691.27	8.77	-0.8	0.114
120.00	-17.16	-3.88	0.00	-155.0	0.00	155.01	2,317.00	596.32	1,899.62	1,592.95	9.64	-0.85	0.105
125.00	-16.46	-3.76	0.00	-135.6	0.00	135.60	2,263.38	573.30	1,755.79	1,495.45	10.55	-0.89	0.098
130.00	-15.78	-3.66	0.00	-116.8	0.00	116.78	2,206.88	550.27	1,617.62	1,398.99	11.5	-0.93	0.091
133.42	-15.32	-3.61	0.00	-104.3	0.00	104.26	2,166.61	534.53	1,526.45	1,333.80	12.18	-0.96	0.085
135.00	-15.00	-3.55	0.00	-98.6	0.00	98.55	2,147.49	527.24	1,485.11	1,303.81	12.49	-0.97	0.083
138.00	-14.40	-3.49	0.00	-87.9	0.00	87.90	1,272.79	366.05	1,022.18	768.59	13.11	-0.99	0.126
140.00	-14.20	-3.42	0.00	-80.9	0.00	80.91	1,263.21	359.60	986.49	749.27	13.53	-1.01	0.119
145.00	-13.72	-3.31	0.00	-63.8	0.00	63.82	1,237.26	343.48	900.03	700.72	14.61	-1.06	0.102
150.00	-9.61	-2.27	0.00	-46.9	0.00	46.89	1,208.42	327.35	817.54	652.01	15.74	-1.1	0.080
155.00	-9.23	-2.17	0.00	-35.5	0.00	35.51	1,176.70	311.23	739.02	603.37	16.91	-1.13	0.067
160.00	-8.90	-2.09	0.00	-24.6	0.00	24.64	1,142.10	295.11	664.45	555.03	18.11	-1.16	0.052
163.00	-5.07	-1.30	0.00	-18.4	0.00	18.36	1,119.95	285.43	621.62	526.27	18.85	-1.18	0.039
165.00	-4.95	-1.25	0.00	-15.8	0.00	15.76	1,104.62	278.98	593.85	507.22	19.34	-1.19	0.036
169.00	-4.34	-1.09	0.00	-10.8	0.00	10.77	1,072.56	266.09	540.23	469.51	20.34	-1.2	0.027
170.00	-4.28	-1.06	0.00	-9.7	0.00	9.68	1,064.26	262.86	527.22	460.18	20.59	-1.2	0.025
172.60	-4.09	-0.98	0.00	-6.9	0.00	6.93	1,042.13	254.48	494.14	436.09	21.25	-1.21	0.020
175.00	-3.96	-0.92	0.00	-4.6	0.00	4.59	1,021.02	246.74	464.55	414.13	21.86	-1.22	0.015
180.00	0.00	-0.83	0.00	0.0	0.00	0.00	968.59	230.62	405.84	366.91	23.14	-1.22	0.000

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

(Based on ASCE7-16 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period (S_S):	0.205
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.055
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	1.000
Site Coefficient F_a:	1.600
Site Coefficient F_v:	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.219
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.088
Seismic Response Coefficient (C_s):	0.030
Upper Limit C_S:	0.030
Lower Limit C_S:	0.030
Period based on Rayleigh Method (sec):	2.730
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	2.000
Total Unfactored Dead Load:	51.550 k
Seismic Base Shear (E):	1.550 k

SEISMIC FORCES

1.2D + 1.0Ev + 1.0Eh **Seismic**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
45	177.5	260	8,188	0.014	21	323
44	173.8	130	3,936	0.007	10	162
43	171.3	145	4,261	0.007	11	181
42	169.5	57	1,643	0.003	4	71
41	167	235	6,555	0.011	17	292
40	164	121	3,262	0.006	8	151
39	161.5	194	5,070	0.008	13	242
38	157.5	337	8,348	0.014	22	419
37	152.5	380	8,848	0.015	23	473
36	147.5	462	10,059	0.017	26	575
35	142.5	478	9,706	0.016	25	595
34	139	196	3,779	0.006	10	243
33	136.5	601	11,193	0.019	29	747
32	134.2084	323	5,810	0.010	15	401
31	131.7084	453	7,860	0.013	20	564
30	127.5	682	11,084	0.019	29	848
29	122.5	704	10,567	0.018	27	876
28	117.5	738	10,191	0.017	26	918
27	112.5	760	9,625	0.016	25	946
26	107.5	783	9,046	0.015	23	974
25	102.5	805	8,459	0.014	22	1,001
24	97.5	827	7,866	0.013	20	1,029
23	94.5	168	1,502	0.002	4	209
22	92	1,345	11,387	0.019	30	1,673
21	89.0417	656	5,199	0.009	13	816
20	86.5417	621	4,654	0.008	12	773
19	82.5	1,029	7,006	0.012	18	1,280
18	77.5	1,056	6,344	0.011	16	1,314
17	72.5	1,083	5,693	0.010	15	1,347
16	67.5	1,110	5,056	0.008	13	1,380
15	62.5	1,137	4,440	0.007	12	1,414
14	57.5	1,163	3,846	0.006	10	1,447
13	53	950	2,668	0.004	7	1,182
12	50.5	482	1,229	0.002	3	599
11	47.5	2,444	5,513	0.009	14	3,039
10	44.4167	579	1,141	0.002	3	720
9	41.9167	1,081	1,900	0.003	5	1,345
8	37.5	1,438	2,022	0.003	5	1,788

SEISMIC FORCES

1.2D + 1.0Ev + 1.0Eh **Seismic**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
7	32.5	1,469	1,552	0.003	4	1,827
6	27.5	1,500	1,135	0.002	3	1,866
5	22.5	1,532	775	0.001	2	1,905
4	17.5	1,563	479	0.001	1	1,944
3	12.5	1,594	249	0.000	1	1,983
2	7.5	1,626	91	0.000	0	2,022
1	2.5	1,657	10	0.000	0	2,061
Ericsson 4460 BAND 2/25	180	327	10,595	0.018	27	407
Ericsson 4480 BAND 71	180	243	7,873	0.013	20	302
Ericsson AIR 6419 B41	180	206	6,658	0.011	17	256
Commscope VV-65A-R1B	180	74	2,401	0.004	6	92
RFS APXVAALL24 43-U-NA20	180	368	11,936	0.020	31	458
Generic Round Platform with Handrails	180	2,500	81,000	0.136	210	3,109
Generic Round Platform with Handrails	163	2,500	66,422	0.111	172	3,109
Generic Round Platform with Handrails	150	2,500	56,250	0.094	146	3,109
Generic 6' Omni	172.6	50	1,490	0.002	4	62
Generic Round Side Arm	169	375	10,710	0.018	28	466
Kaelus KA-6030	163	35	935	0.002	2	44
Samsung B5/B13 RRH-BR04C	163	211	5,603	0.009	15	262
Samsung B2/B66A RRH-BR049	163	253	6,727	0.011	17	315
RFS DB-B1-6C-12AB-0Z	163	43	1,137	0.002	3	53
Samsung MT6407-77A	163	245	6,504	0.011	17	304
Commscope JAHH-65B-R3B	163	364	9,660	0.016	25	452
LGP Allgon LGP21903	150	33	742	0.001	2	41
Powerwave Allgon LGP21401	150	85	1,904	0.003	5	105
Raycap DC6-48-60-18-8F (23.5" Height)	150	40	900	0.002	2	50
Ericsson Radio 8843 - B2 + B66A	150	216	4,853	0.008	13	268
Ericsson RRUS 4449 B5, B12	150	213	4,792	0.008	12	265
Powerwave Allgon 7770.00	150	105	2,362	0.004	6	131
CCI HPA65R-BU6A	150	42	943	0.002	2	52
CCI HPA65R-BU8A	150	108	2,430	0.004	6	134
Kathrein Scala 80010965	150	98	2,196	0.004	6	121
Kathrein Scala 80010966	150	229	5,157	0.009	13	285
Commscope RDIDC-9181-PF-48	120	22	315	0.000	1	27
Fujitsu TA08025-B605	120	225	3,240	0.005	8	280
Fujitsu TA08025-B604	120	192	2,760	0.005	7	238
JMA Wireless MX08FRO665-21	120	194	2,786	0.005	7	241
Generic Flat Platform with Handrails	120	2,500	36,000	0.060	93	3,109
	Totals:	**51,549**	**596,535**	**1.000**	**1,546**	**64,114**

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh **Seismic (Reduced DL)**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
45	177.5	260	8,188	0.014	21	223
44	173.8	130	3,936	0.007	10	112
43	171.3	145	4,261	0.007	11	124
42	169.5	57	1,643	0.003	4	49
41	167	235	6,555	0.011	17	201
40	164	121	3,262	0.006	8	104
39	161.5	194	5,070	0.008	13	166
38	157.5	337	8,348	0.014	22	288
37	152.5	380	8,848	0.015	23	326
36	147.5	462	10,059	0.017	26	396
35	142.5	478	9,706	0.016	25	409
34	139	196	3,779	0.006	10	167
33	136.5	601	11,193	0.019	29	514
32	134.2084	323	5,810	0.010	15	276
31	131.7084	453	7,860	0.013	20	388
30	127.5	682	11,084	0.019	29	584
29	122.5	704	10,567	0.018	27	603

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh **Seismic (Reduced DL)**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
28	117.5	738	10,191	0.017	26	632
27	112.5	760	9,625	0.016	25	651
26	107.5	783	9,046	0.015	23	670
25	102.5	805	8,459	0.014	22	689
24	97.5	827	7,866	0.013	20	709
23	94.5	168	1,502	0.002	4	144
22	92	1,345	11,387	0.019	30	1,152
21	89.0417	656	5,199	0.009	13	562
20	86.5417	621	4,654	0.008	12	532
19	82.5	1,029	7,006	0.012	18	881
18	77.5	1,056	6,344	0.011	16	904
17	72.5	1,083	5,693	0.010	15	927
16	67.5	1,110	5,056	0.008	13	950
15	62.5	1,137	4,440	0.007	12	973
14	57.5	1,163	3,846	0.006	10	996
13	53	950	2,668	0.004	7	813
12	50.5	482	1,229	0.002	3	412
11	47.5	2,444	5,513	0.009	14	2,092
10	44.4167	579	1,141	0.002	3	495
9	41.9167	1,081	1,900	0.003	5	926
8	37.5	1,438	2,022	0.003	5	1,231
7	32.5	1,469	1,552	0.003	4	1,258
6	27.5	1,500	1,135	0.002	3	1,285
5	22.5	1,532	775	0.001	2	1,312
4	17.5	1,563	479	0.001	1	1,338
3	12.5	1,594	249	0.000	1	1,365
2	7.5	1,626	91	0.000	0	1,392
1	2.5	1,657	10	0.000	0	1,419
Ericsson 4460 BAND 2/25	180	327	10,595	0.018	27	280
Ericsson 4480 BAND 71	180	243	7,873	0.013	20	208
Ericsson AIR 6419 B41	180	206	6,658	0.011	17	176
Commscope VV-65A-R1B	180	74	2,401	0.004	6	63
RFS APXVAALL24 43-U-NA20	180	368	11,936	0.020	31	315
Generic Round Platform with Handrails	180	2,500	81,000	0.136	210	2,141
Generic Round Platform with Handrails	163	2,500	66,422	0.111	172	2,141
Generic Round Platform with Handrails	150	2,500	56,250	0.094	146	2,141
Generic 6' Omni	172.6	50	1,490	0.002	4	43
Generic Round Side Arm	169	375	10,710	0.018	28	321
Kaelus KA-6030	163	35	935	0.002	2	30
Samsung B5/B13 RRH-BR04C	163	211	5,603	0.009	15	181
Samsung B2/B66A RRH-BR049	163	253	6,727	0.011	17	217
RFS DB-B1-6C-12AB-0Z	163	43	1,137	0.002	3	37
Samsung MT6407-77A	163	245	6,504	0.011	17	210
Commscope JAHH-65B-R3B	163	364	9,660	0.016	25	311
LGP Allgon LGP21903	150	33	742	0.001	2	28
Powerwave Allgon LGP21401	150	85	1,904	0.003	5	72
Raycap DC6-48-60-18-8F (23.5" Height)	150	40	900	0.002	2	34
Ericsson Radio 8843 - B2 + B66A	150	216	4,853	0.008	13	185
Ericsson RRUS 4449 B5, B12	150	213	4,792	0.008	12	182
Powerwave Allgon 7770.00	150	105	2,362	0.004	6	90
CCI HPA65R-BU6A	150	42	943	0.002	2	36
CCI HPA65R-BU8A	150	108	2,430	0.004	6	92
Kathrein Scala 80010965	150	98	2,196	0.004	6	84
Kathrein Scala 80010966	150	229	5,157	0.009	13	196
Commscope RDIDC-9181-PF-48	120	22	315	0.000	1	19
Fujitsu TA08025-B605	120	225	3,240	0.005	8	193
Fujitsu TA08025-B604	120	192	2,760	0.005	7	164
JMA Wireless MX08FRO665-21	120	194	2,786	0.005	7	166
Generic Flat Platform with Handrails	120	2,500	36,000	0.060	93	2,141
	Totals:	**51,549**	**596,535**	**1.000**	**1,546**	**44,140**

1.2D + 1.0Ev + 1.0Eh **Seismic**

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-62.05	-1.55	0.00	-231.11	0.00	231.11	5,229.17	1,571.49	9,422	6,783.18	0.00	0.00	0.05
5.00	-60.03	-1.56	0.00	-223.36	0.00	223.36	5,190.65	1,539.25	9,039	6,594.14	0.00	-0.01	0.05
10.00	-58.05	-1.56	0.00	-215.58	0.00	215.58	5,149.25	1,507.01	8,665	6,403.58	0.01	-0.01	0.05
15.00	-56.10	-1.57	0.00	-207.76	0.00	207.76	5,104.97	1,474.78	8,298	6,211.74	0.03	-0.02	0.04
20.00	-54.20	-1.57	0.00	-199.92	0.00	199.92	5,057.81	1,442.54	7,939	6,018.84	0.06	-0.03	0.04
25.00	-52.33	-1.58	0.00	-192.06	0.00	192.06	5,007.77	1,410.30	7,588	5,825.12	0.10	-0.04	0.04
30.00	-50.50	-1.58	0.00	-184.18	0.00	184.18	4,954.85	1,378.06	7,246	5,630.81	0.14	-0.05	0.04
35.00	-48.72	-1.58	0.00	-176.29	0.00	176.29	4,899.05	1,345.82	6,911	5,436.14	0.19	-0.05	0.04
40.00	-47.37	-1.58	0.00	-168.40	0.00	168.40	4,840.37	1,313.58	6,584	5,241.34	0.25	-0.06	0.04
43.83	-46.65	-1.58	0.00	-162.35	0.00	162.35	4,793.44	1,288.87	6,338	5,092.06	0.30	-0.07	0.04
45.00	-43.61	-1.56	0.00	-160.50	0.00	160.50	4,778.81	1,281.35	6,264	5,046.65	0.32	-0.07	0.04
50.00	-43.01	-1.56	0.00	-152.68	0.00	152.68	4,714.38	1,249.11	5,953	4,852.29	0.40	-0.08	0.04
51.00	-41.83	-1.56	0.00	-151.12	0.00	151.12	3,748.95	1,082.35	5,214	3,905.86	0.41	-0.08	0.05
55.00	-40.38	-1.55	0.00	-144.88	0.00	144.88	3,716.58	1,060.25	5,004	3,792.47	0.49	-0.09	0.05
60.00	-38.97	-1.55	0.00	-137.12	0.00	137.12	3,673.53	1,032.61	4,746	3,650.12	0.58	-0.10	0.05
65.00	-37.59	-1.54	0.00	-129.38	0.00	129.38	3,627.60	1,004.98	4,496	3,507.29	0.69	-0.11	0.05
70.00	-36.24	-1.53	0.00	-121.69	0.00	121.69	3,578.79	977.35	4,252	3,364.21	0.81	-0.12	0.05
75.00	-34.93	-1.52	0.00	-114.05	0.00	114.05	3,527.09	949.72	4,015	3,221.11	0.95	-0.13	0.05
80.00	-33.65	-1.50	0.00	-106.48	0.00	106.48	3,472.52	922.08	3,785	3,078.24	1.09	-0.14	0.04
85.00	-32.87	-1.49	0.00	-98.98	0.00	98.98	3,415.07	894.45	3,561	2,935.81	1.25	-0.15	0.04
88.08	-32.06	-1.48	0.00	-94.38	0.00	94.38	3,378.20	877.41	3,427	2,848.30	1.35	-0.16	0.04
90.00	-30.39	-1.45	0.00	-91.54	0.00	91.54	3,354.74	866.82	3,345	2,794.06	1.41	-0.17	0.04
94.00	-30.18	-1.45	0.00	-85.74	0.00	85.74	2,549.41	716.07	2,739	2,107.92	1.56	-0.18	0.05
95.00	-29.15	-1.43	0.00	-84.30	0.00	84.30	2,541.91	711.46	2,704	2,088.10	1.60	-0.18	0.05
100.00	-28.15	-1.41	0.00	-77.16	0.00	77.16	2,502.69	688.43	2,532	1,988.82	1.79	-0.19	0.05
105.00	-27.17	-1.39	0.00	-70.11	0.00	70.11	2,460.58	665.41	2,365	1,889.44	2.00	-0.21	0.05
110.00	-26.23	-1.37	0.00	-63.16	0.00	63.16	2,415.60	642.38	2,204	1,790.18	2.22	-0.22	0.05
115.00	-25.31	-1.34	0.00	-56.32	0.00	56.32	2,367.74	619.35	2,049	1,691.27	2.46	-0.23	0.04
120.00	-20.54	-1.18	0.00	-49.61	0.00	49.61	2,317.00	596.32	1,900	1,592.95	2.71	-0.25	0.04
125.00	-19.69	-1.16	0.00	-43.69	0.00	43.69	2,263.38	573.30	1,756	1,495.45	2.98	-0.26	0.04
130.00	-19.12	-1.14	0.00	-37.91	0.00	37.91	2,206.88	550.27	1,618	1,398.99	3.26	-0.27	0.04
133.42	-18.72	-1.12	0.00	-34.02	0.00	34.02	2,166.61	534.53	1,526	1,333.80	3.46	-0.28	0.03
135.00	-17.98	-1.09	0.00	-32.25	0.00	32.25	2,147.49	527.24	1,485	1,303.81	3.55	-0.29	0.03
138.00	-17.73	-1.08	0.00	-28.97	0.00	28.97	1,272.79	366.05	1,022	768.59	3.73	-0.29	0.05
140.00	-17.14	-1.06	0.00	-26.81	0.00	26.81	1,263.21	359.60	986	749.27	3.86	-0.30	0.05
145.00	-16.56	-1.03	0.00	-21.52	0.00	21.52	1,237.26	343.48	900	700.72	4.18	-0.32	0.04
150.00	-11.53	-0.77	0.00	-16.36	0.00	16.36	1,208.42	327.35	818	652.01	4.52	-0.33	0.04
155.00	-11.11	-0.75	0.00	-12.52	0.00	12.52	1,176.70	311.23	739	603.37	4.87	-0.34	0.03
160.00	-10.87	-0.73	0.00	-8.78	0.00	8.78	1,142.10	295.11	664	555.03	5.23	-0.35	0.03
163.00	-6.18	-0.45	0.00	-6.57	0.00	6.57	1,119.95	285.43	622	526.27	5.46	-0.36	0.02
165.00	-5.89	-0.43	0.00	-5.68	0.00	5.68	1,104.62	278.98	594	507.22	5.61	-0.36	0.02
169.00	-5.35	-0.39	0.00	-3.97	0.00	3.97	1,072.56	266.09	540	469.51	5.91	-0.37	0.01
170.00	-5.17	-0.38	0.00	-3.58	0.00	3.58	1,064.26	262.86	527	460.18	5.99	-0.37	0.01
172.60	-4.95	-0.37	0.00	-2.59	0.00	2.59	1,042.13	254.48	494	436.09	6.19	-0.37	0.01
175.00	-4.62	-0.34	0.00	-1.71	0.00	1.71	1,021.02	246.74	465	414.13	6.37	-0.37	0.01
180.00	0.00	-0.31	0.00	0.00	0.00	0.00	968.59	230.62	406	366.91	6.76	-0.37	0.00

0.9D - 1.0Ev + 1.0Eh **Seismic (Reduced DL)**

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-42.72	-1.55	0.00	-227.23	0.00	227.23	5,229.17	1,571.49	9,422	6,783.18	0.00	0.00	0.04
5.00	-41.33	-1.55	0.00	-219.48	0.00	219.48	5,190.65	1,539.25	9,039	6,594.14	0.00	-0.01	0.04
10.00	-39.96	-1.56	0.00	-211.72	0.00	211.72	5,149.25	1,507.01	8,665	6,403.58	0.01	-0.01	0.04
15.00	-38.63	-1.56	0.00	-203.93	0.00	203.93	5,104.97	1,474.78	8,298	6,211.74	0.03	-0.02	0.04
20.00	-37.31	-1.56	0.00	-196.13	0.00	196.13	5,057.81	1,442.54	7,939	6,018.84	0.06	-0.03	0.04
25.00	-36.03	-1.56	0.00	-188.32	0.00	188.32	5,007.77	1,410.30	7,588	5,825.12	0.09	-0.04	0.04

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
30.00	-34.77	-1.56	0.00	-180.50	0.00	180.50	4,954.85	1,378.06	7,246	5,630.81	0.14	-0.04	0.04
35.00	-33.54	-1.56	0.00	-172.68	0.00	172.68	4,899.05	1,345.82	6,911	5,436.14	0.19	-0.05	0.04
40.00	-32.61	-1.56	0.00	-164.86	0.00	164.86	4,840.37	1,313.58	6,584	5,241.34	0.25	-0.06	0.04
43.83	-32.12	-1.56	0.00	-158.88	0.00	158.88	4,793.44	1,288.87	6,338	5,092.06	0.30	-0.07	0.04
45.00	-30.02	-1.55	0.00	-157.06	0.00	157.06	4,778.81	1,281.35	6,264	5,046.65	0.31	-0.07	0.04
50.00	-29.61	-1.54	0.00	-149.33	0.00	149.33	4,714.38	1,249.11	5,953	4,852.29	0.39	-0.08	0.04
51.00	-28.80	-1.54	0.00	-147.79	0.00	147.79	3,748.95	1,082.35	5,214	3,905.86	0.41	-0.08	0.05
55.00	-27.80	-1.53	0.00	-141.63	0.00	141.63	3,716.58	1,060.25	5,004	3,792.47	0.48	-0.09	0.05
60.00	-26.83	-1.52	0.00	-133.97	0.00	133.97	3,673.53	1,032.61	4,746	3,650.12	0.57	-0.10	0.04
65.00	-25.88	-1.51	0.00	-126.35	0.00	126.35	3,627.60	1,004.98	4,496	3,507.29	0.68	-0.11	0.04
70.00	-24.95	-1.50	0.00	-118.78	0.00	118.78	3,578.79	977.35	4,252	3,364.21	0.80	-0.12	0.04
75.00	-24.05	-1.49	0.00	-111.28	0.00	111.28	3,527.09	949.72	4,015	3,221.11	0.93	-0.13	0.04
80.00	-23.16	-1.47	0.00	-103.84	0.00	103.84	3,472.52	922.08	3,785	3,078.24	1.07	-0.14	0.04
85.00	-22.63	-1.46	0.00	-96.48	0.00	96.48	3,415.07	894.45	3,561	2,935.81	1.22	-0.15	0.04
88.08	-22.07	-1.45	0.00	-91.97	0.00	91.97	3,378.20	877.41	3,427	2,848.30	1.32	-0.16	0.04
90.00	-20.92	-1.42	0.00	-89.19	0.00	89.19	3,354.74	866.82	3,345	2,794.06	1.39	-0.16	0.04
94.00	-20.77	-1.42	0.00	-83.51	0.00	83.51	2,549.41	716.07	2,739	2,107.92	1.53	-0.17	0.05
95.00	-20.07	-1.40	0.00	-82.09	0.00	82.09	2,541.91	711.46	2,704	2,088.10	1.56	-0.17	0.05
100.00	-19.38	-1.38	0.00	-75.11	0.00	75.11	2,502.69	688.43	2,532	1,988.82	1.75	-0.19	0.05
105.00	-18.71	-1.36	0.00	-68.22	0.00	68.22	2,460.58	665.41	2,365	1,889.44	1.96	-0.20	0.04
110.00	-18.05	-1.33	0.00	-61.43	0.00	61.43	2,415.60	642.38	2,204	1,790.18	2.17	-0.21	0.04
115.00	-17.42	-1.31	0.00	-54.77	0.00	54.77	2,367.74	619.35	2,049	1,691.27	2.41	-0.23	0.04
120.00	-14.14	-1.15	0.00	-48.22	0.00	48.22	2,317.00	596.32	1,900	1,592.95	2.65	-0.24	0.04
125.00	-13.55	-1.13	0.00	-42.45	0.00	42.45	2,263.38	573.30	1,756	1,495.45	2.91	-0.25	0.03
130.00	-13.17	-1.11	0.00	-36.82	0.00	36.82	2,206.88	550.27	1,618	1,398.99	3.19	-0.27	0.03
133.42	-12.89	-1.09	0.00	-33.04	0.00	33.04	2,166.61	534.53	1,526	1,333.80	3.38	-0.28	0.03
135.00	-12.37	-1.06	0.00	-31.32	0.00	31.32	2,147.49	527.24	1,485	1,303.81	3.47	-0.28	0.03
138.00	-12.21	-1.05	0.00	-28.13	0.00	28.13	1,272.79	366.05	1,022	768.59	3.65	-0.29	0.05
140.00	-11.80	-1.03	0.00	-26.03	0.00	26.03	1,263.21	359.60	986	749.27	3.77	-0.29	0.04
145.00	-11.40	-1.00	0.00	-20.89	0.00	20.89	1,237.26	343.48	900	700.72	4.09	-0.31	0.04
150.00	-7.94	-0.75	0.00	-15.89	0.00	15.89	1,208.42	327.35	818	652.01	4.42	-0.32	0.03
155.00	-7.65	-0.73	0.00	-12.15	0.00	12.15	1,176.70	311.23	739	603.37	4.76	-0.33	0.03
160.00	-7.48	-0.71	0.00	-8.52	0.00	8.52	1,142.10	295.11	664	555.03	5.11	-0.34	0.02
163.00	-4.25	-0.43	0.00	-6.39	0.00	6.39	1,119.95	285.43	622	526.27	5.33	-0.35	0.02
165.00	-4.05	-0.42	0.00	-5.52	0.00	5.52	1,104.62	278.98	594	507.22	5.48	-0.35	0.02
169.00	-3.68	-0.38	0.00	-3.86	0.00	3.86	1,072.56	266.09	540	469.51	5.77	-0.36	0.01
170.00	-3.56	-0.37	0.00	-3.48	0.00	3.48	1,064.26	262.86	527	460.18	5.85	-0.36	0.01
172.60	-3.40	-0.35	0.00	-2.51	0.00	2.51	1,042.13	254.48	494	436.09	6.04	-0.36	0.01
175.00	-3.18	-0.33	0.00	-1.66	0.00	1.66	1,021.02	246.74	465	414.13	6.22	-0.36	0.01
180.00	0.00	-0.31	0.00	0.00	0.00	0.00	968.59	230.62	406	366.91	6.61	-0.36	0.00

ANALYSIS SUMMARY

	Base Reactions						Max Usage	
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W	36.73	0.00	61.82	0.00	0.00	4336.43	51.00	0.68
0.9D + 1.0W	36.71	0.00	46.35	0.00	0.00	4282.88	51.00	0.66
1.2D + 1.0Di + 1.0Wi	7.82	0.00	80.11	0.00	0.00	949.34	94.00	0.16
1.2D + 1.0Ev + 1.0Eh	1.58	0.00	62.05	0.00	0.00	231.11	94.00	0.05
0.9D - 1.0Ev + 1.0Eh	1.56	0.00	42.72	0.00	0.00	227.23	94.00	0.05
1.0D + 1.0W	7.57	0.00	51.55	0.00	0.00	887.50	51.00	0.15

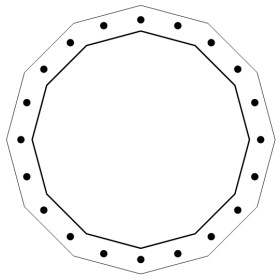
BASE PLATE ANALYSIS @ 0 FT

APPLIED REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
4336.43	61.82	36.73

PLATE PARAMETERS (ID# 19756)

Width:	78.76	in
Shape:	12	
Thickness:	2.5	in
Grade:	A871-60	
Yield Strength:	60	ksi
Tensile Strength:	75	ksi
Rod Detail Type:	d	
Clear Distance	6	in
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Plastic	
Neutral Axis:	342	°



ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	F_y (ksi)	F_u (ksi)	Spacing (in)	Offset (°)
Original [ID#20268]	Radial	20	2.25	72.76	A615-75	75	100	-	-

COMPONENT PROPERTIES

Component	ID	Gross Area (in^2)	Net Area (in^2)	Individual Inertia (in^4)	Moment of Inertia (in^4)	Threads/in
Pole	64"ø x 0.4375" (12 Sides)	86.3687	-	-	43623.80	-
Bolt Group	Original (20) 2.25"ø	3.9761	3.2477	0.8393	39954.58	4.5

REACTION DISTRIBUTION

Component	ID	Moment M_u (k-ft)	Axial Load P_u (k)	Shear V_u (k)	Moment Factor
Pole	64"ø x 0.4375" (12 Sides)	4336.4	61.82	36.73	1.000
Bolt Group	Original (20) 2.25"ø	4336.4	-	36.73	1.000

BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES

Flat-to-Flat Diameter:	64.12	in	Flat Width:	17.182	in	Neutral Axis:	342	°
Point-to-Point Diameter:	66.39	in	Flat Radians:	0.524	rad	Bend Line Limits:	0.766 to 1.747	rad
Orientation Offset:	-	°						

PLATE PROPERTIES

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in^3)	Applied Moment M_u (k-in)	Moment Capacity ΦM_n (k-in)	Flexure Result $M_u/\Phi M_n$
Flats	41.071	0.00	64.173	826.6	3465.3	23.9%
Corners	37.304	0.00	58.287	329.2	3147.5	10.5%
Circumferential	49.380	0.00	77.157	824.1	4166.5	19.8%

PLASTIC ANCHOR ROD ANALYSIS

Class	Group Quantity	Rod Diameter (in)	Applied Axial Load P_u (k)	Applied Shear Load V_u (k)	Compressive Capacity ΦP_n (k)	Plastic Result
Original	20	2.25	123.7	2.9	243.6	50.8%

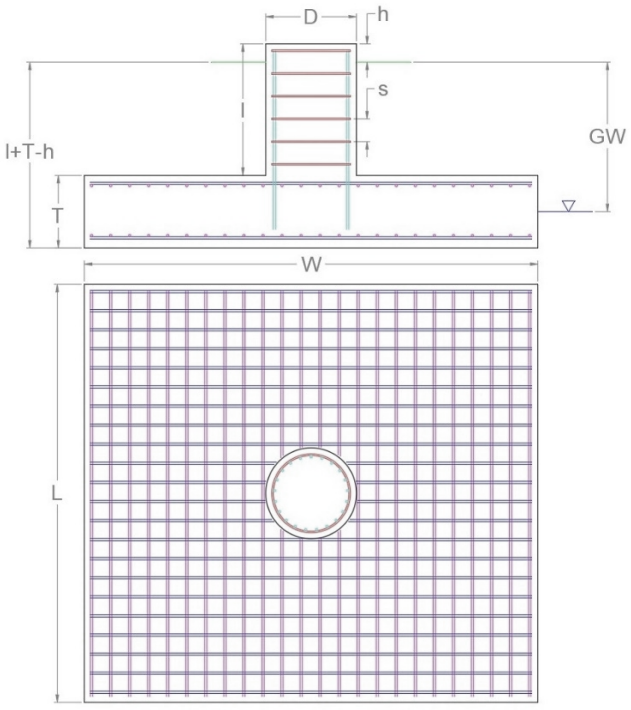
[redacted]

APPLIED GLOBAL REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
4,336.43	61.82	36.73

FOUNDATION PARAMETERS

Mat Length:	L	25	ft
Mat Width:	W	25	ft
Mat Thickness:	T	3.5	ft
Base Depth:	L+T-h	8.5	ft
Pier Shape:		Round	
Pier Diameter:	D	7	ft
Pier Height above Grade:	h	0.5	ft
Concrete Compressive Strength:		4,000	psi
Mat Top Rebar:		(30) #11 bars [60 ksi]	
Mat Bottom Rebar:		(30) #11 bars [60 ksi]	
Pier Vertical Rebar:		(30) #11 bars [60 ksi]	
Pier Rebar Ties:	s	#5 bars @ 12.0" c/c [60 ksi]	
Rebar Clear Cover:		3.0	in
Tower Eccentricity:	ecc	0	ft
Tower Leg Count		1	



SOIL PARAMETERS

Water Table Depth [BGL]:	GW	10	ft
Soil Unit Weight:		125	pcf
Ultimate Skin Friction:		0	psf
Ultimate Bearing Pressure:		10,000	psf
Bearing Pressure Type:		Gross	
Coefficient of Shear Friction:		0.3	

SOIL STRENGTH ANALYSIS

Soil Strength Reduction Factor, Φ_s	Uplift Strength Reduction Factor, Φ_s	Asset Dead Load Factor	Dead Load Factor
0.75	0.75	0.9	1.2

SOIL OVERTURNING ANALYSIS

Design Moment, $M_{u,Design}$ (k-ft)	Nominal Overturning Capacity, $\Phi_m M_n$ (k-ft)	Soil Overturning Usage, $M_{u,Design} / \Phi_m M_n$	
4,667.00	9,433.38	**49.5%**	✓

SOIL BEARING ANALYSIS

Net Bearing Pressure, $P_{u,Net}$ (psf)	Nominal Bearing Capacity, $\Phi_b P_n$ (k-ft)	Bearing Pressure Controlling Load Direction	Soil Bearing Usage, $P_{u,net} / \Phi_b P_n$	
2,363.00	7,500.00	Diagonal to Pad Edge	**31.5%**	✓

SOIL SLIDING SHEAR ANALYSIS

Applied Shear Force, V_u (k)	Friction Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Nominal Shear Capacity, $\Phi_s V_n$ (k)	Soil Sliding Shear Usage, $V_u / \Phi_s V_n$	
36.73	0.00	843.8	73.83	230.41	**16.0%**	✓

MAT REINFORCING STEEL STRENGTH ANALYSIS

Steel Elastic Modulus, E (ksi)	Strength Bending/Tension Reduction Factor, Φ_b	Strength Shear Reduction Factor, Φ_v	Strength Compression Reduction Factor, Φ_c
29,000	0.9	0.75	0.65

MAT REINFORCING ONE WAY SHEAR ANALYSIS

One Way Design Shear, V_u (k)	Nominal One Way Shear Capacity, $\Phi_c V_n$ (k)	One Way Shear Controlling Load Direction	Mat One Way Shear Usage, $V_u / \Phi_c V_n$	
158.51	945.95	Diagonal to Pad Edge	**16.8%**	✓

MAT REINFORCING PUNCHING SHEAR ANALYSIS

Punching Shear Design Stress, v_u (psi)	Nominal Punching Shear Capacity, $\Phi_c v_n$ (psi)	Mat Punching Shear Usage, $v_u / \Phi_c v_n$	
40.0	189.7	**21.1%**	✓

MAT REINFORCING MOMENT TRANSFER ANALYSIS

Moment Transfer Effective Flexural Width, w_f (in)	Neutral Axis Depth (in)	Pier Moment at Joint, M_{ut} (k-in)	Nominal Moment Transfer Capacity, $\Phi M_{sc,f}$ (k-in)	Mat Moment Transfer Usage, $0.6\ M_{ut} / \Phi M_{sc,f}$	
17.50	2.85	0.00	66,755.1	**0.0%**	✓

MAT REINFORCING FLEXURE ANALYSIS – UPPER STEEL

Factored Moment, M_u (k-ft)	Nominal Flexural Capacity, ΦM_n (k-ft)	Flexural Steel Controlling Load Direction	Mat Upper Rebar Flexure Usage, $M_u / \Phi M_n$	
1,164.38	7,677.42	Parallel to Pad Edge	**15.2%**	✓

MAT REINFORCING FLEXURE ANALYSIS – LOWER STEEL

Factored Moment, M_u (k-ft)	Nominal Flexural Capacity, ΦM_n (k-ft)	Flexural Steel Controlling Load Direction	Mat Lower Rebar Flexure Usage, $M_u / \Phi M_n$	
1,726.80	7,677.42	Parallel to Pad Edge	**22.5%**	✓

PIER REINFORCING STEEL STRENGTH ANALYSIS

Rebar Cage Diameter (in)	Steel Elastic Modulus, E (ksi)	Strength Bending/Tension Reduction Factor, Φ_b	Strength Shear Reduction Factor, Φ_v	Strength Compression Reduction Factor, Φ_c
75.38	29,000	0.9	0.75	0.65

PIER REINFORCING MOMENT ANALYSIS

Design Moment, M_u (k-ft)	Nominal Moment Capacity, $\Phi_b M_n$ (k-ft)	Bending Reinforcement Ratio	Pier Rebar Flexure Usage, $M_u/\Phi_b M_n$	
4,538.44	7,768.29	0.008	**58.4%**	✓

PIER REINFORCING COMPRESSION ANALYSIS

Design Compression, P_u (k)	Nominal Compressive Capacity, $\Phi_p P_n$ (k)	Pier Rebar Compressive Usage, $P_u / \Phi_p P_n$	
61.82	9,763.78	**0.6%**	✓

PIER REINFORCING SHEAR ANALYSIS

Design Shear, V_u (k)	Nominal Shear Capacity, $\Phi_v V_n$ (k)	Pier Rebar Shear Usage, $V_u / \Phi_v V_n$	
36.73	684.91	**5.4%**	✓

EXHIBIT 4

Colliers Engineering & Design CT, PC
1055 Washington Boulevard
Stamford, CT 06901
203.324.0800
Peter.albano@collierseng.com

Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements

Mount ReAnalysis

SMART Tool Project #: 10208055
Colliers Engineering & Design CT, PC Project #: 23777210

August 2, 2023

Site Information	*Site ID:*	*5000245762-VZW / COLCHESTER S 2 CT ATC monopole*
	Site Name:	*COLCHESTER S 2 CT - ATC monopole*
	Carrier Name:	*Verizon Wireless*
	Address:	*355 Route 85* *Colchester, Connecticut 06415* *New London County*
	Latitude:	*41.544820°*
	Longitude:	*-72.304891°*
Structure Information	*Tower Type:*	*180-Ft Monopole*
	Mount Type:	*12.58-Ft Platform*

FUZE ID # 17123860

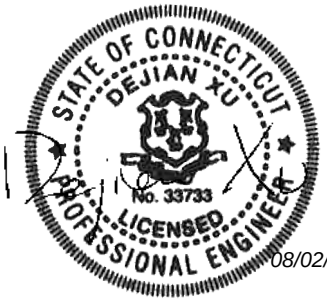
Analysis Results

Platform: **99.4 % Pass w/ Hardware Upgrades***

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

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

Report Prepared By: Lauren Luzier



08/02/2023

Executive Summary:

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

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

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS Site ID: 1930401, dated March 16, 2021*
Mount Mapping Report	*RKS Design & Engineering LLC., Site ID: ATC:302465, dated March 27, 2021*
Post Modification Inspection Report	*Colliers Engineering & Design Project #: 21777428, dared June 19, 2023*
Filter Add Scope	*Provided by Verizon Wireless*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC),	 Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}: Ice Wind Speed (3-sec. Gust): Design Ice Thickness: Risk Category: Exposure Category: Topographic Category: Topographic Feature Considered: Topographic Method: Ground Elevation Factor, K_e:	125 mph 50 mph 1.00 in II B 1 N/A N/A 0.980
Seismic Parameters:	S_S: S_1:	0.205 g 0.055 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): Maintenance Live Load, Lv: Maintenance Live Load, Lm:	30 mph 250 lbs. 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
160.75	162.00	2	KAelus	KA-6030	Added
		3	Commscope	CBC78T-DS-43-2X	Retained
		3	Samsung	MT6407-77A	
		6	Commscope	JAHH-65B-R3B	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		2	Raycap	RRFDC-3315-PF-48	

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

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

Standard Conditions:

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

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

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

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

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

4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.

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

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

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

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

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff Arm	23.7 %	Pass
Standoff Horizontal	99.4 %	Pass
Platform Support	83.3 %	Pass
Platform Angle	44.8 %	Pass
Face Horizontal	13.0 %	Pass
Support Rail	27.7 %	Pass
Antenna pipe	21.1 %	Pass
Corner Angle	40.7 %	Pass
Support rail corner	1.9 %	Pass
Mod SFS kit	11.9 %	Pass
Mount Connection	15.2 %	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**99.4%**

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

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

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	32.9	32.8	45.7	45.6
0.5	43.1	43.0	61.3	61.2
1	52.4	52.4	76.1	76.0

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

- Ka factors included in (EPA)a calculations

Requirements:

The existing mount will be **SUFFICIENT** for the final loading configuration shown in attachment 2 upon the completion of the requirements listed below.

Contractor shall remove the existing equipment pipe to pipe in position 4 on all sectors.
Contractor shall install the proposed filter units on new Site Pro 1 Dual Swivel Mount Kit (Part #: RRUDSM or EOR approved equivalent) in the location shown in the placement diagrams.
Contractor shall inspect support rail corners and install missing U-bolts as needed.

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

Attachments:

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

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis

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

Electronic pdf version of this can be downloaded at https://pmi.vzwsmart.com.

For additional questions and support, please reach out to pmisupport@colliersengineering.com

---

MDG #: 5000245762 SMART Project #: 10208055 Fuze Project ID: 17123860

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

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

Base Requirements:

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

Photo Requirements:

- *Photos taken at ground level*
  - Photo of Gate Signs showing the tower owner, site name, and number.
  - Overall tower structure after installation.
  - Photos of the mount after installation; if the mounts are at different rad elevations, pictures must be provided for all elevations that equipment was installed.
- *Photos taken at Mount Elevation*
  - Photos showing the safety climb wire rope above and below the mount prior to installation.
  - Photos showing the climbing facility and safety climb if present.
  - Photos showing each individual sector after installation. Each entire sector shall be in one photo to show the interconnection of members.

        - These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
    - Photos that show the model number of each antenna and piece of equipment installed per sector.

Antenna & equipment placement and Geometry Confirmation:

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

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

OR

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

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

Issue:

Contractor shall remove the existing equipment pipe to pipe in position 4 on all sectors. Contractor shall install the proposed filter units on new Site Pro 1 Dual Swivel Mount Kit (Part #: RRUDSM or EOR approved equivalent) in the location shown in the placement diagrams. Contractor shall inspect support rail corners and install missing U-bolts as needed.

Response:

Special Instruction Confirmation:

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

☐ All hardware listed in the Special Instructions above (if applicable) has been properly installed, and the existing hardware was inspected.

☐ The material utilized was as specified in the SMART Tool engineering vendor Special Instructions above (if applicable) and included in the material certification folder is a packing list or invoice for these materials.

OR

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

Comments:

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

☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

☐ Yes ☐ No

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

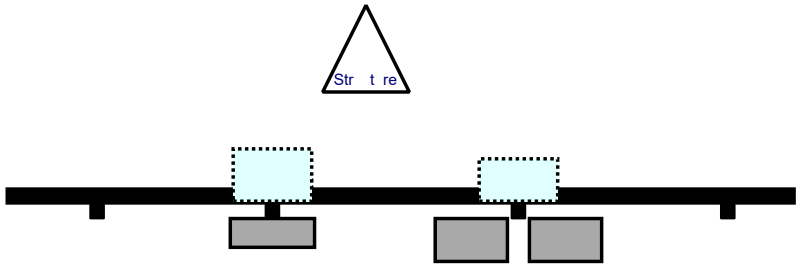
☐ Safety Climb in Good Condition ☐ Safety Climb Damaged

Certifying Individual:

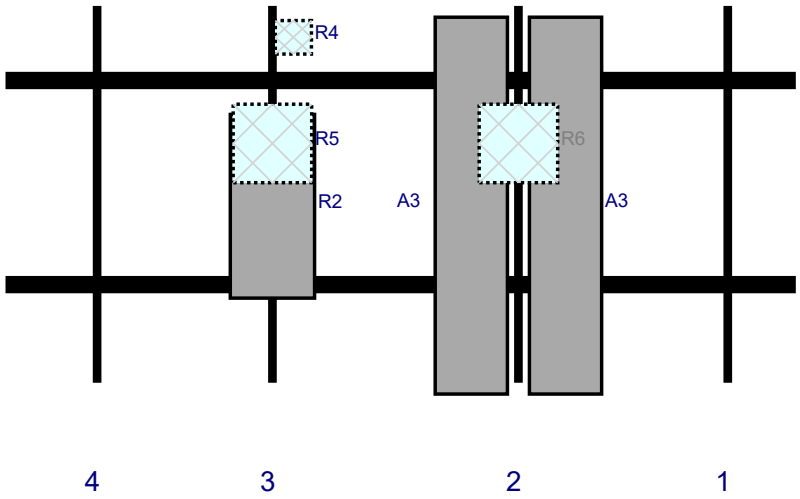
Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

Colliers Engineering & Design

Plan View



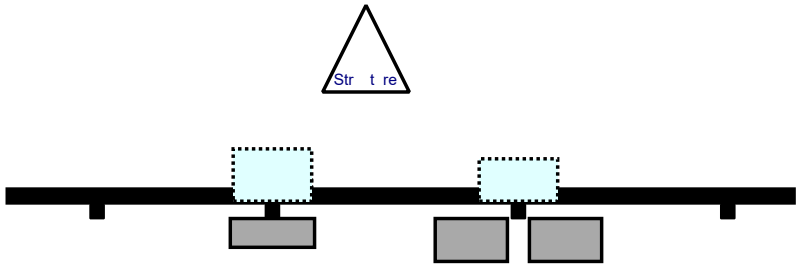
Front View - Loo i g t Str t re



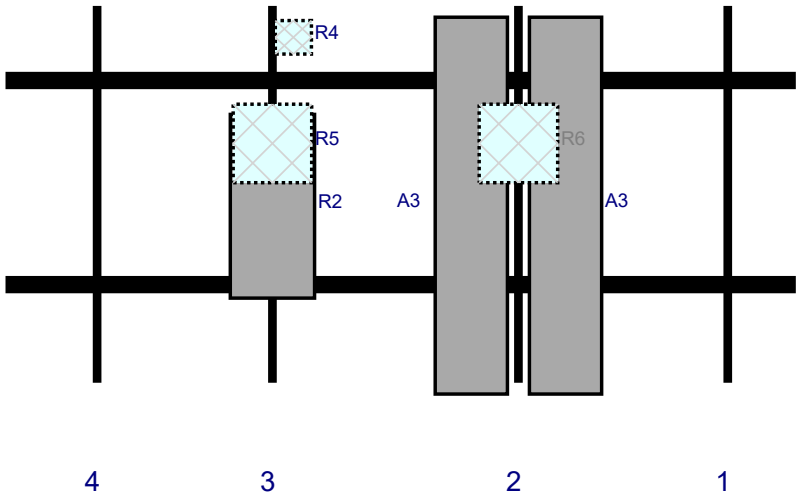
Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A3	JAHH-65B-R3B	72	13.8	98	2		Fro t	38.16	9	Ret i ed	06/14/2023
A3	JAHH-65B-R3B	72	13.8	98	2		Fro t	38.16	-9	Ret i ed	06/14/2023
R6	B5/B13 RRH-BR04C	15	15	98	2		Behi d	26.28	0	Ret i ed	06/14/2023
R2	MT6407-77A	35.1	16.1	51	3		Fro t	38.28	0	Ret i ed	06/14/2023
R4	CBC78T-DS-43-2	6.4	6.9	51	3		Behi d	6	4	Ret i ed	06/14/2023
R5	B2/B66A RRH-BR049	15	15	51	3		Behi d	26.28	0	Ret i ed	06/14/2023
M193	RRFDC-3315-PF-48	19.1	15.7		Me er					Ret i ed	06/14/2023
M162	RRFDC-3315-PF-48	19.1	15.7		Me er					Ret i ed	06/14/2023

Colliers Engineering & Design

Plan View

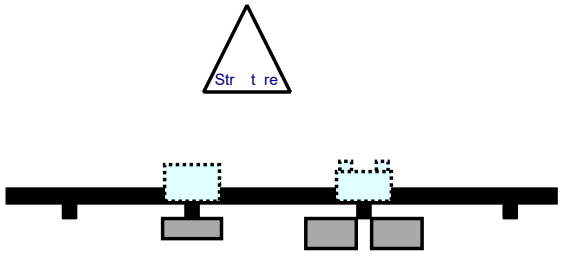


Front View - Loo i g t Str t re

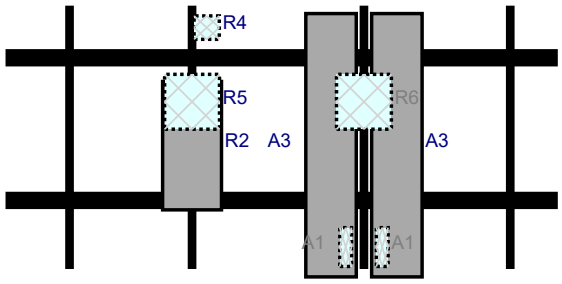


Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A3	JAHH-65B-R3B	72	13.8	98	2		Fro t	38.16	9	Ret i ed	06/14/2023
A3	JAHH-65B-R3B	72	13.8	98	2		Fro t	38.16	-9	Ret i ed	06/14/2023
R6	B5/B13 RRH-BR04C	15	15	98	2		Behi d	26.28	0	Ret i ed	06/14/2023
R2	MT6407-77A	35.1	16.1	51	3		Fro t	38.28	0	Ret i ed	06/14/2023
R4	CBC78T-DS-43-2	6.4	6.9	51	3		Behi d	6	4	Ret i ed	06/14/2023
R5	B2/B66A RRH-BR049	15	15	51	3		Behi d	26.28	0	Ret i ed	06/14/2023

Plan View



Front View - Loo i g t Str t re



4 3 2 1

Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A3	JAHH-65B-R3B	72	13.8	98	2		Fro t	38.16	9	Ret i ed	06/14/2023
A3	JAHH-65B-R3B	72	13.8	98	2		Fro t	38.16	-9	Ret i ed	06/14/2023
A1	A-6030	10.6	3.2	98	2		Behi d	66	-5	Added	
A1	A-6030	10.6	3.2	98	2		Behi d	66	5	Added	
R6	B5/B13 RRH-BR04C	15	15	98	2		Behi d	26.28	0	Ret i ed	06/14/2023
R2	MT6407-77A	35.1	16.1	51	3		Fro t	38.28	0	Ret i ed	06/14/2023
R4	CBC78T-DS-43-2	6.4	6.9	51	3		Behi d	6	4	Ret i ed	06/14/2023
R5	B2/B66A RRH-BR049	15	15	51	3		Behi d	26.28	0	Ret i ed	06/14/2023


Jun 12, 2023 at 4:07:05 PM
355 New London Rd
Colchester CT 06415
United States


Jun 14, 2023 at 2:47:15 PM
355 New London Rd
Colchester CT 06415
United States

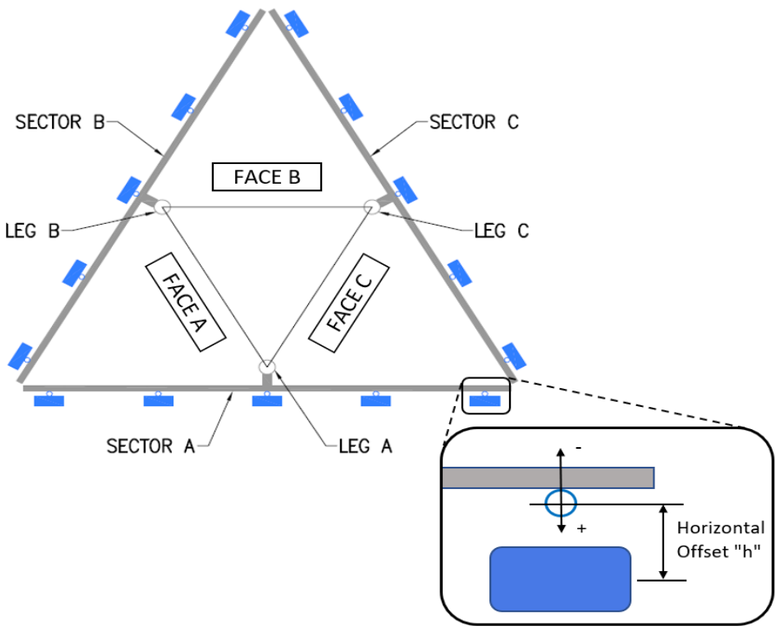
V3.0 Updated on 8-31-2020

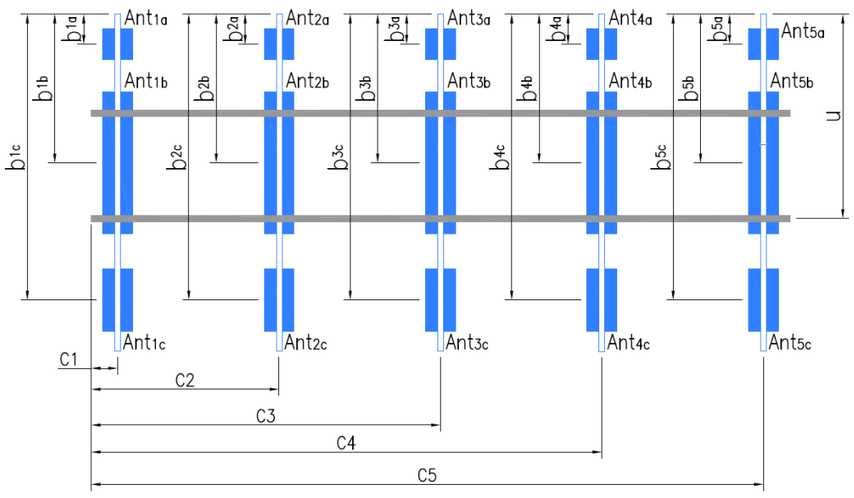
Antenna Mount Mapping Form (PATENT PENDING)

FCC #
UNKNOWN

Tower Owner:	AMERICAN TOWER CORPORATION	**Mapping Date:**	3/27/2021
Site Name:	ATC:COLCHESTER CT 6, VZW:COLCHESTER S 2 CT	**Tower Type:**	Monopole
Site Number or ID:	ATC:302465	**Tower Height (Ft.):**	UNKNOWN
Mapping Contractor:	RKS DESIGN & ENGINEERING LLC	**Mount Elevation (Ft.):**	160

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





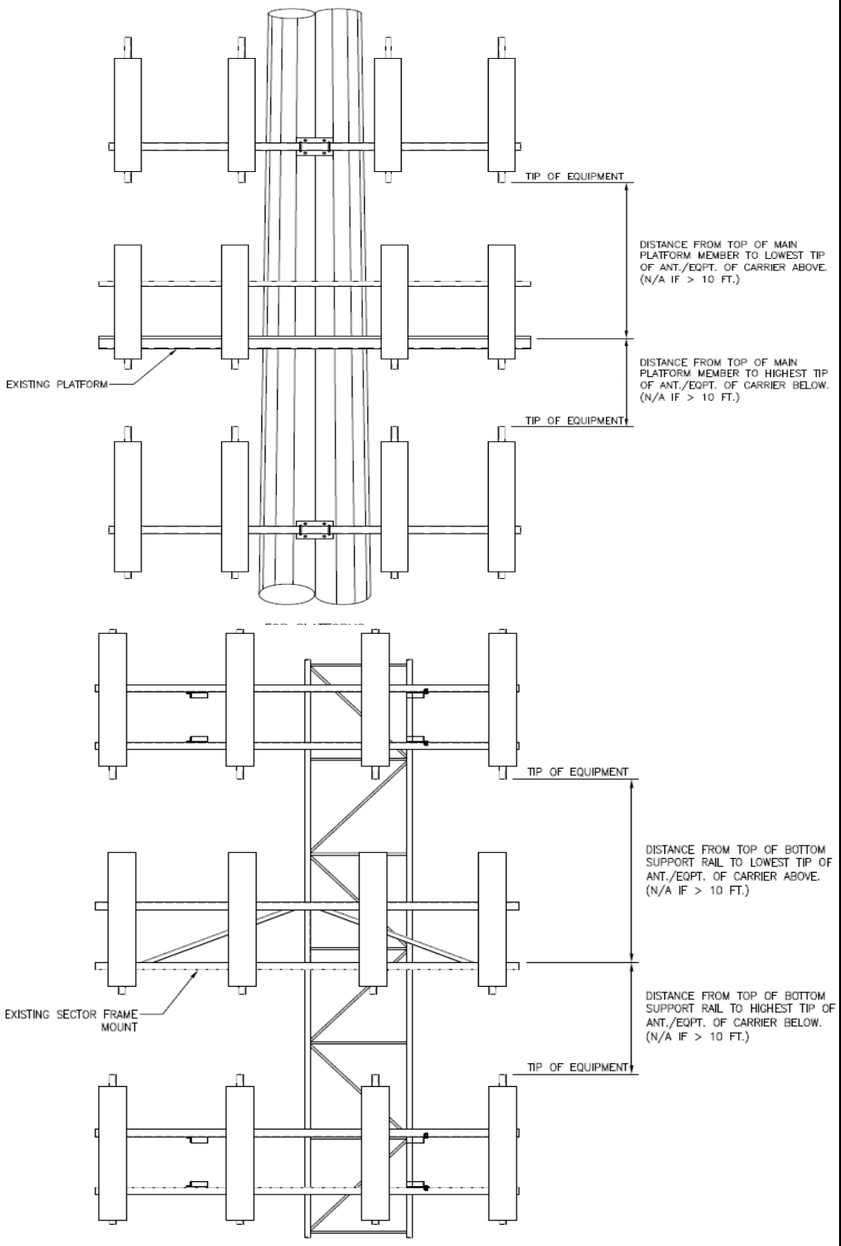
Antenna Layout (Looking Out From Tower)

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	PIPE 2.375''Øx0.15''x72'' LONG	53.25	12.50	C1	PIPE 2.375''Øx0.15''x72'' LONG	53.25	12.50
A2	PIPE 2.375''Øx0.15''x72'' LONG	53.25	51.75	C2	PIPE 2.375''Øx0.15''x72'' LONG	53.25	51.75
A3	PIPE 2.375''Øx0.15''x72'' LONG	53.25	99.00	C3	PIPE 2.375''Øx0.15''x72'' LONG	53.25	99.00
A4	PIPE 2.375''Øx0.15''x72'' LONG	53.25	132.50	C4	PIPE 2.375''Øx0.15''x72'' LONG	53.25	132.50
A5				C5			
A6				C6			
B1	PIPE 2.375''Øx0.15''x72'' LONG	53.25	12.50	D1			
B2	PIPE 2.375''Øx0.15''x72'' LONG	53.25	51.75	D2			
B3	PIPE 2.375''Øx0.15''x72'' LONG	53.25	99.00	D3			
B4	PIPE 2.375''Øx0.15''x72'' LONG	53.25	132.50	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. :							
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :							5
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.):				23.5

	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}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}	RFV01U-D1A	15.00	10.00	15.00		161.979	29.50	-9.50		196
Ant_{2b}	(2)JAHH-65B-R3B	13.80	8.20	72.00		161.188	39.00	13.50	50.00	196
Ant_{2c}										
Ant_{3a}	RFV01U-D1A	15.00	10.00	15.00		161.979	29.50	-9.50		197
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff	RRFDC-3315-PF-48	15.73	10.25	25.66			27.00			322
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	50.00	Deg	Leg A:		Deg
Sector B:	170.00	Deg	Leg B:		Deg
Sector C:	290.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	50.00	Deg	N/A
Climbing Facility	Corrosion Type:		N/A
	Access:		Climbing path was unobstructed.
	Condition:		Good condition.



Sector B										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}	RFV01U-D1A	15.00	10.00	15.00		161.979	29.50	-9.50		199
Ant_{2b}	(2)JAHH-65B-R3B	13.80	8.20	72.00		161.188	39.00	13.50	170.00	199
Ant_{2c}										
Ant_{3a}	RFV01U-D1A	15.00	10.00	15.00		161.979	29.50	-9.50		200
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										
Sector C										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}	RFV01U-D1A	15.00	10.00	15.00		161.979	29.50	-9.50		202
Ant_{2b}	(2)JAHH-65B-R3B	13.80	8.20	72.00		161.188	39.00	13.50	290.00	202
Ant_{2c}										
Ant_{3a}	RFV01U-D1A	15.00	10.00	15.00		162.017	29.05	-9.50		203
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff	RRFDC-3315-PF-48	15.73	10.25	25.66			27.00	7.50		320
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	COAX TOTAL (2): (2) 1.5'' Ø HYBRID	
2		
3		
4		
5		
6		
7		
8		

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.

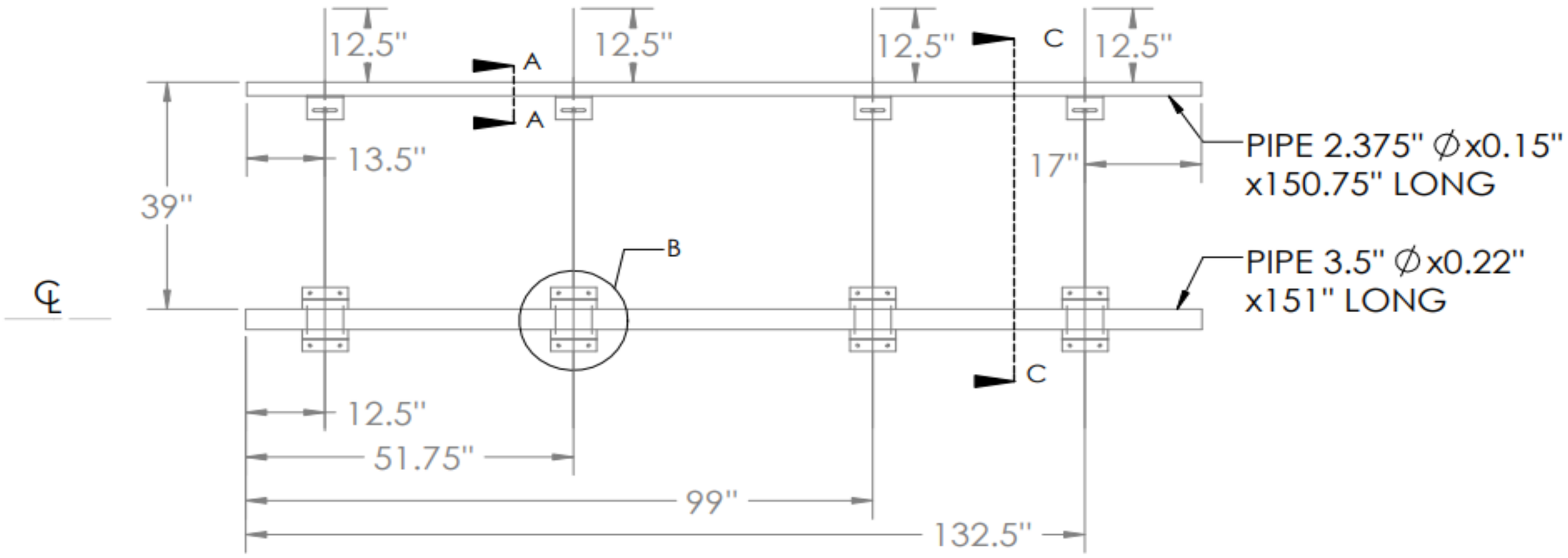
V3.0 Updated on 8-31-2020

Antenna Mount Mapping Form (PATENT PENDING)

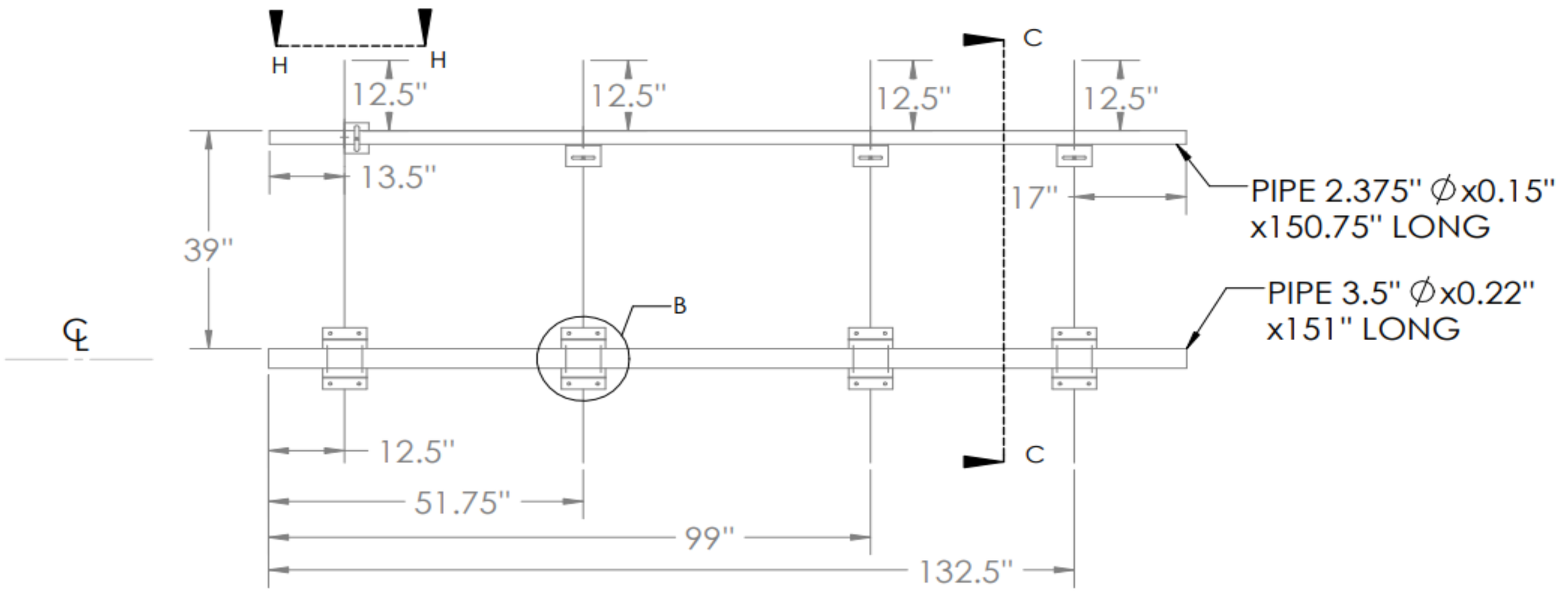
FCC #
UNKNOWN

Tower Owner:	AMERICAN TOWER CORPORATION	**Mapping Date:**	3/27/2021
Site Name:	ATC:COLCHESTER CT 6, VZW:COLCHESTER S 2 CT	**Tower Type:**	Monopole
Site Number or ID:	ATC:302465	**Tower Height (Ft.):**	UNKNOWN
Mapping Contractor:	RKS DESIGN & ENGINEERING LLC	**Mount Elevation (Ft.):**	160

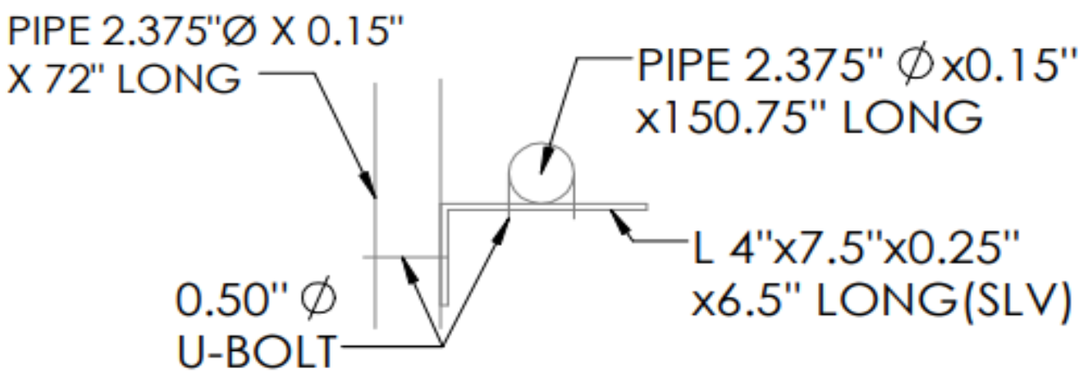
Please Insert Sketches of the Antenna Mount



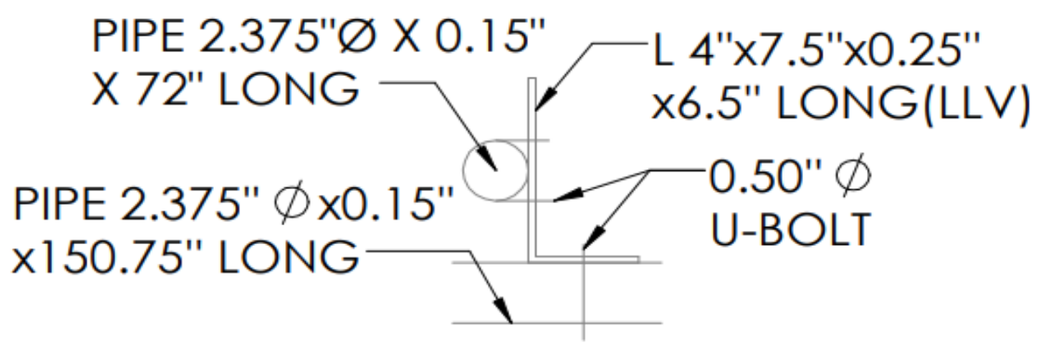
SECTOR VIEW A & C



SECTOR VIEW B

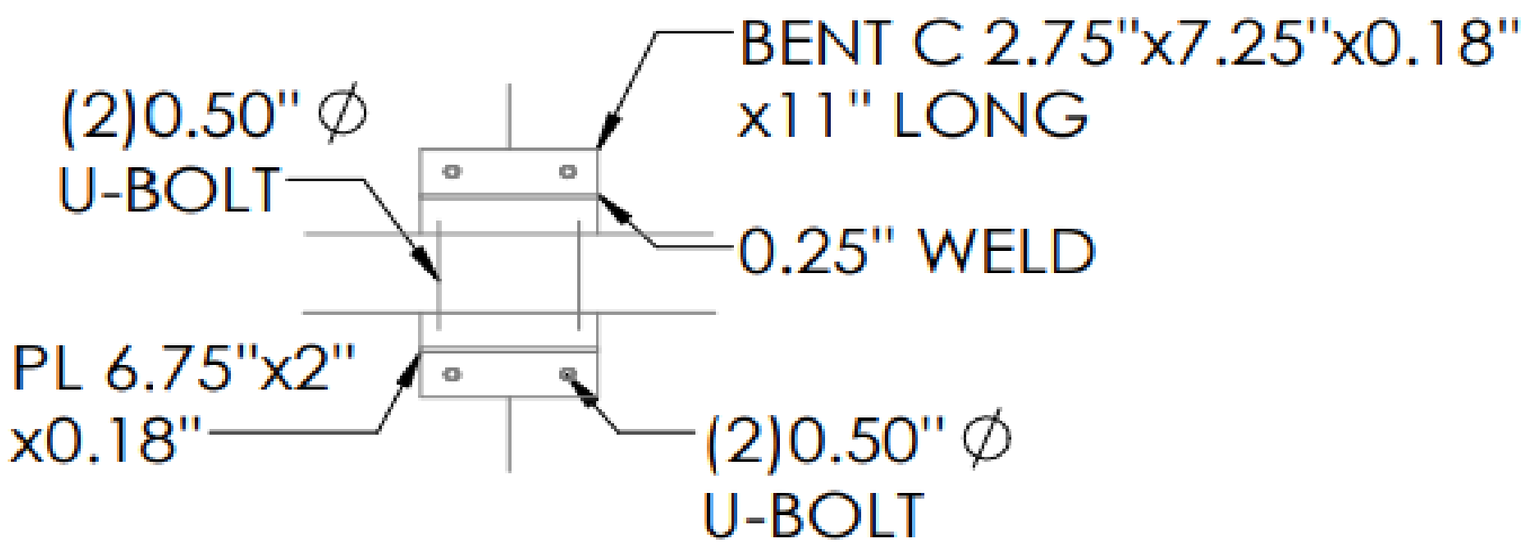


SECTION A-A

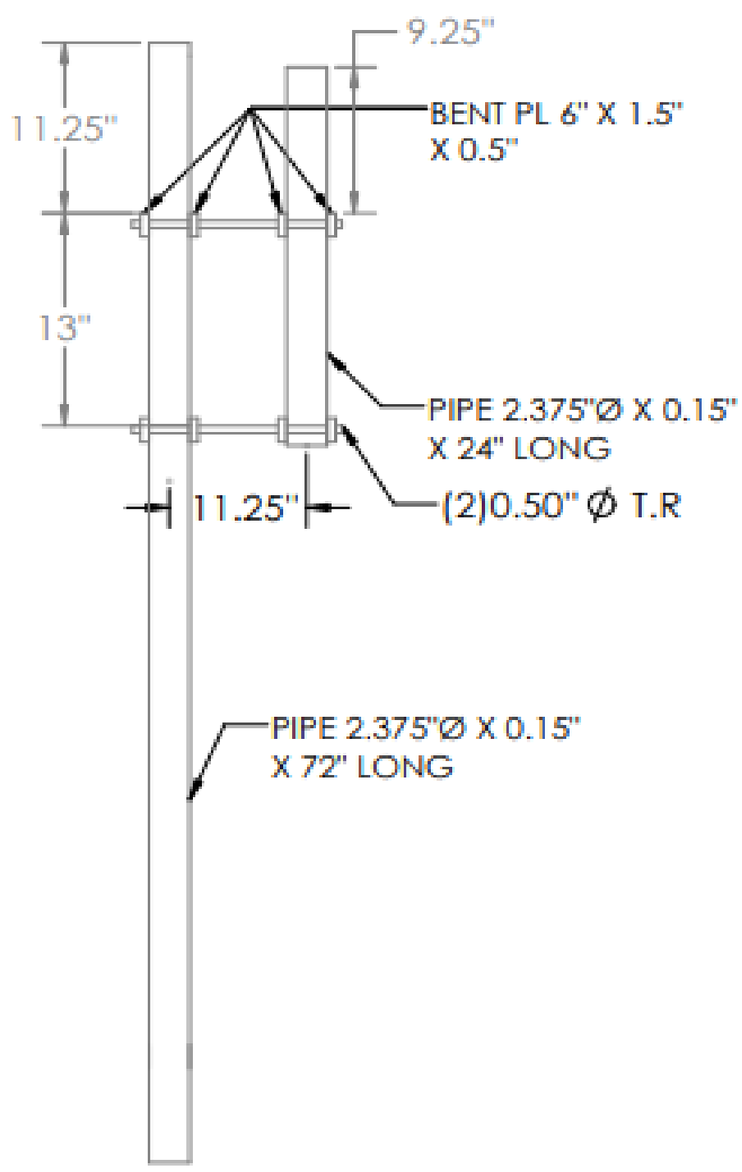


SECTION H-H

Please Insert Sketches of the Antenna Mount, cont'd

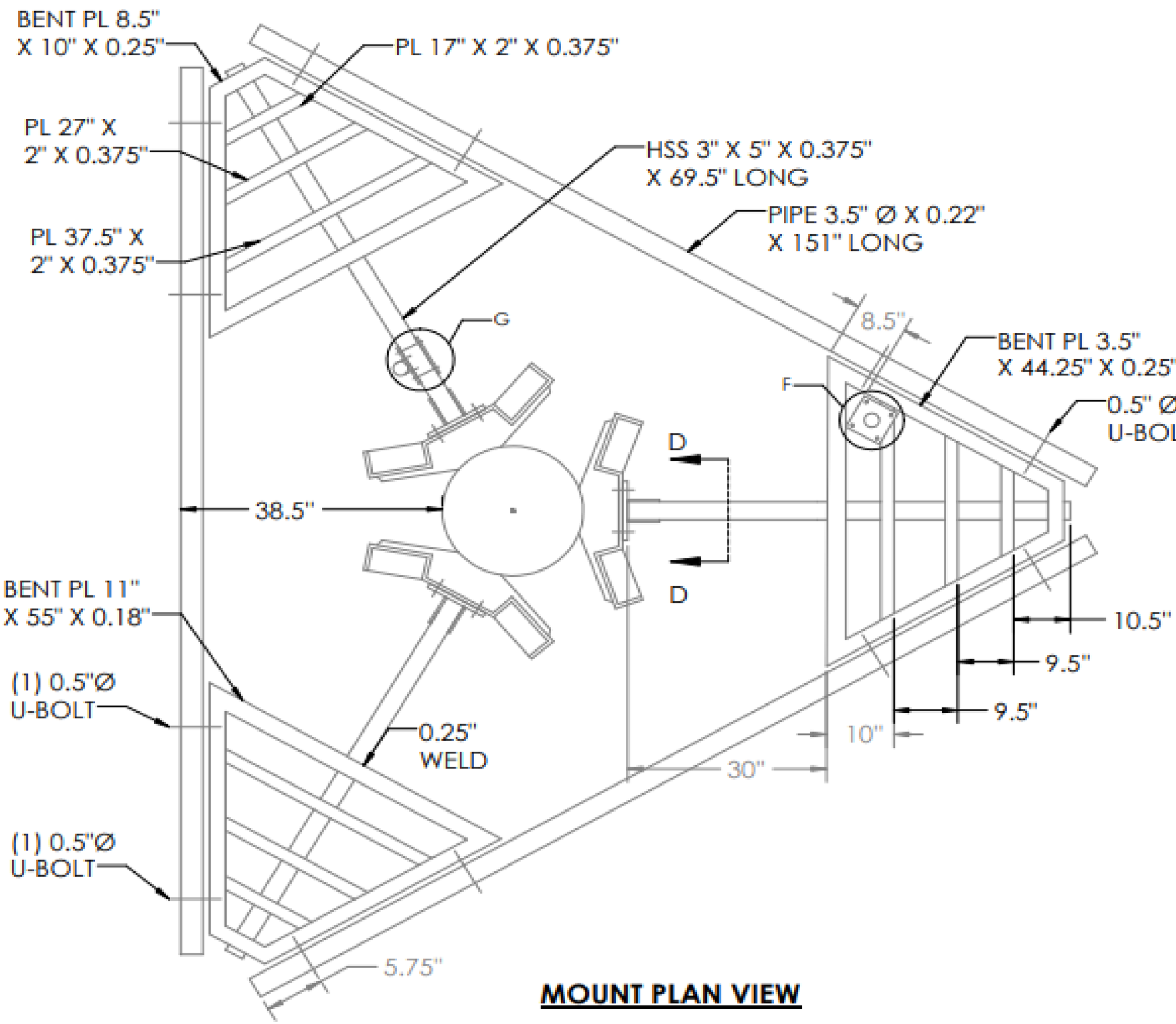


DETAIL B

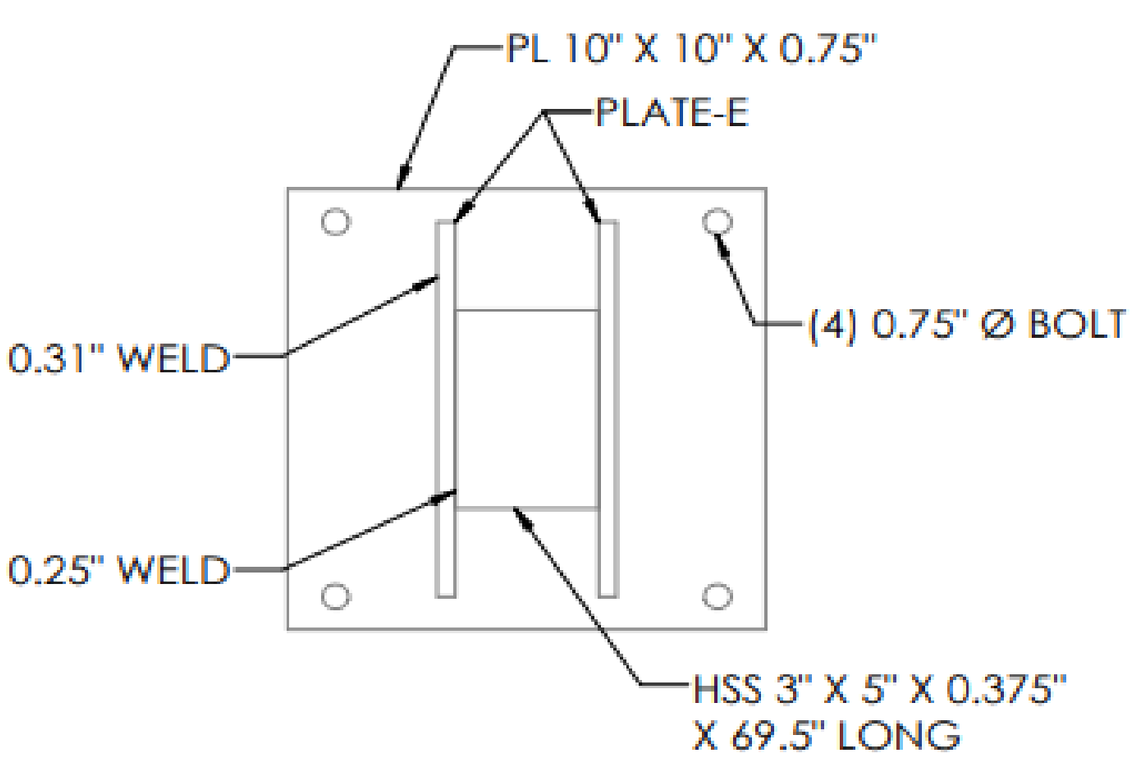


SECTION C-C

Please Insert Sketches of the Antenna Mount, cont'd



MOUNT PLAN VIEW



SECTION D-D

Please Insert Sketches of the Antenna Mount, cont'd

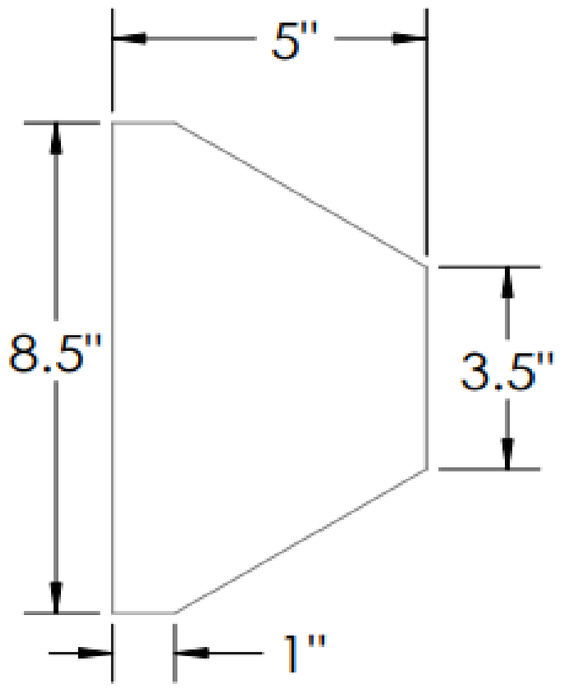
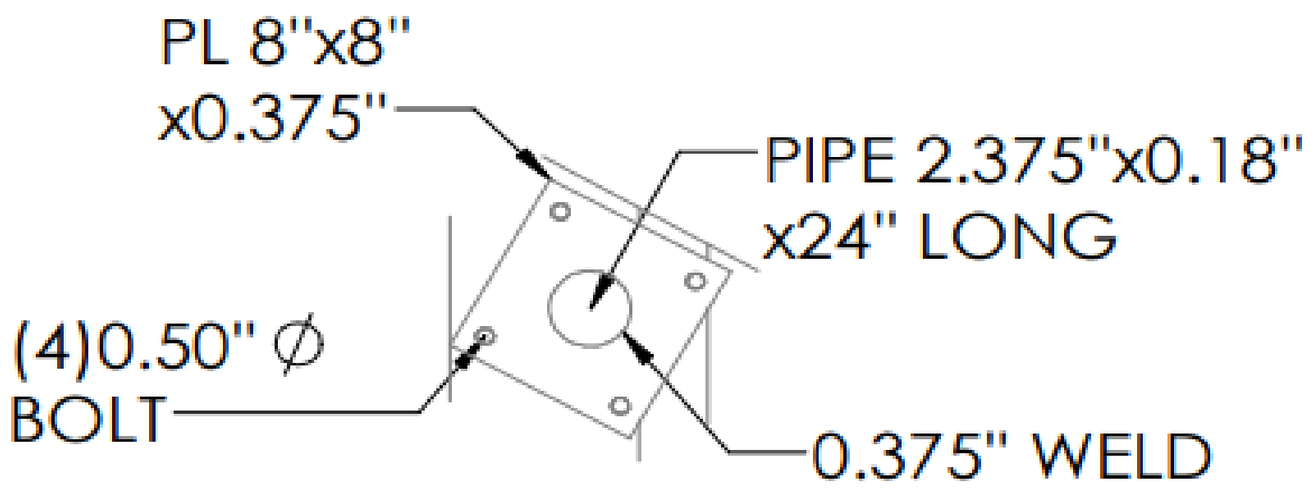
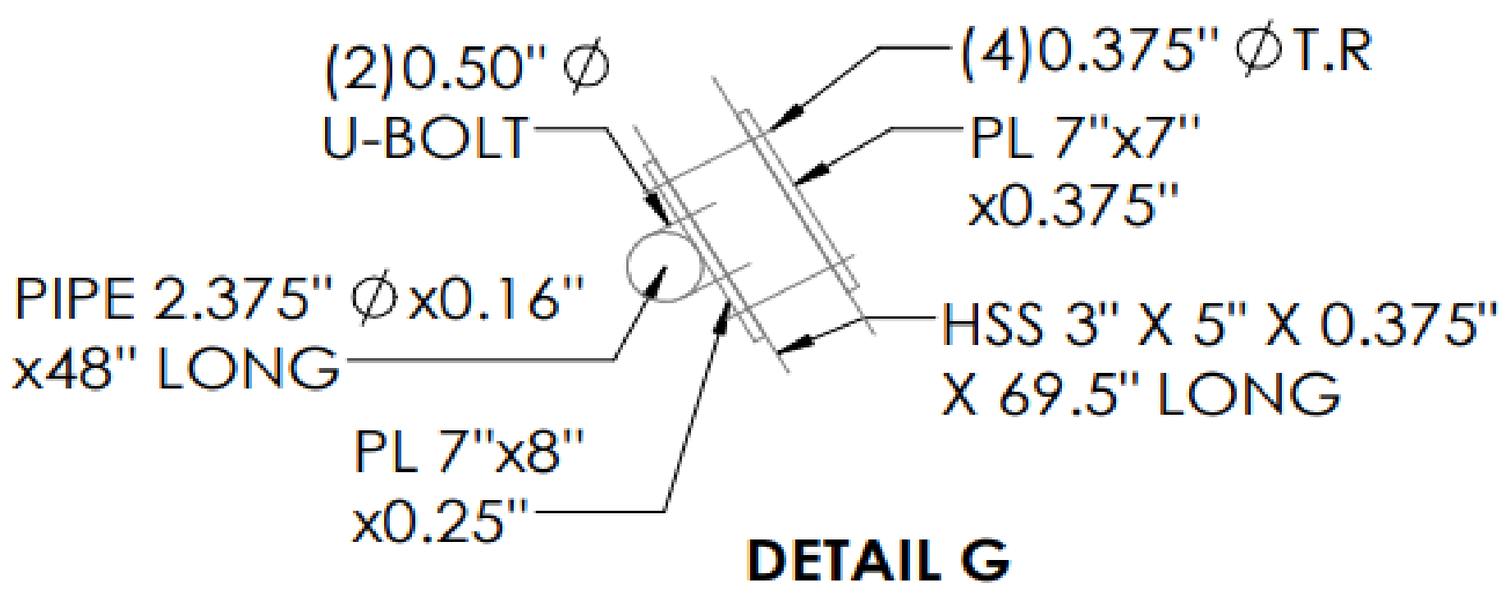


PLATE -E DETAIL VIEW
(0.375" THK)

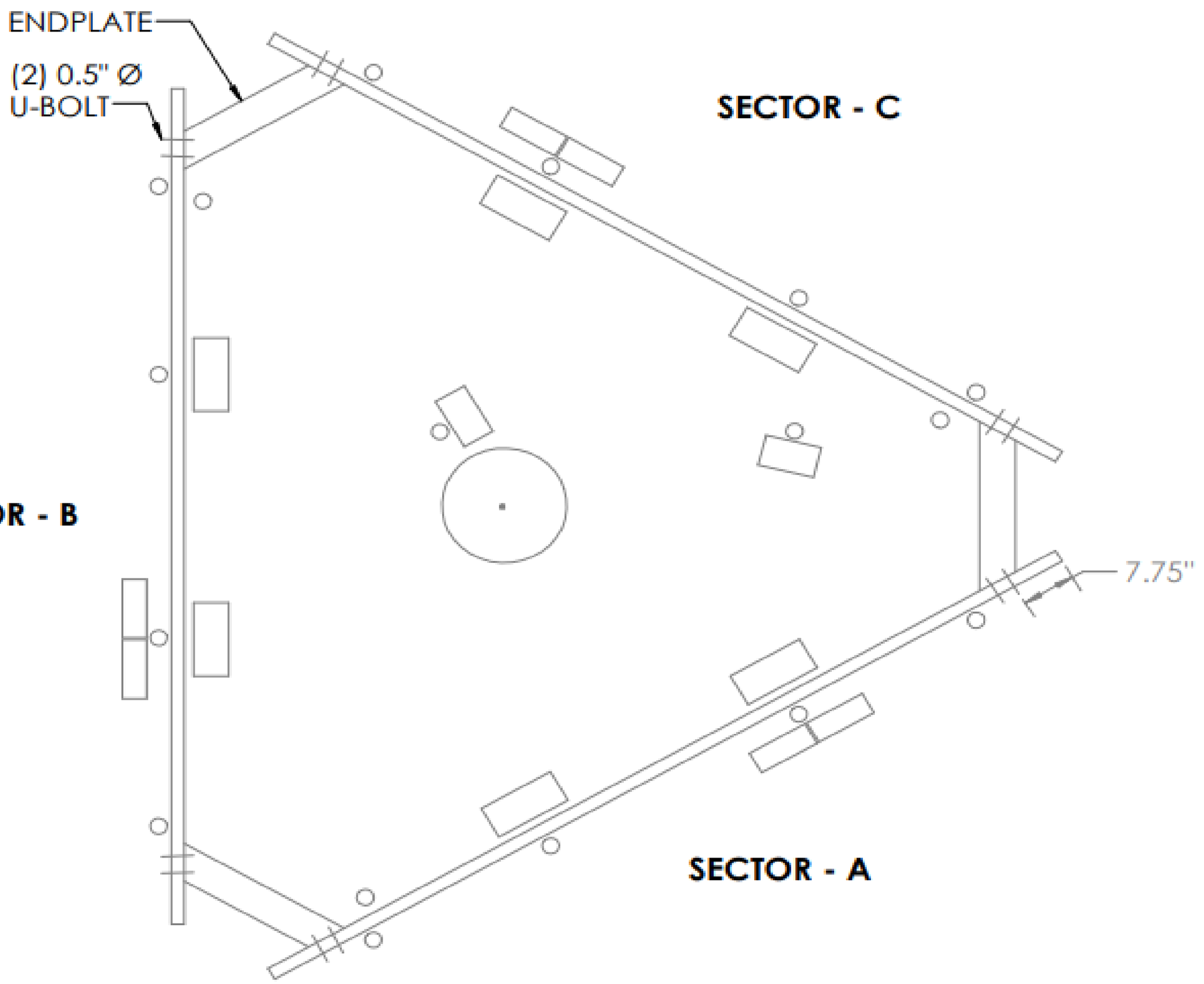


DETAIL F

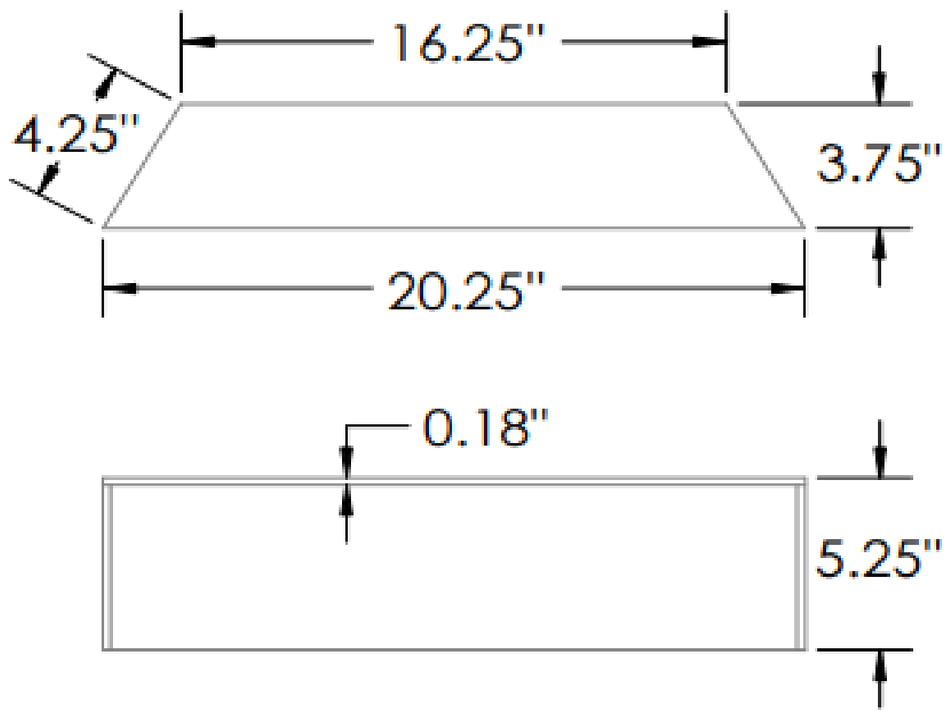


DETAIL G

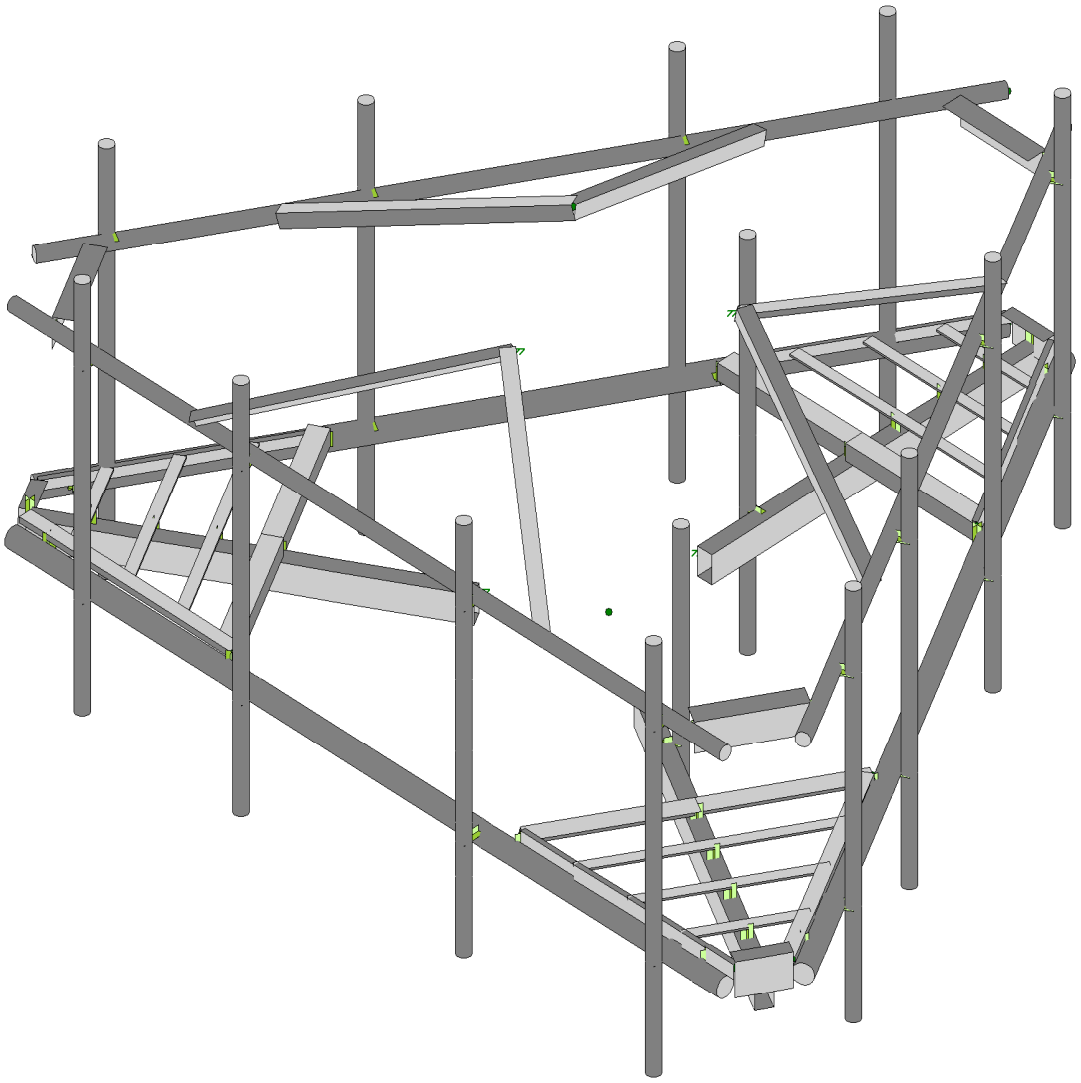
Please Insert Sketches of the Antenna Mount, cont'd



ANTENNA PLAN VIEW

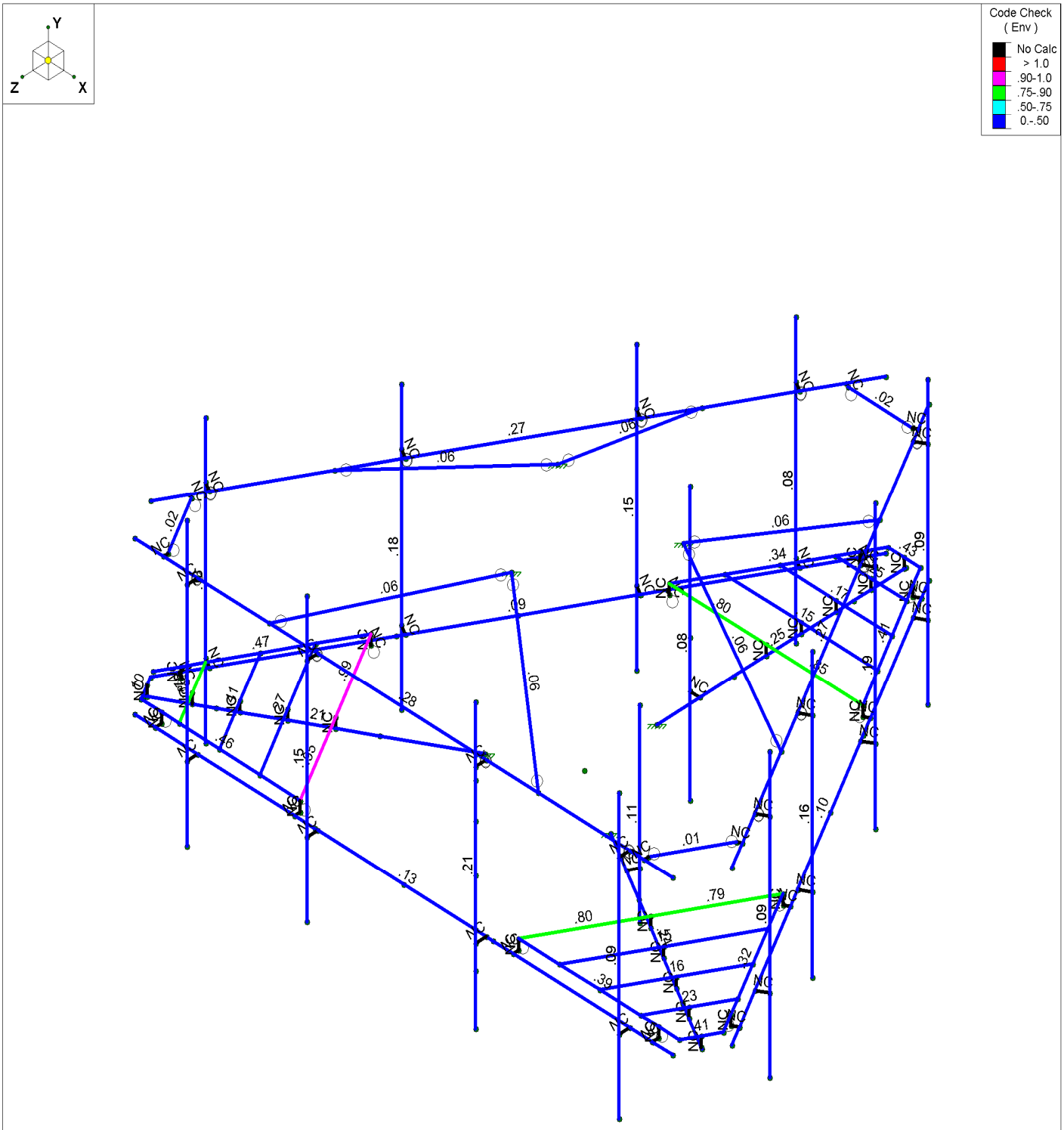


ENDPLATE DETAIL VIEW



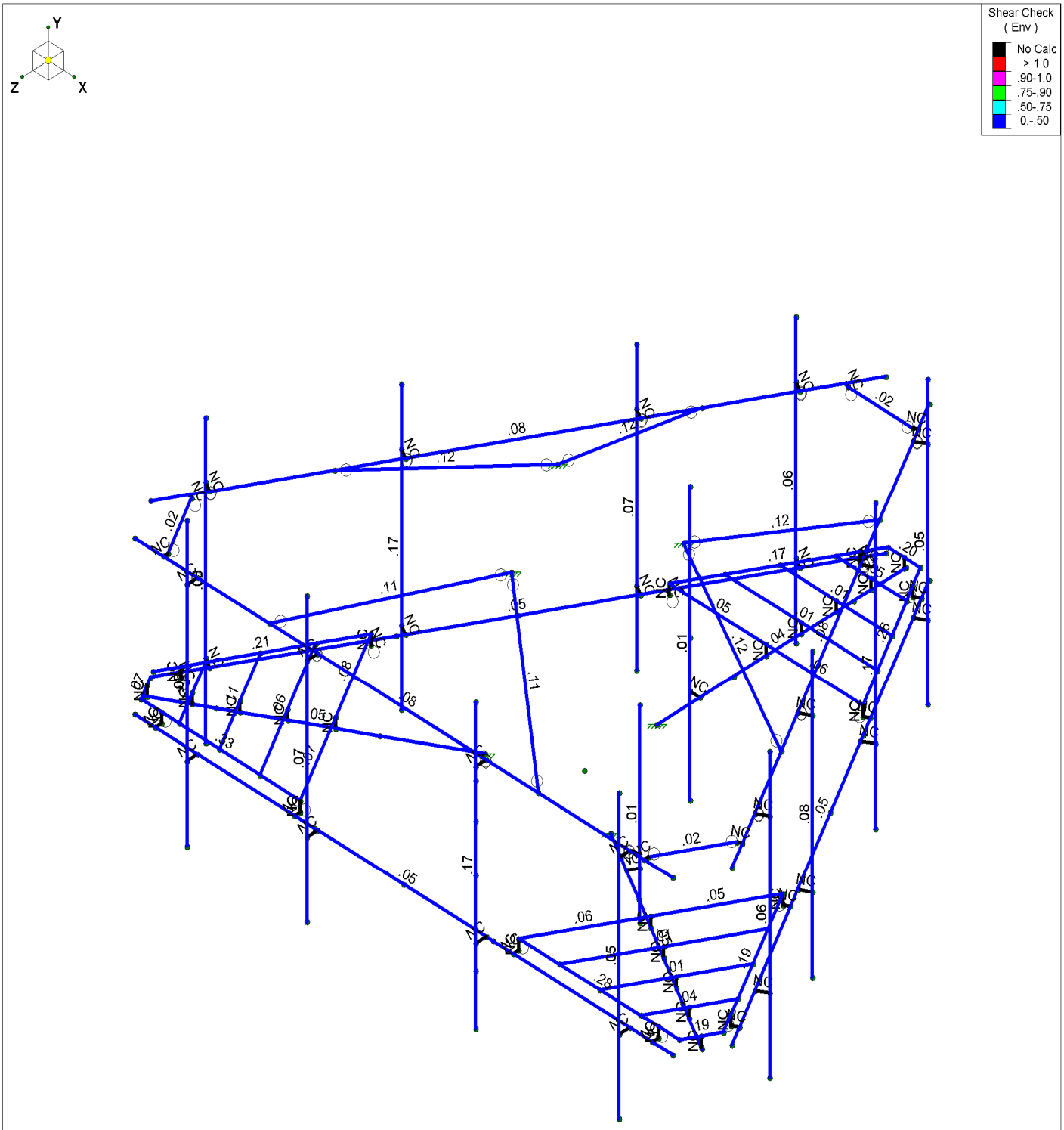
Envelope Only Solution

Colliers Engineering & Des...	5000245762-VZW_MT_LO_H	SK - 1
AE		Aug 2, 2023 at 9:04 AM
Project No. 10208055		5000245762-VZW_MT_LO_H.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Colliers Engineering & Des...		SK - 2
AE	5000245762-VZW_MT_LO_H	Aug 2, 2023 at 9:04 AM
Project No. 10208055		5000245762-VZW_MT_LO_H.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Colliers Engineering & Des...		SK - 3
AE	5000245762-VZW_MT_LO_H	Aug 2, 2023 at 9:04 AM
Project No. 10208055		5000245762-VZW_MT_LO_H.r3d

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
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						56	3	
41	Structure Wo (0 Deg)	None						112		
42	Structure Wo (30 Deg)	None						112		
43	Structure Wo (60 Deg)	None						112		
44	Structure Wo (90 Deg)	None						112		
45	Structure Wo (120 Deg)	None						112		
46	Structure Wo (150 Deg)	None						112		
47	Structure Wo (180 Deg)	None						112		
48	Structure Wo (210 Deg)	None						112		
49	Structure Wo (240 Deg)	None						112		
50	Structure Wo (270 Deg)	None						112		
51	Structure Wo (300 Deg)	None						112		
52	Structure Wo (330 Deg)	None						112		
53	Structure Wi (0 Deg)	None						112		
54	Structure Wi (30 Deg)	None						112		
55	Structure Wi (60 Deg)	None						112		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
56	Structure Wi (90 Deg)	None						112		
57	Structure Wi (120 Deg)	None						112		
58	Structure Wi (150 Deg)	None						112		
59	Structure Wi (180 Deg)	None						112		
60	Structure Wi (210 Deg)	None						112		
61	Structure Wi (240 Deg)	None						112		
62	Structure Wi (270 Deg)	None						112		
63	Structure Wi (300 Deg)	None						112		
64	Structure Wi (330 Deg)	None						112		
65	Structure Wm (0 Deg)	None						112		
66	Structure Wm (30 Deg)	None						112		
67	Structure Wm (60 Deg)	None						112		
68	Structure Wm (90 Deg)	None						112		
69	Structure Wm (120 Deg)	None						112		
70	Structure Wm (150 Deg)	None						112		
71	Structure Wm (180 Deg)	None						112		
72	Structure Wm (210 Deg)	None						112		
73	Structure Wm (240 Deg)	None						112		
74	Structure Wm (270 Deg)	None						112		
75	Structure Wm (300 Deg)	None						112		
76	Structure Wm (330 Deg)	None						112		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					93			
82	Antenna Eh (0 Deg)	None					62			
83	Antenna Eh (90 Deg)	None					62			
84	Structure Ev	ELY		-.044					3	
85	Structure Eh (0 Deg)	ELZ			-.109				3	
86	Structure Eh (90 Deg)	ELX	.109						3	
87	BLC 39 Transient Area Loads	None						71		
88	BLC 40 Transient Area Loads	None						71		
89	BLC 84 Transient Area Loads	None						71		
90	BLC 85 Transient Area Loads	None						71		
91	BLC 86 Transient Area Loads	None						71		

Load Combinations

	Description	S...	PDelta	S...	B...	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.2D+1.0Wo (0 D...	Y...	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0Wo (30 ...	Y...	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (60 ...	Y...	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (90 ...	Y...	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0Wo (120...	Y...	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0Wo (150...	Y...	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0Wo (180...	Y...	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0Wo (210...	Y...	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0Wo (240...	Y...	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0Wo (270...	Y...	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0Wo (300...	Y...	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0Wo (330...	Y...	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								

Load Combinations (Continued)

	Description	S...	PDelta	S...	B...	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
19	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1						
20	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1						
21	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1						
22	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1						
23	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1						
24	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1						
25	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	27	1	65	1								
26	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	28	1	66	1								
27	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	29	1	67	1								
28	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	30	1	68	1								
29	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	31	1	69	1								
30	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	32	1	70	1								
31	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	33	1	71	1								
32	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	34	1	72	1								
33	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	35	1	73	1								
34	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	36	1	74	1								
35	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	37	1	75	1								
36	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	38	1	76	1								
37	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	27	1	65	1								
38	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	28	1	66	1								
39	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	29	1	67	1								
40	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	30	1	68	1								
41	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	31	1	69	1								
42	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	32	1	70	1								
43	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	33	1	71	1								
44	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	34	1	72	1								
45	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	35	1	73	1								
46	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	36	1	74	1								
47	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	37	1	75	1								
48	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	38	1	76	1								
49	1.2D + 1.5Lv1	Y...	Y		1	1.2	39	1.2	79	1.5												
50	1.2D + 1.5Lv2	Y...	Y		1	1.2	39	1.2	80	1.5												
51	1.4D	Y...	Y		1	1.4	39	1.4														
52	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	1	83		E...	1	E...			
53	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5	E...	.866	E...	.5		
54	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866	E...	.5	E...	.866		
55	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	1	E...		E...	1		
56	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866	E...	-.5	E...	.866		
57	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.8...	83	.5	E...	-.8...	E...	.5		
58	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	-1	83		E...	-1	E...			
59	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.8...	83	-.5	E...	-.8...	E...	-.5		
60	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.8...	E...	-.5	E...	-.8...		
61	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	-1	E...		E...	-1		
62	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.8...	E...	.5	E...	-.8...		
63	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5	E...	.866	E...	-.5		
64	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	1	83		E...	1	E...			
65	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5	E...	.866	E...	.5		
66	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866	E...	.5	E...	.866		
67	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	1	E...		E...	1		
68	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866	E...	-.5	E...	.866		
69	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.8...	83	.5	E...	-.8...	E...	.5		
70	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	-1	83		E...	-1	E...			
71	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.8...	83	-.5	E...	-.8...	E...	-.5		
72	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.8...	E...	-.5	E...	-.8...		
73	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	-1	E...		E...	-1		
74	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	-.8...	E...	.5	E...	-.8...		
75	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5	E...	.866	E...	-.5		

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N143	-0.	0.	-0.	0	
2	N63	-0.	0.	-7.479168	0	
3	N66	0.000042	0.	-7.438116	0	
4	N67	0.000042	0.	-1.687502	0	
5	N68	2.250001	0.	-4.229169	0	
6	N69	2.359548	0.	-4.292416	0	
7	N70	-2.249917	0	-4.229169	0	
8	N71	0.000042	0.	-4.229169	0	
9	N74	0.501288	0.	-7.511016	0	
10	N75	-0.501274	0.	-7.51104	0	
11	N76	2.250001	0.208333	-4.229169	0	
12	N77	-2.249917	0.208333	-4.229169	0	
13	N78	0.000042	0.208333	-4.229169	0	
14	N79	0.375021	0.208333	-7.438116	0	
15	N80	-0.374945	0.208333	-7.438103	0	
16	N81	0.000042	0.	-5.854753	0	
17	N82	0.000042	0.	-5.042253	0	
18	N83	0.000042	0.208333	-5.854753	0	
19	N84	0.000042	0.208333	-5.042253	0	
20	N85	1.300176	0.208333	-5.854753	0	
21	N86	1.774918	0.208333	-5.042253	0	
22	N87	-1.300092	0.208333	-5.854753	0	
23	N88	-1.774834	0.208333	-5.042253	0	
24	N89	0.000042	0.	-6.667253	0	
25	N90	0.000042	0.208333	-6.667253	0	
26	N91	0.825434	0.208333	-6.667253	0	
27	N92	-0.82535	0.208333	-6.667253	0	
28	N180	-2.359548	0	-4.292416	0	
29	N222A	-5.78794	0.	4.189636	0	
30	N242A	-2.071393	0	4.189636	0	
31	N248A	2.071393	0.	4.189636	0	
32	N253A	5.787912	0.	4.189636	0	
33	N273B	-0.000014	0.	4.189636	0	
34	N275A	-6.250015	0.	4.189636	0	
35	N276A	6.249987	0.	4.189636	0	
36	N277A	-4.791681	0.	4.189636	0	
37	N278A	-2.000015	0.	4.189636	0	
38	N279A	1.916652	0.	4.189636	0	
39	N280A	5.249985	0.	4.189636	0	
40	N281A	-4.791681	0.	4.439636	0	
41	N282A	-2.000015	0.	4.439636	0	
42	N283A	1.916652	0.	4.439636	0	
43	N284A	5.249985	0.	4.439636	0	
44	N285A	-6.250015	3.25	4.189636	0	
45	N286A	6.249987	3.25	4.189636	0	
46	N287A	-4.791681	3.25	4.189636	0	
47	N288A	-2.000015	3.25	4.189636	0	
48	N289A	1.916652	3.25	4.189636	0	
49	N290A	5.249985	3.25	4.189636	0	
50	N291A	-4.791681	3.25	4.439636	0	
51	N292A	-2.000015	3.25	4.439636	0	
52	N293A	1.916652	3.25	4.439636	0	
53	N294A	5.249985	3.25	4.439636	0	
54	N295A	-4.791681	4.4375	4.439636	0	
55	N296A	-2.000015	4.4375	4.439636	0	
56	N297A	1.916652	4.4375	4.439636	0	
57	N298A	5.249985	4.4375	4.439636	0	
58	N299A	-4.791681	-1.5625	4.439636	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
59	N300A	-2.000015	-1.5625	4.439636	0	
60	N301A	1.916652	-1.5625	4.439636	0	
61	N302A	5.249985	-1.5625	4.439636	0	
62	N180B	0.000042	0.208333	-7.438116	0	
63	N70A	-6.47715	0.	3.739584	0	
64	N71A	-6.441535	0.	3.719022	0	
65	N72A	-1.461441	0.	0.843715	0	
66	N73A	-4.787568	0.	0.166027	0	
67	N74A	-4.897115	0.	0.10278	0	
68	N75A	-2.537609	0	4.06307	0	
69	N76A	-3.662552	0.	2.114548	0	
70	N79A	-6.755375	0.	3.32138	0	
71	N81A	-4.787568	0.208333	0.166027	0	
72	N82A	-2.537609	0.208333	4.06307	0	
73	N83A	-3.662589	0.208333	2.114548	0	
74	N84A	-6.629108	0.208333	3.39428	0	
75	N85A	-6.254114	0.208333	4.043763	0	
76	N86A	-5.070326	0.	2.92734	0	
77	N87A	-4.366692	0.	2.52109	0	
78	N88A	-5.070326	0.208333	2.92734	0	
79	N89A	-4.366692	0.208333	2.52109	0	
80	N90A	-5.720453	0.208333	1.801391	0	
81	N91A	-5.254178	0.208333	0.984003	0	
82	N92A	-4.420319	0.208333	4.053289	0	
83	N93	-3.479302	0.208333	4.058178	0	
84	N94	-5.77396	0.	3.33359	0	
85	N95	-5.774032	0.208333	3.33359	0	
86	N96	-6.186728	0.208333	2.61878	0	
87	N97	-5.361335	0.208333	4.048401	0	
88	N100	-2.537568	0.	4.189636	0	
89	N101	-6.441618	0.208333	3.719022	0	
90	N103	6.477149	0.	3.739584	0	
91	N104	6.441659	0.	3.719094	0	
92	N105	1.461399	0.	0.843787	0	
93	N106	2.537568	0.	4.063142	0	
94	N107	2.537568	0.	4.189636	0	
95	N108	4.787526	0	0.166099	0	
96	N109	3.662584	0.	2.114621	0	
97	N113	6.755388	0.	3.321403	0	
98	N114	2.537568	0.208333	4.063142	0	
99	N115	4.787526	0.208333	0.166099	0	
100	N116	3.662547	0.208333	2.114621	0	
101	N117	6.254087	0.208333	4.043835	0	
102	N118	6.629058	0.208333	3.39434	0	
103	N119	5.070404	0.	2.927413	0	
104	N120	4.366747	0.	2.521163	0	
105	N121	5.070404	0.208333	2.927413	0	
106	N122	4.366747	0.208333	2.521163	0	
107	N123	4.420277	0.208333	4.053362	0	
108	N124	3.47926	0.208333	4.05825	0	
109	N125	5.720411	0.208333	1.801464	0	
110	N126	5.254136	0.208333	0.984075	0	
111	N127	5.774062	0.	3.333663	0	
112	N128	5.77399	0.208333	3.333663	0	
113	N129	5.361294	0.208333	4.048473	0	
114	N130	6.186686	0.208333	2.618852	0	
115	N133	4.897115	0	0.10278	0	
116	N134	6.441569	0.208333	3.719094	0	
117	N129A	-5.583348	3.25	4.189636	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
118	N124A	5.583321	3.25	4.189636	0	
119	N125A	5.583321	3.25	4.089636	0	
120	N127A	-5.583346	3.25	4.089636	0	
121	N156	6.522301	0.	2.917685	0	
122	N157	4.664028	0	-0.300939	0	
123	N158	2.592635	0.	-3.888697	0	
124	N159	0.734375	0.	-7.107297	0	
125	N160	3.628338	0.	-2.094806	0	
126	N163	6.024172	0.	2.0549	0	
127	N164	4.670005	0.	-0.290586	0	
128	N165	2.670005	0.	-3.754688	0	
129	N166	1.003339	0.	-6.641439	0	
130	N167	6.240678	0.	1.9299	0	
131	N168	4.886512	0.	-0.415586	0	
132	N169	2.886512	0.	-3.879688	0	
133	N170	1.219845	0.	-6.766439	0	
134	N171	6.753339	3.25	3.317853	0	
135	N172	0.503338	3.25	-7.507466	0	
136	N173	6.024172	3.25	2.0549	0	
137	N174	4.670005	3.25	-0.290586	0	
138	N175	2.670005	3.25	-3.754688	0	
139	N176	1.003339	3.25	-6.641439	0	
140	N177	6.240678	3.25	1.9299	0	
141	N178	4.886512	3.25	-0.415586	0	
142	N179	2.886512	3.25	-3.879688	0	
143	N180A	1.219845	3.25	-6.766439	0	
144	N181	6.240678	4.4375	1.9299	0	
145	N182	4.886512	4.4375	-0.415586	0	
146	N183	2.886512	4.4375	-3.879688	0	
147	N184	1.219845	4.4375	-6.766439	0	
148	N185	6.240678	-1.5625	1.9299	0	
149	N186	4.886512	-1.5625	-0.415586	0	
150	N187	2.886512	-1.5625	-3.879688	0	
151	N188	1.219845	-1.5625	-6.766439	0	
152	N191	6.420005	3.25	2.740503	0	
153	N192	0.836671	3.25	-6.930116	0	
154	N222	-0.734362	0.	-7.107321	0	
155	N223	-2.592635	0	-3.888697	0	
156	N224	-4.664028	0.	-0.300939	0	
157	N225	-6.522288	0.	2.917661	0	
158	N226	-3.628325	0.	-2.09483	0	
159	N229	-1.232491	0.	-6.244536	0	
160	N230	-2.586657	0.	-3.89905	0	
161	N231	-4.586657	0.	-0.434949	0	
162	N232	-6.253324	0.	2.451803	0	
163	N233	-1.448997	0.	-6.369536	0	
164	N234	-2.803164	0.	-4.02405	0	
165	N235	-4.803164	0.	-0.559949	0	
166	N236	-6.46983	0.	2.326803	0	
167	N237	-0.503324	3.25	-7.507489	0	
168	N238	-6.753325	3.25	3.31783	0	
169	N239	-1.232491	3.25	-6.244536	0	
170	N240	-2.586657	3.25	-3.89905	0	
171	N241	-4.586657	3.25	-0.434949	0	
172	N242	-6.253324	3.25	2.451803	0	
173	N243	-1.448997	3.25	-6.369536	0	
174	N244	-2.803164	3.25	-4.02405	0	
175	N245	-4.803164	3.25	-0.559949	0	
176	N246	-6.46983	3.25	2.326803	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
177	N247	-1.448997	4.4375	-6.369536	0	
178	N248	-2.803164	4.4375	-4.02405	0	
179	N249	-4.803164	4.4375	-0.559949	0	
180	N250	-6.46983	4.4375	2.326803	0	
181	N251	-1.448997	-1.5625	-6.369536	0	
182	N252	-2.803164	-1.5625	-4.02405	0	
183	N253	-4.803164	-1.5625	-0.559949	0	
184	N254	-6.46983	-1.5625	2.326803	0	
185	N257	-0.836657	3.25	-6.930139	0	
186	N258	-6.419992	3.25	2.740479	0	
187	N277B	0.000042	0.	-2.687502	0	
188	N278B	-0.224958	0.	-2.687502	0	
189	N279B	-0.224958	-2	-2.687502	0	
190	N280B	-0.224958	3.791667	-2.687502	0	
191	N317A	0.750069	3.25	-6.880116	0	
192	N318A	6.333402	3.25	2.790501	0	
193	N322A	-6.333389	3.25	2.790479	0	
194	N323A	-0.750056	3.25	-6.880138	0	
195	N248B	2.327428	0.	1.343781	0	
196	N249A	2.439924	0.	1.148932	0	
197	N250A	2.439924	-1	1.148932	0	
198	N251A	2.439924	3	1.148932	0	
199	N248C	1.916652	3.	4.439636	0	
200	N249B	1.916652	-0.5	4.439636	0	
201	N250B	1.916652	1.25	4.439636	0	
202	N252A	1.916652	2.25	4.439636	0	
203	N253B	1.916652	0.25	4.439636	0	
204	N253C	-0.224958	1	-2.687502	0	
205	N212	-5.770848	0.	4.189636	0	
206	N213	-5.774947	0.	4.043763	0	
207	N214	-5.774947	0.208333	4.043763	0	
208	N215	5.770821	0.	4.189636	0	
209	N216	5.77492	0.	4.043835	0	
210	N217	5.77492	0.208333	4.043835	0	
211	N215A	6.513755	0.	2.902883	0	
212	N216A	6.389475	0.	2.97937	0	
213	N217A	6.389475	0.208333	2.97937	0	
214	N218	0.742921	0.	-7.092495	0	
215	N219	0.614604	0.	-7.023145	0	
216	N220	0.614604	0.208333	-7.023145	0	
217	N224A	-0.742907	0.	-7.092519	0	
218	N225A	-0.614528	0.	-7.023132	0	
219	N226A	-0.614528	0.208333	-7.023132	0	
220	N227	-6.513742	0.	2.902859	0	
221	N228	-6.389524	0.	2.97931	0	
222	N229A	-6.389524	0.208333	2.97931	0	
223	N226B	0.000042	0.	-3.479169	0	
224	N229B	-3.01307	0.	1.739548	0	
225	N232A	3.013028	0.	1.739621	0	
226	N229C	0.000042	0.	-6.261003	0	
227	N231A	-5.422209	0.	3.130465	0	
228	N233A	5.422167	0.	3.130538	0	
229	N232B	-0.000042	4.5	1.687502	0	
230	N233B	1.461441	4.5	-0.843715	0	
231	N234A	-1.461399	4.5	-0.843787	0	
232	N235A	-3.125014	3.25	4.189636	0	
233	N236A	3.124987	3.25	4.189636	0	
234	N239A	5.190838	3.25	0.611523	0	
235	N240A	2.065838	3.25	-4.801136	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
236	N243A	-2.065824	3.25	-4.80116	0	
237	N244A	-5.190825	3.25	0.6115	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design L...	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Standoff Arm	HSS5X3X6	Beam	Tube	A500 Gr.B Rect	Typical	4.78	6.25	14.1	14.9
2	Platform Support	PL3/8x2	Beam	RECT	A36 Gr.36	Typical	.75	.009	.25	.031
3	Platform Angle	L2.5X1X4	Beam	Single A...	A36 Gr.36	Typical	.813	.048	.509	.015
4	TES PA	L3X3X4	Beam	Single A...	A36 Gr.36	Typical	1.44	1.23	1.23	.031
5	Standoff Horizontal	L3.5X3X3	Beam	Single A...	A36 Gr.36	Typical	1.138	.971	1.419	.012
6	TES SH	L4X4X4	Beam	Single A...	A36 Gr.36	Typical	1.93	3	3	.044
7	Face Horizontal	PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
8	Support rail corner	L5.25X3.75X3	Beam	Single A...	A36 Gr.36	Typical	18	18.839	40.355	19.98
9	TES SRC	L6X6X5	Beam	Single A...	A36 Gr.36	Typical	3.67	13	13	.129
10	Support Rail	PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
11	Antenna pipe	PIPE_2.0	Column	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
12	Corner Angle	L6x2.5x4	Beam	RECT	A36 Gr.36	Typical	2.063	.884	7.884	.041
13	TES CA	L6X6X5	Beam	RECT	A36 Gr.36	Typical	3.67	13	13	.129
14	Mod Kickers	LL3x3x3x3	Beam	RECT	A36 Gr.36	Typical	2.18	4.09	1.9	.027
15	Mod SFS kit	L2.5x2.5x3	Beam	RECT	A36 Gr.36	Typical	.901	.535	.535	.011
16	threaded Rods	SR_0.5	Beam	RECT	A36 Gr.36	Typical	.196	.003	.003	.006

Hot Rolled Steel Properties

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

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(de...	Section/Shape	Type	Design List	Material	Design Rules
1	M46	N68	N69			RIGID	None	None	RIGID	Typical
2	M47	N70	N180			RIGID	None	None	RIGID	Typical
3	M48	N67	N63			Standoff Arm	Beam	Tube	A500 Gr.B Rect	Typical
4	M53	N76	N78		90	Standoff Hori...	Beam	Single Angle	A36 Gr.36	Typical
5	M54	N78	N77		90	Standoff Hori...	Beam	Single Angle	A36 Gr.36	Typical
6	M55	N77	N70			RIGID	None	None	RIGID	Typical
7	M56	N76	N68			RIGID	None	None	RIGID	Typical
8	M57	N78	N71			RIGID	None	None	RIGID	Typical
9	M60	N81	N83			RIGID	None	None	RIGID	Typical
10	M61	N82	N84			RIGID	None	None	RIGID	Typical
11	M62	N87	N85		90	Platform Sup...	Beam	RECT	A36 Gr.36	Typical
12	M63	N88	N86		90	Platform Sup...	Beam	RECT	A36 Gr.36	Typical
13	M64	N89	N90			RIGID	None	None	RIGID	Typical
14	M65	N92	N91		90	Platform Sup...	Beam	RECT	A36 Gr.36	Typical
15	M66	N77	N80		90	Platform Angle	Beam	Single Angle	A36 Gr.36	Typical
16	M67	N76	N79		180	Platform Angle	Beam	Single Angle	A36 Gr.36	Typical
17	M200	N275A	N276A			Face Horizont...	Beam	Pipe	A53 Gr.B	Typical
18	M182A	N280A	N284A			RIGID	None	None	RIGID	Typical
19	M183A	N279A	N283A			RIGID	None	None	RIGID	Typical
20	M184A	N278A	N282A			RIGID	None	None	RIGID	Typical
21	M185A	N277A	N281A			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(de...	Section/Shape	Type	Design List	Material	Design Rules
22	M186A	N285A	N286A			Support Rail	Beam	Pipe	A53 Gr.B	Typical
23	M187A	N290A	N294A			RIGID	None	None	RIGID	Typical
24	M188A	N289A	N293A			RIGID	None	None	RIGID	Typical
25	M189A	N288A	N292A			RIGID	None	None	RIGID	Typical
26	M190A	N287A	N291A			RIGID	None	None	RIGID	Typical
27	MP4A	N295A	N299A			Antenna pipe	Column	Pipe	A53 Gr.B	Typical
28	MP3A	N296A	N300A			Antenna pipe	Column	Pipe	A53 Gr.B	Typical
29	MP2A	N297A	N301A			Antenna pipe	Column	Pipe	A53 Gr.B	Typical
30	MP1A	N298A	N302A			Antenna pipe	Column	Pipe	A53 Gr.B	Typical
31	M113	N79	N80		180	Corner Angle	Beam	RECT	A36 Gr.36	Typical
32	M114A	N180B	N66		120	RIGID	None	None	RIGID	Typical
33	M39	N73A	N74A			RIGID	None	None	RIGID	Typical
34	M40	N75A	N100			RIGID	None	None	RIGID	Typical
35	M41	N72A	N70A			Standoff Arm	Beam	Tube	A500 Gr.B Rect	Typical
36	M44	N81A	N83A		90	Standoff Hori...	Beam	Single Angle	A36 Gr.36	Typical
37	M45	N83A	N82A		90	Standoff Hori...	Beam	Single Angle	A36 Gr.36	Typical
38	M46A	N82A	N75A		240	RIGID	None	None	RIGID	Typical
39	M47A	N81A	N73A		240	RIGID	None	None	RIGID	Typical
40	M48A	N83A	N76A		240	RIGID	None	None	RIGID	Typical
41	M51A	N86A	N88A		120	RIGID	None	None	RIGID	Typical
42	M52	N87A	N89A		120	RIGID	None	None	RIGID	Typical
43	M53A	N92A	N90A		90	Platform Sup...	Beam	RECT	A36 Gr.36	Typical
44	M54A	N93	N91A		90	Platform Sup...	Beam	RECT	A36 Gr.36	Typical
45	M55A	N94	N95		120	RIGID	None	None	RIGID	Typical
46	M56A	N97	N96		90	Platform Sup...	Beam	RECT	A36 Gr.36	Typical
47	M57A	N82A	N85A		90	Platform Angle	Beam	Single Angle	A36 Gr.36	Typical
48	M58A	N81A	N84A		180	Platform Angle	Beam	Single Angle	A36 Gr.36	Typical
49	M61A	N79A	N85A		180	Corner Angle	Beam	RECT	A36 Gr.36	Typical
50	M62A	N101	N71A		360	RIGID	None	None	RIGID	Typical
51	M63A	N106	N107			RIGID	None	None	RIGID	Typical
52	M64A	N108	N133			RIGID	None	None	RIGID	Typical
53	M65A	N105	N103			Standoff Arm	Beam	Tube	A500 Gr.B Rect	Typical
54	M68	N114	N116		90	Standoff Hori...	Beam	Single Angle	A36 Gr.36	Typical
55	M69	N116	N115		90	Standoff Hori...	Beam	Single Angle	A36 Gr.36	Typical
56	M70	N115	N108		120	RIGID	None	None	RIGID	Typical
57	M71	N114	N106		120	RIGID	None	None	RIGID	Typical
58	M72	N116	N109		120	RIGID	None	None	RIGID	Typical
59	M75	N119	N121		240	RIGID	None	None	RIGID	Typical
60	M76	N120	N122		240	RIGID	None	None	RIGID	Typical
61	M77	N125	N123		90	Platform Sup...	Beam	RECT	A36 Gr.36	Typical
62	M78	N126	N124		90	Platform Sup...	Beam	RECT	A36 Gr.36	Typical
63	M79	N127	N128		240	RIGID	None	None	RIGID	Typical
64	M80	N130	N129		90	Platform Sup...	Beam	RECT	A36 Gr.36	Typical
65	M81	N115	N118		90	Platform Angle	Beam	Single Angle	A36 Gr.36	Typical
66	M82	N114	N117		180	Platform Angle	Beam	Single Angle	A36 Gr.36	Typical
67	M85	N117	N118		180	Corner Angle	Beam	RECT	A36 Gr.36	Typical
68	M86	N134	N104		240	RIGID	None	None	RIGID	Typical
69	M84A	N124A	N125A			RIGID	None	None	RIGID	Typical
70	M85A	N129A	N127A			RIGID	None	None	RIGID	Typical
71	M112A	N113	N74			Face Horizont...	Beam	Pipe	A53 Gr.B	Typical
72	M113A	N166	N170			RIGID	None	None	RIGID	Typical
73	M114	N165	N169			RIGID	None	None	RIGID	Typical
74	M115	N164	N168			RIGID	None	None	RIGID	Typical
75	M116	N163	N167			RIGID	None	None	RIGID	Typical
76	M117	N171	N172			Support Rail	Beam	Pipe	A53 Gr.B	Typical
77	M118	N176	N180A			RIGID	None	None	RIGID	Typical
78	M119	N175	N179			RIGID	None	None	RIGID	Typical
79	M120	N174	N178			RIGID	None	None	RIGID	Typical
80	M121	N173	N177			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(de...	Section/Shape	Type	Design List	Material	Design Rules
81	MP4C	N181	N185		240	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
82	MP3C	N182	N186		240	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
83	MP2C	N183	N187		240	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
84	MP1C	N184	N188		240	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
85	M152	N75	N79A			Face Horizont...	Beam	Pipe	A53 Gr.B	Typical
86	M153	N232	N236			RIGID	None	None	RIGID	Typical
87	M154	N231	N235			RIGID	None	None	RIGID	Typical
88	M155	N230	N234			RIGID	None	None	RIGID	Typical
89	M156	N229	N233			RIGID	None	None	RIGID	Typical
90	M157	N237	N238			Support Rail	Beam	Pipe	A53 Gr.B	Typical
91	M158	N242	N246			RIGID	None	None	RIGID	Typical
92	M159	N241	N245			RIGID	None	None	RIGID	Typical
93	M160	N240	N244			RIGID	None	None	RIGID	Typical
94	M161	N239	N243			RIGID	None	None	RIGID	Typical
95	MP4B	N247	N251		120	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
96	MP3B	N248	N252		120	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
97	MP2B	N249	N253		120	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
98	MP1B	N250	N254		120	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
99	M192	N277B	N278B			RIGID	None	None	RIGID	Typical
100	M193	N280B	N279B			Antenna pipe	Column	Pipe	A53 Gr.B	Typical
101	M220A	N192	N317A			RIGID	None	None	RIGID	Typical
102	M221A	N191	N318A			RIGID	None	None	RIGID	Typical
103	M222A	N258	N322A			RIGID	None	None	RIGID	Typical
104	M223A	N257	N323A			RIGID	None	None	RIGID	Typical
105	M224A	N322A	N127A		180	Support rail c...	Beam	Single Angle	A36 Gr.36	Typical
106	M225A	N125A	N318A		180	Support rail c...	Beam	Single Angle	A36 Gr.36	Typical
107	M226A	N317A	N323A		180	Support rail c...	Beam	Single Angle	A36 Gr.36	Typical
108	M161A	N248B	N249A			RIGID	None	None	RIGID	Typical
109	M162	N251A	N250A		120	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
110	M122	N213	N212			RIGID	None	None	RIGID	Typical
111	M123	N213	N214		120	RIGID	None	None	RIGID	Typical
112	M124	N216	N215			RIGID	None	None	RIGID	Typical
113	M125	N216	N217		240	RIGID	None	None	RIGID	Typical
114	M114B	N216A	N215A			RIGID	None	None	RIGID	Typical
115	M115A	N216A	N217A		240	RIGID	None	None	RIGID	Typical
116	M116A	N219	N218			RIGID	None	None	RIGID	Typical
117	M117A	N219	N220		360	RIGID	None	None	RIGID	Typical
118	M118A	N225A	N224A			RIGID	None	None	RIGID	Typical
119	M119A	N225A	N226A		360	RIGID	None	None	RIGID	Typical
120	M120A	N228	N227			RIGID	None	None	RIGID	Typical
121	M121A	N228	N229A		120	RIGID	None	None	RIGID	Typical
122	M125A	N232B	N235A		180	Mod SFS kit	Beam	RECT	A36 Gr.36	Typical
123	M126	N232B	N236A		90	Mod SFS kit	Beam	RECT	A36 Gr.36	Typical
124	M127	N233B	N239A		180	Mod SFS kit	Beam	RECT	A36 Gr.36	Typical
125	M128	N233B	N240A		90	Mod SFS kit	Beam	RECT	A36 Gr.36	Typical
126	M129	N234A	N243A		180	Mod SFS kit	Beam	RECT	A36 Gr.36	Typical
127	M130	N234A	N244A		90	Mod SFS kit	Beam	RECT	A36 Gr.36	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Options	Analysis ...	Inactive	Seismi...
1	M46		BenPIN				Yes	** NA **			None
2	M47		BenPIN				Yes	** NA **			None
3	M48						Yes		Vertical		None
4	M53						Yes				None
5	M54						Yes	Default			None
6	M55						Yes	** NA **			None
7	M56						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Options	Analysis ...	Inactive	Seismi...
8	M57						Yes	** NA **			None
9	M60						Yes	** NA **			None
10	M61						Yes	** NA **			None
11	M62						Yes				None
12	M63						Yes				None
13	M64						Yes	** NA **			None
14	M65						Yes				None
15	M66						Yes				None
16	M67						Yes				None
17	M200						Yes				None
18	M182A						Yes	** NA **			None
19	M183A						Yes	** NA **			None
20	M184A						Yes	** NA **			None
21	M185A						Yes	** NA **			None
22	M186A						Yes				None
23	M187A		OOOXOO				Yes	** NA **			None
24	M188A		OOOXOO				Yes	** NA **			None
25	M189A		OOOXOO				Yes	** NA **			None
26	M190A		OOOXOO				Yes	** NA **			None
27	MP4A						Yes	** NA **			None
28	MP3A						Yes	** NA **			None
29	MP2A						Yes	** NA **			None
30	MP1A						Yes	** NA **			None
31	M113						Yes	Default			None
32	M114A						Yes	** NA **			None
33	M39		BenPIN				Yes	** NA **			None
34	M40		BenPIN				Yes	** NA **			None
35	M41						Yes		Vertical		None
36	M44						Yes				None
37	M45						Yes	Default			None
38	M46A						Yes	** NA **			None
39	M47A						Yes	** NA **			None
40	M48A						Yes	** NA **			None
41	M51A						Yes	** NA **			None
42	M52						Yes	** NA **			None
43	M53A						Yes				None
44	M54A						Yes				None
45	M55A						Yes	** NA **			None
46	M56A						Yes				None
47	M57A						Yes				None
48	M58A						Yes				None
49	M61A						Yes	Default			None
50	M62A						Yes	** NA **			None
51	M63A		BenPIN				Yes	** NA **			None
52	M64A		BenPIN				Yes	** NA **			None
53	M65A						Yes		Vertical		None
54	M68						Yes				None
55	M69						Yes	Default			None
56	M70						Yes	** NA **			None
57	M71						Yes	** NA **			None
58	M72						Yes	** NA **			None
59	M75						Yes	** NA **			None
60	M76						Yes	** NA **			None
61	M77						Yes				None
62	M78						Yes				None
63	M79						Yes	** NA **			None
64	M80						Yes				None
65	M81						Yes				None
66	M82						Yes				None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Options	Analysis ...	Inactive	Seismi...
67	M85						Yes	Default			None
68	M86						Yes	** NA **			None
69	M84A	OOOOOX					Yes	** NA **			None
70	M85A	OOOOOX					Yes	** NA **			None
71	M112A						Yes				None
72	M113A						Yes	** NA **			None
73	M114						Yes	** NA **			None
74	M115						Yes	** NA **			None
75	M116						Yes	** NA **			None
76	M117						Yes				None
77	M118		OOOXOO				Yes	** NA **			None
78	M119		OOOXOO				Yes	** NA **			None
79	M120		OOOXOO				Yes	** NA **			None
80	M121		OOOXOO				Yes	** NA **			None
81	MP4C						Yes	** NA **			None
82	MP3C						Yes	** NA **			None
83	MP2C						Yes	** NA **			None
84	MP1C						Yes	** NA **			None
85	M152						Yes				None
86	M153						Yes	** NA **			None
87	M154						Yes	** NA **			None
88	M155						Yes	** NA **			None
89	M156						Yes	** NA **			None
90	M157						Yes				None
91	M158		OOOXOO				Yes	** NA **			None
92	M159		OOOXOO				Yes	** NA **			None
93	M160		OOOXOO				Yes	** NA **			None
94	M161		OOOXOO				Yes	** NA **			None
95	MP4B						Yes	** NA **			None
96	MP3B						Yes	** NA **			None
97	MP2B						Yes	** NA **			None
98	MP1B						Yes	** NA **			None
99	M192						Yes	** NA **			None
100	M193						Yes	** NA **			None
101	M220A	OOOOOX					Yes	** NA **			None
102	M221A	OOOOOX					Yes	** NA **			None
103	M222A	OOOOOX					Yes	** NA **			None
104	M223A	OOOOOX					Yes	** NA **			None
105	M224A						Yes				None
106	M225A						Yes				None
107	M226A						Yes				None
108	M161A						Yes	** NA **			None
109	M162						Yes	** NA **			None
110	M122		BenPIN				Yes	** NA **			None
111	M123						Yes	** NA **			None
112	M124		BenPIN				Yes	** NA **			None
113	M125						Yes	** NA **			None
114	M114B		BenPIN				Yes	** NA **			None
115	M115A						Yes	** NA **			None
116	M116A		BenPIN				Yes	** NA **			None
117	M117A						Yes	** NA **			None
118	M118A		BenPIN				Yes	** NA **			None
119	M119A						Yes	** NA **			None
120	M120A		BenPIN				Yes	** NA **			None
121	M121A						Yes	** NA **			None
122	M125A	BenPIN	BenPIN				Yes				None
123	M126	BenPIN	BenPIN				Yes				None
124	M127	BenPIN	BenPIN				Yes				None
125	M128	BenPIN	BenPIN				Yes				None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Options	Analysis ...	Inactive	Seismi...
126	M129	BenPIN	BenPIN				Yes				None
127	M130	BenPIN	BenPIN				Yes				None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	Y	-17.6	4
2	MP2C	My	-.011	4
3	MP2C	Mz	-.004	4
4	MP2C	Y	-17.6	4
5	MP2C	My	.002	4
6	MP2C	Mz	-.011	4
7	MP3A	Y	-43.55	2.19
8	MP3A	My	-.022	2.19
9	MP3A	Mz	0	2.19
10	MP3A	Y	-43.55	4.19
11	MP3A	My	-.022	4.19
12	MP3A	Mz	0	4.19
13	MP3B	Y	-43.55	2.19
14	MP3B	My	.011	2.19
15	MP3B	Mz	-.019	2.19
16	MP3B	Y	-43.55	4.19
17	MP3B	My	.011	4.19
18	MP3B	Mz	-.019	4.19
19	MP3C	Y	-43.55	2.19
20	MP3C	My	.011	2.19
21	MP3C	Mz	.019	2.19
22	MP3C	Y	-43.55	4.19
23	MP3C	My	.011	4.19
24	MP3C	Mz	.019	4.19
25	MP2A	Y	-31.65	1.42
26	MP2A	My	-.036	1.42
27	MP2A	Mz	.024	1.42
28	MP2A	Y	-31.65	4.94
29	MP2A	My	-.036	4.94
30	MP2A	Mz	.024	4.94
31	MP2B	Y	-31.65	1.42
32	MP2B	My	-.003	1.42
33	MP2B	Mz	-.043	1.42
34	MP2B	Y	-31.65	4.94
35	MP2B	My	-.003	4.94
36	MP2B	Mz	-.043	4.94
37	MP2C	Y	-31.65	1.42
38	MP2C	My	.038	1.42
39	MP2C	Mz	.019	1.42
40	MP2C	Y	-31.65	4.94
41	MP2C	My	.038	4.94
42	MP2C	Mz	.019	4.94
43	MP2A	Y	-31.65	1.42
44	MP2A	My	-.036	1.42
45	MP2A	Mz	-.024	1.42
46	MP2A	Y	-31.65	4.94
47	MP2A	My	-.036	4.94
48	MP2A	Mz	-.024	4.94
49	MP2B	Y	-31.65	1.42
50	MP2B	My	.038	1.42
51	MP2B	Mz	-.019	1.42
52	MP2B	Y	-31.65	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
53	MP2B	My	.038	4.94
54	MP2B	Mz	-.019	4.94
55	MP2C	Y	-31.65	1.42
56	MP2C	My	-.003	1.42
57	MP2C	Mz	.043	1.42
58	MP2C	Y	-31.65	4.94
59	MP2C	My	-.003	4.94
60	MP2C	Mz	.043	4.94
61	MP3A	Y	-10.4	.5
62	MP3A	My	.004	.5
63	MP3A	Mz	.003	.5
64	MP3B	Y	-10.4	.5
65	MP3B	My	-.005	.5
66	MP3B	Mz	.002	.5
67	MP3C	Y	-10.4	.5
68	MP3C	My	.000836	.5
69	MP3C	Mz	-.005	.5
70	MP3A	Y	-84.4	2.19
71	MP3A	My	.067	2.19
72	MP3A	Mz	0	2.19
73	MP3B	Y	-84.4	2.19
74	MP3B	My	.067	2.19
75	MP3B	Mz	0	2.19
76	MP3C	Y	-84.4	2.19
77	MP3C	My	.067	2.19
78	MP3C	Mz	0	2.19
79	MP2A	Y	-70.3	2.19
80	MP2A	My	.056	2.19
81	MP2A	Mz	0	2.19
82	MP2B	Y	-70.3	2.19
83	MP2B	My	-.028	2.19
84	MP2B	Mz	.048	2.19
85	MP2C	Y	-70.3	2.19
86	MP2C	My	-.028	2.19
87	MP2C	Mz	-.048	2.19
88	M193	Y	-26.9	2.79
89	M193	My	0	2.79
90	M193	Mz	0	2.79
91	M162	Y	-26.9	1
92	M162	My	0	1
93	M162	Mz	0	1

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	Y	6.6	4
2	MP2C	My	.004	4
3	MP2C	Mz	.001	4
4	MP2C	Y	6.6	4
5	MP2C	My	-.000732	4
6	MP2C	Mz	.004	4
7	MP3A	Y	-36.243	2.19
8	MP3A	My	-.018	2.19
9	MP3A	Mz	0	2.19
10	MP3A	Y	-36.243	4.19
11	MP3A	My	-.018	4.19
12	MP3A	Mz	0	4.19
13	MP3B	Y	-36.243	2.19
14	MP3B	My	.009	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
15	MP3B	Mz	-.016	2.19
16	MP3B	Y	-36.243	4.19
17	MP3B	My	.009	4.19
18	MP3B	Mz	-.016	4.19
19	MP3C	Y	-36.243	2.19
20	MP3C	My	.009	2.19
21	MP3C	Mz	.016	2.19
22	MP3C	Y	-36.243	4.19
23	MP3C	My	.009	4.19
24	MP3C	Mz	.016	4.19
25	MP2A	Y	-71.162	1.42
26	MP2A	My	-.08	1.42
27	MP2A	Mz	.053	1.42
28	MP2A	Y	-71.162	4.94
29	MP2A	My	-.08	4.94
30	MP2A	Mz	.053	4.94
31	MP2B	Y	-71.162	1.42
32	MP2B	My	-.006	1.42
33	MP2B	Mz	-.096	1.42
34	MP2B	Y	-71.162	4.94
35	MP2B	My	-.006	4.94
36	MP2B	Mz	-.096	4.94
37	MP2C	Y	-71.162	1.42
38	MP2C	My	.086	1.42
39	MP2C	Mz	.043	1.42
40	MP2C	Y	-71.162	4.94
41	MP2C	My	.086	4.94
42	MP2C	Mz	.043	4.94
43	MP2A	Y	-71.162	1.42
44	MP2A	My	-.08	1.42
45	MP2A	Mz	-.053	1.42
46	MP2A	Y	-71.162	4.94
47	MP2A	My	-.08	4.94
48	MP2A	Mz	-.053	4.94
49	MP2B	Y	-71.162	1.42
50	MP2B	My	.086	1.42
51	MP2B	Mz	-.043	1.42
52	MP2B	Y	-71.162	4.94
53	MP2B	My	.086	4.94
54	MP2B	Mz	-.043	4.94
55	MP2C	Y	-71.162	1.42
56	MP2C	My	-.006	1.42
57	MP2C	Mz	.096	1.42
58	MP2C	Y	-71.162	4.94
59	MP2C	My	-.006	4.94
60	MP2C	Mz	.096	4.94
61	MP3A	Y	-10.957	.5
62	MP3A	My	.005	.5
63	MP3A	Mz	.004	.5
64	MP3B	Y	-10.957	.5
65	MP3B	My	-.005	.5
66	MP3B	Mz	.002	.5
67	MP3C	Y	-10.957	.5
68	MP3C	My	.00088	.5
69	MP3C	Mz	-.006	.5
70	MP3A	Y	-45.705	2.19
71	MP3A	My	.036	2.19
72	MP3A	Mz	0	2.19
73	MP3B	Y	-45.705	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
74	MP3B	My	.036	2.19
75	MP3B	Mz	0	2.19
76	MP3C	Y	-45.705	2.19
77	MP3C	My	.036	2.19
78	MP3C	Mz	0	2.19
79	MP2A	Y	-41.109	2.19
80	MP2A	My	.033	2.19
81	MP2A	Mz	0	2.19
82	MP2B	Y	-41.109	2.19
83	MP2B	My	-.016	2.19
84	MP2B	Mz	.028	2.19
85	MP2C	Y	-41.109	2.19
86	MP2C	My	-.016	2.19
87	MP2C	Mz	-.028	2.19
88	M193	Y	-56.27	2.79
89	M193	My	0	2.79
90	M193	Mz	0	2.79
91	M162	Y	-56.27	1
92	M162	My	0	1
93	M162	Mz	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	0	4
2	MP2C	Z	-16.592	4
3	MP2C	Mx	.004	4
4	MP2C	X	0	4
5	MP2C	Z	-16.592	4
6	MP2C	Mx	.011	4
7	MP3A	X	0	2.19
8	MP3A	Z	-70.948	2.19
9	MP3A	Mx	0	2.19
10	MP3A	X	0	4.19
11	MP3A	Z	-70.948	4.19
12	MP3A	Mx	0	4.19
13	MP3B	X	0	2.19
14	MP3B	Z	-36.062	2.19
15	MP3B	Mx	.016	2.19
16	MP3B	X	0	4.19
17	MP3B	Z	-36.062	4.19
18	MP3B	Mx	.016	4.19
19	MP3C	X	0	2.19
20	MP3C	Z	-36.062	2.19
21	MP3C	Mx	-.016	2.19
22	MP3C	X	0	4.19
23	MP3C	Z	-36.062	4.19
24	MP3C	Mx	-.016	4.19
25	MP2A	X	0	1.42
26	MP2A	Z	-164.882	1.42
27	MP2A	Mx	-.124	1.42
28	MP2A	X	0	4.94
29	MP2A	Z	-164.882	4.94
30	MP2A	Mx	-.124	4.94
31	MP2B	X	0	1.42
32	MP2B	Z	-122.44	1.42
33	MP2B	Mx	.165	1.42
34	MP2B	X	0	4.94
35	MP2B	Z	-122.44	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
36	MP2B	Mx	.165	4.94
37	MP2C	X	0	1.42
38	MP2C	Z	-122.44	1.42
39	MP2C	Mx	-.073	1.42
40	MP2C	X	0	4.94
41	MP2C	Z	-122.44	4.94
42	MP2C	Mx	-.073	4.94
43	MP2A	X	0	1.42
44	MP2A	Z	-164.882	1.42
45	MP2A	Mx	.124	1.42
46	MP2A	X	0	4.94
47	MP2A	Z	-164.882	4.94
48	MP2A	Mx	.124	4.94
49	MP2B	X	0	1.42
50	MP2B	Z	-122.44	1.42
51	MP2B	Mx	.073	1.42
52	MP2B	X	0	4.94
53	MP2B	Z	-122.44	4.94
54	MP2B	Mx	.073	4.94
55	MP2C	X	0	1.42
56	MP2C	Z	-122.44	1.42
57	MP2C	Mx	-.165	1.42
58	MP2C	X	0	4.94
59	MP2C	Z	-122.44	4.94
60	MP2C	Mx	-.165	4.94
61	MP3A	X	0	.5
62	MP3A	Z	-13.393	.5
63	MP3A	Mx	-.004	.5
64	MP3B	X	0	.5
65	MP3B	Z	-10.298	.5
66	MP3B	Mx	-.002	.5
67	MP3C	X	0	.5
68	MP3C	Z	-10.298	.5
69	MP3C	Mx	.005	.5
70	MP3A	X	0	2.19
71	MP3A	Z	-56.107	2.19
72	MP3A	Mx	0	2.19
73	MP3B	X	0	2.19
74	MP3B	Z	-56.107	2.19
75	MP3B	Mx	0	2.19
76	MP3C	X	0	2.19
77	MP3C	Z	-56.107	2.19
78	MP3C	Mx	0	2.19
79	MP2A	X	0	2.19
80	MP2A	Z	-56.107	2.19
81	MP2A	Mx	0	2.19
82	MP2B	X	0	2.19
83	MP2B	Z	-37.103	2.19
84	MP2B	Mx	-.025	2.19
85	MP2C	X	0	2.19
86	MP2C	Z	-37.103	2.19
87	MP2C	Mx	.025	2.19
88	M193	X	0	2.79
89	M193	Z	-62.479	2.79
90	M193	Mx	0	2.79
91	M162	X	0	1
92	M162	Z	-62.479	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	14.349	4
2	MP2C	Z	-24.853	4
3	MP2C	Mx	-.003	4
4	MP2C	X	14.349	4
5	MP2C	Z	-24.853	4
6	MP2C	Mx	.018	4
7	MP3A	X	29.66	2.19
8	MP3A	Z	-51.372	2.19
9	MP3A	Mx	-.015	2.19
10	MP3A	X	29.66	4.19
11	MP3A	Z	-51.372	4.19
12	MP3A	Mx	-.015	4.19
13	MP3B	X	12.217	2.19
14	MP3B	Z	-21.16	2.19
15	MP3B	Mx	.012	2.19
16	MP3B	X	12.217	4.19
17	MP3B	Z	-21.16	4.19
18	MP3B	Mx	.012	4.19
19	MP3C	X	29.66	2.19
20	MP3C	Z	-51.372	2.19
21	MP3C	Mx	-.015	2.19
22	MP3C	X	29.66	4.19
23	MP3C	Z	-51.372	4.19
24	MP3C	Mx	-.015	4.19
25	MP2A	X	75.367	1.42
26	MP2A	Z	-130.54	1.42
27	MP2A	Mx	-.183	1.42
28	MP2A	X	75.367	4.94
29	MP2A	Z	-130.54	4.94
30	MP2A	Mx	-.183	4.94
31	MP2B	X	54.146	1.42
32	MP2B	Z	-93.784	1.42
33	MP2B	Mx	.122	1.42
34	MP2B	X	54.146	4.94
35	MP2B	Z	-93.784	4.94
36	MP2B	Mx	.122	4.94
37	MP2C	X	75.367	1.42
38	MP2C	Z	-130.54	1.42
39	MP2C	Mx	.013	1.42
40	MP2C	X	75.367	4.94
41	MP2C	Z	-130.54	4.94
42	MP2C	Mx	.013	4.94
43	MP2A	X	75.367	1.42
44	MP2A	Z	-130.54	1.42
45	MP2A	Mx	.013	1.42
46	MP2A	X	75.367	4.94
47	MP2A	Z	-130.54	4.94
48	MP2A	Mx	.013	4.94
49	MP2B	X	54.146	1.42
50	MP2B	Z	-93.784	1.42
51	MP2B	Mx	.122	1.42
52	MP2B	X	54.146	4.94
53	MP2B	Z	-93.784	4.94
54	MP2B	Mx	.122	4.94
55	MP2C	X	75.367	1.42
56	MP2C	Z	-130.54	1.42
57	MP2C	Mx	-.183	1.42
58	MP2C	X	75.367	4.94
59	MP2C	Z	-130.54	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
60	MP2C	Mx	-.183	4.94
61	MP3A	X	6.181	.5
62	MP3A	Z	-10.705	.5
63	MP3A	Mx	-.000993	.5
64	MP3B	X	4.633	.5
65	MP3B	Z	-8.025	.5
66	MP3B	Mx	-.004	.5
67	MP3C	X	6.181	.5
68	MP3C	Z	-10.705	.5
69	MP3C	Mx	.006	.5
70	MP3A	X	25.746	2.19
71	MP3A	Z	-44.593	2.19
72	MP3A	Mx	.02	2.19
73	MP3B	X	25.746	2.19
74	MP3B	Z	-44.593	2.19
75	MP3B	Mx	.02	2.19
76	MP3C	X	25.746	2.19
77	MP3C	Z	-44.593	2.19
78	MP3C	Mx	.02	2.19
79	MP2A	X	24.886	2.19
80	MP2A	Z	-43.104	2.19
81	MP2A	Mx	.02	2.19
82	MP2B	X	15.384	2.19
83	MP2B	Z	-26.646	2.19
84	MP2B	Mx	-.024	2.19
85	MP2C	X	24.886	2.19
86	MP2C	Z	-43.104	2.19
87	MP2C	Mx	.02	2.19
88	M193	X	29.862	2.79
89	M193	Z	-51.723	2.79
90	M193	Mx	0	2.79
91	M162	X	29.862	1
92	M162	Z	-51.723	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	30.095	4
2	MP2C	Z	-17.375	4
3	MP2C	Mx	-.014	4
4	MP2C	X	30.095	4
5	MP2C	Z	-17.375	4
6	MP2C	Mx	.014	4
7	MP3A	X	31.231	2.19
8	MP3A	Z	-18.031	2.19
9	MP3A	Mx	-.016	2.19
10	MP3A	X	31.231	4.19
11	MP3A	Z	-18.031	4.19
12	MP3A	Mx	-.016	4.19
13	MP3B	X	31.231	2.19
14	MP3B	Z	-18.031	2.19
15	MP3B	Mx	.016	2.19
16	MP3B	X	31.231	4.19
17	MP3B	Z	-18.031	4.19
18	MP3B	Mx	.016	4.19
19	MP3C	X	61.443	2.19
20	MP3C	Z	-35.474	2.19
21	MP3C	Mx	0	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP3C	X	61.443	4.19
23	MP3C	Z	-35.474	4.19
24	MP3C	Mx	0	4.19
25	MP2A	X	106.036	1.42
26	MP2A	Z	-61.22	1.42
27	MP2A	Mx	-.165	1.42
28	MP2A	X	106.036	4.94
29	MP2A	Z	-61.22	4.94
30	MP2A	Mx	-.165	4.94
31	MP2B	X	106.036	1.42
32	MP2B	Z	-61.22	1.42
33	MP2B	Mx	.073	1.42
34	MP2B	X	106.036	4.94
35	MP2B	Z	-61.22	4.94
36	MP2B	Mx	.073	4.94
37	MP2C	X	142.792	1.42
38	MP2C	Z	-82.441	1.42
39	MP2C	Mx	.124	1.42
40	MP2C	X	142.792	4.94
41	MP2C	Z	-82.441	4.94
42	MP2C	Mx	.124	4.94
43	MP2A	X	106.036	1.42
44	MP2A	Z	-61.22	1.42
45	MP2A	Mx	-.073	1.42
46	MP2A	X	106.036	4.94
47	MP2A	Z	-61.22	4.94
48	MP2A	Mx	-.073	4.94
49	MP2B	X	106.036	1.42
50	MP2B	Z	-61.22	1.42
51	MP2B	Mx	.165	1.42
52	MP2B	X	106.036	4.94
53	MP2B	Z	-61.22	4.94
54	MP2B	Mx	.165	4.94
55	MP2C	X	142.792	1.42
56	MP2C	Z	-82.441	1.42
57	MP2C	Mx	-.124	1.42
58	MP2C	X	142.792	4.94
59	MP2C	Z	-82.441	4.94
60	MP2C	Mx	-.124	4.94
61	MP3A	X	8.919	.5
62	MP3A	Z	-5.149	.5
63	MP3A	Mx	.002	.5
64	MP3B	X	8.919	.5
65	MP3B	Z	-5.149	.5
66	MP3B	Mx	-.005	.5
67	MP3C	X	11.599	.5
68	MP3C	Z	-6.697	.5
69	MP3C	Mx	.004	.5
70	MP3A	X	36.599	2.19
71	MP3A	Z	-21.131	2.19
72	MP3A	Mx	.029	2.19
73	MP3B	X	36.599	2.19
74	MP3B	Z	-21.131	2.19
75	MP3B	Mx	.029	2.19
76	MP3C	X	36.599	2.19
77	MP3C	Z	-21.131	2.19
78	MP3C	Mx	.029	2.19
79	MP2A	X	32.132	2.19
80	MP2A	Z	-18.552	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
81	MP2A	Mx	.025	2.19
82	MP2B	X	32.132	2.19
83	MP2B	Z	-18.552	2.19
84	MP2B	Mx	-.025	2.19
85	MP2C	X	48.59	2.19
86	MP2C	Z	-28.054	2.19
87	MP2C	Mx	0	2.19
88	M193	X	62.247	2.79
89	M193	Z	-35.938	2.79
90	M193	Mx	0	2.79
91	M162	X	62.247	1
92	M162	Z	-35.938	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	28.698	4
2	MP2C	Z	0	4
3	MP2C	Mx	-.018	4
4	MP2C	X	28.698	4
5	MP2C	Z	0	4
6	MP2C	Mx	.003	4
7	MP3A	X	24.434	2.19
8	MP3A	Z	0	2.19
9	MP3A	Mx	-.012	2.19
10	MP3A	X	24.434	4.19
11	MP3A	Z	0	4.19
12	MP3A	Mx	-.012	4.19
13	MP3B	X	59.32	2.19
14	MP3B	Z	0	2.19
15	MP3B	Mx	.015	2.19
16	MP3B	X	59.32	4.19
17	MP3B	Z	0	4.19
18	MP3B	Mx	.015	4.19
19	MP3C	X	59.32	2.19
20	MP3C	Z	0	2.19
21	MP3C	Mx	.015	2.19
22	MP3C	X	59.32	4.19
23	MP3C	Z	0	4.19
24	MP3C	Mx	.015	4.19
25	MP2A	X	108.293	1.42
26	MP2A	Z	0	1.42
27	MP2A	Mx	-.122	1.42
28	MP2A	X	108.293	4.94
29	MP2A	Z	0	4.94
30	MP2A	Mx	-.122	4.94
31	MP2B	X	150.735	1.42
32	MP2B	Z	0	1.42
33	MP2B	Mx	-.013	1.42
34	MP2B	X	150.735	4.94
35	MP2B	Z	0	4.94
36	MP2B	Mx	-.013	4.94
37	MP2C	X	150.735	1.42
38	MP2C	Z	0	1.42
39	MP2C	Mx	.183	1.42
40	MP2C	X	150.735	4.94
41	MP2C	Z	0	4.94
42	MP2C	Mx	.183	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
43	MP2A	X	108.293	1.42
44	MP2A	Z	0	1.42
45	MP2A	Mx	-.122	1.42
46	MP2A	X	108.293	4.94
47	MP2A	Z	0	4.94
48	MP2A	Mx	-.122	4.94
49	MP2B	X	150.735	1.42
50	MP2B	Z	0	1.42
51	MP2B	Mx	.183	1.42
52	MP2B	X	150.735	4.94
53	MP2B	Z	0	4.94
54	MP2B	Mx	.183	4.94
55	MP2C	X	150.735	1.42
56	MP2C	Z	0	1.42
57	MP2C	Mx	-.013	1.42
58	MP2C	X	150.735	4.94
59	MP2C	Z	0	4.94
60	MP2C	Mx	-.013	4.94
61	MP3A	X	9.267	.5
62	MP3A	Z	0	.5
63	MP3A	Mx	.004	.5
64	MP3B	X	12.362	.5
65	MP3B	Z	0	.5
66	MP3B	Mx	-.006	.5
67	MP3C	X	12.362	.5
68	MP3C	Z	0	.5
69	MP3C	Mx	.000993	.5
70	MP3A	X	37.646	2.19
71	MP3A	Z	0	2.19
72	MP3A	Mx	.03	2.19
73	MP3B	X	37.646	2.19
74	MP3B	Z	0	2.19
75	MP3B	Mx	.03	2.19
76	MP3C	X	37.646	2.19
77	MP3C	Z	0	2.19
78	MP3C	Mx	.03	2.19
79	MP2A	X	30.768	2.19
80	MP2A	Z	0	2.19
81	MP2A	Mx	.024	2.19
82	MP2B	X	49.772	2.19
83	MP2B	Z	0	2.19
84	MP2B	Mx	-.02	2.19
85	MP2C	X	49.772	2.19
86	MP2C	Z	0	2.19
87	MP2C	Mx	-.02	2.19
88	M193	X	86.784	2.79
89	M193	Z	0	2.79
90	M193	Mx	0	2.79
91	M162	X	86.784	1
92	M162	Z	0	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	14.369	4
2	MP2C	Z	8.296	4
3	MP2C	Mx	-.011	4
4	MP2C	X	14.369	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP2C	Z	8.296	4
6	MP2C	Mx	-.004	4
7	MP3A	X	31.231	2.19
8	MP3A	Z	18.031	2.19
9	MP3A	Mx	-.016	2.19
10	MP3A	X	31.231	4.19
11	MP3A	Z	18.031	4.19
12	MP3A	Mx	-.016	4.19
13	MP3B	X	61.443	2.19
14	MP3B	Z	35.474	2.19
15	MP3B	Mx	0	2.19
16	MP3B	X	61.443	4.19
17	MP3B	Z	35.474	4.19
18	MP3B	Mx	0	4.19
19	MP3C	X	31.231	2.19
20	MP3C	Z	18.031	2.19
21	MP3C	Mx	.016	2.19
22	MP3C	X	31.231	4.19
23	MP3C	Z	18.031	4.19
24	MP3C	Mx	.016	4.19
25	MP2A	X	106.036	1.42
26	MP2A	Z	61.22	1.42
27	MP2A	Mx	-.073	1.42
28	MP2A	X	106.036	4.94
29	MP2A	Z	61.22	4.94
30	MP2A	Mx	-.073	4.94
31	MP2B	X	142.792	1.42
32	MP2B	Z	82.441	1.42
33	MP2B	Mx	-.124	1.42
34	MP2B	X	142.792	4.94
35	MP2B	Z	82.441	4.94
36	MP2B	Mx	-.124	4.94
37	MP2C	X	106.036	1.42
38	MP2C	Z	61.22	1.42
39	MP2C	Mx	.165	1.42
40	MP2C	X	106.036	4.94
41	MP2C	Z	61.22	4.94
42	MP2C	Mx	.165	4.94
43	MP2A	X	106.036	1.42
44	MP2A	Z	61.22	1.42
45	MP2A	Mx	-.165	1.42
46	MP2A	X	106.036	4.94
47	MP2A	Z	61.22	4.94
48	MP2A	Mx	-.165	4.94
49	MP2B	X	142.792	1.42
50	MP2B	Z	82.441	1.42
51	MP2B	Mx	.124	1.42
52	MP2B	X	142.792	4.94
53	MP2B	Z	82.441	4.94
54	MP2B	Mx	.124	4.94
55	MP2C	X	106.036	1.42
56	MP2C	Z	61.22	1.42
57	MP2C	Mx	.073	1.42
58	MP2C	X	106.036	4.94
59	MP2C	Z	61.22	4.94
60	MP2C	Mx	.073	4.94
61	MP3A	X	8.919	.5
62	MP3A	Z	5.149	.5
63	MP3A	Mx	.005	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
64	MP3B	X	11.599	.5
65	MP3B	Z	6.697	.5
66	MP3B	Mx	-.004	.5
67	MP3C	X	8.919	.5
68	MP3C	Z	5.149	.5
69	MP3C	Mx	-.002	.5
70	MP3A	X	36.599	2.19
71	MP3A	Z	21.131	2.19
72	MP3A	Mx	.029	2.19
73	MP3B	X	36.599	2.19
74	MP3B	Z	21.131	2.19
75	MP3B	Mx	.029	2.19
76	MP3C	X	36.599	2.19
77	MP3C	Z	21.131	2.19
78	MP3C	Mx	.029	2.19
79	MP2A	X	32.132	2.19
80	MP2A	Z	18.552	2.19
81	MP2A	Mx	.025	2.19
82	MP2B	X	48.59	2.19
83	MP2B	Z	28.054	2.19
84	MP2B	Mx	0	2.19
85	MP2C	X	32.132	2.19
86	MP2C	Z	18.552	2.19
87	MP2C	Mx	-.025	2.19
88	M193	X	77.543	2.79
89	M193	Z	44.769	2.79
90	M193	Mx	0	2.79
91	M162	X	77.543	1
92	M162	Z	44.769	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	5.27	4
2	MP2C	Z	9.128	4
3	MP2C	Mx	-.005	4
4	MP2C	X	5.27	4
5	MP2C	Z	9.128	4
6	MP2C	Mx	-.005	4
7	MP3A	X	29.66	2.19
8	MP3A	Z	51.372	2.19
9	MP3A	Mx	-.015	2.19
10	MP3A	X	29.66	4.19
11	MP3A	Z	51.372	4.19
12	MP3A	Mx	-.015	4.19
13	MP3B	X	29.66	2.19
14	MP3B	Z	51.372	2.19
15	MP3B	Mx	-.015	2.19
16	MP3B	X	29.66	4.19
17	MP3B	Z	51.372	4.19
18	MP3B	Mx	-.015	4.19
19	MP3C	X	12.217	2.19
20	MP3C	Z	21.16	2.19
21	MP3C	Mx	.012	2.19
22	MP3C	X	12.217	4.19
23	MP3C	Z	21.16	4.19
24	MP3C	Mx	.012	4.19
25	MP2A	X	75.367	1.42

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP2A	Z	130.54	1.42
27	MP2A	Mx	.013	1.42
28	MP2A	X	75.367	4.94
29	MP2A	Z	130.54	4.94
30	MP2A	Mx	.013	4.94
31	MP2B	X	75.367	1.42
32	MP2B	Z	130.54	1.42
33	MP2B	Mx	-.183	1.42
34	MP2B	X	75.367	4.94
35	MP2B	Z	130.54	4.94
36	MP2B	Mx	-.183	4.94
37	MP2C	X	54.146	1.42
38	MP2C	Z	93.784	1.42
39	MP2C	Mx	.122	1.42
40	MP2C	X	54.146	4.94
41	MP2C	Z	93.784	4.94
42	MP2C	Mx	.122	4.94
43	MP2A	X	75.367	1.42
44	MP2A	Z	130.54	1.42
45	MP2A	Mx	-.183	1.42
46	MP2A	X	75.367	4.94
47	MP2A	Z	130.54	4.94
48	MP2A	Mx	-.183	4.94
49	MP2B	X	75.367	1.42
50	MP2B	Z	130.54	1.42
51	MP2B	Mx	.013	1.42
52	MP2B	X	75.367	4.94
53	MP2B	Z	130.54	4.94
54	MP2B	Mx	.013	4.94
55	MP2C	X	54.146	1.42
56	MP2C	Z	93.784	1.42
57	MP2C	Mx	.122	1.42
58	MP2C	X	54.146	4.94
59	MP2C	Z	93.784	4.94
60	MP2C	Mx	.122	4.94
61	MP3A	X	6.181	.5
62	MP3A	Z	10.705	.5
63	MP3A	Mx	.006	.5
64	MP3B	X	6.181	.5
65	MP3B	Z	10.705	.5
66	MP3B	Mx	-.000993	.5
67	MP3C	X	4.633	.5
68	MP3C	Z	8.025	.5
69	MP3C	Mx	-.004	.5
70	MP3A	X	25.746	2.19
71	MP3A	Z	44.593	2.19
72	MP3A	Mx	.02	2.19
73	MP3B	X	25.746	2.19
74	MP3B	Z	44.593	2.19
75	MP3B	Mx	.02	2.19
76	MP3C	X	25.746	2.19
77	MP3C	Z	44.593	2.19
78	MP3C	Mx	.02	2.19
79	MP2A	X	24.886	2.19
80	MP2A	Z	43.104	2.19
81	MP2A	Mx	.02	2.19
82	MP2B	X	24.886	2.19
83	MP2B	Z	43.104	2.19
84	MP2B	Mx	.02	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
85	MP2C	X	15.384	2.19
86	MP2C	Z	26.646	2.19
87	MP2C	Mx	-.024	2.19
88	M193	X	38.693	2.79
89	M193	Z	67.018	2.79
90	M193	Mx	0	2.79
91	M162	X	38.693	1
92	M162	Z	67.018	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	0	4
2	MP2C	Z	16.592	4
3	MP2C	Mx	-.004	4
4	MP2C	X	0	4
5	MP2C	Z	16.592	4
6	MP2C	Mx	-.011	4
7	MP3A	X	0	2.19
8	MP3A	Z	70.948	2.19
9	MP3A	Mx	0	2.19
10	MP3A	X	0	4.19
11	MP3A	Z	70.948	4.19
12	MP3A	Mx	0	4.19
13	MP3B	X	0	2.19
14	MP3B	Z	36.062	2.19
15	MP3B	Mx	-.016	2.19
16	MP3B	X	0	4.19
17	MP3B	Z	36.062	4.19
18	MP3B	Mx	-.016	4.19
19	MP3C	X	0	2.19
20	MP3C	Z	36.062	2.19
21	MP3C	Mx	.016	2.19
22	MP3C	X	0	4.19
23	MP3C	Z	36.062	4.19
24	MP3C	Mx	.016	4.19
25	MP2A	X	0	1.42
26	MP2A	Z	164.882	1.42
27	MP2A	Mx	.124	1.42
28	MP2A	X	0	4.94
29	MP2A	Z	164.882	4.94
30	MP2A	Mx	.124	4.94
31	MP2B	X	0	1.42
32	MP2B	Z	122.44	1.42
33	MP2B	Mx	-.165	1.42
34	MP2B	X	0	4.94
35	MP2B	Z	122.44	4.94
36	MP2B	Mx	-.165	4.94
37	MP2C	X	0	1.42
38	MP2C	Z	122.44	1.42
39	MP2C	Mx	.073	1.42
40	MP2C	X	0	4.94
41	MP2C	Z	122.44	4.94
42	MP2C	Mx	.073	4.94
43	MP2A	X	0	1.42
44	MP2A	Z	164.882	1.42
45	MP2A	Mx	-.124	1.42
46	MP2A	X	0	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
47	MP2A	Z	164.882	4.94
48	MP2A	Mx	-.124	4.94
49	MP2B	X	0	1.42
50	MP2B	Z	122.44	1.42
51	MP2B	Mx	-.073	1.42
52	MP2B	X	0	4.94
53	MP2B	Z	122.44	4.94
54	MP2B	Mx	-.073	4.94
55	MP2C	X	0	1.42
56	MP2C	Z	122.44	1.42
57	MP2C	Mx	.165	1.42
58	MP2C	X	0	4.94
59	MP2C	Z	122.44	4.94
60	MP2C	Mx	.165	4.94
61	MP3A	X	0	.5
62	MP3A	Z	13.393	.5
63	MP3A	Mx	.004	.5
64	MP3B	X	0	.5
65	MP3B	Z	10.298	.5
66	MP3B	Mx	.002	.5
67	MP3C	X	0	.5
68	MP3C	Z	10.298	.5
69	MP3C	Mx	-.005	.5
70	MP3A	X	0	2.19
71	MP3A	Z	56.107	2.19
72	MP3A	Mx	0	2.19
73	MP3B	X	0	2.19
74	MP3B	Z	56.107	2.19
75	MP3B	Mx	0	2.19
76	MP3C	X	0	2.19
77	MP3C	Z	56.107	2.19
78	MP3C	Mx	0	2.19
79	MP2A	X	0	2.19
80	MP2A	Z	56.107	2.19
81	MP2A	Mx	0	2.19
82	MP2B	X	0	2.19
83	MP2B	Z	37.103	2.19
84	MP2B	Mx	.025	2.19
85	MP2C	X	0	2.19
86	MP2C	Z	37.103	2.19
87	MP2C	Mx	-.025	2.19
88	M193	X	0	2.79
89	M193	Z	62.479	2.79
90	M193	Mx	0	2.79
91	M162	X	0	1
92	M162	Z	62.479	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-14.349	4
2	MP2C	Z	24.853	4
3	MP2C	Mx	.003	4
4	MP2C	X	-14.349	4
5	MP2C	Z	24.853	4
6	MP2C	Mx	-.018	4
7	MP3A	X	-29.66	2.19
8	MP3A	Z	51.372	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP3A	Mx	.015	2.19
10	MP3A	X	-29.66	4.19
11	MP3A	Z	51.372	4.19
12	MP3A	Mx	.015	4.19
13	MP3B	X	-12.217	2.19
14	MP3B	Z	21.16	2.19
15	MP3B	Mx	-.012	2.19
16	MP3B	X	-12.217	4.19
17	MP3B	Z	21.16	4.19
18	MP3B	Mx	-.012	4.19
19	MP3C	X	-29.66	2.19
20	MP3C	Z	51.372	2.19
21	MP3C	Mx	.015	2.19
22	MP3C	X	-29.66	4.19
23	MP3C	Z	51.372	4.19
24	MP3C	Mx	.015	4.19
25	MP2A	X	-75.367	1.42
26	MP2A	Z	130.54	1.42
27	MP2A	Mx	.183	1.42
28	MP2A	X	-75.367	4.94
29	MP2A	Z	130.54	4.94
30	MP2A	Mx	.183	4.94
31	MP2B	X	-54.146	1.42
32	MP2B	Z	93.784	1.42
33	MP2B	Mx	-.122	1.42
34	MP2B	X	-54.146	4.94
35	MP2B	Z	93.784	4.94
36	MP2B	Mx	-.122	4.94
37	MP2C	X	-75.367	1.42
38	MP2C	Z	130.54	1.42
39	MP2C	Mx	-.013	1.42
40	MP2C	X	-75.367	4.94
41	MP2C	Z	130.54	4.94
42	MP2C	Mx	-.013	4.94
43	MP2A	X	-75.367	1.42
44	MP2A	Z	130.54	1.42
45	MP2A	Mx	-.013	1.42
46	MP2A	X	-75.367	4.94
47	MP2A	Z	130.54	4.94
48	MP2A	Mx	-.013	4.94
49	MP2B	X	-54.146	1.42
50	MP2B	Z	93.784	1.42
51	MP2B	Mx	-.122	1.42
52	MP2B	X	-54.146	4.94
53	MP2B	Z	93.784	4.94
54	MP2B	Mx	-.122	4.94
55	MP2C	X	-75.367	1.42
56	MP2C	Z	130.54	1.42
57	MP2C	Mx	.183	1.42
58	MP2C	X	-75.367	4.94
59	MP2C	Z	130.54	4.94
60	MP2C	Mx	.183	4.94
61	MP3A	X	-6.181	.5
62	MP3A	Z	10.705	.5
63	MP3A	Mx	.000993	.5
64	MP3B	X	-4.633	.5
65	MP3B	Z	8.025	.5
66	MP3B	Mx	.004	.5
67	MP3C	X	-6.181	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
68	MP3C	Z	10.705	.5
69	MP3C	Mx	-.006	.5
70	MP3A	X	-25.746	2.19
71	MP3A	Z	44.593	2.19
72	MP3A	Mx	-.02	2.19
73	MP3B	X	-25.746	2.19
74	MP3B	Z	44.593	2.19
75	MP3B	Mx	-.02	2.19
76	MP3C	X	-25.746	2.19
77	MP3C	Z	44.593	2.19
78	MP3C	Mx	-.02	2.19
79	MP2A	X	-24.886	2.19
80	MP2A	Z	43.104	2.19
81	MP2A	Mx	-.02	2.19
82	MP2B	X	-15.384	2.19
83	MP2B	Z	26.646	2.19
84	MP2B	Mx	.024	2.19
85	MP2C	X	-24.886	2.19
86	MP2C	Z	43.104	2.19
87	MP2C	Mx	-.02	2.19
88	M193	X	-29.862	2.79
89	M193	Z	51.723	2.79
90	M193	Mx	0	2.79
91	M162	X	-29.862	1
92	M162	Z	51.723	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-30.095	4
2	MP2C	Z	17.375	4
3	MP2C	Mx	.014	4
4	MP2C	X	-30.095	4
5	MP2C	Z	17.375	4
6	MP2C	Mx	-.014	4
7	MP3A	X	-31.231	2.19
8	MP3A	Z	18.031	2.19
9	MP3A	Mx	.016	2.19
10	MP3A	X	-31.231	4.19
11	MP3A	Z	18.031	4.19
12	MP3A	Mx	.016	4.19
13	MP3B	X	-31.231	2.19
14	MP3B	Z	18.031	2.19
15	MP3B	Mx	-.016	2.19
16	MP3B	X	-31.231	4.19
17	MP3B	Z	18.031	4.19
18	MP3B	Mx	-.016	4.19
19	MP3C	X	-61.443	2.19
20	MP3C	Z	35.474	2.19
21	MP3C	Mx	0	2.19
22	MP3C	X	-61.443	4.19
23	MP3C	Z	35.474	4.19
24	MP3C	Mx	0	4.19
25	MP2A	X	-106.036	1.42
26	MP2A	Z	61.22	1.42
27	MP2A	Mx	.165	1.42
28	MP2A	X	-106.036	4.94
29	MP2A	Z	61.22	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP2A	Mx	.165	4.94
31	MP2B	X	-106.036	1.42
32	MP2B	Z	61.22	1.42
33	MP2B	Mx	-.073	1.42
34	MP2B	X	-106.036	4.94
35	MP2B	Z	61.22	4.94
36	MP2B	Mx	-.073	4.94
37	MP2C	X	-142.792	1.42
38	MP2C	Z	82.441	1.42
39	MP2C	Mx	-.124	1.42
40	MP2C	X	-142.792	4.94
41	MP2C	Z	82.441	4.94
42	MP2C	Mx	-.124	4.94
43	MP2A	X	-106.036	1.42
44	MP2A	Z	61.22	1.42
45	MP2A	Mx	.073	1.42
46	MP2A	X	-106.036	4.94
47	MP2A	Z	61.22	4.94
48	MP2A	Mx	.073	4.94
49	MP2B	X	-106.036	1.42
50	MP2B	Z	61.22	1.42
51	MP2B	Mx	-.165	1.42
52	MP2B	X	-106.036	4.94
53	MP2B	Z	61.22	4.94
54	MP2B	Mx	-.165	4.94
55	MP2C	X	-142.792	1.42
56	MP2C	Z	82.441	1.42
57	MP2C	Mx	.124	1.42
58	MP2C	X	-142.792	4.94
59	MP2C	Z	82.441	4.94
60	MP2C	Mx	.124	4.94
61	MP3A	X	-8.919	.5
62	MP3A	Z	5.149	.5
63	MP3A	Mx	-.002	.5
64	MP3B	X	-8.919	.5
65	MP3B	Z	5.149	.5
66	MP3B	Mx	.005	.5
67	MP3C	X	-11.599	.5
68	MP3C	Z	6.697	.5
69	MP3C	Mx	-.004	.5
70	MP3A	X	-36.599	2.19
71	MP3A	Z	21.131	2.19
72	MP3A	Mx	-.029	2.19
73	MP3B	X	-36.599	2.19
74	MP3B	Z	21.131	2.19
75	MP3B	Mx	-.029	2.19
76	MP3C	X	-36.599	2.19
77	MP3C	Z	21.131	2.19
78	MP3C	Mx	-.029	2.19
79	MP2A	X	-32.132	2.19
80	MP2A	Z	18.552	2.19
81	MP2A	Mx	-.025	2.19
82	MP2B	X	-32.132	2.19
83	MP2B	Z	18.552	2.19
84	MP2B	Mx	.025	2.19
85	MP2C	X	-48.59	2.19
86	MP2C	Z	28.054	2.19
87	MP2C	Mx	0	2.19
88	M193	X	-62.247	2.79

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
89	M193	Z	35.938	2.79
90	M193	Mx	0	2.79
91	M162	X	-62.247	1
92	M162	Z	35.938	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-28.698	4
2	MP2C	Z	0	4
3	MP2C	Mx	.018	4
4	MP2C	X	-28.698	4
5	MP2C	Z	0	4
6	MP2C	Mx	-.003	4
7	MP3A	X	-24.434	2.19
8	MP3A	Z	0	2.19
9	MP3A	Mx	.012	2.19
10	MP3A	X	-24.434	4.19
11	MP3A	Z	0	4.19
12	MP3A	Mx	.012	4.19
13	MP3B	X	-59.32	2.19
14	MP3B	Z	0	2.19
15	MP3B	Mx	-.015	2.19
16	MP3B	X	-59.32	4.19
17	MP3B	Z	0	4.19
18	MP3B	Mx	-.015	4.19
19	MP3C	X	-59.32	2.19
20	MP3C	Z	0	2.19
21	MP3C	Mx	-.015	2.19
22	MP3C	X	-59.32	4.19
23	MP3C	Z	0	4.19
24	MP3C	Mx	-.015	4.19
25	MP2A	X	-108.293	1.42
26	MP2A	Z	0	1.42
27	MP2A	Mx	.122	1.42
28	MP2A	X	-108.293	4.94
29	MP2A	Z	0	4.94
30	MP2A	Mx	.122	4.94
31	MP2B	X	-150.735	1.42
32	MP2B	Z	0	1.42
33	MP2B	Mx	.013	1.42
34	MP2B	X	-150.735	4.94
35	MP2B	Z	0	4.94
36	MP2B	Mx	.013	4.94
37	MP2C	X	-150.735	1.42
38	MP2C	Z	0	1.42
39	MP2C	Mx	-.183	1.42
40	MP2C	X	-150.735	4.94
41	MP2C	Z	0	4.94
42	MP2C	Mx	-.183	4.94
43	MP2A	X	-108.293	1.42
44	MP2A	Z	0	1.42
45	MP2A	Mx	.122	1.42
46	MP2A	X	-108.293	4.94
47	MP2A	Z	0	4.94
48	MP2A	Mx	.122	4.94
49	MP2B	X	-150.735	1.42
50	MP2B	Z	0	1.42

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
51	MP2B	Mx	-.183	1.42
52	MP2B	X	-150.735	4.94
53	MP2B	Z	0	4.94
54	MP2B	Mx	-.183	4.94
55	MP2C	X	-150.735	1.42
56	MP2C	Z	0	1.42
57	MP2C	Mx	.013	1.42
58	MP2C	X	-150.735	4.94
59	MP2C	Z	0	4.94
60	MP2C	Mx	.013	4.94
61	MP3A	X	-9.267	.5
62	MP3A	Z	0	.5
63	MP3A	Mx	-.004	.5
64	MP3B	X	-12.362	.5
65	MP3B	Z	0	.5
66	MP3B	Mx	.006	.5
67	MP3C	X	-12.362	.5
68	MP3C	Z	0	.5
69	MP3C	Mx	-.000993	.5
70	MP3A	X	-37.646	2.19
71	MP3A	Z	0	2.19
72	MP3A	Mx	-.03	2.19
73	MP3B	X	-37.646	2.19
74	MP3B	Z	0	2.19
75	MP3B	Mx	-.03	2.19
76	MP3C	X	-37.646	2.19
77	MP3C	Z	0	2.19
78	MP3C	Mx	-.03	2.19
79	MP2A	X	-30.768	2.19
80	MP2A	Z	0	2.19
81	MP2A	Mx	-.024	2.19
82	MP2B	X	-49.772	2.19
83	MP2B	Z	0	2.19
84	MP2B	Mx	.02	2.19
85	MP2C	X	-49.772	2.19
86	MP2C	Z	0	2.19
87	MP2C	Mx	.02	2.19
88	M193	X	-86.784	2.79
89	M193	Z	0	2.79
90	M193	Mx	0	2.79
91	M162	X	-86.784	1
92	M162	Z	0	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-14.369	4
2	MP2C	Z	-8.296	4
3	MP2C	Mx	.011	4
4	MP2C	X	-14.369	4
5	MP2C	Z	-8.296	4
6	MP2C	Mx	.004	4
7	MP3A	X	-31.231	2.19
8	MP3A	Z	-18.031	2.19
9	MP3A	Mx	.016	2.19
10	MP3A	X	-31.231	4.19
11	MP3A	Z	-18.031	4.19
12	MP3A	Mx	.016	4.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP3B	X	-61.443	2.19
14	MP3B	Z	-35.474	2.19
15	MP3B	Mx	0	2.19
16	MP3B	X	-61.443	4.19
17	MP3B	Z	-35.474	4.19
18	MP3B	Mx	0	4.19
19	MP3C	X	-31.231	2.19
20	MP3C	Z	-18.031	2.19
21	MP3C	Mx	-.016	2.19
22	MP3C	X	-31.231	4.19
23	MP3C	Z	-18.031	4.19
24	MP3C	Mx	-.016	4.19
25	MP2A	X	-106.036	1.42
26	MP2A	Z	-61.22	1.42
27	MP2A	Mx	.073	1.42
28	MP2A	X	-106.036	4.94
29	MP2A	Z	-61.22	4.94
30	MP2A	Mx	.073	4.94
31	MP2B	X	-142.792	1.42
32	MP2B	Z	-82.441	1.42
33	MP2B	Mx	.124	1.42
34	MP2B	X	-142.792	4.94
35	MP2B	Z	-82.441	4.94
36	MP2B	Mx	.124	4.94
37	MP2C	X	-106.036	1.42
38	MP2C	Z	-61.22	1.42
39	MP2C	Mx	-.165	1.42
40	MP2C	X	-106.036	4.94
41	MP2C	Z	-61.22	4.94
42	MP2C	Mx	-.165	4.94
43	MP2A	X	-106.036	1.42
44	MP2A	Z	-61.22	1.42
45	MP2A	Mx	.165	1.42
46	MP2A	X	-106.036	4.94
47	MP2A	Z	-61.22	4.94
48	MP2A	Mx	.165	4.94
49	MP2B	X	-142.792	1.42
50	MP2B	Z	-82.441	1.42
51	MP2B	Mx	-.124	1.42
52	MP2B	X	-142.792	4.94
53	MP2B	Z	-82.441	4.94
54	MP2B	Mx	-.124	4.94
55	MP2C	X	-106.036	1.42
56	MP2C	Z	-61.22	1.42
57	MP2C	Mx	-.073	1.42
58	MP2C	X	-106.036	4.94
59	MP2C	Z	-61.22	4.94
60	MP2C	Mx	-.073	4.94
61	MP3A	X	-8.919	.5
62	MP3A	Z	-5.149	.5
63	MP3A	Mx	-.005	.5
64	MP3B	X	-11.599	.5
65	MP3B	Z	-6.697	.5
66	MP3B	Mx	.004	.5
67	MP3C	X	-8.919	.5
68	MP3C	Z	-5.149	.5
69	MP3C	Mx	.002	.5
70	MP3A	X	-36.599	2.19
71	MP3A	Z	-21.131	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
72	MP3A	Mx	-.029	2.19
73	MP3B	X	-36.599	2.19
74	MP3B	Z	-21.131	2.19
75	MP3B	Mx	-.029	2.19
76	MP3C	X	-36.599	2.19
77	MP3C	Z	-21.131	2.19
78	MP3C	Mx	-.029	2.19
79	MP2A	X	-32.132	2.19
80	MP2A	Z	-18.552	2.19
81	MP2A	Mx	-.025	2.19
82	MP2B	X	-48.59	2.19
83	MP2B	Z	-28.054	2.19
84	MP2B	Mx	0	2.19
85	MP2C	X	-32.132	2.19
86	MP2C	Z	-18.552	2.19
87	MP2C	Mx	.025	2.19
88	M193	X	-77.543	2.79
89	M193	Z	-44.769	2.79
90	M193	Mx	0	2.79
91	M162	X	-77.543	1
92	M162	Z	-44.769	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-5.27	4
2	MP2C	Z	-9.128	4
3	MP2C	Mx	.005	4
4	MP2C	X	-5.27	4
5	MP2C	Z	-9.128	4
6	MP2C	Mx	.005	4
7	MP3A	X	-29.66	2.19
8	MP3A	Z	-51.372	2.19
9	MP3A	Mx	.015	2.19
10	MP3A	X	-29.66	4.19
11	MP3A	Z	-51.372	4.19
12	MP3A	Mx	.015	4.19
13	MP3B	X	-29.66	2.19
14	MP3B	Z	-51.372	2.19
15	MP3B	Mx	.015	2.19
16	MP3B	X	-29.66	4.19
17	MP3B	Z	-51.372	4.19
18	MP3B	Mx	.015	4.19
19	MP3C	X	-12.217	2.19
20	MP3C	Z	-21.16	2.19
21	MP3C	Mx	-.012	2.19
22	MP3C	X	-12.217	4.19
23	MP3C	Z	-21.16	4.19
24	MP3C	Mx	-.012	4.19
25	MP2A	X	-75.367	1.42
26	MP2A	Z	-130.54	1.42
27	MP2A	Mx	-.013	1.42
28	MP2A	X	-75.367	4.94
29	MP2A	Z	-130.54	4.94
30	MP2A	Mx	-.013	4.94
31	MP2B	X	-75.367	1.42
32	MP2B	Z	-130.54	1.42
33	MP2B	Mx	.183	1.42

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP2B	X	-75.367	4.94
35	MP2B	Z	-130.54	4.94
36	MP2B	Mx	.183	4.94
37	MP2C	X	-54.146	1.42
38	MP2C	Z	-93.784	1.42
39	MP2C	Mx	-.122	1.42
40	MP2C	X	-54.146	4.94
41	MP2C	Z	-93.784	4.94
42	MP2C	Mx	-.122	4.94
43	MP2A	X	-75.367	1.42
44	MP2A	Z	-130.54	1.42
45	MP2A	Mx	.183	1.42
46	MP2A	X	-75.367	4.94
47	MP2A	Z	-130.54	4.94
48	MP2A	Mx	.183	4.94
49	MP2B	X	-75.367	1.42
50	MP2B	Z	-130.54	1.42
51	MP2B	Mx	-.013	1.42
52	MP2B	X	-75.367	4.94
53	MP2B	Z	-130.54	4.94
54	MP2B	Mx	-.013	4.94
55	MP2C	X	-54.146	1.42
56	MP2C	Z	-93.784	1.42
57	MP2C	Mx	-.122	1.42
58	MP2C	X	-54.146	4.94
59	MP2C	Z	-93.784	4.94
60	MP2C	Mx	-.122	4.94
61	MP3A	X	-6.181	.5
62	MP3A	Z	-10.705	.5
63	MP3A	Mx	-.006	.5
64	MP3B	X	-6.181	.5
65	MP3B	Z	-10.705	.5
66	MP3B	Mx	.000993	.5
67	MP3C	X	-4.633	.5
68	MP3C	Z	-8.025	.5
69	MP3C	Mx	.004	.5
70	MP3A	X	-25.746	2.19
71	MP3A	Z	-44.593	2.19
72	MP3A	Mx	-.02	2.19
73	MP3B	X	-25.746	2.19
74	MP3B	Z	-44.593	2.19
75	MP3B	Mx	-.02	2.19
76	MP3C	X	-25.746	2.19
77	MP3C	Z	-44.593	2.19
78	MP3C	Mx	-.02	2.19
79	MP2A	X	-24.886	2.19
80	MP2A	Z	-43.104	2.19
81	MP2A	Mx	-.02	2.19
82	MP2B	X	-24.886	2.19
83	MP2B	Z	-43.104	2.19
84	MP2B	Mx	-.02	2.19
85	MP2C	X	-15.384	2.19
86	MP2C	Z	-26.646	2.19
87	MP2C	Mx	.024	2.19
88	M193	X	-38.693	2.79
89	M193	Z	-67.018	2.79
90	M193	Mx	0	2.79
91	M162	X	-38.693	1
92	M162	Z	-67.018	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	0	4
2	MP2C	Z	-4.005	4
3	MP2C	Mx	.0009	4
4	MP2C	X	0	4
5	MP2C	Z	-4.005	4
6	MP2C	Mx	.003	4
7	MP3A	X	0	2.19
8	MP3A	Z	-16.171	2.19
9	MP3A	Mx	0	2.19
10	MP3A	X	0	4.19
11	MP3A	Z	-16.171	4.19
12	MP3A	Mx	0	4.19
13	MP3B	X	0	2.19
14	MP3B	Z	-9.216	2.19
15	MP3B	Mx	.004	2.19
16	MP3B	X	0	4.19
17	MP3B	Z	-9.216	4.19
18	MP3B	Mx	.004	4.19
19	MP3C	X	0	2.19
20	MP3C	Z	-9.216	2.19
21	MP3C	Mx	-.004	2.19
22	MP3C	X	0	4.19
23	MP3C	Z	-9.216	4.19
24	MP3C	Mx	-.004	4.19
25	MP2A	X	0	1.42
26	MP2A	Z	-30.392	1.42
27	MP2A	Mx	-.023	1.42
28	MP2A	X	0	4.94
29	MP2A	Z	-30.392	4.94
30	MP2A	Mx	-.023	4.94
31	MP2B	X	0	1.42
32	MP2B	Z	-23.156	1.42
33	MP2B	Mx	.031	1.42
34	MP2B	X	0	4.94
35	MP2B	Z	-23.156	4.94
36	MP2B	Mx	.031	4.94
37	MP2C	X	0	1.42
38	MP2C	Z	-23.156	1.42
39	MP2C	Mx	-.014	1.42
40	MP2C	X	0	4.94
41	MP2C	Z	-23.156	4.94
42	MP2C	Mx	-.014	4.94
43	MP2A	X	0	1.42
44	MP2A	Z	-30.392	1.42
45	MP2A	Mx	.023	1.42
46	MP2A	X	0	4.94
47	MP2A	Z	-30.392	4.94
48	MP2A	Mx	.023	4.94
49	MP2B	X	0	1.42
50	MP2B	Z	-23.156	1.42
51	MP2B	Mx	.014	1.42
52	MP2B	X	0	4.94
53	MP2B	Z	-23.156	4.94
54	MP2B	Mx	.014	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
55	MP2C	X	0	1.42
56	MP2C	Z	-23.156	1.42
57	MP2C	Mx	-.031	1.42
58	MP2C	X	0	4.94
59	MP2C	Z	-23.156	4.94
60	MP2C	Mx	-.031	4.94
61	MP3A	X	0	.5
62	MP3A	Z	-3.322	.5
63	MP3A	Mx	-.001	.5
64	MP3B	X	0	.5
65	MP3B	Z	-2.702	.5
66	MP3B	Mx	-.000525	.5
67	MP3C	X	0	.5
68	MP3C	Z	-2.702	.5
69	MP3C	Mx	.001	.5
70	MP3A	X	0	2.19
71	MP3A	Z	-13.641	2.19
72	MP3A	Mx	0	2.19
73	MP3B	X	0	2.19
74	MP3B	Z	-13.641	2.19
75	MP3B	Mx	0	2.19
76	MP3C	X	0	2.19
77	MP3C	Z	-13.641	2.19
78	MP3C	Mx	0	2.19
79	MP2A	X	0	2.19
80	MP2A	Z	-13.641	2.19
81	MP2A	Mx	0	2.19
82	MP2B	X	0	2.19
83	MP2B	Z	-9.35	2.19
84	MP2B	Mx	-.006	2.19
85	MP2C	X	0	2.19
86	MP2C	Z	-9.35	2.19
87	MP2C	Mx	.006	2.19
88	M193	X	0	2.79
89	M193	Z	-12.731	2.79
90	M193	Mx	0	2.79
91	M162	X	0	1
92	M162	Z	-12.731	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	3.17	4
2	MP2C	Z	-5.49	4
3	MP2C	Mx	-.000703	4
4	MP2C	X	3.17	4
5	MP2C	Z	-5.49	4
6	MP2C	Mx	.004	4
7	MP3A	X	6.926	2.19
8	MP3A	Z	-11.997	2.19
9	MP3A	Mx	-.003	2.19
10	MP3A	X	6.926	4.19
11	MP3A	Z	-11.997	4.19
12	MP3A	Mx	-.003	4.19
13	MP3B	X	3.449	2.19
14	MP3B	Z	-5.974	2.19
15	MP3B	Mx	.003	2.19
16	MP3B	X	3.449	4.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP3B	Z	-5.974	4.19
18	MP3B	Mx	.003	4.19
19	MP3C	X	6.926	2.19
20	MP3C	Z	-11.997	2.19
21	MP3C	Mx	-.003	2.19
22	MP3C	X	6.926	4.19
23	MP3C	Z	-11.997	4.19
24	MP3C	Mx	-.003	4.19
25	MP2A	X	13.99	1.42
26	MP2A	Z	-24.231	1.42
27	MP2A	Mx	-.034	1.42
28	MP2A	X	13.99	4.94
29	MP2A	Z	-24.231	4.94
30	MP2A	Mx	-.034	4.94
31	MP2B	X	10.372	1.42
32	MP2B	Z	-17.965	1.42
33	MP2B	Mx	.023	1.42
34	MP2B	X	10.372	4.94
35	MP2B	Z	-17.965	4.94
36	MP2B	Mx	.023	4.94
37	MP2C	X	13.99	1.42
38	MP2C	Z	-24.231	1.42
39	MP2C	Mx	.002	1.42
40	MP2C	X	13.99	4.94
41	MP2C	Z	-24.231	4.94
42	MP2C	Mx	.002	4.94
43	MP2A	X	13.99	1.42
44	MP2A	Z	-24.231	1.42
45	MP2A	Mx	.002	1.42
46	MP2A	X	13.99	4.94
47	MP2A	Z	-24.231	4.94
48	MP2A	Mx	.002	4.94
49	MP2B	X	10.372	1.42
50	MP2B	Z	-17.965	1.42
51	MP2B	Mx	.023	1.42
52	MP2B	X	10.372	4.94
53	MP2B	Z	-17.965	4.94
54	MP2B	Mx	.023	4.94
55	MP2C	X	13.99	1.42
56	MP2C	Z	-24.231	1.42
57	MP2C	Mx	-.034	1.42
58	MP2C	X	13.99	4.94
59	MP2C	Z	-24.231	4.94
60	MP2C	Mx	-.034	4.94
61	MP3A	X	1.557	.5
62	MP3A	Z	-2.698	.5
63	MP3A	Mx	-.000251	.5
64	MP3B	X	1.248	.5
65	MP3B	Z	-2.161	.5
66	MP3B	Mx	-.001	.5
67	MP3C	X	1.557	.5
68	MP3C	Z	-2.698	.5
69	MP3C	Mx	.002	.5
70	MP3A	X	6.302	2.19
71	MP3A	Z	-10.916	2.19
72	MP3A	Mx	.005	2.19
73	MP3B	X	6.302	2.19
74	MP3B	Z	-10.916	2.19
75	MP3B	Mx	.005	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
76	MP3C	X	6.302	2.19
77	MP3C	Z	-10.916	2.19
78	MP3C	Mx	.005	2.19
79	MP2A	X	6.105	2.19
80	MP2A	Z	-10.575	2.19
81	MP2A	Mx	.005	2.19
82	MP2B	X	3.96	2.19
83	MP2B	Z	-6.858	2.19
84	MP2B	Mx	-.006	2.19
85	MP2C	X	6.105	2.19
86	MP2C	Z	-10.575	2.19
87	MP2C	Mx	.005	2.19
88	M193	X	6.118	2.79
89	M193	Z	-10.596	2.79
90	M193	Mx	0	2.79
91	M162	X	6.118	1
92	M162	Z	-10.596	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	6.501	4
2	MP2C	Z	-3.753	4
3	MP2C	Mx	-.003	4
4	MP2C	X	6.501	4
5	MP2C	Z	-3.753	4
6	MP2C	Mx	.003	4
7	MP3A	X	7.981	2.19
8	MP3A	Z	-4.608	2.19
9	MP3A	Mx	-.004	2.19
10	MP3A	X	7.981	4.19
11	MP3A	Z	-4.608	4.19
12	MP3A	Mx	-.004	4.19
13	MP3B	X	7.981	2.19
14	MP3B	Z	-4.608	2.19
15	MP3B	Mx	.004	2.19
16	MP3B	X	7.981	4.19
17	MP3B	Z	-4.608	4.19
18	MP3B	Mx	.004	4.19
19	MP3C	X	14.005	2.19
20	MP3C	Z	-8.086	2.19
21	MP3C	Mx	0	2.19
22	MP3C	X	14.005	4.19
23	MP3C	Z	-8.086	4.19
24	MP3C	Mx	0	4.19
25	MP2A	X	20.054	1.42
26	MP2A	Z	-11.578	1.42
27	MP2A	Mx	-.031	1.42
28	MP2A	X	20.054	4.94
29	MP2A	Z	-11.578	4.94
30	MP2A	Mx	-.031	4.94
31	MP2B	X	20.054	1.42
32	MP2B	Z	-11.578	1.42
33	MP2B	Mx	.014	1.42
34	MP2B	X	20.054	4.94
35	MP2B	Z	-11.578	4.94
36	MP2B	Mx	.014	4.94
37	MP2C	X	26.32	1.42

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP2C	Z	-15.196	1.42
39	MP2C	Mx	.023	1.42
40	MP2C	X	26.32	4.94
41	MP2C	Z	-15.196	4.94
42	MP2C	Mx	.023	4.94
43	MP2A	X	20.054	1.42
44	MP2A	Z	-11.578	1.42
45	MP2A	Mx	-.014	1.42
46	MP2A	X	20.054	4.94
47	MP2A	Z	-11.578	4.94
48	MP2A	Mx	-.014	4.94
49	MP2B	X	20.054	1.42
50	MP2B	Z	-11.578	1.42
51	MP2B	Mx	.031	1.42
52	MP2B	X	20.054	4.94
53	MP2B	Z	-11.578	4.94
54	MP2B	Mx	.031	4.94
55	MP2C	X	26.32	1.42
56	MP2C	Z	-15.196	1.42
57	MP2C	Mx	-.023	1.42
58	MP2C	X	26.32	4.94
59	MP2C	Z	-15.196	4.94
60	MP2C	Mx	-.023	4.94
61	MP3A	X	2.34	.5
62	MP3A	Z	-1.351	.5
63	MP3A	Mx	.000525	.5
64	MP3B	X	2.34	.5
65	MP3B	Z	-1.351	.5
66	MP3B	Mx	-.001	.5
67	MP3C	X	2.877	.5
68	MP3C	Z	-1.661	.5
69	MP3C	Mx	.001	.5
70	MP3A	X	9.121	2.19
71	MP3A	Z	-5.266	2.19
72	MP3A	Mx	.007	2.19
73	MP3B	X	9.121	2.19
74	MP3B	Z	-5.266	2.19
75	MP3B	Mx	.007	2.19
76	MP3C	X	9.121	2.19
77	MP3C	Z	-5.266	2.19
78	MP3C	Mx	.007	2.19
79	MP2A	X	8.097	2.19
80	MP2A	Z	-4.675	2.19
81	MP2A	Mx	.006	2.19
82	MP2B	X	8.097	2.19
83	MP2B	Z	-4.675	2.19
84	MP2B	Mx	-.006	2.19
85	MP2C	X	11.814	2.19
86	MP2C	Z	-6.821	2.19
87	MP2C	Mx	0	2.19
88	M193	X	12.488	2.79
89	M193	Z	-7.21	2.79
90	M193	Mx	0	2.79
91	M162	X	12.488	1
92	M162	Z	-7.21	1
93	M162	Mx	0	1

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	MP2C	X	6.339	4
2	MP2C	Z	0	4
3	MP2C	Mx	-.004	4
4	MP2C	X	6.339	4
5	MP2C	Z	0	4
6	MP2C	Mx	.000703	4
7	MP3A	X	6.898	2.19
8	MP3A	Z	0	2.19
9	MP3A	Mx	-.003	2.19
10	MP3A	X	6.898	4.19
11	MP3A	Z	0	4.19
12	MP3A	Mx	-.003	4.19
13	MP3B	X	13.853	2.19
14	MP3B	Z	0	2.19
15	MP3B	Mx	.003	2.19
16	MP3B	X	13.853	4.19
17	MP3B	Z	0	4.19
18	MP3B	Mx	.003	4.19
19	MP3C	X	13.853	2.19
20	MP3C	Z	0	2.19
21	MP3C	Mx	.003	2.19
22	MP3C	X	13.853	4.19
23	MP3C	Z	0	4.19
24	MP3C	Mx	.003	4.19
25	MP2A	X	20.744	1.42
26	MP2A	Z	0	1.42
27	MP2A	Mx	-.023	1.42
28	MP2A	X	20.744	4.94
29	MP2A	Z	0	4.94
30	MP2A	Mx	-.023	4.94
31	MP2B	X	27.98	1.42
32	MP2B	Z	0	1.42
33	MP2B	Mx	-.002	1.42
34	MP2B	X	27.98	4.94
35	MP2B	Z	0	4.94
36	MP2B	Mx	-.002	4.94
37	MP2C	X	27.98	1.42
38	MP2C	Z	0	1.42
39	MP2C	Mx	.034	1.42
40	MP2C	X	27.98	4.94
41	MP2C	Z	0	4.94
42	MP2C	Mx	.034	4.94
43	MP2A	X	20.744	1.42
44	MP2A	Z	0	1.42
45	MP2A	Mx	-.023	1.42
46	MP2A	X	20.744	4.94
47	MP2A	Z	0	4.94
48	MP2A	Mx	-.023	4.94
49	MP2B	X	27.98	1.42
50	MP2B	Z	0	1.42
51	MP2B	Mx	.034	1.42
52	MP2B	X	27.98	4.94
53	MP2B	Z	0	4.94
54	MP2B	Mx	.034	4.94
55	MP2C	X	27.98	1.42
56	MP2C	Z	0	1.42
57	MP2C	Mx	-.002	1.42
58	MP2C	X	27.98	4.94
59	MP2C	Z	0	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
60	MP2C	Mx	-.002	4.94
61	MP3A	X	2.495	.5
62	MP3A	Z	0	.5
63	MP3A	Mx	.001	.5
64	MP3B	X	3.115	.5
65	MP3B	Z	0	.5
66	MP3B	Mx	-.002	.5
67	MP3C	X	3.115	.5
68	MP3C	Z	0	.5
69	MP3C	Mx	.00025	.5
70	MP3A	X	9.495	2.19
71	MP3A	Z	0	2.19
72	MP3A	Mx	.008	2.19
73	MP3B	X	9.495	2.19
74	MP3B	Z	0	2.19
75	MP3B	Mx	.008	2.19
76	MP3C	X	9.495	2.19
77	MP3C	Z	0	2.19
78	MP3C	Mx	.008	2.19
79	MP2A	X	7.919	2.19
80	MP2A	Z	0	2.19
81	MP2A	Mx	.006	2.19
82	MP2B	X	12.211	2.19
83	MP2B	Z	0	2.19
84	MP2B	Mx	-.005	2.19
85	MP2C	X	12.211	2.19
86	MP2C	Z	0	2.19
87	MP2C	Mx	-.005	2.19
88	M193	X	17.1	2.79
89	M193	Z	0	2.79
90	M193	Mx	0	2.79
91	M162	X	17.1	1
92	M162	Z	0	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	3.468	4
2	MP2C	Z	2.002	4
3	MP2C	Mx	-.003	4
4	MP2C	X	3.468	4
5	MP2C	Z	2.002	4
6	MP2C	Mx	-.0009	4
7	MP3A	X	7.981	2.19
8	MP3A	Z	4.608	2.19
9	MP3A	Mx	-.004	2.19
10	MP3A	X	7.981	4.19
11	MP3A	Z	4.608	4.19
12	MP3A	Mx	-.004	4.19
13	MP3B	X	14.005	2.19
14	MP3B	Z	8.086	2.19
15	MP3B	Mx	0	2.19
16	MP3B	X	14.005	4.19
17	MP3B	Z	8.086	4.19
18	MP3B	Mx	0	4.19
19	MP3C	X	7.981	2.19
20	MP3C	Z	4.608	2.19
21	MP3C	Mx	.004	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP3C	X	7.981	4.19
23	MP3C	Z	4.608	4.19
24	MP3C	Mx	.004	4.19
25	MP2A	X	20.054	1.42
26	MP2A	Z	11.578	1.42
27	MP2A	Mx	-.014	1.42
28	MP2A	X	20.054	4.94
29	MP2A	Z	11.578	4.94
30	MP2A	Mx	-.014	4.94
31	MP2B	X	26.32	1.42
32	MP2B	Z	15.196	1.42
33	MP2B	Mx	-.023	1.42
34	MP2B	X	26.32	4.94
35	MP2B	Z	15.196	4.94
36	MP2B	Mx	-.023	4.94
37	MP2C	X	20.054	1.42
38	MP2C	Z	11.578	1.42
39	MP2C	Mx	.031	1.42
40	MP2C	X	20.054	4.94
41	MP2C	Z	11.578	4.94
42	MP2C	Mx	.031	4.94
43	MP2A	X	20.054	1.42
44	MP2A	Z	11.578	1.42
45	MP2A	Mx	-.031	1.42
46	MP2A	X	20.054	4.94
47	MP2A	Z	11.578	4.94
48	MP2A	Mx	-.031	4.94
49	MP2B	X	26.32	1.42
50	MP2B	Z	15.196	1.42
51	MP2B	Mx	.023	1.42
52	MP2B	X	26.32	4.94
53	MP2B	Z	15.196	4.94
54	MP2B	Mx	.023	4.94
55	MP2C	X	20.054	1.42
56	MP2C	Z	11.578	1.42
57	MP2C	Mx	.014	1.42
58	MP2C	X	20.054	4.94
59	MP2C	Z	11.578	4.94
60	MP2C	Mx	.014	4.94
61	MP3A	X	2.34	.5
62	MP3A	Z	1.351	.5
63	MP3A	Mx	.001	.5
64	MP3B	X	2.877	.5
65	MP3B	Z	1.661	.5
66	MP3B	Mx	-.001	.5
67	MP3C	X	2.34	.5
68	MP3C	Z	1.351	.5
69	MP3C	Mx	-.000525	.5
70	MP3A	X	9.121	2.19
71	MP3A	Z	5.266	2.19
72	MP3A	Mx	.007	2.19
73	MP3B	X	9.121	2.19
74	MP3B	Z	5.266	2.19
75	MP3B	Mx	.007	2.19
76	MP3C	X	9.121	2.19
77	MP3C	Z	5.266	2.19
78	MP3C	Mx	.007	2.19
79	MP2A	X	8.097	2.19
80	MP2A	Z	4.675	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
81	MP2A	Mx	.006	2.19
82	MP2B	X	11.814	2.19
83	MP2B	Z	6.821	2.19
84	MP2B	Mx	0	2.19
85	MP2C	X	8.097	2.19
86	MP2C	Z	4.675	2.19
87	MP2C	Mx	-.006	2.19
88	M193	X	15.238	2.79
89	M193	Z	8.798	2.79
90	M193	Mx	0	2.79
91	M162	X	15.238	1
92	M162	Z	8.798	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	1.419	4
2	MP2C	Z	2.457	4
3	MP2C	Mx	-.001	4
4	MP2C	X	1.419	4
5	MP2C	Z	2.457	4
6	MP2C	Mx	-.001	4
7	MP3A	X	6.926	2.19
8	MP3A	Z	11.997	2.19
9	MP3A	Mx	-.003	2.19
10	MP3A	X	6.926	4.19
11	MP3A	Z	11.997	4.19
12	MP3A	Mx	-.003	4.19
13	MP3B	X	6.926	2.19
14	MP3B	Z	11.997	2.19
15	MP3B	Mx	-.003	2.19
16	MP3B	X	6.926	4.19
17	MP3B	Z	11.997	4.19
18	MP3B	Mx	-.003	4.19
19	MP3C	X	3.449	2.19
20	MP3C	Z	5.974	2.19
21	MP3C	Mx	.003	2.19
22	MP3C	X	3.449	4.19
23	MP3C	Z	5.974	4.19
24	MP3C	Mx	.003	4.19
25	MP2A	X	13.99	1.42
26	MP2A	Z	24.231	1.42
27	MP2A	Mx	.002	1.42
28	MP2A	X	13.99	4.94
29	MP2A	Z	24.231	4.94
30	MP2A	Mx	.002	4.94
31	MP2B	X	13.99	1.42
32	MP2B	Z	24.231	1.42
33	MP2B	Mx	-.034	1.42
34	MP2B	X	13.99	4.94
35	MP2B	Z	24.231	4.94
36	MP2B	Mx	-.034	4.94
37	MP2C	X	10.372	1.42
38	MP2C	Z	17.965	1.42
39	MP2C	Mx	.023	1.42
40	MP2C	X	10.372	4.94
41	MP2C	Z	17.965	4.94
42	MP2C	Mx	.023	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
43	MP2A	X	13.99	1.42
44	MP2A	Z	24.231	1.42
45	MP2A	Mx	-.034	1.42
46	MP2A	X	13.99	4.94
47	MP2A	Z	24.231	4.94
48	MP2A	Mx	-.034	4.94
49	MP2B	X	13.99	1.42
50	MP2B	Z	24.231	1.42
51	MP2B	Mx	.002	1.42
52	MP2B	X	13.99	4.94
53	MP2B	Z	24.231	4.94
54	MP2B	Mx	.002	4.94
55	MP2C	X	10.372	1.42
56	MP2C	Z	17.965	1.42
57	MP2C	Mx	.023	1.42
58	MP2C	X	10.372	4.94
59	MP2C	Z	17.965	4.94
60	MP2C	Mx	.023	4.94
61	MP3A	X	1.557	.5
62	MP3A	Z	2.698	.5
63	MP3A	Mx	.002	.5
64	MP3B	X	1.557	.5
65	MP3B	Z	2.698	.5
66	MP3B	Mx	-.00025	.5
67	MP3C	X	1.248	.5
68	MP3C	Z	2.161	.5
69	MP3C	Mx	-.001	.5
70	MP3A	X	6.302	2.19
71	MP3A	Z	10.916	2.19
72	MP3A	Mx	.005	2.19
73	MP3B	X	6.302	2.19
74	MP3B	Z	10.916	2.19
75	MP3B	Mx	.005	2.19
76	MP3C	X	6.302	2.19
77	MP3C	Z	10.916	2.19
78	MP3C	Mx	.005	2.19
79	MP2A	X	6.105	2.19
80	MP2A	Z	10.575	2.19
81	MP2A	Mx	.005	2.19
82	MP2B	X	6.105	2.19
83	MP2B	Z	10.575	2.19
84	MP2B	Mx	.005	2.19
85	MP2C	X	3.96	2.19
86	MP2C	Z	6.858	2.19
87	MP2C	Mx	-.006	2.19
88	M193	X	7.705	2.79
89	M193	Z	13.346	2.79
90	M193	Mx	0	2.79
91	M162	X	7.705	1
92	M162	Z	13.346	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	0	4
2	MP2C	Z	4.005	4
3	MP2C	Mx	-.0009	4
4	MP2C	X	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP2C	Z	4.005	4
6	MP2C	Mx	-.003	4
7	MP3A	X	0	2.19
8	MP3A	Z	16.171	2.19
9	MP3A	Mx	0	2.19
10	MP3A	X	0	4.19
11	MP3A	Z	16.171	4.19
12	MP3A	Mx	0	4.19
13	MP3B	X	0	2.19
14	MP3B	Z	9.216	2.19
15	MP3B	Mx	-.004	2.19
16	MP3B	X	0	4.19
17	MP3B	Z	9.216	4.19
18	MP3B	Mx	-.004	4.19
19	MP3C	X	0	2.19
20	MP3C	Z	9.216	2.19
21	MP3C	Mx	.004	2.19
22	MP3C	X	0	4.19
23	MP3C	Z	9.216	4.19
24	MP3C	Mx	.004	4.19
25	MP2A	X	0	1.42
26	MP2A	Z	30.392	1.42
27	MP2A	Mx	.023	1.42
28	MP2A	X	0	4.94
29	MP2A	Z	30.392	4.94
30	MP2A	Mx	.023	4.94
31	MP2B	X	0	1.42
32	MP2B	Z	23.156	1.42
33	MP2B	Mx	-.031	1.42
34	MP2B	X	0	4.94
35	MP2B	Z	23.156	4.94
36	MP2B	Mx	-.031	4.94
37	MP2C	X	0	1.42
38	MP2C	Z	23.156	1.42
39	MP2C	Mx	.014	1.42
40	MP2C	X	0	4.94
41	MP2C	Z	23.156	4.94
42	MP2C	Mx	.014	4.94
43	MP2A	X	0	1.42
44	MP2A	Z	30.392	1.42
45	MP2A	Mx	-.023	1.42
46	MP2A	X	0	4.94
47	MP2A	Z	30.392	4.94
48	MP2A	Mx	-.023	4.94
49	MP2B	X	0	1.42
50	MP2B	Z	23.156	1.42
51	MP2B	Mx	-.014	1.42
52	MP2B	X	0	4.94
53	MP2B	Z	23.156	4.94
54	MP2B	Mx	-.014	4.94
55	MP2C	X	0	1.42
56	MP2C	Z	23.156	1.42
57	MP2C	Mx	.031	1.42
58	MP2C	X	0	4.94
59	MP2C	Z	23.156	4.94
60	MP2C	Mx	.031	4.94
61	MP3A	X	0	.5
62	MP3A	Z	3.322	.5
63	MP3A	Mx	.001	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
64	MP3B	X	0	.5
65	MP3B	Z	2.702	.5
66	MP3B	Mx	.000525	.5
67	MP3C	X	0	.5
68	MP3C	Z	2.702	.5
69	MP3C	Mx	-.001	.5
70	MP3A	X	0	2.19
71	MP3A	Z	13.641	2.19
72	MP3A	Mx	0	2.19
73	MP3B	X	0	2.19
74	MP3B	Z	13.641	2.19
75	MP3B	Mx	0	2.19
76	MP3C	X	0	2.19
77	MP3C	Z	13.641	2.19
78	MP3C	Mx	0	2.19
79	MP2A	X	0	2.19
80	MP2A	Z	13.641	2.19
81	MP2A	Mx	0	2.19
82	MP2B	X	0	2.19
83	MP2B	Z	9.35	2.19
84	MP2B	Mx	.006	2.19
85	MP2C	X	0	2.19
86	MP2C	Z	9.35	2.19
87	MP2C	Mx	-.006	2.19
88	M193	X	0	2.79
89	M193	Z	12.731	2.79
90	M193	Mx	0	2.79
91	M162	X	0	1
92	M162	Z	12.731	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-3.17	4
2	MP2C	Z	5.49	4
3	MP2C	Mx	.000703	4
4	MP2C	X	-3.17	4
5	MP2C	Z	5.49	4
6	MP2C	Mx	-.004	4
7	MP3A	X	-6.926	2.19
8	MP3A	Z	11.997	2.19
9	MP3A	Mx	.003	2.19
10	MP3A	X	-6.926	4.19
11	MP3A	Z	11.997	4.19
12	MP3A	Mx	.003	4.19
13	MP3B	X	-3.449	2.19
14	MP3B	Z	5.974	2.19
15	MP3B	Mx	-.003	2.19
16	MP3B	X	-3.449	4.19
17	MP3B	Z	5.974	4.19
18	MP3B	Mx	-.003	4.19
19	MP3C	X	-6.926	2.19
20	MP3C	Z	11.997	2.19
21	MP3C	Mx	.003	2.19
22	MP3C	X	-6.926	4.19
23	MP3C	Z	11.997	4.19
24	MP3C	Mx	.003	4.19
25	MP2A	X	-13.99	1.42

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP2A	Z	24.231	1.42
27	MP2A	Mx	.034	1.42
28	MP2A	X	-13.99	4.94
29	MP2A	Z	24.231	4.94
30	MP2A	Mx	.034	4.94
31	MP2B	X	-10.372	1.42
32	MP2B	Z	17.965	1.42
33	MP2B	Mx	-.023	1.42
34	MP2B	X	-10.372	4.94
35	MP2B	Z	17.965	4.94
36	MP2B	Mx	-.023	4.94
37	MP2C	X	-13.99	1.42
38	MP2C	Z	24.231	1.42
39	MP2C	Mx	-.002	1.42
40	MP2C	X	-13.99	4.94
41	MP2C	Z	24.231	4.94
42	MP2C	Mx	-.002	4.94
43	MP2A	X	-13.99	1.42
44	MP2A	Z	24.231	1.42
45	MP2A	Mx	-.002	1.42
46	MP2A	X	-13.99	4.94
47	MP2A	Z	24.231	4.94
48	MP2A	Mx	-.002	4.94
49	MP2B	X	-10.372	1.42
50	MP2B	Z	17.965	1.42
51	MP2B	Mx	-.023	1.42
52	MP2B	X	-10.372	4.94
53	MP2B	Z	17.965	4.94
54	MP2B	Mx	-.023	4.94
55	MP2C	X	-13.99	1.42
56	MP2C	Z	24.231	1.42
57	MP2C	Mx	.034	1.42
58	MP2C	X	-13.99	4.94
59	MP2C	Z	24.231	4.94
60	MP2C	Mx	.034	4.94
61	MP3A	X	-1.557	.5
62	MP3A	Z	2.698	.5
63	MP3A	Mx	.000251	.5
64	MP3B	X	-1.248	.5
65	MP3B	Z	2.161	.5
66	MP3B	Mx	.001	.5
67	MP3C	X	-1.557	.5
68	MP3C	Z	2.698	.5
69	MP3C	Mx	-.002	.5
70	MP3A	X	-6.302	2.19
71	MP3A	Z	10.916	2.19
72	MP3A	Mx	-.005	2.19
73	MP3B	X	-6.302	2.19
74	MP3B	Z	10.916	2.19
75	MP3B	Mx	-.005	2.19
76	MP3C	X	-6.302	2.19
77	MP3C	Z	10.916	2.19
78	MP3C	Mx	-.005	2.19
79	MP2A	X	-6.105	2.19
80	MP2A	Z	10.575	2.19
81	MP2A	Mx	-.005	2.19
82	MP2B	X	-3.96	2.19
83	MP2B	Z	6.858	2.19
84	MP2B	Mx	.006	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
85	MP2C	X	-6.105	2.19
86	MP2C	Z	10.575	2.19
87	MP2C	Mx	-.005	2.19
88	M193	X	-6.118	2.79
89	M193	Z	10.596	2.79
90	M193	Mx	0	2.79
91	M162	X	-6.118	1
92	M162	Z	10.596	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-6.501	4
2	MP2C	Z	3.753	4
3	MP2C	Mx	.003	4
4	MP2C	X	-6.501	4
5	MP2C	Z	3.753	4
6	MP2C	Mx	-.003	4
7	MP3A	X	-7.981	2.19
8	MP3A	Z	4.608	2.19
9	MP3A	Mx	.004	2.19
10	MP3A	X	-7.981	4.19
11	MP3A	Z	4.608	4.19
12	MP3A	Mx	.004	4.19
13	MP3B	X	-7.981	2.19
14	MP3B	Z	4.608	2.19
15	MP3B	Mx	-.004	2.19
16	MP3B	X	-7.981	4.19
17	MP3B	Z	4.608	4.19
18	MP3B	Mx	-.004	4.19
19	MP3C	X	-14.005	2.19
20	MP3C	Z	8.086	2.19
21	MP3C	Mx	0	2.19
22	MP3C	X	-14.005	4.19
23	MP3C	Z	8.086	4.19
24	MP3C	Mx	0	4.19
25	MP2A	X	-20.054	1.42
26	MP2A	Z	11.578	1.42
27	MP2A	Mx	.031	1.42
28	MP2A	X	-20.054	4.94
29	MP2A	Z	11.578	4.94
30	MP2A	Mx	.031	4.94
31	MP2B	X	-20.054	1.42
32	MP2B	Z	11.578	1.42
33	MP2B	Mx	-.014	1.42
34	MP2B	X	-20.054	4.94
35	MP2B	Z	11.578	4.94
36	MP2B	Mx	-.014	4.94
37	MP2C	X	-26.32	1.42
38	MP2C	Z	15.196	1.42
39	MP2C	Mx	-.023	1.42
40	MP2C	X	-26.32	4.94
41	MP2C	Z	15.196	4.94
42	MP2C	Mx	-.023	4.94
43	MP2A	X	-20.054	1.42
44	MP2A	Z	11.578	1.42
45	MP2A	Mx	.014	1.42
46	MP2A	X	-20.054	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
47	MP2A	Z	11.578	4.94
48	MP2A	Mx	.014	4.94
49	MP2B	X	-20.054	1.42
50	MP2B	Z	11.578	1.42
51	MP2B	Mx	-.031	1.42
52	MP2B	X	-20.054	4.94
53	MP2B	Z	11.578	4.94
54	MP2B	Mx	-.031	4.94
55	MP2C	X	-26.32	1.42
56	MP2C	Z	15.196	1.42
57	MP2C	Mx	.023	1.42
58	MP2C	X	-26.32	4.94
59	MP2C	Z	15.196	4.94
60	MP2C	Mx	.023	4.94
61	MP3A	X	-2.34	.5
62	MP3A	Z	1.351	.5
63	MP3A	Mx	-.000525	.5
64	MP3B	X	-2.34	.5
65	MP3B	Z	1.351	.5
66	MP3B	Mx	.001	.5
67	MP3C	X	-2.877	.5
68	MP3C	Z	1.661	.5
69	MP3C	Mx	-.001	.5
70	MP3A	X	-9.121	2.19
71	MP3A	Z	5.266	2.19
72	MP3A	Mx	-.007	2.19
73	MP3B	X	-9.121	2.19
74	MP3B	Z	5.266	2.19
75	MP3B	Mx	-.007	2.19
76	MP3C	X	-9.121	2.19
77	MP3C	Z	5.266	2.19
78	MP3C	Mx	-.007	2.19
79	MP2A	X	-8.097	2.19
80	MP2A	Z	4.675	2.19
81	MP2A	Mx	-.006	2.19
82	MP2B	X	-8.097	2.19
83	MP2B	Z	4.675	2.19
84	MP2B	Mx	.006	2.19
85	MP2C	X	-11.814	2.19
86	MP2C	Z	6.821	2.19
87	MP2C	Mx	0	2.19
88	M193	X	-12.488	2.79
89	M193	Z	7.21	2.79
90	M193	Mx	0	2.79
91	M162	X	-12.488	1
92	M162	Z	7.21	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-6.339	4
2	MP2C	Z	0	4
3	MP2C	Mx	.004	4
4	MP2C	X	-6.339	4
5	MP2C	Z	0	4
6	MP2C	Mx	-.000703	4
7	MP3A	X	-6.898	2.19
8	MP3A	Z	0	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP3A	Mx	.003	2.19
10	MP3A	X	-6.898	4.19
11	MP3A	Z	0	4.19
12	MP3A	Mx	.003	4.19
13	MP3B	X	-13.853	2.19
14	MP3B	Z	0	2.19
15	MP3B	Mx	-.003	2.19
16	MP3B	X	-13.853	4.19
17	MP3B	Z	0	4.19
18	MP3B	Mx	-.003	4.19
19	MP3C	X	-13.853	2.19
20	MP3C	Z	0	2.19
21	MP3C	Mx	-.003	2.19
22	MP3C	X	-13.853	4.19
23	MP3C	Z	0	4.19
24	MP3C	Mx	-.003	4.19
25	MP2A	X	-20.744	1.42
26	MP2A	Z	0	1.42
27	MP2A	Mx	.023	1.42
28	MP2A	X	-20.744	4.94
29	MP2A	Z	0	4.94
30	MP2A	Mx	.023	4.94
31	MP2B	X	-27.98	1.42
32	MP2B	Z	0	1.42
33	MP2B	Mx	.002	1.42
34	MP2B	X	-27.98	4.94
35	MP2B	Z	0	4.94
36	MP2B	Mx	.002	4.94
37	MP2C	X	-27.98	1.42
38	MP2C	Z	0	1.42
39	MP2C	Mx	-.034	1.42
40	MP2C	X	-27.98	4.94
41	MP2C	Z	0	4.94
42	MP2C	Mx	-.034	4.94
43	MP2A	X	-20.744	1.42
44	MP2A	Z	0	1.42
45	MP2A	Mx	.023	1.42
46	MP2A	X	-20.744	4.94
47	MP2A	Z	0	4.94
48	MP2A	Mx	.023	4.94
49	MP2B	X	-27.98	1.42
50	MP2B	Z	0	1.42
51	MP2B	Mx	-.034	1.42
52	MP2B	X	-27.98	4.94
53	MP2B	Z	0	4.94
54	MP2B	Mx	-.034	4.94
55	MP2C	X	-27.98	1.42
56	MP2C	Z	0	1.42
57	MP2C	Mx	.002	1.42
58	MP2C	X	-27.98	4.94
59	MP2C	Z	0	4.94
60	MP2C	Mx	.002	4.94
61	MP3A	X	-2.495	.5
62	MP3A	Z	0	.5
63	MP3A	Mx	-.001	.5
64	MP3B	X	-3.115	.5
65	MP3B	Z	0	.5
66	MP3B	Mx	.002	.5
67	MP3C	X	-3.115	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
68	MP3C	Z	0	.5
69	MP3C	Mx	-.00025	.5
70	MP3A	X	-9.495	2.19
71	MP3A	Z	0	2.19
72	MP3A	Mx	-.008	2.19
73	MP3B	X	-9.495	2.19
74	MP3B	Z	0	2.19
75	MP3B	Mx	-.008	2.19
76	MP3C	X	-9.495	2.19
77	MP3C	Z	0	2.19
78	MP3C	Mx	-.008	2.19
79	MP2A	X	-7.919	2.19
80	MP2A	Z	0	2.19
81	MP2A	Mx	-.006	2.19
82	MP2B	X	-12.211	2.19
83	MP2B	Z	0	2.19
84	MP2B	Mx	.005	2.19
85	MP2C	X	-12.211	2.19
86	MP2C	Z	0	2.19
87	MP2C	Mx	.005	2.19
88	M193	X	-17.1	2.79
89	M193	Z	0	2.79
90	M193	Mx	0	2.79
91	M162	X	-17.1	1
92	M162	Z	0	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-3.468	4
2	MP2C	Z	-2.002	4
3	MP2C	Mx	.003	4
4	MP2C	X	-3.468	4
5	MP2C	Z	-2.002	4
6	MP2C	Mx	.0009	4
7	MP3A	X	-7.981	2.19
8	MP3A	Z	-4.608	2.19
9	MP3A	Mx	.004	2.19
10	MP3A	X	-7.981	4.19
11	MP3A	Z	-4.608	4.19
12	MP3A	Mx	.004	4.19
13	MP3B	X	-14.005	2.19
14	MP3B	Z	-8.086	2.19
15	MP3B	Mx	0	2.19
16	MP3B	X	-14.005	4.19
17	MP3B	Z	-8.086	4.19
18	MP3B	Mx	0	4.19
19	MP3C	X	-7.981	2.19
20	MP3C	Z	-4.608	2.19
21	MP3C	Mx	-.004	2.19
22	MP3C	X	-7.981	4.19
23	MP3C	Z	-4.608	4.19
24	MP3C	Mx	-.004	4.19
25	MP2A	X	-20.054	1.42
26	MP2A	Z	-11.578	1.42
27	MP2A	Mx	.014	1.42
28	MP2A	X	-20.054	4.94
29	MP2A	Z	-11.578	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP2A	Mx	.014	4.94
31	MP2B	X	-26.32	1.42
32	MP2B	Z	-15.196	1.42
33	MP2B	Mx	.023	1.42
34	MP2B	X	-26.32	4.94
35	MP2B	Z	-15.196	4.94
36	MP2B	Mx	.023	4.94
37	MP2C	X	-20.054	1.42
38	MP2C	Z	-11.578	1.42
39	MP2C	Mx	-.031	1.42
40	MP2C	X	-20.054	4.94
41	MP2C	Z	-11.578	4.94
42	MP2C	Mx	-.031	4.94
43	MP2A	X	-20.054	1.42
44	MP2A	Z	-11.578	1.42
45	MP2A	Mx	.031	1.42
46	MP2A	X	-20.054	4.94
47	MP2A	Z	-11.578	4.94
48	MP2A	Mx	.031	4.94
49	MP2B	X	-26.32	1.42
50	MP2B	Z	-15.196	1.42
51	MP2B	Mx	-.023	1.42
52	MP2B	X	-26.32	4.94
53	MP2B	Z	-15.196	4.94
54	MP2B	Mx	-.023	4.94
55	MP2C	X	-20.054	1.42
56	MP2C	Z	-11.578	1.42
57	MP2C	Mx	-.014	1.42
58	MP2C	X	-20.054	4.94
59	MP2C	Z	-11.578	4.94
60	MP2C	Mx	-.014	4.94
61	MP3A	X	-2.34	.5
62	MP3A	Z	-1.351	.5
63	MP3A	Mx	-.001	.5
64	MP3B	X	-2.877	.5
65	MP3B	Z	-1.661	.5
66	MP3B	Mx	.001	.5
67	MP3C	X	-2.34	.5
68	MP3C	Z	-1.351	.5
69	MP3C	Mx	.000525	.5
70	MP3A	X	-9.121	2.19
71	MP3A	Z	-5.266	2.19
72	MP3A	Mx	-.007	2.19
73	MP3B	X	-9.121	2.19
74	MP3B	Z	-5.266	2.19
75	MP3B	Mx	-.007	2.19
76	MP3C	X	-9.121	2.19
77	MP3C	Z	-5.266	2.19
78	MP3C	Mx	-.007	2.19
79	MP2A	X	-8.097	2.19
80	MP2A	Z	-4.675	2.19
81	MP2A	Mx	-.006	2.19
82	MP2B	X	-11.814	2.19
83	MP2B	Z	-6.821	2.19
84	MP2B	Mx	0	2.19
85	MP2C	X	-8.097	2.19
86	MP2C	Z	-4.675	2.19
87	MP2C	Mx	.006	2.19
88	M193	X	-15.238	2.79

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
89	M193	Z	-8.798	2.79
90	M193	Mx	0	2.79
91	M162	X	-15.238	1
92	M162	Z	-8.798	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-1.419	4
2	MP2C	Z	-2.457	4
3	MP2C	Mx	.001	4
4	MP2C	X	-1.419	4
5	MP2C	Z	-2.457	4
6	MP2C	Mx	.001	4
7	MP3A	X	-6.926	2.19
8	MP3A	Z	-11.997	2.19
9	MP3A	Mx	.003	2.19
10	MP3A	X	-6.926	4.19
11	MP3A	Z	-11.997	4.19
12	MP3A	Mx	.003	4.19
13	MP3B	X	-6.926	2.19
14	MP3B	Z	-11.997	2.19
15	MP3B	Mx	.003	2.19
16	MP3B	X	-6.926	4.19
17	MP3B	Z	-11.997	4.19
18	MP3B	Mx	.003	4.19
19	MP3C	X	-3.449	2.19
20	MP3C	Z	-5.974	2.19
21	MP3C	Mx	-.003	2.19
22	MP3C	X	-3.449	4.19
23	MP3C	Z	-5.974	4.19
24	MP3C	Mx	-.003	4.19
25	MP2A	X	-13.99	1.42
26	MP2A	Z	-24.231	1.42
27	MP2A	Mx	-.002	1.42
28	MP2A	X	-13.99	4.94
29	MP2A	Z	-24.231	4.94
30	MP2A	Mx	-.002	4.94
31	MP2B	X	-13.99	1.42
32	MP2B	Z	-24.231	1.42
33	MP2B	Mx	.034	1.42
34	MP2B	X	-13.99	4.94
35	MP2B	Z	-24.231	4.94
36	MP2B	Mx	.034	4.94
37	MP2C	X	-10.372	1.42
38	MP2C	Z	-17.965	1.42
39	MP2C	Mx	-.023	1.42
40	MP2C	X	-10.372	4.94
41	MP2C	Z	-17.965	4.94
42	MP2C	Mx	-.023	4.94
43	MP2A	X	-13.99	1.42
44	MP2A	Z	-24.231	1.42
45	MP2A	Mx	.034	1.42
46	MP2A	X	-13.99	4.94
47	MP2A	Z	-24.231	4.94
48	MP2A	Mx	.034	4.94
49	MP2B	X	-13.99	1.42
50	MP2B	Z	-24.231	1.42

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
51	MP2B	Mx	-.002	1.42
52	MP2B	X	-13.99	4.94
53	MP2B	Z	-24.231	4.94
54	MP2B	Mx	-.002	4.94
55	MP2C	X	-10.372	1.42
56	MP2C	Z	-17.965	1.42
57	MP2C	Mx	-.023	1.42
58	MP2C	X	-10.372	4.94
59	MP2C	Z	-17.965	4.94
60	MP2C	Mx	-.023	4.94
61	MP3A	X	-1.557	.5
62	MP3A	Z	-2.698	.5
63	MP3A	Mx	-.002	.5
64	MP3B	X	-1.557	.5
65	MP3B	Z	-2.698	.5
66	MP3B	Mx	.00025	.5
67	MP3C	X	-1.248	.5
68	MP3C	Z	-2.161	.5
69	MP3C	Mx	.001	.5
70	MP3A	X	-6.302	2.19
71	MP3A	Z	-10.916	2.19
72	MP3A	Mx	-.005	2.19
73	MP3B	X	-6.302	2.19
74	MP3B	Z	-10.916	2.19
75	MP3B	Mx	-.005	2.19
76	MP3C	X	-6.302	2.19
77	MP3C	Z	-10.916	2.19
78	MP3C	Mx	-.005	2.19
79	MP2A	X	-6.105	2.19
80	MP2A	Z	-10.575	2.19
81	MP2A	Mx	-.005	2.19
82	MP2B	X	-6.105	2.19
83	MP2B	Z	-10.575	2.19
84	MP2B	Mx	-.005	2.19
85	MP2C	X	-3.96	2.19
86	MP2C	Z	-6.858	2.19
87	MP2C	Mx	.006	2.19
88	M193	X	-7.705	2.79
89	M193	Z	-13.346	2.79
90	M193	Mx	0	2.79
91	M162	X	-7.705	1
92	M162	Z	-13.346	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	0	4
2	MP2C	Z	-1.003	4
3	MP2C	Mx	.000225	4
4	MP2C	X	0	4
5	MP2C	Z	-1.003	4
6	MP2C	Mx	.000643	4
7	MP3A	X	0	2.19
8	MP3A	Z	-4.29	2.19
9	MP3A	Mx	0	2.19
10	MP3A	X	0	4.19
11	MP3A	Z	-4.29	4.19
12	MP3A	Mx	0	4.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP3B	X	0	2.19
14	MP3B	Z	-2.181	2.19
15	MP3B	Mx	.000944	2.19
16	MP3B	X	0	4.19
17	MP3B	Z	-2.181	4.19
18	MP3B	Mx	.000944	4.19
19	MP3C	X	0	2.19
20	MP3C	Z	-2.181	2.19
21	MP3C	Mx	-.000944	2.19
22	MP3C	X	0	4.19
23	MP3C	Z	-2.181	4.19
24	MP3C	Mx	-.000944	4.19
25	MP2A	X	0	1.42
26	MP2A	Z	-9.97	1.42
27	MP2A	Mx	-.007	1.42
28	MP2A	X	0	4.94
29	MP2A	Z	-9.97	4.94
30	MP2A	Mx	-.007	4.94
31	MP2B	X	0	1.42
32	MP2B	Z	-7.404	1.42
33	MP2B	Mx	.01	1.42
34	MP2B	X	0	4.94
35	MP2B	Z	-7.404	4.94
36	MP2B	Mx	.01	4.94
37	MP2C	X	0	1.42
38	MP2C	Z	-7.404	1.42
39	MP2C	Mx	-.004	1.42
40	MP2C	X	0	4.94
41	MP2C	Z	-7.404	4.94
42	MP2C	Mx	-.004	4.94
43	MP2A	X	0	1.42
44	MP2A	Z	-9.97	1.42
45	MP2A	Mx	.007	1.42
46	MP2A	X	0	4.94
47	MP2A	Z	-9.97	4.94
48	MP2A	Mx	.007	4.94
49	MP2B	X	0	1.42
50	MP2B	Z	-7.404	1.42
51	MP2B	Mx	.004	1.42
52	MP2B	X	0	4.94
53	MP2B	Z	-7.404	4.94
54	MP2B	Mx	.004	4.94
55	MP2C	X	0	1.42
56	MP2C	Z	-7.404	1.42
57	MP2C	Mx	-.01	1.42
58	MP2C	X	0	4.94
59	MP2C	Z	-7.404	4.94
60	MP2C	Mx	-.01	4.94
61	MP3A	X	0	.5
62	MP3A	Z	-.81	.5
63	MP3A	Mx	-.00027	.5
64	MP3B	X	0	.5
65	MP3B	Z	-.623	.5
66	MP3B	Mx	-.000121	.5
67	MP3C	X	0	.5
68	MP3C	Z	-.623	.5
69	MP3C	Mx	.000329	.5
70	MP3A	X	0	2.19
71	MP3A	Z	-3.393	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
72	MP3A	Mx	0	2.19
73	MP3B	X	0	2.19
74	MP3B	Z	-3.393	2.19
75	MP3B	Mx	0	2.19
76	MP3C	X	0	2.19
77	MP3C	Z	-3.393	2.19
78	MP3C	Mx	0	2.19
79	MP2A	X	0	2.19
80	MP2A	Z	-3.393	2.19
81	MP2A	Mx	0	2.19
82	MP2B	X	0	2.19
83	MP2B	Z	-2.244	2.19
84	MP2B	Mx	-.002	2.19
85	MP2C	X	0	2.19
86	MP2C	Z	-2.244	2.19
87	MP2C	Mx	.002	2.19
88	M193	X	0	2.79
89	M193	Z	-3.778	2.79
90	M193	Mx	0	2.79
91	M162	X	0	1
92	M162	Z	-3.778	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	.868	4
2	MP2C	Z	-1.503	4
3	MP2C	Mx	-.000193	4
4	MP2C	X	.868	4
5	MP2C	Z	-1.503	4
6	MP2C	Mx	.001	4
7	MP3A	X	1.793	2.19
8	MP3A	Z	-3.106	2.19
9	MP3A	Mx	-.000896	2.19
10	MP3A	X	1.793	4.19
11	MP3A	Z	-3.106	4.19
12	MP3A	Mx	-.000896	4.19
13	MP3B	X	.739	2.19
14	MP3B	Z	-1.28	2.19
15	MP3B	Mx	.000739	2.19
16	MP3B	X	.739	4.19
17	MP3B	Z	-1.28	4.19
18	MP3B	Mx	.000739	4.19
19	MP3C	X	1.793	2.19
20	MP3C	Z	-3.106	2.19
21	MP3C	Mx	-.000897	2.19
22	MP3C	X	1.793	4.19
23	MP3C	Z	-3.106	4.19
24	MP3C	Mx	-.000897	4.19
25	MP2A	X	4.557	1.42
26	MP2A	Z	-7.893	1.42
27	MP2A	Mx	-.011	1.42
28	MP2A	X	4.557	4.94
29	MP2A	Z	-7.893	4.94
30	MP2A	Mx	-.011	4.94
31	MP2B	X	3.274	1.42
32	MP2B	Z	-5.671	1.42
33	MP2B	Mx	.007	1.42

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP2B	X	3.274	4.94
35	MP2B	Z	-5.671	4.94
36	MP2B	Mx	.007	4.94
37	MP2C	X	4.557	1.42
38	MP2C	Z	-7.893	1.42
39	MP2C	Mx	.000793	1.42
40	MP2C	X	4.557	4.94
41	MP2C	Z	-7.893	4.94
42	MP2C	Mx	.000793	4.94
43	MP2A	X	4.557	1.42
44	MP2A	Z	-7.893	1.42
45	MP2A	Mx	.000793	1.42
46	MP2A	X	4.557	4.94
47	MP2A	Z	-7.893	4.94
48	MP2A	Mx	.000793	4.94
49	MP2B	X	3.274	1.42
50	MP2B	Z	-5.671	1.42
51	MP2B	Mx	.007	1.42
52	MP2B	X	3.274	4.94
53	MP2B	Z	-5.671	4.94
54	MP2B	Mx	.007	4.94
55	MP2C	X	4.557	1.42
56	MP2C	Z	-7.893	1.42
57	MP2C	Mx	-.011	1.42
58	MP2C	X	4.557	4.94
59	MP2C	Z	-7.893	4.94
60	MP2C	Mx	-.011	4.94
61	MP3A	X	.374	.5
62	MP3A	Z	-.647	.5
63	MP3A	Mx	-6e-5	.5
64	MP3B	X	.28	.5
65	MP3B	Z	-.485	.5
66	MP3B	Mx	-.000233	.5
67	MP3C	X	.374	.5
68	MP3C	Z	-.647	.5
69	MP3C	Mx	.000371	.5
70	MP3A	X	1.557	2.19
71	MP3A	Z	-2.696	2.19
72	MP3A	Mx	.001	2.19
73	MP3B	X	1.557	2.19
74	MP3B	Z	-2.696	2.19
75	MP3B	Mx	.001	2.19
76	MP3C	X	1.557	2.19
77	MP3C	Z	-2.696	2.19
78	MP3C	Mx	.001	2.19
79	MP2A	X	1.505	2.19
80	MP2A	Z	-2.606	2.19
81	MP2A	Mx	.001	2.19
82	MP2B	X	.93	2.19
83	MP2B	Z	-1.611	2.19
84	MP2B	Mx	-.001	2.19
85	MP2C	X	1.505	2.19
86	MP2C	Z	-2.606	2.19
87	MP2C	Mx	.001	2.19
88	M193	X	1.806	2.79
89	M193	Z	-3.128	2.79
90	M193	Mx	0	2.79
91	M162	X	1.806	1
92	M162	Z	-3.128	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	1.82	4
2	MP2C	Z	-1.051	4
3	MP2C	Mx	-.000876	4
4	MP2C	X	1.82	4
5	MP2C	Z	-1.051	4
6	MP2C	Mx	.000876	4
7	MP3A	X	1.888	2.19
8	MP3A	Z	-1.09	2.19
9	MP3A	Mx	-.000944	2.19
10	MP3A	X	1.888	4.19
11	MP3A	Z	-1.09	4.19
12	MP3A	Mx	-.000944	4.19
13	MP3B	X	1.888	2.19
14	MP3B	Z	-1.09	2.19
15	MP3B	Mx	.000944	2.19
16	MP3B	X	1.888	4.19
17	MP3B	Z	-1.09	4.19
18	MP3B	Mx	.000944	4.19
19	MP3C	X	3.715	2.19
20	MP3C	Z	-2.145	2.19
21	MP3C	Mx	0	2.19
22	MP3C	X	3.715	4.19
23	MP3C	Z	-2.145	4.19
24	MP3C	Mx	0	4.19
25	MP2A	X	6.412	1.42
26	MP2A	Z	-3.702	1.42
27	MP2A	Mx	-.01	1.42
28	MP2A	X	6.412	4.94
29	MP2A	Z	-3.702	4.94
30	MP2A	Mx	-.01	4.94
31	MP2B	X	6.412	1.42
32	MP2B	Z	-3.702	1.42
33	MP2B	Mx	.004	1.42
34	MP2B	X	6.412	4.94
35	MP2B	Z	-3.702	4.94
36	MP2B	Mx	.004	4.94
37	MP2C	X	8.634	1.42
38	MP2C	Z	-4.985	1.42
39	MP2C	Mx	.007	1.42
40	MP2C	X	8.634	4.94
41	MP2C	Z	-4.985	4.94
42	MP2C	Mx	.007	4.94
43	MP2A	X	6.412	1.42
44	MP2A	Z	-3.702	1.42
45	MP2A	Mx	-.004	1.42
46	MP2A	X	6.412	4.94
47	MP2A	Z	-3.702	4.94
48	MP2A	Mx	-.004	4.94
49	MP2B	X	6.412	1.42
50	MP2B	Z	-3.702	1.42
51	MP2B	Mx	.01	1.42
52	MP2B	X	6.412	4.94
53	MP2B	Z	-3.702	4.94
54	MP2B	Mx	.01	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
55	MP2C	X	8.634	1.42
56	MP2C	Z	-4.985	1.42
57	MP2C	Mx	-.007	1.42
58	MP2C	X	8.634	4.94
59	MP2C	Z	-4.985	4.94
60	MP2C	Mx	-.007	4.94
61	MP3A	X	.539	.5
62	MP3A	Z	-.311	.5
63	MP3A	Mx	.000121	.5
64	MP3B	X	.539	.5
65	MP3B	Z	-.311	.5
66	MP3B	Mx	-.000328	.5
67	MP3C	X	.701	.5
68	MP3C	Z	-.405	.5
69	MP3C	Mx	.00027	.5
70	MP3A	X	2.213	2.19
71	MP3A	Z	-1.278	2.19
72	MP3A	Mx	.002	2.19
73	MP3B	X	2.213	2.19
74	MP3B	Z	-1.278	2.19
75	MP3B	Mx	.002	2.19
76	MP3C	X	2.213	2.19
77	MP3C	Z	-1.278	2.19
78	MP3C	Mx	.002	2.19
79	MP2A	X	1.943	2.19
80	MP2A	Z	-1.122	2.19
81	MP2A	Mx	.002	2.19
82	MP2B	X	1.943	2.19
83	MP2B	Z	-1.122	2.19
84	MP2B	Mx	-.002	2.19
85	MP2C	X	2.938	2.19
86	MP2C	Z	-1.696	2.19
87	MP2C	Mx	0	2.19
88	M193	X	3.764	2.79
89	M193	Z	-2.173	2.79
90	M193	Mx	0	2.79
91	M162	X	3.764	1
92	M162	Z	-2.173	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	1.735	4
2	MP2C	Z	0	4
3	MP2C	Mx	-.001	4
4	MP2C	X	1.735	4
5	MP2C	Z	0	4
6	MP2C	Mx	.000192	4
7	MP3A	X	1.477	2.19
8	MP3A	Z	0	2.19
9	MP3A	Mx	-.000738	2.19
10	MP3A	X	1.477	4.19
11	MP3A	Z	0	4.19
12	MP3A	Mx	-.000738	4.19
13	MP3B	X	3.587	2.19
14	MP3B	Z	0	2.19
15	MP3B	Mx	.000897	2.19
16	MP3B	X	3.587	4.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP3B	Z	0	4.19
18	MP3B	Mx	.000897	4.19
19	MP3C	X	3.587	2.19
20	MP3C	Z	0	2.19
21	MP3C	Mx	.000897	2.19
22	MP3C	X	3.587	4.19
23	MP3C	Z	0	4.19
24	MP3C	Mx	.000897	4.19
25	MP2A	X	6.548	1.42
26	MP2A	Z	0	1.42
27	MP2A	Mx	-.007	1.42
28	MP2A	X	6.548	4.94
29	MP2A	Z	0	4.94
30	MP2A	Mx	-.007	4.94
31	MP2B	X	9.115	1.42
32	MP2B	Z	0	1.42
33	MP2B	Mx	-.000793	1.42
34	MP2B	X	9.115	4.94
35	MP2B	Z	0	4.94
36	MP2B	Mx	-.000793	4.94
37	MP2C	X	9.115	1.42
38	MP2C	Z	0	1.42
39	MP2C	Mx	.011	1.42
40	MP2C	X	9.115	4.94
41	MP2C	Z	0	4.94
42	MP2C	Mx	.011	4.94
43	MP2A	X	6.548	1.42
44	MP2A	Z	0	1.42
45	MP2A	Mx	-.007	1.42
46	MP2A	X	6.548	4.94
47	MP2A	Z	0	4.94
48	MP2A	Mx	-.007	4.94
49	MP2B	X	9.115	1.42
50	MP2B	Z	0	1.42
51	MP2B	Mx	.011	1.42
52	MP2B	X	9.115	4.94
53	MP2B	Z	0	4.94
54	MP2B	Mx	.011	4.94
55	MP2C	X	9.115	1.42
56	MP2C	Z	0	1.42
57	MP2C	Mx	-.000793	1.42
58	MP2C	X	9.115	4.94
59	MP2C	Z	0	4.94
60	MP2C	Mx	-.000793	4.94
61	MP3A	X	.56	.5
62	MP3A	Z	0	.5
63	MP3A	Mx	.000233	.5
64	MP3B	X	.747	.5
65	MP3B	Z	0	.5
66	MP3B	Mx	-.000371	.5
67	MP3C	X	.747	.5
68	MP3C	Z	0	.5
69	MP3C	Mx	6e-5	.5
70	MP3A	X	2.276	2.19
71	MP3A	Z	0	2.19
72	MP3A	Mx	.002	2.19
73	MP3B	X	2.276	2.19
74	MP3B	Z	0	2.19
75	MP3B	Mx	.002	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
76	MP3C	X	2.276	2.19
77	MP3C	Z	0	2.19
78	MP3C	Mx	.002	2.19
79	MP2A	X	1.86	2.19
80	MP2A	Z	0	2.19
81	MP2A	Mx	.001	2.19
82	MP2B	X	3.01	2.19
83	MP2B	Z	0	2.19
84	MP2B	Mx	-.001	2.19
85	MP2C	X	3.01	2.19
86	MP2C	Z	0	2.19
87	MP2C	Mx	-.001	2.19
88	M193	X	5.248	2.79
89	M193	Z	0	2.79
90	M193	Mx	0	2.79
91	M162	X	5.248	1
92	M162	Z	0	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	.869	4
2	MP2C	Z	.502	4
3	MP2C	Mx	-.000644	4
4	MP2C	X	.869	4
5	MP2C	Z	.502	4
6	MP2C	Mx	-.000226	4
7	MP3A	X	1.888	2.19
8	MP3A	Z	1.09	2.19
9	MP3A	Mx	-.000944	2.19
10	MP3A	X	1.888	4.19
11	MP3A	Z	1.09	4.19
12	MP3A	Mx	-.000944	4.19
13	MP3B	X	3.715	2.19
14	MP3B	Z	2.145	2.19
15	MP3B	Mx	0	2.19
16	MP3B	X	3.715	4.19
17	MP3B	Z	2.145	4.19
18	MP3B	Mx	0	4.19
19	MP3C	X	1.888	2.19
20	MP3C	Z	1.09	2.19
21	MP3C	Mx	.000944	2.19
22	MP3C	X	1.888	4.19
23	MP3C	Z	1.09	4.19
24	MP3C	Mx	.000944	4.19
25	MP2A	X	6.412	1.42
26	MP2A	Z	3.702	1.42
27	MP2A	Mx	-.004	1.42
28	MP2A	X	6.412	4.94
29	MP2A	Z	3.702	4.94
30	MP2A	Mx	-.004	4.94
31	MP2B	X	8.634	1.42
32	MP2B	Z	4.985	1.42
33	MP2B	Mx	-.007	1.42
34	MP2B	X	8.634	4.94
35	MP2B	Z	4.985	4.94
36	MP2B	Mx	-.007	4.94
37	MP2C	X	6.412	1.42

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP2C	Z	3.702	1.42
39	MP2C	Mx	.01	1.42
40	MP2C	X	6.412	4.94
41	MP2C	Z	3.702	4.94
42	MP2C	Mx	.01	4.94
43	MP2A	X	6.412	1.42
44	MP2A	Z	3.702	1.42
45	MP2A	Mx	-.01	1.42
46	MP2A	X	6.412	4.94
47	MP2A	Z	3.702	4.94
48	MP2A	Mx	-.01	4.94
49	MP2B	X	8.634	1.42
50	MP2B	Z	4.985	1.42
51	MP2B	Mx	.007	1.42
52	MP2B	X	8.634	4.94
53	MP2B	Z	4.985	4.94
54	MP2B	Mx	.007	4.94
55	MP2C	X	6.412	1.42
56	MP2C	Z	3.702	1.42
57	MP2C	Mx	.004	1.42
58	MP2C	X	6.412	4.94
59	MP2C	Z	3.702	4.94
60	MP2C	Mx	.004	4.94
61	MP3A	X	.539	.5
62	MP3A	Z	.311	.5
63	MP3A	Mx	.000328	.5
64	MP3B	X	.701	.5
65	MP3B	Z	.405	.5
66	MP3B	Mx	-.00027	.5
67	MP3C	X	.539	.5
68	MP3C	Z	.311	.5
69	MP3C	Mx	-.000121	.5
70	MP3A	X	2.213	2.19
71	MP3A	Z	1.278	2.19
72	MP3A	Mx	.002	2.19
73	MP3B	X	2.213	2.19
74	MP3B	Z	1.278	2.19
75	MP3B	Mx	.002	2.19
76	MP3C	X	2.213	2.19
77	MP3C	Z	1.278	2.19
78	MP3C	Mx	.002	2.19
79	MP2A	X	1.943	2.19
80	MP2A	Z	1.122	2.19
81	MP2A	Mx	.002	2.19
82	MP2B	X	2.938	2.19
83	MP2B	Z	1.696	2.19
84	MP2B	Mx	0	2.19
85	MP2C	X	1.943	2.19
86	MP2C	Z	1.122	2.19
87	MP2C	Mx	-.002	2.19
88	M193	X	4.689	2.79
89	M193	Z	2.707	2.79
90	M193	Mx	0	2.79
91	M162	X	4.689	1
92	M162	Z	2.707	1
93	M162	Mx	0	1

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

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	.319	4
2	MP2C	Z	.552	4
3	MP2C	Mx	-.000319	4
4	MP2C	X	.319	4
5	MP2C	Z	.552	4
6	MP2C	Mx	-.000319	4
7	MP3A	X	1.793	2.19
8	MP3A	Z	3.106	2.19
9	MP3A	Mx	-.000896	2.19
10	MP3A	X	1.793	4.19
11	MP3A	Z	3.106	4.19
12	MP3A	Mx	-.000896	4.19
13	MP3B	X	1.793	2.19
14	MP3B	Z	3.106	2.19
15	MP3B	Mx	-.000897	2.19
16	MP3B	X	1.793	4.19
17	MP3B	Z	3.106	4.19
18	MP3B	Mx	-.000897	4.19
19	MP3C	X	.739	2.19
20	MP3C	Z	1.28	2.19
21	MP3C	Mx	.000739	2.19
22	MP3C	X	.739	4.19
23	MP3C	Z	1.28	4.19
24	MP3C	Mx	.000739	4.19
25	MP2A	X	4.557	1.42
26	MP2A	Z	7.893	1.42
27	MP2A	Mx	.000793	1.42
28	MP2A	X	4.557	4.94
29	MP2A	Z	7.893	4.94
30	MP2A	Mx	.000793	4.94
31	MP2B	X	4.557	1.42
32	MP2B	Z	7.893	1.42
33	MP2B	Mx	-.011	1.42
34	MP2B	X	4.557	4.94
35	MP2B	Z	7.893	4.94
36	MP2B	Mx	-.011	4.94
37	MP2C	X	3.274	1.42
38	MP2C	Z	5.671	1.42
39	MP2C	Mx	.007	1.42
40	MP2C	X	3.274	4.94
41	MP2C	Z	5.671	4.94
42	MP2C	Mx	.007	4.94
43	MP2A	X	4.557	1.42
44	MP2A	Z	7.893	1.42
45	MP2A	Mx	-.011	1.42
46	MP2A	X	4.557	4.94
47	MP2A	Z	7.893	4.94
48	MP2A	Mx	-.011	4.94
49	MP2B	X	4.557	1.42
50	MP2B	Z	7.893	1.42
51	MP2B	Mx	.000793	1.42
52	MP2B	X	4.557	4.94
53	MP2B	Z	7.893	4.94
54	MP2B	Mx	.000793	4.94
55	MP2C	X	3.274	1.42
56	MP2C	Z	5.671	1.42
57	MP2C	Mx	.007	1.42
58	MP2C	X	3.274	4.94
59	MP2C	Z	5.671	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
60	MP2C	Mx	.007	4.94
61	MP3A	X	.374	.5
62	MP3A	Z	.647	.5
63	MP3A	Mx	.000372	.5
64	MP3B	X	.374	.5
65	MP3B	Z	.647	.5
66	MP3B	Mx	-6e-5	.5
67	MP3C	X	.28	.5
68	MP3C	Z	.485	.5
69	MP3C	Mx	-.000233	.5
70	MP3A	X	1.557	2.19
71	MP3A	Z	2.696	2.19
72	MP3A	Mx	.001	2.19
73	MP3B	X	1.557	2.19
74	MP3B	Z	2.696	2.19
75	MP3B	Mx	.001	2.19
76	MP3C	X	1.557	2.19
77	MP3C	Z	2.696	2.19
78	MP3C	Mx	.001	2.19
79	MP2A	X	1.505	2.19
80	MP2A	Z	2.606	2.19
81	MP2A	Mx	.001	2.19
82	MP2B	X	1.505	2.19
83	MP2B	Z	2.606	2.19
84	MP2B	Mx	.001	2.19
85	MP2C	X	.93	2.19
86	MP2C	Z	1.611	2.19
87	MP2C	Mx	-.001	2.19
88	M193	X	2.34	2.79
89	M193	Z	4.052	2.79
90	M193	Mx	0	2.79
91	M162	X	2.34	1
92	M162	Z	4.052	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	0	4
2	MP2C	Z	1.003	4
3	MP2C	Mx	-.000225	4
4	MP2C	X	0	4
5	MP2C	Z	1.003	4
6	MP2C	Mx	-.000643	4
7	MP3A	X	0	2.19
8	MP3A	Z	4.29	2.19
9	MP3A	Mx	0	2.19
10	MP3A	X	0	4.19
11	MP3A	Z	4.29	4.19
12	MP3A	Mx	0	4.19
13	MP3B	X	0	2.19
14	MP3B	Z	2.181	2.19
15	MP3B	Mx	-.000944	2.19
16	MP3B	X	0	4.19
17	MP3B	Z	2.181	4.19
18	MP3B	Mx	-.000944	4.19
19	MP3C	X	0	2.19
20	MP3C	Z	2.181	2.19
21	MP3C	Mx	.000944	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP3C	X	0	4.19
23	MP3C	Z	2.181	4.19
24	MP3C	Mx	.000944	4.19
25	MP2A	X	0	1.42
26	MP2A	Z	9.97	1.42
27	MP2A	Mx	.007	1.42
28	MP2A	X	0	4.94
29	MP2A	Z	9.97	4.94
30	MP2A	Mx	.007	4.94
31	MP2B	X	0	1.42
32	MP2B	Z	7.404	1.42
33	MP2B	Mx	-.01	1.42
34	MP2B	X	0	4.94
35	MP2B	Z	7.404	4.94
36	MP2B	Mx	-.01	4.94
37	MP2C	X	0	1.42
38	MP2C	Z	7.404	1.42
39	MP2C	Mx	.004	1.42
40	MP2C	X	0	4.94
41	MP2C	Z	7.404	4.94
42	MP2C	Mx	.004	4.94
43	MP2A	X	0	1.42
44	MP2A	Z	9.97	1.42
45	MP2A	Mx	-.007	1.42
46	MP2A	X	0	4.94
47	MP2A	Z	9.97	4.94
48	MP2A	Mx	-.007	4.94
49	MP2B	X	0	1.42
50	MP2B	Z	7.404	1.42
51	MP2B	Mx	-.004	1.42
52	MP2B	X	0	4.94
53	MP2B	Z	7.404	4.94
54	MP2B	Mx	-.004	4.94
55	MP2C	X	0	1.42
56	MP2C	Z	7.404	1.42
57	MP2C	Mx	.01	1.42
58	MP2C	X	0	4.94
59	MP2C	Z	7.404	4.94
60	MP2C	Mx	.01	4.94
61	MP3A	X	0	.5
62	MP3A	Z	.81	.5
63	MP3A	Mx	.00027	.5
64	MP3B	X	0	.5
65	MP3B	Z	.623	.5
66	MP3B	Mx	.000121	.5
67	MP3C	X	0	.5
68	MP3C	Z	.623	.5
69	MP3C	Mx	-.000329	.5
70	MP3A	X	0	2.19
71	MP3A	Z	3.393	2.19
72	MP3A	Mx	0	2.19
73	MP3B	X	0	2.19
74	MP3B	Z	3.393	2.19
75	MP3B	Mx	0	2.19
76	MP3C	X	0	2.19
77	MP3C	Z	3.393	2.19
78	MP3C	Mx	0	2.19
79	MP2A	X	0	2.19
80	MP2A	Z	3.393	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
81	MP2A	Mx	0	2.19
82	MP2B	X	0	2.19
83	MP2B	Z	2.244	2.19
84	MP2B	Mx	.002	2.19
85	MP2C	X	0	2.19
86	MP2C	Z	2.244	2.19
87	MP2C	Mx	-.002	2.19
88	M193	X	0	2.79
89	M193	Z	3.778	2.79
90	M193	Mx	0	2.79
91	M162	X	0	1
92	M162	Z	3.778	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-.868	4
2	MP2C	Z	1.503	4
3	MP2C	Mx	.000193	4
4	MP2C	X	-.868	4
5	MP2C	Z	1.503	4
6	MP2C	Mx	-.001	4
7	MP3A	X	-1.793	2.19
8	MP3A	Z	3.106	2.19
9	MP3A	Mx	.000896	2.19
10	MP3A	X	-1.793	4.19
11	MP3A	Z	3.106	4.19
12	MP3A	Mx	.000896	4.19
13	MP3B	X	-.739	2.19
14	MP3B	Z	1.28	2.19
15	MP3B	Mx	-.000739	2.19
16	MP3B	X	-.739	4.19
17	MP3B	Z	1.28	4.19
18	MP3B	Mx	-.000739	4.19
19	MP3C	X	-1.793	2.19
20	MP3C	Z	3.106	2.19
21	MP3C	Mx	.000897	2.19
22	MP3C	X	-1.793	4.19
23	MP3C	Z	3.106	4.19
24	MP3C	Mx	.000897	4.19
25	MP2A	X	-4.557	1.42
26	MP2A	Z	7.893	1.42
27	MP2A	Mx	.011	1.42
28	MP2A	X	-4.557	4.94
29	MP2A	Z	7.893	4.94
30	MP2A	Mx	.011	4.94
31	MP2B	X	-3.274	1.42
32	MP2B	Z	5.671	1.42
33	MP2B	Mx	-.007	1.42
34	MP2B	X	-3.274	4.94
35	MP2B	Z	5.671	4.94
36	MP2B	Mx	-.007	4.94
37	MP2C	X	-4.557	1.42
38	MP2C	Z	7.893	1.42
39	MP2C	Mx	-.000793	1.42
40	MP2C	X	-4.557	4.94
41	MP2C	Z	7.893	4.94
42	MP2C	Mx	-.000793	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
43	MP2A	X	-4.557	1.42
44	MP2A	Z	7.893	1.42
45	MP2A	Mx	-.000793	1.42
46	MP2A	X	-4.557	4.94
47	MP2A	Z	7.893	4.94
48	MP2A	Mx	-.000793	4.94
49	MP2B	X	-3.274	1.42
50	MP2B	Z	5.671	1.42
51	MP2B	Mx	-.007	1.42
52	MP2B	X	-3.274	4.94
53	MP2B	Z	5.671	4.94
54	MP2B	Mx	-.007	4.94
55	MP2C	X	-4.557	1.42
56	MP2C	Z	7.893	1.42
57	MP2C	Mx	.011	1.42
58	MP2C	X	-4.557	4.94
59	MP2C	Z	7.893	4.94
60	MP2C	Mx	.011	4.94
61	MP3A	X	-.374	.5
62	MP3A	Z	.647	.5
63	MP3A	Mx	6e-5	.5
64	MP3B	X	-.28	.5
65	MP3B	Z	.485	.5
66	MP3B	Mx	.000233	.5
67	MP3C	X	-.374	.5
68	MP3C	Z	.647	.5
69	MP3C	Mx	-.000371	.5
70	MP3A	X	-1.557	2.19
71	MP3A	Z	2.696	2.19
72	MP3A	Mx	-.001	2.19
73	MP3B	X	-1.557	2.19
74	MP3B	Z	2.696	2.19
75	MP3B	Mx	-.001	2.19
76	MP3C	X	-1.557	2.19
77	MP3C	Z	2.696	2.19
78	MP3C	Mx	-.001	2.19
79	MP2A	X	-1.505	2.19
80	MP2A	Z	2.606	2.19
81	MP2A	Mx	-.001	2.19
82	MP2B	X	-.93	2.19
83	MP2B	Z	1.611	2.19
84	MP2B	Mx	.001	2.19
85	MP2C	X	-1.505	2.19
86	MP2C	Z	2.606	2.19
87	MP2C	Mx	-.001	2.19
88	M193	X	-1.806	2.79
89	M193	Z	3.128	2.79
90	M193	Mx	0	2.79
91	M162	X	-1.806	1
92	M162	Z	3.128	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-1.82	4
2	MP2C	Z	1.051	4
3	MP2C	Mx	.000876	4
4	MP2C	X	-1.82	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP2C	Z	1.051	4
6	MP2C	Mx	-.000876	4
7	MP3A	X	-1.888	2.19
8	MP3A	Z	1.09	2.19
9	MP3A	Mx	.000944	2.19
10	MP3A	X	-1.888	4.19
11	MP3A	Z	1.09	4.19
12	MP3A	Mx	.000944	4.19
13	MP3B	X	-1.888	2.19
14	MP3B	Z	1.09	2.19
15	MP3B	Mx	-.000944	2.19
16	MP3B	X	-1.888	4.19
17	MP3B	Z	1.09	4.19
18	MP3B	Mx	-.000944	4.19
19	MP3C	X	-3.715	2.19
20	MP3C	Z	2.145	2.19
21	MP3C	Mx	0	2.19
22	MP3C	X	-3.715	4.19
23	MP3C	Z	2.145	4.19
24	MP3C	Mx	0	4.19
25	MP2A	X	-6.412	1.42
26	MP2A	Z	3.702	1.42
27	MP2A	Mx	.01	1.42
28	MP2A	X	-6.412	4.94
29	MP2A	Z	3.702	4.94
30	MP2A	Mx	.01	4.94
31	MP2B	X	-6.412	1.42
32	MP2B	Z	3.702	1.42
33	MP2B	Mx	-.004	1.42
34	MP2B	X	-6.412	4.94
35	MP2B	Z	3.702	4.94
36	MP2B	Mx	-.004	4.94
37	MP2C	X	-8.634	1.42
38	MP2C	Z	4.985	1.42
39	MP2C	Mx	-.007	1.42
40	MP2C	X	-8.634	4.94
41	MP2C	Z	4.985	4.94
42	MP2C	Mx	-.007	4.94
43	MP2A	X	-6.412	1.42
44	MP2A	Z	3.702	1.42
45	MP2A	Mx	.004	1.42
46	MP2A	X	-6.412	4.94
47	MP2A	Z	3.702	4.94
48	MP2A	Mx	.004	4.94
49	MP2B	X	-6.412	1.42
50	MP2B	Z	3.702	1.42
51	MP2B	Mx	-.01	1.42
52	MP2B	X	-6.412	4.94
53	MP2B	Z	3.702	4.94
54	MP2B	Mx	-.01	4.94
55	MP2C	X	-8.634	1.42
56	MP2C	Z	4.985	1.42
57	MP2C	Mx	.007	1.42
58	MP2C	X	-8.634	4.94
59	MP2C	Z	4.985	4.94
60	MP2C	Mx	.007	4.94
61	MP3A	X	-.539	.5
62	MP3A	Z	.311	.5
63	MP3A	Mx	-.000121	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
64	MP3B	X	-.539	.5
65	MP3B	Z	.311	.5
66	MP3B	Mx	.000328	.5
67	MP3C	X	-.701	.5
68	MP3C	Z	.405	.5
69	MP3C	Mx	-.00027	.5
70	MP3A	X	-2.213	2.19
71	MP3A	Z	1.278	2.19
72	MP3A	Mx	-.002	2.19
73	MP3B	X	-2.213	2.19
74	MP3B	Z	1.278	2.19
75	MP3B	Mx	-.002	2.19
76	MP3C	X	-2.213	2.19
77	MP3C	Z	1.278	2.19
78	MP3C	Mx	-.002	2.19
79	MP2A	X	-1.943	2.19
80	MP2A	Z	1.122	2.19
81	MP2A	Mx	-.002	2.19
82	MP2B	X	-1.943	2.19
83	MP2B	Z	1.122	2.19
84	MP2B	Mx	.002	2.19
85	MP2C	X	-2.938	2.19
86	MP2C	Z	1.696	2.19
87	MP2C	Mx	0	2.19
88	M193	X	-3.764	2.79
89	M193	Z	2.173	2.79
90	M193	Mx	0	2.79
91	M162	X	-3.764	1
92	M162	Z	2.173	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-1.735	4
2	MP2C	Z	0	4
3	MP2C	Mx	.001	4
4	MP2C	X	-1.735	4
5	MP2C	Z	0	4
6	MP2C	Mx	-.000192	4
7	MP3A	X	-1.477	2.19
8	MP3A	Z	0	2.19
9	MP3A	Mx	.000738	2.19
10	MP3A	X	-1.477	4.19
11	MP3A	Z	0	4.19
12	MP3A	Mx	.000738	4.19
13	MP3B	X	-3.587	2.19
14	MP3B	Z	0	2.19
15	MP3B	Mx	-.000897	2.19
16	MP3B	X	-3.587	4.19
17	MP3B	Z	0	4.19
18	MP3B	Mx	-.000897	4.19
19	MP3C	X	-3.587	2.19
20	MP3C	Z	0	2.19
21	MP3C	Mx	-.000897	2.19
22	MP3C	X	-3.587	4.19
23	MP3C	Z	0	4.19
24	MP3C	Mx	-.000897	4.19
25	MP2A	X	-6.548	1.42

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP2A	Z	0	1.42
27	MP2A	Mx	.007	1.42
28	MP2A	X	-6.548	4.94
29	MP2A	Z	0	4.94
30	MP2A	Mx	.007	4.94
31	MP2B	X	-9.115	1.42
32	MP2B	Z	0	1.42
33	MP2B	Mx	.000793	1.42
34	MP2B	X	-9.115	4.94
35	MP2B	Z	0	4.94
36	MP2B	Mx	.000793	4.94
37	MP2C	X	-9.115	1.42
38	MP2C	Z	0	1.42
39	MP2C	Mx	-.011	1.42
40	MP2C	X	-9.115	4.94
41	MP2C	Z	0	4.94
42	MP2C	Mx	-.011	4.94
43	MP2A	X	-6.548	1.42
44	MP2A	Z	0	1.42
45	MP2A	Mx	.007	1.42
46	MP2A	X	-6.548	4.94
47	MP2A	Z	0	4.94
48	MP2A	Mx	.007	4.94
49	MP2B	X	-9.115	1.42
50	MP2B	Z	0	1.42
51	MP2B	Mx	-.011	1.42
52	MP2B	X	-9.115	4.94
53	MP2B	Z	0	4.94
54	MP2B	Mx	-.011	4.94
55	MP2C	X	-9.115	1.42
56	MP2C	Z	0	1.42
57	MP2C	Mx	.000793	1.42
58	MP2C	X	-9.115	4.94
59	MP2C	Z	0	4.94
60	MP2C	Mx	.000793	4.94
61	MP3A	X	-.56	.5
62	MP3A	Z	0	.5
63	MP3A	Mx	-.000233	.5
64	MP3B	X	-.747	.5
65	MP3B	Z	0	.5
66	MP3B	Mx	.000371	.5
67	MP3C	X	-.747	.5
68	MP3C	Z	0	.5
69	MP3C	Mx	-6e-5	.5
70	MP3A	X	-2.276	2.19
71	MP3A	Z	0	2.19
72	MP3A	Mx	-.002	2.19
73	MP3B	X	-2.276	2.19
74	MP3B	Z	0	2.19
75	MP3B	Mx	-.002	2.19
76	MP3C	X	-2.276	2.19
77	MP3C	Z	0	2.19
78	MP3C	Mx	-.002	2.19
79	MP2A	X	-1.86	2.19
80	MP2A	Z	0	2.19
81	MP2A	Mx	-.001	2.19
82	MP2B	X	-3.01	2.19
83	MP2B	Z	0	2.19
84	MP2B	Mx	.001	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
85	MP2C	X	-3.01	2.19
86	MP2C	Z	0	2.19
87	MP2C	Mx	.001	2.19
88	M193	X	-5.248	2.79
89	M193	Z	0	2.79
90	M193	Mx	0	2.79
91	M162	X	-5.248	1
92	M162	Z	0	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-.869	4
2	MP2C	Z	-.502	4
3	MP2C	Mx	.000644	4
4	MP2C	X	-.869	4
5	MP2C	Z	-.502	4
6	MP2C	Mx	.000226	4
7	MP3A	X	-1.888	2.19
8	MP3A	Z	-1.09	2.19
9	MP3A	Mx	.000944	2.19
10	MP3A	X	-1.888	4.19
11	MP3A	Z	-1.09	4.19
12	MP3A	Mx	.000944	4.19
13	MP3B	X	-3.715	2.19
14	MP3B	Z	-2.145	2.19
15	MP3B	Mx	0	2.19
16	MP3B	X	-3.715	4.19
17	MP3B	Z	-2.145	4.19
18	MP3B	Mx	0	4.19
19	MP3C	X	-1.888	2.19
20	MP3C	Z	-1.09	2.19
21	MP3C	Mx	-.000944	2.19
22	MP3C	X	-1.888	4.19
23	MP3C	Z	-1.09	4.19
24	MP3C	Mx	-.000944	4.19
25	MP2A	X	-6.412	1.42
26	MP2A	Z	-3.702	1.42
27	MP2A	Mx	.004	1.42
28	MP2A	X	-6.412	4.94
29	MP2A	Z	-3.702	4.94
30	MP2A	Mx	.004	4.94
31	MP2B	X	-8.634	1.42
32	MP2B	Z	-4.985	1.42
33	MP2B	Mx	.007	1.42
34	MP2B	X	-8.634	4.94
35	MP2B	Z	-4.985	4.94
36	MP2B	Mx	.007	4.94
37	MP2C	X	-6.412	1.42
38	MP2C	Z	-3.702	1.42
39	MP2C	Mx	-.01	1.42
40	MP2C	X	-6.412	4.94
41	MP2C	Z	-3.702	4.94
42	MP2C	Mx	-.01	4.94
43	MP2A	X	-6.412	1.42
44	MP2A	Z	-3.702	1.42
45	MP2A	Mx	.01	1.42
46	MP2A	X	-6.412	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
47	MP2A	Z	-3.702	4.94
48	MP2A	Mx	.01	4.94
49	MP2B	X	-8.634	1.42
50	MP2B	Z	-4.985	1.42
51	MP2B	Mx	-.007	1.42
52	MP2B	X	-8.634	4.94
53	MP2B	Z	-4.985	4.94
54	MP2B	Mx	-.007	4.94
55	MP2C	X	-6.412	1.42
56	MP2C	Z	-3.702	1.42
57	MP2C	Mx	-.004	1.42
58	MP2C	X	-6.412	4.94
59	MP2C	Z	-3.702	4.94
60	MP2C	Mx	-.004	4.94
61	MP3A	X	-.539	.5
62	MP3A	Z	-.311	.5
63	MP3A	Mx	-.000328	.5
64	MP3B	X	-.701	.5
65	MP3B	Z	-.405	.5
66	MP3B	Mx	.00027	.5
67	MP3C	X	-.539	.5
68	MP3C	Z	-.311	.5
69	MP3C	Mx	.000121	.5
70	MP3A	X	-2.213	2.19
71	MP3A	Z	-1.278	2.19
72	MP3A	Mx	-.002	2.19
73	MP3B	X	-2.213	2.19
74	MP3B	Z	-1.278	2.19
75	MP3B	Mx	-.002	2.19
76	MP3C	X	-2.213	2.19
77	MP3C	Z	-1.278	2.19
78	MP3C	Mx	-.002	2.19
79	MP2A	X	-1.943	2.19
80	MP2A	Z	-1.122	2.19
81	MP2A	Mx	-.002	2.19
82	MP2B	X	-2.938	2.19
83	MP2B	Z	-1.696	2.19
84	MP2B	Mx	0	2.19
85	MP2C	X	-1.943	2.19
86	MP2C	Z	-1.122	2.19
87	MP2C	Mx	.002	2.19
88	M193	X	-4.689	2.79
89	M193	Z	-2.707	2.79
90	M193	Mx	0	2.79
91	M162	X	-4.689	1
92	M162	Z	-2.707	1
93	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	-.319	4
2	MP2C	Z	-.552	4
3	MP2C	Mx	.000319	4
4	MP2C	X	-.319	4
5	MP2C	Z	-.552	4
6	MP2C	Mx	.000319	4
7	MP3A	X	-1.793	2.19
8	MP3A	Z	-3.106	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP3A	Mx	.000896	2.19
10	MP3A	X	-1.793	4.19
11	MP3A	Z	-3.106	4.19
12	MP3A	Mx	.000896	4.19
13	MP3B	X	-1.793	2.19
14	MP3B	Z	-3.106	2.19
15	MP3B	Mx	.000897	2.19
16	MP3B	X	-1.793	4.19
17	MP3B	Z	-3.106	4.19
18	MP3B	Mx	.000897	4.19
19	MP3C	X	-.739	2.19
20	MP3C	Z	-1.28	2.19
21	MP3C	Mx	-.000739	2.19
22	MP3C	X	-.739	4.19
23	MP3C	Z	-1.28	4.19
24	MP3C	Mx	-.000739	4.19
25	MP2A	X	-4.557	1.42
26	MP2A	Z	-7.893	1.42
27	MP2A	Mx	-.000793	1.42
28	MP2A	X	-4.557	4.94
29	MP2A	Z	-7.893	4.94
30	MP2A	Mx	-.000793	4.94
31	MP2B	X	-4.557	1.42
32	MP2B	Z	-7.893	1.42
33	MP2B	Mx	.011	1.42
34	MP2B	X	-4.557	4.94
35	MP2B	Z	-7.893	4.94
36	MP2B	Mx	.011	4.94
37	MP2C	X	-3.274	1.42
38	MP2C	Z	-5.671	1.42
39	MP2C	Mx	-.007	1.42
40	MP2C	X	-3.274	4.94
41	MP2C	Z	-5.671	4.94
42	MP2C	Mx	-.007	4.94
43	MP2A	X	-4.557	1.42
44	MP2A	Z	-7.893	1.42
45	MP2A	Mx	.011	1.42
46	MP2A	X	-4.557	4.94
47	MP2A	Z	-7.893	4.94
48	MP2A	Mx	.011	4.94
49	MP2B	X	-4.557	1.42
50	MP2B	Z	-7.893	1.42
51	MP2B	Mx	-.000793	1.42
52	MP2B	X	-4.557	4.94
53	MP2B	Z	-7.893	4.94
54	MP2B	Mx	-.000793	4.94
55	MP2C	X	-3.274	1.42
56	MP2C	Z	-5.671	1.42
57	MP2C	Mx	-.007	1.42
58	MP2C	X	-3.274	4.94
59	MP2C	Z	-5.671	4.94
60	MP2C	Mx	-.007	4.94
61	MP3A	X	-.374	.5
62	MP3A	Z	-.647	.5
63	MP3A	Mx	-.000372	.5
64	MP3B	X	-.374	.5
65	MP3B	Z	-.647	.5
66	MP3B	Mx	6e-5	.5
67	MP3C	X	-.28	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
68	MP3C	Z	-.485	.5
69	MP3C	Mx	.000233	.5
70	MP3A	X	-1.557	2.19
71	MP3A	Z	-2.696	2.19
72	MP3A	Mx	-.001	2.19
73	MP3B	X	-1.557	2.19
74	MP3B	Z	-2.696	2.19
75	MP3B	Mx	-.001	2.19
76	MP3C	X	-1.557	2.19
77	MP3C	Z	-2.696	2.19
78	MP3C	Mx	-.001	2.19
79	MP2A	X	-1.505	2.19
80	MP2A	Z	-2.606	2.19
81	MP2A	Mx	-.001	2.19
82	MP2B	X	-1.505	2.19
83	MP2B	Z	-2.606	2.19
84	MP2B	Mx	-.001	2.19
85	MP2C	X	-.93	2.19
86	MP2C	Z	-1.611	2.19
87	MP2C	Mx	.001	2.19
88	M193	X	-2.34	2.79
89	M193	Z	-4.052	2.79
90	M193	Mx	0	2.79
91	M162	X	-2.34	1
92	M162	Z	-4.052	1
93	M162	Mx	0	1

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M183A	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M184A	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M200	Y	-250	%50

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M200	Y	-250	0

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	Y	-.77	4
2	MP2C	My	-.00047	4
3	MP2C	Mz	-.000173	4
4	MP2C	Y	-.77	4
5	MP2C	My	8.5e-5	4
6	MP2C	Mz	-.000494	4
7	MP3A	Y	-1.905	2.19
8	MP3A	My	-.000952	2.19
9	MP3A	Mz	0	2.19
10	MP3A	Y	-1.905	4.19
11	MP3A	My	-.000952	4.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP3A	Mz	0	4.19
13	MP3B	Y	-1.905	2.19
14	MP3B	My	.000476	2.19
15	MP3B	Mz	-.000825	2.19
16	MP3B	Y	-1.905	4.19
17	MP3B	My	.000476	4.19
18	MP3B	Mz	-.000825	4.19
19	MP3C	Y	-1.905	2.19
20	MP3C	My	.000476	2.19
21	MP3C	Mz	.000825	2.19
22	MP3C	Y	-1.905	4.19
23	MP3C	My	.000476	4.19
24	MP3C	Mz	.000825	4.19
25	MP2A	Y	-1.384	1.42
26	MP2A	My	-.002	1.42
27	MP2A	Mz	.001	1.42
28	MP2A	Y	-1.384	4.94
29	MP2A	My	-.002	4.94
30	MP2A	Mz	.001	4.94
31	MP2B	Y	-1.384	1.42
32	MP2B	My	-.00012	1.42
33	MP2B	Mz	-.002	1.42
34	MP2B	Y	-1.384	4.94
35	MP2B	My	-.00012	4.94
36	MP2B	Mz	-.002	4.94
37	MP2C	Y	-1.384	1.42
38	MP2C	My	.002	1.42
39	MP2C	Mz	.000829	1.42
40	MP2C	Y	-1.384	4.94
41	MP2C	My	.002	4.94
42	MP2C	Mz	.000829	4.94
43	MP2A	Y	-1.384	1.42
44	MP2A	My	-.002	1.42
45	MP2A	Mz	-.001	1.42
46	MP2A	Y	-1.384	4.94
47	MP2A	My	-.002	4.94
48	MP2A	Mz	-.001	4.94
49	MP2B	Y	-1.384	1.42
50	MP2B	My	.002	1.42
51	MP2B	Mz	-.000829	1.42
52	MP2B	Y	-1.384	4.94
53	MP2B	My	.002	4.94
54	MP2B	Mz	-.000829	4.94
55	MP2C	Y	-1.384	1.42
56	MP2C	My	-.00012	1.42
57	MP2C	Mz	.002	1.42
58	MP2C	Y	-1.384	4.94
59	MP2C	My	-.00012	4.94
60	MP2C	Mz	.002	4.94
61	MP3A	Y	-.455	.5
62	MP3A	My	.00019	.5
63	MP3A	Mz	.000152	.5
64	MP3B	Y	-.455	.5
65	MP3B	My	-.000226	.5
66	MP3B	Mz	8.8e-5	.5
67	MP3C	Y	-.455	.5
68	MP3C	My	3.7e-5	.5
69	MP3C	Mz	-.00024	.5
70	MP3A	Y	-3.691	2.19

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
71	MP3A	My	.003	2.19
72	MP3A	Mz	0	2.19
73	MP3B	Y	-3.691	2.19
74	MP3B	My	.003	2.19
75	MP3B	Mz	0	2.19
76	MP3C	Y	-3.691	2.19
77	MP3C	My	.003	2.19
78	MP3C	Mz	0	2.19
79	MP2A	Y	-3.074	2.19
80	MP2A	My	.002	2.19
81	MP2A	Mz	0	2.19
82	MP2B	Y	-3.074	2.19
83	MP2B	My	-.001	2.19
84	MP2B	Mz	.002	2.19
85	MP2C	Y	-3.074	2.19
86	MP2C	My	-.001	2.19
87	MP2C	Mz	-.002	2.19
88	M193	Y	-1.176	2.79
89	M193	My	0	2.79
90	M193	Mz	0	2.79
91	M162	Y	-1.176	1
92	M162	My	0	1
93	M162	Mz	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	Z	-1.924	4
2	MP2C	Mx	.000432	4
3	MP2C	Z	-1.924	4
4	MP2C	Mx	.001	4
5	MP3A	Z	-4.761	2.19
6	MP3A	Mx	0	2.19
7	MP3A	Z	-4.761	4.19
8	MP3A	Mx	0	4.19
9	MP3B	Z	-4.761	2.19
10	MP3B	Mx	.002	2.19
11	MP3B	Z	-4.761	4.19
12	MP3B	Mx	.002	4.19
13	MP3C	Z	-4.761	2.19
14	MP3C	Mx	-.002	2.19
15	MP3C	Z	-4.761	4.19
16	MP3C	Mx	-.002	4.19
17	MP2A	Z	-3.46	1.42
18	MP2A	Mx	-.003	1.42
19	MP2A	Z	-3.46	4.94
20	MP2A	Mx	-.003	4.94
21	MP2B	Z	-3.46	1.42
22	MP2B	Mx	.005	1.42
23	MP2B	Z	-3.46	4.94
24	MP2B	Mx	.005	4.94
25	MP2C	Z	-3.46	1.42
26	MP2C	Mx	-.002	1.42
27	MP2C	Z	-3.46	4.94
28	MP2C	Mx	-.002	4.94
29	MP2A	Z	-3.46	1.42
30	MP2A	Mx	.003	1.42
31	MP2A	Z	-3.46	4.94
32	MP2A	Mx	.003	4.94

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
33	MP2B	Z	-3.46	1.42
34	MP2B	Mx	.002	1.42
35	MP2B	Z	-3.46	4.94
36	MP2B	Mx	.002	4.94
37	MP2C	Z	-3.46	1.42
38	MP2C	Mx	-.005	1.42
39	MP2C	Z	-3.46	4.94
40	MP2C	Mx	-.005	4.94
41	MP3A	Z	-1.137	.5
42	MP3A	Mx	-.000379	.5
43	MP3B	Z	-1.137	.5
44	MP3B	Mx	-.000221	.5
45	MP3C	Z	-1.137	.5
46	MP3C	Mx	.0006	.5
47	MP3A	Z	-9.228	2.19
48	MP3A	Mx	0	2.19
49	MP3B	Z	-9.228	2.19
50	MP3B	Mx	0	2.19
51	MP3C	Z	-9.228	2.19
52	MP3C	Mx	0	2.19
53	MP2A	Z	-7.686	2.19
54	MP2A	Mx	0	2.19
55	MP2B	Z	-7.686	2.19
56	MP2B	Mx	-.005	2.19
57	MP2C	Z	-7.686	2.19
58	MP2C	Mx	.005	2.19
59	M193	Z	-2.941	2.79
60	M193	Mx	0	2.79
61	M162	Z	-2.941	1
62	M162	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2C	X	1.924	4
2	MP2C	Mx	-.001	4
3	MP2C	X	1.924	4
4	MP2C	Mx	.000213	4
5	MP3A	X	4.761	2.19
6	MP3A	Mx	-.002	2.19
7	MP3A	X	4.761	4.19
8	MP3A	Mx	-.002	4.19
9	MP3B	X	4.761	2.19
10	MP3B	Mx	.001	2.19
11	MP3B	X	4.761	4.19
12	MP3B	Mx	.001	4.19
13	MP3C	X	4.761	2.19
14	MP3C	Mx	.001	2.19
15	MP3C	X	4.761	4.19
16	MP3C	Mx	.001	4.19
17	MP2A	X	3.46	1.42
18	MP2A	Mx	-.004	1.42
19	MP2A	X	3.46	4.94
20	MP2A	Mx	-.004	4.94
21	MP2B	X	3.46	1.42
22	MP2B	Mx	-.000301	1.42
23	MP2B	X	3.46	4.94
24	MP2B	Mx	-.000301	4.94
25	MP2C	X	3.46	1.42

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP2C	Mx	.004	1.42
27	MP2C	X	3.46	4.94
28	MP2C	Mx	.004	4.94
29	MP2A	X	3.46	1.42
30	MP2A	Mx	-.004	1.42
31	MP2A	X	3.46	4.94
32	MP2A	Mx	-.004	4.94
33	MP2B	X	3.46	1.42
34	MP2B	Mx	.004	1.42
35	MP2B	X	3.46	4.94
36	MP2B	Mx	.004	4.94
37	MP2C	X	3.46	1.42
38	MP2C	Mx	-.000301	1.42
39	MP2C	X	3.46	4.94
40	MP2C	Mx	-.000301	4.94
41	MP3A	X	1.137	.5
42	MP3A	Mx	.000474	.5
43	MP3B	X	1.137	.5
44	MP3B	Mx	-.000565	.5
45	MP3C	X	1.137	.5
46	MP3C	Mx	9.1e-5	.5
47	MP3A	X	9.228	2.19
48	MP3A	Mx	.007	2.19
49	MP3B	X	9.228	2.19
50	MP3B	Mx	.007	2.19
51	MP3C	X	9.228	2.19
52	MP3C	Mx	.007	2.19
53	MP2A	X	7.686	2.19
54	MP2A	Mx	.006	2.19
55	MP2B	X	7.686	2.19
56	MP2B	Mx	-.003	2.19
57	MP2C	X	7.686	2.19
58	MP2C	Mx	-.003	2.19
59	M193	X	2.941	2.79
60	M193	Mx	0	2.79
61	M162	X	2.941	1
62	M162	Mx	0	1

Member Area Loads (BLC 39 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N76	N77	N80	N79	Y	Two Way	-.005
2	N81A	N82A	N85A	N84A	Y	Two Way	-.005
3	N114	N115	N118	N117	Y	Two Way	-.005

Member Area Loads (BLC 40 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N76	N77	N80	N79	Y	Two Way	-.008
2	N81A	N82A	N85A	N84A	Y	Two Way	-.008
3	N114	N115	N118	N117	Y	Two Way	-.008

Member Area Loads (BLC 84 : Structure Ev)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N76	N77	N80	N79	Y	Two Way	-2.27e-7
2	N81A	N82A	N85A	N84A	Y	Two Way	-2.27e-7
3	N114	N115	N118	N117	Y	Two Way	-2.27e-7

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N76	N77	N80	N79	Z	Two Way	-5.69e-7
2	N81A	N82A	N85A	N84A	Z	Two Way	-5.69e-7
3	N114	N115	N118	N117	Z	Two Way	-5.69e-7

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N76	N77	N80	N79	X	Two Way	5.69e-7
2	N81A	N82A	N85A	N84A	X	Two Way	5.69e-7
3	N114	N115	N118	N117	X	Two Way	5.69e-7

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	N67	max	1006.455	10	2039.257	19	-298.672	2	6.126	19	1.61	4	.167	9
2		min	-1068.752	4	690.037	64	-3548.287	20	2.102	64	-1.425	10	-.067	3
3	N72A	max	-592.048	11	1912.423	15	1756.305	24	-.884	71	1.307	12	-1.561	72
4		min	-2784.414	17	646.235	72	75.249	6	-2.603	14	-1.248	6	-4.654	16
5	N105	max	2951.176	22	1945.577	23	1938.996	13	-.972	69	1.289	8	5.076	23
6		min	201.366	4	658.155	68	-136.74	7	-2.908	24	-1.509	2	1.754	68
7	N232B	max	289.45	11	541.936	7	260.3	1	.018	1	0	4	0	10
8		min	-277.254	5	-99.642	1	-1105.43	7	-.016	7	0	10	0	4
9	N233B	max	248.124	10	510.966	3	736.802	2	.008	3	0	12	.013	3
10		min	-858.672	4	-123.562	9	-334.21	8	-.01	9	0	6	-.018	9
11	N234A	max	958.727	10	507.79	11	595.969	12	.007	11	0	8	.018	5
12		min	-326.27	4	-115.367	5	-212.327	6	-.01	5	0	2	-.013	11
13	Totals:	max	4237.089	10	6802.395	22	4221.223	1						
14		min	-4237.083	4	2450.988	67	-4221.196	7						

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

	Member	Shape	Code Check	Lo...	LC	Shear Check	Lo...	...	...	phi*P...	phi*P...	phi*M...	phi*M...	...	Eqn
1	M44	L3.5X3X3	.994	2.25	16	.076	2.25	z	16	2649...	3685...	1.41	3.008	...	H2-1
2	M45	L3.5X3X3	.950	0	38	.073	0	z	38	2649...	3685...	1.41	3.008	...	H2-1
3	M56A	PL3/8x2	.877	.825	16	.252	0	y	50	5059...	24300	.19	1.012	...	H1-1b
4	M53	L3.5X3X3	.851	2.25	21	.058	2.25	z	20	2649...	3685...	1.41	3.008	...	H2-1
5	M68	L3.5X3X3	.804	2.25	25	.055	2.25	z	25	2649...	3685...	1.41	3.008	...	H2-1
6	M54	L3.5X3X3	.800	0	17	.052	0	z	17	2649...	3685...	1.41	3.008	...	H2-1
7	M69	L3.5X3X3	.790	0	21	.052	0	z	22	2649...	3685...	1.41	3.008	...	H2-1
8	M58A	L2.5X1X4	.473	2.8...	16	.207	2.8...	z	50	3888...	26325	.222	1.273	...	H2-1
9	M57A	L2.5X1X4	.464	2.8...	15	.328	3.7...	z	50	3888...	26325	.222	1.207	...	H2-1
10	M113	L6x2.5x4	.426	.375	20	.203	.375	z	20	4940...	66825	.965	5.644	...	H2-1
11	M67	L2.5X1X4	.414	3.2...	19	.261	3.7...	z	17	3888...	26325	.222	1.385	...	H2-1
12	M85	L6x2.5x4	.413	.375	23	.194	.375	z	24	4940...	66825	.965	5.551	...	H2-1
13	M53A	PL3/8x2	.409	1.3	16	.107	0	y	50	2039...	24300	.19	1.012	...	H1-1b
14	M82	L2.5X1X4	.392	3.2...	22	.277	3.7...	z	32	3888...	26325	.222	1.385	...	H2-1
15	M66	L2.5X1X4	.337	3.2...	9	.171	3.7...	z	10	3888...	26325	.222	1.376	...	H2-1
16	M81	L2.5X1X4	.316	3.2...	1	.188	3.7...	z	2	3888...	26325	.222	1.364	...	H2-1
17	M186A	PIPE_2.0	.278	9.3...	6	.084	9.3...		7	6295...	32130	1.872	1.872	...	H1-1b
18	M117	PIPE_2.0	.273	9.3...	2	.079	9.3...		3	6295...	32130	1.872	1.872	...	H1-1b
19	M157	PIPE_2.0	.270	.765	13	.080	3.1...		10	6295...	32130	1.872	1.872	...	H1-1b
20	M54A	PL3/8x2	.269	1.7...	16	.060	1.7...	y	15	1094...	24300	.19	1.012	...	H1-1b
21	M48	HSS5X3...	.251	0	16	.042	0	z	4	1915...	197892	17.595	25.323	...	H1-1b
22	M65	PL3/8x2	.245	.825	20	.046	.825	y	17	5059...	24300	.19	1.012	...	H1-1b
23	M65A	HSS5X3...	.242	0	14	.054	0	y	32	1915...	197892	17.595	25.323	...	H1-1b
24	M80	PL3/8x2	.233	.825	24	.041	.825	y	21	5059...	24300	.19	1.012	...	H1-1b
25	MP2A	PIPE_2.0	.210	4.4...	2	.170	4.4...		10	2086...	32130	1.872	1.872	...	H1-1b
26	M41	HSS5X3...	.210	0	24	.051	0	y	38	1781...	197892	17.595	25.323	...	H1-1b

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

	Member	Shape	Code Check	Lo...	LC	Shear Check	Lo...	...	...	phi*P...	phi*P...	phi*M...	phi*M...	...	Eqn
27	MP2C	PIPE_2.0	.185	4.4...	10	.170	4.4...		12	2086...	32130	1.872	1.872	...	H1-1b
28	MP2B	PIPE_2.0	.181	4.4...	6	.170	4.4...		2	2086...	32130	1.872	1.872	...	H1-1b
29	M62	PL3/8x2	.169	1.3	21	.014	1.3	y	17	2039....	24300	.19	1.012	...	H1-1b
30	M77	PL3/8x2	.161	1.3	24	.015	1.2...	y	9	2039....	24300	.19	1.012	...	H1-1b
31	MP3C	PIPE_2.0	.160	4.4...	8	.083	4.4...		10	2086...	32130	1.872	1.872	...	H1-1b
32	MP3B	PIPE_2.0	.154	4.4...	4	.072	4.4...		6	2086...	32130	1.872	1.872	...	H1-1b
33	MP3A	PIPE_2.0	.151	4.4...	12	.070	4.4...		2	2086...	32130	1.872	1.872	...	H1-1b
34	M63	PL3/8x2	.151	1.7...	21	.010	1.7...	y	18	1094....	24300	.19	1.012	...	H1-1b
35	M78	PL3/8x2	.146	1.7...	13	.011	1.7...	y	25	1094....	24300	.19	1.012	...	H1-1b
36	MP4A	PIPE_2.0	.145	4.4...	50	.053	4.4...		12	2086...	32130	1.872	1.872	...	H1-1b
37	M200	PIPE_3.0	.129	8.1...	36	.047	3.8...		38	2825...	65205	5.749	5.749	...	H1-1b
38	MP1B	PIPE_2.0	.126	4.4...	50	.050	1.2...		6	2086...	32130	1.872	1.872	...	H1-1b
39	M162	PIPE_2.0	.114	2.98	5	.012	2.98		5	2652...	32130	1.872	1.872	1	H1-1b
40	M112A	PIPE_3.0	.098	8.1...	8	.055	8.6...		20	2821...	65205	5.749	5.749	...	H1-1b
41	M61A	L6x2.5x4	.095	0	16	.074	.904	z	17	4915...	66825	1.483	5.668	...	H2-1
42	MP4C	PIPE_2.0	.090	4.4...	7	.059	4.4...		8	2086...	32130	1.872	1.872	...	H1-1b
43	M152	PIPE_3.0	.089	8.1...	4	.054	8.6...		16	2821...	65205	5.749	5.749	...	H1-1b
44	MP1C	PIPE_2.0	.088	4.4...	10	.054	4.4...		10	2086...	32130	1.872	1.872	...	H1-1b
45	MP1A	PIPE_2.0	.088	4.4...	8	.051	4.4...		2	2086...	32130	1.872	1.872	...	H1-1b
46	MP4B	PIPE_2.0	.083	4.4...	9	.058	4.4...		4	2086...	32130	1.872	1.872	...	H1-1b
47	M193	PIPE_2.0	.082	3.7...	11	.013	3.7...		11	2149...	32130	1.872	1.872	...	H1-1b
48	M126	L2.5x2.5x3	.062	2.0...	8	.106	0	y	1	1644...	2919...	.873	1.694	...	H2-1
49	M125A	L2.5x2.5x3	.062	2.0...	6	.106	0	z	1	1644...	2919...	.873	1.694	...	H2-1
50	M128	L2.5x2.5x3	.061	2.0...	4	.117	4.1...	y	9	1644...	2919...	.873	1.694	...	H2-1
51	M130	L2.5x2.5x3	.061	2.0...	12	.118	0	y	5	1644...	2919...	.873	1.694	...	H2-1
52	M129	L2.5x2.5x3	.060	2.0...	10	.117	4.1...	z	5	1644...	2919...	.873	1.694	...	H2-1
53	M127	L2.5x2.5x3	.059	2.0...	2	.117	0	z	9	1644...	2919...	.873	1.694	...	H2-1
54	M226A	L5.25X3...	.017	.873	13	.018	0	y	4	5733...	583200	33.872	54.856	...	H2-1
55	M224A	L5.25X3...	.016	.674	21	.017	0	y	12	5733...	583200	33.872	54.856	...	H2-1
56	M225A	L5.25X3...	.014	.98	17	.019	0	y	8	5733...	583200	33.872	54.856	...	H2-1

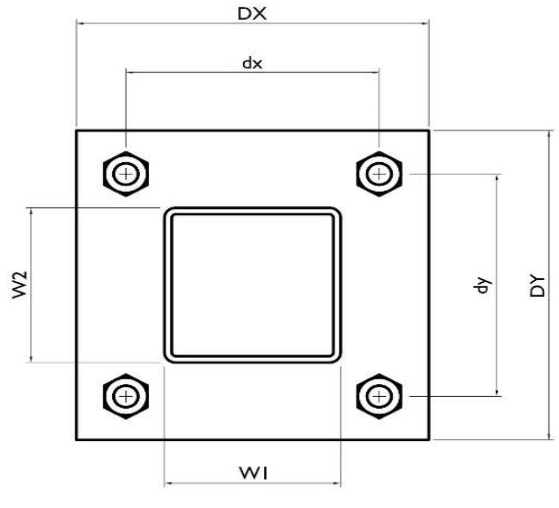
VzW SMART Tool© Vendor

Client:	Verizon Wireles	Date:	8/2/2023
Site Name:	COLCHESTER S 2 CT - ATC monopole		
MDG #:	5000245762		
Fuze ID #:	17123860	Page:	1

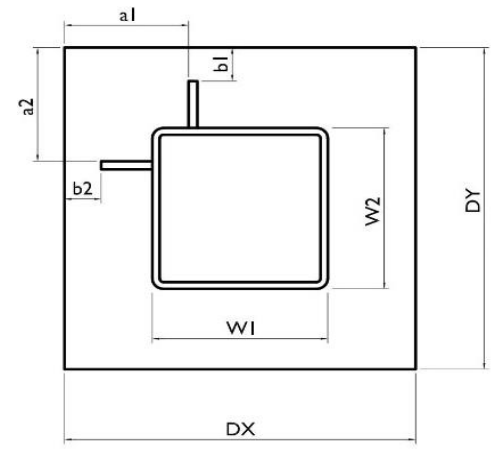
Version 1.01

I. Mount-to-Tower Connection Check

Custom Orientation Required	No
Tower Connection Bolt Checks	Yes
Bolt Orientation	Parallel
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	7
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	7
Bolt Type:	A325N
Bolt Diameter (in):	0.75
Required Tensile Strength / bolt (kips):	4.5
Required Shear Strength / bolt (kips):	0.5
Tensile Capacity / bolt (kips):	29.8
Shear Capacity / bolt (kips):	17.9
Bolt Overall Utilization:	**15.2%**



Tower Connection Baseplate Checks	Yes
Connecting Standoff Member Shape:	Rect Tube
Weld Stiffener Configuration:	Has Stiffeners
Plate Width, D_x (in):	10
Plate Height, D_y (in):	10
W1(in):	3
W2 (in):	5
Member Thickness (in):	0.375
Stiffener location a_1 (in):	3.5
Stiffener location b_1 (in):	0.5
Stiffener location a_2 (in):	5
Stiffener location b_2 (in):	3.5
F_y (ksi, plate):	36
Plate Thickness (in):	0.75
Length of Yield Line, L_y (in):	5.66
Bolt Eccentricity, e (in):	0.71
M_u (kip-in):	3.21
Phi*M_n (kip-in):	25.77
Plate Bending Utilization:	**12.5%**



VzW SMART Tool© Vendor

Client:	Verizon Wireles	Date:	8/2/2023
Site Name:	COLCHESTER S 2 CT - ATC monopole		
PSLC #:	5000245762		
Fuze ID #:	17123860	Page:	2

Version 1.01

Tower Connection Weld Checks	Yes
Weld Shape:	Rectangle
Weld Stiffener Configuration:	(2) Stiffeners on top/bottom
Stiffener Notch Present?	No
Stiffener Length, l (in):	2
Stiffener Spacing/Width, s (in):	4
Weld Size (1/16 in):	4
W1 (in):	3
W2 (in):	5
Weld Total Length (in):	32.00
Z_x (in^3/in):	84.07
Z_y (in^3/in):	34.00
J_p (in^4/in):	302.67
c_x (in)	3.5
c_y (in)	4.5
Required combined strength (kip/in):	0.63
Weld Capacity (kip/in):	5.57
Weld Utilization:	**11.3%**

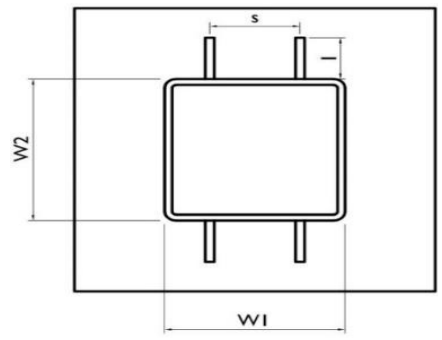


EXHIBIT 5

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

Non-Ionizing Electromagnetic Radiation (NIER) Study

Site Number:
302465

Site Name:
Colchester CT

Location:
Colchester, Connecticut

Tenants:
T-Mobile, AT&T Mobility, Dish Wireless, & Verizon Wireless

Prepared For:

American Tower, Inc.
Woburn, Massachusetts

August 27th, 2023

93967 P-405144

Prepared By:

Adam Carlson MS, CBRE, CPI
Program Manager RF Design & Service
Tower Engineering Professionals

Approved By:

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

Contents

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

Disclaimer Notice

This work is based upon our best interpretation of available information. However, these data and their interpretation are constantly changing. Therefore, we do not warrant that any undertaking based on this report will be successful, or that others will not require further research or actions in support of this proposal or future undertaking. In the event of errors, our liability is strictly limited to the replacement of this document with a corrected one. Liability for consequential damages is specifically denied. Any use of this document constitutes an agreement to hold Tower Engineering Professionals and its employees harmless and indemnify it for all liability, claims, demands, and litigation expenses and attorney's fees arising out of such use.

Work product documents released prior to account settlement remain the sole property of Tower Engineering Professionals and must be returned on demand. Underlying work notes and data relating to this document remain the property of Tower Engineering Professionals. This document shall not be reproduced in whole or part without the permission of Tower Engineering Professionals. Any dispute hereunder shall be adjudicated in North Carolina. Any use or retention of this document constitutes acceptance of these terms, the entire work product, and all charges associated therewith.

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

Non-Ionizing Electromagnetic Radiation (NIER) Study

302465 Colchester CT
Colchester CT, Connecticut

INTRODUCTION

Tower Engineering Professionals RF Design & Services Division (TEP-RF) of Raleigh, North Carolina, has been retained by American Tower, Inc. (ATC), of Woburn, Massachusetts to evaluate the RF emissions compared to the Maximum Permissible Exposure (MPE) limit for facilities at this location. This evaluation uses compliance standards as outlined in Federal Communications Commission (FCC) document OET-65.

SITE AND FACILITY CONSIDERATIONS

Site 302465 Colchester CT is located at 355 Route 85, in Colchester, Connecticut at coordinates 41.544861, -72.304905. The support structure is a 182' monopole. An aerial view of the tower can be found in Appendix 1, Site Photos. The tenants are T-Mobile (T-Mobile), AT&T Mobility (AT&T), Dish Wireless (Dish) & Verizon Wireless (VZW). A table listing all antennae and effective radiated power (ERP) levels that were used in this study may be found in Appendix 2, Antenna Inventory.

POWER DENSITY CALCULATIONS

Power densities were calculated based on FCC MPE limits for both General Population/Uncontrolled and Occupational/Controlled environments.

For the purpose of this study, a radius of 100' from the base of the tower with a height of 6' above ground level was used, beyond 100' the MPE levels become *di minimus*. This study utilized FCC recognized and accepted software programs using the maximum ERP levels for the antenna models provided by ATC. Diagrams depicting the predicted spatial average power density level at any specific location may be found in Appendix 3, MPE Limit Study. A discussion regarding the FCC limits may be found in Appendix 4, Information Pertaining to MPE Studies. Study methodology describing Non-ionizing Radiation Prediction Models used in this study may be found in Appendix 5, MPE Standards Methodology.

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

All data used in this study was collected from one or more of the following sources:

- ATC furnished data and does not include other unidentified communication facilities.
- Load List at 302465 Colchester CT 6.RF NIER Study sent 8/14/23.
- FCC databases.
- Carrier standard configurations.
- Empirical data collected by TEP.

SITE MITIGATION & CONTROL

In order to comply with FCC, tenant, & ATC requirements, TEP recommends the placement of signage at the base of the tower and all compound access points to alert workers of potential exposure to RF fields while working on or near the antennae.

TEP recommends that all personnel working on this tower be trained in RF safety procedures and carry a personal RF monitor at all times.

COMPLIANCE DETERMINATION

This installation ***IS*** in compliance with current FCC MPE limits as described in FCC OET-65.

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

APPENDIX 1 Site Photos

Aerial View of Site

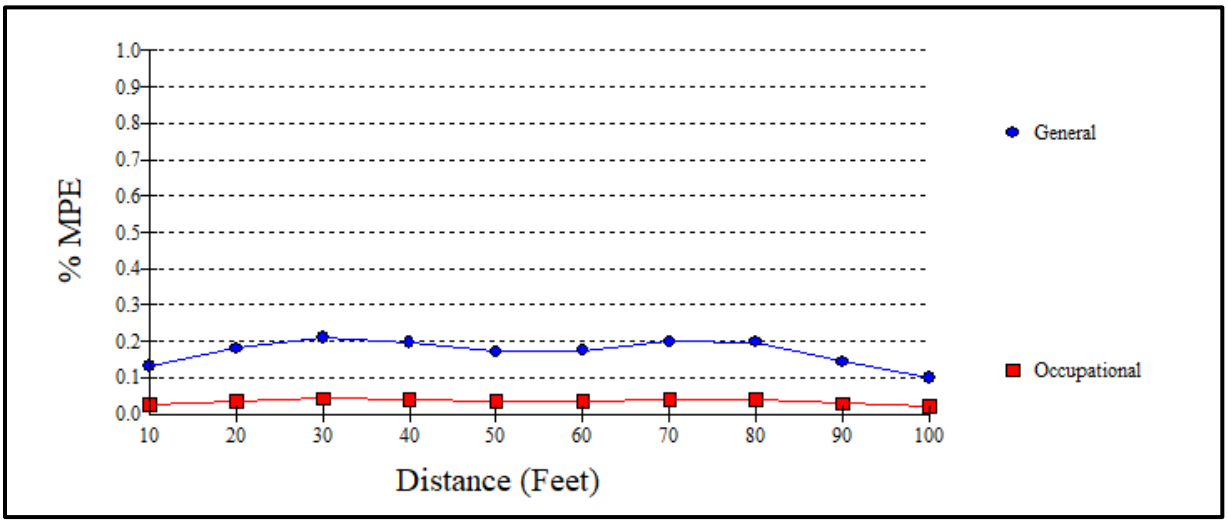
RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

Appendix 2.1 Antenna Inventory

302465 Colchester CT							
Antenna Inventory							
Antenna #	Carrier	Antenna Manufacturer	Antenna Model	Frequency Band (MHz)	115	Effective Radiated Power (W)	Radiation Center (ft)
1	T-Mobile	Commscope	VV-65A-R1B	1900/2100	060	25027	180
2	T-Mobile	Commscope	VV-65A-R1B	1900/2100	180	25027	180
3	T-Mobile	Commscope	VV-65A-R1B	1900/2100	300	25027	180
4	T-Mobile	Ericsson	AIR 6419	2500/2600	060	20136	180
5	T-Mobile	Ericsson	AIR 6419	2500/2600	180	20136	180
6	T-Mobile	Ericsson	AIR 6419	2500/2600	300	20136	180
7	T-Mobile	RFS	APXVAALL24	600	060	5532	180
8	T-Mobile	RFS	APXVAALL24	600	180	5532	180
9	T-Mobile	RFS	APXVAALL24	600	300	5532	180
10	Verizon	Commscope	JAHH-65B-R3B	700/800/1900/2100	070	32168	163
11	Verizon	Commscope	JAHH-65B-R3B	700/800/1900/2100	190	32168	163
12	Verizon	Commscope	JAHH-65B-R3B	700/800/1900/2100	310	32168	163
13	Verizon	Commscope	JAHH-65B-R3B	700/800/1900/2100	070	32168	163
14	Verizon	Commscope	JAHH-65B-R3B	700/800/1900/2100	190	32168	163
15	Verizon	Commscope	JAHH-65B-R3B	700/800/1900/2100	310	32168	163
16	AT&T	CCI	HPA65R-BU6A	700/1900	005	43761	150
17	AT&T	CCI	HPA65R-BU8A	700/1900	115	43761	150
18	AT&T	CCI	HPA65R-BU8A	700/1900	245	43761	150
19	AT&T	Powerwave	7770	800	060	22466	150
20	AT&T	Powerwave	7770	800	180	22466	150
21	AT&T	Powerwave	7770	800	300	22466	150
22	AT&T	Scala	80010965	700/800/2100	005	78162	150
23	AT&T	Scala	80010966	700/800/2100	115	78162	150
24	AT&T	Scala	80010966	700/800/2100	245	78162	150
25	Dish	JMA	MX08FRO665-21	600/1900/2000/2100	000	48332	120
26	Dish	JMA	MX08FRO665-21	600/1900/2000/2100	120	48332	120
27	Dish	JMA	MX08FRO665-21	600/1900/2000/2100	240	48332	120

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

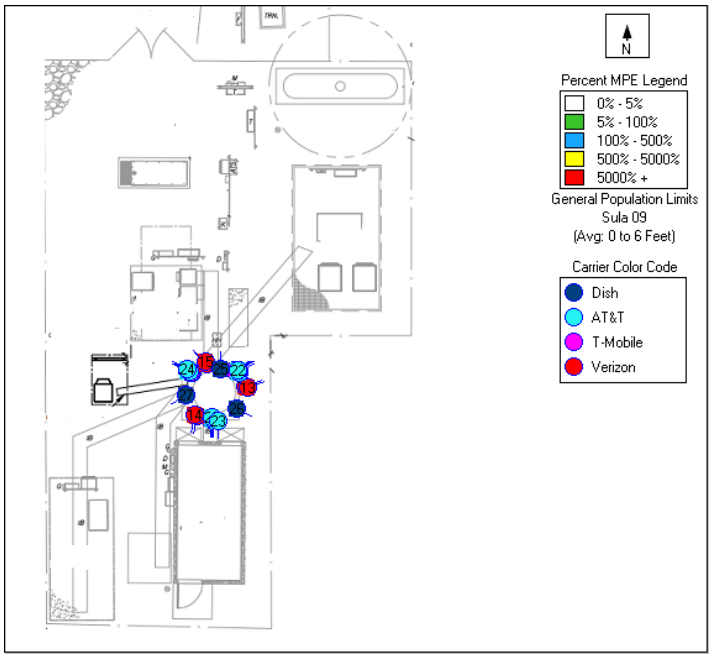
Appendix 3.1 MPE Limit Study



Maximum Power Density (@30'):	0.0013 mW/cm²
General Population MPE (@30'):	0.2108%
Occupational MPE (@30'):	0.0422

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

Appendix 3.2 MPE Limit Study



RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

Appendix 4 Information Pertaining to MPE Studies

In 1985, the FCC first adopted guidelines to be used for evaluating human exposure to RF emissions. The FCC revised and updated these guidelines on August 1, 1996, as a result of a rule-making proceeding initiated in 1993. The new guidelines incorporate limits for Maximum Permissible Exposure (MPE) in terms of electric and magnetic field strength and power density for transmitters operating at frequencies between 300 kHz and 100 GHz.

The FCC's MPE limits are based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP), and, over a wide range of frequencies, the exposure limits were developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. Limits for localized absorption are based on recommendations of both ANSI/IEEE and NCRP.

The FCC's limits, and the NCRP and ANSI/IEEE limits on which they are based, are derived from exposure criteria quantified in terms of specific absorption rate (SAR). The basis for these limits is a whole-body averaged SAR threshold level of 4 watts per kilogram (4 W/kg), as averaged over the entire mass of the body, above which expert organizations have determined that potentially hazardous exposures may occur. The MPE limits are derived by incorporating safety factors that lead, in some cases, to limits that are more conservative than the limits originally adopted by the FCC in 1985. Where more conservative limits exist, they do not arise from a fundamental change in the RF safety criteria for whole-body averaged SAR, but from a precautionary desire to protect subgroups of the general population who, potentially, may be more at risk.

The FCC exposure limits are also based on data showing that the human body absorbs RF energy at some frequencies more efficiently than at others. The most restrictive limits occur in the frequency range of 30-300 MHz where whole-body absorption of RF energy by human beings is most efficient. At other frequencies, whole-body absorption is less efficient, and consequently, the MPE limits are less restrictive.

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

MPE limits are defined in terms of power density (units of milliwatts per centimeter squared: mW/cm^2), electric field strength (units of volts per meter: V/m) and magnetic field strength (units of amperes per meter: A/m). The far-field of a transmitting antenna is where the electric field vector (E), the magnetic field vector (H), and the direction of propagation can be considered to be all mutually orthogonal ("plane-wave" conditions).

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

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment-related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area. Additional details can be found in FCC OET 65.

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

Appendix 5 MPE Standards Methodology

This study predicts RF field strength and power density levels that emanate from communications system antennae. It considers all transmitter power levels (less filter and line losses) delivered to each active transmitting antenna at the communications site. Calculations are performed to determine power density and MPE levels for each antenna as well as composite levels from all antennas. The calculated levels are based on where a human (Observer) would be standing at various locations at the site. The point of interest where the MPE level is predicted is based on the height of the Observer.

Compliance with the FCC limits on RF emissions are determined by spatially averaging a person's exposure over the projected area of an adult human body, that is approximately six-feet or two-meters, as defined in the ANSI/IEEE C95.1 standard. The MPE limits are specified as time-averaged exposure limits. This means that exposure is averaged over an identifiable time interval. It is 30 minutes for the general population/uncontrolled RF environment and 6 minutes for the occupational/controlled RF environment. However, in the case of the general public, time averaging should not be applied because the general public is typically not aware of RF exposure, and they do not have control of their exposure time. Therefore, it should be assumed that any RF exposure to the general public will be continuous.

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

The FCC's limits for exposure at different frequencies are shown in the following Tables.

Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	**Electric Field Strength (E) (V/m)**	**Magnetic Field Strength (H) (A/m)**	**Power Density (S) (mW/cm^2)**	**Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)**
0.3 - 3.0	614	1.63	100*	6
3.0 - 30	1842/f	4.89/f	$900/F^2$	6
30 - 300	61.4	0.163	1.0	6
300 - 1500	--	--	f/300	6
1500 - 100,000	--	--	5	6

f = frequency

* = Plane-wave equivalent power density

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (E) (V/m)**	**Magnetic Field Strength (H) (A/m)**	**Power Density (S) (mW/cm^2)**	**Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)**
0.3 - 1.34	614	1.63	100*	30
1.34 - 30	824/f	2.19/f	$180/F^2$	30
30 -300	27.5	0.073	0.2	30
300 -1500	--	--	f/1500	30
1500 -100,000	--	--	1.0	30

f = frequency

* = Plane-wave equivalent power density

General population/uncontrolled exposures apply in situations in which the general public may be exposed or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

It is important to understand that these limits apply cumulatively to all sources of RF emissions affecting a given area. For example, if several different communications system antennas occupy a shared facility such as a tower or rooftop, then the total exposure from all systems at the facility must be within compliance of the FCC guidelines.

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

The field strength emanating from an antenna can be estimated based on the characteristics of an antenna radiating in free space. There are basically two field areas associated with a radiating antenna. When close to the antenna, the region is known as the Near Field. Within this region, the characteristics of the RF fields are very complex, and the wave front is extremely curved. As you move further from the antenna, the wave front has less curvature and becomes planar. The wave front still has a curvature, but it appears to occupy a flat plane in space (plane-wave radiation). This region is known as the Far Field.

Two models are utilized to predict Near and Far field power densities. They are based on the formulae in FCC OET 65.

Cylindrical Model (Near Field Predictions)

Spatially averaged plane-wave equivalent power densities parallel to the antenna may be estimated by dividing the antenna input power by the surface area of an imaginary cylinder surrounding the length of the radiating antenna. While the actual power density will vary along the height of the antenna, the average value along its length will closely follow the relation given by the following equation:

$$S = P \div 2\pi RL$$

Where:

S = Power Density

P = Total Power into antenna

R = Distance from the antenna

L = Antenna aperture length

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

For directional-type antennas, power densities can be estimated by dividing the input power by that portion of a cylindrical surface area corresponding to the angular beam width of the antenna. For example, for the case of a 120-degree azimuthal beam width, the surface area should correspond to 1/3 that of a full cylinder. This would increase the power density near the antenna by a factor of three over that for a purely omni-directional antenna. Mathematically, this can be represented by the following formula:

$$S = (180 / \theta_{BW}) P \div \pi RL$$

Where:

S = Power Density

θ_{BW} = Beam width of antenna in degrees (3 dB half-power point)

P = Total Power into antenna

R = Distance from the antenna

L = Antenna aperture length

If the antenna is a 360-degree omni-directional antenna, this formula would be equivalent to the previous formula.

RF Design and Services
326 Tryon Road
Raleigh, North Carolina 27603
(612) 965-8225
WWW.TEPGROUP.NET

Spherical Model (Far Field Predictions)

Spatially averaged plane-wave power densities in the Far Field of an antenna may be estimated by considering the additional factors of antenna gain and reflective waves that would contribute to exposure.

The radiation pattern of an antenna has developed in the Far Field region and the power gain needs to be considered in exposure predictions. Also, if the vertical radiation pattern of the antenna is considered, the exposure predictions would most likely be reduced significantly at ground level, resulting in a more realistic estimate of the actual exposure levels.

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

These additional factors are considered, and the Far Field prediction model is determined by the following equation:

$$S = EIRP \times Rc \div 4\pi R^2$$

Where:

S = Power Density

EIRP = Effective Radiated Power from antenna

Rc = Reflection Coefficient (2.56)

R = Distance from the antenna

The EIRP includes the antenna gain. If the antenna pattern is considered, the antenna gain is relative based on the horizontal and vertical pattern gain values at that particular location in space, on a rooftop or on the ground. However, it is recommended that the antenna radiation pattern characteristics not be considered to provide a conservative "worst case" prediction. This is the equation is utilized for the Far Field exposure predictions herein.

EXHIBIT 6

CT-0817

TOWN OF COLCHESTER
INCORPORATED
1698
CONNECTICUT

Code Administration

CERTIFIED

May 8, 1998

Seth M. Mandelbam
Snyder & Snyder
6 Avery Court
White Plains, NY 10604

RE: SDP #98-222 Nextel Communication - Site Development Plan prepared by Donald A. Benvie, Project #1170, C877 - Dated: April 23, 1998; revised through April 28, 1998.

Dear Mr. Mandelbam,

The above referenced site development plan was approved by the Zoning and Planning Commission at their regular meeting held May 6, 1998. Also, permission was granted for exception to the height limit pursuant to section 13.5 of the Zoning Regulations.

Per Section 12.10.1 of the Zoning Regulations, a bond in the amount of 25% of the total cost of site improvements must be posted prior to the endorsement of this plan and/or commencement of work. A bond estimate must be submitted to the Town Engineer for his review and approval.

If you have any questions, please call me at 537-7283.

Very truly yours,

Alicia Lathrop
Zoning Enforcement Officer

AL/am

98-222

127 NORWICH AVENUE, COLCHESTER, CT 06415 203-537-7280 FAX#537-0547

EXHIBIT 7

From: UPS
To: Barbara Kassabian
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030334548805
Date: Monday, September 25, 2023 12:13:18 PM

Hello, your package has been delivered.

Delivery Date: Monday, 09/25/2023
Delivery Time: 12:11 PM
Signed by: BISCOIONcID

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030334548805
Ship To:	TOWN OF COLCHESTER 127 NORWICH AVENUE COLCHESTER, CT 064151230 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	14519481

Discover more about UPS:

Visit www.ups.com

Sign Up For Additional E-Mail From UPS

Read Compass Online

Review the UPS Privacy Notice

For Questions, Visit Our Help and Support Center

From: UPS
To: Barbara Kassabian
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030307395094
Date: Monday, September 25, 2023 12:12:17 PM

Hello, your package has been delivered.

Delivery Date: Monday, 09/25/2023
Delivery Time: 12:10 PM
Signed by: PLANNING

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030307395094
Ship To:	TOWN OF COLCHESTER 127 NORWICH AVENUE COLCHESTER, CT 064151230 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	14519481

Discover more about UPS:

Visit www.ups.com

Sign Up For Additional E-Mail From UPS

Read Compass Online

Review the UPS Privacy Notice

For Questions, Visit Our Help and Support Center

From: UPS
To: Barbara Kassabian
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030309639111
Date: Monday, September 25, 2023 10:52:57 AM

Hello, your package has been delivered.

Delivery Date: Monday, 09/25/2023
Delivery Time: 10:51 AM
Left At: DOCK
Signed by: ANCRI

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030309639111
Ship To:	AMERICAN TOWER CORP 10 PRESIDENTIAL WAY WOBURN, MA 018011053 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	14519481

Discover more about UPS:

Visit www.ups.com

Sign Up For Additional E-Mail From UPS

Read Compass Online

Review the UPS Privacy Notice

For Questions, Visit Our Help and Support Center

From: UPS
To: Barbara Kassabian
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030306416107
Date: Monday, September 25, 2023 2:24:18 PM

Hello, your package has been delivered.

Delivery Date: Monday, 09/25/2023

Delivery Time: 2:23 PM

Left At: MET CUST BOY

Set Delivery Instructions | Manage Preferences | View My Packages

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030306416107
Ship To:	M & J AUTO RECYCLING 355 NEW LONDON ROAD COLCHESTER, CT 064151830 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	14519481

Manage Your UPS My Choice Delivery Alerts

Review the UPS Privacy Notice

Review the UPS My Choice Service Terms