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

April 25, 2024

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

RE: Notice of Exempt Modification // Site: HARWINTON N CT (ATC: 414240)
159 Weingart Road, Harwinton, CT 06791
N 41.787753 // W -73.092531

Dear Ms. Bachman,

Cellco Partnership d/b/a Verizon Wireless currently maintains twelve (12) antenna at the 175-ft level on the existing 182 ft Tower, located at 159 Weingart Road, Harwinton, CT. The tower is owned by American Tower. Verizon Wireless proposed modification involves the installation of a new mount modification, three (3) antennas three (3) diplexers, and (1) hybrid cable 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 Harwinton'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 April 15, 2024, by NB&C LLC, a structural analysis dated January 31, 2024, by American Tower Corp., and a structural mount analysis by Colliers Engineering and Design dated January 12, 2024, and Non-Ionizing Electromagnetic Radiation (NIER) Study dated February 8, 2024, 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
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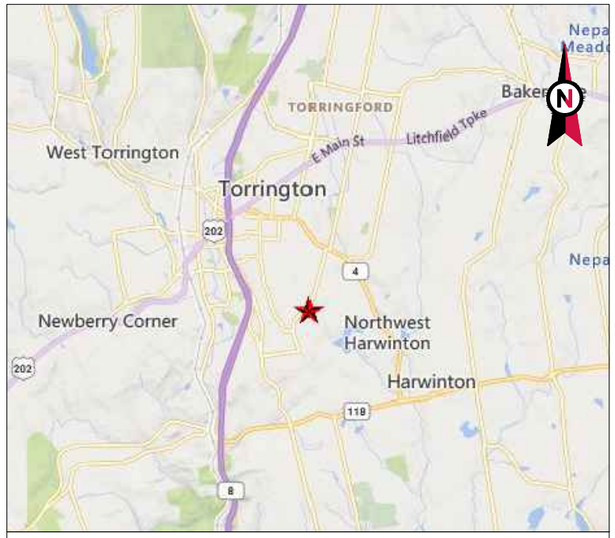
Attachments:
Exhibit 1 – Construction Drawings
Exhibit 2 – Property Card and GIS
Exhibit 3 – Structural Analysis
Exhibit 4 – Mount Analysis
Exhibit 5 – RF Emissions Analysis Report Evaluation
Exhibit 6 – Available Original Tower Approval Records
Exhibit 7 – Notice Deliver Confirmations

cc: Michael R. Criss – First Selectman – Chief Elected Official
Michael J. Orefice – Planning Chair - as P&Z official
American Tower Corporation - as tower owner and ground owner

EXHIBIT 1



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: HARWINTON
ATC SITE NUMBER: 302502
VERIZON SITE NAME: HARWINTON N CT
VERIZON SITE NUMBER: 5000054288
VERIZON FUZE PID: 16244159
SITE ADDRESS: 159 WEINGART RD
HARWINTON, CT 06791

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:	115 mph
BASIC WIND SPEED W/ ICE:	50 mph
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
FEATURE:	N/A
SPECTRAL RESPONSE:	S_S=0.18, S_1=0.05

INFORMATION TAKEN FROM MOUNT ANALYSIS COMPLETED BY ATC, DATED 02/05/24.

UTILITY COMPANIES

POWER COMPANY: EVERSOURCE
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:

159 WEINGART RD
HARWINTON, CT 06791
COUNTY: LITCHFIELD

GEOGRAPHIC COORDINATES:

LATITUDE: 41° 47' 15.906" N

LONGITUDE: 73° 5' 33.142" W

GROUND ELEVATION: 1051' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

VERIZON WIRELESS

ENGINEER:

ATC TOWER SERVICES, LLC
1 FENTON MAIN, STE 300
CARY, NC 27511

PROPERTY OWNER:

SBC TOWER HOLDINGS LLC
159 WEINGART RD
HARWINTON, CT 06791

PROJECT DESCRIPTION

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

TOWER WORK:
REMOVE (12) RRH(s)
INSTALL MOUNT MODIFICATIONS, (3) ANTENNA(s), (6) RRH(s), (3) DIPLEXER(s), AND (1) 1-5/8" HYBRID CABLE(s)
EXISTING (3) SIDE-BY-SIDE ANTENNA MOUNTING BRACKET(s), (12) ANTENNA(s), (1) OVP(s), (6) 1-5/8" COAX, AND (1) 1-5/8" HYBRID CABLE(s) TO REMAIN

GROUND WORK:
INSTALL (27) KIT(s), AND (1) OTHER

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 HARTFORD TAKE I-84 WEST TO RT 4 WEST. FOLLOW TO HARWINTON, TURN LEFT ON BREEZY HILL RD (JUST PAST JCT W/ RT 183) STAY TO RIGHT AT FORK (WEINGHART BEGINS). ACCESS ROAD AHEAD ON LEFT JUST AFTER OVERHEAD POWER LINE EASEMENT.

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	04/15/24	VAR
G-002	GENERAL NOTES	0	04/15/24	VAR
C-101	DETAILED SITE PLAN	0	04/15/24	VAR
C-201	TOWER ELEVATION	0	04/15/24	VAR
C-401	ANTENNA INFORMATION & SCHEDULE	0	04/15/24	VAR
C-501	CONSTRUCTION DETAILS	0	04/15/24	VAR
E-501	GROUNDING DETAILS	0	04/15/24	VAR
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			
R-604	SUPPLEMENTAL			
R-605	SUPPLEMENTAL			

CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT:	HTTPS://PMI.VZWSMART.COM
SMART TOOL VENDOR PROJECT NUMBER:	10217898
VZW LOCATION CODE (PSLC):	5000054288

***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
1 FENTON MAIN
SUITE 300
CARY, NC 27511
PHONE: (919) 468-0112
PEC.0001553

REV.	DESCRIPTION	BY	DATE
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302502
ATC SITE NAME:
HARWINTON
VERIZON SITE NAME:
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SITE ADDRESS:
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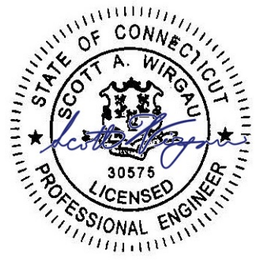
HARWINTON, CT 06791

SEAL:



verizon

ATC JOB NO:	14580448_G0
CUSTOMER ID:	HARWINTON N CT
CUSTOMER #:	5000054288

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/HYBRID 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. INSTALL COAXIAL/HYBRID 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/HYBRID CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.

2. ANTENNA AND COAXIAL/HYBRID CABLE GROUNDING:

   A. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.

   B. ALL COAXIAL/HYBRID CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL/HYBRID 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

1 FENTON MAIN
SUITE 300
CARY, NC 27511
PHONE: (919) 468-0112
PEC.0001553

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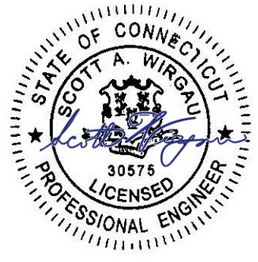


Digitally Signed: 2024-04-15

verizon

ATC JOB NO:	14580448_G0
CUSTOMER ID:	HARWINTON N CT
CUSTOMER #:	5000054288

GENERAL NOTES

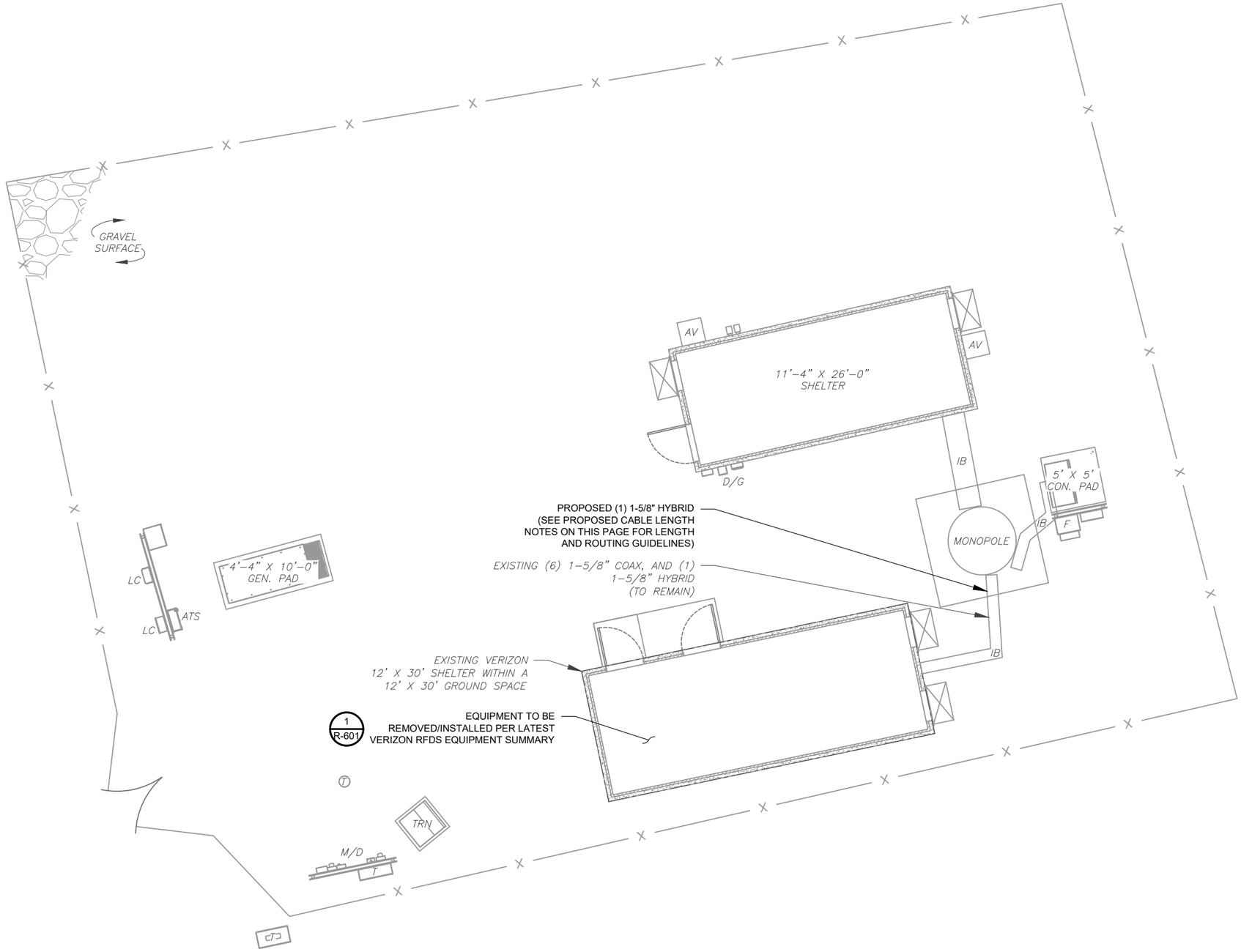
SHEET NUMBER:	REVISION:
G-002	0

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

PROPOSED CABLE NOTES:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **235'**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.

1 DETAILED SITE PLAN

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 UNIT = 10 FEET

N

AMERICAN TOWER®
A.T. ENGINEERING SERVICES LLC
1 FENTON MAIN
SUITE 300
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PHONE: (919) 468-0112
PEC.0001553

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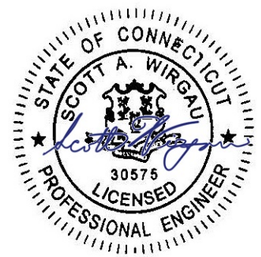

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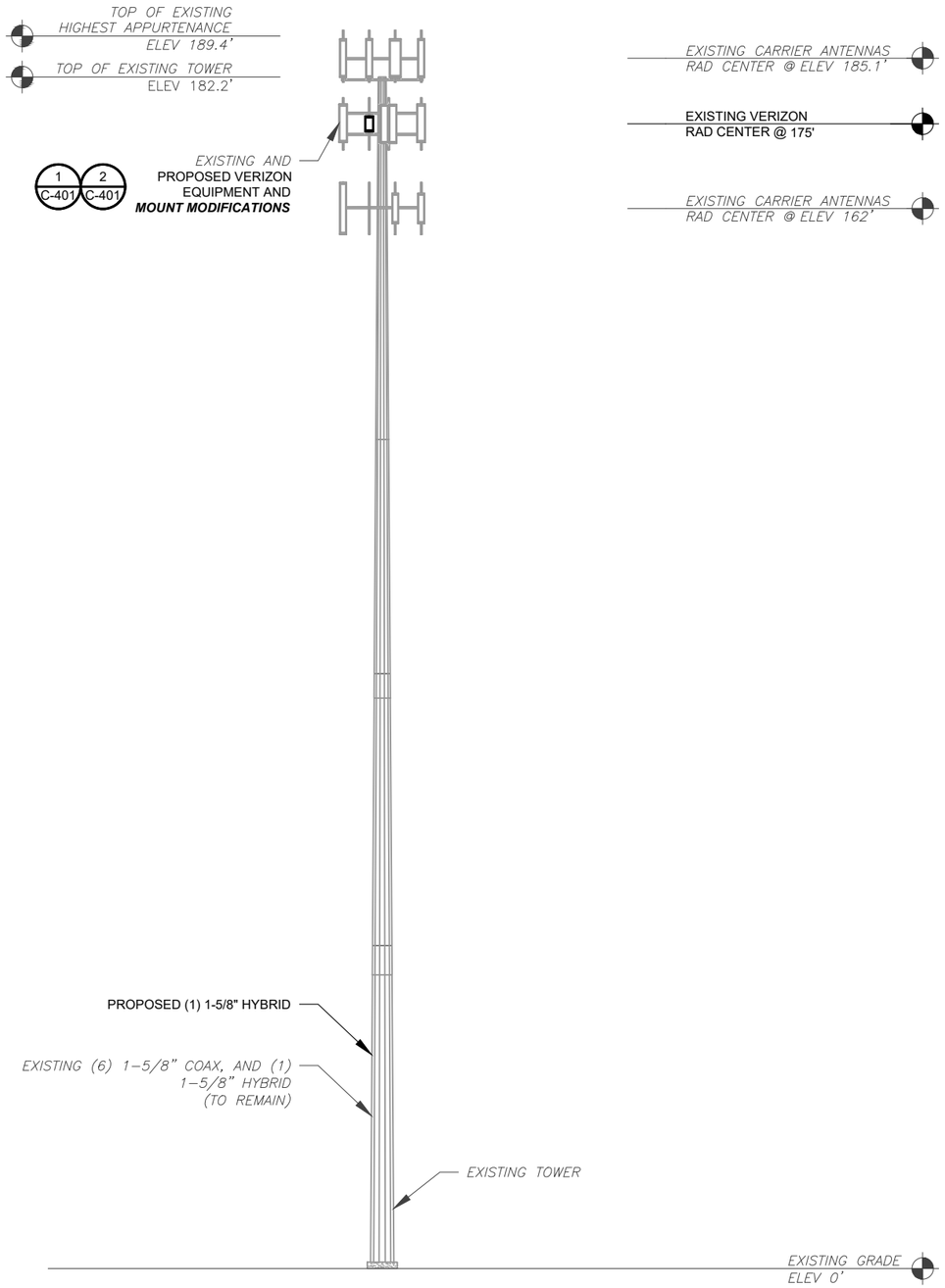
ATC JOB NO:	14580448_G0
CUSTOMER ID:	HARWINTON N CT
CUSTOMER #:	5000054288

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

PER MOUNT ANALYSIS COMPLETED BY COLLIERS ENGINEERING & DESIGN, DATED 01/12/24, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION DETAILED 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.

ALL ELEVATIONS REFLECT ABOVE GROUND LEVEL (A.G.L.)

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. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
4. TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

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1 FENTON MAIN
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CARY, NC 27511
PHONE: (919) 468-0112
PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	VAR	04/15/24

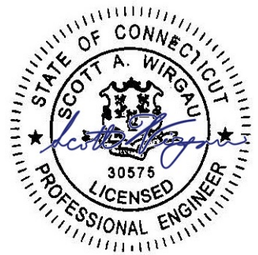
ATC SITE NUMBER:
302502

ATC SITE NAME:
HARWINTON

VERIZON SITE NAME:
HARWINTON N CT

SITE ADDRESS:
159 WEINGART RD
HARWINTON, CT 06791

SEAL:



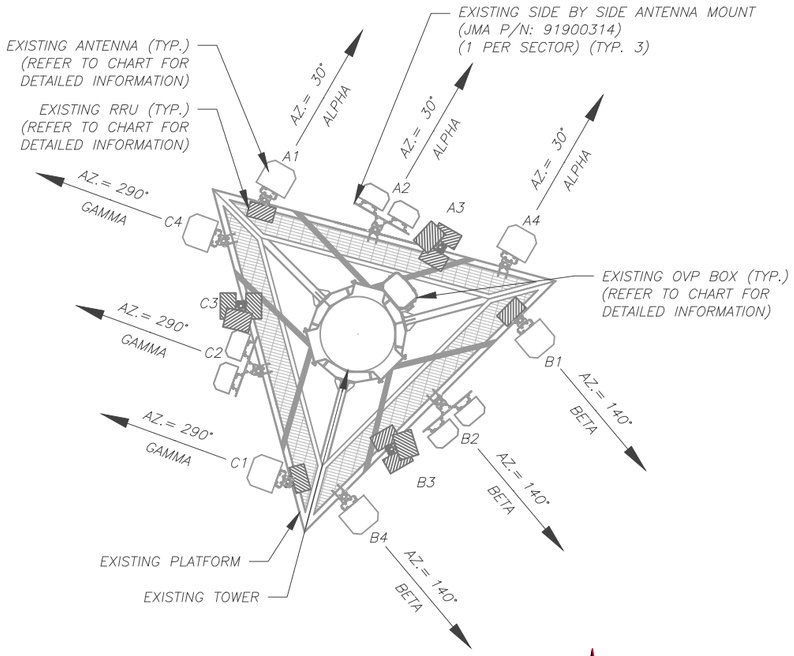
Digitally Signed: 2024-04-15

verizon

ATC JOB NO:	14580448_G0
CUSTOMER ID:	HARWINTON N CT
CUSTOMER #:	5000054288

TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0

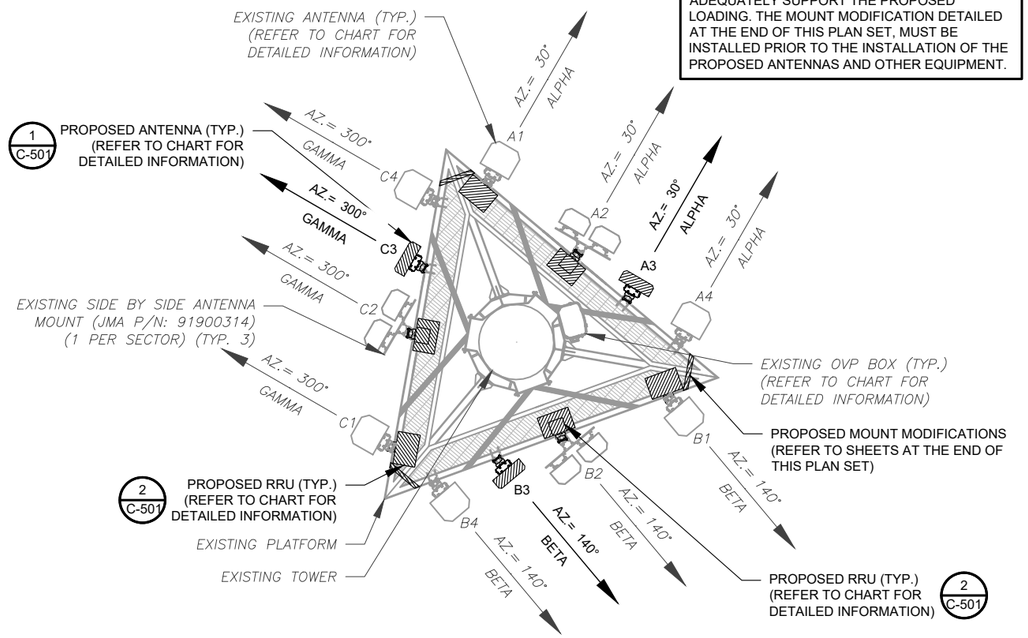


1 EXISTING ANTENNA PLAN

SCALE: N.T.S.

CONTRACTOR SHALL RE-ORIENT ANTENNA MOUNT(s) AS NECESSARY TO ACHIEVE PROPOSED ANTENNA AZIMUTHS

PER MOUNT ANALYSIS COMPLETED BY COLLIERS ENGINEERING & DESIGN, DATED 01/12/24, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION DETAILED 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	175'	30°	A1	LPA-80063/6CF	850 CDMA	RMN	B5 RRH4X40-850	RMV
			A2	(2)JAHH-65B-R3B	700 LTE, 850 LTE, 850 5G, 1900 LTE, AWS LTE	RMN	–	–
			A3	–	–	–	B66A RRH4X45 B25 RRH4X30 B13 RRH4X30-4R	RMV RMV RMV
			A4	LPA-80063/6CF	850 CDMA	RMN	–	–
BETA	175'	140°	B1	LPA-80063/6CF	850 CDMA	RMN	B5 RRH4X40-850	RMV
			B2	(2)JAHH-65B-R3B	700 LTE, 850 LTE, 850 5G, 1900 LTE, AWS LTE	RMN	–	–
			B3	–	–	–	B66A RRH4X45 B25 RRH4X30 B13 RRH4X30-4R	RMV RMV RMV
			B4	LPA-80063/6CF	850 CDMA	RMN	–	–
GAMMA	175'	290°	C1	LPA-80063/6CF	850 CDMA	RMN	B5 RRH4X40-850	RMV
			C2	(2)JAHH-65B-R3B	700 LTE, 850 LTE, 850 5G, 1900 LTE, AWS LTE	RMN	–	–
			C3	–	–	–	B66A RRH4X45 B25 RRH4X30 B13 RRH4X30-4R	RMV RMV RMV
			C4	LPA-80063/6CF	850 CDMA	RMN	–	–

NOTES

1. GC TO VERIFY THE FINAL RFDS MATCHES THE FINAL CONSTRUCTION DRAWINGS. GC TO NOTIFY ATC PM OF ANY DISCREPANCY PRIOR TO INSTALLING THE EQUIPMENT.
2. GC TO CAP ALL UNUSED PORTS.
3. GC TO 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	175'	30°	A1	LPA-80063/6CF	850 CDMA	RMN	RF4461D-13A	ADD
			A2	(2) JAHH-65B-R3B	700 LTE, 850 LTE, 850 5G, 1900 LTE, AWS LTE	RMN	CBC78T-DS-43-2X RF4439D-25A	ADD ADD
			A3	MT6413-77A	L-SUB6 5G	ADD	-	-
			A4	LPA-80063/6CF	850 CDMA	RMN	-	-
BETA	175'	140°	B1	LPA-80063/6CF	850 CDMA	RMN	RF4461D-13A	ADD
			B2	(2) JAHH-65B-R3B	700 LTE, 850 LTE, 850 5G, 1900 LTE, AWS LTE	RMN	CBC78T-DS-43-2X RF4439D-25A	ADD ADD
			B3	MT6413-77A	L-SUB6 5G	ADD	-	-
			B4	LPA-80063/6CF	850 CDMA	RMN	-	-
GAMMA	175'	300°	C1	LPA-80063/6CF	850 CDMA	RMN	RF4461D-13A	ADD
			C2	(2) JAHH-65B-R3B	700 LTE, 850 LTE, 850 5G, 1900 LTE, AWS LTE	RMN	CBC78T-DS-43-2X RF4439D-25A	ADD ADD
			C3	MT6413-77A	L-SUB6 5G	ADD	-	-
			C4	LPA-80063/6CF	850 CDMA	RMN	-	-

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

3 EQUIPMENT SCHEDULES

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

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PHONE: (919) 468-0112
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0	FOR CONSTRUCTION	VAR	04/15/24

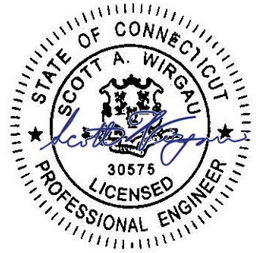
ATC SITE NUMBER:
302502

ATC SITE NAME:
HARWINTON

VERIZON SITE NAME:
HARWINTON N CT

SITE ADDRESS:
159 WEINGART RD
HARWINTON, CT 06791

SEAL:



Digitally Signed: 2024-04-15

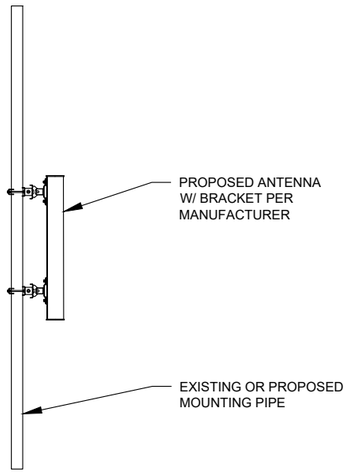
verizon

ATC JOB NO:	14580448_G0
CUSTOMER ID:	HARWINTON N CT
CUSTOMER #:	5000054288

ANTENNA INFORMATION & SCHEDULE

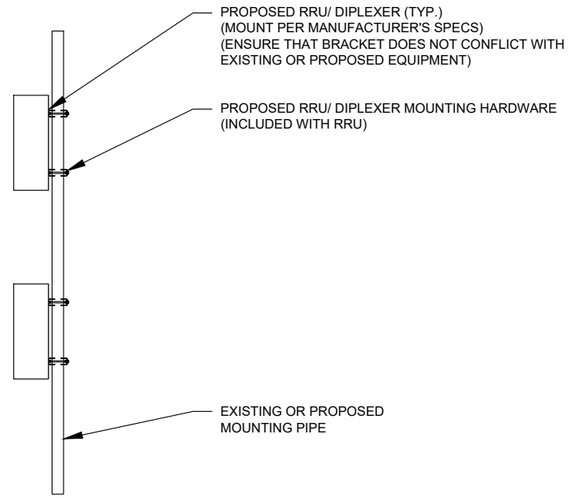
SHEET NUMBER:	REVISION:
C-401	0

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 5G ANTENNA MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



2 PROPOSED RRU MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	VAR	04/15/24

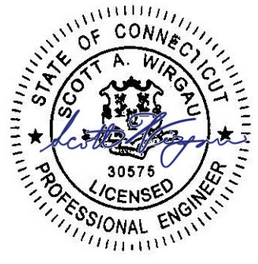
ATC SITE NUMBER:
302502

ATC SITE NAME:
HARWINTON

VERIZON SITE NAME:
HARWINTON N CT

SITE ADDRESS:
159 WEINGART RD
HARWINTON, CT 06791

SEAL:



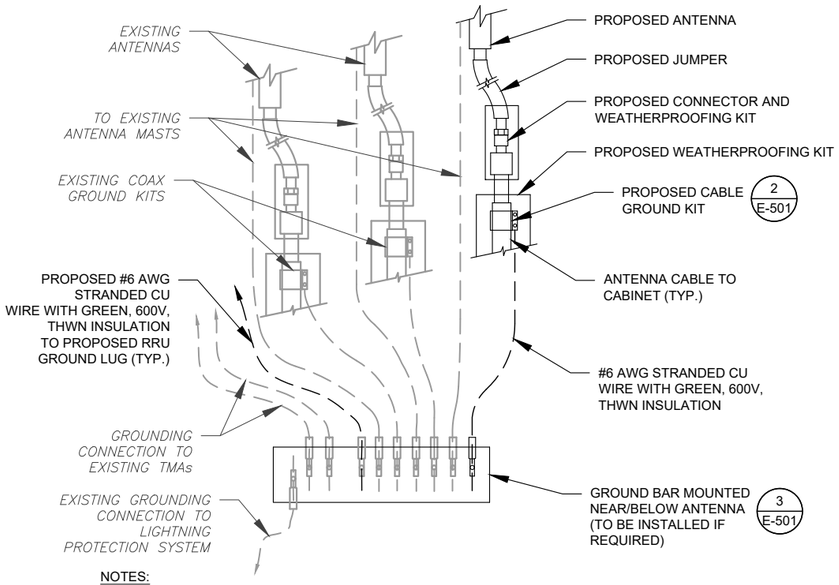
Digitally Signed: 2024-04-15

verizon

ATC JOB NO:	14580448_G0
CUSTOMER ID:	HARWINTON N CT
CUSTOMER #:	5000054288

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

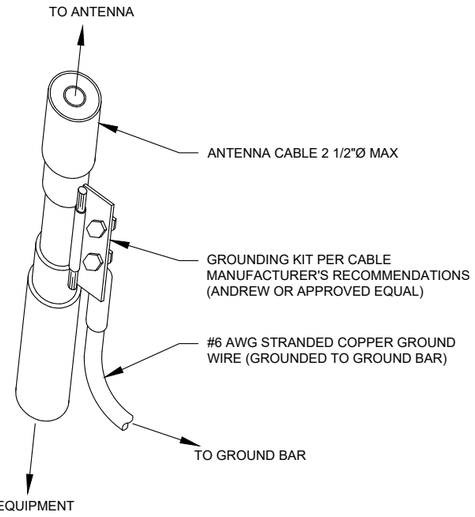


NOTES:

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.

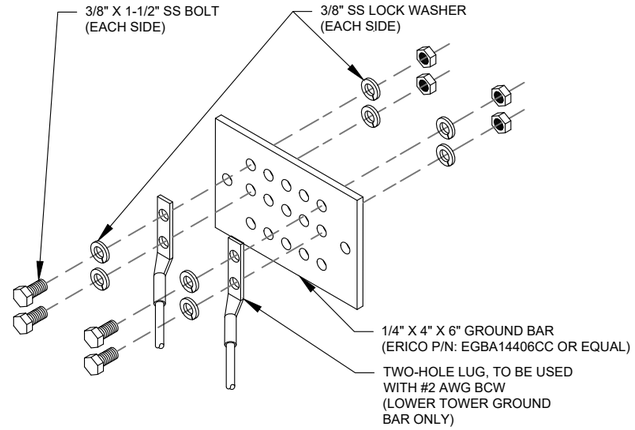


GROUND KIT NOTES:

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.

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CARY, NC 27511
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PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	VAR	04/15/24

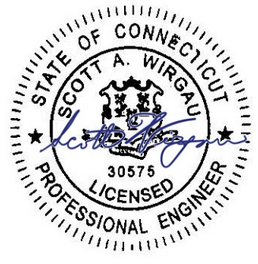
ATC SITE NUMBER:
302502

ATC SITE NAME:
HARWINTON

VERIZON SITE NAME:
HARWINTON N CT

SITE ADDRESS:
159 WEINGART RD
HARWINTON, CT 06791

SEAL:



Digitally Signed: 2024-04-15

verizon

ATC JOB NO:	14580448_G0
CUSTOMER ID:	HARWINTON N CT
CUSTOMER #:	5000054288

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

verizon fuze | RFDS

NORTHEAST > North East > New England > New England West > HARWINTON N CT

RF Submit by: Brauer, Mark - mark.brauer2@verizonwireless.com - 2/21/2024, 8:38:57 AM

EE Submit by: , --

Project Details

FUZE Project ID: 16244159
Project Name: 5G L-Sub6 - Carrier Add
Project Alt Name: HARWINTON N CT - LSub6 add
Project Type: Modification
Modification Type: RF
Designed Sector Carrier 4G: 22
Designed Sector Carrier 5G: 3
Additional Sector Carrier 4G: N/A
Additional Sector Carrier 5G: N/A
FP Solution Type & Tech Type: MODIFICATION;4G_Radio Swap,5G_850,5G_L-Sub6,5G_Radio Swap,5G_vDU add - Sub3
Carrier Aggregation: false
MPT Id:
eCIP-0: false
Suffix: Rev1_11.28.2023

Location Information

Site ID: 324069
E-NodeB ID: 0649402,064462
MDG Location ID: 5000054288
PSLC: 467932
Switch Name: Wallingford 1
Tower Owner:
Tower Type: Monopole
Site Type: MACRO
Site Sub Type: TRADITIONAL
Street Address: 159 Weingart Road
City: Harwinton
State: CT
Zip Code: 06791
County: Litchfield
Latitude: 41.787753 / 41° 47' 15.9108" N
Longitude: -73.092531 / 73° 5' 33.1116" W

RFDS Project Scope: LSub6 add only

Rev2_02.21.2024 : Per Andrew Leone - Can you revise RFDS to show an additional hybrid cable retained?
Added: None
Removed: None
Retained: (2) LI 6x12 hybrids (1) 12 OVP
Rev1_11.28.2023 : Updated to Gen2 equipment, added RET label
Rev0_03.16.2021 : Initial Design

Antenna Summary

Added

700	850	1900	AWS	L-Sub6	Make	Atoll Model	Item Description	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
				5G	Samsung	MT6413-77A		175	176.2	30(0094) 140(0095) 300(0096)		false	PHYSICAL	3	

Removed

700	850	1900	AWS	L-Sub6	Make	Atoll Model	Item Description	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID

No data available.

Retained

700	850	1900	AWS	L-Sub6	Make	Atoll Model	Item Description	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
	CDMA				ANTEL	LPA-80063/6CF 5 (178375)		175				false	PHYSICAL	6	
LTE	LTE 5G	LTE	LTE		ANDREW	JAHH-65B-R3B	ANT - 4LB, 4HB, 65DEG, 3RET, 2SBT 6 FOOT	175	178	30(01) 140(02) 300(03) 30(0094) 140(0095) 300(0096)		false	PHYSICAL	6	1900055848

Added: 3 | Removed: 0 | Retained: 12

Equipment Summary

Added

Equipment Type	Location	700	850	1900	AWS	L-Sub6	Make	Atoll Model	Item Description	Cable Length	Cable Size	Install Type	Quantity	Item ID
RRU	Tower					5G	Samsung	MT6413-77A				PHYSICAL	0	
RRU	Tower	LTE	LTE 5G				Samsung	RF4461d-13A				PHYSICAL	3	
RRU	Tower			LTE	LTE		SAMSUNG ELECTRONIC AMERICA INC	B2/B66A RRH ORAN (RF4439d-25A)	ORAN HIHI RF4439d-25A			PHYSICAL	3	1900413091
Kit	Shelter						Samsung	SLS-BB1150EGEX	BH OPTIC MODULE 1.25GBPS (850NM, 10KM, 9.5DB, LX)			PHYSICAL	1	0000000019000095
Kit	Shelter						Nokia	3HE04824AA	SFP+ 10GE SR-LC ROHS6/6 0/70C			PHYSICAL	4	0000000019001553
Kit	Shelter						Nokia	3HE11904AA	SFP - GIGE BASE-T RJ45 R6/5 DDM -40/85C			PHYSICAL	2	0000000019001829
Kit	Shelter						Samsung	NW-FSGPSCH30VZ	CABLE ASSY-COAXIAL(3M)			PHYSICAL	1	0000000019000085
Diplexer	Tower	LTE	LTE				COMMSCOPE	CBC78T-DS-43-2X				PHYSICAL	3	0000000019000842
Kit	Shelter						AMERICANCA-006	55325-KIT	VRAN Installation Kit			PHYSICAL	1	0000000019004253
Kit	Shelter						Samsung	SFG-AFE000DAVZ	LTE DU,RU / CPRI, MULTI MODE 10GBPS 300M(OM3 CABLE)DUPLEX (T			PHYSICAL	12	0000000019000833
Kit	Shelter						SAMSUNG ELECTRONIC AMERICA INC	NW-FSBRACH02VZ	FSU BRACKET_GEN2			PHYSICAL	1	1900007927
Kit	Shelter						Samsung	NW-FSCPCBH15VZ	CABLE ASS'Y-CDU POWER(15M)			PHYSICAL	1	0000000019000085
Kit	Shelter						Samsung	SFG-AFE000DBVZ	VDU / ETHERNET, MULTI MODE 25GBPS 100M(OM4 CABLE)DUPLEX (TX			PHYSICAL	2	0000000019000833
Kit	Shelter						Samsung	SFG-AFS00Z01VZ	FRONTHAUL SWITCH UNIT 2.0			PHYSICAL	1	0000000019000815
Other	Shelter						HEWLETTPAC-003	EB041921	VCP NARROW &MIDBAND EL8000T 2XE920T			PHYSICAL	1	0000000019004055
Kit	Shelter						Nokia	3HE00027CA	SFP - GIGE SX - LC ROHS 6/6 DDM -40/85C			PHYSICAL	1	0000000019001845

Removed

Equipment Type	Location	700	850	1900	AWS	L-Sub6	Make	Atoll Model	Item Description	Cable Length	Cable Size	Install Type	Quantity	Item ID
RRU	Tower			LTE				UHFA B25 RRH 4x30	B25 RRH 4X30			PHYSICAL	3	1900068520
RRU	Tower				LTE		COMMUNICATIONS TEST DESIGN INC	UHIE B66A RRH 4x45	B66A RRH4X45			PHYSICAL	3	1900068835
RRU	Tower		LTE					AHCA AirScale RRH 4T4R B5 160W	AHCA AIRSCALE RRH 4T4R B5 160W			PHYSICAL	3	1900166312
RRU	Tower	LTE					ALCATEL USA INC	UHBA B13 RRH 4x30	RRH4X30-4T4R-B13			PHYSICAL	3	1900068917

Retained

Equipment Type	Location	700	850	1900	AWS	L-Sub6	Make	Atoll Model	Item Description	Cable Length	Cable Size	Install Type	Quantity	Item ID
OVP Box	Tower						N/A	12 OVP				PHYSICAL	1	
Hybrid Cable	Tower						N/A	6x12 Hybriflex				PHYSICAL	2	

1 EQUIPMENT SUMMARY

NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER: R-601

REVISION: 0

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

Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10217898
Colliers Engineering & Design Project #: 21777534

January 12, 2024

Site Information

Site ID:	*5000054288-VZW / HARWINTON N CT*
Site Name:	*HARWINTON N CT*
Carrier Name:	*Verizon Wireless*
Address:	*159 Weingart Rd* *Harwinton, Connecticut 06791* *Litchfield County*
Latitude:	*41.787753°*
Longitude:	*-73.092531°*

Structure Information

Tower Type:	*Monopole*
Mount Type:	*14.00-Ft Platform*

FUZE ID # 16244159

Analysis Results

Platform: **52.3% Pass w/ Modifications***

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

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

Report Prepared By: Grant Walters

Requirements:

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

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

Attachments:

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

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-602	0

verizon

MOUNT MODIFICATION DRAWINGS
EXISTING 14.00' PLATFORM

TOWER OWNER: AMERICAN TOWER CORPORATION
TOWER OWNER SITE NUMBER: 302502

CARRIER SITE NAME: HARWINTON N CT
CARRIER SITE NUMBER: 5000054288
FUZE ID: 16244159

159 WEINGART RD
HARWINTON, CT 06791
LITCHFIELD COUNTY

LATITUDE: 41.78775300° N
LONGITUDE: 73.09253100° W

DESIGN CRITERIA

WIND LOADS

BASIC WIND SPEED (3 SECOND GUST), V = 120 MPH
EXPOSURE CATEGORY: B
TOPOGRAPHIC CATEGORY: 1
TOPOGRAPHIC CONSIDERED: N/A
TOPOGRAPHIC METHOD: N/A
MEAN BASE ELEVATION (AMSL) = 1045.58'

ICE LOADS

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

SEISMIC LOADS

SEISMIC DESIGN CATEGORY B
SHORT TERM MCER GROUND MOTION, S_s = .177
LONG TERM MCER GROUND MOTION, S_1 = .054

PROJECT INFORMATION

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON WIRELESS

PROJECT MANAGER

COMPANY: COLLIERS ENGINEERING & DESIGN
CONTACT: PETER ALBANO
PHONE: 856.797.0413
E-MAIL: PETER.ALBANO@COLLIERSENG.COM

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 1321781198
VZW MDG #: 5000054288
ANALYSIS DATE: 11/7/2023

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

SHEET INDEX

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

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verizon

PROJECT SOLUBILITY
811 Know what's below. Call before you dig.
THE LOCATIONS SHOWN ARE APPROXIMATE AND FOR INFORMATIONAL PURPOSES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION FOR THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES.
THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION FOR THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES.
SUPPLIER NOTIFIED: DATE: PHONE/EMAIL/FAX NOTIFIED: NAME OF REP.:

SCALE: AS SHOWN | DRAWING BY: | J:777534

NO	DATE	DESCRIPTION	CHKD	APP'D
1	---		---	---
2	---		---	---
3	---		---	---
4	09/05/23	REVISED PER COMMENTS	DMB	SR
REV	DATE	DESCRIPTION	DRAWN BY	APP'D BY

COLLIERS ENGINEERING & DESIGN CT, P.C.
C-1, PC.0000531

SITE NAME:
HARWINTON N CT
5000054288
159 WEINGART RD
HARWINTON, CT 06791
LITCHFIELD COUNTY

STAMFORD
1000 Washington Boulevard
Stamford, CT 06901
Phone: (203)326-2000
http://www.collidersengineering.com

SHEET TITLE: TITLE SHEET
SHEET NUMBER: ST-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

SECTION 1 - VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	VZWSMART	VZWSMART-PLK3	SUPPORT RAIL CORNER BRACKET		30	90
6		VZWSMART-MSK1	CROSSOVER PLATE		14	84

SECTION 2 - OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3			PROPOSED 30" LONG, L3x3x1/4	GALVANIZED. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1.	12	37

SECTION 3 - REQUIRED SAFETY CLIMB PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
1	PERFECT VISION	HKI-0501-06	STANDOFF CLAMP BRACKET	OR EOR APPROVED EQUIVALENT	-	-
1	PERFECT VISION	PV-CPOC-CG-BO	WIRE ROPE GUIDE	OR EOR APPROVED EQUIVALENT	-	-
				TOTAL:		211

NOTES:

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

VZWSMART KITS - APPROVED VENDORS

COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7490
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM

METROSITE FABRICATORS, LLC	
CONTACT	KENT KAPEY
PHONE	(706) 335-7045 (C), (706) 983-9788 (H)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM

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

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

SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-1843
EMAIL	PAULA.BOSWELL@WALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

SHEET TITLE: BILL OF MATERIALS
SHEET NUMBER: SBOM-1

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TIA-222-H: MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING STRUCTURES. ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THE CONTRACTOR'S WORK OR FROM DAMAGE DUE TO OTHER CAUSES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK, ORDERING MATERIAL, AND PREPARING OF SHOP DRAWINGS. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE ENGINEER IMMEDIATELY.
4. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
6. ALL CONSTRUCTION MEANS AND METHODS (INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/TIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/TIA-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.
8. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 20 MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, SHORING, BRACING AND ANY OTHER STRUCTURAL SYSTEMS AS REQUIRED TO RESIST ALL FORCES THAT MAY OCCUR DURING HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THEIR USE.
9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSI/TIA-222.
10. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
11. CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CONNECTIONS SHALL BE DESIGNED, COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.
12. DO NOT SCALE DRAWINGS.
13. DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
14. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZE AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT.

STRUCTURAL STEEL

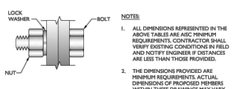
1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
   a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
   b. SPECIFICATION FOR STRUCTURAL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

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

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

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

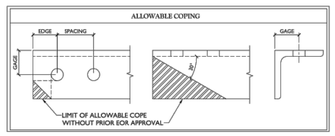
WORKABLE GAGES (IN.)	
LEG	GAGE
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8



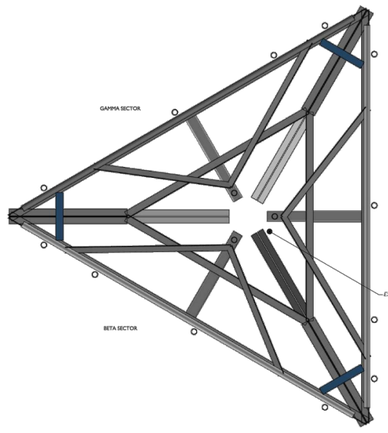
TYP. BOLT ASSEMBLY

NOTES:

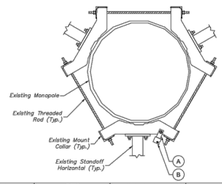
1. ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLE ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS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



SHEET TITLE: GENERAL NOTES
SHEET NUMBER: SGN-1



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



ITEM #	QTY	PART NUMBER	DESCRIPTIONS
A	1	HKI-0501-06	STANDOFF CLAMP BRACKET (PERFECT VISION OR EOR APPROVED EQ.)
B	1	PV-CPOC-CG-BO	WIRE ROPE GUIDE (PERFECT VISION OR EOR APPROVED EQ.)

2 PROPOSED WIRE ROPE GUIDE ATTACHMENT - PLAN VIEW
SCALE: N.T.S.

NOTE: CONTRACTOR SHALL ENSURE THAT WIRE ROPE GUIDE DOES NOT PUSH THE WIRE ROPE OUTSIDE OF THE VERTICAL PLANE OF THE SAFETY CLIMB. CONTRACT EOR WITH PHOTOS OF SAFETY CLIMB AND COLLAR FOR FURTHER DIRECTION IF NEEDED.

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY RKS DESIGN & ENGINEERING LLC ON 4/16/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (173'-9") ARE IN GOOD CONDITION. COLLIERS ENGINEERING & DESIGN DOES NOT WARRANT THIS INFORMATION.
2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.

CLIMBING FACILITY PHOTO

SHEET TITLE: CLIMBING FACILITY DETAIL
SHEET NUMBER: SCF-1

1 MOUNT MODIFICATIONS

NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER: R-603
REVISION: 0

LEGEND:

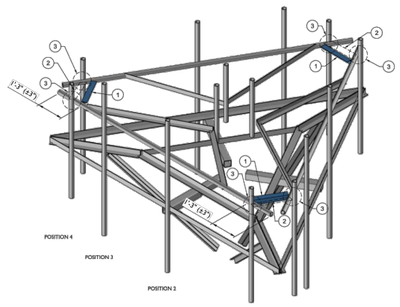
- PROPOSED
- RELOCATED
- EXISTING

MOUNT MODIFICATION SCHEDULE

NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	173'-5"	3	PROPOSED 30" LONG, L3x3x1/4 BRACING	CONTRACTOR SHALL CONNECT PROPOSED ANGLES TO SUPPORT RAIL CORNER BRACKET (PART #: VZWSMART-PLK3) USING THE PROVIDED (8) 3/8" DIA. BOLTS, (4) BOLTS PER CONNECTION. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE STRUCTURAL STEEL NOTES ON SHEET SGN-1. REFER TO NOTE B.
2		3	REMOVED SUPPORT RAIL PLAN BRACING	CONTRACTOR SHALL REMOVE EXISTING PLAN BRACING AND ASSOCIATED HARDWARE. REFER TO NOTE A.
3		6	PROPOSED CROSSOVER PLATE (PART #: VZWSMART-MSK1)	CONNECT EXISTING MOUNT PIPES IN POSITIONS 1 AND 4 AS SEEN FROM BEHIND THE MOUNT OF EACH SECTOR TO EXISTING SUPPORT RAIL USING PROPOSED CROSSOVER PLATES (PART #: VZWSMART-MSK1).

GENERAL NOTES:

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



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

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ALL UTILITIES SHOULD BE NOTIFIED BEFORE EXCAVATING, GRADING, OR ANY PHASE OF CONSTRUCTION BEGINS. CALL 811 OR VISIT SUNSHINE811.COM FOR MORE INFO.
THE USER SHOULD ANALYZE DIRECT PHOTOCOPIES FOR DIMENSIONAL ACCURACY.

SCALE:	AS SHOWN	PROJECT NO.:	21773534
0	09/10/21	ISSUED FOR CONSTRUCTION	DMB / DB
REV	DATE	DESCRIPTION	DRAWN BY / CHECKED BY

COLLIERS ENGINEERING & DESIGN CT, P.C.
CT. PC.0000331

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

SITE NAME:
HARWINTON N CT
50000542388
159 WEINGART RD
HARWINTON, CT 06791
LITCHFIELD COUNTY

STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: (203)326-3000
http://www.collersengineering.com

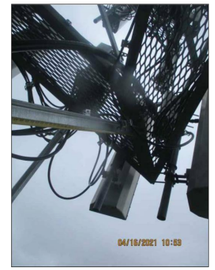
SHEET TITLE:
MODIFICATION DETAILS

SHEET NUMBER:
SS-1

MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3



MOUNT PHOTO 4

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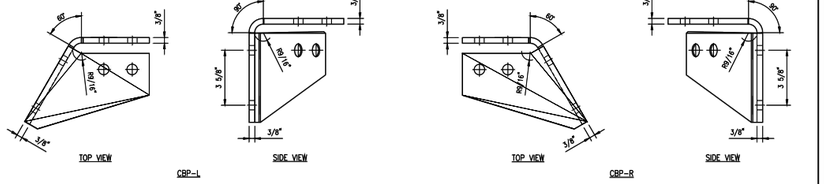
THE USER SHOULD ANALYZE DIRECT PHOTOCOPIES FOR DIMENSIONAL ACCURACY.
SCALE: AS SHOWN PROJECT NO.: 21773534
0 09/10/21 ISSUED FOR CONSTRUCTION DMB / DB
COLLIERS ENGINEERING & DESIGN CT, P.C. CT. PC.0000331
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.
SITE NAME:
HARWINTON N CT
50000542388
159 WEINGART RD
HARWINTON, CT 06791
LITCHFIELD COUNTY
STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: (203)326-3000
http://www.collersengineering.com
SHEET TITLE:
MOUNT PHOTOS
SHEET NUMBER:
SS-2

VzW SMART Tool© Vendor

verizon

FOR REFERENCE ONLY



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

VZWSMART-PLK3 (SUPPORT RAIL CORNER BRACKET)

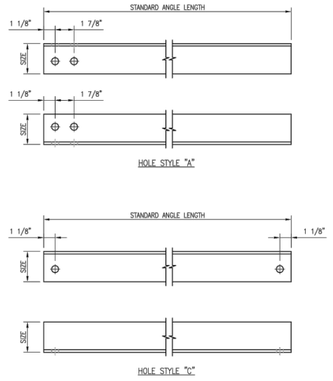
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	CBP-L	CORNER BENT PLATE BRACKET	PLK3-F1	9
2	1	CBP-R	CORNER BENT PLATE BRACKET	PLK3-F1	9
3	4	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" L.L. A36 (OR EQUIV.)	RBC-1	5
4	8	---	BOLT 5/8" X 2" A325	---	3
5	16	FW-625	5/8" HDG USS FLAT WASHER	---	1
6	16	LW-625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

DRAWN BY: HJR CHECKED BY: HMA

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	HJR	09/09/20

SHEET TITLE:
VZWSMART-PLK3
SUPPORT RAIL CORNER BRACKET

SHEET NUMBER: VZWSMART-PLK3 REV #: 0



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

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

VZWSMART Standard Angle

VZWSMART Number	Size	Length	Hole Style	Hole Gage	Also Used In:
A-PLK2-01	L 3" X 3" X 1/4"	96"	A	1-3/4"	VZWSMART-PLK2
A-PLK3-01	L 3"X 3" X 3/16"	96"	B	1-3/4"	VZWSMART-PLK3
A-SFK3-01	L 2-1/2" X 2-1/2" X 1/4"	96"	C	1-3/4"	VZWSMART-SFK3, -SFK3-SL, -PLK6, & -PLK8
A-L25X25X4X120	L 2-1/2" X 2-1/2" X 1/4"	120"	D	1-5/16"	
A-L25X25X4X240	L 2-1/2" X 2-1/2" X 1/4"	240"	D	1-5/16"	
A-L30X30X4X120	L 3" X 3" X 1/4"	120"	D	1-1/2"	
A-L30X30X4X240	L 3" X 3" X 1/4"	240"	D	1-1/2"	
A-L40X40X4X120	L 4" X 4" X 1/4"	120"	D	2"	
A-L40X40X4X240	L 4" X 4" X 1/4"	240"	D	2"	
A-L50X30X6X120	L 5" X 3" X 3/8"	120"	D	2-1/2"	
A-L50X50X6X120	L 5" X 5" X 3/8"	120"	D	2-1/2"	

VzW SMART Tool© Vendor
verizon
FOR REFERENCE ONLY

DRAWN BY: BT CHECKED BY: HMA/KM

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	BT	06/04/21

SHEET TITLE:
VZWSMART
STANDARD ANGLE

SHEET NUMBER: VZWSMART-ANGLE REV #: 0

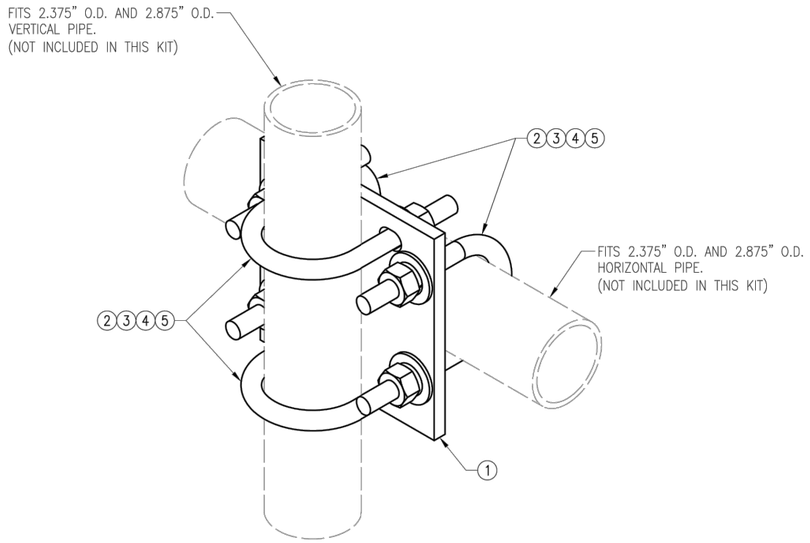
1 MOUNT MODIFICATIONS

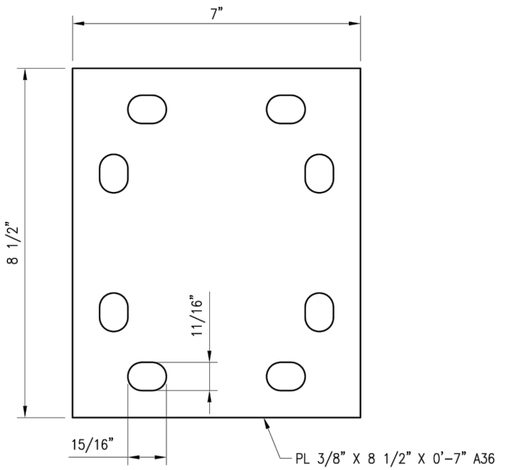
NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER: R-604

REVISION: 0





PL375-857

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

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

1 MOUNT MODIFICATIONS

NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

VzW SMART Tool© Vendor

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FOR REFERENCE ONLY

DRAWN BY: H.R | CHECKED BY: HMA

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

SHEET TITLE:
VZWSMART-MSK1
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK1 | REV #: 0

SUPPLEMENTAL

SHEET NUMBER: R-605 | REVISION: 0

EXHIBIT 2

Town of Harwinton, CT

Summary

Parcel ID	593
Account Number	3057
Property Address	159 WEINGART RD
Map/Block/Block Cut	B8/05/0022/
Use Class/Description	3-1 IND LAND
Assessing Neighborhood	0001A
Census Tract	298300000000
Acreage	5.35

Owner

SBC TOWER HOLDINGS LLC
C/O AMERICAN TOWER
PO BOX 723597
ATLANTA, GA 31139

Valuation

Assessed Year	2022	2021	2020
Appraised Building Value	$13,860.00	$13,860.00	$13,860.00
Appraised XF/OB Value	$29,250.00	$29,250.00	$29,250.00
Appraised Land Value	$319,240.00	$319,240.00	$319,240.00
Appraised Total Value	**$362,350.00**	**$362,350.00**	**$362,350.00**
Assessed Building Value	$9,700.00	$9,700.00	$9,700.00
Assessed XF/OB Value	$20,480.00	$20,480.00	$20,480.00
Assessed Land Value	$223,460.00	$223,460.00	$223,460.00
Assessed Total Value	**$253,640.00**	**$253,640.00**	**$253,640.00**

Land

Use	Zoning	Area	Value
3-1 - IND LAND		1 UT	$189,000
3-1 - IND LAND	TR1.5	1.5 AC	$112,500
3-1 - IND LAND		3.85 AC	$34,650

Building Data

Building #	1
Style	Warehouse
Actual Year Built	1995
Living Area	312
Stories	1
Grade	03 Average
Occupancy	1
Condition	A
Exterior Wall	Concr/Cinder
Interior Wall	Drywall/Sheet
Fireplaces	
Roof Cover	Concrete Tile
Roof Structure	Flat
Floor Type	Average
Heat Type	None
Fuel Type	Coal or Wood
AC	None
Bdrms/Ful Bth/Hlf Bth/Ttl Rm	///1
Basement Sq. Ft.	

Code	Description	Living Area	Gross Area	Effective Area
BAS	First Floor	312	312	312
	Totals	**312**	**312**	**312**

Out Buildings\Extra Features

Description	PAVING	**Year Built**	1995
Sub Description		**Value**	$10,920
Area	3900 S.F.		

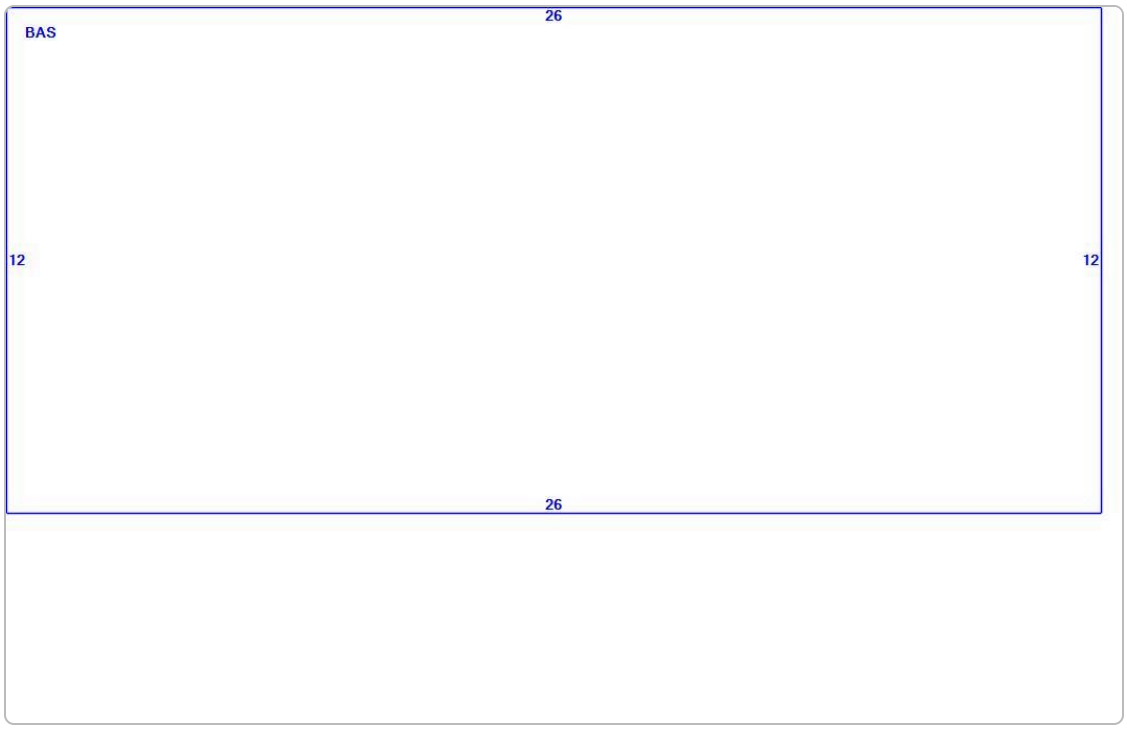
Sales History

Sales Date	Type of Document	Grantee	Grantor	Book/Page
8/19/2013		SBC TOWER HOLDINGS LLC C/O AMERICAN TOWER	AMERICAN TOWER ASSET SUB II LLC	0240-1013
6/26/2013		AMERICAN TOWER ASSET SUB II LLC	CLEMENTE JAMIE L + LAURA DOROTHY M	0240-0205
6/5/2002		CLEMENTE JAMIE L + LAURA DOROTHY M		0171-0811

Permit Information

Permit ID	Issue Date	Type	Description	Amount	Inspection Date	% Complete	Date Complete	Comments
	08-25-2020		CO ISSUED FOR 3 ANTE	$0		0		
207CA	08-25-2020		CO ISSUED	$0		0		3 NEW ANTENNAS
19157B	11-15-2019		3 NEW ANTENNAS	$25,000		100		
CO	06-17-2019		CO ISSUED	$0		0		
18112B	09-06-2018		6PANEL ANTENNAS	$20,000		100		
1718CA	08-14-2017		CO ISSUED	$0		0		
1737B	04-06-2017		REINFORCEMENT BARS	$11,000		100		
1720B	02-17-2017		3 ANTENNAS	$15,000		100		
9520	04-01-2015		ADDING 3 REMOTE RADI	$4,750		0		
9447	11-13-2014		MODIFICATIONS	$13,000		0		
9035	09-20-2013		GENERATOR	$10,000		0		
8867	04-30-2013	EL	Electric	$12,500		0		
8815	03-21-2013			$20,000		0		CABINETS & CONCRETE SLAB
8709	11-21-2012		ANTENNAS	$10,000		0		
7995	01-25-2011		CELLUAR SITE	$12,000		0		
7986	12-22-2010	EL	Electric	$15,000		0		

Sketch



No data available for the following modules: Photos.

Harwinton Web Map

4/23/2024, 8:36:52 AM

Parcels Barriers Buildings Impervious Driveway

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

Esri Community Maps Contributors, City of Torrington GIS, MassGIS, UConn/CTDEEP, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph,

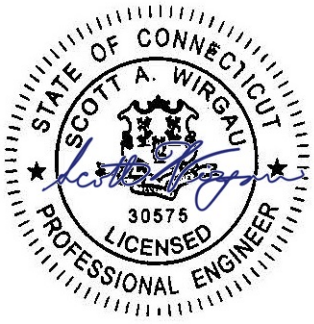
Town of Harwinton Web Map

EXHIBIT 3

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	182 ft Monopole
ATC Asset Name	:	Harwinton
ATC Asset Number	:	302502
Engineering Number	:	14580448_C3_03
Proposed Carrier	:	VERIZON WIRELESS
Carrier Site Name	:	HARWINTON N CT
Carrier Site Number	:	5000054288
Site Location	:	159 Weingart Road Harwinton, CT 06791-1109 41.7878° N, 73.0925° W
County	:	Litchfield
Date	:	January 31, 2024
Max Usage	:	99%
Analysis Result	:	Pass



Created By:

Taylor Kellner
Structural Engineer I

COA: PEC.0001553

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 182 ft Monopole tower to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower:	Mapping by Smith Cullum Site #CT-0038, dated February 13, 2002
Foundation:	Girard & Co. Engineers Job #3C237, dated April 24, 1990
Geotechnical:	Johnson Soils Engineering Co. Report #14974-H, dated January 28, 2002
Modification:	Hutter Trunkina Engineering Project #03320B, dated August 4, 2003 ATC Project #42504234, dated February 27, 2009 ATC Job #OAA684307_C6_06, dated November 16, 2016
Inspection:	Inspection by TEP for ATC Site #302502, dated August 19, 2019 No structural deficiencies were found.

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:	115 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 = 0.18, S_1 = 0.05
Site Class:	D - Stiff Soil - Default

Wind load and Ice thickness have been reduced by applicable existing structure load modification factors in accordance with TIA-222-H, ANNEX-S

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 reach out to your American Tower contact. If you do not have an American Tower contact and have an Engineering question, please contact **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	91.7%	1.2D + 1.0W	Pass
Reinforcement	99.0%	0 ft to 20 ft	Pass
Upper Termination	89.0%	140 ft to 158.5 ft	Pass
Intermediate Connector	34.8%	120 ft to 140 ft	Pass
Serviceability Usage	58.7%	1.0D + 1.0W	Pass
Base Plate @ 0.0 ft	79.7%	Rods	Pass
Flange Plate @ 126.7 ft	43.0%	Bolts	Pass
Mat & Pier	80.4%	Moment [Soil]	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Shear (k)
Monopole Base	3,810.0	68.5	29.5

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
179.5	1	RFS DB-B1-6C-12AB-0Z	-
176.0	1	Platform with Handrails	-
	3	Mount Reinforcement	
175.0	3	Commscope CBC78T-DS-43-2X	(6) 1 5/8" Coax (1) 1 5/8" Hybriflex
	3	Samsung B2/B66A RRH ORAN (RF 4439d-25A)	
	3	Samsung MT6413-77A	
	3	Samsung RF4461d-13A	
	6	Antel LPA-80063/6CF	
	6	Commscope JAHH-65B-R3B	

Other Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines	Carrier
185.0	1	Andrew SBNHH-1D65A	(2) 0.39" (10mm) Fiber Trunk (6) 0.78" (19.7mm) 8 AWG 6 (12) 1 1/4" Coax (1) 2" conduit (1) 3" conduit	AT&T MOBILITY
	1	Raycap DC6-48-60-18-8F ("Squid")		
	2	CCI HPA65R-BU6A		
	2	Raycap DC6-48-60-0-8F		
	3	CCI DMP65R-BU6DA		
	3	Ericsson RRUS 32 (50.8 lbs)		
	3	Ericsson RRUS 4449 B5, B12		
	3	Ericsson Radio 8843 - B2 + B66A		
	3	Kaelus DBC0061F1V51-2		
	3	Powerwave Allgon 7770.00		
	3	Quintel QS66512-2		
	6	Powerwave Allgon LGP21401		
184.0	1	Platform with Handrails	-	AT&T MOBILITY
	3	Mount Reinforcement		
	3	Small Side Arms		
166.0	1	Low Profile Platform	-	T-MOBILE
163.0	3	Andrew LNX-6515DS-A1M	(1) 1 5/8" (1.63"-41.3mm) Fiber (6) 1 5/8" Coax	T-MOBILE
	3	Ericsson AIR 21, 1.3 M, B2A B4P		
	3	Ericsson AIR 21, 1.3M, B4A B2P (90.4 lbs)		

(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.

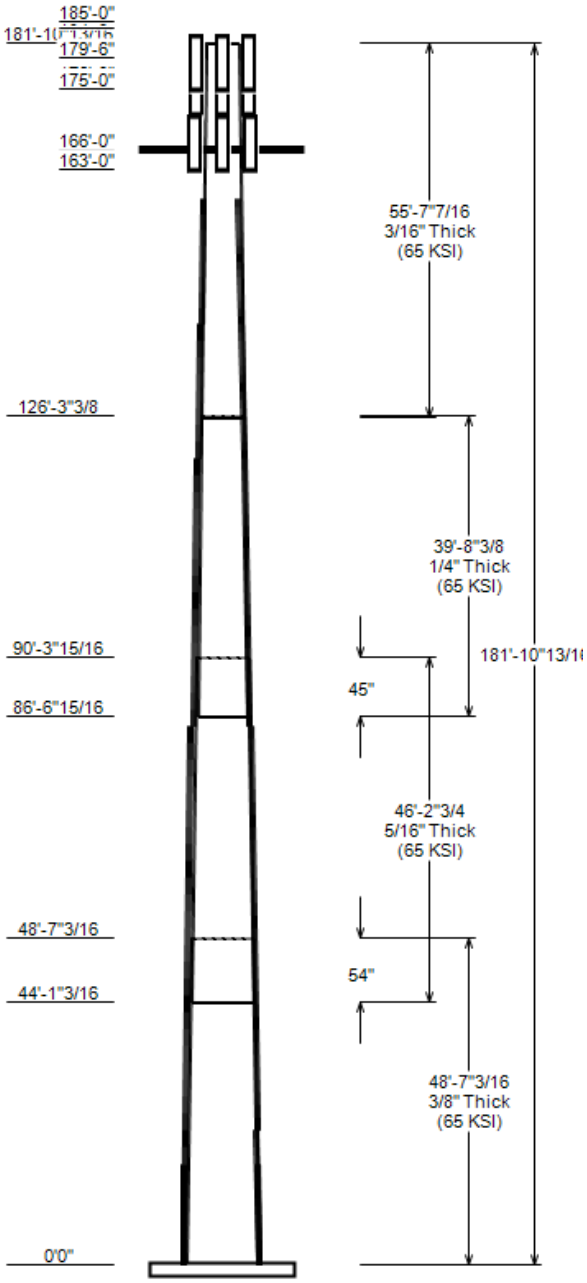
All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with 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:	112 mph	**Ice Wind:**	49 mph w/ 0.85" ice	**Service Wind:**	60 mph
Risk Category:	II	**Exposure:**	B	**S_s:** 0.176	**S_1:** 0.054
Topo Category:	1	**Topo Factor:**	Method 1	**Topo Feature:**	
Structure Height:	181.9 ft	**Base Elevation:**	0.00 ft	**Structure Type:**	Taper
Base Diameter:	43 in	**Base Rotation:**	0°	**Taper:**	0.1630 (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	48.600	35.08	43.00	0.375		0.000	12 Sides	65
2	46.230	28.91	36.44	0.312	Slip Joint	54.000	12 Sides	65
3	39.700	23.56	30.02	0.250	Slip Joint	45.000	12 Sides	65
4	55.620	14.50	23.56	0.188	Butt Joint	0.000	12 Sides	65

DISCRETE APPURTENANCE

Elev (ft)	Description
185.0	(3) Kaelus DBC0061F1V51-2
185.0	(6) Powerwave Allgon LGP21401
185.0	(2) Raycap DC6-48-60-0-8F
185.0	(1) Raycap DC6-48-60-18-8F ("Squid
185.0	(3) Ericsson Radio 8843 - B2 + B66
185.0	(3) Ericsson RRUS 4449 B5, B12
185.0	(3) Ericsson RRUS 32 (50.8 lbs)
185.0	(3) Powerwave Allgon 7770.00
185.0	(1) Andrew SBNHH-1D65A
185.0	(2) CCI HPA65R-BU6A
185.0	(3) Quintel QS66512-2
185.0	(3) CCI DMP65R-BU6DA
184.0	(3) Small Side Arms
184.0	(3) Generic Mount Reinforcement
184.0	(1) Generic Flat Platform with Han
179.5	(1) RFS DB-B1-6C-12AB-0Z
176.0	(3) Generic Mount Reinforcement
176.0	(1) Flat Platform with Round Handr
175.0	(3) Commscope CBC78T-DS-43-2X
175.0	(3) Samsung RF4461d-13A
175.0	(3) Samsung B2/B66A RRH ORAN (RF 4
175.0	(3) Samsung MT6413-77A
175.0	(6) Commscope JAHH-65B-R3B
175.0	(6) Antel LPA-80063/6CF
166.0	(1) Generic Round Low Profile Plat
163.0	(3) Ericsson AIR 21, 1.3 M, B2A B4
163.0	(3) Ericsson AIR 21, 1.3M, B4A B2P
163.0	(3) Andrew LNX-6515DS-A1M

LINEAR APPURTENANCE

Elev To (ft)	Description
185.0	(1) 3" conduit
185.0	(1) 2" conduit
185.0	(12) 1 1/4" Coax
185.0	(6) 0.78" (19.7mm) 8 AWG 6
185.0	(2) 0.39" (10mm) Fiber Trunk
175.0	(1) 1 5/8" Hybriflex
175.0	(6) 1 5/8" Coax
163.0	(6) 1 5/8" Coax
163.0	(1) 1 5/8" (1.63"-41.3mm) Fiber
160.0	(1) 3" Solid Rod
160.0	(1) 3" Solid Rod
160.0	(1) 3" Solid Rod
140.0	(1) 3.5" Solid Rod
140.0	(1) 3.5" Solid Rod
140.0	(1) 3.5" Solid Rod
120.0	(1) 4.0" Solid Rod
120.0	(1) 4.0" Solid Rod
120.0	(1) 4.0" Solid Rod
80.0	(1) 4.25" Solid Rod
80.0	(1) 4.25" Solid Rod
80.0	(1) 4.25" Solid Rod
19.5	(1) W5 Brackets for #20
19.5	(1) W5 Brackets for #20
19.5	(1) W5 Brackets for #20
19.5	(1) #20 w/ W Brackets
19.5	(1) #20 w/ W Brackets
19.5	(1) #20 w/ W Brackets

GLOBAL BASE REACTIONS

Load Case	Moment (kip-ft)	Axial (kip)	Shear (kip)
1.2D + 1.0W	3810.00	68.50	29.50
0.9D + 1.0W	3725.30	51.36	29.47
1.2D + 1.0Di + 1.0Wi	940.11	82.88	6.63
1.2D + 1.0Ev + 1.0Eh	278.68	68.09	1.72
0.9D - 1.0Ev + 1.0Eh	270.80	47.45	1.72
1.0D + 1.0W	975.27	57.12	7.66

ANALYSIS PARAMETERS

Location:	Litchfield County,CT	**Height:**	181.9 ft
Type and Shape:	Taper, 12 Sides	**Base Diameter:**	43.00 in
Manufacturer:	Undetermined	**Top Diameter:**	14.50 in
K_d (non-service):	0.95	**Taper:**	0.1630 in/ft
K_e:	0.96	**Rotation:**	0.000º

ICE & WIND PARAMETERS

Risk Category:	II	**Design Wind Speed:**	112 mph
Exposure Category:	B	**Design Wind Speed w/ Ice:**	49 mph
Topo Factor Procedure:	Method 1	**Design Ice Thickness:**	0.85 in
Topographic Category:	1	**Service Wind Speed:**	60 mph
Crest Height:	0 ft	**HMSL:**	1051.00 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil		**Period Based on Rayleigh Method (sec):**		3.59
T_L (sec):	6	**P:**	1	**C_s:**	0.030
S_s:	0.176	**S_1:**	0.054	**C_s Max:**	0.030
F_a:	1.600	**F_v:**	2.400	**C_s Min:**	0.030
S_{ds}:	0.188	**S_{d1}:**	0.086		

LOAD CASES

1.2D + 1.0W	112.09 mph Wind with No Ice
0.9D + 1.0W	112.09 mph Wind with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	48.73 mph Wind with 0.85" 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

Section	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (in^2)	Bottom Ix (in^4)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (in^2)	Top Ix (in^4)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-12	48.60	0.3750	65		0.00	7,722	43.00	0.000	51.47	11,936.2	28.05	114.67	35.08	48.60	41.91	6,445.1	22.39	93.56	0.1629
2-12	46.23	0.3125	65	Slip	54.00	5,123	36.44	44.100	36.36	6,057.6	28.57	116.62	28.91	90.33	28.78	3,004.9	22.11	92.52	0.1629
3-12	39.70	0.2500	65	Slip	45.00	2,886	30.02	86.580	23.97	2,712.1	29.50	120.10	23.56	126.28	18.76	1,301.1	22.57	94.24	0.1629
4-12	55.62	0.1875	65	Butt	0.00	2,153	23.56	126.280	14.11	983.7	30.99	125.65	14.50	181.90	8.64	225.9	18.04	77.33	0.1629
			Total Shaft Weight			**17,884**													

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
185.00	Quintel QS66512-2	3	0.75	0.300	111.00	8.133	0.74	226.30	9.746	0.74
185.00	CCI HPA65R-BU6A	2	0.75	0.100	41.90	7.864	0.78	143.30	9.462	0.78
185.00	CCI DMP65R-BU6DA	3	0.75	0.500	79.40	12.709	0.63	228.44	14.323	0.63
185.00	Kaelus DBC0061F1V51-2	3	0.75	0.000	25.50	0.433	0.50	36.19	0.693	0.50
185.00	Powerwave Allgon LGP21401	6	0.75	1.400	14.10	1.104	0.50	28.54	1.517	0.50
185.00	Andrew SBNHH-1D65A	1	0.75	1.100	40.90	5.883	1.00	119.32	7.118	1.00
185.00	Raycap DC6-48-60-18-8F ("Squid	1	0.75	0.000	18.90	1.470	0.50	54.61	1.874	0.50
185.00	Ericsson Radio 8843 - B2 + B66	3	0.75	0.000	71.90	1.650	0.50	107.55	2.140	0.50
185.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	108.29	2.509	0.50
185.00	Ericsson RRUS 32 (50.8 lbs)	3	0.75	2.900	50.80	2.692	0.50	92.18	3.360	0.50
185.00	Powerwave Allgon 7770.00	3	0.75	0.900	35.00	5.508	0.65	100.77	6.738	0.65
185.00	Raycap DC6-48-60-0-8F	2	0.75	0.000	32.80	1.360	0.50	66.43	1.744	0.50
184.00	Generic Flat Platform with Han	1	1.00	0.000	2500.00	42.400	1.00	3527.84	54.534	1.00
184.00	Small Side Arms	3	1.00	0.000	100.00	1.700	0.67	140.31	2.385	0.67
184.00	Generic Mount Reinforcement	3	0.75	0.000	200.00	4.980	0.67	311.97	7.856	0.67
179.50	RFS DB-B1-6C-12AB-0Z	1	0.75	1.000	21.40	2.512	0.50	67.50	3.113	0.50
176.00	Flat Platform with Round Handr	1	1.00	0.000	2500.00	34.800	1.00	3504.60	48.784	1.00
176.00	Generic Mount Reinforcement	3	0.75	0.000	200.00	4.980	0.67	311.63	7.848	0.67
175.00	Samsung RF4461d-13A	3	0.75	0.000	79.10	1.875	0.50	116.23	2.395	0.50
175.00	Antel LPA-80063/6CF	6	0.75	1.000	27.00	9.593	0.67	182.44	10.355	0.67
175.00	Commscope JAHH-65B-R3B	6	0.75	1.000	60.60	9.113	0.67	177.09	10.711	0.67
175.00	Samsung MT6413-77A	3	0.75	0.000	57.30	3.805	0.61	106.19	4.570	0.61
175.00	Commscope CBC78T-DS-43-2X	3	0.75	0.000	20.70	0.552	0.50	33.42	0.845	0.50
175.00	Samsung B2/B66A RRH ORAN (RF 4	3	0.75	0.000	74.70	1.875	0.50	111.50	2.393	0.50
166.00	Generic Round Low Profile Plat	1	1.00	0.000	1875.00	21.700	1.00	2339.41	32.710	1.00
163.00	Andrew LNX-6515DS-A1M	3	0.80	3.000	49.80	11.410	0.70	180.84	13.265	0.70
163.00	Ericsson AIR 21, 1.3M, B4A B2P	3	0.80	3.000	90.40	6.092	0.70	173.69	7.330	0.70
163.00	Ericsson AIR 21, 1.3 M, B2A B4	3	0.80	3.000	83.00	6.049	0.71	166.49	7.286	0.71
Totals	**Row Count: 28**	**79**			**11,914.60**			**20,017.13**		

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	185.00	12	1 1/4" Coax	1.55	0.63	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	185.00	6	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	185.00	2	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	185.00	1	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	185.00	1	3" conduit	3.5	7.58	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	175.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	VERIZON WIRELESS
0.00	175.00	1	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	VERIZON WIRELESS
0.00	163.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	T-MOBILE
0.00	163.00	1	1 5/8" (1.63"-41.3mm)	1.63	1.61	N	0	0	0	0	0	N	T-MOBILE
140.00	160.00	1	3" Solid Rod	4.3	0	N	1	0	0	0	0	Y	
140.00	160.00	1	3" Solid Rod	4.3	0	N	1	0	0	120	1.38	Y	
140.00	160.00	1	3" Solid Rod	4.3	0	N	1	0	0	240	1.38	Y	
120.00	140.00	1	3.5" Solid Rod	4.8	0	N	1	0	0	240	1.1	Y	
120.00	140.00	1	3.5" Solid Rod	4.8	0	N	1	0	0	120	1.1	Y	

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
120.00	140.00	1	3.5" Solid Rod	4.8	0	N	1	0	0	0	1.1	Y	
80.00	120.00	1	4.0" Solid Rod	5.3	0	N	1	0	0	0	0.88	Y	
80.00	120.00	1	4.0" Solid Rod	5.3	0	N	1	0	0	240	0.88	Y	
80.00	120.00	1	4.0" Solid Rod	5.3	0	N	1	0	0	120	0.88	Y	
0.00	80.00	1	4.25" Solid Rod	5.5	0	N	1	0	0	120	1	Y	
0.00	80.00	1	4.25" Solid Rod	5.5	0	N	1	0	0	0	1	Y	
0.00	80.00	1	4.25" Solid Rod	5.5	0	N	1	0	0	240	1	Y	
0.00	19.50	1	#20 w/ W Brackets	2.5	0	N	1	0	0	300	5.15	Y	
0.00	19.50	1	#20 w/ W Brackets	2.5	0	N	1	0	0	180	5.15	Y	
0.00	19.50	1	W5 Brackets for #20	1.55	5.7	Y	1	0	0	60	1.8	Y	
0.00	19.50	1	W5 Brackets for #20	1.55	5.7	Y	1	0	0	180	1.8	Y	
0.00	19.50	1	W5 Brackets for #20	1.55	5.7	Y	1	0	0	300	1.8	Y	
0.00	19.50	1	#20 w/ W Brackets	2.5	0	N	1	0	0	60	5.15	Y	

ADDITIONAL STEEL

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Intermediate Connectors: Offset (in)	Intermediate Connectors: Bracket Type	Intermediate Connectors: Spacing (in)	Intermediate Connectors: Length (in)	Connectors	Continuation?
0.00	20.00	3	SOL 4 1/4" SOLID	50	1.00	AJAX M20 Class 8.8	16.50	3.50	5/8" A36 U-Bolt	Y
0.00	14.71	3	SOL #20 All Thread Bar	80	5.15	6" T Bracket	30.00	3.31	5/8" Hollo Bolt	N
20.00	80.00	3	SOL 4 1/4" SOLID	50	1.00	AJAX M20 Class 8.8	22.00	3.50	5/8" Hollo Bolt	Y
80.00	120.00	3	SOL 4" SOLID	50	0.88	AJAX M20 Class 8.8	22.00	3.50	5/8" Hollo Bolt	Y
120.00	140.00	3	SOL 3 1/2" SOLID	50	1.13	AJAX M20 Class 8.8	22.00	3.50	5/8" Hollo Bolt	Y
140.00	158.50	3	SOL 3" SOLID	50	1.38	AJAX M20 Class 8.8	22.00	3.50	5/8" Hollo Bolt	Y

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)	Additional Reinforcing: Area (in^2)	Additional Reinforcing: Ix (in^4)	Additional Reinforcing: Weight (lb)
0.00		0.3750	43.000	51.470	11,936.2	28.05	114.67	74.1	536.3	0.0	0.0	57.288	18,690.20	0.0
5.00		0.3750	42.186	50.486	11,265.1	27.46	112.50	74.8	515.9	0.0	867.3	57.288	18,100.90	974.5
10.00		0.3750	41.371	49.503	10,619.6	26.88	110.32	75.4	495.9	0.0	850.6	57.288	17,521.10	974.5
14.71	Reinf. Top	0.3750	40.604	48.577	10,034.6	26.33	108.28	76	477.4	0.0	786.0	57.288	16,983.60	918.0
15.00		0.3750	40.557	48.520	9,999.30	26.30	108.15	76	476.3	0.0	47.9	42.558	11,703.10	42.0
20.00	Reinf. Top Reinf Bottom	0.3750	39.743	47.537	9,403.60	25.72	105.98	76.7	457.1	0.0	817.1	42.558	11,301.10	724.1
25.00		0.3750	38.928	46.553	8,832.00	25.14	103.81	77.3	438.3	0.0	800.4	42.558	10,906.10	724.1
30.00		0.3750	38.114	45.570	8,284.10	24.55	101.64	77.9	419.9	0.0	783.7	42.558	10,518.20	724.1
35.00		0.3750	37.300	44.587	7,759.40	23.97	99.47	78.6	401.9	0.0	767.0	42.558	10,137.40	724.1
40.00		0.3750	36.485	43.603	7,257.20	23.39	97.29	79.2	384.3	0.0	750.2	42.558	9,763.60	724.1
44.10	Bot - Section 2	0.3750	35.818	42.797	6,862.00	22.91	95.51	79.7	370.1	0.0	602.7	42.558	9,462.40	593.7
45.00		0.3750	35.671	42.620	6,777.30	22.81	95.12	79.8	367.0	0.0	241.9	42.558	9,677.70	130.3
48.60	Top - Section 1	0.3125	35.710	35.619	5,696.40	27.94	114.27	74.2	308.2	0.0	957.7	42.558	9,414.10	521.3
50.00		0.3125	35.482	35.389	5,587.10	27.74	113.54	74.5	304.2	0.0	169.1	42.558	9,312.60	202.7
55.00		0.3125	34.667	34.570	5,207.90	27.05	110.94	75.2	290.2	0.0	595.1	42.558	8,954.60	724.1
60.00		0.3125	33.853	33.750	4,846.30	26.35	108.33	76	276.6	0.0	581.2	42.558	8,603.60	724.1
65.00		0.3125	33.039	32.931	4,501.80	25.65	105.72	76.7	263.2	0.0	567.3	42.558	8,259.70	724.1
70.00		0.3125	32.225	32.111	4,174.00	24.95	103.12	77.5	250.2	0.0	553.3	42.558	7,922.80	724.1
75.00		0.3125	31.410	31.292	3,862.60	24.25	100.51	78.3	237.6	0.0	539.4	42.558	7,593.00	724.1
80.00	Reinf. Top Reinf Bottom	0.3125	30.596	30.473	3,567.00	23.55	97.91	79	225.2	0.0	525.4	42.558	7,270.20	724.1
85.00		0.3125	29.782	29.653	3,286.90	22.86	95.30	79.8	213.2	0.0	511.5	37.698	5,986.90	641.4
86.58	Bot - Section 3	0.3125	29.524	29.394	3,201.60	22.64	94.48	80	209.5	0.0	158.7	37.698	5,901.00	202.7
90.00		0.3125	28.967	28.834	3,021.90	22.16	92.70	80.5	201.5	0.0	615.1	37.698	5,882.10	438.7
90.33	Top - Section 2	0.2500	29.413	23.477	2,548.60	28.85	117.65	73.3	167.4	0.0	58.7	37.698	5,864.30	42.3
95.00		0.2500	28.653	22.864	2,354.30	28.03	114.61	74.1	158.7	0.0	368.2	37.698	5,614.90	599.1
100.00		0.2500	27.839	22.209	2,157.60	27.16	111.35	75.1	149.7	0.0	383.4	37.698	5,354.00	641.4
105.00		0.2500	27.024	21.553	1,972.10	26.29	108.10	76	141.0	0.0	372.3	37.698	5,099.40	641.4
110.00		0.2500	26.210	20.898	1,797.60	25.41	104.84	77	132.5	0.0	361.1	37.698	4,851.00	641.4
115.00		0.2500	25.396	20.242	1,633.70	24.54	101.58	78	124.3	0.0	350.0	37.698	4,608.80	641.4

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)	Additional Reinforcing Area (in^2)	Additional Reinforcing Ix (in^4)	Additional Reinforcing Weight (lb)
120.00	Reinf. Top Reinf Bottom	0.2500	24.581	19.587	1,480.10	23.67	98.33	78.9	116.3	0.0	338.8	37.698	4,372.90	641.4
125.00		0.2500	23.767	18.931	1,336.40	22.79	95.07	79.9	108.6	0.0	327.7	28.863	3,165.50	491.1
126.28	Top - Section 3	0.2500	23.559	18.763	1,301.10	22.57	94.23	80.1	106.7	0.0	82.1	28.863	3,121.20	125.7
126.28	Bot - Section 4	0.1875	23.559	14.110	983.70	30.99	125.65	70.9	80.7	0.0		28.863	3,121.20	
130.00		0.1875	22.953	13.744	909.20	30.12	122.41	71.9	76.5	0.0	176.3	28.863	2,994.40	365.4
135.00		0.1875	22.138	13.253	815.10	28.96	118.07	73.1	71.1	0.0	229.7	28.863	2,828.20	491.1
140.00	Reinf. Top Reinf Bottom	0.1875	21.324	12.761	727.70	27.79	113.73	74.4	65.9	0.0	221.3	28.863	2,666.70	491.1
145.00		0.1875	20.510	12.270	646.80	26.63	109.39	75.7	60.9	0.0	212.9	21.207	1,839.90	360.8
150.00		0.1875	19.695	11.778	572.10	25.47	105.04	76.9	56.1	0.0	204.6	21.207	1,728.30	360.8
155.00		0.1875	18.881	11.286	503.40	24.30	100.70	78.2	51.5	0.0	196.2	21.207	1,620.20	360.8
158.50	Reinf. Top	0.1875	18.311	10.942	458.70	23.49	97.66	79.1	48.4	0.0	132.4	21.207	1,546.60	252.5
160.00		0.1875	18.067	10.795	440.40	23.14	96.36	79.5	47.1	0.0	55.5			
163.00		0.1875	17.578	10.500	405.30	22.44	93.75	80.2	44.5	0.0	108.7			
165.00		0.1875	17.252	10.303	383.00	21.98	92.01	80.7	42.9	0.0	70.8			
166.00		0.1875	17.090	10.205	372.10	21.74	91.14	81	42.1	0.0	34.9			
170.00		0.1875	16.438	9.811	330.70	20.81	87.67	81.9	38.9	0.0	136.2			
175.00		0.1875	15.624	9.320	283.40	19.65	83.33	81.9	35.0	0.0	162.7			
176.00		0.1875	15.461	9.221	274.60	19.42	82.46	81.9	34.3	0.0	31.5			
179.50		0.1875	14.891	8.877	245.00	18.60	79.42	81.9	31.8	0.0	107.8			
180.00		0.1875	14.809	8.828	240.90	18.48	78.98	81.9	31.4	0.0	15.1			
181.90		0.1875	14.500	8.641	225.90	18.04	77.33	81.9	30.1	0.0	56.5			
									Totals:		**17,884.0**			**20,752.6**

CALCULATED FORCES

Load Case: 1.2D + 1.0W — 112.09 mph Wind with No Ice — 29 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	-68.50	-29.50	0.00	-3,810.0	0.00	3,810.00	3,433.77	903.29	3,632.17	2,981.33	0	0	0.509
5.00	-65.89	-29.10	0.00	-3,662.5	0.00	3,662.49	3,397.00	886.04	3,494.75	2,892.57	0.09	-0.17	0.496
10.00	-63.30	-28.70	0.00	-3,517.0	0.00	3,516.98	3,359.12	868.78	3,359.99	2,804.10	0.37	-0.35	0.483
14.71	-60.92	-28.47	0.00	-3,381.8	0.00	3,381.82	3,322.40	852.52	3,235.46	2,721.09	0.8	-0.51	0.471
14.71	-60.92	-28.47	0.00	-3,381.8	0.00	3,381.82	3,322.40	852.52	3,235.46	2,721.09	0.8	-0.51	0.584
15.00	-60.74	-28.27	0.00	-3,373.6	0.00	3,373.56	3,320.10	851.52	3,227.87	2,715.99	0.83	-0.52	0.583
20.00	-58.49	-27.91	0.00	-3,232.2	0.00	3,232.21	3,279.97	834.27	3,098.41	2,628.28	1.49	-0.74	0.569
25.00	-56.35	-27.59	0.00	-3,092.6	0.00	3,092.64	3,238.71	817.01	2,971.60	2,541.03	2.38	-0.96	0.555
30.00	-54.24	-27.23	0.00	-2,954.7	0.00	2,954.72	3,196.33	799.75	2,847.43	2,454.30	3.5	-1.17	0.540
35.00	-52.15	-26.84	0.00	-2,818.6	0.00	2,818.57	3,152.83	782.50	2,725.91	2,368.14	4.85	-1.39	0.526
40.00	-50.09	-26.44	0.00	-2,684.4	0.00	2,684.39	3,108.20	765.24	2,607.05	2,282.62	6.42	-1.61	0.511
44.10	-48.44	-26.19	0.00	-2,576.0	0.00	2,576.00	3,070.77	751.09	2,511.56	2,213.00	7.88	-1.79	0.498
45.00	-47.92	-25.98	0.00	-2,552.4	0.00	2,552.43	3,062.45	747.98	2,490.83	2,197.78	8.23	-1.83	0.487
48.60	-45.96	-25.69	0.00	-2,458.9	0.00	2,458.91	2,379.97	625.11	2,087.36	1,715.94	9.67	-1.99	0.551
50.00	-45.40	-25.39	0.00	-2,422.9	0.00	2,422.93	2,371.43	621.08	2,060.56	1,698.68	10.26	-2.05	0.545
55.00	-43.53	-24.95	0.00	-2,296.0	0.00	2,295.96	2,340.22	606.70	1,966.27	1,637.16	12.53	-2.27	0.526
60.00	-41.69	-24.47	0.00	-2,171.2	0.00	2,171.24	2,307.88	592.32	1,874.19	1,575.92	15.03	-2.5	0.506
65.00	-39.86	-23.97	0.00	-2,048.9	0.00	2,048.91	2,274.42	577.94	1,784.32	1,515.02	17.76	-2.72	0.486
70.00	-38.06	-23.47	0.00	-1,929.0	0.00	1,929.04	2,239.83	563.56	1,696.65	1,454.51	20.73	-2.94	0.467
75.00	-36.27	-22.94	0.00	-1,811.7	0.00	1,811.72	2,204.12	549.18	1,611.20	1,394.44	23.93	-3.16	0.447
80.00	-34.51	-22.41	0.00	-1,697.0	0.00	1,697.00	2,167.29	534.79	1,527.95	1,334.88	27.36	-3.38	0.427
80.00	-34.51	-22.41	0.00	-1,697.0	0.00	1,697.00	2,167.29	534.79	1,527.95	1,334.88	27.36	-3.38	0.470
85.00	-32.89	-22.00	0.00	-1,585.0	0.00	1,584.95	2,129.34	520.41	1,446.91	1,275.87	31.02	-3.6	0.449
86.58	-32.36	-21.77	0.00	-1,550.2	0.00	1,550.20	2,117.11	515.87	1,421.76	1,257.35	32.22	-3.67	0.442
90.00	-30.94	-21.48	0.00	-1,475.8	0.00	1,475.76	2,090.26	506.03	1,368.08	1,217.49	34.91	-3.83	0.420
90.33	-30.78	-21.29	0.00	-1,468.7	0.00	1,468.67	1,547.78	412.01	1,133.49	919.64	35.17	-3.85	0.494
95.00	-29.38	-20.77	0.00	-1,369.2	0.00	1,369.24	1,525.71	401.27	1,075.16	882.69	39.04	-4.06	0.468
100.00	-27.90	-20.23	0.00	-1,265.4	0.00	1,265.37	1,500.99	389.76	1,014.41	843.28	43.42	-4.3	0.441
105.00	-26.44	-19.67	0.00	-1,164.2	0.00	1,164.23	1,475.16	378.26	955.42	804.08	48.04	-4.53	0.413
110.00	-25.00	-19.11	0.00	-1,065.9	0.00	1,065.87	1,448.19	366.76	898.21	765.15	52.9	-4.75	0.386

CALCULATED FORCES

115.00	-23.59	-18.54	0.00	-970.3	0.00	970.32	1,420.11	355.25	842.76	726.55	57.99	-4.97	0.358
120.00	-22.19	-17.97	0.00	-877.6	0.00	877.62	1,390.90	343.75	789.08	688.34	63.3	-5.18	0.331
120.00	-22.19	-17.97	0.00	-877.6	0.00	877.62	1,390.90	343.75	789.08	688.34	63.3	-5.18	0.401
125.00	-20.99	-17.53	0.00	-787.8	0.00	787.79	1,360.57	332.24	737.16	650.56	68.83	-5.38	0.368
126.28	-20.68	-17.31	0.00	-765.4	0.00	765.35	1,352.62	329.30	724.16	640.97	70.28	-5.45	0.360
126.28	-20.68	-17.31	0.00	-765.4	0.00	765.35	900.61	247.63	545.93	429.07	70.28	-5.45	0.440
130.00	-19.85	-16.87	0.00	-701.0	0.00	700.96	888.95	241.22	518.00	412.44	74.59	-5.62	0.408
135.00	-18.77	-16.32	0.00	-616.6	0.00	616.62	872.29	232.59	481.62	390.12	80.6	-5.86	0.365
140.00	-17.70	-15.78	0.00	-535.0	0.00	535.00	854.50	223.96	446.56	367.87	86.85	-6.09	0.323
140.00	-17.70	-15.78	0.00	-535.0	0.00	535.00	854.50	223.96	446.56	367.87	86.85	-6.09	0.407
145.00	-16.80	-15.25	0.00	-456.1	0.00	456.11	835.60	215.33	412.82	345.75	93.33	-6.29	0.356
150.00	-15.91	-14.72	0.00	-379.9	0.00	379.88	815.57	206.70	380.41	323.81	100.04	-6.53	0.304
155.00	-15.05	-14.23	0.00	-306.3	0.00	306.28	794.42	198.07	349.32	302.12	106.98	-6.74	0.252
158.50	-14.45	-13.92	0.00	-256.5	0.00	256.48	778.94	192.03	328.35	287.12	111.97	-6.88	0.216
158.50	-14.45	-13.92	0.00	-256.5	0.00	256.48	778.94	192.03	328.35	287.12	111.97	-6.88	0.917
160.00	-14.29	-13.79	0.00	-235.6	0.00	235.60	772.14	189.44	319.56	280.73	114.13	-6.93	0.863
163.00	-13.36	-12.15	0.00	-189.8	0.00	189.83	758.24	184.27	302.34	268.07	118.61	-7.35	0.730
165.00	-13.18	-12.09	0.00	-165.5	0.00	165.54	748.74	180.82	291.13	259.70	121.73	-7.59	0.660
166.00	-10.95	-10.91	0.00	-153.4	0.00	153.45	743.93	179.09	285.60	255.54	123.33	-7.71	0.619
170.00	-10.61	-10.72	0.00	-109.8	0.00	109.81	723.19	172.19	264.01	238.74	129.96	-8.12	0.478
175.00	-9.16	-7.87	0.00	-54.1	0.00	54.09	686.95	163.56	238.23	215.28	138.64	-8.47	0.267
176.00	-5.65	-5.64	0.00	-46.2	0.00	46.22	679.70	161.83	233.23	210.73	140.41	-8.52	0.229
179.50	-5.42	-5.48	0.00	-26.4	0.00	26.45	654.34	155.79	216.15	195.21	146.69	-8.65	0.145
180.00	-5.39	-5.43	0.00	-23.7	0.00	23.71	650.71	154.93	213.76	193.04	147.59	-8.67	0.132
181.90	0.00	-4.55	0.00	-13.4	0.00	13.40	636.94	151.65	204.82	184.90	151.04	-8.71	0.073

CALCULATED FORCES

Load Case: 0.9D + 1.0W — 112.09 mph Wind with No Ice (Reduced DL) — 28 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	-51.36	-29.47	0.00	-3,725.3	0.00	3,725.30	3,433.77	903.29	3,632.17	2,981.33	0	0	0.495
5.00	-49.39	-29.02	0.00	-3,578.0	0.00	3,577.95	3,397.00	886.04	3,494.75	2,892.57	0.09	-0.17	0.482
10.00	-47.43	-28.57	0.00	-3,432.8	0.00	3,432.84	3,359.12	868.78	3,359.99	2,804.10	0.36	-0.34	0.470
14.71	-45.63	-28.32	0.00	-3,298.3	0.00	3,298.29	3,322.40	852.52	3,235.46	2,721.09	0.78	-0.5	0.458
14.71	-45.63	-28.32	0.00	-3,298.3	0.00	3,298.29	3,322.40	852.52	3,235.46	2,721.09	0.78	-0.5	0.567
15.00	-45.49	-28.09	0.00	-3,290.1	0.00	3,290.07	3,320.10	851.52	3,227.87	2,715.99	0.81	-0.51	0.567
20.00	-43.78	-27.68	0.00	-3,149.6	0.00	3,149.63	3,279.97	834.27	3,098.41	2,628.28	1.46	-0.72	0.552
25.00	-42.15	-27.30	0.00	-3,011.2	0.00	3,011.23	3,238.71	817.01	2,971.60	2,541.03	2.32	-0.93	0.538
30.00	-40.55	-26.90	0.00	-2,874.7	0.00	2,874.74	3,196.33	799.75	2,847.43	2,454.30	3.42	-1.14	0.524
35.00	-38.96	-26.46	0.00	-2,740.2	0.00	2,740.24	3,152.83	782.50	2,725.91	2,368.14	4.73	-1.36	0.509
40.00	-37.40	-26.03	0.00	-2,607.9	0.00	2,607.93	3,108.20	765.24	2,607.05	2,282.62	6.26	-1.57	0.494
44.10	-36.16	-25.77	0.00	-2,501.2	0.00	2,501.21	3,070.77	751.09	2,511.56	2,213.00	7.69	-1.74	0.482
45.00	-35.76	-25.54	0.00	-2,478.0	0.00	2,478.02	3,062.45	747.98	2,490.83	2,197.78	8.02	-1.78	0.471
48.60	-34.28	-25.25	0.00	-2,386.1	0.00	2,386.07	2,379.97	625.11	2,087.36	1,715.94	9.43	-1.93	0.532
50.00	-33.85	-24.92	0.00	-2,350.7	0.00	2,350.72	2,371.43	621.08	2,060.56	1,698.68	10	-1.99	0.527
55.00	-32.44	-24.44	0.00	-2,226.1	0.00	2,226.11	2,340.22	606.70	1,966.27	1,637.16	12.21	-2.21	0.508
60.00	-31.04	-23.94	0.00	-2,103.9	0.00	2,103.89	2,307.88	592.32	1,874.19	1,575.92	14.64	-2.43	0.489
65.00	-29.66	-23.43	0.00	-1,984.2	0.00	1,984.19	2,274.42	577.94	1,784.32	1,515.02	17.31	-2.65	0.469
70.00	-28.29	-22.90	0.00	-1,867.1	0.00	1,867.07	2,239.83	563.56	1,696.65	1,454.51	20.19	-2.86	0.450
75.00	-26.94	-22.36	0.00	-1,752.6	0.00	1,752.58	2,204.12	549.18	1,611.20	1,394.44	23.3	-3.07	0.431
80.00	-25.62	-21.82	0.00	-1,640.8	0.00	1,640.76	2,167.29	534.79	1,527.95	1,334.88	26.63	-3.28	0.411
80.00	-25.62	-21.82	0.00	-1,640.8	0.00	1,640.76	2,167.29	534.79	1,527.95	1,334.88	26.63	-3.28	0.453
85.00	-24.39	-21.41	0.00	-1,531.7	0.00	1,531.66	2,129.34	520.41	1,446.91	1,275.87	30.19	-3.49	0.432
86.58	-23.99	-21.17	0.00	-1,497.8	0.00	1,497.84	2,117.11	515.87	1,421.76	1,257.35	31.35	-3.57	0.426
90.00	-22.92	-20.89	0.00	-1,425.4	0.00	1,425.45	2,090.26	506.03	1,368.08	1,217.49	33.96	-3.72	0.404
90.33	-22.80	-20.69	0.00	-1,418.6	0.00	1,418.55	1,547.78	412.01	1,133.49	919.64	34.22	-3.74	0.475
95.00	-21.74	-20.17	0.00	-1,321.9	0.00	1,321.93	1,525.71	401.27	1,075.16	882.69	37.98	-3.94	0.450
100.00	-20.62	-19.61	0.00	-1,221.1	0.00	1,221.11	1,500.99	389.76	1,014.41	843.28	42.23	-4.17	0.424
105.00	-19.53	-19.06	0.00	-1,123.0	0.00	1,123.04	1,475.16	378.26	955.42	804.08	46.71	-4.39	0.397
110.00	-18.44	-18.50	0.00	-1,027.8	0.00	1,027.75	1,448.19	366.76	898.21	765.15	51.43	-4.61	0.370
115.00	-17.38	-17.94	0.00	-935.3	0.00	935.26	1,420.11	355.25	842.76	726.55	56.36	-4.82	0.344
120.00	-16.32	-17.37	0.00	-845.6	0.00	845.57	1,390.90	343.75	789.08	688.34	61.51	-5.02	0.317
120.00	-16.32	-17.37	0.00	-845.6	0.00	845.57	1,390.90	343.75	789.08	688.34	61.51	-5.02	0.384
125.00	-15.43	-16.95	0.00	-758.7	0.00	758.71	1,360.57	332.24	737.16	650.56	66.87	-5.22	0.353
126.28	-15.19	-16.73	0.00	-737.0	0.00	737.01	1,352.62	329.30	724.16	640.97	68.28	-5.28	0.345
126.28	-15.19	-16.73	0.00	-737.0	0.00	737.01	900.61	247.63	545.93	429.07	68.28	-5.28	0.422
130.00	-14.57	-16.28	0.00	-674.8	0.00	674.78	888.95	241.22	518.00	412.44	72.45	-5.45	0.391
135.00	-13.76	-15.75	0.00	-593.4	0.00	593.36	872.29	232.59	481.62	390.12	78.27	-5.68	0.350
140.00	-12.96	-15.21	0.00	-514.6	0.00	514.62	854.50	223.96	446.56	367.87	84.33	-5.89	0.309
140.00	-12.96	-15.21	0.00	-514.6	0.00	514.62	854.50	223.96	446.56	367.87	84.33	-5.89	0.390
145.00	-12.28	-14.69	0.00	-438.6	0.00	438.56	835.60	215.33	412.82	345.75	90.6	-6.09	0.340
150.00	-11.62	-14.17	0.00	-365.1	0.00	365.12	815.57	206.70	380.41	323.81	97.09	-6.32	0.290
155.00	-10.97	-13.69	0.00	-294.3	0.00	294.28	794.42	198.07	349.32	302.12	103.82	-6.53	0.240
158.50	-10.53	-13.39	0.00	-246.4	0.00	246.35	778.94	192.03	328.35	287.12	108.64	-6.65	0.206
158.50	-10.53	-13.39	0.00	-246.4	0.00	246.35	778.94	192.03	328.35	287.12	108.64	-6.65	0.876
160.00	-10.40	-13.25	0.00	-226.3	0.00	226.26	772.14	189.44	319.56	280.73	110.74	-6.7	0.824
163.00	-9.74	-11.62	0.00	-182.1	0.00	182.10	758.24	184.27	302.34	268.07	115.07	-7.1	0.696
165.00	-9.60	-11.56	0.00	-158.9	0.00	158.86	748.74	180.82	291.13	259.70	118.09	-7.34	0.629
166.00	-7.94	-10.45	0.00	-147.3	0.00	147.30	743.93	179.09	285.60	255.54	119.64	-7.46	0.591
170.00	-7.68	-10.25	0.00	-105.5	0.00	105.51	723.19	172.19	264.01	238.74	126.04	-7.84	0.456
175.00	-6.67	-7.46	0.00	-52.2	0.00	52.16	686.95	163.56	238.23	215.28	134.43	-8.19	0.254
176.00	-4.09	-5.38	0.00	-44.7	0.00	44.70	679.70	161.83	233.23	210.73	136.14	-8.24	0.219
179.50	-3.92	-5.23	0.00	-25.8	0.00	25.84	654.34	155.79	216.15	195.21	142.21	-8.36	0.140
180.00	-3.90	-5.17	0.00	-23.2	0.00	23.23	650.71	154.93	213.76	193.04	143.08	-8.38	0.127
181.90	0.00	-4.55	0.00	-13.4	0.00	13.40	636.94	151.65	204.82	184.90	146.41	-8.42	0.073

CALCULATED FORCES

Load Case: 1.2D + 1.0Di + 1.0Wi — 48.73 mph Wind with 0.85" Radial Ice — 28 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	-82.88	-6.63	0.00	-940.1	0.00	940.11	3,433.77	903.29	3,632.17	2,981.33	0	0	0.134
5.00	-80.07	-6.59	0.00	-907.0	0.00	906.95	3,397.00	886.04	3,494.75	2,892.57	0.02	-0.04	0.131
10.00	-77.24	-6.56	0.00	-874.0	0.00	873.98	3,359.12	868.78	3,359.99	2,804.10	0.09	-0.09	0.128
14.71	-74.59	-6.53	0.00	-843.1	0.00	843.11	3,322.40	852.52	3,235.46	2,721.09	0.2	-0.13	0.125
14.71	-74.59	-6.53	0.00	-843.1	0.00	843.11	3,322.40	852.52	3,235.46	2,721.09	0.2	-0.13	0.155
15.00	-74.45	-6.52	0.00	-841.2	0.00	841.22	3,320.10	851.52	3,227.87	2,715.99	0.2	-0.13	0.155
20.00	-71.96	-6.48	0.00	-808.6	0.00	808.62	3,279.97	834.27	3,098.41	2,628.28	0.37	-0.18	0.151
25.00	-69.66	-6.45	0.00	-776.2	0.00	776.21	3,238.71	817.01	2,971.60	2,541.03	0.59	-0.24	0.148
30.00	-67.38	-6.42	0.00	-744.0	0.00	743.96	3,196.33	799.75	2,847.43	2,454.30	0.87	-0.29	0.145
35.00	-65.11	-6.38	0.00	-711.9	0.00	711.88	3,152.83	782.50	2,725.91	2,368.14	1.21	-0.35	0.141
40.00	-62.87	-6.33	0.00	-680.0	0.00	680.00	3,108.20	765.24	2,607.05	2,282.62	1.6	-0.4	0.137
44.10	-61.05	-6.30	0.00	-654.0	0.00	654.04	3,070.77	751.09	2,511.56	2,213.00	1.97	-0.45	0.134
45.00	-60.52	-6.28	0.00	-648.4	0.00	648.36	3,062.45	747.98	2,490.83	2,197.78	2.05	-0.46	0.131
48.60	-58.41	-6.24	0.00	-625.8	0.00	625.75	2,379.97	625.11	2,087.36	1,715.94	2.41	-0.5	0.149
50.00	-57.83	-6.21	0.00	-617.0	0.00	617.01	2,371.43	621.08	2,060.56	1,698.68	2.56	-0.51	0.147
55.00	-55.77	-6.14	0.00	-586.0	0.00	585.96	2,340.22	606.70	1,966.27	1,637.16	3.13	-0.57	0.142
60.00	-53.74	-6.06	0.00	-555.3	0.00	555.26	2,307.88	592.32	1,874.19	1,575.92	3.76	-0.63	0.137
65.00	-51.73	-5.97	0.00	-525.0	0.00	524.97	2,274.42	577.94	1,784.32	1,515.02	4.45	-0.69	0.132
70.00	-49.73	-5.87	0.00	-495.1	0.00	495.12	2,239.83	563.56	1,696.65	1,454.51	5.2	-0.74	0.127
75.00	-47.76	-5.77	0.00	-465.8	0.00	465.76	2,204.12	549.18	1,611.20	1,394.44	6.01	-0.8	0.122
80.00	-45.80	-5.65	0.00	-436.9	0.00	436.94	2,167.29	534.79	1,527.95	1,334.88	6.88	-0.86	0.117
80.00	-45.80	-5.65	0.00	-436.9	0.00	436.94	2,167.29	534.79	1,527.95	1,334.88	6.88	-0.86	0.128
85.00	-43.97	-5.56	0.00	-408.7	0.00	408.67	2,129.34	520.41	1,446.91	1,275.87	7.8	-0.91	0.123
86.58	-43.40	-5.52	0.00	-399.9	0.00	399.88	2,117.11	515.87	1,421.76	1,257.35	8.11	-0.93	0.121
90.00	-41.83	-5.45	0.00	-381.0	0.00	381.02	2,090.26	506.03	1,368.08	1,217.49	8.79	-0.97	0.115
90.33	-41.67	-5.42	0.00	-379.2	0.00	379.22	1,547.78	412.01	1,133.49	919.64	8.86	-0.98	0.135
95.00	-40.10	-5.30	0.00	-353.9	0.00	353.93	1,525.71	401.27	1,075.16	882.69	9.84	-1.03	0.129
100.00	-38.43	-5.18	0.00	-327.4	0.00	327.41	1,500.99	389.76	1,014.41	843.28	10.95	-1.09	0.121
105.00	-36.78	-5.05	0.00	-301.5	0.00	301.51	1,475.16	378.26	955.42	804.08	12.13	-1.15	0.114
110.00	-35.14	-4.91	0.00	-276.3	0.00	276.26	1,448.19	366.76	898.21	765.15	13.37	-1.21	0.106
115.00	-33.52	-4.78	0.00	-251.7	0.00	251.69	1,420.11	355.25	842.76	726.55	14.67	-1.27	0.099
120.00	-31.92	-4.63	0.00	-227.8	0.00	227.81	1,390.90	343.75	789.08	688.34	16.02	-1.32	0.092
120.00	-31.92	-4.63	0.00	-227.8	0.00	227.81	1,390.90	343.75	789.08	688.34	16.02	-1.32	0.111
125.00	-30.53	-4.52	0.00	-204.6	0.00	204.65	1,360.57	332.24	737.16	650.56	17.43	-1.37	0.102
126.28	-30.17	-4.47	0.00	-198.9	0.00	198.87	1,352.62	329.30	724.16	640.97	17.8	-1.39	0.100
126.28	-30.17	-4.47	0.00	-198.9	0.00	198.87	900.61	247.63	545.93	429.07	17.8	-1.39	0.122
130.00	-29.22	-4.36	0.00	-182.2	0.00	182.24	888.95	241.22	518.00	412.44	18.91	-1.44	0.114
135.00	-27.95	-4.23	0.00	-160.4	0.00	160.43	872.29	232.59	481.62	390.12	20.44	-1.5	0.102
140.00	-26.69	-4.09	0.00	-139.3	0.00	139.29	854.50	223.96	446.56	367.87	22.04	-1.56	0.091
140.00	-26.69	-4.09	0.00	-139.3	0.00	139.29	854.50	223.96	446.56	367.87	22.04	-1.56	0.115
145.00	-25.61	-3.96	0.00	-118.8	0.00	118.84	835.60	215.33	412.82	345.75	23.7	-1.61	0.101
150.00	-24.55	-3.84	0.00	-99.0	0.00	99.03	815.57	206.70	380.41	323.81	25.43	-1.67	0.087
155.00	-23.50	-3.71	0.00	-79.8	0.00	79.85	794.42	198.07	349.32	302.12	27.21	-1.73	0.073
158.50	-22.77	-3.63	0.00	-66.9	0.00	66.86	778.94	192.03	328.35	287.12	28.49	-1.76	0.064
158.50	-22.77	-3.63	0.00	-66.9	0.00	66.86	778.94	192.03	328.35	287.12	28.49	-1.76	0.262
160.00	-22.59	-3.60	0.00	-61.4	0.00	61.41	772.14	189.44	319.56	280.73	29.05	-1.78	0.248
163.00	-20.80	-3.21	0.00	-49.6	0.00	49.61	758.24	184.27	302.34	268.07	30.2	-1.88	0.213
165.00	-20.59	-3.20	0.00	-43.2	0.00	43.19	748.74	180.82	291.13	259.70	31	-1.95	0.194
166.00	-17.90	-2.87	0.00	-40.0	0.00	39.98	743.93	179.09	285.60	255.54	31.41	-1.98	0.181
170.00	-17.51	-2.83	0.00	-28.5	0.00	28.50	723.19	172.19	264.01	238.74	33.12	-2.09	0.144
175.00	-13.83	-2.12	0.00	-13.9	0.00	13.90	686.95	163.56	238.23	215.28	35.36	-2.18	0.085
176.00	-9.04	-1.48	0.00	-11.8	0.00	11.78	679.70	161.83	233.23	210.73	35.81	-2.19	0.069
179.50	-8.68	-1.44	0.00	-6.6	0.00	6.58	654.34	155.79	216.15	195.21	37.43	-2.22	0.047
180.00	-8.64	-1.42	0.00	-5.9	0.00	5.86	650.71	154.93	213.76	193.04	37.67	-2.23	0.044
181.90	0.00	-1.09	0.00	-3.2	0.00	3.16	636.94	151.65	204.82	184.90	38.55	-2.24	0.017

CALCULATED FORCES

Load Case: 1.0D + 1.0W — 60 mph Wind with No Ice — 27 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	-57.12	-7.66	0.00	-975.3	0.00	975.27	3,433.77	903.29	3,632.17	2,981.33	0	0	0.135
5.00	-55.01	-7.55	0.00	-937.0	0.00	936.98	3,397.00	886.04	3,494.75	2,892.57	0.02	-0.04	0.132
10.00	-52.92	-7.44	0.00	-899.2	0.00	899.25	3,359.12	868.78	3,359.99	2,804.10	0.09	-0.09	0.128
14.71	-50.96	-7.37	0.00	-864.2	0.00	864.23	3,322.40	852.52	3,235.46	2,721.09	0.2	-0.13	0.125
14.71	-50.96	-7.37	0.00	-864.2	0.00	864.23	3,322.40	852.52	3,235.46	2,721.09	0.2	-0.13	0.155
15.00	-50.85	-7.32	0.00	-862.1	0.00	862.09	3,320.10	851.52	3,227.87	2,715.99	0.21	-0.13	0.154
20.00	-49.05	-7.22	0.00	-825.5	0.00	825.50	3,279.97	834.27	3,098.41	2,628.28	0.38	-0.19	0.151
25.00	-47.35	-7.13	0.00	-789.4	0.00	789.42	3,238.71	817.01	2,971.60	2,541.03	0.61	-0.24	0.147
30.00	-45.66	-7.03	0.00	-753.8	0.00	753.79	3,196.33	799.75	2,847.43	2,454.30	0.89	-0.3	0.143
35.00	-43.98	-6.92	0.00	-718.6	0.00	718.65	3,152.83	782.50	2,725.91	2,368.14	1.24	-0.36	0.139
40.00	-42.33	-6.81	0.00	-684.0	0.00	684.05	3,108.20	765.24	2,607.05	2,282.62	1.64	-0.41	0.135
44.10	-40.99	-6.75	0.00	-656.1	0.00	656.11	3,070.77	751.09	2,511.56	2,213.00	2.01	-0.46	0.131
45.00	-40.58	-6.69	0.00	-650.0	0.00	650.04	3,062.45	747.98	2,490.83	2,197.78	2.1	-0.47	0.129
48.60	-38.97	-6.62	0.00	-626.0	0.00	625.95	2,379.97	625.11	2,087.36	1,715.94	2.47	-0.51	0.145
50.00	-38.55	-6.54	0.00	-616.7	0.00	616.69	2,371.43	621.08	2,060.56	1,698.68	2.62	-0.52	0.144
55.00	-37.05	-6.42	0.00	-584.0	0.00	584.00	2,340.22	606.70	1,966.27	1,637.16	3.2	-0.58	0.138
60.00	-35.56	-6.29	0.00	-551.9	0.00	551.92	2,307.88	592.32	1,874.19	1,575.92	3.84	-0.64	0.133
65.00	-34.09	-6.15	0.00	-520.5	0.00	520.48	2,274.42	577.94	1,784.32	1,515.02	4.54	-0.69	0.128
70.00	-32.63	-6.02	0.00	-489.7	0.00	489.71	2,239.83	563.56	1,696.65	1,454.51	5.29	-0.75	0.123
75.00	-31.19	-5.88	0.00	-459.6	0.00	459.62	2,204.12	549.18	1,611.20	1,394.44	6.11	-0.81	0.117
80.00	-29.76	-5.73	0.00	-430.2	0.00	430.24	2,167.29	534.79	1,527.95	1,334.88	6.98	-0.86	0.112
80.00	-29.76	-5.73	0.00	-430.2	0.00	430.24	2,167.29	534.79	1,527.95	1,334.88	6.98	-0.86	0.123
85.00	-28.43	-5.62	0.00	-401.6	0.00	401.58	2,129.34	520.41	1,446.91	1,275.87	7.91	-0.92	0.118
86.58	-28.01	-5.56	0.00	-392.7	0.00	392.69	2,117.11	515.87	1,421.76	1,257.35	8.22	-0.94	0.116
90.00	-26.84	-5.49	0.00	-373.7	0.00	373.68	2,090.26	506.03	1,368.08	1,217.49	8.91	-0.98	0.110
90.33	-26.72	-5.44	0.00	-371.9	0.00	371.87	1,547.78	412.01	1,133.49	919.64	8.97	-0.98	0.129
95.00	-25.59	-5.30	0.00	-346.5	0.00	346.48	1,525.71	401.27	1,075.16	882.69	9.96	-1.03	0.122
100.00	-24.38	-5.15	0.00	-320.0	0.00	319.99	1,500.99	389.76	1,014.41	843.28	11.08	-1.09	0.115
105.00	-23.19	-5.00	0.00	-294.2	0.00	294.23	1,475.16	378.26	955.42	804.08	12.25	-1.15	0.108
110.00	-22.01	-4.86	0.00	-269.2	0.00	269.21	1,448.19	366.76	898.21	765.15	13.49	-1.21	0.101
115.00	-20.84	-4.70	0.00	-244.9	0.00	244.93	1,420.11	355.25	842.76	726.55	14.78	-1.26	0.094
120.00	-19.69	-4.55	0.00	-221.4	0.00	221.41	1,390.90	343.75	789.08	688.34	16.14	-1.32	0.086
120.00	-19.69	-4.55	0.00	-221.4	0.00	221.41	1,390.90	343.75	789.08	688.34	16.14	-1.32	0.105
125.00	-18.69	-4.44	0.00	-198.6	0.00	198.65	1,360.57	332.24	737.16	650.56	17.54	-1.37	0.096
126.28	-18.44	-4.38	0.00	-193.0	0.00	192.97	1,352.62	329.30	724.16	640.97	17.91	-1.38	0.094
126.28	-18.44	-4.38	0.00	-193.0	0.00	192.97	900.61	247.63	545.93	429.07	17.91	-1.38	0.115
130.00	-17.77	-4.26	0.00	-176.7	0.00	176.67	888.95	241.22	518.00	412.44	19.01	-1.43	0.107
135.00	-16.87	-4.12	0.00	-155.4	0.00	155.35	872.29	232.59	481.62	390.12	20.53	-1.49	0.095
140.00	-15.98	-3.98	0.00	-134.7	0.00	134.73	854.50	223.96	446.56	367.87	22.12	-1.54	0.085
140.00	-15.98	-3.98	0.00	-134.7	0.00	134.73	854.50	223.96	446.56	367.87	22.12	-1.54	0.107
145.00	-15.23	-3.84	0.00	-114.8	0.00	114.83	835.60	215.33	412.82	345.75	23.77	-1.6	0.093
150.00	-14.49	-3.71	0.00	-95.6	0.00	95.62	815.57	206.70	380.41	323.81	25.48	-1.66	0.080
155.00	-13.76	-3.58	0.00	-77.1	0.00	77.08	794.42	198.07	349.32	302.12	27.24	-1.71	0.067
158.50	-13.25	-3.50	0.00	-64.5	0.00	64.54	778.94	192.03	328.35	287.12	28.51	-1.74	0.058
158.50	-13.25	-3.50	0.00	-64.5	0.00	64.54	778.94	192.03	328.35	287.12	28.51	-1.74	0.242
160.00	-13.14	-3.47	0.00	-59.3	0.00	59.28	772.14	189.44	319.56	280.73	29.06	-1.76	0.229
163.00	-12.27	-3.05	0.00	-47.8	0.00	47.75	758.24	184.27	302.34	268.07	30.2	-1.86	0.195
165.00	-12.14	-3.03	0.00	-41.6	0.00	41.65	748.74	180.82	291.13	259.70	30.99	-1.92	0.177
166.00	-10.20	-2.74	0.00	-38.6	0.00	38.62	743.93	179.09	285.60	255.54	31.4	-1.95	0.165
170.00	-9.95	-2.69	0.00	-27.6	0.00	27.65	723.19	172.19	264.01	238.74	33.08	-2.06	0.130
175.00	-8.45	-1.97	0.00	-13.6	0.00	13.64	686.95	163.56	238.23	215.28	35.28	-2.15	0.076
176.00	-5.31	-1.42	0.00	-11.7	0.00	11.67	679.70	161.83	233.23	210.73	35.74	-2.16	0.063
179.50	-5.10	-1.38	0.00	-6.7	0.00	6.71	654.34	155.79	216.15	195.21	37.33	-2.19	0.042
180.00	-5.08	-1.36	0.00	-6.0	0.00	6.02	650.71	154.93	213.76	193.04	37.56	-2.2	0.039
181.90	0.00	-1.17	0.00	-3.4	0.00	3.44	636.94	151.65	204.82	184.90	38.44	-2.21	0.019

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

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

Spectral Response Acceleration for Short Period (S_S):	0.176
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.054
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}):	0.188
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.086
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):	3.590
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	2.000
Total Unfactored Dead Load:	57.120 k
Seismic Base Shear (E):	1.710 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)
48	180.95	99	3,246	0.005	8	123
47	179.75	26	849	0.001	2	33
46	177.75	186	5,888	0.009	15	231
45	175.5	54	1,663	0.002	4	67
44	172.5	306	9,108	0.013	23	379
43	168	251	7,081	0.010	18	310
42	165.5	64	1,741	0.002	4	79
41	164	128	3,446	0.005	9	159
40	161.5	214	5,589	0.008	14	265
39	159.25	108	2,746	0.004	7	134
38	156.75	508	12,484	0.018	31	629
37	152.5	733	17,046	0.025	43	907
36	147.5	741	16,128	0.024	40	917
35	142.5	750	15,223	0.022	38	928
34	137.5	888	16,796	0.024	42	1,099
33	132.5	897	15,744	0.023	39	1,110
32	128.14	673	11,044	0.016	28	832
31	125.64	253	3,992	0.006	10	313
30	122.5	995	14,928	0.022	37	1,231
29	117.5	1,156	15,963	0.023	40	1,431
28	112.5	1,167	14,775	0.022	37	1,445
27	107.5	1,179	13,619	0.020	34	1,458
26	102.5	1,190	12,499	0.018	31	1,472
25	97.5	1,201	11,415	0.017	28	1,486
24	92.665	1,132	9,717	0.014	24	1,400
23	90.165	113	916	0.001	2	139
22	88.29	1,174	9,153	0.013	23	1,453
21	85.79	417	3,069	0.004	8	516
20	82.5	1,329	9,045	0.013	23	1,645
19	77.5	1,425	8,562	0.012	21	1,764
18	72.5	1,439	7,566	0.011	19	1,781
17	67.5	1,453	6,622	0.010	17	1,799
16	62.5	1,467	5,732	0.008	14	1,816
15	57.5	1,481	4,897	0.007	12	1,833
14	52.5	1,495	4,121	0.006	10	1,850
13	49.3	421	1,024	0.002	3	521
12	46.8	1,606	3,517	0.005	9	1,987
11	44.55	404	802	0.001	2	500

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)
10	42.05	1,341	2,371	0.003	6	1,659
9	37.5	1,650	2,321	0.003	6	2,042
8	32.5	1,667	1,761	0.003	4	2,063
7	27.5	1,684	1,273	0.002	3	2,084
6	22.5	1,700	861	0.001	2	2,104
5	17.5	1,794	549	0.001	1	2,220
4	14.855	105	23	0.000	0	130
3	12.355	1,950	298	0.000	1	2,414
2	7.5	2,087	117	0.000	0	2,582
1	2.5	2,103	13	0.000	0	2,603
Kaelus DBC0061F1V51-2	181.9	76	2,531	0.004	6	95
Powerwave Allgon LGP21401	181.9	85	2,799	0.004	7	105
Raycap DC6-48-60-0-8F	181.9	66	2,171	0.003	5	81
Raycap DC6-48-60-18-8F ("Squid")	181.9	19	625	0.001	2	23
Ericsson Radio 8843 - B2 + B66A	181.9	216	7,137	0.010	18	267
Ericsson RRUS 4449 B5, B12	181.9	213	7,048	0.010	18	264
Ericsson RRUS 32 (50.8 lbs)	181.9	152	5,043	0.007	13	189
Powerwave Allgon 7770.00	181.9	105	3,474	0.005	9	130
Andrew SBNHH-1D65A	181.9	41	1,353	0.002	3	51
CCI HPA65R-BU6A	181.9	84	2,773	0.004	7	104
Quintel QS66512-2	181.9	333	11,018	0.016	27	412
CCI DMP65R-BU6DA	181.9	238	7,881	0.012	20	295
Small Side Arms	181.9	300	9,926	0.014	25	371
Generic Mount Reinforcement	181.9	600	19,853	0.029	50	743
Generic Mount Reinforcement	176	600	18,586	0.027	46	743
Generic Flat Platform with Handrails	181.9	2,500	82,719	0.120	206	3,094
RFS DB-B1-6C-12AB-0Z	179.5	21	690	0.001	2	26
Flat Platform with Round Handrails	176	2,500	77,440	0.113	193	3,094
Commscope CBC78T-DS-43-2X	175	62	1,902	0.003	5	77
Samsung B2/B66A RRH ORAN (RF 4439d-25A)	175	224	6,863	0.010	17	277
Samsung RF4461d-13A	175	237	7,267	0.011	18	294
Samsung MT6413-77A	175	172	5,264	0.008	13	213
Commscope JAHH-65B-R3B	175	364	11,135	0.016	28	450
Antel LPA-80063/6CF	175	162	4,961	0.007	12	200
Generic Round Low Profile Platform	166	1,875	51,668	0.075	129	2,320
Ericsson AIR 21, 1.3 M, B2A B4P	163	249	6,616	0.010	16	308
Ericsson AIR 21, 1.3M, B4A B2P (90.4 lbs)	163	271	7,206	0.010	18	336
Andrew LNX-6515DS-A1M	163	149	3,969	0.006	10	185
	Totals:	**57,121**	**687,262**	**1.000**	**1,714**	**70,690**

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)
48	180.95	99	3,246	0.005	8	85
47	179.75	26	849	0.001	2	23
46	177.75	186	5,888	0.009	15	161
45	175.5	54	1,663	0.002	4	47
44	172.5	306	9,108	0.013	23	264
43	168	251	7,081	0.010	18	216
42	165.5	64	1,741	0.002	4	55
41	164	128	3,446	0.005	9	111
40	161.5	214	5,589	0.008	14	185
39	159.25	108	2,746	0.004	7	93
38	156.75	508	12,484	0.018	31	438
37	152.5	733	17,046	0.025	43	632
36	147.5	741	16,128	0.024	40	639
35	142.5	750	15,223	0.022	38	647
34	137.5	888	16,796	0.024	42	766
33	132.5	897	15,744	0.023	39	773
32	128.14	673	11,044	0.016	28	580

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)
31	125.64	253	3,992	0.006	10	218
30	122.5	995	14,928	0.022	37	858
29	117.5	1,156	15,963	0.023	40	997
28	112.5	1,167	14,775	0.022	37	1,007
27	107.5	1,179	13,619	0.020	34	1,016
26	102.5	1,190	12,499	0.018	31	1,026
25	97.5	1,201	11,415	0.017	28	1,036
24	92.665	1,132	9,717	0.014	24	976
23	90.165	113	916	0.001	2	97
22	88.29	1,174	9,153	0.013	23	1,013
21	85.79	417	3,069	0.004	8	360
20	82.5	1,329	9,045	0.013	23	1,146
19	77.5	1,425	8,562	0.012	21	1,229
18	72.5	1,439	7,566	0.011	19	1,241
17	67.5	1,453	6,622	0.010	17	1,253
16	62.5	1,467	5,732	0.008	14	1,265
15	57.5	1,481	4,897	0.007	12	1,278
14	52.5	1,495	4,121	0.006	10	1,290
13	49.3	421	1,024	0.002	3	363
12	46.8	1,606	3,517	0.005	9	1,385
11	44.55	404	802	0.001	2	348
10	42.05	1,341	2,371	0.003	6	1,156
9	37.5	1,650	2,321	0.003	6	1,423
8	32.5	1,667	1,761	0.003	4	1,438
7	27.5	1,684	1,273	0.002	3	1,452
6	22.5	1,700	861	0.001	2	1,467
5	17.5	1,794	549	0.001	1	1,547
4	14.855	105	23	0.000	0	91
3	12.355	1,950	298	0.000	1	1,682
2	7.5	2,087	117	0.000	0	1,800
1	2.5	2,103	13	0.000	0	1,814
Kaelus DBC0061F1V51-2	181.9	76	2,531	0.004	6	66
Powerwave Allgon LGP21401	181.9	85	2,799	0.004	7	73
Raycap DC6-48-60-0-8F	181.9	66	2,171	0.003	5	57
Raycap DC6-48-60-18-8F ("Squid")	181.9	19	625	0.001	2	16
Ericsson Radio 8843 - B2 + B66A	181.9	216	7,137	0.010	18	186
Ericsson RRUS 4449 B5, B12	181.9	213	7,048	0.010	18	184
Ericsson RRUS 32 (50.8 lbs)	181.9	152	5,043	0.007	13	131
Powerwave Allgon 7770.00	181.9	105	3,474	0.005	9	91
Andrew SBNHH-1D65A	181.9	41	1,353	0.002	3	35
CCI HPA65R-BU6A	181.9	84	2,773	0.004	7	72
Quintel QS66512-2	181.9	333	11,018	0.016	27	287
CCI DMP65R-BU6DA	181.9	238	7,881	0.012	20	205
Small Side Arms	181.9	300	9,926	0.014	25	259
Generic Mount Reinforcement	181.9	600	19,853	0.029	50	517
Generic Mount Reinforcement	176	600	18,586	0.027	46	517
Generic Flat Platform with Handrails	181.9	2,500	82,719	0.120	206	2,156
RFS DB-B1-6C-12AB-0Z	179.5	21	690	0.001	2	18
Flat Platform with Round Handrails	176	2,500	77,440	0.113	193	2,156
Commscope CBC78T-DS-43-2X	175	62	1,902	0.003	5	54
Samsung B2/B66A RRH ORAN (RF 4439d-25A)	175	224	6,863	0.010	17	193
Samsung RF4461d-13A	175	237	7,267	0.011	18	205
Samsung MT6413-77A	175	172	5,264	0.008	13	148
Commscope JAHH-65B-R3B	175	364	11,135	0.016	28	314
Antel LPA-80063/6CF	175	162	4,961	0.007	12	140
Generic Round Low Profile Platform	166	1,875	51,668	0.075	129	1,617
Ericsson AIR 21, 1.3 M, B2A B4P	163	249	6,616	0.010	16	215
Ericsson AIR 21, 1.3M, B4A B2P (90.4 lbs)	163	271	7,206	0.010	18	234
Andrew LNX-6515DS-A1M	163	149	3,969	0.006	10	129
	Totals:	**57,121**	**687,262**	**1.000**	**1,714**	**49,264**

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	-68.09	-1.72	0.00	-278.68	0.00	278.68	3,433.77	903.29	3,632	2,981.33	0.00	0.00	0.05
5.00	-65.50	-1.73	0.00	-270.08	0.00	270.08	3,397.00	886.04	3,495	2,892.57	0.01	-0.01	0.05
10.00	-63.09	-1.75	0.00	-261.41	0.00	261.41	3,359.12	868.78	3,360	2,804.10	0.03	-0.03	0.04
14.71	-62.96	-1.75	0.00	-253.18	0.00	253.18	3,322.40	852.52	3,235	2,721.09	0.06	-0.04	0.04
14.71	-62.96	-1.75	0.00	-253.18	0.00	253.18	3,322.40	852.52	3,235	2,721.09	0.06	-0.04	0.05
15.00	-60.74	-1.76	0.00	-252.67	0.00	252.67	3,320.10	851.52	3,228	2,715.99	0.06	-0.04	0.05
20.00	-58.63	-1.77	0.00	-243.87	0.00	243.87	3,279.97	834.27	3,098	2,628.28	0.11	-0.05	0.05
20.00	-58.63	-1.77	0.00	-243.87	0.00	243.87	3,279.97	834.27	3,098	2,628.28	0.11	-0.05	0.05
25.00	-56.55	-1.78	0.00	-235.01	0.00	235.01	3,238.71	817.01	2,972	2,541.03	0.18	-0.07	0.05
30.00	-54.49	-1.79	0.00	-226.09	0.00	226.09	3,196.33	799.75	2,847	2,454.30	0.26	-0.09	0.05
35.00	-52.44	-1.80	0.00	-217.13	0.00	217.13	3,152.83	782.50	2,726	2,368.14	0.36	-0.10	0.05
40.00	-50.78	-1.80	0.00	-208.14	0.00	208.14	3,108.20	765.24	2,607	2,282.62	0.48	-0.12	0.05
44.10	-50.28	-1.81	0.00	-200.74	0.00	200.74	3,070.77	751.09	2,512	2,213.00	0.59	-0.14	0.05
45.00	-48.30	-1.80	0.00	-199.12	0.00	199.12	3,062.45	747.98	2,491	2,197.78	0.62	-0.14	0.05
48.60	-47.77	-1.80	0.00	-192.64	0.00	192.64	2,379.97	625.11	2,087	1,715.94	0.73	-0.15	0.05
50.00	-45.92	-1.80	0.00	-190.11	0.00	190.11	2,371.43	621.08	2,061	1,698.68	0.77	-0.16	0.05
55.00	-44.09	-1.79	0.00	-181.12	0.00	181.12	2,340.22	606.70	1,966	1,637.16	0.94	-0.17	0.05
60.00	-42.27	-1.79	0.00	-172.16	0.00	172.16	2,307.88	592.32	1,874	1,575.92	1.13	-0.19	0.05
65.00	-40.48	-1.78	0.00	-163.22	0.00	163.22	2,274.42	577.94	1,784	1,515.02	1.34	-0.21	0.05
70.00	-38.69	-1.76	0.00	-154.34	0.00	154.34	2,239.83	563.56	1,697	1,454.51	1.57	-0.23	0.04
75.00	-36.93	-1.75	0.00	-145.53	0.00	145.53	2,204.12	549.18	1,611	1,394.44	1.82	-0.24	0.04
80.00	-35.28	-1.73	0.00	-136.80	0.00	136.80	2,167.29	534.79	1,528	1,334.88	2.09	-0.26	0.04
80.00	-35.28	-1.73	0.00	-136.80	0.00	136.80	2,167.29	534.79	1,528	1,334.88	2.09	-0.26	0.04
85.00	-34.77	-1.72	0.00	-128.17	0.00	128.17	2,129.34	520.41	1,447	1,275.87	2.37	-0.28	0.04
86.58	-33.31	-1.70	0.00	-125.45	0.00	125.45	2,117.11	515.87	1,422	1,257.35	2.46	-0.29	0.04
90.00	-33.17	-1.70	0.00	-119.64	0.00	119.64	2,090.26	506.03	1,368	1,217.49	2.67	-0.30	0.04
90.33	-31.77	-1.67	0.00	-119.08	0.00	119.08	1,547.78	412.01	1,133	919.64	2.69	-0.30	0.05
95.00	-30.29	-1.65	0.00	-111.26	0.00	111.26	1,525.71	401.27	1,075	882.69	2.99	-0.32	0.05
100.00	-28.81	-1.62	0.00	-103.02	0.00	103.02	1,500.99	389.76	1,014	843.28	3.34	-0.34	0.04
105.00	-27.36	-1.58	0.00	-94.94	0.00	94.94	1,475.16	378.26	955	804.08	3.70	-0.35	0.04
110.00	-25.91	-1.55	0.00	-87.02	0.00	87.02	1,448.19	366.76	898	765.15	4.08	-0.37	0.04
115.00	-24.48	-1.50	0.00	-79.30	0.00	79.30	1,420.11	355.25	843	726.55	4.48	-0.39	0.04
120.00	-23.25	-1.46	0.00	-71.78	0.00	71.78	1,390.90	343.75	789	688.34	4.90	-0.41	0.03
120.00	-23.25	-1.46	0.00	-71.78	0.00	71.78	1,390.90	343.75	789	688.34	4.90	-0.41	0.04
125.00	-22.94	-1.46	0.00	-64.46	0.00	64.46	1,360.57	332.24	737	650.56	5.34	-0.42	0.04
126.28	-22.10	-1.43	0.00	-62.60	0.00	62.60	1,352.62	329.30	724	640.97	5.45	-0.43	0.04
126.28	-22.10	-1.43	0.00	-62.60	0.00	62.60	900.61	247.63	546	429.07	5.45	-0.43	0.04
130.00	-20.99	-1.39	0.00	-57.29	0.00	57.29	888.95	241.22	518	412.44	5.79	-0.44	0.04
135.00	-19.89	-1.34	0.00	-50.36	0.00	50.36	872.29	232.59	482	390.12	6.27	-0.46	0.04
140.00	-18.97	-1.30	0.00	-43.66	0.00	43.66	854.50	223.96	447	367.87	6.76	-0.48	0.03
140.00	-18.97	-1.30	0.00	-43.66	0.00	43.66	854.50	223.96	447	367.87	6.76	-0.48	0.04
145.00	-18.05	-1.26	0.00	-37.15	0.00	37.15	835.60	215.33	413	345.75	7.28	-0.50	0.04
150.00	-17.14	-1.21	0.00	-30.85	0.00	30.85	815.57	206.70	380	323.81	7.81	-0.52	0.03
155.00	-16.51	-1.18	0.00	-24.78	0.00	24.78	794.42	198.07	349	302.12	8.37	-0.54	0.03
158.50	-16.38	-1.18	0.00	-20.65	0.00	20.65	778.94	192.03	328	287.12	8.76	-0.55	0.02
158.50	-16.38	-1.18	0.00	-20.65	0.00	20.65	778.94	192.03	328	287.12	8.76	-0.55	0.09
160.00	-16.11	-1.16	0.00	-18.89	0.00	18.89	772.14	189.44	320	280.73	8.93	-0.55	0.09
163.00	-15.13	-1.11	0.00	-15.39	0.00	15.39	758.24	184.27	302	268.07	9.29	-0.58	0.08
165.00	-15.05	-1.11	0.00	-13.18	0.00	13.18	748.74	180.82	291	259.70	9.54	-0.60	0.07
166.00	-12.42	-0.94	0.00	-12.07	0.00	12.07	743.93	179.09	286	255.54	9.67	-0.61	0.06
170.00	-12.04	-0.92	0.00	-8.32	0.00	8.32	723.19	172.19	264	238.74	10.20	-0.64	0.05
175.00	-10.46	-0.80	0.00	-3.74	0.00	3.74	686.95	163.56	238	215.28	10.89	-0.67	0.03
176.00	-6.40	-0.50	0.00	-2.94	0.00	2.94	679.70	161.83	233	210.73	11.03	-0.67	0.02
179.50	-6.34	-0.50	0.00	-1.18	0.00	1.18	654.34	155.79	216	195.21	11.52	-0.68	0.02
180.00	-6.22	-0.49	0.00	-0.93	0.00	0.93	650.71	154.93	214	193.04	11.60	-0.68	0.01
181.90	0.00	-0.41	0.00	0.00	0.00	0.00	636.94	151.65	205	184.90	11.87	-0.68	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	-47.45	-1.72	0.00	-270.80	0.00	270.80	3,433.77	903.29	3,632	2,981.33	0.00	0.00	0.04
5.00	-45.65	-1.73	0.00	-262.21	0.00	262.21	3,397.00	886.04	3,495	2,892.57	0.01	-0.01	0.04
10.00	-43.97	-1.74	0.00	-253.57	0.00	253.57	3,359.12	868.78	3,360	2,804.10	0.03	-0.02	0.04
14.71	-43.88	-1.74	0.00	-245.40	0.00	245.40	3,322.40	852.52	3,235	2,721.09	0.06	-0.04	0.04
14.71	-43.88	-1.74	0.00	-245.40	0.00	245.40	3,322.40	852.52	3,235	2,721.09	0.06	-0.04	0.05
15.00	-42.33	-1.74	0.00	-244.89	0.00	244.89	3,320.10	851.52	3,228	2,715.99	0.06	-0.04	0.05
20.00	-40.86	-1.75	0.00	-236.17	0.00	236.17	3,279.97	834.27	3,098	2,628.28	0.11	-0.05	0.05
20.00	-40.86	-1.75	0.00	-236.17	0.00	236.17	3,279.97	834.27	3,098	2,628.28	0.11	-0.05	0.05
25.00	-39.41	-1.76	0.00	-227.41	0.00	227.41	3,238.71	817.01	2,972	2,541.03	0.17	-0.07	0.05
30.00	-37.97	-1.76	0.00	-218.62	0.00	218.62	3,196.33	799.75	2,847	2,454.30	0.25	-0.09	0.05
35.00	-36.55	-1.76	0.00	-209.81	0.00	209.81	3,152.83	782.50	2,726	2,368.14	0.35	-0.10	0.04
40.00	-35.39	-1.77	0.00	-200.98	0.00	200.98	3,108.20	765.24	2,607	2,282.62	0.47	-0.12	0.04
44.10	-35.04	-1.77	0.00	-193.74	0.00	193.74	3,070.77	751.09	2,512	2,213.00	0.57	-0.13	0.04
45.00	-33.66	-1.76	0.00	-192.15	0.00	192.15	3,062.45	747.98	2,491	2,197.78	0.60	-0.13	0.04
48.60	-33.29	-1.76	0.00	-185.81	0.00	185.81	2,379.97	625.11	2,087	1,715.94	0.70	-0.15	0.05
50.00	-32.00	-1.75	0.00	-183.34	0.00	183.34	2,371.43	621.08	2,061	1,698.68	0.75	-0.15	0.05
55.00	-30.73	-1.75	0.00	-174.57	0.00	174.57	2,340.22	606.70	1,966	1,637.16	0.91	-0.17	0.05
60.00	-29.46	-1.74	0.00	-165.83	0.00	165.83	2,307.88	592.32	1,874	1,575.92	1.10	-0.18	0.04
65.00	-28.21	-1.73	0.00	-157.14	0.00	157.14	2,274.42	577.94	1,784	1,515.02	1.30	-0.20	0.04
70.00	-26.96	-1.71	0.00	-148.51	0.00	148.51	2,239.83	563.56	1,697	1,454.51	1.52	-0.22	0.04
75.00	-25.73	-1.69	0.00	-139.95	0.00	139.95	2,204.12	549.18	1,611	1,394.44	1.76	-0.24	0.04
80.00	-24.59	-1.67	0.00	-131.49	0.00	131.49	2,167.29	534.79	1,528	1,334.88	2.02	-0.25	0.04
80.00	-24.59	-1.67	0.00	-131.49	0.00	131.49	2,167.29	534.79	1,528	1,334.88	2.02	-0.25	0.04
85.00	-24.23	-1.67	0.00	-123.13	0.00	123.13	2,129.34	520.41	1,447	1,275.87	2.29	-0.27	0.04
86.58	-23.21	-1.64	0.00	-120.50	0.00	120.50	2,117.11	515.87	1,422	1,257.35	2.38	-0.28	0.04
90.00	-23.12	-1.64	0.00	-114.88	0.00	114.88	2,090.26	506.03	1,368	1,217.49	2.58	-0.29	0.04
90.33	-22.14	-1.62	0.00	-114.34	0.00	114.34	1,547.78	412.01	1,133	919.64	2.60	-0.29	0.04
95.00	-21.11	-1.59	0.00	-106.78	0.00	106.78	1,525.71	401.27	1,075	882.69	2.89	-0.31	0.04
100.00	-20.08	-1.56	0.00	-98.83	0.00	98.83	1,500.99	389.76	1,014	843.28	3.23	-0.32	0.04
105.00	-19.06	-1.53	0.00	-91.03	0.00	91.03	1,475.16	378.26	955	804.08	3.57	-0.34	0.04
110.00	-18.06	-1.49	0.00	-83.40	0.00	83.40	1,448.19	366.76	898	765.15	3.94	-0.36	0.03
115.00	-17.06	-1.45	0.00	-75.96	0.00	75.96	1,420.11	355.25	843	726.55	4.33	-0.38	0.03
120.00	-16.20	-1.41	0.00	-68.72	0.00	68.72	1,390.90	343.75	789	688.34	4.73	-0.39	0.03
120.00	-16.20	-1.41	0.00	-68.72	0.00	68.72	1,390.90	343.75	789	688.34	4.73	-0.39	0.04
125.00	-15.98	-1.40	0.00	-61.68	0.00	61.68	1,360.57	332.24	737	650.56	5.15	-0.41	0.03
126.28	-15.40	-1.37	0.00	-59.88	0.00	59.88	1,352.62	329.30	724	640.97	5.26	-0.41	0.03
126.28	-15.40	-1.37	0.00	-59.88	0.00	59.88	900.61	247.63	546	429.07	5.26	-0.41	0.04
130.00	-14.63	-1.33	0.00	-54.78	0.00	54.78	888.95	241.22	518	412.44	5.59	-0.43	0.04
135.00	-13.86	-1.29	0.00	-48.13	0.00	48.13	872.29	232.59	482	390.12	6.05	-0.45	0.03
140.00	-13.21	-1.25	0.00	-41.69	0.00	41.69	854.50	223.96	447	367.87	6.53	-0.46	0.03
140.00	-13.21	-1.25	0.00	-41.69	0.00	41.69	854.50	223.96	447	367.87	6.53	-0.46	0.04
145.00	-12.58	-1.21	0.00	-35.46	0.00	35.46	835.60	215.33	413	345.75	7.02	-0.48	0.03
150.00	-11.94	-1.16	0.00	-29.42	0.00	29.42	815.57	206.70	380	323.81	7.54	-0.50	0.03
155.00	-11.51	-1.13	0.00	-23.61	0.00	23.61	794.42	198.07	349	302.12	8.07	-0.52	0.02
158.50	-11.41	-1.12	0.00	-19.66	0.00	19.66	778.94	192.03	328	287.12	8.45	-0.53	0.02
158.50	-11.41	-1.12	0.00	-19.66	0.00	19.66	778.94	192.03	328	287.12	8.45	-0.53	0.08
160.00	-11.23	-1.11	0.00	-17.97	0.00	17.97	772.14	189.44	320	280.73	8.61	-0.53	0.08
163.00	-10.54	-1.06	0.00	-14.64	0.00	14.64	758.24	184.27	302	268.07	8.96	-0.56	0.07
165.00	-10.48	-1.05	0.00	-12.53	0.00	12.53	748.74	180.82	291	259.70	9.20	-0.58	0.06
166.00	-8.65	-0.89	0.00	-11.47	0.00	11.47	743.93	179.09	286	255.54	9.32	-0.59	0.06
170.00	-8.39	-0.87	0.00	-7.91	0.00	7.91	723.19	172.19	264	238.74	9.83	-0.62	0.05
175.00	-7.29	-0.76	0.00	-3.55	0.00	3.55	686.95	163.56	238	215.28	10.49	-0.64	0.03
176.00	-4.46	-0.48	0.00	-2.79	0.00	2.79	679.70	161.83	233	210.73	10.62	-0.65	0.02
179.50	-4.42	-0.47	0.00	-1.12	0.00	1.12	654.34	155.79	216	195.21	11.10	-0.65	0.01
180.00	-4.33	-0.46	0.00	-0.88	0.00	0.88	650.71	154.93	214	193.04	11.17	-0.65	0.01
181.90	0.00	-0.41	0.00	0.00	0.00	0.00	636.94	151.65	205	184.90	11.43	-0.65	0.00

ANALYSIS SUMMARY

Load Case	Base Reactions Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Max Usage Elev (ft)	Interaction Ratio
1.2D + 1.0W	29.50	0.00	68.50	0.00	0.00	3810.00	158.50	0.92
0.9D + 1.0W	29.47	0.00	51.36	0.00	0.00	3725.30	158.50	0.88
1.2D + 1.0Di + 1.0Wi	6.63	0.00	82.88	0.00	0.00	940.11	158.50	0.26
1.2D + 1.0Ev + 1.0Eh	1.81	0.00	68.09	0.00	0.00	278.68	158.50	0.09
0.9D - 1.0Ev + 1.0Eh	1.77	0.00	47.45	0.00	0.00	270.80	158.50	0.08
1.0D + 1.0W	7.66	0.00	57.12	0.00	0.00	975.27	158.50	0.24

ADDITIONAL STEEL SUMMARY

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors VQ/I (k/in)	Shear Applied (kips)	phiVn (kips)	Ratio	Max Member Pu (kip)	phiPn (kip)	Ratio
0.00	14.71	SOL #20 All Thread Bar	138.2	4.1	16.8	0.2466	207.6	330.5	
0.00	20.00	SOL 4 1/4" SOLID	439.8	7.3	38.3	0.1896	629.2	635.6	
20.00	80.00	SOL 4 1/4" SOLID	540.4	11.9	38.3	0.3107	620.3	633.4	
80.00	120.00	SOL 4" SOLID	585.0	12.9	38.3	0.3363	479.5	560.5	
120.00	140.00	SOL 3 1/2" SOLID	605.4	13.3	38.3	0.348	323.1	428.0	
140.00	158.50	SOL 3" SOLID	590.2	13.0	38.3	0.3393	232.7	313.1	

Elev From (ft)	Elev To (ft)	Member	Upper Termination Connectors MQ/I (kips)	phiVn (kips)	Number Required	Number Actual	Ratio	Lower Termination Connectors MQ/I (kips)	phiVn (kip)	Number Required	Number Actual	Ratio
0.00	14.71	SOL #20 All Thread Bar	196.9257	25.27	8	12	0.6494	0	25.27	0	0	0.0000
0.00	20.00	SOL 4 1/4" SOLID	0	12	0	8	0.0000	0	12	0	0	0.0000
20.00	80.00	SOL 4 1/4" SOLID	0	25.27	0	6	0.0000	0	25.27	0	8	0.0000
80.00	120.00	SOL 4" SOLID	0	25.27	0	6	0.0000	0	25.27	0	6	0.0000
120.00	140.00	SOL 3 1/2" SOLID	0	25.27	0	6	0.0000	0	25.27	0	6	0.0000
140.00	158.50	SOL 3" SOLID	130.5204	25.27	6	12	0.4304	0	25.27	0	6	0.0000

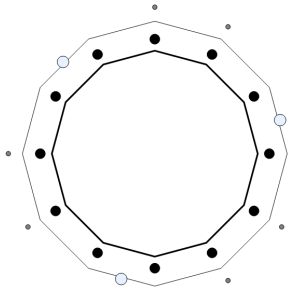
BASE PLATE ANALYSIS @ 0 FT

APPLIED REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
3810	68.5	29.5

PLATE PARAMETERS (ID# 28043)

Width:	55	in
Shape:	12	
Thickness:	2.5	in
Grade:	A572-50	
Yield Strength:	50	ksi
Tensile Strength:	65	ksi
Rod Detail Type:	d	
Clear Distance	3.75	in
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Elastic	
Neutral Axis:	0	°



ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	F_y (ksi)	F_u (ksi)	Spacing (in)	Offset (°)
Original [ID#28777]	Radial	12	2.25	49.25	A615-75	75	100	-	-
Bypass [ID#28778]	Cluster	6	1	63	Not Listed	109	125		-

DYWIDAG BAR PARAMETERS

Quantity	Bar Size	Bar Diameter (in)	F_y (ksi)	F_u (ksi)	Bracket Type	Bracket Offset (in)	Circle (in)	Offset (°)
3 [ID# 2521]	#20	2.5	80	100	W5x19	5.15	55.80	15

COMPONENT PROPERTIES

Component	ID	Gross Area (in^2)	Net Area (in^2)	Individual Inertia (in^4)	Moment of Inertia (in^4)	Threads/in
Pole	43"ø x 0.375" (12 Sides)	49.6447	-	-	11277.22	-
Bolt Group	Original (12) 2.25"ø	3.9761	3.2477	0.8393	10600.25	4.5
Bolt Group	Bypass (6) 1"ø	0.7854	0.6057	0.0292	1803.33	8.0
Dywidag Group	(3) #20	4.9087	4.9087	1.9175	5737.27	-

REACTION DISTRIBUTION

Component	ID	Moment M_u (k-ft)	Axial Load P_u (k)	Shear V_u (k)	Moment Factor
Pole	43"ø x 0.375" (12 Sides)	2177.1	68.50	29.50	0.571
Bolt Group	Original (12) 2.25"ø	2177.1	-	29.50	0.571
Bolt Group	Bypass (6) 1"ø	348.1	-	0.00	0.091
Dywidag Group	(3) #20	1284.7	-	-	0.337

BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES

Flat-to-Flat Diameter:	43.12	in	Flat Width:	11.555	in	Neutral Axis:	0	°
Point-to-Point Diameter:	44.65	in	Flat Radians:	0.524	rad	Bend Line Limits:	1.194 to 1.948	rad
Orientation Offset:	-	º						

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	30.186	0.00	47.166	332.3	2122.5	15.7%	✓
Corners	27.887	0.00	43.573	187.8	1960.8	9.6%	✓
Circumferential	30.283	0.00	47.317	187.8	2129.3	8.8%	✓

ELASTIC 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)	Compressive Result	Interaction Result	
Original	12	2.25	189.9	0.0	243.6	0.779	77.9%	✓
Bypass	6	1	45.2	0.0	56.8	0.797	79.7%	✓

DYWIDAG BAR ANALYSIS

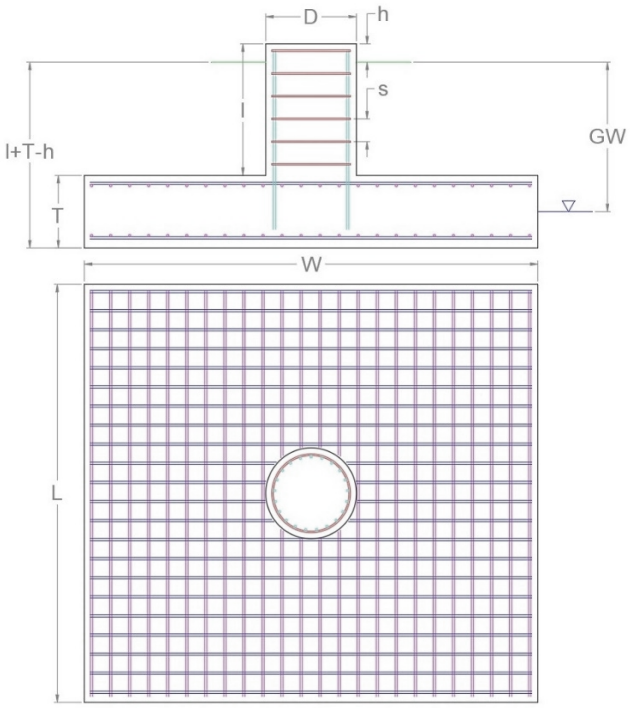
Group Quantity	Bar Size	Bar Circle (in)	Applied Axial Load P_u (k)	Compressive Capacity ΦP_n (k)	Compressive Result P_u / ΦP_n	
3	#20	55.80	267.9	368.2	72.8%	✓

APPLIED GLOBAL REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
3,810.00	68.50	29.50

FOUNDATION PARAMETERS

Mat Length:	L	20	ft
Mat Width:	W	20	ft
Mat Thickness:	T	3	ft
Base Depth:	L+T-h	8	ft
Pier Shape:		Square	
Pier Width:	D	6	ft
Pier Height above Grade:	h	0.5	ft
Concrete Compressive Strength:		3,000	psi
Mat Top Rebar:		(40) #5 bars [60 ksi]	
Mat Bottom Rebar:		(40) #10 bars [60 ksi]	
Pier Vertical Rebar:		(52) #11 bars [60 ksi]	
Pier Rebar Ties:	s	#4 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	-	ft
Soil Unit Weight:		136	pcf
Ultimate Skin Friction:		0	psf
Ultimate Bearing Pressure:		22,642	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, $M_{u,Design} / \Phi_m M_n$	
4,060.75	5,050.73	**80.4%**	✓

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, $P_{u,net} / \Phi_b P_n$	
5,576.00	16,982.00	Diagonal to Pad Edge	**32.8%**	✓

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, $V_u / \Phi_s V_n$	
29.50	0.00	884.0	53.04	155.50	**19.0%**	✓

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, $V_u / \Phi_c V_n$	
323.98	531.91	Diagonal to Pad Edge	**60.9%**	✓

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, $v_u / \Phi_c v_n$	
48.5	164.3	**29.5%**	✓

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, $0.6\ M_{ut} / \Phi M_{sc,f}$	
15.00	5.16	0.00	63,000.7	**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, $M_u / \Phi M_n$	
553.70	1,742.82	Parallel to Pad Edge	**31.8%**	✓

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, $M_u / \Phi M_n$	
2,384.30	7,447.82	Diagonal to Pad Edge	**32.0%**	✓

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
63.62	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, $M_u/\Phi_b M_n$	
3,972.25	11,356.30	0.016	**35.0%**	✓

PIER REINFORCING COMPRESSION ANALYSIS

Design Compression, P_u (k)	Nominal Compressive Capacity, $\Phi_p P_n$ (k)	Pier Rebar Compressive Usage, $P_u / \Phi_p P_n$	
68.50	6,815.09	**1.0%**	✓

PIER REINFORCING SHEAR ANALYSIS

Design Shear, V_u (k)	Nominal Shear Capacity, $\Phi_v V_n$ (k)	Pier Rebar Shear Usage, $V_u / \Phi_v V_n$	
29.50	515.12	**5.7%**	✓

Flange Plate & Bolt Analysis at 0'

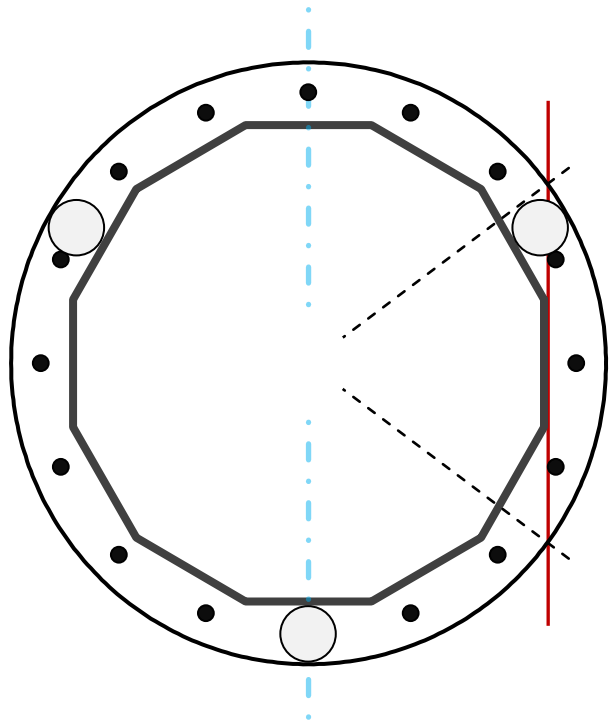
Pole Dimensions		
Number of Sides	12	-
Diameter	23.559	in
Thickness	3/16	in
Base Weld Size	3/16	in
Orientation Offset	15	°

Applied Reactions		
Moment, Mu	765.4	k-ft
Axial, Pu	20.7	k
Shear, Vu	17.3	k
Analysis Type	Elastic	
Neutral Axis	270	°

Report Capacities		
Component	Capacity	Result
Flange Plate	14%	Pass
Stiffeners	-	-
Bolts	43%	Pass
Dwyidag	41%	Pass

Flange Plate		
Shape	Round	-
Diameter, ø	30	in
Thickness	1 1/4	in
Grade	A36	
Yield Strength, Fy	36	ksi
Tensile Strength, Fu	58	ksi
Clip	N/A	in
Orientation Offset	0	°
Applied Moment, Mu	39.0	k
Bending Stress, ϕMn	286.1	k

Original Bolts		
Arrangement	Radial	-
Quantity	16	-
Diameter, ø	1	in
Bolt Circle	27	in
Grade	A325	
Yield Strength, Fy	92	ksi
Tensile Strength, Fu	120	ksi
Spacing	5.3	in
Orientation Offset		°
Applied Force, Pu	23.5	k
Anchor Rods, ϕPn	54.5	k



Dywidag Reinforcement		
Quantity	3	-
Bar Size	#28	in
Diameter, ø	3.5	in
Bracket Type	Angle	-
Circle	27.00	in
Orientation Offset	30	°
Applied Force, Pu	293.6	k
Dywidag Bar, ϕPn	721.6	k

Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	17.3	198.6	0.26
Anchor Rod Forces	17.3	198.6	0.26
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	566.8	0.74
Stiffener Forces	0.0	0.0	0.00

Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in^2	in^2	in^4	#	in^4
Pole	13.6102	1.1342	0.0133		929.44
Bolt	0.7854	0.6057	0.0292	8	803.76
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	9.6211	9.6211	7.3662		2652.27
Stiffener	0.0000	0.0000	0.0000		0.00

Base Plate		
Shape	Round	-
Diameter, D	30	in
Thickness, t	1.25	in
Yield Strength, Fy	36	ksi
Tensile Strength, Fu	58	ksi
Base Plate Chord	18.573	in
Detail Type	0.000	-
Detail Factor	#N/A	-
Clear Distance	N/A	-

Anchor Rods		
Anchor Rod Quantity, N	16	-
Rod Diameter, d	1	in
Bolt Circle, BC	27	in
Yield Strength, Fy	92	ksi
Tensile Strength, Fu	120	ksi
Applied Axial, Pu	23.5	k
Applied Shear, Vu	0.0	k
Compressive Capacity, ϕPn	54.5	k
Axial Result	43.0%	OK
Interaction Result	43.0%	OK

External Base Plate		
Chord Length AA	15.894	in
Additional AA	0.000	in
Section Modulus, Z	6.209	in^3
Applied Moment, Mu	24.4	k-in
Bending Capacity, ϕMn	201.2	k-in
Capacity, Mu/ϕMn	12.2%	OK
Chord Length AB	14.565	in
Additional AB	0.000	in
Section Modulus, Z	5.690	in^3
Applied Moment, Mu	13.7	k-in
Bending Capacity, ϕMn	184.3	k-in
Capacity, Mu/ϕMn	7.4%	OK
Bend Line Length	22.608	in
Additional Bend Line	0.000	in
Section Modulus, Z	8.831	in^3
Applied Moment, Mu	39.0	k-in
Bending Capacity, ϕMn	286.1	k-in
Capacity, Mu/ϕMn	13.6%	OK

Dywidag Reinforcement		
Dywidag Quantity, N	3	-
Dywidag Diameter, d	3.5	in
Bolt Circle, BC	27	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	293.6	k
Compressive Capacity, ϕPn	721.6	k
Capacity, Pu/ϕPn	40.7%	OK

Top Termination Weld Check

length	18	in
C	3.63889	per Table 8-4 AISC 14th Edition
Weld Size	0.1875	in
ϕRv	147.375	k
MQ/I	130.5204	k
Stress Ratio	0.89	

Date	1/31/2024
Engineer	TK
Site #	302502
Carrier	Verizon Wireless

EXHIBIT 4

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

Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10217898
Colliers Engineering & Design Project #: 21777534

January 12, 2024

Site Information	*Site ID:*	*5000054288-VZW / HARWINTON N CT*
	Site Name:	*HARWINTON N CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*159 Weingart Rd* *Harwinton, Connecticut 06791* *Litchfield County*
	Latitude:	*41.787753°*
	Longitude:	*-73.092531°*
Structure Information	*Tower Type:*	*Monopole*
	Mount Type:	*14.00-Ft Platform*

FUZE ID # 16244159

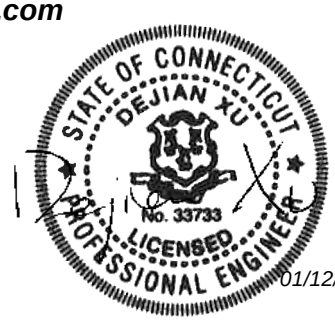
Analysis Results

Platform: **52.3% Pass w/ Modifications***

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

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

Report Prepared By: Grant Walters



01/12/2024

Executive Summary:

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

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

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS, Site ID: 324069, dated November 28, 2023*
Mount Mapping Report	*RKS Design & Engineering LLC, Site ID: ATC: 302502, VZW:467932, dated April 16, 2021*
Previous Mount Analysis	*Colliers Engineering & Design, Project #: 21777534 (Rev 1) dated December 19, 2023*
Mount Modification Drawings	*Colliers Engineering & Design, Project #: 21777534 dated January 12, 2024*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), Effective October 1, 2022	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	120 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	B
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.963
Seismic Parameters:	S_S:	0.177 g
	S_1:	0.054 g
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Load, Lv:	250 lbs.
	Maintenance Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
173.75	175.00	6	Antel	LPA-80063/6CF_5	Retained
		6	Commscope	JAHH-65B-R3B	
		1	Raycap	RHSDC-6627-PF-48	
		3	Samsung	MT6413-77A	Added
		3	Samsung	RF4461d-13A	
		3	Samsung	RF4439d-25A	
		3	Commscope	CBC78T-DS-43-2X	

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

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

Standard Conditions:

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

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

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

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

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

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

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

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

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

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

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

Analysis Results:

Component	Utilization %	Pass/Fail
Support Rail Corner	12.9%	Pass
Antenna Pipe	47.9%	Pass
V-Brace	13.0%	Pass
Kicker	12.0%	Pass
Support Rail	33.4%	Pass
Grating Corner Support	39.4%	Pass
Grating Support	13.9%	Pass
Outer Standoff	10.8%	Pass
Inner Standoff	23.1%	Pass
Face	52.3%	Pass
Mount Connection	9.9 %	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**52.3%**

Mount Connection Envelope Reactions:

Connection Description	Elev. AGL (Ft)	Node Label	Envelope Wind Reactions				Envelope Wind + Ice Reactions			
			Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)	Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)
Sector A Standoff	174.8	N2	426	1515	1.569	1.590	955	535	3.334	0.424
Sector C Standoff	174.8	N4	425	1412	1.544	1.389	959	439	3.312	0.347
Sector B Standoff	173.75	N3	428	1444	1.557	1.351	961	402	3.324	0.399
Sector B Bottom Reinforcement	169.6	N116	732	814	0.000	0.000	1786	2058	0.000	0.000
Sector A Bottom Reinforcement	169.6	N117	733	822	0.000	0.000	1770	2040	0.000	0.000
Sector C Bottom Reinforcement	169.6	N118	723	804	0.000	0.000	1716	1974	0.000	0.000
Sector A Top Reinforcement	176.1	N119	164	1526	0.891	0.322	231	430	0.311	0.103
Sector C Top Reinforcement	176.1	N127	115	1219	0.578	0.330	113	390	0.155	0.082
Sector B Top Reinforcement	176.1	N135	133	1500	0.708	0.354	121	542	0.228	0.117

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

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

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	40.5	40.4	55.4	55.4
0.5	51.3	51.3	72.6	72.6
1	61.0	61.0	88.5	88.5

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

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

Attachments:

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

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

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

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MDG #: 5000054288 SMART Project #: 10217898 Fuze Project ID: 16244159

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

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

Base Requirements:

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

Photo Requirements:

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

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

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

Material Certification:

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

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

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

OR

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

Antenna & Equipment Placement and Geometry Confirmation:

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

OR

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

Comments:

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

☐ Yes ☐ No

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

Issue:

Response:

Special Instruction Confirmation:

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

Comments:

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

☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

☐ Yes ☐ No

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

☐ Safety Climb in Good Condition ☐ Safety Climb Damaged

Comments:

Certifying Individual:

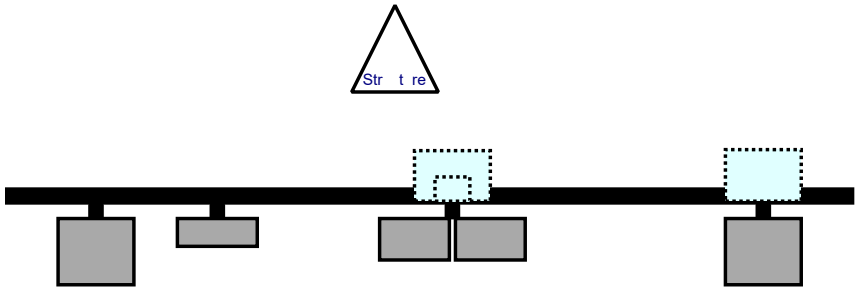
Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

Se tor: **A** 1/9/2024

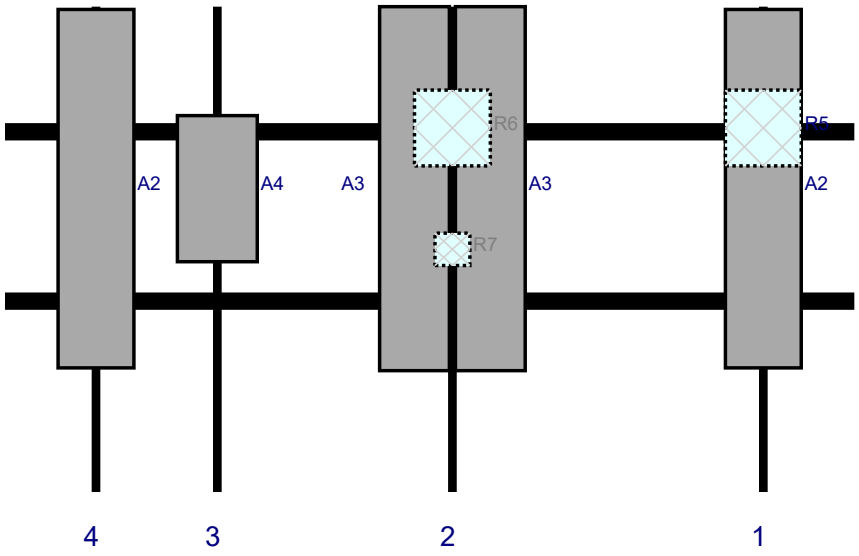
Str t re Type: Mo opole 10217898

Mo t Elev: 173.75 P ge: 1

Plan View

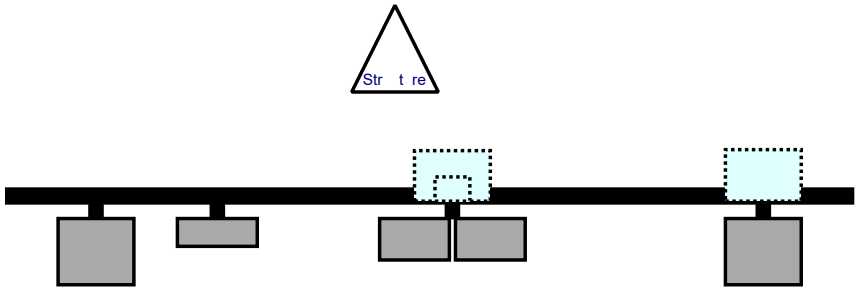


Front View - Loo i g t Str t re

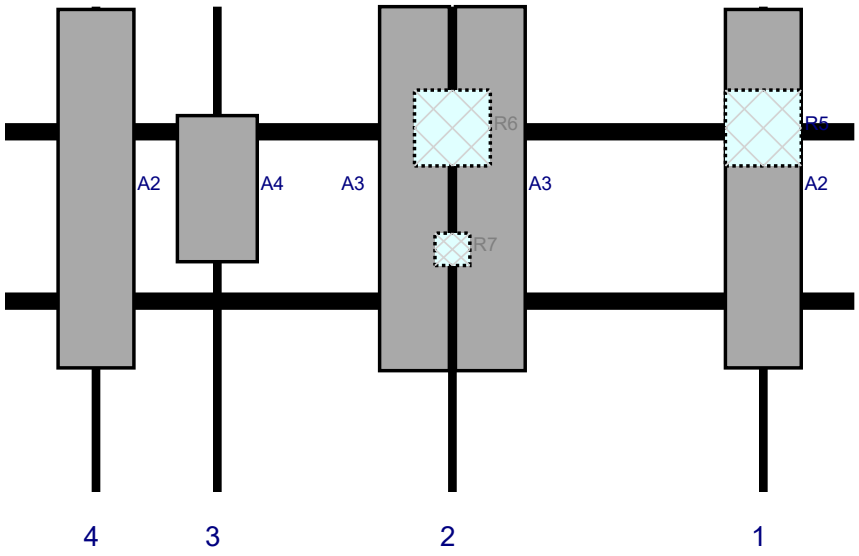


Re #	Model	Height (i)	Width (i)	H Dist Frm L.	Pipe #	Pipe Pos V	A t Pos	C. A t Frm T.	A t H O	St t s	V lid tio
A2	LPA-80063/6CF_5	70.9	15	150	1		Fro t	36	0	Ret i ed	04/16/2021
R5	RF4461d-13A	15	15	150	1		Behi d	24	0	Ret i ed	
A3	JAHH-65B-R3B	72	13.8	88.5	2		Fro t	36	-7.5	Ret i ed	04/16/2021
A3	JAHH-65B-R3B	72	13.8	88.5	2		Fro t	36	7.5	Ret i ed	04/16/2021
R6	RF4439d-25A	15	15	88.5	2		Behi d	24	0	Ret i ed	
R7	CBC78T-DS-43-2X	6.4	6.9	88.5	2		Behi d	48	0	Ret i ed	
A4	MT6413-77A	28.9	15.8	42	3		Fro t	36	0	Added	
A2	LPA-80063/6CF_5	70.9	15	18	4		Fro t	36	0	Ret i ed	04/16/2021
M31	RHSDC-6627-PF-48	29.5	16.5		Mem er					Ret i ed	04/16/2021

Plan View

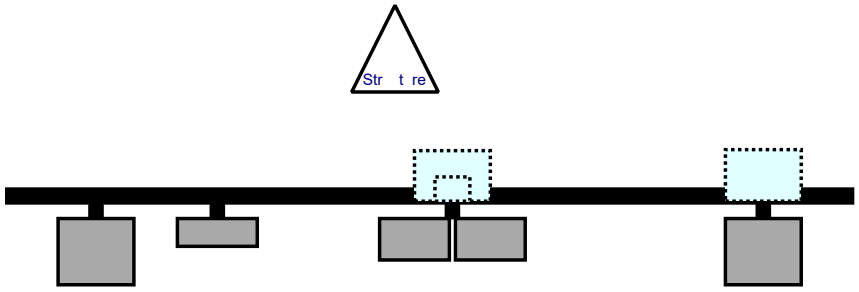


Front View - Loo i g t Str t re

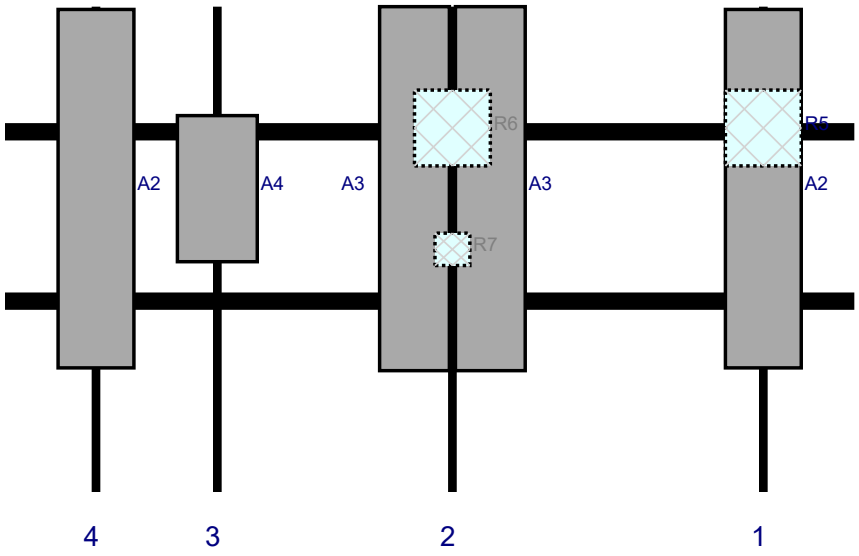


Re #	Model	Height (i)	Width (i)	H Dist Frm L.	Pipe #	Pipe Pos V	A t Pos	C. A t Frm T.	A t H O	St t s	V lid tio
A2	LPA-80063/6CF_5	70.9	15	150	1		Fro t	36	0	Ret i ed	04/16/2021
R5	RF4461d-13A	15	15	150	1		Behi d	24	0	Ret i ed	
A3	JAHH-65B-R3B	72	13.8	88.5	2		Fro t	36	-7.5	Ret i ed	04/16/2021
A3	JAHH-65B-R3B	72	13.8	88.5	2		Fro t	36	7.5	Ret i ed	04/16/2021
R6	RF4439d-25A	15	15	88.5	2		Behi d	24	0	Ret i ed	
R7	CBC78T-DS-43-2X	6.4	6.9	88.5	2		Behi d	48	0	Ret i ed	
A4	MT6413-77A	28.9	15.8	42	3		Fro t	36	0	Added	
A2	LPA-80063/6CF_5	70.9	15	18	4		Fro t	36	0	Ret i ed	04/16/2021

Plan View



Front View - Loo i g t Str t re



Re #	Model	Height (i)	Width (i)	H Dist Frm L.	Pipe #	Pipe Pos V	A t Pos	C. A t Frm T.	A t H O	St t s	V lid tio
A2	LPA-80063/6CF_5	70.9	15	150	1		Fro t	36	0	Ret i ed	04/16/2021
R5	RF4461d-13A	15	15	150	1		Behi d	24	0	Ret i ed	
A3	JAHH-65B-R3B	72	13.8	88.5	2		Fro t	36	-7.5	Ret i ed	04/16/2021
A3	JAHH-65B-R3B	72	13.8	88.5	2		Fro t	36	7.5	Ret i ed	04/16/2021
R6	RF4439d-25A	15	15	88.5	2		Behi d	24	0	Ret i ed	
R7	CBC78T-DS-43-2X	6.4	6.9	88.5	2		Behi d	48	0	Ret i ed	
A4	MT6413-77A	28.9	15.8	42	3		Fro t	36	0	Added	
A2	LPA-80063/6CF_5	70.9	15	18	4		Fro t	36	0	Ret i ed	04/16/2021


04/16/2021 09:07


04/16/2021 09:53

V4.0 Updated on 3-31-2021

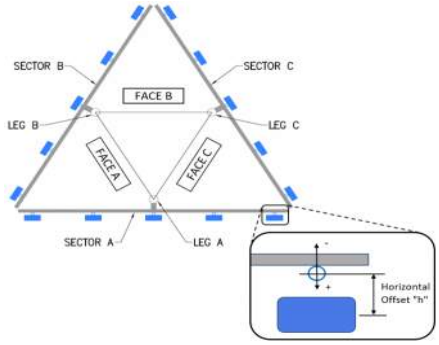
PAUL J. FORD & COMPANY

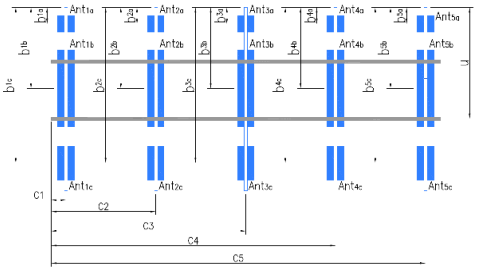
Antenna Mount Mapping Form (PATENT PENDING)

FCC # UNKNOWN

Tower Owner:	ATC	**Mapping Date:**	4/16/2021
Site Name:	ATC: HARWINTON, VZW: HARWINTON N CT	**Tower Type:**	MONOPOLE
Site Number or ID:	ATC: 302502, VZW:467932	**Tower Height (Ft.):**	UNKNOWN
Mapping Contractor:	RKS Design & Engineering, LLC	**Mount Elevation (Ft.):**	172.75

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" Ø X 0.15" X 72" LON	46.00	18.50	C1	PIPE 2.375" Ø X 0.15" X 72" LONG	46.00	18.50
A2	PIPE 2.375" Ø X 0.15" X 96" LON	58.25	79.50	C2	PIPE 2.375" Ø X 0.15" X 96" LONG	58.25	78.50
A3	PIPE 2.375" Ø X 0.15" X 96" LON	58.25	126.00	C3	PIPE 2.375" Ø X 0.15" X 96" LONG	58.25	124.00
A4	PIPE 2.375" Ø X 0.15" X 72" LON	46.00	150.00	C4	PIPE 2.375" Ø X 0.15" X 72" LONG	46.00	148.50
A5				C5			
A6				C6			
B1	PIPE 2.375" Ø X 0.15" X 72" LON	46.00	18.50	D1			
B2	PIPE 2.375" Ø X 0.15" X 96" LON	58.25	78.50	D2			
B3	PIPE 2.375" Ø X 0.15" X 96" LON	58.25	124.50	D3			
B4	PIPE 2.375" Ø X 0.15" X 72" LON	46.00	148.50	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.) :	7
Please enter additional infomation or comments below.	

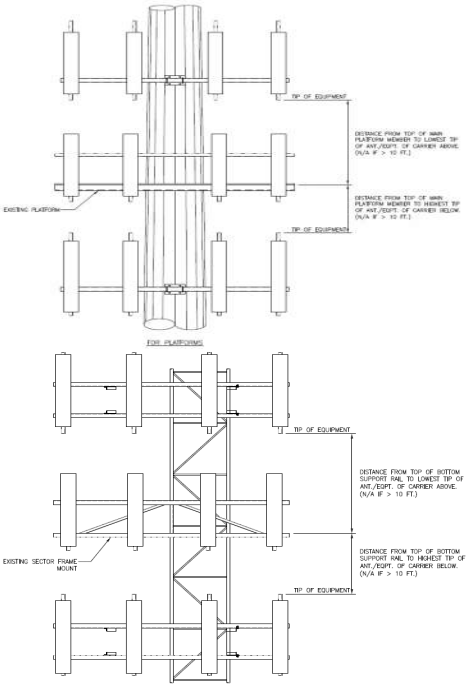
Tower Face Width at Mount Elev. (ft.):		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	16.25
For T-Arms/Platforms on monopoles, report the weld size from the main standoff to the plate bolting into the collar mount.			0.31

	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}	RRH 700	12.00	7.00	20.20		175.375	14.50	-7.50		246
Ant_{1b}	LPA-80063-6CF-EDIN-	15.20	13.10	71.10		174.021	30.75	14.75	35.00	14
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	(2)JAHH-65B-R3B	13.80	8.20	72.00		173.688	47.00	13.50	35.00	14, 328
Ant_{2c}										
Ant_{3a}	AHCA	11.60	6.50	13.30		176.625	11.75	9.25		14, 344
Ant_{3b}	(UHIE)B66A RRH 4X45	11.80	7.20	25.80		174.488	37.40	8.50		14, 335
Ant_{3c}	(UHFA)B25 RRH 4X30	12.00	7.20	21.20		174.375	38.75	-8.25		351
Ant_{4a}										
Ant_{4b}	LPA-80063-6CF-EDIN-	15.20	13.10	71.10		173.854	32.75	14.75	45.00	14, 365
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff	RHSDC-6627-PF-48	16.50	12.60	22.50			63.75	8.50		132
Ant on Standoff										
Ant on Tower										
Ant on Tower										

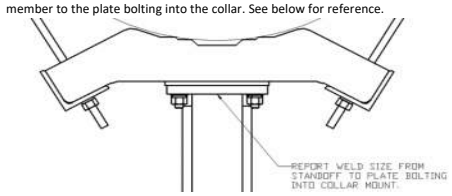
Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	20.00	Deg	Leg A:		Deg
Sector B:	140.00	Deg	Leg B:		Deg
Sector C:	260.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	260.00	Deg	Sector C
Climbing Facility	Corrosion Type:		N/A
	Access:		Climbing path was unobstructed.
	Condition:		Good condition.

Please insert a photo of the mount centerline measurement here.



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



Sector B										
Ant_{1a}	B13 RRH4X30	11.80	7.50	21.00		175.375	14.50	-7.50		378
Ant_{1b}	LPA-80063-6CF-EDIN-	15.20	13.10	71.10		174.021	30.75	14.75	160.00	23, 376
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	(2) JAHH-65B-R3B	13.80	8.20	72.00		173.688	47.00	13.50	150.00	23, 388
Ant_{2c}										
Ant_{3a}	AHCA	11.60	6.50	13.30		176.625	11.75	9.25		23,394
Ant_{3b}	(UHIE)B66A RRH 4X4	11.80	7.20	25.80		174.488	37.40	8.50		23, 398
Ant_{3c}	(UHFA)B25 RRH 4X30	12.00	7.20	21.20		174.375	38.75	-8.25		396
Ant_{4a}										
Ant_{4b}	LPA-80063-6CF-EDIN-	15.20	13.10	71.10		173.854	32.75	14.75	180.00	23, 404
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}	B13 RRH4X30	11.80	7.50	21.00		175.375	14.50	-7.50		414
Ant_{1b}	LPA-80063-6CF-EDIN-	15.20	13.10	71.10		174.021	30.75	14.75	290.00	30, 411
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	(2) JAHH-65B-R3B	13.80	8.20	72.00		173.688	47.00	13.50	300.00	30, 424
Ant_{2c}										
Ant_{3a}	AHCA	11.60	6.50	13.30		176.625	11.75	9.25		30, 430
Ant_{3b}	(UHIE)B66A RRH 4X4	11.80	7.20	25.80		174.488	37.40	8.50		30, 434
Ant_{3c}	(UHFA)B25 RRH 4X30	12.00	7.20	21.20		174.375	38.75	-8.25		432
Ant_{4a}										
Ant_{4b}	LPA-80063-6CF-EDIN-	15.20	13.10	71.10		173.854	32.75	14.75	300.00	30, 440
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #
1	COAX TOTAL(7): (6)FH 1-5/8, (1) 2" Ø HYBRID	51
2		
3		
4		
5		
6		
7		
8		

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

Mapping Notes
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.

V4.0 Updated on 3-31-2021

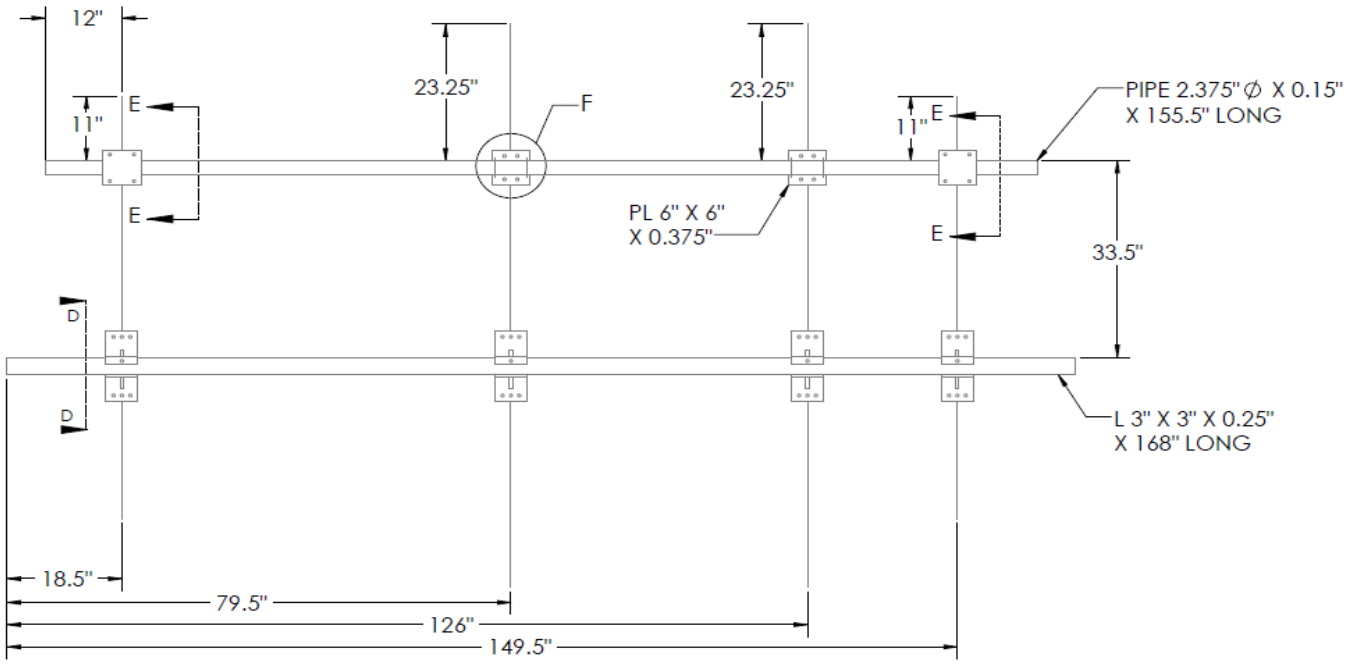
PAUL J. FORD & COMPANY

Antenna Mount Mapping Form (PATENT PENDING)

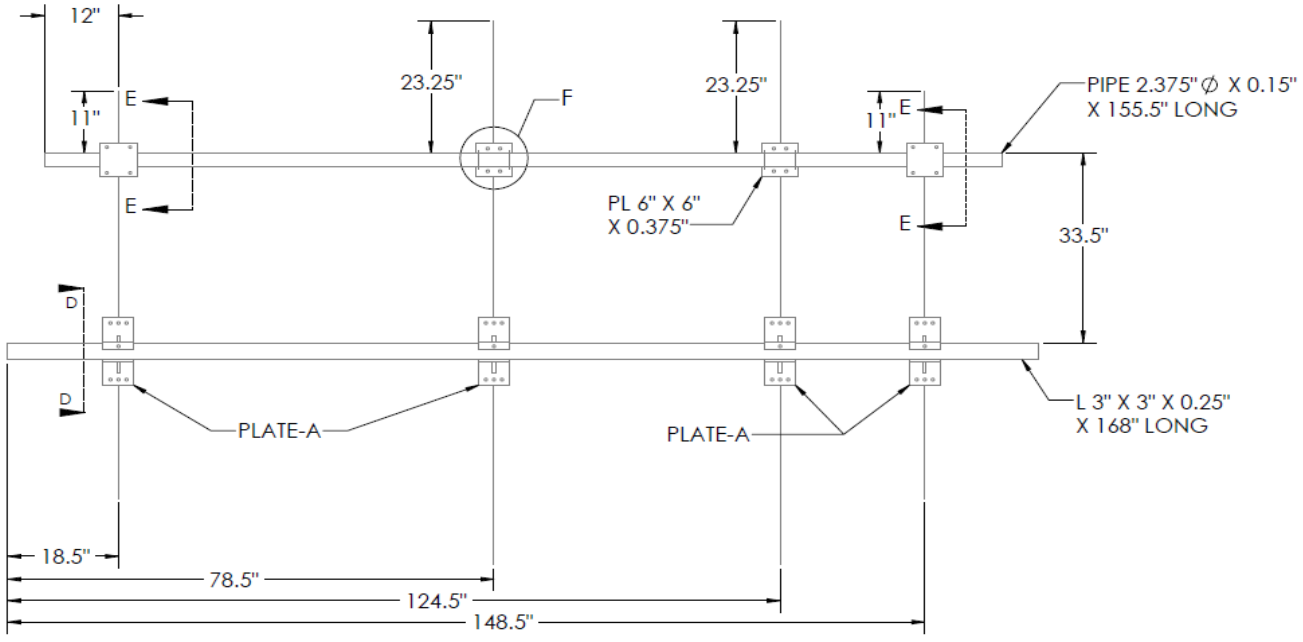
FCC #
UNKNOWN

Tower Owner:	ATC	**Mapping Date:**	4/16/2021
Site Name:	ATC: HARWINTON, VZW: HARWINTON N CT	**Tower Type:**	MONOPOLE
Site Number or ID:	ATC: 302502, VZW:467932	**Tower Height (Ft.):**	UNKNOWN
Mapping Contractor:	RKS Design & Engineering, LLC	**Mount Elevation (Ft.):**	172.75

Please Insert Sketches of the Antenna Mount

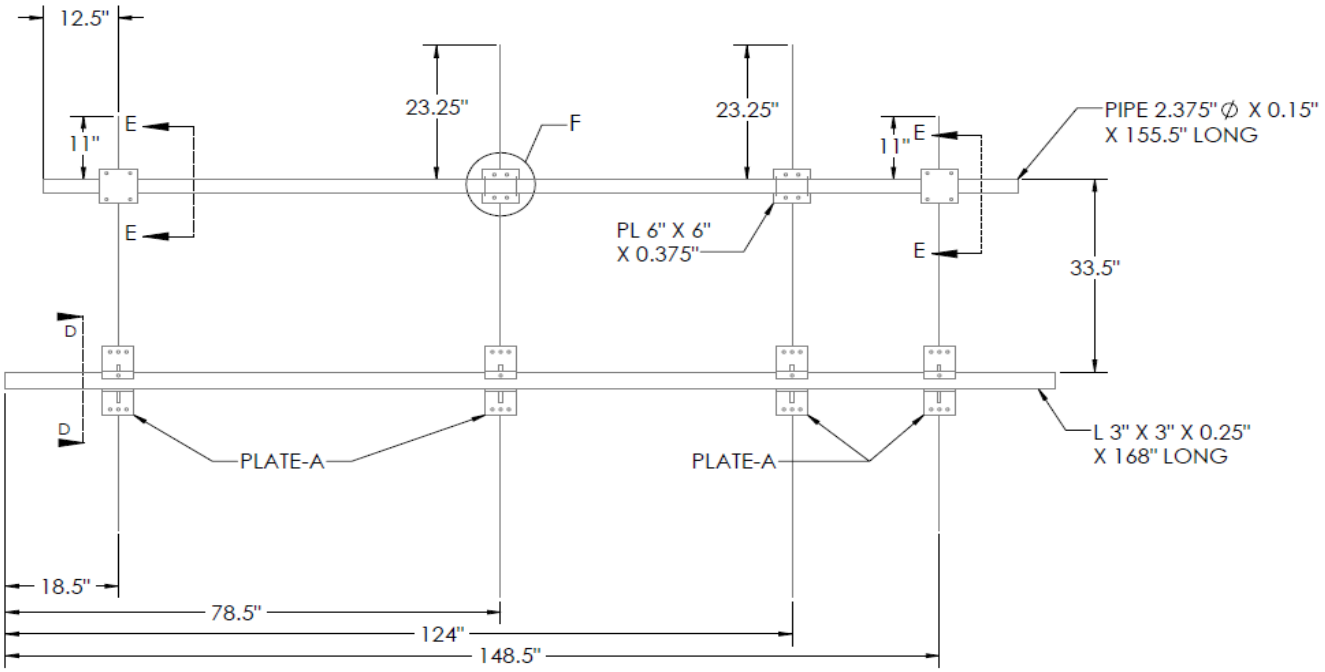


SECTOR-A

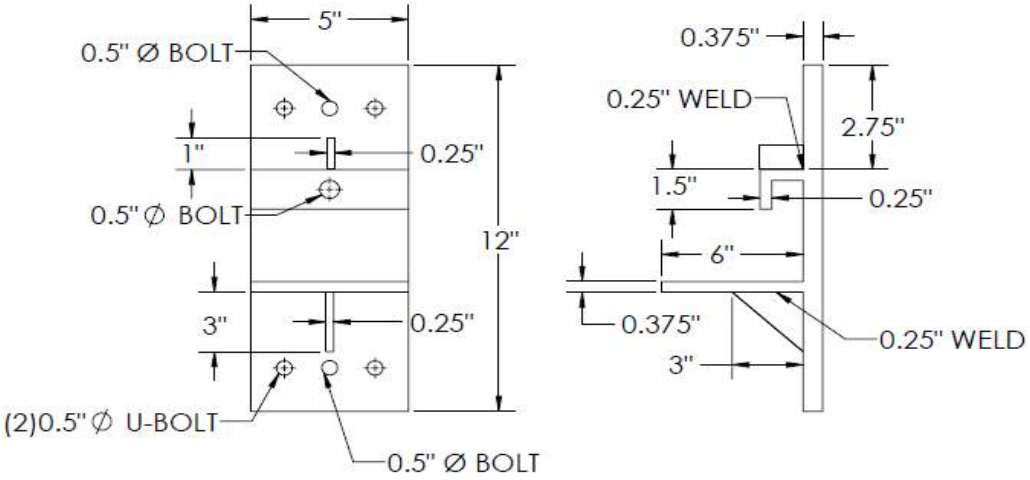


SECTOR-B

Please Insert Sketches of the Antenna Mount, cont'd



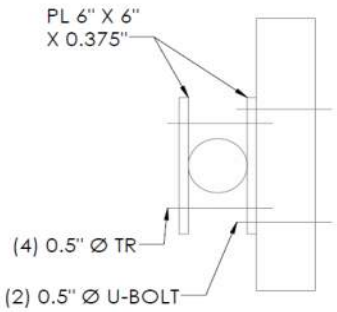
SECTOR-C



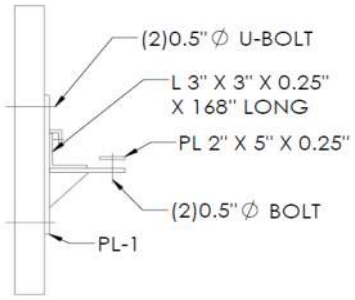
FRONT VIEW **SIDE VIEW**

DETAIL OF PL-A

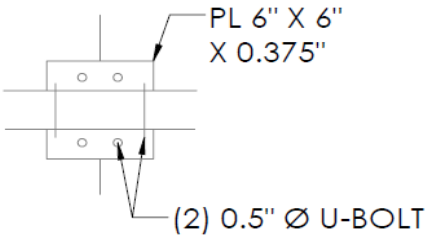
Please Insert Sketches of the Antenna Mount, cont'd



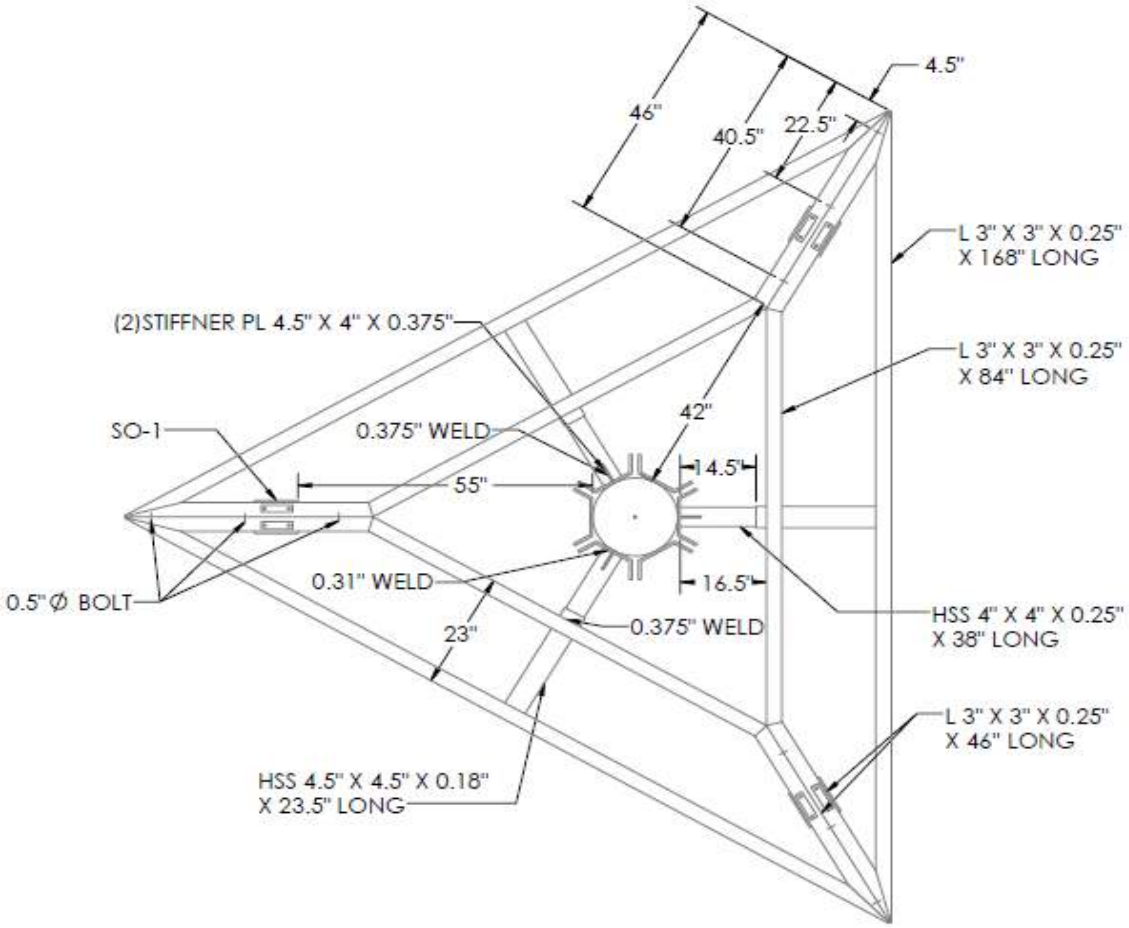
SECTION E-E



SECTION D-D

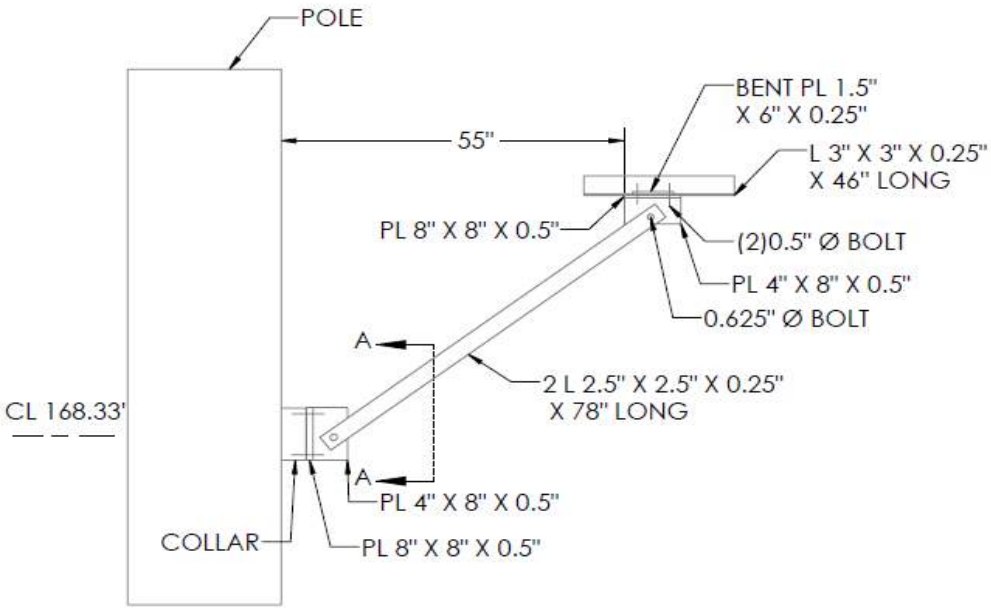


DETAIL F

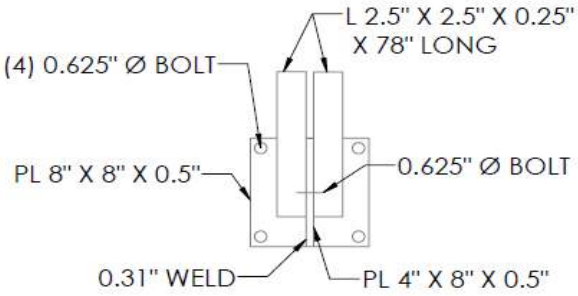


MOUNT PLAN VIEW

Please Insert Sketches of the Antenna Mount, cont'd

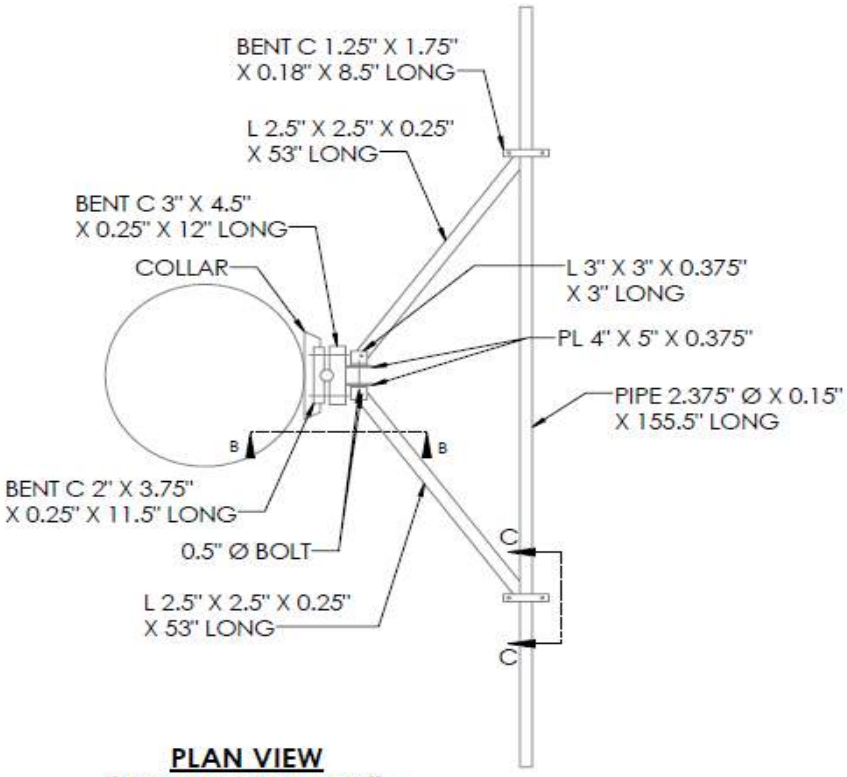


STAND OFF VIEW-1

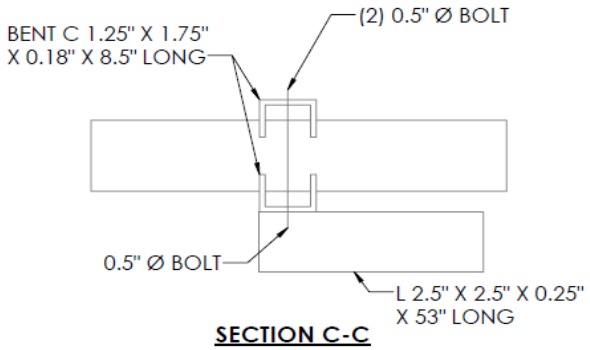


SECTION A-A

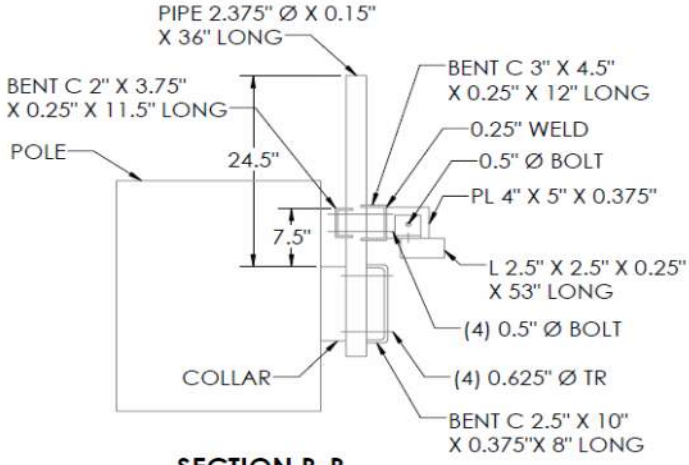
Please Insert Sketches of the Antenna Mount, cont'd



PLAN VIEW
(MOUNT CL 175.08')



SECTION C-C



SECTION B-B

V4.0 Updated on 3-31-2021

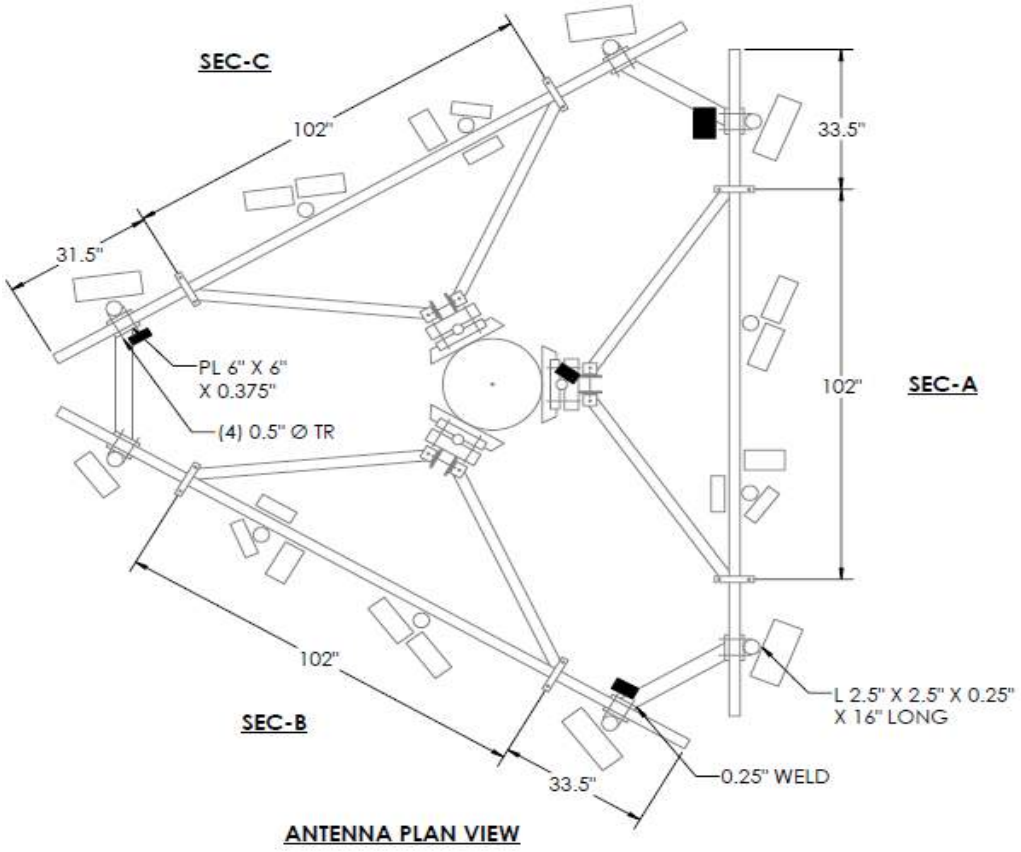
PAUL J. FORD & COMPANY

Antenna Mount Mapping Form (PATENT PENDING)

FCC #
UNKNOWN

Tower Owner:	ATC	**Mapping Date:**	4/16/2021
Site Name:	ATC: HARWINTON, VZW: HARWINTON N CT	**Tower Type:**	MONOPOLE
Site Number or ID:	ATC: 302502, VZW:467932	**Tower Height (Ft.):**	UNKNOWN
Mapping Contractor:	RKS Design & Engineering, LLC	**Mount Elevation (Ft.):**	172.75

Please Insert Sketches of the Antenna Mount



ANTENNA PLAN VIEW

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MOUNT MODIFICATION DRAWINGS
EXISTING 14.00' PLATFORM

TOWER OWNER: AMERICAN TOWER CORPORATION
TOWER OWNER SITE NUMBER: 302502

CARRIER SITE NAME: HARWINTON N CT
CARRIER SITE NUMBER: 5000054288
FUZE ID: 16244159

159 WEINGART RD
HARWINTON, CT 06791
LITCHFIELD COUNTY

LATITUDE: 41.78775300° N
LONGITUDE: 73.09253100° W

DESIGN CRITERIA

WIND LOADS

BASIC WIND SPEED (3 SECOND GUST), V = 120 MPH
EXPOSURE CATEGORY B
TOPOGRAPHIC CATEGORY: 1
TOPOGRAPHIC CONSIDERED: N/A
TOPOGRAPHIC METHOD: N/A
MEAN BASE ELEVATION (AMSL) = 1045.58'

ICE LOADS

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

SEISMIC LOADS

SEISMIC DESIGN CATEGORY B
SHORT TERM MCER GROUND MOTION, S_S = .177
LONG TERM MCER GROUND MOTION, S_1 = .054

PROJECT INFORMATION

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON WIRELESS

PROJECT MANAGER

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

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 10217898
VZW MDG #: 5000054288
ANALYSIS DATE: 1/12/2023

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

SHEET INDEX

Colliers Engineering & Design

www.colliersengineering.com

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

SCALE: AS SHOWN
JOB NUMBER: 21777534

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	01/12/24	ISSUED FOR CONSTRUCTION	GHW	DX

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

SITE NAME:

HARWINTON N CT
5000054288

159 WEINGART RD
HARWINTON, CT 06791
LITCHFIELD COUNTY

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

SHEET TITLE: TITLE SHEET

SHEET NUMBER: ST-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

SECTION 1 - VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	VZWSMART	VZWSMART-PLK3	SUPPORT RAIL CORNER BRACKET		30	90
6		VZWSMART-MSK1	CROSSOVER PLATE		14	84

SECTION 2 - OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3			PROPOSED 30" LONG, L3x3x1/4	GALVANIZED. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1.	12	37

SECTION 3 - REQUIRED SAFETY CLIMB PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
1	PERFECT VISON	H42-0501-06	STANDOFF CLAMP BRACKET	OR EOR APPROVED EQUIVALENT	-	-
1	PERFECT VISION	PV-CMX-CG-BO	WIRE ROPE GUIDE	OR EOR APPROVED EQUIVALENT	-	-
					TOTAL:	211

NOTES:

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

VZWSMART KITS - APPROVED VENDORS

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

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

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

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

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

Colliers Engineering & Design

www.colliersengineering.com

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

SCALE : AS SHOWN

JOB NUMBER : 21777534

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	01/12/24	ISSUED FOR CONSTRUCTION	GHW	DX

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

SITE NAME:

HARWINTON N CT
5000054288

159 WEINGART RD
HARWINTON, CT 06791
LITCHFIELD COUNTY

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

SHEET TITLE : BILL OF MATERIALS

SHEET NUMBER : SBOM-1

GENERAL NOTES

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

STRUCTURAL STEEL

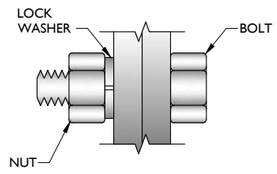
1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
   a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
   b. SPECIFICATION FOR STRUCTURAL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

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

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

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

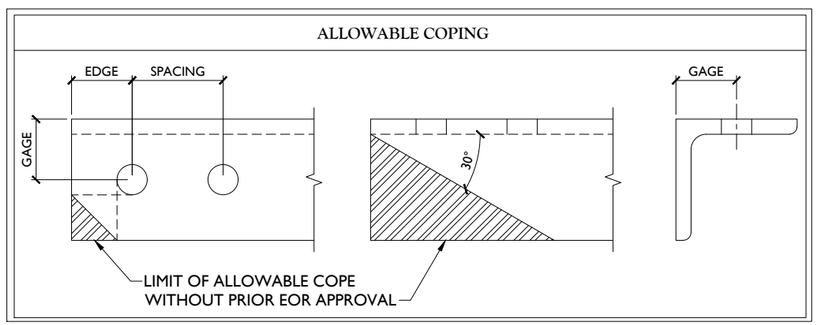
WORKABLE GAGES (IN.)	
LEG	**GAGE**
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8



TYP. BOLT ASSEMBLY

NOTES:

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



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SCALE: AS SHOWN
JOB NUMBER: 21777534

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	01/12/24	ISSUED FOR CONSTRUCTION	GHW	DX

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

SITE NAME:

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5000054288
159 WEINGART RD
HARWINTON, CT 06791
LITCHFIELD COUNTY

Colliers Engineering & Design
STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.324.0800
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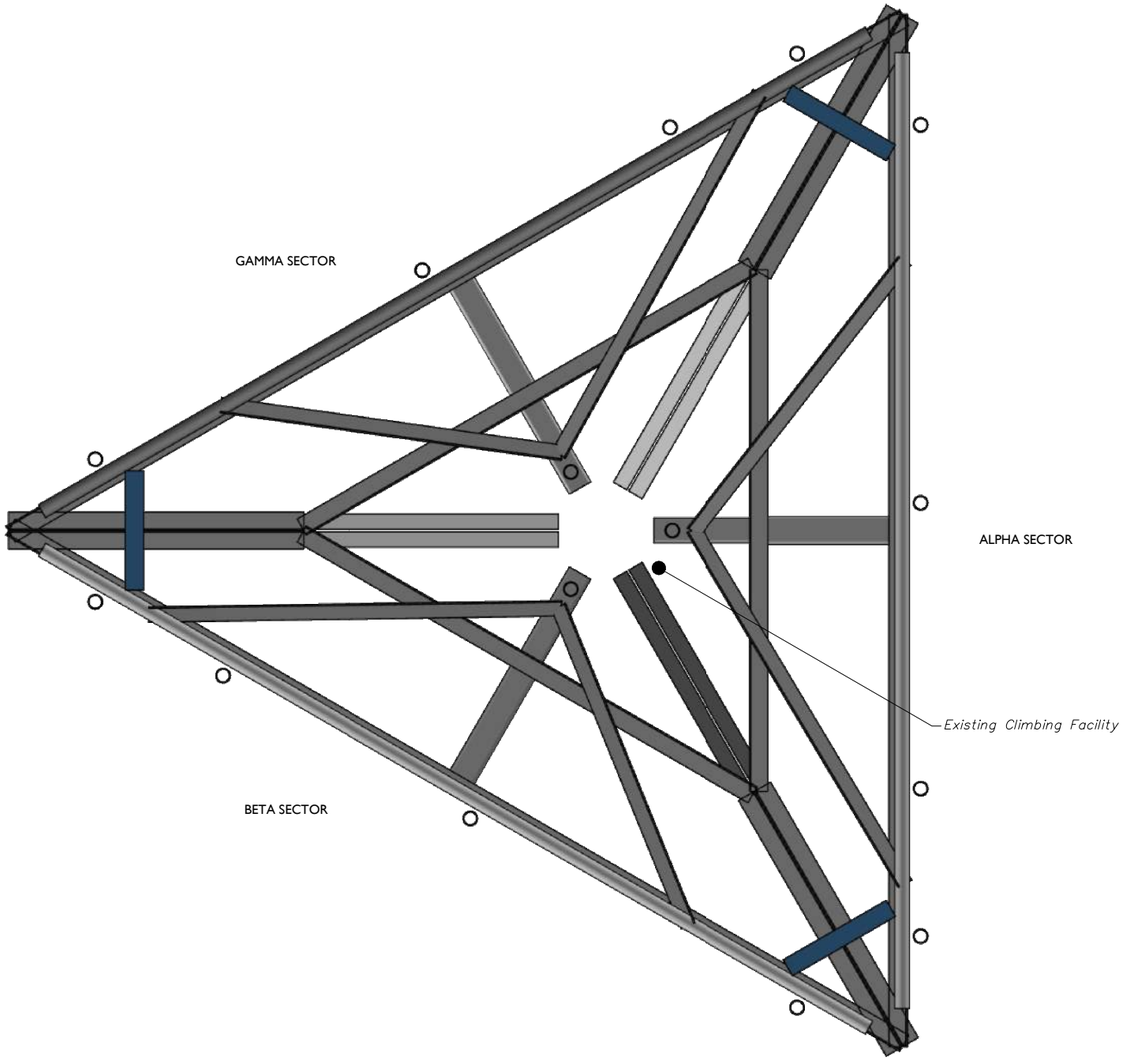
SHEET TITLE: GENERAL NOTES

SHEET NUMBER: SGN-1



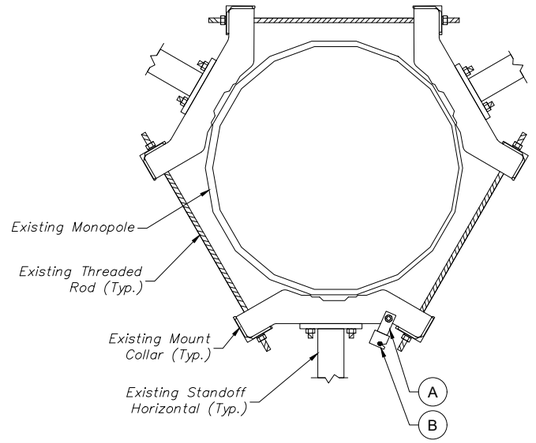
1 CLIMBING FACILITY LOCATION

SCALE : N.T.S.

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY RKS DESIGN & ENGINEERING LLC ON 4/16/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (173'-9") ARE IN GOOD CONDITION. COLLIERS ENGINEERING & DESIGN DOES NOT WARRANT THIS INFORMATION.

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



ITEM #	QTY	PART NUMBER	DESCRIPTIONS
A	1	H42-0501-06	STANDOFF CLAMP BRACKET (PERFECT VISION OR EOR APPROVED EQ.)
B	1	PV-CMX-CG-BO	WIRE ROPE GUIDE (PERFECT VISION OR EOR APPROVED EQ.)

2 PROPOSED WIRE ROPE GUIDE ATTACHMENT - PLAN VIEW

SCALE : N.T.S.

NOTE: CONTRACTOR SHALL ENSURE THAT WIRE ROPE GUIDE DOES NOT PUSH THE WIRE ROPE OUTSIDE OF THE VERTICAL PLANE OF THE SAFETY CLIMB. CONTRACT EOR WITH PHOTOS OF SAFETY CLIMB AND COLLAR FOR FURTHER DIRECTION IF NEEDED.

CLIMBING FACILITY PHOTO

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SCALE : AS SHOWN

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1055 Washington Boulevard
Stamford, CT 06901
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SHEET TITLE : CLIMBING FACILITY DETAIL

SHEET NUMBER : SCF-1

LEGEND:

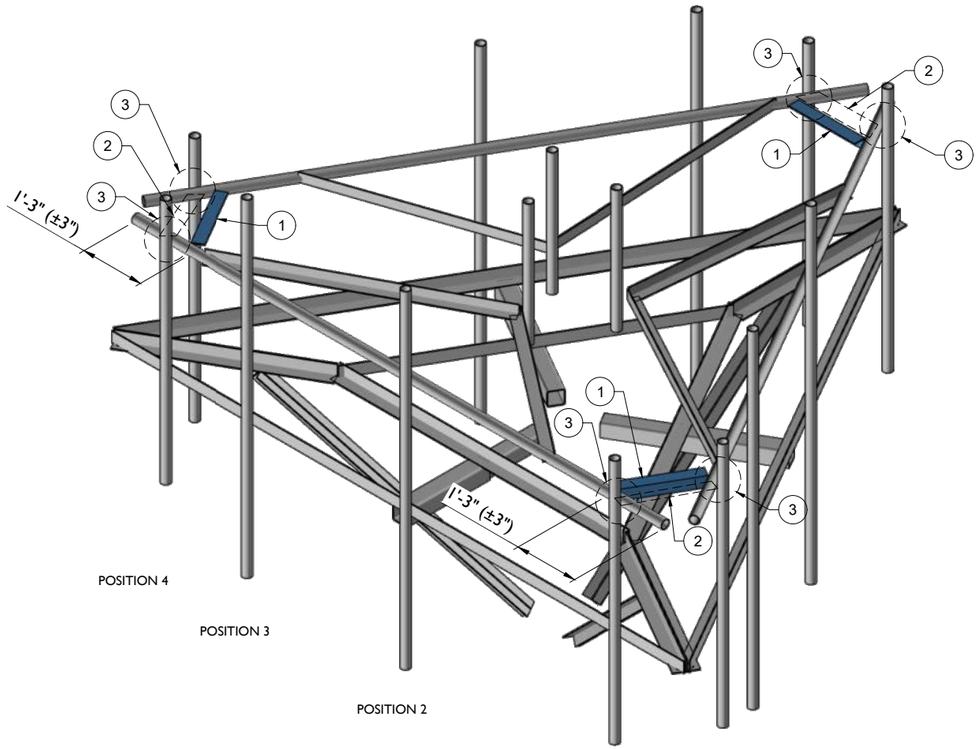
- PROPOSED
- RELOCATED
- EXISTING

MOUNT MODIFICATION SCHEDULE

NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	173'-9"	3	PROPOSED 30" LONG, L3x3x1/4 BRACING	CONTRACTOR SHALL CONNECT PROPOSED ANGLES TO SUPPORT RAIL CORNER BRACKET (PART #: VZWSMART-PLK3) USING THE PROVIDED (8) 5/8" DIA. BOLTS, (4) BOLTS PER CONNECTION. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1. REFER TO NOTE B.
2		3	REMOVED SUPPORT RAIL PLAN BRACING	CONTRACTOR SHALL REMOVE EXISTING PLAN BRACING AND ASSOCIATED HARDWARE. REFER TO NOTE A.
3		6	PROPOSED CROSSOVER PLATE (PART #: VZWSMART-MSK1)	CONNECT EXISTING MOUNT PIPES IN POSITIONS 1 AND 4 AS SEEN FROM BEHIND THE MOUNT OF EACH SECTOR TO EXISTING SUPPORT RAIL USING PROPOSED CROSSOVER PLATES (PART #: VZWSMART-MSK1).

GENERAL NOTES:

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



1 PROPOSED ISOMETRIC VIEW

SCALE : N.T.S.

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SHEET TITLE : MODIFICATION DETAILS

SHEET NUMBER : SS-1

MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3

MOUNT PHOTO 4

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SCALE : AS SHOWN

JOB NUMBER : 21777534

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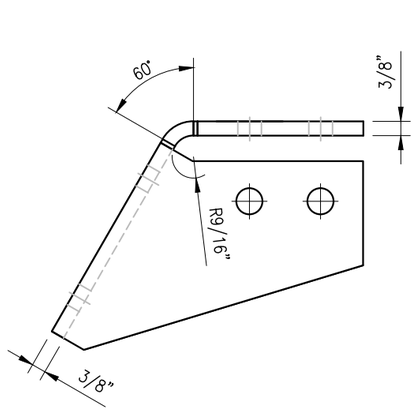
SHEET TITLE :

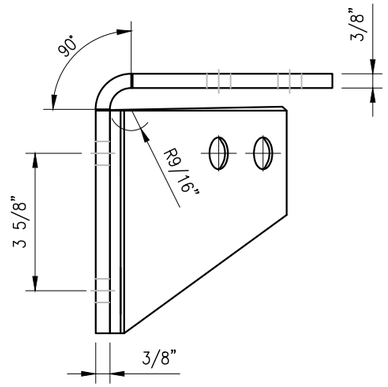
MOUNT PHOTOS

SHEET NUMBER :

SS-2

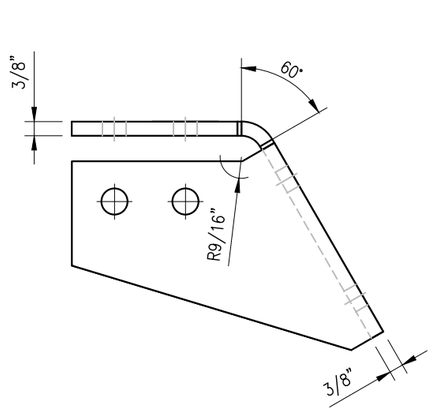


TOP VIEW

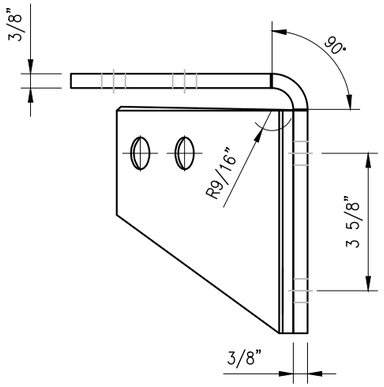


SIDE VIEW

CBP-L



TOP VIEW



SIDE VIEW

CBP-R

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

VZWSMART-PLK3 (SUPPORT RAIL CORNER BRACKET)

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

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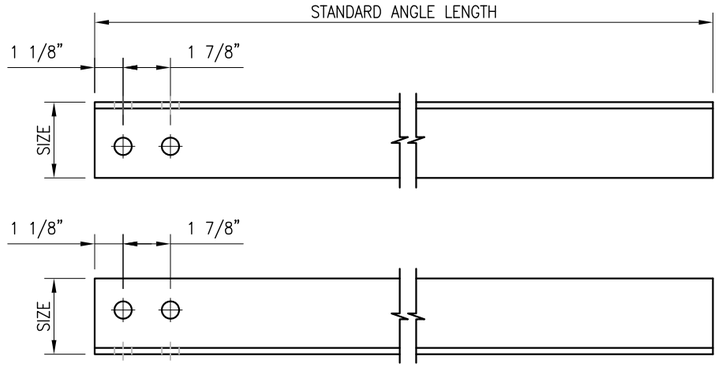
DRAWN BY: H.R | CHECKED BY: HMA

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

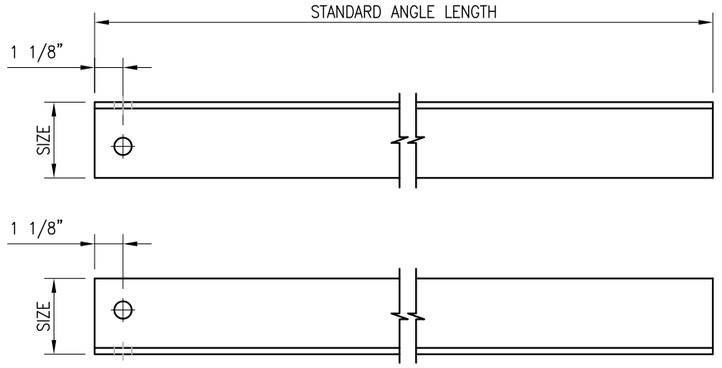
SHEET TITLE:
VZWSMART-PLK3 SUPPORT RAIL CORNER BRACKET

SHEET NUMBER: VZWSMART-PLK3

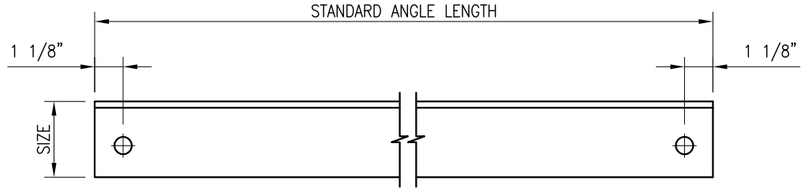
REV #: 0

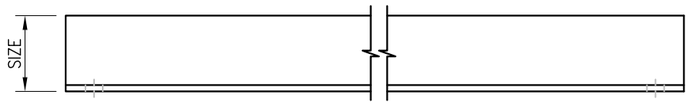


HOLE STYLE "A"

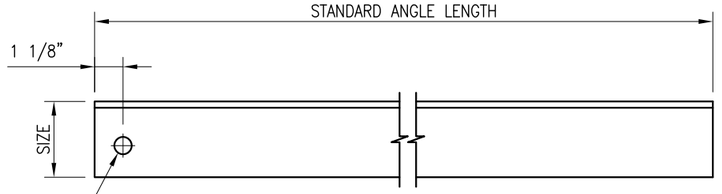


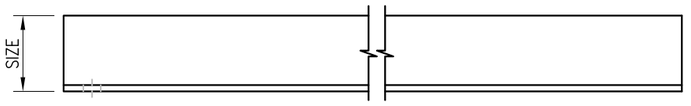
HOLE STYLE "B"





HOLE STYLE "C"





HOLE STYLE "D"

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

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

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

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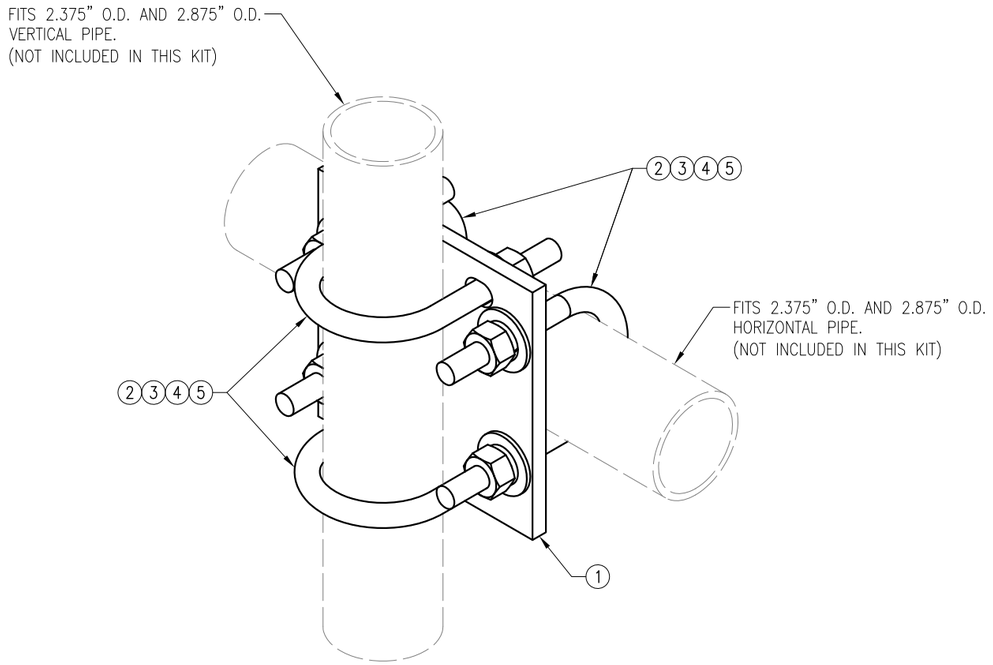
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	08/04/21

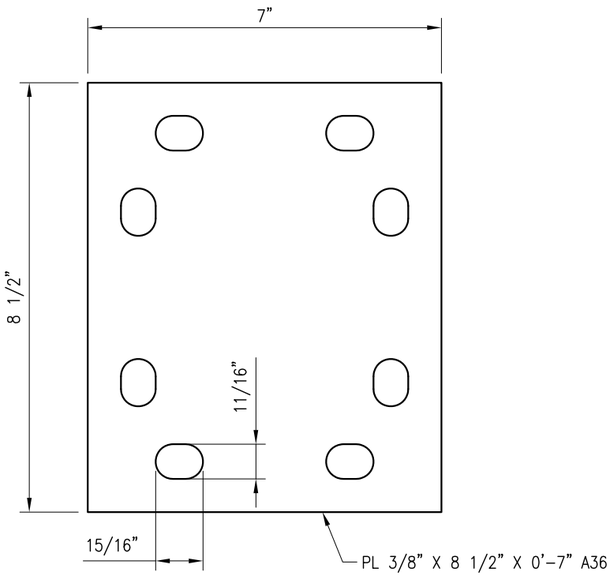
SHEET TITLE:

VZWSMART STANDARD ANGLE

SHEET NUMBER: VZWSMART-ANGLE

REV #: 0





PL375-857

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

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

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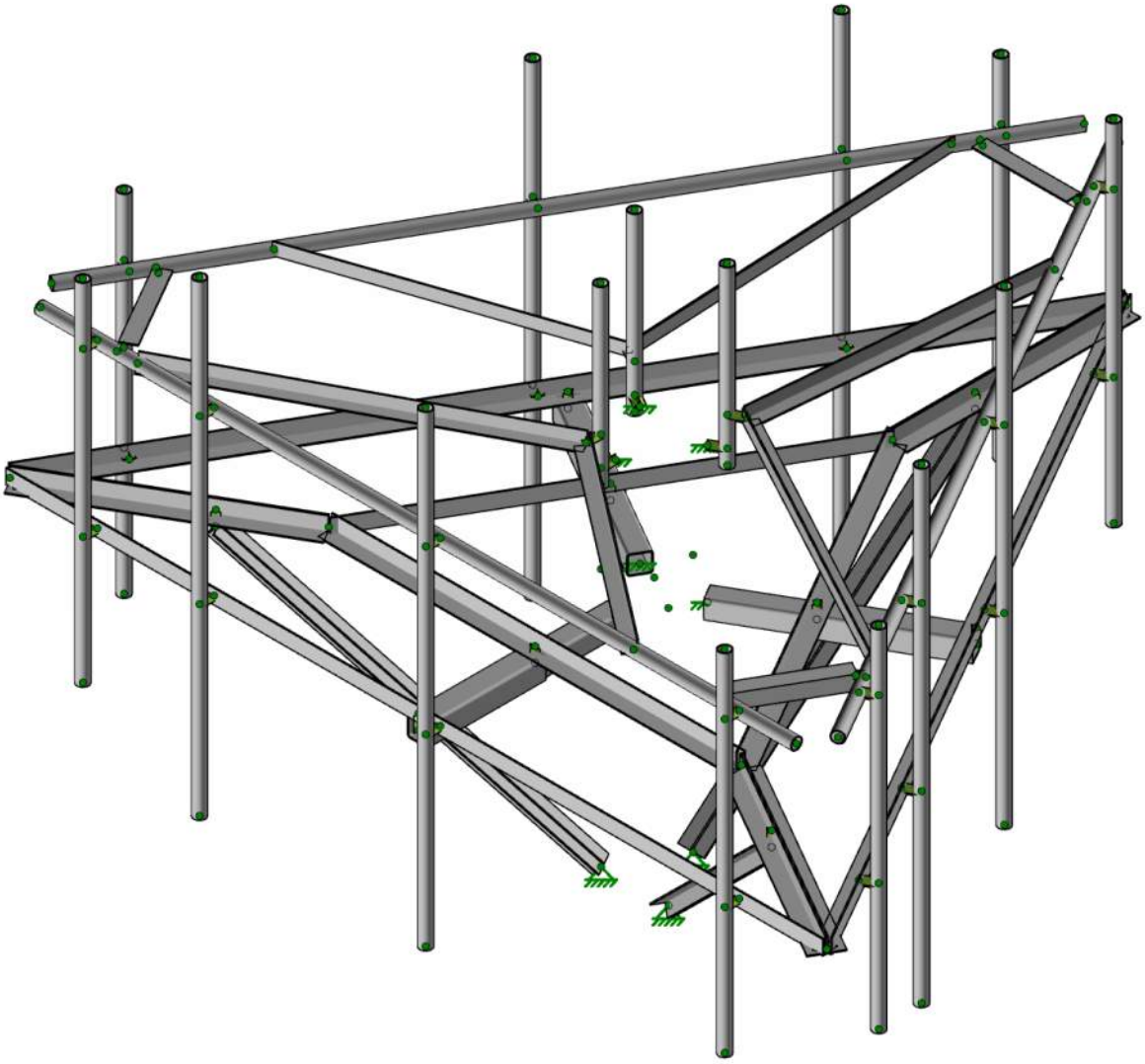
DRAWN BY: H.R | CHECKED BY: HMA

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

SHEET TITLE:
VZWSMART-MSK1
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK1

REV #: 0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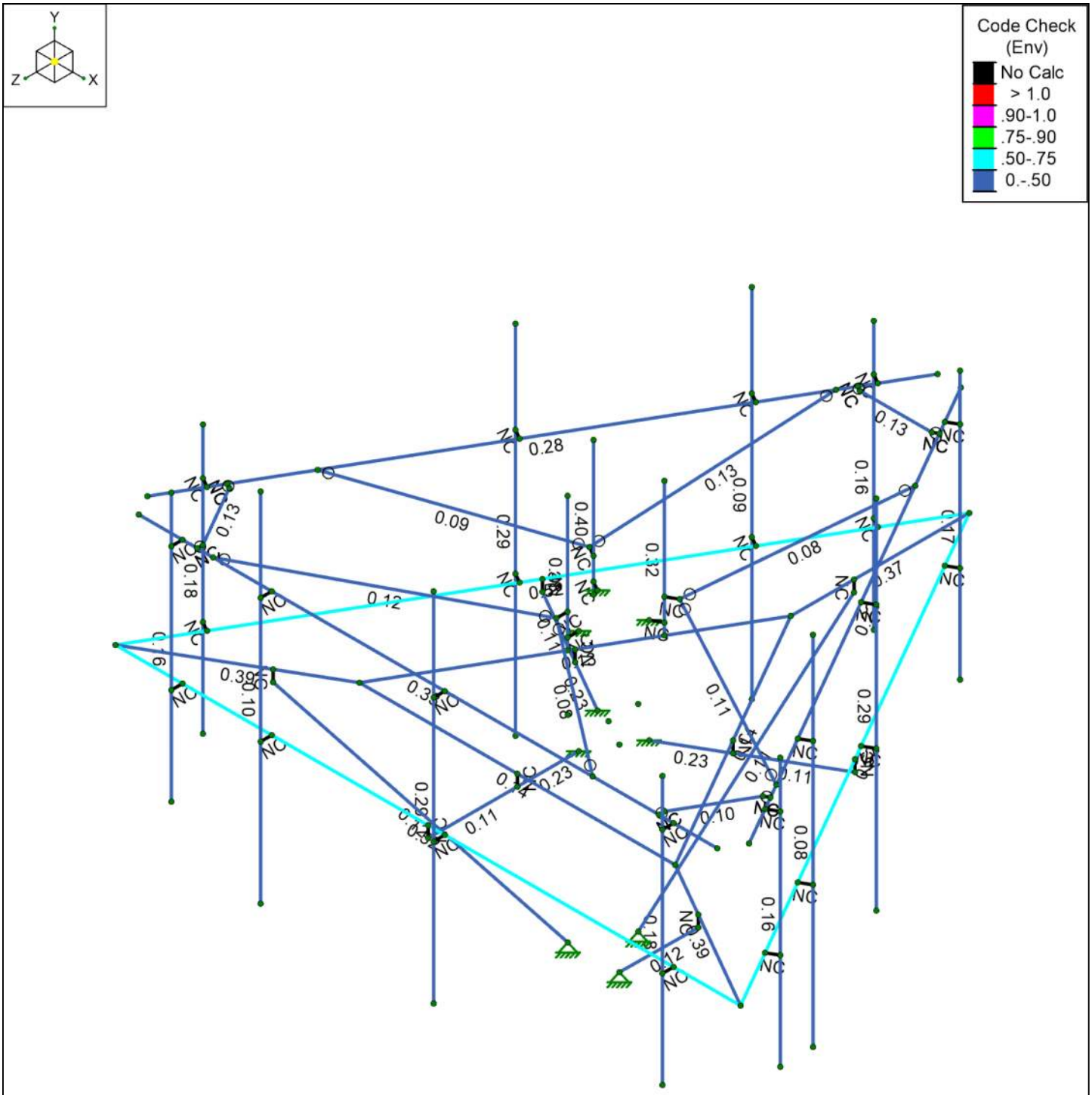

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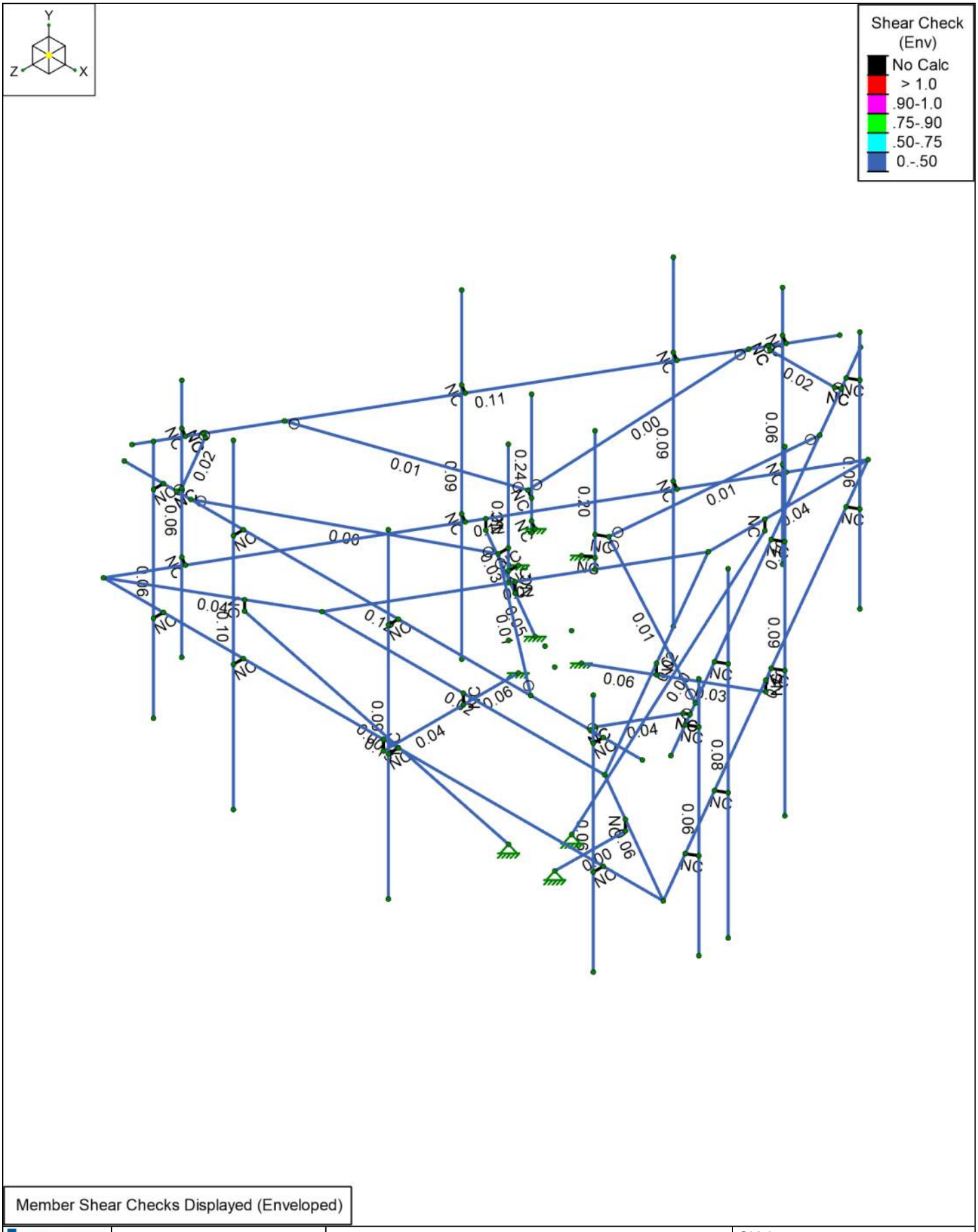

Member Shear Checks Displayed (Enveloped)

IRISA A NEMETSCHEK COMPANY			SK-3
			Jan 12, 2024 at 12:24 PM
			5000054288-VZW_MT_LO_...

Basic Load Cases

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

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
56	Structure Wi (90 Deg)	None					90	
57	Structure Wi (120 Deg)	None					90	
58	Structure Wi (150 Deg)	None					90	
59	Structure Wi (180 Deg)	None					90	
60	Structure Wi (210 Deg)	None					90	
61	Structure Wi (240 Deg)	None					90	
62	Structure Wi (270 Deg)	None					90	
63	Structure Wi (300 Deg)	None					90	
64	Structure Wi (330 Deg)	None					90	
65	Structure Wm (0 Deg)	None					90	
66	Structure Wm (30 Deg)	None					90	
67	Structure Wm (60 Deg)	None					90	
68	Structure Wm (90 Deg)	None					90	
69	Structure Wm (120 Deg)	None					90	
70	Structure Wm (150 Deg)	None					90	
71	Structure Wm (180 Deg)	None					90	
72	Structure Wm (210 Deg)	None					90	
73	Structure Wm (240 Deg)	None					90	
74	Structure Wm (270 Deg)	None					90	
75	Structure Wm (300 Deg)	None					90	
76	Structure Wm (330 Deg)	None					90	
77	Lm1	None				1		
78	Lm2	None				1		
79	Lv1	None				1		
80	Lv2	None				1		
81	Antenna Ev	None				120		
82	Antenna Eh (0 Deg)	None				80		
83	Antenna Eh (90 Deg)	None				80		
84	Structure Ev	ELY		-0.038				
85	Structure Eh (0 Deg)	ELZ			-0.094			
86	Structure Eh (90 Deg)	ELX	0.094					
87	BLC 39 Transient Area Loads	None					35	
88	BLC 40 Transient Area Loads	None					35	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.2D+1.0Wo (0 Deg)	Yes	Y	1	1.2	39	1.2	3	1	41	1								
2	1.2D+1.0Wo (30 Deg)	Yes	Y	1	1.2	39	1.2	4	1	42	1								
3	1.2D+1.0Wo (60 Deg)	Yes	Y	1	1.2	39	1.2	5	1	43	1								
4	1.2D+1.0Wo (90 Deg)	Yes	Y	1	1.2	39	1.2	6	1	44	1								
5	1.2D+1.0Wo (120 Deg)	Yes	Y	1	1.2	39	1.2	7	1	45	1								
6	1.2D+1.0Wo (150 Deg)	Yes	Y	1	1.2	39	1.2	8	1	46	1								
7	1.2D+1.0Wo (180 Deg)	Yes	Y	1	1.2	39	1.2	9	1	47	1								
8	1.2D+1.0Wo (210 Deg)	Yes	Y	1	1.2	39	1.2	10	1	48	1								
9	1.2D+1.0Wo (240 Deg)	Yes	Y	1	1.2	39	1.2	11	1	49	1								
10	1.2D+1.0Wo (270 Deg)	Yes	Y	1	1.2	39	1.2	12	1	50	1								
11	1.2D+1.0Wo (300 Deg)	Yes	Y	1	1.2	39	1.2	13	1	51	1								
12	1.2D+1.0Wo (330 Deg)	Yes	Y	1	1.2	39	1.2	14	1	52	1								
13	1.2D + 1.0Di + 1.0Wi (0 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	15	1	53	1				
14	1.2D + 1.0Di + 1.0Wi (30 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	16	1	54	1				
15	1.2D + 1.0Di + 1.0Wi (60 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	17	1	55	1				
16	1.2D + 1.0Di + 1.0Wi (90 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	18	1	56	1				
17	1.2D + 1.0Di + 1.0Wi (120 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	19	1	57	1				
18	1.2D + 1.0Di + 1.0Wi (150 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	20	1	58	1				
19	1.2D + 1.0Di + 1.0Wi (180 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	21	1	59	1				

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
20	1.2D + 1.0Di + 1.0Wi (210 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	22	1	60	1				
21	1.2D + 1.0Di + 1.0Wi (240 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	23	1	61	1				
22	1.2D + 1.0Di + 1.0Wi (270 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	24	1	62	1				
23	1.2D + 1.0Di + 1.0Wi (300 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	25	1	63	1				
24	1.2D + 1.0Di + 1.0Wi (330 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	26	1	64	1				
25	1.2D + 1.5Lm1 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	27	1	65	1						
26	1.2D + 1.5Lm1 + 1.0Wm (30 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	28	1	66	1						
27	1.2D + 1.5Lm1 + 1.0Wm (60 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	29	1	67	1						
28	1.2D + 1.5Lm1 + 1.0Wm (90 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	30	1	68	1						
29	1.2D + 1.5Lm1 + 1.0Wm (120 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	31	1	69	1						
30	1.2D + 1.5Lm1 + 1.0Wm (150 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	32	1	70	1						
31	1.2D + 1.5Lm1 + 1.0Wm (180 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	33	1	71	1						
32	1.2D + 1.5Lm1 + 1.0Wm (210 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	34	1	72	1						
33	1.2D + 1.5Lm1 + 1.0Wm (240 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	35	1	73	1						
34	1.2D + 1.5Lm1 + 1.0Wm (270 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	36	1	74	1						
35	1.2D + 1.5Lm1 + 1.0Wm (300 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	37	1	75	1						
36	1.2D + 1.5Lm1 + 1.0Wm (330 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	38	1	76	1						
37	1.2D + 1.5Lm2 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	27	1	65	1						
38	1.2D + 1.5Lm2 + 1.0Wm (30 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	28	1	66	1						
39	1.2D + 1.5Lm2 + 1.0Wm (60 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	29	1	67	1						
40	1.2D + 1.5Lm2 + 1.0Wm (90 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	30	1	68	1						
41	1.2D + 1.5Lm2 + 1.0Wm (120 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	31	1	69	1						
42	1.2D + 1.5Lm2 + 1.0Wm (150 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	32	1	70	1						
43	1.2D + 1.5Lm2 + 1.0Wm (180 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	33	1	71	1						
44	1.2D + 1.5Lm2 + 1.0Wm (210 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	34	1	72	1						
45	1.2D + 1.5Lm2 + 1.0Wm (240 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	35	1	73	1						
46	1.2D + 1.5Lm2 + 1.0Wm (270 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	36	1	74	1						
47	1.2D + 1.5Lm2 + 1.0Wm (300 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	37	1	75	1						
48	1.2D + 1.5Lm2 + 1.0Wm (330 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	38	1	76	1						
49	1.2D + 1.5Lv1	Yes	Y	1	1.2	39	1.2	79	1.5										
50	1.2D + 1.5Lv2	Yes	Y	1	1.2	39	1.2	80	1.5										
51	1.4D	Yes	Y	1	1.4	39	1.4												
52	1.2D + 1.0Ev + 1.0Eh (0 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	1	83		ELZ	1	ELX	
53	1.2D + 1.0Ev + 1.0Eh (30 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.866	83	0.5	ELZ	0.866	ELX	0.5
54	1.2D + 1.0Ev + 1.0Eh (60 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.5	83	0.866	ELZ	0.5	ELX	0.866
55	1.2D + 1.0Ev + 1.0Eh (90 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82		83	1	ELZ		ELX	1
56	1.2D + 1.0Ev + 1.0Eh (120 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.5	83	0.866	ELZ	-0.5	ELX	0.866
57	1.2D + 1.0Ev + 1.0Eh (150 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.866	83	0.5	ELZ	-0.866	ELX	0.5
58	1.2D + 1.0Ev + 1.0Eh (180 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-1	83		ELZ	-1	ELX	
59	1.2D + 1.0Ev + 1.0Eh (210 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.866	83	-0.5	ELZ	-0.866	ELX	-0.5
60	1.2D + 1.0Ev + 1.0Eh (240 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.5	83	-0.866	ELZ	-0.5	ELX	-0.866
61	1.2D + 1.0Ev + 1.0Eh (270 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82		83	-1	ELZ		ELX	-1
62	1.2D + 1.0Ev + 1.0Eh (300 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.5	83	-0.866	ELZ	0.5	ELX	-0.866
63	1.2D + 1.0Ev + 1.0Eh (330 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.866	83	-0.5	ELZ	0.866	ELX	-0.5
64	0.9D - 1.0Ev + 1.0Eh (0 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX	
65	0.9D - 1.0Ev + 1.0Eh (30 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.866	83	0.5	ELZ	0.866	ELX	0.5
66	0.9D - 1.0Ev + 1.0Eh (60 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.5	83	0.866	ELZ	0.5	ELX	0.866
67	0.9D - 1.0Ev + 1.0Eh (90 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82		83	1	ELZ		ELX	1
68	0.9D - 1.0Ev + 1.0Eh (120 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.5	83	0.866	ELZ	-0.5	ELX	0.866
69	0.9D - 1.0Ev + 1.0Eh (150 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.866	83	0.5	ELZ	-0.866	ELX	0.5
70	0.9D - 1.0Ev + 1.0Eh (180 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX	
71	0.9D - 1.0Ev + 1.0Eh (210 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.866	83	-0.5	ELZ	-0.866	ELX	-0.5
72	0.9D - 1.0Ev + 1.0Eh (240 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.5	83	-0.866	ELZ	-0.5	ELX	-0.866
73	0.9D - 1.0Ev + 1.0Eh (270 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX	-1
74	0.9D - 1.0Ev + 1.0Eh (300 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.5	83	-0.866	ELZ	0.5	ELX	-0.866

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
75	0.9D - 1.0Ev + 1.0Eh (330 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.866	83	-0.5	ELZ	0.866	ELX	-0.5

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	Face	L3X3X4	None	None	A36 Gr.36	Typical	1.44	1.23	1.23	0.031
2	Inner Standoff	HSS4X4X4	None	None	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
3	Outer Standoff	HSS4.5X4.5X4	None	None	A500 Gr.B Rect	Typical	3.84	11.4	11.4	18.5
4	Grating Support	L3X3X4	None	None	A36 Gr.36	Typical	1.44	1.23	1.23	0.031
5	Grating Corner Support	LL3X3X4X0	None	None	A36 Gr.36	Typical	2.88	4.5	2.46	0.063
6	Support Rail	PIPE_2.0	None	None	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
7	Support Rail Corner	L3X3X4	None	None	A36 Gr.36	Typical	1.44	1.23	1.23	0.031
8	Kicker	LL2.5X2.5X4X3	None	None	A36 Gr.36	Typical	2.38	3.31	1.38	0.052
9	V-Brace	L2.5X2.5X4	None	None	A36 Gr.36	Typical	1.19	0.692	0.692	0.026
10	Antenna Pipe	PIPE_2.0	None	None	A53 Gr.B	Typical	1.02	0.627	0.627	1.25

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [k/ft³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B Rnd	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	M1	N5	N6	270	Face	None	None	A36 Gr.36	Typical
2	M2	N7	N5	270	Face	None	None	A36 Gr.36	Typical
3	M3	N6	N7	270	Face	None	None	A36 Gr.36	Typical
4	M4	N20	N2		Inner Standoff	None	None	A500 Gr.B Rect	Typical
5	M5	N22	N3		Inner Standoff	None	None	A500 Gr.B Rect	Typical
6	M6	N21	N4		Inner Standoff	None	None	A500 Gr.B Rect	Typical
7	M7	N20	N8	90	Outer Standoff	None	None	A500 Gr.B Rect	Typical
8	M8	N22	N9	90	Outer Standoff	None	None	A500 Gr.B Rect	Typical
9	M9	N21	N10	90	Outer Standoff	None	None	A500 Gr.B Rect	Typical
10	M10	N12	N13	270	Grating Support	None	None	A36 Gr.36	Typical
11	M11	N13	N15	270	Grating Support	None	None	A36 Gr.36	Typical
12	M12	N15	N12	270	Grating Support	None	None	A36 Gr.36	Typical
13	M13	N12	N6	180	Grating Corner Support	None	None	A36 Gr.36	Typical
14	M14	N13	N5	180	Grating Corner Support	None	None	A36 Gr.36	Typical
15	M15	N15	N7	180	Grating Corner Support	None	None	A36 Gr.36	Typical
16	M16	N23	N24	270	Support Rail	None	None	A53 Gr.B	Typical
17	M17	N27	N28	270	Support Rail	None	None	A53 Gr.B	Typical
18	M18	N25	N26	270	Support Rail	None	None	A53 Gr.B	Typical
19	M20	N152	N150	90	Support Rail Corner	None	None	A36 Gr.36	Typical
20	M22	N114	N117		Kicker	None	None	A36 Gr.36	Typical
21	M23	N115	N116		Kicker	None	None	A36 Gr.36	Typical
22	M24	N113	N118		Kicker	None	None	A36 Gr.36	Typical
23	M25	N126	N124		V-Brace	None	None	A36 Gr.36	Typical
24	M26	N125	N124	270	V-Brace	None	None	A36 Gr.36	Typical
25	M27	N134	N132		V-Brace	None	None	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
26	M28	N133	N132	270	V-Brace	None	None	A36 Gr.36	Typical
27	M29	N141	N140	270	V-Brace	None	None	A36 Gr.36	Typical
28	M30	N142	N140		V-Brace	None	None	A36 Gr.36	Typical
29	M31	N122	N121		Antenna Pipe	None	None	A53 Gr.B	Typical
30	M32	N130	N129		Antenna Pipe	None	None	A53 Gr.B	Typical
31	M33	N138	N137		Antenna Pipe	None	None	A53 Gr.B	Typical
32	MP1A	N45	N47		Antenna Pipe	None	None	A53 Gr.B	Typical
33	MP2A	N49	N51		Antenna Pipe	None	None	A53 Gr.B	Typical
34	MP3A	N50	N52		Antenna Pipe	None	None	A53 Gr.B	Typical
35	MP4A	N46	N48		Antenna Pipe	None	None	A53 Gr.B	Typical
36	MP1B	N93	N95		Antenna Pipe	None	None	A53 Gr.B	Typical
37	MP2B	N97	N99		Antenna Pipe	None	None	A53 Gr.B	Typical
38	MP3B	N98	N100		Antenna Pipe	None	None	A53 Gr.B	Typical
39	MP4B	N94	N96		Antenna Pipe	None	None	A53 Gr.B	Typical
40	MP1C	N69	N71		Antenna Pipe	None	None	A53 Gr.B	Typical
41	MP2C	N73	N75		Antenna Pipe	None	None	A53 Gr.B	Typical
42	MP3C	N74	N76		Antenna Pipe	None	None	A53 Gr.B	Typical
43	MP4C	N70	N72		Antenna Pipe	None	None	A53 Gr.B	Typical
44	M46	N29	N37		RIGID	None	None	RIGID	Typical
45	M47	N33	N41		RIGID	None	None	RIGID	Typical
46	M48	N30	N38		RIGID	None	None	RIGID	Typical
47	M49	N34	N42		RIGID	None	None	RIGID	Typical
48	M50	N31	N39		RIGID	None	None	RIGID	Typical
49	M51	N35	N43		RIGID	None	None	RIGID	Typical
50	M52	N32	N40		RIGID	None	None	RIGID	Typical
51	M53	N36	N44		RIGID	None	None	RIGID	Typical
52	M54	N53	N61		RIGID	None	None	RIGID	Typical
53	M55	N57	N65		RIGID	None	None	RIGID	Typical
54	M56	N54	N62		RIGID	None	None	RIGID	Typical
55	M57	N58	N66		RIGID	None	None	RIGID	Typical
56	M58	N8	N17		RIGID	None	None	RIGID	Typical
57	M59	N55	N63		RIGID	None	None	RIGID	Typical
58	M60	N59	N67		RIGID	None	None	RIGID	Typical
59	M61	N20	N11		RIGID	None	None	RIGID	Typical
60	M62	N9	N18		RIGID	None	None	RIGID	Typical
61	M63	N56	N64		RIGID	None	None	RIGID	Typical
62	M64	N22	N16		RIGID	None	None	RIGID	Typical
63	M65	N60	N68		RIGID	None	None	RIGID	Typical
64	M66	N10	N19		RIGID	None	None	RIGID	Typical
65	M67	N21	N14		RIGID	None	None	RIGID	Typical
66	M68	N77	N85		RIGID	None	None	RIGID	Typical
67	M69	N81	N89		RIGID	None	None	RIGID	Typical
68	M70	N78	N86		RIGID	None	None	RIGID	Typical
69	M71	N82	N90		RIGID	None	None	RIGID	Typical
70	M72	N79	N87		RIGID	None	None	RIGID	Typical
71	M73	N83	N91		RIGID	None	None	RIGID	Typical
72	M74	N80	N88		RIGID	None	None	RIGID	Typical
73	M75	N84	N92		RIGID	None	None	RIGID	Typical
74	M82	N111	N114		RIGID	None	None	RIGID	Typical
75	M83	N110	N113		RIGID	None	None	RIGID	Typical
76	M84	N112	N115		RIGID	None	None	RIGID	Typical
77	M85	N119	N120		RIGID	None	None	RIGID	Typical
78	M86	N123	N124		RIGID	None	None	RIGID	Typical
79	M87	N127	N128		RIGID	None	None	RIGID	Typical
80	M88	N131	N132		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
81	M89	N135	N136		RIGID	None	None	RIGID	Typical
82	M90	N139	N140		RIGID	None	None	RIGID	Typical
83	M91	N143	N144		RIGID	None	None	RIGID	Typical
84	M92	N145	N146		RIGID	None	None	RIGID	Typical
85	M93	N147	N148		RIGID	None	None	RIGID	Typical
86	M94	N149	N150		RIGID	None	None	RIGID	Typical
87	M95	N151	N152		RIGID	None	None	RIGID	Typical
88	M96	N153	N154		RIGID	None	None	RIGID	Typical
89	M97	N144	N154	90	Support Rail Corner	None	None	A36 Gr.36	Typical
90	M98	N147	N148		RIGID	None	None	RIGID	Typical
91	M99	N149	N150		RIGID	None	None	RIGID	Typical
92	M100	N151	N152		RIGID	None	None	RIGID	Typical
93	M101	N153	N154		RIGID	None	None	RIGID	Typical
94	M102	N143	N144		RIGID	None	None	RIGID	Typical
95	M103	N145	N146		RIGID	None	None	RIGID	Typical
96	M104	N148	N146	90	Support Rail Corner	None	None	A36 Gr.36	Typical
97	M105	N151	N152		RIGID	None	None	RIGID	Typical
98	M106	N153	N154		RIGID	None	None	RIGID	Typical
99	M107	N143	N144		RIGID	None	None	RIGID	Typical
100	M108	N145	N146		RIGID	None	None	RIGID	Typical
101	M109	N147	N148		RIGID	None	None	RIGID	Typical
102	M110	N149	N150		RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
1	M1			Yes	** NA **	None
2	M2			Yes	** NA **	None
3	M3			Yes	** NA **	None
4	M4			Yes	** NA **	None
5	M5			Yes	** NA **	None
6	M6			Yes	** NA **	None
7	M7			Yes	** NA **	None
8	M8			Yes	** NA **	None
9	M9			Yes	** NA **	None
10	M10			Yes	** NA **	None
11	M11			Yes	** NA **	None
12	M12			Yes	** NA **	None
13	M13			Yes	** NA **	None
14	M14			Yes	** NA **	None
15	M15			Yes	** NA **	None
16	M16			Yes	** NA **	None
17	M17			Yes	** NA **	None
18	M18			Yes	** NA **	None
19	M20			Yes	** NA **	None
20	M22			Yes	** NA **	None
21	M23			Yes	** NA **	None
22	M24			Yes	** NA **	None
23	M25	BenPIN	BenPIN	Yes	** NA **	None
24	M26	BenPIN	BenPIN	Yes	** NA **	None
25	M27	BenPIN	BenPIN	Yes	** NA **	None
26	M28	BenPIN	BenPIN	Yes	** NA **	None
27	M29	BenPIN	BenPIN	Yes	** NA **	None
28	M30	BenPIN	BenPIN	Yes	** NA **	None
29	M31			Yes	** NA **	None
30	M32			Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
31	M33			Yes	** NA **	None
32	MP1A			Yes	** NA **	None
33	MP2A			Yes	** NA **	None
34	MP3A			Yes	** NA **	None
35	MP4A			Yes	** NA **	None
36	MP1B			Yes	** NA **	None
37	MP2B			Yes	** NA **	None
38	MP3B			Yes	** NA **	None
39	MP4B			Yes	** NA **	None
40	MP1C			Yes	** NA **	None
41	MP2C			Yes	** NA **	None
42	MP3C			Yes	** NA **	None
43	MP4C			Yes	** NA **	None
44	M46			Yes	** NA **	None
45	M47			Yes	** NA **	None
46	M48			Yes	** NA **	None
47	M49			Yes	** NA **	None
48	M50			Yes	** NA **	None
49	M51			Yes	** NA **	None
50	M52			Yes	** NA **	None
51	M53			Yes	** NA **	None
52	M54			Yes	** NA **	None
53	M55			Yes	** NA **	None
54	M56			Yes	** NA **	None
55	M57			Yes	** NA **	None
56	M58			Yes	** NA **	None
57	M59			Yes	** NA **	None
58	M60			Yes	** NA **	None
59	M61			Yes	** NA **	None
60	M62			Yes	** NA **	None
61	M63			Yes	** NA **	None
62	M64			Yes	** NA **	None
63	M65			Yes	** NA **	None
64	M66			Yes	** NA **	None
65	M67			Yes	** NA **	None
66	M68			Yes	** NA **	None
67	M69			Yes	** NA **	None
68	M70			Yes	** NA **	None
69	M71			Yes	** NA **	None
70	M72			Yes	** NA **	None
71	M73			Yes	** NA **	None
72	M74			Yes	** NA **	None
73	M75			Yes	** NA **	None
74	M82			Yes	** NA **	None
75	M83			Yes	** NA **	None
76	M84			Yes	** NA **	None
77	M85			Yes	** NA **	None
78	M86			Yes	** NA **	None
79	M87			Yes	** NA **	None
80	M88			Yes	** NA **	None
81	M89			Yes	** NA **	None
82	M90			Yes	** NA **	None
83	M91	OOOOOX		Yes	** NA **	None
84	M92	OOOOOX		Yes	** NA **	None
85	M93	OOOOOX		Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
86	M94	OOOOOX		Yes	** NA **	None
87	M95	OOOOOX		Yes	** NA **	None
88	M96	OOOOOX		Yes	** NA **	None
89	M97			Yes	** NA **	None
90	M98	OOOOOX		Yes	** NA **	None
91	M99	OOOOOX		Yes	** NA **	None
92	M100	OOOOOX		Yes	** NA **	None
93	M101	OOOOOX		Yes	** NA **	None
94	M102	OOOOOX		Yes	** NA **	None
95	M103	OOOOOX		Yes	** NA **	None
96	M104			Yes	** NA **	None
97	M105	OOOOOX		Yes	** NA **	None
98	M106	OOOOOX		Yes	** NA **	None
99	M107	OOOOOX		Yes	** NA **	None
100	M108	OOOOOX		Yes	** NA **	None
101	M109	OOOOOX		Yes	** NA **	None
102	M110	OOOOOX		Yes	** NA **	None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Y	-13.5	0.5
2	MP1A	My	-0.007	0.5
3	MP1A	Mz	-0.001	0.5
4	MP1A	Y	-13.5	5.5
5	MP1A	My	-0.007	5.5
6	MP1A	Mz	-0.001	5.5
7	MP1B	Y	-13.5	0.5
8	MP1B	My	0.003	0.5
9	MP1B	Mz	-0.006	0.5
10	MP1B	Y	-13.5	5.5
11	MP1B	My	0.003	5.5
12	MP1B	Mz	-0.006	5.5
13	MP1C	Y	-13.5	0.5
14	MP1C	My	-0.001	0.5
15	MP1C	Mz	0.007	0.5
16	MP1C	Y	-13.5	5.5
17	MP1C	My	-0.001	5.5
18	MP1C	Mz	0.007	5.5
19	MP4A	Y	-13.5	0.5
20	MP4A	My	-0.007	0.5
21	MP4A	Mz	-0.001	0.5
22	MP4A	Y	-13.5	5.5
23	MP4A	My	-0.007	5.5
24	MP4A	Mz	-0.001	5.5
25	MP4B	Y	-13.5	0.5
26	MP4B	My	0.003	0.5
27	MP4B	Mz	-0.006	0.5
28	MP4B	Y	-13.5	5.5
29	MP4B	My	0.003	5.5
30	MP4B	Mz	-0.006	5.5
31	MP4C	Y	-13.5	0.5
32	MP4C	My	-0.001	0.5
33	MP4C	Mz	0.007	0.5
34	MP4C	Y	-13.5	5.5
35	MP4C	My	-0.001	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
36	MP4C	Mz	0.007	5.5
37	MP2A	Y	-31.65	0.5
38	MP2A	My	-0.022	0.5
39	MP2A	Mz	-0.013	0.5
40	MP2A	Y	-31.65	5.5
41	MP2A	My	-0.022	5.5
42	MP2A	Mz	-0.013	5.5
43	MP2B	Y	-31.65	0.5
44	MP2B	My	-0.022	0.5
45	MP2B	Mz	-0.013	0.5
46	MP2B	Y	-31.65	5.5
47	MP2B	My	-0.022	5.5
48	MP2B	Mz	-0.013	5.5
49	MP2C	Y	-31.65	0.5
50	MP2C	My	-0.022	0.5
51	MP2C	Mz	-0.013	0.5
52	MP2C	Y	-31.65	5.5
53	MP2C	My	-0.022	5.5
54	MP2C	Mz	-0.013	5.5
55	MP2A	Y	-31.65	0.5
56	MP2A	My	-0.008	0.5
57	MP2A	Mz	0.024	0.5
58	MP2A	Y	-31.65	5.5
59	MP2A	My	-0.008	5.5
60	MP2A	Mz	0.024	5.5
61	MP2B	Y	-31.65	0.5
62	MP2B	My	-0.008	0.5
63	MP2B	Mz	0.024	0.5
64	MP2B	Y	-31.65	5.5
65	MP2B	My	-0.008	5.5
66	MP2B	Mz	0.024	5.5
67	MP2C	Y	-31.65	0.5
68	MP2C	My	-0.008	0.5
69	MP2C	Mz	0.024	0.5
70	MP2C	Y	-31.65	5.5
71	MP2C	My	-0.008	5.5
72	MP2C	Mz	0.024	5.5
73	MP3A	Y	-28.65	2
74	MP3A	My	-0.014	2
75	MP3A	Mz	-0.002	2
76	MP3A	Y	-28.65	4
77	MP3A	My	-0.014	4
78	MP3A	Mz	-0.002	4
79	MP3B	Y	-28.65	2
80	MP3B	My	0.007	2
81	MP3B	Mz	-0.012	2
82	MP3B	Y	-28.65	4
83	MP3B	My	0.007	4
84	MP3B	Mz	-0.012	4
85	MP3C	Y	-28.65	2
86	MP3C	My	0.007	2
87	MP3C	Mz	0.012	2
88	MP3C	Y	-28.65	4
89	MP3C	My	0.007	4
90	MP3C	Mz	0.012	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
91	MP1A	Y	-79.1	2
92	MP1A	My	-0.037	2
93	MP1A	Mz	0.014	2
94	MP1B	Y	-79.1	2
95	MP1B	My	-0.037	2
96	MP1B	Mz	0.014	2
97	MP1C	Y	-79.1	2
98	MP1C	My	-0.037	2
99	MP1C	Mz	0.014	2
100	MP2A	Y	-74.7	2
101	MP2A	My	-0.035	2
102	MP2A	Mz	0.013	2
103	MP2B	Y	-74.7	2
104	MP2B	My	-0.035	2
105	MP2B	Mz	0.013	2
106	MP2C	Y	-74.7	2
107	MP2C	My	-0.035	2
108	MP2C	Mz	0.013	2
109	MP2A	Y	-10.4	4
110	MP2A	My	0	4
111	MP2A	Mz	0	4
112	MP2B	Y	-10.4	4
113	MP2B	My	0	4
114	MP2B	Mz	0	4
115	MP2C	Y	-10.4	4
116	MP2C	My	0	4
117	MP2C	Mz	0	4
118	M31	Y	-32	1
119	M31	My	0	1
120	M31	Mz	0	1

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Y	-90.888	0.5
2	MP1A	My	-0.045	0.5
3	MP1A	Mz	-0.008	0.5
4	MP1A	Y	-90.888	5.5
5	MP1A	My	-0.045	5.5
6	MP1A	Mz	-0.008	5.5
7	MP1B	Y	-90.888	0.5
8	MP1B	My	0.023	0.5
9	MP1B	Mz	-0.039	0.5
10	MP1B	Y	-90.888	5.5
11	MP1B	My	0.023	5.5
12	MP1B	Mz	-0.039	5.5
13	MP1C	Y	-90.888	0.5
14	MP1C	My	-0.008	0.5
15	MP1C	Mz	0.045	0.5
16	MP1C	Y	-90.888	5.5
17	MP1C	My	-0.008	5.5
18	MP1C	Mz	0.045	5.5
19	MP4A	Y	-90.888	0.5
20	MP4A	My	-0.045	0.5
21	MP4A	Mz	-0.008	0.5
22	MP4A	Y	-90.888	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
23	MP4A	My	-0.045	5.5
24	MP4A	Mz	-0.008	5.5
25	MP4B	Y	-90.888	0.5
26	MP4B	My	0.023	0.5
27	MP4B	Mz	-0.039	0.5
28	MP4B	Y	-90.888	5.5
29	MP4B	My	0.023	5.5
30	MP4B	Mz	-0.039	5.5
31	MP4C	Y	-90.888	0.5
32	MP4C	My	-0.008	0.5
33	MP4C	Mz	0.045	0.5
34	MP4C	Y	-90.888	5.5
35	MP4C	My	-0.008	5.5
36	MP4C	Mz	0.045	5.5
37	MP2A	Y	-71.722	0.5
38	MP2A	My	-0.049	0.5
39	MP2A	Mz	-0.03	0.5
40	MP2A	Y	-71.722	5.5
41	MP2A	My	-0.049	5.5
42	MP2A	Mz	-0.03	5.5
43	MP2B	Y	-71.722	0.5
44	MP2B	My	-0.049	0.5
45	MP2B	Mz	-0.03	0.5
46	MP2B	Y	-71.722	5.5
47	MP2B	My	-0.049	5.5
48	MP2B	Mz	-0.03	5.5
49	MP2C	Y	-71.722	0.5
50	MP2C	My	-0.049	0.5
51	MP2C	Mz	-0.03	0.5
52	MP2C	Y	-71.722	5.5
53	MP2C	My	-0.049	5.5
54	MP2C	Mz	-0.03	5.5
55	MP2A	Y	-71.722	0.5
56	MP2A	My	-0.018	0.5
57	MP2A	Mz	0.054	0.5
58	MP2A	Y	-71.722	5.5
59	MP2A	My	-0.018	5.5
60	MP2A	Mz	0.054	5.5
61	MP2B	Y	-71.722	0.5
62	MP2B	My	-0.018	0.5
63	MP2B	Mz	0.054	0.5
64	MP2B	Y	-71.722	5.5
65	MP2B	My	-0.018	5.5
66	MP2B	Mz	0.054	5.5
67	MP2C	Y	-71.722	0.5
68	MP2C	My	-0.018	0.5
69	MP2C	Mz	0.054	0.5
70	MP2C	Y	-71.722	5.5
71	MP2C	My	-0.018	5.5
72	MP2C	Mz	0.054	5.5
73	MP3A	Y	-30.553	2
74	MP3A	My	-0.015	2
75	MP3A	Mz	-0.003	2
76	MP3A	Y	-30.553	4
77	MP3A	My	-0.015	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
78	MP3A	Mz	-0.003	4
79	MP3B	Y	-30.553	2
80	MP3B	My	0.008	2
81	MP3B	Mz	-0.013	2
82	MP3B	Y	-30.553	4
83	MP3B	My	0.008	4
84	MP3B	Mz	-0.013	4
85	MP3C	Y	-30.553	2
86	MP3C	My	0.008	2
87	MP3C	Mz	0.013	2
88	MP3C	Y	-30.553	4
89	MP3C	My	0.008	4
90	MP3C	Mz	0.013	4
91	MP1A	Y	-46.565	2
92	MP1A	My	-0.022	2
93	MP1A	Mz	0.008	2
94	MP1B	Y	-46.565	2
95	MP1B	My	-0.022	2
96	MP1B	Mz	0.008	2
97	MP1C	Y	-46.565	2
98	MP1C	My	-0.022	2
99	MP1C	Mz	0.008	2
100	MP2A	Y	-46.077	2
101	MP2A	My	-0.022	2
102	MP2A	Mz	0.008	2
103	MP2B	Y	-46.077	2
104	MP2B	My	-0.022	2
105	MP2B	Mz	0.008	2
106	MP2C	Y	-46.077	2
107	MP2C	My	-0.022	2
108	MP2C	Mz	0.008	2
109	MP2A	Y	-11.057	4
110	MP2A	My	0	4
111	MP2A	Mz	0	4
112	MP2B	Y	-11.057	4
113	MP2B	My	0	4
114	MP2B	Mz	0	4
115	MP2C	Y	-11.057	4
116	MP2C	My	0	4
117	MP2C	Mz	0	4
118	M31	Y	-90.145	1
119	M31	My	0	1
120	M31	Mz	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	0.5
2	MP1A	Z	-168.027	0.5
3	MP1A	Mx	0.015	0.5
4	MP1A	X	0	5.5
5	MP1A	Z	-168.027	5.5
6	MP1A	Mx	0.015	5.5
7	MP1B	X	0	0.5
8	MP1B	Z	-155.068	0.5
9	MP1B	Mx	0.067	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
10	MP1B	X	0	5.5
11	MP1B	Z	-155.068	5.5
12	MP1B	Mx	0.067	5.5
13	MP1C	X	0	0.5
14	MP1C	Z	-151.11	0.5
15	MP1C	Mx	-0.074	0.5
16	MP1C	X	0	5.5
17	MP1C	Z	-151.11	5.5
18	MP1C	Mx	-0.074	5.5
19	MP4A	X	0	0.5
20	MP4A	Z	-168.027	0.5
21	MP4A	Mx	0.015	0.5
22	MP4A	X	0	5.5
23	MP4A	Z	-168.027	5.5
24	MP4A	Mx	0.015	5.5
25	MP4B	X	0	0.5
26	MP4B	Z	-155.068	0.5
27	MP4B	Mx	0.067	0.5
28	MP4B	X	0	5.5
29	MP4B	Z	-155.068	5.5
30	MP4B	Mx	0.067	5.5
31	MP4C	X	0	0.5
32	MP4C	Z	-151.11	0.5
33	MP4C	Mx	-0.074	0.5
34	MP4C	X	0	5.5
35	MP4C	Z	-151.11	5.5
36	MP4C	Mx	-0.074	5.5
37	MP2A	X	0	0.5
38	MP2A	Z	-153.544	0.5
39	MP2A	Mx	0.064	0.5
40	MP2A	X	0	5.5
41	MP2A	Z	-153.544	5.5
42	MP2A	Mx	0.064	5.5
43	MP2B	X	0	0.5
44	MP2B	Z	-153.544	0.5
45	MP2B	Mx	0.064	0.5
46	MP2B	X	0	5.5
47	MP2B	Z	-153.544	5.5
48	MP2B	Mx	0.064	5.5
49	MP2C	X	0	0.5
50	MP2C	Z	-153.544	0.5
51	MP2C	Mx	0.064	0.5
52	MP2C	X	0	5.5
53	MP2C	Z	-153.544	5.5
54	MP2C	Mx	0.064	5.5
55	MP2A	X	0	0.5
56	MP2A	Z	-153.544	0.5
57	MP2A	Mx	-0.116	0.5
58	MP2A	X	0	5.5
59	MP2A	Z	-153.544	5.5
60	MP2A	Mx	-0.116	5.5
61	MP2B	X	0	0.5
62	MP2B	Z	-153.544	0.5
63	MP2B	Mx	-0.116	0.5
64	MP2B	X	0	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
65	MP2B	Z	-153.544	5.5
66	MP2B	Mx	-0.116	5.5
67	MP2C	X	0	0.5
68	MP2C	Z	-153.544	0.5
69	MP2C	Mx	-0.116	0.5
70	MP2C	X	0	5.5
71	MP2C	Z	-153.544	5.5
72	MP2C	Mx	-0.116	5.5
73	MP3A	X	0	2
74	MP3A	Z	-54.402	2
75	MP3A	Mx	0.005	2
76	MP3A	X	0	4
77	MP3A	Z	-54.402	4
78	MP3A	Mx	0.005	4
79	MP3B	X	0	2
80	MP3B	Z	-28.49	2
81	MP3B	Mx	0.012	2
82	MP3B	X	0	4
83	MP3B	Z	-28.49	4
84	MP3B	Mx	0.012	4
85	MP3C	X	0	2
86	MP3C	Z	-28.49	2
87	MP3C	Mx	-0.012	2
88	MP3C	X	0	4
89	MP3C	Z	-28.49	4
90	MP3C	Mx	-0.012	4
91	MP1A	X	0	2
92	MP1A	Z	-63.228	2
93	MP1A	Mx	-0.011	2
94	MP1B	X	0	2
95	MP1B	Z	-63.228	2
96	MP1B	Mx	-0.011	2
97	MP1C	X	0	2
98	MP1C	Z	-63.228	2
99	MP1C	Mx	-0.011	2
100	MP2A	X	0	2
101	MP2A	Z	-52.339	2
102	MP2A	Mx	-0.009	2
103	MP2B	X	0	2
104	MP2B	Z	-52.339	2
105	MP2B	Mx	-0.009	2
106	MP2C	X	0	2
107	MP2C	Z	-52.339	2
108	MP2C	Mx	-0.009	2
109	MP2A	X	0	4
110	MP2A	Z	-12.526	4
111	MP2A	Mx	0	4
112	MP2B	X	0	4
113	MP2B	Z	-12.526	4
114	MP2B	Mx	0	4
115	MP2C	X	0	4
116	MP2C	Z	-12.526	4
117	MP2C	Mx	0	4
118	M31	X	0	1
119	M31	Z	-108.204	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	83.232	0.5
2	MP1A	Z	-144.162	0.5
3	MP1A	Mx	-0.028	0.5
4	MP1A	X	83.232	5.5
5	MP1A	Z	-144.162	5.5
6	MP1A	Mx	-0.028	5.5
7	MP1B	X	75.284	0.5
8	MP1B	Z	-130.395	0.5
9	MP1B	Mx	0.075	0.5
10	MP1B	X	75.284	5.5
11	MP1B	Z	-130.395	5.5
12	MP1B	Mx	0.075	5.5
13	MP1C	X	76.337	0.5
14	MP1C	Z	-132.219	0.5
15	MP1C	Mx	-0.072	0.5
16	MP1C	X	76.337	5.5
17	MP1C	Z	-132.219	5.5
18	MP1C	Mx	-0.072	5.5
19	MP4A	X	83.232	0.5
20	MP4A	Z	-144.162	0.5
21	MP4A	Mx	-0.028	0.5
22	MP4A	X	83.232	5.5
23	MP4A	Z	-144.162	5.5
24	MP4A	Mx	-0.028	5.5
25	MP4B	X	75.284	0.5
26	MP4B	Z	-130.395	0.5
27	MP4B	Mx	0.075	0.5
28	MP4B	X	75.284	5.5
29	MP4B	Z	-130.395	5.5
30	MP4B	Mx	0.075	5.5
31	MP4C	X	76.337	0.5
32	MP4C	Z	-132.219	0.5
33	MP4C	Mx	-0.072	0.5
34	MP4C	X	76.337	5.5
35	MP4C	Z	-132.219	5.5
36	MP4C	Mx	-0.072	5.5
37	MP2A	X	63.874	0.5
38	MP2A	Z	-110.633	0.5
39	MP2A	Mx	0.002	0.5
40	MP2A	X	63.874	5.5
41	MP2A	Z	-110.633	5.5
42	MP2A	Mx	0.002	5.5
43	MP2B	X	63.874	0.5
44	MP2B	Z	-110.633	0.5
45	MP2B	Mx	0.002	0.5
46	MP2B	X	63.874	5.5
47	MP2B	Z	-110.633	5.5
48	MP2B	Mx	0.002	5.5
49	MP2C	X	63.874	0.5
50	MP2C	Z	-110.633	0.5
51	MP2C	Mx	0.002	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
52	MP2C	X	63.874	5.5
53	MP2C	Z	-110.633	5.5
54	MP2C	Mx	0.002	5.5
55	MP2A	X	63.874	0.5
56	MP2A	Z	-110.633	0.5
57	MP2A	Mx	-0.1	0.5
58	MP2A	X	63.874	5.5
59	MP2A	Z	-110.633	5.5
60	MP2A	Mx	-0.1	5.5
61	MP2B	X	63.874	0.5
62	MP2B	Z	-110.633	0.5
63	MP2B	Mx	-0.1	0.5
64	MP2B	X	63.874	5.5
65	MP2B	Z	-110.633	5.5
66	MP2B	Mx	-0.1	5.5
67	MP2C	X	63.874	0.5
68	MP2C	Z	-110.633	0.5
69	MP2C	Mx	-0.1	0.5
70	MP2C	X	63.874	5.5
71	MP2C	Z	-110.633	5.5
72	MP2C	Mx	-0.1	5.5
73	MP3A	X	25.638	2
74	MP3A	Z	-44.407	2
75	MP3A	Mx	-0.009	2
76	MP3A	X	25.638	4
77	MP3A	Z	-44.407	4
78	MP3A	Mx	-0.009	4
79	MP3B	X	9.745	2
80	MP3B	Z	-16.88	2
81	MP3B	Mx	0.01	2
82	MP3B	X	9.745	4
83	MP3B	Z	-16.88	4
84	MP3B	Mx	0.01	4
85	MP3C	X	23.244	2
86	MP3C	Z	-40.26	2
87	MP3C	Mx	-0.012	2
88	MP3C	X	23.244	4
89	MP3C	Z	-40.26	4
90	MP3C	Mx	-0.012	4
91	MP1A	X	26.705	2
92	MP1A	Z	-46.254	2
93	MP1A	Mx	-0.02	2
94	MP1B	X	26.705	2
95	MP1B	Z	-46.254	2
96	MP1B	Mx	-0.02	2
97	MP1C	X	26.705	2
98	MP1C	Z	-46.254	2
99	MP1C	Mx	-0.02	2
100	MP2A	X	21.962	2
101	MP2A	Z	-38.039	2
102	MP2A	Mx	-0.017	2
103	MP2B	X	21.962	2
104	MP2B	Z	-38.039	2
105	MP2B	Mx	-0.017	2
106	MP2C	X	21.962	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
107	MP2C	Z	-38.039	2
108	MP2C	Mx	-0.017	2
109	MP2A	X	5.322	4
110	MP2A	Z	-9.218	4
111	MP2A	Mx	0	4
112	MP2B	X	5.322	4
113	MP2B	Z	-9.218	4
114	MP2B	Mx	0	4
115	MP2C	X	5.322	4
116	MP2C	Z	-9.218	4
117	MP2C	Mx	0	4
118	M31	X	47.832	1
119	M31	Z	-82.847	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	136.837	0.5
2	MP1A	Z	-79.003	0.5
3	MP1A	Mx	-0.061	0.5
4	MP1A	X	136.837	5.5
5	MP1A	Z	-79.003	5.5
6	MP1A	Mx	-0.061	5.5
7	MP1B	X	134.293	0.5
8	MP1B	Z	-77.534	0.5
9	MP1B	Mx	0.067	0.5
10	MP1B	X	134.293	5.5
11	MP1B	Z	-77.534	5.5
12	MP1B	Mx	0.067	5.5
13	MP1C	X	139.544	0.5
14	MP1C	Z	-80.566	0.5
15	MP1C	Mx	-0.052	0.5
16	MP1C	X	139.544	5.5
17	MP1C	Z	-80.566	5.5
18	MP1C	Mx	-0.052	5.5
19	MP4A	X	136.837	0.5
20	MP4A	Z	-79.003	0.5
21	MP4A	Mx	-0.061	0.5
22	MP4A	X	136.837	5.5
23	MP4A	Z	-79.003	5.5
24	MP4A	Mx	-0.061	5.5
25	MP4B	X	134.293	0.5
26	MP4B	Z	-77.534	0.5
27	MP4B	Mx	0.067	0.5
28	MP4B	X	134.293	5.5
29	MP4B	Z	-77.534	5.5
30	MP4B	Mx	0.067	5.5
31	MP4C	X	139.544	0.5
32	MP4C	Z	-80.566	0.5
33	MP4C	Mx	-0.052	0.5
34	MP4C	X	139.544	5.5
35	MP4C	Z	-80.566	5.5
36	MP4C	Mx	-0.052	5.5
37	MP2A	X	92.421	0.5
38	MP2A	Z	-53.36	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
39	MP2A	Mx	-0.041	0.5
40	MP2A	X	92.421	5.5
41	MP2A	Z	-53.36	5.5
42	MP2A	Mx	-0.041	5.5
43	MP2B	X	92.421	0.5
44	MP2B	Z	-53.36	0.5
45	MP2B	Mx	-0.041	0.5
46	MP2B	X	92.421	5.5
47	MP2B	Z	-53.36	5.5
48	MP2B	Mx	-0.041	5.5
49	MP2C	X	92.421	0.5
50	MP2C	Z	-53.36	0.5
51	MP2C	Mx	-0.041	0.5
52	MP2C	X	92.421	5.5
53	MP2C	Z	-53.36	5.5
54	MP2C	Mx	-0.041	5.5
55	MP2A	X	92.421	0.5
56	MP2A	Z	-53.36	0.5
57	MP2A	Mx	-0.064	0.5
58	MP2A	X	92.421	5.5
59	MP2A	Z	-53.36	5.5
60	MP2A	Mx	-0.064	5.5
61	MP2B	X	92.421	0.5
62	MP2B	Z	-53.36	0.5
63	MP2B	Mx	-0.064	0.5
64	MP2B	X	92.421	5.5
65	MP2B	Z	-53.36	5.5
66	MP2B	Mx	-0.064	5.5
67	MP2C	X	92.421	0.5
68	MP2C	Z	-53.36	0.5
69	MP2C	Mx	-0.064	0.5
70	MP2C	X	92.421	5.5
71	MP2C	Z	-53.36	5.5
72	MP2C	Mx	-0.064	5.5
73	MP3A	X	29.76	2
74	MP3A	Z	-17.182	2
75	MP3A	Mx	-0.013	2
76	MP3A	X	29.76	4
77	MP3A	Z	-17.182	4
78	MP3A	Mx	-0.013	4
79	MP3B	X	24.673	2
80	MP3B	Z	-14.245	2
81	MP3B	Mx	0.012	2
82	MP3B	X	24.673	4
83	MP3B	Z	-14.245	4
84	MP3B	Mx	0.012	4
85	MP3C	X	48.054	2
86	MP3C	Z	-27.744	2
87	MP3C	Mx	0	2
88	MP3C	X	48.054	4
89	MP3C	Z	-27.744	4
90	MP3C	Mx	0	4
91	MP1A	X	39.323	2
92	MP1A	Z	-22.703	2
93	MP1A	Mx	-0.022	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
94	MP1B	X	39.323	2
95	MP1B	Z	-22.703	2
96	MP1B	Mx	-0.022	2
97	MP1C	X	39.323	2
98	MP1C	Z	-22.703	2
99	MP1C	Mx	-0.022	2
100	MP2A	X	32.098	2
101	MP2A	Z	-18.532	2
102	MP2A	Mx	-0.018	2
103	MP2B	X	32.098	2
104	MP2B	Z	-18.532	2
105	MP2B	Mx	-0.018	2
106	MP2C	X	32.098	2
107	MP2C	Z	-18.532	2
108	MP2C	Mx	-0.018	2
109	MP2A	X	7.89	4
110	MP2A	Z	-4.556	4
111	MP2A	Mx	0	4
112	MP2B	X	7.89	4
113	MP2B	Z	-4.556	4
114	MP2B	Mx	0	4
115	MP2C	X	7.89	4
116	MP2C	Z	-4.556	4
117	MP2C	Mx	0	4
118	M31	X	73.994	1
119	M31	Z	-42.72	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	151.11	0.5
2	MP1A	Z	0	0.5
3	MP1A	Mx	-0.074	0.5
4	MP1A	X	151.11	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	-0.074	5.5
7	MP1B	X	164.069	0.5
8	MP1B	Z	0	0.5
9	MP1B	Mx	0.041	0.5
10	MP1B	X	164.069	5.5
11	MP1B	Z	0	5.5
12	MP1B	Mx	0.041	5.5
13	MP1C	X	168.027	0.5
14	MP1C	Z	0	0.5
15	MP1C	Mx	-0.015	0.5
16	MP1C	X	168.027	5.5
17	MP1C	Z	0	5.5
18	MP1C	Mx	-0.015	5.5
19	MP4A	X	151.11	0.5
20	MP4A	Z	0	0.5
21	MP4A	Mx	-0.074	0.5
22	MP4A	X	151.11	5.5
23	MP4A	Z	0	5.5
24	MP4A	Mx	-0.074	5.5
25	MP4B	X	164.069	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
26	MP4B	Z	0	0.5
27	MP4B	Mx	0.041	0.5
28	MP4B	X	164.069	5.5
29	MP4B	Z	0	5.5
30	MP4B	Mx	0.041	5.5
31	MP4C	X	168.027	0.5
32	MP4C	Z	0	0.5
33	MP4C	Mx	-0.015	0.5
34	MP4C	X	168.027	5.5
35	MP4C	Z	0	5.5
36	MP4C	Mx	-0.015	5.5
37	MP2A	X	111.486	0.5
38	MP2A	Z	0	0.5
39	MP2A	Mx	-0.076	0.5
40	MP2A	X	111.486	5.5
41	MP2A	Z	0	5.5
42	MP2A	Mx	-0.076	5.5
43	MP2B	X	111.486	0.5
44	MP2B	Z	0	0.5
45	MP2B	Mx	-0.076	0.5
46	MP2B	X	111.486	5.5
47	MP2B	Z	0	5.5
48	MP2B	Mx	-0.076	5.5
49	MP2C	X	111.486	0.5
50	MP2C	Z	0	0.5
51	MP2C	Mx	-0.076	0.5
52	MP2C	X	111.486	5.5
53	MP2C	Z	0	5.5
54	MP2C	Mx	-0.076	5.5
55	MP2A	X	111.486	0.5
56	MP2A	Z	0	0.5
57	MP2A	Mx	-0.029	0.5
58	MP2A	X	111.486	5.5
59	MP2A	Z	0	5.5
60	MP2A	Mx	-0.029	5.5
61	MP2B	X	111.486	0.5
62	MP2B	Z	0	0.5
63	MP2B	Mx	-0.029	0.5
64	MP2B	X	111.486	5.5
65	MP2B	Z	0	5.5
66	MP2B	Mx	-0.029	5.5
67	MP2C	X	111.486	0.5
68	MP2C	Z	0	0.5
69	MP2C	Mx	-0.029	0.5
70	MP2C	X	111.486	5.5
71	MP2C	Z	0	5.5
72	MP2C	Mx	-0.029	5.5
73	MP3A	X	20.576	2
74	MP3A	Z	0	2
75	MP3A	Mx	-0.01	2
76	MP3A	X	20.576	4
77	MP3A	Z	0	4
78	MP3A	Mx	-0.01	4
79	MP3B	X	46.488	2
80	MP3B	Z	0	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
81	MP3B	Mx	0.012	2
82	MP3B	X	46.488	4
83	MP3B	Z	0	4
84	MP3B	Mx	0.012	4
85	MP3C	X	46.488	2
86	MP3C	Z	0	2
87	MP3C	Mx	0.012	2
88	MP3C	X	46.488	4
89	MP3C	Z	0	4
90	MP3C	Mx	0.012	4
91	MP1A	X	47.221	2
92	MP1A	Z	0	2
93	MP1A	Mx	-0.022	2
94	MP1B	X	47.221	2
95	MP1B	Z	0	2
96	MP1B	Mx	-0.022	2
97	MP1C	X	47.221	2
98	MP1C	Z	0	2
99	MP1C	Mx	-0.022	2
100	MP2A	X	38.619	2
101	MP2A	Z	0	2
102	MP2A	Mx	-0.018	2
103	MP2B	X	38.619	2
104	MP2B	Z	0	2
105	MP2B	Mx	-0.018	2
106	MP2C	X	38.619	2
107	MP2C	Z	0	2
108	MP2C	Mx	-0.018	2
109	MP2A	X	9.459	4
110	MP2A	Z	0	4
111	MP2A	Mx	0	4
112	MP2B	X	9.459	4
113	MP2B	Z	0	4
114	MP2B	Mx	0	4
115	MP2C	X	9.459	4
116	MP2C	Z	0	4
117	MP2C	Mx	0	4
118	M31	X	87.758	1
119	M31	Z	0	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	132.219	0.5
2	MP1A	Z	76.337	0.5
3	MP1A	Mx	-0.072	0.5
4	MP1A	X	132.219	5.5
5	MP1A	Z	76.337	5.5
6	MP1A	Mx	-0.072	5.5
7	MP1B	X	145.986	0.5
8	MP1B	Z	84.285	0.5
9	MP1B	Mx	0	0.5
10	MP1B	X	145.986	5.5
11	MP1B	Z	84.285	5.5
12	MP1B	Mx	0	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
13	MP1C	X	144.162	0.5
14	MP1C	Z	83.232	0.5
15	MP1C	Mx	0.028	0.5
16	MP1C	X	144.162	5.5
17	MP1C	Z	83.232	5.5
18	MP1C	Mx	0.028	5.5
19	MP4A	X	132.219	0.5
20	MP4A	Z	76.337	0.5
21	MP4A	Mx	-0.072	0.5
22	MP4A	X	132.219	5.5
23	MP4A	Z	76.337	5.5
24	MP4A	Mx	-0.072	5.5
25	MP4B	X	145.986	0.5
26	MP4B	Z	84.285	0.5
27	MP4B	Mx	0	0.5
28	MP4B	X	145.986	5.5
29	MP4B	Z	84.285	5.5
30	MP4B	Mx	0	5.5
31	MP4C	X	144.162	0.5
32	MP4C	Z	83.232	0.5
33	MP4C	Mx	0.028	0.5
34	MP4C	X	144.162	5.5
35	MP4C	Z	83.232	5.5
36	MP4C	Mx	0.028	5.5
37	MP2A	X	118.889	0.5
38	MP2A	Z	68.641	0.5
39	MP2A	Mx	-0.11	0.5
40	MP2A	X	118.889	5.5
41	MP2A	Z	68.641	5.5
42	MP2A	Mx	-0.11	5.5
43	MP2B	X	118.889	0.5
44	MP2B	Z	68.641	0.5
45	MP2B	Mx	-0.11	0.5
46	MP2B	X	118.889	5.5
47	MP2B	Z	68.641	5.5
48	MP2B	Mx	-0.11	5.5
49	MP2C	X	118.889	0.5
50	MP2C	Z	68.641	0.5
51	MP2C	Mx	-0.11	0.5
52	MP2C	X	118.889	5.5
53	MP2C	Z	68.641	5.5
54	MP2C	Mx	-0.11	5.5
55	MP2A	X	118.889	0.5
56	MP2A	Z	68.641	0.5
57	MP2A	Mx	0.022	0.5
58	MP2A	X	118.889	5.5
59	MP2A	Z	68.641	5.5
60	MP2A	Mx	0.022	5.5
61	MP2B	X	118.889	0.5
62	MP2B	Z	68.641	0.5
63	MP2B	Mx	0.022	0.5
64	MP2B	X	118.889	5.5
65	MP2B	Z	68.641	5.5
66	MP2B	Mx	0.022	5.5
67	MP2C	X	118.889	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
68	MP2C	Z	68.641	0.5
69	MP2C	Mx	0.022	0.5
70	MP2C	X	118.889	5.5
71	MP2C	Z	68.641	5.5
72	MP2C	Mx	0.022	5.5
73	MP3A	X	20.526	2
74	MP3A	Z	11.851	2
75	MP3A	Mx	-0.011	2
76	MP3A	X	20.526	4
77	MP3A	Z	11.851	4
78	MP3A	Mx	-0.011	4
79	MP3B	X	48.054	2
80	MP3B	Z	27.744	2
81	MP3B	Mx	0	2
82	MP3B	X	48.054	4
83	MP3B	Z	27.744	4
84	MP3B	Mx	0	4
85	MP3C	X	24.673	2
86	MP3C	Z	14.245	2
87	MP3C	Mx	0.012	2
88	MP3C	X	24.673	4
89	MP3C	Z	14.245	4
90	MP3C	Mx	0.012	4
91	MP1A	X	49.397	2
92	MP1A	Z	28.519	2
93	MP1A	Mx	-0.018	2
94	MP1B	X	49.397	2
95	MP1B	Z	28.519	2
96	MP1B	Mx	-0.018	2
97	MP1C	X	49.397	2
98	MP1C	Z	28.519	2
99	MP1C	Mx	-0.018	2
100	MP2A	X	40.733	2
101	MP2A	Z	23.517	2
102	MP2A	Mx	-0.015	2
103	MP2B	X	40.733	2
104	MP2B	Z	23.517	2
105	MP2B	Mx	-0.015	2
106	MP2C	X	40.733	2
107	MP2C	Z	23.517	2
108	MP2C	Mx	-0.015	2
109	MP2A	X	9.821	4
110	MP2A	Z	5.67	4
111	MP2A	Mx	0	4
112	MP2B	X	9.821	4
113	MP2B	Z	5.67	4
114	MP2B	Mx	0	4
115	MP2C	X	9.821	4
116	MP2C	Z	5.67	4
117	MP2C	Mx	0	4
118	M31	X	86.861	1
119	M31	Z	50.149	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	80.566	0.5
2	MP1A	Z	139.544	0.5
3	MP1A	Mx	-0.052	0.5
4	MP1A	X	80.566	5.5
5	MP1A	Z	139.544	5.5
6	MP1A	Mx	-0.052	5.5
7	MP1B	X	82.035	0.5
8	MP1B	Z	142.088	0.5
9	MP1B	Mx	-0.041	0.5
10	MP1B	X	82.035	5.5
11	MP1B	Z	142.088	5.5
12	MP1B	Mx	-0.041	5.5
13	MP1C	X	79.003	0.5
14	MP1C	Z	136.837	0.5
15	MP1C	Mx	0.061	0.5
16	MP1C	X	79.003	5.5
17	MP1C	Z	136.837	5.5
18	MP1C	Mx	0.061	5.5
19	MP4A	X	80.566	0.5
20	MP4A	Z	139.544	0.5
21	MP4A	Mx	-0.052	0.5
22	MP4A	X	80.566	5.5
23	MP4A	Z	139.544	5.5
24	MP4A	Mx	-0.052	5.5
25	MP4B	X	82.035	0.5
26	MP4B	Z	142.088	0.5
27	MP4B	Mx	-0.041	0.5
28	MP4B	X	82.035	5.5
29	MP4B	Z	142.088	5.5
30	MP4B	Mx	-0.041	5.5
31	MP4C	X	79.003	0.5
32	MP4C	Z	136.837	0.5
33	MP4C	Mx	0.061	0.5
34	MP4C	X	79.003	5.5
35	MP4C	Z	136.837	5.5
36	MP4C	Mx	0.061	5.5
37	MP2A	X	79.155	0.5
38	MP2A	Z	137.101	0.5
39	MP2A	Mx	-0.111	0.5
40	MP2A	X	79.155	5.5
41	MP2A	Z	137.101	5.5
42	MP2A	Mx	-0.111	5.5
43	MP2B	X	79.155	0.5
44	MP2B	Z	137.101	0.5
45	MP2B	Mx	-0.111	0.5
46	MP2B	X	79.155	5.5
47	MP2B	Z	137.101	5.5
48	MP2B	Mx	-0.111	5.5
49	MP2C	X	79.155	0.5
50	MP2C	Z	137.101	0.5
51	MP2C	Mx	-0.111	0.5
52	MP2C	X	79.155	5.5
53	MP2C	Z	137.101	5.5
54	MP2C	Mx	-0.111	5.5
55	MP2A	X	79.155	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	MP2A	Z	137.101	0.5
57	MP2A	Mx	0.084	0.5
58	MP2A	X	79.155	5.5
59	MP2A	Z	137.101	5.5
60	MP2A	Mx	0.084	5.5
61	MP2B	X	79.155	0.5
62	MP2B	Z	137.101	0.5
63	MP2B	Mx	0.084	0.5
64	MP2B	X	79.155	5.5
65	MP2B	Z	137.101	5.5
66	MP2B	Mx	0.084	5.5
67	MP2C	X	79.155	0.5
68	MP2C	Z	137.101	0.5
69	MP2C	Mx	0.084	0.5
70	MP2C	X	79.155	5.5
71	MP2C	Z	137.101	5.5
72	MP2C	Mx	0.084	5.5
73	MP3A	X	20.307	2
74	MP3A	Z	35.173	2
75	MP3A	Mx	-0.013	2
76	MP3A	X	20.307	4
77	MP3A	Z	35.173	4
78	MP3A	Mx	-0.013	4
79	MP3B	X	23.244	2
80	MP3B	Z	40.26	2
81	MP3B	Mx	-0.012	2
82	MP3B	X	23.244	4
83	MP3B	Z	40.26	4
84	MP3B	Mx	-0.012	4
85	MP3C	X	9.745	2
86	MP3C	Z	16.88	2
87	MP3C	Mx	0.01	2
88	MP3C	X	9.745	4
89	MP3C	Z	16.88	4
90	MP3C	Mx	0.01	4
91	MP1A	X	32.521	2
92	MP1A	Z	56.328	2
93	MP1A	Mx	-0.006	2
94	MP1B	X	32.521	2
95	MP1B	Z	56.328	2
96	MP1B	Mx	-0.006	2
97	MP1C	X	32.521	2
98	MP1C	Z	56.328	2
99	MP1C	Mx	-0.006	2
100	MP2A	X	26.947	2
101	MP2A	Z	46.674	2
102	MP2A	Mx	-0.005	2
103	MP2B	X	26.947	2
104	MP2B	Z	46.674	2
105	MP2B	Mx	-0.005	2
106	MP2C	X	26.947	2
107	MP2C	Z	46.674	2
108	MP2C	Mx	-0.005	2
109	MP2A	X	6.437	4
110	MP2A	Z	11.149	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
111	MP2A	Mx	0	4
112	MP2B	X	6.437	4
113	MP2B	Z	11.149	4
114	MP2B	Mx	0	4
115	MP2C	X	6.437	4
116	MP2C	Z	11.149	4
117	MP2C	Mx	0	4
118	M31	X	55.261	1
119	M31	Z	95.715	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	0.5
2	MP1A	Z	168.027	0.5
3	MP1A	Mx	-0.015	0.5
4	MP1A	X	0	5.5
5	MP1A	Z	168.027	5.5
6	MP1A	Mx	-0.015	5.5
7	MP1B	X	0	0.5
8	MP1B	Z	155.068	0.5
9	MP1B	Mx	-0.067	0.5
10	MP1B	X	0	5.5
11	MP1B	Z	155.068	5.5
12	MP1B	Mx	-0.067	5.5
13	MP1C	X	0	0.5
14	MP1C	Z	151.11	0.5
15	MP1C	Mx	0.074	0.5
16	MP1C	X	0	5.5
17	MP1C	Z	151.11	5.5
18	MP1C	Mx	0.074	5.5
19	MP4A	X	0	0.5
20	MP4A	Z	168.027	0.5
21	MP4A	Mx	-0.015	0.5
22	MP4A	X	0	5.5
23	MP4A	Z	168.027	5.5
24	MP4A	Mx	-0.015	5.5
25	MP4B	X	0	0.5
26	MP4B	Z	155.068	0.5
27	MP4B	Mx	-0.067	0.5
28	MP4B	X	0	5.5
29	MP4B	Z	155.068	5.5
30	MP4B	Mx	-0.067	5.5
31	MP4C	X	0	0.5
32	MP4C	Z	151.11	0.5
33	MP4C	Mx	0.074	0.5
34	MP4C	X	0	5.5
35	MP4C	Z	151.11	5.5
36	MP4C	Mx	0.074	5.5
37	MP2A	X	0	0.5
38	MP2A	Z	153.544	0.5
39	MP2A	Mx	-0.064	0.5
40	MP2A	X	0	5.5
41	MP2A	Z	153.544	5.5
42	MP2A	Mx	-0.064	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
43	MP2B	X	0	0.5
44	MP2B	Z	153.544	0.5
45	MP2B	Mx	-0.064	0.5
46	MP2B	X	0	5.5
47	MP2B	Z	153.544	5.5
48	MP2B	Mx	-0.064	5.5
49	MP2C	X	0	0.5
50	MP2C	Z	153.544	0.5
51	MP2C	Mx	-0.064	0.5
52	MP2C	X	0	5.5
53	MP2C	Z	153.544	5.5
54	MP2C	Mx	-0.064	5.5
55	MP2A	X	0	0.5
56	MP2A	Z	153.544	0.5
57	MP2A	Mx	0.116	0.5
58	MP2A	X	0	5.5
59	MP2A	Z	153.544	5.5
60	MP2A	Mx	0.116	5.5
61	MP2B	X	0	0.5
62	MP2B	Z	153.544	0.5
63	MP2B	Mx	0.116	0.5
64	MP2B	X	0	5.5
65	MP2B	Z	153.544	5.5
66	MP2B	Mx	0.116	5.5
67	MP2C	X	0	0.5
68	MP2C	Z	153.544	0.5
69	MP2C	Mx	0.116	0.5
70	MP2C	X	0	5.5
71	MP2C	Z	153.544	5.5
72	MP2C	Mx	0.116	5.5
73	MP3A	X	0	2
74	MP3A	Z	54.402	2
75	MP3A	Mx	-0.005	2
76	MP3A	X	0	4
77	MP3A	Z	54.402	4
78	MP3A	Mx	-0.005	4
79	MP3B	X	0	2
80	MP3B	Z	28.49	2
81	MP3B	Mx	-0.012	2
82	MP3B	X	0	4
83	MP3B	Z	28.49	4
84	MP3B	Mx	-0.012	4
85	MP3C	X	0	2
86	MP3C	Z	28.49	2
87	MP3C	Mx	0.012	2
88	MP3C	X	0	4
89	MP3C	Z	28.49	4
90	MP3C	Mx	0.012	4
91	MP1A	X	0	2
92	MP1A	Z	63.228	2
93	MP1A	Mx	0.011	2
94	MP1B	X	0	2
95	MP1B	Z	63.228	2
96	MP1B	Mx	0.011	2
97	MP1C	X	0	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
98	MP1C	Z	63.228	2
99	MP1C	Mx	0.011	2
100	MP2A	X	0	2
101	MP2A	Z	52.339	2
102	MP2A	Mx	0.009	2
103	MP2B	X	0	2
104	MP2B	Z	52.339	2
105	MP2B	Mx	0.009	2
106	MP2C	X	0	2
107	MP2C	Z	52.339	2
108	MP2C	Mx	0.009	2
109	MP2A	X	0	4
110	MP2A	Z	12.526	4
111	MP2A	Mx	0	4
112	MP2B	X	0	4
113	MP2B	Z	12.526	4
114	MP2B	Mx	0	4
115	MP2C	X	0	4
116	MP2C	Z	12.526	4
117	MP2C	Mx	0	4
118	M31	X	0	1
119	M31	Z	108.204	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-83.232	0.5
2	MP1A	Z	144.162	0.5
3	MP1A	Mx	0.028	0.5
4	MP1A	X	-83.232	5.5
5	MP1A	Z	144.162	5.5
6	MP1A	Mx	0.028	5.5
7	MP1B	X	-75.284	0.5
8	MP1B	Z	130.395	0.5
9	MP1B	Mx	-0.075	0.5
10	MP1B	X	-75.284	5.5
11	MP1B	Z	130.395	5.5
12	MP1B	Mx	-0.075	5.5
13	MP1C	X	-76.337	0.5
14	MP1C	Z	132.219	0.5
15	MP1C	Mx	0.072	0.5
16	MP1C	X	-76.337	5.5
17	MP1C	Z	132.219	5.5
18	MP1C	Mx	0.072	5.5
19	MP4A	X	-83.232	0.5
20	MP4A	Z	144.162	0.5
21	MP4A	Mx	0.028	0.5
22	MP4A	X	-83.232	5.5
23	MP4A	Z	144.162	5.5
24	MP4A	Mx	0.028	5.5
25	MP4B	X	-75.284	0.5
26	MP4B	Z	130.395	0.5
27	MP4B	Mx	-0.075	0.5
28	MP4B	X	-75.284	5.5
29	MP4B	Z	130.395	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
30	MP4B	Mx	-0.075	5.5
31	MP4C	X	-76.337	0.5
32	MP4C	Z	132.219	0.5
33	MP4C	Mx	0.072	0.5
34	MP4C	X	-76.337	5.5
35	MP4C	Z	132.219	5.5
36	MP4C	Mx	0.072	5.5
37	MP2A	X	-63.874	0.5
38	MP2A	Z	110.633	0.5
39	MP2A	Mx	-0.002	0.5
40	MP2A	X	-63.874	5.5
41	MP2A	Z	110.633	5.5
42	MP2A	Mx	-0.002	5.5
43	MP2B	X	-63.874	0.5
44	MP2B	Z	110.633	0.5
45	MP2B	Mx	-0.002	0.5
46	MP2B	X	-63.874	5.5
47	MP2B	Z	110.633	5.5
48	MP2B	Mx	-0.002	5.5
49	MP2C	X	-63.874	0.5
50	MP2C	Z	110.633	0.5
51	MP2C	Mx	-0.002	0.5
52	MP2C	X	-63.874	5.5
53	MP2C	Z	110.633	5.5
54	MP2C	Mx	-0.002	5.5
55	MP2A	X	-63.874	0.5
56	MP2A	Z	110.633	0.5
57	MP2A	Mx	0.1	0.5
58	MP2A	X	-63.874	5.5
59	MP2A	Z	110.633	5.5
60	MP2A	Mx	0.1	5.5
61	MP2B	X	-63.874	0.5
62	MP2B	Z	110.633	0.5
63	MP2B	Mx	0.1	0.5
64	MP2B	X	-63.874	5.5
65	MP2B	Z	110.633	5.5
66	MP2B	Mx	0.1	5.5
67	MP2C	X	-63.874	0.5
68	MP2C	Z	110.633	0.5
69	MP2C	Mx	0.1	0.5
70	MP2C	X	-63.874	5.5
71	MP2C	Z	110.633	5.5
72	MP2C	Mx	0.1	5.5
73	MP3A	X	-25.638	2
74	MP3A	Z	44.407	2
75	MP3A	Mx	0.009	2
76	MP3A	X	-25.638	4
77	MP3A	Z	44.407	4
78	MP3A	Mx	0.009	4
79	MP3B	X	-9.745	2
80	MP3B	Z	16.88	2
81	MP3B	Mx	-0.01	2
82	MP3B	X	-9.745	4
83	MP3B	Z	16.88	4
84	MP3B	Mx	-0.01	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
85	MP3C	X	-23.244	2
86	MP3C	Z	40.26	2
87	MP3C	Mx	0.012	2
88	MP3C	X	-23.244	4
89	MP3C	Z	40.26	4
90	MP3C	Mx	0.012	4
91	MP1A	X	-26.705	2
92	MP1A	Z	46.254	2
93	MP1A	Mx	0.02	2
94	MP1B	X	-26.705	2
95	MP1B	Z	46.254	2
96	MP1B	Mx	0.02	2
97	MP1C	X	-26.705	2
98	MP1C	Z	46.254	2
99	MP1C	Mx	0.02	2
100	MP2A	X	-21.962	2
101	MP2A	Z	38.039	2
102	MP2A	Mx	0.017	2
103	MP2B	X	-21.962	2
104	MP2B	Z	38.039	2
105	MP2B	Mx	0.017	2
106	MP2C	X	-21.962	2
107	MP2C	Z	38.039	2
108	MP2C	Mx	0.017	2
109	MP2A	X	-5.322	4
110	MP2A	Z	9.218	4
111	MP2A	Mx	0	4
112	MP2B	X	-5.322	4
113	MP2B	Z	9.218	4
114	MP2B	Mx	0	4
115	MP2C	X	-5.322	4
116	MP2C	Z	9.218	4
117	MP2C	Mx	0	4
118	M31	X	-47.832	1
119	M31	Z	82.847	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-136.837	0.5
2	MP1A	Z	79.003	0.5
3	MP1A	Mx	0.061	0.5
4	MP1A	X	-136.837	5.5
5	MP1A	Z	79.003	5.5
6	MP1A	Mx	0.061	5.5
7	MP1B	X	-134.293	0.5
8	MP1B	Z	77.534	0.5
9	MP1B	Mx	-0.067	0.5
10	MP1B	X	-134.293	5.5
11	MP1B	Z	77.534	5.5
12	MP1B	Mx	-0.067	5.5
13	MP1C	X	-139.544	0.5
14	MP1C	Z	80.566	0.5
15	MP1C	Mx	0.052	0.5
16	MP1C	X	-139.544	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
17	MP1C	Z	80.566	5.5
18	MP1C	Mx	0.052	5.5
19	MP4A	X	-136.837	0.5
20	MP4A	Z	79.003	0.5
21	MP4A	Mx	0.061	0.5
22	MP4A	X	-136.837	5.5
23	MP4A	Z	79.003	5.5
24	MP4A	Mx	0.061	5.5
25	MP4B	X	-134.293	0.5
26	MP4B	Z	77.534	0.5
27	MP4B	Mx	-0.067	0.5
28	MP4B	X	-134.293	5.5
29	MP4B	Z	77.534	5.5
30	MP4B	Mx	-0.067	5.5
31	MP4C	X	-139.544	0.5
32	MP4C	Z	80.566	0.5
33	MP4C	Mx	0.052	0.5
34	MP4C	X	-139.544	5.5
35	MP4C	Z	80.566	5.5
36	MP4C	Mx	0.052	5.5
37	MP2A	X	-92.421	0.5
38	MP2A	Z	53.36	0.5
39	MP2A	Mx	0.041	0.5
40	MP2A	X	-92.421	5.5
41	MP2A	Z	53.36	5.5
42	MP2A	Mx	0.041	5.5
43	MP2B	X	-92.421	0.5
44	MP2B	Z	53.36	0.5
45	MP2B	Mx	0.041	0.5
46	MP2B	X	-92.421	5.5
47	MP2B	Z	53.36	5.5
48	MP2B	Mx	0.041	5.5
49	MP2C	X	-92.421	0.5
50	MP2C	Z	53.36	0.5
51	MP2C	Mx	0.041	0.5
52	MP2C	X	-92.421	5.5
53	MP2C	Z	53.36	5.5
54	MP2C	Mx	0.041	5.5
55	MP2A	X	-92.421	0.5
56	MP2A	Z	53.36	0.5
57	MP2A	Mx	0.064	0.5
58	MP2A	X	-92.421	5.5
59	MP2A	Z	53.36	5.5
60	MP2A	Mx	0.064	5.5
61	MP2B	X	-92.421	0.5
62	MP2B	Z	53.36	0.5
63	MP2B	Mx	0.064	0.5
64	MP2B	X	-92.421	5.5
65	MP2B	Z	53.36	5.5
66	MP2B	Mx	0.064	5.5
67	MP2C	X	-92.421	0.5
68	MP2C	Z	53.36	0.5
69	MP2C	Mx	0.064	0.5
70	MP2C	X	-92.421	5.5
71	MP2C	Z	53.36	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
72	MP2C	Mx	0.064	5.5
73	MP3A	X	-29.76	2
74	MP3A	Z	17.182	2
75	MP3A	Mx	0.013	2
76	MP3A	X	-29.76	4
77	MP3A	Z	17.182	4
78	MP3A	Mx	0.013	4
79	MP3B	X	-24.673	2
80	MP3B	Z	14.245	2
81	MP3B	Mx	-0.012	2
82	MP3B	X	-24.673	4
83	MP3B	Z	14.245	4
84	MP3B	Mx	-0.012	4
85	MP3C	X	-48.054	2
86	MP3C	Z	27.744	2
87	MP3C	Mx	0	2
88	MP3C	X	-48.054	4
89	MP3C	Z	27.744	4
90	MP3C	Mx	0	4
91	MP1A	X	-39.323	2
92	MP1A	Z	22.703	2
93	MP1A	Mx	0.022	2
94	MP1B	X	-39.323	2
95	MP1B	Z	22.703	2
96	MP1B	Mx	0.022	2
97	MP1C	X	-39.323	2
98	MP1C	Z	22.703	2
99	MP1C	Mx	0.022	2
100	MP2A	X	-32.098	2
101	MP2A	Z	18.532	2
102	MP2A	Mx	0.018	2
103	MP2B	X	-32.098	2
104	MP2B	Z	18.532	2
105	MP2B	Mx	0.018	2
106	MP2C	X	-32.098	2
107	MP2C	Z	18.532	2
108	MP2C	Mx	0.018	2
109	MP2A	X	-7.89	4
110	MP2A	Z	4.556	4
111	MP2A	Mx	0	4
112	MP2B	X	-7.89	4
113	MP2B	Z	4.556	4
114	MP2B	Mx	0	4
115	MP2C	X	-7.89	4
116	MP2C	Z	4.556	4
117	MP2C	Mx	0	4
118	M31	X	-73.994	1
119	M31	Z	42.72	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-151.11	0.5
2	MP1A	Z	0	0.5
3	MP1A	Mx	0.074	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
4	MP1A	X	-151.11	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	0.074	5.5
7	MP1B	X	-164.069	0.5
8	MP1B	Z	0	0.5
9	MP1B	Mx	-0.041	0.5
10	MP1B	X	-164.069	5.5
11	MP1B	Z	0	5.5
12	MP1B	Mx	-0.041	5.5
13	MP1C	X	-168.027	0.5
14	MP1C	Z	0	0.5
15	MP1C	Mx	0.015	0.5
16	MP1C	X	-168.027	5.5
17	MP1C	Z	0	5.5
18	MP1C	Mx	0.015	5.5
19	MP4A	X	-151.11	0.5
20	MP4A	Z	0	0.5
21	MP4A	Mx	0.074	0.5
22	MP4A	X	-151.11	5.5
23	MP4A	Z	0	5.5
24	MP4A	Mx	0.074	5.5
25	MP4B	X	-164.069	0.5
26	MP4B	Z	0	0.5
27	MP4B	Mx	-0.041	0.5
28	MP4B	X	-164.069	5.5
29	MP4B	Z	0	5.5
30	MP4B	Mx	-0.041	5.5
31	MP4C	X	-168.027	0.5
32	MP4C	Z	0	0.5
33	MP4C	Mx	0.015	0.5
34	MP4C	X	-168.027	5.5
35	MP4C	Z	0	5.5
36	MP4C	Mx	0.015	5.5
37	MP2A	X	-111.486	0.5
38	MP2A	Z	0	0.5
39	MP2A	Mx	0.076	0.5
40	MP2A	X	-111.486	5.5
41	MP2A	Z	0	5.5
42	MP2A	Mx	0.076	5.5
43	MP2B	X	-111.486	0.5
44	MP2B	Z	0	0.5
45	MP2B	Mx	0.076	0.5
46	MP2B	X	-111.486	5.5
47	MP2B	Z	0	5.5
48	MP2B	Mx	0.076	5.5
49	MP2C	X	-111.486	0.5
50	MP2C	Z	0	0.5
51	MP2C	Mx	0.076	0.5
52	MP2C	X	-111.486	5.5
53	MP2C	Z	0	5.5
54	MP2C	Mx	0.076	5.5
55	MP2A	X	-111.486	0.5
56	MP2A	Z	0	0.5
57	MP2A	Mx	0.029	0.5
58	MP2A	X	-111.486	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
59	MP2A	Z	0	5.5
60	MP2A	Mx	0.029	5.5
61	MP2B	X	-111.486	0.5
62	MP2B	Z	0	0.5
63	MP2B	Mx	0.029	0.5
64	MP2B	X	-111.486	5.5
65	MP2B	Z	0	5.5
66	MP2B	Mx	0.029	5.5
67	MP2C	X	-111.486	0.5
68	MP2C	Z	0	0.5
69	MP2C	Mx	0.029	0.5
70	MP2C	X	-111.486	5.5
71	MP2C	Z	0	5.5
72	MP2C	Mx	0.029	5.5
73	MP3A	X	-20.576	2
74	MP3A	Z	0	2
75	MP3A	Mx	0.01	2
76	MP3A	X	-20.576	4
77	MP3A	Z	0	4
78	MP3A	Mx	0.01	4
79	MP3B	X	-46.488	2
80	MP3B	Z	0	2
81	MP3B	Mx	-0.012	2
82	MP3B	X	-46.488	4
83	MP3B	Z	0	4
84	MP3B	Mx	-0.012	4
85	MP3C	X	-46.488	2
86	MP3C	Z	0	2
87	MP3C	Mx	-0.012	2
88	MP3C	X	-46.488	4
89	MP3C	Z	0	4
90	MP3C	Mx	-0.012	4
91	MP1A	X	-47.221	2
92	MP1A	Z	0	2
93	MP1A	Mx	0.022	2
94	MP1B	X	-47.221	2
95	MP1B	Z	0	2
96	MP1B	Mx	0.022	2
97	MP1C	X	-47.221	2
98	MP1C	Z	0	2
99	MP1C	Mx	0.022	2
100	MP2A	X	-38.619	2
101	MP2A	Z	0	2
102	MP2A	Mx	0.018	2
103	MP2B	X	-38.619	2
104	MP2B	Z	0	2
105	MP2B	Mx	0.018	2
106	MP2C	X	-38.619	2
107	MP2C	Z	0	2
108	MP2C	Mx	0.018	2
109	MP2A	X	-9.459	4
110	MP2A	Z	0	4
111	MP2A	Mx	0	4
112	MP2B	X	-9.459	4
113	MP2B	Z	0	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
114	MP2B	Mx	0	4
115	MP2C	X	-9.459	4
116	MP2C	Z	0	4
117	MP2C	Mx	0	4
118	M31	X	-87.758	1
119	M31	Z	0	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-132.219	0.5
2	MP1A	Z	-76.337	0.5
3	MP1A	Mx	0.072	0.5
4	MP1A	X	-132.219	5.5
5	MP1A	Z	-76.337	5.5
6	MP1A	Mx	0.072	5.5
7	MP1B	X	-145.986	0.5
8	MP1B	Z	-84.285	0.5
9	MP1B	Mx	0	0.5
10	MP1B	X	-145.986	5.5
11	MP1B	Z	-84.285	5.5
12	MP1B	Mx	0	5.5
13	MP1C	X	-144.162	0.5
14	MP1C	Z	-83.232	0.5
15	MP1C	Mx	-0.028	0.5
16	MP1C	X	-144.162	5.5
17	MP1C	Z	-83.232	5.5
18	MP1C	Mx	-0.028	5.5
19	MP4A	X	-132.219	0.5
20	MP4A	Z	-76.337	0.5
21	MP4A	Mx	0.072	0.5
22	MP4A	X	-132.219	5.5
23	MP4A	Z	-76.337	5.5
24	MP4A	Mx	0.072	5.5
25	MP4B	X	-145.986	0.5
26	MP4B	Z	-84.285	0.5
27	MP4B	Mx	0	0.5
28	MP4B	X	-145.986	5.5
29	MP4B	Z	-84.285	5.5
30	MP4B	Mx	0	5.5
31	MP4C	X	-144.162	0.5
32	MP4C	Z	-83.232	0.5
33	MP4C	Mx	-0.028	0.5
34	MP4C	X	-144.162	5.5
35	MP4C	Z	-83.232	5.5
36	MP4C	Mx	-0.028	5.5
37	MP2A	X	-118.889	0.5
38	MP2A	Z	-68.641	0.5
39	MP2A	Mx	0.11	0.5
40	MP2A	X	-118.889	5.5
41	MP2A	Z	-68.641	5.5
42	MP2A	Mx	0.11	5.5
43	MP2B	X	-118.889	0.5
44	MP2B	Z	-68.641	0.5
45	MP2B	Mx	0.11	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
46	MP2B	X	-118.889	5.5
47	MP2B	Z	-68.641	5.5
48	MP2B	Mx	0.11	5.5
49	MP2C	X	-118.889	0.5
50	MP2C	Z	-68.641	0.5
51	MP2C	Mx	0.11	0.5
52	MP2C	X	-118.889	5.5
53	MP2C	Z	-68.641	5.5
54	MP2C	Mx	0.11	5.5
55	MP2A	X	-118.889	0.5
56	MP2A	Z	-68.641	0.5
57	MP2A	Mx	-0.022	0.5
58	MP2A	X	-118.889	5.5
59	MP2A	Z	-68.641	5.5
60	MP2A	Mx	-0.022	5.5
61	MP2B	X	-118.889	0.5
62	MP2B	Z	-68.641	0.5
63	MP2B	Mx	-0.022	0.5
64	MP2B	X	-118.889	5.5
65	MP2B	Z	-68.641	5.5
66	MP2B	Mx	-0.022	5.5
67	MP2C	X	-118.889	0.5
68	MP2C	Z	-68.641	0.5
69	MP2C	Mx	-0.022	0.5
70	MP2C	X	-118.889	5.5
71	MP2C	Z	-68.641	5.5
72	MP2C	Mx	-0.022	5.5
73	MP3A	X	-20.526	2
74	MP3A	Z	-11.851	2
75	MP3A	Mx	0.011	2
76	MP3A	X	-20.526	4
77	MP3A	Z	-11.851	4
78	MP3A	Mx	0.011	4
79	MP3B	X	-48.054	2
80	MP3B	Z	-27.744	2
81	MP3B	Mx	0	2
82	MP3B	X	-48.054	4
83	MP3B	Z	-27.744	4
84	MP3B	Mx	0	4
85	MP3C	X	-24.673	2
86	MP3C	Z	-14.245	2
87	MP3C	Mx	-0.012	2
88	MP3C	X	-24.673	4
89	MP3C	Z	-14.245	4
90	MP3C	Mx	-0.012	4
91	MP1A	X	-49.397	2
92	MP1A	Z	-28.519	2
93	MP1A	Mx	0.018	2
94	MP1B	X	-49.397	2
95	MP1B	Z	-28.519	2
96	MP1B	Mx	0.018	2
97	MP1C	X	-49.397	2
98	MP1C	Z	-28.519	2
99	MP1C	Mx	0.018	2
100	MP2A	X	-40.733	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
101	MP2A	Z	-23.517	2
102	MP2A	Mx	0.015	2
103	MP2B	X	-40.733	2
104	MP2B	Z	-23.517	2
105	MP2B	Mx	0.015	2
106	MP2C	X	-40.733	2
107	MP2C	Z	-23.517	2
108	MP2C	Mx	0.015	2
109	MP2A	X	-9.821	4
110	MP2A	Z	-5.67	4
111	MP2A	Mx	0	4
112	MP2B	X	-9.821	4
113	MP2B	Z	-5.67	4
114	MP2B	Mx	0	4
115	MP2C	X	-9.821	4
116	MP2C	Z	-5.67	4
117	MP2C	Mx	0	4
118	M31	X	-86.861	1
119	M31	Z	-50.149	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-80.566	0.5
2	MP1A	Z	-139.544	0.5
3	MP1A	Mx	0.052	0.5
4	MP1A	X	-80.566	5.5
5	MP1A	Z	-139.544	5.5
6	MP1A	Mx	0.052	5.5
7	MP1B	X	-82.035	0.5
8	MP1B	Z	-142.088	0.5
9	MP1B	Mx	0.041	0.5
10	MP1B	X	-82.035	5.5
11	MP1B	Z	-142.088	5.5
12	MP1B	Mx	0.041	5.5
13	MP1C	X	-79.003	0.5
14	MP1C	Z	-136.837	0.5
15	MP1C	Mx	-0.061	0.5
16	MP1C	X	-79.003	5.5
17	MP1C	Z	-136.837	5.5
18	MP1C	Mx	-0.061	5.5
19	MP4A	X	-80.566	0.5
20	MP4A	Z	-139.544	0.5
21	MP4A	Mx	0.052	0.5
22	MP4A	X	-80.566	5.5
23	MP4A	Z	-139.544	5.5
24	MP4A	Mx	0.052	5.5
25	MP4B	X	-82.035	0.5
26	MP4B	Z	-142.088	0.5
27	MP4B	Mx	0.041	0.5
28	MP4B	X	-82.035	5.5
29	MP4B	Z	-142.088	5.5
30	MP4B	Mx	0.041	5.5
31	MP4C	X	-79.003	0.5
32	MP4C	Z	-136.837	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
33	MP4C	Mx	-0.061	0.5
34	MP4C	X	-79.003	5.5
35	MP4C	Z	-136.837	5.5
36	MP4C	Mx	-0.061	5.5
37	MP2A	X	-79.155	0.5
38	MP2A	Z	-137.101	0.5
39	MP2A	Mx	0.111	0.5
40	MP2A	X	-79.155	5.5
41	MP2A	Z	-137.101	5.5
42	MP2A	Mx	0.111	5.5
43	MP2B	X	-79.155	0.5
44	MP2B	Z	-137.101	0.5
45	MP2B	Mx	0.111	0.5
46	MP2B	X	-79.155	5.5
47	MP2B	Z	-137.101	5.5
48	MP2B	Mx	0.111	5.5
49	MP2C	X	-79.155	0.5
50	MP2C	Z	-137.101	0.5
51	MP2C	Mx	0.111	0.5
52	MP2C	X	-79.155	5.5
53	MP2C	Z	-137.101	5.5
54	MP2C	Mx	0.111	5.5
55	MP2A	X	-79.155	0.5
56	MP2A	Z	-137.101	0.5
57	MP2A	Mx	-0.084	0.5
58	MP2A	X	-79.155	5.5
59	MP2A	Z	-137.101	5.5
60	MP2A	Mx	-0.084	5.5
61	MP2B	X	-79.155	0.5
62	MP2B	Z	-137.101	0.5
63	MP2B	Mx	-0.084	0.5
64	MP2B	X	-79.155	5.5
65	MP2B	Z	-137.101	5.5
66	MP2B	Mx	-0.084	5.5
67	MP2C	X	-79.155	0.5
68	MP2C	Z	-137.101	0.5
69	MP2C	Mx	-0.084	0.5
70	MP2C	X	-79.155	5.5
71	MP2C	Z	-137.101	5.5
72	MP2C	Mx	-0.084	5.5
73	MP3A	X	-20.307	2
74	MP3A	Z	-35.173	2
75	MP3A	Mx	0.013	2
76	MP3A	X	-20.307	4
77	MP3A	Z	-35.173	4
78	MP3A	Mx	0.013	4
79	MP3B	X	-23.244	2
80	MP3B	Z	-40.26	2
81	MP3B	Mx	0.012	2
82	MP3B	X	-23.244	4
83	MP3B	Z	-40.26	4
84	MP3B	Mx	0.012	4
85	MP3C	X	-9.745	2
86	MP3C	Z	-16.88	2
87	MP3C	Mx	-0.01	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
88	MP3C	X	-9.745	4
89	MP3C	Z	-16.88	4
90	MP3C	Mx	-0.01	4
91	MP1A	X	-32.521	2
92	MP1A	Z	-56.328	2
93	MP1A	Mx	0.006	2
94	MP1B	X	-32.521	2
95	MP1B	Z	-56.328	2
96	MP1B	Mx	0.006	2
97	MP1C	X	-32.521	2
98	MP1C	Z	-56.328	2
99	MP1C	Mx	0.006	2
100	MP2A	X	-26.947	2
101	MP2A	Z	-46.674	2
102	MP2A	Mx	0.005	2
103	MP2B	X	-26.947	2
104	MP2B	Z	-46.674	2
105	MP2B	Mx	0.005	2
106	MP2C	X	-26.947	2
107	MP2C	Z	-46.674	2
108	MP2C	Mx	0.005	2
109	MP2A	X	-6.437	4
110	MP2A	Z	-11.149	4
111	MP2A	Mx	0	4
112	MP2B	X	-6.437	4
113	MP2B	Z	-11.149	4
114	MP2B	Mx	0	4
115	MP2C	X	-6.437	4
116	MP2C	Z	-11.149	4
117	MP2C	Mx	0	4
118	M31	X	-55.261	1
119	M31	Z	-95.715	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	0.5
2	MP1A	Z	-31.899	0.5
3	MP1A	Mx	0.003	0.5
4	MP1A	X	0	5.5
5	MP1A	Z	-31.899	5.5
6	MP1A	Mx	0.003	5.5
7	MP1B	X	0	0.5
8	MP1B	Z	-29.59	0.5
9	MP1B	Mx	0.013	0.5
10	MP1B	X	0	5.5
11	MP1B	Z	-29.59	5.5
12	MP1B	Mx	0.013	5.5
13	MP1C	X	0	0.5
14	MP1C	Z	-28.885	0.5
15	MP1C	Mx	-0.014	0.5
16	MP1C	X	0	5.5
17	MP1C	Z	-28.885	5.5
18	MP1C	Mx	-0.014	5.5
19	MP4A	X	0	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
20	MP4A	Z	-31.899	0.5
21	MP4A	Mx	0.003	0.5
22	MP4A	X	0	5.5
23	MP4A	Z	-31.899	5.5
24	MP4A	Mx	0.003	5.5
25	MP4B	X	0	0.5
26	MP4B	Z	-29.59	0.5
27	MP4B	Mx	0.013	0.5
28	MP4B	X	0	5.5
29	MP4B	Z	-29.59	5.5
30	MP4B	Mx	0.013	5.5
31	MP4C	X	0	0.5
32	MP4C	Z	-28.885	0.5
33	MP4C	Mx	-0.014	0.5
34	MP4C	X	0	5.5
35	MP4C	Z	-28.885	5.5
36	MP4C	Mx	-0.014	5.5
37	MP2A	X	0	0.5
38	MP2A	Z	-29.365	0.5
39	MP2A	Mx	0.012	0.5
40	MP2A	X	0	5.5
41	MP2A	Z	-29.365	5.5
42	MP2A	Mx	0.012	5.5
43	MP2B	X	0	0.5
44	MP2B	Z	-29.365	0.5
45	MP2B	Mx	0.012	0.5
46	MP2B	X	0	5.5
47	MP2B	Z	-29.365	5.5
48	MP2B	Mx	0.012	5.5
49	MP2C	X	0	0.5
50	MP2C	Z	-29.365	0.5
51	MP2C	Mx	0.012	0.5
52	MP2C	X	0	5.5
53	MP2C	Z	-29.365	5.5
54	MP2C	Mx	0.012	5.5
55	MP2A	X	0	0.5
56	MP2A	Z	-29.365	0.5
57	MP2A	Mx	-0.022	0.5
58	MP2A	X	0	5.5
59	MP2A	Z	-29.365	5.5
60	MP2A	Mx	-0.022	5.5
61	MP2B	X	0	0.5
62	MP2B	Z	-29.365	0.5
63	MP2B	Mx	-0.022	0.5
64	MP2B	X	0	5.5
65	MP2B	Z	-29.365	5.5
66	MP2B	Mx	-0.022	5.5
67	MP2C	X	0	0.5
68	MP2C	Z	-29.365	0.5
69	MP2C	Mx	-0.022	0.5
70	MP2C	X	0	5.5
71	MP2C	Z	-29.365	5.5
72	MP2C	Mx	-0.022	5.5
73	MP3A	X	0	2
74	MP3A	Z	-13.017	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
75	MP3A	Mx	0.001	2
76	MP3A	X	0	4
77	MP3A	Z	-13.017	4
78	MP3A	Mx	0.001	4
79	MP3B	X	0	2
80	MP3B	Z	-7.516	2
81	MP3B	Mx	0.003	2
82	MP3B	X	0	4
83	MP3B	Z	-7.516	4
84	MP3B	Mx	0.003	4
85	MP3C	X	0	2
86	MP3C	Z	-7.516	2
87	MP3C	Mx	-0.003	2
88	MP3C	X	0	4
89	MP3C	Z	-7.516	4
90	MP3C	Mx	-0.003	4
91	MP1A	X	0	2
92	MP1A	Z	-13.23	2
93	MP1A	Mx	-0.002	2
94	MP1B	X	0	2
95	MP1B	Z	-13.23	2
96	MP1B	Mx	-0.002	2
97	MP1C	X	0	2
98	MP1C	Z	-13.23	2
99	MP1C	Mx	-0.002	2
100	MP2A	X	0	2
101	MP2A	Z	-13.21	2
102	MP2A	Mx	-0.002	2
103	MP2B	X	0	2
104	MP2B	Z	-13.21	2
105	MP2B	Mx	-0.002	2
106	MP2C	X	0	2
107	MP2C	Z	-13.21	2
108	MP2C	Mx	-0.002	2
109	MP2A	X	0	4
110	MP2A	Z	-3.243	4
111	MP2A	Mx	0	4
112	MP2B	X	0	4
113	MP2B	Z	-3.243	4
114	MP2B	Mx	0	4
115	MP2C	X	0	4
116	MP2C	Z	-3.243	4
117	MP2C	Mx	0	4
118	M31	X	0	1
119	M31	Z	-27.4	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	15.81	0.5
2	MP1A	Z	-27.384	0.5
3	MP1A	Mx	-0.005	0.5
4	MP1A	X	15.81	5.5
5	MP1A	Z	-27.384	5.5
6	MP1A	Mx	-0.005	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
7	MP1B	X	14.394	0.5
8	MP1B	Z	-24.931	0.5
9	MP1B	Mx	0.014	0.5
10	MP1B	X	14.394	5.5
11	MP1B	Z	-24.931	5.5
12	MP1B	Mx	0.014	5.5
13	MP1C	X	14.582	0.5
14	MP1C	Z	-25.256	0.5
15	MP1C	Mx	-0.014	0.5
16	MP1C	X	14.582	5.5
17	MP1C	Z	-25.256	5.5
18	MP1C	Mx	-0.014	5.5
19	MP4A	X	15.81	0.5
20	MP4A	Z	-27.384	0.5
21	MP4A	Mx	-0.005	0.5
22	MP4A	X	15.81	5.5
23	MP4A	Z	-27.384	5.5
24	MP4A	Mx	-0.005	5.5
25	MP4B	X	14.394	0.5
26	MP4B	Z	-24.931	0.5
27	MP4B	Mx	0.014	0.5
28	MP4B	X	14.394	5.5
29	MP4B	Z	-24.931	5.5
30	MP4B	Mx	0.014	5.5
31	MP4C	X	14.582	0.5
32	MP4C	Z	-25.256	0.5
33	MP4C	Mx	-0.014	0.5
34	MP4C	X	14.582	5.5
35	MP4C	Z	-25.256	5.5
36	MP4C	Mx	-0.014	5.5
37	MP2A	X	12.409	0.5
38	MP2A	Z	-21.494	0.5
39	MP2A	Mx	0.000465	0.5
40	MP2A	X	12.409	5.5
41	MP2A	Z	-21.494	5.5
42	MP2A	Mx	0.000465	5.5
43	MP2B	X	12.409	0.5
44	MP2B	Z	-21.494	0.5
45	MP2B	Mx	0.000465	0.5
46	MP2B	X	12.409	5.5
47	MP2B	Z	-21.494	5.5
48	MP2B	Mx	0.000465	5.5
49	MP2C	X	12.409	0.5
50	MP2C	Z	-21.494	0.5
51	MP2C	Mx	0.000465	0.5
52	MP2C	X	12.409	5.5
53	MP2C	Z	-21.494	5.5
54	MP2C	Mx	0.000465	5.5
55	MP2A	X	12.409	0.5
56	MP2A	Z	-21.494	0.5
57	MP2A	Mx	-0.019	0.5
58	MP2A	X	12.409	5.5
59	MP2A	Z	-21.494	5.5
60	MP2A	Mx	-0.019	5.5
61	MP2B	X	12.409	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
62	MP2B	Z	-21.494	0.5
63	MP2B	Mx	-0.019	0.5
64	MP2B	X	12.409	5.5
65	MP2B	Z	-21.494	5.5
66	MP2B	Mx	-0.019	5.5
67	MP2C	X	12.409	0.5
68	MP2C	Z	-21.494	0.5
69	MP2C	Mx	-0.019	0.5
70	MP2C	X	12.409	5.5
71	MP2C	Z	-21.494	5.5
72	MP2C	Mx	-0.019	5.5
73	MP3A	X	6.177	2
74	MP3A	Z	-10.698	2
75	MP3A	Mx	-0.002	2
76	MP3A	X	6.177	4
77	MP3A	Z	-10.698	4
78	MP3A	Mx	-0.002	4
79	MP3B	X	2.803	2
80	MP3B	Z	-4.855	2
81	MP3B	Mx	0.003	2
82	MP3B	X	2.803	4
83	MP3B	Z	-4.855	4
84	MP3B	Mx	0.003	4
85	MP3C	X	5.668	2
86	MP3C	Z	-9.818	2
87	MP3C	Mx	-0.003	2
88	MP3C	X	5.668	4
89	MP3C	Z	-9.818	4
90	MP3C	Mx	-0.003	4
91	MP1A	X	5.676	2
92	MP1A	Z	-9.832	2
93	MP1A	Mx	-0.004	2
94	MP1B	X	5.676	2
95	MP1B	Z	-9.832	2
96	MP1B	Mx	-0.004	2
97	MP1C	X	5.676	2
98	MP1C	Z	-9.832	2
99	MP1C	Mx	-0.004	2
100	MP2A	X	5.628	2
101	MP2A	Z	-9.747	2
102	MP2A	Mx	-0.004	2
103	MP2B	X	5.628	2
104	MP2B	Z	-9.747	2
105	MP2B	Mx	-0.004	2
106	MP2C	X	5.628	2
107	MP2C	Z	-9.747	2
108	MP2C	Mx	-0.004	2
109	MP2A	X	1.426	4
110	MP2A	Z	-2.471	4
111	MP2A	Mx	0	4
112	MP2B	X	1.426	4
113	MP2B	Z	-2.471	4
114	MP2B	Mx	0	4
115	MP2C	X	1.426	4
116	MP2C	Z	-2.471	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
117	MP2C	Mx	0	4
118	M31	X	12.263	1
119	M31	Z	-21.239	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	26.079	0.5
2	MP1A	Z	-15.057	0.5
3	MP1A	Mx	-0.012	0.5
4	MP1A	X	26.079	5.5
5	MP1A	Z	-15.057	5.5
6	MP1A	Mx	-0.012	5.5
7	MP1B	X	25.626	0.5
8	MP1B	Z	-14.795	0.5
9	MP1B	Mx	0.013	0.5
10	MP1B	X	25.626	5.5
11	MP1B	Z	-14.795	5.5
12	MP1B	Mx	0.013	5.5
13	MP1C	X	26.561	0.5
14	MP1C	Z	-15.335	0.5
15	MP1C	Mx	-0.01	0.5
16	MP1C	X	26.561	5.5
17	MP1C	Z	-15.335	5.5
18	MP1C	Mx	-0.01	5.5
19	MP4A	X	26.079	0.5
20	MP4A	Z	-15.057	0.5
21	MP4A	Mx	-0.012	0.5
22	MP4A	X	26.079	5.5
23	MP4A	Z	-15.057	5.5
24	MP4A	Mx	-0.012	5.5
25	MP4B	X	25.626	0.5
26	MP4B	Z	-14.795	0.5
27	MP4B	Mx	0.013	0.5
28	MP4B	X	25.626	5.5
29	MP4B	Z	-14.795	5.5
30	MP4B	Mx	0.013	5.5
31	MP4C	X	26.561	0.5
32	MP4C	Z	-15.335	0.5
33	MP4C	Mx	-0.01	0.5
34	MP4C	X	26.561	5.5
35	MP4C	Z	-15.335	5.5
36	MP4C	Mx	-0.01	5.5
37	MP2A	X	18.284	0.5
38	MP2A	Z	-10.556	0.5
39	MP2A	Mx	-0.008	0.5
40	MP2A	X	18.284	5.5
41	MP2A	Z	-10.556	5.5
42	MP2A	Mx	-0.008	5.5
43	MP2B	X	18.284	0.5
44	MP2B	Z	-10.556	0.5
45	MP2B	Mx	-0.008	0.5
46	MP2B	X	18.284	5.5
47	MP2B	Z	-10.556	5.5
48	MP2B	Mx	-0.008	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
49	MP2C	X	18.284	0.5
50	MP2C	Z	-10.556	0.5
51	MP2C	Mx	-0.008	0.5
52	MP2C	X	18.284	5.5
53	MP2C	Z	-10.556	5.5
54	MP2C	Mx	-0.008	5.5
55	MP2A	X	18.284	0.5
56	MP2A	Z	-10.556	0.5
57	MP2A	Mx	-0.013	0.5
58	MP2A	X	18.284	5.5
59	MP2A	Z	-10.556	5.5
60	MP2A	Mx	-0.013	5.5
61	MP2B	X	18.284	0.5
62	MP2B	Z	-10.556	0.5
63	MP2B	Mx	-0.013	0.5
64	MP2B	X	18.284	5.5
65	MP2B	Z	-10.556	5.5
66	MP2B	Mx	-0.013	5.5
67	MP2C	X	18.284	0.5
68	MP2C	Z	-10.556	0.5
69	MP2C	Mx	-0.013	0.5
70	MP2C	X	18.284	5.5
71	MP2C	Z	-10.556	5.5
72	MP2C	Mx	-0.013	5.5
73	MP3A	X	7.589	2
74	MP3A	Z	-4.381	2
75	MP3A	Mx	-0.003	2
76	MP3A	X	7.589	4
77	MP3A	Z	-4.381	4
78	MP3A	Mx	-0.003	4
79	MP3B	X	6.509	2
80	MP3B	Z	-3.758	2
81	MP3B	Mx	0.003	2
82	MP3B	X	6.509	4
83	MP3B	Z	-3.758	4
84	MP3B	Mx	0.003	4
85	MP3C	X	11.472	2
86	MP3C	Z	-6.623	2
87	MP3C	Mx	0	2
88	MP3C	X	11.472	4
89	MP3C	Z	-6.623	4
90	MP3C	Mx	0	4
91	MP1A	X	8.507	2
92	MP1A	Z	-4.912	2
93	MP1A	Mx	-0.005	2
94	MP1B	X	8.507	2
95	MP1B	Z	-4.912	2
96	MP1B	Mx	-0.005	2
97	MP1C	X	8.507	2
98	MP1C	Z	-4.912	2
99	MP1C	Mx	-0.005	2
100	MP2A	X	8.367	2
101	MP2A	Z	-4.831	2
102	MP2A	Mx	-0.005	2
103	MP2B	X	8.367	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
104	MP2B	Z	-4.831	2
105	MP2B	Mx	-0.005	2
106	MP2C	X	8.367	2
107	MP2C	Z	-4.831	2
108	MP2C	Mx	-0.005	2
109	MP2A	X	2.195	4
110	MP2A	Z	-1.267	4
111	MP2A	Mx	0	4
112	MP2B	X	2.195	4
113	MP2B	Z	-1.267	4
114	MP2B	Mx	0	4
115	MP2C	X	2.195	4
116	MP2C	Z	-1.267	4
117	MP2C	Mx	0	4
118	M31	X	19.21	1
119	M31	Z	-11.091	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	28.885	0.5
2	MP1A	Z	0	0.5
3	MP1A	Mx	-0.014	0.5
4	MP1A	X	28.885	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	-0.014	5.5
7	MP1B	X	31.194	0.5
8	MP1B	Z	0	0.5
9	MP1B	Mx	0.008	0.5
10	MP1B	X	31.194	5.5
11	MP1B	Z	0	5.5
12	MP1B	Mx	0.008	5.5
13	MP1C	X	31.899	0.5
14	MP1C	Z	0	0.5
15	MP1C	Mx	-0.003	0.5
16	MP1C	X	31.899	5.5
17	MP1C	Z	0	5.5
18	MP1C	Mx	-0.003	5.5
19	MP4A	X	28.885	0.5
20	MP4A	Z	0	0.5
21	MP4A	Mx	-0.014	0.5
22	MP4A	X	28.885	5.5
23	MP4A	Z	0	5.5
24	MP4A	Mx	-0.014	5.5
25	MP4B	X	31.194	0.5
26	MP4B	Z	0	0.5
27	MP4B	Mx	0.008	0.5
28	MP4B	X	31.194	5.5
29	MP4B	Z	0	5.5
30	MP4B	Mx	0.008	5.5
31	MP4C	X	31.899	0.5
32	MP4C	Z	0	0.5
33	MP4C	Mx	-0.003	0.5
34	MP4C	X	31.899	5.5
35	MP4C	Z	0	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
36	MP4C	Mx	-0.003	5.5
37	MP2A	X	21.953	0.5
38	MP2A	Z	0	0.5
39	MP2A	Mx	-0.015	0.5
40	MP2A	X	21.953	5.5
41	MP2A	Z	0	5.5
42	MP2A	Mx	-0.015	5.5
43	MP2B	X	21.953	0.5
44	MP2B	Z	0	0.5
45	MP2B	Mx	-0.015	0.5
46	MP2B	X	21.953	5.5
47	MP2B	Z	0	5.5
48	MP2B	Mx	-0.015	5.5
49	MP2C	X	21.953	0.5
50	MP2C	Z	0	0.5
51	MP2C	Mx	-0.015	0.5
52	MP2C	X	21.953	5.5
53	MP2C	Z	0	5.5
54	MP2C	Mx	-0.015	5.5
55	MP2A	X	21.953	0.5
56	MP2A	Z	0	0.5
57	MP2A	Mx	-0.006	0.5
58	MP2A	X	21.953	5.5
59	MP2A	Z	0	5.5
60	MP2A	Mx	-0.006	5.5
61	MP2B	X	21.953	0.5
62	MP2B	Z	0	0.5
63	MP2B	Mx	-0.006	0.5
64	MP2B	X	21.953	5.5
65	MP2B	Z	0	5.5
66	MP2B	Mx	-0.006	5.5
67	MP2C	X	21.953	0.5
68	MP2C	Z	0	0.5
69	MP2C	Mx	-0.006	0.5
70	MP2C	X	21.953	5.5
71	MP2C	Z	0	5.5
72	MP2C	Mx	-0.006	5.5
73	MP3A	X	5.836	2
74	MP3A	Z	0	2
75	MP3A	Mx	-0.003	2
76	MP3A	X	5.836	4
77	MP3A	Z	0	4
78	MP3A	Mx	-0.003	4
79	MP3B	X	11.337	2
80	MP3B	Z	0	2
81	MP3B	Mx	0.003	2
82	MP3B	X	11.337	4
83	MP3B	Z	0	4
84	MP3B	Mx	0.003	4
85	MP3C	X	11.337	2
86	MP3C	Z	0	2
87	MP3C	Mx	0.003	2
88	MP3C	X	11.337	4
89	MP3C	Z	0	4
90	MP3C	Mx	0.003	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
91	MP1A	X	10.17	2
92	MP1A	Z	0	2
93	MP1A	Mx	-0.005	2
94	MP1B	X	10.17	2
95	MP1B	Z	0	2
96	MP1B	Mx	-0.005	2
97	MP1C	X	10.17	2
98	MP1C	Z	0	2
99	MP1C	Mx	-0.005	2
100	MP2A	X	10.023	2
101	MP2A	Z	0	2
102	MP2A	Mx	-0.005	2
103	MP2B	X	10.023	2
104	MP2B	Z	0	2
105	MP2B	Mx	-0.005	2
106	MP2C	X	10.023	2
107	MP2C	Z	0	2
108	MP2C	Mx	-0.005	2
109	MP2A	X	2.607	4
110	MP2A	Z	0	4
111	MP2A	Mx	0	4
112	MP2B	X	2.607	4
113	MP2B	Z	0	4
114	MP2B	Mx	0	4
115	MP2C	X	2.607	4
116	MP2C	Z	0	4
117	MP2C	Mx	0	4
118	M31	X	22.713	1
119	M31	Z	0	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	25.256	0.5
2	MP1A	Z	14.582	0.5
3	MP1A	Mx	-0.014	0.5
4	MP1A	X	25.256	5.5
5	MP1A	Z	14.582	5.5
6	MP1A	Mx	-0.014	5.5
7	MP1B	X	27.709	0.5
8	MP1B	Z	15.998	0.5
9	MP1B	Mx	0	0.5
10	MP1B	X	27.709	5.5
11	MP1B	Z	15.998	5.5
12	MP1B	Mx	0	5.5
13	MP1C	X	27.384	0.5
14	MP1C	Z	15.81	0.5
15	MP1C	Mx	0.005	0.5
16	MP1C	X	27.384	5.5
17	MP1C	Z	15.81	5.5
18	MP1C	Mx	0.005	5.5
19	MP4A	X	25.256	0.5
20	MP4A	Z	14.582	0.5
21	MP4A	Mx	-0.014	0.5
22	MP4A	X	25.256	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
23	MP4A	Z	14.582	5.5
24	MP4A	Mx	-0.014	5.5
25	MP4B	X	27.709	0.5
26	MP4B	Z	15.998	0.5
27	MP4B	Mx	0	0.5
28	MP4B	X	27.709	5.5
29	MP4B	Z	15.998	5.5
30	MP4B	Mx	0	5.5
31	MP4C	X	27.384	0.5
32	MP4C	Z	15.81	0.5
33	MP4C	Mx	0.005	0.5
34	MP4C	X	27.384	5.5
35	MP4C	Z	15.81	5.5
36	MP4C	Mx	0.005	5.5
37	MP2A	X	22.949	0.5
38	MP2A	Z	13.25	0.5
39	MP2A	Mx	-0.021	0.5
40	MP2A	X	22.949	5.5
41	MP2A	Z	13.25	5.5
42	MP2A	Mx	-0.021	5.5
43	MP2B	X	22.949	0.5
44	MP2B	Z	13.25	0.5
45	MP2B	Mx	-0.021	0.5
46	MP2B	X	22.949	5.5
47	MP2B	Z	13.25	5.5
48	MP2B	Mx	-0.021	5.5
49	MP2C	X	22.949	0.5
50	MP2C	Z	13.25	0.5
51	MP2C	Mx	-0.021	0.5
52	MP2C	X	22.949	5.5
53	MP2C	Z	13.25	5.5
54	MP2C	Mx	-0.021	5.5
55	MP2A	X	22.949	0.5
56	MP2A	Z	13.25	0.5
57	MP2A	Mx	0.004	0.5
58	MP2A	X	22.949	5.5
59	MP2A	Z	13.25	5.5
60	MP2A	Mx	0.004	5.5
61	MP2B	X	22.949	0.5
62	MP2B	Z	13.25	0.5
63	MP2B	Mx	0.004	0.5
64	MP2B	X	22.949	5.5
65	MP2B	Z	13.25	5.5
66	MP2B	Mx	0.004	5.5
67	MP2C	X	22.949	0.5
68	MP2C	Z	13.25	0.5
69	MP2C	Mx	0.004	0.5
70	MP2C	X	22.949	5.5
71	MP2C	Z	13.25	5.5
72	MP2C	Mx	0.004	5.5
73	MP3A	X	5.629	2
74	MP3A	Z	3.25	2
75	MP3A	Mx	-0.003	2
76	MP3A	X	5.629	4
77	MP3A	Z	3.25	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
78	MP3A	Mx	-0.003	4
79	MP3B	X	11.472	2
80	MP3B	Z	6.623	2
81	MP3B	Mx	0	2
82	MP3B	X	11.472	4
83	MP3B	Z	6.623	4
84	MP3B	Mx	0	4
85	MP3C	X	6.509	2
86	MP3C	Z	3.758	2
87	MP3C	Mx	0.003	2
88	MP3C	X	6.509	4
89	MP3C	Z	3.758	4
90	MP3C	Mx	0.003	4
91	MP1A	X	10.433	2
92	MP1A	Z	6.023	2
93	MP1A	Mx	-0.004	2
94	MP1B	X	10.433	2
95	MP1B	Z	6.023	2
96	MP1B	Mx	-0.004	2
97	MP1C	X	10.433	2
98	MP1C	Z	6.023	2
99	MP1C	Mx	-0.004	2
100	MP2A	X	10.373	2
101	MP2A	Z	5.989	2
102	MP2A	Mx	-0.004	2
103	MP2B	X	10.373	2
104	MP2B	Z	5.989	2
105	MP2B	Mx	-0.004	2
106	MP2C	X	10.373	2
107	MP2C	Z	5.989	2
108	MP2C	Mx	-0.004	2
109	MP2A	X	2.595	4
110	MP2A	Z	1.498	4
111	MP2A	Mx	0	4
112	MP2B	X	2.595	4
113	MP2B	Z	1.498	4
114	MP2B	Mx	0	4
115	MP2C	X	2.595	4
116	MP2C	Z	1.498	4
117	MP2C	Mx	0	4
118	M31	X	22.16	1
119	M31	Z	12.794	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	15.335	0.5
2	MP1A	Z	26.561	0.5
3	MP1A	Mx	-0.01	0.5
4	MP1A	X	15.335	5.5
5	MP1A	Z	26.561	5.5
6	MP1A	Mx	-0.01	5.5
7	MP1B	X	15.597	0.5
8	MP1B	Z	27.014	0.5
9	MP1B	Mx	-0.008	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
10	MP1B	X	15.597	5.5
11	MP1B	Z	27.014	5.5
12	MP1B	Mx	-0.008	5.5
13	MP1C	X	15.057	0.5
14	MP1C	Z	26.079	0.5
15	MP1C	Mx	0.012	0.5
16	MP1C	X	15.057	5.5
17	MP1C	Z	26.079	5.5
18	MP1C	Mx	0.012	5.5
19	MP4A	X	15.335	0.5
20	MP4A	Z	26.561	0.5
21	MP4A	Mx	-0.01	0.5
22	MP4A	X	15.335	5.5
23	MP4A	Z	26.561	5.5
24	MP4A	Mx	-0.01	5.5
25	MP4B	X	15.597	0.5
26	MP4B	Z	27.014	0.5
27	MP4B	Mx	-0.008	0.5
28	MP4B	X	15.597	5.5
29	MP4B	Z	27.014	5.5
30	MP4B	Mx	-0.008	5.5
31	MP4C	X	15.057	0.5
32	MP4C	Z	26.079	0.5
33	MP4C	Mx	0.012	0.5
34	MP4C	X	15.057	5.5
35	MP4C	Z	26.079	5.5
36	MP4C	Mx	0.012	5.5
37	MP2A	X	15.103	0.5
38	MP2A	Z	26.158	0.5
39	MP2A	Mx	-0.021	0.5
40	MP2A	X	15.103	5.5
41	MP2A	Z	26.158	5.5
42	MP2A	Mx	-0.021	5.5
43	MP2B	X	15.103	0.5
44	MP2B	Z	26.158	0.5
45	MP2B	Mx	-0.021	0.5
46	MP2B	X	15.103	5.5
47	MP2B	Z	26.158	5.5
48	MP2B	Mx	-0.021	5.5
49	MP2C	X	15.103	0.5
50	MP2C	Z	26.158	0.5
51	MP2C	Mx	-0.021	0.5
52	MP2C	X	15.103	5.5
53	MP2C	Z	26.158	5.5
54	MP2C	Mx	-0.021	5.5
55	MP2A	X	15.103	0.5
56	MP2A	Z	26.158	0.5
57	MP2A	Mx	0.016	0.5
58	MP2A	X	15.103	5.5
59	MP2A	Z	26.158	5.5
60	MP2A	Mx	0.016	5.5
61	MP2B	X	15.103	0.5
62	MP2B	Z	26.158	0.5
63	MP2B	Mx	0.016	0.5
64	MP2B	X	15.103	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
65	MP2B	Z	26.158	5.5
66	MP2B	Mx	0.016	5.5
67	MP2C	X	15.103	0.5
68	MP2C	Z	26.158	0.5
69	MP2C	Mx	0.016	0.5
70	MP2C	X	15.103	5.5
71	MP2C	Z	26.158	5.5
72	MP2C	Mx	0.016	5.5
73	MP3A	X	5.045	2
74	MP3A	Z	8.738	2
75	MP3A	Mx	-0.003	2
76	MP3A	X	5.045	4
77	MP3A	Z	8.738	4
78	MP3A	Mx	-0.003	4
79	MP3B	X	5.668	2
80	MP3B	Z	9.818	2
81	MP3B	Mx	-0.003	2
82	MP3B	X	5.668	4
83	MP3B	Z	9.818	4
84	MP3B	Mx	-0.003	4
85	MP3C	X	2.803	2
86	MP3C	Z	4.855	2
87	MP3C	Mx	0.003	2
88	MP3C	X	2.803	4
89	MP3C	Z	4.855	4
90	MP3C	Mx	0.003	4
91	MP1A	X	6.788	2
92	MP1A	Z	11.757	2
93	MP1A	Mx	-0.001	2
94	MP1B	X	6.788	2
95	MP1B	Z	11.757	2
96	MP1B	Mx	-0.001	2
97	MP1C	X	6.788	2
98	MP1C	Z	11.757	2
99	MP1C	Mx	-0.001	2
100	MP2A	X	6.786	2
101	MP2A	Z	11.753	2
102	MP2A	Mx	-0.001	2
103	MP2B	X	6.786	2
104	MP2B	Z	11.753	2
105	MP2B	Mx	-0.001	2
106	MP2C	X	6.786	2
107	MP2C	Z	11.753	2
108	MP2C	Mx	-0.001	2
109	MP2A	X	1.657	4
110	MP2A	Z	2.871	4
111	MP2A	Mx	0	4
112	MP2B	X	1.657	4
113	MP2B	Z	2.871	4
114	MP2B	Mx	0	4
115	MP2C	X	1.657	4
116	MP2C	Z	2.871	4
117	MP2C	Mx	0	4
118	M31	X	13.966	1
119	M31	Z	24.189	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	0.5
2	MP1A	Z	31.899	0.5
3	MP1A	Mx	-0.003	0.5
4	MP1A	X	0	5.5
5	MP1A	Z	31.899	5.5
6	MP1A	Mx	-0.003	5.5
7	MP1B	X	0	0.5
8	MP1B	Z	29.59	0.5
9	MP1B	Mx	-0.013	0.5
10	MP1B	X	0	5.5
11	MP1B	Z	29.59	5.5
12	MP1B	Mx	-0.013	5.5
13	MP1C	X	0	0.5
14	MP1C	Z	28.885	0.5
15	MP1C	Mx	0.014	0.5
16	MP1C	X	0	5.5
17	MP1C	Z	28.885	5.5
18	MP1C	Mx	0.014	5.5
19	MP4A	X	0	0.5
20	MP4A	Z	31.899	0.5
21	MP4A	Mx	-0.003	0.5
22	MP4A	X	0	5.5
23	MP4A	Z	31.899	5.5
24	MP4A	Mx	-0.003	5.5
25	MP4B	X	0	0.5
26	MP4B	Z	29.59	0.5
27	MP4B	Mx	-0.013	0.5
28	MP4B	X	0	5.5
29	MP4B	Z	29.59	5.5
30	MP4B	Mx	-0.013	5.5
31	MP4C	X	0	0.5
32	MP4C	Z	28.885	0.5
33	MP4C	Mx	0.014	0.5
34	MP4C	X	0	5.5
35	MP4C	Z	28.885	5.5
36	MP4C	Mx	0.014	5.5
37	MP2A	X	0	0.5
38	MP2A	Z	29.365	0.5
39	MP2A	Mx	-0.012	0.5
40	MP2A	X	0	5.5
41	MP2A	Z	29.365	5.5
42	MP2A	Mx	-0.012	5.5
43	MP2B	X	0	0.5
44	MP2B	Z	29.365	0.5
45	MP2B	Mx	-0.012	0.5
46	MP2B	X	0	5.5
47	MP2B	Z	29.365	5.5
48	MP2B	Mx	-0.012	5.5
49	MP2C	X	0	0.5
50	MP2C	Z	29.365	0.5
51	MP2C	Mx	-0.012	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
52	MP2C	X	0	5.5
53	MP2C	Z	29.365	5.5
54	MP2C	Mx	-0.012	5.5
55	MP2A	X	0	0.5
56	MP2A	Z	29.365	0.5
57	MP2A	Mx	0.022	0.5
58	MP2A	X	0	5.5
59	MP2A	Z	29.365	5.5
60	MP2A	Mx	0.022	5.5
61	MP2B	X	0	0.5
62	MP2B	Z	29.365	0.5
63	MP2B	Mx	0.022	0.5
64	MP2B	X	0	5.5
65	MP2B	Z	29.365	5.5
66	MP2B	Mx	0.022	5.5
67	MP2C	X	0	0.5
68	MP2C	Z	29.365	0.5
69	MP2C	Mx	0.022	0.5
70	MP2C	X	0	5.5
71	MP2C	Z	29.365	5.5
72	MP2C	Mx	0.022	5.5
73	MP3A	X	0	2
74	MP3A	Z	13.017	2
75	MP3A	Mx	-0.001	2
76	MP3A	X	0	4
77	MP3A	Z	13.017	4
78	MP3A	Mx	-0.001	4
79	MP3B	X	0	2
80	MP3B	Z	7.516	2
81	MP3B	Mx	-0.003	2
82	MP3B	X	0	4
83	MP3B	Z	7.516	4
84	MP3B	Mx	-0.003	4
85	MP3C	X	0	2
86	MP3C	Z	7.516	2
87	MP3C	Mx	0.003	2
88	MP3C	X	0	4
89	MP3C	Z	7.516	4
90	MP3C	Mx	0.003	4
91	MP1A	X	0	2
92	MP1A	Z	13.23	2
93	MP1A	Mx	0.002	2
94	MP1B	X	0	2
95	MP1B	Z	13.23	2
96	MP1B	Mx	0.002	2
97	MP1C	X	0	2
98	MP1C	Z	13.23	2
99	MP1C	Mx	0.002	2
100	MP2A	X	0	2
101	MP2A	Z	13.21	2
102	MP2A	Mx	0.002	2
103	MP2B	X	0	2
104	MP2B	Z	13.21	2
105	MP2B	Mx	0.002	2
106	MP2C	X	0	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
107	MP2C	Z	13.21	2
108	MP2C	Mx	0.002	2
109	MP2A	X	0	4
110	MP2A	Z	3.243	4
111	MP2A	Mx	0	4
112	MP2B	X	0	4
113	MP2B	Z	3.243	4
114	MP2B	Mx	0	4
115	MP2C	X	0	4
116	MP2C	Z	3.243	4
117	MP2C	Mx	0	4
118	M31	X	0	1
119	M31	Z	27.4	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-15.81	0.5
2	MP1A	Z	27.384	0.5
3	MP1A	Mx	0.005	0.5
4	MP1A	X	-15.81	5.5
5	MP1A	Z	27.384	5.5
6	MP1A	Mx	0.005	5.5
7	MP1B	X	-14.394	0.5
8	MP1B	Z	24.931	0.5
9	MP1B	Mx	-0.014	0.5
10	MP1B	X	-14.394	5.5
11	MP1B	Z	24.931	5.5
12	MP1B	Mx	-0.014	5.5
13	MP1C	X	-14.582	0.5
14	MP1C	Z	25.256	0.5
15	MP1C	Mx	0.014	0.5
16	MP1C	X	-14.582	5.5
17	MP1C	Z	25.256	5.5
18	MP1C	Mx	0.014	5.5
19	MP4A	X	-15.81	0.5
20	MP4A	Z	27.384	0.5
21	MP4A	Mx	0.005	0.5
22	MP4A	X	-15.81	5.5
23	MP4A	Z	27.384	5.5
24	MP4A	Mx	0.005	5.5
25	MP4B	X	-14.394	0.5
26	MP4B	Z	24.931	0.5
27	MP4B	Mx	-0.014	0.5
28	MP4B	X	-14.394	5.5
29	MP4B	Z	24.931	5.5
30	MP4B	Mx	-0.014	5.5
31	MP4C	X	-14.582	0.5
32	MP4C	Z	25.256	0.5
33	MP4C	Mx	0.014	0.5
34	MP4C	X	-14.582	5.5
35	MP4C	Z	25.256	5.5
36	MP4C	Mx	0.014	5.5
37	MP2A	X	-12.409	0.5
38	MP2A	Z	21.494	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
39	MP2A	Mx	-0.000465	0.5
40	MP2A	X	-12.409	5.5
41	MP2A	Z	21.494	5.5
42	MP2A	Mx	-0.000465	5.5
43	MP2B	X	-12.409	0.5
44	MP2B	Z	21.494	0.5
45	MP2B	Mx	-0.000465	0.5
46	MP2B	X	-12.409	5.5
47	MP2B	Z	21.494	5.5
48	MP2B	Mx	-0.000465	5.5
49	MP2C	X	-12.409	0.5
50	MP2C	Z	21.494	0.5
51	MP2C	Mx	-0.000465	0.5
52	MP2C	X	-12.409	5.5
53	MP2C	Z	21.494	5.5
54	MP2C	Mx	-0.000465	5.5
55	MP2A	X	-12.409	0.5
56	MP2A	Z	21.494	0.5
57	MP2A	Mx	0.019	0.5
58	MP2A	X	-12.409	5.5
59	MP2A	Z	21.494	5.5
60	MP2A	Mx	0.019	5.5
61	MP2B	X	-12.409	0.5
62	MP2B	Z	21.494	0.5
63	MP2B	Mx	0.019	0.5
64	MP2B	X	-12.409	5.5
65	MP2B	Z	21.494	5.5
66	MP2B	Mx	0.019	5.5
67	MP2C	X	-12.409	0.5
68	MP2C	Z	21.494	0.5
69	MP2C	Mx	0.019	0.5
70	MP2C	X	-12.409	5.5
71	MP2C	Z	21.494	5.5
72	MP2C	Mx	0.019	5.5
73	MP3A	X	-6.177	2
74	MP3A	Z	10.698	2
75	MP3A	Mx	0.002	2
76	MP3A	X	-6.177	4
77	MP3A	Z	10.698	4
78	MP3A	Mx	0.002	4
79	MP3B	X	-2.803	2
80	MP3B	Z	4.855	2
81	MP3B	Mx	-0.003	2
82	MP3B	X	-2.803	4
83	MP3B	Z	4.855	4
84	MP3B	Mx	-0.003	4
85	MP3C	X	-5.668	2
86	MP3C	Z	9.818	2
87	MP3C	Mx	0.003	2
88	MP3C	X	-5.668	4
89	MP3C	Z	9.818	4
90	MP3C	Mx	0.003	4
91	MP1A	X	-5.676	2
92	MP1A	Z	9.832	2
93	MP1A	Mx	0.004	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
94	MP1B	X	-5.676	2
95	MP1B	Z	9.832	2
96	MP1B	Mx	0.004	2
97	MP1C	X	-5.676	2
98	MP1C	Z	9.832	2
99	MP1C	Mx	0.004	2
100	MP2A	X	-5.628	2
101	MP2A	Z	9.747	2
102	MP2A	Mx	0.004	2
103	MP2B	X	-5.628	2
104	MP2B	Z	9.747	2
105	MP2B	Mx	0.004	2
106	MP2C	X	-5.628	2
107	MP2C	Z	9.747	2
108	MP2C	Mx	0.004	2
109	MP2A	X	-1.426	4
110	MP2A	Z	2.471	4
111	MP2A	Mx	0	4
112	MP2B	X	-1.426	4
113	MP2B	Z	2.471	4
114	MP2B	Mx	0	4
115	MP2C	X	-1.426	4
116	MP2C	Z	2.471	4
117	MP2C	Mx	0	4
118	M31	X	-12.263	1
119	M31	Z	21.239	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-26.079	0.5
2	MP1A	Z	15.057	0.5
3	MP1A	Mx	0.012	0.5
4	MP1A	X	-26.079	5.5
5	MP1A	Z	15.057	5.5
6	MP1A	Mx	0.012	5.5
7	MP1B	X	-25.626	0.5
8	MP1B	Z	14.795	0.5
9	MP1B	Mx	-0.013	0.5
10	MP1B	X	-25.626	5.5
11	MP1B	Z	14.795	5.5
12	MP1B	Mx	-0.013	5.5
13	MP1C	X	-26.561	0.5
14	MP1C	Z	15.335	0.5
15	MP1C	Mx	0.01	0.5
16	MP1C	X	-26.561	5.5
17	MP1C	Z	15.335	5.5
18	MP1C	Mx	0.01	5.5
19	MP4A	X	-26.079	0.5
20	MP4A	Z	15.057	0.5
21	MP4A	Mx	0.012	0.5
22	MP4A	X	-26.079	5.5
23	MP4A	Z	15.057	5.5
24	MP4A	Mx	0.012	5.5
25	MP4B	X	-25.626	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
26	MP4B	Z	14.795	0.5
27	MP4B	Mx	-0.013	0.5
28	MP4B	X	-25.626	5.5
29	MP4B	Z	14.795	5.5
30	MP4B	Mx	-0.013	5.5
31	MP4C	X	-26.561	0.5
32	MP4C	Z	15.335	0.5
33	MP4C	Mx	0.01	0.5
34	MP4C	X	-26.561	5.5
35	MP4C	Z	15.335	5.5
36	MP4C	Mx	0.01	5.5
37	MP2A	X	-18.284	0.5
38	MP2A	Z	10.556	0.5
39	MP2A	Mx	0.008	0.5
40	MP2A	X	-18.284	5.5
41	MP2A	Z	10.556	5.5
42	MP2A	Mx	0.008	5.5
43	MP2B	X	-18.284	0.5
44	MP2B	Z	10.556	0.5
45	MP2B	Mx	0.008	0.5
46	MP2B	X	-18.284	5.5
47	MP2B	Z	10.556	5.5
48	MP2B	Mx	0.008	5.5
49	MP2C	X	-18.284	0.5
50	MP2C	Z	10.556	0.5
51	MP2C	Mx	0.008	0.5
52	MP2C	X	-18.284	5.5
53	MP2C	Z	10.556	5.5
54	MP2C	Mx	0.008	5.5
55	MP2A	X	-18.284	0.5
56	MP2A	Z	10.556	0.5
57	MP2A	Mx	0.013	0.5
58	MP2A	X	-18.284	5.5
59	MP2A	Z	10.556	5.5
60	MP2A	Mx	0.013	5.5
61	MP2B	X	-18.284	0.5
62	MP2B	Z	10.556	0.5
63	MP2B	Mx	0.013	0.5
64	MP2B	X	-18.284	5.5
65	MP2B	Z	10.556	5.5
66	MP2B	Mx	0.013	5.5
67	MP2C	X	-18.284	0.5
68	MP2C	Z	10.556	0.5
69	MP2C	Mx	0.013	0.5
70	MP2C	X	-18.284	5.5
71	MP2C	Z	10.556	5.5
72	MP2C	Mx	0.013	5.5
73	MP3A	X	-7.589	2
74	MP3A	Z	4.381	2
75	MP3A	Mx	0.003	2
76	MP3A	X	-7.589	4
77	MP3A	Z	4.381	4
78	MP3A	Mx	0.003	4
79	MP3B	X	-6.509	2
80	MP3B	Z	3.758	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
81	MP3B	Mx	-0.003	2
82	MP3B	X	-6.509	4
83	MP3B	Z	3.758	4
84	MP3B	Mx	-0.003	4
85	MP3C	X	-11.472	2
86	MP3C	Z	6.623	2
87	MP3C	Mx	0	2
88	MP3C	X	-11.472	4
89	MP3C	Z	6.623	4
90	MP3C	Mx	0	4
91	MP1A	X	-8.507	2
92	MP1A	Z	4.912	2
93	MP1A	Mx	0.005	2
94	MP1B	X	-8.507	2
95	MP1B	Z	4.912	2
96	MP1B	Mx	0.005	2
97	MP1C	X	-8.507	2
98	MP1C	Z	4.912	2
99	MP1C	Mx	0.005	2
100	MP2A	X	-8.367	2
101	MP2A	Z	4.831	2
102	MP2A	Mx	0.005	2
103	MP2B	X	-8.367	2
104	MP2B	Z	4.831	2
105	MP2B	Mx	0.005	2
106	MP2C	X	-8.367	2
107	MP2C	Z	4.831	2
108	MP2C	Mx	0.005	2
109	MP2A	X	-2.195	4
110	MP2A	Z	1.267	4
111	MP2A	Mx	0	4
112	MP2B	X	-2.195	4
113	MP2B	Z	1.267	4
114	MP2B	Mx	0	4
115	MP2C	X	-2.195	4
116	MP2C	Z	1.267	4
117	MP2C	Mx	0	4
118	M31	X	-19.21	1
119	M31	Z	11.091	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-28.885	0.5
2	MP1A	Z	0	0.5
3	MP1A	Mx	0.014	0.5
4	MP1A	X	-28.885	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	0.014	5.5
7	MP1B	X	-31.194	0.5
8	MP1B	Z	0	0.5
9	MP1B	Mx	-0.008	0.5
10	MP1B	X	-31.194	5.5
11	MP1B	Z	0	5.5
12	MP1B	Mx	-0.008	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
13	MP1C	X	-31.899	0.5
14	MP1C	Z	0	0.5
15	MP1C	Mx	0.003	0.5
16	MP1C	X	-31.899	5.5
17	MP1C	Z	0	5.5
18	MP1C	Mx	0.003	5.5
19	MP4A	X	-28.885	0.5
20	MP4A	Z	0	0.5
21	MP4A	Mx	0.014	0.5
22	MP4A	X	-28.885	5.5
23	MP4A	Z	0	5.5
24	MP4A	Mx	0.014	5.5
25	MP4B	X	-31.194	0.5
26	MP4B	Z	0	0.5
27	MP4B	Mx	-0.008	0.5
28	MP4B	X	-31.194	5.5
29	MP4B	Z	0	5.5
30	MP4B	Mx	-0.008	5.5
31	MP4C	X	-31.899	0.5
32	MP4C	Z	0	0.5
33	MP4C	Mx	0.003	0.5
34	MP4C	X	-31.899	5.5
35	MP4C	Z	0	5.5
36	MP4C	Mx	0.003	5.5
37	MP2A	X	-21.953	0.5
38	MP2A	Z	0	0.5
39	MP2A	Mx	0.015	0.5
40	MP2A	X	-21.953	5.5
41	MP2A	Z	0	5.5
42	MP2A	Mx	0.015	5.5
43	MP2B	X	-21.953	0.5
44	MP2B	Z	0	0.5
45	MP2B	Mx	0.015	0.5
46	MP2B	X	-21.953	5.5
47	MP2B	Z	0	5.5
48	MP2B	Mx	0.015	5.5
49	MP2C	X	-21.953	0.5
50	MP2C	Z	0	0.5
51	MP2C	Mx	0.015	0.5
52	MP2C	X	-21.953	5.5
53	MP2C	Z	0	5.5
54	MP2C	Mx	0.015	5.5
55	MP2A	X	-21.953	0.5
56	MP2A	Z	0	0.5
57	MP2A	Mx	0.006	0.5
58	MP2A	X	-21.953	5.5
59	MP2A	Z	0	5.5
60	MP2A	Mx	0.006	5.5
61	MP2B	X	-21.953	0.5
62	MP2B	Z	0	0.5
63	MP2B	Mx	0.006	0.5
64	MP2B	X	-21.953	5.5
65	MP2B	Z	0	5.5
66	MP2B	Mx	0.006	5.5
67	MP2C	X	-21.953	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
68	MP2C	Z	0	0.5
69	MP2C	Mx	0.006	0.5
70	MP2C	X	-21.953	5.5
71	MP2C	Z	0	5.5
72	MP2C	Mx	0.006	5.5
73	MP3A	X	-5.836	2
74	MP3A	Z	0	2
75	MP3A	Mx	0.003	2
76	MP3A	X	-5.836	4
77	MP3A	Z	0	4
78	MP3A	Mx	0.003	4
79	MP3B	X	-11.337	2
80	MP3B	Z	0	2
81	MP3B	Mx	-0.003	2
82	MP3B	X	-11.337	4
83	MP3B	Z	0	4
84	MP3B	Mx	-0.003	4
85	MP3C	X	-11.337	2
86	MP3C	Z	0	2
87	MP3C	Mx	-0.003	2
88	MP3C	X	-11.337	4
89	MP3C	Z	0	4
90	MP3C	Mx	-0.003	4
91	MP1A	X	-10.17	2
92	MP1A	Z	0	2
93	MP1A	Mx	0.005	2
94	MP1B	X	-10.17	2
95	MP1B	Z	0	2
96	MP1B	Mx	0.005	2
97	MP1C	X	-10.17	2
98	MP1C	Z	0	2
99	MP1C	Mx	0.005	2
100	MP2A	X	-10.023	2
101	MP2A	Z	0	2
102	MP2A	Mx	0.005	2
103	MP2B	X	-10.023	2
104	MP2B	Z	0	2
105	MP2B	Mx	0.005	2
106	MP2C	X	-10.023	2
107	MP2C	Z	0	2
108	MP2C	Mx	0.005	2
109	MP2A	X	-2.607	4
110	MP2A	Z	0	4
111	MP2A	Mx	0	4
112	MP2B	X	-2.607	4
113	MP2B	Z	0	4
114	MP2B	Mx	0	4
115	MP2C	X	-2.607	4
116	MP2C	Z	0	4
117	MP2C	Mx	0	4
118	M31	X	-22.713	1
119	M31	Z	0	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-25.256	0.5
2	MP1A	Z	-14.582	0.5
3	MP1A	Mx	0.014	0.5
4	MP1A	X	-25.256	5.5
5	MP1A	Z	-14.582	5.5
6	MP1A	Mx	0.014	5.5
7	MP1B	X	-27.709	0.5
8	MP1B	Z	-15.998	0.5
9	MP1B	Mx	0	0.5
10	MP1B	X	-27.709	5.5
11	MP1B	Z	-15.998	5.5
12	MP1B	Mx	0	5.5
13	MP1C	X	-27.384	0.5
14	MP1C	Z	-15.81	0.5
15	MP1C	Mx	-0.005	0.5
16	MP1C	X	-27.384	5.5
17	MP1C	Z	-15.81	5.5
18	MP1C	Mx	-0.005	5.5
19	MP4A	X	-25.256	0.5
20	MP4A	Z	-14.582	0.5
21	MP4A	Mx	0.014	0.5
22	MP4A	X	-25.256	5.5
23	MP4A	Z	-14.582	5.5
24	MP4A	Mx	0.014	5.5
25	MP4B	X	-27.709	0.5
26	MP4B	Z	-15.998	0.5
27	MP4B	Mx	0	0.5
28	MP4B	X	-27.709	5.5
29	MP4B	Z	-15.998	5.5
30	MP4B	Mx	0	5.5
31	MP4C	X	-27.384	0.5
32	MP4C	Z	-15.81	0.5
33	MP4C	Mx	-0.005	0.5
34	MP4C	X	-27.384	5.5
35	MP4C	Z	-15.81	5.5
36	MP4C	Mx	-0.005	5.5
37	MP2A	X	-22.949	0.5
38	MP2A	Z	-13.25	0.5
39	MP2A	Mx	0.021	0.5
40	MP2A	X	-22.949	5.5
41	MP2A	Z	-13.25	5.5
42	MP2A	Mx	0.021	5.5
43	MP2B	X	-22.949	0.5
44	MP2B	Z	-13.25	0.5
45	MP2B	Mx	0.021	0.5
46	MP2B	X	-22.949	5.5
47	MP2B	Z	-13.25	5.5
48	MP2B	Mx	0.021	5.5
49	MP2C	X	-22.949	0.5
50	MP2C	Z	-13.25	0.5
51	MP2C	Mx	0.021	0.5
52	MP2C	X	-22.949	5.5
53	MP2C	Z	-13.25	5.5
54	MP2C	Mx	0.021	5.5
55	MP2A	X	-22.949	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	MP2A	Z	-13.25	0.5
57	MP2A	Mx	-0.004	0.5
58	MP2A	X	-22.949	5.5
59	MP2A	Z	-13.25	5.5
60	MP2A	Mx	-0.004	5.5
61	MP2B	X	-22.949	0.5
62	MP2B	Z	-13.25	0.5
63	MP2B	Mx	-0.004	0.5
64	MP2B	X	-22.949	5.5
65	MP2B	Z	-13.25	5.5
66	MP2B	Mx	-0.004	5.5
67	MP2C	X	-22.949	0.5
68	MP2C	Z	-13.25	0.5
69	MP2C	Mx	-0.004	0.5
70	MP2C	X	-22.949	5.5
71	MP2C	Z	-13.25	5.5
72	MP2C	Mx	-0.004	5.5
73	MP3A	X	-5.629	2
74	MP3A	Z	-3.25	2
75	MP3A	Mx	0.003	2
76	MP3A	X	-5.629	4
77	MP3A	Z	-3.25	4
78	MP3A	Mx	0.003	4
79	MP3B	X	-11.472	2
80	MP3B	Z	-6.623	2
81	MP3B	Mx	0	2
82	MP3B	X	-11.472	4
83	MP3B	Z	-6.623	4
84	MP3B	Mx	0	4
85	MP3C	X	-6.509	2
86	MP3C	Z	-3.758	2
87	MP3C	Mx	-0.003	2
88	MP3C	X	-6.509	4
89	MP3C	Z	-3.758	4
90	MP3C	Mx	-0.003	4
91	MP1A	X	-10.433	2
92	MP1A	Z	-6.023	2
93	MP1A	Mx	0.004	2
94	MP1B	X	-10.433	2
95	MP1B	Z	-6.023	2
96	MP1B	Mx	0.004	2
97	MP1C	X	-10.433	2
98	MP1C	Z	-6.023	2
99	MP1C	Mx	0.004	2
100	MP2A	X	-10.373	2
101	MP2A	Z	-5.989	2
102	MP2A	Mx	0.004	2
103	MP2B	X	-10.373	2
104	MP2B	Z	-5.989	2
105	MP2B	Mx	0.004	2
106	MP2C	X	-10.373	2
107	MP2C	Z	-5.989	2
108	MP2C	Mx	0.004	2
109	MP2A	X	-2.595	4
110	MP2A	Z	-1.498	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
111	MP2A	Mx	0	4
112	MP2B	X	-2.595	4
113	MP2B	Z	-1.498	4
114	MP2B	Mx	0	4
115	MP2C	X	-2.595	4
116	MP2C	Z	-1.498	4
117	MP2C	Mx	0	4
118	M31	X	-22.16	1
119	M31	Z	-12.794	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-15.335	0.5
2	MP1A	Z	-26.561	0.5
3	MP1A	Mx	0.01	0.5
4	MP1A	X	-15.335	5.5
5	MP1A	Z	-26.561	5.5
6	MP1A	Mx	0.01	5.5
7	MP1B	X	-15.597	0.5
8	MP1B	Z	-27.014	0.5
9	MP1B	Mx	0.008	0.5
10	MP1B	X	-15.597	5.5
11	MP1B	Z	-27.014	5.5
12	MP1B	Mx	0.008	5.5
13	MP1C	X	-15.057	0.5
14	MP1C	Z	-26.079	0.5
15	MP1C	Mx	-0.012	0.5
16	MP1C	X	-15.057	5.5
17	MP1C	Z	-26.079	5.5
18	MP1C	Mx	-0.012	5.5
19	MP4A	X	-15.335	0.5
20	MP4A	Z	-26.561	0.5
21	MP4A	Mx	0.01	0.5
22	MP4A	X	-15.335	5.5
23	MP4A	Z	-26.561	5.5
24	MP4A	Mx	0.01	5.5
25	MP4B	X	-15.597	0.5
26	MP4B	Z	-27.014	0.5
27	MP4B	Mx	0.008	0.5
28	MP4B	X	-15.597	5.5
29	MP4B	Z	-27.014	5.5
30	MP4B	Mx	0.008	5.5
31	MP4C	X	-15.057	0.5
32	MP4C	Z	-26.079	0.5
33	MP4C	Mx	-0.012	0.5
34	MP4C	X	-15.057	5.5
35	MP4C	Z	-26.079	5.5
36	MP4C	Mx	-0.012	5.5
37	MP2A	X	-15.103	0.5
38	MP2A	Z	-26.158	0.5
39	MP2A	Mx	0.021	0.5
40	MP2A	X	-15.103	5.5
41	MP2A	Z	-26.158	5.5
42	MP2A	Mx	0.021	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
43	MP2B	X	-15.103	0.5
44	MP2B	Z	-26.158	0.5
45	MP2B	Mx	0.021	0.5
46	MP2B	X	-15.103	5.5
47	MP2B	Z	-26.158	5.5
48	MP2B	Mx	0.021	5.5
49	MP2C	X	-15.103	0.5
50	MP2C	Z	-26.158	0.5
51	MP2C	Mx	0.021	0.5
52	MP2C	X	-15.103	5.5
53	MP2C	Z	-26.158	5.5
54	MP2C	Mx	0.021	5.5
55	MP2A	X	-15.103	0.5
56	MP2A	Z	-26.158	0.5
57	MP2A	Mx	-0.016	0.5
58	MP2A	X	-15.103	5.5
59	MP2A	Z	-26.158	5.5
60	MP2A	Mx	-0.016	5.5
61	MP2B	X	-15.103	0.5
62	MP2B	Z	-26.158	0.5
63	MP2B	Mx	-0.016	0.5
64	MP2B	X	-15.103	5.5
65	MP2B	Z	-26.158	5.5
66	MP2B	Mx	-0.016	5.5
67	MP2C	X	-15.103	0.5
68	MP2C	Z	-26.158	0.5
69	MP2C	Mx	-0.016	0.5
70	MP2C	X	-15.103	5.5
71	MP2C	Z	-26.158	5.5
72	MP2C	Mx	-0.016	5.5
73	MP3A	X	-5.045	2
74	MP3A	Z	-8.738	2
75	MP3A	Mx	0.003	2
76	MP3A	X	-5.045	4
77	MP3A	Z	-8.738	4
78	MP3A	Mx	0.003	4
79	MP3B	X	-5.668	2
80	MP3B	Z	-9.818	2
81	MP3B	Mx	0.003	2
82	MP3B	X	-5.668	4
83	MP3B	Z	-9.818	4
84	MP3B	Mx	0.003	4
85	MP3C	X	-2.803	2
86	MP3C	Z	-4.855	2
87	MP3C	Mx	-0.003	2
88	MP3C	X	-2.803	4
89	MP3C	Z	-4.855	4
90	MP3C	Mx	-0.003	4
91	MP1A	X	-6.788	2
92	MP1A	Z	-11.757	2
93	MP1A	Mx	0.001	2
94	MP1B	X	-6.788	2
95	MP1B	Z	-11.757	2
96	MP1B	Mx	0.001	2
97	MP1C	X	-6.788	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
98	MP1C	Z	-11.757	2
99	MP1C	Mx	0.001	2
100	MP2A	X	-6.786	2
101	MP2A	Z	-11.753	2
102	MP2A	Mx	0.001	2
103	MP2B	X	-6.786	2
104	MP2B	Z	-11.753	2
105	MP2B	Mx	0.001	2
106	MP2C	X	-6.786	2
107	MP2C	Z	-11.753	2
108	MP2C	Mx	0.001	2
109	MP2A	X	-1.657	4
110	MP2A	Z	-2.871	4
111	MP2A	Mx	0	4
112	MP2B	X	-1.657	4
113	MP2B	Z	-2.871	4
114	MP2B	Mx	0	4
115	MP2C	X	-1.657	4
116	MP2C	Z	-2.871	4
117	MP2C	Mx	0	4
118	M31	X	-13.966	1
119	M31	Z	-24.189	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	0.5
2	MP1A	Z	-10.502	0.5
3	MP1A	Mx	0.000912	0.5
4	MP1A	X	0	5.5
5	MP1A	Z	-10.502	5.5
6	MP1A	Mx	0.000912	5.5
7	MP1B	X	0	0.5
8	MP1B	Z	-9.692	0.5
9	MP1B	Mx	0.004	0.5
10	MP1B	X	0	5.5
11	MP1B	Z	-9.692	5.5
12	MP1B	Mx	0.004	5.5
13	MP1C	X	0	0.5
14	MP1C	Z	-9.444	0.5
15	MP1C	Mx	-0.005	0.5
16	MP1C	X	0	5.5
17	MP1C	Z	-9.444	5.5
18	MP1C	Mx	-0.005	5.5
19	MP4A	X	0	0.5
20	MP4A	Z	-10.502	0.5
21	MP4A	Mx	0.000912	0.5
22	MP4A	X	0	5.5
23	MP4A	Z	-10.502	5.5
24	MP4A	Mx	0.000912	5.5
25	MP4B	X	0	0.5
26	MP4B	Z	-9.692	0.5
27	MP4B	Mx	0.004	0.5
28	MP4B	X	0	5.5
29	MP4B	Z	-9.692	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
30	MP4B	Mx	0.004	5.5
31	MP4C	X	0	0.5
32	MP4C	Z	-9.444	0.5
33	MP4C	Mx	-0.005	0.5
34	MP4C	X	0	5.5
35	MP4C	Z	-9.444	5.5
36	MP4C	Mx	-0.005	5.5
37	MP2A	X	0	0.5
38	MP2A	Z	-9.596	0.5
39	MP2A	Mx	0.004	0.5
40	MP2A	X	0	5.5
41	MP2A	Z	-9.596	5.5
42	MP2A	Mx	0.004	5.5
43	MP2B	X	0	0.5
44	MP2B	Z	-9.596	0.5
45	MP2B	Mx	0.004	0.5
46	MP2B	X	0	5.5
47	MP2B	Z	-9.596	5.5
48	MP2B	Mx	0.004	5.5
49	MP2C	X	0	0.5
50	MP2C	Z	-9.596	0.5
51	MP2C	Mx	0.004	0.5
52	MP2C	X	0	5.5
53	MP2C	Z	-9.596	5.5
54	MP2C	Mx	0.004	5.5
55	MP2A	X	0	0.5
56	MP2A	Z	-9.596	0.5
57	MP2A	Mx	-0.007	0.5
58	MP2A	X	0	5.5
59	MP2A	Z	-9.596	5.5
60	MP2A	Mx	-0.007	5.5
61	MP2B	X	0	0.5
62	MP2B	Z	-9.596	0.5
63	MP2B	Mx	-0.007	0.5
64	MP2B	X	0	5.5
65	MP2B	Z	-9.596	5.5
66	MP2B	Mx	-0.007	5.5
67	MP2C	X	0	0.5
68	MP2C	Z	-9.596	0.5
69	MP2C	Mx	-0.007	0.5
70	MP2C	X	0	5.5
71	MP2C	Z	-9.596	5.5
72	MP2C	Mx	-0.007	5.5
73	MP3A	X	0	2
74	MP3A	Z	-3.4	2
75	MP3A	Mx	0.000295	2
76	MP3A	X	0	4
77	MP3A	Z	-3.4	4
78	MP3A	Mx	0.000295	4
79	MP3B	X	0	2
80	MP3B	Z	-1.781	2
81	MP3B	Mx	0.000771	2
82	MP3B	X	0	4
83	MP3B	Z	-1.781	4
84	MP3B	Mx	0.000771	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
85	MP3C	X	0	2
86	MP3C	Z	-1.781	2
87	MP3C	Mx	-0.000771	2
88	MP3C	X	0	4
89	MP3C	Z	-1.781	4
90	MP3C	Mx	-0.000771	4
91	MP1A	X	0	2
92	MP1A	Z	-3.952	2
93	MP1A	Mx	-0.000676	2
94	MP1B	X	0	2
95	MP1B	Z	-3.952	2
96	MP1B	Mx	-0.000676	2
97	MP1C	X	0	2
98	MP1C	Z	-3.952	2
99	MP1C	Mx	-0.000676	2
100	MP2A	X	0	2
101	MP2A	Z	-3.271	2
102	MP2A	Mx	-0.000559	2
103	MP2B	X	0	2
104	MP2B	Z	-3.271	2
105	MP2B	Mx	-0.000559	2
106	MP2C	X	0	2
107	MP2C	Z	-3.271	2
108	MP2C	Mx	-0.000559	2
109	MP2A	X	0	4
110	MP2A	Z	-0.783	4
111	MP2A	Mx	0	4
112	MP2B	X	0	4
113	MP2B	Z	-0.783	4
114	MP2B	Mx	0	4
115	MP2C	X	0	4
116	MP2C	Z	-0.783	4
117	MP2C	Mx	0	4
118	M31	X	0	1
119	M31	Z	-6.763	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	5.202	0.5
2	MP1A	Z	-9.01	0.5
3	MP1A	Mx	-0.002	0.5
4	MP1A	X	5.202	5.5
5	MP1A	Z	-9.01	5.5
6	MP1A	Mx	-0.002	5.5
7	MP1B	X	4.705	0.5
8	MP1B	Z	-8.15	0.5
9	MP1B	Mx	0.005	0.5
10	MP1B	X	4.705	5.5
11	MP1B	Z	-8.15	5.5
12	MP1B	Mx	0.005	5.5
13	MP1C	X	4.771	0.5
14	MP1C	Z	-8.264	0.5
15	MP1C	Mx	-0.004	0.5
16	MP1C	X	4.771	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
17	MP1C	Z	-8.264	5.5
18	MP1C	Mx	-0.004	5.5
19	MP4A	X	5.202	0.5
20	MP4A	Z	-9.01	0.5
21	MP4A	Mx	-0.002	0.5
22	MP4A	X	5.202	5.5
23	MP4A	Z	-9.01	5.5
24	MP4A	Mx	-0.002	5.5
25	MP4B	X	4.705	0.5
26	MP4B	Z	-8.15	0.5
27	MP4B	Mx	0.005	0.5
28	MP4B	X	4.705	5.5
29	MP4B	Z	-8.15	5.5
30	MP4B	Mx	0.005	5.5
31	MP4C	X	4.771	0.5
32	MP4C	Z	-8.264	0.5
33	MP4C	Mx	-0.004	0.5
34	MP4C	X	4.771	5.5
35	MP4C	Z	-8.264	5.5
36	MP4C	Mx	-0.004	5.5
37	MP2A	X	3.992	0.5
38	MP2A	Z	-6.915	0.5
39	MP2A	Mx	0.00015	0.5
40	MP2A	X	3.992	5.5
41	MP2A	Z	-6.915	5.5
42	MP2A	Mx	0.00015	5.5
43	MP2B	X	3.992	0.5
44	MP2B	Z	-6.915	0.5
45	MP2B	Mx	0.00015	0.5
46	MP2B	X	3.992	5.5
47	MP2B	Z	-6.915	5.5
48	MP2B	Mx	0.00015	5.5
49	MP2C	X	3.992	0.5
50	MP2C	Z	-6.915	0.5
51	MP2C	Mx	0.00015	0.5
52	MP2C	X	3.992	5.5
53	MP2C	Z	-6.915	5.5
54	MP2C	Mx	0.00015	5.5
55	MP2A	X	3.992	0.5
56	MP2A	Z	-6.915	0.5
57	MP2A	Mx	-0.006	0.5
58	MP2A	X	3.992	5.5
59	MP2A	Z	-6.915	5.5
60	MP2A	Mx	-0.006	5.5
61	MP2B	X	3.992	0.5
62	MP2B	Z	-6.915	0.5
63	MP2B	Mx	-0.006	0.5
64	MP2B	X	3.992	5.5
65	MP2B	Z	-6.915	5.5
66	MP2B	Mx	-0.006	5.5
67	MP2C	X	3.992	0.5
68	MP2C	Z	-6.915	0.5
69	MP2C	Mx	-0.006	0.5
70	MP2C	X	3.992	5.5
71	MP2C	Z	-6.915	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
72	MP2C	Mx	-0.006	5.5
73	MP3A	X	1.602	2
74	MP3A	Z	-2.775	2
75	MP3A	Mx	-0.000548	2
76	MP3A	X	1.602	4
77	MP3A	Z	-2.775	4
78	MP3A	Mx	-0.000548	4
79	MP3B	X	0.609	2
80	MP3B	Z	-1.055	2
81	MP3B	Mx	0.000609	2
82	MP3B	X	0.609	4
83	MP3B	Z	-1.055	4
84	MP3B	Mx	0.000609	4
85	MP3C	X	1.453	2
86	MP3C	Z	-2.516	2
87	MP3C	Mx	-0.000726	2
88	MP3C	X	1.453	4
89	MP3C	Z	-2.516	4
90	MP3C	Mx	-0.000726	4
91	MP1A	X	1.669	2
92	MP1A	Z	-2.891	2
93	MP1A	Mx	-0.001	2
94	MP1B	X	1.669	2
95	MP1B	Z	-2.891	2
96	MP1B	Mx	-0.001	2
97	MP1C	X	1.669	2
98	MP1C	Z	-2.891	2
99	MP1C	Mx	-0.001	2
100	MP2A	X	1.373	2
101	MP2A	Z	-2.377	2
102	MP2A	Mx	-0.001	2
103	MP2B	X	1.373	2
104	MP2B	Z	-2.377	2
105	MP2B	Mx	-0.001	2
106	MP2C	X	1.373	2
107	MP2C	Z	-2.377	2
108	MP2C	Mx	-0.001	2
109	MP2A	X	0.333	4
110	MP2A	Z	-0.576	4
111	MP2A	Mx	0	4
112	MP2B	X	0.333	4
113	MP2B	Z	-0.576	4
114	MP2B	Mx	0	4
115	MP2C	X	0.333	4
116	MP2C	Z	-0.576	4
117	MP2C	Mx	0	4
118	M31	X	2.989	1
119	M31	Z	-5.178	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	8.552	0.5
2	MP1A	Z	-4.938	0.5
3	MP1A	Mx	-0.004	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
4	MP1A	X	8.552	5.5
5	MP1A	Z	-4.938	5.5
6	MP1A	Mx	-0.004	5.5
7	MP1B	X	8.393	0.5
8	MP1B	Z	-4.846	0.5
9	MP1B	Mx	0.004	0.5
10	MP1B	X	8.393	5.5
11	MP1B	Z	-4.846	5.5
12	MP1B	Mx	0.004	5.5
13	MP1C	X	8.722	0.5
14	MP1C	Z	-5.035	0.5
15	MP1C	Mx	-0.003	0.5
16	MP1C	X	8.722	5.5
17	MP1C	Z	-5.035	5.5
18	MP1C	Mx	-0.003	5.5
19	MP4A	X	8.552	0.5
20	MP4A	Z	-4.938	0.5
21	MP4A	Mx	-0.004	0.5
22	MP4A	X	8.552	5.5
23	MP4A	Z	-4.938	5.5
24	MP4A	Mx	-0.004	5.5
25	MP4B	X	8.393	0.5
26	MP4B	Z	-4.846	0.5
27	MP4B	Mx	0.004	0.5
28	MP4B	X	8.393	5.5
29	MP4B	Z	-4.846	5.5
30	MP4B	Mx	0.004	5.5
31	MP4C	X	8.722	0.5
32	MP4C	Z	-5.035	0.5
33	MP4C	Mx	-0.003	0.5
34	MP4C	X	8.722	5.5
35	MP4C	Z	-5.035	5.5
36	MP4C	Mx	-0.003	5.5
37	MP2A	X	5.776	0.5
38	MP2A	Z	-3.335	0.5
39	MP2A	Mx	-0.003	0.5
40	MP2A	X	5.776	5.5
41	MP2A	Z	-3.335	5.5
42	MP2A	Mx	-0.003	5.5
43	MP2B	X	5.776	0.5
44	MP2B	Z	-3.335	0.5
45	MP2B	Mx	-0.003	0.5
46	MP2B	X	5.776	5.5
47	MP2B	Z	-3.335	5.5
48	MP2B	Mx	-0.003	5.5
49	MP2C	X	5.776	0.5
50	MP2C	Z	-3.335	0.5
51	MP2C	Mx	-0.003	0.5
52	MP2C	X	5.776	5.5
53	MP2C	Z	-3.335	5.5
54	MP2C	Mx	-0.003	5.5
55	MP2A	X	5.776	0.5
56	MP2A	Z	-3.335	0.5
57	MP2A	Mx	-0.004	0.5
58	MP2A	X	5.776	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
59	MP2A	Z	-3.335	5.5
60	MP2A	Mx	-0.004	5.5
61	MP2B	X	5.776	0.5
62	MP2B	Z	-3.335	0.5
63	MP2B	Mx	-0.004	0.5
64	MP2B	X	5.776	5.5
65	MP2B	Z	-3.335	5.5
66	MP2B	Mx	-0.004	5.5
67	MP2C	X	5.776	0.5
68	MP2C	Z	-3.335	0.5
69	MP2C	Mx	-0.004	0.5
70	MP2C	X	5.776	5.5
71	MP2C	Z	-3.335	5.5
72	MP2C	Mx	-0.004	5.5
73	MP3A	X	1.86	2
74	MP3A	Z	-1.074	2
75	MP3A	Mx	-0.000823	2
76	MP3A	X	1.86	4
77	MP3A	Z	-1.074	4
78	MP3A	Mx	-0.000823	4
79	MP3B	X	1.542	2
80	MP3B	Z	-0.89	2
81	MP3B	Mx	0.000771	2
82	MP3B	X	1.542	4
83	MP3B	Z	-0.89	4
84	MP3B	Mx	0.000771	4
85	MP3C	X	3.003	2
86	MP3C	Z	-1.734	2
87	MP3C	Mx	0	2
88	MP3C	X	3.003	4
89	MP3C	Z	-1.734	4
90	MP3C	Mx	0	4
91	MP1A	X	2.458	2
92	MP1A	Z	-1.419	2
93	MP1A	Mx	-0.001	2
94	MP1B	X	2.458	2
95	MP1B	Z	-1.419	2
96	MP1B	Mx	-0.001	2
97	MP1C	X	2.458	2
98	MP1C	Z	-1.419	2
99	MP1C	Mx	-0.001	2
100	MP2A	X	2.006	2
101	MP2A	Z	-1.158	2
102	MP2A	Mx	-0.001	2
103	MP2B	X	2.006	2
104	MP2B	Z	-1.158	2
105	MP2B	Mx	-0.001	2
106	MP2C	X	2.006	2
107	MP2C	Z	-1.158	2
108	MP2C	Mx	-0.001	2
109	MP2A	X	0.493	4
110	MP2A	Z	-0.285	4
111	MP2A	Mx	0	4
112	MP2B	X	0.493	4
113	MP2B	Z	-0.285	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
114	MP2B	Mx	0	4
115	MP2C	X	0.493	4
116	MP2C	Z	-0.285	4
117	MP2C	Mx	0	4
118	M31	X	4.625	1
119	M31	Z	-2.67	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	9.444	0.5
2	MP1A	Z	0	0.5
3	MP1A	Mx	-0.005	0.5
4	MP1A	X	9.444	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	-0.005	5.5
7	MP1B	X	10.254	0.5
8	MP1B	Z	0	0.5
9	MP1B	Mx	0.003	0.5
10	MP1B	X	10.254	5.5
11	MP1B	Z	0	5.5
12	MP1B	Mx	0.003	5.5
13	MP1C	X	10.502	0.5
14	MP1C	Z	0	0.5
15	MP1C	Mx	-0.000912	0.5
16	MP1C	X	10.502	5.5
17	MP1C	Z	0	5.5
18	MP1C	Mx	-0.000912	5.5
19	MP4A	X	9.444	0.5
20	MP4A	Z	0	0.5
21	MP4A	Mx	-0.005	0.5
22	MP4A	X	9.444	5.5
23	MP4A	Z	0	5.5
24	MP4A	Mx	-0.005	5.5
25	MP4B	X	10.254	0.5
26	MP4B	Z	0	0.5
27	MP4B	Mx	0.003	0.5
28	MP4B	X	10.254	5.5
29	MP4B	Z	0	5.5
30	MP4B	Mx	0.003	5.5
31	MP4C	X	10.502	0.5
32	MP4C	Z	0	0.5
33	MP4C	Mx	-0.000912	0.5
34	MP4C	X	10.502	5.5
35	MP4C	Z	0	5.5
36	MP4C	Mx	-0.000912	5.5
37	MP2A	X	6.968	0.5
38	MP2A	Z	0	0.5
39	MP2A	Mx	-0.005	0.5
40	MP2A	X	6.968	5.5
41	MP2A	Z	0	5.5
42	MP2A	Mx	-0.005	5.5
43	MP2B	X	6.968	0.5
44	MP2B	Z	0	0.5
45	MP2B	Mx	-0.005	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
46	MP2B	X	6.968	5.5
47	MP2B	Z	0	5.5
48	MP2B	Mx	-0.005	5.5
49	MP2C	X	6.968	0.5
50	MP2C	Z	0	0.5
51	MP2C	Mx	-0.005	0.5
52	MP2C	X	6.968	5.5
53	MP2C	Z	0	5.5
54	MP2C	Mx	-0.005	5.5
55	MP2A	X	6.968	0.5
56	MP2A	Z	0	0.5
57	MP2A	Mx	-0.002	0.5
58	MP2A	X	6.968	5.5
59	MP2A	Z	0	5.5
60	MP2A	Mx	-0.002	5.5
61	MP2B	X	6.968	0.5
62	MP2B	Z	0	0.5
63	MP2B	Mx	-0.002	0.5
64	MP2B	X	6.968	5.5
65	MP2B	Z	0	5.5
66	MP2B	Mx	-0.002	5.5
67	MP2C	X	6.968	0.5
68	MP2C	Z	0	0.5
69	MP2C	Mx	-0.002	0.5
70	MP2C	X	6.968	5.5
71	MP2C	Z	0	5.5
72	MP2C	Mx	-0.002	5.5
73	MP3A	X	1.286	2
74	MP3A	Z	0	2
75	MP3A	Mx	-0.000633	2
76	MP3A	X	1.286	4
77	MP3A	Z	0	4
78	MP3A	Mx	-0.000633	4
79	MP3B	X	2.906	2
80	MP3B	Z	0	2
81	MP3B	Mx	0.000726	2
82	MP3B	X	2.906	4
83	MP3B	Z	0	4
84	MP3B	Mx	0.000726	4
85	MP3C	X	2.906	2
86	MP3C	Z	0	2
87	MP3C	Mx	0.000726	2
88	MP3C	X	2.906	4
89	MP3C	Z	0	4
90	MP3C	Mx	0.000726	4
91	MP1A	X	2.951	2
92	MP1A	Z	0	2
93	MP1A	Mx	-0.001	2
94	MP1B	X	2.951	2
95	MP1B	Z	0	2
96	MP1B	Mx	-0.001	2
97	MP1C	X	2.951	2
98	MP1C	Z	0	2
99	MP1C	Mx	-0.001	2
100	MP2A	X	2.414	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
101	MP2A	Z	0	2
102	MP2A	Mx	-0.001	2
103	MP2B	X	2.414	2
104	MP2B	Z	0	2
105	MP2B	Mx	-0.001	2
106	MP2C	X	2.414	2
107	MP2C	Z	0	2
108	MP2C	Mx	-0.001	2
109	MP2A	X	0.591	4
110	MP2A	Z	0	4
111	MP2A	Mx	0	4
112	MP2B	X	0.591	4
113	MP2B	Z	0	4
114	MP2B	Mx	0	4
115	MP2C	X	0.591	4
116	MP2C	Z	0	4
117	MP2C	Mx	0	4
118	M31	X	5.485	1
119	M31	Z	0	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	8.264	0.5
2	MP1A	Z	4.771	0.5
3	MP1A	Mx	-0.004	0.5
4	MP1A	X	8.264	5.5
5	MP1A	Z	4.771	5.5
6	MP1A	Mx	-0.004	5.5
7	MP1B	X	9.124	0.5
8	MP1B	Z	5.268	0.5
9	MP1B	Mx	0	0.5
10	MP1B	X	9.124	5.5
11	MP1B	Z	5.268	5.5
12	MP1B	Mx	0	5.5
13	MP1C	X	9.01	0.5
14	MP1C	Z	5.202	0.5
15	MP1C	Mx	0.002	0.5
16	MP1C	X	9.01	5.5
17	MP1C	Z	5.202	5.5
18	MP1C	Mx	0.002	5.5
19	MP4A	X	8.264	0.5
20	MP4A	Z	4.771	0.5
21	MP4A	Mx	-0.004	0.5
22	MP4A	X	8.264	5.5
23	MP4A	Z	4.771	5.5
24	MP4A	Mx	-0.004	5.5
25	MP4B	X	9.124	0.5
26	MP4B	Z	5.268	0.5
27	MP4B	Mx	0	0.5
28	MP4B	X	9.124	5.5
29	MP4B	Z	5.268	5.5
30	MP4B	Mx	0	5.5
31	MP4C	X	9.01	0.5
32	MP4C	Z	5.202	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
33	MP4C	Mx	0.002	0.5
34	MP4C	X	9.01	5.5
35	MP4C	Z	5.202	5.5
36	MP4C	Mx	0.002	5.5
37	MP2A	X	7.431	0.5
38	MP2A	Z	4.29	0.5
39	MP2A	Mx	-0.007	0.5
40	MP2A	X	7.431	5.5
41	MP2A	Z	4.29	5.5
42	MP2A	Mx	-0.007	5.5
43	MP2B	X	7.431	0.5
44	MP2B	Z	4.29	0.5
45	MP2B	Mx	-0.007	0.5
46	MP2B	X	7.431	5.5
47	MP2B	Z	4.29	5.5
48	MP2B	Mx	-0.007	5.5
49	MP2C	X	7.431	0.5
50	MP2C	Z	4.29	0.5
51	MP2C	Mx	-0.007	0.5
52	MP2C	X	7.431	5.5
53	MP2C	Z	4.29	5.5
54	MP2C	Mx	-0.007	5.5
55	MP2A	X	7.431	0.5
56	MP2A	Z	4.29	0.5
57	MP2A	Mx	0.001	0.5
58	MP2A	X	7.431	5.5
59	MP2A	Z	4.29	5.5
60	MP2A	Mx	0.001	5.5
61	MP2B	X	7.431	0.5
62	MP2B	Z	4.29	0.5
63	MP2B	Mx	0.001	0.5
64	MP2B	X	7.431	5.5
65	MP2B	Z	4.29	5.5
66	MP2B	Mx	0.001	5.5
67	MP2C	X	7.431	0.5
68	MP2C	Z	4.29	0.5
69	MP2C	Mx	0.001	0.5
70	MP2C	X	7.431	5.5
71	MP2C	Z	4.29	5.5
72	MP2C	Mx	0.001	5.5
73	MP3A	X	1.283	2
74	MP3A	Z	0.741	2
75	MP3A	Mx	-0.000696	2
76	MP3A	X	1.283	4
77	MP3A	Z	0.741	4
78	MP3A	Mx	-0.000696	4
79	MP3B	X	3.003	2
80	MP3B	Z	1.734	2
81	MP3B	Mx	0	2
82	MP3B	X	3.003	4
83	MP3B	Z	1.734	4
84	MP3B	Mx	0	4
85	MP3C	X	1.542	2
86	MP3C	Z	0.89	2
87	MP3C	Mx	0.000771	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
88	MP3C	X	1.542	4
89	MP3C	Z	0.89	4
90	MP3C	Mx	0.000771	4
91	MP1A	X	3.087	2
92	MP1A	Z	1.782	2
93	MP1A	Mx	-0.001	2
94	MP1B	X	3.087	2
95	MP1B	Z	1.782	2
96	MP1B	Mx	-0.001	2
97	MP1C	X	3.087	2
98	MP1C	Z	1.782	2
99	MP1C	Mx	-0.001	2
100	MP2A	X	2.546	2
101	MP2A	Z	1.47	2
102	MP2A	Mx	-0.000945	2
103	MP2B	X	2.546	2
104	MP2B	Z	1.47	2
105	MP2B	Mx	-0.000945	2
106	MP2C	X	2.546	2
107	MP2C	Z	1.47	2
108	MP2C	Mx	-0.000945	2
109	MP2A	X	0.614	4
110	MP2A	Z	0.354	4
111	MP2A	Mx	0	4
112	MP2B	X	0.614	4
113	MP2B	Z	0.354	4
114	MP2B	Mx	0	4
115	MP2C	X	0.614	4
116	MP2C	Z	0.354	4
117	MP2C	Mx	0	4
118	M31	X	5.429	1
119	M31	Z	3.134	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	5.035	0.5
2	MP1A	Z	8.722	0.5
3	MP1A	Mx	-0.003	0.5
4	MP1A	X	5.035	5.5
5	MP1A	Z	8.722	5.5
6	MP1A	Mx	-0.003	5.5
7	MP1B	X	5.127	0.5
8	MP1B	Z	8.881	0.5
9	MP1B	Mx	-0.003	0.5
10	MP1B	X	5.127	5.5
11	MP1B	Z	8.881	5.5
12	MP1B	Mx	-0.003	5.5
13	MP1C	X	4.938	0.5
14	MP1C	Z	8.552	0.5
15	MP1C	Mx	0.004	0.5
16	MP1C	X	4.938	5.5
17	MP1C	Z	8.552	5.5
18	MP1C	Mx	0.004	5.5
19	MP4A	X	5.035	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
20	MP4A	Z	8.722	0.5
21	MP4A	Mx	-0.003	0.5
22	MP4A	X	5.035	5.5
23	MP4A	Z	8.722	5.5
24	MP4A	Mx	-0.003	5.5
25	MP4B	X	5.127	0.5
26	MP4B	Z	8.881	0.5
27	MP4B	Mx	-0.003	0.5
28	MP4B	X	5.127	5.5
29	MP4B	Z	8.881	5.5
30	MP4B	Mx	-0.003	5.5
31	MP4C	X	4.938	0.5
32	MP4C	Z	8.552	0.5
33	MP4C	Mx	0.004	0.5
34	MP4C	X	4.938	5.5
35	MP4C	Z	8.552	5.5
36	MP4C	Mx	0.004	5.5
37	MP2A	X	4.947	0.5
38	MP2A	Z	8.569	0.5
39	MP2A	Mx	-0.007	0.5
40	MP2A	X	4.947	5.5
41	MP2A	Z	8.569	5.5
42	MP2A	Mx	-0.007	5.5
43	MP2B	X	4.947	0.5
44	MP2B	Z	8.569	0.5
45	MP2B	Mx	-0.007	0.5
46	MP2B	X	4.947	5.5
47	MP2B	Z	8.569	5.5
48	MP2B	Mx	-0.007	5.5
49	MP2C	X	4.947	0.5
50	MP2C	Z	8.569	0.5
51	MP2C	Mx	-0.007	0.5
52	MP2C	X	4.947	5.5
53	MP2C	Z	8.569	5.5
54	MP2C	Mx	-0.007	5.5
55	MP2A	X	4.947	0.5
56	MP2A	Z	8.569	0.5
57	MP2A	Mx	0.005	0.5
58	MP2A	X	4.947	5.5
59	MP2A	Z	8.569	5.5
60	MP2A	Mx	0.005	5.5
61	MP2B	X	4.947	0.5
62	MP2B	Z	8.569	0.5
63	MP2B	Mx	0.005	0.5
64	MP2B	X	4.947	5.5
65	MP2B	Z	8.569	5.5
66	MP2B	Mx	0.005	5.5
67	MP2C	X	4.947	0.5
68	MP2C	Z	8.569	0.5
69	MP2C	Mx	0.005	0.5
70	MP2C	X	4.947	5.5
71	MP2C	Z	8.569	5.5
72	MP2C	Mx	0.005	5.5
73	MP3A	X	1.269	2
74	MP3A	Z	2.198	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
75	MP3A	Mx	-0.000816	2
76	MP3A	X	1.269	4
77	MP3A	Z	2.198	4
78	MP3A	Mx	-0.000816	4
79	MP3B	X	1.453	2
80	MP3B	Z	2.516	2
81	MP3B	Mx	-0.000726	2
82	MP3B	X	1.453	4
83	MP3B	Z	2.516	4
84	MP3B	Mx	-0.000726	4
85	MP3C	X	0.609	2
86	MP3C	Z	1.055	2
87	MP3C	Mx	0.000609	2
88	MP3C	X	0.609	4
89	MP3C	Z	1.055	4
90	MP3C	Mx	0.000609	4
91	MP1A	X	2.033	2
92	MP1A	Z	3.521	2
93	MP1A	Mx	-0.000353	2
94	MP1B	X	2.033	2
95	MP1B	Z	3.521	2
96	MP1B	Mx	-0.000353	2
97	MP1C	X	2.033	2
98	MP1C	Z	3.521	2
99	MP1C	Mx	-0.000353	2
100	MP2A	X	1.684	2
101	MP2A	Z	2.917	2
102	MP2A	Mx	-0.000292	2
103	MP2B	X	1.684	2
104	MP2B	Z	2.917	2
105	MP2B	Mx	-0.000292	2
106	MP2C	X	1.684	2
107	MP2C	Z	2.917	2
108	MP2C	Mx	-0.000292	2
109	MP2A	X	0.402	4
110	MP2A	Z	0.697	4
111	MP2A	Mx	0	4
112	MP2B	X	0.402	4
113	MP2B	Z	0.697	4
114	MP2B	Mx	0	4
115	MP2C	X	0.402	4
116	MP2C	Z	0.697	4
117	MP2C	Mx	0	4
118	M31	X	3.454	1
119	M31	Z	5.982	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	0.5
2	MP1A	Z	10.502	0.5
3	MP1A	Mx	-0.000912	0.5
4	MP1A	X	0	5.5
5	MP1A	Z	10.502	5.5
6	MP1A	Mx	-0.000912	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
7	MP1B	X	0	0.5
8	MP1B	Z	9.692	0.5
9	MP1B	Mx	-0.004	0.5
10	MP1B	X	0	5.5
11	MP1B	Z	9.692	5.5
12	MP1B	Mx	-0.004	5.5
13	MP1C	X	0	0.5
14	MP1C	Z	9.444	0.5
15	MP1C	Mx	0.005	0.5
16	MP1C	X	0	5.5
17	MP1C	Z	9.444	5.5
18	MP1C	Mx	0.005	5.5
19	MP4A	X	0	0.5
20	MP4A	Z	10.502	0.5
21	MP4A	Mx	-0.000912	0.5
22	MP4A	X	0	5.5
23	MP4A	Z	10.502	5.5
24	MP4A	Mx	-0.000912	5.5
25	MP4B	X	0	0.5
26	MP4B	Z	9.692	0.5
27	MP4B	Mx	-0.004	0.5
28	MP4B	X	0	5.5
29	MP4B	Z	9.692	5.5
30	MP4B	Mx	-0.004	5.5
31	MP4C	X	0	0.5
32	MP4C	Z	9.444	0.5
33	MP4C	Mx	0.005	0.5
34	MP4C	X	0	5.5
35	MP4C	Z	9.444	5.5
36	MP4C	Mx	0.005	5.5
37	MP2A	X	0	0.5
38	MP2A	Z	9.596	0.5
39	MP2A	Mx	-0.004	0.5
40	MP2A	X	0	5.5
41	MP2A	Z	9.596	5.5
42	MP2A	Mx	-0.004	5.5
43	MP2B	X	0	0.5
44	MP2B	Z	9.596	0.5
45	MP2B	Mx	-0.004	0.5
46	MP2B	X	0	5.5
47	MP2B	Z	9.596	5.5
48	MP2B	Mx	-0.004	5.5
49	MP2C	X	0	0.5
50	MP2C	Z	9.596	0.5
51	MP2C	Mx	-0.004	0.5
52	MP2C	X	0	5.5
53	MP2C	Z	9.596	5.5
54	MP2C	Mx	-0.004	5.5
55	MP2A	X	0	0.5
56	MP2A	Z	9.596	0.5
57	MP2A	Mx	0.007	0.5
58	MP2A	X	0	5.5
59	MP2A	Z	9.596	5.5
60	MP2A	Mx	0.007	5.5
61	MP2B	X	0	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
62	MP2B	Z	9.596	0.5
63	MP2B	Mx	0.007	0.5
64	MP2B	X	0	5.5
65	MP2B	Z	9.596	5.5
66	MP2B	Mx	0.007	5.5
67	MP2C	X	0	0.5
68	MP2C	Z	9.596	0.5
69	MP2C	Mx	0.007	0.5
70	MP2C	X	0	5.5
71	MP2C	Z	9.596	5.5
72	MP2C	Mx	0.007	5.5
73	MP3A	X	0	2
74	MP3A	Z	3.4	2
75	MP3A	Mx	-0.000295	2
76	MP3A	X	0	4
77	MP3A	Z	3.4	4
78	MP3A	Mx	-0.000295	4
79	MP3B	X	0	2
80	MP3B	Z	1.781	2
81	MP3B	Mx	-0.000771	2
82	MP3B	X	0	4
83	MP3B	Z	1.781	4
84	MP3B	Mx	-0.000771	4
85	MP3C	X	0	2
86	MP3C	Z	1.781	2
87	MP3C	Mx	0.000771	2
88	MP3C	X	0	4
89	MP3C	Z	1.781	4
90	MP3C	Mx	0.000771	4
91	MP1A	X	0	2
92	MP1A	Z	3.952	2
93	MP1A	Mx	0.000676	2
94	MP1B	X	0	2
95	MP1B	Z	3.952	2
96	MP1B	Mx	0.000676	2
97	MP1C	X	0	2
98	MP1C	Z	3.952	2
99	MP1C	Mx	0.000676	2
100	MP2A	X	0	2
101	MP2A	Z	3.271	2
102	MP2A	Mx	0.000559	2
103	MP2B	X	0	2
104	MP2B	Z	3.271	2
105	MP2B	Mx	0.000559	2
106	MP2C	X	0	2
107	MP2C	Z	3.271	2
108	MP2C	Mx	0.000559	2
109	MP2A	X	0	4
110	MP2A	Z	0.783	4
111	MP2A	Mx	0	4
112	MP2B	X	0	4
113	MP2B	Z	0.783	4
114	MP2B	Mx	0	4
115	MP2C	X	0	4
116	MP2C	Z	0.783	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
117	MP2C	Mx	0	4
118	M31	X	0	1
119	M31	Z	6.763	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-5.202	0.5
2	MP1A	Z	9.01	0.5
3	MP1A	Mx	0.002	0.5
4	MP1A	X	-5.202	5.5
5	MP1A	Z	9.01	5.5
6	MP1A	Mx	0.002	5.5
7	MP1B	X	-4.705	0.5
8	MP1B	Z	8.15	0.5
9	MP1B	Mx	-0.005	0.5
10	MP1B	X	-4.705	5.5
11	MP1B	Z	8.15	5.5
12	MP1B	Mx	-0.005	5.5
13	MP1C	X	-4.771	0.5
14	MP1C	Z	8.264	0.5
15	MP1C	Mx	0.004	0.5
16	MP1C	X	-4.771	5.5
17	MP1C	Z	8.264	5.5
18	MP1C	Mx	0.004	5.5
19	MP4A	X	-5.202	0.5
20	MP4A	Z	9.01	0.5
21	MP4A	Mx	0.002	0.5
22	MP4A	X	-5.202	5.5
23	MP4A	Z	9.01	5.5
24	MP4A	Mx	0.002	5.5
25	MP4B	X	-4.705	0.5
26	MP4B	Z	8.15	0.5
27	MP4B	Mx	-0.005	0.5
28	MP4B	X	-4.705	5.5
29	MP4B	Z	8.15	5.5
30	MP4B	Mx	-0.005	5.5
31	MP4C	X	-4.771	0.5
32	MP4C	Z	8.264	0.5
33	MP4C	Mx	0.004	0.5
34	MP4C	X	-4.771	5.5
35	MP4C	Z	8.264	5.5
36	MP4C	Mx	0.004	5.5
37	MP2A	X	-3.992	0.5
38	MP2A	Z	6.915	0.5
39	MP2A	Mx	-0.00015	0.5
40	MP2A	X	-3.992	5.5
41	MP2A	Z	6.915	5.5
42	MP2A	Mx	-0.00015	5.5
43	MP2B	X	-3.992	0.5
44	MP2B	Z	6.915	0.5
45	MP2B	Mx	-0.00015	0.5
46	MP2B	X	-3.992	5.5
47	MP2B	Z	6.915	5.5
48	MP2B	Mx	-0.00015	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
49	MP2C	X	-3.992	0.5
50	MP2C	Z	6.915	0.5
51	MP2C	Mx	-0.00015	0.5
52	MP2C	X	-3.992	5.5
53	MP2C	Z	6.915	5.5
54	MP2C	Mx	-0.00015	5.5
55	MP2A	X	-3.992	0.5
56	MP2A	Z	6.915	0.5
57	MP2A	Mx	0.006	0.5
58	MP2A	X	-3.992	5.5
59	MP2A	Z	6.915	5.5
60	MP2A	Mx	0.006	5.5
61	MP2B	X	-3.992	0.5
62	MP2B	Z	6.915	0.5
63	MP2B	Mx	0.006	0.5
64	MP2B	X	-3.992	5.5
65	MP2B	Z	6.915	5.5
66	MP2B	Mx	0.006	5.5
67	MP2C	X	-3.992	0.5
68	MP2C	Z	6.915	0.5
69	MP2C	Mx	0.006	0.5
70	MP2C	X	-3.992	5.5
71	MP2C	Z	6.915	5.5
72	MP2C	Mx	0.006	5.5
73	MP3A	X	-1.602	2
74	MP3A	Z	2.775	2
75	MP3A	Mx	0.000548	2
76	MP3A	X	-1.602	4
77	MP3A	Z	2.775	4
78	MP3A	Mx	0.000548	4
79	MP3B	X	-0.609	2
80	MP3B	Z	1.055	2
81	MP3B	Mx	-0.000609	2
82	MP3B	X	-0.609	4
83	MP3B	Z	1.055	4
84	MP3B	Mx	-0.000609	4
85	MP3C	X	-1.453	2
86	MP3C	Z	2.516	2
87	MP3C	Mx	0.000726	2
88	MP3C	X	-1.453	4
89	MP3C	Z	2.516	4
90	MP3C	Mx	0.000726	4
91	MP1A	X	-1.669	2
92	MP1A	Z	2.891	2
93	MP1A	Mx	0.001	2
94	MP1B	X	-1.669	2
95	MP1B	Z	2.891	2
96	MP1B	Mx	0.001	2
97	MP1C	X	-1.669	2
98	MP1C	Z	2.891	2
99	MP1C	Mx	0.001	2
100	MP2A	X	-1.373	2
101	MP2A	Z	2.377	2
102	MP2A	Mx	0.001	2
103	MP2B	X	-1.373	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
104	MP2B	Z	2.377	2
105	MP2B	Mx	0.001	2
106	MP2C	X	-1.373	2
107	MP2C	Z	2.377	2
108	MP2C	Mx	0.001	2
109	MP2A	X	-0.333	4
110	MP2A	Z	0.576	4
111	MP2A	Mx	0	4
112	MP2B	X	-0.333	4
113	MP2B	Z	0.576	4
114	MP2B	Mx	0	4
115	MP2C	X	-0.333	4
116	MP2C	Z	0.576	4
117	MP2C	Mx	0	4
118	M31	X	-2.989	1
119	M31	Z	5.178	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-8.552	0.5
2	MP1A	Z	4.938	0.5
3	MP1A	Mx	0.004	0.5
4	MP1A	X	-8.552	5.5
5	MP1A	Z	4.938	5.5
6	MP1A	Mx	0.004	5.5
7	MP1B	X	-8.393	0.5
8	MP1B	Z	4.846	0.5
9	MP1B	Mx	-0.004	0.5
10	MP1B	X	-8.393	5.5
11	MP1B	Z	4.846	5.5
12	MP1B	Mx	-0.004	5.5
13	MP1C	X	-8.722	0.5
14	MP1C	Z	5.035	0.5
15	MP1C	Mx	0.003	0.5
16	MP1C	X	-8.722	5.5
17	MP1C	Z	5.035	5.5
18	MP1C	Mx	0.003	5.5
19	MP4A	X	-8.552	0.5
20	MP4A	Z	4.938	0.5
21	MP4A	Mx	0.004	0.5
22	MP4A	X	-8.552	5.5
23	MP4A	Z	4.938	5.5
24	MP4A	Mx	0.004	5.5
25	MP4B	X	-8.393	0.5
26	MP4B	Z	4.846	0.5
27	MP4B	Mx	-0.004	0.5
28	MP4B	X	-8.393	5.5
29	MP4B	Z	4.846	5.5
30	MP4B	Mx	-0.004	5.5
31	MP4C	X	-8.722	0.5
32	MP4C	Z	5.035	0.5
33	MP4C	Mx	0.003	0.5
34	MP4C	X	-8.722	5.5
35	MP4C	Z	5.035	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
36	MP4C	Mx	0.003	5.5
37	MP2A	X	-5.776	0.5
38	MP2A	Z	3.335	0.5
39	MP2A	Mx	0.003	0.5
40	MP2A	X	-5.776	5.5
41	MP2A	Z	3.335	5.5
42	MP2A	Mx	0.003	5.5
43	MP2B	X	-5.776	0.5
44	MP2B	Z	3.335	0.5
45	MP2B	Mx	0.003	0.5
46	MP2B	X	-5.776	5.5
47	MP2B	Z	3.335	5.5
48	MP2B	Mx	0.003	5.5
49	MP2C	X	-5.776	0.5
50	MP2C	Z	3.335	0.5
51	MP2C	Mx	0.003	0.5
52	MP2C	X	-5.776	5.5
53	MP2C	Z	3.335	5.5
54	MP2C	Mx	0.003	5.5
55	MP2A	X	-5.776	0.5
56	MP2A	Z	3.335	0.5
57	MP2A	Mx	0.004	0.5
58	MP2A	X	-5.776	5.5
59	MP2A	Z	3.335	5.5
60	MP2A	Mx	0.004	5.5
61	MP2B	X	-5.776	0.5
62	MP2B	Z	3.335	0.5
63	MP2B	Mx	0.004	0.5
64	MP2B	X	-5.776	5.5
65	MP2B	Z	3.335	5.5
66	MP2B	Mx	0.004	5.5
67	MP2C	X	-5.776	0.5
68	MP2C	Z	3.335	0.5
69	MP2C	Mx	0.004	0.5
70	MP2C	X	-5.776	5.5
71	MP2C	Z	3.335	5.5
72	MP2C	Mx	0.004	5.5
73	MP3A	X	-1.86	2
74	MP3A	Z	1.074	2
75	MP3A	Mx	0.000823	2
76	MP3A	X	-1.86	4
77	MP3A	Z	1.074	4
78	MP3A	Mx	0.000823	4
79	MP3B	X	-1.542	2
80	MP3B	Z	0.89	2
81	MP3B	Mx	-0.000771	2
82	MP3B	X	-1.542	4
83	MP3B	Z	0.89	4
84	MP3B	Mx	-0.000771	4
85	MP3C	X	-3.003	2
86	MP3C	Z	1.734	2
87	MP3C	Mx	0	2
88	MP3C	X	-3.003	4
89	MP3C	Z	1.734	4
90	MP3C	Mx	0	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
91	MP1A	X	-2.458	2
92	MP1A	Z	1.419	2
93	MP1A	Mx	0.001	2
94	MP1B	X	-2.458	2
95	MP1B	Z	1.419	2
96	MP1B	Mx	0.001	2
97	MP1C	X	-2.458	2
98	MP1C	Z	1.419	2
99	MP1C	Mx	0.001	2
100	MP2A	X	-2.006	2
101	MP2A	Z	1.158	2
102	MP2A	Mx	0.001	2
103	MP2B	X	-2.006	2
104	MP2B	Z	1.158	2
105	MP2B	Mx	0.001	2
106	MP2C	X	-2.006	2
107	MP2C	Z	1.158	2
108	MP2C	Mx	0.001	2
109	MP2A	X	-0.493	4
110	MP2A	Z	0.285	4
111	MP2A	Mx	0	4
112	MP2B	X	-0.493	4
113	MP2B	Z	0.285	4
114	MP2B	Mx	0	4
115	MP2C	X	-0.493	4
116	MP2C	Z	0.285	4
117	MP2C	Mx	0	4
118	M31	X	-4.625	1
119	M31	Z	2.67	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-9.444	0.5
2	MP1A	Z	0	0.5
3	MP1A	Mx	0.005	0.5
4	MP1A	X	-9.444	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	0.005	5.5
7	MP1B	X	-10.254	0.5
8	MP1B	Z	0	0.5
9	MP1B	Mx	-0.003	0.5
10	MP1B	X	-10.254	5.5
11	MP1B	Z	0	5.5
12	MP1B	Mx	-0.003	5.5
13	MP1C	X	-10.502	0.5
14	MP1C	Z	0	0.5
15	MP1C	Mx	0.000912	0.5
16	MP1C	X	-10.502	5.5
17	MP1C	Z	0	5.5
18	MP1C	Mx	0.000912	5.5
19	MP4A	X	-9.444	0.5
20	MP4A	Z	0	0.5
21	MP4A	Mx	0.005	0.5
22	MP4A	X	-9.444	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
23	MP4A	Z	0	5.5
24	MP4A	Mx	0.005	5.5
25	MP4B	X	-10.254	0.5
26	MP4B	Z	0	0.5
27	MP4B	Mx	-0.003	0.5
28	MP4B	X	-10.254	5.5
29	MP4B	Z	0	5.5
30	MP4B	Mx	-0.003	5.5
31	MP4C	X	-10.502	0.5
32	MP4C	Z	0	0.5
33	MP4C	Mx	0.000912	0.5
34	MP4C	X	-10.502	5.5
35	MP4C	Z	0	5.5
36	MP4C	Mx	0.000912	5.5
37	MP2A	X	-6.968	0.5
38	MP2A	Z	0	0.5
39	MP2A	Mx	0.005	0.5
40	MP2A	X	-6.968	5.5
41	MP2A	Z	0	5.5
42	MP2A	Mx	0.005	5.5
43	MP2B	X	-6.968	0.5
44	MP2B	Z	0	0.5
45	MP2B	Mx	0.005	0.5
46	MP2B	X	-6.968	5.5
47	MP2B	Z	0	5.5
48	MP2B	Mx	0.005	5.5
49	MP2C	X	-6.968	0.5
50	MP2C	Z	0	0.5
51	MP2C	Mx	0.005	0.5
52	MP2C	X	-6.968	5.5
53	MP2C	Z	0	5.5
54	MP2C	Mx	0.005	5.5
55	MP2A	X	-6.968	0.5
56	MP2A	Z	0	0.5
57	MP2A	Mx	0.002	0.5
58	MP2A	X	-6.968	5.5
59	MP2A	Z	0	5.5
60	MP2A	Mx	0.002	5.5
61	MP2B	X	-6.968	0.5
62	MP2B	Z	0	0.5
63	MP2B	Mx	0.002	0.5
64	MP2B	X	-6.968	5.5
65	MP2B	Z	0	5.5
66	MP2B	Mx	0.002	5.5
67	MP2C	X	-6.968	0.5
68	MP2C	Z	0	0.5
69	MP2C	Mx	0.002	0.5
70	MP2C	X	-6.968	5.5
71	MP2C	Z	0	5.5
72	MP2C	Mx	0.002	5.5
73	MP3A	X	-1.286	2
74	MP3A	Z	0	2
75	MP3A	Mx	0.000633	2
76	MP3A	X	-1.286	4
77	MP3A	Z	0	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
78	MP3A	Mx	0.000633	4
79	MP3B	X	-2.906	2
80	MP3B	Z	0	2
81	MP3B	Mx	-0.000726	2
82	MP3B	X	-2.906	4
83	MP3B	Z	0	4
84	MP3B	Mx	-0.000726	4
85	MP3C	X	-2.906	2
86	MP3C	Z	0	2
87	MP3C	Mx	-0.000726	2
88	MP3C	X	-2.906	4
89	MP3C	Z	0	4
90	MP3C	Mx	-0.000726	4
91	MP1A	X	-2.951	2
92	MP1A	Z	0	2
93	MP1A	Mx	0.001	2
94	MP1B	X	-2.951	2
95	MP1B	Z	0	2
96	MP1B	Mx	0.001	2
97	MP1C	X	-2.951	2
98	MP1C	Z	0	2
99	MP1C	Mx	0.001	2
100	MP2A	X	-2.414	2
101	MP2A	Z	0	2
102	MP2A	Mx	0.001	2
103	MP2B	X	-2.414	2
104	MP2B	Z	0	2
105	MP2B	Mx	0.001	2
106	MP2C	X	-2.414	2
107	MP2C	Z	0	2
108	MP2C	Mx	0.001	2
109	MP2A	X	-0.591	4
110	MP2A	Z	0	4
111	MP2A	Mx	0	4
112	MP2B	X	-0.591	4
113	MP2B	Z	0	4
114	MP2B	Mx	0	4
115	MP2C	X	-0.591	4
116	MP2C	Z	0	4
117	MP2C	Mx	0	4
118	M31	X	-5.485	1
119	M31	Z	0	1
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-8.264	0.5
2	MP1A	Z	-4.771	0.5
3	MP1A	Mx	0.004	0.5
4	MP1A	X	-8.264	5.5
5	MP1A	Z	-4.771	5.5
6	MP1A	Mx	0.004	5.5
7	MP1B	X	-9.124	0.5
8	MP1B	Z	-5.268	0.5
9	MP1B	Mx	0	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
10	MP1B	X	-9.124	5.5
11	MP1B	Z	-5.268	5.5
12	MP1B	Mx	0	5.5
13	MP1C	X	-9.01	0.5
14	MP1C	Z	-5.202	0.5
15	MP1C	Mx	-0.002	0.5
16	MP1C	X	-9.01	5.5
17	MP1C	Z	-5.202	5.5
18	MP1C	Mx	-0.002	5.5
19	MP4A	X	-8.264	0.5
20	MP4A	Z	-4.771	0.5
21	MP4A	Mx	0.004	0.5
22	MP4A	X	-8.264	5.5
23	MP4A	Z	-4.771	5.5
24	MP4A	Mx	0.004	5.5
25	MP4B	X	-9.124	0.5
26	MP4B	Z	-5.268	0.5
27	MP4B	Mx	0	0.5
28	MP4B	X	-9.124	5.5
29	MP4B	Z	-5.268	5.5
30	MP4B	Mx	0	5.5
31	MP4C	X	-9.01	0.5
32	MP4C	Z	-5.202	0.5
33	MP4C	Mx	-0.002	0.5
34	MP4C	X	-9.01	5.5
35	MP4C	Z	-5.202	5.5
36	MP4C	Mx	-0.002	5.5
37	MP2A	X	-7.431	0.5
38	MP2A	Z	-4.29	0.5
39	MP2A	Mx	0.007	0.5
40	MP2A	X	-7.431	5.5
41	MP2A	Z	-4.29	5.5
42	MP2A	Mx	0.007	5.5
43	MP2B	X	-7.431	0.5
44	MP2B	Z	-4.29	0.5
45	MP2B	Mx	0.007	0.5
46	MP2B	X	-7.431	5.5
47	MP2B	Z	-4.29	5.5
48	MP2B	Mx	0.007	5.5
49	MP2C	X	-7.431	0.5
50	MP2C	Z	-4.29	0.5
51	MP2C	Mx	0.007	0.5
52	MP2C	X	-7.431	5.5
53	MP2C	Z	-4.29	5.5
54	MP2C	Mx	0.007	5.5
55	MP2A	X	-7.431	0.5
56	MP2A	Z	-4.29	0.5
57	MP2A	Mx	-0.001	0.5
58	MP2A	X	-7.431	5.5
59	MP2A	Z	-4.29	5.5
60	MP2A	Mx	-0.001	5.5
61	MP2B	X	-7.431	0.5
62	MP2B	Z	-4.29	0.5
63	MP2B	Mx	-0.001	0.5
64	MP2B	X	-7.431	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
65	MP2B	Z	-4.29	5.5
66	MP2B	Mx	-0.001	5.5
67	MP2C	X	-7.431	0.5
68	MP2C	Z	-4.29	0.5
69	MP2C	Mx	-0.001	0.5
70	MP2C	X	-7.431	5.5
71	MP2C	Z	-4.29	5.5
72	MP2C	Mx	-0.001	5.5
73	MP3A	X	-1.283	2
74	MP3A	Z	-0.741	2
75	MP3A	Mx	0.000696	2
76	MP3A	X	-1.283	4
77	MP3A	Z	-0.741	4
78	MP3A	Mx	0.000696	4
79	MP3B	X	-3.003	2
80	MP3B	Z	-1.734	2
81	MP3B	Mx	0	2
82	MP3B	X	-3.003	4
83	MP3B	Z	-1.734	4
84	MP3B	Mx	0	4
85	MP3C	X	-1.542	2
86	MP3C	Z	-0.89	2
87	MP3C	Mx	-0.000771	2
88	MP3C	X	-1.542	4
89	MP3C	Z	-0.89	4
90	MP3C	Mx	-0.000771	4
91	MP1A	X	-3.087	2
92	MP1A	Z	-1.782	2
93	MP1A	Mx	0.001	2
94	MP1B	X	-3.087	2
95	MP1B	Z	-1.782	2
96	MP1B	Mx	0.001	2
97	MP1C	X	-3.087	2
98	MP1C	Z	-1.782	2
99	MP1C	Mx	0.001	2
100	MP2A	X	-2.546	2
101	MP2A	Z	-1.47	2
102	MP2A	Mx	0.000945	2
103	MP2B	X	-2.546	2
104	MP2B	Z	-1.47	2
105	MP2B	Mx	0.000945	2
106	MP2C	X	-2.546	2
107	MP2C	Z	-1.47	2
108	MP2C	Mx	0.000945	2
109	MP2A	X	-0.614	4
110	MP2A	Z	-0.354	4
111	MP2A	Mx	0	4
112	MP2B	X	-0.614	4
113	MP2B	Z	-0.354	4
114	MP2B	Mx	0	4
115	MP2C	X	-0.614	4
116	MP2C	Z	-0.354	4
117	MP2C	Mx	0	4
118	M31	X	-5.429	1
119	M31	Z	-3.134	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
120	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-5.035	0.5
2	MP1A	Z	-8.722	0.5
3	MP1A	Mx	0.003	0.5
4	MP1A	X	-5.035	5.5
5	MP1A	Z	-8.722	5.5
6	MP1A	Mx	0.003	5.5
7	MP1B	X	-5.127	0.5
8	MP1B	Z	-8.881	0.5
9	MP1B	Mx	0.003	0.5
10	MP1B	X	-5.127	5.5
11	MP1B	Z	-8.881	5.5
12	MP1B	Mx	0.003	5.5
13	MP1C	X	-4.938	0.5
14	MP1C	Z	-8.552	0.5
15	MP1C	Mx	-0.004	0.5
16	MP1C	X	-4.938	5.5
17	MP1C	Z	-8.552	5.5
18	MP1C	Mx	-0.004	5.5
19	MP4A	X	-5.035	0.5
20	MP4A	Z	-8.722	0.5
21	MP4A	Mx	0.003	0.5
22	MP4A	X	-5.035	5.5
23	MP4A	Z	-8.722	5.5
24	MP4A	Mx	0.003	5.5
25	MP4B	X	-5.127	0.5
26	MP4B	Z	-8.881	0.5
27	MP4B	Mx	0.003	0.5
28	MP4B	X	-5.127	5.5
29	MP4B	Z	-8.881	5.5
30	MP4B	Mx	0.003	5.5
31	MP4C	X	-4.938	0.5
32	MP4C	Z	-8.552	0.5
33	MP4C	Mx	-0.004	0.5
34	MP4C	X	-4.938	5.5
35	MP4C	Z	-8.552	5.5
36	MP4C	Mx	-0.004	5.5
37	MP2A	X	-4.947	0.5
38	MP2A	Z	-8.569	0.5
39	MP2A	Mx	0.007	0.5
40	MP2A	X	-4.947	5.5
41	MP2A	Z	-8.569	5.5
42	MP2A	Mx	0.007	5.5
43	MP2B	X	-4.947	0.5
44	MP2B	Z	-8.569	0.5
45	MP2B	Mx	0.007	0.5
46	MP2B	X	-4.947	5.5
47	MP2B	Z	-8.569	5.5
48	MP2B	Mx	0.007	5.5
49	MP2C	X	-4.947	0.5
50	MP2C	Z	-8.569	0.5
51	MP2C	Mx	0.007	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
52	MP2C	X	-4.947	5.5
53	MP2C	Z	-8.569	5.5
54	MP2C	Mx	0.007	5.5
55	MP2A	X	-4.947	0.5
56	MP2A	Z	-8.569	0.5
57	MP2A	Mx	-0.005	0.5
58	MP2A	X	-4.947	5.5
59	MP2A	Z	-8.569	5.5
60	MP2A	Mx	-0.005	5.5
61	MP2B	X	-4.947	0.5
62	MP2B	Z	-8.569	0.5
63	MP2B	Mx	-0.005	0.5
64	MP2B	X	-4.947	5.5
65	MP2B	Z	-8.569	5.5
66	MP2B	Mx	-0.005	5.5
67	MP2C	X	-4.947	0.5
68	MP2C	Z	-8.569	0.5
69	MP2C	Mx	-0.005	0.5
70	MP2C	X	-4.947	5.5
71	MP2C	Z	-8.569	5.5
72	MP2C	Mx	-0.005	5.5
73	MP3A	X	-1.269	2
74	MP3A	Z	-2.198	2
75	MP3A	Mx	0.000816	2
76	MP3A	X	-1.269	4
77	MP3A	Z	-2.198	4
78	MP3A	Mx	0.000816	4
79	MP3B	X	-1.453	2
80	MP3B	Z	-2.516	2
81	MP3B	Mx	0.000726	2
82	MP3B	X	-1.453	4
83	MP3B	Z	-2.516	4
84	MP3B	Mx	0.000726	4
85	MP3C	X	-0.609	2
86	MP3C	Z	-1.055	2
87	MP3C	Mx	-0.000609	2
88	MP3C	X	-0.609	4
89	MP3C	Z	-1.055	4
90	MP3C	Mx	-0.000609	4
91	MP1A	X	-2.033	2
92	MP1A	Z	-3.521	2
93	MP1A	Mx	0.000353	2
94	MP1B	X	-2.033	2
95	MP1B	Z	-3.521	2
96	MP1B	Mx	0.000353	2
97	MP1C	X	-2.033	2
98	MP1C	Z	-3.521	2
99	MP1C	Mx	0.000353	2
100	MP2A	X	-1.684	2
101	MP2A	Z	-2.917	2
102	MP2A	Mx	0.000292	2
103	MP2B	X	-1.684	2
104	MP2B	Z	-2.917	2
105	MP2B	Mx	0.000292	2
106	MP2C	X	-1.684	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
107	MP2C	Z	-2.917	2
108	MP2C	Mx	0.000292	2
109	MP2A	X	-0.402	4
110	MP2A	Z	-0.697	4
111	MP2A	Mx	0	4
112	MP2B	X	-0.402	4
113	MP2B	Z	-0.697	4
114	MP2B	Mx	0	4
115	MP2C	X	-0.402	4
116	MP2C	Z	-0.697	4
117	MP2C	Mx	0	4
118	M31	X	-3.454	1
119	M31	Z	-5.982	1
120	M31	Mx	0	1

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M1	Y	-500	%89

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M1	Y	-500	%53

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M1	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M1	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Y	-0.51	0.5
2	MP1A	My	-0.000251	0.5
3	MP1A	Mz	-4.4e-5	0.5
4	MP1A	Y	-0.51	5.5
5	MP1A	My	-0.000251	5.5
6	MP1A	Mz	-4.4e-5	5.5
7	MP1B	Y	-0.51	0.5
8	MP1B	My	0.000127	0.5
9	MP1B	Mz	-0.000221	0.5
10	MP1B	Y	-0.51	5.5
11	MP1B	My	0.000127	5.5
12	MP1B	Mz	-0.000221	5.5
13	MP1C	Y	-0.51	0.5
14	MP1C	My	-4.4e-5	0.5
15	MP1C	Mz	0.000251	0.5
16	MP1C	Y	-0.51	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
17	MP1C	My	-4.4e-5	5.5
18	MP1C	Mz	0.000251	5.5
19	MP4A	Y	-0.51	0.5
20	MP4A	My	-0.000251	0.5
21	MP4A	Mz	-4.4e-5	0.5
22	MP4A	Y	-0.51	5.5
23	MP4A	My	-0.000251	5.5
24	MP4A	Mz	-4.4e-5	5.5
25	MP4B	Y	-0.51	0.5
26	MP4B	My	0.000127	0.5
27	MP4B	Mz	-0.000221	0.5
28	MP4B	Y	-0.51	5.5
29	MP4B	My	0.000127	5.5
30	MP4B	Mz	-0.000221	5.5
31	MP4C	Y	-0.51	0.5
32	MP4C	My	-4.4e-5	0.5
33	MP4C	Mz	0.000251	0.5
34	MP4C	Y	-0.51	5.5
35	MP4C	My	-4.4e-5	5.5
36	MP4C	Mz	0.000251	5.5
37	MP2A	Y	-1.195	0.5
38	MP2A	My	-0.000817	0.5
39	MP2A	Mz	-0.000498	0.5
40	MP2A	Y	-1.195	5.5
41	MP2A	My	-0.000817	5.5
42	MP2A	Mz	-0.000498	5.5
43	MP2B	Y	-1.195	0.5
44	MP2B	My	-0.000817	0.5
45	MP2B	Mz	-0.000498	0.5
46	MP2B	Y	-1.195	5.5
47	MP2B	My	-0.000817	5.5
48	MP2B	Mz	-0.000498	5.5
49	MP2C	Y	-1.195	0.5
50	MP2C	My	-0.000817	0.5
51	MP2C	Mz	-0.000498	0.5
52	MP2C	Y	-1.195	5.5
53	MP2C	My	-0.000817	5.5
54	MP2C	Mz	-0.000498	5.5
55	MP2A	Y	-1.195	0.5
56	MP2A	My	-0.000306	0.5
57	MP2A	Mz	0.000906	0.5
58	MP2A	Y	-1.195	5.5
59	MP2A	My	-0.000306	5.5
60	MP2A	Mz	0.000906	5.5
61	MP2B	Y	-1.195	0.5
62	MP2B	My	-0.000306	0.5
63	MP2B	Mz	0.000906	0.5
64	MP2B	Y	-1.195	5.5
65	MP2B	My	-0.000306	5.5
66	MP2B	Mz	0.000906	5.5
67	MP2C	Y	-1.195	0.5
68	MP2C	My	-0.000306	0.5
69	MP2C	Mz	0.000906	0.5
70	MP2C	Y	-1.195	5.5
71	MP2C	My	-0.000306	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
72	MP2C	Mz	0.000906	5.5
73	MP3A	Y	-1.082	2
74	MP3A	My	-0.000533	2
75	MP3A	Mz	-9.4e-5	2
76	MP3A	Y	-1.082	4
77	MP3A	My	-0.000533	4
78	MP3A	Mz	-9.4e-5	4
79	MP3B	Y	-1.082	2
80	MP3B	My	0.00027	2
81	MP3B	Mz	-0.000468	2
82	MP3B	Y	-1.082	4
83	MP3B	My	0.00027	4
84	MP3B	Mz	-0.000468	4
85	MP3C	Y	-1.082	2
86	MP3C	My	0.00027	2
87	MP3C	Mz	0.000468	2
88	MP3C	Y	-1.082	4
89	MP3C	My	0.00027	4
90	MP3C	Mz	0.000468	4
91	MP1A	Y	-2.987	2
92	MP1A	My	-0.001	2
93	MP1A	Mz	0.000511	2
94	MP1B	Y	-2.987	2
95	MP1B	My	-0.001	2
96	MP1B	Mz	0.000511	2
97	MP1C	Y	-2.987	2
98	MP1C	My	-0.001	2
99	MP1C	Mz	0.000511	2
100	MP2A	Y	-2.821	2
101	MP2A	My	-0.001	2
102	MP2A	Mz	0.000482	2
103	MP2B	Y	-2.821	2
104	MP2B	My	-0.001	2
105	MP2B	Mz	0.000482	2
106	MP2C	Y	-2.821	2
107	MP2C	My	-0.001	2
108	MP2C	Mz	0.000482	2
109	MP2A	Y	-0.393	4
110	MP2A	My	0	4
111	MP2A	Mz	0	4
112	MP2B	Y	-0.393	4
113	MP2B	My	0	4
114	MP2B	Mz	0	4
115	MP2C	Y	-0.393	4
116	MP2C	My	0	4
117	MP2C	Mz	0	4
118	M31	Y	-1.208	1
119	M31	My	0	1
120	M31	Mz	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Z	-1.274	0.5
2	MP1A	Mx	0.000111	0.5
3	MP1A	Z	-1.274	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
4	MP1A	Mx	0.000111	5.5
5	MP1B	Z	-1.274	0.5
6	MP1B	Mx	0.000552	0.5
7	MP1B	Z	-1.274	5.5
8	MP1B	Mx	0.000552	5.5
9	MP1C	Z	-1.274	0.5
10	MP1C	Mx	-0.000628	0.5
11	MP1C	Z	-1.274	5.5
12	MP1C	Mx	-0.000628	5.5
13	MP4A	Z	-1.274	0.5
14	MP4A	Mx	0.000111	0.5
15	MP4A	Z	-1.274	5.5
16	MP4A	Mx	0.000111	5.5
17	MP4B	Z	-1.274	0.5
18	MP4B	Mx	0.000552	0.5
19	MP4B	Z	-1.274	5.5
20	MP4B	Mx	0.000552	5.5
21	MP4C	Z	-1.274	0.5
22	MP4C	Mx	-0.000628	0.5
23	MP4C	Z	-1.274	5.5
24	MP4C	Mx	-0.000628	5.5
25	MP2A	Z	-2.988	0.5
26	MP2A	Mx	0.001	0.5
27	MP2A	Z	-2.988	5.5
28	MP2A	Mx	0.001	5.5
29	MP2B	Z	-2.988	0.5
30	MP2B	Mx	0.001	0.5
31	MP2B	Z	-2.988	5.5
32	MP2B	Mx	0.001	5.5
33	MP2C	Z	-2.988	0.5
34	MP2C	Mx	0.001	0.5
35	MP2C	Z	-2.988	5.5
36	MP2C	Mx	0.001	5.5
37	MP2A	Z	-2.988	0.5
38	MP2A	Mx	-0.002	0.5
39	MP2A	Z	-2.988	5.5
40	MP2A	Mx	-0.002	5.5
41	MP2B	Z	-2.988	0.5
42	MP2B	Mx	-0.002	0.5
43	MP2B	Z	-2.988	5.5
44	MP2B	Mx	-0.002	5.5
45	MP2C	Z	-2.988	0.5
46	MP2C	Mx	-0.002	0.5
47	MP2C	Z	-2.988	5.5
48	MP2C	Mx	-0.002	5.5
49	MP3A	Z	-2.705	2
50	MP3A	Mx	0.000235	2
51	MP3A	Z	-2.705	4
52	MP3A	Mx	0.000235	4
53	MP3B	Z	-2.705	2
54	MP3B	Mx	0.001	2
55	MP3B	Z	-2.705	4
56	MP3B	Mx	0.001	4
57	MP3C	Z	-2.705	2
58	MP3C	Mx	-0.001	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
59	MP3C	Z	-2.705	4
60	MP3C	Mx	-0.001	4
61	MP1A	Z	-7.467	2
62	MP1A	Mx	-0.001	2
63	MP1B	Z	-7.467	2
64	MP1B	Mx	-0.001	2
65	MP1C	Z	-7.467	2
66	MP1C	Mx	-0.001	2
67	MP2A	Z	-7.052	2
68	MP2A	Mx	-0.001	2
69	MP2B	Z	-7.052	2
70	MP2B	Mx	-0.001	2
71	MP2C	Z	-7.052	2
72	MP2C	Mx	-0.001	2
73	MP2A	Z	-0.982	4
74	MP2A	Mx	0	4
75	MP2B	Z	-0.982	4
76	MP2B	Mx	0	4
77	MP2C	Z	-0.982	4
78	MP2C	Mx	0	4
79	M31	Z	-3.021	1
80	M31	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	1.274	0.5
2	MP1A	Mx	-0.000628	0.5
3	MP1A	X	1.274	5.5
4	MP1A	Mx	-0.000628	5.5
5	MP1B	X	1.274	0.5
6	MP1B	Mx	0.000319	0.5
7	MP1B	X	1.274	5.5
8	MP1B	Mx	0.000319	5.5
9	MP1C	X	1.274	0.5
10	MP1C	Mx	-0.000111	0.5
11	MP1C	X	1.274	5.5
12	MP1C	Mx	-0.000111	5.5
13	MP4A	X	1.274	0.5
14	MP4A	Mx	-0.000628	0.5
15	MP4A	X	1.274	5.5
16	MP4A	Mx	-0.000628	5.5
17	MP4B	X	1.274	0.5
18	MP4B	Mx	0.000319	0.5
19	MP4B	X	1.274	5.5
20	MP4B	Mx	0.000319	5.5
21	MP4C	X	1.274	0.5
22	MP4C	Mx	-0.000111	0.5
23	MP4C	X	1.274	5.5
24	MP4C	Mx	-0.000111	5.5
25	MP2A	X	2.988	0.5
26	MP2A	Mx	-0.002	0.5
27	MP2A	X	2.988	5.5
28	MP2A	Mx	-0.002	5.5
29	MP2B	X	2.988	0.5
30	MP2B	Mx	-0.002	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
31	MP2B	X	2.988	5.5
32	MP2B	Mx	-0.002	5.5
33	MP2C	X	2.988	0.5
34	MP2C	Mx	-0.002	0.5
35	MP2C	X	2.988	5.5
36	MP2C	Mx	-0.002	5.5
37	MP2A	X	2.988	0.5
38	MP2A	Mx	-0.000765	0.5
39	MP2A	X	2.988	5.5
40	MP2A	Mx	-0.000765	5.5
41	MP2B	X	2.988	0.5
42	MP2B	Mx	-0.000765	0.5
43	MP2B	X	2.988	5.5
44	MP2B	Mx	-0.000765	5.5
45	MP2C	X	2.988	0.5
46	MP2C	Mx	-0.000765	0.5
47	MP2C	X	2.988	5.5
48	MP2C	Mx	-0.000765	5.5
49	MP3A	X	2.705	2
50	MP3A	Mx	-0.001	2
51	MP3A	X	2.705	4
52	MP3A	Mx	-0.001	4
53	MP3B	X	2.705	2
54	MP3B	Mx	0.000676	2
55	MP3B	X	2.705	4
56	MP3B	Mx	0.000676	4
57	MP3C	X	2.705	2
58	MP3C	Mx	0.000676	2
59	MP3C	X	2.705	4
60	MP3C	Mx	0.000676	4
61	MP1A	X	7.467	2
62	MP1A	Mx	-0.004	2
63	MP1B	X	7.467	2
64	MP1B	Mx	-0.004	2
65	MP1C	X	7.467	2
66	MP1C	Mx	-0.004	2
67	MP2A	X	7.052	2
68	MP2A	Mx	-0.003	2
69	MP2B	X	7.052	2
70	MP2B	Mx	-0.003	2
71	MP2C	X	7.052	2
72	MP2C	Mx	-0.003	2
73	MP2A	X	0.982	4
74	MP2A	Mx	0	4
75	MP2B	X	0.982	4
76	MP2B	Mx	0	4
77	MP2C	X	0.982	4
78	MP2C	Mx	0	4
79	M31	X	3.021	1
80	M31	Mx	0	1

Member Area Loads (BLC 39 : Structure D)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N5	N6	N12	N13	Y	Two Way	-0.005
2	N5	N7	N15	N13	Y	Two Way	-0.005

Member Area Loads (BLC 39 : Structure D) (Continued)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
3	N6	N7	N15	N12	Y	Two Way	-0.005

Member Area Loads (BLC 40 : Structure Di)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N5	N6	N12	N13	Y	Two Way	-0.011
2	N5	N7	N15	N13	Y	Two Way	-0.011
3	N6	N7	N15	N12	Y	Two Way	-0.011

Node Reactions

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	1	N2	-33.036	402.758	823.909	-1.194	-0.049	0.006
2	1	N4	496.386	418.55	1296.553	0.983	-1.291	1.108
3	1	N3	-504.956	425.016	1352.761	0.918	1.309	-1.16
4	1	N116	677.733	688.258	436.573	0	0	0
5	1	N117	-635.919	649.962	412.282	0	0	0
6	1	N118	-0.044	708.617	-784.078	0	0	0
7	1	N119	-140.247	163.963	1420.94	0.793	-0.07	0.071
8	1	N127	-130.35	6.343	710.091	0.37	-0.27	0.066
9	1	N135	270.433	-9.368	906.622	0.465	0.32	-0.128
10	1	Totals:	0.001	3454.099	6575.652			
11	1	COG (ft):	X: 0	Y: 1.082	Z: 0.014			
12	2	N2	-1152.305	407.462	644.737	-1.258	-1.423	0.235
13	2	N4	159.896	425.247	1200.237	0.995	-1.389	1.18
14	2	N3	-634.647	420.673	1008.747	0.861	0.755	-1.113
15	2	N116	675.514	704.585	445.082	0	0	0
16	2	N117	-649.756	646.448	398.297	0	0	0
17	2	N118	-20.213	682.155	-753.009	0	0	0
18	2	N119	-540.836	151.839	1206.332	0.658	-0.256	0.338
19	2	N127	-634.654	-21.239	671.468	0.342	-0.129	0.314
20	2	N135	-296.435	36.928	536.199	0.289	0.301	0.143
21	2	Totals:	-3093.437	3454.098	5358.09			
22	2	COG (ft):	X: 0	Y: 1.082	Z: 0.014			
23	3	N2	-1453.66	406.153	354.955	-1.325	-1.53	0.316
24	3	N4	-403.655	421.426	395.847	0.838	-0.31	1.276
25	3	N3	-822.783	409.431	857.305	0.838	0.889	-1.046
26	3	N116	683.704	722.761	439.653	0	0	0
27	3	N117	-685.45	668.88	395.946	0	0	0
28	3	N118	-39.486	673.195	-750.591	0	0	0
29	3	N119	-687.559	116.871	642.392	0.337	-0.321	0.45
30	3	N127	-1021.043	-35.454	430.328	0.212	0.069	0.506
31	3	N135	-675.552	70.837	181.88	0.114	0.243	0.323
32	3	Totals:	-5105.484	3454.1	2947.716			
33	3	COG (ft):	X: 0	Y: 1.082	Z: 0.014			
34	4	N2	-1329.511	407.268	110.096	-1.37	-1.128	0.305
35	4	N4	-849.324	418.317	-589.946	0.63	0.973	1.355
36	4	N3	-937.853	401.633	532.112	0.772	0.964	-0.994
37	4	N116	695.07	731.953	424.139	0	0	0
38	4	N117	-706.332	680.17	384.804	0	0	0
39	4	N118	-48.074	664.782	-757.844	0	0	0
40	4	N119	-698.215	80.489	61.614	0.003	-0.322	0.474
41	4	N127	-1150.426	-33	104.841	0.043	0.239	0.574
42	4	N135	-967.76	102.49	-269.814	-0.112	0.123	0.458
43	4	Totals:	-5992.425	3454.102	0.002			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
44	4	COG (ft):	X: 0	Y: 1.082	Z: 0.014			
45	5	N2	-1343.796	417.557	-163.494	-1.45	-1.294	0.31
46	5	N4	-842.057	421.099	-1041.057	0.536	1.179	1.359
47	5	N3	-608.925	402.453	-395.595	0.593	-0.089	-1.044
48	5	N116	699.647	728.623	403.792	0	0	0
49	5	N117	-708.175	679.72	363.556	0	0	0
50	5	N118	-39.228	636.972	-741.541	0	0	0
51	5	N119	-646.25	43.366	-537.431	-0.349	-0.297	0.445
52	5	N127	-903.38	-7.767	-234.987	-0.129	0.323	0.459
53	5	N135	-1134.03	132.082	-843.813	-0.399	-0.082	0.527
54	5	Totals:	-5526.194	3454.105	-3190.57			
55	5	COG (ft):	X: 0	Y: 1.082	Z: 0.014			
56	6	N2	-1018.526	425.812	-470.849	-1.547	-1.196	0.256
57	6	N4	-576.856	418.736	-1146.765	0.505	0.937	1.304
58	6	N3	-5.794	404.833	-1271.391	0.431	-1.278	-1.166
59	6	N116	701.144	719.537	381.637	0	0	0
60	6	N117	-717.8	698.934	359.066	0	0	0
61	6	N118	-19.932	616.409	-725.483	0	0	0
62	6	N119	-388.248	3.339	-1175.716	-0.71	-0.178	0.27
63	6	N127	-381.651	33.914	-551.065	-0.282	0.329	0.21
64	6	N135	-928.664	132.595	-1178.172	-0.572	-0.276	0.418
65	6	Totals:	-3336.328	3454.109	-5778.739			
66	6	COG (ft):	X: 0	Y: 1.082	Z: 0.014			
67	7	N2	89.728	423.08	-589.683	-1.568	0.109	0.049
68	7	N4	-341.665	407.526	-1331.954	0.436	1.249	1.24
69	7	N3	370.576	404.841	-1345.067	0.418	-1.237	-1.254
70	7	N116	706.311	708.411	362.621	0	0	0
71	7	N117	-731.1	730.076	376.72	0	0	0
72	7	N118	0.163	630.51	-744.904	0	0	0
73	7	N119	83.577	-19.572	-1523.885	-0.89	0.042	-0.042
74	7	N127	189.973	73.861	-740.976	-0.369	0.269	-0.067
75	7	N135	-367.559	95.379	-1038.509	-0.513	-0.354	0.146
76	7	Totals:	0.003	3454.113	-6575.636			
77	7	COG (ft):	X: 0	Y: 1.082	Z: 0.014			
78	8	N2	1209.538	418.895	-409.257	-1.504	1.483	-0.18
79	8	N4	-6.41	400.545	-1237.194	0.424	1.35	1.169
80	8	N3	500.787	409.292	-1003.008	0.474	-0.684	-1.302
81	8	N116	708.736	692.265	354.206	0	0	0
82	8	N117	-717.04	733.361	390.527	0	0	0
83	8	N118	20.334	656.312	-775.174	0	0	0
84	8	N119	485.226	-7.057	-1306.214	-0.753	0.228	-0.31
85	8	N127	694.602	101.088	-701.353	-0.341	0.128	-0.315
86	8	N135	197.669	49.412	-670.607	-0.338	-0.335	-0.125
87	8	Totals:	3093.441	3454.114	-5358.074			
88	8	COG (ft):	X: 0	Y: 1.082	Z: 0.014			
89	9	N2	1510.506	420.888	-118.664	-1.439	1.59	-0.262
90	9	N4	555.774	404.036	-434.284	0.58	0.273	1.072
91	9	N3	689.187	420.42	-852.028	0.497	-0.818	-1.369
92	9	N116	700.662	674.196	359.679	0	0	0
93	9	N117	-680.902	710.501	392.629	0	0	0
94	9	N118	39.615	665.101	-777.385	0	0	0
95	9	N119	631.986	28.288	-739.573	-0.432	0.293	-0.422
96	9	N127	1081.607	115.316	-460.557	-0.211	-0.071	-0.508
97	9	N135	577.053	15.364	-317.517	-0.164	-0.277	-0.306
98	9	Totals:	5105.488	3454.112	-2947.7			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
99	9	COG (ft):	X: 0	Y: 1.082	Z: 0.014			
100	10	N2	1384.816	419.863	126.217	-1.393	1.187	-0.249
101	10	N4	1001.505	407.331	551.21	0.788	-1.01	0.994
102	10	N3	804.181	427.904	-525.964	0.563	-0.892	-1.42
103	10	N116	689.346	665.065	375.247	0	0	0
104	10	N117	-659.706	698.911	403.591	0	0	0
105	10	N118	48.191	673.823	-770.509	0	0	0
106	10	N119	642.087	64.845	-158.37	-0.099	0.294	-0.446
107	10	N127	1211.078	113.02	-136.273	-0.042	-0.241	-0.576
108	10	N135	870.93	-16.652	134.865	0.062	-0.157	-0.441
109	10	Totals:	5992.428	3454.109	0.014			
110	10	COG (ft):	X: 0	Y: 1.082	Z: 0.014			
111	11	N2	1397.272	409.381	399.67	-1.313	1.352	-0.254
112	11	N4	994.813	405.092	1002.507	0.882	-1.217	0.99
113	11	N3	475.536	426.436	403.785	0.742	0.162	-1.369
114	11	N116	684.784	668.41	395.606	0	0	0
115	11	N117	-657.874	699.366	424.839	0	0	0
116	11	N118	39.329	702.168	-787.458	0	0	0
117	11	N119	589.514	101.751	438.381	0.252	0.269	-0.416
118	11	N127	963.536	87.961	202.43	0.129	-0.324	-0.46
119	11	N135	1039.289	-46.459	710.825	0.35	0.048	-0.51
120	11	Totals:	5526.198	3454.107	3190.585			
121	11	COG (ft):	X: 0	Y: 1.082	Z: 0.014			
122	12	N2	1072.754	400.55	706.007	-1.216	1.254	-0.2
123	12	N4	731.125	407.564	1110.067	0.914	-0.977	1.045
124	12	N3	-128.157	424.247	1280.449	0.904	1.351	-1.247
125	12	N116	682.998	677.224	417.6	0	0	0
126	12	N117	-648.767	680.655	429.658	0	0	0
127	12	N118	20.061	723.072	-803.925	0	0	0
128	12	N119	330.994	141.22	1073.352	0.613	0.149	-0.242
129	12	N127	441.602	46.498	518.563	0.283	-0.33	-0.211
130	12	N135	833.721	-46.927	1046.983	0.524	0.242	-0.401
131	12	Totals:	3336.332	3454.103	5778.755			
132	12	COG (ft):	X: 0	Y: 1.082	Z: 0.014			
133	13	N2	42.814	949.852	468.737	-3.248	0.053	0.053
134	13	N4	290.408	957.016	229.829	1.743	-0.31	2.794
135	13	N3	-275.256	960.171	293.631	1.652	0.376	-2.858
136	13	N116	1776.783	1776.018	1037.657	0	0	0
137	13	N117	-1750.849	1751.378	1022.518	0	0	0
138	13	N118	0.012	1712.162	-1969.452	0	0	0
139	13	N119	-93.479	230.805	257.975	0.092	-0.047	0.047
140	13	N127	66.687	88.123	124.165	0.086	-0.069	-0.001
141	13	N135	-57.119	90.017	51.757	0.05	0.035	-0.004
142	13	Totals:	0.002	8515.541	1516.817			
143	13	COG (ft):	X: 0	Y: 1.046	Z: 0.019			
144	14	N2	-223.741	950.949	428.82	-3.263	-0.277	0.108
145	14	N4	213.999	958.961	217.586	1.748	-0.347	2.811
146	14	N3	-302.411	959.436	210.605	1.638	0.238	-2.849
147	14	N116	1774.85	1779.148	1039.489	0	0	0
148	14	N117	-1754.052	1750.393	1018.235	0	0	0
149	14	N118	-4.938	1706.66	-1962.649	0	0	0
150	14	N119	-187.142	228.399	211.844	0.062	-0.09	0.112
151	14	N127	-54.917	81.64	120.558	0.082	-0.038	0.059
152	14	N135	-184.625	99.955	-32.2	0.01	0.03	0.058
153	14	Totals:	-722.979	8515.541	1252.289			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
154	14	COG (ft):	X: 0	Y: 1.046	Z: 0.019			
155	15	N2	-285.136	950.344	360.8	-3.277	-0.285	0.125
156	15	N4	75.407	958.123	24.875	1.711	-0.081	2.836
157	15	N3	-353.156	956.59	184.15	1.634	0.287	-2.832
158	15	N116	1776.948	1783.667	1037.628	0	0	0
159	15	N117	-1762.245	1755.698	1017.363	0	0	0
160	15	N118	-10.348	1705.493	-1962.879	0	0	0
161	15	N119	-219.455	220.474	77.383	-0.016	-0.103	0.138
162	15	N127	-154.854	77.779	68.337	0.053	0.009	0.11
163	15	N135	-273.1	107.373	-111.383	-0.03	0.019	0.101
164	15	Totals:	-1205.94	8515.542	696.274			
165	15	COG (ft):	X: 0	Y: 1.046	Z: 0.019			
166	16	N2	-246.912	950.428	302.473	-3.287	-0.177	0.12
167	16	N4	-29.974	957.246	-211.497	1.661	0.23	2.854
168	16	N3	-385.479	954.471	113.434	1.619	0.318	-2.818
169	16	N116	1780.097	1785.6	1033.275	0	0	0
170	16	N117	-1767.803	1758.559	1014.885	0	0	0
171	16	N118	-12.935	1703.78	-1965.354	0	0	0
172	16	N119	-219.872	212.296	-60.444	-0.097	-0.102	0.144
173	16	N127	-182.01	78.493	-8.822	0.012	0.048	0.124
174	16	N135	-344.961	114.669	-217.936	-0.084	-0.009	0.134
175	16	Totals:	-1409.849	8515.542	0.014			
176	16	COG (ft):	X: 0	Y: 1.046	Z: 0.019			
177	17	N2	-257.735	953.027	239.008	-3.306	-0.231	0.124
178	17	N4	-18.507	957.977	-306.827	1.641	0.257	2.854
179	17	N3	-303.241	954.845	-109.65	1.576	0.056	-2.832
180	17	N116	1780.375	1783.688	1027.833	0	0	0
181	17	N117	-1768.608	1758.105	1009.094	0	0	0
182	17	N118	-10.254	1697.46	-1962.241	0	0	0
183	17	N119	-207.46	204.395	-196.338	-0.18	-0.097	0.136
184	17	N127	-113.173	84.72	-88.15	-0.029	0.065	0.092
185	17	N135	-383.677	121.326	-353.048	-0.153	-0.057	0.15
186	17	Totals:	-1282.279	8515.543	-740.319			
187	17	COG (ft):	X: 0	Y: 1.046	Z: 0.019			
188	18	N2	-192.674	955.197	167.828	-3.328	-0.226	0.113
189	18	N4	48.531	957.595	-320.687	1.636	0.181	2.841
190	18	N3	-156.928	955.563	-317.446	1.538	-0.235	-2.862
191	18	N116	1780.121	1781.201	1022.057	0	0	0
192	18	N117	-1769.881	1761.782	1006.793	0	0	0
193	18	N118	-4.856	1693.412	-1959.095	0	0	0
194	18	N119	-147.424	195.744	-342.807	-0.265	-0.069	0.094
195	18	N127	8.87	93.868	-158.044	-0.064	0.064	0.033
196	18	N135	-332.819	121.181	-427.17	-0.192	-0.101	0.123
197	18	Totals:	-767.061	8515.544	-1328.569			
198	18	COG (ft):	X: 0	Y: 1.046	Z: 0.019			
199	19	N2	69.254	954.52	138.483	-3.333	0.086	0.064
200	19	N4	97.715	954.794	-370.801	1.618	0.266	2.827
201	19	N3	-73.168	955.222	-327.244	1.535	-0.213	-2.881
202	19	N116	1782.492	1779.562	1017.264	0	0	0
203	19	N117	-1771.904	1768.699	1010.969	0	0	0
204	19	N118	0.06	1697.228	-1963.91	0	0	0
205	19	N119	-36.633	190.333	-428.938	-0.31	-0.018	0.018
206	19	N127	135.471	102.347	-201.849	-0.084	0.052	-0.03
207	19	N135	-203.283	112.839	-390.76	-0.176	-0.117	0.059
208	19	Totals:	0.003	8515.544	-1516.785			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
209	19	COG (ft):	X: 0	Y: 1.046	Z: 0.019			
210	20	N2	335.83	953.448	178.46	-3.319	0.416	0.009
211	20	N4	174.061	952.833	-358.639	1.613	0.304	2.809
212	20	N3	-45.984	955.962	-244.315	1.548	-0.075	-2.89
213	20	N116	1784.44	1776.445	1015.44	0	0	0
214	20	N117	-1768.691	1769.673	1015.244	0	0	0
215	20	N118	5.01	1702.697	-1970.674	0	0	0
216	20	N119	57.095	192.756	-382.657	-0.28	0.025	-0.047
217	20	N127	257.067	108.815	-198.185	-0.08	0.021	-0.091
218	20	N135	-75.845	102.915	-306.929	-0.136	-0.112	-0.003
219	20	Totals:	722.983	8515.545	-1252.257			
220	20	COG (ft):	X: 0	Y: 1.046	Z: 0.019			
221	21	N2	397.211	954.089	246.517	-3.305	0.424	-0.008
222	21	N4	312.574	953.65	-165.998	1.651	0.037	2.785
223	21	N3	4.774	958.802	-217.89	1.553	-0.124	-2.907
224	21	N116	1782.35	1771.933	1017.304	0	0	0
225	21	N117	-1760.477	1764.347	1016.104	0	0	0
226	21	N118	10.42	1703.857	-1970.436	0	0	0
227	21	N119	89.415	200.695	-248.061	-0.202	0.038	-0.073
228	21	N127	357.018	112.68	-145.979	-0.051	-0.026	-0.141
229	21	N135	12.659	95.49	-227.804	-0.096	-0.1	-0.046
230	21	Totals:	1205.945	8515.544	-696.242			
231	21	COG (ft):	X: 0	Y: 1.046	Z: 0.019			
232	22	N2	358.904	954.009	304.845	-3.295	0.315	-0.003
233	22	N4	417.965	954.538	70.364	1.701	-0.274	2.767
234	22	N3	37.088	960.904	-147.123	1.567	-0.154	-2.921
235	22	N116	1779.202	1770.001	1021.659	0	0	0
236	22	N117	-1754.901	1761.47	1018.571	0	0	0
237	22	N118	13.007	1705.588	-1967.982	0	0	0
238	22	N119	89.792	208.88	-110.207	-0.121	0.037	-0.079
239	22	N127	384.187	111.973	-68.896	-0.01	-0.065	-0.155
240	22	N135	84.61	88.179	-121.213	-0.042	-0.073	-0.08
241	22	Totals:	1409.853	8515.543	0.018			
242	22	COG (ft):	X: 0	Y: 1.046	Z: 0.019			
243	23	N2	369.637	951.402	368.308	-3.276	0.369	-0.007
244	23	N4	406.527	953.839	165.7	1.721	-0.301	2.767
245	23	N3	-45.135	960.496	76.066	1.61	0.107	-2.908
246	23	N116	1778.921	1771.911	1027.099	0	0	0
247	23	N117	-1754.096	1761.923	1024.362	0	0	0
248	23	N118	10.325	1711.934	-1971.125	0	0	0
249	23	N119	77.339	216.771	25.578	-0.038	0.032	-0.071
250	23	N127	315.344	105.751	10.367	0.031	-0.082	-0.123
251	23	N135	123.42	81.517	13.996	0.026	-0.025	-0.096
252	23	Totals:	1282.283	8515.543	740.351			
253	23	COG (ft):	X: 0	Y: 1.046	Z: 0.019			
254	24	N2	304.625	949.205	439.445	-3.254	0.365	0.004
255	24	N4	339.563	954.225	179.651	1.726	-0.225	2.78
256	24	N3	-191.477	959.789	283.892	1.649	0.399	-2.877
257	24	N116	1779.159	1774.382	1032.866	0	0	0
258	24	N117	-1752.85	1758.273	1026.68	0	0	0
259	24	N118	4.929	1715.994	-1974.287	0	0	0
260	24	N119	17.278	225.398	171.882	0.047	0.004	-0.029
261	24	N127	193.31	96.611	80.271	0.065	-0.081	-0.064
262	24	N135	72.529	81.665	88.201	0.065	0.019	-0.068
263	24	Totals:	767.065	8515.542	1328.601			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
264	24	COG (ft):	X: 0	Y: 1.046	Z: 0.019			
265	25	N2	-307.12	489.272	242.361	-1.766	-0.315	0.154
266	25	N4	-104.97	358.159	-304.054	0.673	0.248	1.143
267	25	N3	-101.667	402.589	70.146	0.666	0.07	-1.176
268	25	N116	1442.465	1416.237	838.661	0	0	0
269	25	N117	-697.22	704.125	405.418	0	0	0
270	25	N118	-0.06	673.899	-767.561	0	0	0
271	25	N119	-120.209	78.906	53.053	0.01	-0.06	0.061
272	25	N127	-46.078	36.87	-58.272	-0.021	0.037	0.036
273	25	N135	-65.137	44.049	-68.77	-0.024	-0.014	0.016
274	25	Totals:	0.004	4204.105	410.983			
275	25	COG (ft):	X: 0.974	Y: 0.889	Z: 0.733			
276	26	N2	-377.104	489.55	231.125	-1.77	-0.401	0.169
277	26	N4	-125.999	358.561	-310.022	0.674	0.242	1.147
278	26	N3	-109.789	402.313	48.699	0.662	0.035	-1.173
279	26	N116	1442.322	1417.243	839.17	0	0	0
280	26	N117	-698.084	703.905	404.545	0	0	0
281	26	N118	-1.32	672.262	-765.64	0	0	0
282	26	N119	-145.258	78.168	39.547	0.001	-0.072	0.077
283	26	N127	-77.592	35.169	-60.693	-0.022	0.046	0.052
284	26	N135	-100.511	46.934	-91.838	-0.035	-0.015	0.033
285	26	Totals:	-193.334	4204.105	334.893			
286	26	COG (ft):	X: 0.974	Y: 0.889	Z: 0.733			
287	27	N2	-395.944	489.433	212.981	-1.774	-0.408	0.174
288	27	N4	-161.217	358.309	-360.268	0.664	0.31	1.153
289	27	N3	-121.558	401.614	39.247	0.661	0.044	-1.169
290	27	N116	1442.825	1418.375	838.839	0	0	0
291	27	N117	-700.308	705.3	404.394	0	0	0
292	27	N118	-2.525	671.705	-765.493	0	0	0
293	27	N119	-154.409	76.02	4.219	-0.019	-0.076	0.084
294	27	N127	-101.744	34.291	-75.742	-0.03	0.058	0.064
295	27	N135	-124.204	49.059	-113.936	-0.046	-0.019	0.044
296	27	Totals:	-319.084	4204.105	184.24			
297	27	COG (ft):	X: 0.974	Y: 0.889	Z: 0.733			
298	28	N2	-388.164	489.477	197.668	-1.777	-0.383	0.173
299	28	N4	-189.108	358.092	-421.895	0.651	0.39	1.158
300	28	N3	-128.751	401.136	18.899	0.657	0.048	-1.166
301	28	N116	1443.536	1418.959	837.893	0	0	0
302	28	N117	-701.6	705.992	403.69	0	0	0
303	28	N118	-3.062	671.17	-765.935	0	0	0
304	28	N119	-155.041	73.786	-32.094	-0.04	-0.076	0.086
305	28	N127	-109.827	34.445	-96.041	-0.041	0.069	0.068
306	28	N135	-142.508	51.049	-142.176	-0.06	-0.026	0.053
307	28	Totals:	-374.524	4204.105	0.008			
308	28	COG (ft):	X: 0.974	Y: 0.889	Z: 0.733			
309	29	N2	-389.033	490.098	180.575	-1.782	-0.393	0.173
310	29	N4	-188.691	358.25	-450.102	0.645	0.403	1.158
311	29	N3	-108.206	401.207	-39.134	0.645	-0.018	-1.169
312	29	N116	1443.828	1418.757	836.624	0	0	0
313	29	N117	-701.693	705.943	402.349	0	0	0
314	29	N118	-2.508	669.417	-764.899	0	0	0
315	29	N119	-151.763	71.513	-69.48	-0.062	-0.074	0.084
316	29	N127	-94.368	36.014	-117.236	-0.052	0.074	0.061
317	29	N135	-152.955	52.906	-178.098	-0.078	-0.039	0.057
318	29	Totals:	-345.388	4204.106	-199.401			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
319	29	COG (ft):	X: 0.974	Y: 0.889	Z: 0.733			
320	30	N2	-368.735	490.603	161.4	-1.788	-0.387	0.17
321	30	N4	-172.156	358.116	-456.765	0.643	0.388	1.155
322	30	N3	-70.504	401.353	-93.877	0.635	-0.092	-1.176
323	30	N116	1443.928	1418.194	835.239	0	0	0
324	30	N117	-702.261	707.111	402.049	0	0	0
325	30	N118	-1.303	668.125	-763.887	0	0	0
326	30	N119	-135.618	69.063	-109.291	-0.084	-0.067	0.073
327	30	N127	-61.752	38.604	-136.987	-0.061	0.074	0.045
328	30	N135	-140.113	52.937	-199.048	-0.089	-0.051	0.05
329	30	Totals:	-208.513	4204.106	-361.169			
330	30	COG (ft):	X: 0.974	Y: 0.889	Z: 0.733			
331	31	N2	-299.543	490.429	154.003	-1.789	-0.306	0.157
332	31	N4	-157.444	357.447	-468.376	0.639	0.407	1.151
333	31	N3	-46.973	401.334	-98.433	0.634	-0.089	-1.182
334	31	N116	1444.245	1417.502	834.067	0	0	0
335	31	N117	-703.07	709.036	403.139	0	0	0
336	31	N118	-0.047	669.02	-765.117	0	0	0
337	31	N119	-106.153	67.643	-131.032	-0.096	-0.053	0.053
338	31	N127	-26.024	41.095	-148.913	-0.067	0.071	0.028
339	31	N135	-104.987	50.6	-190.305	-0.085	-0.056	0.033
340	31	Totals:	0.004	4204.106	-410.966			
341	31	COG (ft):	X: 0.974	Y: 0.889	Z: 0.733			
342	32	N2	-229.557	490.153	165.244	-1.785	-0.22	0.143
343	32	N4	-136.42	357.043	-462.413	0.638	0.413	1.147
344	32	N3	-38.849	401.61	-76.993	0.638	-0.055	-1.185
345	32	N116	1444.389	1416.496	833.559	0	0	0
346	32	N117	-702.206	709.256	404.011	0	0	0
347	32	N118	1.214	670.655	-767.035	0	0	0
348	32	N119	-81.101	68.382	-117.515	-0.087	-0.041	0.037
349	32	N127	5.492	42.795	-146.487	-0.065	0.062	0.012
350	32	N135	-69.619	47.716	-167.247	-0.074	-0.055	0.016
351	32	Totals:	193.342	4204.106	-334.877			
352	32	COG (ft):	X: 0.974	Y: 0.889	Z: 0.733			
353	33	N2	-210.718	490.273	183.392	-1.781	-0.213	0.138
354	33	N4	-101.207	357.294	-412.173	0.648	0.346	1.141
355	33	N3	-27.079	402.309	-67.543	0.639	-0.063	-1.189
356	33	N116	1443.887	1415.365	833.889	0	0	0
357	33	N117	-699.98	707.859	404.161	0	0	0
358	33	N118	2.419	671.211	-767.181	0	0	0
359	33	N119	-71.949	70.532	-82.176	-0.067	-0.037	0.03
360	33	N127	29.646	43.673	-131.44	-0.057	0.05	0
361	33	N135	-45.925	45.591	-145.154	-0.063	-0.051	0.005
362	33	Totals:	319.092	4204.106	-184.224			
363	33	COG (ft):	X: 0.974	Y: 0.889	Z: 0.733			
364	34	N2	-218.504	490.229	198.705	-1.778	-0.238	0.138
365	34	N4	-73.315	357.511	-350.547	0.661	0.266	1.136
366	34	N3	-19.886	402.785	-47.191	0.644	-0.068	-1.192
367	34	N116	1443.176	1414.781	834.836	0	0	0
368	34	N117	-698.687	707.166	404.865	0	0	0
369	34	N118	2.955	671.747	-766.74	0	0	0
370	34	N119	-71.32	72.767	-45.861	-0.046	-0.037	0.028
371	34	N127	37.729	43.52	-111.146	-0.046	0.039	-0.004
372	34	N135	-27.615	43.6	-116.912	-0.049	-0.044	-0.003
373	34	Totals:	374.532	4204.106	0.008			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
374	34	COG (ft):	X: 0.974	Y: 0.889	Z: 0.733			
375	35	N2	-217.642	489.607	215.797	-1.774	-0.228	0.138
376	35	N4	-73.731	357.356	-322.34	0.667	0.253	1.136
377	35	N3	-40.43	402.711	10.849	0.655	-0.002	-1.189
378	35	N116	1442.883	1414.983	836.105	0	0	0
379	35	N117	-698.594	707.215	406.205	0	0	0
380	35	N118	2.402	673.502	-767.779	0	0	0
381	35	N119	-74.6	75.039	-8.484	-0.024	-0.039	0.03
382	35	N127	22.268	41.951	-89.955	-0.036	0.034	0.003
383	35	N135	-17.159	41.742	-80.981	-0.031	-0.031	-0.008
384	35	Totals:	345.397	4204.106	199.417			
385	35	COG (ft):	X: 0.974	Y: 0.889	Z: 0.733			
386	36	N2	-237.937	489.101	234.968	-1.768	-0.234	0.141
387	36	N4	-90.26	357.49	-315.669	0.669	0.268	1.139
388	36	N3	-78.134	402.567	65.596	0.665	0.072	-1.181
389	36	N116	1442.782	1415.545	837.49	0	0	0
390	36	N117	-698.028	706.049	406.507	0	0	0
391	36	N118	1.197	674.795	-768.793	0	0	0
392	36	N119	-90.747	77.487	31.314	-0.002	-0.046	0.041
393	36	N127	-10.349	39.362	-70.204	-0.026	0.033	0.019
394	36	N135	-30.002	41.711	-60.024	-0.02	-0.019	-0.001
395	36	Totals:	208.521	4204.106	361.185			
396	36	COG (ft):	X: 0.974	Y: 0.889	Z: 0.733			
397	37	N2	80.232	950.359	193.097	-3.262	0.086	0.135
398	37	N4	65.183	404.163	0.478	0.703	-0.035	1.153
399	37	N3	-43.16	403.058	-1.784	0.657	0.023	-1.187
400	37	N116	808.213	815.533	470.629	0	0	0
401	37	N117	-796.214	801.894	463.336	0	0	0
402	37	N118	0.065	667.988	-760.852	0	0	0
403	37	N119	-82.726	80.423	75.658	0.019	-0.041	0.041
404	37	N127	20.231	38.598	7.278	0.013	-0.008	0.004
405	37	N135	-51.82	42.096	-36.857	-0.009	-0.003	0.01
406	37	Totals:	0.004	4204.111	410.984			
407	37	COG (ft):	X: 0.075	Y: 0.889	Z: 0.733			
408	38	N2	10.265	950.649	181.853	-3.266	0	0.149
409	38	N4	44.191	404.592	-5.482	0.704	-0.041	1.158
410	38	N3	-51.284	402.784	-23.227	0.654	-0.012	-1.184
411	38	N116	808.049	816.527	471.144	0	0	0
412	38	N117	-797.077	801.674	462.466	0	0	0
413	38	N118	-1.195	666.354	-758.934	0	0	0
414	38	N119	-107.785	79.666	62.165	0.011	-0.053	0.058
415	38	N127	-11.297	36.884	4.84	0.011	0.001	0.019
416	38	N135	-87.202	44.98	-59.931	-0.02	-0.004	0.027
417	38	Totals:	-193.334	4204.111	334.894			
418	38	COG (ft):	X: 0.075	Y: 0.889	Z: 0.733			
419	39	N2	-8.544	950.581	163.7	-3.27	-0.007	0.154
420	39	N4	9.018	404.366	-55.695	0.694	0.026	1.164
421	39	N3	-63.055	402.088	-32.666	0.652	-0.003	-1.18
422	39	N116	808.513	817.618	470.78	0	0	0
423	39	N117	-799.294	803.063	462.311	0	0	0
424	39	N118	-2.4	665.8	-758.789	0	0	0
425	39	N119	-116.961	77.497	26.847	-0.009	-0.057	0.065
426	39	N127	-35.461	35.994	-10.216	0.003	0.013	0.031
427	39	N135	-110.901	47.104	-82.03	-0.031	-0.008	0.039
428	39	Totals:	-319.084	4204.111	184.241			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
429	39	COG (ft):	X: 0.075	Y: 0.889	Z: 0.733			
430	40	N2	-0.726	950.691	148.377	-3.273	0.019	0.153
431	40	N4	-18.829	404.168	-117.275	0.681	0.106	1.169
432	40	N3	-70.247	401.613	-53.004	0.648	0.001	-1.177
433	40	N116	809.174	818.145	469.784	0	0	0
434	40	N117	-800.577	803.747	461.6	0	0	0
435	40	N118	-2.937	665.264	-759.232	0	0	0
436	40	N119	-117.619	75.246	-9.458	-0.03	-0.057	0.067
437	40	N127	-43.555	36.143	-30.517	-0.008	0.024	0.036
438	40	N135	-129.208	49.092	-110.267	-0.045	-0.016	0.047
439	40	Totals:	-374.524	4204.111	0.009			
440	40	COG (ft):	X: 0.075	Y: 0.889	Z: 0.733			
441	41	N2	-1.569	951.382	131.26	-3.278	0.008	0.154
442	41	N4	-18.38	404.328	-145.445	0.675	0.119	1.169
443	41	N3	-49.699	401.688	-111.035	0.637	-0.065	-1.18
444	41	N116	809.418	817.898	468.488	0	0	0
445	41	N117	-800.651	803.681	460.251	0	0	0
446	41	N118	-2.383	663.51	-758.193	0	0	0
447	41	N119	-114.358	72.96	-46.824	-0.052	-0.056	0.065
448	41	N127	-28.107	37.715	-51.716	-0.018	0.029	0.028
449	41	N135	-139.66	50.948	-146.184	-0.063	-0.028	0.051
450	41	Totals:	-345.389	4204.111	-199.399			
451	41	COG (ft):	X: 0.075	Y: 0.889	Z: 0.733			
452	42	N2	18.738	951.948	112.058	-3.284	0.014	0.15
453	42	N4	-1.84	404.18	-152.092	0.673	0.104	1.165
454	42	N3	-11.993	401.837	-165.779	0.627	-0.139	-1.187
455	42	N116	809.491	817.31	467.09	0	0	0
456	42	N117	-801.192	804.825	459.937	0	0	0
457	42	N118	-1.178	662.214	-757.177	0	0	0
458	42	N119	-98.224	70.504	-86.612	-0.075	-0.048	0.054
459	42	N127	4.501	40.315	-71.468	-0.028	0.03	0.013
460	42	N135	-126.817	50.979	-167.126	-0.073	-0.04	0.045
461	42	Totals:	-208.513	4204.111	-361.168			
462	42	COG (ft):	X: 0.075	Y: 0.889	Z: 0.733			
463	43	N2	87.926	951.806	104.652	-3.285	0.096	0.137
464	43	N4	12.852	403.486	-163.696	0.669	0.124	1.161
465	43	N3	11.541	401.819	-170.333	0.626	-0.136	-1.193
466	43	N116	809.807	816.61	465.901	0	0	0
467	43	N117	-801.986	806.733	461.015	0	0	0
468	43	N118	0.078	663.105	-758.402	0	0	0
469	43	N119	-68.764	69.092	-108.347	-0.086	-0.034	0.034
470	43	N127	40.233	42.819	-83.383	-0.033	0.026	-0.004
471	43	N135	-91.685	48.642	-158.373	-0.07	-0.045	0.027
472	43	Totals:	0.004	4204.111	-410.965			
473	43	COG (ft):	X: 0.075	Y: 0.889	Z: 0.733			
474	44	N2	157.895	951.518	115.901	-3.281	0.182	0.123
475	44	N4	33.84	403.055	-157.742	0.668	0.13	1.157
476	44	N3	19.667	402.093	-148.898	0.63	-0.102	-1.196
477	44	N116	809.972	815.616	465.387	0	0	0
478	44	N117	-801.122	806.952	461.885	0	0	0
479	44	N118	1.339	664.736	-760.317	0	0	0
480	44	N119	-43.7	69.85	-94.841	-0.077	-0.023	0.018
481	44	N127	71.761	44.533	-80.941	-0.032	0.017	-0.02
482	44	N135	-56.31	45.759	-135.308	-0.059	-0.044	0.011
483	44	Totals:	193.342	4204.112	-334.875			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
484	44	COG (ft):	X: 0.075	Y: 0.889	Z: 0.733			
485	45	N2	176.703	951.589	134.056	-3.277	0.188	0.118
486	45	N4	69.008	403.28	-107.535	0.678	0.063	1.151
487	45	N3	31.439	402.788	-139.461	0.631	-0.11	-1.2
488	45	N116	809.508	814.526	465.751	0	0	0
489	45	N117	-798.903	805.561	462.039	0	0	0
490	45	N118	2.544	665.29	-760.46	0	0	0
491	45	N119	-34.524	72.02	-59.513	-0.057	-0.019	0.011
492	45	N127	95.928	45.422	-65.886	-0.024	0.005	-0.032
493	45	N135	-32.61	43.635	-113.214	-0.048	-0.041	-0.001
494	45	Totals:	319.092	4204.111	-184.222			
495	45	COG (ft):	X: 0.075	Y: 0.889	Z: 0.733			
496	46	N2	168.879	951.479	149.38	-3.274	0.163	0.119
497	46	N4	96.855	403.479	-45.957	0.691	-0.018	1.146
498	46	N3	38.631	403.262	-119.119	0.635	-0.115	-1.203
499	46	N116	808.848	813.999	466.747	0	0	0
500	46	N117	-797.619	804.876	462.749	0	0	0
501	46	N118	3.08	665.827	-760.02	0	0	0
502	46	N119	-33.869	74.272	-23.206	-0.036	-0.019	0.009
503	46	N127	104.022	45.274	-45.59	-0.013	-0.006	-0.036
504	46	N135	-14.296	41.644	-84.975	-0.034	-0.033	-0.009
505	46	Totals:	374.532	4204.111	0.01			
506	46	COG (ft):	X: 0.075	Y: 0.889	Z: 0.733			
507	47	N2	169.715	950.787	166.496	-3.269	0.174	0.118
508	47	N4	96.408	403.321	-17.785	0.697	-0.03	1.146
509	47	N3	18.084	403.184	-61.081	0.646	-0.049	-1.2
510	47	N116	808.604	814.247	468.043	0	0	0
511	47	N117	-797.545	804.942	464.098	0	0	0
512	47	N118	2.527	667.583	-761.061	0	0	0
513	47	N119	-37.132	76.557	14.151	-0.014	-0.02	0.011
514	47	N127	88.573	43.702	-24.395	-0.002	-0.011	-0.029
515	47	N135	-3.836	39.788	-49.05	-0.016	-0.02	-0.013
516	47	Totals:	345.396	4204.111	199.418			
517	47	COG (ft):	X: 0.075	Y: 0.889	Z: 0.733			
518	48	N2	149.411	950.219	185.694	-3.263	0.168	0.122
519	48	N4	79.874	403.47	-11.131	0.699	-0.015	1.149
520	48	N3	-19.624	403.036	-6.334	0.657	0.025	-1.192
521	48	N116	808.53	814.833	469.44	0	0	0
522	48	N117	-797.006	803.8	464.414	0	0	0
523	48	N118	1.322	668.88	-762.079	0	0	0
524	48	N119	-53.268	79.011	53.926	0.008	-0.028	0.022
525	48	N127	55.964	41.103	-4.642	0.007	-0.012	-0.013
526	48	N135	-16.68	39.757	-28.101	-0.005	-0.008	-0.007
527	48	Totals:	208.521	4204.111	361.187			
528	48	COG (ft):	X: 0.075	Y: 0.889	Z: 0.733			
529	49	N2	210.377	404.497	145.721	-1.46	0.199	0.007
530	49	N4	74.24	407.053	-34.422	0.698	-0.005	1.16
531	49	N3	10.042	385.673	-182.993	0.667	-0.151	-1.216
532	49	N116	692.705	699.386	400.004	0	0	0
533	49	N117	-1124.911	1105.29	649.329	0	0	0
534	49	N118	0.063	670.838	-765.625	0	0	0
535	49	N119	68.064	70.851	-71.878	-0.059	0.034	-0.034
536	49	N127	79.97	42.995	-16.363	0.001	-0.013	-0.024
537	49	N135	-10.552	42.533	-123.767	-0.053	-0.051	-0.01
538	49	Totals:	-0.002	3829.115	0.006			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
539	49	COG (ft):	X: -0.686	Y: 0.976	Z: 0.409			
540	50	N2	56.286	683.939	133.047	-2.334	0.06	0.032
541	50	N4	60.482	408.271	-48.29	0.698	0.013	1.166
542	50	N3	-39.995	408.832	-42.076	0.654	-0.009	-1.199
543	50	N116	741.699	748.37	428.768	0	0	0
544	50	N117	-748.028	753.956	432.258	0	0	0
545	50	N118	0.073	667.534	-762.036	0	0	0
546	50	N119	-46.372	73.611	-32.415	-0.041	-0.023	0.023
547	50	N127	34.522	40.534	-25.767	-0.004	0.003	-0.003
548	50	N135	-58.665	44.061	-83.478	-0.032	-0.021	0.013
549	50	Totals:	0.002	3829.109	0.008			
550	50	COG (ft):	X: 0	Y: 0.976	Z: 0.409			
551	51	N2	32.865	482.297	137.999	-1.612	0.035	0.032
552	51	N4	89.558	481.88	-22.429	0.828	-0.022	1.371
553	51	N3	-78.646	484.049	4.062	0.779	0.043	-1.409
554	51	N116	807.25	814.621	466.126	0	0	0
555	51	N117	-796.845	804.457	459.892	0	0	0
556	51	N118	0.072	780.743	-891.403	0	0	0
557	51	N119	-33.939	84.708	-54.261	-0.055	-0.017	0.017
558	51	N127	38.934	46.81	-19.227	0	-0.001	-0.002
559	51	N135	-59.248	50.226	-80.75	-0.03	-0.02	0.011
560	51	Totals:	0.002	4029.79	0.009			
561	51	COG (ft):	X: 0	Y: 1.082	Z: 0.014			
562	52	N2	25.412	423.8	145.489	-1.414	0.026	0.028
563	52	N4	93.868	424.659	29.39	0.74	-0.067	1.206
564	52	N3	-83.206	426.882	51.345	0.696	0.08	-1.241
565	52	N116	710.624	717.423	412.857	0	0	0
566	52	N117	-700.279	707.415	406.688	0	0	0
567	52	N118	0.056	690.091	-786.111	0	0	0
568	52	N119	-33.745	78.177	4.457	-0.019	-0.017	0.017
569	52	N127	26.75	40.015	11.511	0.015	-0.011	0.001
570	52	N135	-39.478	42.399	-33.733	-0.007	-0.005	0.004
571	52	Totals:	0.002	3550.86	241.893			
572	52	COG (ft):	X: 0	Y: 1.086	Z: 0.014			
573	53	N2	-5.072	423.817	142.102	-1.414	-0.005	0.034
574	53	N4	76.549	425.046	17.29	0.739	-0.052	1.211
575	53	N3	-95.463	426.391	49.476	0.695	0.081	-1.237
576	53	N116	710.835	718.557	413.362	0	0	0
577	53	N117	-700.756	706.845	405.899	0	0	0
578	53	N118	-1.211	689.548	-785.683	0	0	0
579	53	N119	-47.831	77.936	0.259	-0.022	-0.023	0.026
580	53	N127	3.662	38.678	11.373	0.014	-0.006	0.012
581	53	N135	-61.652	44.041	-44.596	-0.012	-0.004	0.015
582	53	Totals:	-120.939	3550.86	209.48			
583	53	COG (ft):	X: 0	Y: 1.086	Z: 0.014			
584	54	N2	-26.433	424.086	133.338	-1.417	-0.026	0.038
585	54	N4	59.958	425.246	-4.749	0.735	-0.028	1.214
586	54	N3	-100.782	425.866	35.293	0.692	0.071	-1.235
587	54	N116	711.194	719.521	413.173	0	0	0
588	54	N117	-701.613	706.832	404.938	0	0	0
589	54	N118	-2.136	688.588	-785.197	0	0	0
590	54	N119	-57.104	76.874	-16.907	-0.032	-0.028	0.032
591	54	N127	-11.248	38.065	3.633	0.01	0.001	0.02
592	54	N135	-81.303	45.781	-62.573	-0.021	-0.007	0.024
593	54	Totals:	-209.468	3550.86	120.951			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
594	54	COG (ft):	X: 0	Y: 1.086	Z: 0.014			
595	55	N2	-32.951	424.534	121.545	-1.421	-0.031	0.04
596	55	N4	48.539	425.205	-30.824	0.73	-0.002	1.216
597	55	N3	-97.739	425.447	12.596	0.688	0.052	-1.234
598	55	N116	711.605	720.058	412.341	0	0	0
599	55	N117	-702.621	707.38	404.062	0	0	0
600	55	N118	-2.472	687.469	-784.781	0	0	0
601	55	N119	-59.083	75.275	-42.446	-0.046	-0.029	0.034
602	55	N127	-13.988	38.34	-9.635	0.003	0.008	0.021
603	55	N135	-93.169	47.152	-82.849	-0.031	-0.013	0.03
604	55	Totals:	-241.88	3550.86	0.009			
605	55	COG (ft):	X: 0	Y: 1.086	Z: 0.014			
606	56	N2	-22.874	425.041	109.881	-1.425	-0.02	0.039
607	56	N4	45.354	424.934	-53.946	0.725	0.019	1.216
608	56	N3	-87.148	425.247	-12.535	0.683	0.029	-1.235
609	56	N116	711.957	720.022	411.089	0	0	0
610	56	N117	-703.51	708.343	403.506	0	0	0
611	56	N118	-2.128	686.491	-784.547	0	0	0
612	56	N119	-53.233	73.567	-69.515	-0.061	-0.026	0.031
613	56	N127	-3.818	39.429	-24.876	-0.004	0.012	0.017
614	56	N135	-94.068	47.787	-99.991	-0.04	-0.02	0.03
615	56	Totals:	-209.468	3550.86	-120.934			
616	56	COG (ft):	X: 0	Y: 1.086	Z: 0.014			
617	57	N2	1.094	425.47	101.473	-1.428	0.005	0.034
618	57	N4	51.254	424.504	-67.919	0.721	0.031	1.214
619	57	N3	-71.848	425.32	-33.364	0.679	0.008	-1.238
620	57	N116	712.157	719.424	409.753	0	0	0
621	57	N117	-704.042	709.462	403.418	0	0	0
622	57	N118	-1.197	685.914	-784.557	0	0	0
623	57	N119	-41.125	72.208	-90.858	-0.072	-0.02	0.023
624	57	N127	16.53	41.041	-38.004	-0.011	0.012	0.007
625	57	N135	-83.763	47.516	-109.405	-0.045	-0.026	0.024
626	57	Totals:	-120.939	3550.86	-209.464			
627	57	COG (ft):	X: 0	Y: 1.086	Z: 0.014			
628	58	N2	32.534	425.708	98.574	-1.429	0.037	0.029
629	58	N4	64.658	424.032	-69.003	0.719	0.028	1.21
630	58	N3	-55.937	425.646	-44.316	0.678	-0.005	-1.242
631	58	N116	712.151	718.424	408.69	0	0	0
632	58	N117	-704.073	710.438	403.824	0	0	0
633	58	N118	0.072	685.895	-784.81	0	0	0
634	58	N119	-26	71.562	-100.76	-0.078	-0.013	0.013
635	58	N127	41.608	42.743	-45.504	-0.014	0.009	-0.005
636	58	N135	-65.012	46.412	-108.571	-0.045	-0.031	0.015
637	58	Totals:	0.002	3550.86	-241.877			
638	58	COG (ft):	X: 0	Y: 1.086	Z: 0.014			
639	59	N2	63.02	425.691	101.962	-1.428	0.067	0.023
640	59	N4	81.975	423.643	-56.904	0.72	0.013	1.206
641	59	N3	-43.679	426.137	-42.449	0.679	-0.006	-1.246
642	59	N116	711.94	717.291	408.185	0	0	0
643	59	N117	-703.596	711.009	404.613	0	0	0
644	59	N118	1.339	686.437	-785.236	0	0	0
645	59	N119	-11.912	71.803	-96.561	-0.075	-0.006	0.004
646	59	N127	64.695	44.08	-45.364	-0.014	0.003	-0.017
647	59	N135	-42.838	44.77	-97.709	-0.04	-0.031	0.004
648	59	Totals:	120.943	3550.86	-209.464			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
649	59	COG (ft):	X: 0	Y: 1.086	Z: 0.014			
650	60	N2	84.379	425.423	110.726	-1.425	0.088	0.018
651	60	N4	98.564	423.443	-34.867	0.724	-0.01	1.202
652	60	N3	-38.359	426.661	-28.268	0.682	0.004	-1.249
653	60	N116	711.582	716.327	408.374	0	0	0
654	60	N117	-702.738	711.021	405.574	0	0	0
655	60	N118	2.264	687.397	-785.723	0	0	0
656	60	N119	-2.638	72.865	-79.393	-0.065	-0.002	-0.003
657	60	N127	79.604	44.693	-37.624	-0.01	-0.004	-0.024
658	60	N135	-23.186	43.031	-79.734	-0.031	-0.029	-0.005
659	60	Totals:	209.472	3550.86	-120.935			
660	60	COG (ft):	X: 0	Y: 1.086	Z: 0.014			
661	61	N2	90.895	424.975	122.521	-1.422	0.094	0.017
662	61	N4	109.983	423.484	-8.794	0.729	-0.037	1.201
663	61	N3	-41.402	427.08	-5.569	0.686	0.024	-1.25
664	61	N116	711.171	715.791	409.206	0	0	0
665	61	N117	-701.73	710.473	406.449	0	0	0
666	61	N118	2.6	688.516	-786.139	0	0	0
667	61	N119	-0.66	74.464	-53.853	-0.051	-0.001	-0.004
668	61	N127	82.344	44.418	-24.358	-0.003	-0.01	-0.026
669	61	N135	-11.317	41.659	-59.457	-0.021	-0.023	-0.01
670	61	Totals:	241.884	3550.86	0.008			
671	61	COG (ft):	X: 0	Y: 1.086	Z: 0.014			
672	62	N2	80.816	424.468	134.184	-1.418	0.083	0.018
673	62	N4	113.17	423.757	14.329	0.734	-0.058	1.201
674	62	N3	-51.994	427.279	19.565	0.691	0.047	-1.248
675	62	N116	710.818	715.826	410.458	0	0	0
676	62	N117	-700.841	709.51	407.006	0	0	0
677	62	N118	2.256	689.495	-786.374	0	0	0
678	62	N119	-6.512	76.172	-26.785	-0.036	-0.004	-0.001
679	62	N127	72.176	43.328	-9.119	0.005	-0.014	-0.021
680	62	N135	-10.418	41.024	-42.314	-0.012	-0.016	-0.01
681	62	Totals:	209.472	3550.86	120.95			
682	62	COG (ft):	X: 0	Y: 1.086	Z: 0.014			
683	63	N2	56.849	424.038	142.59	-1.415	0.058	0.022
684	63	N4	107.272	424.187	28.304	0.738	-0.069	1.203
685	63	N3	-67.295	427.207	40.396	0.695	0.067	-1.245
686	63	N116	710.618	716.423	411.794	0	0	0
687	63	N117	-700.31	708.391	407.093	0	0	0
688	63	N118	1.325	690.072	-786.363	0	0	0
689	63	N119	-18.621	77.531	-5.444	-0.025	-0.01	0.007
690	63	N127	51.829	41.717	4.009	0.012	-0.014	-0.011
691	63	N135	-20.725	41.295	-32.899	-0.007	-0.009	-0.005
692	63	Totals:	120.943	3550.86	209.48			
693	63	COG (ft):	X: 0	Y: 1.086	Z: 0.014			
694	64	N2	16.751	297.838	108.311	-0.99	0.016	0.02
695	64	N4	69.61	298.865	35.345	0.522	-0.061	0.846
696	64	N3	-62.008	300.501	50.407	0.491	0.069	-0.871
697	64	N116	498.613	503.407	290.44	0	0	0
698	64	N117	-491.071	496.136	285.949	0	0	0
699	64	N118	0.037	485.124	-552.172	0	0	0
700	64	N119	-24.926	55.497	19.46	-0.004	-0.012	0.012
701	64	N127	16.816	27.492	16.671	0.015	-0.011	0.001
702	64	N135	-23.821	28.966	-12.521	0	0	0.001
703	64	Totals:	0.001	2493.825	241.89			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
704	64	COG (ft):	X: 0	Y: 1.077	Z: 0.015			
705	65	N2	-13.742	297.855	104.923	-0.991	-0.014	0.025
706	65	N4	52.287	299.253	23.242	0.521	-0.046	0.85
707	65	N3	-74.271	300.01	48.541	0.49	0.07	-0.867
708	65	N116	498.832	504.549	290.95	0	0	0
709	65	N117	-491.542	495.559	285.155	0	0	0
710	65	N118	-1.23	484.579	-551.743	0	0	0
711	65	N119	-39.021	55.255	15.268	-0.007	-0.019	0.022
712	65	N127	-6.267	26.147	16.522	0.014	-0.005	0.013
713	65	N135	-45.987	30.618	-23.38	-0.005	0.001	0.012
714	65	Totals:	-120.94	2493.825	209.478			
715	65	COG (ft):	X: 0	Y: 1.077	Z: 0.015			
716	66	N2	-35.111	298.125	96.159	-0.993	-0.035	0.03
717	66	N4	35.691	299.454	1.196	0.517	-0.022	0.854
718	66	N3	-79.593	299.483	34.358	0.487	0.06	-0.864
719	66	N116	499.199	505.522	290.766	0	0	0
720	66	N117	-492.396	495.542	284.191	0	0	0
721	66	N118	-2.156	483.613	-551.249	0	0	0
722	66	N119	-48.299	54.186	-1.887	-0.017	-0.023	0.028
723	66	N127	-21.177	25.53	8.773	0.01	0.002	0.02
724	66	N135	-65.627	32.369	-41.357	-0.013	-0.002	0.021
725	66	Totals:	-209.469	2493.825	120.948			
726	66	COG (ft):	X: 0	Y: 1.077	Z: 0.015			
727	67	N2	-41.636	298.573	84.364	-0.997	-0.041	0.031
728	67	N4	24.267	299.414	-24.889	0.512	0.004	0.855
729	67	N3	-76.549	299.063	11.656	0.483	0.041	-0.863
730	67	N116	499.617	506.065	289.938	0	0	0
731	67	N117	-493.406	496.091	283.314	0	0	0
732	67	N118	-2.492	482.486	-550.823	0	0	0
733	67	N119	-50.278	52.578	-27.412	-0.031	-0.024	0.03
734	67	N127	-23.92	25.807	-4.502	0.003	0.008	0.022
735	67	N135	-77.484	33.749	-61.639	-0.024	-0.007	0.027
736	67	Totals:	-241.881	2493.825	0.006			
737	67	COG (ft):	X: 0	Y: 1.077	Z: 0.015			
738	68	N2	-31.56	299.082	72.699	-1.001	-0.03	0.03
739	68	N4	21.078	299.142	-48.022	0.507	0.026	0.855
740	68	N3	-65.954	298.862	-13.483	0.478	0.018	-0.864
741	68	N116	499.973	506.032	288.686	0	0	0
742	68	N117	-494.3	497.059	282.76	0	0	0
743	68	N118	-2.148	481.498	-550.579	0	0	0
744	68	N119	-44.424	50.86	-54.466	-0.046	-0.021	0.026
745	68	N127	-13.758	26.902	-19.744	-0.005	0.012	0.017
746	68	N135	-78.376	34.388	-78.788	-0.032	-0.015	0.027
747	68	Totals:	-209.469	2493.825	-120.936			
748	68	COG (ft):	X: 0	Y: 1.077	Z: 0.015			
749	69	N2	-7.589	299.513	64.291	-1.004	-0.005	0.026
750	69	N4	26.977	298.712	-62.002	0.503	0.037	0.853
751	69	N3	-50.649	298.935	-34.322	0.474	-0.003	-0.868
752	69	N116	500.172	505.433	287.347	0	0	0
753	69	N117	-494.839	498.187	282.678	0	0	0
754	69	N118	-1.217	480.914	-550.581	0	0	0
755	69	N119	-32.307	49.493	-75.799	-0.057	-0.016	0.018
756	69	N127	6.581	28.523	-32.867	-0.011	0.012	0.007
757	69	N135	-68.069	34.115	-88.211	-0.037	-0.021	0.022
758	69	Totals:	-120.94	2493.825	-209.466			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
759	69	COG (ft):	X: 0	Y: 1.077	Z: 0.015			
760	70	N2	23.858	299.752	61.391	-1.005	0.027	0.02
761	70	N4	40.383	298.239	-63.089	0.502	0.034	0.85
762	70	N3	-34.731	299.261	-45.28	0.473	-0.016	-0.872
763	70	N116	500.162	504.428	286.28	0	0	0
764	70	N117	-494.878	499.171	283.089	0	0	0
765	70	N118	0.052	480.892	-550.83	0	0	0
766	70	N119	-17.173	48.843	-85.697	-0.063	-0.009	0.009
767	70	N127	31.651	30.236	-40.357	-0.014	0.009	-0.005
768	70	N135	-49.322	33.004	-87.385	-0.037	-0.025	0.012
769	70	Totals:	0.001	2493.826	-241.879			
770	70	COG (ft):	X: 0	Y: 1.077	Z: 0.015			
771	71	N2	54.352	299.736	64.779	-1.004	0.058	0.014
772	71	N4	57.704	297.849	-50.987	0.503	0.019	0.845
773	71	N3	-22.468	299.753	-43.418	0.474	-0.017	-0.875
774	71	N116	499.944	503.286	285.77	0	0	0
775	71	N117	-494.407	499.749	283.883	0	0	0
776	71	N118	1.32	481.436	-551.259	0	0	0
777	71	N119	-3.077	49.085	-81.503	-0.06	-0.002	-0.001
778	71	N127	54.732	31.58	-40.206	-0.014	0.004	-0.016
779	71	N135	-27.157	31.352	-76.527	-0.032	-0.026	0.002
780	71	Totals:	120.942	2493.826	-209.467			
781	71	COG (ft):	X: 0	Y: 1.077	Z: 0.015			
782	72	N2	75.72	299.467	73.545	-1.002	0.079	0.01
783	72	N4	74.298	297.648	-28.942	0.506	-0.004	0.842
784	72	N3	-17.145	300.278	-29.236	0.477	-0.007	-0.878
785	72	N116	499.577	502.313	285.954	0	0	0
786	72	N117	-493.553	499.765	284.847	0	0	0
787	72	N118	2.246	482.401	-551.752	0	0	0
788	72	N119	6.203	50.153	-64.346	-0.05	0.002	-0.007
789	72	N127	69.641	32.197	-32.456	-0.01	-0.003	-0.024
790	72	N135	-7.515	29.601	-58.551	-0.023	-0.023	-0.008
791	72	Totals:	209.471	2493.825	-120.937			
792	72	COG (ft):	X: 0	Y: 1.077	Z: 0.015			
793	73	N2	82.242	299.018	85.341	-0.998	0.084	0.008
794	73	N4	85.722	297.689	-2.859	0.511	-0.03	0.84
795	73	N3	-20.187	300.698	-6.532	0.481	0.012	-0.879
796	73	N116	499.159	501.77	286.783	0	0	0
797	73	N117	-492.543	499.216	285.724	0	0	0
798	73	N118	2.582	483.53	-552.179	0	0	0
799	73	N119	8.18	51.762	-38.821	-0.036	0.003	-0.009
800	73	N127	72.385	31.921	-19.184	-0.003	-0.01	-0.025
801	73	N135	4.344	28.222	-38.269	-0.013	-0.018	-0.013
802	73	Totals:	241.884	2493.825	0.005			
803	73	COG (ft):	X: 0	Y: 1.077	Z: 0.015			
804	74	N2	72.164	298.51	97.005	-0.994	0.073	0.01
805	74	N4	88.912	297.961	20.274	0.516	-0.052	0.84
806	74	N3	-30.783	300.898	18.61	0.486	0.035	-0.878
807	74	N116	498.802	501.803	288.034	0	0	0
808	74	N117	-491.649	498.248	286.277	0	0	0
809	74	N118	2.238	484.518	-552.424	0	0	0
810	74	N119	2.324	53.48	-11.768	-0.021	0	-0.005
811	74	N127	62.225	30.825	-3.944	0.005	-0.014	-0.02
812	74	N135	5.237	27.583	-21.118	-0.005	-0.01	-0.013
813	74	Totals:	209.471	2493.825	120.947			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
814	74	COG (ft):	X: 0	Y: 1.077	Z: 0.015			
815	75	N2	48.195	298.078	105.412	-0.991	0.048	0.014
816	75	N4	83.016	298.392	34.257	0.52	-0.063	0.842
817	75	N3	-46.09	300.826	39.45	0.49	0.056	-0.875
818	75	N116	498.602	502.401	289.373	0	0	0
819	75	N117	-491.11	497.121	286.36	0	0	0
820	75	N118	1.307	485.102	-552.422	0	0	0
821	75	N119	-9.793	54.847	9.563	-0.01	-0.005	0.003
822	75	N127	41.887	29.204	9.179	0.011	-0.014	-0.011
823	75	N135	-5.071	27.855	-11.694	0.001	-0.004	-0.008
824	75	Totals:	120.943	2493.825	209.477			
825	75	COG (ft):	X: 0	Y: 1.077	Z: 0.015			

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N2	max	1510.506	9	955.197	18	823.909	1	-0.99	64	1.59	9	0.316	3
2		min	-1453.66	3	297.838	64	-589.683	7	-3.333	19	-1.53	3	-0.262	9
3	N4	max	1001.505	10	958.961	14	1296.553	1	1.748	14	1.35	8	2.854	16
4		min	-849.324	4	297.648	72	-1331.954	7	0.424	8	-1.389	2	0.84	73
5	N3	max	804.181	10	960.904	22	1352.761	1	1.652	13	1.351	12	-0.863	67
6		min	-937.853	4	298.862	68	-1345.067	7	0.418	7	-1.278	6	-2.921	22
7	N116	max	1784.44	20	1785.6	16	1039.489	14	0	75	0	75	0	75
8		min	498.602	75	501.77	73	285.77	71	0	1	0	1	0	1
9	N117	max	-491.071	64	1769.673	20	1026.68	24	0	75	0	75	0	75
10		min	-1771.904	19	495.542	66	282.678	69	0	1	0	1	0	1
11	N118	max	48.191	10	1715.994	24	-550.579	68	0	75	0	75	0	75
12		min	-48.074	4	480.892	70	-1974.287	24	0	1	0	1	0	1
13	N119	max	642.087	10	230.805	13	1420.94	1	0.793	1	0.294	10	0.474	4
14		min	-698.215	4	-19.572	7	-1523.885	7	-0.89	7	-0.322	4	-0.446	10
15	N127	max	1211.078	10	115.316	9	710.091	1	0.37	1	0.329	6	0.574	4
16		min	-1150.426	4	-35.454	3	-740.976	7	-0.369	7	-0.33	12	-0.576	10
17	N135	max	1039.289	11	132.595	6	1046.983	12	0.524	12	0.32	1	0.527	5
18		min	-1134.03	5	-46.927	12	-1178.172	6	-0.572	6	-0.354	7	-0.51	11
19	Totals:	max	5992.428	10	8515.545	20	6575.652	1						
20		min	-5992.425	4	2493.825	65	-6575.636	7						

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	M1	L3X3X4	0.519	14	19	0.134	7	z	37	15778.129	46656	1.688	2.646	1.5	H2-1
2	M2	L3X3X4	0.521	14	23	0.121	7	z	17	15778.129	46656	1.688	2.646	1.5	H2-1
3	M3	L3X3X4	0.523	0	16	0.097	7	z	21	15778.129	46656	1.688	2.646	1.5	H2-1
4	M4	HSS4X4X4	0.231	1.375	20	0.061	1.375	z	3	138418.427	139518	16.181	16.181	1.185	H1-1b
5	M5	HSS4X4X4	0.23	1.375	24	0.055	1.375	z	7	138418.427	139518	16.181	16.181	1.187	H1-1b
6	M6	HSS4X4X4	0.226	1.375	14	0.058	1.375	z	1	138418.427	139518	16.181	16.181	1.187	H1-1b
7	M7	HSS4.5X4.5X4	0.107	0	16	0.037	0	z	46	156914.624	158976	20.907	20.907	2.048	H1-1b
8	M8	HSS4.5X4.5X4	0.108	0	20	0.033	0	z	13	156914.624	158976	20.907	20.907	1.472	H1-1b
9	M9	HSS4.5X4.5X4	0.107	0	24	0.029	0	z	18	156914.624	158976	20.907	20.907	1.68	H1-1b
10	M10	L3X3X4	0.139	3.61	2	0.021	0	z	14	15459.378	46656	1.688	3.271	1.5	H2-1
11	M11	L3X3X4	0.132	3.536	24	0.021	0	z	15	15459.378	46656	1.688	3.271	1.5	H2-1
12	M12	L3X3X4	0.135	3.462	8	0.021	7.072	z	24	15459.378	46656	1.688	3.271	1.5	H2-1
13	M13	LL3X3X4X0	0.394	1.458	13	0.058	1.458	y	31	76288.155	93312	6.48	4.357	1	H1-1b
14	M14	LL3X3X4X0	0.388	1.458	19	0.043	1.458	y	19	76288.155	93312	6.48	4.357	1	H1-1b
15	M15	LL3X3X4X0	0.374	1.458	21	0.042	1.458	y	23	76288.155	93312	6.48	4.357	1	H1-1b

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
16	M16	PIPE 2.0	0.334	6.884	7	0.125	10.259		7	17855.085	32130	1.872	1.872	1	H1-1b
17	M17	PIPE 2.0	0.282	6.884	11	0.112	3.105		6	17855.085	32130	1.872	1.872	1	H1-1b
18	M18	PIPE 2.0	0.222	10.124	2	0.098	10.259		2	17855.085	32130	1.872	1.872	1	H1-1b
19	M20	L3X3X4	0.128	0	12	0.016	0	y	11	44041.534	46656	1.688	3.756	1.5	H2-1
20	M22	LL2.5X2.5X4X3	0.12	0	20	0.004	0	y	20	45279.358	77112	5.321	3.026	1	H1-1b
21	M23	LL2.5X2.5X4X3	0.12	0	16	0.004	0	y	16	45279.358	77112	5.321	3.026	1	H1-1b
22	M24	LL2.5X2.5X4X3	0.115	0	24	0.004	0	y	24	45279.358	77112	5.321	3.026	1	H1-1b
23	M25	L2.5X2.5X4	0.124	2.863	1	0.004	5.61	z	12	13782.656	38556	1.114	2.19	1.136	H2-1
24	M26	L2.5X2.5X4	0.078	2.389	1	0.005	4.68	z	6	18864.661	38556	1.114	2.282	1.136	H2-1
25	M27	L2.5X2.5X4	0.115	2.863	9	0.005	5.61	z	2	13782.656	38556	1.114	2.19	1.136	H2-1
26	M28	L2.5X2.5X4	0.078	2.34	10	0.006	4.68	y	10	18864.661	38556	1.114	2.282	1.136	H2-1
27	M29	L2.5X2.5X4	0.09	2.34	6	0.007	4.68	y	6	18864.661	38556	1.114	2.282	1.136	H2-1
28	M30	L2.5X2.5X4	0.13	2.863	5	0.004	5.61	z	10	13782.656	38556	1.114	2.19	1.136	H2-1
29	M31	PIPE 2.0	0.479	2.75	7	0.21	2.75		2	28843.414	32130	1.872	1.872	1	H1-1b
30	M32	PIPE 2.0	0.324	2.75	10	0.198	2.75		11	28843.414	32130	1.872	1.872	1	H1-1b
31	M33	PIPE 2.0	0.397	2.75	6	0.238	2.75		6	28843.414	32130	1.872	1.872	1	H1-1b
32	MP1A	PIPE 2.0	0.184	3.813	1	0.062	3.875		10	20866.733	32130	1.872	1.872	1	H1-1b
33	MP2A	PIPE 2.0	0.289	2	6	0.089	2		4	14916.096	32130	1.872	1.872	1	H1-1b
34	MP3A	PIPE 2.0	0.098	2.083	7	0.105	2.083		7	14916.096	32130	1.872	1.872	1	H1-1b
35	MP4A	PIPE 2.0	0.162	3.813	1	0.062	3.875		4	20866.733	32130	1.872	1.872	1	H1-1b
36	MP1B	PIPE 2.0	0.184	3.813	5	0.063	3.875		2	20866.733	32130	1.872	1.872	1	H1-1b
37	MP2B	PIPE 2.0	0.289	2	6	0.089	2		4	14916.096	32130	1.872	1.872	1	H1-1b
38	MP3B	PIPE 2.0	0.088	2.083	11	0.089	4.833		12	14916.096	32130	1.872	1.872	1	H1-1b
39	MP4B	PIPE 2.0	0.162	3.813	5	0.063	3.875		8	20866.733	32130	1.872	1.872	1	H1-1b
40	MP1C	PIPE 2.0	0.175	3.813	9	0.062	3.875		7	20866.733	32130	1.872	1.872	1	H1-1b
41	MP2C	PIPE 2.0	0.289	2	6	0.089	2		4	14916.096	32130	1.872	1.872	1	H1-1b
42	MP3C	PIPE 2.0	0.077	2.083	4	0.081	2.083		3	14916.096	32130	1.872	1.872	1	H1-1b
43	MP4C	PIPE 2.0	0.161	3.875	10	0.062	3.875		1	20866.733	32130	1.872	1.872	1	H1-1b
44	M97	L3X3X4	0.129	0	7	0.017	0	y	7	44041.534	46656	1.688	3.756	1.388	H2-1
45	M104	L3X3X4	0.097	0	4	0.038	0	y	27	44041.534	46656	1.688	3.756	1.5	H2-1

VzW SMART Tool© Vendor

Client:	Verizon Wireless	Date:	1/12/2024
Site Name:	HARWINTON N CT		
MDG #:	5000054288		
Fuze ID #:	16244159	Page:	2

Version 2.00

Tower Connection Weld Checks	Yes

Weld Shape:	Rectangle
Weld Stiffener Configuration:	(1) Stiffener on top/bottom
Stiffener Notch Present?	No
Stiffener Length, l (in):	4
Weld Size (1/16 in):	6
W1 (in):	4
W2 (in):	4
Weld Total Length (in):	32.00
Z_x (in^3/in):	67.56
Z_y (in^3/in):	21.33
J_p (in^4/in):	362.67
c_x (in)	6
c_y (in)	6
Required combined strength (kip/in):	0.83
Weld Capacity (kip/in):	8.35
Weld Utilization:	**9.9%**

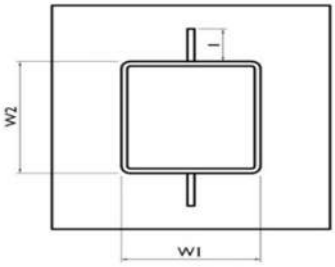

EXHIBIT 5

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Non-Ionizing Electromagnetic Radiation (NIER) Study

Site Number:
302502

Site Name:
Harwinton

Location:
Harwinton, Connecticut

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

Prepared For:

American Tower, Inc.
Woburn, Massachusetts

February 8th, 2024

93999 P-419760

Prepared By:

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

Approved By:

TOWER ENGINEERING PROFESSIONALS

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Non-Ionizing Electromagnetic Radiation (NIER) Study

302502 Harwinton
Harwinton, 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 302502 Harwinton is located at 159 Weingart Rd., in Harwinton, Connecticut at coordinates 41.787752, -73.092540. 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), & 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.

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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 302502 Harwinton.RF NIER Study 01/26/24.
- 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.

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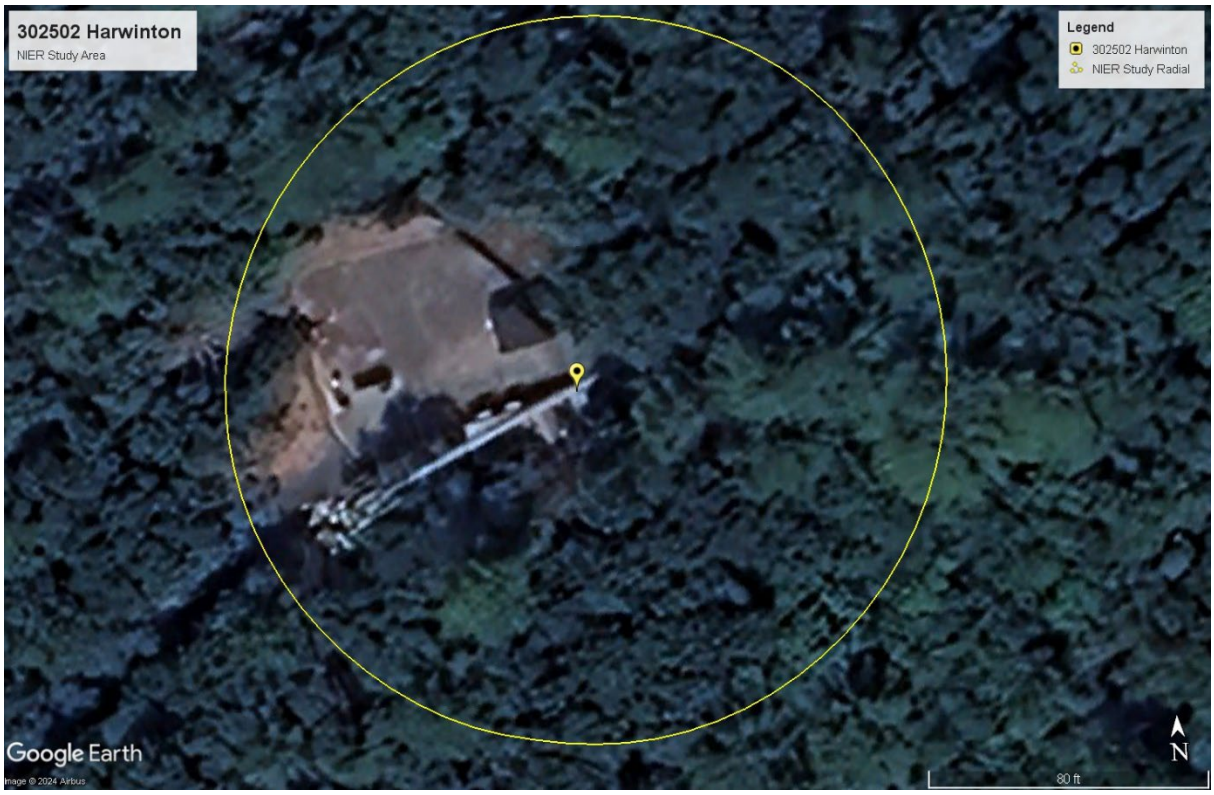
APPENDIX 1 Site Photos



Aerial View of Site

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Appendix 2.1 Antenna Inventory

302502 Harwinton							
Antenna Inventory							
Antenna #	Carrier	Antenna Manufacturer	Antenna Model	Frequency Band (MHz)	Azmiuth (°)	EiRP (W)	Radiation Center (ft)
1	AT&T	Andrew	DMP65R-BU8DA	700/800	143	6717	185.0
2	AT&T	Quintel	Qs66512 2	700	023	10447	185.0
3	AT&T	Quintel	Qs66512 2	700	143	10447	185.0
4	AT&T	Quintel	Qs66512 2	700	263	10447	185.0
5	AT&T	Powerwave	7770	800/1900	023	18320	185.0
6	AT&T	Powerwave	7770	800/1900	143	18320	185.0
7	AT&T	Powerwave	7770	800/1900	263	18320	185.0
8	AT&T	CCI	DMP65R-BU6DA	700/800/1900/2100	023	36002	185.0
9	AT&T	CCI	DMP65R-BU6DA	700/800/1900/2100	143	36002	185.0
10	AT&T	CCI	DMP65R-BU6DA	700/800/1900/2100	263	36002	185.0
11	AT&T	CCI	HPA65R-BU6A	700/800/1900/2100	023	36002	185.0
12	AT&T	CCI	HPA65R-BU6A	700/800/1900/2100	263	36002	185.0
13	Verizon	Antel	LPA-80063/6CF	800	030	16361	175.0
14	Verizon	Antel	LPA-80063/6CF	800	140	16361	175.0
15	Verizon	Antel	LPA-80063/6CF	800	300	16361	175.0
16	Verizon	Antel	LPA-80063/6CF	800	030	16361	175.0
17	Verizon	Antel	LPA-80063/6CF	800	140	16361	175.0
18	Verizon	Antel	LPA-80063/6CF	800	300	16361	175.0

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Appendix 2.2 Antenna Inventory

302502 Harwinton							
Antenna Inventory							
Antenna #	Carrier	Antenna Manufacturer	Antenna Model	Frequency Band (MHz)	Azmiuth (°)	Effective Radiated Power (W)	Radiation Center (ft)
19	Verizon	Commscope	JAHH-65B-R3B	700/800/1900/2100	030	32167	175.0
20	Verizon	Commscope	JAHH-65B-R3B	700/800/1900/2100	140	32167	175.0
21	Verizon	Commscope	JAHH-65B-R3B	700/800/1900/2100	300	32167	175.0
22	Verizon	Commscope	JAHH-65B-R3B	700/800/1900/2100	030	32167	175.0
23	Verizon	Commscope	JAHH-65B-R3B	700/800/1900/2100	140	32167	175.0
24	Verizon	Commscope	JAHH-65B-R3B	700/800/1900/2100	300	32167	175.0
25	Verizon	Samsung	MT6407-77A	3700-3900	030	18286	175.0
26	Verizon	Samsung	MT6407-77A	3700-3900	140	18286	175.0
27	Verizon	Samsung	MT6407-77A	3700-3900	300	18286	175.0
28	T-Mobile	Ericsson	AIR 21, 1.3 M	1700/1800/1900/2100	030	12222	163.0
29	T-Mobile	Ericsson	AIR 21, 1.3 M	1700/1800/1900/2100	150	12222	163.0
30	T-Mobile	Ericsson	AIR 21, 1.3 M	1700/1800/1900/2100	270	12222	163.0
31	T-Mobile	Ericsson	AIR 21, 1.3 M	1700/1800/1900/2100	030	12222	163.0
32	T-Mobile	Ericsson	AIR 21, 1.3 M	1700/1800/1900/2100	150	12222	163.0
33	T-Mobile	Ericsson	AIR 21, 1.3 M	1700/1800/1900/2100	270	12222	163.0
34	T-Mobile	Commscope	LNX-6515DS-A1M	700	030	18284	163.0
35	T-Mobile	Commscope	LNX-6515DS-A1M	700	150	18284	163.0
36	T-Mobile	Commscope	LNX-6515DS-A1M	700	270	18284	163.0

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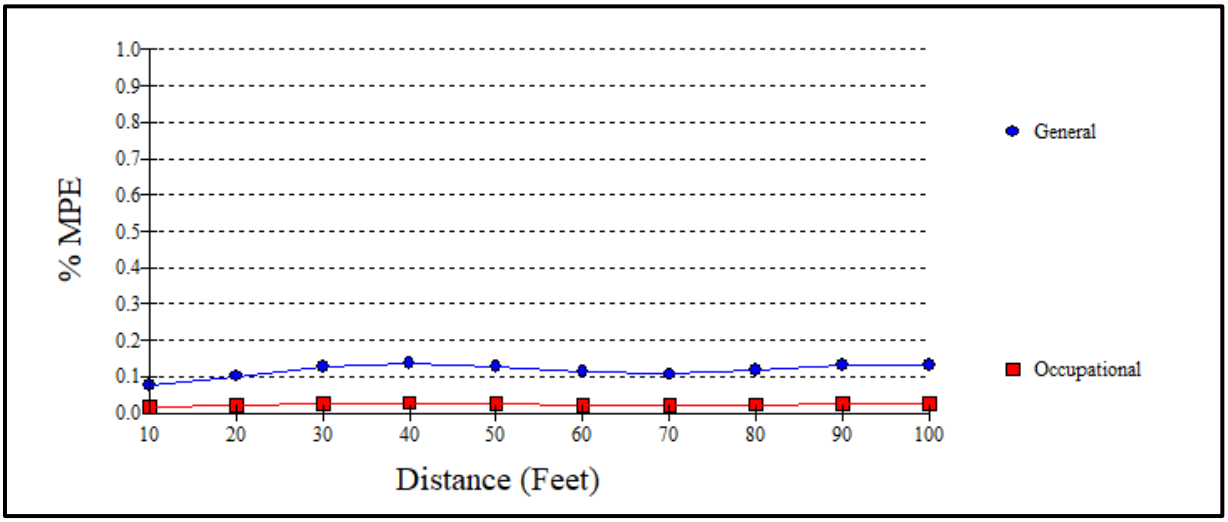
Appendix 3.1 MPE Limit Study



Maximum Power Density (@40'):	0.0009 mW/cm²
General Population MPE (@40'):	0.1364%
Occupational MPE (@40'):	0.0273%

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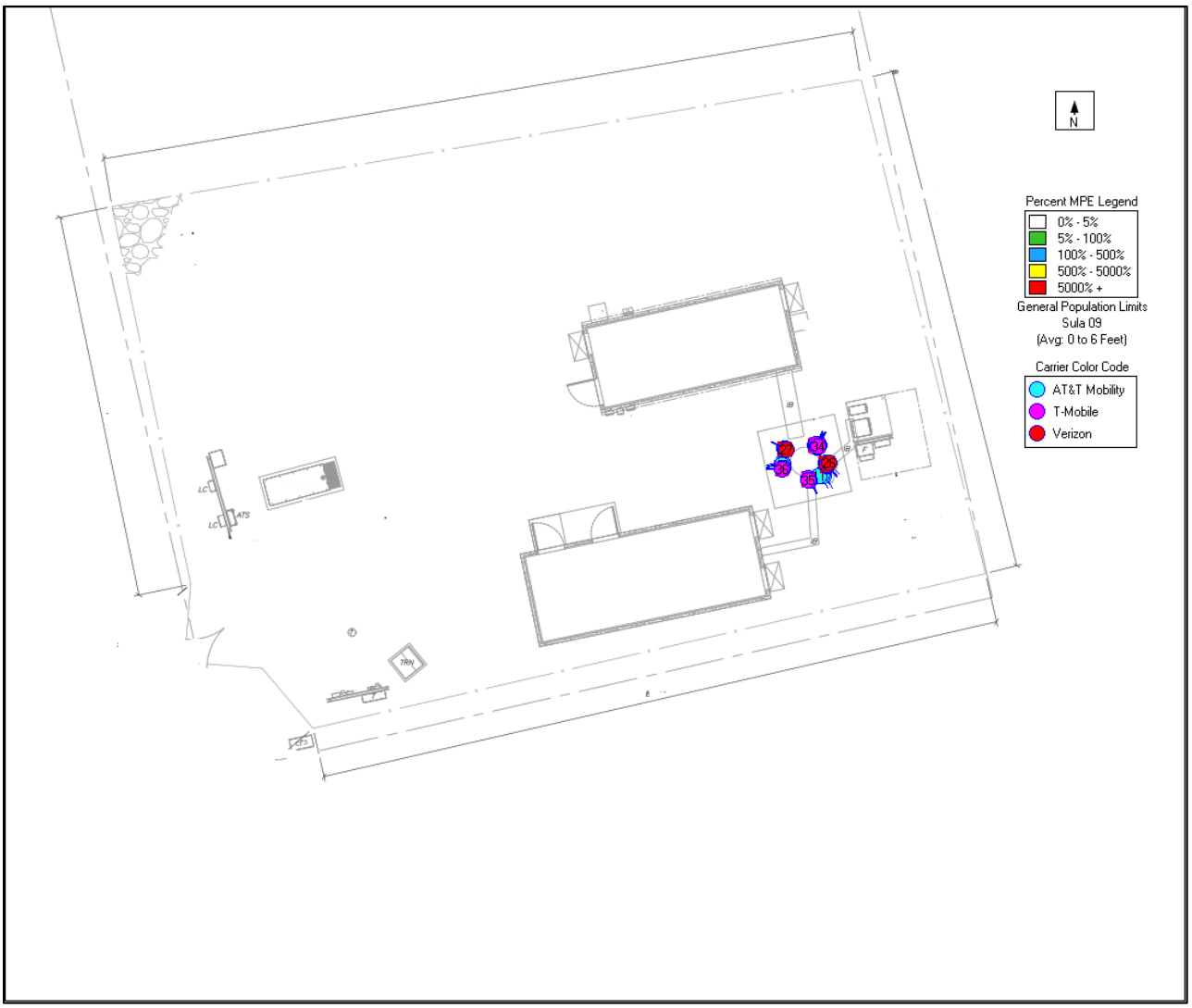
Appendix 3.2 MPE Limit Study



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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.

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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.

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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.

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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

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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.

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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

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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.

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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

DOCKET NO. 138 - An application of SNET Cellular, Inc., for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of cellular facilities in the Towns of Plymouth, Harwinton, Winchester, and New Milford, Connecticut.

Connecticut

Siting

Council

November 26, 1990

FINDINGS OF FACT

1. SNET Cellular, Inc. (SNET), in accordance with the provisions of Sections 16-50g to 16-50z of the Connecticut General Statutes (CGS), applied to the Connecticut Siting Council (Council) on May 23, 1990, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of four telecommunications towers and associated equipment to provide domestic public cellular radio communication service (cellular service) in the Towns of Harwinton, New Milford, Plymouth, and Winchester, Connecticut, within the Litchfield County Rural Service Area (RSA). (Record)

2. The Applicant submitted proof of service as required by CGS Section 16-501. (SNET 1, Section 1; SNET 3)

3. Public notice of the application, as required by CGS Section 16-501 was published in the following:
   The New Milford Times, on May 17 and 24, 1990;
   The Bristol Press, on May 21 and 22, 1990;
   The Register-Citizen, on May 21 and 22, 1990; and
   The Danbury News Times, on May 21 and 22, 1990.
   (SNET 1, Section 1, pp. 5-8)

4. Corrections to the service list and supplemental legal notices were submitted by SNET on June 13, 1990. Corrected public notices were published in the Danbury News Times on June 1, June 13, and June 14, 1990, and in the New Milford Times on June 7, and 14, 1990. (SNET 3)

5. After giving due notice thereof, the Council and its staff made an inspection of the proposed and alternate Harwinton, Plymouth, and Winchester sites, and the proposed New Milford site on August 27, 1990. (Record)

6. Pursuant to CGS Section 16-50m, the Council, after giving due notice thereof, held a public hearing for the proposed application on August 27, 1990, beginning at 3:30 P.M. and reconvening at 7:00 P.M. in the Community Room, Plymouth Town Hall, 19 East Main Street, Terryville, Connecticut. (Record)

7. The parties and intervenors to the proceeding are the applicant and the persons and organizations whose names are listed in the Decision and Order, which accompany these Findings of Fact. (Record)

8. The Department of Environmental Protection (DEP) filed written comments with the Council pursuant to CGS Section 16-50j in a letter dated June 12, 1990. (Record)

9. In 1981, the Federal Communications Commission (FCC) recognized a national need for technical improvement, wide area coverage, high quality service, and competitive pricing in mobile telephone service. (SNET 1, Section III, p. 1)

10. The FCC has promulgated regulations for cellular service in the following areas: technical standards to assure technical integrity of systems for nationwide compatibility, market structure, and state certification prior to federal application for a construction permit. (SNET 1, pp. 2, 3; SNET 1, Section III, pp. 3, 4)

11. The FCC has pre-empted State regulation in determining that a public need currently exists for cellular service, setting technical standards for that service, and establishing a competitive market. Applicants for FCC cellular system authorizations are not required to demonstrate a public need for the service. (SNET 1, pp. 3, 4; SNET 1, Section III, pp. 3, 4)

12. The FCC has determined that the public interest requires two licenses for cellular service be made available in each market area or RSA to provide competition. One license is awarded to a wireline company, the other to a non-wireline company. (SNET 1, pp. 2, 3)

13. The FCC allocated 832 channels from a frequency spectrum of the 870-890 MHz band. Half of the channels were awarded to a "wireline" carrier and the other half to a "non-wireline" carrier. (SNET 1, pp. 2, 3)

14. An application by SNET proposing construction and operation of four cellular facilities in the Litchfield County RSA was submitted to the Council on September 25, 1989. On November 22, 1989, the Council ruled to dismiss this application without prejudice until such time SNET receives the necessary Federal Communications Commission (FCC) licenses to construct and operate cellular facilities in the Litchfield County RSA. (Docket 119 Record)

15. On April 25, 1990, the FCC authorized SNET to be the wireline service provider in the Litchfield County RSA by granting SNET a license to construct and operate the

four proposed facilities. (SNET 1, pp. 4, 5; SNET 1, Exhibit III, pp. 2, 3; SNET 4, Q-6)

16. Pikeville Cellular Partnership (Pikeville) was admitted to this proceeding as an intervenor. Pikeville was granted the non-wireline service license to construct and operate a cellular facility in the Litchfield County RSA on April 13, 1990, by the FCC. (Record; Tr. II. pp. 56, 57)

Cellular Technology

17. Cellular service consists of small, overlapping radio broadcast regions, two to ten miles in diameter, known as cells. The original technical standards of the FCC limited each cell to no more than 100 watts effective radiated power per channel. The RSA cells are presently limited to an output of 500 watts effective power per channel. The proposed cells would accommodate a maximum of 45 cellular channels. Each cell is connected to a central switching station containing electronic apparatus uniting the cells into a system. The system design provides for frequency reuse and call transfer (hand off), orderly expansion, and compatibility with other cellular systems. (SNET 1, Section II, pp. 2-6; Section III, pp. 3, 4; SNET 4, Q-10)

18. Use of digital technology would increase the number of channels that could be derived from the frequencies assigned. (Tr. I, pp. 23, 24)

19. In cellular systems, mobile units are currently limited to a maximum of seven (7) watts transmitting power. Cell coverages must overlap in order for an active mobile unit to continue operating as it travels from one coverage area to another coverage area. This "hand-off" allows calls to continue uninterrupted. (SNET 1, Exhibit II, pp. 2-6)

20. SNET has designed a system that would provide continuous cellular coverage from existing service areas through proposed service areas in the new RSA. Computer modeling was used to predict the best possible coverage within each area through the use of a minimum number of overlapping cell sites. (SNET 1, Section IV, pp. 4, 5)

21. SNET's computer modeling was used to select a geographical search area within each cell containing the elevations needed for potential tower sites. The modeling predicts the minimum tower heights at these selected locations for the optimal coverage needed within each area. (SNET 1, Section IV, p. 5)

22. SNET's system would attempt to cover the area along Route 8 from Waterbury north to the state line with as few tower sites as possible. The proposed sites in Plymouth, Harwinton, and Winchester would help link most of Route 8 from Bridgeport to Winsted. A future unspecified and presently undeveloped site in the Seymour-Beacon Falls area would complete the link. (Tr. I, pp. 24, 25, 29, 30)

23. SNET's system is designed to provide the flexibility to add future facilities between existing cell sites for increased call capacity. Each major cell site would have secondary and tertiary search areas for cell splitting locations. The FCC requires this ability to expand the system. (Tr. I, pp. 26, 27)

24. SNET has no present plans to exceed 100 watts effective radiated power per channel at any of its proposed or alternate sites, given the technology currently in use. Increasing authorized power above 100 watts could cause interference, intermodulation, and frequency reuse problems. (SNET 4, Q-10; Tr. I, p. 22)

25. Initially, SNET would install about 12 channels at each of the proposed cell sites. Expansion to 45 channels would be possible when service demand made it necessary. (Tr. I, pp. 25, 26)

26. The antennas to be used at all sites would initially be 12-foot long by three inches in diameter omnidirectional whip antennas. A minimum of four or a maximum of six antennas would be mounted vertically at the corners of the triangular platform. If necessary, directional antennas would be mounted within the triangle, out of sight, behind a fiberglass cover of the triangular sides. The whip antennas would add twelve feet to the overall height of the tower structure. The total height from ground level to the top of the antennas for a 150-foot tower would be 162 feet or, from a 180-foot tower, 192 feet. (SNET 1, Exhibit V, pp. 4, 7)

27. The supporting structures would be monopole towers either 150 feet or 180 feet high. At the top of each monopole, a triangular-shaped platform would be attached to hold the affixed cellular antennas. The triangular support is approximately ten feet wide and increases the height of the structure by four feet. The monopole would be attached to a reinforced concrete base approximately twenty-feet square and eight feet deep. All structures would be designed to withstand 125 mile per hour winds with two inches of radial ice. (SNET 1, Section V, pp. 3 and 3A)

Facility Construction

28. On each proposed or alternate site, SNET would construct a monopole tower and a single story equipment building approximately 12 feet by 26 feet by 10 feet high. Each site would be accessed by a driveway and would contain sufficient parking space for a technician's vehicle. Eight-foot high chain link security fences would surround the tower and building sites. Security and fire alarm systems would be installed within each building. (SNET 1, Section V, pp. 1, 2; SNET 4, Q-18)

29. The physical structures on each site would not produce any air pollutants. No noise would be emitted except for air conditioning. Any construction noise created during site preparation would be temporary. No permanent emergency generator would be located on any site. (SNET 1, Section VI, pp. 18, 19; SNET 1, Section VIII, pp. 16, 17; SNET 1, Section X, pp. 16, 17; SNET 1, Section XII, pp. 19, 20)

30. None of the seven proposed or alternate sites contain inland wetlands within their boundaries. No access road for any of these sites would cross any inland wetland. (SNET 4, Q-3)

31. SNET has communicated with Pikeville and the Connecticut State Police regarding the shared use of towers in Litchfield County. (Tr. II, p. 52)

32. The Federal Aviation Administration has determined that the towers to be constructed on the proposed or alternate sites would not cause an obstruction to air navigation and that no tower would be required to be marked or lit for air traffic. (SNET 1, p. 5; SNET 1, Section IV, p. 4; SNET 1, Section VI, p. 29; Section VIII, p. 27; Section X, p. 27; Section XII, p. 30; SNET 4, Q-19)

Plymouth: Proposed

33. SNET would construct a 180-foot monopole tower with antennas and an associated equipment building on the proposed Plymouth site off North Street. (SNET 1, Section VI, p. 1)

34. The proposed Plymouth cell site is planned to overlap coverage areas from SNET's existing Waterbury cellular facility and a proposed Harwinton cell site in the Litchfield RSA. (SNET 1, Section VI, pp. 1, 2, 32)

35. Coverage from the proposed site would include sections of Routes 4, 6, 8, 72, 109, 222, and 254, within the Towns of Harwinton, Thomaston, Burlington, Watertown,

Morris, and Litchfield, and the City of Bristol. (SNET 1 Section VI, p. 1)

36. SNET considered seven potential cell site locations, including existing tower sites, rejecting five to provide cellular coverage in the Plymouth-Thomaston area. There are 24 existing tower sites located within a 10-mile radius of the proposed and alternate sites. (SNET 1, Section VI, pp. 3-8)

37. The proposed Plymouth site would be a leased 100-foot by 100-foot section within the interior of a 41.5 acre wooded parcel owned by Francis and Barbara Bart and Raymond and Brenda Lagosz. SNET has negotiated a leasing option agreement with the property owners. The tower site would be situated approximately 500 feet west of North Street and 1000 feet west by northwest of the intersection of North Street and Barry Road, Plymouth. The site is located in an area zoned Residential. (SNET 1, Section VI, pp. 1, 2, 9, 12, 13, 16; SNET 4, Q-18 Attachment)

38. The elevation of the Plymouth proposed site varies from 807 feet to 823 feet above mean sea level (AMSL). The average elevation of the proposed site is about 820 feet (AMSL). (SNET 1, Section VI, pp. 12, 24, 29; SNET 4, Q-18 Attachment)

39. The proposed tower and equipment building would be located totally within the property lines of the land owner. The fall zone of the proposed tower would lie entirely within the lessor's property. (SNET 1, Section VI, pp. 12, 13, 17; SNET 4, Q-18 Attachment)

40. The nearest residence, owned by the lessor, is situated about 200 feet from the proposed site. There are 34 residences located within a 2000-foot radius of the proposed site. (SNET 4, Q-4, Q-18 Attachment)

41. The proposed site would be accessed from an existing 850-foot driveway off North Street and along a new, approximately 265-feet long, gravel roadway constructed by SNET to link the driveway to the proposed site. Utility services would run from the driveway to the leased site. (SNET 1, Section VI, pp. 13, 16; SNET 4, Q. 2-18 attachment)

42. The parcel is undeveloped except for a barn and fenced area used for boarding horses. Trees shield the proposed site along its northern and western borders. Nearby adjacent transmission structures would further minimize the visual impact of the proposed facility. (SNET 1, Section VI, pp. 16, 33)

43. The facility plot is slightly sloped while the tower site is basically level; therefore, grading would be slight and should pose no drainage problems. Water runoff areas would be constructed to minimize erosion. SNET would use erosion control measures including hay spread on loose soil, haybales, crushed stone, erection of temporary sediment basins, and sediment fences to mitigate the effects of sedimentation. Some trees and brush would be cleared from the edge of the site. (SNET 1, Section VI, p. 18; SNET 4, Q-18 Attachment, Q-25)

44. After construction, water quality on or surrounding the proposed site would remain unchanged. No water services would be installed in the equipment building. (SNET 1, Section VI, p. 18)

45. The principal aesthetic impact would be visibility of the towers. SNET would paint the tower a mixed blue-grey color to blend against the background of the sky. (SNET 1, Section VI, p. 20)

46. The Natural Resources Center of the DEP has determined that there are no known extant populations of federally endangered and threatened species or Connecticut "species of special concern" occurring at the site. (SNET 1, Section VI, p. 21)

47. The Connecticut Historical Commission and the Office of State Parks and Recreation have determined that the proposed and alternate cell sites do not represent any historical, cultural, or recreational significance to Connecticut and would not have any effect on any historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places. (SNET 1, Section VI, p. 23)

48. Based on conservative assumptions with a maximum of 45 channels operating simultaneously at maximum power, the worst case power density level as measured at the base of the tower at a vertical distance of 189 feet, would be 0.082270 mW/cm^2. The power density at the nearest residence, a distance from the antennas of 313 feet, would be 0.02920 mW/cm^2, many times lower than the current Connecticut standard of 2.933 mW/cm^2 for 880 MHz. (SNET 1, Section VI, p. 24)

49. The estimated construction costs to be incurred by SNET are as follows:

Radio equipment	$179,515
Antenna equipment and tower	64,000
Power and associated equipment	171,570
Land and building	256,500
Miscellaneous	77,700
Total	$749,285

(SNET 1, Section Vl, p. 25)

50. If approved, site construction and testing would be completed in December 1990. The facility could be operational before the end of 1990. (SNET 1, Section VI, p. 26)

51. SNET met or communicated with Plymouth and Thomaston town officials in 1989 and 1990 regarding the planning for a Plymouth site. No town officials made any specific recommendations regarding a site location for the facility. (SNET 1, Section VI, pp. 30-31; Tr. II, p. 47)

52. SNET has not been contacted by any Plymouth municipal official regarding the use of a Plymouth tower for municipal agency antennas. (Tr. II, p. 51)

Plymouth: Alternate

53. SNET would construct a 150-foot monopole tower with antennas and a one-story equipment building as an alternate site off North Street. (SNET 1, Section VII, p. 1)

54. The alternate Plymouth site would be a 100-foot by 100-foot plot on a parcel of land owned by Raymond and Brenda Lagosz and Francis and Barbara Bart, located on the west side of North Street approximately 700 feet north of the intersection of North Street and Barry Road. The alternate Plymouth site would be situated approximately 500 feet southeast of the proposed site. SNET has a leasing option agreement with the property owner for use of the site. The site is located in an area zoned Residential. (SNET 1, Section VII, pp. 1, 3-5,8,9,11,15; SNET 4, Q-18 Attachment)

55. The site elevation of the Plymouth alternative site ranges from about 840 feet to 849 feet AMSL. The average site elevation is approximately 848 feet AMSL, about 28 feet higher than the proposed site. (SNET 1, Section VII, p. 1, 3-6, 8, 9, 11, 15; SNET 4, Q-18 Attachment)

56. The alternate site would be accessed from the same gravel driveway as the proposed site. A new gravel extension, approximately 100 feet long, would link the middle section of the existing driveway about 440 feet from North Street, to the site. Utilities would be provided from an existing line along the existing driveway and proposed accessway. (SNET 1, Section VII, p. 8; SNET 4, Q-18 Attachment)

57. The alternate site is level and bordered by a tree line on the eastern and northern sides. Due to a lesser number of shielding trees, the tower could be more

visible to area residences, as it would be located about 500 feet closer to North Street. (SNET, Section VII, p. 8)

58. No cut or fill work of the driveway would be needed, but some minor grading would be required to level the driveway and tower site. Some small trees and bushes would be cleared from the area surrounding the site. (SNET 1, Section VII, p. 8; SNET 4, Q-25)

59. The closest residence is located 275 feet from the alternate site. There are 31 residences within a 2000-foot radius of the alternate site. (SNET 4, Q-4)

60. The fall zone of the alternate tower would include the lessor's property and the properties of Raymond and Brenda Lagosz and Hugh and Dorothy Johnston. (SNET 4, Q-18 Attachment)

61. Based on conservative assumptions, with a maximum of 45 channels operating simultaneously at maximum power, the worst case power density level would be 0.11624 mW/cm^2 as measured at the alternate tower base, 159 feet below the antennas, and 0.03692 mW/cm^2 as measured at the nearest residence about 282 feet from the antennas, well below the current Connecticut standard of 2.933 mW/cm^2 for 880 MHz. (SNET 1, Section VII, p. 9)

62. The estimated construction cost to be incurred by SNET is as follows:

Radio equipment	$179,515
Antenna equipment and tower	57,000
Power and associated equipment	171,570
Land and building	263,000
Miscellaneous	77,700
Total	$748,785

(SNET 1, Section Vll, p. 10)

63. If approved, site construction and testing would be completed in December 1990. The facility could be operational before the end of 1990. (SNET 1, Section VII, p. 11)

Harwinton: Proposed

64. SNET would construct a 180-foot, self-supporting monopole tower with antennas and associated equipment building on the proposed site off Weingart Road. (SNET 1, Section VIII, p. 1)

65. The proposed Harwinton cell site is planned to overlap coverage areas from SNET's proposed Plymouth and Winchester sites. (SNET 1, Section VIII, pp. 1, 2)

66. The coverage from the proposed Harwinton site would include a large section of Route 8 and parts of Routes 4, 72, 118, 183, 202, and 222. The cell would provide service to Harwinton, Litchfield, Burlington, and Goshen. (SNET 1, Section VIII, pp. 1, 29)

67. Reducing the height of the proposed tower from 180 feet to 150 feet would lose coverage of five miles along Route 8, two miles on Route 118, two miles on Route 4, and 1.5 miles on Route 163. (Tr. I, pp. 39, 40)

68. SNET considered nine potential sites, including existing tower sites, rejecting seven to provide coverage in the Harwinton-Torrington area. There are 15 existing tower sites within a 10-mile radius of the proposed and alternate sites. The reasons for rejection included insufficient coverage due to excessive distance outside the search area, site inaccessibility, unavailability of space on an existing building, and lack of interest in leasing land to SNET by a property owner. (SNET 1, Section VIII, pp. 3-4A)

69. The proposed site would be a slightly sloped 100-foot by 100-foot section of a 5.4 acre parcel owned by John J. and Clara D. Basile located approximately 100 feet east of Weingart Road and 1600 feet northeast of Clearview Avenue, Harwinton. The property is bordered on the north by a high voltage electrical transmission line owned by Northeast Utilities. The parcel is located in an area zoned Town Residential (TR). (SNET 1, Section VIII, pp. 2, 8, 11, 12; SNET 4, Q-18 Attachment, SNET 8)

70. The Harwinton proposed site elevation ranges from 1008 feet to 1030 feet AMSL. After grading, the average elevation of the proposed site would be about 1019 feet AMSL. (SNET 1, Section, VIII, p. 22, 27; SNET 4, Q-14)

71. The proposed tower and equipment building would be located totally within the property lines of the land owner. SNET has negotiated a leasing option with the property owners for use of the land for a cellular facility. The fall zone of the tower would lie entirely within the lessor's property. (SNET 1, Section VIII, pp. 1, 12, 15, 17; SNET 4, Q-18 Attachment)

72. The nearest residence, owned by Karen Fowler would be about 285 feet from the proposed site. There are 63 residences located within a 2000-foot radius of the site. (SNET 4, Q-4)

73. SNET could move the proposed Harwinton site north and closer to an electric transmission line ROW since the site owner has no objection to this move. However, SNET states that any northerly movement could result in tower

fall zone intrusion onto property owned by Rocky River Realty, a company owned by Northeast Utilities Company. Rocky River Realty Company informed SNET that no part of its land off Weingart Road would be available to SNET. (SNET 4, Q-13; SNET 7, pp. 1-3)

74. The site is sloped, undeveloped, and wooded, which provides some screening from streets and nearby residences in the area. Some grading, and cut and fill work would be needed for the construction of the tower foundation, building, and bituminous accessway. Trees, boulders, and underbrush would be cleared from the tower site and along the accessway from Weingart Road. (SNET 1, Section VIII, pp. 15, 16, 19; SNET 4, Q-18 Attachment; Q-25; SNET 8; Tr. II, pp. 17-19)

75. The accessway would be a bituminous concrete driveway approximately 300 feet long by 12 feet wide, rising from an elevation of 982 feet at Weingart Road to 1022 feet at the site's security fence. A 25-foot wide utility and access easement covers the entire length of the proposed driveway. SNET would need to break through a stone wall when constructing the driveway to the site. The path through the stone wall would be required due to the grading of the slope in that area. (SNET 4, Q-18 Attachment; SNET 8; Tr. II, pp. 15-17, 20-22)

76. The effects of construction on waterflow would be minimal. Water runoff would be channelized to minimize erosion. SNET would use erosion control measures such as the spreading of hay on loose soil, gravel, haybales, or the construction of temporary sediment basins to mitigate the effects of sedimentation. (SNET 1, Section VIII, pp. 15, 16, 19; SNET 8; Tr. II, pp. 17-19)

77. Water quality on or surrounding the proposed site would remain unchanged as a result of construction. No water services would be installed in the equipment building. (SNET 1, Section VIII, p. 16)

78. The principal aesthetic impact would be the visibility of the tower from some areas including parts of Lake Harwinton. SNET would paint the tower a mixed blue-grey color to blend against the background of the sky. The site is surrounded by tall, mature trees, which would help reduce the visual impact of the tower. (SNET 1, Section VIII, p. 18; Tr. I, p. 39)

79. The Natural Resources Center of the DEP has determined that there are no known extant populations of federally endangered and threatened species or Connecticut "Species of Special Concern" occurring at the proposed site. (SNET 1, Section VIII, p. 19)

80. The Connecticut Historical Commission and the Office of State Parks and Recreation of the DEP have determined that neither the proposed nor alternate site would have any effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic places. (SNET 1, Section VIII, p. 2)

81. Based on conservative assumptions with a maximum number of 45 channels operating simultaneously at maximum power, the worst case power density level as measured at the base of the tower at a vertical distance of 189 feet would be 0.08227 mW/cm^2. The power density level at the nearest residence, a distance from the antenna of 265 feet, would be 0.041968 mW/cm^2, many times lower than the current Connecticut standard of 2.933 mW/cm^2 for 880 MHz. (SNET 1, Section VIII, p. 22)

82. The estimated construction costs to be incurred by SNET are as follows:

Radio equipment	$179,515
Antenna equipment and tower	64,000
Power and associated equipment	171,570
Land and building	260,000
Miscellaneous	77,700
Total	$752,785

(SNET 1, Section VIII, p. 23)

83. If approved, construction and testing would be completed in December 1990. The facility could be operational before the end of 1990. (SNET 1, Section VIII, p. 24)

84. SNET met or communicated with Harwinton Town Officials in 1989 and 1990 regarding the planning for a Harwinton site. No town officials made any specific recommendations regarding a site location for the facility. (SNET 1, Section VIII, p. 28; Tr. II, p. 47)

85. SNET has not been contacted by any Harwinton municipal agencies regarding the use of the Harwinton tower for antenna sharing. (Tr. II, p. 23)

Harwinton: Alternate

86. SNET would erect a 150-foot monopole tower with antennas and associated equipment building as an alternate site off Windmill Road. (SNET 1, Section IX, p. 7)

87. The alternate Harwinton site would be a 100-foot by 100-foot section of a parcel owned by Robert N. and Judith A. D'Amato located east of Windmill Road, approximately 150 feet from the road. The Harwinton

alternate site would be approximately one quarter mile north by northeast of the proposed site. The site is zoned Town Residential (TR). The parcel is presently a vacant building lot in an area of single family residences. A new 120-foot long gravel driveway would access the site from Windmill Road. Utilities would be installed underground from the street. (SNET 1, Section IX, pp. 1, 5, 7; SNET 4, Q-18 Attachment)

88. The elevation of the Harwinton alternate site ranges from 1031 feet to 1071 feet AMSL. The average elevation of the Harwinton alternate site is approximately 1050 feet AGL, 31 feet higher than the proposed site. (SNET 1, Section IX, p. 1; SNET 4, Q-18 Attachment)

89. The propogation coverage of the proposed 180-foot tower and the 150-foot alternate tower would be essentially equal. (SNET 1, Section IX, pp. 1, 13; Tr. I, p. 39; Tr. II, p. 36)

90. The propagation coverage of the Harwinton 180-foot alternate tower, reduced to 150 feet, would result in a three mile loss along Route 8 north and south of Winsted, a 3.5 mile loss along Route 183, and about a three mile loss along Route 44 east and west of Winsted. (Tr. II, pp. 30-33)

91. Because the environmental characteristics of the alternate site are similar in nature to the proposed site, the effects of construction would also be similar. (SNET 1, Section IX, pp. 1, 14)

92. The alternate site is sparsely vegetated with grass, brush, and small trees. The alternate tower would be more visible to surrounding properties than the proposed tower because it is not screened by mature trees. (SNET 1, Section IX, p. 7; SNET 4, Q-18 Attachment)

93. Some cutting would be necessary along a sloped area connecting Breezy Hill Road to the alternate site. Minor grading and leveling would be required at the alternate tower site. No trees or shrubbery would be removed. (SNET 4, Q-25, p. 2)

94. There are 75 residences located within a 2000-foot radius of the alternate site. The closest residence is approximately 160 feet from the site. The fall zone of the tower would include the abutting properties of John and Rose Ponte, and Wayne and Senate Milford. No abuttor's buildings would lie within the fall zone. (SNET 4, Q-4, Q-18 Attachment)

95. The main differences between the proposed and alternate sites would be the greater number of houses near the

alternate site, the lesser visual intrusion of the primary site created by the proximity of the overhead transmission line and mature trees, and less difficult construction at the alternate site. (Tr. II, pp. 19, 20)

96. Based on conservative assumptions, with a maximum of 45 channels operating simultaneously at maximum power, the worst case power density level would be 0.11624 mW/cm^2 as measured at the alternate tower's base, 159 feet below the antennas, and 0.029920 mW/cm^2 as measured at the nearest residence, about 313 feet from the antennas, well below the current Connecticut standard of 2.933 mW/cm^2. (SNET 1, Section IX, p. 8)

97. The estimated construction cost to be incurred by SNET is as follows:

Radio equipment	$179,515
Antenna equipment and tower	57,000
Power and associated equipment	171,570
Land and building	263,000
Miscellaneous	77,700
Total	$748,785

(SNET 1, Section IX, p. 9)

98. If approved, site construction and testing would be completed in December 1990. The facility could be operational before the end of 1990. (SNET 1, Section IX, p. 10)

99. The D'Amatos, owners of the alternate site, submitted testimony indicating approval for the construction of the alternate facility on the D'Amato property from all abutting land owners. (Record; Tr. II, pp. 6, 7)

Rejected Harwington Alternatives

100. SNET investigated the propagation coverage from the highest points on towers located at existing and potential sites in the Torrington-Harwinton area, including a 180-foot tower located on the site of an existing SNET-owned facility off Wildcat Hill Road, Harwinton; an existing 300-foot SNET tower on University Drive, Torrington; an existing 240-foot tower owned by Laurel Cablevision in Torrington; an existing 160-foot guyed tower owned by the Traub Brothers, Inc., at the intersection of Breezy Hill Road and Route 4, Harwinton; and the property of Charlotte Hungerford Hospital in Torrington. (SNET 1, Section VIII, pp. 4, 5; SNET 4, Q-2)

101. SNET rejected the use of an existing SNET facility located off Wildcat Hill Road, Harwinton, that contains

a 100-foot tower. The site would be located outside of the search area and would be too far south to interconnect with the proposed Winchester facility; therefore, an additional facility would be needed between the Wildcat Hill Road site and the proposed Winchester facility. (Tr. II, p. 8)

102. Propagation from an alternate 180-foot tower at the Wildcat Hill Road site would not cover about 1.0 to 1.5 miles along Route 8 near Burrville and would duplicate a large portion of the coverage from the proposed Plymouth site. Coverage in parts of Goshen and Norfolk, that would be covered from the proposed site, would be lost from the Wildcat Hill site. (Tr. II, pp. 9-11)

103. SNET states that economic disadvantages would occur if the existing Wildcat Hill Road tower was disassembled and replaced by an 180-foot tower. It would be less expensive to construct a new tower on the proposed site than to replace the existing SNET tower on Wildcat Hill Road. (Tr. II, pp. 12-14)

104. Propagation from the top of the existing 300-foot SNET tower on University Drive, Torrington, would result in losses in coverage along portions of Route 8 in east Litchfield and the center of Litchfield. Any decrease in antenna height from this tower would increase the loss of coverage. (SNET 4, Q-2, p. 3; Tr. II, pp. 14, 15)

105. SNET investigated a site owned by the Traub Brothers at the intersection of Breezy Hill Road and Route 4 which contained an existing tower. The site's elevation is less than 950 feet AMSL and would require a tower exceeding 250 feet that would provide coverage equal to the proposed 180-foot tower site. (SNET 1, Section VIII, p. 4; Tr. I, pp. 41, 42)

106. SNET did not investigate the possibility of using an existing 260-foot high new tower, owned by Hugo Gerbi, located north of Highland Avenue, Torrington. SNET maintains the site lies outside the search areas for the proposed Harwinton and Winchester sites. Propagation studies indicate adequate coverage from the Highland Avenue location would require a tower exceeding 300 feet tall in order to reach parts of downtown Torrington and sections of Route 8. (SNET 5, Q-28)

107. A facility on the roof of Charlotte Hungerford Hospital in Torrington would be outside the search area, would not provide adequate coverage, and would be too constrained for needed space. SNET's discussions with hospital officials centered on using the hospital building's roof and did not explore use of the grounds. The hospital officials did not want to make space

available on the roof for the necessary 20-foot by 28-foot equipment shelter. (Tr. I, pp. 43, 44; SNET 4, Q-20)

109. Propagations from a theoretical 225-foot tower on the property of Charlotte Hungerford Hospital, 540 Litchfield Street, Torrington indicated various areas of inadequate coverage when compared to the proposed site's propagation, ranging from one to five miles in length, along Routes 4, 6, 63, 202, 219, and 254. (SNET 6, pp. 1, 2)

110. Propagation from the top of an existing 300-foot tower located on the University of Connecticut-Torrington Branch Campus would leave various sections along Routes 4, 8, and 202 uncovered. Interposing terrain features would leave shadowing effects on other sections of Routes 4, 8, and 202 west and south of Torrington, Route 4 for four miles in Harwinton, and along two miles of Route 202 between Torrington and Bakersfield. Various coverage deficiencies would also be encountered along Route 202 between Litchfield and Newberry Corner. (SNET 10, SNET 13)

Winchester: Proposed

111. SNET would construct a 150-foot, self-supporting monopole tower with antennas and associated equipment building on the proposed Winchester site off Oakdale Avenue. (SNET 1, Section X, p. 1)

112. The proposed Winchester site is planned to overlap the coverage area of SNET's proposed Harwinton facility. (SNET 1, Section X, pp. 1, 2)

113. The coverage from the proposed site would include a large section of Route 8, and parts of Routes 4, 20, 44, 72, 118, 181, 183, and 202 in portions of Torrington, Winchester, Barkhamsted, and New Hartford. (SNET 1, Section X, p. 1; Tr. pp. 29, 30)

114. The proposed Winchester site's coverage would eventually be linked to a future site to provide continous coverage east along Route 44 to SNET's existing Canton, Hartford, and East Hartford cell sites. (Tr 1, pp. 29, 30)

115. SNET considered seven potential cell site locations, including existing tower sites, rejecting five sites to provide cellular coverage in the Torrington-Winchester area. There are 13 existing tower sites within a 10-mile radius of the proposed and alternate sites. Reasons for rejection included insufficient coverage due to interposing terrain features, location within a State

forest, excessive distance outside the search area to provide adequate coverage, and too low an elevation. (SNET 1, Section X, pp. 3-6)

116. The proposed Winchester site would be a leased 100-foot by 100-foot section situated entirely within the interior of a 106 acre parcel owned by William and Richard Stow. SNET has negotiated a leasing option agreement with the property owners for use of the proposed site. The site would be located approximately 470 feet northeast of the northern end of Oakdale Avenue, Winsted. The parcel lies within an area zoned Residential (RU). The fall zone of the proposed tower would lie entirely within the lessor's property. (SNET 1, Section X, pp. 2,4,7,10,11,14,15,17; SNET 4, Q-18 Attachment)

117. The nearest residence is situated about 480 feet from the proposed site. There are 92 residences located within a 2000-foot radius of the proposed site. (SNET 1, Section X, pp. 10, 11; SNET 4, Q-4, Q-18 Attachment)

118. The elevation of the proposed Winchester site ranges from 1126 feet to 1129 feet AMSL. After grading, the average elevation of the proposed site would be 1128 feet AMSL. (SNET 1, Section X, pp. 10,22,24; SNET 4, Q-18 attached)

119. The proposed site lies within a heavily wooded, undeveloped, mostly level area on a hilltop. Mature stands of trees surround the site and partially shield it from view from surrounding neighborhoods. The site would be accessed from a new 460-foot long by 12-foot wide bituminous concrete driveway built from the cul-de-sac at Oakdale Avenue. The accessway would cross at a right angle a cleared swath about 35 feet wide, within a right-of-way (ROW) containing a buried Tennessee Gas Company transmission line. An easement would be required for the gas line crossing. (SNET 1, Section X, p. 14; SNET 4, Q-18 Attachment; SNET 9; Tr. II, pp. 41, 42, 45)

120. Since the tower location is basically level, grading, and cutting and filling would be minimal and drainage from the site would be controlled by SNET. However, due to the presence of some ledge rock at the proposed site, SNET may be required to do some blasting for fine leveling of the tower site. (SNET 1, Section X, p. 14; Tr. II, p. 43)

121. Approximately 400 feet of tree and brush clearing and some cutting and filling would be needed to construct the accessway from Oakdale Avenue. SNET would design the accessway to the Winchester site with an angled turn in the drive that would prevent direct on-line

visibility of the tower site from Oakdale Avenue. (SNET 4, Q-25, p. 2; Tr. II, pp. 41, 42)

122. Utilities would be brought to the site underground from Oakdale Avenue along the driveway. An 18-inch minimum clearance between the utility line and the gas transmission pipe would be maintained. (Tr. II, p. 44)

123. Because the elevation of the proposed path of the driveway would climb from 1049 feet at Oakwood Avenue to about 1127 feet at the proposed site, there would be potential for changing water runoff flow created by construction disruption of the ground surface. SNET would use erosion control techniques, such as spreading hay on loose soil, haybales, and the construction of temporary sediment basins to mitigate the effects of construction on the ground surface. (SNET 1, Section X, pp. 15, 16)

124. After construction, water quality on or surrounding the proposed site would remain unchanged. No water services would be installed in the equipment building. (SNET 1, Sections X, p. 16)

125. The principal aesthetic impact would be the visibility of the tower. Since mature trees and brush would be cleared for the driveway and site constructions, SNET would keep such clearing as minimal as necessary in order to maintain vegetative screening. SNET would decrease the tower's appearance by painting it a mixed blue-grey color to blend against the background of the sky. (SNET 1, Section X, pp. 18, 20)

126. Both the Winchester proposed and alternate site towers would be visible from the center of Winsted. (Tr. II, p. 33)

127. The property owner of the proposed and alternate sites selected where the towers could be placed, which does not allow SNET much flexibility for moving the tower site. (Tr. II, pp. 39, 40)

128. The Natural Resources Center of the DEP has determined that there are no known extent populations of federally endangered and threatened species or Connecticut "species of special concern" occurring on the site. (SNET 1, Section X, p. 19)

129. The Connecticut Historical Commission and the Office of State Parks and Recreation have determined that the proposed and alternate cell sites would have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places. (SNET 1, Section X, p. 21)

130. SNET has discussed and received assurances from the Tennessee Gas Transmission Company for a crossing of the existing gas transmission line's ROW to access either the proposed or alternate sites. (SNET 4, Q-5)

131. SNET discussed an alternate accessway from Town Farm Road to the proposed and alternate sites with the property owners. This option was rejected because such an accessway would be longer than the one constructed from Oakdale Avenue, would need to traverse more steeply sloped ground which would make water runoff and erosion difficult to control, and the property owners preferred the planned accessway from Oakdale Avenue. (SNET 4, Q-13; Tr. 2, pp. 40, 41)

132. Based on conservative assumptions with a maximum number of 45 channels operating simultaneously at maximum power, the worst case power density level, as measured at the base of the tower at a vertical distance of 159 feet, would be 0.11624 mW/cm^2. The power density level at the nearest residence, a distance from the antennas of 649 feet, would be 0.006980 $m/W/cm^2$, many times lower than the current Connecticut standard of 2.933 mW/cm^2 for 880 MHz. (SNET 1, Exhibit X, p. 22)

133. The estimated construction costs of the proposed Winchester facility to be incurred by SNET are as follows:

Radio equipment		$179,515
Antenna equipment and tower		$ 64,000
Power and associated equipment		$171,570
Land and building		$278,000
Miscellaneous		$ 77,700
	Total	$770,785

(SNET 1, Section X, p. 23)

134. If approved, site construction and testing would be completed in December 1990. The facility could be operational before the end of 1990. (SNET 1, Section X, p. 24)

135. SNET discussed and communicated with Winchester town officials in 1989 and 1990, the planning for the location of a Winchester cellular tower site. No official made any specific recommendation regarding a site location. (SNET 1, Section X, pp. 28, 29; Tr. II, pp. 47, 48)

136. SNET has not been contacted by any Winchester municipal agencies regarding the use of the Winchester tower for antenna sharing. (Tr. II, p. 46)

Winchester: Alternate

137. SNET would erect a 180-foot monopole tower with antennas and an associated equipment building as an alternate site off Oakdale Avenue. (SNET 1, Section XI, p. 1)

138. The alternate Winchester site would be located on the same property as the proposed site, about 150 feet northeast of the northern end of Oakdale Avenue and approximately 250 feet south of the proposed site. SNET has a leasing option agreement with the property owners to use the site. The alternate Winchester site would be located in an area zoned Residential. The fall zone of the tower would include the property owner's parcel and abutting land owned by Paul and Linda Vaccari. (SNET 1, Section XI, pp. 1, 4, 9, 14, 15; SNET 4, Q-18 Attachment)

139. The elevation of the Winchester alternate site ranges from 1069 feet to 1088 feet AMSL. The average site elevation is 1078 feet AMSL, about 50 feet lower than the proposed site. (SNET 1, Section XI, pp. 4, 9; SNET 4, Q-18 Attachment)

140. A 180-foot tower would be used to compensate for the change in elevation between the proposed and alternate sites to provide similar coverage to Routes 4, 8, 72, 118, 183, 202, and 222, and to Winsted, Torrington, New Hartford, and Barkhamsted. (Tr. II, pp. 33, 34)

141. The Winchester alternate site would be accessed from Oakdale Avenue along the same proposed route of the new paved driveway crossing the Tennessee Gas Company's transmission line. This accessway would be subject to the same easement acquisition as the proposed site. Utilities would be accessed from Oakdale Avenue in the same manner as the proposed site. (SNET 1, Exhibit XI, pp. 8)

142. The Winchester alternate site would be subject to similar construction constraints as the proposed site except that less clearing of trees and brush would be required. The alternate site is less wooded and the driveway shorter than the proposed site. About 125 feet of tree and brush clearing would be required along the driveway. Since the alternate site would be more open and closer to Oakdale Avenue, the facility would be more visible to nearby residents. (SNET I, Exhibit XI, pp. 14, 15; SNET 4, Q-25, p. 2; Tr. II, p. 41)

143. There are 95 residences within a 2000-foot radius of the Winchester alternate site. The nearest residence is located 335 feet from the site. (SNET 4, Q-4)

144. Based on conservative assumptions, with a maximum of 45 channels operating simultaneously at maximum power, the worst case power density would be 0.08227 mW/cm^2 as measured at the alternate tower's base, 189 feet below the antennas. The power density at the nearest residence, about 339 feet from the antennas, would be 0.02839 mW/cm^2, well below the current Connecticut standard of 2.933 mW/cm^2 for 880 MH_Z. (SNET 1, Section XI, p. 9)

145. The estimated construction cost of the Winchester alternate facility to be incurred by SNET is a follows:

Radio equipment	$179,515
Antenna equipment and tower	$ 64,000
Power and associated equipment	$171,570
Land and building	$266,000
Miscellaneous	$ 77,700
Total	$758,785

(SNET 1, Section XI, p. 10)

146. If approved, site construction and testing would be completed in December 1990. The facility could be operational before the end of 1990. (SNET 1, Section XI, p. 11)

Rejected Winchester Alternatives

147. A 130-foot tower at the proposed site would have a similar elevation as the 180-foot tower of the alternate site and would provide essentially the same coverage, but both would provide less coverage than the proposed 150-foot tower. (SNET 12, pp. 33-39)

148. The construction of a 130-foot tower on the proposed site would create areas of inadequate coverage along 1.5 miles of Route 8 south of Winchester, 0.75 miles along Route 183 in Burrville, 1.0 miles along Route 183 near Algonquin State Forest northwest of Winchester, and 1.0 miles along Route 181 in Hartland. (SNET 12; Tr. II, pp. 33-36)

149. A 150-foot tower at the Winchester alternate site would result in an unacceptable cellular coverage created by interposing terrain elevations, including unacceptable coverage on 1.0 to 1.5 miles along Routes 8, 44, 183, and 263 in Burrville, Mooreville, Pleasant Valley, Algonquin State Forest, Winchester, and areas north of Torrington. (SNET 11)

150. SNET rejected sites near an existing water tank on Wallen Street, because an intervening ridge line of Wallen's Hill would block coverage along Route 8 and

parts of the Torrington Area. (SNET 4, Q-13; Tr. I, p. 20)

151. Use of an existing 259-foot AT&T Long Lines tower in Winchester near Platt Hill State Park was rejected because of gaps in coverage of varying lengths along Route 44 west of Winsted, Route 272 southwest of Winsted from Torrington to South Norwalk, and areas west of Route 8, north of Torrington. (SNET 4, Q-21, pp. 1, 2; Tr. 2, p. 24)

152. An existing 180-foot State Police tower in South Norfolk would provide inadequate cover along a section of Route 44 from Winsted to Norfolk and would provide no coverage of Route 8 and areas east of Route 8 from Torrington to Winsted and along extensive lengths of Route 183 from Burrville to Mooreville. (SNET 4, Q-21, pp. 1, 3)

New Milford

153. SNET would construct a 150-foot, self-supporting monopole tower with antennas and an associated equipment building on the proposed New Milford site off Aspetuck Avenue. (SNET 1, Section XII, p. 1)

154. The proposed New Milford site is planned to partially overlap the coverage areas of SNET's existing cell sites to the south in Newtown and Danbury. (SNET 1, Section XII, pp. 1, 2; Tr. I, pp. 28, 29)

155. The New Milford cell site would be a secondary cell site and a future cell site in Brookfield may be necessary to provide additional overlap with the proposed New Milford site with SNET's existing Newtown site. An interconnection with the Newtown site would provide improved coverage along Route 7. (Tr. I, pp. 26-28)

156. The New Milford site would provide primary coverage to a section of Route 7, and to parts of Routes 6, 109, and 202, within the towns of New Milford, Sherman, Kent, and Washington. (SNET 1, Section XII, pp. 1, 33)

157. SNET considered seven potential cell site locations, including existing tower sites, rejecting six sites, to provide cellular coverage in the Danbury-New Milford area. There are 10 existing towers located within a 10-mile radius of the proposed site. Reasons for rejection included towers too short or structurally inadequate to support cellular equipment, inadequate coverage due to interposing terrain features, location too far outside the search area to provide acceptable coverage, site inaccessibility, and a site too low in elevation. (SNET 1, Section XII, pp. 3-7)

158. The proposed New Milford site would be a leased 100-foot by 100-foot section located within the northern edge of property owned by the Canterbury School, Inc. It would be approximately 1300 feet east of Aspetuck Avenue and 800 feet north of Elkington Farm Road. The site would be approximately 200 feet southeast of an existing 60-foot high New Milford Water Company water tank. The proposed site would be bordered on the south by athletic fields of the Canterbury School. The nearest school building would be situated about 1000 feet from the proposed site. The parcel lies within an area zoned Residential. (SNET 1, Section XII, pp. 2, 4a, 5, 8, 9, 11, 12, 17, 24, 25; SNET 4, Q-7, Q-18 Attachment, Q-19)

159. The elevation of the New Milford proposed site ranges from 466 feet to 476 feet AMSL. The average elevation of the proposed site is 471 feet AMSL. (SNET 1, Section XII, p. 17; SNET 4, Q-18 Attachment)

160. The fall zone of the proposed tower would lie within Canterbury School property and would include part of the New Milford Water Company parcel, but not the existing water tank. (SNET 4, Q-18 Attachment)

161. The nearest residence would be located about 245 feet from the tower site. There are 95 residences within a 2000-foot radius of the proposed site. (SNET 4, Q-4)

162. Access to the proposed site would extend about 800 feet from Elkington Farm Road Extension along the tree line bordering an open field. Some grading and brush, tree, and boulder removal would be needed to prepare a new 12-foot wide gravel driveway. Since the drive slopes upward from about 420 feet elevation to 465 feet elevation, some off-site erosion could be expected during driveway preparation. SNET would use crushed stone, haybales, fabric siltation-protection devices, and temporary sediment basins to mitigate erosion and water runoff created by disruption of the ground surface. Utilities would be installed underground along the new road to the site. (SNET 1, Section XII, pp. 12, 13, 19; SNET 4, Q-18 Attachment; Q-25, p. 2; Tr. II, pp. 22, 23, 46)

163. The proposed tower site is bordered by mature trees on the north along Taylor Terrace and west of the adjacent water tank. The site is level therefore grading would be minimal and should not pose any drainage problems created by construction. SNET would use erosion control devices to control any erosion off-site. Some small trees and brush would be cleared from the site. (SNET 1, Exhibit XII, pp. 17-19, 22)

164. After construction, water quality on or surrounding the proposed wite would remain unchanged. No water services would be installed in the equipment building. (SNET 1, Section XII, p. 19)

165. The principal aesthetic impact would be visibility of the tower. SNET would paint the tower a mixed blue-grey color to blend against the background of the sky. (SNET 1, Exhibit XII, p. 21)

166. Residents of Taylor Terrace who border on the Canterbury School property would have increased visibility of the proposed tower during wintertime when the leaves are off the trees. (Tr. I, p. 36)

167. Moving the proposed tower site south of the existing water tank to provide additional screening would place the water tank within the proposed tower's fall zone and would require approval from the Canterbury School officials. Such a move would place the tower's fall zone across a part of the school's athletic fields. (SNET 4, Q-22; Tr. I, pp. 34, 35)

168. Based on conservative assumptions with a maximum of 45 channels operating simultaneously at maximum power, the worst case power density level, as measured at the base of the tower at a vertical distance of 159 feet, would be 0.11624 mW/cm^2. The power density at the nearest residence, a distance from the antenna of 524 feet, would be 0.02549 mW/cm^2, lower than the current Connecticut standard of 2.933 mW/cm^2 for 880 MHz. (SNET 1, Section XII, p. 25)

169. The estimated construction costs to be incurred by SNET are as follows:

Radio equipment	$179,515
Antenna equipment and tower	$ 57,000
Power and associated equipment	$171,570
Land and building	$282,000
Miscellaneous	$ 77,700
Total	$767,785

(SNET 1, Section XII, p. 26)

170. If approved, site construction and testing would be completed in December 1990. The facility could be operational before the end of 1990. (SNET 1, Section XII, p. 27)

171. SNET did not submit an alternate site to the proposed New Milford facility. (SNET 4, Q-17)

172. A reduction in height of the proposed 150-foot tower to 60 feet would lose coverage varying from 1.5 miles to

3.5 miles along Routes 7, 37, 39, and 202. Most of the 3.5 mile loss along Route 7 would be south of the New Milford site. The same signal loss would occur with a 100-foot tower at the proposed site. (SNET 4, Q-8; Tr. I, pp. 31-33)

173. SNET has not conducted a detailed analysis of the water tank to determine if the tank would be structurally able to support a cellular tower or antenna brackets. No discussions with the New Milford Water company have been held to consider this option. (Tr. I, p. 34)

174. SNET met or communicated with New Milford town officials in 1989 and 1990 to discuss planning for a New Milford cellular site. No town official made any specific recommendation regarding a site location. (SNET 1, Section XII, pp. 31, 32; Tr. I, p. 21; Tr. 2, pp. 47-48)

175. No New Milford town official has requested space on the proposed tower for municipal agency antennas. SNET is willing to share its tower with municipal agencies. (Tr. I, pp. 36, 37)

4779E

cp/bd

EXHIBIT 7

UPS Delivery Notification, Tracking Number 1Z9Y45030301783774

UPS <pkginfo@ups.com>

Mon 4/29/2024 1:09 PM

To:Barbara Kassabian <BKASSABIAN@CLINELLC.COM>

Hello, your package has been delivered.

Delivery Date: Monday, 04/29/2024
Delivery Time: 1:08 PM
Signed by: DONNA

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030301783774
Ship To:	AMERICAN TOWER CORPORATION 10 PRESIDENTIAL WAY WOBURN, MA 018011053 US
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UPS Service:	UPS Ground
Package Weight:	1.0 LBS
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Ship To:	MICHAEL R. CRISS FIRST SELECTMAN 100 BENTLEY DRIVE HARWINTON, CT 067912200 US
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Package Weight:	1.0 LBS
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Tracking Number:	1Z9Y45030325728397
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Number of Packages:	1
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Package Weight:	1.0 LBS
Reference Number:	14580448

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