

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

September 27, 2023

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

**RE: Notice of Exempt Modification // Site: SOUTHBURY W CT (ATC: 411177)
133 Horse Fence Hill Road, Southbury CT 06488
N 41.45997222 // W -73.245390**

Dear Ms. Bachman,

Cellco Partnership d/b/a Verizon Wireless currently maintains twelve (12) antenna at the 145-ft level on the existing 144ft Tower, located at 133 Horse Fence Hill Road, Southbury CT. The tower is owned by American Tower. Verizon Wireless proposed modification involves the installation of two (2) interference mitigation filters on Verizon Wireless existing antenna platform and mounting assembly.

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

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2). Enclosed to accommodate this filing are construction drawings dated September 19, 2023, by A.T Engineering Services, LLC, a structural analysis dated September 13, 2023, by American Tower Corp., and a structural mount analysis by Colliers Engineering and Design dated August 14, 2023, and Non-Ionizing Electromagnetic Radiation (NIER) Study dated August 29, 2023, by Tower Engineering Professionals.

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the new antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis and a structural mount analysis, pursuant to certain conditions defined therein. Design and engineering are fully illustrated within final construction drawings.

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

Sincerely,

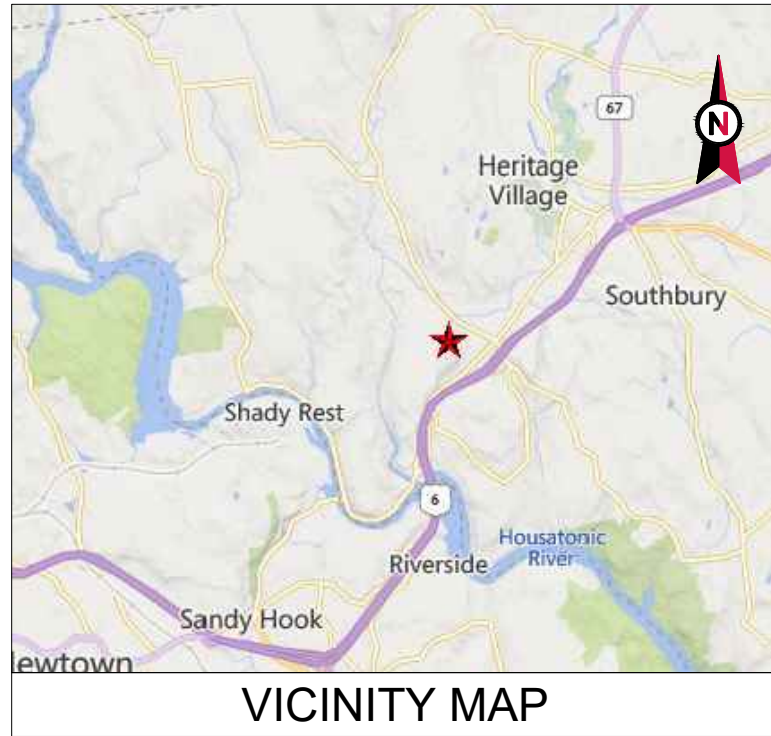
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cc: Jeff Manville – First Selectman – Chief Elected Official
Jordan Marcinko – Land Use Inspector - as P&Z official
American Tower Corporation - as tower owner
William Beatty – as ground owner

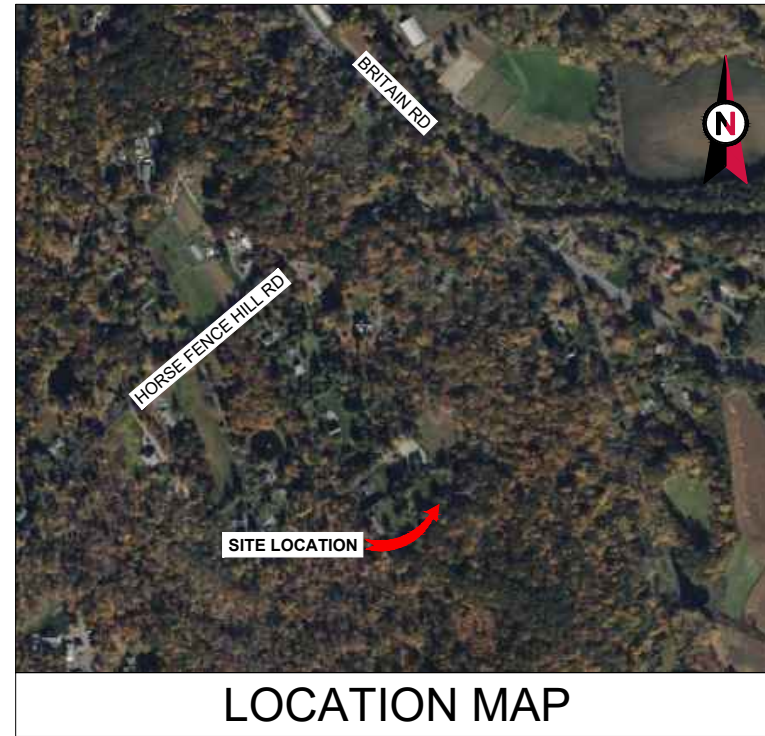
EXHIBIT 1





AMERICAN TOWER®

ATC SITE NAME: SOUTHBURY
 ATC SITE NUMBER: 302519
 VERIZON SITE NAME: SOUTHBURY W CT
 VERIZON SITE NUMBER: 5000383276
 VERIZON FUZE PID: 17123858
 SITE ADDRESS: 133 HORSE FENCE HILL RD
 SOUTHBURY, CT 06488

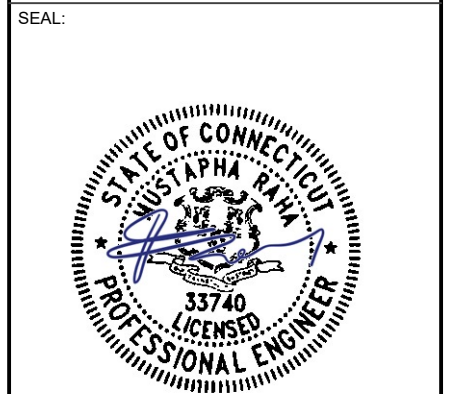


AMERICAN TOWER®
 A.T. ENGINEERING SERVICES LLC
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 PEC.0001553

THE USE AND PUBLICATION OF THESE DRAWINGS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OR THE SPECIFIED CARRIER OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION.

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JM	09/19/23

ATC SITE NUMBER:
302519
 ATC SITE NAME:
SOUTHBURY
 VERIZON SITE NAME:
SOUTHBURY W CT
 SITE ADDRESS:
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SOUTHBURY, CT 06488



VERIZON AMENDMENT DRAWINGS

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX				
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) <u>DESIGN CRITERIA FROM TOWER STRUCTURAL ANALYSIS:</u> BASIC WIND SPEED: 116 MPH BASIC WIND SPEED W/ ICE: 50 MPH CODE(S): ANSITIA-222-H / 2021 IBC / 2022 CONNECTICUT STATE BUILDING CODE EXPOSURE CATEGORY: B RISK CATEGORY: II TOPO FACTOR PROCEDURE: METHOD 2 FEATURE: HILL CREST HEIGHT(H): 132 FT. CREST LENGHT (L): 456 FT. SPECTRAL RESPONSE: S _s =0.20, S ₁ =0.06 SITE CLASS: D- STIFF SOIL-DEFAULT INFORMATION TAKEN FROM STRUCTURAL ANALYSIS COMPLETED BY ATC, DATED 09/14/2023.	<u>SITE ADDRESS:</u> 133 HORSE FENCE HILL RD SOUTHBURY, CT 06488 COUNTY: NEW HAVEN <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41.45997222 LONGITUDE: -73.245 GROUND ELEVATION: 346' AMSL	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: INSTALL (1) SWIVEL MOUNT , AND (2) FILTER(S) EXISTING (12) ANTENNA(S), (6) RRH(S), (1) OVP(S), AND (11) 1-5/8" COAX, AND (2) 1-5/8" HYBRIFLEX CABLE(S) TO REMAIN	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
	<u>PROJECT TEAM</u> <u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801 <u>ENGINEER:</u> ATC TOWER SERVICES, LLC 3500 REGENCY PKWY STE 100 CARY, NC 27518 <u>PROPERTY OWNER:</u> DAVID A BEATTY 133 HORSE FENCE HILL RD SOUTHBURY, CT 06488	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).	G-001 TITLE SHEET G-002 GENERAL NOTES C-101 DETAILED SITE PLAN C-201 TOWER ELEVATION C-401 ANTENNA INFORMATION & SCHEDULE C-501 CONSTRUCTION DETAILS E-501 GROUNDING DETAILS R-601 SUPPLEMENTAL	CONTRACTOR PMI REQUIREMENTS PMI ACCESSED AT: HTTPS://PMI.VZWSMART.COM SMART TOOL VENDOR PROJECT NUMBER: 10208084 VZW LOCATION CODE (PSLC): 5000383276 ***PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT MOUNT MODIFICATION REQUIRED: NO VZW APPROVED SMART KIT VENDORS: REFER TO MOUNT MODIFICATION DRAWINGS PAGES FOR VZW SMART KIT APPROVED VENDORS			
UTILITY COMPANIES POWER COMPANY: CONNECTICUT LIGHT & POWER PHONE: (800) 286-2000 TELEPHONE COMPANY: FRONTIER COMMUNICATIONS PHONE: (800) 921-8102	<u>APPLICANT:</u> VERIZON WIRELESS	PROJECT LOCATION DIRECTIONS FROM HARTFORD TAKE I-84 WEST TO EXIT 14. TAKE A RIGHT OFF EXIT, TAKE 3RD LEFT ON HORSE FENCE HILL RD. HALFWAY UP HILL LOOK FOR A GROUP OF 3 MAILBOXES ON LEFT, ONE WILL BE 113. FOLLOW DRIVEWAY TO END PAST LAST HOUSE TURN LEFT AFTER TREES. CHAIN AT BEGINNING OF ACCESS ROAD AT THAT POINT.					

verizon ✓

ATC JOB NO: 14519505_GO
 CUSTOMER ID: SOUTHBURY W CT
 CUSTOMER #: 5000383276

TITLE SHEET

SHEET NUMBER: **G-001**
 REVISION: **0**



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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 ANSIEIA/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.

- B. ALL COAXIAL/HYBRID CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL/HYBRID CABLE (NOT WITHIN BENDS)

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.

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.



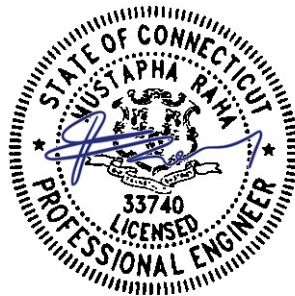
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 SOUTHBURY, CT 06488

SEAL:



Digitally Signed: 2023-09-19



ATC JOB NO:	14519505_GO
CUSTOMER ID:	SOUTHBURY W CT
CUSTOMER #:	5000383276

GENERAL NOTES

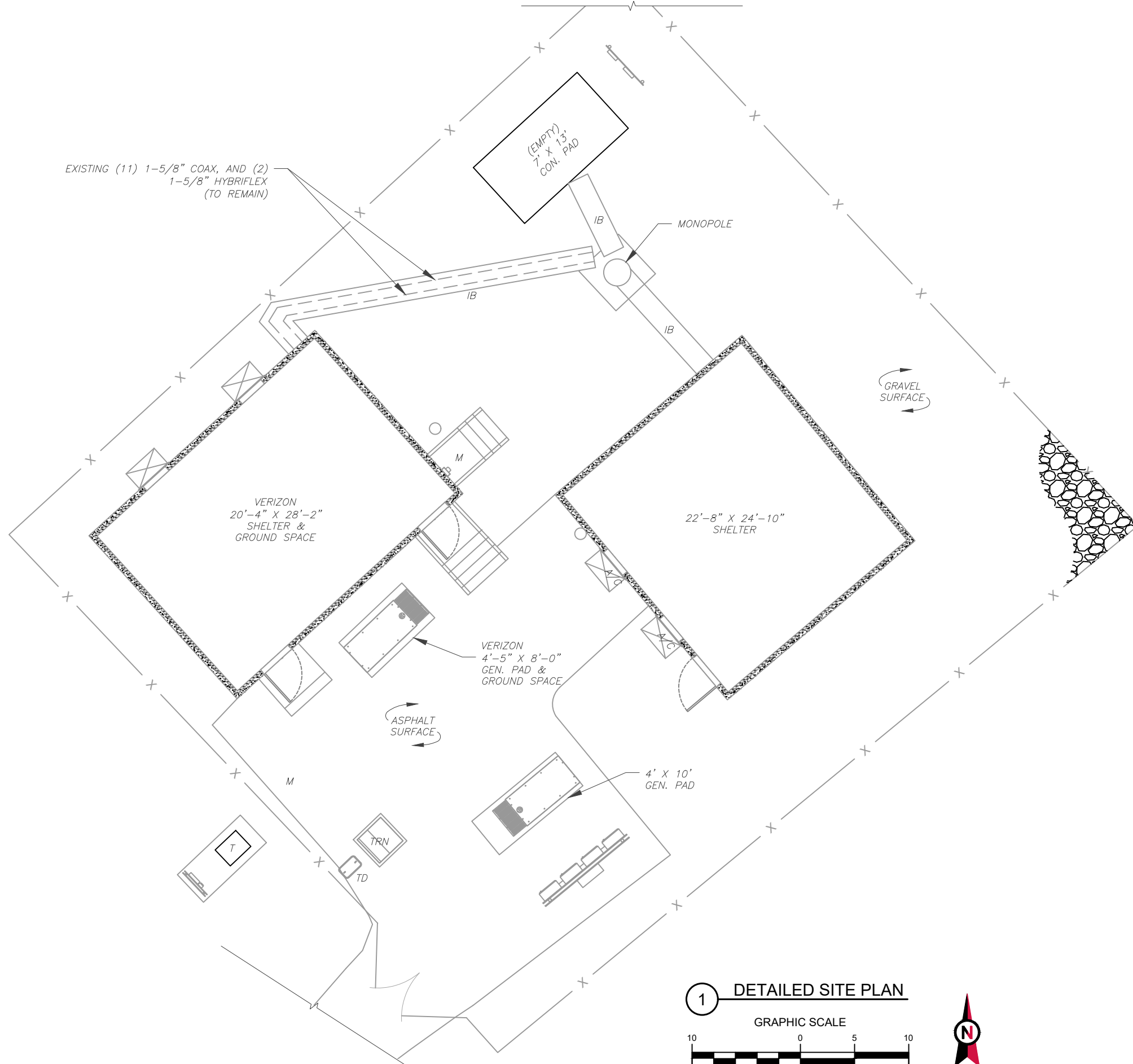
SHEET NUMBER: G-002	REVISION: 0
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SITE PLAN NOTES:

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.

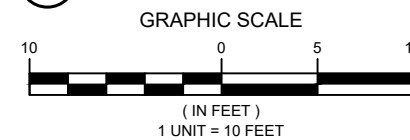
EXISTING (1) 1-5/8" COAX, AND (2) 1-5/8" HYBRIFLEX (TO REMAIN)



LEGEND

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

1 DETAILED SITE PLAN




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

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SOUTHBURY
 VERIZON SITE NAME:
SOUTHBURY W CT
 SITE ADDRESS:
 133 HORSE FENCE HILL RD
 SOUTHBURY, CT 06488

SEAL:



Digitally Signed: 2023-09-19



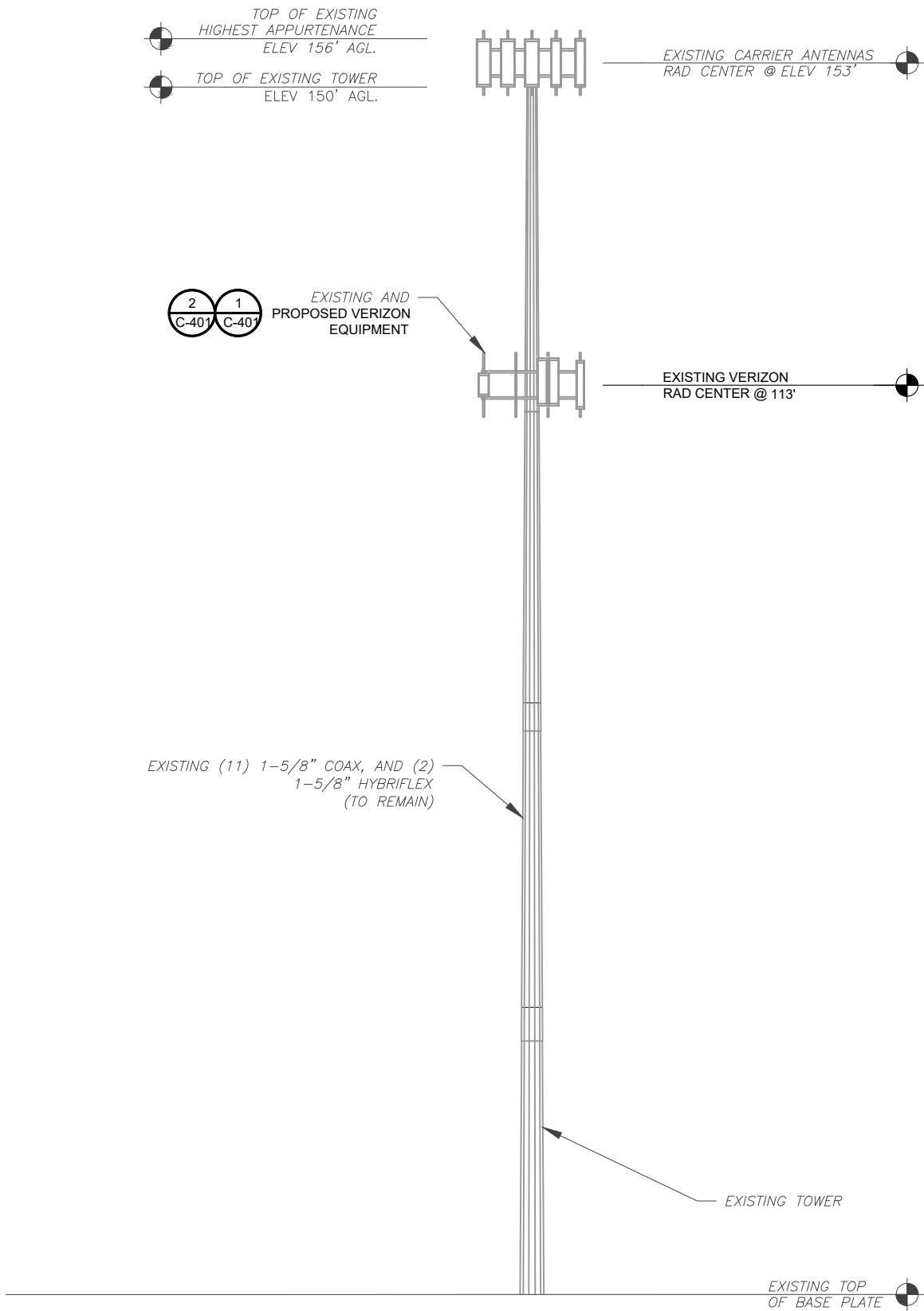
ATC JOB NO:	14519505_G0
CUSTOMER ID:	SOUTHBURY W CT
CUSTOMER #:	5000383276

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

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PER MOUNT ANALYSIS COMPLETED BY COLLIERS, DATED 08/14/2023, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



1 TOWER ELEVATION
SCALE: N.T.S.

- TOWER NOTE:**
- 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. 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.
 - TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)
 - TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.



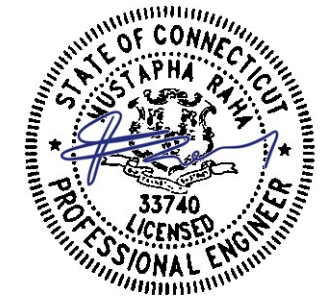
AMERICAN TOWER®
A.T. ENGINEERING SERVICES LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
PEC.0001553

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JM	09/19/23

ATC SITE NUMBER:
302519
ATC SITE NAME:
SOUTHBURY
VERIZON SITE NAME:
SOUTHBURY W CT
SITE ADDRESS:
133 HORSE FENCE HILL RD
SOUTHBURY, CT 06488

SEAL:



Digitally Signed: 2023-09-19

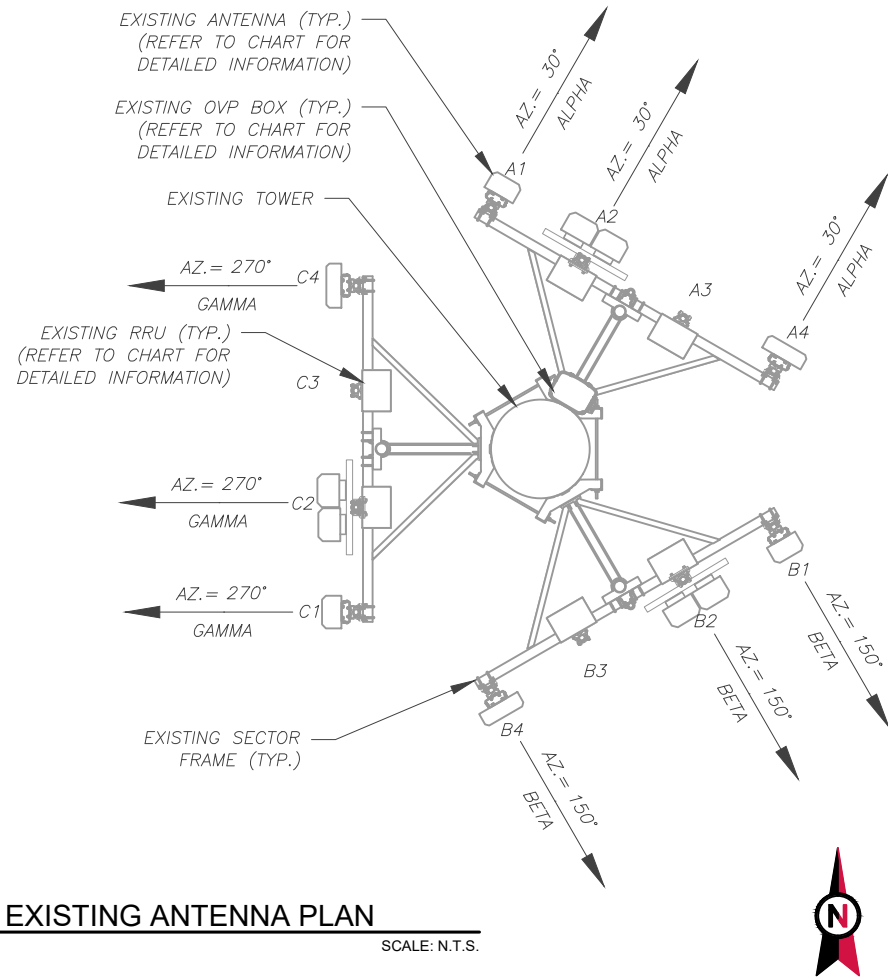


ATC JOB NO:	14519505_GO
CUSTOMER ID:	SOUTHBURY W CT
CUSTOMER #:	5000383276

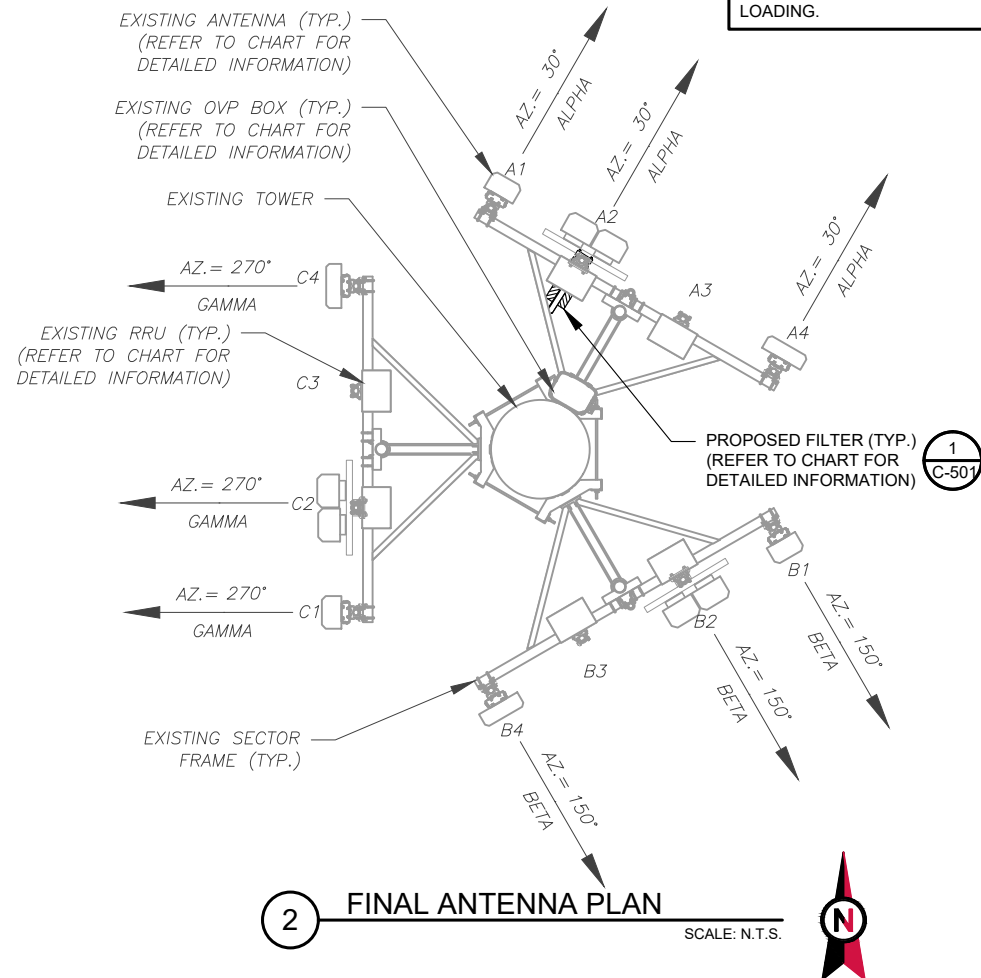
TOWER ELEVATION

SHEET NUMBER: C-201	REVISION: 0
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1 EXISTING ANTENNA PLAN
SCALE: N.T.S.



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	113'	30°	A1	LNx-6514DS-VTM	850 CDMA	RMN	-	-
			A2	(2) MX06FRO660-03	700 /850/1900/AWS LTE	RMN	RF4439D-25A	RMN
			A3	-	-	-	RF4440D-13A	RMN
			A4	MT6407-77A	L-SUB6 5G	RMN	-	-
BETA	113'	150°	B1	LNx-6514DS-VTM	850 CDMA	RMN	-	-
			B2	(2) MX06FRO660-03	700 /850/1900/AWS LTE	RMN	RF4439D-25A	RMN
			B3	-	-	-	RF4440D-13A	RMN
			B4	MT6407-77A	L-SUB6 5G	RMN	-	-
GAMMA	113'	270°	C1	LNx-6514DS-VTM	850 CDMA	RMN	-	-
			C2	(2) MX06FRO660-03	700 /850/1900/AWS LTE	RMN	RF4439D-25A	RMN
			C3	-	-	-	RF4440D-13A	RMN
			C4	MT6407-77A	L-SUB6 5G	RMN	-	-

NOTES

- CONFIRM WITH VERIZON REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
- 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	113'	30°	A1	LNx-6514DS-VTM	850 CDMA	RMN	-	-
			A2	(2) MX06FRO660-03	700 /850/1900/AWS LTE	RMN	RF4439D-25A (2) KA-6030	RMN ADD
			A3	-	-	-	RF4440D-13A	RMN
			A4	MT6407-77A	L-SUB6 5G	RMN	-	-
BETA	113'	150°	B1	LNx-6514DS-VTM	850 CDMA	RMN	-	-
			B2	(2) MX06FRO660-03	700 /850/1900/AWS LTE	RMN	RF4439D-25A	RMN
			B3	-	-	-	RF4440D-13A	RMN
			B4	MT6407-77A	L-SUB6 5G	RMN	-	-
GAMMA	113'	270°	C1	LNx-6514DS-VTM	850 CDMA	RMN	-	-
			C2	(2) MX06FRO660-03	700 /850/1900/AWS LTE	RMN	RF4439D-25A	RMN
			C3	-	-	-	RF4440D-13A	RMN
			C4	MT6407-77A	L-SUB6 5G	RMN	-	-

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
RCMDC-6627-PF-48	RMN	(11) 1-5/8" COAX, AND (2) 1-5/8" HYBRIFLEX	RMN
-	RMV	----	RMV

3 EQUIPMENT SCHEDULES

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
RCMDC-6627-PF-48	RMN	(11) 1-5/8" COAX, AND (2) 1-5/8" HYBRIFLEX	RMN
-	ADD	----	ADD

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JM	09/19/23

ATC SITE NUMBER:
302519
ATC SITE NAME:
SOUTHURY
VERIZON SITE NAME:
SOUTHURY W CT
SITE ADDRESS:
133 HORSE FENCE HILL RD
SOUTHURY, CT 06488

SEAL:

Digitally Signed: 2023-09-19

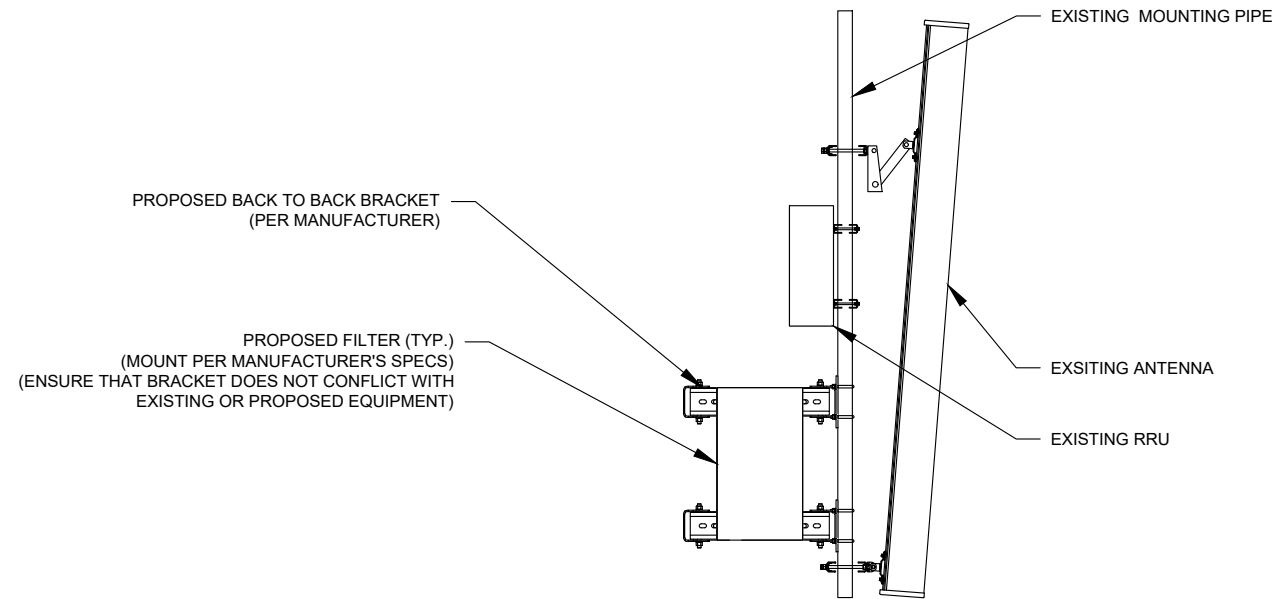
ATC JOB NO: 14519505_GO
CUSTOMER ID: SOUTHURY W CT
CUSTOMER #: 5000383276

ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER: **C-401** REVISION: **0**

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



1 PROPOSED FILTER MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JM	09/19/23

ATC SITE NUMBER:
 302519
 ATC SITE NAME:
 SOUTHBURY
 VERIZON SITE NAME:
 SOUTHBURY W CT
 SITE ADDRESS:
 133 HORSE FENCE HILL RD
 SOUTHBURY, CT 06488

SEAL:



Digitally Signed: 2023-09-19

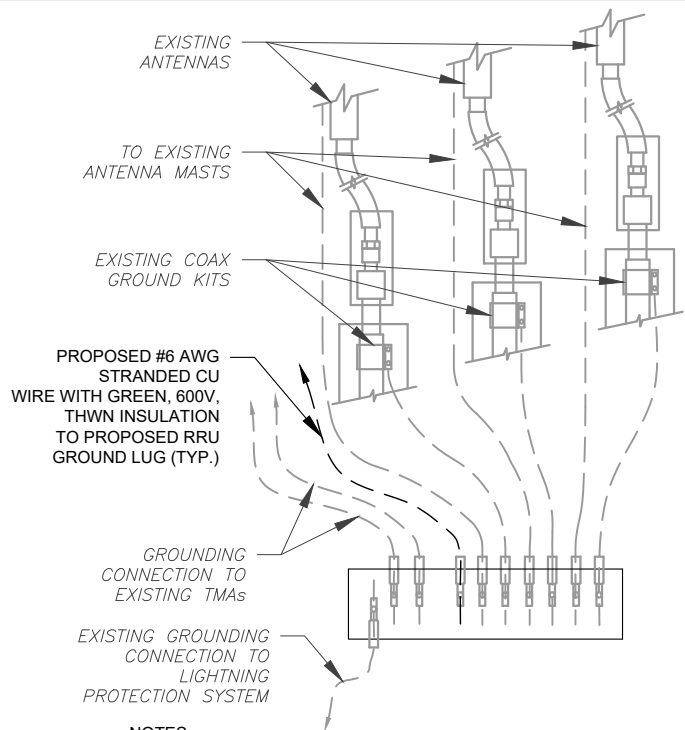


ATC JOB NO:	14519505_G0
CUSTOMER ID:	SOUTHBURY W CT
CUSTOMER #:	5000383276

**CONSTRUCTION
 DETAILS**

SHEET NUMBER:	REVISION:
C-501	0

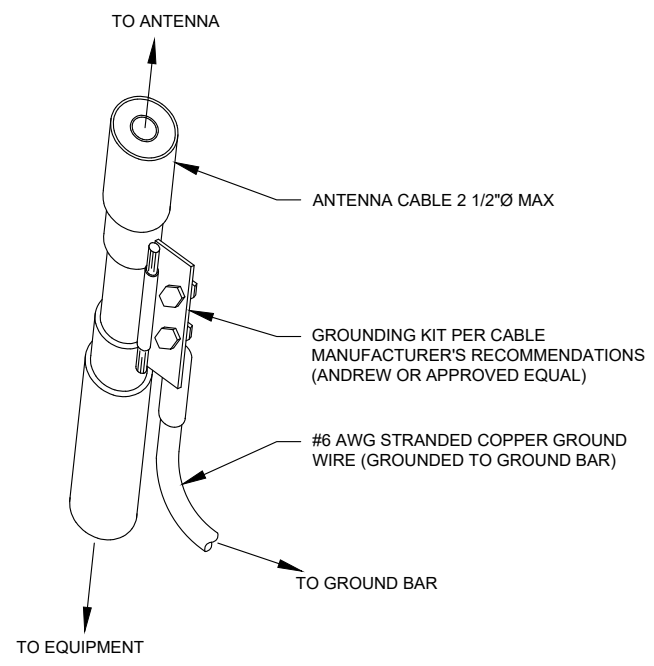
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NOTES:

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.

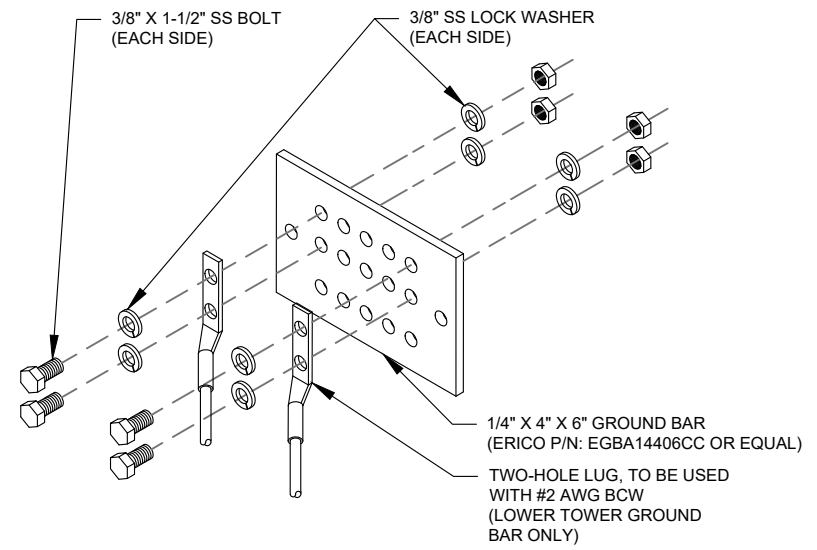
1 TYPICAL ANTENNA GROUNDING DIAGRAM
SCALE: N.T.S.



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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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JM	09/19/23

ATC SITE NUMBER:
302519

ATC SITE NAME:
SOUTHBURY

VERIZON SITE NAME:
SOUTHBURY W CT

SITE ADDRESS:
 133 HORSE FENCE HILL RD
 SOUTHBURY, CT 06488

SEAL:



Digitally Signed: 2023-09-19



ATC JOB NO:	14519505_G0
CUSTOMER ID:	SOUTHBURY W CT
CUSTOMER #:	5000383276

GROUNDING DETAILS

SHEET NUMBER: E-501	REVISION: 0
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Colliers Engineering & Design CT. P.C.
 1055 Washington Boulevard
 Stamford, CT 06901
 203.324.0800
 peter.albano@collierseng.com

Mount Structural Analysis Report
 (3) 12.50-Ft T-Arm

August 14, 2023
 Site ID: 5000383276-VZW / SOUTHURY W CT
 Page | 5

Antenna Mount Analysis Report and PMI Requirements

Mount ReAnalysis

SMART Tool Project #: 10208084
 Colliers Engineering & Design CT. P.C. Project #: 23777232

August 14, 2023

Site Information

Site ID: 5000383276-VZW / SOUTHURY W CT
 Site Name: SOUTHURY W CT
 Carrier Name: Verizon Wireless
 Address: 133 Horse Fence Hill Road
 Southbury, Connecticut 06488
 New Haven County
 Latitude: 41.460096°
 Longitude: -73.245390°

Structure Information

Tower Type: 150-Ft Monopole
 Mount Type: 12.50-Ft T-Arm

FUZE ID # 17123858

Analysis Results

T-Arm: 85.4% Pass*

***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: Selene Chen



Requirements:

The existing mounts are **SUFFICIENT** for the final loading configuration shown in attachment 2 and do not require modifications. Additional requirements are noted below.

Contractor shall record all dimensions and member sizes requested in the Mount Geometry Verification Requirements section of the Mount Analysis report. Contractor shall provide the requested information to Colliers Engineering & Design for structural verification while on site. Contact EOR if these documents are not available to the general contractor.

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

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

Attachments:

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

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 VERIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONSTRUCTION.

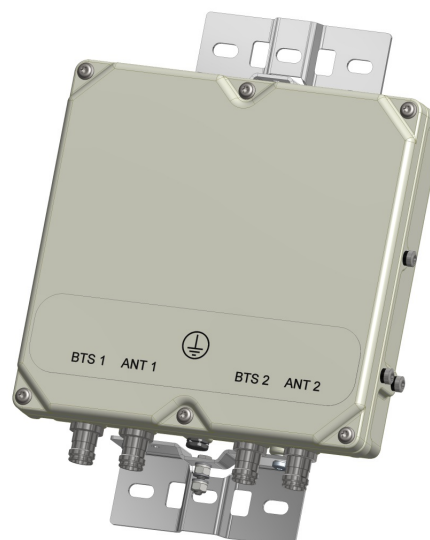
KA-6030

TWIN BANDSTOP 900MHZ INTERFERENCE MITIGATION FILTER

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

FEATURES

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



TECHNICAL SPECIFICATIONS

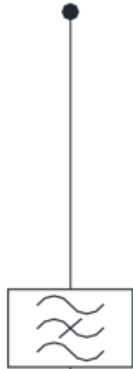
BAND NAME	700 PATH / 850 UPLINK PATH	850 DOWNLINK PATH
Passband	698 - 849MHz	869 - 891.5MHz
Insertion loss	0.1dB typical / 0.3dB maximum	0.5dB typical, 1.45dB maximum
Return loss	24dB typical, 18dB minimum	
Maximum input power (Per Port)	100W average	200W average and 66W per 5MHz
Rejection	53dB minimum @ 894.1 - 896.5MHz	
ELECTRICAL		
Impedance	50Ohms	
Intermodulation products	-160dBc maximum in UL Band (assuming 20MHz Signal), with 2 x 43dBm carriers -153dBc maximum with 2 x 43dBm	
DC / AISG		
Passband	0 - 13MHz	
Insertion loss	0.3dB maximum	
Return loss	15dB minimum	
Input voltage range	± 33V	
DC current rating	2A continuous, 4A peak	
Compliance	3GPP TS 25.461	
ENVIRONMENTAL		
For further details of environmental compliance, please contact Kaelus.		
Temperature range	-20°C to +60°C -4°F to +140°F	
Ingress protection	IP67	
Altitude	2600m 8530ft	
Lightning protection	RF port: ±5kA maximum (8/20us), IEC 61000-4-5 – Unit must be terminated with some lightning protection circuits.	
MTBF	>1,000,000 hours	
Compliance	ETSI EN 300 019 class 4.1H, RoHS, NEBS GR-487-CORE	
MECHANICAL		
Dimensions H x D x W	269 x 277 x 80mm 10.60 x 10.90 x 3.15in (Excluding brackets and connectors)	
Weight	8.0 kg 17.6 lbs (no bracket)	
Finish	Powder coated, light grey (RAL7035)	
Connectors	RF: 4.3-10 (F) x 4	
Mounting	Optional pole/wall bracket supplied with two metal clamps 45-178mm diameter poles or custom bracket. See ordering information.	

ORDERING INFORMATION

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

ELECTRICAL BLOCK DIAGRAM

ANT1



BTS1

ANT2



BTS2

MECHANICAL BLOCK DIAGRAM

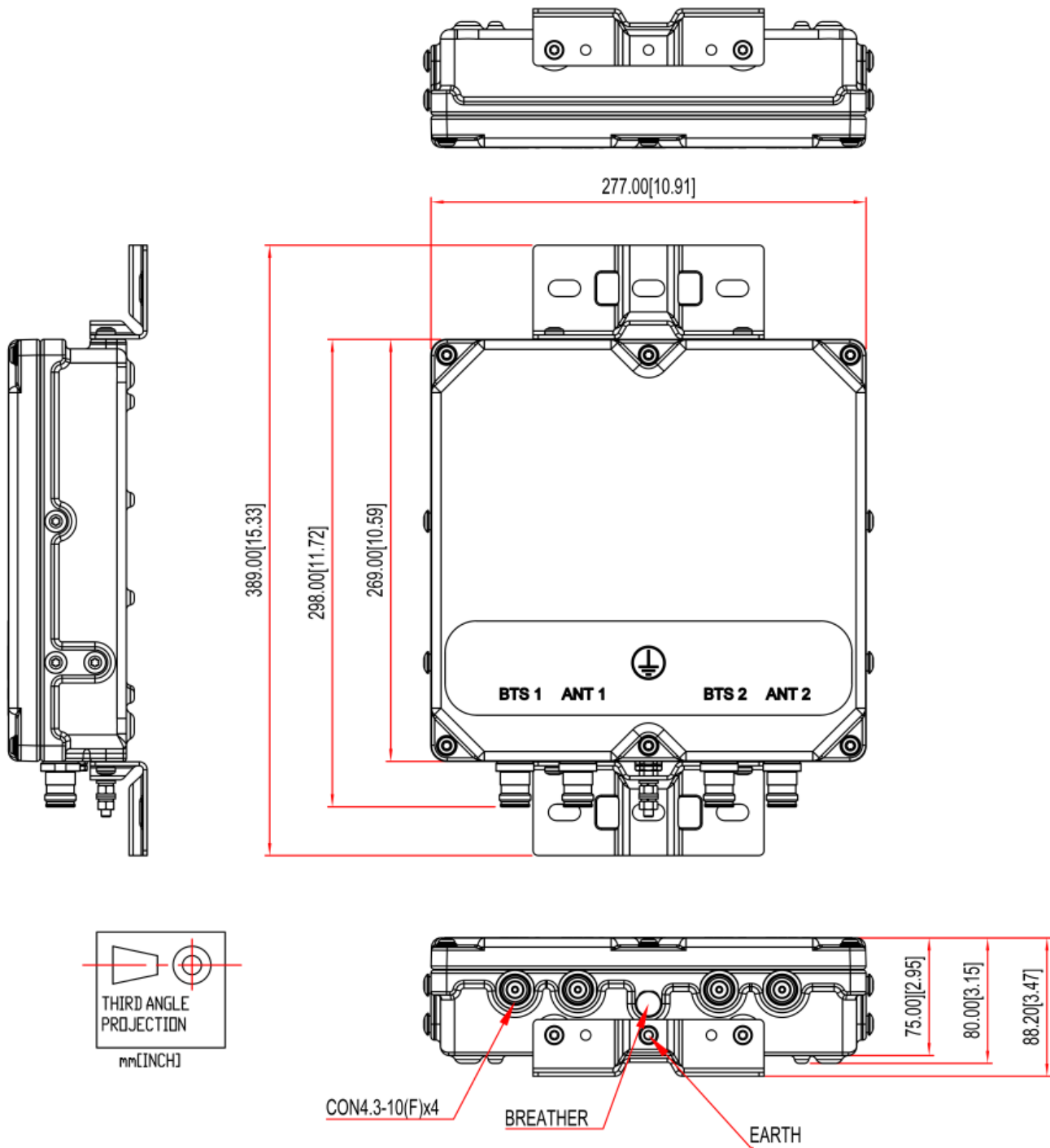


EXHIBIT 2



133 HORSE FENCE HILL ROAD

Location 133 HORSE FENCE HILL ROAD

Mblu 24/ 92/ 58/ /

Acct# 00214500

Owner BEATTY WILLIAM

Assessment \$239,260

Appraisal \$360,890

PID 2310

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2023	\$133,280	\$227,610	\$360,890

Assessment			
Valuation Year	Improvements	Land	Total
2023	\$93,290	\$145,970	\$239,260

Owner of Record

Owner BEATTY WILLIAM

Sale Price \$175,000

Co-Owner

Certificate

Address 133 HORSE FENCE HILL ROAD
SOUTHURY, CT 06488

Book & Page 0689/0156

Sale Date 05/06/2019

Instrument 01

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
BEATTY WILLIAM	\$175,000		0689/0156	01	05/06/2019
BEATTY DAVID	\$147,000		0681/0599	07	08/13/2018
SMITH LYNN REV FAM TRUST	\$0		0493/1152	25	08/19/2005
SMITH SCOTT S & LYNN	\$0		1640/0144	25	03/15/1983

Building Information

Building 1 : Section 1

Year Built: 1950
Living Area: 1,104
Replacement Cost: \$185,524

Building Percent Good: 68

Replacement Cost

Less Depreciation: \$126,160

Building Attributes

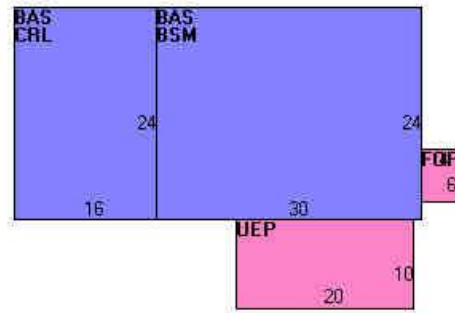
Field	Description
Style	Ranch
Model	Residential
Grade:	D
Stories	1
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Asphalt
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Forced Hot Air
AC Percent	0
Total Bedrooms:	3 Bedrooms
Full Bthrms:	2
Half Baths:	0
Extra Fixtures	0
Total Rooms:	5
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	1
Pln FPL:	0
Det FPL:	0
Gas Fireplace(s)	0
% Attic Fin	0
LF Dormer	0
Foundation	Conc Block
Bsmt Gar(s)	0
Bsmt %	75
SF FBM	0.00
SF Rec Rm	0
Fin Bsmt Qual	
Bsmt Access	Hatchway
Fndtn Cndtn	

Building Photo



(<https://images.vgsi.com/photos/SouthburyCTPhotos/\00\00\11\05.JPG>)

Building Layout



(https://images.vgsi.com/photos/SouthburyCTPhotos//Sketches/2310_2310)

Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	1,104	1,104
BSM	Basement	720	0
CRL	Crawl Space	384	0
FOP	Open Porch	24	0
UEP	Unfin. Enclosed Porch	200	0
		2,432	1,104

Basement	
----------	--

Extra Features

Extra Features	<u>Legend</u>
No Data for Extra Features	

Land

Land Use

Use Code	101
Description	Res Dwelling
Zone	R-60
Neighborhood	25
Alt Land Appr Category	No

Land Line Valuation

Size (Acres)	3.78
Frontage	0
Depth	0
Assessed Value	\$145,970
Appraised Value	\$227,610

Outbuildings

Outbuildings						<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
FGR1	Garage	FR	Frame	336.00 S.F.	\$4,700	1
SHD1	Shed	FR	Frame	200.00 S.F.	\$1,200	1
SHD1	Shed	FR	Frame	160.00 S.F.	\$960	1
SHD1	Shed	FR	Frame	240.00 S.F.	\$260	1

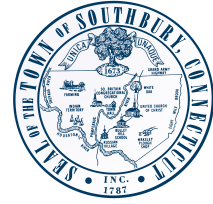
Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2023	\$133,280	\$227,610	\$360,890
2022	\$133,280	\$227,610	\$360,890

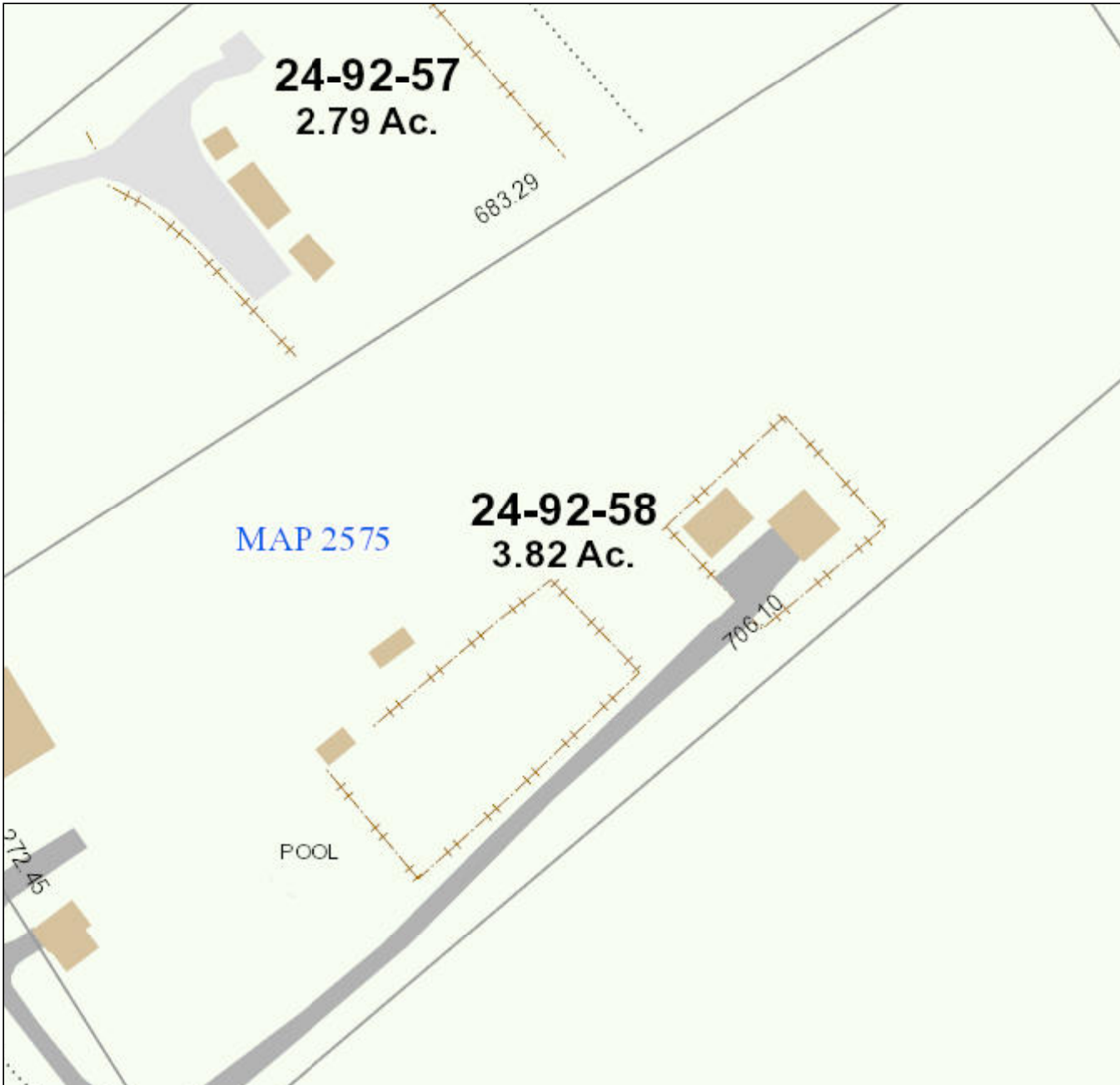
Assessment			
Valuation Year	Improvements	Land	Total
2023	\$93,290	\$145,970	\$239,260
2022	\$93,290	\$145,970	\$239,260

Town of Southbury

Geographic Information System (GIS)



Date Printed: 9/15/2021



MAP DISCLAIMER - NOTICE OF LIABILITY

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

Approximate Scale: 1 inch = 75 feet

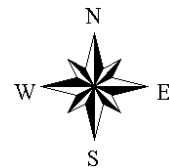


EXHIBIT 3





AMERICAN TOWER®
CORPORATION

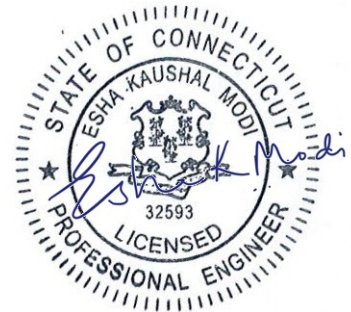
Structural Analysis Report

Structure : 150 ft Monopole
ATC Asset Name : Southbury
ATC Asset Number : 302519
Engineering Number : 14519505_C3_03
Proposed Carrier : VERIZON WIRELESS
Carrier Site Name : SOUTHBURY W CT
Carrier Site Number : 5000383276
Site Location : 133 Horse Fence Hill Rd
Southbury, CT 06488-2106
41.46° N, 73.245° W
County : New Haven
Date : September 13, 2023
Max Usage : 100%
Analysis Result : Pass

Created By:

Aviskar Ghansam
Structural Engineer I

Aviskar Ghansam



COA: PEC.0001553



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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 150 ft Monopole tower to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower:	ITT Meyers Site #CT-0055, dated May 21, 2002
Foundation:	Girard Project #1C140, dated November 19, 1987
Modification:	SpectraSite Site #CT-0055, dated May 21, 2002

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:	116 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 2
Feature:	Hill
Crest Height (H):	132 ft
Crest Length (L):	456 ft
Spectral Response:	$S_s = 0.20, S_i = 0.06$
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	100%	1.2D + 1.0W	Pass
Reinforcement	65%	0 ft to 13.5 ft	Pass
Upper Termination	94%	0 ft to 13.5 ft	Pass
Intermediate Connector	30%	0 ft to 13.5 ft	Pass
Serviceability Usage	93%	1.0D + 1.0W	Pass
Upper Flange Plate @ 109.7 ft	74%	Bolts	Pass
Base Plate @ 0.0 ft	67%	Rods	Pass
Mat & Pier	63%	Moment [Soil]	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Shear (k)
Monopole Base	1,878.7	31.9	17.5

**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
113.0	1	Raycap RCMD-6627-PF-48	(11) 1 5/8" Coax (2) 1 5/8" Hybriflex
	2	Kaelus KA-6030	
	3	Andrew LNX-6514DS-VTM (72.7" height)	
	3	Sector Frame	
	3	Samsung MT6407-77A	
	3	Samsung RF4439d-25A	
	3	Samsung RF4440d-13A	
	6	JMA Wireless MX06FRO660-03	

Other Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines	Carrier
153.0	3	Allgon 7770.00	(3) 0.39" (10mm) Fiber Trunk (6) 0.78" (19.7mm) 8 AWG 6 (12) 1 1/4" Coax (3) 2" conduit	AT&T MOBILITY
	3	CCI DMP65R-BU6DA		
	3	CCI HPA-65R-BUU-H6		
	3	Ericsson RRUS 32 B66A		
	3	Ericsson RRUS 4449 B5, B12		
	3	Ericsson RRUS 4478 B14		
	3	Ericsson RRUS-32 B30 (77 lbs)		
	3	Powerwave Allgon TT19-08BP111-001		
	3	Quintel QS66512-2		
	3	Raycap DC6-48-60-18-8F ("Squid")		
	6	Kaelus DBC0061F1V51-1		
6	Powerwave Allgon 7020.00 Dual Band RET			
150.0	1	Platform w/ Handrails	-	AT&T MOBILITY
148.0	3	Ericsson RRUS 11 (Band 12) (55 lb)	-	AT&T MOBILITY

(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: 113 mph	Ice Wind: 49 mph w/ 0.85" ice	Service Wind: 60 mph
Risk Category: II	Exposure: B	S _s : 0.202 S _i : 0.055
Topo Category: 0	Topo Factor: Method 2	Topo Feature: Hill
Structure Height: 150 ft	Base Elevation: 0.00 ft	Structure Type: Taper
Base Diameter: 35.45 in	Base Rotation: 0°	Taper: 0.1440 (in/ft)

POLE SECTION PROPERTIES

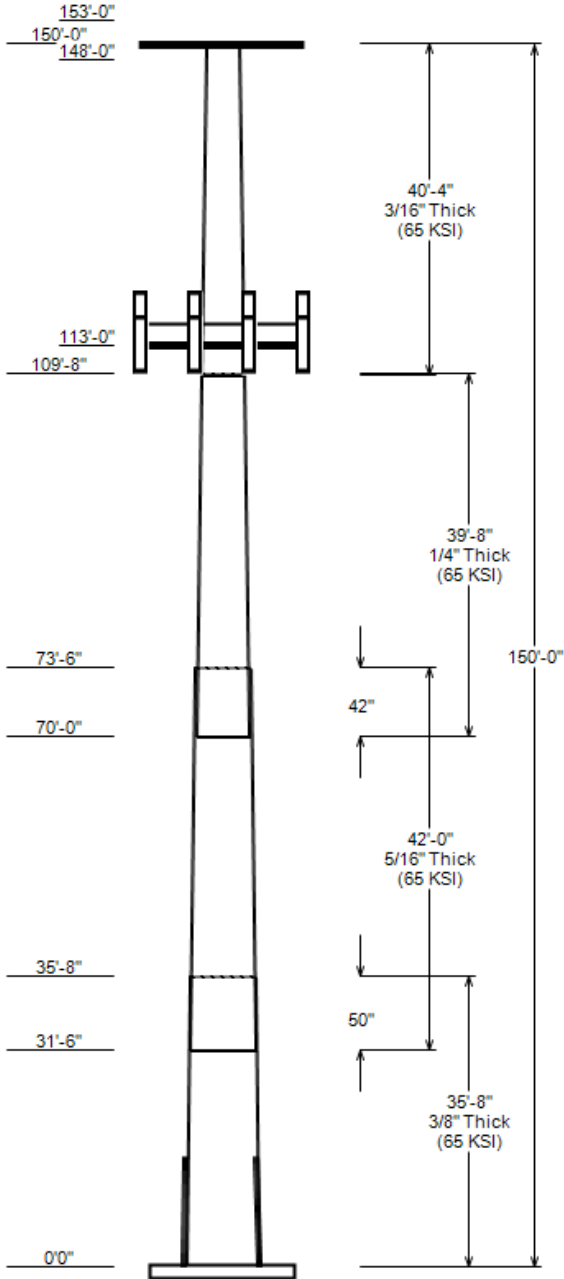
Section	Length (ft)	Flat Diameter (in)		Thick (in)	Joint Type	Joint Length (in)	Pole Shape	Yield Strength (ksi)
		Top	Bottom					
1	35.667	30.32	35.45	0.375		0.000	12 Sides	65
2	42.000	25.50	31.54	0.312	Slip Joint	50.000	12 Sides	65
3	39.667	20.80	26.51	0.250	Slip Joint	42.000	12 Sides	65
4	40.333	15.00	20.80	0.188	Butt Joint	0.000	12 Sides	65

DISCRETE APPURTENANCE

Elev (ft)	Description
153.0	(6) Powerwave Allgon 7020.00 Dual
153.0	(6) Kaelus DBC0061F1V51-1
153.0	(3) Powerwave Allgon TT19-08BP111-
153.0	(3) Raycap DC6-48-60-18-8F ("Squid
153.0	(3) Ericsson RRUS 4478 B14
153.0	(3) Ericsson RRUS 4449 B5, B12
153.0	(3) Ericsson RRUS 32 B66A
153.0	(3) Ericsson RRUS-32 B30 (77 lbs)
153.0	(3) Allgon 7770.00
153.0	(3) Quintel QS66512-2
153.0	(3) CCI HPA-65R-BUU-H6
153.0	(3) CCI DMP65R-BU6DA
150.0	(1) Flat Platform w/ Handrails
148.0	(3) Ericsson RRUS 11 (Band 12) (55
113.0	(2) Kaelus KA-6030
113.0	(3) Samsung RF4440d-13A
113.0	(3) Samsung RF4439d-25A
113.0	(1) Raycap RCMDC-6627-PF-48
113.0	(3) Samsung MT6407-77A
113.0	(3) Andrew LNX-6514DS-VTM (72.7" h
113.0	(6) JMA Wireless MX06FRO660-03
113.0	(3) Generic Round Sector Frame

LINEAR APPURTENANCE

Elev To (ft)	Description
153.0	(3) 2" conduit
153.0	(12) 1 1/4" Coax
153.0	(6) 0.78" (19.7mm) 8 AWG 6
153.0	(3) 0.39" (10mm) Fiber Trunk
147.0	(1) 2" conduit
113.0	(2) 1 5/8" Hybriflex
113.0	(11) 1 5/8" Coax
22.0	(1) #20 w/ Angle Brackets
22.0	(1) #20 w/ Angle Brackets
22.0	(1) #20 w/ Angle Brackets
22.0	(1) #20 w/ Angle Brackets



GLOBAL BASE REACTIONS

Load Case	Moment (kip-ft)	Axial (kip)	Shear (kip)
1.2D + 1.0W	1878.67	31.90	17.50
0.9D + 1.0W	1824.01	23.92	17.48
1.2D + 1.0Di + 1.0Wi	476.21	41.27	4.05
1.2D + 1.0Ev + 1.0Eh	109.90	31.44	0.80
0.9D - 1.0Ev + 1.0Eh	105.65	21.67	0.80
1.0D + 1.0W	466.90	26.62	4.41

ANALYSIS PARAMETERS

Location:	New Haven County,CT	Height:	150 ft
Type and Shape:	Taper, 12 Sides	Base Diameter:	35.45 in
Manufacturer:	ITT Meyer	Top Diameter:	15.00 in
K_d (non-service):	0.95	Taper:	0.1440 in/ft
K_e:	0.99	Rotation:	0.000°

ICE & WIND PARAMETERS

Risk Category:	II	Design Wind Speed:	113 mph
Exposure Category:	B	Design Wind Speed w/ Ice:	49 mph
Topo Factor Procedure:	Method 2	Design Ice Thickness:	0.85 in
		Service Wind Speed:	60 mph
		HMSL:	346.00 ft
Crest Height(H):	132 ft	Distance from Apex (x):	379 ft
Crest Length(L):	456 ft	Upwind/Downwind:	Downwind
Feature:	Hill		

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil	Period Based on Rayleigh Method (sec):	3.70
T_L (sec):	6	P:	1
S_s:	0.202	S₁:	0.055
F_a:	1.600	F_v:	2.400
S_{ds}:	0.215	S_{d1}:	0.088
		C_s:	0.030
		C_s Max:	0.030
		C_s Min:	0.030

LOAD CASES

1.2D + 1.0W	113.06 mph Wind with No Ice
0.9D + 1.0W	113.06 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						Top						
							Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-12	35.67	0.3750	65		0.00	4,764	35.45	0.003	42.35	6,650.7	22.65	94.53	30.32	35.67	36.16	4,138.5	18.99	80.85	0.1438
2-12	42.00	0.3125	65	Slip	50.00	4,057	31.54	31.500	31.43	3,912.7	24.37	100.94	25.50	73.50	25.35	2,053.1	19.19	81.61	0.1438
3-12	39.67	0.2500	65	Slip	42.00	2,543	26.51	70.003	21.14	1,859.9	25.73	106.03	20.80	109.67	16.54	891.9	19.62	83.20	0.1438
4-12	40.33	0.1875	65	Butt	0.00	1,468	20.80	109.667	12.45	675.0	27.05	110.94	15.00	150.00	8.94	250.5	18.76	80.00	0.1438
Total Shaft Weight						12,832													

DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice			Ice		
					Weight (lb)	EPAa (sf)	Orientation Factor	Weight (lb)	EPAa (sf)	Orientation Factor
153.00	Powerwave Allgon 7020.00 Dual	6	0.75	0.000	2.20	0.339	0.50	8.01	0.572	0.50
153.00	CCI HPA-65R-BUU-H6	3	0.75	0.000	51.00	9.658	0.69	175.68	11.233	0.69
153.00	Quintel QS66512-2	3	0.75	0.000	111.00	8.133	0.74	224.25	9.717	0.74
153.00	Allgon 7770.00	3	1.00	0.000	35.00	5.508	0.65	104.25	6.088	0.65
153.00	Ericsson RRUS-32 B30 (77 lbs)	3	0.75	0.000	77.00	3.314	0.50	132.27	4.044	0.50
153.00	Ericsson RRUS 32 B66A	3	0.75	0.000	50.70	2.720	0.50	92.35	3.381	0.50
153.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	107.63	2.499	0.50
153.00	Ericsson RRUS 4478 B14	3	0.75	0.000	59.90	1.842	0.50	91.32	2.352	0.50
153.00	Raycap DC6-48-60-18-8F ("Squid	3	0.75	0.000	18.90	1.470	1.00	53.97	1.867	1.00
153.00	Powerwave Allgon TT19-08BP111-	3	0.75	0.000	16.00	0.553	0.50	27.48	0.844	0.50
153.00	CCI DMP65R-BU6DA	3	0.75	0.000	79.40	12.709	0.63	225.80	14.294	0.63
153.00	Kaelus DBC0061F1V51-1	6	0.75	0.000	12.70	0.413	0.50	19.98	0.664	0.50
150.00	Flat Platform w/ Handrails	1	1.00	0.000	2000.00	42.400	1.00	2807.66	54.319	1.00
148.00	Ericsson RRUS 11 (Band 12) (55	3	0.75	0.000	55.00	2.522	0.50	93.17	3.112	0.50
113.00	Kaelus KA-6030	2	0.80	0.000	17.60	0.963	0.50	30.63	1.324	0.50
113.00	Samsung MT6407-77A	3	0.80	0.000	81.60	4.709	0.61	137.94	5.548	0.61
113.00	Raycap RCMDC-6627-PF-48	1	0.80	0.000	32.00	4.056	1.00	102.24	4.810	1.00
113.00	Samsung RF4439d-25A	3	0.80	0.000	74.70	2.500	0.50	118.88	3.079	0.50
113.00	Samsung RF4440d-13A	3	0.80	0.000	70.30	1.875	0.50	103.65	2.374	0.50
113.00	JMA Wireless MX06FRO660-03	6	0.80	0.000	60.00	9.872	0.71	192.52	11.389	0.71
113.00	Generic Round Sector Frame	3	0.75	0.000	700.00	14.400	0.67	1239.06	23.549	0.67
113.00	Andrew LNX-6514DS-VTM (72.7" h	3	0.80	1.000	38.80	8.173	0.69	136.04	9.731	0.69
Totals	Row Count: 22	70			7,287.50			13,485.44		

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	153.00	12	1 1/4" Coax	1.55	0.63	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	153.00	6	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	153.00	3	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	153.00	3	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	147.00	1	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	113.00	11	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	VERIZON WIRELESS
0.00	113.00	2	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	VERIZON WIRELESS
0.00	22.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	90	0	Y	
0.00	22.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	270	0	Y	
0.00	22.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	0	0	Y	
0.00	22.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	180	0	Y	

ADDITIONAL STEEL

Intermediate Connectors

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Bracket Type	Spacing (in)	Length (in)	Connectors	Continuation?
0.00	13.50	4	SOL #20 All Thread Bar	80	2.19	6" Angle Bracket	30.00	3.31	5/8" A36 U-Bolt	N

SEGMENT PROPERTIES

Seg Top Elev (ft)	Description	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)	Ix (in ⁴)	Weight (lb)
0.00		0.3750	35.450	42.353	6,650.70	22.65	94.53	80	362.4	0.0	0.0	19.640	4,406.60	0.0
5.00		0.3750	34.731	41.485	6,249.90	22.14	92.62	80.6	347.6	0.0	713.2	19.640	4,258.40	334.0
10.00		0.3750	34.012	40.616	5,865.60	21.62	90.70	81.1	333.2	0.0	698.4	19.640	4,112.70	334.0
13.50	Reinf. Top	0.3750	33.508	40.008	5,606.20	21.26	89.36	81.5	323.2	0.0	480.1	19.640	4,012.30	233.8
15.00		0.3750	33.293	39.748	5,497.40	21.11	88.78	81.7	319.0	0.0	203.5			
20.00		0.3750	32.573	38.879	5,144.90	20.60	86.86	81.9	305.1	0.0	668.9			
25.00		0.3750	31.854	38.011	4,807.80	20.08	84.94	81.9	291.6	0.0	654.1			
30.00		0.3750	31.135	37.143	4,485.70	19.57	83.03	81.9	278.3	0.0	639.3			
31.50	Bot - Section 2	0.3750	30.919	36.882	4,392.00	19.41	82.45	81.9	274.4	0.0	188.9			
35.00		0.3750	30.416	36.274	4,178.40	19.05	81.11	81.9	265.4	0.0	806.9			
35.67	Top - Section 1	0.3125	30.945	30.824	3,691.80	23.85	99.02	78.7	230.5	0.0	152.2			
40.00		0.3125	30.322	30.197	3,471.00	23.32	97.03	79.3	221.1	0.0	449.9			
45.00		0.3125	29.603	29.473	3,227.40	22.70	94.73	80	210.6	0.0	507.6			
50.00		0.3125	28.883	28.749	2,995.40	22.09	92.43	80.6	200.3	0.0	495.3			
55.00		0.3125	28.164	28.026	2,774.90	21.47	90.13	81.3	190.3	0.0	483.0			
60.00		0.3125	27.445	27.302	2,565.40	20.85	87.82	81.9	180.6	0.0	470.7			
65.00		0.3125	26.726	26.578	2,366.80	20.24	85.52	81.9	171.1	0.0	458.4			
70.00	Bot - Section 3	0.3125	26.007	25.855	2,178.70	19.62	83.22	81.9	161.8	0.0	446.0			
73.50	Top - Section 2	0.2500	26.003	20.731	1,755.00	25.19	104.01	77.2	130.4	0.0	554.2			
75.00		0.2500	25.788	20.558	1,711.30	24.96	103.15	77.5	128.2	0.0	105.4			
80.00		0.2500	25.068	19.979	1,570.70	24.19	100.27	78.3	121.0	0.0	344.8			
85.00		0.2500	24.349	19.400	1,438.10	23.42	97.40	79.2	114.1	0.0	335.0			
90.00		0.2500	23.630	18.821	1,313.20	22.65	94.52	80	107.4	0.0	325.1			
95.00		0.2500	22.911	18.242	1,195.70	21.88	91.64	80.9	100.8	0.0	315.3			
100.00		0.2500	22.192	17.663	1,085.40	21.11	88.77	81.7	94.5	0.0	305.4			
105.00		0.2500	21.473	17.084	982.10	20.33	85.89	81.9	88.4	0.0	295.6			
109.67	Top - Section 3	0.2500	20.801	16.544	891.90	19.62	83.20	81.9	82.8	0.0	267.0			
109.67	Bot - Section 4	0.1875	20.801	12.446	675.00	27.05	110.94	75.2	62.7	0.0				
110.00		0.1875	20.753	12.417	670.30	26.98	110.68	75.3	62.4	0.0	14.1			
113.00		0.1875	20.322	12.156	629.00	26.36	108.38	76	59.8	0.0	125.4			
115.00		0.1875	20.034	11.982	602.40	25.95	106.85	76.4	58.1	0.0	82.1			
120.00		0.1875	19.315	11.548	539.30	24.92	103.01	77.5	53.9	0.0	200.2			
125.00		0.1875	18.596	11.114	480.70	23.90	99.18	78.7	49.9	0.0	192.8			
130.00		0.1875	17.877	10.680	426.50	22.87	95.34	79.8	46.1	0.0	185.4			
135.00		0.1875	17.158	10.246	376.60	21.84	91.51	80.9	42.4	0.0	178.0			
140.00		0.1875	16.438	9.811	330.70	20.81	87.67	81.9	38.9	0.0	170.6			
145.00		0.1875	15.719	9.377	288.70	19.78	83.84	81.9	35.5	0.0	163.2			
148.00		0.1875	15.288	9.117	265.30	19.17	81.53	81.9	33.5	0.0	94.4			
150.00		0.1875	15.000	8.943	250.50	18.76	80.00	81.9	32.3	0.0	61.5			
Totals:											12,831.9	901.8		

CALCULATED FORCES

Load Case: 1.2D + 1.0W 113.06 mph Wind with No Ice 32 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	-31.90	-17.50	0.00	-1,878.7	0.00	1,878.67	3,049.83	743.30	2,459.73	2,174.87	0	0	0.527
5.00	-30.24	-17.08	0.00	-1,791.2	0.00	1,791.20	3,008.23	728.06	2,359.94	2,100.75	0.13	-0.24	0.514
10.00	-28.61	-16.70	0.00	-1,705.8	0.00	1,705.81	2,965.74	712.82	2,262.21	2,027.26	0.5	-0.47	0.502
13.50	-27.48	-16.47	0.00	-1,647.4	0.00	1,647.35	2,935.48	702.15	2,195.03	1,976.22	0.91	-0.64	0.493
13.50	-27.48	-16.47	0.00	-1,647.4	0.00	1,647.35	2,935.48	702.15	2,195.03	1,976.22	0.91	-0.64	0.844
15.00	-27.07	-16.28	0.00	-1,622.6	0.00	1,622.65	2,922.38	697.58	2,166.54	1,954.44	1.12	-0.71	0.840
20.00	-25.83	-15.94	0.00	-1,541.3	0.00	1,541.26	2,865.81	682.34	2,072.95	1,874.26	2.09	-1.12	0.832
25.00	-24.67	-15.64	0.00	-1,461.6	0.00	1,461.58	2,801.80	667.09	1,981.42	1,791.00	3.48	-1.54	0.825
30.00	-23.61	-15.52	0.00	-1,383.4	0.00	1,383.39	2,737.79	651.85	1,891.95	1,709.63	5.32	-1.96	0.818
31.50	-23.26	-15.44	0.00	-1,360.1	0.00	1,360.12	2,718.59	647.28	1,865.51	1,685.59	5.95	-2.09	0.816
35.00	-22.10	-15.33	0.00	-1,306.1	0.00	1,306.10	2,673.78	636.61	1,804.55	1,630.15	7.6	-2.39	0.810
35.67	-21.83	-15.24	0.00	-1,295.9	0.00	1,295.88	2,183.22	540.96	1,563.36	1,360.34	7.93	-2.45	0.963

CALCULATED FORCES

40.00	-21.00	-15.06	0.00	-1,229.8	0.00	1,229.84	2,154.64	529.95	1,500.41	1,314.94	10.33	-2.83	0.946
45.00	-20.06	-14.86	0.00	-1,154.5	0.00	1,154.54	2,120.84	517.25	1,429.39	1,262.98	13.55	-3.31	0.924
50.00	-19.14	-14.65	0.00	-1,080.2	0.00	1,080.24	2,086.17	504.55	1,360.08	1,211.51	17.28	-3.81	0.902
55.00	-18.23	-14.42	0.00	-1,007.0	0.00	1,007.01	2,050.62	491.85	1,292.50	1,160.56	21.53	-4.3	0.877
60.00	-17.35	-14.18	0.00	-934.9	0.00	934.93	2,012.44	479.15	1,226.64	1,109.22	26.29	-4.8	0.852
65.00	-16.48	-13.93	0.00	-864.0	0.00	864.04	1,959.10	466.45	1,162.50	1,050.87	31.58	-5.3	0.832
70.00	-15.65	-13.69	0.00	-794.4	0.00	794.41	1,905.75	453.75	1,100.08	994.10	37.39	-5.8	0.808
73.50	-14.79	-13.51	0.00	-746.5	0.00	746.49	1,441.17	363.84	883.97	755.32	41.76	-6.15	1.000
75.00	-14.54	-13.37	0.00	-726.2	0.00	726.23	1,433.76	360.79	869.22	745.08	43.71	-6.3	0.986
80.00	-13.81	-13.11	0.00	-659.4	0.00	659.40	1,408.50	350.63	820.97	711.14	50.61	-6.88	0.938
85.00	-13.10	-12.84	0.00	-593.9	0.00	593.86	1,382.37	340.47	774.10	677.52	58.1	-7.45	0.887
90.00	-12.42	-12.56	0.00	-529.7	0.00	529.66	1,355.35	330.31	728.60	644.25	66.17	-8	0.833
95.00	-11.75	-12.28	0.00	-466.8	0.00	466.84	1,327.47	320.15	684.48	611.38	74.81	-8.54	0.774
100.00	-11.11	-11.98	0.00	-405.5	0.00	405.46	1,298.70	309.99	641.74	578.94	84	-9.06	0.710
105.00	-10.49	-11.69	0.00	-345.6	0.00	345.55	1,259.27	299.83	600.38	542.76	93.71	-9.55	0.647
109.67	-9.95	-11.49	0.00	-291.0	0.00	291.01	1,219.44	290.34	563.02	508.77	103.22	-9.98	0.582
109.67	-9.95	-11.49	0.00	-291.0	0.00	291.01	842.50	218.42	424.75	353.65	103.22	-9.98	0.837
110.00	-9.90	-11.42	0.00	-287.2	0.00	287.18	841.37	217.91	422.77	352.35	103.91	-10.01	0.830
113.00	-6.20	-7.64	0.00	-252.4	0.00	252.45	831.08	213.34	405.23	340.67	110.28	-10.36	0.750
115.00	-6.03	-7.45	0.00	-237.2	0.00	237.17	824.04	210.29	393.73	332.91	114.65	-10.58	0.721
120.00	-5.63	-7.15	0.00	-199.9	0.00	199.92	805.83	202.67	365.72	313.65	125.94	-11.1	0.646
125.00	-5.25	-6.85	0.00	-164.2	0.00	164.17	786.74	195.05	338.75	294.59	137.74	-11.58	0.565
130.00	-4.89	-6.55	0.00	-129.9	0.00	129.92	766.78	187.43	312.81	275.79	150.01	-12.01	0.479
135.00	-4.55	-6.25	0.00	-97.2	0.00	97.18	745.94	179.81	287.90	257.27	162.7	-12.39	0.385
140.00	-4.22	-5.94	0.00	-66.0	0.00	65.95	723.20	172.19	264.02	238.74	175.75	-12.7	0.283
145.00	-3.91	-5.69	0.00	-36.2	0.00	36.23	691.20	164.57	241.18	217.97	189.06	-12.92	0.173
148.00	-3.57	-5.38	0.00	-19.2	0.00	19.16	671.99	160.00	227.97	205.95	197.14	-13	0.099
150.00	0.00	-4.44	0.00	-8.4	0.00	8.40	659.19	156.95	219.37	198.13	202.54	-13.03	0.043

CALCULATED FORCES

Load Case: 0.9D + 1.0W

113.06 mph Wind with No Ice (Reduced DL)

31 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	-23.92	-17.48	0.00	-1,824.0	0.00	1,824.01	3,049.83	743.30	2,459.73	2,174.87	0	0	0.510
5.00	-22.66	-17.03	0.00	-1,736.6	0.00	1,736.63	3,008.23	728.06	2,359.94	2,100.75	0.12	-0.23	0.497
10.00	-21.42	-16.63	0.00	-1,651.5	0.00	1,651.50	2,965.74	712.82	2,262.21	2,027.26	0.49	-0.46	0.484
13.50	-20.57	-16.38	0.00	-1,593.3	0.00	1,593.31	2,935.48	702.15	2,195.03	1,976.22	0.88	-0.62	0.475
13.50	-20.57	-16.38	0.00	-1,593.3	0.00	1,593.31	2,935.48	702.15	2,195.03	1,976.22	0.88	-0.62	0.814
15.00	-20.25	-16.16	0.00	-1,568.8	0.00	1,568.75	2,922.38	697.58	2,166.54	1,954.44	1.09	-0.69	0.810
20.00	-19.29	-15.77	0.00	-1,488.0	0.00	1,487.96	2,865.81	682.34	2,072.95	1,874.26	2.02	-1.09	0.801
25.00	-18.41	-15.43	0.00	-1,409.1	0.00	1,409.11	2,801.80	667.09	1,981.42	1,791.00	3.37	-1.49	0.794
30.00	-17.60	-15.28	0.00	-1,332.0	0.00	1,331.98	2,737.79	651.85	1,891.95	1,709.63	5.14	-1.89	0.786
31.50	-17.33	-15.18	0.00	-1,309.1	0.00	1,309.06	2,718.59	647.28	1,865.51	1,685.59	5.76	-2.02	0.784
35.00	-16.44	-15.06	0.00	-1,255.9	0.00	1,255.94	2,673.78	636.61	1,804.55	1,630.15	7.35	-2.31	0.777
35.67	-16.24	-14.95	0.00	-1,245.9	0.00	1,245.89	2,183.22	540.96	1,563.36	1,360.34	7.67	-2.37	0.924
40.00	-15.59	-14.74	0.00	-1,181.1	0.00	1,181.09	2,154.64	529.95	1,500.41	1,314.94	9.99	-2.73	0.906
45.00	-14.87	-14.50	0.00	-1,107.4	0.00	1,107.40	2,120.84	517.25	1,429.39	1,262.98	13.09	-3.2	0.885
50.00	-14.15	-14.25	0.00	-1,034.9	0.00	1,034.90	2,086.17	504.55	1,360.08	1,211.51	16.69	-3.67	0.862
55.00	-13.46	-13.99	0.00	-963.6	0.00	963.64	2,050.62	491.85	1,292.50	1,160.56	20.78	-4.14	0.838
60.00	-12.78	-13.73	0.00	-893.7	0.00	893.67	2,012.44	479.15	1,226.64	1,109.22	25.36	-4.62	0.813
65.00	-12.12	-13.45	0.00	-825.0	0.00	825.04	1,959.10	466.45	1,162.50	1,050.87	30.45	-5.09	0.792
70.00	-11.48	-13.20	0.00	-757.8	0.00	757.79	1,905.75	453.75	1,100.08	994.10	36.03	-5.57	0.769
73.50	-10.83	-13.02	0.00	-711.6	0.00	711.59	1,441.17	363.84	883.97	755.32	40.23	-5.91	0.951
75.00	-10.63	-12.86	0.00	-692.1	0.00	692.06	1,433.76	360.79	869.22	745.08	42.11	-6.05	0.938
80.00	-10.07	-12.58	0.00	-627.8	0.00	627.77	1,408.50	350.63	820.97	711.14	48.73	-6.6	0.891
85.00	-9.53	-12.29	0.00	-564.9	0.00	564.87	1,382.37	340.47	774.10	677.52	55.91	-7.14	0.842
90.00	-9.00	-12.00	0.00	-503.4	0.00	503.41	1,355.35	330.31	728.60	644.25	63.65	-7.67	0.789
95.00	-8.50	-11.71	0.00	-443.4	0.00	443.41	1,327.47	320.15	684.48	611.38	71.93	-8.18	0.733
100.00	-8.01	-11.40	0.00	-384.9	0.00	384.88	1,298.70	309.99	641.74	578.94	80.74	-8.67	0.672
105.00	-7.54	-11.11	0.00	-327.9	0.00	327.86	1,259.27	299.83	600.38	542.76	90.04	-9.14	0.611
109.67	-7.13	-10.92	0.00	-276.0	0.00	276.02	1,219.44	290.34	563.02	508.77	99.14	-9.55	0.550
109.67	-7.13	-10.92	0.00	-276.0	0.00	276.02	842.50	218.42	424.75	353.65	99.14	-9.55	0.791
110.00	-7.09	-10.85	0.00	-272.4	0.00	272.38	841.37	217.91	422.77	352.35	99.8	-9.58	0.784
113.00	-4.42	-7.26	0.00	-239.4	0.00	239.37	831.08	213.34	405.23	340.67	105.9	-9.91	0.709
115.00	-4.29	-7.07	0.00	-224.8	0.00	224.85	824.04	210.29	393.73	332.91	110.07	-10.12	0.682
120.00	-3.99	-6.77	0.00	-189.5	0.00	189.50	805.83	202.67	365.72	313.65	120.87	-10.6	0.610
125.00	-3.71	-6.48	0.00	-155.6	0.00	155.63	786.74	195.05	338.75	294.59	132.16	-11.06	0.534
130.00	-3.44	-6.19	0.00	-123.2	0.00	123.22	766.78	187.43	312.81	275.79	143.89	-11.47	0.452
135.00	-3.19	-5.90	0.00	-92.3	0.00	92.28	745.94	179.81	287.90	257.27	156.02	-11.83	0.364
140.00	-2.95	-5.61	0.00	-62.8	0.00	62.78	723.20	172.19	264.02	238.74	168.48	-12.12	0.268
145.00	-2.73	-5.38	0.00	-34.7	0.00	34.71	691.20	164.57	241.18	217.97	181.2	-12.33	0.164
148.00	-2.48	-5.09	0.00	-18.6	0.00	18.59	671.99	160.00	227.97	205.95	188.92	-12.41	0.095
150.00	0.00	-4.44	0.00	-8.4	0.00	8.40	659.19	156.95	219.37	198.13	194.09	-12.44	0.043

CALCULATED FORCES

Load Case: 1.2D + 1.0Di + 1.0Wi													48.73 mph Wind with 0.85" Radial Ice		31 Iterations	
Gust Response Factor:		1.10		Ice Dead Load Factor			1.00			Ice Importance Factor			1.00			
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	-41.27	-4.05	0.00	-476.2	0.00	476.21	3,049.83	743.30	2,459.73	2,174.87	0	0	0.141			
5.00	-39.48	-4.00	0.00	-456.0	0.00	455.97	3,008.23	728.06	2,359.94	2,100.75	0.03	-0.06	0.138			
10.00	-37.70	-3.96	0.00	-436.0	0.00	435.96	2,965.74	712.82	2,262.21	2,027.26	0.13	-0.12	0.135			
13.50	-36.45	-3.93	0.00	-422.1	0.00	422.10	2,935.48	702.15	2,195.03	1,976.22	0.23	-0.16	0.133			
13.50	-36.45	-3.93	0.00	-422.1	0.00	422.10	2,935.48	702.15	2,195.03	1,976.22	0.23	-0.16	0.226			
15.00	-36.04	-3.92	0.00	-416.2	0.00	416.19	2,922.38	697.58	2,166.54	1,954.44	0.29	-0.18	0.225			
20.00	-34.67	-3.89	0.00	-396.6	0.00	396.61	2,865.81	682.34	2,072.95	1,874.26	0.53	-0.29	0.224			
25.00	-33.42	-3.87	0.00	-377.1	0.00	377.14	2,801.80	667.09	1,981.42	1,791.00	0.89	-0.39	0.223			
30.00	-32.25	-3.85	0.00	-357.8	0.00	357.80	2,737.79	651.85	1,891.95	1,709.63	1.36	-0.5	0.221			
31.50	-31.90	-3.84	0.00	-352.0	0.00	352.02	2,718.59	647.28	1,865.51	1,685.59	1.52	-0.54	0.221			
35.00	-30.64	-3.82	0.00	-338.6	0.00	338.59	2,673.78	636.61	1,804.55	1,630.15	1.95	-0.61	0.219			
35.67	-30.40	-3.81	0.00	-336.0	0.00	336.05	2,183.22	540.96	1,563.36	1,360.34	2.03	-0.63	0.261			
40.00	-29.51	-3.78	0.00	-319.6	0.00	319.56	2,154.64	529.95	1,500.41	1,314.94	2.65	-0.73	0.257			
45.00	-28.50	-3.75	0.00	-300.7	0.00	300.67	2,120.84	517.25	1,429.39	1,262.98	3.48	-0.85	0.252			
50.00	-27.50	-3.71	0.00	-282.0	0.00	281.95	2,086.17	504.55	1,360.08	1,211.51	4.44	-0.98	0.246			
55.00	-26.52	-3.67	0.00	-263.4	0.00	263.40	2,050.62	491.85	1,292.50	1,160.56	5.54	-1.11	0.240			
60.00	-25.56	-3.63	0.00	-245.1	0.00	245.06	2,012.44	479.15	1,226.64	1,109.22	6.78	-1.24	0.234			
65.00	-24.61	-3.58	0.00	-226.9	0.00	226.93	1,959.10	466.45	1,162.50	1,050.87	8.15	-1.37	0.229			
70.00	-23.69	-3.53	0.00	-209.0	0.00	209.04	1,905.75	453.75	1,100.08	994.10	9.65	-1.5	0.223			
73.50	-22.75	-3.49	0.00	-196.7	0.00	196.68	1,441.17	363.84	883.97	755.32	10.79	-1.6	0.276			
75.00	-22.50	-3.47	0.00	-191.4	0.00	191.44	1,433.76	360.79	869.22	745.08	11.3	-1.64	0.273			
80.00	-21.70	-3.42	0.00	-174.1	0.00	174.10	1,408.50	350.63	820.97	711.14	13.1	-1.79	0.260			
85.00	-20.92	-3.37	0.00	-157.0	0.00	157.00	1,382.37	340.47	774.10	677.52	15.05	-1.94	0.247			
90.00	-20.15	-3.31	0.00	-140.2	0.00	140.16	1,355.35	330.31	728.60	644.25	17.16	-2.09	0.233			
95.00	-19.39	-3.25	0.00	-123.6	0.00	123.60	1,327.47	320.15	684.48	611.38	19.42	-2.23	0.217			
100.00	-18.66	-3.19	0.00	-107.3	0.00	107.34	1,298.70	309.99	641.74	578.94	21.83	-2.37	0.200			
105.00	-17.93	-3.12	0.00	-91.4	0.00	91.40	1,259.27	299.83	600.38	542.76	24.38	-2.5	0.183			
109.67	-17.28	-3.07	0.00	-76.8	0.00	76.82	1,219.44	290.34	563.02	508.77	26.88	-2.61	0.165			
109.67	-17.28	-3.07	0.00	-76.8	0.00	76.82	842.50	218.42	424.75	353.65	26.88	-2.61	0.238			
110.00	-17.23	-3.06	0.00	-75.8	0.00	75.80	841.37	217.91	422.77	352.35	27.06	-2.62	0.236			
113.00	-10.55	-2.01	0.00	-66.5	0.00	66.51	831.08	213.34	405.23	340.67	28.73	-2.71	0.208			
115.00	-10.34	-1.97	0.00	-62.5	0.00	62.48	824.04	210.29	393.73	332.91	29.88	-2.77	0.200			
120.00	-9.81	-1.90	0.00	-52.6	0.00	52.63	805.83	202.67	365.72	313.65	32.85	-2.9	0.180			
125.00	-9.31	-1.82	0.00	-43.2	0.00	43.15	786.74	195.05	338.75	294.59	35.96	-3.03	0.158			
130.00	-8.81	-1.74	0.00	-34.1	0.00	34.06	766.78	187.43	312.81	275.79	39.2	-3.14	0.135			
135.00	-8.33	-1.66	0.00	-25.4	0.00	25.36	745.94	179.81	287.90	257.27	42.54	-3.24	0.110			
140.00	-7.86	-1.58	0.00	-17.1	0.00	17.07	723.20	172.19	264.02	238.74	45.98	-3.32	0.082			
145.00	-7.41	-1.50	0.00	-9.2	0.00	9.19	691.20	164.57	241.18	217.97	49.49	-3.38	0.053			
148.00	-6.86	-1.42	0.00	-4.7	0.00	4.68	671.99	160.00	227.97	205.95	51.62	-3.4	0.033			
150.00	0.00	-1.01	0.00	-1.8	0.00	1.84	659.19	156.95	219.37	198.13	53.05	-3.41	0.009			

CALCULATED FORCES

Load Case: 1.0D + 1.0W

60 mph Wind with No Ice

30 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	-26.62	-4.41	0.00	-466.9	0.00	466.90	3,049.83	743.30	2,459.73	2,174.87	0	0	0.135
5.00	-25.28	-4.29	0.00	-444.9	0.00	444.88	3,008.23	728.06	2,359.94	2,100.75	0.03	-0.06	0.132
10.00	-23.97	-4.20	0.00	-423.4	0.00	423.40	2,965.74	712.82	2,262.21	2,027.26	0.12	-0.12	0.128
13.50	-23.05	-4.13	0.00	-408.7	0.00	408.72	2,935.48	702.15	2,195.03	1,976.22	0.23	-0.16	0.126
13.50	-23.05	-4.13	0.00	-408.7	0.00	408.72	2,935.48	702.15	2,195.03	1,976.22	0.23	-0.16	0.215
15.00	-22.76	-4.08	0.00	-402.5	0.00	402.51	2,922.38	697.58	2,166.54	1,954.44	0.28	-0.18	0.214
20.00	-21.80	-3.99	0.00	-382.1	0.00	382.10	2,865.81	682.34	2,072.95	1,874.26	0.52	-0.28	0.212
25.00	-20.92	-3.91	0.00	-362.2	0.00	362.16	2,801.80	667.09	1,981.42	1,791.00	0.86	-0.38	0.210
30.00	-20.09	-3.87	0.00	-342.6	0.00	342.62	2,737.79	651.85	1,891.95	1,709.63	1.32	-0.49	0.208
31.50	-19.84	-3.85	0.00	-336.8	0.00	336.81	2,718.59	647.28	1,865.51	1,685.59	1.48	-0.52	0.207
35.00	-18.90	-3.82	0.00	-323.3	0.00	323.34	2,673.78	636.61	1,804.55	1,630.15	1.88	-0.59	0.205
35.67	-18.72	-3.80	0.00	-320.8	0.00	320.79	2,183.22	540.96	1,563.36	1,360.34	1.97	-0.61	0.244
40.00	-18.10	-3.75	0.00	-304.3	0.00	304.34	2,154.64	529.95	1,500.41	1,314.94	2.56	-0.7	0.240
45.00	-17.40	-3.69	0.00	-285.6	0.00	285.61	2,120.84	517.25	1,429.39	1,262.98	3.36	-0.82	0.234
50.00	-16.71	-3.63	0.00	-267.2	0.00	267.15	2,086.17	504.55	1,360.08	1,211.51	4.29	-0.94	0.229
55.00	-16.03	-3.57	0.00	-249.0	0.00	248.99	2,050.62	491.85	1,292.50	1,160.56	5.34	-1.07	0.222
60.00	-15.37	-3.51	0.00	-231.1	0.00	231.12	2,012.44	479.15	1,226.64	1,109.22	6.52	-1.19	0.216
65.00	-14.72	-3.44	0.00	-213.6	0.00	213.57	1,959.10	466.45	1,162.50	1,050.87	7.83	-1.31	0.211
70.00	-14.08	-3.38	0.00	-196.4	0.00	196.35	1,905.75	453.75	1,100.08	994.10	9.27	-1.44	0.205
73.50	-13.39	-3.34	0.00	-184.5	0.00	184.50	1,441.17	363.84	883.97	755.32	10.36	-1.52	0.254
75.00	-13.23	-3.30	0.00	-179.5	0.00	179.49	1,433.76	360.79	869.22	745.08	10.84	-1.56	0.250
80.00	-12.69	-3.24	0.00	-163.0	0.00	162.98	1,408.50	350.63	820.97	711.14	12.55	-1.7	0.238
85.00	-12.16	-3.17	0.00	-146.8	0.00	146.79	1,382.37	340.47	774.10	677.52	14.41	-1.84	0.226
90.00	-11.64	-3.10	0.00	-131.0	0.00	130.95	1,355.35	330.31	728.60	644.25	16.41	-1.98	0.212
95.00	-11.14	-3.03	0.00	-115.4	0.00	115.45	1,327.47	320.15	684.48	611.38	18.56	-2.11	0.197
100.00	-10.64	-2.96	0.00	-100.3	0.00	100.30	1,298.70	309.99	641.74	578.94	20.84	-2.24	0.182
105.00	-10.16	-2.88	0.00	-85.5	0.00	85.52	1,259.27	299.83	600.38	542.76	23.25	-2.36	0.166
109.67	-9.71	-2.84	0.00	-72.1	0.00	72.06	1,219.44	290.34	563.02	508.77	25.62	-2.47	0.150
109.67	-9.71	-2.84	0.00	-72.1	0.00	72.06	842.50	218.42	424.75	353.65	25.62	-2.47	0.215
110.00	-9.69	-2.82	0.00	-71.1	0.00	71.11	841.37	217.91	422.77	352.35	25.79	-2.48	0.214
113.00	-6.16	-1.89	0.00	-62.5	0.00	62.53	831.08	213.34	405.23	340.67	27.37	-2.56	0.191
115.00	-6.03	-1.84	0.00	-58.8	0.00	58.76	824.04	210.29	393.73	332.91	28.46	-2.62	0.184
120.00	-5.70	-1.77	0.00	-49.6	0.00	49.55	805.83	202.67	365.72	313.65	31.27	-2.75	0.165
125.00	-5.37	-1.69	0.00	-40.7	0.00	40.70	786.74	195.05	338.75	294.59	34.21	-2.86	0.145
130.00	-5.06	-1.62	0.00	-32.2	0.00	32.23	766.78	187.43	312.81	275.79	37.26	-2.97	0.124
135.00	-4.75	-1.55	0.00	-24.1	0.00	24.13	745.94	179.81	287.90	257.27	40.43	-3.07	0.100
140.00	-4.46	-1.47	0.00	-16.4	0.00	16.39	723.20	172.19	264.02	238.74	43.68	-3.14	0.075
145.00	-4.17	-1.41	0.00	-9.0	0.00	9.02	691.20	164.57	241.18	217.97	47	-3.2	0.048
148.00	-3.84	-1.34	0.00	-4.8	0.00	4.79	671.99	160.00	227.97	205.95	49.02	-3.22	0.029
150.00	0.00	-1.12	0.00	-2.1	0.00	2.12	659.19	156.95	219.37	198.13	50.37	-3.23	0.011

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

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

Spectral Response Acceleration for Short Period (S_s):	0.202
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.055
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	1.000
Site Coefficient F_a :	1.600
Site Coefficient F_v :	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.215
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.088
Seismic Response Coefficient (C_s):	0.030
Upper Limit C_s :	0.030
Lower Limit C_s :	0.030
Period based on Rayleigh Method (sec):	3.700
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	2.000
Total Unfactored Dead Load:	26.620 k
Seismic Base Shear (E):	0.800 k

SEISMIC FORCES

Segment	1.2D + 1.0Ev + 1.0Eh	Seismic	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
37			149	106	2,351	0.010	8	132
36			146.5	168	3,614	0.016	13	209
35			142.5	293	5,942	0.026	21	364
34			137.5	300	5,672	0.025	20	373
33			132.5	307	5,397	0.024	19	382
32			127.5	315	5,117	0.023	18	391
31			122.5	322	4,835	0.022	17	401
30			117.5	330	4,550	0.020	16	410
29			114	134	1,740	0.008	6	166
28			111.5	238	2,958	0.013	11	296
27			109.8335	27	321	0.001	1	33
26			107.3335	442	5,092	0.023	18	549
25			102.5	483	5,075	0.023	18	601
24			97.5	493	4,686	0.021	17	613
23			92.5	503	4,302	0.019	15	625
22			87.5	513	3,925	0.018	14	637
21			82.5	522	3,556	0.016	13	650
20			77.5	532	3,197	0.014	11	662
19			74.25	162	891	0.004	3	201
18			71.75	685	3,529	0.016	13	852
17			67.5	634	2,887	0.013	10	788
16			62.5	646	2,523	0.011	9	803
15			57.5	658	2,176	0.010	8	818
14			52.5	670	1,848	0.008	7	833
13			47.5	683	1,541	0.007	5	849
12			42.5	695	1,256	0.006	4	864
11			37.8334	612	877	0.004	3	761
10			35.3334	177	221	0.001	1	220
9			33.25	938	1,037	0.005	4	1,166
8			30.75	245	232	0.001	1	305
7			27.5	827	625	0.003	2	1,028
6			22.5	879	445	0.002	2	1,093
5			17.5	950	291	0.001	1	1,181
4			14.25	288	58	0.000	0	358
3			11.75	911	126	0.001	0	1,132
2			7.5	1,314	74	0.000	0	1,633
1			2.5	1,328	8	0.000	0	1,651
	Powerwave Allgon 7020.00 Dual Band RET		150	13	297	0.001	1	16

SEISMIC FORCES

1.2D + 1.0Ev + 1.0Eh	Seismic	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
Segment							
Kaelus DBC0061F1V51-1		150	76	1,714	0.008	6	95
Powerwave Allgon TT19-08BP111-001		150	48	1,080	0.005	4	60
Raycap DC6-48-60-18-8F ("Squid")		150	57	1,276	0.006	5	70
Ericsson RRUS 4478 B14		150	180	4,043	0.018	14	223
Ericsson RRUS 4449 B5, B12		150	213	4,792	0.021	17	265
Ericsson RRUS 32 B66A		150	152	3,422	0.015	12	189
Ericsson RRUS-32 B30 (77 lbs)		150	231	5,198	0.023	18	287
Allgon 7770.00		150	105	2,362	0.010	8	131
Quintel QS66512-2		150	333	7,492	0.033	27	414
CCI HPA-65R-BUU-H6		150	153	3,442	0.015	12	190
CCI DMP65R-BU6DA		150	238	5,360	0.024	19	296
Flat Platform w/ Handrails		150	2,000	45,000	0.200	160	2,486
Ericsson RRUS 11 (Band 12) (55 lb)		148	165	3,614	0.016	13	205
Kaelus KA-6030		113	35	449	0.002	2	44
Samsung RF4440d-13A		113	211	2,693	0.012	10	262
Samsung RF4439d-25A		113	224	2,862	0.013	10	279
Raycap RCMD-6627-PF-48		113	32	409	0.002	1	40
Samsung MT6407-77A		113	245	3,126	0.014	11	304
Andrew LNX-6514DS-VTM (72.7" height)		113	116	1,486	0.007	5	145
JMA Wireless MX06FRO660-03		113	360	4,597	0.020	16	448
Generic Round Sector Frame		113	2,100	26,815	0.119	95	2,610
Totals:			26,617	224,507	1.000	799	33,088

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
Segment							
37		149	106	2,351	0.010	8	91
36		146.5	168	3,614	0.016	13	144
35		142.5	293	5,942	0.026	21	251
34		137.5	300	5,672	0.025	20	257
33		132.5	307	5,397	0.024	19	263
32		127.5	315	5,117	0.023	18	270
31		122.5	322	4,835	0.022	17	276
30		117.5	330	4,550	0.020	16	282
29		114	134	1,740	0.008	6	115
28		111.5	238	2,958	0.013	11	204
27		109.8335	27	321	0.001	1	23
26		107.3335	442	5,092	0.023	18	379
25		102.5	483	5,075	0.023	18	414
24		97.5	493	4,686	0.021	17	422
23		92.5	503	4,302	0.019	15	431
22		87.5	513	3,925	0.018	14	439
21		82.5	522	3,556	0.016	13	448
20		77.5	532	3,197	0.014	11	456
19		74.25	162	891	0.004	3	138
18		71.75	685	3,529	0.016	13	587
17		67.5	634	2,887	0.013	10	543
16		62.5	646	2,523	0.011	9	553
15		57.5	658	2,176	0.010	8	564
14		52.5	670	1,848	0.008	7	575
13		47.5	683	1,541	0.007	5	585
12		42.5	695	1,256	0.006	4	596
11		37.8334	612	877	0.004	3	525
10		35.3334	177	221	0.001	1	152
9		33.25	938	1,037	0.005	4	804
8		30.75	245	232	0.001	1	210
7		27.5	827	625	0.003	2	709
6		22.5	879	445	0.002	2	753
5		17.5	950	291	0.001	1	814
4		14.25	288	58	0.000	0	247

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)
3	11.75	911	126	0.001	0	780
2	7.5	1,314	74	0.000	0	1,126
1	2.5	1,328	8	0.000	0	1,138
Powerwave Allgon 7020.00 Dual Band RET	150	13	297	0.001	1	11
Kaelus DBC0061F1V51-1	150	76	1,714	0.008	6	65
Powerwave Allgon TT19-08BP111-001	150	48	1,080	0.005	4	41
Raycap DC6-48-60-18-8F ("Squid")	150	57	1,276	0.006	5	49
Ericsson RRUS 4478 B14	150	180	4,043	0.018	14	154
Ericsson RRUS 4449 B5, B12	150	213	4,792	0.021	17	183
Ericsson RRUS 32 B66A	150	152	3,422	0.015	12	130
Ericsson RRUS-32 B30 (77 lbs)	150	231	5,198	0.023	18	198
Allgon 7770.00	150	105	2,362	0.010	8	90
Quintel QS66512-2	150	333	7,492	0.033	27	285
CCI HPA-65R-BUU-H6	150	153	3,442	0.015	12	131
CCI DMP65R-BU6DA	150	238	5,360	0.024	19	204
Flat Platform w/ Handrails	150	2,000	45,000	0.200	160	1,714
Ericsson RRUS 11 (Band 12) (55 lb)	148	165	3,614	0.016	13	141
Kaelus KA-6030	113	35	449	0.002	2	30
Samsung RF4440d-13A	113	211	2,693	0.012	10	181
Samsung RF4439d-25A	113	224	2,862	0.013	10	192
Raycap RCMDC-6627-PF-48	113	32	409	0.002	1	27
Samsung MT6407-77A	113	245	3,126	0.014	11	210
Andrew LNX-6514DS-VTM (72.7" height)	113	116	1,486	0.007	5	100
JMA Wireless MX06FRO660-03	113	360	4,597	0.020	16	308
Generic Round Sector Frame	113	2,100	26,815	0.119	95	1,800
Totals:		26,617	224,507	1.000	799	22,809

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	-31.44	-0.80	0.00	-109.90	0.00	109.90	3,049.83	743.30	2,460	2,174.87	0.00	0.00	0.04
5.00	-29.80	-0.81	0.00	-105.90	0.00	105.90	3,008.23	728.06	2,360	2,100.75	0.01	-0.01	0.04
10.00	-28.67	-0.81	0.00	-101.85	0.00	101.85	2,965.74	712.82	2,262	2,027.26	0.03	-0.03	0.04
13.50	-28.31	-0.82	0.00	-99.01	0.00	99.01	2,935.48	702.15	2,195	1,976.22	0.05	-0.04	0.06
13.50	-28.31	-0.82	0.00	-99.01	0.00	99.01	2,935.48	702.15	2,195	1,976.22	0.05	-0.04	0.04
15.00	-27.13	-0.82	0.00	-97.78	0.00	97.78	2,922.38	697.58	2,167	1,954.44	0.07	-0.04	0.06
20.00	-26.04	-0.83	0.00	-93.67	0.00	93.67	2,865.81	682.34	2,073	1,874.26	0.12	-0.07	0.06
25.00	-25.01	-0.84	0.00	-89.52	0.00	89.52	2,801.80	667.09	1,981	1,791.00	0.21	-0.09	0.06
30.00	-24.71	-0.84	0.00	-85.33	0.00	85.33	2,737.79	651.85	1,892	1,709.63	0.32	-0.12	0.06
31.50	-23.54	-0.84	0.00	-84.06	0.00	84.06	2,718.59	647.28	1,866	1,685.59	0.36	-0.13	0.06
35.00	-23.32	-0.85	0.00	-81.11	0.00	81.11	2,673.78	636.61	1,805	1,630.15	0.46	-0.15	0.06
35.67	-22.56	-0.85	0.00	-80.55	0.00	80.55	2,183.22	540.96	1,563	1,360.34	0.48	-0.15	0.07
40.00	-21.69	-0.85	0.00	-76.88	0.00	76.88	2,154.64	529.95	1,500	1,314.94	0.62	-0.17	0.07
45.00	-20.84	-0.85	0.00	-72.63	0.00	72.63	2,120.84	517.25	1,429	1,262.98	0.82	-0.20	0.07
50.00	-20.01	-0.85	0.00	-68.36	0.00	68.36	2,086.17	504.55	1,360	1,211.51	1.05	-0.23	0.07
55.00	-19.19	-0.85	0.00	-64.09	0.00	64.09	2,050.62	491.85	1,292	1,160.56	1.31	-0.27	0.07
60.00	-18.39	-0.85	0.00	-59.82	0.00	59.82	2,012.44	479.15	1,227	1,109.22	1.60	-0.30	0.06
65.00	-17.60	-0.85	0.00	-55.57	0.00	55.57	1,959.10	466.45	1,162	1,050.87	1.93	-0.33	0.06
70.00	-16.75	-0.84	0.00	-51.33	0.00	51.33	1,905.75	453.75	1,100	994.10	2.29	-0.36	0.06
73.50	-16.55	-0.84	0.00	-48.41	0.00	48.41	1,441.17	363.84	884	755.32	2.57	-0.38	0.08
75.00	-15.88	-0.83	0.00	-47.15	0.00	47.15	1,433.76	360.79	869	745.08	2.69	-0.39	0.07
80.00	-15.23	-0.82	0.00	-43.01	0.00	43.01	1,408.50	350.63	821	711.14	3.12	-0.43	0.07
85.00	-14.60	-0.81	0.00	-38.91	0.00	38.91	1,382.37	340.47	774	677.52	3.59	-0.47	0.07
90.00	-13.97	-0.80	0.00	-34.86	0.00	34.86	1,355.35	330.31	729	644.25	4.10	-0.51	0.06
95.00	-13.36	-0.78	0.00	-30.86	0.00	30.86	1,327.47	320.15	684	611.38	4.65	-0.54	0.06
100.00	-12.76	-0.77	0.00	-26.94	0.00	26.94	1,298.70	309.99	642	578.94	5.24	-0.57	0.06
105.00	-12.21	-0.75	0.00	-23.10	0.00	23.10	1,259.27	299.83	600	542.76	5.86	-0.61	0.05
109.67	-12.17	-0.75	0.00	-19.59	0.00	19.59	1,219.44	290.34	563	508.77	6.47	-0.64	0.05

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
109.67	-12.17	-0.75	0.00	-19.59	0.00	19.59	842.50	218.42	425	353.65	6.47	-0.64	0.07
110.00	-11.88	-0.74	0.00	-19.34	0.00	19.34	841.37	217.91	423	352.35	6.51	-0.64	0.07
113.00	-7.58	-0.54	0.00	-17.12	0.00	17.12	831.08	213.34	405	340.67	6.92	-0.66	0.06
115.00	-7.17	-0.52	0.00	-16.04	0.00	16.04	824.04	210.29	394	332.91	7.20	-0.68	0.06
120.00	-6.77	-0.50	0.00	-13.44	0.00	13.44	805.83	202.67	366	313.65	7.93	-0.71	0.05
125.00	-6.38	-0.48	0.00	-10.92	0.00	10.92	786.74	195.05	339	294.59	8.69	-0.74	0.05
130.00	-6.00	-0.46	0.00	-8.51	0.00	8.51	766.78	187.43	313	275.79	9.49	-0.77	0.04
135.00	-5.63	-0.44	0.00	-6.20	0.00	6.20	745.94	179.81	288	257.27	10.31	-0.80	0.03
140.00	-5.26	-0.41	0.00	-4.01	0.00	4.01	723.20	172.19	264	238.74	11.15	-0.82	0.02
145.00	-5.05	-0.40	0.00	-1.94	0.00	1.94	691.20	164.57	241	217.97	12.02	-0.83	0.02
148.00	-4.72	-0.37	0.00	-0.75	0.00	0.75	671.99	160.00	228	205.95	12.54	-0.83	0.01
150.00	0.00	-0.30	0.00	0.00	0.00	0.00	659.19	156.95	219	198.13	12.89	-0.83	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	-21.67	-0.80	0.00	-105.65	0.00	105.65	3,049.83	743.30	2,460	2,174.87	0.00	0.00	0.03
5.00	-20.54	-0.80	0.00	-101.65	0.00	101.65	3,008.23	728.06	2,360	2,100.75	0.01	-0.01	0.03
10.00	-19.76	-0.81	0.00	-97.63	0.00	97.63	2,965.74	712.82	2,262	2,027.26	0.03	-0.03	0.03
13.50	-19.52	-0.81	0.00	-94.80	0.00	94.80	2,935.48	702.15	2,195	1,976.22	0.05	-0.04	0.03
13.50	-19.52	-0.81	0.00	-94.80	0.00	94.80	2,935.48	702.15	2,195	1,976.22	0.05	-0.04	0.06
15.00	-18.70	-0.81	0.00	-93.58	0.00	93.58	2,922.38	697.58	2,167	1,954.44	0.06	-0.04	0.05
20.00	-17.95	-0.82	0.00	-89.52	0.00	89.52	2,865.81	682.34	2,073	1,874.26	0.12	-0.06	0.05
25.00	-17.24	-0.82	0.00	-85.42	0.00	85.42	2,801.80	667.09	1,981	1,791.00	0.20	-0.09	0.05
30.00	-17.03	-0.83	0.00	-81.31	0.00	81.31	2,737.79	651.85	1,892	1,709.63	0.30	-0.11	0.05
31.50	-16.23	-0.82	0.00	-80.07	0.00	80.07	2,718.59	647.28	1,866	1,685.59	0.34	-0.12	0.05
35.00	-16.07	-0.83	0.00	-77.19	0.00	77.19	2,673.78	636.61	1,805	1,630.15	0.44	-0.14	0.05
35.67	-15.55	-0.83	0.00	-76.64	0.00	76.64	2,183.22	540.96	1,563	1,360.34	0.46	-0.14	0.06
40.00	-14.95	-0.83	0.00	-73.06	0.00	73.06	2,154.64	529.95	1,500	1,314.94	0.60	-0.16	0.06
45.00	-14.37	-0.83	0.00	-68.93	0.00	68.93	2,120.84	517.25	1,429	1,262.98	0.78	-0.19	0.06
50.00	-13.79	-0.82	0.00	-64.80	0.00	64.80	2,086.17	504.55	1,360	1,211.51	1.00	-0.22	0.06
55.00	-13.23	-0.82	0.00	-60.67	0.00	60.67	2,050.62	491.85	1,292	1,160.56	1.25	-0.25	0.06
60.00	-12.67	-0.82	0.00	-56.57	0.00	56.57	2,012.44	479.15	1,227	1,109.22	1.53	-0.28	0.06
65.00	-12.13	-0.81	0.00	-52.48	0.00	52.48	1,959.10	466.45	1,162	1,050.87	1.84	-0.31	0.06
70.00	-11.54	-0.80	0.00	-48.44	0.00	48.44	1,905.75	453.75	1,100	994.10	2.19	-0.34	0.06
73.50	-11.40	-0.80	0.00	-45.64	0.00	45.64	1,441.17	363.84	884	755.32	2.45	-0.36	0.07
75.00	-10.95	-0.79	0.00	-44.44	0.00	44.44	1,433.76	360.79	869	745.08	2.56	-0.37	0.07
80.00	-10.50	-0.78	0.00	-40.50	0.00	40.50	1,408.50	350.63	821	711.14	2.97	-0.41	0.06
85.00	-10.06	-0.77	0.00	-36.60	0.00	36.60	1,382.37	340.47	774	677.52	3.42	-0.44	0.06
90.00	-9.63	-0.75	0.00	-32.77	0.00	32.77	1,355.35	330.31	729	644.25	3.91	-0.48	0.06
95.00	-9.21	-0.74	0.00	-28.99	0.00	28.99	1,327.47	320.15	684	611.38	4.43	-0.51	0.05
100.00	-8.79	-0.72	0.00	-25.29	0.00	25.29	1,298.70	309.99	642	578.94	4.98	-0.54	0.05
105.00	-8.41	-0.71	0.00	-21.68	0.00	21.68	1,259.27	299.83	600	542.76	5.57	-0.58	0.05
109.67	-8.39	-0.71	0.00	-18.39	0.00	18.39	1,219.44	290.34	563	508.77	6.14	-0.60	0.04
109.67	-8.39	-0.71	0.00	-18.39	0.00	18.39	842.50	218.42	425	353.65	6.14	-0.60	0.06
110.00	-8.19	-0.70	0.00	-18.15	0.00	18.15	841.37	217.91	423	352.35	6.18	-0.60	0.06
113.00	-5.23	-0.51	0.00	-16.07	0.00	16.07	831.08	213.34	405	340.67	6.57	-0.63	0.05
115.00	-4.94	-0.49	0.00	-15.05	0.00	15.05	824.04	210.29	394	332.91	6.84	-0.64	0.05
120.00	-4.67	-0.47	0.00	-12.60	0.00	12.60	805.83	202.67	366	313.65	7.53	-0.67	0.05
125.00	-4.40	-0.45	0.00	-10.24	0.00	10.24	786.74	195.05	339	294.59	8.25	-0.70	0.04
130.00	-4.13	-0.43	0.00	-7.97	0.00	7.97	766.78	187.43	313	275.79	9.00	-0.73	0.03
135.00	-3.88	-0.41	0.00	-5.81	0.00	5.81	745.94	179.81	288	257.27	9.77	-0.75	0.03
140.00	-3.63	-0.39	0.00	-3.75	0.00	3.75	723.20	172.19	264	238.74	10.57	-0.77	0.02
145.00	-3.48	-0.37	0.00	-1.82	0.00	1.82	691.20	164.57	241	217.97	11.39	-0.78	0.01
148.00	-3.25	-0.35	0.00	-0.70	0.00	0.70	671.99	160.00	228	205.95	11.88	-0.79	0.01
150.00	0.00	-0.30	0.00	0.00	0.00	0.00	659.19	156.95	219	198.13	12.21	-0.79	0.00

ANALYSIS SUMMARY

Load Case	Base Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W	17.50	0.00	31.90	0.00	0.00	1878.67	73.50	1
0.9D + 1.0W	17.48	0.00	23.92	0.00	0.00	1824.01	73.50	0.95
1.2D + 1.0Di + 1.0Wi	4.05	0.00	41.27	0.00	0.00	476.21	73.50	0.28
1.2D + 1.0Ev + 1.0Eh	0.85	0.00	31.44	0.00	0.00	109.90	73.50	0.08
0.9D - 1.0Ev + 1.0Eh	0.83	0.00	21.67	0.00	0.00	105.65	73.50	0.07
1.0D + 1.0W	4.41	0.00	26.62	0.00	0.00	466.90	73.50	0.25

ADDITIONAL STEEL SUMMARY

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors				Max Member		
			VQ/I (k/in)	Shear Applied (kips)	phiVn (kips)	Ratio	Pu (kip)	phiPn (kip)	Ratio
0.00	13.50	SOL #20 All Thread Bar	169.8	5.1	16.8	0.303	214.4	330.5	

Elev From (ft)	Elev To (ft)	Member	Upper Termination Connectors				Lower Termination Connectors					
			MQ/I (kips)	phiVn (kips)	Number Required	Number Actual	Ratio	MQ/I (kips)	phiVn (kip)	Number Required	Number Actual	Ratio
0.00	13.50	SOL #20 All Thread Bar	203.7834	12	17	18	0.9434	0	12	0	0	0.0000

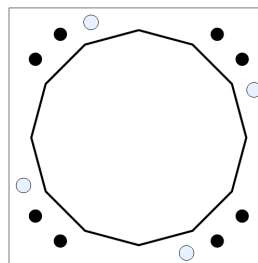
BASE PLATE ANALYSIS @ 0 FT

APPLIED REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
1878.67	31.9	17.5

PLATE PARAMETERS (ID# 26568)

Width:	44	in
Shape:	Square	
Thickness:	2.5	in
Grade:	A36	
Yield Strength:	36	ksi
Tensile Strength:	58	ksi
Clip Length:	0	in
Rod Detail Type:	c	
Clear Distance:	-	in
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Elastic	
Neutral Axis:	140	°



ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	F _y (ksi)	F _u (ksi)	Spacing (in)	Offset (°)
Original [ID#27264]	Cluster	8	2.25	44	A615-75	75	100	6	-

DYWIDAG BAR PARAMETERS

Quantity	Bar Size	Bar Diameter (in)	F _y (ksi)	F _u (ksi)	Bracket Type	Bracket Offset (in)	Circle (in)	Offset (°)
4 [ID# 2362]	#20	2.5	80	100	Angle	2.19	42.33	22.5

COMPONENT PROPERTIES

Component	ID	Gross Area (in ²)	Net Area (in ²)	Individual Inertia (in ⁴)	Moment of Inertia (in ⁴)	Threads/in
Pole	35.45"ø x 0.375" (12 Sides)	40.8514	-	-	6284.13	-
Bolt Group	Original (8) 2.25"ø	3.9761	3.2477	0.8393	5566.40	4.5
Dywidag Group	(4) #20	4.9087	4.9087	1.9175	4405.48	-

REACTION DISTRIBUTION

Component	ID	Moment M _u (k-ft)	Axial Load P _u (k)	Shear V _u (k)	Moment Factor
Pole	35.45"ø x 0.375" (12 Sides)	1104.4	31.90	17.50	0.588
Bolt Group	Original (8) 2.25"ø	1104.4	-	17.50	0.588
Dywidag Group	(4) #20	774.2	-	-	0.412

BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES

Flat-to-Flat Diameter:	35.58	in	Flat Width:	9.532	in
Point-to-Point Diameter:	36.83	in	Flat Radians:	0.524	rad
Orientation Offset:	-	°			

PLATE PROPERTIES


Neutral Axis: 140 °

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 /ΦM _n
Flats	26.650	0.00	41.641	843.7	1349.2	62.5%
Corners	25.395	0.00	39.680	642.6	1285.6	50.0%


ASSET: 302519, Southbury
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14519505

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	8	2.25	162.1	0.2	243.6	0.666	66.7% 

DYWIDAG BAR ANALYSIS

Group Quantity	Bar Size	Bar Circle (in)	Applied Axial Load P_u (k)	Compressive Capacity ΦP_n (k)	Compressive Result $P_u / \Phi P_n$
4	#20	42.33	197.6	368.2	53.7% 

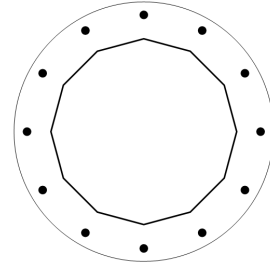
UPPER FLANGE PLATE ANALYSIS @ 109.667 FT

APPLIED REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
291.01	9.95	11.49

PLATE PARAMETERS (ID# 26567)

Width:	30	in
Shape:	Round	
Thickness:	1	in
Grade:	A572-60	
Yield Strength:	60	ksi
Tensile Strength:	75	ksi
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Plastic	
Neutral Axis:	30	°



FLANGE BOLT PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	F _y (ksi)	F _u (ksi)	Spacing (in)	Offset (°)
Original [ID#27265]	Radial	12	1	27	A325	92	120	-	-

COMPONENT PROPERTIES

Component	ID	Gross Area (in ²)	Net Area (in ²)	Individual Inertia (in ⁴)	Moment of Inertia (in ⁴)	Threads/in
Pole	20.8012"Ø x 0.1875" (12 Sides)	12.0042	-	-	637.75	-
Bolt Group	Original (12) 1"Ø	0.7854	0.6057	0.0292	602.82	8.0

REACTION DISTRIBUTION

Component	ID	Moment M _u (k-ft)	Axial Load P _u (k)	Shear V _u (k)	Moment Factor
Pole	20.8012"Ø x 0.1875" (12 Sides)	291.0	9.95	11.49	1.000
Bolt Group	Original (12) 1"Ø	291.0	-	11.49	1.000

UPPER FLANGE PLATE BEND LINE ANALYSIS @ 109.667 FT

POLE PROPERTIES

Flat-to-Flat Diameter:	20.93	in
Point-to-Point Diameter:	21.66	in
Orientation Offset:	-	°

Flat Width:	5.607	in
Flat Radians:	0.524	rad

PLATE PROPERTIES

Neutral Axis:	30	°
Bend Line Limits:	1.354 to 2.834	rad

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 /ΦM _n
Flats	19.458	0.00	4.865	165.9	262.7	63.1%
Corners	18.633	0.00	4.658	119.4	251.5	47.5%
Circumferential	26.844	0.00	6.711	257.2	362.4	71.0%

PLASTIC FLANGE BOLT ANALYSIS

Class	Group Quantity	Bolt Diameter (in)	Applied Axial Load P _u (k)	Applied Shear Load V _u (k)	Compressive Capacity ΦP _n (k)	Interaction Result
Original	12	1	38.0	1.5	54.5	73.7%

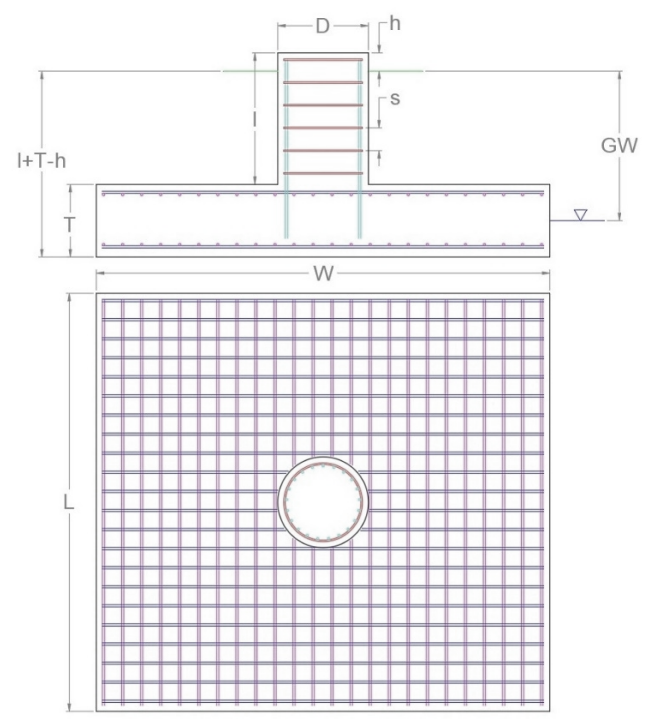


APPLIED GLOBAL REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
1,878.67	31.90	17.50

FOUNDATION PARAMETERS

Mat Length:	L	18	ft
Mat Width:	W	18	ft
Mat Thickness:	T	3	ft
Base Depth:	L+T-h	8	ft
Pier Shape:		Round	
Pier Diameter:	D	5	ft
Pier Height above Grade:	h	0.5	ft
Concrete Compressive Strength:		3,000	psi
Mat Top Rebar:		(36) #5 bars [60 ksi]	
Mat Bottom Rebar:		(36) #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	10	ft
Soil Unit Weight:		113	pcf
Ultimate Skin Friction:		0	psf
Ultimate Bearing Pressure:		29,650	psf
Bearing Pressure Type:		Gross	
Coefficient of Shear Friction:		0.35	

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, $M_{u,Design} / \Phi_m M_n$
2,027.42	3,209.85	63.2% ✔

SOIL BEARING ANALYSIS

Net Bearing Pressure, $P_{u,Net}$ (psf)	Nominal Bearing Capacity, $\Phi_b P_n$ (k-ft)	Bearing Pressure Controlling Load Direction	Soil Bearing Usage, $P_{u,net} / \Phi_b P_n$
2,945.00	22,238.00	Diagonal to Pad Edge	13.2% ✔

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, $V_u / \Phi_s V_n$
17.50	0.00	734.5	39.66	124.39	14.0% ✔

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, $V_u / \Phi_c V_n$
117.34	474.67	Diagonal to Pad Edge	24.7%

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, $v_u / \Phi_c v_n$
35.2	164.3	21.4%

MAT REINFORCING MOMENT TRANSFER ANALYSIS

Moment Transfer Effective Flexural Width, w_t (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, $0.6 M_{ut} / \Phi M_{sc,f}$
14.00	5.17	0.00	58,941.8	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, $M_u / \Phi M_n$
385.95	1,568.54	Parallel to Pad Edge	24.6%

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, $M_u / \Phi M_n$
840.40	6,096.76	Parallel to Pad Edge	13.8%

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
51.62	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, $M_u / \Phi_b M_n$
1,974.92	9,214.44	0.029	21.4%

PIER REINFORCING COMPRESSION ANALYSIS

Design Compression, P_u (k)	Nominal Compressive Capacity, $\Phi_p P_n$ (k)	Pier Rebar Compressive Usage, $P_u / \Phi_p P_n$
31.90	3,690.28	0.9%

PIER REINFORCING SHEAR ANALYSIS

Design Shear, V_u (k)	Nominal Shear Capacity, $\Phi_v V_n$ (k)	Pier Rebar Shear Usage, $V_u / \Phi_v V_n$
17.50	305.61	5.7%

EXHIBIT 4



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

Antenna Mount Analysis Report and PMI Requirements

Mount ReAnalysis

SMART Tool Project #: 10208084
Colliers Engineering & Design CT. P.C. Project #: 23777232

August 14, 2023

Site Information

Site ID: 5000383276-VZW / SOUTHBURY W CT
Site Name: SOUTHBURY W CT
Carrier Name: Verizon Wireless
Address: 133 Horse Fence Hill Road
Southbury, Connecticut 06488
New Haven County
Latitude: 41.460096°
Longitude: -73.245390°

Structure Information

Tower Type: 150-Ft Monopole
Mount Type: 12.50-Ft T-Arm

FUZE ID # 17123858

Analysis Results

T-Arm: 85.4% Pass*

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

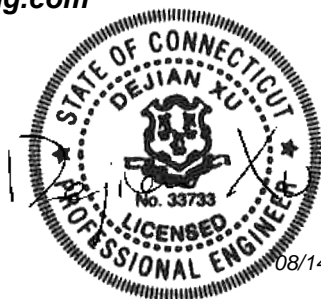
***Contractor PMI Requirements:

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: Selene Chen



08/14/2023

Executive Summary:

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

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

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	Verizon RFDS, Site ID: 324866, dated July 20, 2021
Desktop Mount Mapping Form	Colliers Engineering & Design CT. P.C., Project #: 21777856, dated July 9, 2021
Previous Mount Analysis Report	Colliers Engineering & Design CT. P.C., Project #: 21777856 (Rev.1), dated March 24, 2023
Post-Modification Inspection Report	Colliers Engineering & Design CT. P.C., Project #: 21777856, dated June 7, 2023
Filter Add Scope	Provided by Verizon Wireless

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 120 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in Risk Category: II Exposure Category: C Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.988
Seismic Parameters:	S_s : 0.199 g S_1 : 0.054 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Live Load, L_v : 250 lbs. Maintenance Live Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V17)

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
112.50	113.00	3	Samsung	RF4439d-25A	Retained
		3	Samsung	RF4440d-13A	
		6	JMA Wireless	MX06FRO660-03	
		3	Samsung	MT6407-77A	
		1	Raycap	RVZDC-6627-PF-48*	
		3	Andrew	LNx-6514DS-VTM	
		2	KAelus	KA-6030	Added

* Equipment to be flush mounted directly to the Monopole. They are not mounted on T-Arms and are not included in this mount analysis.

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 CT. P.C. 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 CT. P.C. 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 CT. P.C. is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325

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

Analysis Results:

Component	Utilization %	Pass/Fail
Face Horizontal	62.0 %	Pass
Standoff	85.4 %	Pass
Standoff Vertical	0.0 %	Pass
Mount Pipe	52.8 %	Pass
Mod Mount Pipe	36.1 %	Pass
V-Brace	20.0 %	Pass
Mod Face Horizontal	26.7 %	Pass
Connection Check	85.0 %	Pass

Structure Rating – (Controlling Utilization of all Components)	85.4%
---	--------------

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	17.3	6.4	24.8	14.0
0.5	22.3	8.4	32.8	18.9
1	27.2	10.3	40.8	23.8

Notes:

- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 1 sector(s).
- Ka factors included in (EPA)a calculations

Requirements:

The existing mounts are **SUFFICIENT** for the final loading configuration shown in attachment 2 and do not require modifications. Additional requirements are noted below.

Contractor shall record all dimensions and member sizes requested in the Mount Geometry Verification Requirements section of the Mount Analysis report. Contractor shall provide the requested information to Colliers Engineering & Design for structural verification while on site. Contact EOR if these documents are not available to the general contractor.

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

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

Attachments:

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

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

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

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

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

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

MDG #: 5000383276

SMART Project #: 10208084

Fuze Project ID: 17123858

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

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

Base Requirements:

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

Photo Requirements:

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

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

Antenna & equipment placement and Geometry Confirmation:

- The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.
 - The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

OR

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

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

Issue:

Contractor shall record all dimensions and member sizes requested in the Mount Geometry Verification Requirements section of the Mount Analysis report. Contractor shall provide the requested information to Colliers Engineering & Design for structural verification while on site. Contact EOR if these documents are not available to the general contractor.

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

Response:

Special Instruction Confirmation:

- The contractor has read and acknowledges the above special instructions.
- All hardware listed in the Special Instructions above (if applicable) has been properly installed, and the existing hardware was inspected.
- The material utilized was as specified in the SMART Tool engineering vendor Special Instructions above (if applicable) and included in the material certification folder is a packing list or invoice for these materials.

OR

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

Comments:

--

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

Yes No

Contractor certifies no new damage created during the current installation:

Yes No

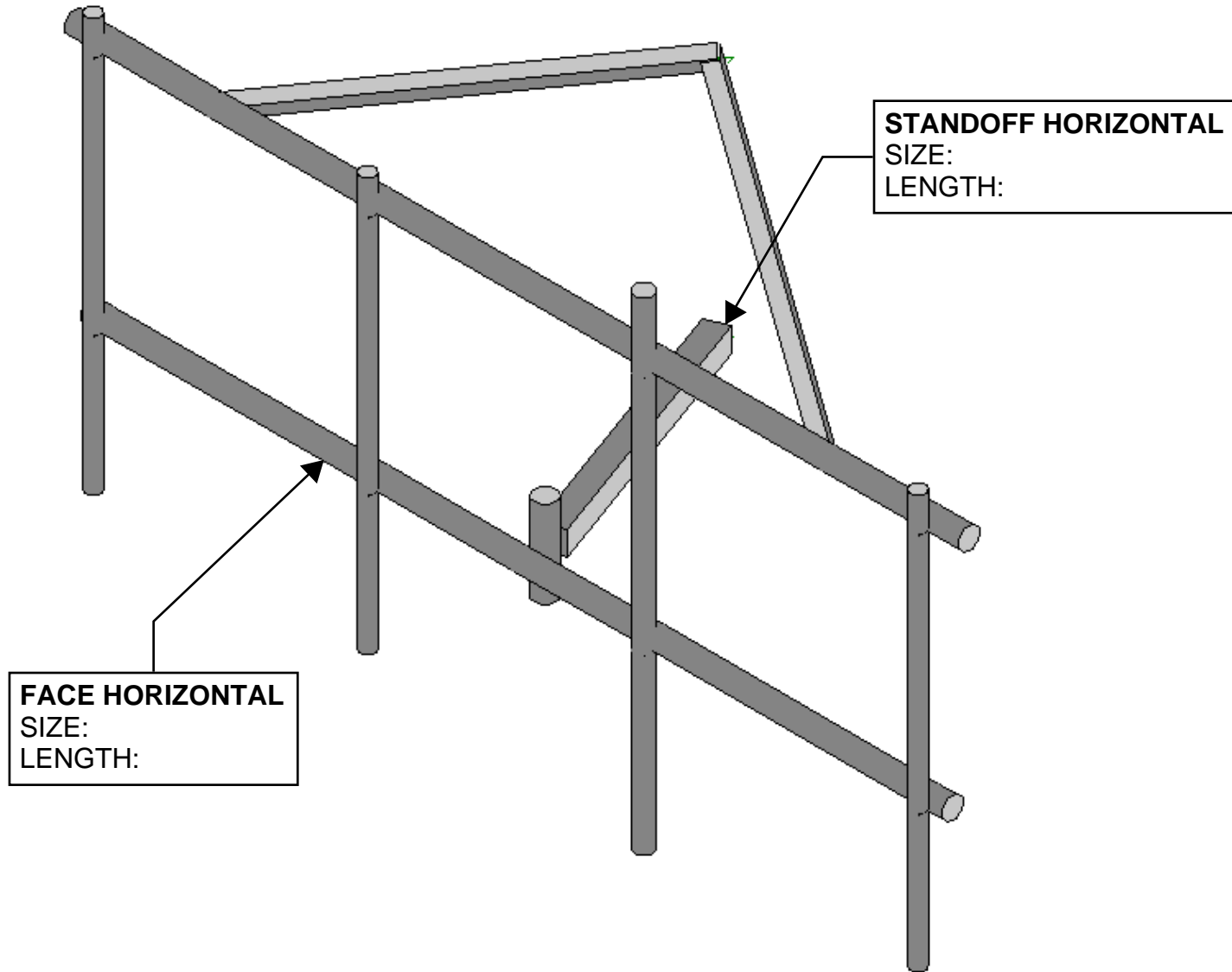
Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

Safety Climb in Good Condition Safety Climb Damaged

Certifying Individual:

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

MOUNT GEOMETRY VERIFICATION

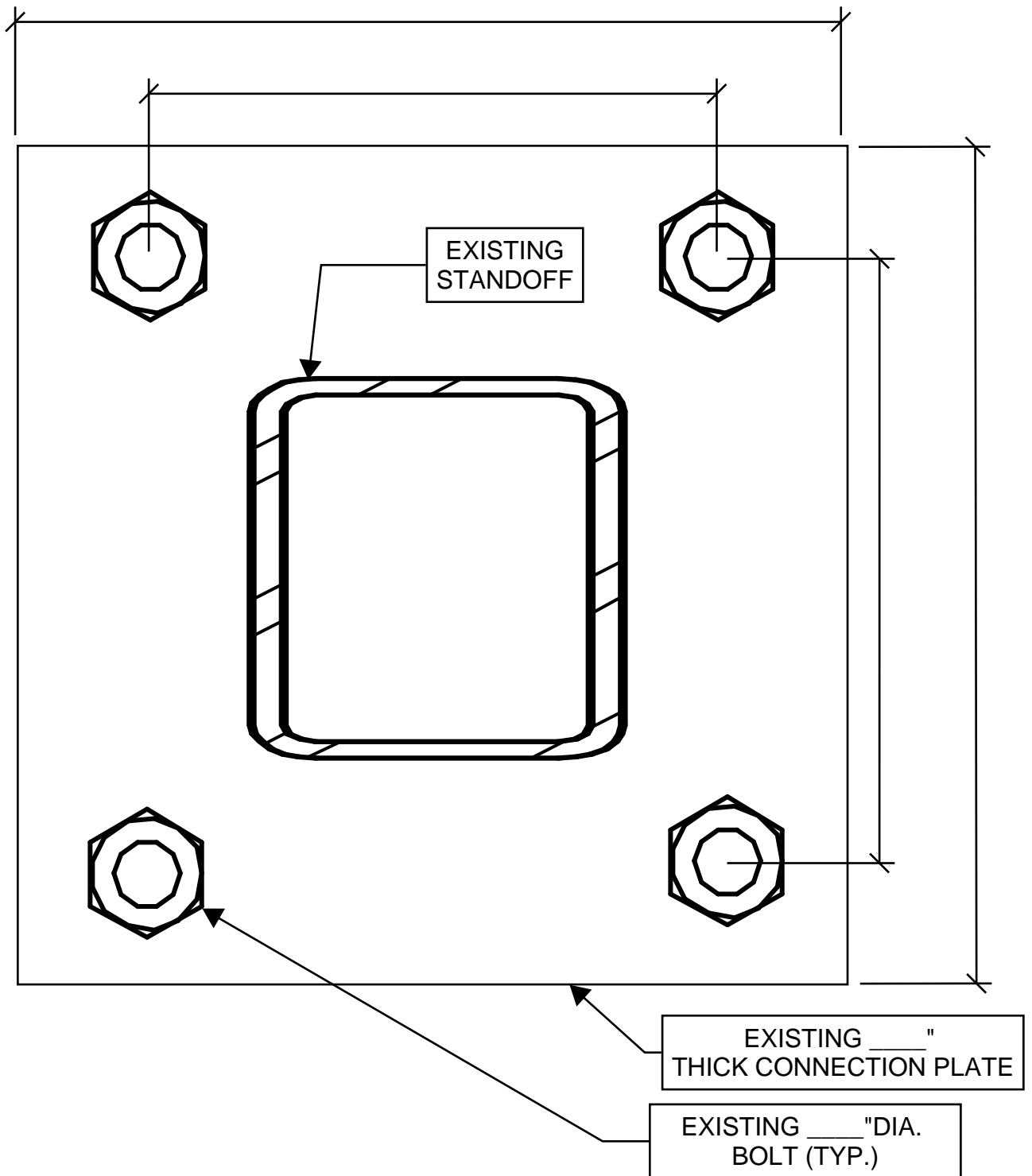


MOUNT ISOMETRIC VIEW

N.T.S

CONTRACTOR SHALL MEASURE ALL DIMENSIONS AND MEMBER SIZES REQUESTED ON THIS SKETCH. RECORD VIA PHOTOS AND MARKUPS ON THIS PAGE. PROVIDE PHOTOS AND MARKED-UP SKETCH TO THE EOR FOR EVALUATION.

MOUNT GEOMETRY VERIFICATION

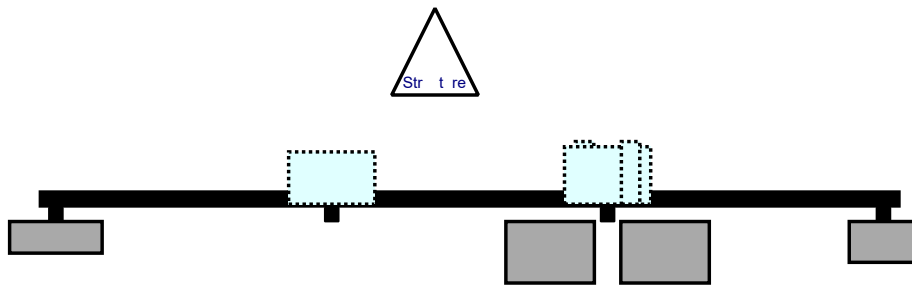


CONNECTION GEOMETRY (TYP. ALL SECTORS)

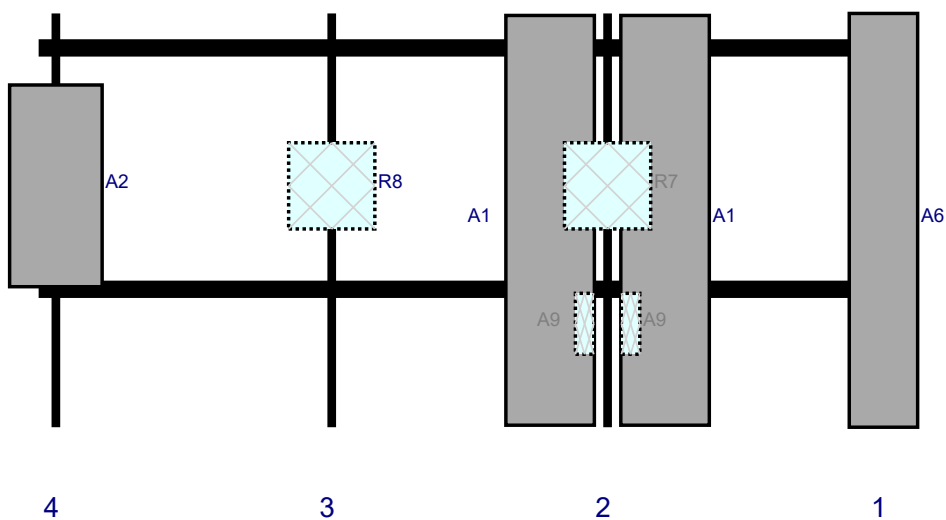
N.T.S.

CONTRACTOR SHALL MEASURE ALL DIMENSIONS AND MEMBER SIZES REQUESTED ON THIS SKETCH. RECORD VIA PHOTOS AND MARKUPS ON THIS PAGE. PROVIDE PHOTOS AND MARKED-UP SKETCH TO THE EOR FOR EVALUATION.

Plan View

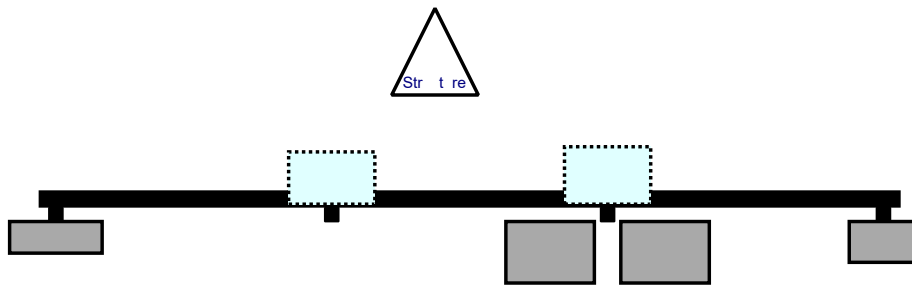


Front View - Looking at Structure

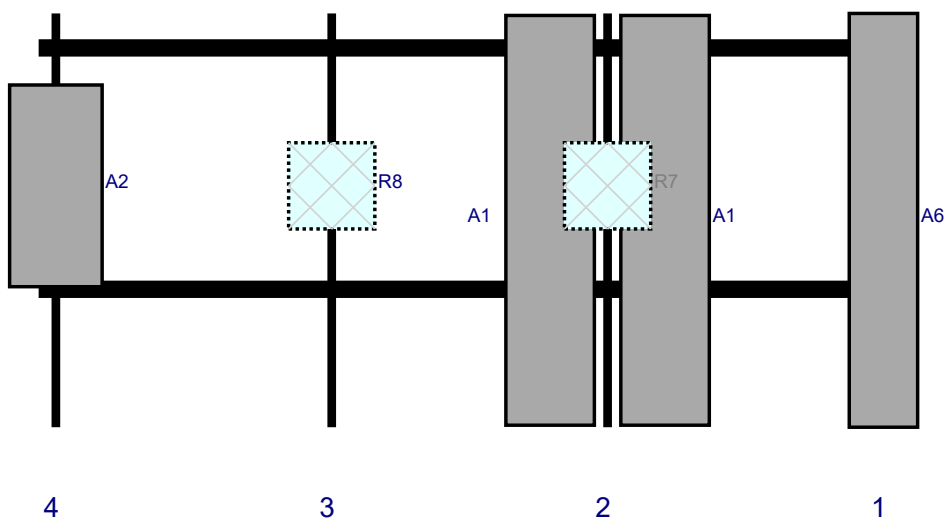


Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A6	LN -6514DS-VTM	72	11.9	147	1		Fro t	36	0	Ret i ed	05/26/2023
A1	M 06FRO660-03	71.3	15.4	99	2		Fro t	36	-10	Ret i ed	05/26/2023
A1	M 06FRO660-03	71.3	15.4	99	2		Fro t	36	10	Ret i ed	05/26/2023
R7	RF4439d-25A	15	15	99	2		Behi d	30	0	Ret i ed	05/26/2023
A9	A-6030	10.6	3.2	99	2		Behi d	54	4	Added	
A9	A-6030	10.6	3.2	99	2		Behi d	54	-4	Added	
R8	RF4440d-13A	15	15	51	3		Behi d	30	0	Ret i ed	05/26/2023
A2	MT6407-77A	35.1	16.1	3	4		Fro t	30	0	Ret i ed	05/26/2023

Plan View

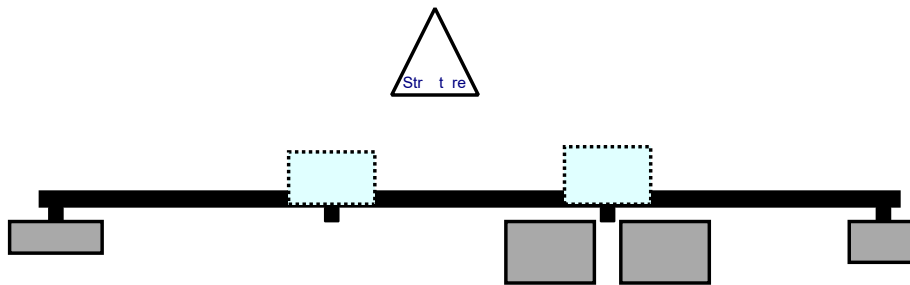


Front View - Looking at Structure

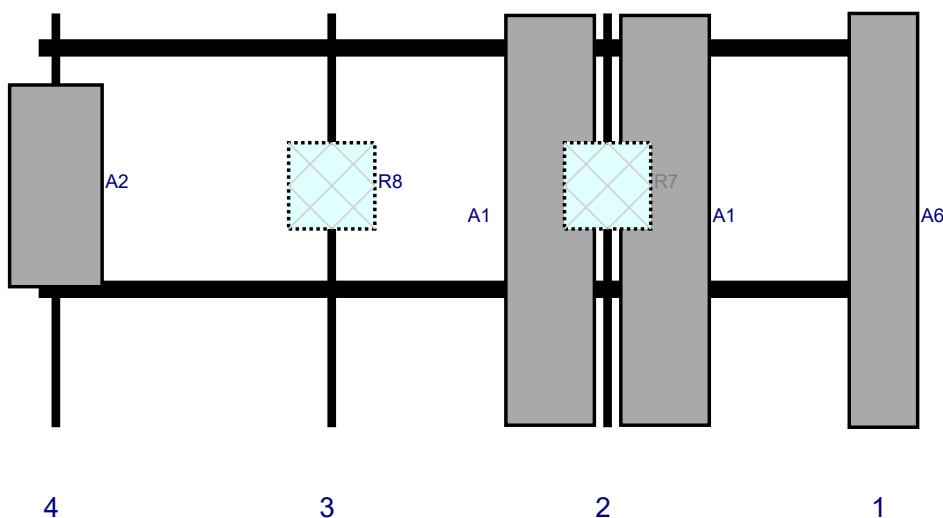


Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A6	LN -6514DS-VTM	72	11.9	147	1		Fro t	36	0	Ret i ed	05/26/2023
A1	M 06FRO660-03	71.3	15.4	99	2		Fro t	36	-10	Ret i ed	05/26/2023
A1	M 06FRO660-03	71.3	15.4	99	2		Fro t	36	10	Ret i ed	05/26/2023
R7	RF4439d-25A	15	15	99	2		Behi d	30	0	Ret i ed	05/26/2023
R8	RF4440d-13A	15	15	51	3		Behi d	30	0	Ret i ed	05/26/2023
A2	MT6407-77A	35.1	16.1	3	4		Fro t	30	0	Ret i ed	05/26/2023

Plan View



Front View - Looking at Structure




Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A6	LN -6514DS-VTM	72	11.9	147	1		Fro t	36	0	Ret i ed	05/26/2023
A1	M 06FRO660-03	71.3	15.4	99	2		Fro t	36	-10	Ret i ed	05/26/2023
A1	M 06FRO660-03	71.3	15.4	99	2		Fro t	36	10	Ret i ed	05/26/2023
R7	RF4439d-25A	15	15	99	2		Behi d	30	0	Ret i ed	05/26/2023
R8	RF4440d-13A	15	15	51	3		Behi d	30	0	Ret i ed	05/26/2023
A2	MT6407-77A	35.1	16.1	3	4		Fro t	30	0	Ret i ed	05/26/2023

May 26, 2023 at 1:19:41 PM
133 Horse Fence Hill Rd
Southbury CT 06488
United States



May 26, 2023 at 10:49:48 AM
133 Horse Fence Hill Rd
Southbury CT 06488
United States



	Desktop Mount Mapping Form			
	Site Name:	SOUTHBURY W CT	Tower Type:	Monopole
	Site ID:	467324	Tower Owner:	ATC
	FUZE Project ID:	16053187	Tower Height (Ft.):	
	Customer:	Verizon Wireless	Mount Elevation (Ft.):	
	Colliers Project No.:	21777856	Date:	7/9/2021

The information contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is prohibited except by express written permission of Colliers Engineering & Design.

Document Type	Provided? (Yes/No)	Source Name	Project No.	Dated	Comments/Remarks
Previous Mount Mapping	No				
Previous Mapping Photos	No				
Previous Mount Analysis	No				
Previous Mount Modifications	No				
Previous Structural Analysis	No				
Construction Drawings	No				
Closeout Package	No				
Closeout Photos	No				
Handover Package	No				
New Build 445 Documentation	No				
Other	Yes	Hudson Design Group		5/7/2021	Ground Photos Package
Previous PMI	No				

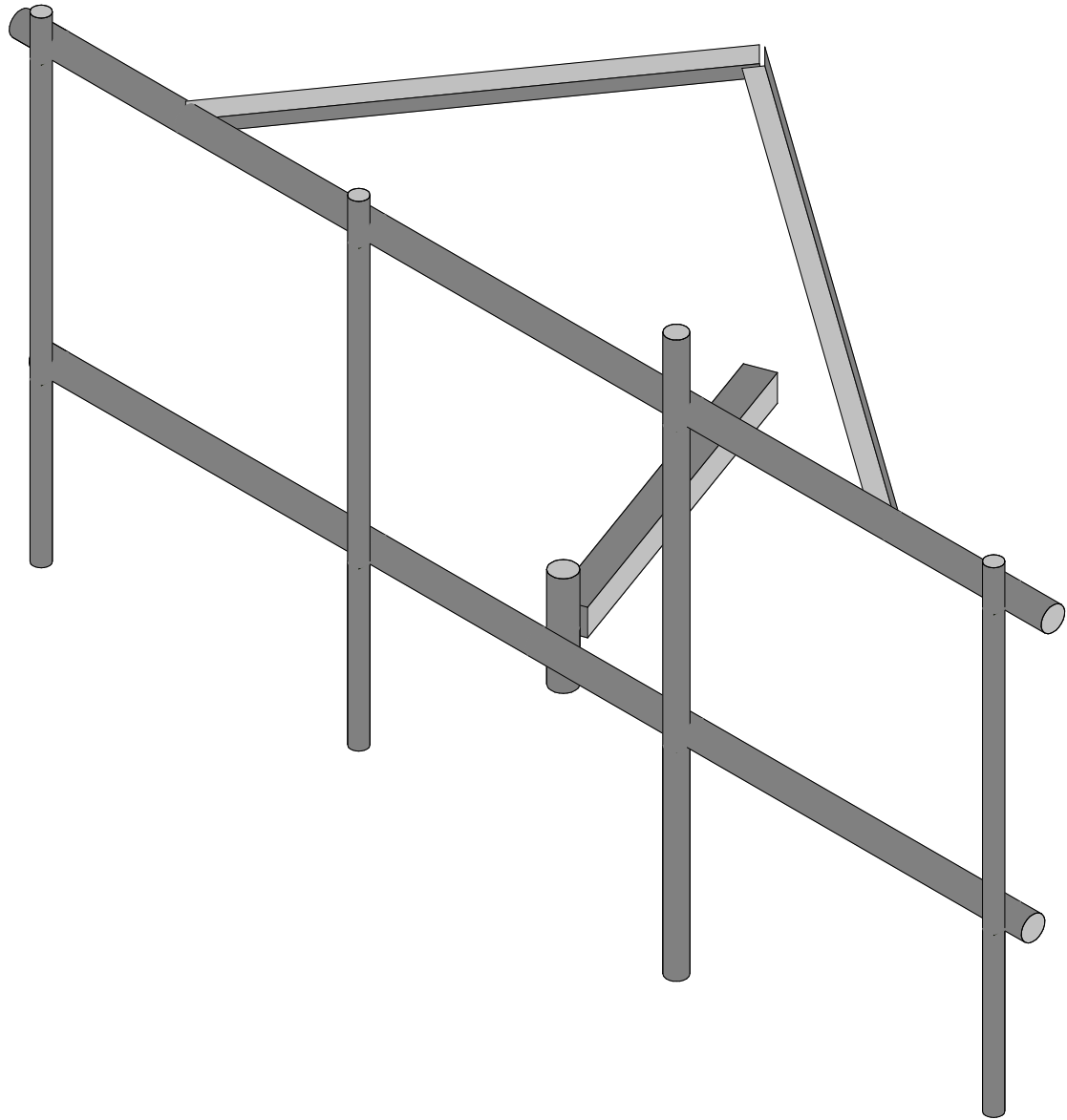
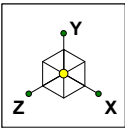
The **desktop mount mapping** is based on the engineering review of the available site documents in FUZE, as listed above, in place of a full mount mapping. It is assumed that the information provided in the documents listed above, provide an accurate representation of the existing mount. EOR reserves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



Photo taken from: Closeout Package

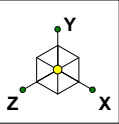


Photo taken from: Closeout Package

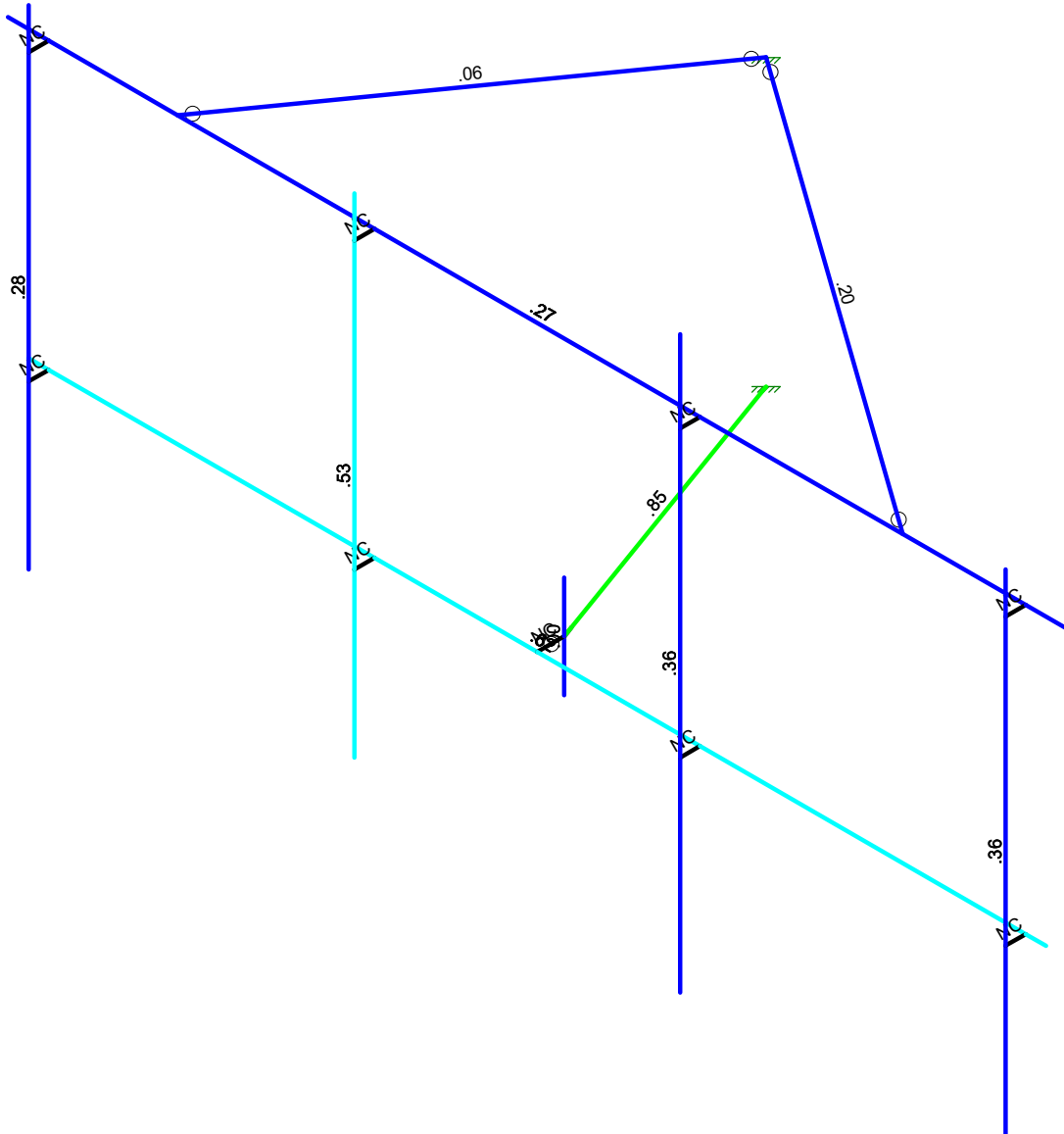


Envelope Only Solution

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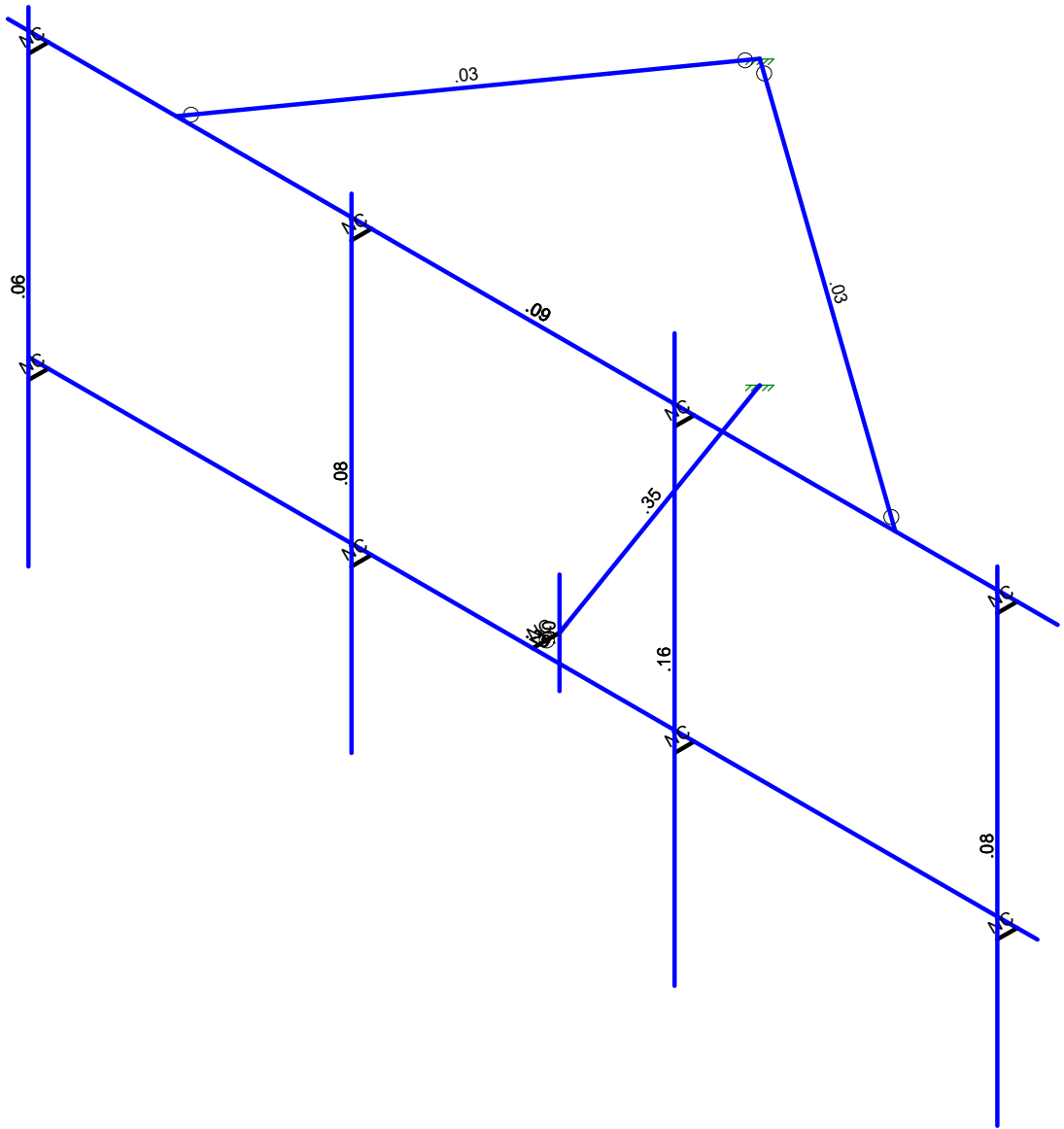
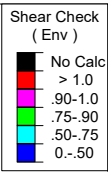
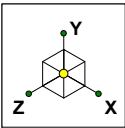


Code Check (Env)	
Black	No Calc
Red	> 1.0
Pink	.90-1.0
Green	.75-.90
Cyan	.50-.75
Blue	0.-.50



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Colliers Engineering & De...		SK - 2
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		5000383276-VZW_MT_LOT_A_H....



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Colliers Engineering & De...		SK - 3
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		5000383276-VZW_MT_LOT_A_H....

Basic Load Cases

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

Basic Load Cases (Continued)

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me... Surface(...
59 Structure Wi (180 Deg)	None						20
60 Structure Wi (210 Deg)	None						20
61 Structure Wi (240 Deg)	None						20
62 Structure Wi (270 Deg)	None						20
63 Structure Wi (300 Deg)	None						20
64 Structure Wi (330 Deg)	None						20
65 Structure Wm (0 Deg)	None						20
66 Structure Wm (30 Deg)	None						20
67 Structure Wm (60 Deg)	None						20
68 Structure Wm (90 Deg)	None						20
69 Structure Wm (120 Deg)	None						20
70 Structure Wm (150 Deg)	None						20
71 Structure Wm (180 Deg)	None						20
72 Structure Wm (210 Deg)	None						20
73 Structure Wm (240 Deg)	None						20
74 Structure Wm (270 Deg)	None						20
75 Structure Wm (300 Deg)	None						20
76 Structure Wm (330 Deg)	None						20
77 Lm1	None					1	
78 Lm2	None					1	
79 Lv1	None					1	
80 Lv2	None					1	
81 Antenna Ev	None					42	
82 Antenna Eh (0 Deg)	None					28	
83 Antenna Eh (90 Deg)	None					28	
84 Structure Ev	ELY		-.042				
85 Structure Eh (0 Deg)	ELZ			-.106			
86 Structure Eh (90 Deg)	ELX	.106					

Load Combinations

Description	So..P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	
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 (...)	Yes	Y	1	1.2	39	1.2	2	1	40	1	15	1	53	1							
14 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y	1	1.2	39	1.2	2	1	40	1	16	1	54	1							
15 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y	1	1.2	39	1.2	2	1	40	1	17	1	55	1							
16 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y	1	1.2	39	1.2	2	1	40	1	18	1	56	1							
17 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y	1	1.2	39	1.2	2	1	40	1	19	1	57	1							
18 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y	1	1.2	39	1.2	2	1	40	1	20	1	58	1							
19 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y	1	1.2	39	1.2	2	1	40	1	21	1	59	1							
20 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y	1	1.2	39	1.2	2	1	40	1	22	1	60	1							
21 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y	1	1.2	39	1.2	2	1	40	1	23	1	61	1							
22 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y	1	1.2	39	1.2	2	1	40	1	24	1	62	1							
23 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y	1	1.2	39	1.2	2	1	40	1	25	1	63	1							
24 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y	1	1.2	39	1.2	2	1	40	1	26	1	64	1							
25 1.2D + 1.5Lm1 + 1.0...	Yes	Y	1	1.2	39	1.2	77	1.5	27	1	65	1									
26 1.2D + 1.5Lm1 + 1.0...	Yes	Y	1	1.2	39	1.2	77	1.5	28	1	66	1									

Load Combinations (Continued)

Description	So.	P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
27 1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1		
28 1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1		
29 1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1		
30 1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1		
31 1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1		
32 1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1		
33 1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1		
34 1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1		
35 1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1		
36 1.2D + 1.5Lm1 + 1.0...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1		
37 1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1		
38 1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1		
39 1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1		
40 1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1		
41 1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1		
42 1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1		
43 1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1		
44 1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1		
45 1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1		
46 1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1		
47 1.2D + 1.5Lm2 + 1.0...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1		
48 1.2D + 1.5Lm2 + 1.0...	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 ...	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 ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5 ELZ .866 ELX .5
54 1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866 ELZ .5 ELX .866
55 1.2D + 1.0Ev + 1.0Eh ...	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 ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866 ELZ -.5 ELX .866
57 1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	.5 ELZ -.866 ELX .5
58 1.2D + 1.0Ev + 1.0Eh ...	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 ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	-.5 ELZ -.866 ELX -.5
60 1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.866 ELZ -.5 ELX -.866
61 1.2D + 1.0Ev + 1.0Eh ...	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 ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.866 ELZ .5 ELX -.866
63 1.2D + 1.0Ev + 1.0Eh ...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5 ELZ .866 ELX -.5
64 0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	1	83	ELZ 1 ELX
65 0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5 ELZ .866 ELX .5
66 0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866 ELZ .5 ELX .866
67 0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	1 ELZ ELX 1
68 0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866 ELZ -.5 ELX .866
69 0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	.5 ELZ -.866 ELX .5
70 0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-1	83	ELZ -1 ELX
71 0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	-.5 ELZ -.866 ELX -.5
72 0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.866 ELZ -.5 ELX -.866
73 0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	-1 ELZ ELX -1
74 0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	-.866 ELZ .5 ELX -.866
75 0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5 ELZ .866 ELX -.5

Joint Coordinates and Temperatures

Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1 N1	8.009979	0	5.168835	0	
2 N2	-4.490021	0	5.168835	0	
3 N3	7.759979	0	5.168835	0	
4 N4	7.759979	0	5.413627	0	
5 N5	3.759979	0	5.168835	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
6	N6	3.759979	0	5.413627	0	
7	N7	-0.240021	0	5.168835	0	
8	N8	-0.240021	0	5.413627	0	
9	N9	-4.240021	0	5.168835	0	
10	N10	-4.240021	0	5.413627	0	
11	N11	1.759979	0	5.168835	0	
12	N12	1.710101	0	4.698463	0	
13	N13	0.34202	0	0.939693	0	
14	N14	1.759979	0	4.835502	0	
15	N15	1.759979	.625	4.835502	0	
16	N16	1.759979	-.625	4.835502	0	
17	N17	7.759979	-2	5.413627	0	
18	N18	3.759979	-2.5	5.413627	0	
19	N19	-0.240021	-2	5.413627	0	
20	N20	-4.240021	-2	5.413627	0	
21	N21	7.759979	4	5.413627	0	
22	N22	3.759979	4.5	5.413627	0	
23	N23	-0.240021	4	5.413627	0	
24	N24	-4.240021	4	5.413627	0	
25	C	0	0	0	0	
26	N36	-2.656688	3.5	5.168835	0	
27	N37	6.25	3.5	5.168835	0	
28	N38	0.34202	3.5	0.939693	0	
29	N33	8.259979	3.5	5.168835	0	
30	N34	-4.740021	3.5	5.168835	0	
31	N35	7.759979	3.5	5.168835	0	
32	N36A	7.759979	3.5	5.413627	0	
33	N37A	3.759979	3.5	5.168835	0	
34	N38A	3.759979	3.5	5.413627	0	
35	N39	-0.240021	3.5	5.168835	0	
36	N40	-0.240021	3.5	5.413627	0	
37	N41	-4.240021	3.5	5.168835	0	
38	N42	-4.240021	3.5	5.413627	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Face Horizontal	PIPE 3.0	None	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
2	Standoff Vertical	PIPE 3.0	None	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
3	Standoff	HSS4X4X4	None	None	A500 Gr.B ...	Typical	3.37	7.8	7.8	12.8
4	Mount Pipe	PIPE 2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
5	Mod Mount Pipe	PIPE 2.5	None	None	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
6	Mod Face Horizontal	PIPE 3.0	None	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
7	V-Brace	L2.5x2.5x4	None	None	A36 Gr.36	Typical	1.19	.692	.692	.026

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/f...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N1	N2			Face Horizontal	None	None	A53 Gr.B	Typical
2	M2	N3	N4			RIGID	None	None	RIGID	Typical
3	M3	N5	N6			RIGID	None	None	RIGID	Typical
4	M4	N7	N8			RIGID	None	None	RIGID	Typical
5	M5	N9	N10			RIGID	None	None	RIGID	Typical
6	M7	N14	N13			Standoff	None	None	A500 Gr.B...	Typical
7	M8	N15	N16			Standoff Vertical	None	None	A53 Gr.B	Typical
8	MP1A	N21	N17			Mount Pipe	None	None	A53 Gr.B	Typical
9	MP2A	N22	N18			Mod Mount Pipe	None	None	A53 Gr.B	Typical
10	MP3A	N23	N19			Mount Pipe	None	None	A53 Gr.B	Typical
11	MP4A	N24	N20			Mount Pipe	None	None	A53 Gr.B	Typical
12	M17A	N11	N14			RIGID	None	None	RIGID	Typical
13	M18	N36	N38			V-Brace	None	None	A36 Gr.36	Typical
14	M19	N37	N38		270	V-Brace	None	None	A36 Gr.36	Typical
15	M17	N33	N34			Mod Face Hori...	None	None	A53 Gr.B	Typical
16	M18A	N35	N36A			RIGID	None	None	RIGID	Typical
17	M19A	N37A	N38A			RIGID	None	None	RIGID	Typical
18	M20	N39	N40			RIGID	None	None	RIGID	Typical
19	M21	N41	N42			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes	** NA **			None
2	M2						Yes	** NA **			None
3	M3						Yes	** NA **			None
4	M4						Yes	** NA **			None
5	M5						Yes	** NA **			None
6	M7			1.75			Yes	** NA **			None
7	M8						Yes	** NA **			None
8	MP1A						Yes	** NA **			None
9	MP2A						Yes	** NA **			None
10	MP3A						Yes	** NA **			None
11	MP4A						Yes	** NA **			None
12	M17A		OOOOOO				Yes	** NA **			None
13	M18	BenPIN	BenPIN				Yes	** NA **			None
14	M19	BenPIN	BenPIN				Yes	** NA **			None
15	M17						Yes	** NA **			None
16	M18A						Yes	** NA **			None
17	M19A						Yes	** NA **			None
18	M20						Yes	** NA **			None
19	M21						Yes	** NA **			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	Y	-74.7	2.5
2	MP2A	My	.037	2.5
3	MP2A	Mz	0	2.5
4	MP3A	Y	-70.3	2.5
5	MP3A	My	.035	2.5
6	MP3A	Mz	0	2.5
7	MP2A	Y	-23	.28
8	MP2A	My	-.023	.28
9	MP2A	Mz	-.019	.28
10	MP2A	Y	-23	5.72
11	MP2A	My	-.023	5.72

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
12	MP2A	Mz	-.019	5.72
13	MP2A	Y	-.23	.28
14	MP2A	My	-.023	.28
15	MP2A	Mz	.019	.28
16	MP2A	Y	-.23	5.72
17	MP2A	My	-.023	5.72
18	MP2A	Mz	.019	5.72
19	MP4A	Y	-43.55	1.04
20	MP4A	My	-.036	1.04
21	MP4A	Mz	0	1.04
22	MP4A	Y	-43.55	3.96
23	MP4A	My	-.036	3.96
24	MP4A	Mz	0	3.96
25	MP1A	Y	-16.55	.5
26	MP1A	My	-.014	.5
27	MP1A	Mz	0	.5
28	MP1A	Y	-16.55	5.5
29	MP1A	My	-.014	5.5
30	MP1A	Mz	0	5.5
31	MP2A	Y	-8.8	4
32	MP2A	My	.009	4
33	MP2A	Mz	.003	4
34	MP2A	Y	-8.8	5
35	MP2A	My	.009	5
36	MP2A	Mz	.003	5
37	MP2A	Y	-8.8	4
38	MP2A	My	.009	4
39	MP2A	Mz	-.003	4
40	MP2A	Y	-8.8	5
41	MP2A	My	.009	5
42	MP2A	Mz	-.003	5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	Y	-43.735	2.5
2	MP2A	My	.022	2.5
3	MP2A	Mz	0	2.5
4	MP3A	Y	-41.646	2.5
5	MP3A	My	.021	2.5
6	MP3A	Mz	0	2.5
7	MP2A	Y	-80.532	.28
8	MP2A	My	-.081	.28
9	MP2A	Mz	-.067	.28
10	MP2A	Y	-80.532	5.72
11	MP2A	My	-.081	5.72
12	MP2A	Mz	-.067	5.72
13	MP2A	Y	-80.532	.28
14	MP2A	My	-.081	.28
15	MP2A	Mz	.067	.28
16	MP2A	Y	-80.532	5.72
17	MP2A	My	-.081	5.72
18	MP2A	Mz	.067	5.72
19	MP4A	Y	-34.755	1.04
20	MP4A	My	-.029	1.04
21	MP4A	Mz	0	1.04
22	MP4A	Y	-34.755	3.96
23	MP4A	My	-.029	3.96
24	MP4A	Mz	0	3.96

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
25	MP1A	Y	-59.144	.5
26	MP1A	My	-.049	.5
27	MP1A	Mz	0	.5
28	MP1A	Y	-59.144	5.5
29	MP1A	My	-.049	5.5
30	MP1A	Mz	0	5.5
31	MP2A	Y	3.3	4
32	MP2A	My	-.003	4
33	MP2A	Mz	-.001	4
34	MP2A	Y	3.3	5
35	MP2A	My	-.003	5
36	MP2A	Mz	-.001	5
37	MP2A	Y	3.3	4
38	MP2A	My	-.003	4
39	MP2A	Mz	.001	4
40	MP2A	Y	3.3	5
41	MP2A	My	-.003	5
42	MP2A	Mz	.001	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	0	2.5
2	MP2A	Z	-62.243	2.5
3	MP2A	Mx	0	2.5
4	MP3A	X	0	2.5
5	MP3A	Z	-62.243	2.5
6	MP3A	Mx	0	2.5
7	MP2A	X	0	.28
8	MP2A	Z	-95.244	.28
9	MP2A	Mx	.079	.28
10	MP2A	X	0	5.72
11	MP2A	Z	-95.244	5.72
12	MP2A	Mx	.079	5.72
13	MP2A	X	0	.28
14	MP2A	Z	-95.244	.28
15	MP2A	Mx	-.079	.28
16	MP2A	X	0	5.72
17	MP2A	Z	-95.244	5.72
18	MP2A	Mx	-.079	5.72
19	MP4A	X	0	1.04
20	MP4A	Z	-78.933	1.04
21	MP4A	Mx	0	1.04
22	MP4A	X	0	3.96
23	MP4A	Z	-78.933	3.96
24	MP4A	Mx	0	3.96
25	MP1A	X	0	.5
26	MP1A	Z	-162.901	.5
27	MP1A	Mx	0	.5
28	MP1A	X	0	5.5
29	MP1A	Z	-162.901	5.5
30	MP1A	Mx	0	5.5
31	MP2A	X	0	4
32	MP2A	Z	-19.275	4
33	MP2A	Mx	-.006	4
34	MP2A	X	0	5
35	MP2A	Z	-19.275	5
36	MP2A	Mx	-.006	5
37	MP2A	X	0	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
38	MP2A	Z	-19.275	4
39	MP2A	Mx	.006	4
40	MP2A	X	0	5
41	MP2A	Z	-19.275	5
42	MP2A	Mx	.006	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	28.562	2.5
2	MP2A	Z	-49.47	2.5
3	MP2A	Mx	.014	2.5
4	MP3A	X	28.06	2.5
5	MP3A	Z	-48.601	2.5
6	MP3A	Mx	.014	2.5
7	MP2A	X	44.627	.28
8	MP2A	Z	-77.296	.28
9	MP2A	Mx	.02	.28
10	MP2A	X	44.627	5.72
11	MP2A	Z	-77.296	5.72
12	MP2A	Mx	.02	5.72
13	MP2A	X	44.627	.28
14	MP2A	Z	-77.296	.28
15	MP2A	Mx	-1.109	.28
16	MP2A	X	44.627	5.72
17	MP2A	Z	-77.296	5.72
18	MP2A	Mx	-1.109	5.72
19	MP4A	X	32.998	1.04
20	MP4A	Z	-57.154	1.04
21	MP4A	Mx	-.027	1.04
22	MP4A	X	32.998	3.96
23	MP4A	Z	-57.154	3.96
24	MP4A	Mx	-.027	3.96
25	MP1A	X	74.533	.5
26	MP1A	Z	-129.095	.5
27	MP1A	Mx	-.062	.5
28	MP1A	X	74.533	5.5
29	MP1A	Z	-129.095	5.5
30	MP1A	Mx	-.062	5.5
31	MP2A	X	9.645	4
32	MP2A	Z	-16.705	4
33	MP2A	Mx	.004	4
34	MP2A	X	9.645	5
35	MP2A	Z	-16.705	5
36	MP2A	Mx	.004	5
37	MP2A	X	9.645	4
38	MP2A	Z	-16.705	4
39	MP2A	Mx	.015	4
40	MP2A	X	9.645	5
41	MP2A	Z	-16.705	5
42	MP2A	Mx	.015	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	40.602	2.5
2	MP2A	Z	-23.442	2.5
3	MP2A	Mx	.02	2.5
4	MP3A	X	37.994	2.5
5	MP3A	Z	-21.936	2.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
19	MP4A	X	27.184	1.04
20	MP4A	Z	0	1.04
21	MP4A	Mx	-.023	1.04
22	MP4A	X	27.184	3.96
23	MP4A	Z	0	3.96
24	MP4A	Mx	-.023	3.96
25	MP1A	X	107.56	.5
26	MP1A	Z	0	.5
27	MP1A	Mx	-.09	.5
28	MP1A	X	107.56	5.5
29	MP1A	Z	0	5.5
30	MP1A	Mx	-.09	5.5
31	MP2A	X	19.332	4
32	MP2A	Z	0	4
33	MP2A	Mx	.019	4
34	MP2A	X	19.332	5
35	MP2A	Z	0	5
36	MP2A	Mx	.019	5
37	MP2A	X	19.332	4
38	MP2A	Z	0	4
39	MP2A	Mx	.019	4
40	MP2A	X	19.332	5
41	MP2A	Z	0	5
42	MP2A	Mx	.019	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	40.602	2.5
2	MP2A	Z	23.442	2.5
3	MP2A	Mx	.02	2.5
4	MP3A	X	37.994	2.5
5	MP3A	Z	21.936	2.5
6	MP3A	Mx	.019	2.5
7	MP2A	X	66.92	.28
8	MP2A	Z	38.636	.28
9	MP2A	Mx	-.099	.28
10	MP2A	X	66.92	5.72
11	MP2A	Z	38.636	5.72
12	MP2A	Mx	-.099	5.72
13	MP2A	X	66.92	.28
14	MP2A	Z	38.636	.28
15	MP2A	Mx	-.035	.28
16	MP2A	X	66.92	5.72
17	MP2A	Z	38.636	5.72
18	MP2A	Mx	-.035	5.72
19	MP4A	X	34.746	1.04
20	MP4A	Z	20.061	1.04
21	MP4A	Mx	-.029	1.04
22	MP4A	X	34.746	3.96
23	MP4A	Z	20.061	3.96
24	MP4A	Mx	-.029	3.96
25	MP1A	X	105.132	.5
26	MP1A	Z	60.698	.5
27	MP1A	Mx	-.088	.5
28	MP1A	X	105.132	5.5
29	MP1A	Z	60.698	5.5
30	MP1A	Mx	-.088	5.5
31	MP2A	X	16.73	4

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	0	2.5
2	MP2A	Z	62.243	2.5
3	MP2A	Mx	0	2.5
4	MP3A	X	0	2.5
5	MP3A	Z	62.243	2.5
6	MP3A	Mx	0	2.5
7	MP2A	X	0	.28
8	MP2A	Z	95.244	.28
9	MP2A	Mx	-.079	.28
10	MP2A	X	0	5.72
11	MP2A	Z	95.244	5.72
12	MP2A	Mx	-.079	5.72
13	MP2A	X	0	.28
14	MP2A	Z	95.244	.28
15	MP2A	Mx	.079	.28
16	MP2A	X	0	5.72
17	MP2A	Z	95.244	5.72
18	MP2A	Mx	.079	5.72
19	MP4A	X	0	1.04
20	MP4A	Z	78.933	1.04
21	MP4A	Mx	0	1.04
22	MP4A	X	0	3.96
23	MP4A	Z	78.933	3.96
24	MP4A	Mx	0	3.96
25	MP1A	X	0	.5
26	MP1A	Z	162.901	.5
27	MP1A	Mx	0	.5
28	MP1A	X	0	5.5
29	MP1A	Z	162.901	5.5
30	MP1A	Mx	0	5.5
31	MP2A	X	0	4
32	MP2A	Z	19.275	4
33	MP2A	Mx	.006	4
34	MP2A	X	0	5
35	MP2A	Z	19.275	5
36	MP2A	Mx	.006	5
37	MP2A	X	0	4
38	MP2A	Z	19.275	4
39	MP2A	Mx	-.006	4
40	MP2A	X	0	5
41	MP2A	Z	19.275	5
42	MP2A	Mx	-.006	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	-28.562	2.5
2	MP2A	Z	49.47	2.5
3	MP2A	Mx	-.014	2.5
4	MP3A	X	-28.06	2.5
5	MP3A	Z	48.601	2.5
6	MP3A	Mx	-.014	2.5
7	MP2A	X	-44.627	.28
8	MP2A	Z	77.296	.28
9	MP2A	Mx	-.02	.28
10	MP2A	X	-44.627	5.72
11	MP2A	Z	77.296	5.72
12	MP2A	Mx	-.02	5.72
13	MP2A	X	-44.627	.28



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
14	MP2A	Z	77.296	.28
15	MP2A	Mx	.109	.28
16	MP2A	X	-44.627	5.72
17	MP2A	Z	77.296	5.72
18	MP2A	Mx	.109	5.72
19	MP4A	X	-32.998	1.04
20	MP4A	Z	57.154	1.04
21	MP4A	Mx	.027	1.04
22	MP4A	X	-32.998	3.96
23	MP4A	Z	57.154	3.96
24	MP4A	Mx	.027	3.96
25	MP1A	X	-74.533	.5
26	MP1A	Z	129.095	.5
27	MP1A	Mx	.062	.5
28	MP1A	X	-74.533	5.5
29	MP1A	Z	129.095	5.5
30	MP1A	Mx	.062	5.5
31	MP2A	X	-9.645	4
32	MP2A	Z	16.705	4
33	MP2A	Mx	-.004	4
34	MP2A	X	-9.645	5
35	MP2A	Z	16.705	5
36	MP2A	Mx	-.004	5
37	MP2A	X	-9.645	4
38	MP2A	Z	16.705	4
39	MP2A	Mx	-.015	4
40	MP2A	X	-9.645	5
41	MP2A	Z	16.705	5
42	MP2A	Mx	-.015	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	-40.602	2.5
2	MP2A	Z	23.442	2.5
3	MP2A	Mx	-.02	2.5
4	MP3A	X	-37.994	2.5
5	MP3A	Z	21.936	2.5
6	MP3A	Mx	-.019	2.5
7	MP2A	X	-66.92	.28
8	MP2A	Z	38.636	.28
9	MP2A	Mx	.035	.28
10	MP2A	X	-66.92	5.72
11	MP2A	Z	38.636	5.72
12	MP2A	Mx	.035	5.72
13	MP2A	X	-66.92	.28
14	MP2A	Z	38.636	.28
15	MP2A	Mx	.099	.28
16	MP2A	X	-66.92	5.72
17	MP2A	Z	38.636	5.72
18	MP2A	Mx	.099	5.72
19	MP4A	X	-34.746	1.04
20	MP4A	Z	20.061	1.04
21	MP4A	Mx	.029	1.04
22	MP4A	X	-34.746	3.96
23	MP4A	Z	20.061	3.96
24	MP4A	Mx	.029	3.96
25	MP1A	X	-105.132	.5
26	MP1A	Z	60.698	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
27	MP1A	Mx	.088	.5
28	MP1A	X	-105.132	5.5
29	MP1A	Z	60.698	5.5
30	MP1A	Mx	.088	5.5
31	MP2A	X	-16.73	4
32	MP2A	Z	9.659	4
33	MP2A	Mx	-.014	4
34	MP2A	X	-16.73	5
35	MP2A	Z	9.659	5
36	MP2A	Mx	-.014	5
37	MP2A	X	-16.73	4
38	MP2A	Z	9.659	4
39	MP2A	Mx	-.02	4
40	MP2A	X	-16.73	5
41	MP2A	Z	9.659	5
42	MP2A	Mx	-.02	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	-41.763	2.5
2	MP2A	Z	0	2.5
3	MP2A	Mx	-.021	2.5
4	MP3A	X	-37.748	2.5
5	MP3A	Z	0	2.5
6	MP3A	Mx	-.019	2.5
7	MP2A	X	-71.282	.28
8	MP2A	Z	0	.28
9	MP2A	Mx	.071	.28
10	MP2A	X	-71.282	5.72
11	MP2A	Z	0	5.72
12	MP2A	Mx	.071	5.72
13	MP2A	X	-71.282	.28
14	MP2A	Z	0	.28
15	MP2A	Mx	.071	.28
16	MP2A	X	-71.282	5.72
17	MP2A	Z	0	5.72
18	MP2A	Mx	.071	5.72
19	MP4A	X	-27.184	1.04
20	MP4A	Z	0	1.04
21	MP4A	Mx	.023	1.04
22	MP4A	X	-27.184	3.96
23	MP4A	Z	0	3.96
24	MP4A	Mx	.023	3.96
25	MP1A	X	-107.56	.5
26	MP1A	Z	0	.5
27	MP1A	Mx	.09	.5
28	MP1A	X	-107.56	5.5
29	MP1A	Z	0	5.5
30	MP1A	Mx	.09	5.5
31	MP2A	X	-19.332	4
32	MP2A	Z	0	4
33	MP2A	Mx	-.019	4
34	MP2A	X	-19.332	5
35	MP2A	Z	0	5
36	MP2A	Mx	-.019	5
37	MP2A	X	-19.332	4
38	MP2A	Z	0	4
39	MP2A	Mx	-.019	4

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
40	MP2A	X	-19.332	5
41	MP2A	Z	0	5
42	MP2A	Mx	-.019	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-40.602	2.5
2	MP2A	Z	-23.442	2.5
3	MP2A	Mx	-.02	2.5
4	MP3A	X	-37.994	2.5
5	MP3A	Z	-21.936	2.5
6	MP3A	Mx	-.019	2.5
7	MP2A	X	-66.92	.28
8	MP2A	Z	-38.636	.28
9	MP2A	Mx	.099	.28
10	MP2A	X	-66.92	5.72
11	MP2A	Z	-38.636	5.72
12	MP2A	Mx	.099	5.72
13	MP2A	X	-66.92	.28
14	MP2A	Z	-38.636	.28
15	MP2A	Mx	.035	.28
16	MP2A	X	-66.92	5.72
17	MP2A	Z	-38.636	5.72
18	MP2A	Mx	.035	5.72
19	MP4A	X	-34.746	1.04
20	MP4A	Z	-20.061	1.04
21	MP4A	Mx	.029	1.04
22	MP4A	X	-34.746	3.96
23	MP4A	Z	-20.061	3.96
24	MP4A	Mx	.029	3.96
25	MP1A	X	-105.132	.5
26	MP1A	Z	-60.698	.5
27	MP1A	Mx	.088	.5
28	MP1A	X	-105.132	5.5
29	MP1A	Z	-60.698	5.5
30	MP1A	Mx	.088	5.5
31	MP2A	X	-16.73	4
32	MP2A	Z	-9.659	4
33	MP2A	Mx	-.02	4
34	MP2A	X	-16.73	5
35	MP2A	Z	-9.659	5
36	MP2A	Mx	-.02	5
37	MP2A	X	-16.73	4
38	MP2A	Z	-9.659	4
39	MP2A	Mx	-.014	4
40	MP2A	X	-16.73	5
41	MP2A	Z	-9.659	5
42	MP2A	Mx	-.014	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-28.562	2.5
2	MP2A	Z	-49.47	2.5
3	MP2A	Mx	-.014	2.5
4	MP3A	X	-28.06	2.5
5	MP3A	Z	-48.601	2.5
6	MP3A	Mx	-.014	2.5
7	MP2A	X	-44.627	.28



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
21	MP4A	Mx	0	1.04
22	MP4A	X	0	3.96
23	MP4A	Z	-18.514	3.96
24	MP4A	Mx	0	3.96
25	MP1A	X	0	.5
26	MP1A	Z	-31.092	.5
27	MP1A	Mx	0	.5
28	MP1A	X	0	5.5
29	MP1A	Z	-31.092	5.5
30	MP1A	Mx	0	5.5
31	MP2A	X	0	4
32	MP2A	Z	-1.599	4
33	MP2A	Mx	-.000533	4
34	MP2A	X	0	5
35	MP2A	Z	-1.599	5
36	MP2A	Mx	-.000533	5
37	MP2A	X	0	4
38	MP2A	Z	-1.599	4
39	MP2A	Mx	.000533	4
40	MP2A	X	0	5
41	MP2A	Z	-1.599	5
42	MP2A	Mx	.000533	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	7.176	2.5
2	MP2A	Z	-12.429	2.5
3	MP2A	Mx	.004	2.5
4	MP3A	X	7.069	2.5
5	MP3A	Z	-12.244	2.5
6	MP3A	Mx	.004	2.5
7	MP2A	X	17.633	.28
8	MP2A	Z	-30.541	.28
9	MP2A	Mx	.008	.28
10	MP2A	X	17.633	5.72
11	MP2A	Z	-30.541	5.72
12	MP2A	Mx	.008	5.72
13	MP2A	X	17.633	.28
14	MP2A	Z	-30.541	.28
15	MP2A	Mx	-.043	.28
16	MP2A	X	17.633	5.72
17	MP2A	Z	-30.541	5.72
18	MP2A	Mx	-.043	5.72
19	MP4A	X	7.927	1.04
20	MP4A	Z	-13.729	1.04
21	MP4A	Mx	-.007	1.04
22	MP4A	X	7.927	3.96
23	MP4A	Z	-13.729	3.96
24	MP4A	Mx	-.007	3.96
25	MP1A	X	14.337	.5
26	MP1A	Z	-24.833	.5
27	MP1A	Mx	-.012	.5
28	MP1A	X	14.337	5.5
29	MP1A	Z	-24.833	5.5
30	MP1A	Mx	-.012	5.5
31	MP2A	X	1.133	4
32	MP2A	Z	-1.962	4
33	MP2A	Mx	.000479	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
34	MP2A	X	1.133	5
35	MP2A	Z	-1.962	5
36	MP2A	Mx	.000479	5
37	MP2A	X	1.133	4
38	MP2A	Z	-1.962	4
39	MP2A	Mx	.002	4
40	MP2A	X	1.133	5
41	MP2A	Z	-1.962	5
42	MP2A	Mx	.002	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	10.377	2.5
2	MP2A	Z	-5.991	2.5
3	MP2A	Mx	.005	2.5
4	MP3A	X	9.823	2.5
5	MP3A	Z	-5.671	2.5
6	MP3A	Mx	.005	2.5
7	MP2A	X	26.577	.28
8	MP2A	Z	-15.344	.28
9	MP2A	Mx	-.014	.28
10	MP2A	X	26.577	5.72
11	MP2A	Z	-15.344	5.72
12	MP2A	Mx	-.014	5.72
13	MP2A	X	26.577	.28
14	MP2A	Z	-15.344	.28
15	MP2A	Mx	-.039	.28
16	MP2A	X	26.577	5.72
17	MP2A	Z	-15.344	5.72
18	MP2A	Mx	-.039	5.72
19	MP4A	X	9.121	1.04
20	MP4A	Z	-5.266	1.04
21	MP4A	Mx	-.008	1.04
22	MP4A	X	9.121	3.96
23	MP4A	Z	-5.266	3.96
24	MP4A	Mx	-.008	3.96
25	MP1A	X	20.645	.5
26	MP1A	Z	-11.92	.5
27	MP1A	Mx	-.017	.5
28	MP1A	X	20.645	5.5
29	MP1A	Z	-11.92	5.5
30	MP1A	Mx	-.017	5.5
31	MP2A	X	3.116	4
32	MP2A	Z	-1.799	4
33	MP2A	Mx	.003	4
34	MP2A	X	3.116	5
35	MP2A	Z	-1.799	5
36	MP2A	Mx	.003	5
37	MP2A	X	3.116	4
38	MP2A	Z	-1.799	4
39	MP2A	Mx	.004	4
40	MP2A	X	3.116	5
41	MP2A	Z	-1.799	5
42	MP2A	Mx	.004	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	10.797	2.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
2	MP2A	Z	0	2.5
3	MP2A	Mx	.005	2.5
4	MP3A	X	9.944	2.5
5	MP3A	Z	0	2.5
6	MP3A	Mx	.005	2.5
7	MP2A	X	28.399	.28
8	MP2A	Z	0	.28
9	MP2A	Mx	-.028	.28
10	MP2A	X	28.399	5.72
11	MP2A	Z	0	5.72
12	MP2A	Mx	-.028	5.72
13	MP2A	X	28.399	.28
14	MP2A	Z	0	.28
15	MP2A	Mx	-.028	.28
16	MP2A	X	28.399	5.72
17	MP2A	Z	0	5.72
18	MP2A	Mx	-.028	5.72
19	MP4A	X	7.872	1.04
20	MP4A	Z	0	1.04
21	MP4A	Mx	-.007	1.04
22	MP4A	X	7.872	3.96
23	MP4A	Z	0	3.96
24	MP4A	Mx	-.007	3.96
25	MP1A	X	21.422	.5
26	MP1A	Z	0	.5
27	MP1A	Mx	-.018	.5
28	MP1A	X	21.422	5.5
29	MP1A	Z	0	5.5
30	MP1A	Mx	-.018	5.5
31	MP2A	X	4.264	4
32	MP2A	Z	0	4
33	MP2A	Mx	.004	4
34	MP2A	X	4.264	5
35	MP2A	Z	0	5
36	MP2A	Mx	.004	5
37	MP2A	X	4.264	4
38	MP2A	Z	0	4
39	MP2A	Mx	.004	4
40	MP2A	X	4.264	5
41	MP2A	Z	0	5
42	MP2A	Mx	.004	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	10.377	2.5
2	MP2A	Z	5.991	2.5
3	MP2A	Mx	.005	2.5
4	MP3A	X	9.823	2.5
5	MP3A	Z	5.671	2.5
6	MP3A	Mx	.005	2.5
7	MP2A	X	26.577	.28
8	MP2A	Z	15.344	.28
9	MP2A	Mx	-.039	.28
10	MP2A	X	26.577	5.72
11	MP2A	Z	15.344	5.72
12	MP2A	Mx	-.039	5.72
13	MP2A	X	26.577	.28
14	MP2A	Z	15.344	.28



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
28	MP1A	X	14.337	5.5
29	MP1A	Z	24.833	5.5
30	MP1A	Mx	-.012	5.5
31	MP2A	X	1.133	4
32	MP2A	Z	1.962	4
33	MP2A	Mx	.002	4
34	MP2A	X	1.133	5
35	MP2A	Z	1.962	5
36	MP2A	Mx	.002	5
37	MP2A	X	1.133	4
38	MP2A	Z	1.962	4
39	MP2A	Mx	.000479	4
40	MP2A	X	1.133	5
41	MP2A	Z	1.962	5
42	MP2A	Mx	.000479	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	0	2.5
2	MP2A	Z	15.537	2.5
3	MP2A	Mx	0	2.5
4	MP3A	X	0	2.5
5	MP3A	Z	15.537	2.5
6	MP3A	Mx	0	2.5
7	MP2A	X	0	.28
8	MP2A	Z	37.555	.28
9	MP2A	Mx	-.031	.28
10	MP2A	X	0	5.72
11	MP2A	Z	37.555	5.72
12	MP2A	Mx	-.031	5.72
13	MP2A	X	0	.28
14	MP2A	Z	37.555	.28
15	MP2A	Mx	.031	.28
16	MP2A	X	0	5.72
17	MP2A	Z	37.555	5.72
18	MP2A	Mx	.031	5.72
19	MP4A	X	0	1.04
20	MP4A	Z	18.514	1.04
21	MP4A	Mx	0	1.04
22	MP4A	X	0	3.96
23	MP4A	Z	18.514	3.96
24	MP4A	Mx	0	3.96
25	MP1A	X	0	.5
26	MP1A	Z	31.092	.5
27	MP1A	Mx	0	.5
28	MP1A	X	0	5.5
29	MP1A	Z	31.092	5.5
30	MP1A	Mx	0	5.5
31	MP2A	X	0	4
32	MP2A	Z	1.599	4
33	MP2A	Mx	.000533	4
34	MP2A	X	0	5
35	MP2A	Z	1.599	5
36	MP2A	Mx	.000533	5
37	MP2A	X	0	4
38	MP2A	Z	1.599	4
39	MP2A	Mx	-.000533	4
40	MP2A	X	0	5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
41	MP2A	Z	1.599	5
42	MP2A	Mx	-.000533	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	-7.176	2.5
2	MP2A	Z	12.429	2.5
3	MP2A	Mx	-.004	2.5
4	MP3A	X	-7.069	2.5
5	MP3A	Z	12.244	2.5
6	MP3A	Mx	-.004	2.5
7	MP2A	X	-17.633	.28
8	MP2A	Z	30.541	.28
9	MP2A	Mx	-.008	.28
10	MP2A	X	-17.633	5.72
11	MP2A	Z	30.541	5.72
12	MP2A	Mx	-.008	5.72
13	MP2A	X	-17.633	.28
14	MP2A	Z	30.541	.28
15	MP2A	Mx	.043	.28
16	MP2A	X	-17.633	5.72
17	MP2A	Z	30.541	5.72
18	MP2A	Mx	.043	5.72
19	MP4A	X	-7.927	1.04
20	MP4A	Z	13.729	1.04
21	MP4A	Mx	.007	1.04
22	MP4A	X	-7.927	3.96
23	MP4A	Z	13.729	3.96
24	MP4A	Mx	.007	3.96
25	MP1A	X	-14.337	.5
26	MP1A	Z	24.833	.5
27	MP1A	Mx	.012	.5
28	MP1A	X	-14.337	5.5
29	MP1A	Z	24.833	5.5
30	MP1A	Mx	.012	5.5
31	MP2A	X	-1.133	4
32	MP2A	Z	1.962	4
33	MP2A	Mx	-.000479	4
34	MP2A	X	-1.133	5
35	MP2A	Z	1.962	5
36	MP2A	Mx	-.000479	5
37	MP2A	X	-1.133	4
38	MP2A	Z	1.962	4
39	MP2A	Mx	-.002	4
40	MP2A	X	-1.133	5
41	MP2A	Z	1.962	5
42	MP2A	Mx	-.002	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	-10.377	2.5
2	MP2A	Z	5.991	2.5
3	MP2A	Mx	-.005	2.5
4	MP3A	X	-9.823	2.5
5	MP3A	Z	5.671	2.5
6	MP3A	Mx	-.005	2.5
7	MP2A	X	-26.577	.28
8	MP2A	Z	15.344	.28



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
9	MP2A	Mx	.014	.28
10	MP2A	X	-26.577	5.72
11	MP2A	Z	15.344	5.72
12	MP2A	Mx	.014	5.72
13	MP2A	X	-26.577	.28
14	MP2A	Z	15.344	.28
15	MP2A	Mx	.039	.28
16	MP2A	X	-26.577	5.72
17	MP2A	Z	15.344	5.72
18	MP2A	Mx	.039	5.72
19	MP4A	X	-9.121	1.04
20	MP4A	Z	5.266	1.04
21	MP4A	Mx	.008	1.04
22	MP4A	X	-9.121	3.96
23	MP4A	Z	5.266	3.96
24	MP4A	Mx	.008	3.96
25	MP1A	X	-20.645	.5
26	MP1A	Z	11.92	.5
27	MP1A	Mx	.017	.5
28	MP1A	X	-20.645	5.5
29	MP1A	Z	11.92	5.5
30	MP1A	Mx	.017	5.5
31	MP2A	X	-3.116	4
32	MP2A	Z	1.799	4
33	MP2A	Mx	-.003	4
34	MP2A	X	-3.116	5
35	MP2A	Z	1.799	5
36	MP2A	Mx	-.003	5
37	MP2A	X	-3.116	4
38	MP2A	Z	1.799	4
39	MP2A	Mx	-.004	4
40	MP2A	X	-3.116	5
41	MP2A	Z	1.799	5
42	MP2A	Mx	-.004	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	-10.797	2.5
2	MP2A	Z	0	2.5
3	MP2A	Mx	-.005	2.5
4	MP3A	X	-9.944	2.5
5	MP3A	Z	0	2.5
6	MP3A	Mx	-.005	2.5
7	MP2A	X	-28.399	.28
8	MP2A	Z	0	.28
9	MP2A	Mx	.028	.28
10	MP2A	X	-28.399	5.72
11	MP2A	Z	0	5.72
12	MP2A	Mx	.028	5.72
13	MP2A	X	-28.399	.28
14	MP2A	Z	0	.28
15	MP2A	Mx	.028	.28
16	MP2A	X	-28.399	5.72
17	MP2A	Z	0	5.72
18	MP2A	Mx	.028	5.72
19	MP4A	X	-7.872	1.04
20	MP4A	Z	0	1.04
21	MP4A	Mx	.007	1.04



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
22	MP4A	X	-7.872	3.96
23	MP4A	Z	0	3.96
24	MP4A	Mx	.007	3.96
25	MP1A	X	-21.422	.5
26	MP1A	Z	0	.5
27	MP1A	Mx	.018	.5
28	MP1A	X	-21.422	5.5
29	MP1A	Z	0	5.5
30	MP1A	Mx	.018	5.5
31	MP2A	X	-4.264	4
32	MP2A	Z	0	4
33	MP2A	Mx	-.004	4
34	MP2A	X	-4.264	5
35	MP2A	Z	0	5
36	MP2A	Mx	-.004	5
37	MP2A	X	-4.264	4
38	MP2A	Z	0	4
39	MP2A	Mx	-.004	4
40	MP2A	X	-4.264	5
41	MP2A	Z	0	5
42	MP2A	Mx	-.004	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	-10.377	2.5
2	MP2A	Z	-5.991	2.5
3	MP2A	Mx	-.005	2.5
4	MP3A	X	-9.823	2.5
5	MP3A	Z	-5.671	2.5
6	MP3A	Mx	-.005	2.5
7	MP2A	X	-26.577	.28
8	MP2A	Z	-15.344	.28
9	MP2A	Mx	.039	.28
10	MP2A	X	-26.577	5.72
11	MP2A	Z	-15.344	5.72
12	MP2A	Mx	.039	5.72
13	MP2A	X	-26.577	.28
14	MP2A	Z	-15.344	.28
15	MP2A	Mx	.014	.28
16	MP2A	X	-26.577	5.72
17	MP2A	Z	-15.344	5.72
18	MP2A	Mx	.014	5.72
19	MP4A	X	-9.121	1.04
20	MP4A	Z	-5.266	1.04
21	MP4A	Mx	.008	1.04
22	MP4A	X	-9.121	3.96
23	MP4A	Z	-5.266	3.96
24	MP4A	Mx	.008	3.96
25	MP1A	X	-20.645	.5
26	MP1A	Z	-11.92	.5
27	MP1A	Mx	.017	.5
28	MP1A	X	-20.645	5.5
29	MP1A	Z	-11.92	5.5
30	MP1A	Mx	.017	5.5
31	MP2A	X	-3.116	4
32	MP2A	Z	-1.799	4
33	MP2A	Mx	-.004	4
34	MP2A	X	-3.116	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
35	MP2A	Z	-1.799	5
36	MP2A	Mx	-.004	5
37	MP2A	X	-3.116	4
38	MP2A	Z	-1.799	4
39	MP2A	Mx	-.003	4
40	MP2A	X	-3.116	5
41	MP2A	Z	-1.799	5
42	MP2A	Mx	-.003	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	-7.176	2.5
2	MP2A	Z	-12.429	2.5
3	MP2A	Mx	-.004	2.5
4	MP3A	X	-7.069	2.5
5	MP3A	Z	-12.244	2.5
6	MP3A	Mx	-.004	2.5
7	MP2A	X	-17.633	.28
8	MP2A	Z	-30.541	.28
9	MP2A	Mx	.043	.28
10	MP2A	X	-17.633	5.72
11	MP2A	Z	-30.541	5.72
12	MP2A	Mx	.043	5.72
13	MP2A	X	-17.633	.28
14	MP2A	Z	-30.541	.28
15	MP2A	Mx	-.008	.28
16	MP2A	X	-17.633	5.72
17	MP2A	Z	-30.541	5.72
18	MP2A	Mx	-.008	5.72
19	MP4A	X	-7.927	1.04
20	MP4A	Z	-13.729	1.04
21	MP4A	Mx	.007	1.04
22	MP4A	X	-7.927	3.96
23	MP4A	Z	-13.729	3.96
24	MP4A	Mx	.007	3.96
25	MP1A	X	-14.337	.5
26	MP1A	Z	-24.833	.5
27	MP1A	Mx	.012	.5
28	MP1A	X	-14.337	5.5
29	MP1A	Z	-24.833	5.5
30	MP1A	Mx	.012	5.5
31	MP2A	X	-1.133	4
32	MP2A	Z	-1.962	4
33	MP2A	Mx	-.002	4
34	MP2A	X	-1.133	5
35	MP2A	Z	-1.962	5
36	MP2A	Mx	-.002	5
37	MP2A	X	-1.133	4
38	MP2A	Z	-1.962	4
39	MP2A	Mx	-.000479	4
40	MP2A	X	-1.133	5
41	MP2A	Z	-1.962	5
42	MP2A	Mx	-.000479	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	0	2.5
2	MP2A	Z	-3.89	2.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
16	MP2A	X	2.789	5.72
17	MP2A	Z	-4.831	5.72
18	MP2A	Mx	-.007	5.72
19	MP4A	X	2.062	1.04
20	MP4A	Z	-3.572	1.04
21	MP4A	Mx	-.002	1.04
22	MP4A	X	2.062	3.96
23	MP4A	Z	-3.572	3.96
24	MP4A	Mx	-.002	3.96
25	MP1A	X	4.658	.5
26	MP1A	Z	-8.068	.5
27	MP1A	Mx	-.004	.5
28	MP1A	X	4.658	5.5
29	MP1A	Z	-8.068	5.5
30	MP1A	Mx	-.004	5.5
31	MP2A	X	.603	4
32	MP2A	Z	-1.044	4
33	MP2A	Mx	.000255	4
34	MP2A	X	.603	5
35	MP2A	Z	-1.044	5
36	MP2A	Mx	.000255	5
37	MP2A	X	.603	4
38	MP2A	Z	-1.044	4
39	MP2A	Mx	.000951	4
40	MP2A	X	.603	5
41	MP2A	Z	-1.044	5
42	MP2A	Mx	.000951	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	2.538	2.5
2	MP2A	Z	-1.465	2.5
3	MP2A	Mx	.001	2.5
4	MP3A	X	2.375	2.5
5	MP3A	Z	-1.371	2.5
6	MP3A	Mx	.001	2.5
7	MP2A	X	4.182	.28
8	MP2A	Z	-2.415	.28
9	MP2A	Mx	-.002	.28
10	MP2A	X	4.182	5.72
11	MP2A	Z	-2.415	5.72
12	MP2A	Mx	-.002	5.72
13	MP2A	X	4.182	.28
14	MP2A	Z	-2.415	.28
15	MP2A	Mx	-.006	.28
16	MP2A	X	4.182	5.72
17	MP2A	Z	-2.415	5.72
18	MP2A	Mx	-.006	5.72
19	MP4A	X	2.172	1.04
20	MP4A	Z	-1.254	1.04
21	MP4A	Mx	-.002	1.04
22	MP4A	X	2.172	3.96
23	MP4A	Z	-1.254	3.96
24	MP4A	Mx	-.002	3.96
25	MP1A	X	6.571	.5
26	MP1A	Z	-3.794	.5
27	MP1A	Mx	-.005	.5
28	MP1A	X	6.571	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
29	MP1A	Z	-3.794	5.5
30	MP1A	Mx	-0.005	5.5
31	MP2A	X	1.046	4
32	MP2A	Z	-0.604	4
33	MP2A	Mx	.000845	4
34	MP2A	X	1.046	5
35	MP2A	Z	-0.604	5
36	MP2A	Mx	.000845	5
37	MP2A	X	1.046	4
38	MP2A	Z	-0.604	4
39	MP2A	Mx	.001	4
40	MP2A	X	1.046	5
41	MP2A	Z	-0.604	5
42	MP2A	Mx	.001	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	2.61	2.5
2	MP2A	Z	0	2.5
3	MP2A	Mx	.001	2.5
4	MP3A	X	2.359	2.5
5	MP3A	Z	0	2.5
6	MP3A	Mx	.001	2.5
7	MP2A	X	4.455	.28
8	MP2A	Z	0	.28
9	MP2A	Mx	-0.004	.28
10	MP2A	X	4.455	5.72
11	MP2A	Z	0	5.72
12	MP2A	Mx	-0.004	5.72
13	MP2A	X	4.455	.28
14	MP2A	Z	0	.28
15	MP2A	Mx	-0.004	.28
16	MP2A	X	4.455	5.72
17	MP2A	Z	0	5.72
18	MP2A	Mx	-0.004	5.72
19	MP4A	X	1.699	1.04
20	MP4A	Z	0	1.04
21	MP4A	Mx	-0.001	1.04
22	MP4A	X	1.699	3.96
23	MP4A	Z	0	3.96
24	MP4A	Mx	-0.001	3.96
25	MP1A	X	6.723	.5
26	MP1A	Z	0	.5
27	MP1A	Mx	-0.006	.5
28	MP1A	X	6.723	5.5
29	MP1A	Z	0	5.5
30	MP1A	Mx	-0.006	5.5
31	MP2A	X	1.208	4
32	MP2A	Z	0	4
33	MP2A	Mx	.001	4
34	MP2A	X	1.208	5
35	MP2A	Z	0	5
36	MP2A	Mx	.001	5
37	MP2A	X	1.208	4
38	MP2A	Z	0	4
39	MP2A	Mx	.001	4
40	MP2A	X	1.208	5
41	MP2A	Z	0	5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
42	MP2A	Mx	.001	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	2.538	2.5
2	MP2A	Z	1.465	2.5
3	MP2A	Mx	.001	2.5
4	MP3A	X	2.375	2.5
5	MP3A	Z	1.371	2.5
6	MP3A	Mx	.001	2.5
7	MP2A	X	4.182	.28
8	MP2A	Z	2.415	.28
9	MP2A	Mx	-.006	.28
10	MP2A	X	4.182	5.72
11	MP2A	Z	2.415	5.72
12	MP2A	Mx	-.006	5.72
13	MP2A	X	4.182	.28
14	MP2A	Z	2.415	.28
15	MP2A	Mx	-.002	.28
16	MP2A	X	4.182	5.72
17	MP2A	Z	2.415	5.72
18	MP2A	Mx	-.002	5.72
19	MP4A	X	2.172	1.04
20	MP4A	Z	1.254	1.04
21	MP4A	Mx	-.002	1.04
22	MP4A	X	2.172	3.96
23	MP4A	Z	1.254	3.96
24	MP4A	Mx	-.002	3.96
25	MP1A	X	6.571	.5
26	MP1A	Z	3.794	.5
27	MP1A	Mx	-.005	.5
28	MP1A	X	6.571	5.5
29	MP1A	Z	3.794	5.5
30	MP1A	Mx	-.005	5.5
31	MP2A	X	1.046	4
32	MP2A	Z	.604	4
33	MP2A	Mx	.001	4
34	MP2A	X	1.046	5
35	MP2A	Z	.604	5
36	MP2A	Mx	.001	5
37	MP2A	X	1.046	4
38	MP2A	Z	.604	4
39	MP2A	Mx	.000845	4
40	MP2A	X	1.046	5
41	MP2A	Z	.604	5
42	MP2A	Mx	.000845	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	1.785	2.5
2	MP2A	Z	3.092	2.5
3	MP2A	Mx	.000892	2.5
4	MP3A	X	1.754	2.5
5	MP3A	Z	3.038	2.5
6	MP3A	Mx	.000877	2.5
7	MP2A	X	2.789	.28
8	MP2A	Z	4.831	.28
9	MP2A	Mx	-.007	.28



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
23	MP4A	Z	4.933	3.96
24	MP4A	Mx	0	3.96
25	MP1A	X	0	.5
26	MP1A	Z	10.181	.5
27	MP1A	Mx	0	.5
28	MP1A	X	0	5.5
29	MP1A	Z	10.181	5.5
30	MP1A	Mx	0	5.5
31	MP2A	X	0	4
32	MP2A	Z	1.205	4
33	MP2A	Mx	.000402	4
34	MP2A	X	0	5
35	MP2A	Z	1.205	5
36	MP2A	Mx	.000402	5
37	MP2A	X	0	4
38	MP2A	Z	1.205	4
39	MP2A	Mx	-.000402	4
40	MP2A	X	0	5
41	MP2A	Z	1.205	5
42	MP2A	Mx	-.000402	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	-1.785	2.5
2	MP2A	Z	3.092	2.5
3	MP2A	Mx	-.000892	2.5
4	MP3A	X	-1.754	2.5
5	MP3A	Z	3.038	2.5
6	MP3A	Mx	-.000877	2.5
7	MP2A	X	-2.789	.28
8	MP2A	Z	4.831	.28
9	MP2A	Mx	-.001	.28
10	MP2A	X	-2.789	5.72
11	MP2A	Z	4.831	5.72
12	MP2A	Mx	-.001	5.72
13	MP2A	X	-2.789	.28
14	MP2A	Z	4.831	.28
15	MP2A	Mx	.007	.28
16	MP2A	X	-2.789	5.72
17	MP2A	Z	4.831	5.72
18	MP2A	Mx	.007	5.72
19	MP4A	X	-2.062	1.04
20	MP4A	Z	3.572	1.04
21	MP4A	Mx	.002	1.04
22	MP4A	X	-2.062	3.96
23	MP4A	Z	3.572	3.96
24	MP4A	Mx	.002	3.96
25	MP1A	X	-4.658	.5
26	MP1A	Z	8.068	.5
27	MP1A	Mx	.004	.5
28	MP1A	X	-4.658	5.5
29	MP1A	Z	8.068	5.5
30	MP1A	Mx	.004	5.5
31	MP2A	X	-.603	4
32	MP2A	Z	1.044	4
33	MP2A	Mx	-.000255	4
34	MP2A	X	-.603	5
35	MP2A	Z	1.044	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
36	MP2A	Mx	-0.00255	5
37	MP2A	X	-0.603	4
38	MP2A	Z	1.044	4
39	MP2A	Mx	-0.000951	4
40	MP2A	X	-0.603	5
41	MP2A	Z	1.044	5
42	MP2A	Mx	-0.000951	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	-2.538	2.5
2	MP2A	Z	1.465	2.5
3	MP2A	Mx	-0.001	2.5
4	MP3A	X	-2.375	2.5
5	MP3A	Z	1.371	2.5
6	MP3A	Mx	-0.001	2.5
7	MP2A	X	-4.182	.28
8	MP2A	Z	2.415	.28
9	MP2A	Mx	.002	.28
10	MP2A	X	-4.182	5.72
11	MP2A	Z	2.415	5.72
12	MP2A	Mx	.002	5.72
13	MP2A	X	-4.182	.28
14	MP2A	Z	2.415	.28
15	MP2A	Mx	.006	.28
16	MP2A	X	-4.182	5.72
17	MP2A	Z	2.415	5.72
18	MP2A	Mx	.006	5.72
19	MP4A	X	-2.172	1.04
20	MP4A	Z	1.254	1.04
21	MP4A	Mx	.002	1.04
22	MP4A	X	-2.172	3.96
23	MP4A	Z	1.254	3.96
24	MP4A	Mx	.002	3.96
25	MP1A	X	-6.571	.5
26	MP1A	Z	3.794	.5
27	MP1A	Mx	.005	.5
28	MP1A	X	-6.571	5.5
29	MP1A	Z	3.794	5.5
30	MP1A	Mx	.005	5.5
31	MP2A	X	-1.046	4
32	MP2A	Z	.604	4
33	MP2A	Mx	-0.000845	4
34	MP2A	X	-1.046	5
35	MP2A	Z	.604	5
36	MP2A	Mx	-0.000845	5
37	MP2A	X	-1.046	4
38	MP2A	Z	.604	4
39	MP2A	Mx	-0.001	4
40	MP2A	X	-1.046	5
41	MP2A	Z	.604	5
42	MP2A	Mx	-0.001	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	-2.61	2.5
2	MP2A	Z	0	2.5
3	MP2A	Mx	-0.001	2.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
17	MP2A	Z	-2.415	5.72
18	MP2A	Mx	.002	5.72
19	MP4A	X	-2.172	1.04
20	MP4A	Z	-1.254	1.04
21	MP4A	Mx	.002	1.04
22	MP4A	X	-2.172	3.96
23	MP4A	Z	-1.254	3.96
24	MP4A	Mx	.002	3.96
25	MP1A	X	-6.571	.5
26	MP1A	Z	-3.794	.5
27	MP1A	Mx	.005	.5
28	MP1A	X	-6.571	5.5
29	MP1A	Z	-3.794	5.5
30	MP1A	Mx	.005	5.5
31	MP2A	X	-1.046	4
32	MP2A	Z	-.604	4
33	MP2A	Mx	-.001	4
34	MP2A	X	-1.046	5
35	MP2A	Z	-.604	5
36	MP2A	Mx	-.001	5
37	MP2A	X	-1.046	4
38	MP2A	Z	-.604	4
39	MP2A	Mx	-.000845	4
40	MP2A	X	-1.046	5
41	MP2A	Z	-.604	5
42	MP2A	Mx	-.000845	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	-1.785	2.5
2	MP2A	Z	-3.092	2.5
3	MP2A	Mx	-.000892	2.5
4	MP3A	X	-1.754	2.5
5	MP3A	Z	-3.038	2.5
6	MP3A	Mx	-.000877	2.5
7	MP2A	X	-2.789	.28
8	MP2A	Z	-4.831	.28
9	MP2A	Mx	.007	.28
10	MP2A	X	-2.789	5.72
11	MP2A	Z	-4.831	5.72
12	MP2A	Mx	.007	5.72
13	MP2A	X	-2.789	.28
14	MP2A	Z	-4.831	.28
15	MP2A	Mx	-.001	.28
16	MP2A	X	-2.789	5.72
17	MP2A	Z	-4.831	5.72
18	MP2A	Mx	-.001	5.72
19	MP4A	X	-2.062	1.04
20	MP4A	Z	-3.572	1.04
21	MP4A	Mx	.002	1.04
22	MP4A	X	-2.062	3.96
23	MP4A	Z	-3.572	3.96
24	MP4A	Mx	.002	3.96
25	MP1A	X	-4.658	.5
26	MP1A	Z	-8.068	.5
27	MP1A	Mx	.004	.5
28	MP1A	X	-4.658	5.5
29	MP1A	Z	-8.068	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
30	MP1A	Mx	.004	5.5
31	MP2A	X	-603	4
32	MP2A	Z	-1.044	4
33	MP2A	Mx	-.000951	4
34	MP2A	X	-603	5
35	MP2A	Z	-1.044	5
36	MP2A	Mx	-.000951	5
37	MP2A	X	-603	4
38	MP2A	Z	-1.044	4
39	MP2A	Mx	-.000255	4
40	MP2A	X	-603	5
41	MP2A	Z	-1.044	5
42	MP2A	Mx	-.000255	5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	M1	Y	-500	%34

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	M1	Y	-500	%2

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	MP2A	Y	-3.171	2.5
2	MP2A	My	.002	2.5
3	MP2A	Mz	0	2.5
4	MP3A	Y	-2.984	2.5
5	MP3A	My	.001	2.5
6	MP3A	Mz	0	2.5
7	MP2A	Y	-.976	.28
8	MP2A	My	-.000976	.28
9	MP2A	Mz	-.000814	.28
10	MP2A	Y	-.976	5.72
11	MP2A	My	-.000976	5.72
12	MP2A	Mz	-.000814	5.72
13	MP2A	Y	-.976	.28
14	MP2A	My	-.000976	.28
15	MP2A	Mz	.000814	.28
16	MP2A	Y	-.976	5.72
17	MP2A	My	-.000976	5.72
18	MP2A	Mz	.000814	5.72
19	MP4A	Y	-1.849	1.04
20	MP4A	My	-.002	1.04
21	MP4A	Mz	0	1.04
22	MP4A	Y	-1.849	3.96
23	MP4A	My	-.002	3.96
24	MP4A	Mz	0	3.96



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
25	MP1A	Y	- .703	.5
26	MP1A	My	-.000586	.5
27	MP1A	Mz	0	.5
28	MP1A	Y	- .703	5.5
29	MP1A	My	-.000586	5.5
30	MP1A	Mz	0	5.5
31	MP2A	Y	- .374	4
32	MP2A	My	.000374	4
33	MP2A	Mz	.000125	4
34	MP2A	Y	- .374	5
35	MP2A	My	.000374	5
36	MP2A	Mz	.000125	5
37	MP2A	Y	- .374	4
38	MP2A	My	.000374	4
39	MP2A	Mz	-.000125	4
40	MP2A	Y	- .374	5
41	MP2A	My	.000374	5
42	MP2A	Mz	-.000125	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	Z	-7.928	2.5
2	MP2A	Mx	0	2.5
3	MP3A	Z	-7.461	2.5
4	MP3A	Mx	0	2.5
5	MP2A	Z	-2.441	.28
6	MP2A	Mx	.002	.28
7	MP2A	Z	-2.441	5.72
8	MP2A	Mx	.002	5.72
9	MP2A	Z	-2.441	.28
10	MP2A	Mx	-.002	.28
11	MP2A	Z	-2.441	5.72
12	MP2A	Mx	-.002	5.72
13	MP4A	Z	-4.622	1.04
14	MP4A	Mx	0	1.04
15	MP4A	Z	-4.622	3.96
16	MP4A	Mx	0	3.96
17	MP1A	Z	-1.757	.5
18	MP1A	Mx	0	.5
19	MP1A	Z	-1.757	5.5
20	MP1A	Mx	0	5.5
21	MP2A	Z	-.934	4
22	MP2A	Mx	-.000311	4
23	MP2A	Z	-.934	5
24	MP2A	Mx	-.000311	5
25	MP2A	Z	-.934	4
26	MP2A	Mx	.000311	4
27	MP2A	Z	-.934	5
28	MP2A	Mx	.000311	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP2A	X	7.928	2.5
2	MP2A	Mx	.004	2.5
3	MP3A	X	7.461	2.5
4	MP3A	Mx	.004	2.5
5	MP2A	X	2.441	.28
6	MP2A	Mx	-.002	.28

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
7	MP2A	X	2.441	5.72
8	MP2A	Mx	-.002	5.72
9	MP2A	X	2.441	.28
10	MP2A	Mx	-.002	.28
11	MP2A	X	2.441	5.72
12	MP2A	Mx	-.002	5.72
13	MP4A	X	4.622	1.04
14	MP4A	Mx	-.004	1.04
15	MP4A	X	4.622	3.96
16	MP4A	Mx	-.004	3.96
17	MP1A	X	1.757	.5
18	MP1A	Mx	-.001	.5
19	MP1A	X	1.757	5.5
20	MP1A	Mx	-.001	5.5
21	MP2A	X	.934	4
22	MP2A	Mx	.000934	4
23	MP2A	X	.934	5
24	MP2A	Mx	.000934	5
25	MP2A	X	.934	4
26	MP2A	Mx	.000934	4
27	MP2A	X	.934	5
28	MP2A	Mx	.000934	5

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft. %]	End Location[ft. %]
1	M1	Y	-6.374	-6.374	0	%100
2	M7	Y	-9.345	-9.345	0	%100
3	M8	Y	-6.374	-6.374	0	%100
4	MP1A	Y	-4.824	-4.824	0	%100
5	MP2A	Y	-5.513	-5.513	0	%100
6	MP3A	Y	-4.824	-4.824	0	%100
7	MP4A	Y	-4.824	-4.824	0	%100
8	M18	Y	-6.423	-6.423	0	%100
9	M19	Y	-6.423	-6.423	0	%100
10	M17	Y	-6.374	-6.374	0	%100

Member Distributed Loads (BLC 41 : Structure Wo (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft. %]	End Location[ft. %]
1	M1	X	0	0	0	%100
2	M1	Z	-13.875	-13.875	0	%100
3	M7	X	0	0	0	%100
4	M7	Z	-1.575	-1.575	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	-8.616	-8.616	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-9.537	-9.537	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-11.545	-11.545	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-9.537	-9.537	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-9.537	-9.537	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-5.587	-5.587	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-11.063	-11.063	0	%100
19	M17	X	0	0	0	%100

Member Distributed Loads (BLC 41 : Structure Wo (0 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
20	M17	Z	-13.875	-13.875	0	%100

Member Distributed Loads (BLC 42 : Structure Wo (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	5.203	5.203	0	%100
2	M1	Z	-9.012	-9.012	0	%100
3	M7	X	3.95	3.95	0	%100
4	M7	Z	-6.842	-6.842	0	%100
5	M8	X	4.308	4.308	0	%100
6	M8	Z	-7.462	-7.462	0	%100
7	MP1A	X	4.769	4.769	0	%100
8	MP1A	Z	-8.26	-8.26	0	%100
9	MP2A	X	5.773	5.773	0	%100
10	MP2A	Z	-9.998	-9.998	0	%100
11	MP3A	X	4.769	4.769	0	%100
12	MP3A	Z	-8.26	-8.26	0	%100
13	MP4A	X	4.769	4.769	0	%100
14	MP4A	Z	-8.26	-8.26	0	%100
15	M18	X	.072	.072	0	%100
16	M18	Z	-.125	-.125	0	%100
17	M19	X	8.286	8.286	0	%100
18	M19	Z	-14.353	-14.353	0	%100
19	M17	X	5.203	5.203	0	%100
20	M17	Z	-9.012	-9.012	0	%100

Member Distributed Loads (BLC 43 : Structure Wo (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	3.004	3.004	0	%100
2	M1	Z	-1.734	-1.734	0	%100
3	M7	X	11.307	11.307	0	%100
4	M7	Z	-6.528	-6.528	0	%100
5	M8	X	7.462	7.462	0	%100
6	M8	Z	-4.308	-4.308	0	%100
7	MP1A	X	8.26	8.26	0	%100
8	MP1A	Z	-4.769	-4.769	0	%100
9	MP2A	X	9.998	9.998	0	%100
10	MP2A	Z	-5.773	-5.773	0	%100
11	MP3A	X	8.26	8.26	0	%100
12	MP3A	Z	-4.769	-4.769	0	%100
13	MP4A	X	8.26	8.26	0	%100
14	MP4A	Z	-4.769	-4.769	0	%100
15	M18	X	2.518	2.518	0	%100
16	M18	Z	-1.454	-1.454	0	%100
17	M19	X	12.017	12.017	0	%100
18	M19	Z	-6.938	-6.938	0	%100
19	M17	X	3.004	3.004	0	%100
20	M17	Z	-1.734	-1.734	0	%100

Member Distributed Loads (BLC 44 : Structure Wo (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M7	X	11.888	11.888	0	%100
4	M7	Z	0	0	0	%100
5	M8	X	8.616	8.616	0	%100
6	M8	Z	0	0	0	%100
7	MP1A	X	9.537	9.537	0	%100



Member Distributed Loads (BLC 44 : Structure Wo (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
8	MP1A	Z	0	0	0	%100
9	MP2A	X	11.545	11.545	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	9.537	9.537	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	9.537	9.537	0	%100
14	MP4A	Z	0	0	0	%100
15	M18	X	11.113	11.113	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	5.669	5.669	0	%100
18	M19	Z	0	0	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100

Member Distributed Loads (BLC 45 : Structure Wo (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	3.004	3.004	0	%100
2	M1	Z	1.734	1.734	0	%100
3	M7	X	4.817	4.817	0	%100
4	M7	Z	2.781	2.781	0	%100
5	M8	X	7.462	7.462	0	%100
6	M8	Z	4.308	4.308	0	%100
7	MP1A	X	8.26	8.26	0	%100
8	MP1A	Z	4.769	4.769	0	%100
9	MP2A	X	9.998	9.998	0	%100
10	MP2A	Z	5.773	5.773	0	%100
11	MP3A	X	8.26	8.26	0	%100
12	MP3A	Z	4.769	4.769	0	%100
13	MP4A	X	8.26	8.26	0	%100
14	MP4A	Z	4.769	4.769	0	%100
15	M18	X	14.337	14.337	0	%100
16	M18	Z	8.278	8.278	0	%100
17	M19	X	.138	.138	0	%100
18	M19	Z	.08	.08	0	%100
19	M17	X	3.004	3.004	0	%100
20	M17	Z	1.734	1.734	0	%100

Member Distributed Loads (BLC 46 : Structure Wo (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	5.203	5.203	0	%100
2	M1	Z	9.012	9.012	0	%100
3	M7	X	.203	.203	0	%100
4	M7	Z	.352	.352	0	%100
5	M8	X	4.308	4.308	0	%100
6	M8	Z	7.462	7.462	0	%100
7	MP1A	X	4.769	4.769	0	%100
8	MP1A	Z	8.26	8.26	0	%100
9	MP2A	X	5.773	5.773	0	%100
10	MP2A	Z	9.998	9.998	0	%100
11	MP3A	X	4.769	4.769	0	%100
12	MP3A	Z	8.26	8.26	0	%100
13	MP4A	X	4.769	4.769	0	%100
14	MP4A	Z	8.26	8.26	0	%100
15	M18	X	6.896	6.896	0	%100
16	M18	Z	11.945	11.945	0	%100
17	M19	X	1.428	1.428	0	%100
18	M19	Z	2.474	2.474	0	%100
19	M17	X	5.203	5.203	0	%100



Member Distributed Loads (BLC 46 : Structure Wo (150 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
20	M17	Z	9.012	9.012	0	%100

Member Distributed Loads (BLC 47 : Structure Wo (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	13.875	13.875	0	%100
3	M7	X	0	0	0	%100
4	M7	Z	1.575	1.575	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	8.616	8.616	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	9.537	9.537	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	11.545	11.545	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	9.537	9.537	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	9.537	9.537	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	5.587	5.587	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	11.063	11.063	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	13.875	13.875	0	%100

Member Distributed Loads (BLC 48 : Structure Wo (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-5.203	-5.203	0	%100
2	M1	Z	9.012	9.012	0	%100
3	M7	X	-3.95	-3.95	0	%100
4	M7	Z	6.842	6.842	0	%100
5	M8	X	-4.308	-4.308	0	%100
6	M8	Z	7.462	7.462	0	%100
7	MP1A	X	-4.769	-4.769	0	%100
8	MP1A	Z	8.26	8.26	0	%100
9	MP2A	X	-5.773	-5.773	0	%100
10	MP2A	Z	9.998	9.998	0	%100
11	MP3A	X	-4.769	-4.769	0	%100
12	MP3A	Z	8.26	8.26	0	%100
13	MP4A	X	-4.769	-4.769	0	%100
14	MP4A	Z	8.26	8.26	0	%100
15	M18	X	-.072	-.072	0	%100
16	M18	Z	.125	.125	0	%100
17	M19	X	-8.286	-8.286	0	%100
18	M19	Z	14.353	14.353	0	%100
19	M17	X	-5.203	-5.203	0	%100
20	M17	Z	9.012	9.012	0	%100

Member Distributed Loads (BLC 49 : Structure Wo (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-3.004	-3.004	0	%100
2	M1	Z	1.734	1.734	0	%100
3	M7	X	-11.307	-11.307	0	%100
4	M7	Z	6.528	6.528	0	%100
5	M8	X	-7.462	-7.462	0	%100
6	M8	Z	4.308	4.308	0	%100
7	MP1A	X	-8.26	-8.26	0	%100



Member Distributed Loads (BLC 49 : Structure Wo (240 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[ft.%]	End Location[ft.%]
8	MP1A	Z	4.769	4.769	0	%100
9	MP2A	X	-9.998	-9.998	0	%100
10	MP2A	Z	5.773	5.773	0	%100
11	MP3A	X	-8.26	-8.26	0	%100
12	MP3A	Z	4.769	4.769	0	%100
13	MP4A	X	-8.26	-8.26	0	%100
14	MP4A	Z	4.769	4.769	0	%100
15	M18	X	-2.518	-2.518	0	%100
16	M18	Z	1.454	1.454	0	%100
17	M19	X	-12.017	-12.017	0	%100
18	M19	Z	6.938	6.938	0	%100
19	M17	X	-3.004	-3.004	0	%100
20	M17	Z	1.734	1.734	0	%100

Member Distributed Loads (BLC 50 : Structure Wo (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M7	X	-11.888	-11.888	0	%100
4	M7	Z	0	0	0	%100
5	M8	X	-8.616	-8.616	0	%100
6	M8	Z	0	0	0	%100
7	MP1A	X	-9.537	-9.537	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	-11.545	-11.545	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-9.537	-9.537	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-9.537	-9.537	0	%100
14	MP4A	Z	0	0	0	%100
15	M18	X	-11.113	-11.113	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-5.669	-5.669	0	%100
18	M19	Z	0	0	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100

Member Distributed Loads (BLC 51 : Structure Wo (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-3.004	-3.004	0	%100
2	M1	Z	-1.734	-1.734	0	%100
3	M7	X	-4.817	-4.817	0	%100
4	M7	Z	-2.781	-2.781	0	%100
5	M8	X	-7.462	-7.462	0	%100
6	M8	Z	-4.308	-4.308	0	%100
7	MP1A	X	-8.26	-8.26	0	%100
8	MP1A	Z	-4.769	-4.769	0	%100
9	MP2A	X	-9.998	-9.998	0	%100
10	MP2A	Z	-5.773	-5.773	0	%100
11	MP3A	X	-8.26	-8.26	0	%100
12	MP3A	Z	-4.769	-4.769	0	%100
13	MP4A	X	-8.26	-8.26	0	%100
14	MP4A	Z	-4.769	-4.769	0	%100
15	M18	X	-14.337	-14.337	0	%100
16	M18	Z	-8.278	-8.278	0	%100
17	M19	X	-.138	-.138	0	%100
18	M19	Z	-.08	-.08	0	%100
19	M17	X	-3.004	-3.004	0	%100

Member Distributed Loads (BLC 51 : Structure Wo (300 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
20	M17	Z	-1.734	-1.734	0	%100

Member Distributed Loads (BLC 52 : Structure Wo (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-5.203	-5.203	0	%100
2	M1	Z	-9.012	-9.012	0	%100
3	M7	X	-.203	-.203	0	%100
4	M7	Z	-.352	-.352	0	%100
5	M8	X	-4.308	-4.308	0	%100
6	M8	Z	-7.462	-7.462	0	%100
7	MP1A	X	-4.769	-4.769	0	%100
8	MP1A	Z	-8.26	-8.26	0	%100
9	MP2A	X	-5.773	-5.773	0	%100
10	MP2A	Z	-9.998	-9.998	0	%100
11	MP3A	X	-4.769	-4.769	0	%100
12	MP3A	Z	-8.26	-8.26	0	%100
13	MP4A	X	-4.769	-4.769	0	%100
14	MP4A	Z	-8.26	-8.26	0	%100
15	M18	X	-6.896	-6.896	0	%100
16	M18	Z	-11.945	-11.945	0	%100
17	M19	X	-1.428	-1.428	0	%100
18	M19	Z	-2.474	-2.474	0	%100
19	M17	X	-5.203	-5.203	0	%100
20	M17	Z	-9.012	-9.012	0	%100

Member Distributed Loads (BLC 53 : Structure Wi (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	-4.012	-4.012	0	%100
3	M7	X	0	0	0	%100
4	M7	Z	-.447	-.447	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	-2.542	-2.542	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-3.228	-3.228	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-3.576	-3.576	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-3.228	-3.228	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-3.228	-3.228	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-1.496	-1.496	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-2.96	-2.96	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	-4.012	-4.012	0	%100

Member Distributed Loads (BLC 54 : Structure Wi (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	1.505	1.505	0	%100
2	M1	Z	-2.606	-2.606	0	%100
3	M7	X	1.122	1.122	0	%100
4	M7	Z	-1.943	-1.943	0	%100
5	M8	X	1.271	1.271	0	%100
6	M8	Z	-2.201	-2.201	0	%100
7	MP1A	X	1.614	1.614	0	%100



Member Distributed Loads (BLC 54 : Structure Wi (30 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
8	MP1A	Z	-2.795	-2.795	0	%100
9	MP2A	X	1.788	1.788	0	%100
10	MP2A	Z	-3.097	-3.097	0	%100
11	MP3A	X	1.614	1.614	0	%100
12	MP3A	Z	-2.795	-2.795	0	%100
13	MP4A	X	1.614	1.614	0	%100
14	MP4A	Z	-2.795	-2.795	0	%100
15	M18	X	.019	.019	0	%100
16	M18	Z	-.034	-.034	0	%100
17	M19	X	2.217	2.217	0	%100
18	M19	Z	-3.84	-3.84	0	%100
19	M17	X	1.505	1.505	0	%100
20	M17	Z	-2.606	-2.606	0	%100

Member Distributed Loads (BLC 55 : Structure Wi (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.869	.869	0	%100
2	M1	Z	-.502	-.502	0	%100
3	M7	X	3.212	3.212	0	%100
4	M7	Z	-1.854	-1.854	0	%100
5	M8	X	2.201	2.201	0	%100
6	M8	Z	-1.271	-1.271	0	%100
7	MP1A	X	2.795	2.795	0	%100
8	MP1A	Z	-1.614	-1.614	0	%100
9	MP2A	X	3.097	3.097	0	%100
10	MP2A	Z	-1.788	-1.788	0	%100
11	MP3A	X	2.795	2.795	0	%100
12	MP3A	Z	-1.614	-1.614	0	%100
13	MP4A	X	2.795	2.795	0	%100
14	MP4A	Z	-1.614	-1.614	0	%100
15	M18	X	.674	.674	0	%100
16	M18	Z	-.389	-.389	0	%100
17	M19	X	3.215	3.215	0	%100
18	M19	Z	-1.856	-1.856	0	%100
19	M17	X	.869	.869	0	%100
20	M17	Z	-.502	-.502	0	%100

Member Distributed Loads (BLC 56 : Structure Wi (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M7	X	3.376	3.376	0	%100
4	M7	Z	0	0	0	%100
5	M8	X	2.542	2.542	0	%100
6	M8	Z	0	0	0	%100
7	MP1A	X	3.228	3.228	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	3.576	3.576	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	3.228	3.228	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	3.228	3.228	0	%100
14	MP4A	Z	0	0	0	%100
15	M18	X	2.975	2.975	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	1.517	1.517	0	%100
18	M19	Z	0	0	0	%100
19	M17	X	0	0	0	%100

Member Distributed Loads (BLC 56 : Structure Wi (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
20	M17	Z	0	0	0	%100

Member Distributed Loads (BLC 57 : Structure Wi (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.869	.869	0	%100
2	M1	Z	.502	.502	0	%100
3	M7	X	1.368	1.368	0	%100
4	M7	Z	.79	.79	0	%100
5	M8	X	2.201	2.201	0	%100
6	M8	Z	1.271	1.271	0	%100
7	MP1A	X	2.795	2.795	0	%100
8	MP1A	Z	1.614	1.614	0	%100
9	MP2A	X	3.097	3.097	0	%100
10	MP2A	Z	1.788	1.788	0	%100
11	MP3A	X	2.795	2.795	0	%100
12	MP3A	Z	1.614	1.614	0	%100
13	MP4A	X	2.795	2.795	0	%100
14	MP4A	Z	1.614	1.614	0	%100
15	M18	X	3.839	3.839	0	%100
16	M18	Z	2.216	2.216	0	%100
17	M19	X	.037	.037	0	%100
18	M19	Z	.021	.021	0	%100
19	M17	X	.869	.869	0	%100
20	M17	Z	.502	.502	0	%100

Member Distributed Loads (BLC 58 : Structure Wi (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	1.505	1.505	0	%100
2	M1	Z	2.606	2.606	0	%100
3	M7	X	.058	.058	0	%100
4	M7	Z	.1	.1	0	%100
5	M8	X	1.271	1.271	0	%100
6	M8	Z	2.201	2.201	0	%100
7	MP1A	X	1.614	1.614	0	%100
8	MP1A	Z	2.795	2.795	0	%100
9	MP2A	X	1.788	1.788	0	%100
10	MP2A	Z	3.097	3.097	0	%100
11	MP3A	X	1.614	1.614	0	%100
12	MP3A	Z	2.795	2.795	0	%100
13	MP4A	X	1.614	1.614	0	%100
14	MP4A	Z	2.795	2.795	0	%100
15	M18	X	1.846	1.846	0	%100
16	M18	Z	3.198	3.198	0	%100
17	M19	X	.382	.382	0	%100
18	M19	Z	.662	.662	0	%100
19	M17	X	1.505	1.505	0	%100
20	M17	Z	2.606	2.606	0	%100

Member Distributed Loads (BLC 59 : Structure Wi (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	4.012	4.012	0	%100
3	M7	X	0	0	0	%100
4	M7	Z	.447	.447	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	2.542	2.542	0	%100
7	MP1A	X	0	0	0	%100



Member Distributed Loads (BLC 59 : Structure Wi (180 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
8	MP1A	Z	3.228	3.228	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	3.576	3.576	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	3.228	3.228	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	3.228	3.228	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	1.496	1.496	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	2.96	2.96	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	4.012	4.012	0	%100

Member Distributed Loads (BLC 60 : Structure Wi (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-1.505	-1.505	0	%100
2	M1	Z	2.606	2.606	0	%100
3	M7	X	-1.122	-1.122	0	%100
4	M7	Z	1.943	1.943	0	%100
5	M8	X	-1.271	-1.271	0	%100
6	M8	Z	2.201	2.201	0	%100
7	MP1A	X	-1.614	-1.614	0	%100
8	MP1A	Z	2.795	2.795	0	%100
9	MP2A	X	-1.788	-1.788	0	%100
10	MP2A	Z	3.097	3.097	0	%100
11	MP3A	X	-1.614	-1.614	0	%100
12	MP3A	Z	2.795	2.795	0	%100
13	MP4A	X	-1.614	-1.614	0	%100
14	MP4A	Z	2.795	2.795	0	%100
15	M18	X	-.019	-.019	0	%100
16	M18	Z	.034	.034	0	%100
17	M19	X	-2.217	-2.217	0	%100
18	M19	Z	3.84	3.84	0	%100
19	M17	X	-1.505	-1.505	0	%100
20	M17	Z	2.606	2.606	0	%100

Member Distributed Loads (BLC 61 : Structure Wi (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.869	-.869	0	%100
2	M1	Z	.502	.502	0	%100
3	M7	X	-3.212	-3.212	0	%100
4	M7	Z	1.854	1.854	0	%100
5	M8	X	-2.201	-2.201	0	%100
6	M8	Z	1.271	1.271	0	%100
7	MP1A	X	-2.795	-2.795	0	%100
8	MP1A	Z	1.614	1.614	0	%100
9	MP2A	X	-3.097	-3.097	0	%100
10	MP2A	Z	1.788	1.788	0	%100
11	MP3A	X	-2.795	-2.795	0	%100
12	MP3A	Z	1.614	1.614	0	%100
13	MP4A	X	-2.795	-2.795	0	%100
14	MP4A	Z	1.614	1.614	0	%100
15	M18	X	-.674	-.674	0	%100
16	M18	Z	.389	.389	0	%100
17	M19	X	-3.215	-3.215	0	%100
18	M19	Z	1.856	1.856	0	%100
19	M17	X	-.869	-.869	0	%100

Member Distributed Loads (BLC 64 : Structure Wi (330 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
8	MP1A	Z	-2.795	-2.795	0	%100
9	MP2A	X	-1.788	-1.788	0	%100
10	MP2A	Z	-3.097	-3.097	0	%100
11	MP3A	X	-1.614	-1.614	0	%100
12	MP3A	Z	-2.795	-2.795	0	%100
13	MP4A	X	-1.614	-1.614	0	%100
14	MP4A	Z	-2.795	-2.795	0	%100
15	M18	X	-1.846	-1.846	0	%100
16	M18	Z	-3.198	-3.198	0	%100
17	M19	X	-.382	-.382	0	%100
18	M19	Z	-.662	-.662	0	%100
19	M17	X	-1.505	-1.505	0	%100
20	M17	Z	-2.606	-2.606	0	%100

Member Distributed Loads (BLC 65 : Structure Wm (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	-.867	-.867	0	%100
3	M7	X	0	0	0	%100
4	M7	Z	-.098	-.098	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	-.539	-.539	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-.596	-.596	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-.722	-.722	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-.596	-.596	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-.596	-.596	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-.349	-.349	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-.691	-.691	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	-.867	-.867	0	%100

Member Distributed Loads (BLC 66 : Structure Wm (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.325	.325	0	%100
2	M1	Z	-.563	-.563	0	%100
3	M7	X	.247	.247	0	%100
4	M7	Z	-.428	-.428	0	%100
5	M8	X	.269	.269	0	%100
6	M8	Z	-.466	-.466	0	%100
7	MP1A	X	.298	.298	0	%100
8	MP1A	Z	-.516	-.516	0	%100
9	MP2A	X	.361	.361	0	%100
10	MP2A	Z	-.625	-.625	0	%100
11	MP3A	X	.298	.298	0	%100
12	MP3A	Z	-.516	-.516	0	%100
13	MP4A	X	.298	.298	0	%100
14	MP4A	Z	-.516	-.516	0	%100
15	M18	X	.005	.005	0	%100
16	M18	Z	-.008	-.008	0	%100
17	M19	X	.518	.518	0	%100
18	M19	Z	-.897	-.897	0	%100
19	M17	X	.325	.325	0	%100



Member Distributed Loads (BLC 69 : Structure Wm (120 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
8	MP1A	Z	.298	.298	0	%100
9	MP2A	X	.625	.625	0	%100
10	MP2A	Z	.361	.361	0	%100
11	MP3A	X	.516	.516	0	%100
12	MP3A	Z	.298	.298	0	%100
13	MP4A	X	.516	.516	0	%100
14	MP4A	Z	.298	.298	0	%100
15	M18	X	.896	.896	0	%100
16	M18	Z	.517	.517	0	%100
17	M19	X	.009	.009	0	%100
18	M19	Z	.005	.005	0	%100
19	M17	X	.188	.188	0	%100
20	M17	Z	.108	.108	0	%100

Member Distributed Loads (BLC 70 : Structure Wm (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.325	.325	0	%100
2	M1	Z	.563	.563	0	%100
3	M7	X	.013	.013	0	%100
4	M7	Z	.022	.022	0	%100
5	M8	X	.269	.269	0	%100
6	M8	Z	.466	.466	0	%100
7	MP1A	X	.298	.298	0	%100
8	MP1A	Z	.516	.516	0	%100
9	MP2A	X	.361	.361	0	%100
10	MP2A	Z	.625	.625	0	%100
11	MP3A	X	.298	.298	0	%100
12	MP3A	Z	.516	.516	0	%100
13	MP4A	X	.298	.298	0	%100
14	MP4A	Z	.516	.516	0	%100
15	M18	X	.431	.431	0	%100
16	M18	Z	.747	.747	0	%100
17	M19	X	.089	.089	0	%100
18	M19	Z	.155	.155	0	%100
19	M17	X	.325	.325	0	%100
20	M17	Z	.563	.563	0	%100

Member Distributed Loads (BLC 71 : Structure Wm (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	.867	.867	0	%100
3	M7	X	0	0	0	%100
4	M7	Z	.098	.098	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	.539	.539	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	.596	.596	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	.722	.722	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	.596	.596	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	.596	.596	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	.349	.349	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	.691	.691	0	%100
19	M17	X	0	0	0	%100

Member Distributed Loads (BLC 71 : Structure Wm (180 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
20	M17	Z	.867	.867	0	%100

Member Distributed Loads (BLC 72 : Structure Wm (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.325	-.325	0	%100
2	M1	Z	.563	.563	0	%100
3	M7	X	-.247	-.247	0	%100
4	M7	Z	.428	.428	0	%100
5	M8	X	-.269	-.269	0	%100
6	M8	Z	.466	.466	0	%100
7	MP1A	X	-.298	-.298	0	%100
8	MP1A	Z	.516	.516	0	%100
9	MP2A	X	-.361	-.361	0	%100
10	MP2A	Z	.625	.625	0	%100
11	MP3A	X	-.298	-.298	0	%100
12	MP3A	Z	.516	.516	0	%100
13	MP4A	X	-.298	-.298	0	%100
14	MP4A	Z	.516	.516	0	%100
15	M18	X	-.005	-.005	0	%100
16	M18	Z	.008	.008	0	%100
17	M19	X	-.518	-.518	0	%100
18	M19	Z	.897	.897	0	%100
19	M17	X	-.325	-.325	0	%100
20	M17	Z	.563	.563	0	%100

Member Distributed Loads (BLC 73 : Structure Wm (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.188	-.188	0	%100
2	M1	Z	.108	.108	0	%100
3	M7	X	-.707	-.707	0	%100
4	M7	Z	.408	.408	0	%100
5	M8	X	-.466	-.466	0	%100
6	M8	Z	.269	.269	0	%100
7	MP1A	X	-.516	-.516	0	%100
8	MP1A	Z	.298	.298	0	%100
9	MP2A	X	-.625	-.625	0	%100
10	MP2A	Z	.361	.361	0	%100
11	MP3A	X	-.516	-.516	0	%100
12	MP3A	Z	.298	.298	0	%100
13	MP4A	X	-.516	-.516	0	%100
14	MP4A	Z	.298	.298	0	%100
15	M18	X	-.157	-.157	0	%100
16	M18	Z	.091	.091	0	%100
17	M19	X	-.751	-.751	0	%100
18	M19	Z	.434	.434	0	%100
19	M17	X	-.188	-.188	0	%100
20	M17	Z	.108	.108	0	%100

Member Distributed Loads (BLC 74 : Structure Wm (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M7	X	-.743	-.743	0	%100
4	M7	Z	0	0	0	%100
5	M8	X	-.539	-.539	0	%100
6	M8	Z	0	0	0	%100
7	MP1A	X	-.596	-.596	0	%100

Member Distributed Loads (BLC 74 : Structure Wm (270 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
8	MP1A	Z	0	0	0	%100
9	MP2A	X	-0.722	-0.722	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-0.596	-0.596	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-0.596	-0.596	0	%100
14	MP4A	Z	0	0	0	%100
15	M18	X	-0.695	-0.695	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-0.354	-0.354	0	%100
18	M19	Z	0	0	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100

Member Distributed Loads (BLC 75 : Structure Wm (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-0.188	-0.188	0	%100
2	M1	Z	-0.108	-0.108	0	%100
3	M7	X	-0.301	-0.301	0	%100
4	M7	Z	-0.174	-0.174	0	%100
5	M8	X	-0.466	-0.466	0	%100
6	M8	Z	-0.269	-0.269	0	%100
7	MP1A	X	-0.516	-0.516	0	%100
8	MP1A	Z	-0.298	-0.298	0	%100
9	MP2A	X	-0.625	-0.625	0	%100
10	MP2A	Z	-0.361	-0.361	0	%100
11	MP3A	X	-0.516	-0.516	0	%100
12	MP3A	Z	-0.298	-0.298	0	%100
13	MP4A	X	-0.516	-0.516	0	%100
14	MP4A	Z	-0.298	-0.298	0	%100
15	M18	X	-0.896	-0.896	0	%100
16	M18	Z	-0.517	-0.517	0	%100
17	M19	X	-0.009	-0.009	0	%100
18	M19	Z	-0.005	-0.005	0	%100
19	M17	X	-0.188	-0.188	0	%100
20	M17	Z	-0.108	-0.108	0	%100

Member Distributed Loads (BLC 76 : Structure Wm (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-0.325	-0.325	0	%100
2	M1	Z	-0.563	-0.563	0	%100
3	M7	X	-0.013	-0.013	0	%100
4	M7	Z	-0.022	-0.022	0	%100
5	M8	X	-0.269	-0.269	0	%100
6	M8	Z	-0.466	-0.466	0	%100
7	MP1A	X	-0.298	-0.298	0	%100
8	MP1A	Z	-0.516	-0.516	0	%100
9	MP2A	X	-0.361	-0.361	0	%100
10	MP2A	Z	-0.625	-0.625	0	%100
11	MP3A	X	-0.298	-0.298	0	%100
12	MP3A	Z	-0.516	-0.516	0	%100
13	MP4A	X	-0.298	-0.298	0	%100
14	MP4A	Z	-0.516	-0.516	0	%100
15	M18	X	-0.431	-0.431	0	%100
16	M18	Z	-0.747	-0.747	0	%100
17	M19	X	-0.089	-0.089	0	%100
18	M19	Z	-0.155	-0.155	0	%100
19	M17	X	-0.325	-0.325	0	%100



Member Distributed Loads (BLC 76 : Structure Wm (330 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
20 M17	Z	-563	-563	0	%100

Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
No Data to Print ...						

Envelope Joint Reactions

Joint	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1 N13	max 1717.102	9	1859.337	13	1342.266	1	-2.187	67	7.525	8	6.223	38
2	min -1527.618	3	647.77	69	-844.577	7	-6.496	21	-7.656	2	-2.99	8
3 N38	max 699.233	1	78.416	18	456.455	1	.002	39	0	75	.008	38
4	min -852.127	8	15.219	2	-954.163	7	0	9	0	1	-.007	8
5 Totals:	max 1143.099	9	1933.063	14	1798.721	1						
6	min -1143.1	3	670.07	72	-1798.74	7						

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

Member	Shape	Code Check	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [...]	phi*Pnt [lb]	phi*Mn y...	phi*Mn z...	Cb	Eqn
1 M1	PIPE 3.0	.620	6.25	38	.290	6.25		42	28250.554	65205	5.749	5.749	1...	H1-1b
2 M7	HSS4X4X4	.854	4	2	.348	4	y	38	130481.58	139518	16.181	16.181	1...	H3-6
3 M8	PIPE 3.0	.000	.625	9	.000	.625		9	64661.885	65205	5.749	5.749	1...	H1-1b
4 MP1A	PIPE 2.0	.356	4	44	.077	.5		8	20866.733	32130	1.872	1.872	2...	H1-1b
5 MP2A	PIPE 2.5	.361	4.448	47	.163	4.448		8	33961.614	50715	3.596	3.596	2...	H1-1b
6 MP3A	PIPE 2.0	.528	4	2	.081	4		2	20866.733	32130	1.872	1.872	2...	H1-1b
7 MP4A	PIPE 2.0	.275	4	2	.064	4		2	20866.733	32130	1.872	1.872	2...	H1-1b
8 M18	L2.5x2.5x4	.062	2.592	11	.028	5.184	y	8	16039.886	38556	1.114	2.231	1...	H2-1
9 M19	L2.5x2.5x4	.200	3.633	2	.033	7.266	z	38	8216.14	38556	1.114	2.044	1...	H2-1
10 M17	PIPE 3.0	.267	4.469	38	.087	1.896		1	26386.722	65205	5.749	5.749	2...	H1-1b

Tower Connection Weld Checks

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

Yes
Rectangle
None
4
4
4
16.00
21.33
21.33
85.33
2.25
2.25
4.73
5.57
85.0%

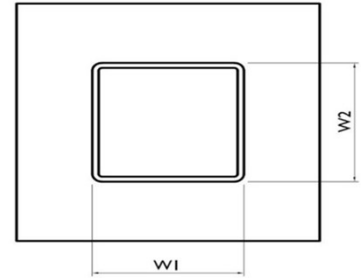
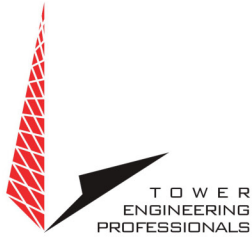


EXHIBIT 5





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Non-Ionizing Electromagnetic Radiation (NIER) Study

Site Number:
302519

Site Name:
Southbury

Location:
Southbury, Connecticut

Tenants:
AT&T Mobility & Verizon Wireless

Prepared For:
American Tower, Inc.
Woburn, Massachusetts

August 29th, 2023
94008 P-405307

Prepared By:

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

Approved By:

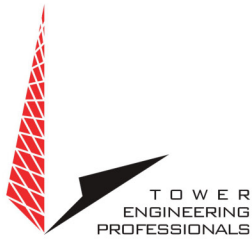




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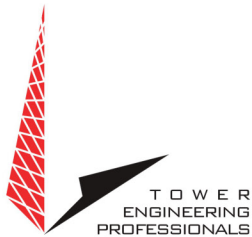
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Non-Ionizing Electromagnetic Radiation (NIER) Study

302519 Southbury
Southbury, 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 302519 Southbury is located at 133 Horse Fence Hill Rd., in Southbury, Connecticut at coordinates 41.863487, -72.483298. The support structure is a 151' monopole. An aerial view of the tower can be found in Appendix 1, Site Photos. The tenants are 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 90' from the base of the tower with a height of 6' above ground level was used, beyond 90' 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 302519 Southbury.RF NIER Study 8/15/23.
- FCC databases.
- Carrier standard configurations.
- Empirical data collected by TEP.

SITE MITIGATION & CONTROL

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

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

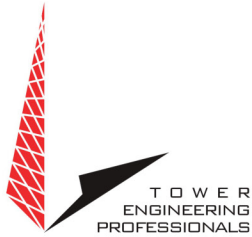
COMPLIANCE DETERMINATION

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

APPENDIX 1 Site Photos



Aerial View of Site

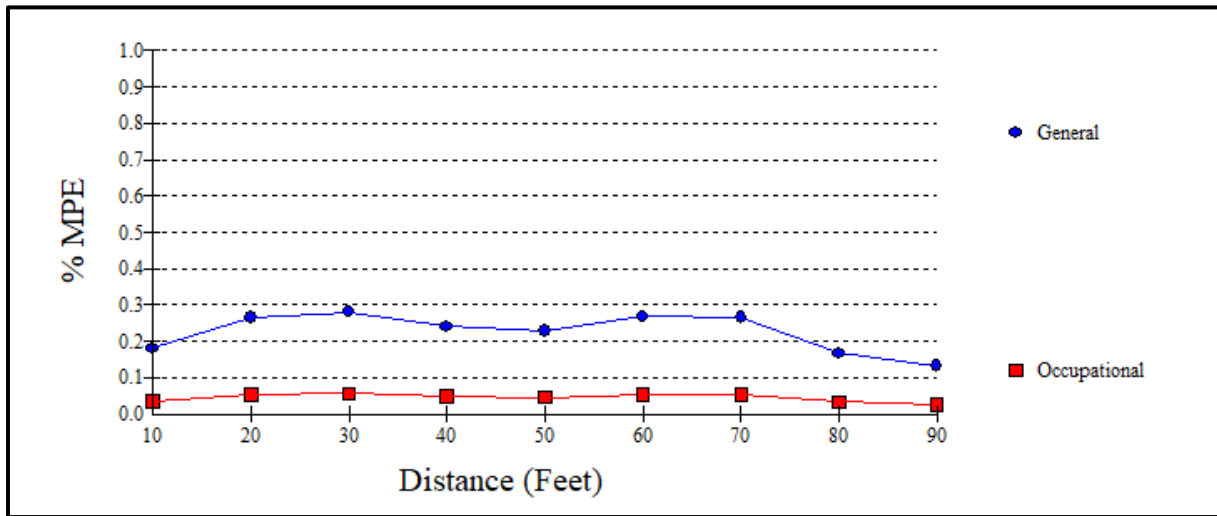


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Appendix 2.1 Antenna Inventory

302519 Southbury							
Antenna Inventory							
Antenna #	Carrier	Antenna Manufacturer	Antenna Model	Frequency Band (MHz)	Azmiuth (°)	Effective Radiated Power (W)	Radiation Center (ft)
1	AT&T	Quintel	QS66512-2	700/800/1900	017	29903	153
2	AT&T	Quintel	QS66512-2	700/800/1900	135	29903	153
3	AT&T	Quintel	QS66512-2	700/800/1900	258	29903	153
4	AT&T	Powerwave	7770	800/1900	017	23472	153
5	AT&T	Powerwave	7770	800/1900	135	23472	153
6	AT&T	Powerwave	7770	800/1900	258	23472	153
7	AT&T	Powerwave	7770	800/1900	017	23472	153
8	AT&T	Powerwave	7770	800/1900	135	23472	153
9	AT&T	Powerwave	7770	800/1900	258	23472	153
10	AT&T	CCI	DMP65R-BU6DA	700/800/1700	017	57630	153
11	AT&T	CCI	DMP65R-BU6DA	700/800/1700	135	57630	153
12	AT&T	CCI	DMP65R-BU6DA	700/800/1700	258	57630	153
13	AT&T	CCI	HPA-65R-BUU-H6	700/800/1900	017	57630	153
14	AT&T	CCI	HPA-65R-BUU-H6	700/800/1900	135	57630	153
15	AT&T	CCI	HPA-65R-BUU-H6	700/800/1900	258	57630	153
16	Verizon	Samsung	MT6407	3700/3800/3900	030	18286	113
17	Verizon	Samsung	MT6407	3700/3800/3900	150	18286	113
18	Verizon	Samsung	MT6407	3700/3800/3900	270	18286	113
19	Verizon	Andrew	LNX-6514DS-VTM	800	030	18970	113
20	Verizon	Andrew	LNX-6514DS-VTM	800	150	18970	113
21	Verizon	Andrew	LNX-6514DS-VTM	800	270	18970	113
22	Verizon	JMA	MX06FRO660-03	700/800/1900/2100	030	49901	113
23	Verizon	JMA	MX06FRO660-03	700/800/1900/2100	150	49901	113
24	Verizon	JMA	MX06FRO660-03	700/800/1900/2100	270	49901	113
25	Verizon	JMA	MX06FRO660-03	700/800/1900/2100	040	49901	113
26	Verizon	JMA	MX06FRO660-03	700/800/1900/2100	150	49901	113
27	Verizon	JMA	MX06FRO660-03	700/800/1900/2100	270	49901	113

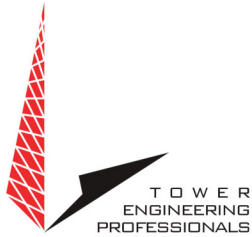
Appendix 3.1 MPE Limit Study



Maximum Power Density (@60'):	0.0017 mW/cm ²
General Population MPE (@60'):	0.2676%
Occupational MPE (@60'):	0.0533%

Appendix 3.2 MPE Limit Study





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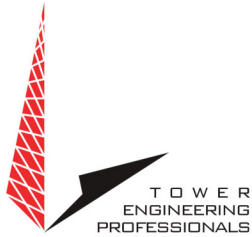
Appendix 4 Information Pertaining to MPE Studies

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.

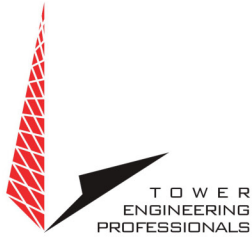


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MPE limits are defined in terms of power density (units of milliwatts per centimeter squared: mW/cm^2), electric field strength (units of volts per meter: V/m) and magnetic field strength (units of amperes per meter: A/m). The far-field of a transmitting 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.

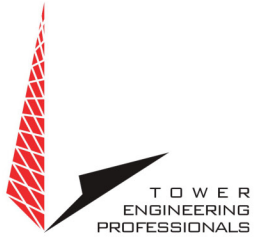


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Appendix 5 MPE Standards Methodology

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.



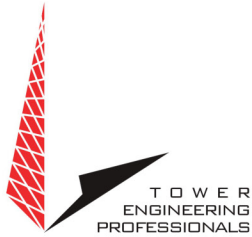
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The FCC's limits for exposure at different frequencies are shown in the following Tables.

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



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.

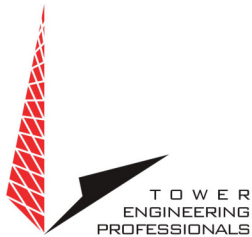
Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3 - 1.34	614	1.63	100*	30
1.34 - 30	824/f	2.19/f	180/F ²	30
30 -300	27.5	0.073	0.2	30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

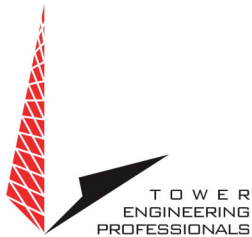
θ_{BW} = Beam width of antenna in degrees (3 dB half-power point)

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. 90 - An application of SNET Cellular, Inc., for a Certificate of Environmental Compatibility and Public Need for a cellular telephone antenna tower and associated equipment in the Town of Southbury, Connecticut.

: CONNECTICUT SITING
COUNCIL

: March 3, 1988

O P I N I O N

On November 13, 1987, SNET Cellular, Inc., (SNET) applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) to establish a cellular telephone tower site in the Town of Southbury. The application included a proposed site and an alternative site.

The proposed Southbury site is a 100-foot by 100-foot parcel of land 1,300 feet south of Horse Fence Road. The proposed Southbury tower would be a 150-foot monopole, which would be a 167-foot structure including antennas.

There are eight homes within a 1,000-foot radius of the proposed site, which is within a wooded area. Access into the proposed site would be over an existing 1,300-foot roadway. A 350-foot extension of this roadway would be constructed to the leased parcel.

The alternative Southbury site is a 100-foot by 100-foot parcel of land 1,000 feet to the southwest of the proposed site. Due to a higher elevation, a 130-foot monopole would be constructed at the alternative site.

There are four homes within a 1,000-foot radius of the alternative site. Access to the alternative site would be via a new 15-foot wide roadway, 2,000 feet in length. This roadway would traverse a heavily wooded area, and would require the removal of a substantial number of mature trees. The entire 100-foot square parcel would have to be cleared of trees. A 400- to 500-foot section of the new access road would cross an area classified as an inland wetland.

Pursuant to repeated encouragement from the Council, SNET and its competitor, Metro Mobile CTS of New Haven, Inc. had proposed to construct a tower for joint use in Southbury, but objections by the Southbury Planning Commission caused the companies to withdraw their proposal. Consequently, SNET and Metro Mobile have developed their cellular systems on each side of Southbury, which now precludes the use of a shared Southbury tower.

The Council looks forward to receiving such joint use proposals in future applications, and encourages the respective companies to continue the search for such proposals with the cooperation of local authorities, making clear the Federal Communications Commission dual policy and engineering limitations which may force less desirable installations if such opportunities are lost.

Either of the sites included in this application would provide cellular service along Routes 6, 25, 34, 67, 172, 188, and I-84 in the towns of Southbury, Newtown, Oxford, Middlebury, Woodbury, Danbury, and Brookfield. The planned Southbury site would overlap cellular coverage with existing SNET cellular sites in Waterbury and Newtown.

Both of the sites included in this application would be visible from nearby portions of Route I-84, Route 172, Meadow Road, Main Street, Flood Bridge Road, and Horse Fence Hill Road. The similarity in the expected visibility of these towers places greater emphasis on the impact these sites would have on their immediate surroundings. The construction of the alternative site would result in a much greater clearing of trees and impact to inland wetlands for the access road. The alternative site would require the clearing of mature trees from the entire parcel, whereas the parcel at the proposed site would be in an open area not requiring much tree removal.

Additionally, the above-ground utility pole line planned for the alternative site would have a greater visual impact than the underground line which would be installed into the proposed site.

There are no known existing records of rare or endangered species occurring at either of these sites, nor would they have a significant effect on historic or archaeological resources listed on or eligible for the National Register of Historic Places. Electromagnetic radio frequency power densities at these sites would be well below the current American National Standards Institute safety standards for the expected frequencies.

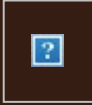
Based on its record in this proceeding, the council will deny the alternative Southbury site and issue a Certificate to SNET for the proposed Southbury tower site.

1043E

EXHIBIT 7



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To: [Barbara Kassabian](#)
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Delivery Date: Thursday, 09/28/2023

Delivery Time: 12:18 PM

Signed by: SELECTMAN

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030314224264
Ship To:	JEFF MANVILLE 501 MAIN STREET SOUTH ROOM 212 SOUTHBURY, CT 064884217 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	14519505

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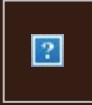
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To: [Barbara Kassabian](#)
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030334410177
Date: Thursday, September 28, 2023 12:20:41 PM



Hello, your package has been delivered.

Delivery Date: Thursday, 09/28/2023

Delivery Time: 12:19 PM

Signed by: SELECTMAN OFFIC

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030334410177
Ship To:	JORDAN MARCINKO 501 MAIN STREET SOUTH 3RD FLOOR SOUTHURY, CT 064884217 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	14519505

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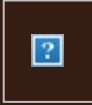
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From: [UPS](#)
To: [Barbara Kassabian](#)
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030319079270
Date: Thursday, September 28, 2023 10:28:13 AM



Hello, your package has been delivered.

Delivery Date: Thursday, 09/28/2023

Delivery Time: 10:26 AM

Left At: SIDE DOOR



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CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030319079270
Ship To:	WILLIAM BEATTY 133 HORSE FENCE HILL ROAD SOUTHURY, CT 064882106 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	14519505

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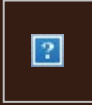
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From: [UPS](#)
To: [Barbara Kassabian](#)
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030314936281
Date: Thursday, September 28, 2023 2:46:05 PM



Hello, your package has been delivered.

Delivery Date: Thursday, 09/28/2023

Delivery Time: 2:44 PM

Signed by: ANCRI

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030314936281
Ship To:	AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 018011053 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	14519505

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