Robinson+Cole

KENNETH C. BALDWIN

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Also admitted in Massachusetts and New York

February 7, 2024

Via Electronic Mail

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

Re: **Notice of Exempt Modification – Facility Modification**
302 Ball Pond Road, New Fairfield, Connecticut

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains twelve (12) antennas at the 123-foot level of the existing 175-foot tower adjacent to the New Fairfield Volunteer Fire Department at 302 Ball Pond Road in New Fairfield, Connecticut (the "Property"). In 2002, the Town of New Fairfield Zoning Commission approved the installation of the existing tower. According to the Siting Council database, the Siting Council approved Cellco's use of the tower in 2007. (A copy of the Siting Council's tower share approval is not available on the Council's database). Copies of the Town's permits and approvals for the tower are included in Attachment 1.

Cellco now intends to modify its facility by replacing nine (9) antennas with nine (9) new antennas and installing six (6) remote radio heads ("RRHs") on its existing T-Arm antenna mounts. A set of project plans showing Cellco's proposed facility modifications and the specifications for Cellco's new antenna and RRHs are included in Attachment 2.

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

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

1. The proposed modifications will not result in an increase in the height of the existing tower. Cellco's new antennas and RRHs will be installed at the same height on the tower.

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

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

4. The installation of Cellco's new antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. Included in Attachment 3 is a Calculated Radio Frequency Emissions Report demonstrating that the proposed modified facility will comply with the FCC safety standards. The modified facility will be capable of providing Cellco's 5G wireless service.

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

6. According to the attached Structural Analysis Report ("SA") and Antenna Mount Analysis Report ("MA"), the existing tower, tower foundation and T-Arm antenna mounts, with certain modifications, can support Cellco's proposed modifications. Copies of the SA and MA are included in Attachment 4.

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

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

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:
Melissa Lindsey, First Selectman
Evan White, Zoning Enforcement Officer
Aleksey Tyurin

ATTACHMENT 1

The Planning Commission

Town of New Fairfield
New Fairfield, Connecticut 06812

Regular Meeting
Monday, March 25, 2002
Town Hall Conference Room, 7:30pm

MINUTES - REVISED

Commissioners Present: Jim Piskura, Ron Stoddard, Chris Gould, Dale Holly

Alternates Present: Jim Mitchell, Joe Longo

Staff Present: Jeannine Fitzgerald

Commissioners Absent: Bill DiTullio, Mike Verrico

Call to Order: 7:37 pm

Appt of Alternates
Chris Gould made motion to elevate Jim Mitchell to full voting status. Seconded by Dale Holly.

Approval of Minutes:
Dale Holly made motion to accept Feb 25th minutes as is. Chris Gould seconded. All in favor.
Dale Holly made motion to accept Mar 11th special minutes. Chris Gould seconded. All in favor. Ron Stoddard abstained.

Correspondence/Announcements:
1. Email from Tony Iadarola re: updates, etc.
2. Email from Tony March 24, 2002 re: Pine Hill
3. Email from Jeannine re: vacation next month. Need someone to take care of agenda, minutes, legal notices and votes.

Jim Piksura will not be at the April 8, 2002 Planimetrics meeting at 7pm.
Jeannine to republish the notice again in CN for next Weds. April 3rd.

OLD BUSINESS
Chelsea Drive - waiting for correspondence
Somesborn Estates - pending
Pine Hill Subdivision- pending

NEW BUSINESS
Communication Tower – 302 Ball Pond Road Referral
Location is behind Fire House & Police Station
Russ Strilowich, Chairman of the Permanent Building Committee present.

8.24 Referral to Zoning sought

>Chris Gould made motion to grant a positive referral to the PBC. Dale Holly seconded. All in favor.

3:30

The Planning Commission

Town of New Fairfield
New Fairfield, Connecticut 06812

MEMO

TO: Permanent Building Committee

FROM: Jeannine Fitzgerald

RE: Referral for Amendment to Zoning Regulations

DATE: March 26, 2002

The Planning Commission of New Fairfield granted a positive referral to the Communication Tower at 302 Ball Pond Road.

Call me or Jim Piskura at 746-1180 if you have any questions.

cc: Jim Piskura
Maria Haussherr-Hughes
First Selectman's Office

Hand Delivered to Mail Box

ZONING PERMIT

ZONING COMMISSION

TOWN OF NEW FAIRFIELD
4 BRUSH HILL ROAD
NEW FAIRFIELD, CT 06812
203-746-8140

PROPERTY OWNER: Town Of New Fairfield

OWNER'S ADDRESS: 302 Ball Pond Road
New Fairfield, CT 06812

PROPERTY ADDRESS: 302 Ball Pond Road

ZONE: R **MAP:** 23 **BLOCK:** 16 **LOT:** 15-16

LOT SIZE: **FRONTAGE:**

PROJECT DESCRIPTION: CONSTRUCTION OF ACCESS ROAD TO 100' X 100' COMPOUND FOR 175 FOOT COMMUNICATION TOWER FOR TOWN EMS ANTENNAS

CONSTRUCTION MAY NOT PROCEED UNTIL
A BUILDING PERMIT HAS BEEN OBTAINED

THIS PERMIT MUST BE POSTED ON THE PREMISES

PERMIT VOID IF CONSTRUCTION AUTHORIZED IN NOT COMPLETED WITHIN ONE (1) YEAR OF ISSUANCE.

THIS PERMIT IF ISSUED, IS BASED UPON THE PLOT PLAN SUBMITTED. FALSIFICATION, BY MISREPRESENTATION OR OMISSION, OR FAILURE TO COMPLY WITH THE CONDITIONS OF APPROVAL OF THIS PERMIT SHALL CONSTITUTE A VIOLATION OF THE NEW FAIRFIELD ZONING REGULATIONS.

CONDITIONS OF APPROVAL:
Permit for structure only - Town Emergency Tower/Antenna exempt under section 2.13.10 of the New Fairfield Zoning Regulations.

PERMIT NO. Z0-01-120

DATE ISSUED 07/03/02

FEE waived
(INCLUDES $10. STATE SURCHARGE)

Maria Haussherr-Hughes
Zoning Enforcement Officer

TOWN OF NEW FAIRFIELD
4 BRUSH HILL ROAD, NEW FAIRFIELD, CT
203-312-5644

BUILDING PERMIT

POST THIS PERMIT CONSPICUOUSLY

Owner: Town Of New Fairfield
Address: 302 Ball Pond Road
Project Description: CONSTRUCTION OF ACCESS ROAD TO 100' X 100' COMPOUND FOR 175 FOOT COMMUNICATION TOWER FOR TOWN EMS ANTENNAS
Map: 23 **Block:** 16 **Lot:** 15-16

In accordance with application, plans and specifications submitted to the New Fairfield building department, this project will be completed subject to the State of Connecticut building code. Otherwise this permit will be null and void. Occupancy of this new building or addition prior to issuance of certification of occupancy will be considered a violation of the state building code.

Permit No: 02-133 **Fee $:** 0.00

Expires in six months if constructions is not then commenced

Ronald N. Malmberg, Building Official

Inspections:

Date Issued: 07/09/02

1. Footings
2. Footing Drains
3. Framing (Rough)
4. Plumbing (Rough with Test)
5. Electrical
6. Insulation
7. Gas or Oil Burner
8. Final Elec. and Plumbing
9. Deck
10. Final - Fire Separation, Exits, etc.

Conditions:

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ATTACHMENT 2

verizon

WIRELESS COMMUNICATIONS FACILITY

NEW FAIRFIELD 2 CT
302 BALL POND ROAD
NEW FAIRFIELD, CT 06812

DRAWING INDEX

SITE DIRECTIONS

START: 20 ALEXANDER DRIVE
WALLINGFORD, CONNECTICUT 06492

END: 302 BALL POND ROAD
NEW FAIRFIELD, CT 08812

1.	HEAD SOUTH TOWARD ALEXANDER DRIVE	279 FT
2.	SLIGHT RIGHT TOWARDS ALEXANDER DRIVE	289 FT
3.	TURN RIGHT TOWARD ALEXANDER DRIVE	167 FT
4.	TURN RIGHT ONTO ALEXANDER DRIVE	0.3 MI
5.	TURN RIGHT ONTO BARNES INDUSTRIAL ROAD S	0.1 MI
6.	TURN LEFT AT THE 1ST CROSS STREET ONTO CT-68W	0.1 MI
7.	TURN RIGHT	0.2 MI
8.	TURN RIGHT TO MERGE ONTO CT-15 N TOWARD HARTFORD	0.5 MI
9.	MERGE ONTO CT-15 N	3.1 MI
10.	USE THE MIDDLE LANE TO STAY ON CT-15 N	0.1 MI
11.	TAKE EXIT 68W TO MERGE ONTO I-691 W TOWARD MERIDEN/WATERBURY	7.9 MI
12.	USE LEFT 2 LANES TO TAKE EXIT 1 FOR I-84 W TOWARD WATERBURY/DANBURY	1.0 MI
13.	MERGE ONTO I-84	33.8 MI
14.	TAKE EXIT 6 FOR CT-37 TOWARD NEW FAIRFIELD	0.2 MI
15.	CONTINUE ONTO CT-37 N/NORTH STREET	1.9 MI
16.	TURN LEFT ONTO BARNUM ROAD	2.4 MI
17.	TURN LEFT ONTO BALL POND ROAD	1.90 FT
18.	SLIGHT RIGHT ON CT-39 S (DESTINATION WILL BE ON THE LEFT)	0.2 MI

LOCATION MAP
SCALE: 1" = 2000'-0"

SITE INFORMATION

VZ SITE NAME	NEW FAIRFIELD 2 CT
VZ FUZE I.D.	16241849
VZ PSLC	467504
MDG LOCATION ID	5000364712
LOCATION	302 BALL POND ROAD NEW FAIRFIELD, CT 06812
PROJECT SCOPE	REFER TO NOTES ON C-1 FOR SCOPE OF WORK.
MAP/BLOCK/LOT	22/16/15
ZONING DISTRICT	2
LATITUDE	41° 27' 53.23" N (41.464778° N) (SITE COORDINATES & GROUND ELEVATION OBTAINED FROM VERIZON FIDS & GOOGLE MAPS)
LONGITUDE	73° 29' 49.00" W (73.496942° W)
GROUND ELEVATION	823'± AMSL
PROPERTY OWNER	TOWN OF NEW FAIRFIELD 4 BRUSH HILL ROAD NEW FAIRFIELD, CT 06812
APPLICANT	CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS 20 ALEXANDER DRIVE WALLINGFORD, CT 06492
LEGAL/REGULATORY COUNSEL	ROBINSON & COLE, LLP KENNETH C. BALDWIN, ESQ 280 TRUMBULL STREET HARTFORD, CT 06103
ENGINEER CONTACT	ALL POINTS TECHNOLOGY CORPORATION, P.C. 567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385 (860) 663-1697

Cellco Partnership d/b/a
verizon

ALL-POINTS TECHNOLOGY CORPORATION

CONSTRUCTION DOCUMENTS		
NO.	DATE	REVISION
0	1/4/21	FOR REVIEW: JRM
1	1/15/21	FOR FILING: JRM
2	1/19/21	FOR FILING: JRM
3	6/29/22	FOR FILING: JRM
4	11/04/22	FOR FILING: JRM
5	9/07/23	UPDATED CODE REFERENCES
6	9/20/24	REV RFDS: JRM
7	9/17/24	CORRECTED SDM: JRM
8	9/26/24	UPDATED SA REF: JRM

STATE OF CONNECTICUT
MICHAEL TROODEN
33313
LICENSED
PROFESSIONAL ENGINEER

DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TROODEN, P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: TOWN OF NEW FAIRFIELD
ADDRESS: 4 BRUSH HILL ROAD NEW FAIRFIELD, CT 06812

VERIZON
NEW FAIRFIELD 2 CT

SITE ADDRESS: 302 BALL POND ROAD NEW FAIRFIELD, CT 06812

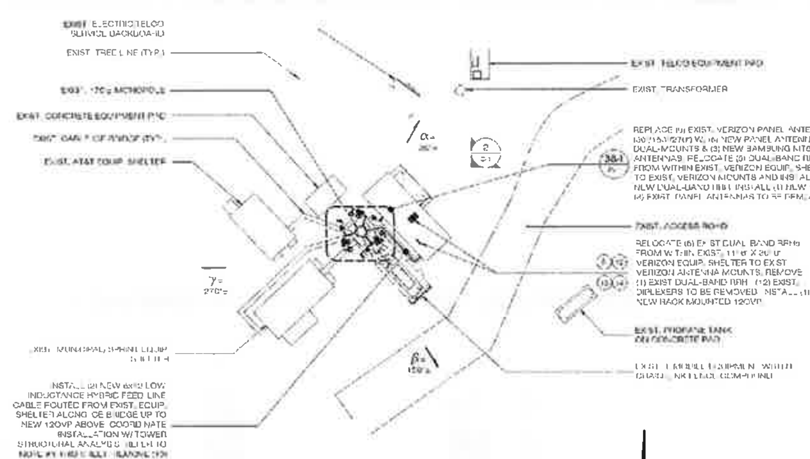
APT FILING NUMBER: CT141_12048

DRAWN BY: DRA
DATE: 9/18/24 CHECKED BY: JRM

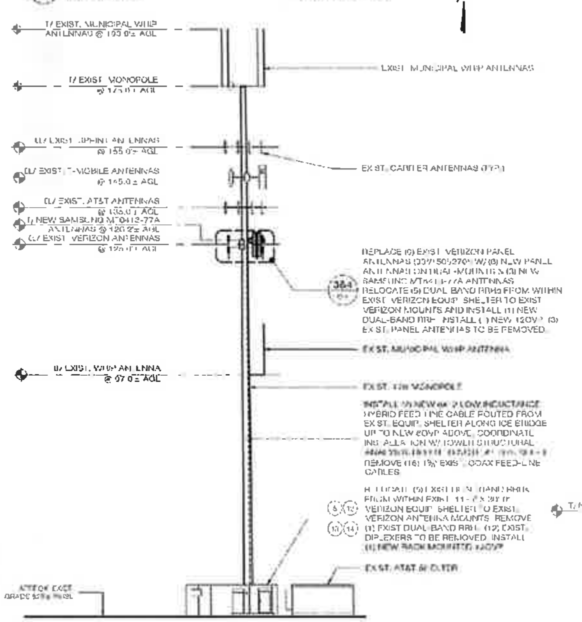
MDG LOCATION ID: 5000364712
VZW PSLC: 467504
VZW FUZE ID: 16241849

SHEET TITLE:
TITLE SHEET

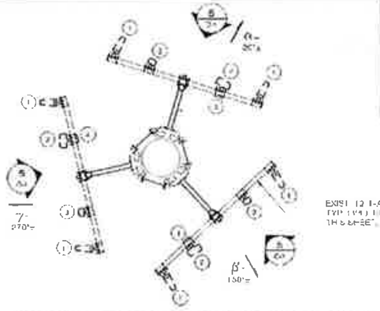
SHEET NUMBER:
T-1



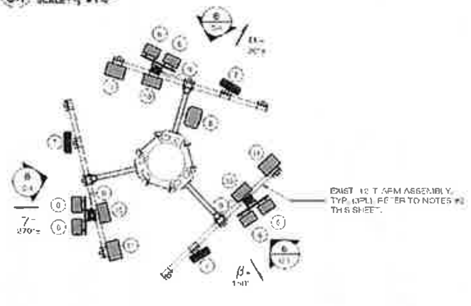
1 COMPOUND PLAN (C-1) SCALE: 1" = 15'-0"



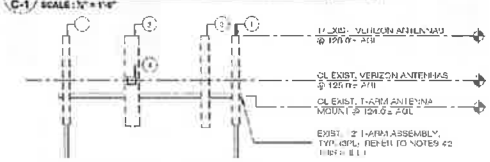
2 NORTH TOWER ELEVATION (C-1) SCALE: 1" = 20'-0"



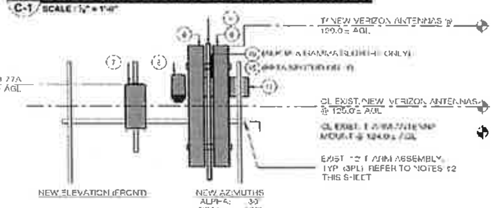
3 EQUIP. CONFIGURATION PLAN (EXIST.) (C-1) SCALE: 1/2" = 1'-0"



4 EQUIP. CONFIGURATION PLAN (NEW) (C-1) SCALE: 1/2" = 1'-0"



5 EQUIP. MOUNTING CONFIG. (EXIST.) (C-1) SCALE: 1/2" = 1'-0"



6 EQUIP. MOUNTING CONFIG. (NEW) (C-1) SCALE: 1/2" = 1'-0"

GENERAL ABBREVIATION LIST

ABP	ABOVE BASE PLATE
AGL	ABOVE GROUND LEVEL
AMSL	ABOVE MEAN SEA LEVEL
AWS	ADVANCED WIRELESS SERVICE
HDG	HOT DIP GALVANIZED
OVP	OVER VOLTAGE PROTECTION
RRH	REMOTE RADIO HEAD
V.I.F.	VERIFY IN FIELD
W.P.	WORK POINT

NOTES

1. REFER TO TOWER ANALYSIS REPORT PREPARED BY ALL POINTS TECHNOLOGY CORPORATION P.C., MARKED REV 7, DATED 02/01/24 AVAILABLE UNDER SEPARATE COVER.
2. ... COLLIERS ENGINEERING & DESIGN, ... MARKED REV 3, DATED 11/22/23.
3. ... CONDUCTED BY ALL-POINTS TECHNOLOGY CORPORATION, P.C. ON 10/21/21.
4. PROJECT SCOPE INCLUDES THE FOLLOWING:
   - REPLACEMENT OF (6) EXIST. PANEL ANTENNAS WITH NEW PANEL ANTENNAS MOUNTED ON NEW SIDE-BY-SIDE BRACKETS ... & (3) NEW SAMSUNG MT6413-77A ANTENNAS w/ INTEGRATED RRHs.
   - INSTALLATION OF (1) NEW 12OVP (TOWER).
   - INSTALLATION OF (2) NEW 6x12 LOW INDUCTANCE HYBRID FEED LINE CABLES.
   - RELOCATION OF (6) EXIST. DUAL BAND RRHs FROM WITHIN EXIST. VERIZON EQUIP. SHELTER TO EXIST. ANTENNA MOUNTS.
   - INSTALLATION OF (1) NEW DUAL-BAND RRH (BETA SECTOR ONLY).
   - REMOVAL OF (3) EXIST. PANEL ANTENNAS.
   - REMOVAL OF (12) EXIST. DIPLEXERS FROM WITHIN EXIST. VERIZON SHELTER.
   - REMOVAL OF (18) 1⅝" EXIST. COAX FEED LINE CABLES.
   - INSTALLATION OF (1) NEW RACK MOUNTED 12OVP.
5. ALL EXPOSED STEEL AND HARDWARE TO BE HOT DIP GALV. (HDG), PAINT TO MATCH EXIST. (WHERE APPLICABLE).
6. CAP & WEATHERPROOF ALL UN-USED CABLE ENTRY PORTS (WHERE APPLICABLE).
7. ... WITH NEC (NFPA 70), NESC AND MANUFACTURERS SPECIFICATION.
8. SECURE ALL NEW ANTENNA CABLES PER MANUFACTURER RECOMMENDATIONS.
9. BOND NEW ANTENNA MOUNTING PIPES TO ANTENNA SECTOR GROUND BAR w/ #2 AWG, BCW, (WHERE APPLICABLE).
10. CONTRACTOR SHALL INSTALL NEW SIDE-BY-SIDE & DUAL-MOUNT BRACKETS PER ANTENNA MOUNT MANUFACTURER RECOMMENDATIONS, INCLUDING VERIFICATION OF MINIMUM PIPE MAST DIAMETER REQUIRED ... WISE, CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD SHOULD EXIST. PIPE MASTS REQUIRE REPLACEMENT TO SUPPORT THE NEW MOUNT BRACKETS.
11. ANTENNA CONFIGURATIONS SHOWN HEREIN ARE FRONT ELEVATIONS (UNLESS NOTED OTHERWISE).
12. ANTENNA SPACING DIMENSIONS ARE TO THE CENTER OF THE EXIST. ANTENNA AND PROP. ANTENNA FACE.
13. REFER TO THE FINAL RFDS PROVIDED BY VERIZON FOR THE LATEST INFORMATION REGARDING EQUIPMENT MODELS, REQUIRED CABLING & DOWN-TILT INFORMATION.
14. ... MANUFACTURER INSTALLATION MANUAL REQUIREMENTS, VERIZON CONSTRUCTION MANAGER & OWNER.
15. PAINT ALL NEW ... ANTENNAS & APPURTENANCES TO MATCH EXIST. STRUCTURE (WHERE APPLICABLE). COORDINATE W/ VERIZON CONSTRUCTION MANAGER & BUILDING OWNER.

SCOPE OF WORK (ALL SECTORS)

1. EXIST. ANTENNA (TO BE REMOVED) MODEL: ANTEL LPA-...
2. EXIST. ANTENNA (TO BE REPLACED) MODEL: ANTEL BXA-70063-6CF
3. EXIST. ANTENNA (TO BE REPLACED) MODEL: ANTEL BXA-171085-12BF
4. (3) EXIST. DIPLEXERS TO BE REMOVED (TOWER) MODEL: RFS FD9R6004/2C-3L (V.I.F.)
5. (3) EXIST. RRHs (TO BE RELOCATED) FROM EXIST. VERIZON EQUIP. SHELTER TO EXIST. VERIZON ANTENNA MOUNTS) MODEL: SAMSUNG B13/B5 RRH-BR04C (RFV01U-D2A) MODEL: SAMSUNG B66/B2A RRH-BR049 (RFV01U-D1A)
6. NEW ANTENNA MODEL: JMA MX06FRHG665-1-G MOUNTED ON NEW JMA DUAL MOUNT (P/N 01000314-03)
7. NEW ANTENNA w/ INTEGRATED RRH MODEL: SAMSUNG MT6413-77A
8. NEW 12OVP (ALPHA SECTOR ONLY) & NEW PIM MOUNT REFER TO MOUNT ANALYSIS NOTE #2 THIS SHEET MODEL: RAYCAP RVZDC-6627-PF-48
9. NEW GALV. PIPE MAST - REFER TO MOUNT ANALYSIS (BY OTHERS), SEE NOTE #2 THIS SHEET
10. RELOCATED EXIST. DUAL-BAND RRH MODEL: SAMSUNG B13/B5 RRH-BR04C (RFV01U-D2A)
11. RELOCATED EXIST. DUAL-BAND RRH MODEL: SAMSUNG B66/B2A RRH-BR049 (RFV01U-D1A)
12. (6) EXIST. QUAD DIPLEXERS TO BE REMOVED FROM WITHIN EXIST. VERIZON EQUIP. SHELTER (MODEL: COMMSCOPE SDX1926Q-43
13. ...
14. NEW 12OVP (RACK MOUNTED) MODEL: RAYCAP RVZDC-4520-RM-48
15. NEW DUAL-BAND RRH SAMSUNG ... (BETA SECTOR ONLY)

Cellco Partnership d/b/a
verizon

ALL-POINTS TECHNOLOGY CORPORATION

CONSTRUCTION DOCUMENTS

NO.	DATE	REVISION
0	11/20/21	FOR REVIEW: JRM
1	11/15/21	FOR FILING: JRM
2	11/07/21	FOR FILING: JRM
3	04/20/22	FOR FILING: JRM
4	11/04/22	FOR FILING: JRM
5	04/07/23	UPDATED CODE REFERENCES
6	01/02/24	REV RFDS: JRM
7	01/12/24	CORRECTED BOM: JRM
8	02/01/24	UPDATED SA REF: JRM

STATE OF CONNECTICUT MICHAEL TRODDEN 33313 LICENSED PROFESSIONAL ENGINEER

DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: TOWN OF NEW FAIRFIELD
ADDRESS: 4 BRUSH HILL ROAD NEW FAIRFIELD, CT 06812

VERIZON
NEW FAIRFIELD 2 CT

SITE ADDRESS: 302 BALL POND ROAD NEW FAIRFIELD, CT 06812
APT FILING NUMBER: CT141_13040
DRAWN BY: DRA
DATE: 01/02/24 CHECKED BY: JRM
MDG LOCATION ID: 5000384712
VZW PSLC: 487504
VZW FUZE ID: 16245845

SHEET TITLE:
COMPOUND PLAN, TOWER ELEVATION, EQUIP. PLANS, ELEVATIONS & NOTES

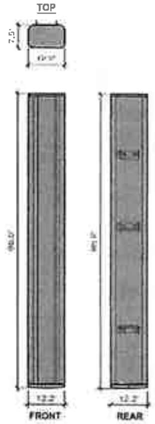
SHEET NUMBER:
C-1

EQUIPMENT DATA

EQUIPMENT SPECIFICATIONS

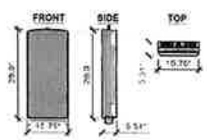
SECTOR	ANTENNA MAKE/MODEL	QTY	AZIMUTH	EQUIPMENT STATUS	HEIGHT (IN)	WIDTH (IN)	DEPTH (IN)	WEIGHT (LBS)
ALPHA	700/850/1900/2100: JMA MX06FHG865-HG	1	30°	NEW	95.9	12.2	7.5	[illegible]
	700/850/1900/2100: JMA MX06FHG865-HG	1	30°	NEW	95.9	12.2	7.5	[illegible]
	SAMSUNG MT6413-77A	1	30°	NEW	[illegible]	[illegible]	[illegible]	[illegible]
BETA	700/850/1900/2100: JMA MX06FHG865-HG	1	150°	NEW	95.9	12.2	7.5	[illegible]
	700/850/1900/2100: JMA MX06FHG865-HG	1	150°	NEW	95.9	12.2	7.5	[illegible]
	SAMSUNG MT6413-77A	1	150°	NEW	[illegible]	[illegible]	[illegible]	[illegible]
GAMMA	700/850/1900/2100: JMA MX06FHG865-HG	1	270°	NEW	95.9	12.2	7.5	[illegible]
	700/850/1900/2100: JMA MX06FHG865-HG	1	270°	NEW	95.9	12.2	7.5	[illegible]
	SAMSUNG MT6413-77A	1	270°	NEW	[illegible]	[illegible]	[illegible]	[illegible]
	APPURTENANCE MAKE/MODEL							
	SAMSUNG [illegible]	2		ERL	14.7	[illegible]	[illegible]	[illegible]
	SAMSUNG B5/B13 RRH-BR04C (RFV01U-D2A)	1		ERL	[illegible]	[illegible]	[illegible]	[illegible]
	SAMSUNG [illegible]	1		NEW	[illegible]	[illegible]	[illegible]	[illegible]
	RAYCAP RVZDC-6627-PF-48	1		NEW	33.5	16.5	13.6	32.0
	RAYCAP RVZDC-4620-PM-48 (RACK MOUNTED)	1		NEW	5.2	[illegible]	[illegible]	[illegible]

(1) ETR DENOTES EXIST. TO REMAIN, ERL DENOTES EXIST. TO BE RELOCATED
(2) WEIGHT WITHOUT MOUNTING BRACKET
(3) EQUIPMENT DATA BASED ON LATEST VERIZON RFDS
(4) EQUIPMENT CONFIGURATION AS VIEWED FROM BEHIND
(5) NOT TO EXCEED



JMA MX06FHG865-HG
X-POL ANTENNA
HxWxD=95.9x12.2x7.5 (51.0 Lbs)

2 B-1 NEW ANTENNA DETAIL
SCALE: ½" = 1'-0"



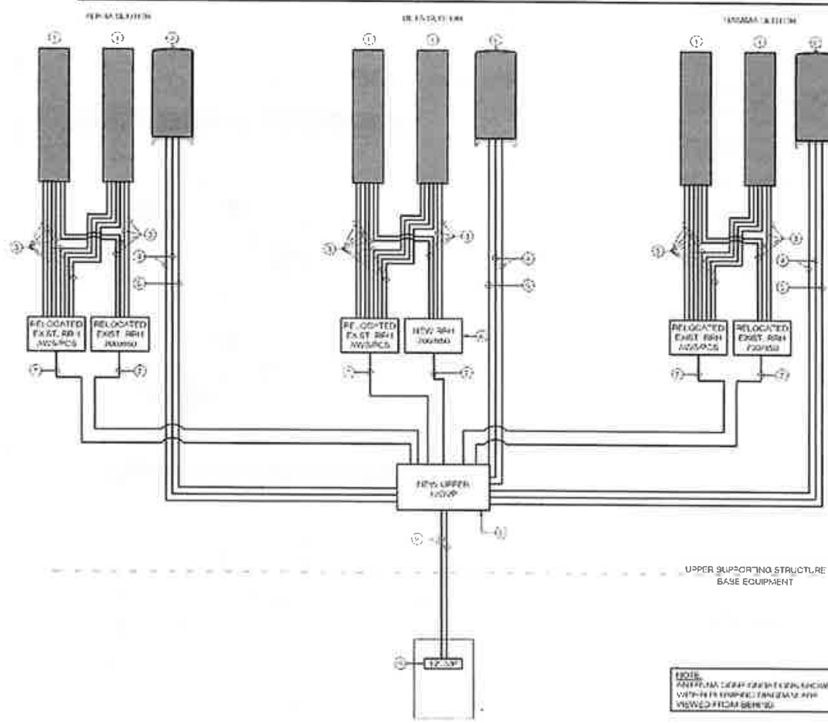
SAMSUNG MT6413-77A ANTENNA
HxWxD=28.9x15.75x5.51"
WT=50.1 Lbs
(NOT TO EXCEED)

3 B-1 NEW ANTENNA DETAIL
SCALE: ½" = 1'-0"

BILL OF MATERIALS

	EQUIPMENT DESCRIPTION	QUANTITY	LENGTH	COMMENTS
(1)	700/850/1900/2100	6		JMA MX06FHG865-HG MOUNTED W/ NEW JMA DUAL MOUNT (P/N 5-000314-3) & NEW PIPE MAST
(2)	[illegible] ANTENNA w/ INTEGRATED RRH	3		SAMSUNG MT6413-77A
(3)	1/2" JUMPER CABLE	36	15 FT	ROUTE FROM RRH TO ANTENNAS
(4)	ANTENNA LINK CABLES	6	15 M	ROUTE FROM UPPER OVP TO ANTENNAS
(5)	ANTENNA POWER CABLES	3	15 M	PROPRIETARY POWER CABLE FROM UPPER OVP TO ANTENNAS
(6)	700/850 DUAL BAND RRH	1		SAMSUNG B5/B13 DUAL BAND 2X4W RRH (RFV01U-D2A) (BETA SECTOR ONLY)
(7)	RRH CABLES	6	15 M	PROPRIETARY POWER & FIBER CABLES
(8)	UPPER RDSN	1		(RVZDC-6627-PF-48)
(9)	HYBRID CABLE	2	140± FT	6x12 LOW INDUCTANCE HYBRID CABLE
(10)	RACK MOUNTED OVP	1		(RVZDC-4620-PM-48) MOUNTED IN RACK WITHIN EXIST. VERIZON EQUIP. SHELTER

NOTES:
1. INFORMATION SHOWN HEREON IS FOR USE BY VERIZON EQUIPMENT OPERATIONS.
2. INFORMATION IS BASED ON LATEST VERIZON RFDS.
3. * DENOTES EQUIPMENT DESIGNATED FOR LEASING ONLY (WHERE APPLICABLE).
4. INSTALL ALARM BOARDS AT ALL OVPs WHERE REQUIRED. COORDINATE w/ VERIZON EQUIPMENT ENGINEERING.
5. INSTALL UP-CONVERTER(S) LOCATED AT BASE OVPs WHERE REQUIRED. COORDINATE w/ VERIZON EQUIPMENT ENGINEERING AS NECESSARY.
6. COORDINATE ANTENNA CABLING REQUIREMENTS WITH VERIZON ENGINEERING.
7. CONTRACTOR SHALL INSTALL NEW [illegible] DUAL-MOUNT BRACKETS PER ANTENNA MOUNT MANUFACTURER'S RECOMMENDATIONS, INCLUDING VERIFICATION OF MINIMUM PIPE MAST DIAMETER REQUIRED TO INSTALL NEW MOUNT BRACKETS. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD SHOULD EXIST. PIPE MAST REQUIRE REPLACEMENT TO SUPPORT THE NEW MOUNT BRACKETS.



NOTE:
ANTENNA CONFIGURATION SHOWN WITHIN PLUMBING DIAGRAM AS VIEWED FROM BEHIND.

1 B-1 PLUMBING DIAGRAM
SCALE: ½" = 1'-0"

Cellco Partnership d/b/a
verizon

ALL-POINTS TECHNOLOGY CORPORATION

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	12/20/21	FOR REVIEW: JRM
1	11/15/21	FOR FILING: JRM
2	12/07/21	FOR FILING: JRM
3	04/20/22	FOR FILING: JRM
4	10/04/22	FOR FILING: JRM
5	06/07/23	UPDATED CODE REFERENCES
6	06/02/24	REV RFDS: JRM
7	06/12/24	CORRECTED BOM: JRM
8	06/01/24	UPDATED EA REF: JRM

STATE OF CONNECTICUT MICHAEL TRODDEN 33313 LICENSED PROFESSIONAL ENGINEER

DESIGN PROFESSIONALS OF RECORD
PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: TOWN OF NEW FAIRFIELD
ADDRESS: 4 BRUSH HILL ROAD NEW FAIRFIELD, CT 06812

VERIZON
NEW FAIRFIELD 2 CT

SITE ADDRESS: 302 BALL POND ROAD NEW FAIRFIELD, CT 06812
APT FILING NUMBER: CT141_13340
DRAWN BY: DRA
DATE: 01/02/24 CHECKED BY: JRM
MDG LOCATION ID: 5000384712
VZW PSLC: 487304
VZW FUZE ID: 16243565

SHEET TITLE:
RF BILL OF MATERIALS, EQUIPMENT SPECIFICATIONS & DETAILS

SHEET NUMBER:
B-1

Cellco Partnership d/b/a

verizon

ALL-POINTS TECHNOLOGY CORPORATION

CONSTRUCTION DOCUMENTS		
NO	DATE	REVISION
0	*8/29/21	FOR REVIEW: JRM
1	*1/15/21	FOR FILING: JRM
2	*2/27/21	FOR FILING: JRM
3	*5/20/22	FOR FILING: JRM
4	*7/04/22	FOR FILING: JRM
5	*10/07/23	UPDATED CODE REFERENCES
6	*11/02/23	REV RFDS: JRM
7	*01/12/24	CORRECTED RAD: JRM
8	*2/01/24	UPDATED EA REF: JRM

STATE OF CONNECTICUT
MICHAEL TRODDEN
33313
LICENSED
PROFESSIONAL ENGINEER

CE SIGN PROFESSIONALS OF RECORD

PSCF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: TOWN OF NEW FAIRFIELD
ADDRESS: 4 BRUSH HILL ROAD NEW FAIRFIELD, CT 06812

VERIZON
NEW FAIRFIELD 2 CT

SITE ADDRESS:	302 BALL POND ROAD NEW FAIRFIELD, CT 06812
APT FILING NUMBER:	CT141_13040
	DRAWN BY: DRA
DATE: 01/02/24	CHECKED BY: JRM
NDG LOCATION ID:	5000394712
VZW PSLC:	467524
VZW FUZE ID:	16241845

SHEET TITLE:

NOTES & SPECIFICATIONS

SHEET NUMBER:

N-1

C-band 64T64R

SAMSUNG

Gen 2

Gen 2 : Higher conducted power radio with reduced size/volume/weight vs Gen 1 and also SOC embedded for flexibility to support new features

※ Preliminary Design: External appearance and mechanical design can be subject to change

Gen 2. 64T64R C-band MMU Dimensions	
Size (WxHxD)	**400 x 734 x 140 mm (15.75 x 28.90 x 5.51 inch)**
Weight	**26kg (57.3 lb)**

Item	Gen 2 64T64R (MT6413-77A)
Air Technology	NR n77/TDD
Frequency	3700 – 3980 MHz
IBW	200 MHz
OBW	200 MHz
Carrier Bandwidth	20(HW ready)/40/60/80/100 MHz
# of Carriers	2 carriers
Layer	DL : 16L, UL : 16RX (8L)
RF Chain	64T64R
Antenna Configuration	4V16H with 192 AE
EIRP	80.5 dBm @320W (55 dBm + 25.5 dBi)
Conductive Power	320W
Spectrum Analyzer	TX/RX support
RX Sensitivity	Typical -97.8dBm @(1Rx, 18.36MHz with 30kHz,51RBs)
Modulation	DL 256QAM support, (DL 1024QAM with 1~2dB power back-off)
Function Split	DL/UL option 7-2x
Input Power	-48 VDC (-38 VDC to -57 VDC)
Power Consumption	1,287W (100% load, room temp.)
Size (WHD)	**400 x 734 x 140 mm (15.75 x 28.90 x 5.51 inch)**
Volume	**41.1L**
Weight	**26kg (57.3 lb)**
Operating Temperature	-40℃ - 55℃ (w/o solar load)
Cooling	Natural convection
Unwanted Emission	3GPP 38.104 FCC 47 CFR 27.53 : < -13dBm/MHz < -40 dBm/MHz @ above 4 GHz <-50 dBm /MHz @ 4,040 ~ 4,050 MHz, <-60 dBm /MHz @ above 4,050 MHz
Optic Interface	15km, 4 ports (25Gbps x 4), SFP28, single mode, Bi-di (Option: Duplex)
Mounting Options	Pole, wall
NB-IoT	Not support
External Alarm	4RX
Fronthaul Interface	eCPRI

MX06FHG865-HG

NWAV™ X-Pol Hex-Port Antenna

X-Pol Hex-Port 8 ft 65° Form in Tighter High Gain (FHG) with Smart Bias Ts, 698-2180 MHz:

2 ports 698-894 MHz and 4 ports 1695-2200 MHz

- Industry-leading high gain for MB and LB for extended cell coverage
- Excellent passive intermodulation (PIM) performance reduces harmful interference.
- Fully integrated (iRETs) with independent RET control for low and high bands for ease of network optimization
- Suitable for LTE/CDMA/PCS/UMTS/GSM air interface technologies
- Integrated Smart Bias-Ts reduce leasing costs
- Optimized width for reduced wind loading

nwav

Electrical specification (minimum/maximum)	Ports 1, 2		Ports 3, 4, 5, 6		
Frequency bands, MHz	698-806	806-894	1695-1880	1850-1990	1920-2200
Polarization	± 45°		± 45°		
Max gain over all tilts, dBi	17.2	17.6	19.4	19.5	20.0
Average gain, dBi	17.1 ± 0.1	17.3 ± 0.3	19.3 ± 0.1	19.2 ± 0.3	19.7 ± 0.3
Horizontal beamwidth (HBW), degrees	67.0	65.0	63.0	63.0	62.0
Front-to-back ratio, co-polar power @180°± 30°, dB	>25.0	>25.0	>28.0	>26.0	>25.0
X-Pol discrimination (CPR) at boresight, dB	>20.0	>18.0	>25	>20	>18
Sector power ratio, percent[1]	<4.0	<3.6	<5.0	<3.8	<3.6
Vertical beamwidth (VBW), degrees[1]	9.3	8.4	5.0	4.9	4.5
Electrical downtilt (EDT) range, degrees	0-10		0-7		
First upper side lobe (USLS) suppression, dB[1]	≤-16.0	≤-15.0	≤-16.0	≤-16.0	≤-16.0
Cross-polar isolation, port-to-port, dB[1]	25	25	25	25	25
Max VSWR / return loss, dB	1.5:1 / -14.0		1.5:1 / -14.0		
Max passive intermodulation (PIM), 2x20W carrier, dBc	-153		-153		
Max input power per any port, watts	300		250		
Total composite power all ports, watts	1500				

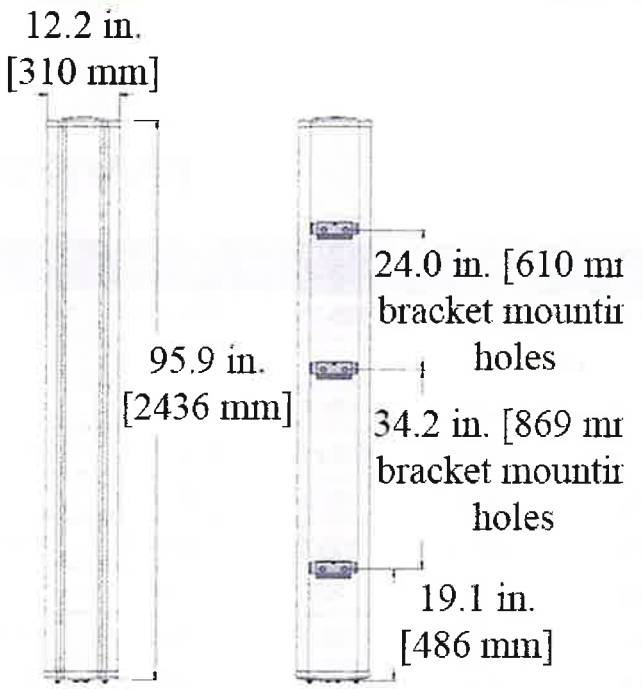
1 Typical value over frequency and tilt

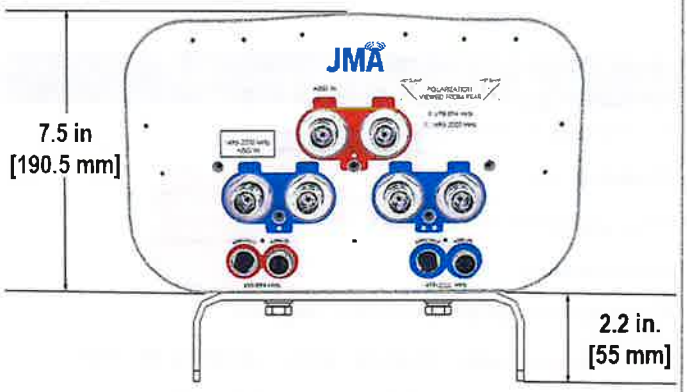
MX06FHG865-HG

NWAV™ X-Pol Hex-Port Antenna

Mechanical specifications	
Dimensions height/width/depth, inches (mm)	95.9/ 12.2/ 7.5 (2436/ 310/ 191)
Shipping dimensions length/width/height, inches (mm)	106/ 20/ 15 (2692/ 508/ 381)
No. of RF input ports, connector type, and location	6 x 4.3-10 female, bottom
RF connector torque	96 lbf·in (10.85 N·m or 8 lbf·ft)
Net antenna weight, lb (kg)	51 (23.1)
Shipping weight, lb (kg)	100 (45.3)
Antenna mounting and downtilt kit included with antenna	91900318, 91900319 (middle bracket)
Net weight of the mounting and downtilt kit, lb (kg)	26 (11.82)
Range of mechanical up/down tilt	-2° to 12°
Rated wind survival speed, mph (km/h)	150 (241)
Frontal and lateral wind loading @ 150 km/h, lbf (N)	90.5 (402.6), 81.2 (361.2)
Equivalent flat plate @ 100 mph and Cd=2, sq ft	2.27
EPA frontal and lateral, ft^2, (m^2)	4.1 (0.38), 2.2 (0.20)

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





Ordering information	
Antenna model	**Description**
MX06FHG865-HG	8F X-Pol HEX FHG 65°, 0-10° / 0-7° RET, 4.3-10 & SBT
Optional accessories	
AISG cables	M/F cables for AISG connections
PCU-1000 RET controller	Stand-alone controller for RET control and configurations

MX06FHG865-HG

NWAV™ X-Pol Hex-Port Antenna

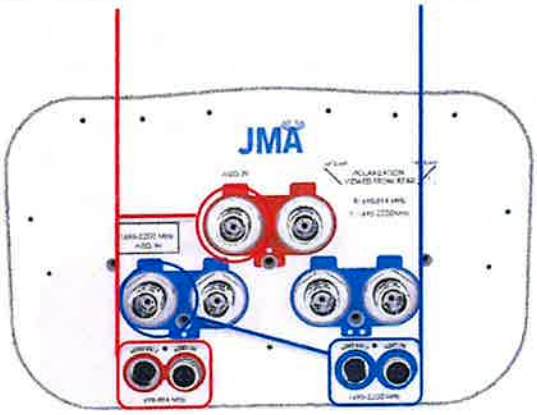
Remote electrical tilt (RET 1000) information	
RET location	Integrated into antenna
RET interface connector type	8-pin AISG connector per IEC 60130-9
RET connector torque	Min 0.5 N·m to max 1.0 N·m (hand pressure & finger tight)
RET interface connector quantity	2 pairs of AISG male/female connectors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

RET and RF connector topology

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

RET device	Band	RF port
R1	698-894	1-2

RET device	Band	RF port
B1/B2	1695-2200	3-6

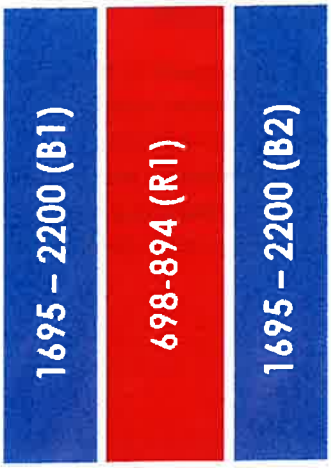


Array topology

3 sets of radiating arrays

R1: 698-894 MHz
B1: 1695-2200 MHz
B2: 1695-2200 MHz

Band	RF port
1695-2200	3-4
698-894	1-2
1695-2200	5-6



SAMSUNG

Dual-Band Radio Unit

700/850MHz (B13/B5)

RFV01U-D2A

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

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

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

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

Features and Benefits

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

Key Technical Specifications

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

SAMSUNG

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

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

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

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

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

Features and Benefits

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

Key Technical Specifications

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

700/850 4T4R Macro 320W ORU - New Filter (RF4461d-13A)

SAMSUNG

Specifications

Item	Specification	
Air Interface	LTE, NR(HW resource ready)	
Band	Band13 (700MHz)	Band5 (850MHz)
Frequency	DL: 746~756MHz UL: 777~787MHz	DL: 869~894MHz UL: 824~849MHz
iBW	10MHz	25MHz
OBW	10MHz	25MHz
Carrier Bandwidth	LTE/NR 5*/10MHz	LTE 5/10MHz NR 5/10/15/20MHz
# of carriers	2C*	3C
Total # of carriers	4C + B13 (SDL) 1C	
RF Chain	4T4R/2T4R/2T2R/1T2R 2T2R+2T2R bi-sector	
RF Output Power	Total : 320W	
	4 x 40W or 2 x 60W	4 x 40W or 2 x 60W
Spectrum Analyzer	TX/RX Support	
RX Sensitivity	Typ. -104.5dBm @1Rx (25RBs 5MHz)	
Modulation	256QAM support, (1024QAM with 1~2dB power back-off)	
Input Power	-48VDC (-38VDC to -57VDC)	
Power Consumption	1,165 Watt @ 100% RF load, room temperature	
Size (WHD)	380 x 380 x 260 mm (14.96 x 14.96 x 10.23 inch)	
Volume	37.5 L	
Weight (W/o Solar Shield & finger guard)	35.9 kg (79.1 lb)	
Operating Temperature	-40°C (-40°F) ~ 55°C (131°F) (Without solar load)	
Cooling	Natural convection	
Unwanted Emission	3GPP 36.104 FCC 47 CFR 27.53 c), f)	3GPP 36.104 FCC 47 CFR 22.917 -69 dBm/100 kHz per path @ 896 ~901MHz
CPRI Cascade	Not supported	
Optic Interface	20km, 2 ports (9.8Gbps x 2), SFP+, single mode, Duplex (Option: Bi-di)	
RET & TMA Interface	AISG 3.0	
Bias-T	4 ports (2 ports per band)	
Mounting Options	Pole, wall	
N8-IoT	2GB+2IB or 4IB	2SA+2GB or 2GB+2IB or 4GB
PIM Cancellation	Support	
# of antenna port	4	
External Alarm	4	
Fronthaul Interface	Opt. 8 CPRI / Opt. 7-2x selectable (not simultaneous support)	
CPRI compression	Not Support	

* 5MHz supporting in B13(700MHz) depends on 3GPP std. and UE capability. External filters in interferer and victim sides for Mexican boarder to support 5MHz service need to be considered
** Finger guard is not needed.

ATTACHMENT 3

C Squared Systems, LLC
65 Dartmouth Drive
Auburn, NH 03032
(603) 644-2800
support@csquaredsystems.com

Calculated Radio Frequency Emissions Report

verizon

New Fairfield 2

302 Ball Pond Road, New Fairfield, CT 06812

February 5, 2024

Table of Contents

List of Figures

List of Tables

1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed installation of Verizon's antenna arrays to be mounted at 125' AGL on an existing monopole tower located at 302 Ball Pond Road in New Fairfield, CT. The coordinates of the monopole tower are 41° 27' 53.201" N, 73° 29' 49.1" W.

Verizon is proposing the following:

1) Remove twelve (12) existing antennas;
2) Install nine (9) multi-band antennas, three (3) per sector to support its commercial LTE network.

This report considers the planned antenna configuration for Verizon[1] and the existing antennas for AT&T[2], Dish[3], T-Mobile[4], and to derive the resulting % MPE of its proposed installation.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. 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.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm^2). The general population exposure limits for the various frequency ranges are defined in the attached "FCC Limits for Maximum Permissible Exposure (MPE)" in Attachment C of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment C contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

[1] As referenced to Verizon's Radio Frequency Design Sheet updated 11/17/2023.

[2] As referenced to AT&T's filing, Connecticut Siting Council Notice of Exempt Modification – AT&T Site CT2070 dated 10/21/2020.

[3] As referenced to Dish Wireless LLC's filing, Connecticut Siting Council Notice of Exempt Modification – New Fairfield, CT, dated 07/11/2022.

[4] As referenced to T-Mobile's filing, Connecticut Siting Council Notice of Exempt Modification – New Fairfield, CT, dated 05/13/2022.

3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

$$\text{PowerDensity} = \left(\frac{EIRP}{\pi \times R^2}\right) \times \text{Off BeamLoss}$$

Where:

EIRP = Effective Isotropic Radiated Power

R = Radial Distance = $\sqrt{(H^2 + V^2)}$

H = Horizontal Distance from antenna in meters

V = Vertical Distance from radiation center of antenna in meters

Off Beam Loss is determined by the selected antenna patterns

Ground reflection factor of 1.6

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not take into account actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the final installations.

4. Antenna Inventory

Table 1 below outlines Verizon's proposed antenna configuration for the site. The associated data sheets and antenna patterns for these specific antenna models are included in Attachments C.

Operator	Sector / Call Sign	TX Freq (MHz)	Power at Antenna (Watts)	Ant Gain (dBi)	Power EIRP (Watts)	Antenna Model	Beam Width	Mech. Tilt	Length (ft)	Antenna Centerline Height (ft)
Verizon	Alpha / 30°	746	160	17.2	8397	MX06FHG865-HG	67	0	8.0	125
		880	160	17.6	9207		65			
		1900	160	19.5	14260		63			
		2100	240	20	24000		62			
		3700	320	25.5	113540	MT6413-77A	-	0	3.42	125
	Beta / 150°	746	160	17.2	5422	MX06FHG865-HG	67	0	8.0	125
		880	160	17.6	4509		65			
		1900	160	19.5	9866		63			
		2100	240	20	15857		62			
		3700	320	25.5	70963	MT6413-77A	-	0	3.42	125
	Gamma / 270°	746	160	17.2	9207	MX06FHG865-HG	67	0	8.0	125
		880	160	17.6	10095		65			
		1900	160	19.5	17544		63			
		2100	240	20	28854		62			
		3700	320	25.5	70963	MT6413-77A	-	0	3.42	125

Table 1: Proposed Antenna Inventory[5] [6]

[5] Antenna heights are in reference to Verizon's Radio Frequency Design Sheet updated 11/17/2023.

[6] Transmit power assumes 0 dB of cable loss.

5. Calculation Results

The calculated power density results are shown in Figure 1 below. For completeness, the calculations for this analysis range from 0 feet horizontal distance (directly below the antennas) to a value of 3,000 feet horizontal distance from the site. In addition to the other worst-case scenario considerations that were previously mentioned, the power density calculations to each horizontal distance point away from the antennas was completed using a local maximum off beam antenna gain (within ± 5 degrees of the true mathematical angle) to incorporate a realistic worst-case scenario.

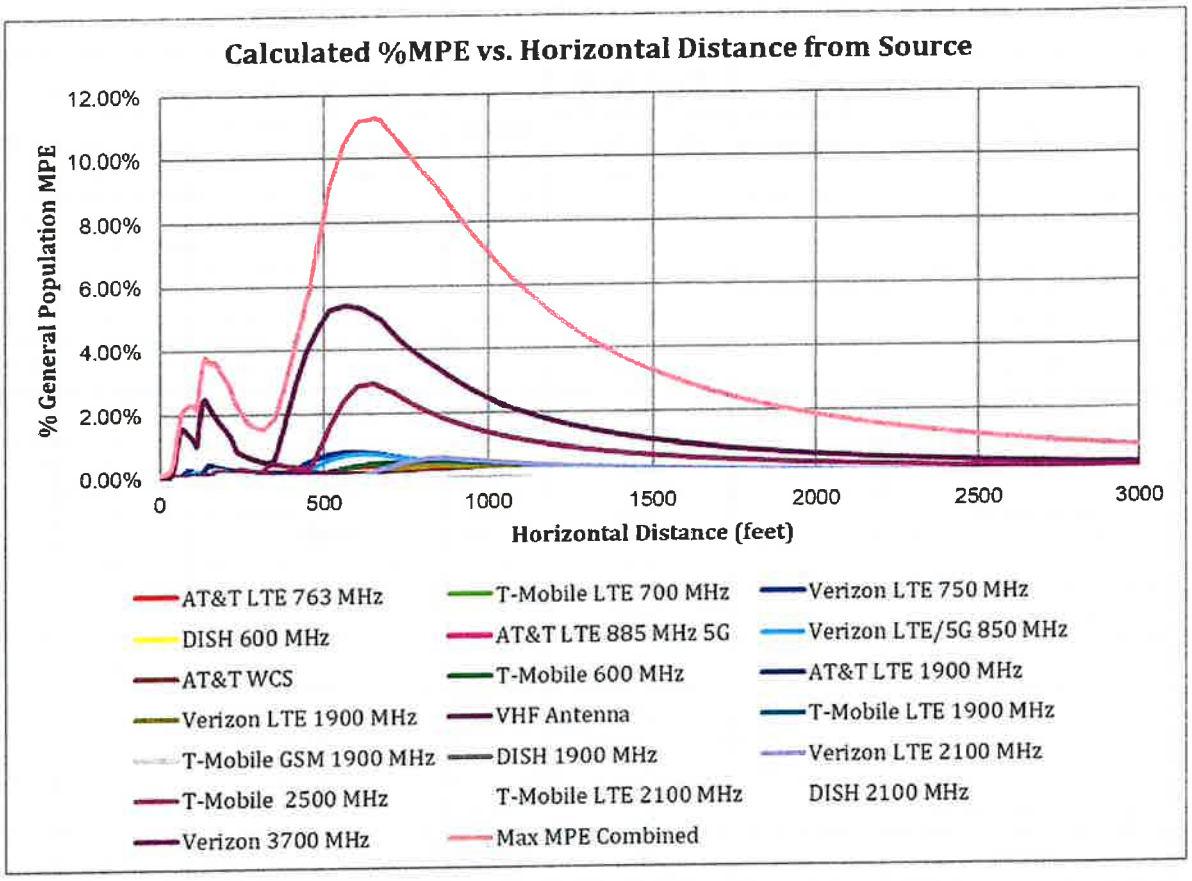


Figure 1: Graph of General Population % MPE vs. Distance

The highest percent of MPE (11.27% of the General Population limit) is calculated to occur at a horizontal distance of 654 feet from antennas. Please note that the percent of MPE calculations close to the site take into account off beam loss, which is determined from the vertical pattern of the antennas used. Therefore, RF power density levels may increase as the distance from the site increases. At distances of approximately 1500 feet and beyond, one would now be in the main beam of the antenna pattern and off beam loss is no longer considered. Beyond this point, RF levels become calculated solely on distance from the site and the percent of MPE decreases significantly as distance from the site increases.

Table 2 below lists percent of MPE values as well as the associated parameters that were included in the calculations. The highest percent of MPE value was calculated to occur at a horizontal distance of 654 feet from the site (reference Figure 1).

As stated in Section 3, all calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. In addition, a six foot height offset was considered in this analysis to account for average human height. As a result, the predicted signal levels are significantly higher than the actual signal levels will be from the final configuration. The results presented in Figure 1 and Table 2 assume level ground elevation from the base of the tower out to the horizontal distances calculated.

Carrier	Number of Transmitters	Power out of Base Station Per Transmitter (Watts)	Antenna Height (Feet)	Distance to the Base of Antennas (Feet)	Power Density (mW/cm^2)	Limit (mW/cm^2)	% MPE
AT&T LTE 1900 MHz	1	160.0	135.0	654	0.000364	1.000	0.04%
AT&T LTE 763 MHz	1	160.0	135.0	654	0.001813	0.509	0.36%
AT&T LTE 885 MHz 5G	1	80.0	135.0	654	0.000364	0.590	0.06%
AT&T WCS	1	100.0	135.0	654	0.000725	1.000	0.07%
DISH 1900 MHz	1	160.0	165.0	654	0.000079	1.000	0.01%
DISH 2100 MHz	1	160.0	165.0	654	0.000057	1.000	0.01%
DISH 600 MHz	1	120.0	165.0	654	0.000693	0.400	0.17%
T-Mobile 2500 MHz	1	180.0	145.0	654	0.029374	1.000	2.94%
T-Mobile 600 MHz	1	140.0	145.0	654	0.001714	0.400	0.43%
T-Mobile GSM 1900 MHz	1	120.0	145.0	654	0.000234	1.000	0.02%
T-Mobile LTE 1900 MHz	1	120.0	145.0	654	0.000234	1.000	0.02%
T-Mobile LTE 2100 MHz	1	120.0	145.0	654	0.000156	1.000	0.02%
T-Mobile LTE 700 MHz	1	60.0	145.0	654	0.000674	0.467	0.14%
Verizon 3700 MHz	1	320.0	125.0	654	0.050725	1.000	5.07%
Verizon LTE 1900 MHz	1	160.0	125.0	654	0.001491	1.000	0.15%
Verizon LTE 2100 MHz	1	240.0	125.0	654	0.001709	1.000	0.17%
Verizon LTE 750 MHz	1	160.0	125.0	654	0.003751	0.500	0.75%
Verizon LTE/5G 850 MHz	1	160.0	125.0	654	0.004084	0.567	0.72%
VHF Antenna	2	100.0	175.0	654	0.000238	0.200	0.12%
						Total	**11.27%**

Table 2: Maximum Percent of General Population Exposure Values

6. Conclusion

The above analysis verifies that RF exposure levels from the site with Verizon's proposed antenna configuration will be well below the maximum permissible levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using the conservative calculation methods and parameters detailed above, the maximum cumulative percent of MPE in consideration of all transmitters is calculated to be **11.27% of the FCC limit (General Population/Uncontrolled)**. This maximum cumulative percent of MPE value is calculated to occur 654 feet away from the site.

7. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in ANSI/IEEE Std. C95.3, ANSI/IEEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.

February 5, 2024
Date

Report Approved By: Martin J. Lavin
Senior RF Engineer
C Squared Systems, LLC

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

IEEE C95.1-2005, IEEE Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz IEEE-SA Standards Board

IEEE C95.3-2002 (R2008), IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields With Respect to Human Exposure to Such Fields, 100 kHz-300 GHz IEEE-SA Standards Board

Verizon's Radio Frequency Design Sheet updated 03/29/2022

AT&T's filing, Connecticut Siting Council Notice of Exempt Modification – AT&T Site CT2070 dated 10/21/2020.

As referenced to Dish Wireless LLC's filing, Connecticut Siting Council Notice of Exempt Modification – New Fairfield, CT, dated 07/11/2022.

T-Mobile's filing, Connecticut Siting Council Notice of Exempt Modification – New Fairfield, CT, dated 05/13/2022.

Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure[7]

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (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

(B) Limits for General Population/Uncontrolled Exposure[8]

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (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 in MHz * Plane-wave equivalent power density

Table 3: FCC Limits for Maximum Permissible Exposure

[7] 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.

[8] 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.

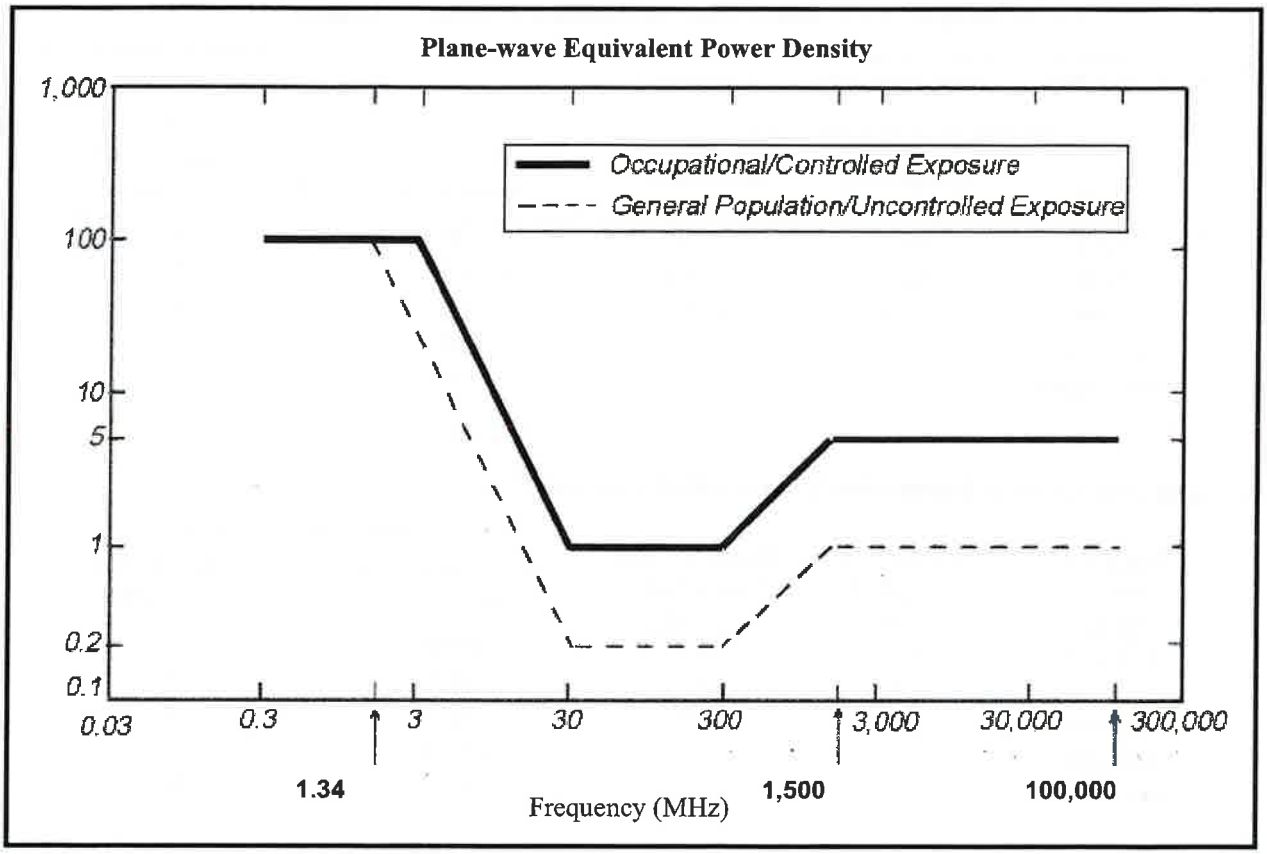
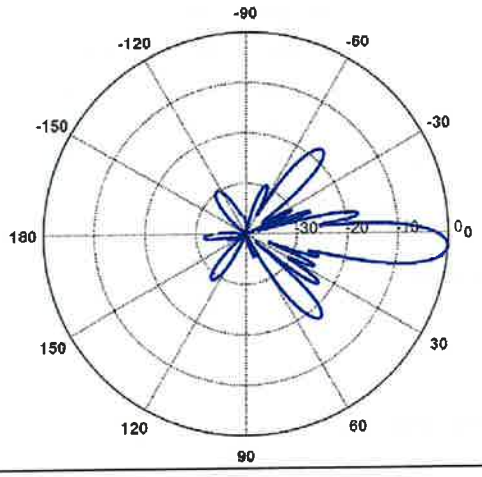


Figure 2: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

Attachment C: Verizon Antenna Model Data Sheets and Electrical Patterns

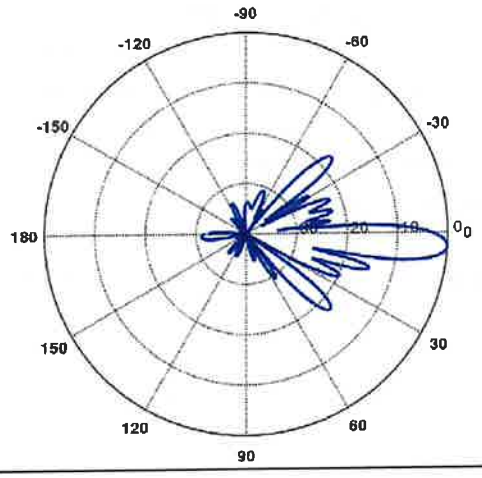
746 MHz

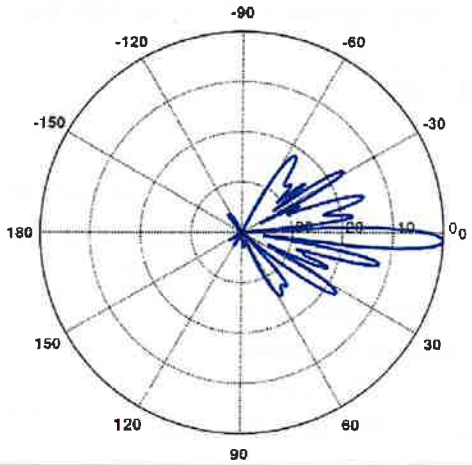
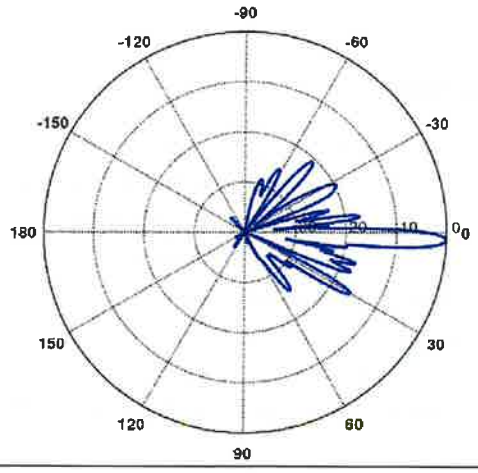
Manufacturer:	JMA
Model #:	MX06FHG865-HG
Frequency Band:	698-806 MHz
Gain:	17.2 dBi
Vertical Beamwidth:	9.3°
Horizontal Beamwidth:	67°
Polarization:	±45°
Dimensions (L x W x D):	95.9" x 12.2" x 7.5"



880 MHz

Manufacturer:	JMA
Model #:	MX06FHG865-HG
Frequency Band:	698-806 MHz
Gain:	17.6 dBi
Vertical Beamwidth:	8.4°
Horizontal Beamwidth:	65°
Polarization:	±45°
Dimensions (L x W x D):	95.9" x 12.2" x 7.5"



1900 MHz Manufacturer: JMA Model #: MX06FHG865-HG Frequency Band: 1850-1990 MHz Gain: 19.5 dBi Vertical Beamwidth: 4.9° Horizontal Beamwidth: 63° Polarization: ±45° Dimensions (L x W x D): 95.9" x 12.2" x 7.5"	
2100 MHz Manufacturer: JMA Model #: MX06FHG865-HG Frequency Band: 1920-2200 MHz Gain: 20.0 dBi Vertical Beamwidth: 4.5° Horizontal Beamwidth: 62° Polarization: ±45° Dimensions (L x W x D): 95.9" x 12.2" x 7.5"	

ATTACHMENT 4

STRUCTURAL ANALYSIS REPORT
175-ft MONOPOLE TOWER
NEW FAIRFIELD, CONNECTICUT

Prepared for
Verizon Wireless

Verizon Wireless Site Ref:
New Fairfield 2 CT

Site Address: 302 Ball Pond Road, New Fairfield, Connecticut 06812

Fuze ID: 16241849
PSLC: 467504
MDG Location ID: 5000384712

APT Filing No. CT141_13040

~~October 29, 2021~~
~~Rev. 2: December 7, 2021~~
~~Rev. 3: May 20, 2022~~
~~Rev. 4 October 4, 2022~~
~~Rev. 5 April 7, 2023~~
~~Rev. 6 January 2, 2024~~
Rev. 7 February 1, 2024

STATE OF CONNECTICUT
MICHAEL TRODDEN
33313
LICENSED
PROFESSIONAL ENGINEER

ALL-POINTS TECHNOLOGY CORPORATION, P.C.
567 VAUXHALL STREET EXTENSION · SUITE 311 · WATERFORD, CT 06385 · PHONE 860-663-1697

STRUCTURAL ANALYSIS REPORT
175-ft MONOPOLE TOWER
NEW FAIRFIELD, CONNECTICUT
prepared for
Verizon Wireless

EXECUTIVE SUMMARY:

All-Points Technology Corporation, P.C. (APT) performed a structural analysis on an existing 175' monopole tower structure to support a proposed Verizon equipment modification.

The proposed Verizon antenna and appurtenance modification consists of the replacement of nine (9) existing panel antennas with six (6) new panel antennas and three (3) new Lsub6 antennas with integrated Remote Radio Heads (RRHs). Additionally, Verizon proposes to install one (1) new 12OVP and six (6) new Samsung Dual-Band RRHs. Three (3) existing panel antennas shall be removed. Equipment shall be installed on the three (3) existing 12' Valmont T-Arms and shall be fed by one (2) new 6x12 Low-Inductance (LI) hybrid line, as referenced in the following table.

Our analysis indicates that the tower and corresponding base foundation meet the requirements of the 2021 International Building Code (IBC), as amended by the 2022 Connecticut State Building Code, and the ANSI/TIA-222-H standard with Verizon Wireless's proposed equipment changes and Dish Wireless's reserved loading.

The tower structure usage is summarized in the table below:

Elevation	Capacity
0'-41' [1]	62%

Notes:
1. Based on ASTM A572 Gr. 65 tapered pole.

INTRODUCTION:

A structural analysis was performed on the above-mentioned communications tower by APT for Verizon Wireless. The subject tower is located at 302 Ball Pond Road in New Fairfield, Connecticut.

The following information was utilized in the preparation of this analysis:

- Construction Drawings prepared by APT (Project No. CT141_13040) marked Rev. 8 dated 02/01/24.
- RFDS detailing Verizon Wireless's proposed equipment changes, latest version.
- Structural Analysis Report prepared by APT (Project No. CT141_13040), marked Rev 5, dated 04/07/23.
- Structural Analysis Report prepared by Tectonic (Project No. 10710.NJJER01134A), marked Rev. 1, dated 04/20/22.
- Base mapping obtained from field measurements conducted from grade by APT on 10/21/21.
- Structural Analysis Report prepared by APT (Project No. CT141_12060), marked Rev. 1, dated 04/12/21.

- Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements, prepared by Colliers Engineering & Design (Project No. 21781039A) dated 11/22/23.
- Structural Analysis Report prepared by Maser Consulting Connecticut (Project No. 1896303A) dated 06/12/20.
- Mount Modification Report prepared by Maser Consulting Connecticut (Project No. 18963030A) dated 05/07/19.
- Field mapping conducted by APT on 02/28/17.
- Structural Analysis Report prepared by APT (Project No. CT141594) dated 03/16/17.
- Tower Mapping prepared by WesTower Communications dated 07/18/14.
- Structural Analysis prepared by Centek Engineering (Project No. 12001.CO2) dated 03/29/12.
- Base Plate Reinforcement Drawings prepared by Vertical Structures, Inc. dated 04/28/05.
- Tower Drawings prepared by Fred A. Nudd Corporation dated 02/14/03.

The structure is a 175', galvanized steel, 18-sided, tapered monopole tower structure manufactured by Fred A. Nudd Corporation.

The analysis was conducted with the following antenna inventory (proposed equipment shown in **bold** text; reserved/future equipment shown in *italic* text):

Carrier	Antenna and Appurtenance Make/Model	Elevation (AGL)	Status	Mount Type	Coax/Feed-Line
Town	Lightning rod (4) PD-220 omnidirectional whips, 1' square panel, 3' High-Performance dish	175'	ETR	13' low-profile platform	(2) 3/8", (2) 7/8"
Dish Wireless	*(3) JMA Wireless MX08FRO665-21 antennas,* *(3) Fujitsu TA08025-B604,* *(6) Fujitsu TA08025-B605,* *(3) Raycap RDIDC-9181-PF-48*	*165'*	*R*	*8' Platform Mount P/N: Commscope MC-PK8-C w/ Top Rail*	*(3) 1.75" hybrid*
T-Mobile	(3) Ericsson AIR 6419 B41, (3) RFS APXVAALL24 & (3) Commscope VV-65A-R1 antennas, (3) Ericsson Radio 4460 B25/B66 RRHs, (3) Ericsson Radio 4480 B71/B85 RRHs	145'	ETR	(3) 12' T-arms w/ mount reinforcement	(3) 6x24 hybrid
AT&T	(3) Powerwave 7770.00, (2) CCI HPA-65R-BUU-H6, (1) CCI HPA-65R-BUU-H8 & (3) Kathrein 800-10966 panels (3) Ericsson Radio 4449 RRHs, (3) Ericsson RRUS-32 B2 RRHs, (3) Ericsson RRUS-32 RRHs, (6) Powerwave LGP 21401 TMAs, (2) Raycap DC6-48-60-18-8F OVP	135'	ETR	(3) 10' T-arms w/ reinforcement kit	(12) 1-5/8", (2) fiber, (4) DC power, (1) 2" conduit
Verizon Wireless	**(3) Samsung MT6413-77A antennas w/ integrated RRHs,** **(6) JMA Wireless MX06FHG865-HG antennas,** **(3) Samsung B2/B66A RRH-BR049 (RFV01U-D1A),** **(2) Samsung B5/B13 RRH-BR04C (RFV01U-D2A),** **(1) Samsung B5/B13 RRH (RF4461d-13A)** **(1) Raycap 12OVP**	125'	**P** **P** **P** **P** **P** **P**	(3) Valmont 12' T-arms [3]	**(2) 6x12 LI hybrid [4]**
-	PD-220 omnidirectional whip	100'	ETR	4' standoff	7/8"
Sprint	Vacant Collar	84'	ETR	Vacant Collar w/ (3) 1' standoffs	N.A.

Notes:

2. ETR = Existing to Remain; ERL= Existing to be Relocated; P = Proposed; R = Reserved.

3. Mount elevation is 124' as noted in the aforementioned Antenna Mount Analysis Report and PMI Requirements prepared by Maser Consulting Connecticut.
4. Eighteen (18) existing 1-5/8" coaxial feed lines to be removed.

STRUCTURAL ANALYSIS:

Methodology:

This structural analysis has been prepared in accordance with the ANSI/TIA-222-H standard entitled "Structural Standard for Antenna Supporting Structures, Antennas and Small Wind Turbine Support Structures"; American Institute of Steel Construction (AISC) Manual of Steel Construction, and the 2021 International Building Code (IBC), as amended by the 2022 Connecticut State Building Code.

Antenna, appurtenance and mount assembly loads were evaluated utilizing the ANSI/TIA-222-H standard.

- Load Case 1: 115 mph (3-second gust), 0" ice (Ultimate Wind Speed)
- Load Case 2: 50 mph (3-second gust) w/ 1.0" ice thickness
- Load Case 3: 60 mph (3-second gust) (Service Load)
- Risk Category: II
- Exposure Category: B
- Topographic Category: 1

Analysis Results:

The analysis was conducted in accordance with the criteria outlined above with the aforementioned existing and proposed equipment loading. The following table summarizes the results of the analysis:

Elevation	Pole Capacity
130'-175' [5]	22%
85'-130' [5]	47%
41'-85' [5]	51%
0'-41' [5]	62%

Notes:
5. Based on ASTM A572 Gr. 65 tapered pole.

Anchor Bolts & Base Plate:

Evaluation of the existing anchor bolts and base plate was limited to a comparison of the existing, reserved, and proposed loads against the design reactions noted within the referenced base plate reinforcement design prepared by Vertical Structures, Inc. Four additional anchor bolts have since been installed at the exterior of the monopole base plate.

Factored base reactions imposed by the existing, reserved, and proposed loading are less than the Vertical Structures, Inc., reinforcement design reactions, and the reactions published within the Dish Wireless report prepared by Tectonic marked Rev. 1, dated 04/20/22, indicating that the existing anchor bolts and base plate are adequately sized to support the proposed equipment.

Foundation:

The existing reinforced concrete pad and pier foundation was evaluated utilizing the original Fred A. Nudd Corporation foundation design drawings. The existing foundation was found to be structurally adequate to support the existing, reserved, and proposed loading.

The calculated base reactions are indicated within the table below:

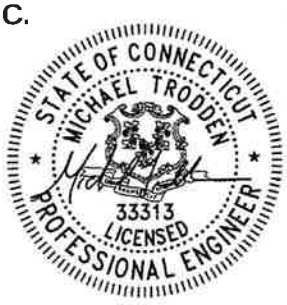
Load Effect	Calculated Reactions	Result
Compression	57.6 k	PASS
Total Shear	30.9 k	PASS
Overturning Moment	3,661 ft-k	PASS (59%)

CONCLUSIONS AND SUGGESTIONS:

In conclusion, our analysis indicates that the existing 175' monopole tower structure located at 302 Ball Pond Road in New Fairfield, Connecticut meets the requirements of the 2021 International Building Code (IBC), as amended by the 2022 Connecticut State Building Code, and the ANSI/TIA-222-H standard with Verizon's proposed equipment modification and Dish Wireless's reserved equipment.

Sincerely,
All-Points Technology Corp. P.C.

Michael S. Trodden, PE
Senior Structural Engineer



Prepared by:
All-Points Technology Corp. P.C.

Domenic Aversa, PE
Senior Structural Engineer

LIMITATIONS:

This report is based on the following:

1. Tower/structure is properly installed and maintained.
2. All members and components are in a non-deteriorated condition.
3. All required members are in place.
4. All bolts are in place and are properly tightened.
5. Tower/structure is in plumb condition.
6. All tower members were properly designed, detailed, fabricated, and installed and have been properly maintained since erection.

All-Points Technology Corporation, P.C. (APT) is not responsible for any modifications completed prior to or hereafter which APT is not or was not directly involved. Modifications include but are not limited to:

1. Replacing or reinforcing bracing members.
2. Reinforcing members in any manner.
3. Adding or relocating antennas.
4. Installing antenna mounts or waveguide cables.
5. Extending tower.

APT hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon the information contained and set forth herein. If you are aware of any information which conflicts with that which is contained herein, or you are aware of any defects arising from original design, material, fabrication, or erection deficiencies, you should disregard this report and immediately contact APT. APT disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

Appendix A

Design Criteria

Municipality	Basic Design Wind Speeds, V (mph)				Allowable Stress Design Wind Speeds, V_{asd} (mph)				Ground Snow Load p_g (psf)	MCE Ground Accelerations		Wind-Borne Debris Region[1]		Hurricane-Prone Region
	Risk Cat. I	Risk Cat. II	Risk Cat. III	Risk Cat. IV	Risk Cat. I	Risk Cat. II	Risk Cat. III	Risk Cat. IV		S_S (g)	S_1 (g)	Risk Cat. III Occup. I-2	Risk Cat. IV	
Hampton	115	125	130	135	89	97	101	105	35	0.184	0.054			Yes
Hartford	110	120	130	135	85	93	101	105	30	0.189	0.055			Yes
Hartland	110	115	125	130	85	89	97	101	35	0.167	0.054			
Harwinton	110	120	125	130	85	93	97	101	35	0.177	0.054			Yes
Hebron	115	125	130	135	89	97	101	105	30	0.200	0.055			Yes
Kent	105	115	125	130	81	89	97	101	40	0.184	0.054			
Killingly	115	125	135	140	89	97	105	108	35	0.186	0.055			Yes
Killingworth	115	125	135	140	89	97	105	108	30	0.210	0.055			Yes
Lebanon	115	125	135	135	89	97	105	105	30	0.196	0.055			Yes
Ledyard	120	130	140	140	93	101	108	108	30	0.190	0.053			Yes
Lisbon	115	125	135	140	89	97	105	108	30	0.190	0.054			Yes
Litchfield	110	115	125	130	85	89	97	101	35	0.178	0.054			
Lyme	115	125	135	140	89	97	105	108	30	0.207	0.054			Yes
Madison	115	125	135	140	89	97	105	108	30	0.206	0.054	Type B	Type B	Yes
Manchester	110	120	130	135	85	93	101	105	30	0.190	0.055			Yes
Mansfield	110	120	130	135	85	93	101	105	35	0.186	0.055			Yes
Marlborough	110	125	130	135	85	97	101	105	30	0.205	0.056			Yes
Meriden	110	120	130	135	85	93	101	105	30	0.203	0.055			Yes
Middlebury	110	120	130	130	85	93	101	101	35	0.194	0.054			Yes
Middlefield	110	120	130	135	85	93	101	105	30	0.209	0.055			Yes
Middletown	110	120	130	135	85	93	101	105	30	0.209	0.056			Yes
Milford	110	120	130	135	85	93	101	105	30	0.202	0.053	Type B	Type B	Yes
Monroe	110	120	130	135	85	93	101	105	30	0.208	0.055			Yes
Montville	120	125	135	140	93	97	105	108	30	0.198	0.054			Yes
Morris	110	115	125	130	85	89	97	101	35	0.182	0.054			
Naugatuck	110	120	130	135	85	93	101	105	30	0.197	0.054			Yes
New Britain	110	120	130	135	85	93	101	105	30	0.195	0.055			Yes
New Canaan	110	120	130	135	85	93	101	105	30	0.252	0.058			Yes
New Fairfield	110	115	125	130	85	89	97	101	30	0.219	0.056			
New Hartford	110	115	125	130	85	89	97	101	35	0.172	0.054			
New Haven	110	125	130	135	85	97	101	105	30	0.201	0.054	Type B	Type B	Yes
New London	120	130	140	140	93	101	108	108	30	0.191	0.053	Type B	Type A	Yes

ASCE 7 Hazards Report

Address:
203 Ball Pond Rd
New Fairfield, Connecticut
06812

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 668.94 ft (NAVD 88)
Latitude: 41.471703
Longitude: -73.506184

Wind

Results:

Wind Speed:	115 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	89 Vmph
100-year MRI	95 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Wed Oct 27 2021

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

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

Ice

Results:

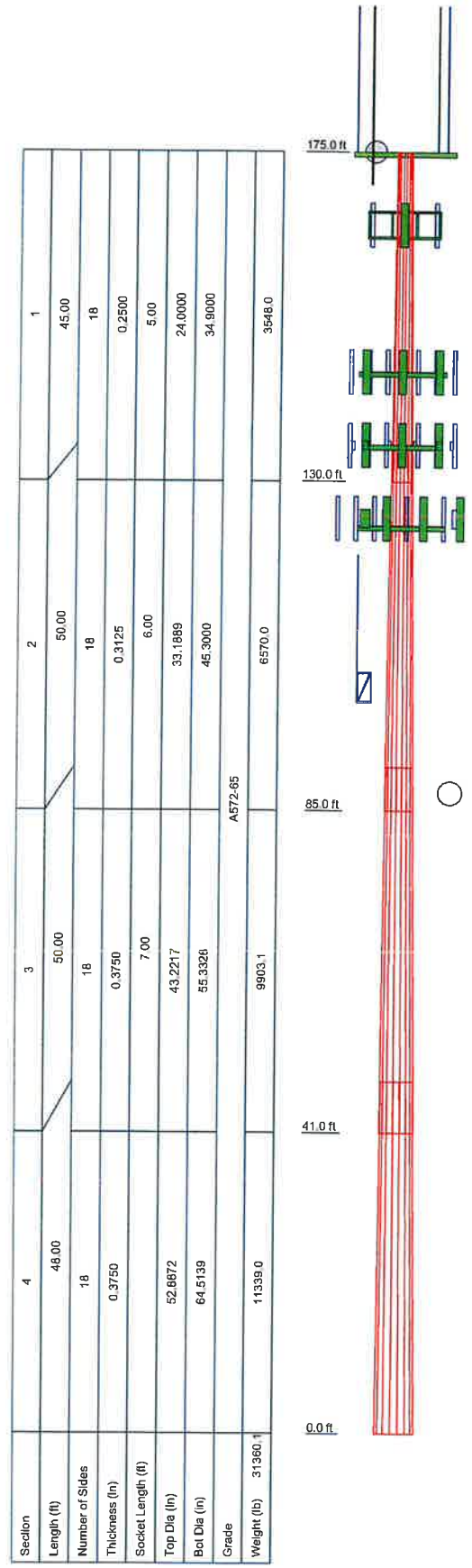
Ice Thickness:	1.00 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Wed Oct 27 2021

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

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

Appendix B

Tower Schematic



Section	1	2	3	4
Length (ft)	45.00	50.00	50.00	48.00
Number of Sides	18	18	18	18
Thickness (in)	0.2500	0.3125	0.3750	0.3750
Socket Length (ft)	5.00	6.00	7.00	
Top Dia (in)	24.0000	33.1889	43.2217	52.8872
Bot Dia (in)	34.9000	45.3000	55.3326	64.5139
Grade			A572-65	
Weight (lb) 31360.1	3548.0	6570.0	9903.1	11339.0

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
1" square panel (Town)	175	Ericsson RRUS-32 (AT&T)	135
20' x 2.5" omni whip (Town)	175	Ericsson RRUS-32 (AT&T)	135
20' x 2.5" omni whip (Town)	175	Ericsson RRUS-32 B2 (AT&T)	135
20' x 2.5" omni whip (Town)	175	Ericsson RRUS-32 B2 (AT&T)	135
20' x 2.5" omni whip (Town)	175	Ericsson RRUS-32 B2 (AT&T)	135
1' x 1/2" lightning rod (Town)	175	Radio 4449 (AT&T)	135
13' low-profile platform (Town)	175	Radio 4449 (AT&T)	135
3' HP dish	175	Radio 4449 (AT&T)	135
JMA MX08FRO665-21 (Dish)	165	(2) LGP2140X TMA (AT&T)	135
JMA MX08FRO665-21 (Dish)	165	(2) LGP2140X TMA (AT&T)	135
Fujitsu TA08025-B604 Radio (Dish)	165	(2) LGP2140X TMA (AT&T)	135
Fujitsu TA08025-B604 Radio (Dish)	165	Raycap DC6-48 surge suppressor (AT&T)	135
Fujitsu TA08025-B604 Radio (Dish)	165	Raycap DC6-48 surge suppressor (AT&T)	135
(2) Fujitsu TA08025-B605 Radio (Dish)	165	Valmont T-Arm (3) (AT&T)	135
(2) Fujitsu TA08025-B605 Radio (Dish)	165	SFR-K reinf. kit (AT&T)	135
(2) Fujitsu TA08025-B605 Radio (Dish)	165	SFR-K reinf. kit (AT&T)	135
Raycap RDIDC-9181-PF-48 (Dish)	165	SFR-K reinf. kit (AT&T)	135
Raycap RDIDC-9181-PF-48 (Dish)	165	7770.00 (AT&T)	135
Raycap RDIDC-9181-PF-48 (Dish)	165	7770.00 (AT&T)	135
Commscope MC-PK8-DSH (Dish)	165	MT6413-77A (VzW)	125
JMA MX08FRO665-21 (Dish)	165	(2) MX06FHG865-HG (VzW)	125
AIR 6419 B41 (T-Mobile)	145	(2) MX06FHG865-HG (VzW)	125
AIR 6419 B41 (T-Mobile)	145	(2) MX06FHG865-HG (VzW)	125
APXVAALL24_43-U-NA20 (T-Mobile)	145	B2/B66A RRHBRO49 (RFV01U-D1A) (VzW)	125
APXVAALL24_43-U-NA20 (T-Mobile)	145	B2/B66A RRHBRO49 (RFV01U-D1A) (VzW)	125
APXVAALL24_43-U-NA20 (T-Mobile)	145	B2/B66A RRHBRO49 (RFV01U-D1A) (VzW)	125
Commscope VV-65A-R1B (T-Mobile)	145	B5/B13 RRHBR04C (RFV01UD2A) (VzW)	125
Commscope VV-65A-R1B (T-Mobile)	145	B5/B13 RRHBR04C (RFV01UD2A) (VzW)	125
Commscope VV-65A-R1B (T-Mobile)	145	Samsung B5/B13 ORAN RRH (RF4461d-13A) (VzW)	125
Radio 4460 B66 + B25 RRHs (T-Mobile)	145	Raycap RVZDC-6627-PF-48 (VzW)	125
Radio 4460 B66 + B25 RRHs (T-Mobile)	145	MT6413-77A (VzW)	125
Radio 4460 B66 + B25 RRHs (T-Mobile)	145	MT6413-77A (VzW)	125
Radio 4480 B71/B85 (T-Mobile)	145	Valmont T-Arm (1) (VzW)	124
Radio 4480 B71/B85 (T-Mobile)	145	Valmont T-Arm (1) (VzW)	124
Radio 4480 B71/B85 (T-Mobile)	145	Valmont T-Arm (1) (VzW)	124
Valmont T-Arm (3) (T-Mobile)	145	36" long P2 STD (VzW)	124
T-Arm Reinf	145	20' x 2.5" omni whip	120 - 100
AIR 6419 B41 (T-Mobile)	145	4' x 4" standoff	100
7770.00 (AT&T)	135	1.5' x 1-1/2" standoff (Vacant Collar)	84
800-10966 (AT&T)	135	1.5' x 1-1/2" standoff (Vacant Collar)	84
800-10966 (AT&T)	135	1.5' x 1-1/2" standoff (Vacant Collar)	84
800-10966 (AT&T)	135		
HPA-65R-BUU-H6 (AT&T)	135		
HPA-65R-BUU-H8 (AT&T)	135		
HPA-65R-BUU-H6 (AT&T)	135		
Ericsson RRUS-32 (AT&T)	135		

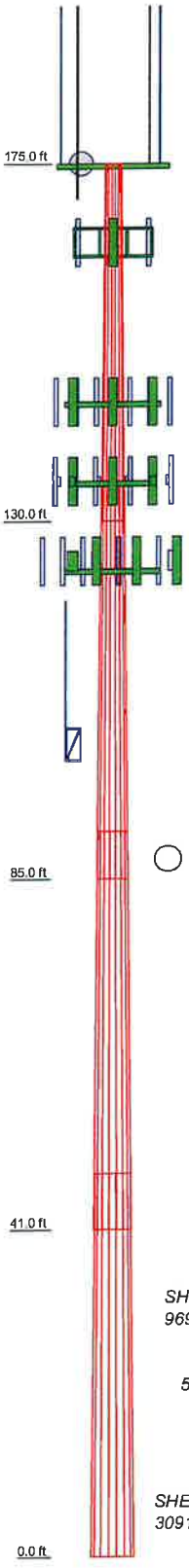
MATERIAL STRENGTH

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

All-Points Technology Corporation, P.C.
567 Vauxhall Street Ext. Suite 311
Waterford, CT 06385
Phone: (860) 663-1697
FAX:

Job: *175' Monopole Tower*			
Project: *CT141_13040 New Fairfield*			
Client: VzW Site #467504; New Fairfield 2 CT	Drawn by: DJA	App'd:	
Code: TIA-222-H	Date: 01/02/24	Scale: NTS	
Path:		Dwg No. E-1	

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (lb)
1	45.00	18	0.2500	5.00	24.0000	34.9000	A572-65	3548.0
2	50.00	18	0.3125	6.00	33.1889	45.3000		6570.0
3	50.00	18	0.3750	7.00	43.2217	55.3328		9903.1
4	48.00	18	0.3750		52.8872	64.5139		11339.0
								31360.1



ALL REACTIONS ARE FACTORED

AXIAL 82320 lb

SHEAR 9697 lb

MOMENT 1172091 lb-ft

TORQUE 2137 lb-ft
50 mph WIND - 1.0000 in ICE

AXIAL 57547 lb

SHEAR 30913 lb

MOMENT 3660758 lb-ft

TORQUE 9140 lb-ft
REACTIONS - 115 mph WIND

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower designed for Exposure B to the TIA-222-H Standard.
2. Tower designed for a 115 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. TOWER RATING: 61.7%

All-Points Technology Corporation, P.C.
567 Vauxhall Street Ext. Suite 311
Waterford, CT 06385
Phone: (860) 663-1697
FAX:

Job:	*175' Monopole Tower*
Project:	*CT141_13040 New Fairfield*
Client:	VzW Site #467504; New Fairfield 2 CT
Drawn by:	DJA
App'd:	
Code:	TIA-222-H
Date:	01/02/24
Scale:	NTS
Path:	
Dwg No.	E-1

Appendix C

Calculations

tnxTower	Job: 175' Monopole Tower	Page: 1 of 8
All-Points Technology Corporation, P.C. 567 Vauxhall Street Ext. Suite 311 Waterford, CT 06385 Phone: (860) 663-1697 FAX:	Project: CT141_13040 New Fairfield	Date: 15:49:12 01/02/24
	Client: VzW Site #467504; New Fairfield 2 CT	Designed by: DJA

Tower Input Data

The tower is a monopole.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

Tower base elevation above sea level: 0.00 ft.
Basic wind speed of 115 mph.
Risk Category II.
Exposure Category B.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.00 ft.
Nominal ice thickness of 1.0000 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft²/ft	Weight plf
3/8 (Town)	C	No	Yes	Inside Pole	175.00 - 6.00	2	No Ice	0.00	0.08
							1/2" Ice	0.00	0.08
							1" Ice	0.00	0.08
7/8 (Town)	C	No	Yes	Inside Pole	175.00 - 6.00	2	No Ice	0.00	0.54
							1/2" Ice	0.00	0.54
							1" Ice	0.00	0.54
6x24 fiber cable (T-Mobile)	C	No	Yes	Inside Pole	145.00 - 6.00	3	No Ice	0.00	2.22
							1/2" Ice	0.00	2.22
							1" Ice	0.00	2.22
1-1/4" Hybrid fiber-power cable (T-Mobile)	C	No	Yes	Inside Pole	145.00 - 6.00	1	No Ice	0.00	1.30
							1/2" Ice	0.00	1.30
							1" Ice	0.00	1.30
1 5/8 (AT&T)	C	No	Yes	Inside Pole	135.00 - 6.00	12	No Ice	0.00	1.04
							1/2" Ice	0.00	1.04
							1" Ice	0.00	1.04
1.34" fiber cable (AT&T)	C	No	Yes	Inside Pole	135.00 - 6.00	2	No Ice	0.00	0.66
							1/2" Ice	0.00	0.66
							1" Ice	0.00	0.66
5/8 power (AT&T)	C	No	Yes	Inside Pole	135.00 - 6.00	4	No Ice	0.00	0.40
							1/2" Ice	0.00	0.40
							1" Ice	0.00	0.40
2" conduit (AT&T)	C	No	Yes	Inside Pole	135.00 - 6.00	1	No Ice	0.00	2.00
							1/2" Ice	0.00	2.00
							1" Ice	0.00	2.00
1.7" Hybrid	C	No	Yes	Inside Pole	165.00 - 6.00	3	No Ice	0.00	1.80

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
fiber-power cable (Dish)							1/2" Ice	0.00	1.80
							1" Ice	0.00	1.80
Safety Line 3/8	C	No	Yes	CaAa (Out Of Face)	175.00 - 0.00	1	No Ice	0.04	0.22
							1/2" Ice	0.14	0.75
							1" Ice	0.24	1.28
7/8 (-)	C	No	Yes	Inside Pole	100.00 - 6.00	1	No Ice	0.00	0.54
							1/2" Ice	0.00	0.54
							1" Ice	0.00	0.54
6x12 hybrid (VzW)	C	No	Yes	Inside Pole	125.00 - 6.00	2	No Ice	0.00	1.88
							1/2" Ice	0.00	1.88
							1" Ice	0.00	1.88

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
1' square panel (Town)	A	From Face	4.00 0.00 0.00	0.0000	175.00	No Ice 1/2" Ice 1" Ice	1.20 1.34 1.48	0.32 0.40 0.49	15.00 22.91 32.76
20' x 2.5" omni whip (Town)	A	From Face	4.00 -4.50 10.00	0.0000	175.00	No Ice 1/2" Ice 1" Ice	5.00 7.03 9.07	5.00 7.03 9.07	50.00 86.96 136.55
20' x 2.5" omni whip (Town)	B	From Face	4.00 3.00 10.00	0.0000	175.00	No Ice 1/2" Ice 1" Ice	5.00 7.03 9.07	5.00 7.03 9.07	50.00 86.96 136.55
20' x 2.5" omni whip (Town)	C	From Face	4.00 -4.50 10.00	0.0000	175.00	No Ice 1/2" Ice 1" Ice	5.00 7.03 9.07	5.00 7.03 9.07	50.00 86.96 136.55
20' x 2.5" omni whip (Town)	C	From Face	4.00 4.50 10.00	0.0000	175.00	No Ice 1/2" Ice 1" Ice	5.00 7.03 9.07	5.00 7.03 9.07	50.00 86.96 136.55
1' x 1/2" lightning rod (Town)	C	From Face	4.00 4.50 0.50	0.0000	175.00	No Ice 1/2" Ice 1" Ice	0.05 0.11 0.19	0.05 0.11 0.19	7.00 7.67 9.15
13' low-profile platform (Town)	A	None		0.0000	175.00	No Ice 1/2" Ice 1" Ice	7.80 8.70 9.61	6.75 7.54 8.33	1100.00 1848.74 2616.93
JMA MX08FRO665-21 (Dish)	A	From Face	4.00 0.00 0.00	0.0000	165.00	No Ice 1/2" Ice 1" Ice	12.49 12.99 13.49	5.87 6.32 6.79	65.00 138.79 219.26
JMA MX08FRO665-21 (Dish)	B	From Face	4.00 0.00 0.00	0.0000	165.00	No Ice 1/2" Ice 1" Ice	12.49 12.99 13.49	5.87 6.32 6.79	65.00 138.79 219.26
JMA MX08FRO665-21 (Dish)	C	From Face	4.00 0.00 0.00	0.0000	165.00	No Ice 1/2" Ice 1" Ice	12.49 12.99 13.49	5.87 6.32 6.79	65.00 138.79 219.26
Fujitsu TA08025-B604 Radio (Dish)	A	From Face	4.00 0.00 0.00	0.0000	165.00	No Ice 1/2" Ice 1" Ice	1.96 2.14 2.32	1.03 1.17 1.31	64.00 80.75 100.20
Fujitsu TA08025-B604 Radio (Dish)	B	From Face	4.00 0.00 0.00	0.0000	165.00	No Ice 1/2" Ice 1" Ice	1.96 2.14 2.32	1.03 1.17 1.31	64.00 80.75 100.20

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Offsets: Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
Fujitsu TA08025-B604 Radio (Dish)	C	From Face	4.00	0.00	0.0000	165.00	No Ice	1.96	1.03	64.00
							1/2" Ice	2.14	1.17	80.75
							1" Ice	2.32	1.31	100.20
(2) Fujitsu TA08025-B605 Radio (Dish)	A	From Face	4.00	0.00	0.0000	165.00	No Ice	1.96	1.19	75.00
							1/2" Ice	2.14	1.33	92.97
							1" Ice	2.32	1.48	113.72
(2) Fujitsu TA08025-B605 Radio (Dish)	B	From Face	4.00	0.00	0.0000	165.00	No Ice	1.96	1.19	75.00
							1/2" Ice	2.14	1.33	92.97
							1" Ice	2.32	1.48	113.72
(2) Fujitsu TA08025-B605 Radio (Dish)	C	From Face	4.00	0.00	0.0000	165.00	No Ice	1.96	1.19	75.00
							1/2" Ice	2.14	1.33	92.97
							1" Ice	2.32	1.48	113.72
Raycap RDIDC-9181-PF-48 (Dish)	A	From Face	4.00	0.00	0.0000	165.00	No Ice	1.87	1.07	22.00
							1/2" Ice	2.04	1.20	38.30
							1" Ice	2.21	1.35	57.26
Raycap RDIDC-9181-PF-48 (Dish)	B	From Face	4.00	0.00	0.0000	165.00	No Ice	1.87	1.07	22.00
							1/2" Ice	2.04	1.20	38.30
							1" Ice	2.21	1.35	57.26
Raycap RDIDC-9181-PF-48 (Dish)	C	From Face	4.00	0.00	0.0000	165.00	No Ice	1.87	1.07	22.00
							1/2" Ice	2.04	1.20	38.30
							1" Ice	2.21	1.35	57.26
Commscope MC-PK8-DSH (Dish)	A	None			0.0000	165.00	No Ice	34.23	33.14	1801.56
							1/2" Ice	62.95	62.20	2342.03
							1" Ice	91.67	91.26	2882.50
AIR 6419 B41 (T-Mobile)	A	From Face	4.00	0.00	0.0000	145.00	No Ice	5.75	2.45	68.50
							1/2" Ice	6.06	2.69	107.05
							1" Ice	6.37	2.93	149.84
AIR 6419 B41 (T-Mobile)	B	From Face	4.00	0.00	0.0000	145.00	No Ice	5.75	2.45	68.50
							1/2" Ice	6.06	2.69	107.05
							1" Ice	6.37	2.93	149.84
AIR 6419 B41 (T-Mobile)	C	From Face	4.00	0.00	0.0000	145.00	No Ice	5.75	2.45	68.50
							1/2" Ice	6.06	2.69	107.05
							1" Ice	6.37	2.93	149.84
APXVAALL24_43-U-NA20 (T-Mobile)	A	From Face	3.50	0.00	0.0000	145.00	No Ice	20.24	9.04	135.50
							1/2" Ice	20.89	9.64	248.88
							1" Ice	21.54	10.25	370.80
APXVAALL24_43-U-NA20 (T-Mobile)	B	From Face	3.50	0.00	0.0000	145.00	No Ice	20.24	9.04	135.50
							1/2" Ice	20.89	9.64	248.88
							1" Ice	21.54	10.25	370.80
APXVAALL24_43-U-NA20 (T-Mobile)	C	From Face	3.50	0.00	0.0000	145.00	No Ice	20.24	9.04	135.50
							1/2" Ice	20.89	9.64	248.88
							1" Ice	21.54	10.25	370.80
Commscope VV-65A-R1B (T-Mobile)	A	From Face	3.50	0.00	0.0000	145.00	No Ice	5.89	2.78	24.70
							1/2" Ice	6.25	3.12	58.48
							1" Ice	6.62	3.47	97.08
Commscope VV-65A-R1B (T-Mobile)	B	From Face	3.50	0.00	0.0000	145.00	No Ice	5.89	2.78	24.70
							1/2" Ice	6.25	3.12	58.48
							1" Ice	6.62	3.47	97.08
Commscope VV-65A-R1B (T-Mobile)	C	From Face	3.50	0.00	0.0000	145.00	No Ice	5.89	2.78	24.70
							1/2" Ice	6.25	3.12	58.48
							1" Ice	6.62	3.47	97.08
Radio 4460 B66 + B25 RRHs (T-Mobile)	A	From Face	3.50	0.00	0.0000	145.00	No Ice	2.14	1.69	104.00
							1/2" Ice	2.32	1.85	126.16
							1" Ice	2.51	2.02	151.36
Radio 4460 B66 + B25 RRHs (T-Mobile)	B	From Face	3.50	0.00	0.0000	145.00	No Ice	2.14	1.69	104.00
							1/2" Ice	2.32	1.85	126.16
							1" Ice	2.51	2.02	151.36

tnxTower	Job: 175' Monopole Tower	Page: 4 of 8
All-Points Technology Corporation, P.C. 567 Vauxhall Street Ext. Suite 311 Waterford, CT 06385 Phone: (860) 663-1697 FAX:	Project: CT141_13040 New Fairfield	Date: 15:49:12 01/02/24
	Client: VzW Site #467504; New Fairfield 2 CT	Designed by: DJA

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
Radio 4460 B66 + B25 RRHs (T-Mobile)	C	From Face	3.50	0.0000	145.00	No Ice	2.14	1.69	104.00
			0.00			1/2" Ice	2.32	1.85	126.16
			0.00			1" Ice	2.51	2.02	151.36
Radio 4480 B71/B85 (T-Mobile)	A	From Face	4.00	0.0000	145.00	No Ice	0.94	2.42	93.00
			0.00			1/2" Ice	1.07	2.61	112.12
			0.00			1" Ice	1.21	2.81	134.14
Radio 4480 B71/B85 (T-Mobile)	B	From Face	4.00	0.0000	145.00	No Ice	0.94	2.42	93.00
			0.00			1/2" Ice	1.07	2.61	112.12
			0.00			1" Ice	1.21	2.81	134.14
Radio 4480 B71/B85 (T-Mobile)	C	From Face	4.00	0.0000	145.00	No Ice	0.94	2.42	93.00
			0.00			1/2" Ice	1.07	2.61	112.12
			0.00			1" Ice	1.21	2.81	134.14
Valmont T-Arm (3) (T-Mobile)	C	None		0.0000	145.00	No Ice	21.00	21.00	1008.00
						1/2" Ice	29.00	29.00	1236.00
						1" Ice	37.00	37.00	1464.00
7770.00 (AT&T)	A	From Face	4.00	0.0000	135.00	No Ice	5.51	2.93	35.00
			0.00			1/2" Ice	5.87	3.27	67.63
			0.00			1" Ice	6.23	3.63	105.06
7770.00 (AT&T)	B	From Face	4.00	0.0000	135.00	No Ice	5.51	2.93	35.00
			0.00			1/2" Ice	5.87	3.27	67.63
			0.00			1" Ice	6.23	3.63	105.06
7770.00 (AT&T)	C	From Face	4.00	0.0000	135.00	No Ice	5.51	2.93	35.00
			0.00			1/2" Ice	5.87	3.27	67.63
			0.00			1" Ice	6.23	3.63	105.06
800-10966 (AT&T)	A	From Face	4.00	0.0000	135.00	No Ice	17.36	7.50	117.00
			0.00			1/2" Ice	17.99	8.09	209.18
			0.00			1" Ice	18.63	8.69	309.51
800-10966 (AT&T)	B	From Face	4.00	0.0000	135.00	No Ice	17.36	7.50	117.00
			0.00			1/2" Ice	17.99	8.09	209.18
			0.00			1" Ice	18.63	8.69	309.51
800-10966 (AT&T)	C	From Face	4.00	0.0000	135.00	No Ice	17.36	7.50	117.00
			0.00			1/2" Ice	17.99	8.09	209.18
			0.00			1" Ice	18.63	8.69	309.51
HPA-65R-BUU-H6 (AT&T)	A	From Face	4.00	0.0000	135.00	No Ice	9.66	6.45	55.00
			0.00			1/2" Ice	10.13	6.91	117.99
			0.00			1" Ice	10.61	7.38	187.38
HPA-65R-BUU-H8 (AT&T)	B	From Face	4.00	0.0000	135.00	No Ice	12.98	7.52	70.00
			0.00			1/2" Ice	13.56	8.09	143.77
			0.00			1" Ice	14.15	8.67	225.17
HPA-65R-BUU-H6 (AT&T)	C	From Face	4.00	0.0000	135.00	No Ice	9.66	6.45	55.00
			0.00			1/2" Ice	10.13	6.91	117.99
			0.00			1" Ice	10.61	7.38	187.38
Ericsson RRUS-32 (AT&T)	A	From Face	3.50	0.0000	135.00	No Ice	2.73	1.67	50.00
			0.00			1/2" Ice	2.95	1.86	70.00
			0.00			1" Ice	3.18	2.05	110.00
Ericsson RRUS-32 (AT&T)	B	From Face	3.50	0.0000	135.00	No Ice	2.73	1.67	50.00
			0.00			1/2" Ice	2.95	1.86	70.00
			0.00			1" Ice	3.18	2.05	110.00
Ericsson RRUS-32 (AT&T)	C	From Face	3.50	0.0000	135.00	No Ice	2.73	1.67	50.00
			0.00			1/2" Ice	2.95	1.86	70.00
			0.00			1" Ice	3.18	2.05	110.00
Ericsson RRUS-32 B2 (AT&T)	A	From Face	3.50	0.0000	135.00	No Ice	2.71	1.66	50.00
			0.00			1/2" Ice	2.93	1.85	70.00
			0.00			1" Ice	3.16	2.04	110.00
Ericsson RRUS-32 B2 (AT&T)	B	From Face	3.50	0.0000	135.00	No Ice	2.71	1.66	50.00
			0.00			1/2" Ice	2.93	1.85	70.00
			0.00			1" Ice	3.16	2.04	110.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Offsets: Vert ft	Offsets: ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
Ericsson RRUS-32 B2 (AT&T)	C	From Face	3.50	0.00	0.00	0.0000	135.00	No Ice	2.71	1.66	50.00
								1/2" Ice	2.93	1.85	70.00
								1" Ice	3.16	2.04	110.00
Radio 4449 (AT&T)	A	From Face	3.50	0.00	0.00	0.0000	135.00	No Ice	1.65	1.16	80.00
								1/2" Ice	1.81	1.30	96.16
								1" Ice	1.98	1.45	114.95
Radio 4449 (AT&T)	B	From Face	3.50	0.00	0.00	0.0000	135.00	No Ice	1.65	1.16	80.00
								1/2" Ice	1.81	1.30	96.16
								1" Ice	1.98	1.45	114.95
Radio 4449 (AT&T)	C	From Face	3.50	0.00	0.00	0.0000	135.00	No Ice	1.65	1.16	80.00
								1/2" Ice	1.81	1.30	96.16
								1" Ice	1.98	1.45	114.95
(2) LGP2140X TMA (AT&T)	A	From Face	3.50	0.00	0.00	0.0000	135.00	No Ice	1.08	0.36	20.00
								1/2" Ice	1.21	0.45	27.13
								1" Ice	1.35	0.56	36.14
(2) LGP2140X TMA (AT&T)	B	From Face	3.50	0.00	0.00	0.0000	135.00	No Ice	1.08	0.36	20.00
								1/2" Ice	1.21	0.45	27.13
								1" Ice	1.35	0.56	36.14
(2) LGP2140X TMA (AT&T)	C	From Face	3.50	0.00	0.00	0.0000	135.00	No Ice	1.08	0.36	20.00
								1/2" Ice	1.21	0.45	27.13
								1" Ice	1.35	0.56	36.14
Raycap DC6-48 surge suppressor (AT&T)	A	From Face	4.00	0.00	0.00	0.0000	135.00	No Ice	1.19	1.19	30.00
								1/2" Ice	1.37	1.37	44.34
								1" Ice	1.56	1.56	60.93
Raycap DC6-48 surge suppressor (AT&T)	C	From Face	4.00	0.00	0.00	0.0000	135.00	No Ice	1.19	1.19	30.00
								1/2" Ice	1.37	1.37	44.34
								1" Ice	1.56	1.56	60.93
Valmont T-Arm (3) (AT&T)	C	None				0.0000	135.00	No Ice	21.00	21.00	1008.00
								1/2" Ice	29.00	29.00	1236.00
								1" Ice	37.00	37.00	1464.00
SFR-K reinf. kit (AT&T)	A	From Face	0.00	0.00	0.00	0.0000	135.00	No Ice	5.39	2.69	132.00
								1/2" Ice	7.89	3.95	250.00
								1" Ice	10.39	5.20	375.00
SFR-K reinf. kit (AT&T)	B	From Face	0.00	0.00	0.00	0.0000	135.00	No Ice	5.39	2.69	132.00
								1/2" Ice	7.89	3.95	250.00
								1" Ice	10.39	5.20	375.00
SFR-K reinf. kit (AT&T)	C	From Face	0.00	0.00	0.00	0.0000	135.00	No Ice	5.39	2.69	132.00
								1/2" Ice	7.89	3.95	250.00
								1" Ice	10.39	5.20	375.00
MT6413-77A (VzW)	A	From Face	4.00	5.00	0.00	0.0000	125.00	No Ice	3.88	1.50	55.10
								1/2" Ice	4.13	1.69	79.94
								1" Ice	4.39	1.89	108.26
MT6413-77A (VzW)	B	From Face	4.00	5.00	0.00	0.0000	125.00	No Ice	3.88	1.50	55.10
								1/2" Ice	4.13	1.69	79.94
								1" Ice	4.39	1.89	108.26
MT6413-77A (VzW)	C	From Face	4.00	5.00	0.00	0.0000	125.00	No Ice	3.88	1.50	55.10
								1/2" Ice	4.13	1.69	79.94
								1" Ice	4.39	1.89	108.26
(2) MX06FHG865-HG (VzW)	A	From Face	4.00	-3.00	0.00	0.0000	125.00	No Ice	11.61	7.96	51.00
								1/2" Ice	12.23	8.55	118.97
								1" Ice	12.85	9.15	194.63
(2) MX06FHG865-HG (VzW)	B	From Face	4.00	-3.00	0.00	0.0000	125.00	No Ice	11.61	7.96	51.00
								1/2" Ice	12.23	8.55	118.97
								1" Ice	12.85	9.15	194.63
(2) MX06FHG865-HG (VzW)	C	From Face	4.00	-3.00	0.00	0.0000	125.00	No Ice	11.61	7.96	51.00
								1/2" Ice	12.23	8.55	118.97
								1" Ice	12.85	9.15	194.63

tnxTower	Job: 175' Monopole Tower	Page: 6 of 8
All-Points Technology Corporation, P.C. 567 Vauxhall Street Ext. Suite 311 Waterford, CT 06385 Phone: (860) 663-1697 FAX:	Project: CT141_13040 New Fairfield	Date: 15:49:12 01/02/24
	Client: VzW Site #467504; New Fairfield 2 CT	Designed by: DJA

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Offsets: Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
B2/B66A RRHBRO49 (RFV01U-D1A) (VzW)	A	From Face	3.50 0.00 0.00		0.0000	125.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.25 1.39 1.54	85.00 103.34 124.47
B2/B66A RRHBRO49 (RFV01U-D1A) (VzW)	B	From Face	3.50 0.00 0.00		0.0000	125.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.25 1.39 1.54	85.00 103.34 124.47
B2/B66A RRHBRO49 (RFV01U-D1A) (VzW)	C	From Face	3.50 0.00 0.00		0.0000	125.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.25 1.39 1.54	85.00 103.34 124.47
B5/B13 RRHBR04C (RFV01UD2A) (VzW)	A	From Face	3.50 -3.00 0.00		0.0000	125.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.01 1.14 1.28	82.00 98.43 117.53
B5/B13 RRHBR04C (RFV01UD2A) (VzW)	C	From Face	3.50 -3.00 0.00		0.0000	125.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.01 1.14 1.28	82.00 98.43 117.53
Samsung B5/B13 ORAN RRH (RF4461d-13A) (VzW)	B	From Face	3.50 -3.00 0.00		0.0000	125.00	No Ice 1/2" Ice 1" Ice	1.87 2.03 2.21	1.28 1.42 1.57	79.10 97.61 118.91
Raycap RVZDC-6627-PF-48 (VzW)	A	From Face	1.00 0.00 0.00		0.0000	125.00	No Ice 1/2" Ice 1" Ice	4.06 4.32 4.58	3.10 3.34 3.58	32.00 68.49 108.97
Valmont T-Arm (1) (VzW)	A	From Face	0.00 0.00 0.00		0.0000	124.00	No Ice 1/2" Ice 1" Ice	10.54 14.45 18.36	10.54 14.45 18.36	336.00 412.00 488.00
36" long P2 STD (VzW)	A	From Face	0.00 0.00 0.00		0.0000	124.00	No Ice 1/2" Ice 1" Ice	0.10 0.41 0.62	0.10 0.41 0.62	85.65 87.20 90.77
Valmont T-Arm (1) (VzW)	B	From Face	0.00 0.00 0.00		0.0000	124.00	No Ice 1/2" Ice 1" Ice	10.54 14.45 18.36	10.54 14.45 18.36	336.00 412.00 488.00
Valmont T-Arm (1) (VzW)	C	From Face	0.00 0.00 0.00		0.0000	124.00	No Ice 1/2" Ice 1" Ice	10.54 14.45 18.36	10.54 14.45 18.36	336.00 412.00 488.00
20' x 2.5" omni whip	A	From Face	4.00 0.00 0.00		0.0000	120.00 - 100.00	No Ice 1/2" Ice 1" Ice	5.00 7.03 9.07	5.00 7.03 9.07	50.00 86.96 136.55
4' x 4" standoff	A	From Face	0.00 0.00 0.00		0.0000	100.00	No Ice 1/2" Ice 1" Ice	1.60 1.89 2.19	0.13 0.18 0.24	50.00 64.81 83.44
1.5' x 1-1/2" standoff (Vacant Collar)	A	From Face	0.00 0.00 0.00		0.0000	84.00	No Ice 1/2" Ice 1" Ice	0.17 0.27 0.38	0.17 0.27 0.38	6.00 7.99 11.21
1.5' x 1-1/2" standoff (Vacant Collar)	B	From Face	0.00 0.00 0.00		0.0000	84.00	No Ice 1/2" Ice 1" Ice	0.17 0.27 0.38	0.17 0.27 0.38	6.00 7.99 11.21
1.5' x 1-1/2" standoff (Vacant Collar)	C	From Face	0.00 0.00 0.00		0.0000	84.00	No Ice 1/2" Ice 1" Ice	0.17 0.27 0.38	0.17 0.27 0.38	6.00 7.99 11.21
T-Arm Reinf	C	None			0.0000	145.00	No Ice 1/2" Ice 1" Ice	9.50 13.30 17.10	9.50 13.30 17.10	280.00 392.00 504.00

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral / Vert (ft)	Azimuth Adjustment (°)	3 dB Beam Width (°)	Elevation (ft)	Outside Diameter (ft)		Aperture Area (ft^2)	Weight (lb)
3' HP dish	A	Paraboloid w/Shroud (HP)	From Face	5.00 2.30 0.00	Worst		175.00	3.00	No Ice 1/2" Ice 1" Ice	7.07 7.47 7.86	75.00 113.33 153.33

Maximum Tower Deflections - Service Wind

Section No.	Elevation (ft)	Horz. Deflection (in)	Gov. Load Comb.	Tilt (°)	Twist (°)
L1	175 - 130	19.985	63	0.9437	0.0121
L2	135 - 85	12.355	63	0.8478	0.0078
L3	91 - 41	5.615	63	0.5785	0.0032
L4	48 - 0	1.585	63	0.2998	0.0012

Critical Deflections and Radius of Curvature - Service Wind

Elevation (ft)	Appurtenance	Gov. Load Comb.	Deflection (in)	Tilt (°)	Twist (°)	Radius of Curvature (ft)
175.00	3' HP dish	63	19.985	0.9437	0.0121	98287
165.00	JMA MX08FRO665-21	63	18.017	0.9284	0.0110	49143
145.00	AIR 6419 B41	63	14.177	0.8839	0.0089	16380
135.00	7770.00	63	12.355	0.8478	0.0078	12445
125.00	MT6413-77A	63	10.629	0.7990	0.0066	11209
124.00	Valmont T-Arm (1)	63	10.462	0.7935	0.0065	11112
120.00	20' x 2.5" omni whip	63	9.805	0.7706	0.0061	10739
115.00	20' x 2.5" omni whip	63	9.009	0.7400	0.0055	10307
110.00	20' x 2.5" omni whip	63	8.242	0.7078	0.0050	9908
105.00	20' x 2.5" omni whip	63	7.506	0.6744	0.0045	9538
100.00	20' x 2.5" omni whip	63	6.801	0.6403	0.0040	9196
84.00	1.5' x 1-1/2" standoff	63	4.770	0.5313	0.0027	8359

Maximum Tower Deflections - Design Wind

Section No.	Elevation (ft)	Horz. Deflection (in)	Gov. Load Comb.	Tilt (°)	Twist (°)
L1	175 - 130	82.503	26	3.8931	0.0495
L2	135 - 85	51.022	26	3.5021	0.0319
L3	91 - 41	23.190	26	2.3900	0.0131
L4	48 - 0	6.543	26	1.2383	0.0050

tnxTower	Job	Page
	175' Monopole Tower	8 of 8
All-Points Technology Corporation, P.C. 567 Vauxhall Street Ext. Suite 311 Waterford, CT 06385 Phone: (860) 663-1697 FAX:	**Project** CT141_13040 New Fairfield	**Date** 15:49:12 01/02/24
	Client VzW Site #467504; New Fairfield 2 CT	**Designed by** DJA

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
175.00	3' HP dish	26	82.503	3.8931	0.0495	24083
165.00	JMA MX08FRO665-21	26	74.382	3.8315	0.0452	12041
145.00	AIR 6419 B41	26	58.541	3.6504	0.0364	4011
135.00	7770.00	26	51.022	3.5021	0.0319	3045
125.00	MT6413-77A	26	43.894	3.3010	0.0272	2737
124.00	Valmont T-Arm (1)	26	43.205	3.2783	0.0267	2713
120.00	20' x 2.5" omni whip	26	40.493	3.1836	0.0249	2620
115.00	20' x 2.5" omni whip	26	37.207	3.0574	0.0226	2512
110.00	20' x 2.5" omni whip	26	34.041	2.9244	0.0204	2413
105.00	20' x 2.5" omni whip	26	31.000	2.7864	0.0182	2321
100.00	20' x 2.5" omni whip	26	28.088	2.6454	0.0163	2236
84.00	1.5' x 1-1/2" standoff	26	19.700	2.1949	0.0111	2028

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
L1	175 - 130	Pole	TP34.9x24x0.25	1	-11511.00	1552220.00	21.9	Pass
L2	130 - 85	Pole	TP45.3x33.1889x0.3125	2	-26267.90	2526060.00	46.8	Pass
L3	85 - 41	Pole	TP55.3328x43.2217x0.375	3	-39662.40	3708630.00	50.8	Pass
L4	41 - 0	Pole	TP64.5139x52.8872x0.375	4	-57532.00	4465970.00	61.7	Pass
							Summary	
						Pole (L4)	61.7	Pass
						RATING =	**61.7**	**Pass**

All-Points Technology Corp., P.C.
567 Vauxhall St. Ext., Suite 311
Waterford, CT 06385
(860) 663-1697

Client:	**Verizon Wireless**	Site No.:	**467504**
Job:	**New Fairfield 2 CT**	Job No.:	**CT141_13040 Rev. 6**
Calculated By:	**D. Aversa**	Date:	**02-Jan-24**

Program assumes:

Mat is square in plan view.
Water table is below bottom of mat.

Unit weight of concrete =	150 pcf
Unit weight of soil =	100 pcf

Monopole tower with center pier

Information to be provided:

Pier is round or square in plan dimension ("R" or "S")	Shape =	R
V = Base Shear	V =	30.9 kips
OTM = Overturning moment at base	OTM =	3660.8 ft-kips
OTM_{Total} = Overturning Moment to be resisted	OTM_{Total} =	3853.925 ft-kips
H = Height from ground surface to top of mat (if buried)	H =	1.00 ft.
P_M = Projection of pier above mat	P_M =	2.25 ft.
y = Thickness of mat	y =	4.00 ft.
x = Width of mat	x =	27.50 ft.
d = Diameter of round pier	d =	7.0 ft.
S = Size of tension bars	S =	11

Mass of tower and appurtenances (below)

Results:

Component	Mass	Moment Arm	Moment Resist.	
Pier	11.7 kips	13.75 ft.	160.7 ft-kips	
Overburden	56.3 kips	13.75 ft.	773.6 ft-kips	
Mat	408.4 kips	13.75 ft.	5615.2 ft-kips	
Tower Dead Load	0.0 kips	13.75 ft.	0.0 ft-kips	(Neglected)
Antenna Dead Load	0.0 kips	13.75 ft.	0.0 ft-kips	(Neglected)

Overturning Moment Resistance =	6549.50 ft-kips	
Foundation Rating =	58.8%	SATISFACTORY
Concrete Quantity =	121.7 c.y.	

Colliers Engineering & Design,
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Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements

Mount ReAnalysis-VZW

SMART Tool Project #: 10214364
Colliers Engineering & Design Project #: 21781039 (Rev. 3)

November 22, 2023

Site Information	*Site ID:*	*5000384712-VZW / NEW FAIRFIELD 2 CT*
	Site Name:	*NEW FAIRFIELD 2 CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*302 Ball Pond Road* *New Fairfield, Connecticut 06026* *Fairfield County*
	Latitude:	*41.46474444°*
	Longitude:	*-73.49694722°*
Structure Information	*Tower Type:*	*180-Ft Monopole*
	Mount Type:	*12.08-Ft T-Arm*

FUZE ID # 16241849

Analysis Results

T-Arm: **87.8% Pass w/ Hardware Upgrades***

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

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

Report Prepared By: Nathan LaPorte

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: 674979, dated November 17, 2023*
Mount Mapping Report	*Hudson Design Group, LLC, Site ID: 467504, dated May 27, 2021*

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}:	115 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:	0.971
Seismic Parameters:	S_S:	0.220 g
	S_1:	0.056 g
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Load, Lv:	250 lbs.
	Maintenance Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V20)	

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
124.00	125.00	6	JMA Wireless	MX06FHG865-HG	Added
		3	Samsung	MT6413-77A	
		3	Samsung	B2/B66A RRH-BR049	
		2	Samsung	B5/B13 RRH-BR04C	
		1	Raycap	RVZDC-6627-PF-48	
		1	Samsung	RF4461d-13A	

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

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

Standard Conditions:

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

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

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

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

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

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

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

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

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

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

Analysis Results:

Component	Utilization %	Pass/Fail
Mount Pipe	84.6%	Pass
Standoff Horizontal	54.6%	Pass
Face Horizontal	87.8%	Pass
Mount Connection	72.8%	Pass

Structure Rating – *(Controlling Utilization of all Components)*	87.8%*

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

The mount has been found structurally adequate for all steel and external connection capacities. Serviceability in accordance with TIA-222-H Section 4.9.11.3 has not been considered.

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	6.9	2.4	14.9	10.3
0.5	9.2	3.4	20.5	14.7
1	11.2	4.0	25.9	18.7

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.
- Ka factors included in (EPA)a calculations

Requirements:

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

Contractor shall install a new 36" long PIPE 2 SCH 40 OVP pipe on the alpha sector standoff horizontals. Contractor shall replace existing position 2 mount pipe with new 108" long PIPE 2 SCH80 pipe (in all sectors). Install 24" from position 1 pipe. Top of pipe shall be 60" above top face horizontal. Attach using VZWSMART MSK2 crossover plates. Refer to placement diagrams.

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

Attachments:

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

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis

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

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

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

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MDG #: 5000384712 SMART Project #: 10216364 Fuze Project ID: 16241849

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 install a new 36" long PIPE 2 SCH 40 OVP pipe on the alpha sector standoff horizontals. Contractor shall replace existing position 2 mount pipe with new 108" long PIPE 2 SCH80 pipe (in all sectors). Install 24" from position 1 pipe. Top of pipe shall be 60" above top face horizontal. Attach using VZWSMART MSK2 crossover plates. Refer to 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:	

Structure: 5000384712-VZW - NEW FAIRFIELD 2 CT

Sector: **A**

Structure Type: Monopole

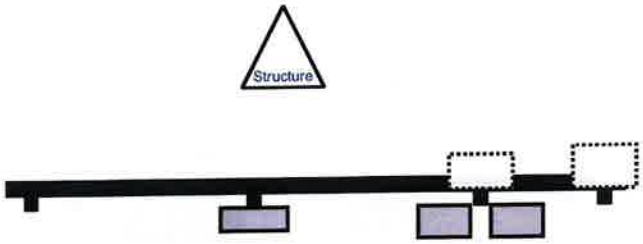
Mount Elev: 124.00

10214364

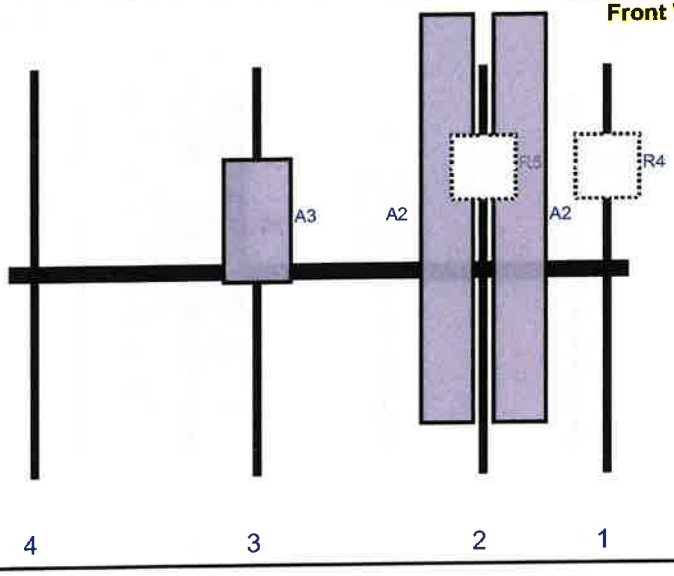
11/21/2023

Colliers Engineering & Design

Plan View

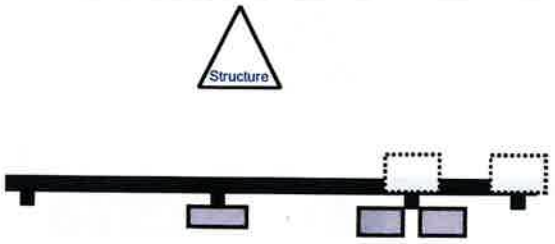


Front View - Looking at Structure

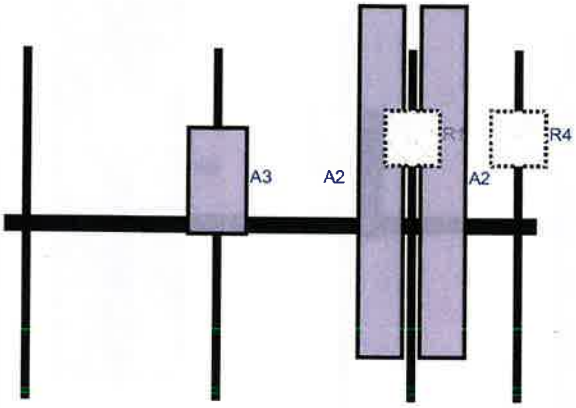


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R4	B2/B66A RRH-BR049	15	15	140	1	a	Behind	24	0	Retained	
A2	MX06FRO660-03	95.9	12.2	111	2	a	Front	36	8.5	Retained	
A2	MX06FRO660-03	95.9	12.2	111	2	b	Front	36	-8.5	Retained	
R5	B5/B13 RRH-BR04C	15	15	111	2	a	Behind	24	0	Retained	
A3	MT6413-77A	28.9	15.8	58	3	a	Front	36	0	Retained	
OVP	RVZDC-6627-PF-48	29.5	16.5		Member					Retained	

Plan View



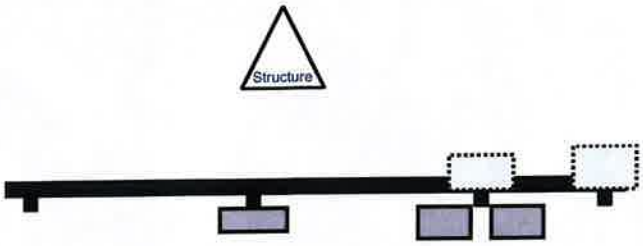
Front View - Looking at Structure



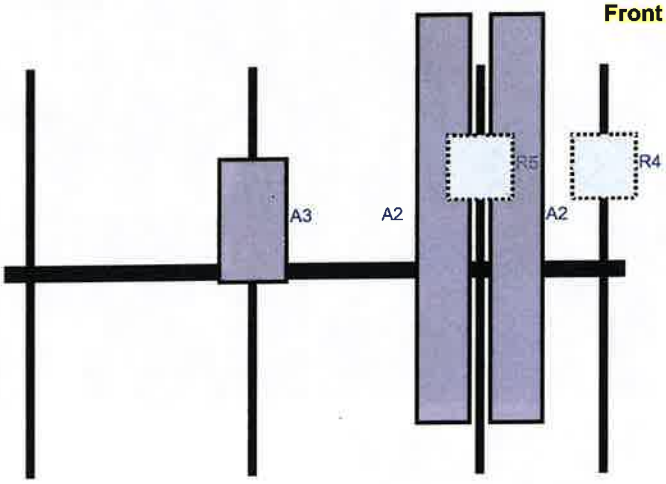
Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R4	B2/B66A RRH-BR049	15	15	140	1	a	Behind	24	0	Retained	
A2	MX06FRO660-03	95.9	12.2	111	2	a	Front	36	8.5	Retained	
A2	MX06FRO660-03	95.9	12.2	111	2	b	Front	36	-8.5	Retained	
R1	RF4461d-13A	15	15	111	2	a	Behind	24	0	Added	
A3	MT6413-77A	28.9	15.8	58	3	a	Front	36	0	Retained	

Colliers Engineering & Design

Plan View



Front View - Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R4	B2/B66A RRH-BR049	15	15	140	1	a	Behind	24	0	Retained	
A2	MX06FRO660-03	95.9	12.2	111	2	a	Front	36	8.5	Retained	
A2	MX06FRO660-03	95.9	12.2	111	2	b	Front	36	-8.5	Retained	
R5	B5/B13 RRH-BR04C	15	15	111	2	a	Behind	24	0	Retained	
A3	MT6413-77A	28.9	15.8	58	3	a	Front	36	0	Retained	


05/27/2021 12:01


05/27/2021 12:36

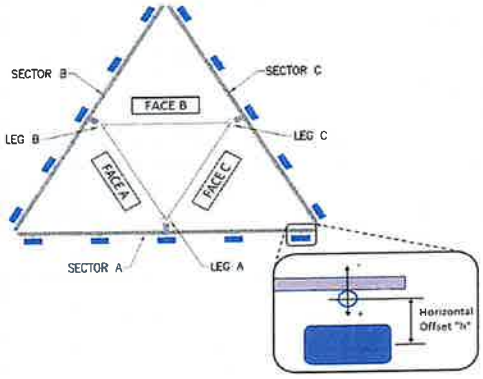
V4.0 Updated on 3-31-2021

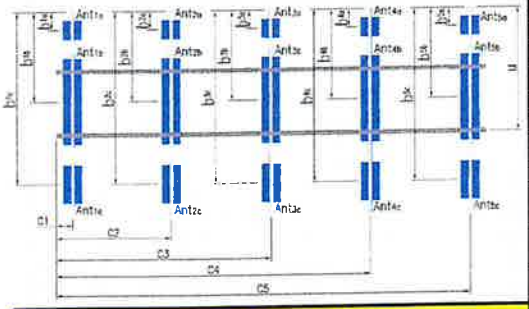
Antenna Mount Mapping Form (PATENT PENDING)

FCC #

Tower Owner:	TOWN OF NEW FAIRFIELD	**Mapping Date:**	5/27/2021
Site Name:	NEW FAIRFIELD 2 CT	**Tower Type:**	Monopole
Site Number or ID:	467504	**Tower Height (Ft.):**	180
Mapping Contractor:	HUDSON DESIGN GROUP,LLC	**Mount Elevation (FL):**	124.75

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





Antenna Layout (Looking Out From Tower)

Mount Pipe Configuration and Geometries [Unit = Inches]

Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	2" STD. PIPE X 96" LONG	48.00	5.00	C1	2" STD. PIPE X 96" LONG	48.00	5.00
A2	2" STD. PIPE X 72" LONG	42.00	29.00	C2	2" STD. PIPE X 72" LONG	42.00	29.00
A3	2" STD. PIPE X 72" LONG	42.00	87.00	C3	2" STD. PIPE X 72" LONG	42.00	87.00
A4	2" STD. PIPE X 96" LONG	48.00	139.00	C4	2" STD. PIPE X 96" LONG	48.00	139.00
A5				C5			
A6				C6			
B1	2" STD. PIPE X 96" LONG	48.00	5.00	D1			
B2	2" STD. PIPE X 72" LONG	42.00	29.00	D2			
B3	2" STD. PIPE X 72" LONG	42.00	87.00	D3			
B4	2" STD. PIPE X 96" LONG	48.00	139.00	D4			
B5				D5			
B6				D6			

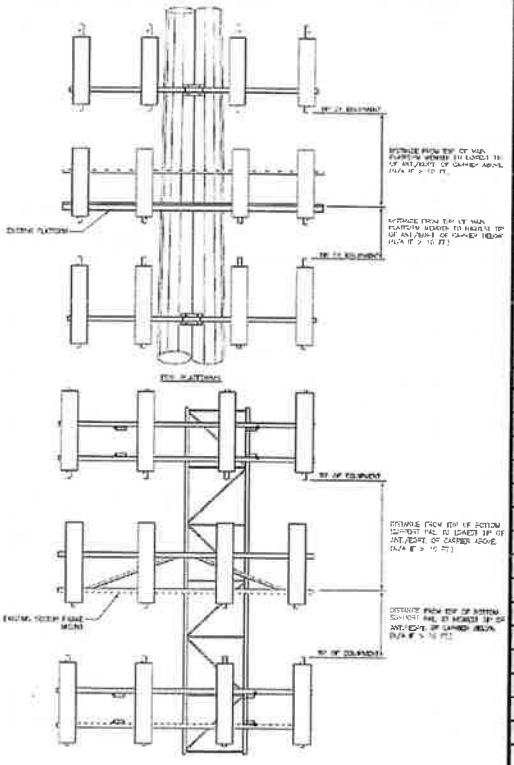
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	6.25
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	
Please enter additional infomation or comments below.	
Tower Face Width at Mount Elev. (ft.):	Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.): 32
For T-Arms/Platforms on monopoles, report the weld size from the main standoff to the plate bolting into the collar mount.	0.375

	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances "b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant_{1a}										
Ant_{1b}	LPA-8008016CF	6.00	13.00	70.00		125.417	40.00	13.00	30.00	7,32
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	UNKNOWN	6.00	4.00	71.00		125.417	34.00	8.00	30.00	6,33
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BXA-7006316CF	11.00	5.00	71.00		125.417	34.00	9.00	30.00	5,34
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	LPA-8008016CF	6.00	13.00	70.00		125.417	40.00	13.00	30.00	4,35
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

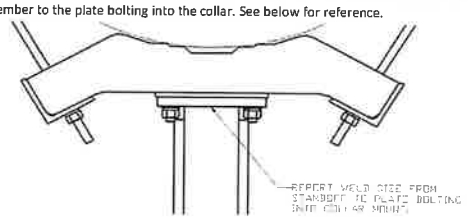
Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	30.00	Deg	Leg A:		Deg
Sector B:	150.00	Deg	Leg B:		Deg
Sector C:	270.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	180.00	Deg	
Climbing Facility	Corrosion Type:		Good condition.
	Access:		Climbing path was unobstructed.
	Condition:		Good condition.

Please insert a photo of the mount centerline measurement here.



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



Sector B										
Ant_{1a}										
Ant_{1b}	LPA-8008016CF	6.00	13.00	70.00		125.417	40.00	13.00	150.00	14,36
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	UNKNOWN	6.00	4.00	71.00		125.417	34.00	8.00	150.00	13,37
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BXA-7006316CF	11.00	5.00	71.00		125.417	34.00	9.00	150.00	12,38
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	LPA-8008016CF	6.00	13.00	70.00		125.417	40.00	13.00	150.00	11,39
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}	LPA-8008016CF	6.00	13.00	70.00		125.417	40.00	13.00	270.00	21,40
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	UNKNOWN	6.00	4.00	71.00		125.417	34.00	8.00	270.00	20,41
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BXA-7006316CF	11.00	5.00	71.00		125.417	34.00	9.00	270.00	19,42
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	LPA-8008016CF	6.00	13.00	70.00		125.417	40.00	13.00	270.00	18,43
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #
1		
2		
3		
4		
5		
6		
7		
8		

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

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

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

Antenna Mount Mapping Form (PATENT PENDING)

FCC#

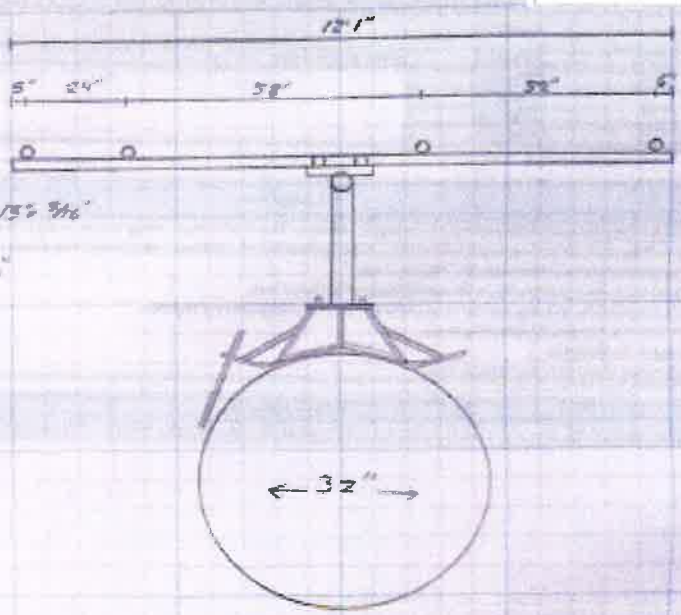
Tower Owner:	TOWN OF NEW FAIRFIELD	Mapping Date:	5/27/2021
Site Name:	NEW FAIRFIELD 2 CT	Tower Type:	Monopole
Site Number or ID:	467504	Tower Height (Ft.):	180
Mapping Contractor:	HUDSON DESIGN GROUP LLC	Mount Elevation (Ft.):	124.75

Please Insert Sketches of the Antenna Mount

HUDSON Design Group LLC

DATE: 5/27/21
Project Name: New Fairfield 2 CT
Project No.:
Design By: Josh Chk'd By: _____ Page ____ of ____

Mount @: 124'9" AGL



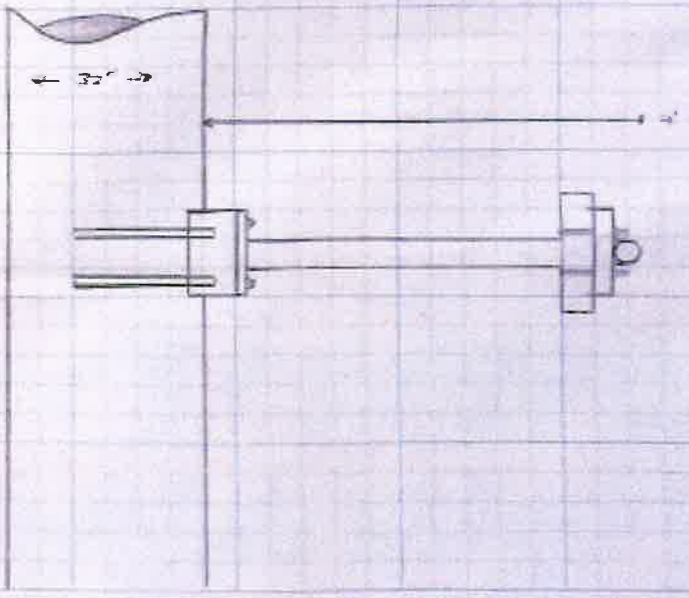
Ant. Pipe: 2⅜"
Face Dipe: 3½"
Clamp Plate: 10"x2½"x15"x5/16"
- Bolts: ½"
Vertical Pipe: 4½"x18"x¼"
- Bolts: 5/8"
RSS: 4'x4"x32"
Flange: 10"x10"x⅝"
- Bolts: (4) 5/8"
Collar: 10"x3/8"
- Bolts: (8) ¾"
Pole: 32"
P→F: 4'

#1
LPA-80080/6CF

#2
6'-4"-71°

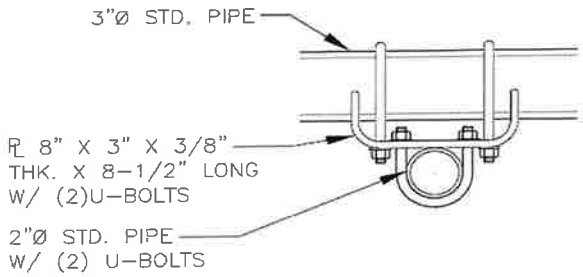
#3
SXA-70063/6CF

#4
LPA-80080/6CF

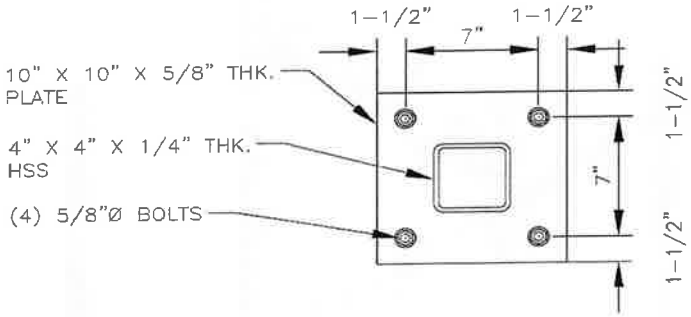


04/19

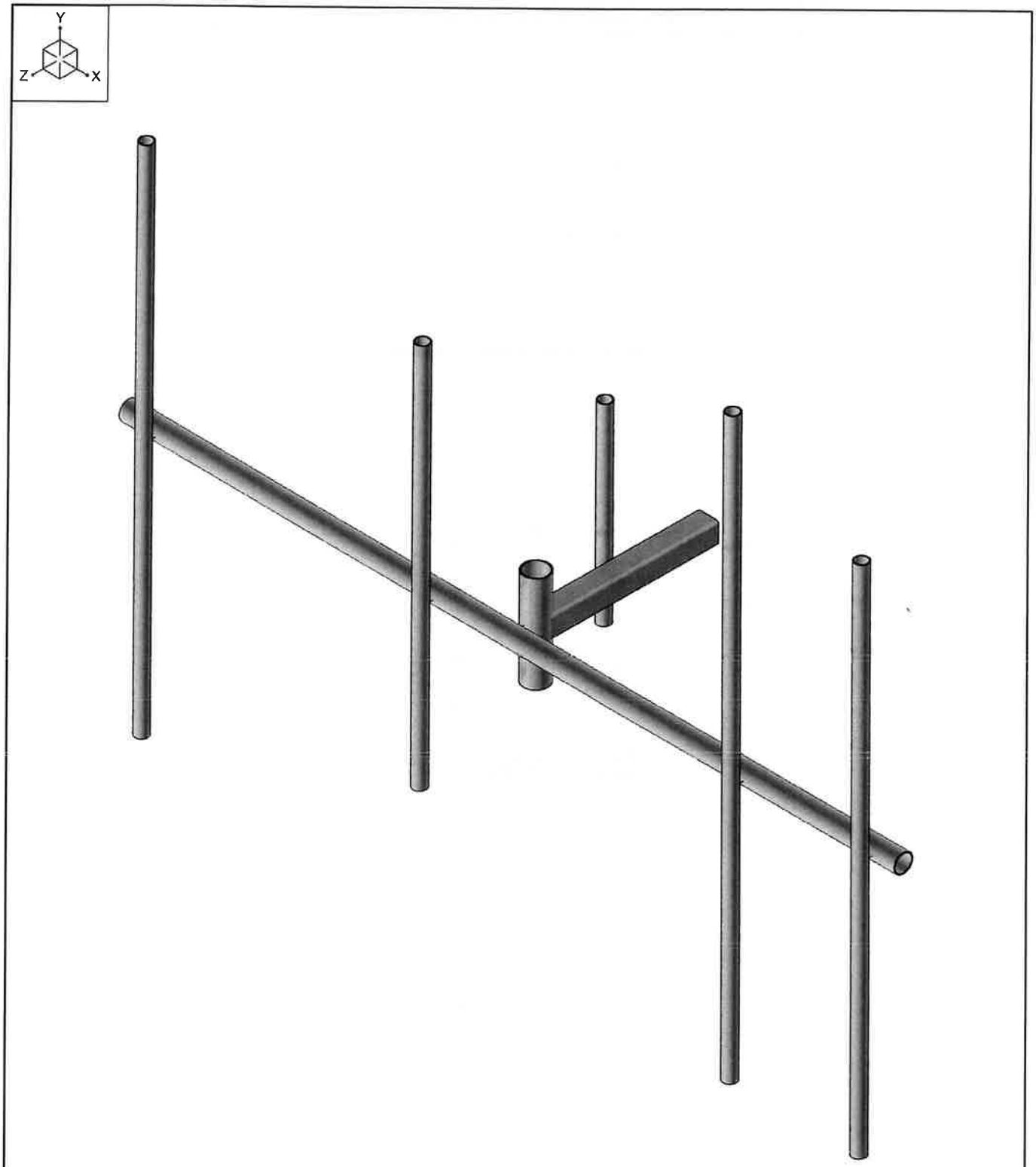
Please Insert Sketches of the Antenna Mount, cont'd



ANTENNA PIPE MAST MOUNT CONNECTION

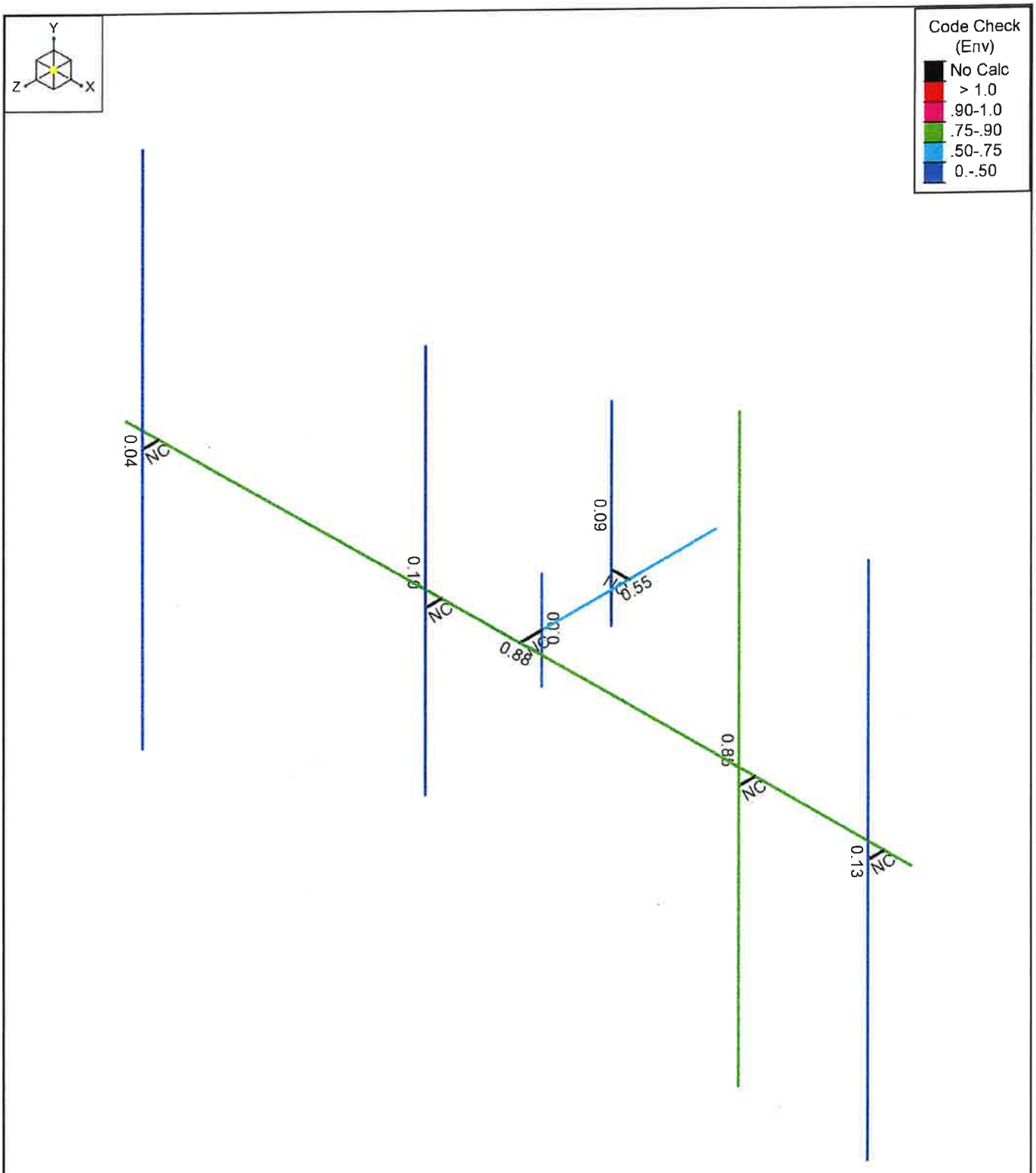


STANDOFF TO RING
MOUNT CONNECTION



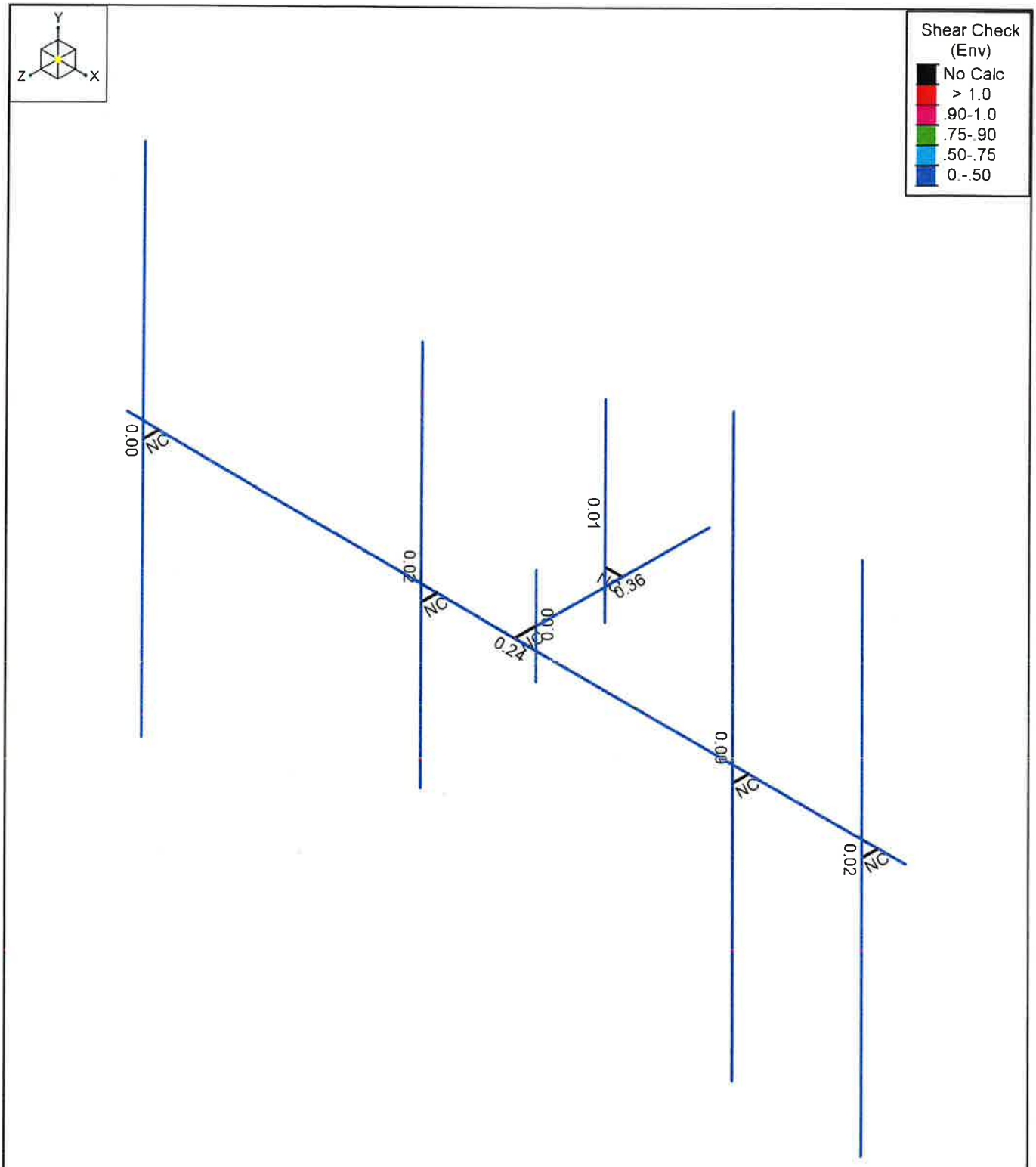
Envelope Only Solution

Colliers Engineering & Design	Mount ReAnalysis-VZW	SK-1
NL		Nov 22, 2023
21781039A (Rev. 3)		5000384712-VZW_MT_LOT_A_H....



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Colliers Engineering & Design	Mount ReAnalysis-VZW	SK-2
NL		Nov 22, 2023
21781039A (Rev. 3)		5000384712-VZW_MT_LOT_A_H...



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Colliers Engineering & Design	Mount ReAnalysis-VZW	SK-3
NL		Nov 22, 2023
21781039A (Rev. 3)		5000384712-VZW_MT_LOT_A_H....

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [k/ft^3]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
2	A53 Gr. B	29000	11154	0.3	0.65	0.49	35	1.5	60	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
5	A500 Gr. B 42	29000	11154	0.3	0.65	0.49	42	1.4	58	1.3
6	A500 Gr. B 46	29000	11154	0.3	0.65	0.49	46	1.4	58	1.3
7	A500 Gr C Round	29000	11154	0.3	0.65	0.49	46	1.5	62	1.2
8	A529 gr50	29000	11154	0.3	0.65	0.49	50	1.5	65	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in^2]	Iyy [in^4]	Izz [in^4]	J [in^4]
1	Mount Pipe	PIPE 2.0	Column	Pipe	A53 Gr. B	Typical	1.02	0.627	0.627	1.25
2	Face Horizontal	PIPE 3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
3	Standoff Horizontal	HSS4X4X4	Beam	SquareTube	A500 Gr. B 46	Typical	3.37	7.8	7.8	12.8
4	Standoff Mount Pipe	PIPE 4.0	Column	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
5	Tie Back	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	0.627	0.627	1.25
6	Proposed Pipe	PIPE 2.0X	Column	Pipe	A53 Gr. B	Typical	1.4	0.827	0.827	1.65

Member Primary Data

	Label	I Node	J Node	Section/Shape	Type	Design List	Material	Design Rule
1	M1	N2	N3	Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
2	M28	N46A	N50	RIGID	None	None	RIGID	Typical
3	MP1A	N52	N53	Mount Pipe	Column	Pipe	A53 Gr. B	Typical
4	M31A	N53A	N54A	RIGID	None	None	RIGID	Typical
5	M17A	N34A	N33A	Standoff Mount Pipe	Column	Pipe	A53 Gr. B	Typical
6	M18A	N54A	N35B	Standoff Horizontal	Beam	SquareTube	A500 Gr. B 46	Typical
7	M7	N12	N13	RIGID	None	None	RIGID	Typical
8	MP2A	N14	N15	Proposed Pipe	Column	Pipe	A53 Gr. B	Typical
9	M9	N16	N17	RIGID	None	None	RIGID	Typical
10	MP3A	N18	N19	Mount Pipe	Column	Pipe	A53 Gr. B	Typical
11	M11	N20	N21	RIGID	None	None	RIGID	Typical
12	MP4A	N22	N23	Mount Pipe	Column	Pipe	A53 Gr. B	Typical
13	M13	N26	N24	RIGID	None	None	RIGID	Typical
14	OVP	N30	N28	Mount Pipe	Column	Pipe	A53 Gr. B	Typical

Member Advanced Data

	Label	Physical	Deflection Ratio Options	Seismic DR
1	M1	Yes	N/A	None
2	M28	Yes	** NA **	None
3	MP1A	Yes	** NA **	None
4	M31A	Yes	** NA **	None
5	M17A	Yes	** NA **	None
6	M18A	Yes	Default	None
7	M7	Yes	** NA **	None
8	MP2A	Yes	** NA **	None
9	M9	Yes	** NA **	None
10	MP3A	Yes	** NA **	None
11	M11	Yes	** NA **	None
12	MP4A	Yes	** NA **	None
13	M13	Yes	** NA **	None
14	OVP	Yes	** NA **	None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [ft]	Lcomp top [ft]	Channel Conn.	a [ft]	Function
1	M1	Face Horizontal	12.083	Lbyy	N/A	N/A	Lateral
2	MP1A	Mount Pipe	8		N/A	N/A	Lateral
3	M17A	Standoff Mount Pipe	1.5		N/A	N/A	Lateral
4	M18A	Standoff Horizontal	2.667	Lbyy	N/A	N/A	Lateral
5	MP2A	Proposed Pipe	9		N/A	N/A	Lateral
6	MP3A	Mount Pipe	6		N/A	N/A	Lateral
7	MP4A	Mount Pipe	8		N/A	N/A	Lateral
8	OVP	Mount Pipe	3		N/A	N/A	Lateral

Design Size and Code Check Parameters

	Label	Max Axial/Bending Chk	Max Shear Chk
1	Typical	1	1

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.2D+1.0Wo (0 Deg)	Yes	Y	1	1.2	39	1.2	3	1	41	1								
2	1.2D+1.0Wo (30 Deg)	Yes	Y	1	1.2	39	1.2	4	1	42	1								
3	1.2D+1.0Wo (60 Deg)	Yes	Y	1	1.2	39	1.2	5	1	43	1								
4	1.2D+1.0Wo (90 Deg)	Yes	Y	1	1.2	39	1.2	6	1	44	1								
5	1.2D+1.0Wo (120 Deg)	Yes	Y	1	1.2	39	1.2	7	1	45	1								
6	1.2D+1.0Wo (150 Deg)	Yes	Y	1	1.2	39	1.2	8	1	46	1								
7	1.2D+1.0Wo (180 Deg)	Yes	Y	1	1.2	39	1.2	9	1	47	1								
8	1.2D+1.0Wo (210 Deg)	Yes	Y	1	1.2	39	1.2	10	1	48	1								
9	1.2D+1.0Wo (240 Deg)	Yes	Y	1	1.2	39	1.2	11	1	49	1								
10	1.2D+1.0Wo (270 Deg)	Yes	Y	1	1.2	39	1.2	12	1	50	1								
11	1.2D+1.0Wo (300 Deg)	Yes	Y	1	1.2	39	1.2	13	1	51	1								
12	1.2D+1.0Wo (330 Deg)	Yes	Y	1	1.2	39	1.2	14	1	52	1								
13	1.2D + 1.0Di + 1.0Wi (0 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	15	1	53	1				
14	1.2D + 1.0Di + 1.0Wi (30 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	16	1	54	1				
15	1.2D + 1.0Di + 1.0Wi (60 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	17	1	55	1				
16	1.2D + 1.0Di + 1.0Wi (90 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	18	1	56	1				
17	1.2D + 1.0Di + 1.0Wi (120 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	19	1	57	1				
18	1.2D + 1.0Di + 1.0Wi (150 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	20	1	58	1				
19	1.2D + 1.0Di + 1.0Wi (180 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	21	1	59	1				
20	1.2D + 1.0Di + 1.0Wi (210 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	22	1	60	1				
21	1.2D + 1.0Di + 1.0Wi (240 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	23	1	61	1				
22	1.2D + 1.0Di + 1.0Wi (270 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	24	1	62	1				
23	1.2D + 1.0Di + 1.0Wi (300 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	25	1	63	1				
24	1.2D + 1.0Di + 1.0Wi (330 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	26	1	64	1				
25	1.2D + 1.5Lm1 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	27	1	65	1						
26	1.2D + 1.5Lm1 + 1.0Wm (30 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	28	1	66	1						
27	1.2D + 1.5Lm1 + 1.0Wm (60 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	29	1	67	1						
28	1.2D + 1.5Lm1 + 1.0Wm (90 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	30	1	68	1						
29	1.2D + 1.5Lm1 + 1.0Wm (120 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	31	1	69	1						
30	1.2D + 1.5Lm1 + 1.0Wm (150 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	32	1	70	1						
31	1.2D + 1.5Lm1 + 1.0Wm (180 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	33	1	71	1						
32	1.2D + 1.5Lm1 + 1.0Wm (210 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	34	1	72	1						
33	1.2D + 1.5Lm1 + 1.0Wm (240 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	35	1	73	1						
34	1.2D + 1.5Lm1 + 1.0Wm (270 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	36	1	74	1						
35	1.2D + 1.5Lm1 + 1.0Wm (300 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	37	1	75	1						
36	1.2D + 1.5Lm1 + 1.0Wm (330 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	38	1	76	1						
37	1.2D + 1.5Lm2 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	27	1	65	1						

Load Combinations (Continued)

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

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed
1	Antenna D	None				27	
2	Antenna Di	None				27	
3	Antenna Wo (0 Deg)	None				27	
4	Antenna Wo (30 Deg)	None				27	
5	Antenna Wo (60 Deg)	None				27	
6	Antenna Wo (90 Deg)	None				27	
7	Antenna Wo (120 Deg)	None				27	
8	Antenna Wo (150 Deg)	None				27	
9	Antenna Wo (180 Deg)	None				27	
10	Antenna Wo (210 Deg)	None				27	
11	Antenna Wo (240 Deg)	None				27	
12	Antenna Wo (270 Deg)	None				27	
13	Antenna Wo (300 Deg)	None				27	
14	Antenna Wo (330 Deg)	None				27	

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed
15	Antenna Wi (0 Deg)	None				27	
16	Antenna Wi (30 Deg)	None				27	
17	Antenna Wi (60 Deg)	None				27	
18	Antenna Wi (90 Deg)	None				27	
19	Antenna Wi (120 Deg)	None				27	
20	Antenna Wi (150 Deg)	None				27	
21	Antenna Wi (180 Deg)	None				27	
22	Antenna Wi (210 Deg)	None				27	
23	Antenna Wi (240 Deg)	None				27	
24	Antenna Wi (270 Deg)	None				27	
25	Antenna Wi (300 Deg)	None				27	
26	Antenna Wi (330 Deg)	None				27	
27	Antenna Wm (0 Deg)	None				27	
28	Antenna Wm (30 Deg)	None				27	
29	Antenna Wm (60 Deg)	None				27	
30	Antenna Wm (90 Deg)	None				27	
31	Antenna Wm (120 Deg)	None				27	
32	Antenna Wm (150 Deg)	None				27	
33	Antenna Wm (180 Deg)	None				27	
34	Antenna Wm (210 Deg)	None				27	
35	Antenna Wm (240 Deg)	None				27	
36	Antenna Wm (270 Deg)	None				27	
37	Antenna Wm (300 Deg)	None				27	
38	Antenna Wm (330 Deg)	None				27	
39	Structure D	None		-1			
40	Structure Di	None					8
41	Structure Wo (0 Deg)	None					16
42	Structure Wo (30 Deg)	None					16
43	Structure Wo (60 Deg)	None					16
44	Structure Wo (90 Deg)	None					16
45	Structure Wo (120 Deg)	None					16
46	Structure Wo (150 Deg)	None					16
47	Structure Wo (180 Deg)	None					16
48	Structure Wo (210 Deg)	None					16
49	Structure Wo (240 Deg)	None					16
50	Structure Wo (270 Deg)	None					16
51	Structure Wo (300 Deg)	None					16
52	Structure Wo (330 Deg)	None					16
53	Structure Wi (0 Deg)	None					16
54	Structure Wi (30 Deg)	None					16
55	Structure Wi (60 Deg)	None					16
56	Structure Wi (90 Deg)	None					16
57	Structure Wi (120 Deg)	None					16
58	Structure Wi (150 Deg)	None					16
59	Structure Wi (180 Deg)	None					16
60	Structure Wi (210 Deg)	None					16
61	Structure Wi (240 Deg)	None					16
62	Structure Wi (270 Deg)	None					16
63	Structure Wi (300 Deg)	None					16
64	Structure Wi (330 Deg)	None					16
65	Structure Wm (0 Deg)	None					16
66	Structure Wm (30 Deg)	None					16
67	Structure Wm (60 Deg)	None					16
68	Structure Wm (90 Deg)	None					16
69	Structure Wm (120 Deg)	None					16

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed
70	Structure Wm (150 Deg)	None					16
71	Structure Wm (180 Deg)	None					16
72	Structure Wm (210 Deg)	None					16
73	Structure Wm (240 Deg)	None					16
74	Structure Wm (270 Deg)	None					16
75	Structure Wm (300 Deg)	None					16
76	Structure Wm (330 Deg)	None					16
77	Lm1	None				1	
78	Lm2	None				1	
79	Lv1	None				1	
80	Lv2	None				1	
81	Antenna Ev	None				27	
82	Antenna Eh (0 Deg)	None				18	
83	Antenna Eh (90 Deg)	None				18	
84	Structure Ev	ELY		-0.047			
85	Structure Eh (0 Deg)	ELZ			-0.117		
86	Structure Eh (90 Deg)	ELX	0.117				

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	Y	-38.5	0.75
2	MP2A	My	-0.019	0.75
3	MP2A	Mz	0.027	0.75
4	MP2A	Y	-38.5	8.25
5	MP2A	My	-0.019	8.25
6	MP2A	Mz	0.027	8.25
7	MP2A	Y	-38.5	0.75
8	MP2A	My	-0.019	0.75
9	MP2A	Mz	-0.027	0.75
10	MP2A	Y	-38.5	8.25
11	MP2A	My	-0.019	8.25
12	MP2A	Mz	-0.027	8.25
13	MP3A	Y	-28.65	2
14	MP3A	My	-0.014	2
15	MP3A	Mz	0	2
16	MP3A	Y	-28.65	4
17	MP3A	My	-0.014	4
18	MP3A	Mz	0	4
19	MP1A	Y	-84.4	2
20	MP1A	My	0.042	2
21	MP1A	Mz	0	2
22	MP2A	Y	-70.3	2
23	MP2A	My	0.035	2
24	MP2A	Mz	0	2
25	OVP	Y	-32	1
26	OVP	My	0	1
27	OVP	Mz	0	1

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	Y	-81.045	0.75
2	MP2A	My	-0.041	0.75
3	MP2A	Mz	0.057	0.75

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
4	MP2A	Y	-81.045	8.25
5	MP2A	My	-0.041	8.25
6	MP2A	Mz	0.057	8.25
7	MP2A	Y	-81.045	0.75
8	MP2A	My	-0.041	0.75
9	MP2A	Mz	-0.057	0.75
10	MP2A	Y	-81.045	8.25
11	MP2A	My	-0.041	8.25
12	MP2A	Mz	-0.057	8.25
13	MP3A	Y	-29.418	2
14	MP3A	My	-0.015	2
15	MP3A	Mz	0	2
16	MP3A	Y	-29.418	4
17	MP3A	My	-0.015	4
18	MP3A	Mz	0	4
19	MP1A	Y	-44.353	2
20	MP1A	My	0.022	2
21	MP1A	Mz	0	2
22	MP2A	Y	-39.883	2
23	MP2A	My	0.02	2
24	MP2A	Mz	0	2
25	OVP	Y	-86.874	1
26	OVP	My	0	1
27	OVP	Mz	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	0	0.75
2	MP2A	Z	-216.023	0.75
3	MP2A	Mx	-0.153	0.75
4	MP2A	X	0	8.25
5	MP2A	Z	-216.023	8.25
6	MP2A	Mx	-0.153	8.25
7	MP2A	X	0	0.75
8	MP2A	Z	-216.023	0.75
9	MP2A	Mx	0.153	0.75
10	MP2A	X	0	8.25
11	MP2A	Z	-216.023	8.25
12	MP2A	Mx	0.153	8.25
13	MP3A	X	0	2
14	MP3A	Z	-70.519	2
15	MP3A	Mx	0	2
16	MP3A	X	0	4
17	MP3A	Z	-70.519	4
18	MP3A	Mx	0	4
19	MP1A	X	0	2
20	MP1A	Z	-57.681	2
21	MP1A	Mx	0	2
22	MP2A	X	0	2
23	MP2A	Z	-57.681	2
24	MP2A	Mx	0	2
25	OVP	X	0	1
26	OVP	Z	-110.896	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	99.513	0.75
2	MP2A	Z	-172.362	0.75
3	MP2A	Mx	-0.172	0.75
4	MP2A	X	99.513	8.25
5	MP2A	Z	-172.362	8.25
6	MP2A	Mx	-0.172	8.25
7	MP2A	X	99.513	0.75
8	MP2A	Z	-172.362	0.75
9	MP2A	Mx	0.072	0.75
10	MP2A	X	99.513	8.25
11	MP2A	Z	-172.362	8.25
12	MP2A	Mx	0.072	8.25
13	MP3A	X	29.84	2
14	MP3A	Z	-51.684	2
15	MP3A	Mx	-0.015	2
16	MP3A	X	29.84	4
17	MP3A	Z	-51.684	4
18	MP3A	Mx	-0.015	4
19	MP1A	X	26.468	2
20	MP1A	Z	-45.844	2
21	MP1A	Mx	0.013	2
22	MP2A	X	25.584	2
23	MP2A	Z	-44.313	2
24	MP2A	Mx	0.013	2
25	OVP	X	48.377	1
26	OVP	Z	-83.792	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	142.923	0.75
2	MP2A	Z	-82.517	0.75
3	MP2A	Mx	-0.13	0.75
4	MP2A	X	142.923	8.25
5	MP2A	Z	-82.517	8.25
6	MP2A	Mx	-0.13	8.25
7	MP2A	X	142.923	0.75
8	MP2A	Z	-82.517	0.75
9	MP2A	Mx	-0.013	0.75
10	MP2A	X	142.923	8.25
11	MP2A	Z	-82.517	8.25
12	MP2A	Mx	-0.013	8.25
13	MP3A	X	32.909	2
14	MP3A	Z	-19	2
15	MP3A	Mx	-0.016	2
16	MP3A	X	32.909	4
17	MP3A	Z	-19	4
18	MP3A	Mx	-0.016	4
19	MP1A	X	37.626	2
20	MP1A	Z	-21.723	2
21	MP1A	Mx	0.019	2
22	MP2A	X	33.033	2
23	MP2A	Z	-19.072	2
24	MP2A	Mx	0.017	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
25	OVP	X	77.669	1
26	OVP	Z	-44.842	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	148.037	0.75
2	MP2A	Z	0	0.75
3	MP2A	Mx	-0.074	0.75
4	MP2A	X	148.037	8.25
5	MP2A	Z	0	8.25
6	MP2A	Mx	-0.074	8.25
7	MP2A	X	148.037	0.75
8	MP2A	Z	0	0.75
9	MP2A	Mx	-0.074	0.75
10	MP2A	X	148.037	8.25
11	MP2A	Z	0	8.25
12	MP2A	Mx	-0.074	8.25
13	MP3A	X	27.16	2
14	MP3A	Z	0	2
15	MP3A	Mx	-0.014	2
16	MP3A	X	27.16	4
17	MP3A	Z	0	4
18	MP3A	Mx	-0.014	4
19	MP1A	X	38.702	2
20	MP1A	Z	0	2
21	MP1A	Mx	0.019	2
22	MP2A	X	31.631	2
23	MP2A	Z	0	2
24	MP2A	Mx	0.016	2
25	OVP	X	96.755	1
26	OVP	Z	0	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	142.923	0.75
2	MP2A	Z	82.517	0.75
3	MP2A	Mx	-0.013	0.75
4	MP2A	X	142.923	8.25
5	MP2A	Z	82.517	8.25
6	MP2A	Mx	-0.013	8.25
7	MP2A	X	142.923	0.75
8	MP2A	Z	82.517	0.75
9	MP2A	Mx	-0.13	0.75
10	MP2A	X	142.923	8.25
11	MP2A	Z	82.517	8.25
12	MP2A	Mx	-0.13	8.25
13	MP3A	X	32.909	2
14	MP3A	Z	19	2
15	MP3A	Mx	-0.016	2
16	MP3A	X	32.909	4
17	MP3A	Z	19	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
18	MP3A	Mx	-0.016	4
19	MP1A	X	37.626	2
20	MP1A	Z	21.723	2
21	MP1A	Mx	0.019	2
22	MP2A	X	33.033	2
23	MP2A	Z	19.072	2
24	MP2A	Mx	0.017	2
25	OVP	X	96.038	1
26	OVP	Z	55.448	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	99.513	0.75
2	MP2A	Z	172.362	0.75
3	MP2A	Mx	0.072	0.75
4	MP2A	X	99.513	8.25
5	MP2A	Z	172.362	8.25
6	MP2A	Mx	0.072	8.25
7	MP2A	X	99.513	0.75
8	MP2A	Z	172.362	0.75
9	MP2A	Mx	-0.172	0.75
10	MP2A	X	99.513	8.25
11	MP2A	Z	172.362	8.25
12	MP2A	Mx	-0.172	8.25
13	MP3A	X	29.84	2
14	MP3A	Z	51.684	2
15	MP3A	Mx	-0.015	2
16	MP3A	X	29.84	4
17	MP3A	Z	51.684	4
18	MP3A	Mx	-0.015	4
19	MP1A	X	26.468	2
20	MP1A	Z	45.844	2
21	MP1A	Mx	0.013	2
22	MP2A	X	25.584	2
23	MP2A	Z	44.313	2
24	MP2A	Mx	0.013	2
25	OVP	X	58.983	1
26	OVP	Z	102.162	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	0	0.75
2	MP2A	Z	216.023	0.75
3	MP2A	Mx	0.153	0.75
4	MP2A	X	0	8.25
5	MP2A	Z	216.023	8.25
6	MP2A	Mx	0.153	8.25
7	MP2A	X	0	0.75
8	MP2A	Z	216.023	0.75
9	MP2A	Mx	-0.153	0.75
10	MP2A	X	0	8.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
11	MP2A	Z	216.023	8.25
12	MP2A	Mx	-0.153	8.25
13	MP3A	X	0	2
14	MP3A	Z	70.519	2
15	MP3A	Mx	0	2
16	MP3A	X	0	4
17	MP3A	Z	70.519	4
18	MP3A	Mx	0	4
19	MP1A	X	0	2
20	MP1A	Z	57.681	2
21	MP1A	Mx	0	2
22	MP2A	X	0	2
23	MP2A	Z	57.681	2
24	MP2A	Mx	0	2
25	OVP	X	0	1
26	OVP	Z	110.896	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-99.513	0.75
2	MP2A	Z	172.362	0.75
3	MP2A	Mx	0.172	0.75
4	MP2A	X	-99.513	8.25
5	MP2A	Z	172.362	8.25
6	MP2A	Mx	0.172	8.25
7	MP2A	X	-99.513	0.75
8	MP2A	Z	172.362	0.75
9	MP2A	Mx	-0.072	0.75
10	MP2A	X	-99.513	8.25
11	MP2A	Z	172.362	8.25
12	MP2A	Mx	-0.072	8.25
13	MP3A	X	-29.84	2
14	MP3A	Z	51.684	2
15	MP3A	Mx	0.015	2
16	MP3A	X	-29.84	4
17	MP3A	Z	51.684	4
18	MP3A	Mx	0.015	4
19	MP1A	X	-26.468	2
20	MP1A	Z	45.844	2
21	MP1A	Mx	-0.013	2
22	MP2A	X	-25.584	2
23	MP2A	Z	44.313	2
24	MP2A	Mx	-0.013	2
25	OVP	X	-48.377	1
26	OVP	Z	83.792	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-142.923	0.75
2	MP2A	Z	82.517	0.75
3	MP2A	Mx	0.13	0.75

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
4	MP2A	X	-142.923	8.25
5	MP2A	Z	82.517	8.25
6	MP2A	Mx	0.13	8.25
7	MP2A	X	-142.923	0.75
8	MP2A	Z	82.517	0.75
9	MP2A	Mx	0.013	0.75
10	MP2A	X	-142.923	8.25
11	MP2A	Z	82.517	8.25
12	MP2A	Mx	0.013	8.25
13	MP3A	X	-32.909	2
14	MP3A	Z	19	2
15	MP3A	Mx	0.016	2
16	MP3A	X	-32.909	4
17	MP3A	Z	19	4
18	MP3A	Mx	0.016	4
19	MP1A	X	-37.626	2
20	MP1A	Z	21.723	2
21	MP1A	Mx	-0.019	2
22	MP2A	X	-33.033	2
23	MP2A	Z	19.072	2
24	MP2A	Mx	-0.017	2
25	OVP	X	-77.669	1
26	OVP	Z	44.842	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-148.037	0.75
2	MP2A	Z	0	0.75
3	MP2A	Mx	0.074	0.75
4	MP2A	X	-148.037	8.25
5	MP2A	Z	0	8.25
6	MP2A	Mx	0.074	8.25
7	MP2A	X	-148.037	0.75
8	MP2A	Z	0	0.75
9	MP2A	Mx	0.074	0.75
10	MP2A	X	-148.037	8.25
11	MP2A	Z	0	8.25
12	MP2A	Mx	0.074	8.25
13	MP3A	X	-27.16	2
14	MP3A	Z	0	2
15	MP3A	Mx	0.014	2
16	MP3A	X	-27.16	4
17	MP3A	Z	0	4
18	MP3A	Mx	0.014	4
19	MP1A	X	-38.702	2
20	MP1A	Z	0	2
21	MP1A	Mx	-0.019	2
22	MP2A	X	-31.631	2
23	MP2A	Z	0	2
24	MP2A	Mx	-0.016	2
25	OVP	X	-96.755	1
26	OVP	Z	0	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-142.923	0.75
2	MP2A	Z	-82.517	0.75
3	MP2A	Mx	0.013	0.75
4	MP2A	X	-142.923	8.25
5	MP2A	Z	-82.517	8.25
6	MP2A	Mx	0.013	8.25
7	MP2A	X	-142.923	0.75
8	MP2A	Z	-82.517	0.75
9	MP2A	Mx	0.13	0.75
10	MP2A	X	-142.923	8.25
11	MP2A	Z	-82.517	8.25
12	MP2A	Mx	0.13	8.25
13	MP3A	X	-32.909	2
14	MP3A	Z	-19	2
15	MP3A	Mx	0.016	2
16	MP3A	X	-32.909	4
17	MP3A	Z	-19	4
18	MP3A	Mx	0.016	4
19	MP1A	X	-37.626	2
20	MP1A	Z	-21.723	2
21	MP1A	Mx	-0.019	2
22	MP2A	X	-33.033	2
23	MP2A	Z	-19.072	2
24	MP2A	Mx	-0.017	2
25	OVP	X	-96.038	1
26	OVP	Z	-55.448	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-99.513	0.75
2	MP2A	Z	-172.362	0.75
3	MP2A	Mx	-0.072	0.75
4	MP2A	X	-99.513	8.25
5	MP2A	Z	-172.362	8.25
6	MP2A	Mx	-0.072	8.25
7	MP2A	X	-99.513	0.75
8	MP2A	Z	-172.362	0.75
9	MP2A	Mx	0.172	0.75
10	MP2A	X	-99.513	8.25
11	MP2A	Z	-172.362	8.25
12	MP2A	Mx	0.172	8.25
13	MP3A	X	-29.84	2
14	MP3A	Z	-51.684	2
15	MP3A	Mx	0.015	2
16	MP3A	X	-29.84	4
17	MP3A	Z	-51.684	4
18	MP3A	Mx	0.015	4
19	MP1A	X	-26.468	2
20	MP1A	Z	-45.844	2
21	MP1A	Mx	-0.013	2
22	MP2A	X	-25.584	2
23	MP2A	Z	-44.313	2
24	MP2A	Mx	-0.013	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
25	OVP	X	-58.983	1
26	OVP	Z	-102.162	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	0	0.75
2	MP2A	Z	-44.623	0.75
3	MP2A	Mx	-0.032	0.75
4	MP2A	X	0	8.25
5	MP2A	Z	-44.623	8.25
6	MP2A	Mx	-0.032	8.25
7	MP2A	X	0	0.75
8	MP2A	Z	-44.623	0.75
9	MP2A	Mx	0.032	0.75
10	MP2A	X	0	8.25
11	MP2A	Z	-44.623	8.25
12	MP2A	Mx	0.032	8.25
13	MP3A	X	0	2
14	MP3A	Z	-15.218	2
15	MP3A	Mx	0	2
16	MP3A	X	0	4
17	MP3A	Z	-15.218	4
18	MP3A	Mx	0	4
19	MP1A	X	0	2
20	MP1A	Z	-15.71	2
21	MP1A	Mx	0	2
22	MP2A	X	0	2
23	MP2A	Z	-15.71	2
24	MP2A	Mx	0	2
25	OVP	X	0	1
26	OVP	Z	-30.542	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	20.669	0.75
2	MP2A	Z	-35.8	0.75
3	MP2A	Mx	-0.036	0.75
4	MP2A	X	20.669	8.25
5	MP2A	Z	-35.8	8.25
6	MP2A	Mx	-0.036	8.25
7	MP2A	X	20.669	0.75
8	MP2A	Z	-35.8	0.75
9	MP2A	Mx	0.015	0.75
10	MP2A	X	20.669	8.25
11	MP2A	Z	-35.8	8.25
12	MP2A	Mx	0.015	8.25
13	MP3A	X	6.509	2
14	MP3A	Z	-11.274	2
15	MP3A	Mx	-0.003	2
16	MP3A	X	6.509	4
17	MP3A	Z	-11.274	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
18	MP3A	Mx	-0.003	4
19	MP1A	X	7.257	2
20	MP1A	Z	-12.569	2
21	MP1A	Mx	0.004	2
22	MP2A	X	7.029	2
23	MP2A	Z	-12.175	2
24	MP2A	Mx	0.004	2
25	OVP	X	13.509	1
26	OVP	Z	-23.398	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	30.112	0.75
2	MP2A	Z	-17.385	0.75
3	MP2A	Mx	-0.027	0.75
4	MP2A	X	30.112	8.25
5	MP2A	Z	-17.385	8.25
6	MP2A	Mx	-0.027	8.25
7	MP2A	X	30.112	0.75
8	MP2A	Z	-17.385	0.75
9	MP2A	Mx	-0.003	0.75
10	MP2A	X	30.112	8.25
11	MP2A	Z	-17.385	8.25
12	MP2A	Mx	-0.003	8.25
13	MP3A	X	7.464	2
14	MP3A	Z	-4.31	2
15	MP3A	Mx	-0.004	2
16	MP3A	X	7.464	4
17	MP3A	Z	-4.31	4
18	MP3A	Mx	-0.004	4
19	MP1A	X	10.496	2
20	MP1A	Z	-6.06	2
21	MP1A	Mx	0.005	2
22	MP2A	X	9.315	2
23	MP2A	Z	-5.378	2
24	MP2A	Mx	0.005	2
25	OVP	X	21.871	1
26	OVP	Z	-12.627	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	31.486	0.75
2	MP2A	Z	0	0.75
3	MP2A	Mx	-0.016	0.75
4	MP2A	X	31.486	8.25
5	MP2A	Z	0	8.25
6	MP2A	Mx	-0.016	8.25
7	MP2A	X	31.486	0.75
8	MP2A	Z	0	0.75
9	MP2A	Mx	-0.016	0.75
10	MP2A	X	31.486	8.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
11	MP2A	Z	0	8.25
12	MP2A	Mx	-0.016	8.25
13	MP3A	X	6.419	2
14	MP3A	Z	0	2
15	MP3A	Mx	-0.003	2
16	MP3A	X	6.419	4
17	MP3A	Z	0	4
18	MP3A	Mx	-0.003	4
19	MP1A	X	10.923	2
20	MP1A	Z	0	2
21	MP1A	Mx	0.005	2
22	MP2A	X	9.104	2
23	MP2A	Z	0	2
24	MP2A	Mx	0.005	2
25	OVP	X	27.017	1
26	OVP	Z	0	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	30.112	0.75
2	MP2A	Z	17.385	0.75
3	MP2A	Mx	-0.003	0.75
4	MP2A	X	30.112	8.25
5	MP2A	Z	17.385	8.25
6	MP2A	Mx	-0.003	8.25
7	MP2A	X	30.112	0.75
8	MP2A	Z	17.385	0.75
9	MP2A	Mx	-0.027	0.75
10	MP2A	X	30.112	8.25
11	MP2A	Z	17.385	8.25
12	MP2A	Mx	-0.027	8.25
13	MP3A	X	7.464	2
14	MP3A	Z	4.31	2
15	MP3A	Mx	-0.004	2
16	MP3A	X	7.464	4
17	MP3A	Z	4.31	4
18	MP3A	Mx	-0.004	4
19	MP1A	X	10.496	2
20	MP1A	Z	6.06	2
21	MP1A	Mx	0.005	2
22	MP2A	X	9.315	2
23	MP2A	Z	5.378	2
24	MP2A	Mx	0.005	2
25	OVP	X	26.45	1
26	OVP	Z	15.271	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	20.669	0.75
2	MP2A	Z	35.8	0.75
3	MP2A	Mx	0.015	0.75

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
4	MP2A	X	20.669	8.25
5	MP2A	Z	35.8	8.25
6	MP2A	Mx	0.015	8.25
7	MP2A	X	20.669	0.75
8	MP2A	Z	35.8	0.75
9	MP2A	Mx	-0.036	0.75
10	MP2A	X	20.669	8.25
11	MP2A	Z	35.8	8.25
12	MP2A	Mx	-0.036	8.25
13	MP3A	X	6.509	2
14	MP3A	Z	11.274	2
15	MP3A	Mx	-0.003	2
16	MP3A	X	6.509	4
17	MP3A	Z	11.274	4
18	MP3A	Mx	-0.003	4
19	MP1A	X	7.257	2
20	MP1A	Z	12.569	2
21	MP1A	Mx	0.004	2
22	MP2A	X	7.029	2
23	MP2A	Z	12.175	2
24	MP2A	Mx	0.004	2
25	OVP	X	16.152	1
26	OVP	Z	27.976	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	0	0.75
2	MP2A	Z	44.623	0.75
3	MP2A	Mx	0.032	0.75
4	MP2A	X	0	8.25
5	MP2A	Z	44.623	8.25
6	MP2A	Mx	0.032	8.25
7	MP2A	X	0	0.75
8	MP2A	Z	44.623	0.75
9	MP2A	Mx	-0.032	0.75
10	MP2A	X	0	8.25
11	MP2A	Z	44.623	8.25
12	MP2A	Mx	-0.032	8.25
13	MP3A	X	0	2
14	MP3A	Z	15.218	2
15	MP3A	Mx	0	2
16	MP3A	X	0	4
17	MP3A	Z	15.218	4
18	MP3A	Mx	0	4
19	MP1A	X	0	2
20	MP1A	Z	15.71	2
21	MP1A	Mx	0	2
22	MP2A	X	0	2
23	MP2A	Z	15.71	2
24	MP2A	Mx	0	2
25	OVP	X	0	1
26	OVP	Z	30.542	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-20.669	0.75
2	MP2A	Z	35.8	0.75
3	MP2A	Mx	0.036	0.75
4	MP2A	X	-20.669	8.25
5	MP2A	Z	35.8	8.25
6	MP2A	Mx	0.036	8.25
7	MP2A	X	-20.669	0.75
8	MP2A	Z	35.8	0.75
9	MP2A	Mx	-0.015	0.75
10	MP2A	X	-20.669	8.25
11	MP2A	Z	35.8	8.25
12	MP2A	Mx	-0.015	8.25
13	MP3A	X	-6.509	2
14	MP3A	Z	11.274	2
15	MP3A	Mx	0.003	2
16	MP3A	X	-6.509	4
17	MP3A	Z	11.274	4
18	MP3A	Mx	0.003	4
19	MP1A	X	-7.257	2
20	MP1A	Z	12.569	2
21	MP1A	Mx	-0.004	2
22	MP2A	X	-7.029	2
23	MP2A	Z	12.175	2
24	MP2A	Mx	-0.004	2
25	OVP	X	-13.509	1
26	OVP	Z	23.398	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-30.112	0.75
2	MP2A	Z	17.385	0.75
3	MP2A	Mx	0.027	0.75
4	MP2A	X	-30.112	8.25
5	MP2A	Z	17.385	8.25
6	MP2A	Mx	0.027	8.25
7	MP2A	X	-30.112	0.75
8	MP2A	Z	17.385	0.75
9	MP2A	Mx	0.003	0.75
10	MP2A	X	-30.112	8.25
11	MP2A	Z	17.385	8.25
12	MP2A	Mx	0.003	8.25
13	MP3A	X	-7.464	2
14	MP3A	Z	4.31	2
15	MP3A	Mx	0.004	2
16	MP3A	X	-7.464	4
17	MP3A	Z	4.31	4
18	MP3A	Mx	0.004	4
19	MP1A	X	-10.496	2
20	MP1A	Z	6.06	2
21	MP1A	Mx	-0.005	2
22	MP2A	X	-9.315	2
23	MP2A	Z	5.378	2
24	MP2A	Mx	-0.005	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
25	OVP	X	-21.871	1
26	OVP	Z	12.627	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-31.486	0.75
2	MP2A	Z	0	0.75
3	MP2A	Mx	0.016	0.75
4	MP2A	X	-31.486	8.25
5	MP2A	Z	0	8.25
6	MP2A	Mx	0.016	8.25
7	MP2A	X	-31.486	0.75
8	MP2A	Z	0	0.75
9	MP2A	Mx	0.016	0.75
10	MP2A	X	-31.486	8.25
11	MP2A	Z	0	8.25
12	MP2A	Mx	0.016	8.25
13	MP3A	X	-6.419	2
14	MP3A	Z	0	2
15	MP3A	Mx	0.003	2
16	MP3A	X	-6.419	4
17	MP3A	Z	0	4
18	MP3A	Mx	0.003	4
19	MP1A	X	-10.923	2
20	MP1A	Z	0	2
21	MP1A	Mx	-0.005	2
22	MP2A	X	-9.104	2
23	MP2A	Z	0	2
24	MP2A	Mx	-0.005	2
25	OVP	X	-27.017	1
26	OVP	Z	0	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-30.112	0.75
2	MP2A	Z	-17.385	0.75
3	MP2A	Mx	0.003	0.75
4	MP2A	X	-30.112	8.25
5	MP2A	Z	-17.385	8.25
6	MP2A	Mx	0.003	8.25
7	MP2A	X	-30.112	0.75
8	MP2A	Z	-17.385	0.75
9	MP2A	Mx	0.027	0.75
10	MP2A	X	-30.112	8.25
11	MP2A	Z	-17.385	8.25
12	MP2A	Mx	0.027	8.25
13	MP3A	X	-7.464	2
14	MP3A	Z	-4.31	2
15	MP3A	Mx	0.004	2
16	MP3A	X	-7.464	4
17	MP3A	Z	-4.31	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
18	MP3A	Mx	0.004	4
19	MP1A	X	-10.496	2
20	MP1A	Z	-6.06	2
21	MP1A	Mx	-0.005	2
22	MP2A	X	-9.315	2
23	MP2A	Z	-5.378	2
24	MP2A	Mx	-0.005	2
25	OVP	X	-26.45	1
26	OVP	Z	-15.271	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-20.669	0.75
2	MP2A	Z	-35.8	0.75
3	MP2A	Mx	-0.015	0.75
4	MP2A	X	-20.669	8.25
5	MP2A	Z	-35.8	8.25
6	MP2A	Mx	-0.015	8.25
7	MP2A	X	-20.669	0.75
8	MP2A	Z	-35.8	0.75
9	MP2A	Mx	0.036	0.75
10	MP2A	X	-20.669	8.25
11	MP2A	Z	-35.8	8.25
12	MP2A	Mx	0.036	8.25
13	MP3A	X	-6.509	2
14	MP3A	Z	-11.274	2
15	MP3A	Mx	0.003	2
16	MP3A	X	-6.509	4
17	MP3A	Z	-11.274	4
18	MP3A	Mx	0.003	4
19	MP1A	X	-7.257	2
20	MP1A	Z	-12.569	2
21	MP1A	Mx	-0.004	2
22	MP2A	X	-7.029	2
23	MP2A	Z	-12.175	2
24	MP2A	Mx	-0.004	2
25	OVP	X	-16.152	1
26	OVP	Z	-27.976	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	0	0.75
2	MP2A	Z	-14.701	0.75
3	MP2A	Mx	-0.01	0.75
4	MP2A	X	0	8.25
5	MP2A	Z	-14.701	8.25
6	MP2A	Mx	-0.01	8.25
7	MP2A	X	0	0.75
8	MP2A	Z	-14.701	0.75
9	MP2A	Mx	0.01	0.75
10	MP2A	X	0	8.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
11	MP2A	Z	-14.701	8.25
12	MP2A	Mx	0.01	8.25
13	MP3A	X	0	2
14	MP3A	Z	-4.799	2
15	MP3A	Mx	0	2
16	MP3A	X	0	4
17	MP3A	Z	-4.799	4
18	MP3A	Mx	0	4
19	MP1A	X	0	2
20	MP1A	Z	-3.925	2
21	MP1A	Mx	0	2
22	MP2A	X	0	2
23	MP2A	Z	-3.925	2
24	MP2A	Mx	0	2
25	OVP	X	0	1
26	OVP	Z	-7.547	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	6.772	0.75
2	MP2A	Z	-11.73	0.75
3	MP2A	Mx	-0.012	0.75
4	MP2A	X	6.772	8.25
5	MP2A	Z	-11.73	8.25
6	MP2A	Mx	-0.012	8.25
7	MP2A	X	6.772	0.75
8	MP2A	Z	-11.73	0.75
9	MP2A	Mx	0.005	0.75
10	MP2A	X	6.772	8.25
11	MP2A	Z	-11.73	8.25
12	MP2A	Mx	0.005	8.25
13	MP3A	X	2.031	2
14	MP3A	Z	-3.517	2
15	MP3A	Mx	-0.001	2
16	MP3A	X	2.031	4
17	MP3A	Z	-3.517	4
18	MP3A	Mx	-0.001	4
19	MP1A	X	1.801	2
20	MP1A	Z	-3.12	2
21	MP1A	Mx	0.0009	2
22	MP2A	X	1.741	2
23	MP2A	Z	-3.016	2
24	MP2A	Mx	0.000871	2
25	OVP	X	3.292	1
26	OVP	Z	-5.702	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	9.726	0.75
2	MP2A	Z	-5.616	0.75
3	MP2A	Mx	-0.009	0.75

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
4	MP2A	X	9.726	8.25
5	MP2A	Z	-5.616	8.25
6	MP2A	Mx	-0.009	8.25
7	MP2A	X	9.726	0.75
8	MP2A	Z	-5.616	0.75
9	MP2A	Mx	-0.000885	0.75
10	MP2A	X	9.726	8.25
11	MP2A	Z	-5.616	8.25
12	MP2A	Mx	-0.000885	8.25
13	MP3A	X	2.24	2
14	MP3A	Z	-1.293	2
15	MP3A	Mx	-0.001	2
16	MP3A	X	2.24	4
17	MP3A	Z	-1.293	4
18	MP3A	Mx	-0.001	4
19	MP1A	X	2.561	2
20	MP1A	Z	-1.478	2
21	MP1A	Mx	0.001	2
22	MP2A	X	2.248	2
23	MP2A	Z	-1.298	2
24	MP2A	Mx	0.001	2
25	OVP	X	5.286	1
26	OVP	Z	-3.052	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	10.074	0.75
2	MP2A	Z	0	0.75
3	MP2A	Mx	-0.005	0.75
4	MP2A	X	10.074	8.25
5	MP2A	Z	0	8.25
6	MP2A	Mx	-0.005	8.25
7	MP2A	X	10.074	0.75
8	MP2A	Z	0	0.75
9	MP2A	Mx	-0.005	0.75
10	MP2A	X	10.074	8.25
11	MP2A	Z	0	8.25
12	MP2A	Mx	-0.005	8.25
13	MP3A	X	1.848	2
14	MP3A	Z	0	2
15	MP3A	Mx	-0.000924	2
16	MP3A	X	1.848	4
17	MP3A	Z	0	4
18	MP3A	Mx	-0.000924	4
19	MP1A	X	2.634	2
20	MP1A	Z	0	2
21	MP1A	Mx	0.001	2
22	MP2A	X	2.153	2
23	MP2A	Z	0	2
24	MP2A	Mx	0.001	2
25	OVP	X	6.584	1
26	OVP	Z	0	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	9.726	0.75
2	MP2A	Z	5.616	0.75
3	MP2A	Mx	-0.000885	0.75
4	MP2A	X	9.726	8.25
5	MP2A	Z	5.616	8.25
6	MP2A	Mx	-0.000885	8.25
7	MP2A	X	9.726	0.75
8	MP2A	Z	5.616	0.75
9	MP2A	Mx	-0.009	0.75
10	MP2A	X	9.726	8.25
11	MP2A	Z	5.616	8.25
12	MP2A	Mx	-0.009	8.25
13	MP3A	X	2.24	2
14	MP3A	Z	1.293	2
15	MP3A	Mx	-0.001	2
16	MP3A	X	2.24	4
17	MP3A	Z	1.293	4
18	MP3A	Mx	-0.001	4
19	MP1A	X	2.561	2
20	MP1A	Z	1.478	2
21	MP1A	Mx	0.001	2
22	MP2A	X	2.248	2
23	MP2A	Z	1.298	2
24	MP2A	Mx	0.001	2
25	OVP	X	6.536	1
26	OVP	Z	3.773	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	6.772	0.75
2	MP2A	Z	11.73	0.75
3	MP2A	Mx	0.005	0.75
4	MP2A	X	6.772	8.25
5	MP2A	Z	11.73	8.25
6	MP2A	Mx	0.005	8.25
7	MP2A	X	6.772	0.75
8	MP2A	Z	11.73	0.75
9	MP2A	Mx	-0.012	0.75
10	MP2A	X	6.772	8.25
11	MP2A	Z	11.73	8.25
12	MP2A	Mx	-0.012	8.25
13	MP3A	X	2.031	2
14	MP3A	Z	3.517	2
15	MP3A	Mx	-0.001	2
16	MP3A	X	2.031	4
17	MP3A	Z	3.517	4
18	MP3A	Mx	-0.001	4
19	MP1A	X	1.801	2
20	MP1A	Z	3.12	2
21	MP1A	Mx	0.0009	2
22	MP2A	X	1.741	2
23	MP2A	Z	3.016	2
24	MP2A	Mx	0.000871	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
25	OVP	X	4.014	1
26	OVP	Z	6.952	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	0	0.75
2	MP2A	Z	14.701	0.75
3	MP2A	Mx	0.01	0.75
4	MP2A	X	0	8.25
5	MP2A	Z	14.701	8.25
6	MP2A	Mx	0.01	8.25
7	MP2A	X	0	0.75
8	MP2A	Z	14.701	0.75
9	MP2A	Mx	-0.01	0.75
10	MP2A	X	0	8.25
11	MP2A	Z	14.701	8.25
12	MP2A	Mx	-0.01	8.25
13	MP3A	X	0	2
14	MP3A	Z	4.799	2
15	MP3A	Mx	0	2
16	MP3A	X	0	4
17	MP3A	Z	4.799	4
18	MP3A	Mx	0	4
19	MP1A	X	0	2
20	MP1A	Z	3.925	2
21	MP1A	Mx	0	2
22	MP2A	X	0	2
23	MP2A	Z	3.925	2
24	MP2A	Mx	0	2
25	OVP	X	0	1
26	OVP	Z	7.547	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-6.772	0.75
2	MP2A	Z	11.73	0.75
3	MP2A	Mx	0.012	0.75
4	MP2A	X	-6.772	8.25
5	MP2A	Z	11.73	8.25
6	MP2A	Mx	0.012	8.25
7	MP2A	X	-6.772	0.75
8	MP2A	Z	11.73	0.75
9	MP2A	Mx	-0.005	0.75
10	MP2A	X	-6.772	8.25
11	MP2A	Z	11.73	8.25
12	MP2A	Mx	-0.005	8.25
13	MP3A	X	-2.031	2
14	MP3A	Z	3.517	2
15	MP3A	Mx	0.001	2
16	MP3A	X	-2.031	4
17	MP3A	Z	3.517	4

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
18	MP3A	Mx	0.001	4
19	MP1A	X	-1.801	2
20	MP1A	Z	3.12	2
21	MP1A	Mx	-0.0009	2
22	MP2A	X	-1.741	2
23	MP2A	Z	3.016	2
24	MP2A	Mx	-0.000871	2
25	OVP	X	-3.292	1
26	OVP	Z	5.702	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-9.726	0.75
2	MP2A	Z	5.616	0.75
3	MP2A	Mx	0.009	0.75
4	MP2A	X	-9.726	8.25
5	MP2A	Z	5.616	8.25
6	MP2A	Mx	0.009	8.25
7	MP2A	X	-9.726	0.75
8	MP2A	Z	5.616	0.75
9	MP2A	Mx	0.000885	0.75
10	MP2A	X	-9.726	8.25
11	MP2A	Z	5.616	8.25
12	MP2A	Mx	0.000885	8.25
13	MP3A	X	-2.24	2
14	MP3A	Z	1.293	2
15	MP3A	Mx	0.001	2
16	MP3A	X	-2.24	4
17	MP3A	Z	1.293	4
18	MP3A	Mx	0.001	4
19	MP1A	X	-2.561	2
20	MP1A	Z	1.478	2
21	MP1A	Mx	-0.001	2
22	MP2A	X	-2.248	2
23	MP2A	Z	1.298	2
24	MP2A	Mx	-0.001	2
25	OVP	X	-5.286	1
26	OVP	Z	3.052	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-10.074	0.75
2	MP2A	Z	0	0.75
3	MP2A	Mx	0.005	0.75
4	MP2A	X	-10.074	8.25
5	MP2A	Z	0	8.25
6	MP2A	Mx	0.005	8.25
7	MP2A	X	-10.074	0.75
8	MP2A	Z	0	0.75
9	MP2A	Mx	0.005	0.75
10	MP2A	X	-10.074	8.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
11	MP2A	Z	0	8.25
12	MP2A	Mx	0.005	8.25
13	MP3A	X	-1.848	2
14	MP3A	Z	0	2
15	MP3A	Mx	0.000924	2
16	MP3A	X	-1.848	4
17	MP3A	Z	0	4
18	MP3A	Mx	0.000924	4
19	MP1A	X	-2.634	2
20	MP1A	Z	0	2
21	MP1A	Mx	-0.001	2
22	MP2A	X	-2.153	2
23	MP2A	Z	0	2
24	MP2A	Mx	-0.001	2
25	OVP	X	-6.584	1
26	OVP	Z	0	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-9.726	0.75
2	MP2A	Z	-5.616	0.75
3	MP2A	Mx	0.000885	0.75
4	MP2A	X	-9.726	8.25
5	MP2A	Z	-5.616	8.25
6	MP2A	Mx	0.000885	8.25
7	MP2A	X	-9.726	0.75
8	MP2A	Z	-5.616	0.75
9	MP2A	Mx	0.009	0.75
10	MP2A	X	-9.726	8.25
11	MP2A	Z	-5.616	8.25
12	MP2A	Mx	0.009	8.25
13	MP3A	X	-2.24	2
14	MP3A	Z	-1.293	2
15	MP3A	Mx	0.001	2
16	MP3A	X	-2.24	4
17	MP3A	Z	-1.293	4
18	MP3A	Mx	0.001	4
19	MP1A	X	-2.561	2
20	MP1A	Z	-1.478	2
21	MP1A	Mx	-0.001	2
22	MP2A	X	-2.248	2
23	MP2A	Z	-1.298	2
24	MP2A	Mx	-0.001	2
25	OVP	X	-6.536	1
26	OVP	Z	-3.773	1
27	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	-6.772	0.75
2	MP2A	Z	-11.73	0.75
3	MP2A	Mx	-0.005	0.75

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
4	MP2A	X	-6.772	8.25
5	MP2A	Z	-11.73	8.25
6	MP2A	Mx	-0.005	8.25
7	MP2A	X	-6.772	0.75
8	MP2A	Z	-11.73	0.75
9	MP2A	Mx	0.012	0.75
10	MP2A	X	-6.772	8.25
11	MP2A	Z	-11.73	8.25
12	MP2A	Mx	0.012	8.25
13	MP3A	X	-2.031	2
14	MP3A	Z	-3.517	2
15	MP3A	Mx	0.001	2
16	MP3A	X	-2.031	4
17	MP3A	Z	-3.517	4
18	MP3A	Mx	0.001	4
19	MP1A	X	-1.801	2
20	MP1A	Z	-3.12	2
21	MP1A	Mx	-0.0009	2
22	MP2A	X	-1.741	2
23	MP2A	Z	-3.016	2
24	MP2A	Mx	-0.000871	2
25	OVP	X	-4.014	1
26	OVP	Z	-6.952	1
27	OVP	Mx	0	1

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M9	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M7	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M1	Y	-250	%100

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	-1.807	0.75
2	MP2A	My	-0.000903	0.75
3	MP2A	Mz	0.001	0.75
4	MP2A	Y	-1.807	8.25
5	MP2A	My	-0.000903	8.25
6	MP2A	Mz	0.001	8.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
7	MP2A	Y	-1.807	0.75
8	MP2A	My	-0.000903	0.75
9	MP2A	Mz	-0.001	0.75
10	MP2A	Y	-1.807	8.25
11	MP2A	My	-0.000903	8.25
12	MP2A	Mz	-0.001	8.25
13	MP3A	Y	-1.345	2
14	MP3A	My	-0.000672	2
15	MP3A	Mz	0	2
16	MP3A	Y	-1.345	4
17	MP3A	My	-0.000672	4
18	MP3A	Mz	0	4
19	MP1A	Y	-3.961	2
20	MP1A	My	0.002	2
21	MP1A	Mz	0	2
22	MP2A	Y	-3.299	2
23	MP2A	My	0.002	2
24	MP2A	Mz	0	2
25	OVP	Y	-1.502	1
26	OVP	My	0	1
27	OVP	Mz	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	Z	-4.517	0.75
2	MP2A	Mx	-0.003	0.75
3	MP2A	Z	-4.517	8.25
4	MP2A	Mx	-0.003	8.25
5	MP2A	Z	-4.517	0.75
6	MP2A	Mx	0.003	0.75
7	MP2A	Z	-4.517	8.25
8	MP2A	Mx	0.003	8.25
9	MP3A	Z	-3.362	2
10	MP3A	Mx	0	2
11	MP3A	Z	-3.362	4
12	MP3A	Mx	0	4
13	MP1A	Z	-9.903	2
14	MP1A	Mx	0	2
15	MP2A	Z	-8.249	2
16	MP2A	Mx	0	2
17	OVP	Z	-3.755	1
18	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2A	X	4.517	0.75
2	MP2A	Mx	-0.002	0.75
3	MP2A	X	4.517	8.25
4	MP2A	Mx	-0.002	8.25
5	MP2A	X	4.517	0.75
6	MP2A	Mx	-0.002	0.75
7	MP2A	X	4.517	8.25
8	MP2A	Mx	-0.002	8.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
9	MP3A	X	3.362	2
10	MP3A	Mx	-0.002	2
11	MP3A	X	3.362	4
12	MP3A	Mx	-0.002	4
13	MP1A	X	9.903	2
14	MP1A	Mx	0.005	2
15	MP2A	X	8.249	2
16	MP2A	Mx	0.004	2
17	OVP	X	3.755	1
18	OVP	Mx	0	1

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N35B	max	1153.468	10	1626.334	16	1698.366	1	-1.37	1	5.563	8	4.386	40
2		min	-1153.468	4	561.704	73	-1698.365	7	-5.259	19	-5.535	2	0.66	34
3	Totals:	max	1153.468	10	1626.334	16	1698.366	1						
4		min	-1153.468	4	561.704	73	-1698.365	7						

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	M1	PIPE 3.0	0.878	6.042	1	0.241	6.042		7	29842.849	65205	5.749	5.749	1	H1-1b
2	MP1A	PIPE 2.0	0.131	4	1	0.02	4		5	14916.096	32130	1.872	1.872	1	H1-1b
3	M17A	PIPE 4.0	0	0.75	24	0	0.75		5	92571.332	93240	10.631	10.631	1	H1-1b*
4	M18A	HSS4X4X4	0.546	2.667	8	0.361	2.667	y	40	135427.025	139518	16.181	16.181	1.361	H1-1b
5	MP2A	PIPE 2.0X	0.846	4.969	7	0.093	5.062		5	16017.615	44100	2.531	2.531	1	H1-1b
6	MP3A	PIPE 2.0	0.096	3.5	7	0.018	3.5		6	20866.733	32130	1.872	1.872	1	H1-1b
7	MP4A	PIPE 2.0	0.038	4	6	0.004	4		6	14916.096	32130	1.872	1.872	1	H1-1b
8	OVP	PIPE 2.0	0.09	2.25	6	0.014	2.25		6	28843.414	32130	1.872	1.872	1	H1-1b

VzW SMART Tool© Vendor

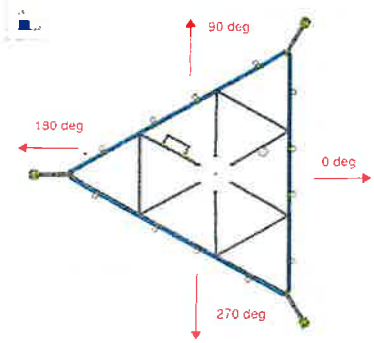
Client:	Verizon Wireless	Date:	11/22/2023
Site Name:	NEW FAIRFIELD 2 CT		
MDG #:	5000384712		
Fuze ID #:	16241849	Page:	1

Version 1.01

I. Mount-to-Tower Connection Check

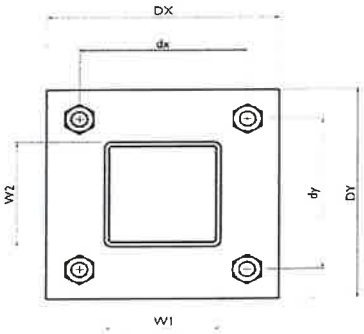
Custom Orientation Required	Yes

Nodes (labeled per Risa)	Orientation (per graphic of typical platform)
N35B	0



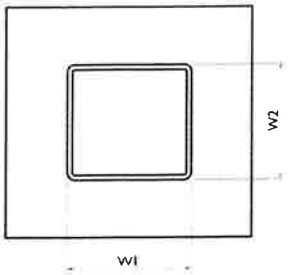
Tower Connection Bolt Checks	Yes
Bolt Orientation	Parallel

Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	7
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	7
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength / bolt (kips):	7.6
Required Shear Strength / bolt (kips):	0.9
Tensile Capacity / bolt (kips):	20.7
Shear Capacity / bolt (kips):	12.4
Bolt Overall Utilization:	**36.6%**



Tower Connection Baseplate Checks	Yes

Connecting Standoff Member Shape:	Rect Tube
Weld Stiffener Configuration:	No Stiffeners
Plate Width, D_x (in):	10
Plate Height, D_y (in):	10
W1(in):	4
W2 (in):	4
Member Thickness (in):	0.25
Stiffener location a_1 (in):	
Stiffener location b_1 (in):	
Stiffener location a_2 (in):	
Stiffener location b_2 (in):	
F_y (ksi, plate):	36
Plate Thickness (in):	0.625
Length of Yield Line, L_y (in):	7.75
Bolt Eccentricity, e (in):	2.35
M_u (kip-in):	17.86
Phi*M_n (kip-in):	24.52
Plate Bending Utilization:	**72.8%**

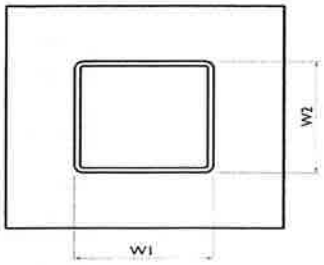


VzW SMART Tool© Vendor

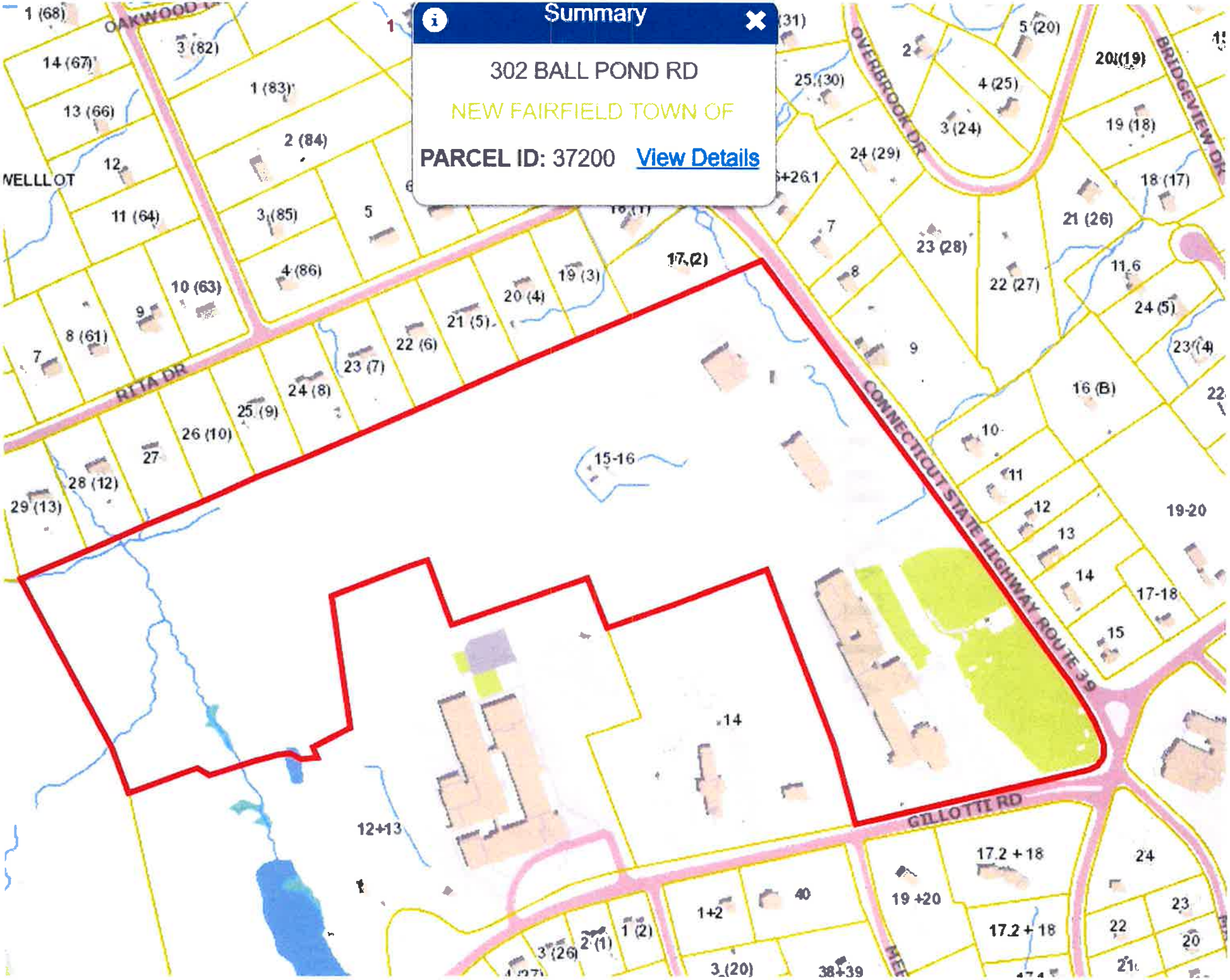
Client:	Verizon Wireless	Date:	11/22/2023
Site Name:	NEW FAIRFIELD 2 CT		
PSLC #:	5000384712		
Fuze ID #:	16241849	Page:	2

Version 1.01

Tower Connection Weld Checks	Yes
Weld Shape:	Rectangle
Weld Stiffener Configuration:	None
Stiffener Notch Length, n (in):	-
Weld Size (1/16 in):	6
W1 (in):	4
W2 (in):	4
Weld Total Length (in):	16.00
Z_x (in^3/in):	21.33
Z_y (in^3/in):	21.33
J_p (in^4/in):	85.33
c_x (in)	2.25
c_y (in)	2.25
Required combined strength (kip/in):	3.26
Weld Capacity (kip/in):	8.35
Weld Utilization:	**39.1%**



ATTACHMENT 5


Summary
302 BALL POND RD
NEW FAIRFIELD TOWN OF
PARCEL ID: 37200 View Details
OAKWOOD
RITA DR
OVERBROOK DR
BRIDGEVIEW DR
CONNECTICUT STATE HIGHWAY ROUTE 39
GILLOTTE RD
MELLLOT
1 (68)
14 (67)
13 (66)
12
11 (64)
10 (63)
9
8 (61)
7
3 (82)
1 (83)
2 (84)
3 (85)
4 (86)
5
6
17 (2)
19 (3)
20 (4)
21 (5)
22 (6)
23 (7)
24 (8)
25 (9)
26 (10)
27
28 (12)
29 (13)
15-16
14
12+13
1+2
40
3 (26)
2 (1)
1 (2)
3 (20)
38+39
19 +20
17.2 + 18
17.2 + 18
24
23
22
20
21
19-20
17-18
15
16 (B)
11
10
13
14
9
8
7
6
5
4 (25)
3 (24)
2
1
25 (30)
24 (29)
23 (28)
22 (27)
21 (26)
20(19)
19 (18)
18 (17)
11.6
24 (5)
23 (4)
5 (20)

302 BALL POND RD

Location	302 BALL POND RD	**Mblu**	23/ 16/ 15/ /
Acct#	00037200	**Owner**	NEW FAIRFIELD TOWN OF
Assessment	$10,521,800	**Appraisal**	$15,031,100
PID	378	**Building Count**	6

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2022	$12,550,500	$2,480,600	$15,031,100
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2022	$8,785,400	$1,736,400	$10,521,800

Owner of Record

Owner	NEW FAIRFIELD TOWN OF
Co-Owner	CONSOLIDATED SCHOOL & FIREHOUSE
Address	4 BRUSH HILL RD NEW FAIRFIELD, CT 06812

Sale Price	$0
Certificate	
Book & Page	0461/1055
Sale Date	03/18/2010
Instrument	29

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
NEW FAIRFIELD TOWN OF	$0		0461/1055	29	03/18/2010
NEW FAIRFIELD TOWN OF	$0		0000/0000		01/01/1900

Building Information

Building 1 : Section 1

Year Built:	1940
Living Area:	91,801
Replacement Cost:	$14,753,798
Building Percent Good:	55

ATTACHMENT 6

Verizon/New Fairfield 2

UNITED STATES POSTAL SERVICE®

Certificate of Mailing — Firm

Name and Address of Sender	TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here *Postmark with Date of Receipt.*
Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	2	2	quadient CORRECTION IMI $003.34 02/07/2024 ZIP 06101 043M32206619 US POSTAGE
	Postmaster, per *(name of receiving employee)*		

USPS® Tracking Number / Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Melissa Lindsey, First Selectman Town of New Fairfield 4 Brush Hill Road New Fairfield, CT 068012				
2.	Evan White, Zoning Enforcement Officer Town of New Fairfield 4 Brush Hill Road New Fairfield, CT 068012				
3.					
4.					
5.					
6.					

HARTFORD, CT 06103 FEB - 7 2024 OLD STATE HOUSE POST OFFICE

See Reverse for Instructions