

August 20, 2021

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

Re: Notice of Exempt Modifications – AT&T Site CTL01289
AT&T Telecommunications Facility @ 1375 North Road, Dayville, CT 06241

Dear Ms. Bachman,

New Cingular Wireless, PCS, LLC (“AT&T”) currently maintains a wireless telecommunications facility on an existing +/- 287 feet self-support lattice tower at the above referenced address (Latitude = 41.871500, Longitude = - 71.821500) with an irregular shaped fenced compound of approximately 8,300 SF with 2 buildings (601’ SF and 3,893 SF). Said self-support tower is owned and operated by American Tower Corporation.

AT&T desires to modify its existing telecommunications facility at 246’ by: swapping six (6) antennas, adding nine (9) remote radio units, removing three (3) remote radio units, removing two (2) tower mounted amplifiers, adding six (6) Y-Cables, and adding one (1) OVP and mount modifications as more particularly detailed and described on the enclosed Construction Drawings prepared by Infinigy Engineering, PLLC, dated August 25, 2021. The groundwork will consist of: removing (1) BB6601 and installing (2) BB6630, (1) iXRE Router and (1) XMU. The overall height of the existing tower is and will remain at +/- 306 feet and no changes will be made to the compound dimensions.

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 the following individuals: American Tower Corporation as Tower Operator/Owner and Property Owner; Jason Anderson, Chairman of the Town of Killingly Town Council as Chief Elected Official and Ann-Marie L. Aubrey, Director of Planning & Development of the Town of Killingly.

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

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

3. The proposed modifications will NOT increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will NOT increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. *Please see the RF emissions calculation for AT&T's modified facility enclosed herewith.*
5. The proposed modifications will NOT cause an ineligibile change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading. Please see the structural analysis dated December 22, 2020 prepared by American Tower Corporation enclosed herewith.

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

If you have any questions, please feel free to contact me.

Sincerely,

Kimberly Revak

Site Acquisition Consultant – Agent for AT&T
Centerline Communications, LLC
38 Treeline Court
Fishkill, NY 12524
Phone: (845) 242-6152
krevak@clinellc.com

Enclosures: Exhibit 1 – Property Card and GIS
 Exhibit 2 – Construction Drawings dated 08/25/21
 Exhibit 3 – Structural Analysis Report
 Exhibit 4 – Mount Reinforcement Drawings
 Exhibit 5 – Post Modification Antenna Mount Analysis Report
 Exhibit 6 – NIER Study Report
 Exhibit 7 – Original Tower Approval
 Exhibit 8 – (4) Notice Confirmations

Cc: American Tower Corporation, Tower Operator/Owner
 American Tower Corporation, Property Owner
 Jason Anderson, Chairman of the Town of Killingly Town Council as Chief Elected Official
 Ann-Marie L. Aubrey, Director of Planning & Development of the Town of Killingly

Exhibit 1

Property Card and GIS

Situs : 1375 NORTH RD

Map ID: 000072

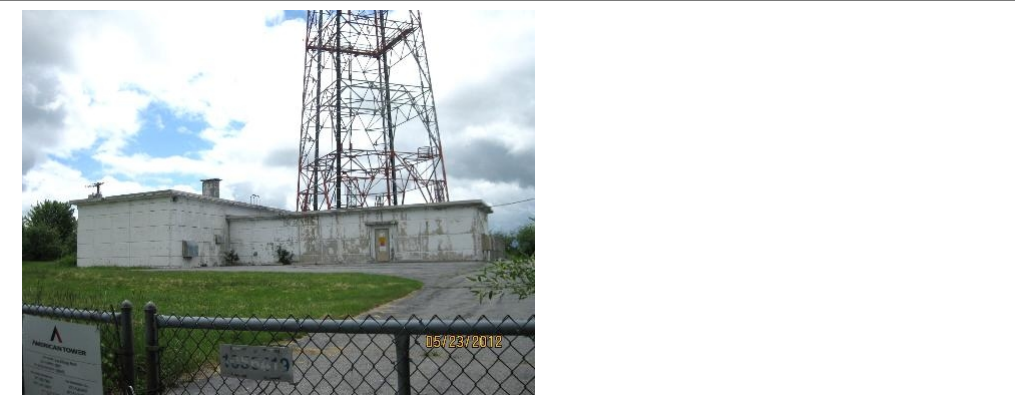
Class: Communication Towers

Card: 1 of 1

Printed: June 4, 2020

CURRENT OWNER
AMERICAN TOWERS INC
PO BOX 723597
ATLANTA GA 31139

GENERAL INFORMATION
Living Units
Neighborhood 117
Alternate Id 50-3
Vol / Pg 772/5
District 4
Zoning RURAL DEVELOPMENT
Class COMMERCIAL



Property Notes
AT&T TRANSFER STATION

Land Information

Type	Size	Influence Factors	Influence %	Value
Primary	AC 2.0700			67,870

Total Acres: 2.07
Spot: _____ Location: _____

Assessment Information

	Assessed	Appraised	Cost	Income	Market
Land	47,530	67,900	67,900	0	0
Building	193,130	275,900	275,900	0	0
Total	240,660	343,800	343,800	0	0

Manual Override Reason
Base Date of Value 10/01/2019
Effective Date of Value 10/01/2020

Value Flag COST APPROACH
Gross Building: _____

Entrance Information

Date	ID	Entry Code	Source
05/17/12	DB	View ed	Other
05/16/12	DB	View ed	Other
12/11/06	DH	Exterior	Other

Permit Information

Date Issued	Number	Price	Purpose	% Complete
09/18/19	27112	20,000	97 BPP Install 6 Repl Antennas, Rrus & Otl	995
08/21/18	26263	20,000	73 CREP Replace Existing Antennas With N	997
07/09/18	26159	80,000	51 BLDG Install Tmobile Cabinets On Concre	995
11/15/17	25690	15,000	97 BPP Repl 6 Antennae Panels & Add 6 F	995
08/09/17	25460	55,000	72 CREN Structural Modifications To Existing	997

Sales/Ownership History

Transfer Date	Price	Type	Validity	Deed Reference	Deed Type	Grantee
02/16/00	186,528	Land & Bldg	Love And Affection Sale	772/5		AMERICAN TOWERS INC

Inspection Witnessed By _____

Situs : 1375 NORTH RD

Parcel Id: 000072

Class: Communication Towers

Card: 1 of 1

Printed: June 4, 2020

Building Information	
Year Built/Eff Year	1960 /
Building #	1
Structure Type	Radio/Tv Transmitter
Identical Units	1
Total Units	
Grade	B-
# Covered Parking	
# Uncovered Parking	
DBA	AMERICAN TOWER

Building Other Features															
Line	Type	+/-	Meas1	Meas2	# Stops	Ident	Units	Line	Type	+/-	Meas1	Meas2	# Stops	Ident	Units

Interior/Exterior Information															
Line	Level From	- To	Int Fin	Area	Perim	Use Type	Wall Height	Ext Walls	Construction	Partitions	Heating	Cooling	Plumbing	Physical	Functional
1	01	01	100	2,048	158	Light Manufacturin	16	Concrete Bl	Wood Frame/Joist/B	Normal	None	None	Normal	4	4
2	01	01	100	1,575	151	Light Manufacturin	12	Concrete Bl	Wood Frame/Joist/B	Normal	None	None	Normal	4	4

Interior/Exterior Valuation Detail					
Line	Area	Use Type	% Good	% Complete	Use Value/RCNLD
1	2,048	Light Manufacturing	60		77,300
2	1,575	Light Manufacturing	60		57,830

Outbuilding Data										
Line	Type	Yr Blt	Meas1	Meas2	Qty	Area	Grade	Phy	Fun	Value
1	Fence Chai	1960	6	240	1	1,440	C	3	3	1,780
2	Asph Pav	1960	1	3,700	1	3,700	C	3	3	4,000
3	Tow er Cell	1960	1	300	1	300	C	3	3	135,000

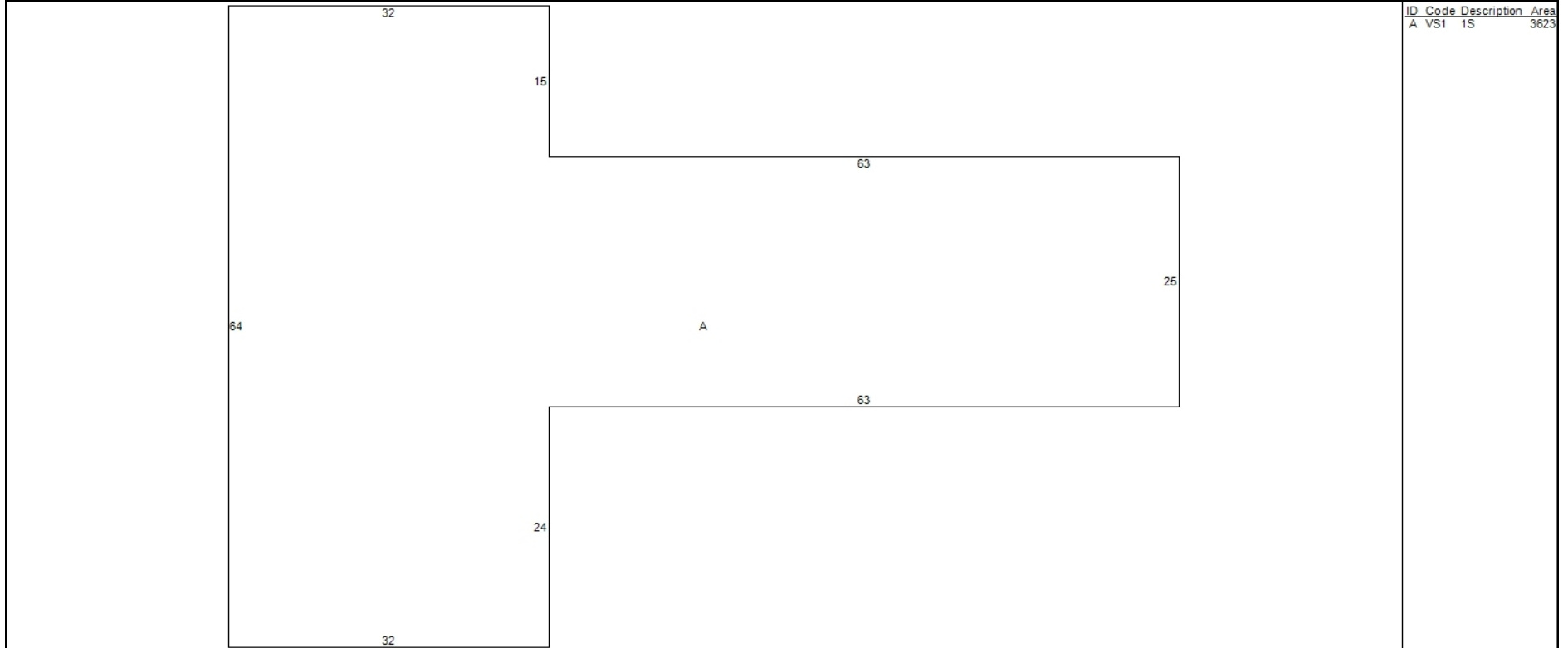
Situs : 1375 NORTH RD

Parcel Id: 000072

Class: Communication Towers

Card: 1 of 1

Printed: June 4, 2020



Additional Property Photos



Situs : 1375 NORTH RD

Parcel Id: 000072

Class: Communication Towers

Card: 1 of 1

Printed: June 4, 2020

Income Detail (Includes all Buildings on Parcel)

Use Mod Grp	Inc Type	Model Description	Units	Net Area	Income Rate	Econ Adjust	Potential Gross Income	Vac Model	Vac Adj	Additional Income	Effective Gross Income	Expense Model %	Expense Adj %	Expense Adj	Other Expenses	Total Expenses	Net Operating Income
07	S	Light Manuf/Warehouse	0	3,623						0							

Apartment Detail - Building 1 of 1

Line	Use Type	Per Bldg	Beds	Baths	Units	Rent	Income

Building Cost Detail - Building 1 of 1



Total Gross Building Area	3,623
Replace, Cost New Less Depr	135,130
Percent Complete	100
Number of Identical Units	1
Economic Condition Factor	
Final Building Value	135,130
Value per SF	37.30



Notes - Building 1 of 1

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Income Summary (Includes all Building on Parcel)


Total Net Income	
Capitalization Rate	0.000000
Sub total	
Residual Land Value	
Final Income Value	
Total Gross Rent Area	3,623
Total Gross Building Area	3,623


North  

Report  Mailing Labels + Add/Remove Zoom 


Parcel #	Owner	Address
176-066-000-000	215 NORTH ST	ALIX ROCHELLE A
043-006-000-000	1499 NORTH RD	ALLAIRE MARC W &
021-021-000-000	1655 NORTH RD	ALLEN VINCENT
049-003-000-000	1380 NORTH RD	AMERICAN TOWER SYSTEMS INC
050-003-000-000		


176 



Abutters 

Layers 

CAI AxisGIS

About Disclaimer Help Feedback 



Parcel #: 050-003-000-000  

Documents & Links Assessment

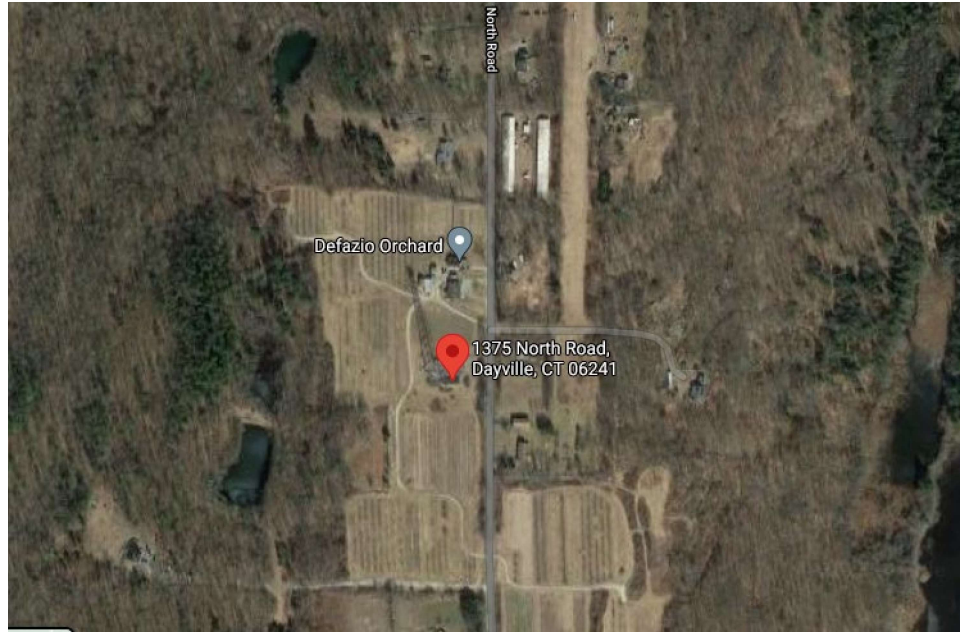
ID	7391
ParcelNumber	050-003-000
GisFullNumber	050-003-000-000
CamaFullNumber	050-003-000-000
PropertyAddress	1375 NORTH RD
PropertyStreet	NORTH RD
MapSheet	50
OwnerName	AMERICAN TOWERS INC
CoOwnerName	N/A
OwnerAddress	PO BOX 723597
OwnerAddress2	N/A
OwnerCity	ATLANTA
OwnerState	GA
OwnerZip	31139
AccountNum	000072
PID	N/A
ACCOUNT NUM	000072

2.4 AcC

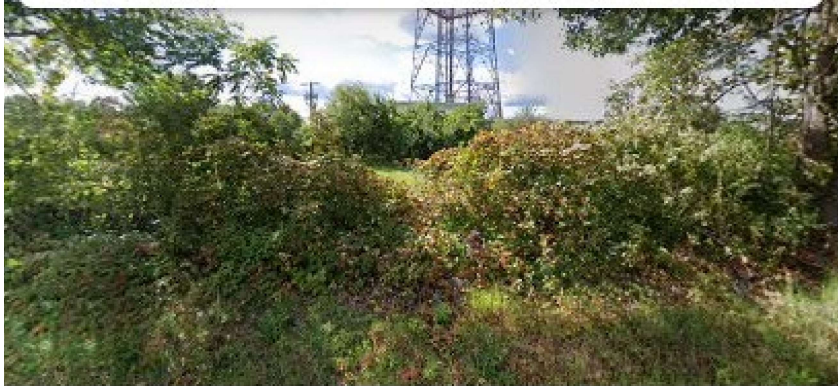
8

200ft X: -71.82118, Y: 41.87097










☰ 1375 North Road, Dayville, CT 062 🔍 | ✕



1375 North Road
Building

 Directions  Save  Nearby  Send to your phone  Share


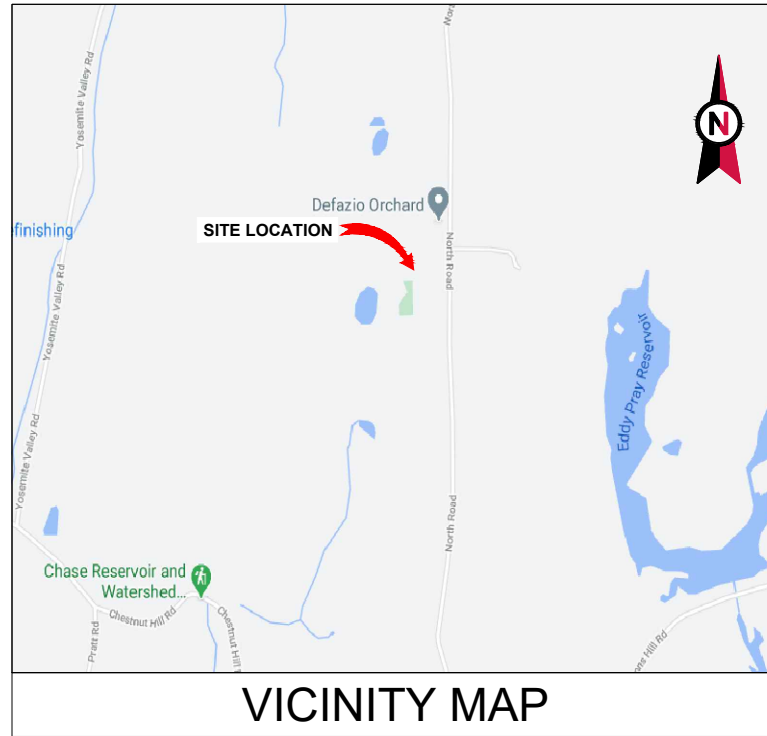
 1375 North Road, Dayville, CT 06241

Exhibit 2

Construction Drawings



VICINITY MAP

CURRENT PROJECTS:
 LTE 2C - MRCTB048458
 LTE 3C - MRCTB048536
 LTE 4C - MRCTB048628
 5G NR 1DR-1 - MRCTB048559
 4TX4RX SOFTWARE RETROFIT - MRCTB048517



AMERICAN TOWER®

ATC SITE NAME: EAST KILLINGLY NORTH
 ATC SITE NUMBER: 88011
 AT&T PACE NUMBER: MRCTB048458
 AT&T SITE ID: CTL01289
 AT&T FA CODE: 10141309
 AT&T SITE NAME: KILLINGLY CT NORTH ROAD DAS ISE
 SITE ADDRESS: 1375 NORTH ROAD
 DAYVILLE, CT 06241

AT&T MOBILITY PLAN: LTE 2C, LTE 3C, LTE 4C, 5G NR 1DR-1, 4TX4RX SOFTWARE RETROFIT
**AT&T MOBILITY
 ANTENNA AMENDMENT PLAN**



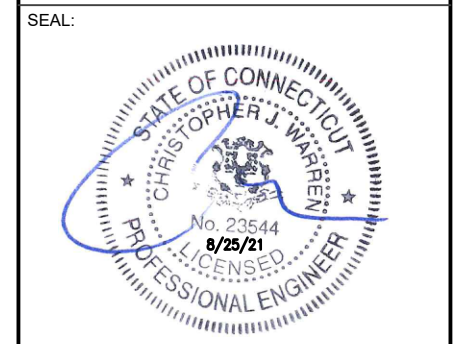
LOCATION MAP



INFINIGY®
 ENGINEERING, PLLC
 1033 WATERVLIT SHAKER ROAD
 ALBANY, NY 12205

REV.	DESCRIPTION	BY	DATE
0	PRELIM	BHE	01/21/21
0	FOR CONSTRUCTION	EDZ	05/15/21
1	FOR CONSTRUCTION	NL	08/25/21

ATC SITE NUMBER:
88011
 ATC SITE NAME:
EAST KILLINGLY NORTH
 AT&T MOBILITY SITE NAME:
MRCTB048458
 SITE ADDRESS:
 1375 NORTH ROAD
 DAYVILLE, CT 06241



DATE DRAWN:	01/21/21
ATC JOB NO:	13320909
CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

TITLE SHEET

SHEET NUMBER:
G-001
 REVISION:
1

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX					
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. 1. 2018 INTERNATIONAL BUILDING CODE (IBC) 2. 2017 NATIONAL ELECTRIC CODE (NEC) 3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES	<u>SITE ADDRESS:</u> 1375 NORTH ROAD DAYVILLE, CT 06241 COUNTY: WINDHAM COUNTY <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41° 52' 17.4" N LONGITUDE: 71° 49' 17.6" W GROUND ELEVATION: 745' AMSL	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: <u>TOWER WORK:</u> REMOVE (6) ANTENNA(s), (2) TMA(s) AND (3) RRH(s) INSTALL (6) ANTENNA(s), (9) RRH(s), (6) Y CABLES, (1) OVP AND MOUNT MODIFICATIONS EXISTING (4) ANTENNA(s), (4) TMA(s), (12) DIPLEXER(s) AND (6) COAX CABLE(s) TO REMAIN <u>GROUND WORK:</u> REMOVE (1) BB6601 INSTALL (2) BB6630, (1) iXRE ROUTER AND (1) XMU EXISTING (1) RBS 3206 TO REMAIN	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:	
	<u>PROJECT TEAM</u> <u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801 <u>ENGINEER:</u> INFINIGY ENGINEERING, PLLC 1033 WATERVLIT SHAKER RD ALBANY, NY 12205 <u>PROPERTY OWNER:</u> N/A 1375 NORTH ROAD KILLINGLY, CT 06241	<u>PROJECT NOTES</u> 1. THE FACILITY IS UNMANNED. 2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE. 4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED.						
		<u>PROJECT LOCATION DIRECTIONS</u> TAKE ROUTE 395 TO EXIT 97. AT END OF THE RAMP, TAKE A LEFT ONTO 44 EAST. AFTER YOU CROSS FIVE MILE RIVER, GO ABOUT ANOTHER .5 MILES AND TAKE A RIGHT ONTO EAST PUTNUM ROAD. AT THE 3RD STOP SIGN, TAKE A LEFT. LOOK FOR NORTH ROAD ON YOUR RIGHT. TAKE NORTH ROAD. TOWER IS ON THE RIGHT.						
<u>UTILITY COMPANIES</u> POWER COMPANY: CT LIGHT & POWER PHONE: (800) 286-2000 TELEPHONE COMPANY: FRONTIER COMMUNICATIONS PHONE: (800) 921-8102								



Know what's below.
 Call before you dig.

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, AT&T MOBILITY "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
 - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
 - B. AC/TELCO INTERFACE BOX (PPC)
 - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
 - D. TOWERS, MONOPOLES
 - E. TOWER LIGHTING
 - F. GENERATORS & LIQUID PROPANE TANK
 - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
 - H. ANTENNAS (INSTALLED BY OTHERS)
 - I. TRANSMISSION LINE
 - J. TRANSMISSION LINE JUMPERS
 - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
 - L. TRANSMISSION LINE GROUND KITS
 - M. HANGERS
 - N. HOISTING GRIPS
 - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF AT&T MOBILITY TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSIEIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE AT&T MOBILITY REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE AT&T MOBILITY REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE AT&T MOBILITY REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE AT&T MOBILITY CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE AT&T MOBILITY REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH AT&T MOBILITY AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T MOBILITY REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL

- ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T MOBILITY REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY AT&T MOBILITY MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
 23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH AT&T MOBILITY SPECIFICATIONS AND REQUIREMENTS.
 24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO AT&T MOBILITY FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
 25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO AT&T MOBILITY SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
 26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
 27. CONTRACTOR SHALL NOTIFY AT&T MOBILITY REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
 28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
 29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
 30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE AT&T MOBILITY REP. ANY WORK FOUND BY THE AT&T MOBILITY REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
 31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
 32. AT&T MOBILITY FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE AT&T MOBILITY WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNGRATED, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
 33. AT&T MOBILITY OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO AT&T MOBILITY OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION

ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
 - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY AT&T MOBILITY UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND EQUIPMENT.
 - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND AT&T MOBILITY SPECIFICATIONS.
 - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS
 - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE AND PROVIDE PRINTOUT OF THAT TEST.
 - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
 - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
 - G. ANTENNA AND COAXIAL CABLE GROUNDING.

2. ALL EXTERIOR #6 GREED GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ELECTRICAL NOTES:

1. ELECTRICAL DESIGN SHALL BE PERFORMED BY ELECTRICAL CONTRACTOR. STRUCTURAL DESIGN SHALL BE PERFORMED BY GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL ENSURE THAT ALL WORK COMPLIES WITH ALL APPLICABLE LOCAL AND STATE CODES AND NATIONAL ELECTRICAL CODE.
2. ALL SUGGESTED ELECTRICAL ELEMENTS (SUCH AS BREAKER SIZES, WIRE SIZES, CONDUITS SIZES ARE FOR ZONING PURPOSES ONLY. IT IS THE RESPONSIBILITY TO OF THE ELECTRICAL CONTRACTOR TO CONFIRM COMPLIANCE WITH LOCAL ELECTRICAL CODES AND PASS ALL APPLICABLE AND NECESSARY INSPECTIONS. IN SOME EVENTS, IT MAY BE NECESSARY TO PERFORM AN ELECTRICAL LOAD STUDY TO VERIFY THE CAPACITY OF THE EXISTING SERVICE. THIS IS NOT THE RESPONSIBILITY OF CONCORDIA. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
3. CONTRACTOR SHALL FIELD LOCATE ALL BELOW GRADE GROUND LINES AND UTILITY LINES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR RELOCATION OF ALL UTILITIES AND GROUND LINES THAT MAY BECOME DISTURBED OR CONFLICTING IN THE COURSE OF CONSTRUCTION.

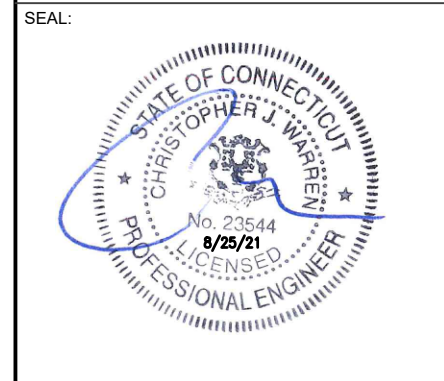
ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE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



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ALBANY, NY 12205

REV.	DESCRIPTION	BY	DATE
A	PRELIM	BHE	01/21/21
0	FOR CONSTRUCTION	EDZ	05/15/21
1	FOR CONSTRUCTION	NL	08/25/21

ATC SITE NUMBER:
88011
ATC SITE NAME:
EAST KILLINGLY NORTH
AT&T MOBILITY SITE NAME:
MRCTB048458
SITE ADDRESS:
1375 NORTH ROAD
DAYVILLE, CT 06241



DATE DRAWN:	01/21/21
ATC JOB NO:	13320909
CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

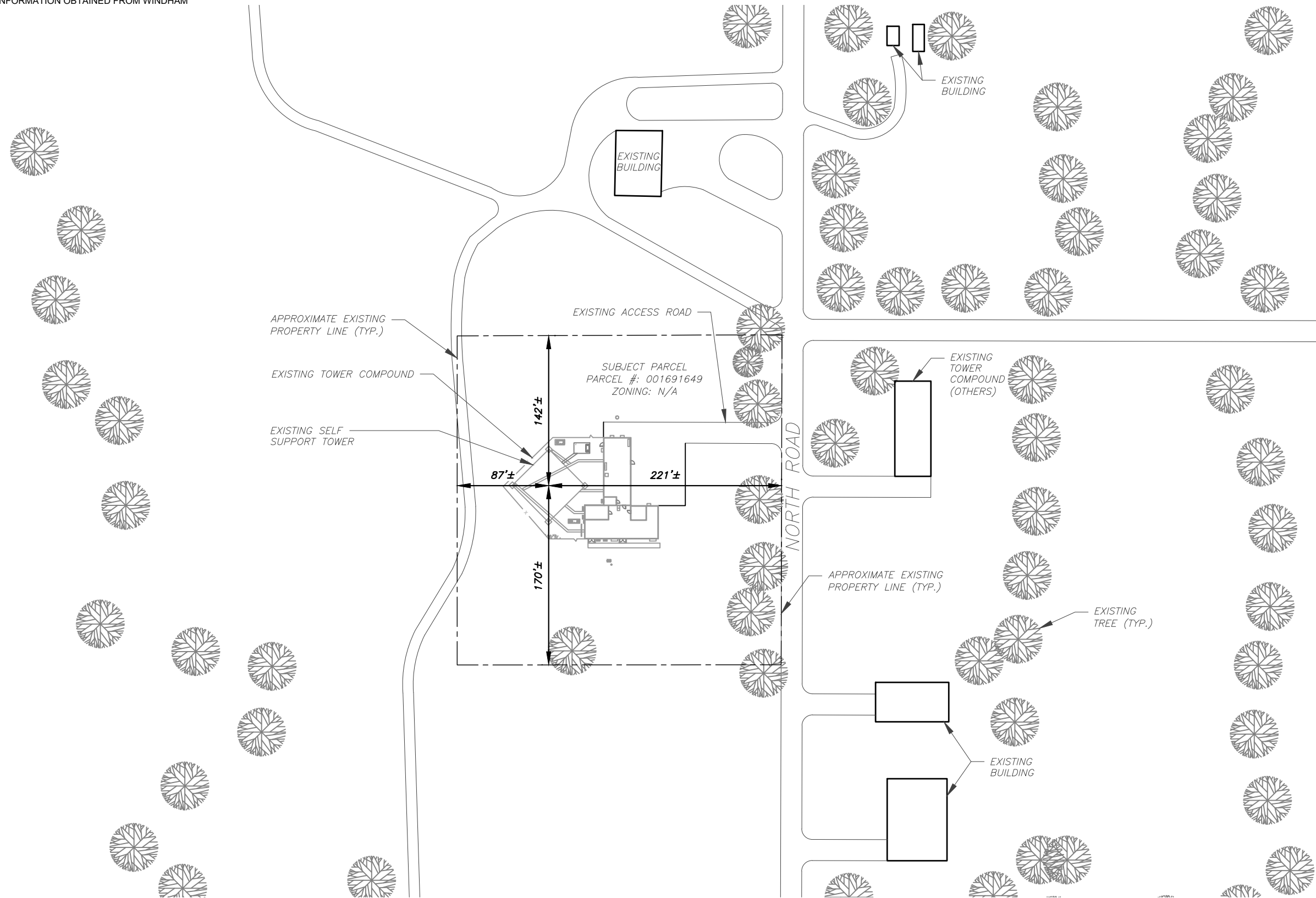
GENERAL NOTES

SHEET NUMBER: G-002	REVISION: 1
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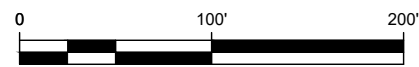
NOTES:

- BOUNDARY LINES OBTAINED FROM WINDHAM COUNTY ONLINE GIS.
- ZONING INFORMATION OBTAINED FROM WINDHAM COUNTY

INFORMATION CONTAINED WITHIN THESE DRAWINGS IS BASED ON PROVIDED INFORMATION. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.



1 OVERALL SITE PLAN



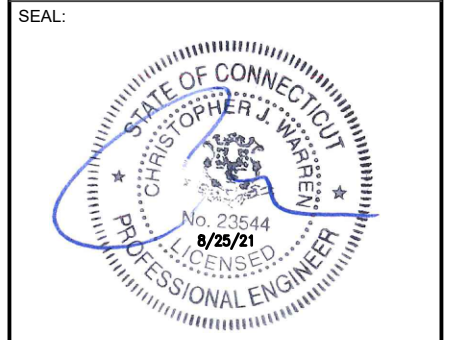
SCALE: 1"=100' (11X17)
1"=50' (22X34)



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AT&T MOBILITY SITE NAME:
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SITE ADDRESS:
1375 NORTH ROAD
DAYVILLE, CT 06241



DATE DRAWN:	01/21/21
ATC JOB NO:	13320909
CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

OVERALL SITE PLAN

SHEET NUMBER: C-001	REVISION: 1
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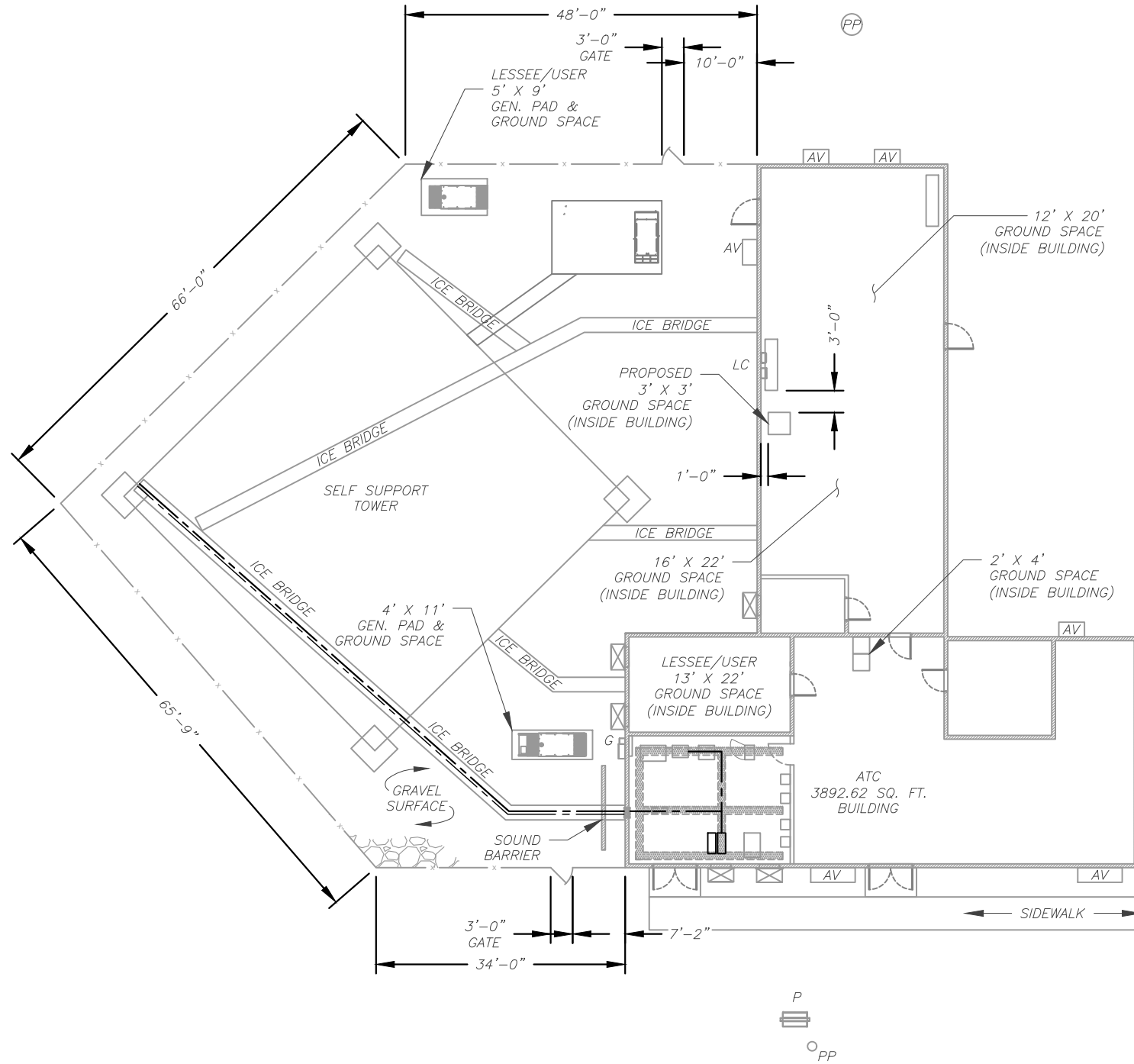
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SITE PLAN NOTES:

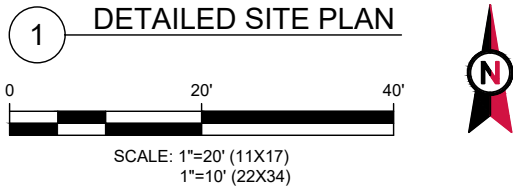
1. THIS SITE PLAN REPRESENTS THE BEST CURRENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE AT&T MOBILITY REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.

INFORMATION CONTAINED WITHIN THESE DRAWINGS IS BASED ON PROVIDED INFORMATION. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.

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



- PROPOSED CABLE LENGTH:**
1. ESTIMATED LENGTH OF PROPOSED CABLE IS **338'**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES). CDS DEFER TO GREATEST CABLE LENGTH.
 2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).



AMERICAN TOWER®

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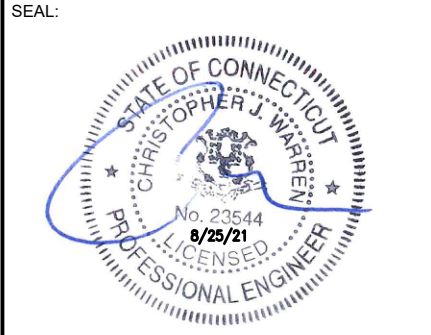
REV.	DESCRIPTION	BY	DATE
A	PRELIM	BHE	01/21/21
B	FOR CONSTRUCTION	EDZ	05/15/21
C	FOR CONSTRUCTION	NL	08/25/21

ATC SITE NUMBER:
88011

ATC SITE NAME:
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AT&T MOBILITY SITE NAME:
MRCTB048458

SITE ADDRESS:
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DAYVILLE, CT 06241



DATE DRAWN:	01/21/21
ATC JOB NO:	13320909
CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

DETAILED SITE PLAN

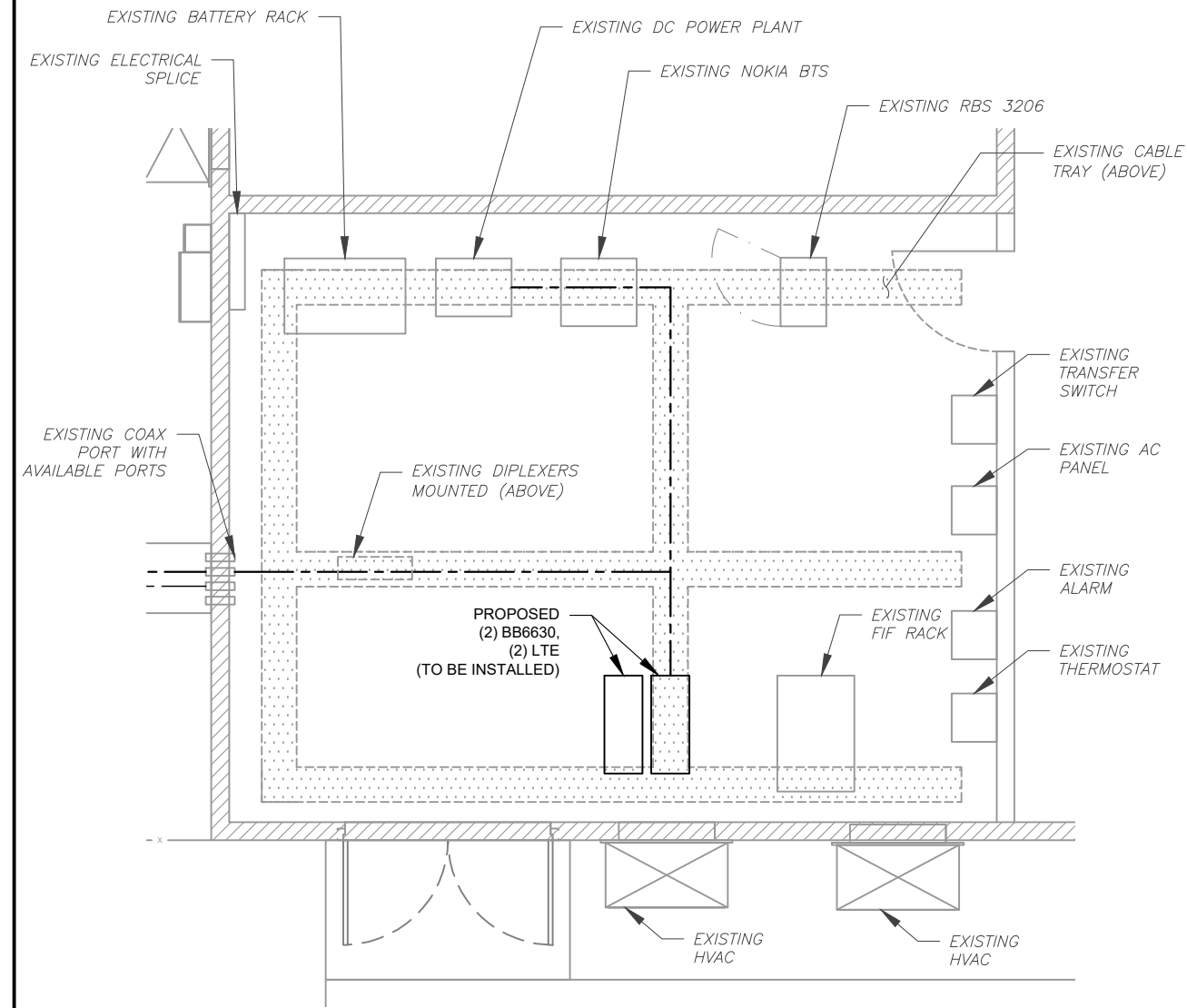
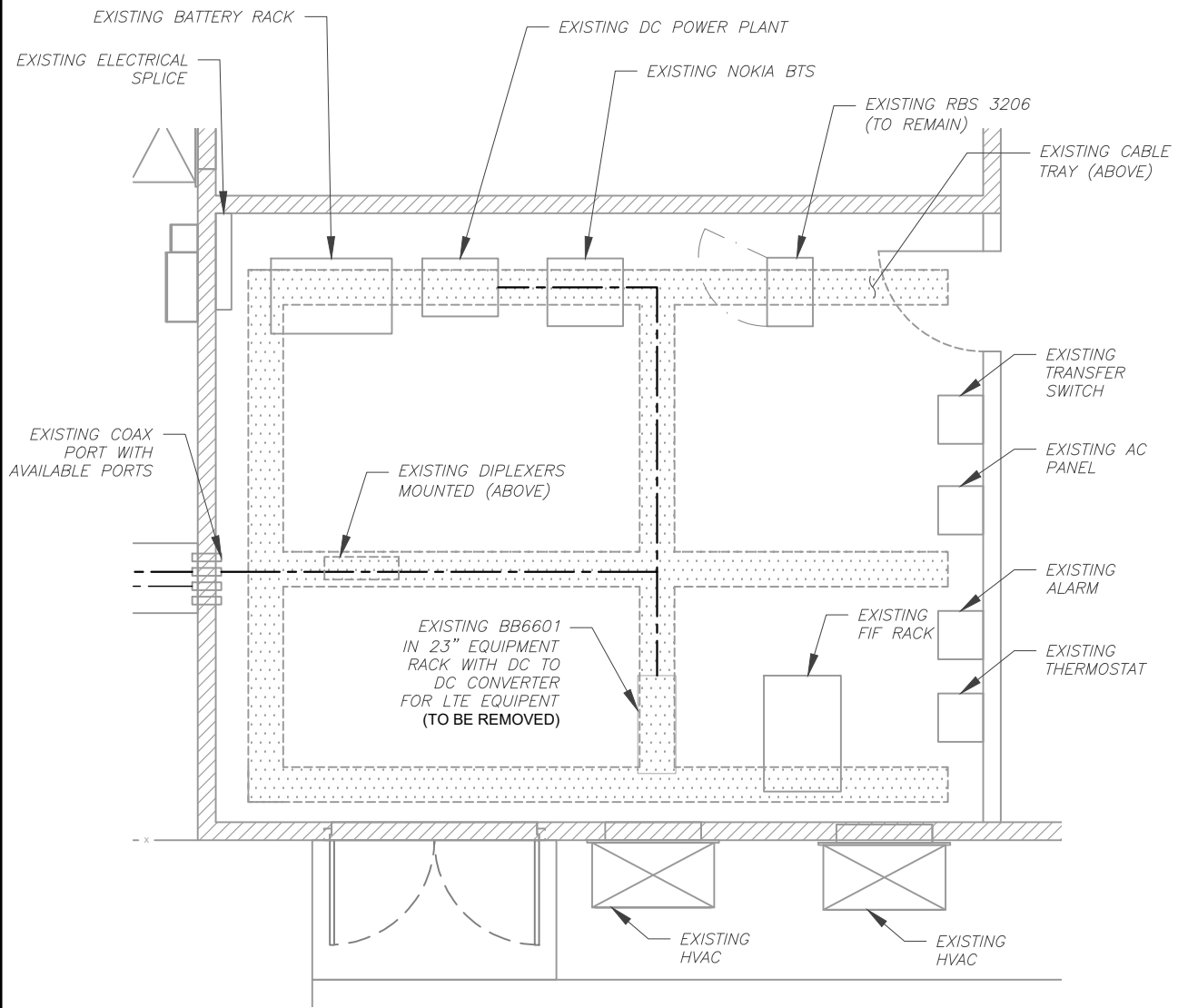
SHEET NUMBER: C-101	REVISION: 1
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SITE PLAN NOTES:

1. CONTRACTOR TO VERIFY THERE IS NO LIVE AAV FIBER RUNNING THROUGH EXISTING DEAD EQUIPMENT. IF SO, THIS WILL NEED TO BE RERUN THROUGH CONDUIT PRIOR TO REMOVING DEAD 2G (6201 CABS) EQUIPMENT.
2. REMOVE EXISTING 2G CABINETS, AND POWER / TELCO WHIPS ASSOCIATED WITH THE DEAD EQUIPMENT IF APPLICABLE.
3. ALL OPEN PORTS NEED TO BE SEALED / WEATHERPROOFED PROPERLY
4. ALL UNNEEDED / EXCESS EQUIPMENT AND GARBAGE TO BE REMOVED FROM EQUIPMENT AREA. DISPOSE OF MATERIALS PROPERLY OFF SITE.

INFORMATION CONTAINED WITHIN THESE DRAWINGS IS BASED ON PROVIDED INFORMATION. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.



1 EXISTING GROUND EQUIPMENT LAYOUT
 SCALE: 1"=5' (11X17)
 1"=2.5' (22X34)

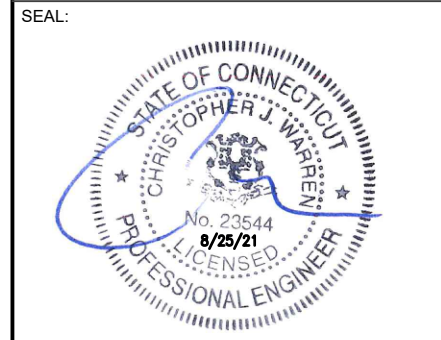
2 PROPOSED GROUND EQUIPMENT LAYOUT
 SCALE: 1"=5' (11X17)
 1"=2.5' (22X34)



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1	FOR CONSTRUCTION	NL	08/25/21

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EAST KILLINGLY NORTH
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MRCTB048458
 SITE ADDRESS:
 1375 NORTH ROAD
 DAYVILLE, CT 06241



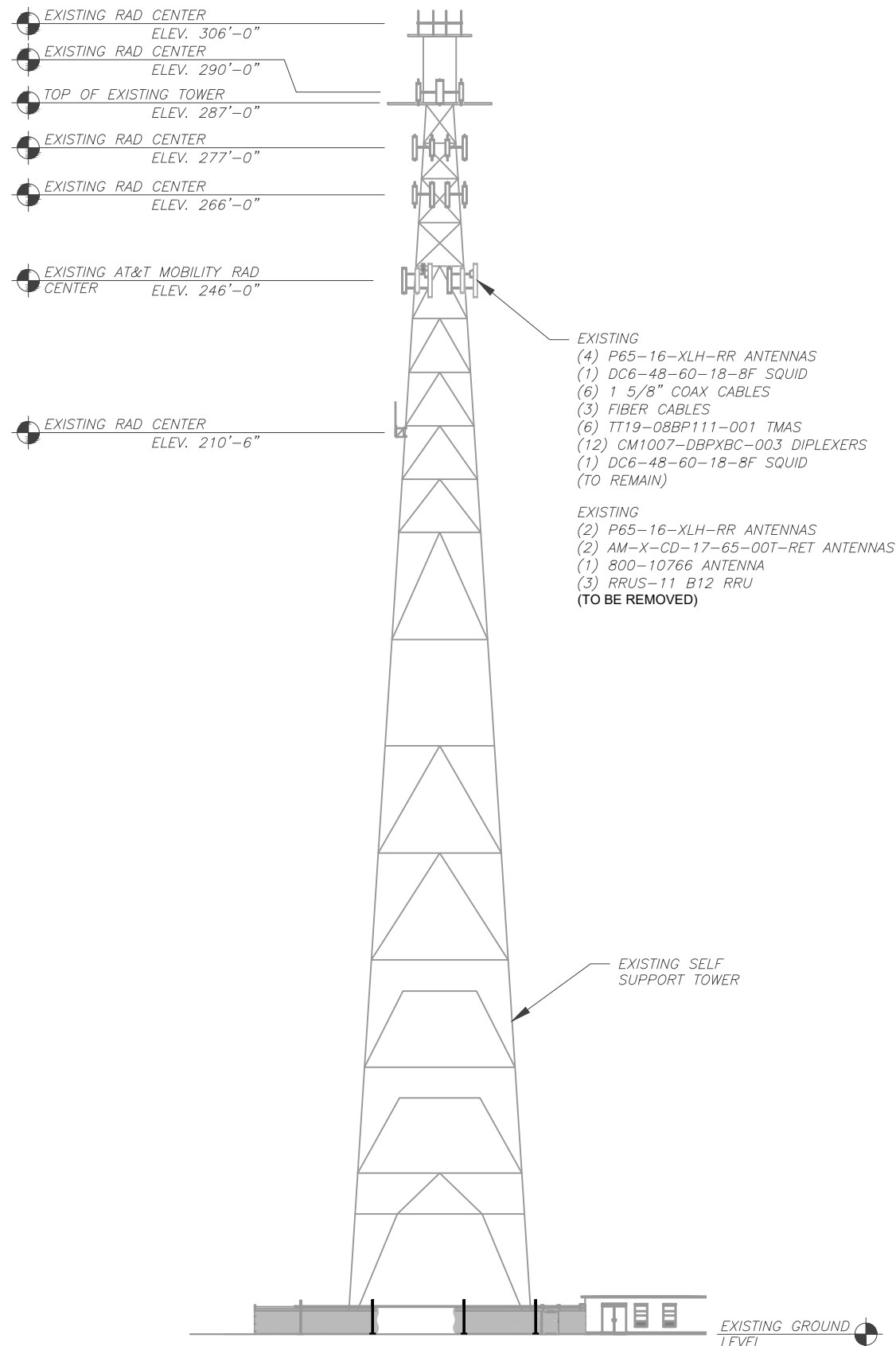
DATE DRAWN:	01/21/21
ATC JOB NO:	13320909
CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

EQUIPMENT PLAN

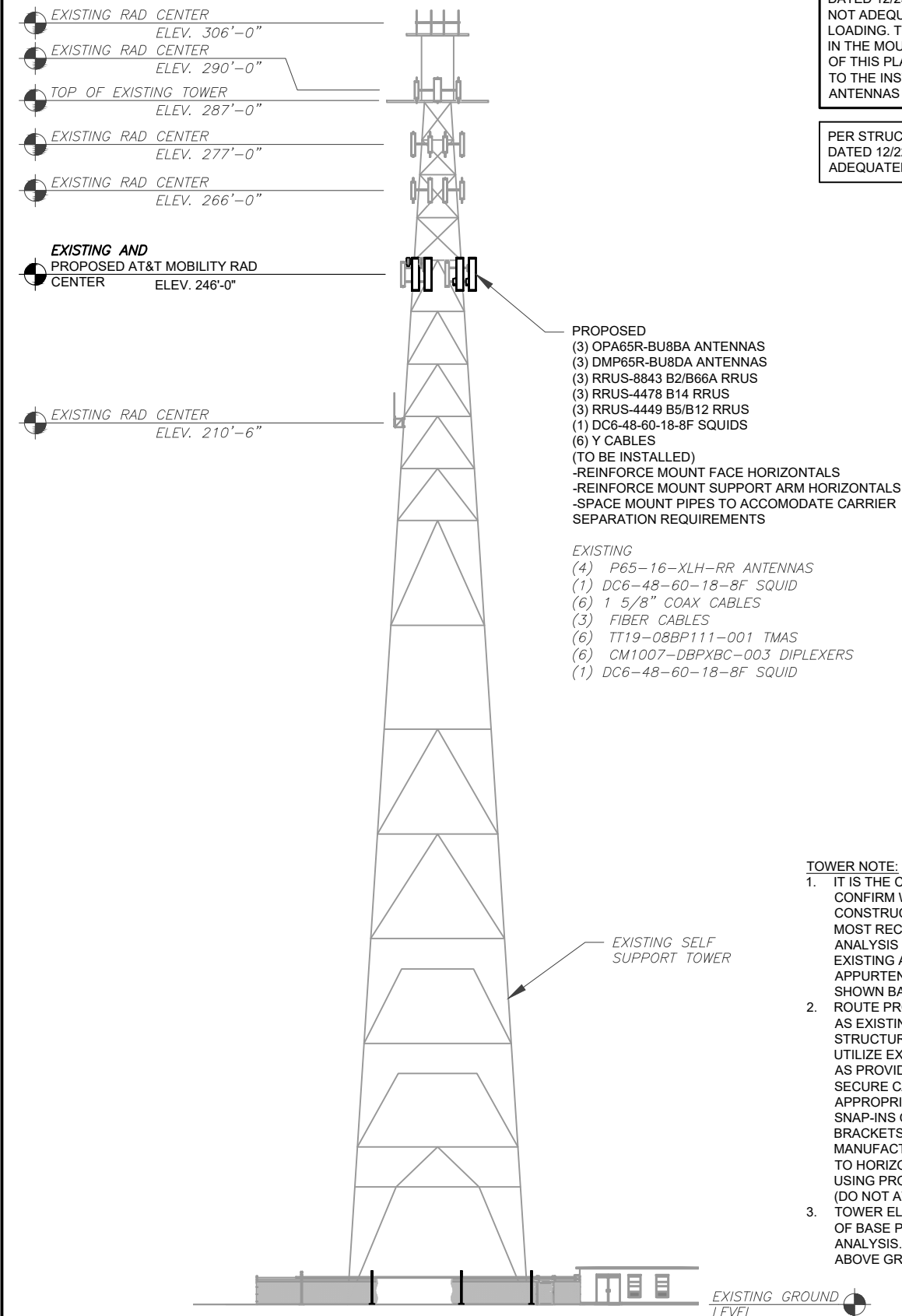
SHEET NUMBER: C-102	REVISION: 1
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EXISTING CONFIGURATION IS BASED ON RFDS.
CONTRACTOR TO VERIFY EXISTING CONDITIONS.



1 EXISTING SOUTH ELEVATION
SCALE: N.T.S.



2 PROPOSED SOUTH ELEVATION
SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY ATC, DATED 12/23/2020, THE EXISTING MOUNT CAN NOT ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT

PER STRUCTURAL ANALYSIS COMPLETED BY ATC, DATED 12/22/2020, THE EXISTING TOWER CAN ADEQUATELY SUPPORT THE PROPOSED LOADING

TOWER NOTE:

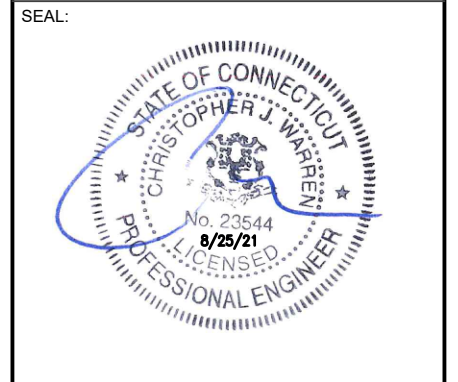
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE AMERICAN TOWER CONSTRUCTION MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
- ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).
- TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)



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MRCTB048458
SITE ADDRESS:
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DAYVILLE, CT 06241

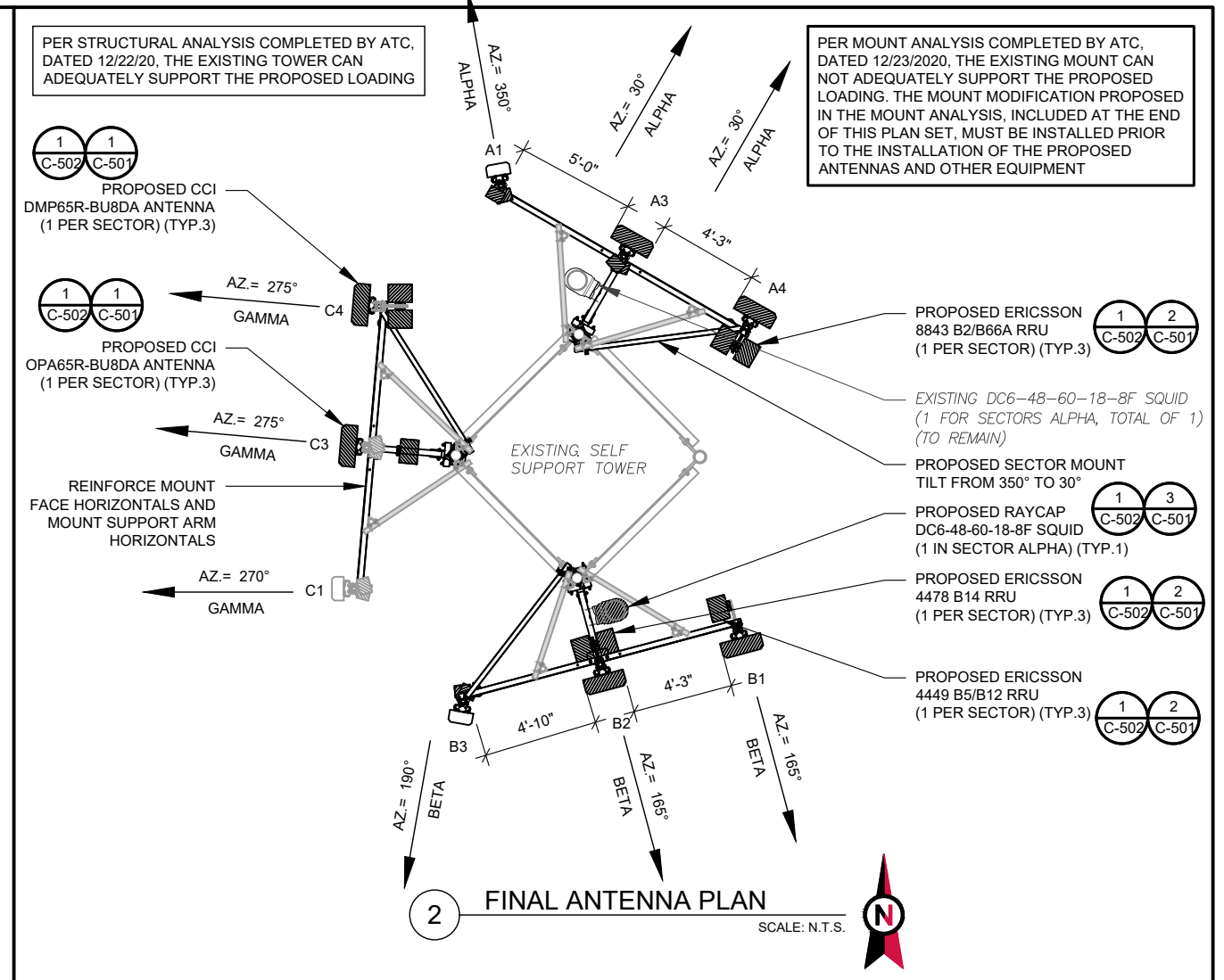
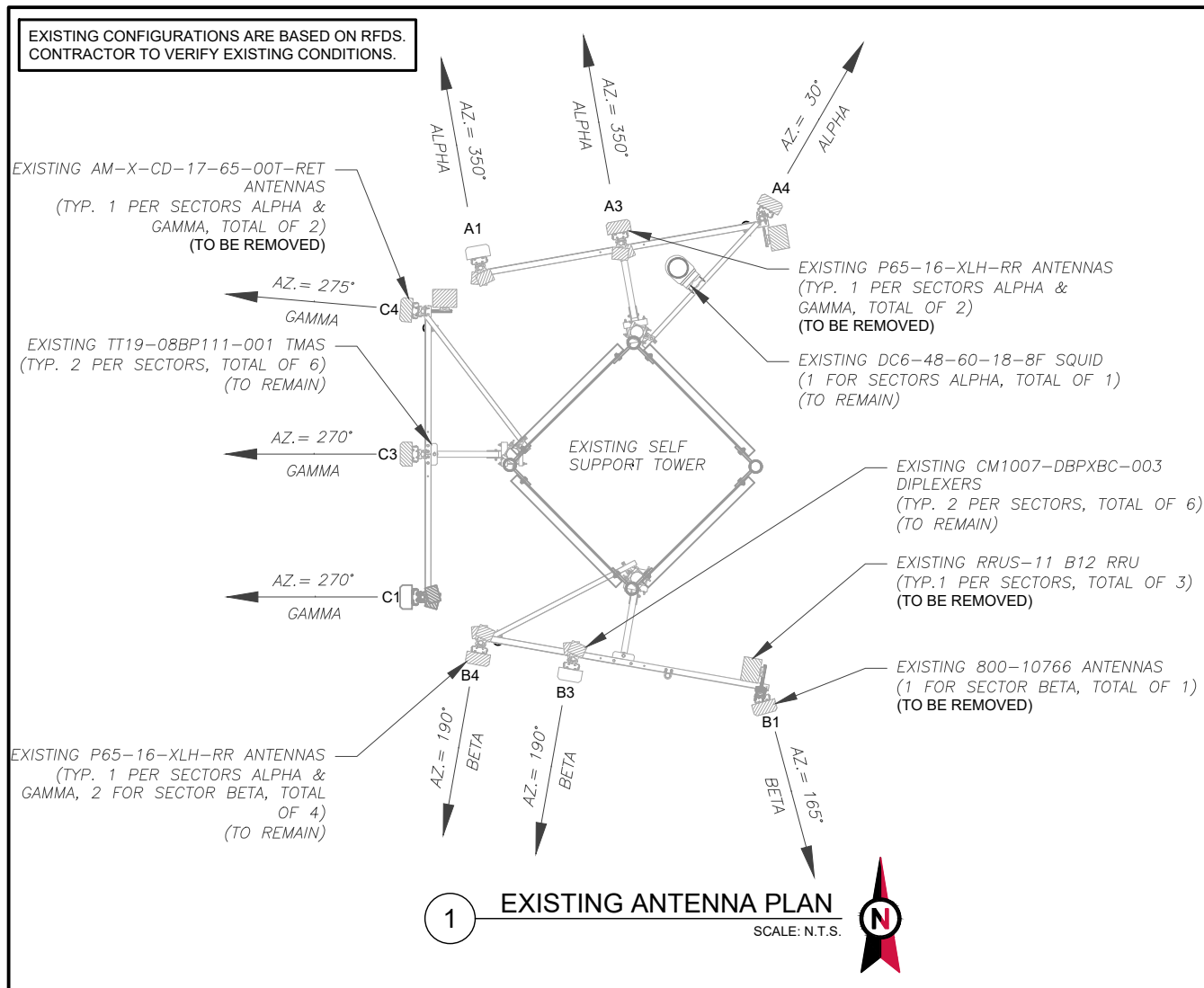


DATE DRAWN:	01/21/21
ATC JOB NO:	13320909
CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

TOWER ELEVATION

SHEET NUMBER: C-201	REVISION: 1
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EXISTING ANTENNA SCHEDULE									
LOCATION		ANTENNA SUMMARY					NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	246'	350°	A1	POWERWAVE P65-16-XLH-RR	UMTS 850	0°/2	RMN	(2) CM1007-DBPXBC-003 (1) TT19-08BP111-001	RMN
			A3	POWERWAVE P65-16-XLH-RR	GSM 850	0°/2°	RMV	(2) CM1007-DBPXBC-003 (1) TT19-08BP111-001	RMN
		30°	A4	KMW AM-X-CD-17-65-00T-RET	LTE 700	0°/10°	RMV	(1) DC6-48-60-18-8F (1) RRUS-11 B12	RMN RMV
BETA	246'	190°	B1	KATHREIN 800-10766	LTE 700	0°/0°	RMV	(1) RRUS-11 B12	RMV
			B3	POWERWAVE P65-16-XLH-RR	UMTS 850	0°/9°	RMN	(2) CM1007-DBPXBC-003 (1) TT19-08BP111-001	RMN
		165°	B4	POWERWAVE P65-16-XLH-RR	GSM 850	0°/9°	RMV	(2) CM1007-DBPXBC-003 (1) TT19-08BP111-001	RMV
GAMMA	246'	270°	C1	POWERWAVE P65-16-XLH-RR	UMTS 850	0°/2°	RMN	(2) CM1007-DBPXBC-003 (1) TT19-08BP111-001	RMN
			C3	POWERWAVE P65-16-XLH-RR	GSM 850	0°/2°	RMV	(2) CM1007-DBPXBC-003 (1) TT19-08BP111-001	RMN
		275°	C4	KMW AM-X-CD-17-65-00T-RET	LTE 700	0°/5°	RMV	(1) RRUS-11 B12	RMV

NOTES

- BASED ON APPROVED ATC APPLICATION 13320909, DATED 11/16/2020. CONFIRM WITH AT&T MOBILITY REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.

STATUS ABBREVIATIONS

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

CABLE LENGTHS FOR JUMPERS

SQUID TO RRU: 15'
RRU TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE									
LOCATION		ANTENNA SUMMARY					NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	246'	350°	A1	POWERWAVE P65-16-XLH-RR	UMTS 850	2°	RMN	(2) CM1007-DBPXBC-003 (1) TT19-08BP111-001	RMN
			A3	CCI OPA65R-BU8DA	LTE 700, LTE 1900	5°/5°/5°	ADD	(1) CM1007-DBPXBC-003 (1) TT19-08BP111-001 (1) RADIO 4478 B14	RMN RMN ADD
		30°	A4	CCI DMP65R-BU8DA	LTE 700, LTE 850, LTE AWS, 5G 850	5°/5°/5°/1°	ADD	(1) RADIO 4449 B5/B12 (1) RADIO 8843 B2/B66A	ADD ADD
BETA	246'	165°	B1	CCI DMP65R-BU8DA	LTE 700, LTE 850, LTE AWS, 5G 850	10°/10°/8°/1°	ADD	(1) RADIO 4449 B5/B12	ADD
			B2	CCI OPA65R-BU8DA	LTE 700, LTE 1900	10°/8°/8°	ADD	(1) RADIO 8843 B2/B66A (1) RADIO 4478 B14	ADD ADD
		190°	B3	POWERWAVE P65-16-XLH-RR	UMTS 850	9°	RMN	(2) CM1007-DBPXBC-003 (1) TT19-08BP111-001	RMN
GAMMA	246'	270°	C1	POWERWAVE P65-16-XLH-RR	UMTS 850	2°	RMN	(2) CM1007-DBPXBC-003 (1) TT19-08BP111-001	RMN
			C3	CCI OPA65R-BU8DA	LTE 700, LTE 1900	10°/8°/8°	ADD	(2) CM1007-DBPXBC-003 (1) TT19-08BP111-001 (1) RADIO 4478 B14	RMN RMN ADD
		275°	C4	CCI DMP65R-BU8DA	LTE 700, LTE 850, LTE AWS, 5G 850	12°/10°/8°/1°	ADD	(1) RADIO 4449 B5/B12 (1) RADIO 8843 B2/B66A	ADD ADD

EXISTING FIBER DISTRIBUTION/SQUID							
MODEL NUMBER	STATUS	COAX	STATUS	DC	STATUS	FIBER	STATUS
(1) DC6-48-60-18-8F	RMN	(6) 1 5/8"	RMN	-	-	(3) FIBER CABLES	RMN

FINAL FIBER DISTRIBUTION / SQUID				FINAL CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	STATUS	DC	STATUS	FIBER	STATUS
(1) DC6-48-60-18-8F	RMN	(6) 1 5/8"	RMN	-	-	(3) FIBER CABLES	RMN
(1) DC6-48-60-18-8F	ADD	-	-	-	-	(6) Y CABLES	ADD

3 EQUIPMENT SCHEDULES



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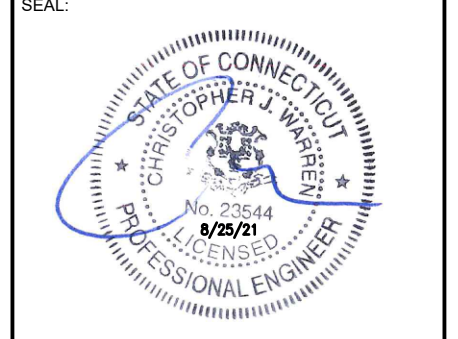
REV.	DESCRIPTION	BY	DATE
A	PRELIM	BHE	01/21/21
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C	FOR CONSTRUCTION	NL	08/25/21

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88011

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CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	C-401	REVISION:	1
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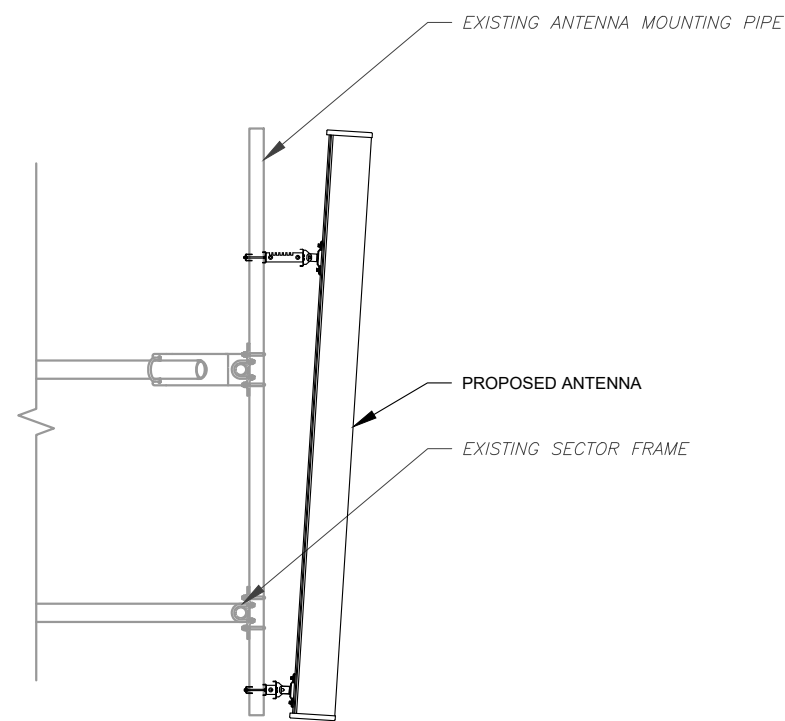
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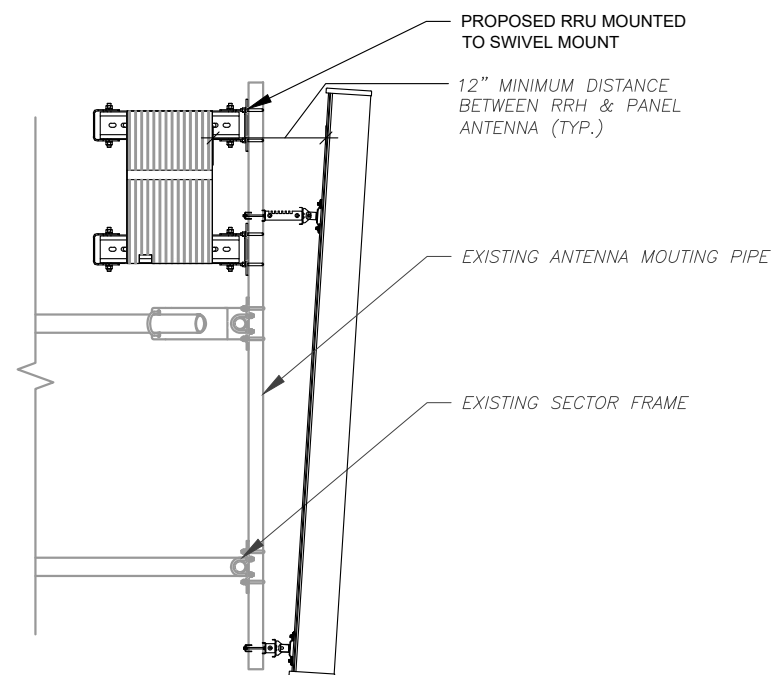
DATE DRAWN:	01/21/21
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CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

MOUNT DETAILS

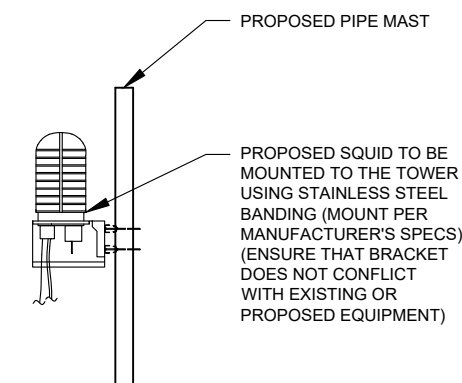
SHEET NUMBER:	REVISION:
C-501	1



1 ANTENNA DETAIL
SCALE: N.T.S.



2 PROPOSED RRU MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



3 PROPOSED SQUID MOUNTING
SCALE: N.T.S.

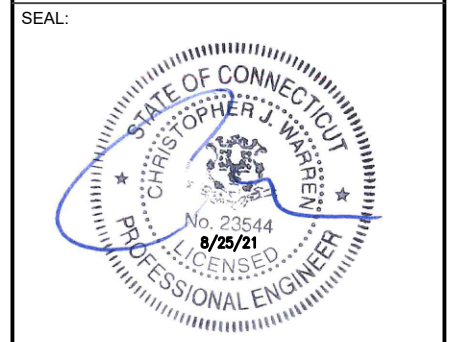
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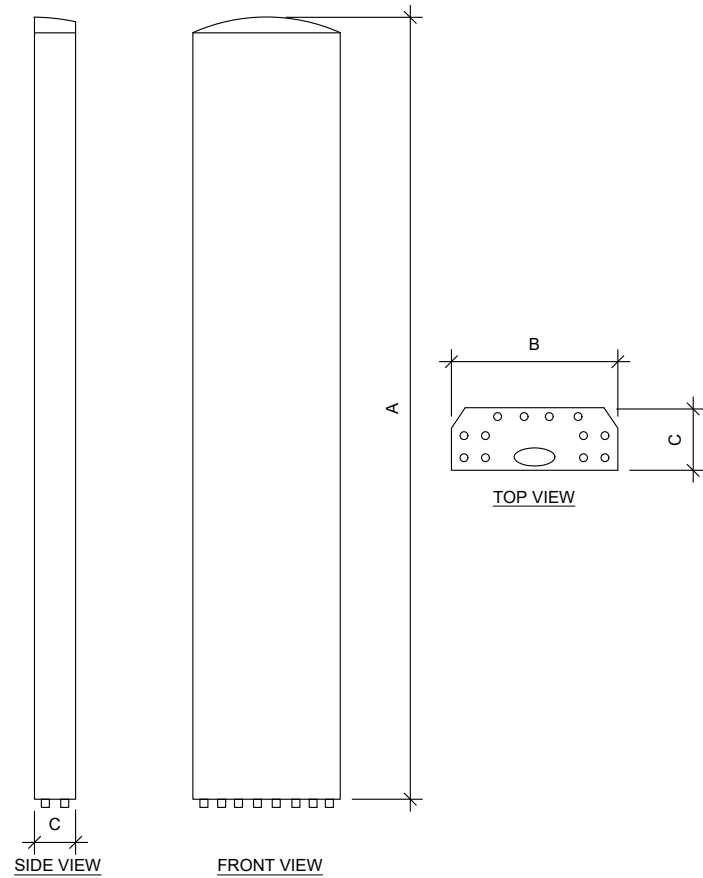
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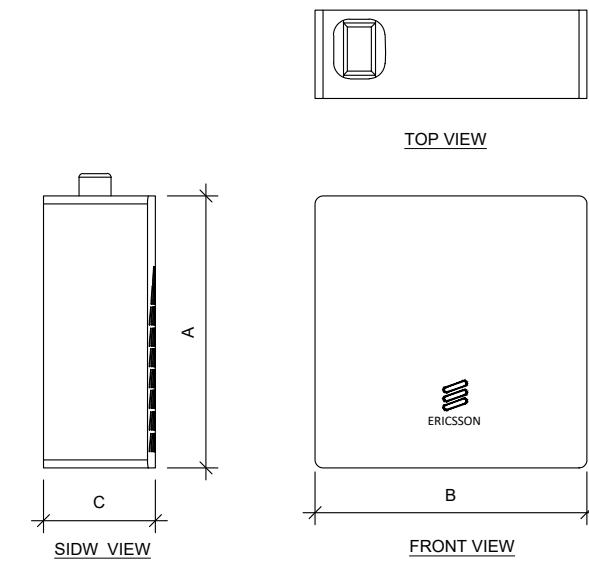
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ATC JOB NO:	13320909
CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

EQUIPMENT SPECIFICATIONS

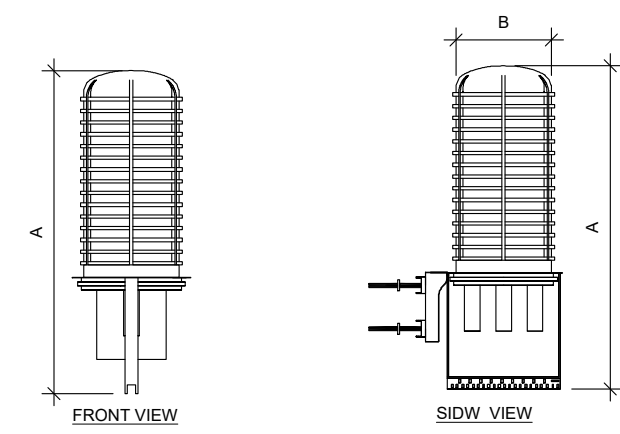
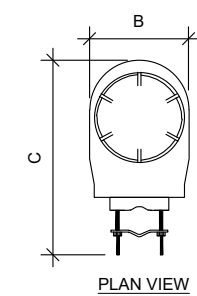
SHEET NUMBER:	REVISION:
C-502	1



ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
CCI OPA65R-BU8DA	96.0"	21"	7.8"	76.5
CCI DMP65R-BU8DA	96.0"	20.7"	7.7"	95.7

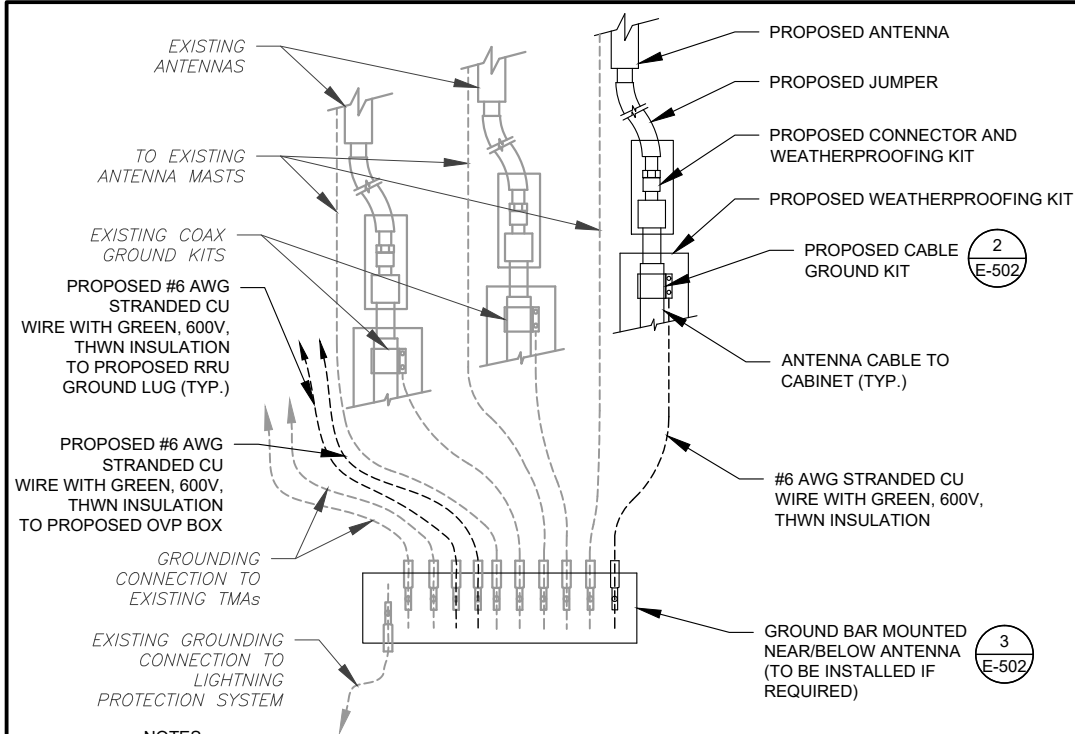


RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
4478 B14	18.1"	13.4"	8.3"	59.4
8843 B2, B66A	14.9"	13.2"	10.9"	72.0
4449 B5, B12	17.9"	13.2"	9.4"	71.0



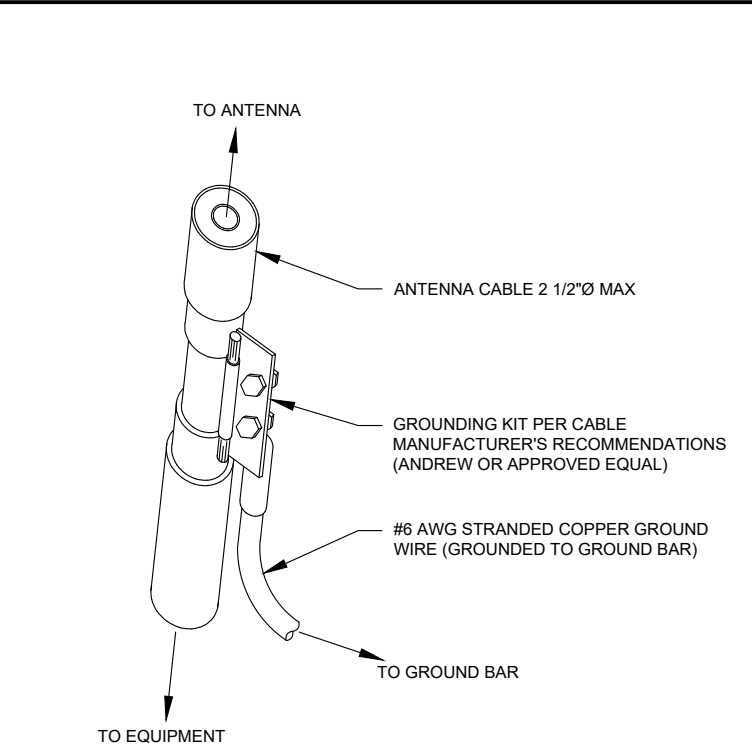
RAYCAP SPECIFICATIONS				
RAYCAP MODEL	A	B	C	WEIGHT (LBS)
DC6-48-60-18-8F	24.0"	11.0"	11.0"	31.8

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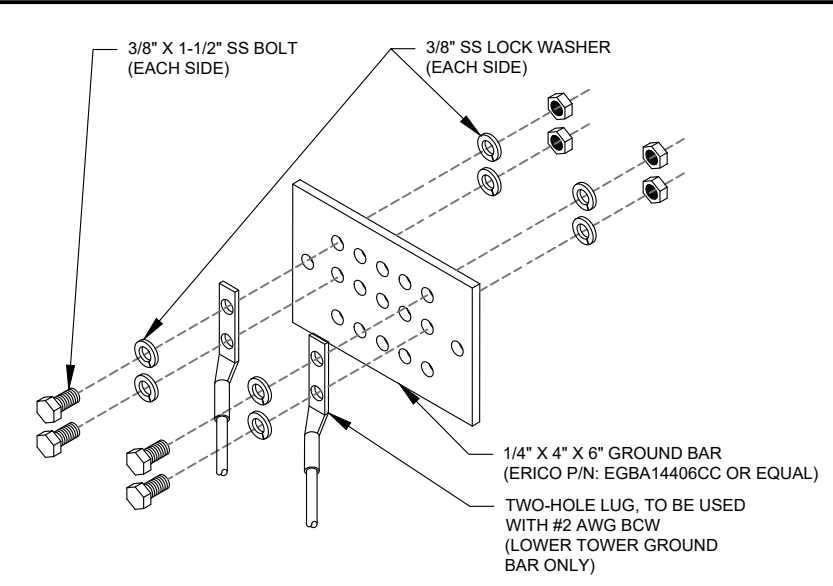
- NOTES:**
1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
 2. SITE GROUNDING SHALL COMPLY WITH AT&T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

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



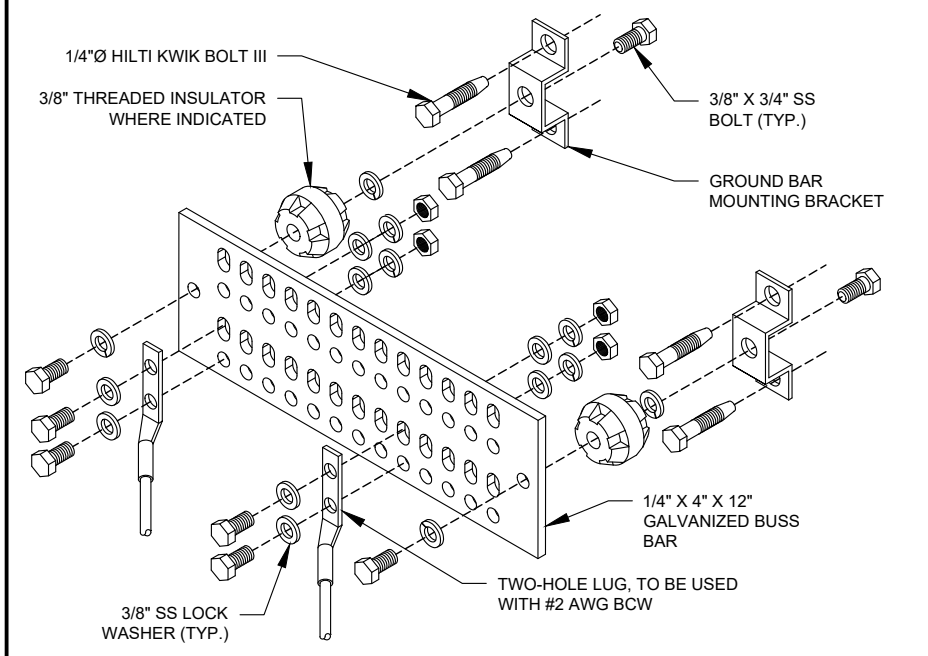
- GROUND KIT NOTES:**
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL
SCALE: N.T.S.



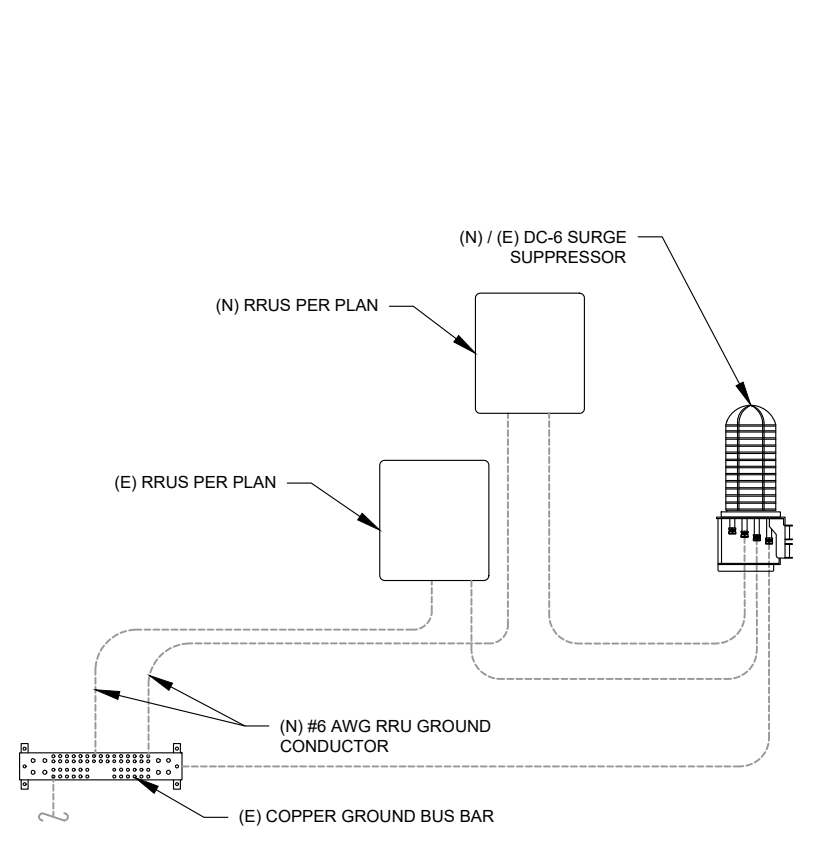
- GROUND BAR NOTES:**
1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
 2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL
SCALE: N.T.S.

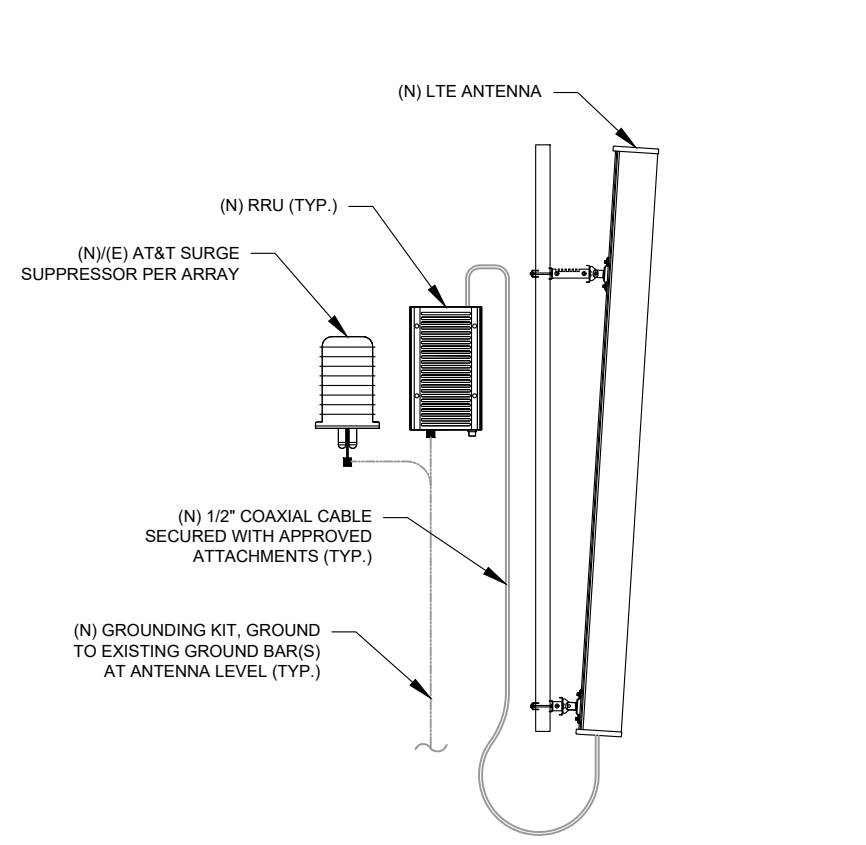


- GROUND BAR NOTES**
1. GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
 2. GROUND BAR SHALL BE BOLTED TO STRUCTURAL MEMBER OR ANCHORED TO CONCRETE SLAB W/ HILTI KWIK BOLT III.

4 MAIN GROUND BAR DETAIL
SCALE: N.T.S.



5 RRU GROUNDING
SCALE: N.T.S.



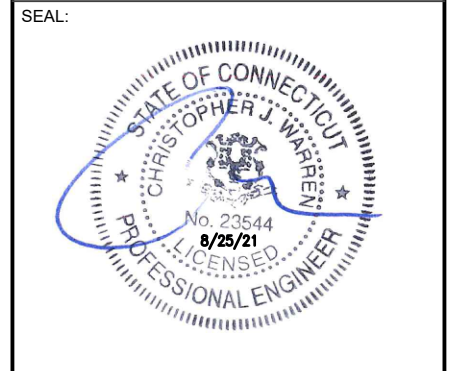
6 ANTENNA/RRU GROUNDING
SCALE: N.T.S.



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1	FOR CONSTRUCTION	NL	08/25/21

ATC SITE NUMBER:
88011
ATC SITE NAME:
EAST KILLINGLY NORTH
AT&T MOBILITY SITE NAME:
MRCTB048458
SITE ADDRESS:
1375 NORTH ROAD
DAYVILLE, CT 06241



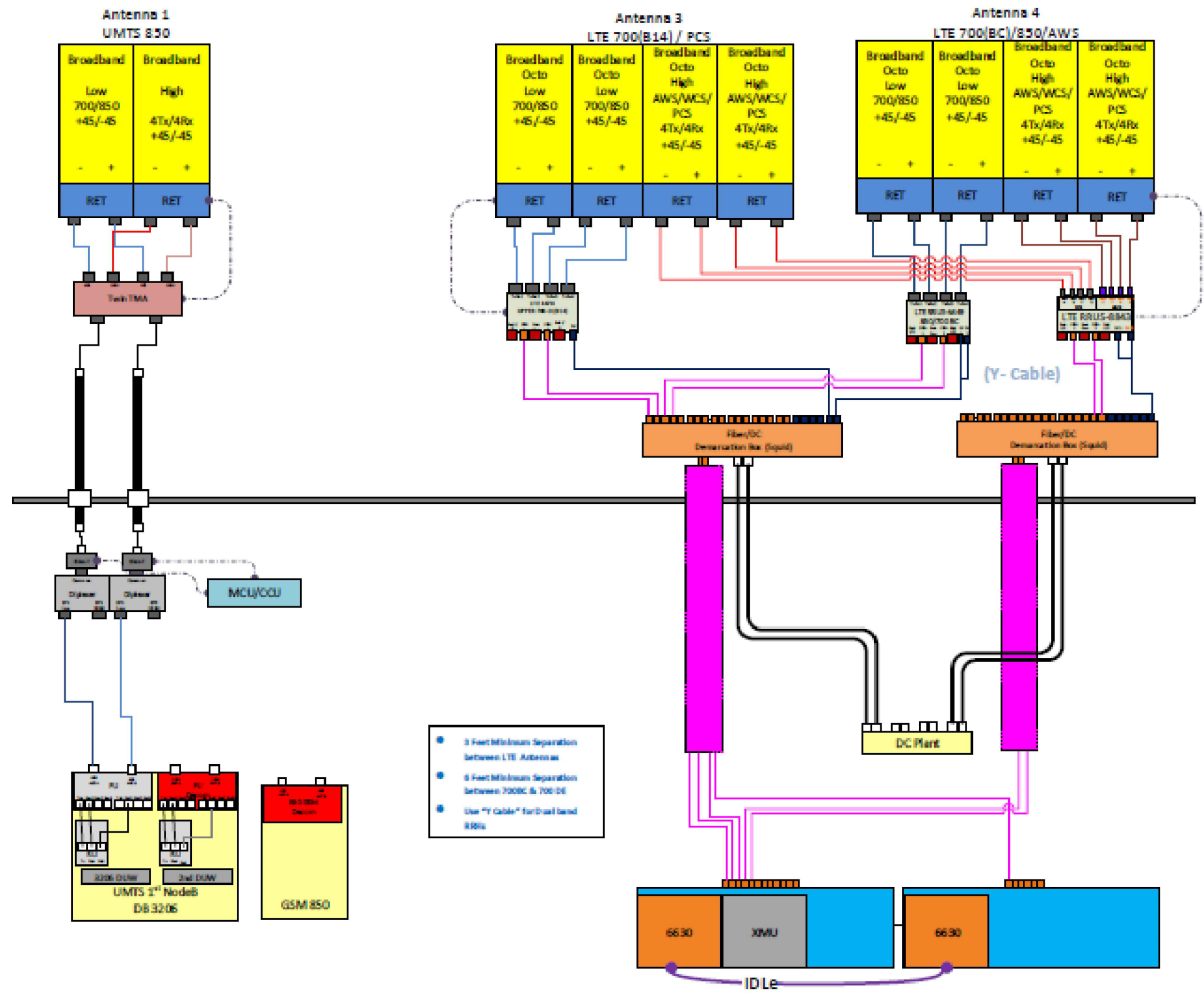
DATE DRAWN:	01/21/21
ATC JOB NO:	13320909
CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

GROUNDING DETAILS

SHEET NUMBER: E-501	REVISION: 1
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Diagram - Sector A Diagram File Name - GT1289_A_C_LTE Multi Carrier_BrStd_Rev1.vsd
 Aerial Site Name - CT1289 Location Name - KILLINGLY CT NORTH ROAD DAS 1SE Market - CONNECTICUT Market Cluster - NEW ENGLAND
 Comments: *Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson*



1 PLUMBING DIAGRAM (ALPHA SECTOR) SCALE: N.T.S.

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DAYVILLE, CT 06241

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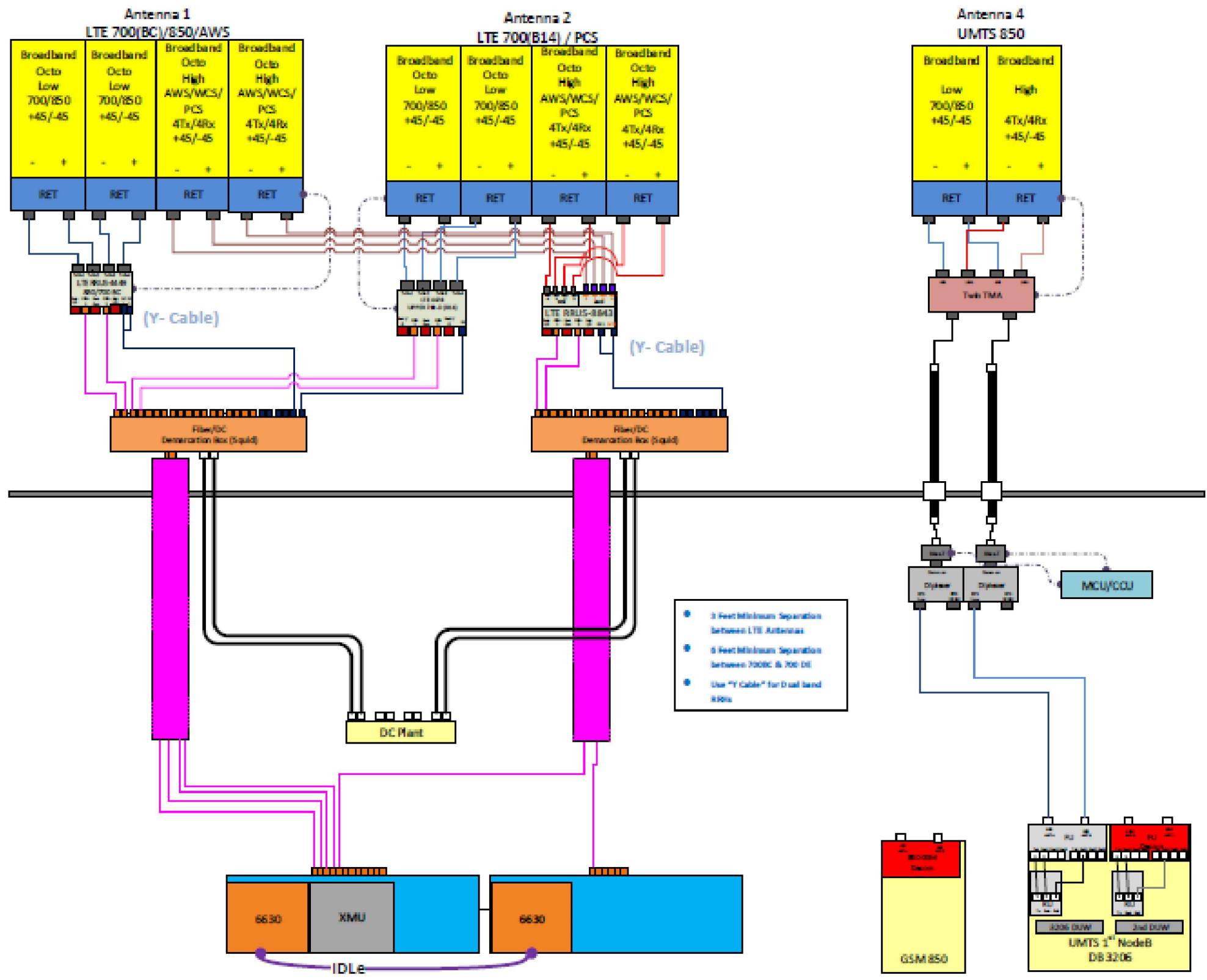


DATE DRAWN:	01/21/21
ATC JOB NO:	13320909
CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-601	1

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1 PLUMBING DIAGRAM (BETA SECTOR) SCALE: N.T.S.

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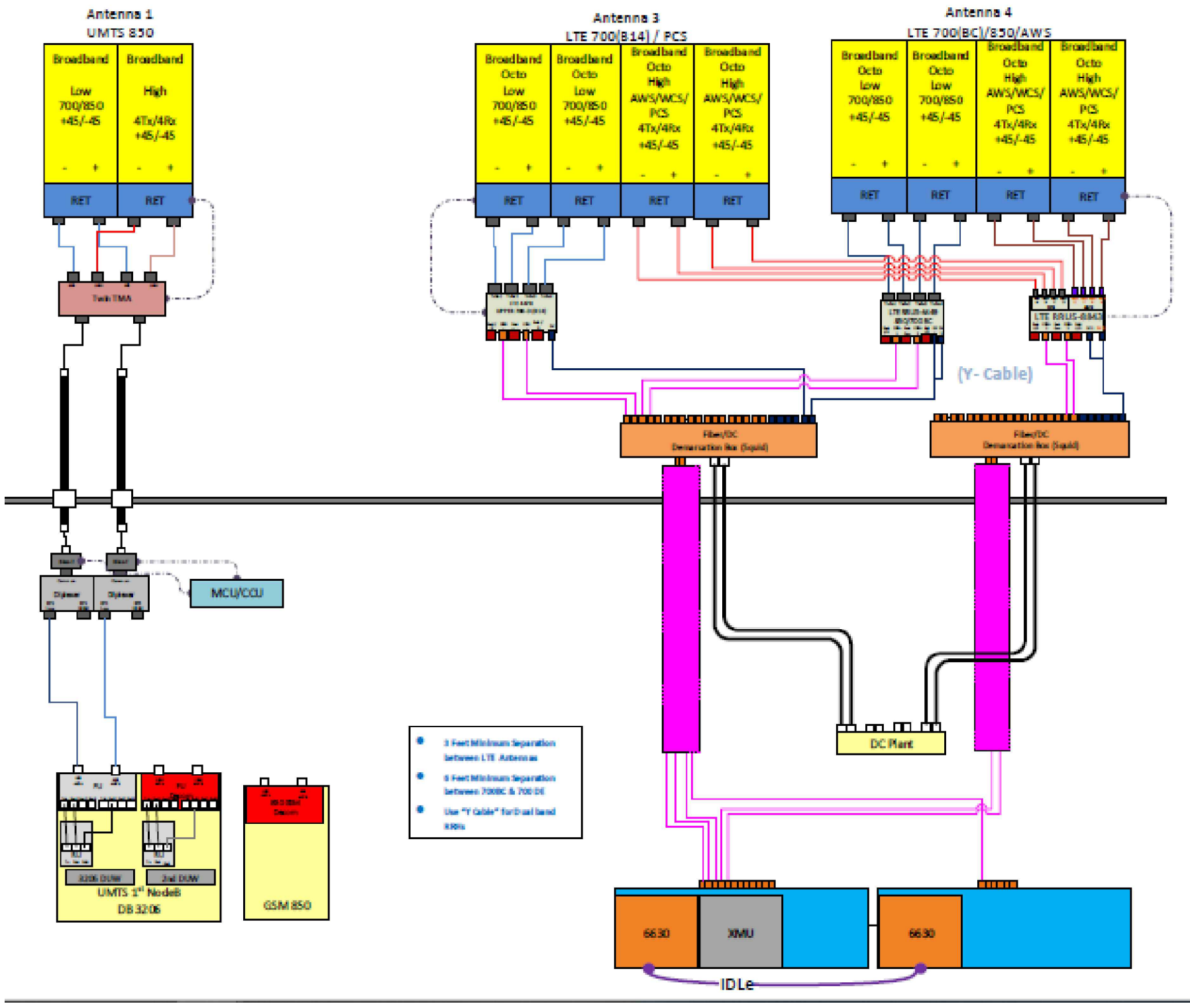
DATE DRAWN:	01/21/21
ATC JOB NO:	13320909
CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-602	1

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Diagram - Sector C Diagram File Name - CT1289_A_C_LTE Multi Carrier_BrStd_Rev1.vsd
 Atoll Site Name - CT1289 Location Name - KILLINGLY CT NORTH ROAD DAS ISE Market - CONNECTICUT Market Cluster - NEW ENGLAND
 Comments: "Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson"



1 PLUMBING DIAGRAM (GAMMA SECTOR) SCALE: N.T.S.



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ATC SITE NUMBER:
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 SITE ADDRESS:
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DAYVILLE, CT 06241

FOR REFERENCE ONLY



DATE DRAWN:	01/21/21
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CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-603	1

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Eng. Number 13320909_C8_01
December 23, 2020
Page 1

Antenna Mount Analysis Report

ATC Site Name : EAST KILLINGLY NORTH, CT
 ATC Site Number : 88011
 Engineering Number : 13320909_C8_01
 Mount Elevation : 246 ft
 Carrier : AT&T Mobility
 Carrier Site Name : MRCTB048458
 Carrier Site Number : CTL01289
 Site Location : 1375 North Road
 Killingly, CT 06241-1404
 41.871525, -71.82154444
 County : Windham
 Date : December 23, 2020
 Max Usage : 187%
 Result : Fail

Prepared By:
Kyle Sammarco
Structural Engineer

Reviewed By:



Authorized by "EOR"
23 Dec 2020 08:52:18
cosign

COA: PEC.0001553

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for AT&T Mobility at 246 ft.

Supporting Documents

Mount Mapping	ETS Project #203063.IE.01, dated October 26, 2020
Radio Frequency Data Sheet	RFD5 ID #10141309, dated August 21, 2020
Reference Photos	Site photos from 2020

Analysis

This antenna mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D

Basic Wind Speed:	122 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.186, S1 = 0.053
Site Class:	D - Stiff Soil
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount does not meet the requirements per the applicable codes listed above. The mount can support the equipment as described in this report after the modifications listed below are completed:

- Reinforce mount face horizontals.
- Reinforce mount support arm horizontals.
- Space mount pipes as shown to accommodate carrier separation requirements.

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



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ATC SITE NUMBER:
88011
ATC SITE NAME:
EAST KILLINGLY NORTH
AT&T MOBILITY SITE NAME:
MRCTB048458
SITE ADDRESS:
1375 NORTH ROAD
DAYVILLE, CT 06241

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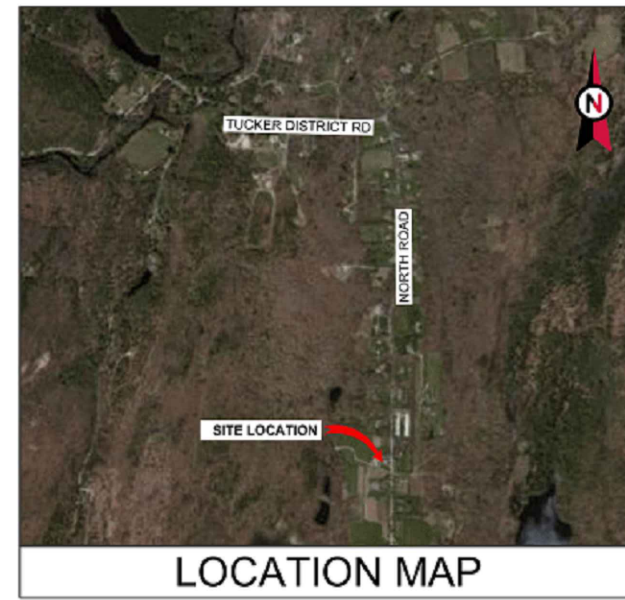
DATE DRAWN:	01/21/21
ATC JOB NO:	13320909
CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

SUPPLEMENTAL

SHEET NUMBER:
R-604
REVISION:
1



SITE NAME: EAST KILLINGLY NORTH
SITE NUMBER: 88011
ATC PROJECT NUMBER: 13320909_C9_08
SITE ADDRESS: 1375 NORTH ROAD
KILLINGLY, CT 06241



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 SITE ADDRESS:
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 KILLINGLY, CT 06241



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 26 Apr 2021 09:30:54 cosign

DRAWN BY: NYG
 APPROVED BY: TCR
 DATE DRAWN: 04/22/21
 ATC JOB NO: 13320909_C9_08

COVER

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

**MOUNT REINFORCEMENT DRAWINGS
 PREPARED FOR AT&T MOBILITY**

PROJECT TEAM	PROJECT DESCRIPTION	SHEET	SHEET TITLE	REV.		
TOWER OWNER AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801 ENGINEERED BY ATC TOWER SERVICES 3500 REGENCY PARKWAY, SUITE 100 CARY, NC 27518 CARRIER INFORMATION CARRIER: AT&T MOBILITY CARRIER SITE NAME: MRCTB048458 CARRIER SITE NUMBER: CTL01289	THE MODIFICATIONS PRESENTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE MOUNT ANALYSIS COMPLETED UNDER ENGINEERING PROJECT NUMBER 13320909_C8_07 DATED 03/09/21. SATISFACTORY COMPLETION OF THE WORK INDICATED ON THESE DRAWINGS WILL RESULT IN THE MOUNT MEETING THE REQUIREMENTS OF THE SPECIFICATIONS UNDER WHICH THE MOUNT ANALYSIS WAS COMPLETED. ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. 1. ANSITIA/EIA: STRUCTURAL STANDARDS (222-H EDITION) 2. INTERNATIONAL BUILDING CODE (2015 IBC) 3. CONNECTICUT STATE BUILDING CODE (2018)	G-002	IBC GENERAL NOTES AND MOUNT MODIFICATION INSPECTION	0		
		S-101	T-ARM SECTOR FRAME MOUNT REINFORCEMENT INSTALLATION DETAILS	0		
		S-102	SUPPLEMENTAL	0		
		R-801	SUPPLEMENTAL	0		
		R-602	SUPPLEMENTAL	0		
		R-901	SUPPLEMENTAL	0		
		R-902	SUPPLEMENTAL	0		
		R-903	SUPPLEMENTAL	0		
		COMPLIANCE CODE				
		PROJECT LOCATION				
GEOGRAPHIC COORDINATES						
LATITUDE: 41.871525						
LONGITUDE: -71.82154444						



1 MOUNT MODIFICATIONS
 SCALE: N.T.S.

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ATC SITE NUMBER:
88011
 ATC SITE NAME:
EAST KILLINGLY NORTH
 AT&T MOBILITY SITE NAME:
MRCTB048458
 SITE ADDRESS:
 1375 NORTH ROAD
 DAYVILLE, CT 06241

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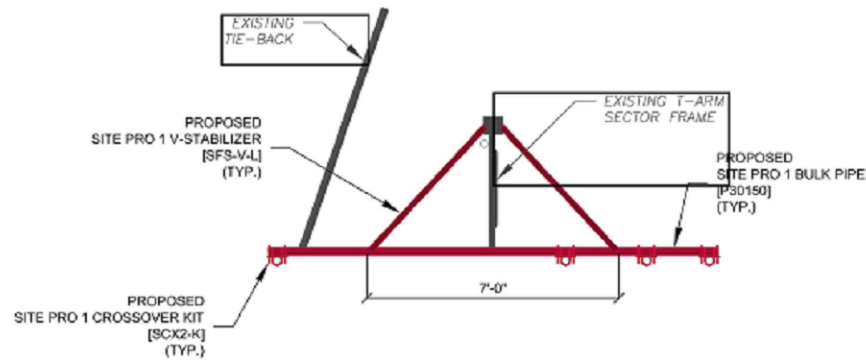


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 CUSTOMER ID: MRCTB048458
 CUSTOMER #: CTL01289

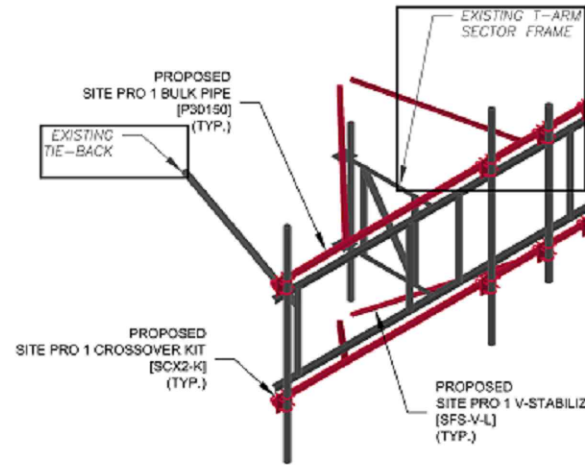
SUPPLEMENTAL

SHEET NUMBER: **R-605** REVISION: **1**

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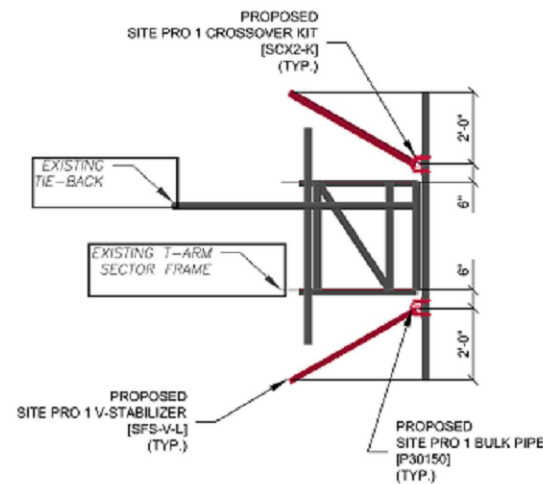


MOUNT MODIFICATION - TOP VIEW

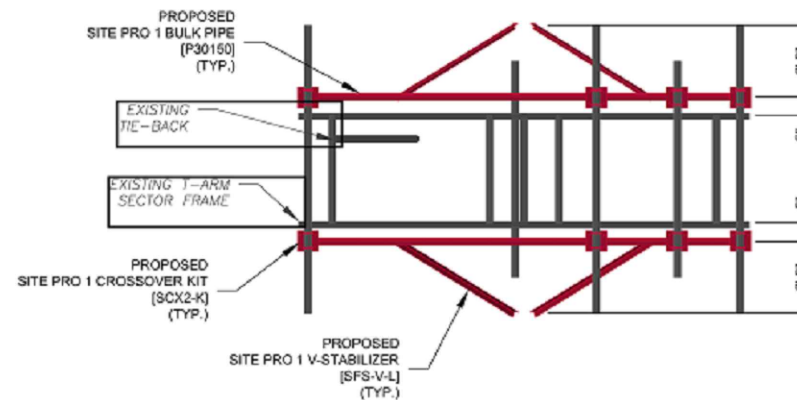


MOUNT MODIFICATION - ISOMETRIC VIEW

NOTE(S):
1. SITE PRO 1 PIN: [SFS-V-L] TO BE FIELD CUT TO 5'-4".



MOUNT MODIFICATION - SIDE VIEW



MOUNT MODIFICATION - FRONT VIEW

NOTE:
IN THE EVENT A PROPOSED MODIFICATION PART LISTED IN THE DRAWINGS IS NOT AVAILABLE, AN APPROVED EQUIVALENT CAN BE SUBSTITUTED. FOR APPROVAL OF EQUIVALENT PART OR QUESTIONS PLEASE CONTACT AMERICAN TOWER PMI INBOX AT PMI@AMERICANTOWER.COM.



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DRAWN BY:	NYG
APPROVED BY:	TCR
DATE DRAWN:	04/22/21
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T-ARM SECTOR FRAME
MOUNT REINFORCEMENT
INSTALLATION DETAILS

SHEET NUMBER:	REVISION:
S-101	0



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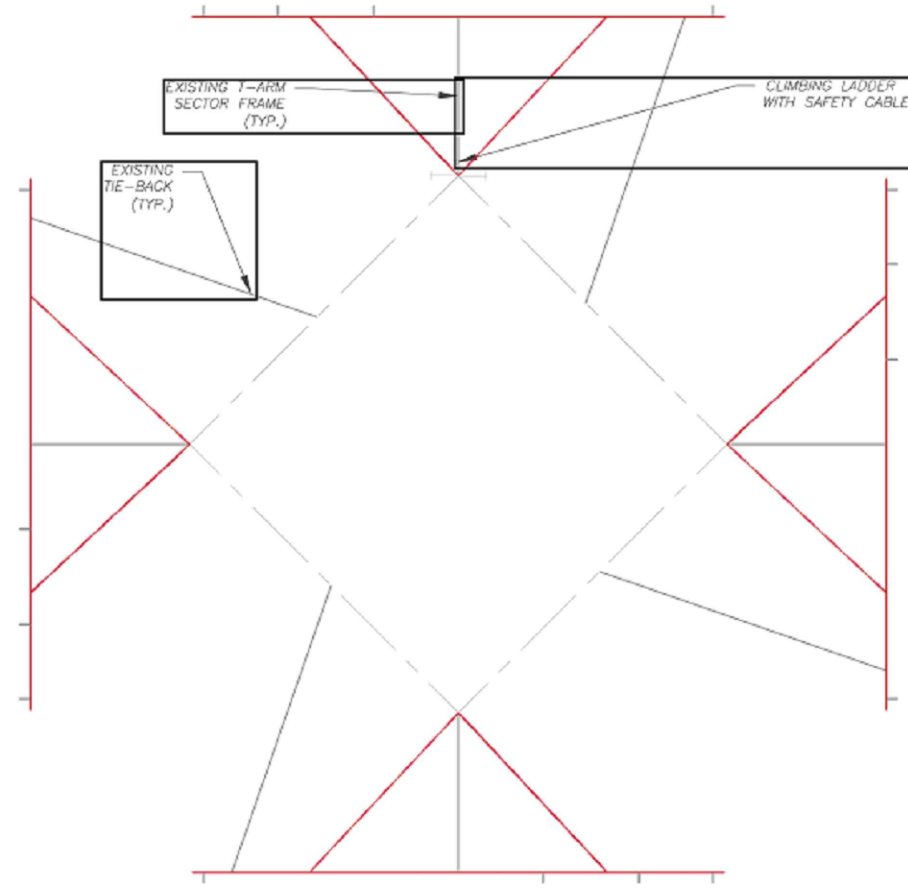
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R-606	1

1 MOUNT MODIFICATIONS
SCALE: N.T.S.

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SAFETY CLIMB LOCATION



NOTE:
CONTRACTOR TO INSTALL MOUNT MODIFICATIONS PER THE MANUFACTURERS SPECIFICATION. MODIFICATIONS SHALL NOT OBSTRUCT, INTERFERE, OR BLOCK EXISTING SAFETY CLIMB SYSTEM. IF ANY OF THESE OCCURS DURING INSTALLATION CONTACT THE AMERICAN TOWER PMI INBOX PMI@AMERICANTOWER.COM

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CUSTOMER #:	CTL01289

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-607	1

1 MOUNT MODIFICATIONS
SCALE: N.T.S.

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REV.	DESCRIPTION	BY	DATE
△	PRELIM	BHE	01/21/21
△	FOR CONSTRUCTION	EDZ	05/15/21
△	FOR CONSTRUCTION	NL	08/25/21
△			
△			

ATC SITE NUMBER:
88011
ATC SITE NAME:
EAST KILLINGLY NORTH
AT&T MOBILITY SITE NAME:
MRCTB048458
SITE ADDRESS:
1375 NORTH ROAD
DAYVILLE, CT 06241

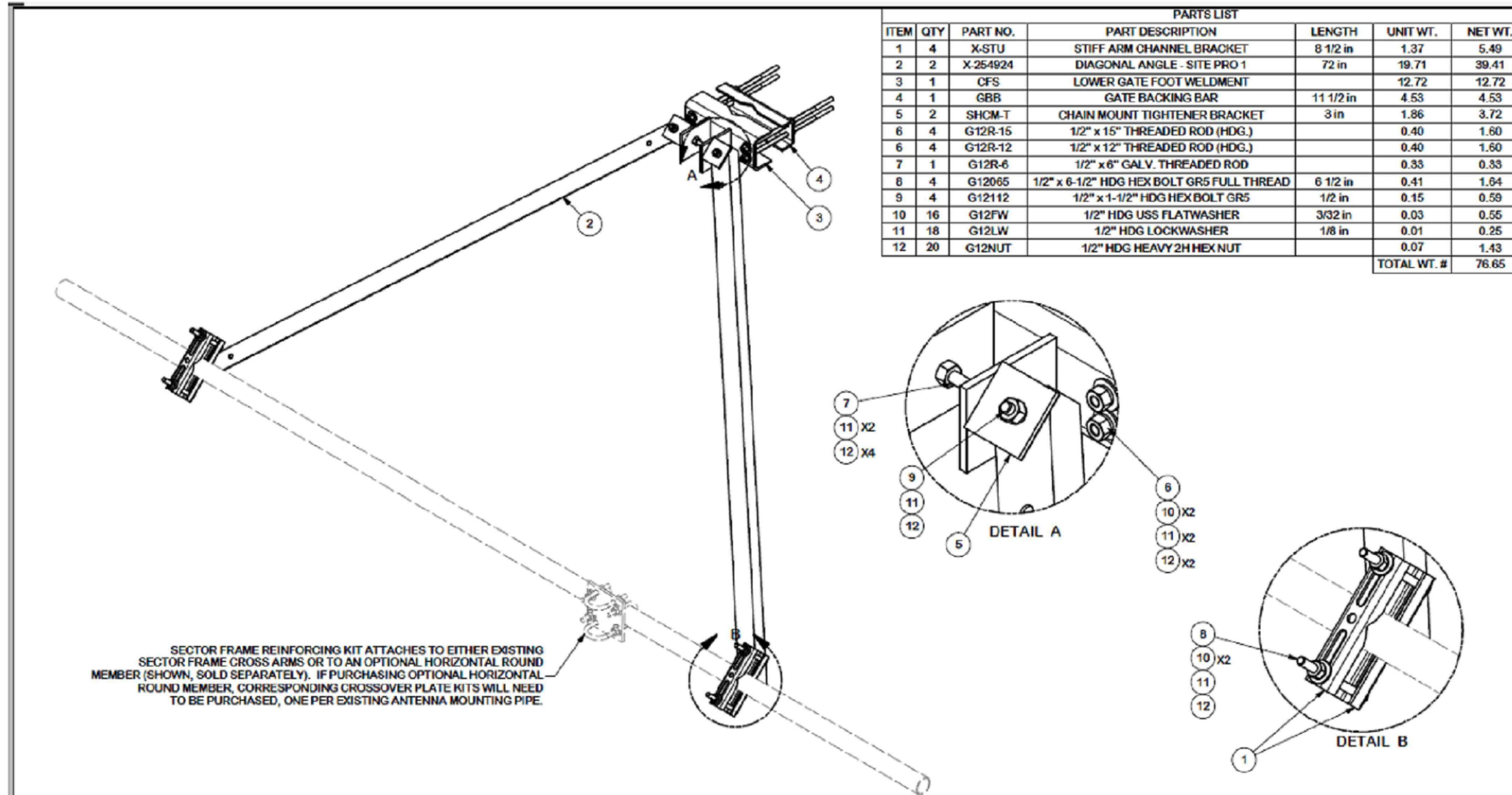
**FOR
REFERENCE
ONLY**



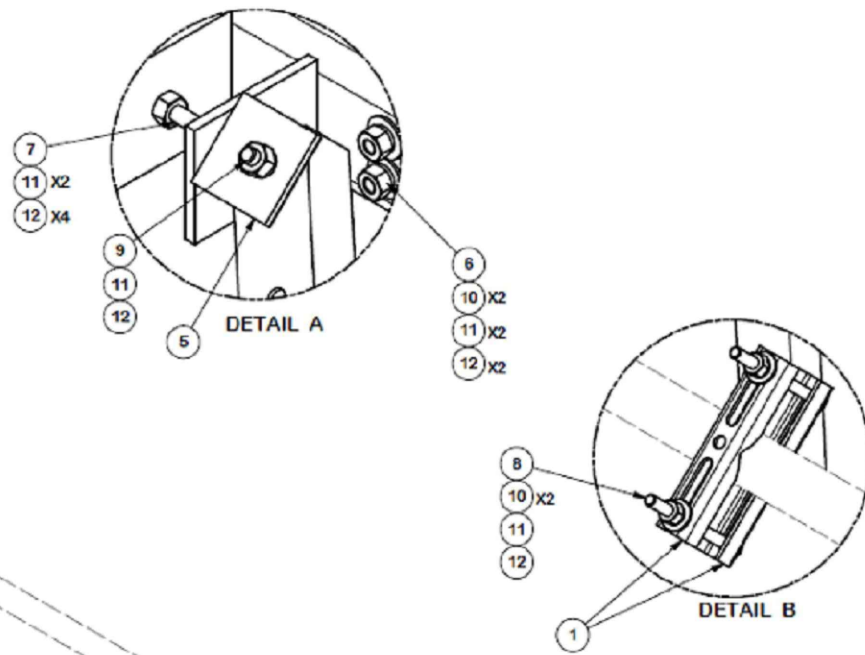
DATE DRAWN:	01/21/21
ATC JOB NO:	13320909
CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

SUPPLEMENTAL

SHEET NUMBER:
R-608
REVISION:
1



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	4	X-STU	STIFF ARM CHANNEL BRACKET	8 1/2 in	1.37	5.49
2	2	X-254924	DIAGONAL ANGLE - SITE PRO 1	72 in	19.71	39.41
3	1	CFS	LOWER GATE FOOT WELDMENT		12.72	12.72
4	1	GBB	GATE BACKING BAR	11 1/2 in	4.53	4.53
5	2	SHCM-T	CHAIN MOUNT TIGHTENER BRACKET	3 in	1.86	3.72
6	4	G12R-15	1/2" x 15" THREADED ROD (HDG.)		0.40	1.60
6	4	G12R-12	1/2" x 12" THREADED ROD (HDG.)		0.40	1.60
7	1	G12R-6	1/2" x 6" GALV. THREADED ROD		0.33	0.33
8	4	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	1.64
9	4	G12112	1/2" x 1-1/2" HDG HEX BOLT GR5	1/2 in	0.15	0.59
10	16	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.55
11	18	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.25
12	20	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.43
TOTAL WT. #						76.65



SECTOR FRAME REINFORCING KIT ATTACHES TO EITHER EXISTING SECTOR FRAME CROSS ARMS OR TO AN OPTIONAL HORIZONTAL ROUND MEMBER (SHOWN, SOLD SEPARATELY). IF PURCHASING OPTIONAL HORIZONTAL ROUND MEMBER, CORRESPONDING CROSSOVER PLATE KITS WILL NEED TO BE PURCHASED, ONE PER EXISTING ANTENNA MOUNTING PIPE.

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES (± 0.030")
DRILLED AND GAS CUT HOLES (± 0.030") - NO CONING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.030")
ALL OTHER ASSEMBLY (± 0.060")

PROPRIETARY NOTE:
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DESCRIPTION SECTOR FRAME STABILIZER - VERTICAL LONG				Location: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX
CPD NO. 5563	DRAWN BY CEK 3/23/2017	ENG. APPROVAL	PART NO. SFS-V-L	1 OF 3
CLASS SUB 81 01	DRAWING USAGE CUSTOMER	CHECKED BY BMC 3/23/2017	DWG. NO. SFS-V-L	

Authorized by "EOR"
26 Apr 2021 09:30:55

SUPPLEMENTAL
SHEET NUMBER:
R-601
REVISION:
0

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1 MOUNT MODIFICATIONS
SCALE: N.T.S.

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INFINIGY
ENGINEERING, PLLC
1033 WATERLIET SHAKER ROAD
ALBANY, NY 12205

REV.	DESCRIPTION	BY	DATE
0	PRELIM	BHE	01/21/21
0	FOR CONSTRUCTION	EDZ	05/15/21
1	FOR CONSTRUCTION	NL	08/25/21

ATC SITE NUMBER:
88011
ATC SITE NAME:
EAST KILLINGLY NORTH
AT&T MOBILITY SITE NAME:
MRCTB048458
SITE ADDRESS:
1375 NORTH ROAD
DAYVILLE, CT 06241

**FOR
REFERENCE
ONLY**

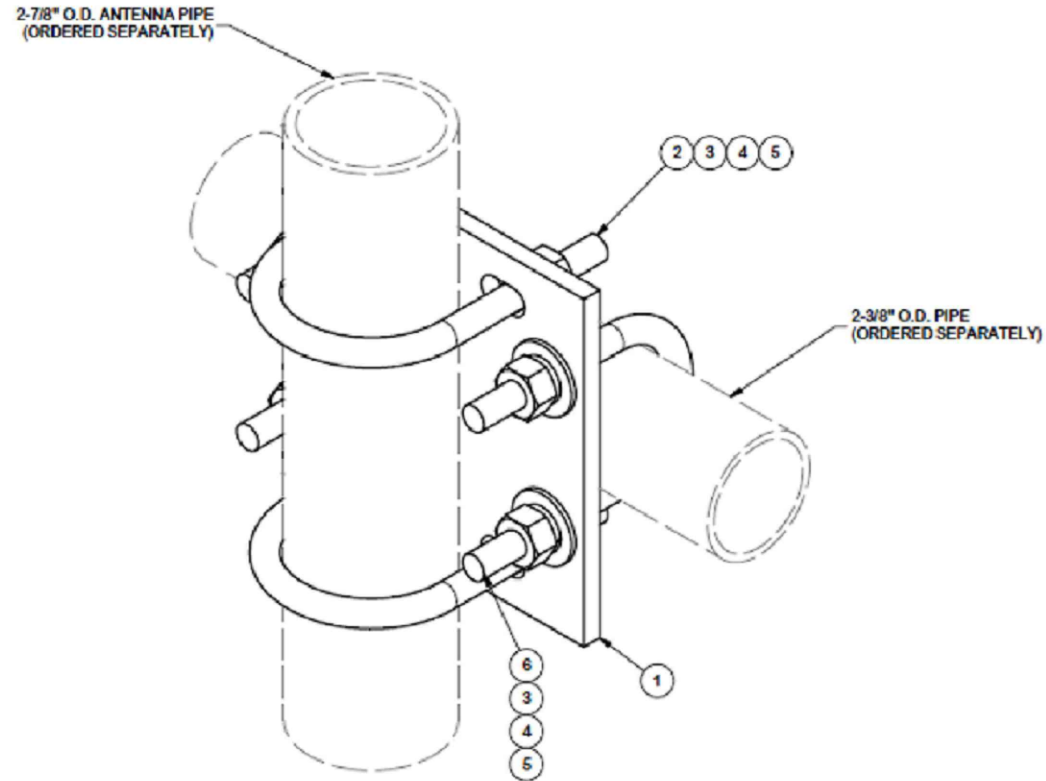


DATE DRAWN:	01/21/21
ATC JOB NO:	13320909
CUSTOMER ID:	MRCTB048458
CUSTOMER #:	CTL01289

SUPPLEMENTAL

SHEET NUMBER:
R-609
REVISION:
1

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	SCX2	CROSSOVER PLATE	7 in	4.80	4.80
2	2	X-UB1300	1/2" X 3" X 5" X 2" U-BOLT (HDG.)		0.66	1.31
3	8	G12FW	1/2" HDG USS FLATWASHER		0.03	0.27
4	8	G12LW	1/2" HDG LOCKWASHER		0.01	0.11
5	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
6	2	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.63	1.25
TOTAL WT. #						8.39



TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES (± 0.030)
DRILLED AND GAS CUT HOLES (± 0.030) - NO CONING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010) - NO CONING OF HOLES
BENDS ARE $\pm 1/2$ DEGREE
ALL OTHER MACHINING (± 0.030)
ALL OTHER ASSEMBLY (± 0.060)

PROPRIETARY NOTE:
THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION		CROSSOVER PLATE KIT			
CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX	
	CEK 6/30/2011		SCX2-K	Engineering Support Team: 1-888-753-7445	
CLASS	DRAWING USAGE	CHECKED BY	DWG. NO.	A valmont COMPANY	
	SHOP	BMC 7/1/2011	SCX2-K		

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

Authorized by "EOR"
26 Apr 2021 09:30:55

SUPPLEMENTAL

SHEET NUMBER:
R-602
REVISION:
0

1 MOUNT MODIFICATIONS
SCALE: N.T.S.

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Exhibit 3

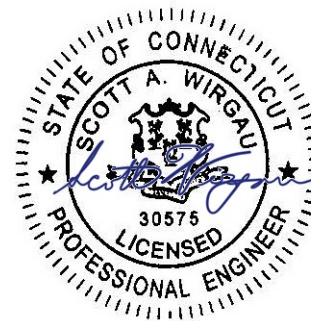
Structural Analysis Report



AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 287.5 ft Self Supported Tower
ATC Site Name : EAST KILLINGLY NORTH, CT
ATC Asset Number : 88011
Engineering Number : 13320909_C3_03
Proposed Carrier : AT&T MOBILITY
Carrier Site Name : MRCTB048458
Carrier Site Number : CTL01289
Site Location : 1375 North Road
Killingly, CT 06241-1404
41.871500,-71.821500
County : Windham
Date : December 22, 2020
Max Usage : 89%
Result : Pass



Prepared By:
Adam Pittman
Structural Engineer II

Reviewed By:

Adam Pittman

COA: PEC.0001553



Table of Contents

Introduction	1
Supporting Documents	1
Analysis	1
Conclusion.....	1
Existing and Reserved Equipment.....	2
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Structure Usages	3
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Standard Conditions	4
Calculations	Attached



Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 287.5 ft self supported tower to reflect the change in loading by AT&T MOBILITY.

Supporting Documents

Tower Drawings	CSEI Analysis, ATC Eng. #26726321, dated September 13, 2006
Foundation Drawing	CSEI Analysis, ATC Eng. #26726321, dated September 13, 2006
Geotechnical Report	FDH Velocitel Project #17PXNW1600, dated February 27, 2017
Modifications	ATC Project #45432633, dated July 9, 2010 ATC Project #OAA686695_C6_04, dated November 28, 2016

Analysis

The tower was analyzed using Power Lines Systems INC., tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	122 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Crest Height:	0 ft

Conclusion

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

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

Existing and Reserved Equipment

Elev. ¹ (ft)	Qty	Antenna	Mount Type	Lines	Carrier
306.0	3	Commscope NNVV-65B-R4	Side Arm	(4) 1 1/4" Hybriflex Cable	SPRINT NEXTEL
	3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
	3	Alcatel-Lucent 1900 MHz 4X45 RRH			
	3	RFS APXVTM14-ALU-I20			
	6	Alcatel-Lucent RRH2x50-08			
291.0	-	-	-	(6) 1 5/8" Coax	
290.0	1	Procom CXL 900-3LW	Side Arm	(1) 7/8" Coax	SIGFOX S.A.
	1	Generic 5" x 3" x 2" Cavity Filter			
	1	Generic Low Noise Amplifier			
277.0	4	RFS APXVAARR24_43-U-NA20	Sector Frame	(4) 1 1/4" Hybriflex Cable (4) 1 5/8" Hybriflex (1) 1/2" Coax	T-MOBILE
	4	Ericsson AIR32 B66Aa/B2a			
	1	Commscope SHP2-13			
	4	Ericsson RRUS 11 B4			
	4	Ericsson RRUS 11 B12			
	4	Ericsson RRUS 4415 B25			
	4	Ericsson Radio 4478 B71			
	4	Commscope CBC6AE7LQ-DS-43			
	4	Commscope CBC1923Q-43			
	4	Ericsson Air6449 B41			
	266.0	3			
1		Raycap RC3DC-3315-PF-48			
6		Amphenol Antel LPA-80063-4CF-EDIN-X			
2		Commscope JAHH-65B-R3B			
3		Samsung B5/B13 RRH-BR04C			
4		Commscope JAHH-45B-R3B			
3		Commscope CBC78T-DS-43-2X			
246.0	-	-	-	(1) 0.39" (10mm) Fiber Trunk (6) 2 1/4" Coax	AT&T MOBILITY
210.5	1	Andrew DB264	Leg/Flush	(1) 7/8" Coax	US DEPT OF JUSTICE
50.0	1	MicroPulse GPS-QBW-26N	Leg/Flush	(1) 1/2" Coax	VERIZON WIRELESS

Equipment to be Removed

Elev. ¹ (ft)	Qty	Antenna	Mount Type	Lines	Carrier
246.0	6	Powerwave Allgon TT19-08BP111-001	-	(2) 0.78" (19.7mm) 8 AWG 6 (6) 2 1/4" Coax (1) 3" conduit	AT&T MOBILITY
	3	Raycap DC2-48-60-0-9E			
	1	Raycap FC12-PC6-10E (20.35 lb)			
	2	KMW AM-X-CD-17-65-00T-RET (96" Height)			
	6	Powerwave Allgon P65-15-XLH-RR			
	1	Kathrein Scala 800 10766			
	3	Ericsson RRUS-11			



Proposed Equipment

Elev. ¹ (ft)	Qty	Antenna	Mount Type	Lines	Carrier
246.0	6	Powerwave Allgon LGP21901	Sector Frame	(1) 0.39" (10mm) Fiber Trunk (4) 0.82" (20.8mm) 8 AWG 6 (2) 2" conduit	AT&T MOBILITY
	2	Raycap DC6-48-60-18-8F			
	3	Ericsson RRUS 8843 B2, B66A			
	3	Ericsson RRUS 4478 B14			
	3	Ericsson RRUS 4449 B5, B12			
	3	Kathrein Scala 800 10122			
	3	CCI DMP65R-BU8D			
	3	CCI OPA65R-BU8D			

¹ Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed coax alongside of the existing AT&T Mobility lines.

**Structure Usages**

Structural Component	Controlling Usage	Pass/Fail
Legs	68%	Pass
Diagonals	89%	Pass
Trussed Diagonals	66%	Pass
Horizontals	56%	Pass
Trussed Horizontals	68%	Pass
Anchor Bolts	44 %	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Uplift (Kips)	292.6	63%
Axial (Kips)	410.6	8%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.



Standard Conditions

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

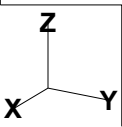
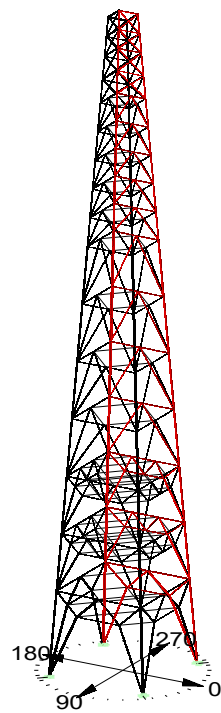
- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

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

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

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

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



Project Name : 88011 - East Killingly North, CT
 Project Notes : 08/27/2014 13:32:0909 AT&T MOBILITY\13320909_03_CUST_STR\13320909.tow
 Project File : X:\C-E\East Killingly North, CT (88011)\13320909 AT&T MOBILITY\13320909_03_CUST_STR\13320909.tow
 Date run : 2:49:00 PM Tuesday, December 22, 2020
 By : Tower Version 16.01
 Licensed to : American Tower Corp.

Successfully performed nonlinear analysis

The model has 0 warnings.

Member check options: ANSI/TIA 222-G-1
 Connection rupture check: Not Checked
 Crossing diagonal check: Fixed
 Included angle check: None
 Climbing load check: None
 Redundant members checked with: Actual Force
 Loads from file: X:\C-E\East Killingly North, CT (88011)\13320909 AT&T MOBILITY\13320909_03_CUST_STR\13320909.eia

*** Analysis Results:

Maximum element usage is 89.22% for Angle "D 13X" in load case "W -90"

Foundation Design Forces For All Load Cases:

Note: Loads are factored.

Load Case	Foundation Description	Axial Force (kips)	Shear Force (kips)	Bending Moment (ft-k)	Foundation Usage %
W 0	OP	296.21	42.20	3.46	0.00
W 0	OX	291.80	41.53	3.27	0.00
W 0	OXY	177.84	30.92	3.76	0.00
W 0	OY	-176.72	31.29	3.91	0.00
W 180	OP	-174.50	31.20	3.99	0.00
W 180	OX	-175.06	30.80	3.83	0.00
W 180	OXY	296.73	41.50	3.33	0.00
W 180	OY	293.29	42.07	3.52	0.00
W 45	OP	410.60	56.14	2.39	0.00
W 45	OX	57.77	17.47	4.19	0.00
W 45	OXY	-292.61	46.89	3.95	0.00
W 45	OY	57.70	17.44	4.18	0.00
W -45	OP	61.27	18.21	4.38	0.00
W -45	OX	406.74	55.78	2.43	0.00
W -45	OXY	56.57	17.07	4.08	0.00
W -45	OY	-291.13	46.95	4.01	0.00
W 90	OP	296.22	42.21	3.47	0.00
W 90	OX	-176.65	31.30	3.92	0.00
W 90	OXY	-177.83	30.91	3.76	0.00
W 90	OY	291.72	41.52	3.26	0.00
W -90	OP	-174.51	31.21	3.98	0.00
W -90	OX	293.37	42.08	3.52	0.00
W -90	OXY	289.73	41.50	3.32	0.00
W -90	OY	175.13	30.80	3.82	0.00
W 0 Ice	OP	141.10	17.57	1.28	0.00
W 0 Ice	OX	137.55	17.28	1.17	0.00
W 0 Ice	OXY	27.49	2.74	2.01	0.00
W 0 Ice	OY	30.15	2.80	2.08	0.00
W 180 Ice	OP	33.28	3.07	2.15	0.00
W 180 Ice	OX	30.59	3.00	2.09	0.00
W 180 Ice	OXY	134.59	17.20	1.14	0.00
W 180 Ice	OY	137.82	17.42	1.25	0.00
W 45 Ice	OP	168.36	21.19	0.82	0.00
W 45 Ice	OX	83.84	10.03	1.77	0.00
W 45 Ice	OXY	0.32	2.65	2.14	0.00
W 45 Ice	OY	83.76	10.02	1.77	0.00
W -45 Ice	OP	87.19	10.40	1.87	0.00
W -45 Ice	OX	164.94	20.97	0.76	0.00
W -45 Ice	OXY	81.09	9.97	1.72	0.00
W -45 Ice	OY	3.07	2.53	2.21	0.00
W 90 Ice	OP	141.10	17.57	1.28	0.00
W 90 Ice	OX	30.23	2.80	2.08	0.00
W 90 Ice	OXY	27.49	2.74	2.01	0.00
W 90 Ice	OY	137.47	17.28	1.17	0.00
W -90 Ice	OP	33.28	3.08	1.15	0.00
W -90 Ice	OX	137.90	17.42	1.25	0.00
W -90 Ice	OXY	134.59	17.20	1.14	0.00
W -90 Ice	OY	30.51	2.99	2.08	0.00

Summary of Joint Support Reactions For All Load Cases:

Load Case	Joint Label	Long. Force (kips)	Tran. Force (kips)	Vert. Force (kips)	Shear Force (kips)	Tran. Moment (ft-k)	Long. Moment (ft-k)	Bending Moment (ft-k)	Vert. Moment (ft-k)	Found. Usage %
W 0	OP	-37.49	19.47	47.20	-1.23	-3.24	3.95	-1.83	0.00	0.00
W 0	OX	-36.53	19.74	-291.80	41.53	1.05	-3.10	3.27	1.84	0.00
W 0	OXY	-27.62	-13.88	177.84	30.92	0.27	-3.75	3.76	1.68	0.00
W 0	OY	-28.21	13.55	176.72	31.29	-0.23	-3.91	3.91	-1.65	0.00
W 180	OP	28.21	13.33	174.50	31.20	-0.23	-3.98	3.99	1.66	0.00
W 180	OX	27.61	-13.65	175.06	30.80	0.27	-3.82	3.83	-1.69	0.00
W 180	OXY	36.56	19.63	-289.73	41.50	1.04	3.16	3.33	-1.84	0.00
W 180	OY	37.49	-19.15	-292.61	46.89	-0.29	2.79	3.52	1.84	0.00
W 45	OP	-39.68	-39.71	-410.60	56.14	1.70	-1.69	2.39	-0.00	0.00
W 45	OX	-15.39	-8.28	-57.77	17.47	3.47	-2.35	4.19	2.56	0.00
W 45	OXY	-33.17	-33.15	292.61	46.89	2.79	2.79	3.95	-0.00	0.00
W 45	OY	-8.26	-15.36	57.70	17.44	2.34	-3.47	4.18	-2.57	0.00
W -45	OP	-16.11	8.49	-61.27	18.21	-3.63	-2.45	4.38	-2.56	0.00
W -45	OX	-38.98	39.89	-406.74	55.78	-1.84	-1.59	2.43	0.00	0.00
W -45	OXY	-7.85	15.15	-56.57	17.07	-2.33	3.35	4.08	2.58	0.00
W -45	OY	-33.48	32.91	291.13	46.95	-2.78	-2.90	4.01	0.02	0.00
W 90	OP	-19.45	-37.46	-296.22	42.21	3.24	1.24	3.47	1.83	0.00
W 90	OX	13.52	-17.65	174.50	31.30	3.91	0.23	3.92	1.65	0.00
W 90	OXY	-13.90	-27.61	177.83	30.91	3.75	-0.27	3.76	-1.68	0.00
W 90	OY	19.76	-36.52	-291.72	41.52	3.09	-1.04	3.26	-1.84	0.00
W -90	OP	13.32	28.23	174.51	31.21	-3.98	0.22	3.99	-1.66	0.00
W -90	OX	-19.26	37.42	-293.37	42.08	-3.30	1.23	3.52	-1.84	0.00
W -90	OXY	19.65	36.55	-289.73	41.50	-3.16	-1.03	3.32	1.84	0.00
W -90	OY	-13.67	27.60	175.13	30.80	-3.81	-0.28	3.82	1.69	0.00
W 0 Ice	OP	-14.34	10.15	-141.10	17.57	-1.25	0.42	1.28	0.00	0.00
W 0 Ice	OX	-13.96	10.19	-137.55	17.28	1.14	0.26	1.17	0.41	0.00
W 0 Ice	OXY	-0.81	2.62	-27.49	2.74	0.91	-1.78	2.01	0.41	0.00
W 0 Ice	OY	-0.81	-2.68	-30.15	2.80	-0.97	-1.83	2.08	-0.39	0.00
W 180 Ice	OP	0.75	-2.87	-33.28	3.07	0.97	1.92	2.15	0.40	0.00
W 180 Ice	OX	0.83	2.88	-30.59	3.00	0.92	1.87	2.09	-0.42	0.00
W 180 Ice	OXY	13.98	10.02	-134.59	17.20	1.13	-0.17	1.14	-0.42	0.00
W 180 Ice	OY	14.31	-9.92	-137.82	17.42	-1.24	0.15	1.25	0.43	0.00
W 45 Ice	OP	-14.98	-14.98	-168.36	21.19	-0.58	0.58	0.82	0.00	0.00
W 45 Ice	OX	-9.33	3.67	-83.84	10.03	1.73	0.38	1.77	0.60	0.00
W 45 Ice	OXY	-1.87	-1.87	-0.32	2.65	-1.41	-1.51	2.14	-0.00	0.00
W 45 Ice	OY	3.67	-9.32	-83.76	10.02	-0.38	-1.73	1.77	-0.60	0.00
W -45 Ice	OP	-9.74	-3.64	-87.19	10.40	-1.84	0.35	1.87	-0.61	0.00
W -45 Ice	OX	-14.65	15.01	-164.94	20.97	0.48	0.59	0.76	-0.01	0.00
W -45 Ice	OXY	3.62	9.29	-81.09	9.97	0.31	-1.69	1.72	0.62	0.00
W -45 Ice	OY	-1.74	1.84	-3.07	2.53	-1.58	-1.54	2.21	0.01	0.00
W 90 Ice	OP	-10.14	-14.35	-141.10	17.57	-0.23	1.26	1.28	0.42	0.00
W 90 Ice	OX	-9.68	-8.81	-30.23	2.80	1.84	0.97	2.08	0.39	0.00
W 90 Ice	OXY	2.62	-0.81	-27.49	2.74	1.79	-0.91	2.01	-0.41	0.00
W 90 Ice	OY	10.19	-13.95	-137.47	17.28	-0.26	-1.14	1.17	-0.41	0.00
W -90 Ice	OP	-2.97	0.79	-33.28	3.08	-1.92	0.97	2.15	-0.40	0.00
W -90 Ice	OX	-9.92	14.32	-137.90	17.42	0.15	1.24	1.25	-0.43	0.00
W -90 Ice	OXY	10.03	13.98	-134.59	17.20	0.17	-1.13	1.14	0.42	0.00
W -90 Ice	OY	2.88	0.83	-30.51	2.99	-1.87	-0.92	2.08	0.42	0.00

Summary of Joint Support Reactions For All Load Cases in Direction of Leg:

Load Case	Support	Origin	Leg Force	In Residual	Shear	Residual Shear	Residual Shear	Residual Shear	Total	Total	Total
Joint	Member	Leg Dir.	Perpendicular	Horizontal	Long. Tran.	Vertical	Long. Tran.	Vertical	Force	Force	Force
			(kips)	(kips)	(kips)	(kips)	(kips)	(kips)	(kips)	(kips)	(kips)
W 0	OP	L 1P	298.960	18.936	18.936	0.965	-37.44	-19.47	-296.21		
W 0	OX	L 1X	294.171	18.323	18.364	18.302	-1.513	-36.53	19.74	-291.80	
W 0	OXY	L 1XY	-179.728	16.700	16.743	16.512	2.771	-27.62	-13.88	177.84	
W 0	OY	L 1Y	-178.630	17.307	17.350	17.169	-2.504	-28.21	13.55	176.72	
W 180	OP	L 1P	-176.410	-17.436	-17.480	-17.310	-2.431	28.21	13.33	174.50	
W 180	OX	L 1X	-176.953	16.851	16.894	16.726	2.708	27.61	-13.65	175.06	
W 180	OXY	L 1XY	292.108	18.483	18.525	-18.462	-1.530	36.56	19.63	-289.73	
W 180	OY	L 1Y	293.679	19.057	19.098	-19.074	0.947	37.40	-19.27	-293.29	
W 45	OP	L 1P	413.945	19.779	19.856	14.027	14.053	-39.68	-39.71	-410.60	
W 45	OX	L 1X	57.990	16.735	16.735	11.776	11.890	-15.39	-8.28	-57.77	
W 45	OXY	L 1XY	-295.599	20.955	21.036	14.885	14.865	-33.17	-33.15	292.61	
W 45	OY	L 1Y	291.915	16.701	16.701	11.864	11.754	8.26	15.36	-57.70	
W -45	OP	L 1P	61.505	17.400	17.400	12.284	-12.323	-16.11	8.49	-61.27	
W -45	OX	L 1X	410.073	19.768	19.845	13.572	-14.479	-38.98	39.89	-406.74	
W -45	OXY	L 1XY	-176.410	-17.395	-17.395	-17.395	-2.431	28.21	13.33	174.50	
W -45	OY	L 1Y	-294.128	21.141	21.223	15.287	-14.722	-33.48	32.91	291.13	
W 90	OP	L 1P	298.113	18.935	18.976	0.944	18.952	-19.45	-37.46	-296.22	
W 90	OX	L 1X	-178.630	17.321	17.365	-2.487	17.186	13.52	-28.22	176.65	
W 90	OXY	L 1XY	-179.720	16.690	16.733	16.787	16.500	-13.90	-27.61	177.83	
W 90	OY	L 1Y	294.088	18.312	18.354	-1.534	18.289	19.76	-36.52	-291.72	
W -90	OP	L 1P	-176.418	17.447	17.490	-2.416	-17.322	13.32	28.23	174.51	

W-90	OX	IX	L LX	295.762	19.068	19.109	0.926	-19.087	-19.26	37.42	-293.37
W-90	OX	IX	L LX	201.59	12.468	11.511	0.957	-18.444	19.65	36.55	-289.73
W-90	OX	IX	L LX	177.019	16.837	16.880	2.725	-16.658	-13.67	27.60	175.13
W-0	Ice	OP	L LP	142.074	5.666	5.682	5.524	1.330	-14.34	-10.15	-141.10
W-0	Ice	OP	L LX	138.518	5.582	5.598	5.365	-1.598	-13.96	10.19	-137.55
W-0	Ice	OX	L LX	84.322	2.685	2.685	2.685	-0.899	-0.83	2.88	-30.59
W-0	Ice	OX	L LX	30.152	2.802	2.804	2.690	0.793	-0.81	-2.68	-30.15
W-180	Ice	OP	L LP	33.287	3.002	3.005	-2.870	0.892	0.79	-2.97	-33.28
W-180	Ice	OP	L LX	19.906	2.686	2.686	-2.747	0.892	0.79	-2.97	-33.28
W-180	Ice	OX	L LX	135.566	5.784	5.802	-5.573	-1.613	13.98	10.02	-134.59
W-180	Ice	OX	L LX	138.798	5.836	5.852	-5.703	1.313	14.31	-9.92	-137.82
W-45	Ice	OP	L LP	169.574	6.284	6.309	4.457	4.465	-14.98	-14.98	-168.36
W-45	Ice	OP	L LX	84.322	2.685	2.685	2.685	1.568	-9.33	3.47	-83.84
W-45	Ice	OX	L LX	0.084	2.666	2.676	1.893	1.892	-1.87	-1.87	-0.32
W-45	Ice	OX	L LX	84.248	4.376	4.379	1.560	4.091	3.67	-9.32	-83.76
W-45	Ice	OP	L LP	87.687	4.656	4.656	4.292	-1.810	-9.74	-3.64	-87.19
W-45	Ice	OP	L LX	166.144	6.377	6.402	4.340	-4.706	-14.65	15.01	-164.94
W-45	Ice	OX	L LX	81.578	4.462	4.465	1.444	-4.225	3.62	9.29	-81.09
W-45	Ice	OX	L LX	2.833	2.787	2.798	1.927	-2.029	-1.74	1.84	-3.07
W-90	Ice	OP	L LX	142.075	5.670	5.686	5.323	5.530	-10.14	11.35	-141.10
W-90	Ice	OX	L LX	30.228	2.808	2.811	0.796	2.696	-2.68	-0.81	-30.23
W-90	Ice	OX	L LX	27.496	2.684	2.686	-0.899	2.531	2.62	-0.81	-27.49
W-90	Ice	OX	L LX	138.438	5.833	5.800	1.505	5.365	10.19	-13.95	-137.47
W-90	Ice	OP	L LP	33.285	3.003	3.006	0.892	-2.870	-2.97	0.79	-33.28
W-90	Ice	OP	L LX	138.878	5.835	5.851	1.307	-5.704	-9.92	14.32	-137.90
W-90	Ice	OX	L LX	135.564	5.781	5.799	-1.619	-5.567	10.03	13.98	-134.59
W-90	Ice	OX	L LX	30.521	2.899	2.901	-0.969	-2.735	2.88	0.83	-30.51

Overturning Moment Summary For All Load Cases:

Load Case	Transverse Moment (ft-k)	Longitudinal Moment (ft-k)	Torsional Moment (ft-k)	Resultant Force (kips)	Transverse Force (kips)	Longitudinal Force (kips)	Vertical Force (kips)
W 0	124.202	-21172.829	47.304	21173.193	0.065	129.809	233.460
W 180	92.502	20948.778	-47.301	20948.982	-0.049	-129.790	233.460
W 45	15794.399	-15797.767	-2.110	22339.035	96.493	96.493	233.460
W 45	-15770.803	-15781.664	836.156	22170.043	96.452	96.452	233.460
W 90	21169.478	-127.576	-50.291	21169.862	129.809	0.065	233.460
W 90	-20952.145	95.877	50.287	20952.364	-129.790	-0.049	233.460
W 0	124.202	-21172.829	47.304	21173.193	0.065	129.809	233.460
W 180	92.502	20948.778	-47.301	20948.982	-0.049	-129.790	233.460
W 45	15794.399	-15797.767	-2.110	22339.035	96.493	96.493	233.460
W 45	-15770.803	-15781.664	836.156	22170.043	96.452	96.452	233.460
W 90	21169.478	-127.576	-50.291	21169.862	129.809	0.065	233.460
W 90	-20952.145	95.877	50.287	20952.364	-129.790	-0.049	233.460
W 0	124.202	-21172.829	47.304	21173.193	0.065	129.809	233.460
W 180	92.502	20948.778	-47.301	20948.982	-0.049	-129.790	233.460
W 45	15794.399	-15797.767	-2.110	22339.035	96.493	96.493	233.460
W 45	-15770.803	-15781.664	836.156	22170.043	96.452	96.452	233.460
W 90	21169.478	-127.576	-50.291	21169.862	129.809	0.065	233.460
W 90	-20952.145	95.877	50.287	20952.364	-129.790	-0.049	233.460
W 0	124.202	-21172.829	47.304	21173.193	0.065	129.809	233.460
W 180	92.502	20948.778	-47.301	20948.982	-0.049	-129.790	233.460
W 45	15794.399	-15797.767	-2.110	22339.035	96.493	96.493	233.460
W 45	-15770.803	-15781.664	836.156	22170.043	96.452	96.452	233.460
W 90	21169.478	-127.576	-50.291	21169.862	129.809	0.065	233.460
W 90	-20952.145	95.877	50.287	20952.364	-129.790	-0.049	233.460

EIA Sections Information:

Section Label	Top Z (ft)	Bottom Z (ft)	Joint Count	Member Count	Top Width (ft)	Bottom Width (ft)	Gross Area (sq ft)	Face Adj Factor	Face Adj Factor	Face Adj Factor	Dead Load (kips)
278.9-287.5	287.500	278.917	8	20	9.00	10.07	81.85	1.1220	1.1220	1.1220	1.346
278.9-278.9	278.917	270.334	8	16	10.07	11.15	91.06	1.2150	1.2150	1.2150	1.458
260.0-270.3	270.334	260.000	16	16	10.15	12.42	119.77	1.1970	1.1970	1.1970	1.436
250.0-260.0	260.167	250.000	12	24	12.42	13.69	132.69	1.2030	1.2030	1.2030	1.444
237.5-250.0	250.000	237.500	16	24	13.69	15.25	180.84	1.2010	1.2010	1.2010	1.441
225.0-237.5	237.500	212.500	16	16	15.25	16.81	120.70	1.2070	1.2070	1.2070	1.449
212.5-225.0	225.000	212.500	16	24	16.81	18.37	219.89	1.2130	1.2130	1.2130	1.456
200.0-212.5	212.500	200.000	16	24	18.37	19.93	239.41	1.2200	1.2200	1.2200	1.463
187.5-200.0	200.000	187.500	16	24	19.93	21.50	258.94	1.2250	1.2250	1.2250	1.471
162.5-187.5	187.500	162.500	16	16	21.50	24.62	276.45	1.2550	1.2550	1.2550	1.506
137.5-162.5	162.500	137.500	16	24	24.62	27.74	654.55	1.2700	1.2700	1.2700	1.524
112.5-137.5	137.500	112.500	16	24	27.74	30.87	732.65	1.2790	1.2790	1.2790	1.535
97.5-112.5	112.500	97.500	16	16	30.87	33.99	888.85	1.2830	1.2830	1.2830	1.476
62.50-97.50	97.500	62.500	36	76	33.99	37.12	888.85	1.2300	1.2300	1.2300	1.476
37.50-62.50	62.500	37.500	32	68	37.12	40.24	966.95	1.2330	1.2330	1.2330	1.480
0.000-37.50	37.500	0.000	20	40	40.24	44.93	1596.86	1.2600	1.2600	1.2600	1.512

Printed capacities do not include the strength factor entered for each load case. The Group Summary member and load cases that result in maximum usage which may not necessarily be the same as that which produces maximum force.

Group Summary (Compression Portion):

Group Label	Group Angle Desc.	Group Type	Angle Size	Steel Strength (ksi)	Max Usage (%)	Max Usage Control In Member	Comp. Force (kips)	Comp. Capacity (kips)	L/r	Comp. Capacity (kips)	Comp. Capacity (kips)	RLX	RLY	RLZ	L/r	KL/r	Length (ft)	Curve No.	No. of Bolts	Of Comp.
Leg #1	L 8" x 8" x 1.125"	SAR	8X8X1.13	36.0	68.71	Comp 68.71	L 1P -336.038	W 45	489.100	0.000	0.000	0.250	0.250	0.250	72.40	72.40	37.646	1	0	
Leg #2	L 8" x 8" x 1.125"	SAR	8X8X1.13	36.0	53.31	Comp 53.31	L 2P -291.527	W 45	546.890	0.000	0.000	0.281	0.281	0.281	54.29	54.29	25.097	1	0	
Leg #3	L 8" x 8" x 1"	SAR	8X8X1	36.0	51.29	Comp 51.29	L 3P -251.560	W 45	490.440	0.000	0.000	0.281	0.281	0.281	54.29	54.29	25.097	1	0	
Leg #4	L 8" x 8" x 0.875"	SAR	8X8X0.88	36.0	48.41	Comp 48.41	L 4P -211.543	W 45	415.366	0.000	0.000	0.333	0.333	0.333	63.94	63.94	25.097	1	0	
Leg #5	L 8" x 8" x 0.875"	SAR	8X8X0.88	36.0	49.82	Comp 49.82	L 5P -206.931	W 45	415.366	0.000	0.000	0.333	0.333	0.333	63.94	63.94	25.097	1	0	
Leg #6	L 8" x 8" x 0.75"	SAR	8X8X0.75	36.0	47.53	Comp 47.53	L 6P -170.808	W 45	359.362	0.000	0.000	0.333	0.333	0.333	63.53	63.53	25.097	1	0	
Leg #7	L 8" x 8" x 0.625"	SAR	8X8X0.63	36.0	44.91	Comp 44.91	L 7P -135.775	W 45	302.310	0.000	0.000	0.333	0.333	0.333	63.53	63.53	25.097	1	0	
Leg #8	L 6" x 6" x 0.75"	SAR	6X6X0.75	36.0	44.32	Comp 44.32	L 8P -117.271	W 45	264.577	0.000	0.000	0.500	0.500	0.500	64.35	64.35	12.549	1	0	
Leg #9	L 6" x 6" x 0.75"	SAR	6X6X0.75	36.0	37.24	Comp 37.24	L 9P -98.531	W 45	264.577	0.000	0.000	0.500	0.500	0.500	64.35	64.35	12.549	1	0	
Leg #10	L 6" x 6" x 0.5625"	SAR	6X6X0.56	36.0	40.51	Comp 40.51	L 10P -81.882	W 45	202.141	0.000	0.000	0.500	0.500	0.500	63.81	63.81	12.549	1	0	
Leg #11	L 6" x 6" x 0.4375"	SAR	6X6X0.44	36.0	32.37	Comp 32.37	L 11P -65.361	W 45	202.141	0.000	0.000	0.500	0.500	0.500	63.81	63.81	12.549	1	0	
Leg #12	L 6" x 6" x 0.4375"	SAR	6X6X0.44	36.0	30.41	Comp 30.41	L 12P -48.421	W 45	159.217	0.000	0.000	0.500	0.500	0.500	63.27	63.27	12.549	1	0	
Leg #13	L 5" x 5" x 0.4375"	SAR	5X5X0.44	36.0	29.06	Comp 29.06	L 13P -38.482	W 45	132.416	0.000	0.000	0.500	0.500	0.500	62.11	62.11	10.207	1	0	
Leg #14	L 5" x 5" x 0.4375"	SAR	5X5X0.44	36.0	19.82	Comp 19.82	L 14P -26.244	W 45	132.416	0.000	0.000	0.500	0.500	0.500	62.11	62.11	10.207	1	0	
Leg #15	L 5" x 5" x 0.3125"	SAR	5X5X0.31	36.0	13.34	Comp 13.34	L 15P -12.899	W 45	96.704	0.000	0.000	0.500	0.500	0.500	52.01	52.01	8.616	1	0	
Leg #16	L 5" x 5" x 0.3125"	SAR	5X5X0.31	36.0	5.83	Comp 5.83	L 16P -5.639	W 45	96.704	0.000	0.000	0.500	0.500	0.500	52.01	52.01	8.616	1	0	
Diag #1	B/B L2.5"x2.5"x0.25"	DAL	2.5X2.5X0.25	36.0	30.99	Comp 30.99	D 2X -54.285	W -90	175.176	0.000	0.000	0.316	0.316	0.316	74.36	74.36	30.789	1	0	
Diag #2	B/B L2.5"x3"x0.25"	DAS	3.5X2.5X0.25	36.0	63.10	Comp 63.10	D 4X -41.593	W -90	65.915	0.000	0.000	0.320	0.320	0.320	107.64	107.64	20.603	1	0	
Diag #3	B/B L2.5"x3"x0.25"	DAS	3.5X2.5X0.25	36.0	64.11	Comp 64.11	D 6X -41.469	W -90	64.682	0.000	0.000	0.320	0.320	0.320	105.80	105.80	20.			

Leg S9	L 6" x 6" x 0.75"	SAE	6X6X0.75	36.0	37.24	Comp	23.69	L 9XY	64.781	W 45	273.456	0.000	0.000	0.000	12.549	0.0000	0.000
Leg S10	L 6" x 6" x 0.5625"	SAE	6X6X0.56	36.0	40.51	Comp	24.38	L 10XY	50.799	W 45	208.332	0.000	0.000	0.000	12.549	0.0000	0.000
Leg S11	L 6" x 6" x 0.5625"	SAE	6X6X0.56	36.0	32.33	Comp	17.71	L 11XY	36.887	W 45	208.332	0.000	0.000	0.000	12.549	0.0000	0.000
Leg S12	L 6" x 6" x 0.4375"	SAE	6X6X0.44	36.0	30.41	Comp	14.13	L 12XY	23.170	W 45	163.944	0.000	0.000	0.000	12.549	0.0000	0.000
Leg S13	L 5" x 5" x 0.4375"	SAE	5X5X0.44	36.0	29.06	Comp	13.05	L 13XY	17.678	W 45	135.432	0.000	0.000	0.000	10.207	0.0000	0.000
Leg S14	L 5" x 5" x 0.4375"	SAE	5X5X0.44	36.0	19.82	Comp	5.84	L 14XY	7.232	W 45	135.432	0.000	0.000	0.000	10.207	0.0000	0.000
Leg S15	L 5" x 5" x 0.3125"	SAE	5X5X0.31	36.0	13.34	Comp	2.02	L 15XY	1.980	W 45	98.172	0.000	0.000	0.000	8.616	0.0000	0.000
Leg S16	L 5" x 5" x 0.3125"	SAE	5X5X0.31	36.0	5.83	Comp	0.00	L 16Y	0.000	W 90	98.172	0.000	0.000	0.000	8.616	0.0000	0.000
Diag S1	B/B L5"x5"x0.3125"	DAE	5X5X0.31	36.0	30.99	Comp	23.91	D 2P	46.863	W -90	195.020	0.000	0.000	0.000	30.789	0.0000	0.000
Diag S2	B/B L2.5"x3.5"x0.25"	DAS	3.5X2.5X0.25	36.0	63.10	Comp	37.36	D 4P	34.857	W -90	93.312	0.000	0.000	0.000	20.603	0.0000	0.000
Diag S3	B/B L2.5"x3.5"x0.25"	DAS	3.5X2.5X0.25	36.0	64.11	Comp	36.81	D 6P	34.349	W -90	93.312	0.000	0.000	0.000	20.250	0.0000	0.000
Diag S4	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	36.0	69.24	Comp	29.08	D 7P	24.783	W -90	85.212	0.000	0.000	0.000	20.271	0.0000	0.000
Diag S5	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	36.0	66.43	Comp	29.16	D 9P	24.851	W -90	85.212	0.000	0.000	0.000	29.422	0.0000	0.000
Diag S6	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	36.0	68.17	Comp	28.47	D 11P	24.260	W -90	85.212	0.000	0.000	0.000	28.633	0.0000	0.000
Diag S7	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	36.0	89.22	Comp	28.44	D 13P	24.231	W -90	85.212	0.000	0.000	0.000	27.910	0.0000	0.000
Diag S8	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	59.56	Comp	18.24	D 15P	14.067	W -90	77.112	0.000	0.000	0.000	16.504	0.0000	0.000
Diag S9	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	52.37	Comp	16.94	D 17P	13.064	W -90	77.112	0.000	0.000	0.000	16.006	0.0000	0.000
Diag S10	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	78.19	Comp	18.19	D 19P	12.552	W -90	69.012	0.000	0.000	0.000	15.532	0.0000	0.000
Diag S11	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	73.20	Comp	18.01	D 21P	12.426	W -90	69.012	0.000	0.000	0.000	15.083	0.0000	0.000
Diag S12	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	66.77	Comp	17.27	D 23X	11.915	W 90	69.012	0.000	0.000	0.000	14.662	0.0000	0.000
Diag S13	L 3.5" x 3.5" x 0.25"	SAE	3.5X3.5X0.25	36.0	31.37	Comp	10.47	D 26X	5.731	W 90	54.756	0.000	0.000	0.000	16.556	0.0000	0.000
Diag S14	L 3.5" x 3.5" x 0.25"	SAE	3.5X3.5X0.25	36.0	28.58	Comp	10.29	D 28X	5.635	W 90	54.756	0.000	0.000	0.000	15.574	0.0000	0.000
Diag S15	L 3" x 3" x 0.25"	SAE	3X3X0.25	36.0	20.82	Comp	6.98	D 29Y	3.255	W 0	46.656	0.000	0.000	0.000	13.657	0.0000	0.000
Diag S16	L 3" x 3" x 0.25"	SAE	3X3X0.25	36.0	11.74	Comp	3.84	D 31Y	1.791	W 0	46.656	0.000	0.000	0.000	12.841	0.0000	0.000
Horiz 1	B/B L3.5"x2.5"x0.25"	DAL	3.5X2.5X0.25	36.0	55.51	Comp	37.07	H 1P	34.588	W 90	93.312	0.000	0.000	0.000	20.120	0.0000	0.000
Horiz 2	B/B L3.5"x2.5"x0.25"	DAL	3.5X2.5X0.25	36.0	55.52	Comp	34.82	H 3X	32.489	W -90	93.312	0.000	0.000	0.000	12.372	0.0000	0.000
Horiz 3	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	36.0	58.68	Comp	34.31	H 5X	29.235	W -90	85.212	0.000	0.000	0.000	11.331	0.0000	0.000
Horiz 4	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	36.0	48.74	Comp	16.27	H 7X	13.865	W -90	85.212	0.000	0.000	0.000	15.434	0.0000	0.000
Horiz 5	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	36.0	39.63	Comp	15.02	H 9P	12.802	W 90	85.212	0.000	0.000	0.000	13.872	0.0000	0.000
Horiz 6	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	43.60	Comp	14.50	H 11X	11.180	W -90	77.112	0.000	0.000	0.000	12.310	0.0000	0.000
Horiz 7	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	33.38	Comp	13.64	H 13P	10.514	W 90	77.112	0.000	0.000	0.000	10.748	0.0000	0.000
Horiz 8	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	26.37	Comp	11.76	H 15X	9.069	W -90	77.112	0.000	0.000	0.000	9.967	0.0000	0.000
Horiz 9	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	21.16	Comp	10.67	H 17P	8.231	W 90	77.112	0.000	0.000	0.000	9.186	0.0000	0.000
Horiz 10	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	16.72	Comp	9.50	H 19X	7.324	W -90	77.112	0.000	0.000	0.000	8.405	0.0000	0.000
Horiz 11	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	14.44	Comp	9.09	H 21P	7.008	W 90	77.112	0.000	0.000	0.000	7.624	0.0000	0.000
Horiz 12	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	9.85	Comp	8.49	H 23P	6.547	W 90	77.112	0.000	0.000	0.000	6.843	0.0000	0.000
Horiz 13	L 3" x 2.5" x 0.25"	SAU	3X2.5X0.25	36.0	8.09	Tens	8.09	H 25P	3.434	W 0	42.444	0.000	0.000	0.000	12.416	0.0000	0.000
Horiz 14	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	36.0	2.45	Tens	2.45	H 27P	2.085	W 0	85.212	0.000	0.000	0.000	11.145	0.0000	0.000
Horiz 15	L 3" x 2.5" x 0.25"	SAU	3X2.5X0.25	36.0	2.94	Tens	2.94	H 29P	1.246	W 0	42.444	0.000	0.000	0.000	10.073	0.0000	0.000
Horiz 16	CHN	CHN11.5		36.0	0.71	Comp	0.40	H 32X	0.441	W 0	109.512	0.000	0.000	0.000	9.000	0.0000	0.000
LD 1	B/B L3.5"x3.5"x0.25"	DAE	3.5X3.5X0.25	36.0	37.18	Comp	22.73	LD 2Y	24.893	W -45	109.512	0.000	0.000	0.000	13.764	0.0000	0.000
LD 2	B/B L4"x4"x0.3125"	DAE	4X4X0.31	36.0	52.88	Comp	29.00	LD 3P	45.095	W -90	155.520	0.000	0.000	0.000	13.764	0.0000	0.000
LD 4	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	66.46	Comp	25.03	LD 8Y	17.270	W -45	69.012	0.000	0.000	0.000	11.004	0.0000	0.000
LD 5	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	59.17	Comp	33.64	LD 9P	23.218	W -90	69.012	0.000	0.000	0.000	8.060	0.0000	0.000
LD 6	B/B L3"x2"x0.25"	DAL	3X2X0.25	36.0	61.59	Comp	38.34	LD 11X	29.568	W -90	77.112	0.000	0.000	0.000	9.374	0.0000	0.000
LD 7	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	63.10	Comp	25.84	LD 14Y	17.835	W -45	69.012	0.000	0.000	0.000	10.440	0.0000	0.000
LD 8	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	57.36	Comp	33.16	LD 15P	22.885	W -90	69.012	0.000	0.000	0.000	7.922	0.0000	0.000
LD 9	B/B L3"x3"x0.25"	DAE	3X3X0.25	36.0	42.16	Comp	30.70	LD 17X	28.645	W -90	93.312	0.000	0.000	0.000	9.039	0.0000	0.000
LH 1	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	18.92	Tens	18.92	LH 1Y	14.590	W 0	77.112	0.000	0.000	0.000	20.120	0.0000	0.000
LH 2	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	36.0	67.84	Comp	21.78	LH 4Y	18.559	W -45	85.212	0.000	0.000	0.000	10.104	0.0000	0.000
LH 3	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	36.0	60.33	Comp	21.77	LH 6Y	18.559	W -45	85.212	0.000	0.000	0.000	9.291	0.0000	0.000
DUM 1	Dummy Bracing Member	DUM	0.1X0.1X1	36.0	0.00		0.00	BR 9X	0.796	W -45	0.324	0.000	0.000	0.000	19.618	0.0000	0.000

*** Maximum Stress Summary for Each Load Case

Summary of Maximum Usages by Load Case:

Load Case	Maximum Usage %	Element Label	Element Type
W 0	88.24	D 14P	Angle
W 180	89.05	D 14Y	Angle
W 45	68.71	L 1P	Angle
W -45	69.07	D 13X	Angle
W 90	88.49	D 13P	Angle
W -90	89.22	D 13X	Angle
W 0 Ice	24.59	L 1P	Angle
W 180 Ice	24.33	D 14Y	Angle
W 45 Ice	29.10	L 1P	Angle
W -45 Ice	28.33	L 1X	Angle
W 90 Ice	24.59	L 1P	Angle
W -90 Ice	24.33	D 13X	Angle

*** Weight of structure (lbs):
 Weight of Angles*Section DLF: 131305.8
 Weight of Equipment: 140.0
 Total: 131445.8

*** End of Report

Legs

Site No.:	88011
Engineer:	asp
Date:	12/22/2020
Carrier:	AT&T Mobility

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations (ft)	Type of Shape ^[1]	Diameter or Length (in)	Thickness ^[2] (in)	F _y (ksi)
1	0.000-37.50	L	8	1.125	36
2	37.50-62.50	L	8	1.125	36
3	62.50-87.50	L	8	1	36
4	87.50-112.5	L	8	0.875	36
5	112.5-137.5	L	8	0.875	36
6	137.5-162.5	L	8	0.75	36
7	162.5-187.5	L	8	0.625	36
8	187.5-200.0	L	6	0.75	36
9	200.0-212.5	L	6	0.75	36
10	212.5-225.0	L	6	0.5625	36
11	225.0-237.5	L	6	0.5625	36
12	237.5-250.0	L	6	0.4375	36
13	250.0-260.2	L	5	0.4375	36
14	260.2-270.3	L	5	0.4375	36
15	270.3-278.9	L	5	0.3125	36
16	278.9-287.5	L	5	0.3125	36

Notes:

^[1] Type of Leg Shape: **R** = Round or **P** = Bent Plate or **S** = Schifferized Angle. **L** = Even Leg

^[2] For Solid Round Leg Shapes Thickness Equals Zero.

^[3] Adjust for Bent Plate Leg Shapes.

Diagonals

Site No.:	88011
Engineer:	asp
Date:	12/22/2020
Carrier:	AT&T Mobility

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations (ft)	Type of Shape ^[1]	Diameter ^[2] (in)	Web Length ^[3] (in)	Flange Length ^[3] (in)	Thickness (in)	F _y (ksi)	Is Diag. Tension Only? (Y/N)
1	0.000-37.50	2L		5	5	0.3125	36	
2	37.50-62.50	2L		2.5	3.5	0.25	36	
3	62.50-87.50	2L		2.5	3.5	0.25	36	
4	87.50-112.5	2L		2.5	3	0.25	36	
5	112.5-137.5	2L		2.5	3	0.25	36	
6	137.5-162.5	2L		2.5	3	0.25	36	
7	162.5-187.5	2L		2.5	3	0.25	36	
8	187.5-200.0	2L		2.5	2.5	0.25	36	
9	200.0-212.5	2L		2.5	2.5	0.25	36	
10	212.5-225.0	2L		2.5	2	0.25	36	
11	225.0-237.5	2L		2.5	2	0.25	36	
12	237.5-250.0	2L		2.5	2	0.25	36	
13	250.0-260.2	L		3.5	3.5	0.25	36	
14	260.2-270.3	L		3.5	3.5	0.25	36	
15	270.3-278.9	L		3	3	0.25	36	
16	278.9-287.5	L		3	3	0.25	36	

Notes:

- ^[1] Type of Diagonal Shape: R = Round, L = Single-Angle or 2L = Double-Angle.
- ^[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.
- ^[3] Applies to Single-Angle and Double-Angle Shapes only.
- ^[4] Applies to Double-Angle Shapes only.
- ^[5] Applies to Single-Angle Shapes only.

Horizontals

Site No.:	88011
Engineer:	asp
Date:	12/22/2020
Carrier:	AT&T Mobility

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations (ft)	Type of Shape ^[1]	Diameter ^[2] (in)	Web Length ^[3] (in)	Flange Length ^[3] (in)	Thickness (in)	F _y (ksi)	B/B Spacing (in.)
1	0.000-37.50	2L		3.5	2.5	0.25	36	
2	37.50-62.50	2L		3.5	2.5	0.25	36	
3	62.50-87.50	2L		3	2.5	0.25	36	
4	87.50-112.5	2L		3	2.5	0.25	36	
5	112.5-137.5	2L		3	2.5	0.25	36	
6	137.5-162.5	2L		2.5	2.5	0.25	36	
7	162.5-187.5	2L		2.5	2.5	0.25	36	
8	187.5-200.0	2L		2.5	2.5	0.25	36	
9	200.0-212.5	2L		2.5	2.5	0.25	36	
10	212.5-225.0	2L		2.5	2.5	0.25	36	
11	225.0-237.5	2L		2.5	2.5	0.25	36	
12	237.5-250.0	2L		2.5	2.5	0.25	36	
13	250.0-260.2	L		3	2.5	0.25	36	
14	260.2-270.3	2L		3	2.5	0.25	36	
15	270.3-278.9	L		3	2.5	0.25	36	
16	278.9-287.5	C		8	11.5		36	

Notes:

- ^[1] Type of Horizontal Shape: R = Round, L = Single-Angle, 2L = Double-Angle, C = Channel, W = W Shape
- ^[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.
- ^[3] Applies to Single-Angle and Double-Angle Shapes only.
- ^[4] Applies to Double-Angle Shapes only.
- ^[5] Applies to Single-Angle Shapes only.

Built-up Diagonals

Site No.:	88011
Engineer:	asp
Date:	12/22/2020
Carrier:	AT&T Mobility

When inputting thickness values, include all decimal places.

Input diags. from left to center & from base section upward.

Tower Built-up Diag. #	Section Elevations (ft)	Type of Shape ^[1]	Diameter ^[2] (in)	Web Length ^[3] (in)	Flange Length ^[3] (in)	Thickness (in)	F _y (ksi)
1	0.000-37.50	2L		3.5	3.5	0.25	36
2	0.000-37.50	2L		4	4	0.3125	36
3	37.50-62.50	2L		2.5	2	0.25	36
4	37.50-62.50	2L		2.5	2	0.25	36
5	37.50-62.50	2L		3	2	0.25	36
6	62.50-87.50	2L		2.5	2	0.25	36
7	62.50-87.50	2L		2.5	2	0.25	36
8	62.50-87.50	2L		3	3	0.25	36

Notes:

^[1] Type of Diagonal Shape: **R** = Round, **L** = Single-Angle or **2L** = Double-Angle.

^[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

^[3] Applies to Single-Angle and Double-Angle Shapes only.

^[4] Applies to Double-Angle Shapes only.

^[5] Applies to Single-Angle Shapes only.

Built-up Horizontals

Site No.:	88011
Engineer:	asp
Date:	12/22/2020
Carrier:	AT&T Mobility

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations (ft)	Type of Shape ^[1]	Diameter ^[2] (in)	Web Length ^[3] (in)	Flange Length ^[3] (in)	Thickness (in)	F _y (ksi)	Is Horiz. Tension Only? (Y/N)
1	0.000-37.50	2L		2.5	2.5	0.25	36	Y
2	37.50-62.50	2L		2.5	3	0.25	36	
3	62.50-87.50	2L		2.5	3	0.25	36	

Notes:

^[1] Type of Horizontal Shape: R = Round, L = Single-Angle or 2L = Double-Angle.

^[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

^[3] Applies to Single-Angle and Double-Angle Shapes only.

^[4] Applies to Double-Angle Shapes only.

^[5] Applies to Single-Angle Shapes only.

Site No.	88011
Engineer	MP
Date	12/23/09
Center	AT&T Mobility

Exposure	B	Kc	0.962111
Type Cat.	1	D	7 ft min
Tia Code	10x3223H	g	1200 ft/min
		Kc	0.9 Kc
			3.01
			0.7

Site No.	88011
Engineer	MP
Date	12/23/09
Center	AT&T Mobility

Description	From (ft)	To (ft)	Quantity	Shape	Width or Diameter** (ft)	Perimeter (ft)	Unit Weight (lb/ft)	In Face Zone? (Yes/No)	Include in Wind Load (Yes/No)
1 Ladder	0	17	1	Flat	1.5	6.0	6	No	Yes
2 COAX CAGE	8.3333	33.3333	2	Round	12	37.7	50	Yes	Yes
3 COAX CAGE	8.3333	33.3333	2	Round	12	37.7	50	Yes	Yes
4 WG1	5	266	1	Flat	1.5	6.0	6	Yes	Yes
5 WG2	5	266	1	Flat	1.5	6.0	6	Yes	Yes
6 WG3	5	277	1	Flat	1.5	6.0	6	Yes	Yes
7 TME	5	287.5	1	Flat	3.05	35.3	4	Yes	Yes
8 SMC	5	287.5	1	Flat	4.8375	35.8	4.92	Yes	Yes
9 TMO1	5	277	1	Flat	3.195	17.0	6.44	Yes	Yes
10 TMO2	5	277	1	Round	0.63	2.0	0.15	No	No
11 VDW1	5	266	1	Round	1.54	4.8	1	Yes	Yes
12 VDW2	5	266	6	Round	1.98	6.2	0.82	Yes	Yes
13 ATT1	5	266	2	Round	0.89	1.2	0.17	Yes	Yes
14 ATT2	5	266	4	Round	0.82	2.6	0.62	Yes	Yes
15 ATT3	5	266	2	Round	2.38	7.5	3.65	Yes	Yes
16 ATTA	5	266	6	Round	2.38	7.5	1.22	Yes	Yes
17 SIGOR	5	287.5	1	Round	1.09	3.4	0.39	Yes	Yes
18 TMO3	5	277	4	Round	1.54	4.8	1	Yes	Yes

Description	From (ft)	To (ft)	Quantity	Face # (1-A, A-4)	Face Area (ft ²)	Case Shape (Block / Flat / H)	% Exposed	Spacing (ft)	Shape (Round/Flat)	Block Width (ft round)	Block Depth (ft round)	Perimeter (ft)	Unit Weight (lb/ft)	In Face Zone? (Yes/No)	Include in Wind Load (Yes/No)
LADDER	0	17	1		2.25	Flat	100		Flat			6.0	6	No	Yes
COAX CAGE	8.3333	33.3333	2		113.04	Round	100		Round	12	12	37.7	50	Yes	Yes
COAX CAGE	8.3333	33.3333	2		113.04	Round	100		Round	12	12	37.7	50	Yes	Yes
WG1	5	266	1		2.25	Flat	100		Flat			6.0	6	Yes	Yes
WG2	5	266	1		2.25	Flat	100		Flat			6.0	6	Yes	Yes
WG3	5	277	1		2.25	Flat	100		Flat			6.0	6	Yes	Yes
TME	5	287.5	1		9.24	Flat	100		Flat			35.3	4	Yes	Yes
SMC	5	287.5	1		23.25	Flat	100		Flat			35.8	4.92	Yes	Yes
TMO1	5	277	1		10.15	Flat	100		Flat			17.0	6.44	Yes	Yes
TMO2	5	277	1		0.40	Round	100		Round	0.63	0.63	2.0	0.15	No	No
VDW1	5	266	1		2.36	Round	100		Round	1.54	1.54	4.8	1	Yes	Yes
VDW2	5	266	6		23.88	Round	100		Round	1.98	1.98	6.2	0.82	Yes	Yes
ATT1	5	266	2		1.56	Round	100		Round	0.89	0.89	1.2	0.17	Yes	Yes
ATT2	5	266	4		3.12	Round	100		Round	0.82	0.82	2.6	0.62	Yes	Yes
ATT3	5	266	2		12.54	Round	100		Round	2.38	2.38	7.5	3.65	Yes	Yes
ATTA	5	266	6		13.32	Round	100		Round	2.38	2.38	7.5	1.22	Yes	Yes
SIGOR	5	287.5	1		3.69	Round	100		Round	1.09	1.09	3.4	0.39	Yes	Yes
TMO3	5	277	4		10.15	Round	100		Round	1.54	1.54	4.8	1	Yes	Yes

**Note: Actual block width multiplied by 0.75. 1 block area factor assumed based on 1.0 block.

Foundation

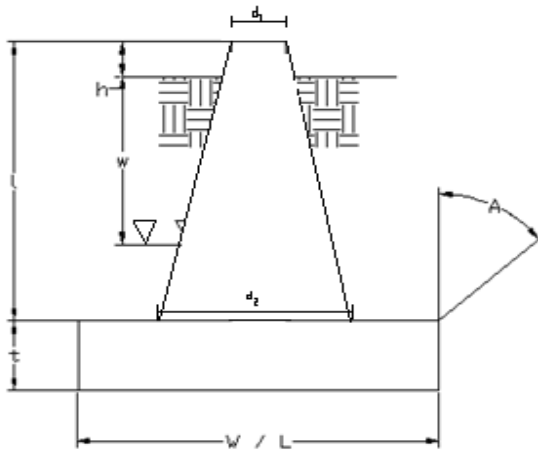
Design Loads (Factored)

Compression/Leg:	410.60	k
Uplift/Leg:	292.61	k
Shear/Leg:	56.14	k

Face Width @ Top of Pier (d_1):	3.50	ft
Face Width @ Bottom of Pier (d_2):	7.50	ft
Total Length of Pier (l):	8.50	ft
Height of Pedestal Above Ground (h):	0.50	ft
Width of Pad (W):	14.75	ft
Length of Pad (L):	14.75	ft
Thickness of Pad (t):	3.25	ft
Water Table Depth (w):	99.00	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Soil (Above Water Table):	120.0	pcf
Unit Weight of Soil (Below Water Table):	57.6	pcf
Friction Angle of Uplift (A):	30	°
Ultimate Compressive Bearing Pressure:	30000	psf
Ultimate Skin Friction:	1007	psf

Volume Pier (Total):	268.46	ft ³
Volume Pad (Total):	707.08	ft ³
Volume Soil (Total):	2747.35	ft ³
Volume Pier (Buoyant):	0.00	ft ³
Volume Pad (Buoyant):	0.00	ft ³
Volume Soil (Buoyant):	0.00	ft ³
Weight Pier:	40.27	k
Weight Pad:	106.06	k
Weight Soil:	329.68	k
Uplift Skin Friction:	144.82	k

Site No.:	88011
Engineer:	asp
Date:	12/22/20
Carrier:	AT&T Mobility



Uplift Check

ϕ_s Uplift Resistance (k)	Ratio	Result
465.62	0.63	OK

Axial Check

ϕ_s Axial Resistance (k)	Ratio	Result
4895.16	0.08	OK

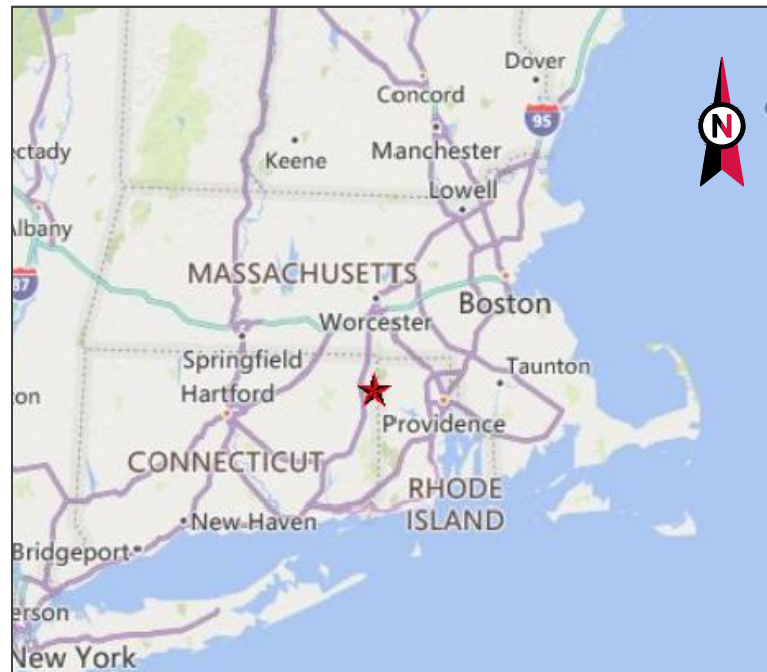
Anchor Bolt Check

Bolt Diameter (in)	2.25
# of Bolts	6
Steel Grade	A36
Steel Fy	36
Steel Fu	58
Detail Type	C

Usage Ratio	Result
0.44	OK

Exhibit 4

Mount Reinforcement Drawings



VICINITY MAP



AMERICAN TOWER®

SITE NAME: EAST KILLINGLY NORTH
 SITE NUMBER: 88011
 ATC PROJECT NUMBER: 13320909_C9_08
 SITE ADDRESS: 1375 NORTH ROAD
 KILLINGLY, CT 06241



LOCATION MAP

**MOUNT REINFORCEMENT DRAWINGS
 PREPARED FOR AT&T MOBILITY**

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

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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	NG	04/22/21

ATC SITE NUMBER:
 88011
 ATC SITE NAME:
 EAST KILLINGLY NORTH
 CONNECTICUT
 SITE ADDRESS:
 1375 NORTH ROAD
 KILLINGLY, CT 06241



DRAWN BY: NYG
 APPROVED BY: TCR
 DATE DRAWN: 04/22/21
 ATC JOB NO: 13320909_C9_08

COVER
 SHEET NUMBER:
G-001
 REVISION:
0

PROJECT TEAM	PROJECT DESCRIPTION	SHEET	SHEET TITLE	REV.	
<p>TOWER OWNER AMERICAN TOWER 10 PRESIDENTAL WAY WOBURN, MA 01801</p> <p>ENGINEERED BY ATC TOWER SERVICES 3500 REGENCY PARKWAY, SUITE 100 CARY, NC 27518</p> <p>CARRIER INFORMATION CARRIER: AT&T MOBILITY CARRIER SITE NAME: MRCTB048458 CARRIER SITE NUMBER: CTL01289</p>	<p>THE MODIFICATIONS PRESENTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE MOUNT ANALYSIS COMPLETED UNDER ENGINEERING PROJECT NUMBER 13320909_C8_07 DATED 03/09/21. SATISFACTORY COMPLETION OF THE WORK INDICATED ON THESE DRAWINGS WILL RESULT IN THE MOUNT MEETING THE REQUIREMENTS OF THE SPECIFICATIONS UNDER WHICH THE MOUNT ANALYSIS WAS COMPLETED.</p> <p>COMPLIANCE CODE</p> <p>ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.</p> <p>1. ANSI/TIA/EIA: STRUCTURAL STANDARDS (222-H EDITION) 2. INTERNATIONAL BUILDING CODE (2015 IBC) 3. CONNECTICUT STATE BUILDING CODE (2018)</p> <p>PROJECT LOCATION</p> <p>GEOGRAPHIC COORDINATES LATITUDE: 41.871525 LONGITUDE: -71.82154444</p>	G-002	IBC GENERAL NOTES AND MOUNT MODIFICATION INSPECTION	0	
		S-101	T-ARM SECTOR FRAME MOUNT REINFORCEMENT INSTALLATION DETAILS	0	
		S-102	SUPPLEMENTAL	0	
		R-601	SUPPLEMENTAL	0	
		R-602	SUPPLEMENTAL	0	
		R-901	SUPPLEMENTAL	0	
		R-902	SUPPLEMENTAL	0	
		R-903	SUPPLEMENTAL	0	



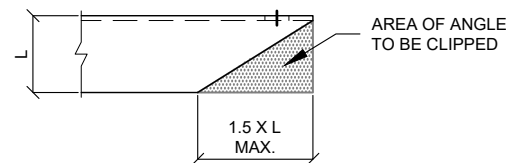
GENERAL

- ALL WORK TO BE COMPLETED PER APPLICABLE LOCAL, STATE, FEDERAL CODES AND ORDINANCES AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS FOR WIRELESS TOWER SITES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND ABIDING BY ALL REQUIRED PERMITS.
- ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TOWER AND FOUNDATION CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY OF ANY INSTALLATION INTERFERENCES. ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. DETAILS NOT SPECIFICALLY SHOWN ON THE DRAWINGS SHALL FOLLOW SIMILAR DETAILS FOR THIS JOB.
- ANY SUBSTITUTIONS SHALL CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- ANY MANUFACTURED DESIGN ELEMENTS SHALL CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS AND SHOULD BE SIMILAR TO THOSE SHOWN. THESE DESIGN ELEMENTS MUST BE STAMPED BY AN ENGINEER PROFESSIONALLY REGISTERED IN THE STATE OF THE PROJECT, AND SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL CODES AND OSHA SAFETY REGULATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY, PER ANSI/TIA-322 AND ANSI/ASSE A10.48, TO PROVIDE A COMPLETE AND STABLE STRUCTURE AS SHOWN ON THESE DRAWINGS.
- CONTRACTOR'S PROPOSED INSTALLATION SHALL NOT INTERFERE, NOR DENY ACCESS TO, ANY EXISTING OPERATIONAL AND SAFETY EQUIPMENT.

STRUCTURAL STEEL

- ALL DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATIONS, LATEST EDITION.
- ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
- ALL U-BOLTS SHALL BE ASTM A36 OR EQUIVALENT, WITH LOCKING DEVICE, UNLESS NOTED OTHERWISE.
- FIELD CUT EDGES, EXCEPT DRILLED HOLES, SHALL BE GROUND SMOOTH.
- ALL FIELD CUT SURFACES, FIELD DRILLED HOLES & GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.
- ALL STRUCTURAL STEEL EMBEDDED IN THE CONCRETE SHALL BE APPLIED WITH (2) BRUSHED COATS OF POLYGUARD CA-14 MASTIC OR EQUIVALENT. REFER TO THE MANUFACTURER SPECIFICATIONS FOR SURFACE PREPARATION AND APPLICATION. APPLICATION OF POLYGUARD 400 WRAP IS NOT ESSENTIAL.
- CONTRACTOR SHALL PERFORM WORK ON ONLY ONE (1) TOWER FACE AND REPLACE/REINFORCE ONE (1) BOLT/MEMBER AT A TIME.
- ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.

MAXIMUM ALLOWABLE ANGLE CLIP



PAINT

- AS REQUIRED, CLEAN AND PAINT PROPOSED STEEL ACCORDING TO FAA ADVISORY CIRCULAR AC 70/7460-1L.

WELDING

- ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
- ALL WELDS SHALL BE INSPECTED VISUALLY. IF DIRECTED BY ENGINEER OF RECORD, 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE (100% IF REJECTABLE DEFECTS ARE FOUND) TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
- INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
- ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER AND/OR BASE METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
- IN CASES WHERE BASE METAL GRADE IS UNKNOWN, ALL WELDING ON LATTICE TOWERS SHALL BE DONE WITH E70XX ELECTRODES; ALL WELDING ON POLE STRUCTURES SHALL BE DONE WITH E80XX ELECTRODES, UNLESS NOTED OTHERWISE.
- PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING 1/2" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.

BOLT TIGHTENING PROCEDURE

- STRUCTURAL CONNECTIONS TO BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH RCSC SPECIFICATIONS.
- FLANGE BOLTS SHALL BE INSTALLED AND TIGHTENED USING DIRECT TENSION INDICATING (DTI) SQUIRTER WASHERS. DTI SQUIRTER WASHERS ARE TO BE INSTALLED AND ORIENTED / TIGHTENED PER MANUFACTURER SPECIFICATIONS TO ACHIEVE DESIRED LEVEL OF BOLT PRE-TENSION.
- IN LIEU OF USING DTI SQUIRTER WASHERS, FLANGE BOLTS MAY BE TIGHTENED USING AISC / RCSC "TURN-OF-THE-NUT" METHOD, PENDING APPROVAL BY THE ENGINEER OF RECORD (EOR). TIGHTEN FLANGE BOLTS USING THE CHART BELOW:

BOLT LENGTHS UP TO AND INCLUDING FOUR DIAMETERS

1/2"	BOLTS UP TO AND INCLUDING 2.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
5/8"	BOLTS UP TO AND INCLUDING 2.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
3/4"	BOLTS UP TO AND INCLUDING 3.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
7/8"	BOLTS UP TO AND INCLUDING 3.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1"	BOLTS UP TO AND INCLUDING 4.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-1/8"	BOLTS UP TO AND INCLUDING 4.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-1/4"	BOLTS UP TO AND INCLUDING 5.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-3/8"	BOLTS UP TO AND INCLUDING 5.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-1/2"	BOLTS UP TO AND INCLUDING 6.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT

BOLT LENGTHS OVER FOUR DIAMETERS BUT NOT EXCEEDING EIGHT DIAMETERS

1/2"	BOLTS 2.25 TO 4.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
5/8"	BOLTS 2.75 TO 5.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
3/4"	BOLTS 3.25 TO 6.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
7/8"	BOLTS 3.75 TO 7.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1"	BOLTS 4.25 TO 8.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/8"	BOLTS 4.75 TO 9.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/4"	BOLTS 5.25 TO 10.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-3/8"	BOLTS 5.75 TO 11.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/2"	BOLTS 6.25 TO 12.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT

MODIFICATION INSPECTION NOTES

THE MOUNT MODIFICATION INSPECTION (MMI) PROCEDURE IS INTENDED TO CONFIRM THAT CONSTRUCTION AND INSTALLATION MEETS ENGINEERING DESIGN, ATC PROCEDURES AND ATC STANDARD SPECIFICATIONS FOR WIRELESS TOWER SITES.

TO ENSURE THAT THE REQUIREMENTS OF THE MMI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR SUBMIT ALL REQUIRED PHOTOGRAPHS AND DRAWINGS TO AMERICAN TOWER CORPORATION (ATC).

MOUNT MODIFICATION INSPECTION CHECKLIST			
INSPECTION DOCUMENT	DESCRIPTION	INSPECTION TESTING REQUIRED	RESPONSIBILITY
ON-SITE COLD GALVANIZING VERIFICATION	PHOTOGRAPHIC EVIDENCE OF COLD GALVANIZATION TYPE AND APPLICATION IN ALL APPLICABLE LOCATIONS TO BE INCLUDED WITHIN THE MMI REPORT	✓	GC
GC AS-BUILT DRAWINGS WITH CONSTRUCTION RED-LINES	"AS-BUILT" DRAWINGS INDICATING ANY APPROVED CHANGES TO ENGINEERED PLANS TO MMI FOR APPROVAL/REVIEW AND INCLUSION IN MMI REPORT	✓	GC
PHOTOGRAPHS	PHOTOGRAPHIC EVIDENCE OF MOUNT MODIFICATION INSPECTION, ON SITE REMEDIATION, AND ITEMS FAILING INSPECTION & REQUIRING FOLLOW UP TO BE INCLUDED WITHIN THE MMI REPORT. COMPLETE PHOTO LOG IS TO BE SUBMITTED WITHIN MMI REPORT.	✓	GC

TABLE KEY:
MMI - MOUNT MODIFICATION INSPECTION
GC - GENERAL CONTRACTOR
ATC - AMERICAN TOWER CORPORATION

BOLT TIGHTENING PROCEDURE (CONTINUED)

- SPLICE BOLTS SUBJECT TO DIRECT TENSION SHALL BE INSTALLED AND TIGHTENED AS PER SECTION 8.2.1 OF THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS", LOCATED IN THE AISC MANUAL OF STEEL CONSTRUCTION. THE INSTALLATION PROCEDURE IS PARAPHRASED AS FOLLOWS:

FASTENERS SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES AND TIGHTENED BY ONE OF THE METHODS DESCRIBED IN SUBSECTION 8.2.1 THROUGH 8.2.4.

8.2.1 TURN-OF-NUT PRETENSIONING

BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1, UNTIL ALL THE BOLTS ARE SIMULTANEOUSLY SNUG TIGHT AND THE CONNECTION IS FULLY COMPACTED. FOLLOWING THIS INITIAL OPERATION ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE APPLICABLE AMOUNT OF ROTATION SPECIFIED ABOVE. DURING THE TIGHTENING OPERATION THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH. TIGHTENING SHALL PROGRESS SYSTEMATICALLY.

- ALL OTHER BOLTED CONNECTIONS SHALL BE BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1 OF THE SPECIFICATION.

ALL BOLT HOLES SHALL BE ALIGNED TO PERMIT INSERTION OF THE BOLTS WITHOUT UNDUE DAMAGE TO THE THREADS. BOLTS SHALL BE PLACED IN ALL HOLES WITH WASHERS POSITIONED AS REQUIRED AND NUTS THREADED TO COMPLETE THE ASSEMBLY. COMPACTING THE JOINT TO THE SNUG-TIGHT CONDITION SHALL PROGRESS SYSTEMATICALLY FROM THE MOST RIGID PART OF THE JOINT. THE SNUG-TIGHTENED CONDITION IS THE TIGHTNESS THAT IS ATTAINED WITH A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.

GENERAL CONTRACTOR

THE GENERAL CONTRACTOR IS REQUIRED TO:

- REVIEW THE REQUIREMENTS OF THE MMI CHECKLIST.
- UNDERSTAND ALL INSPECTION REQUIREMENTS.

THE GENERAL CONTRACTOR SHALL PERFORM AND RECORD THE INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MMI CHECKLIST.

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0	FIRST ISSUE	NG	04/22/21

ATC SITE NUMBER:
88011

ATC SITE NAME:
**EAST KILLINGLY NORTH
CONNECTICUT**

SITE ADDRESS:
1375 NORTH ROAD
KILLINGLY, CT 06241



DRAWN BY:	NYG
APPROVED BY:	TCR
DATE DRAWN:	04/22/21
ATC JOB NO:	13320909_C9_08

IBC GENERAL NOTES AND MOUNT MODIFICATION INSPECTION

SHEET NUMBER:	REVISION:
G-002	0



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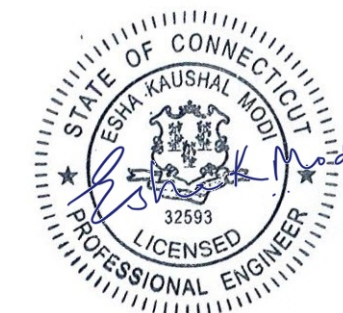
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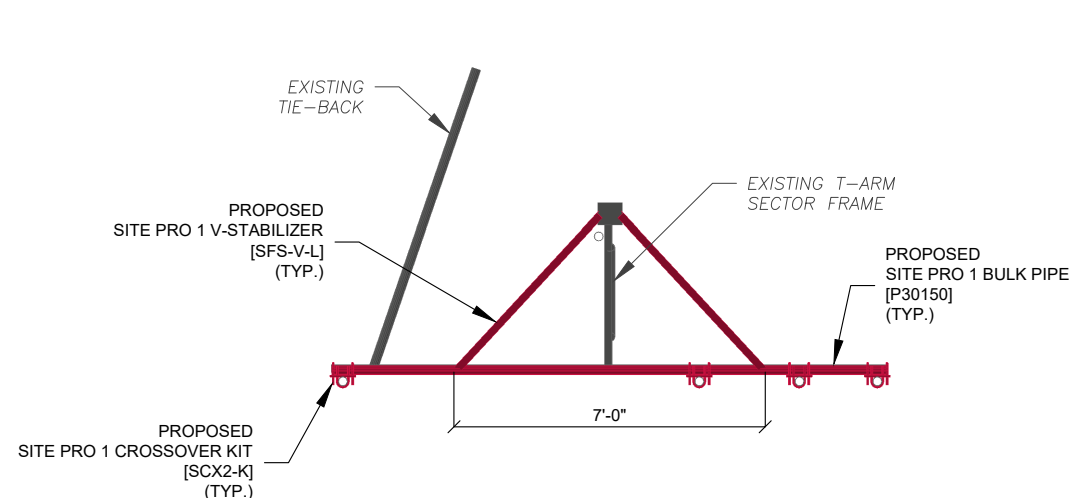
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 MOUNT REINFORCEMENT
 INSTALLATION DETAILS**

SHEET NUMBER:

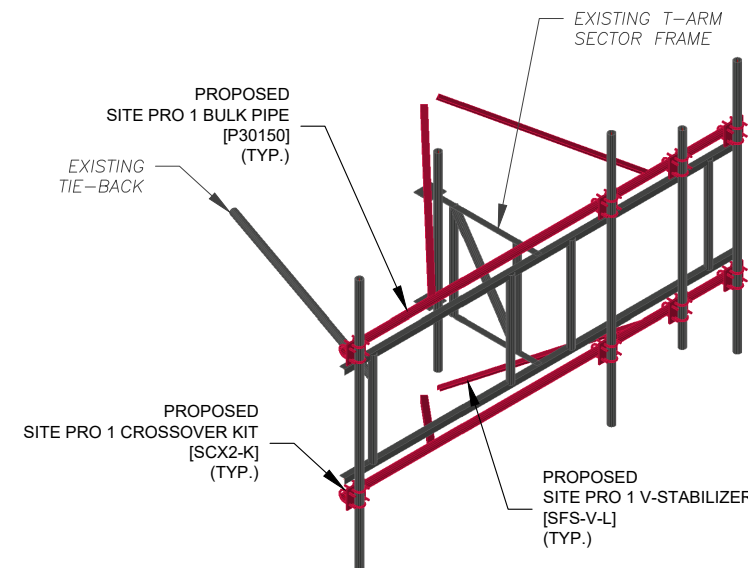
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REVISION:

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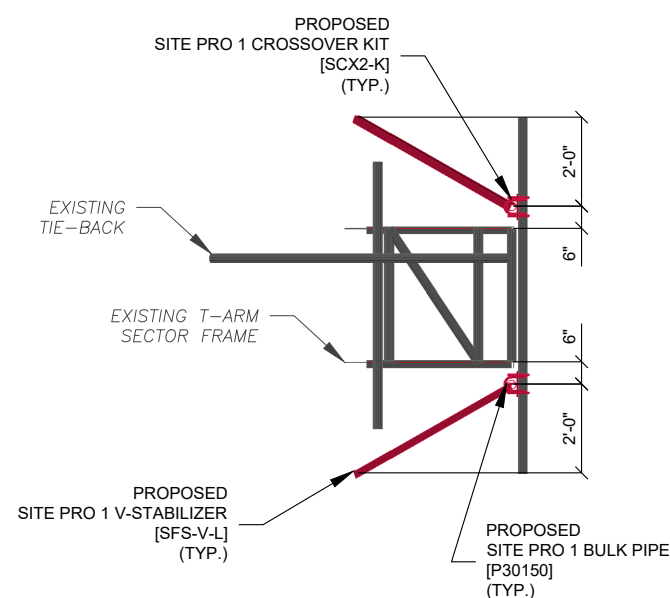


MOUNT MODIFICATION - TOP VIEW

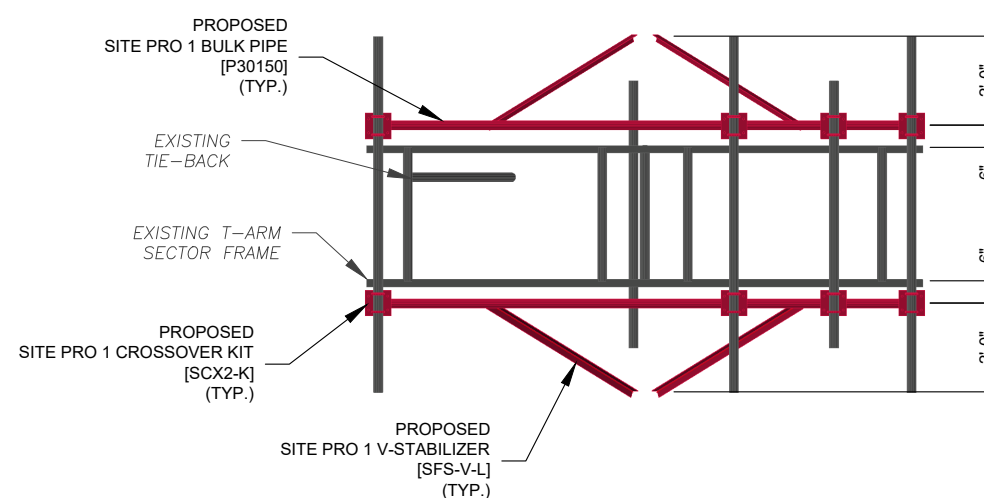


MOUNT MODIFICATION - ISOMETRIC VIEW

NOTE(S):
 1. SITE PRO 1 P/N: [SFS-V-L] TO BE FIELD CUT TO 5'-4".



MOUNT MODIFICATION - SIDE VIEW



MOUNT MODIFICATION - FRONT VIEW

NOTE:
 IN THE EVENT A PROPOSED MODIFICATION PART LISTED IN THE DRAWINGS IS NOT AVAILABLE, AN APPROVED EQUIVALENT CAN BE SUBSTITUTED. FOR APPROVAL OF EQUIVALENT PART OR QUESTIONS PLEASE CONTACT AMERICAN TOWER PMI INBOX AT PMI@AMERICANTOWER.COM.



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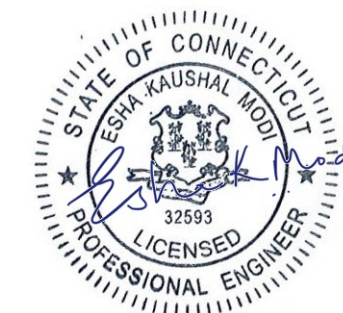
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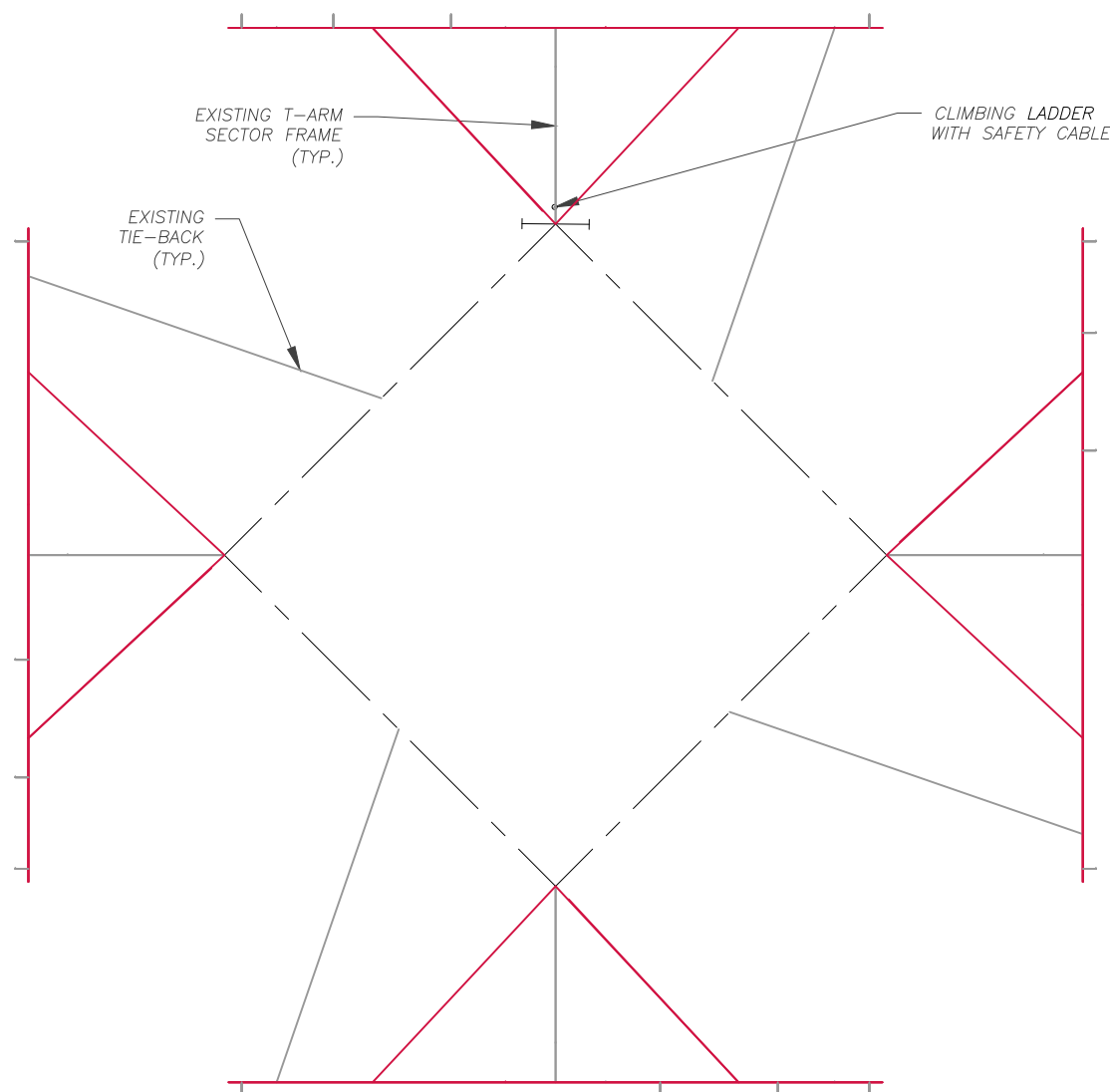
SITE ADDRESS:
1375 NORTH ROAD
KILLINGLY, CT 06241



DRAWN BY:	NYG
APPROVED BY:	TCR
DATE DRAWN:	04/22/21
ATC JOB NO:	13320909_C9_08

COVER

SHEET NUMBER:	REVISION:
S-102	0

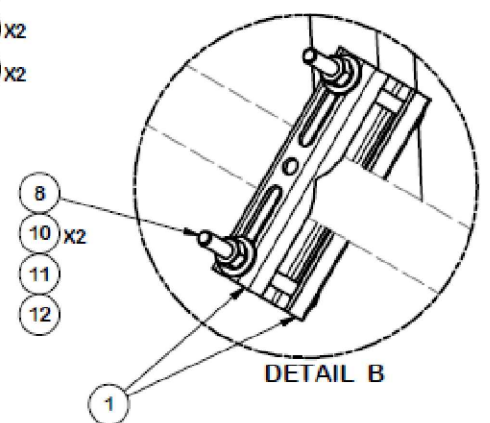
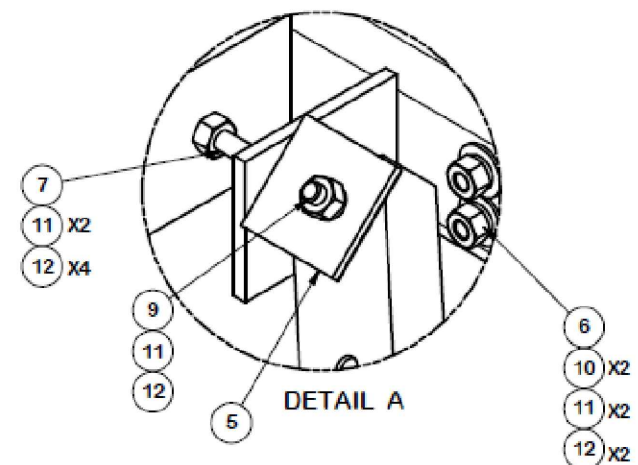
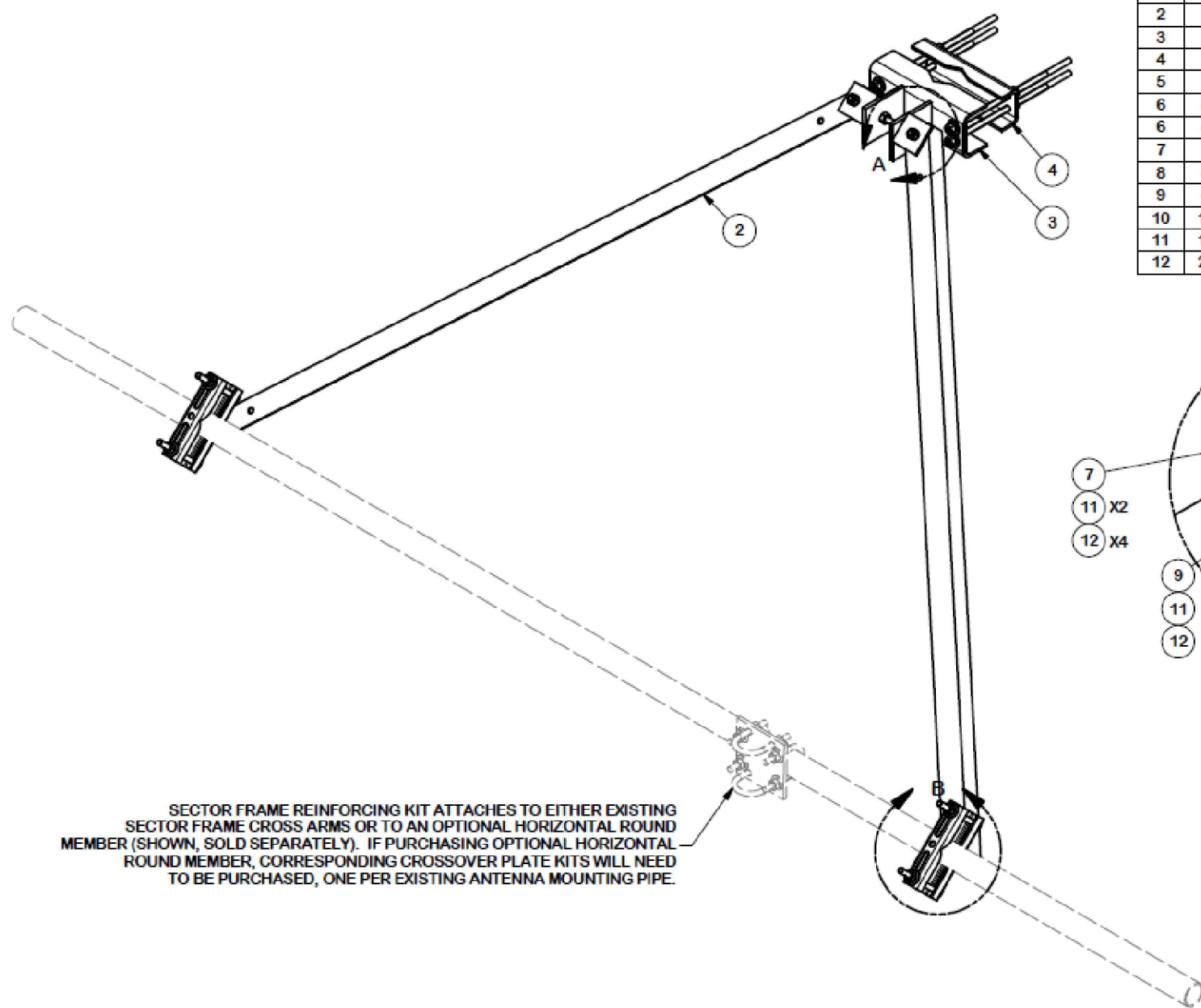


SAFETY CLIMB LOCATION



NOTE:
 CONTRACTOR TO INSTALL MOUNT MODIFICATIONS PER THE MANUFACTURERS SPECIFICATION. MODIFICATIONS SHALL NOT OBSTRUCT, INTERFERE, OR BLOCK EXISTING SAFETY CLIMB SYSTEM. IF ANY OF THESE OCCURS DURING INSTALLATION CONTACT THE AMERICAN TOWER PMI INBOX PMI@AMERICANTOWER.COM

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	4	X-STU	STIFF ARM CHANNEL BRACKET	8 1/2 in	1.37	5.49
2	2	X-254924	DIAGONAL ANGLE - SITE PRO 1	72 in	19.71	39.41
3	1	CFS	LOWER GATE FOOT WELDMENT		12.72	12.72
4	1	GBB	GATE BACKING BAR	11 1/2 in	4.53	4.53
5	2	SHCM-T	CHAIN MOUNT TIGHTENER BRACKET	3 in	1.86	3.72
6	4	G12R-15	1/2" x 15" THREADED ROD (HDG.)		0.40	1.60
6	4	G12R-12	1/2" x 12" THREADED ROD (HDG.)		0.40	1.60
7	1	G12R-6	1/2" x 6" GALV. THREADED ROD		0.33	0.33
8	4	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	1.64
9	4	G12112	1/2" x 1-1/2" HDG HEX BOLT GR5	1/2 in	0.15	0.59
10	16	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.55
11	18	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.25
12	20	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.43
TOTAL WT. #						76.65



SECTOR FRAME REINFORCING KIT ATTACHES TO EITHER EXISTING SECTOR FRAME CROSS ARMS OR TO AN OPTIONAL HORIZONTAL ROUND MEMBER (SHOWN, SOLD SEPARATELY). IF PURCHASING OPTIONAL HORIZONTAL ROUND MEMBER, CORRESPONDING CROSSOVER PLATE KITS WILL NEED TO BE PURCHASED, ONE PER EXISTING ANTENNA MOUNTING PIPE.

TOLERANCE NOTES
 TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES (± 0.030")
 DRILLED AND GAS CUT HOLES (± 0.030") - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES
 BENDS ARE ± 1/2 DEGREE
 ALL OTHER MACHINING (± 0.030")
 ALL OTHER ASSEMBLY (± 0.060")

PROPRIETARY NOTE:
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION
**SECTOR FRAME
 STABILIZER - VERTICAL
 LONG**

SITE PRO 1
 Engineering Support Team
 1-888-753-7446

Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED MAX. DIA. FOR HANDRAIL CONNECTION	5563	BC	10/25/2017
REVISION HISTORY				

CPD NO. 5563	DRAWN BY CEK 3/23/2017	ENG. APPROVAL
CLASS 81	SUB 01	DRAWING USAGE CUSTOMER
CHECKED BY BMC 3/23/2017		

PART NO. SFS-V-L	PAGE 1 OF 3
DWG. NO. SFS-V-L	

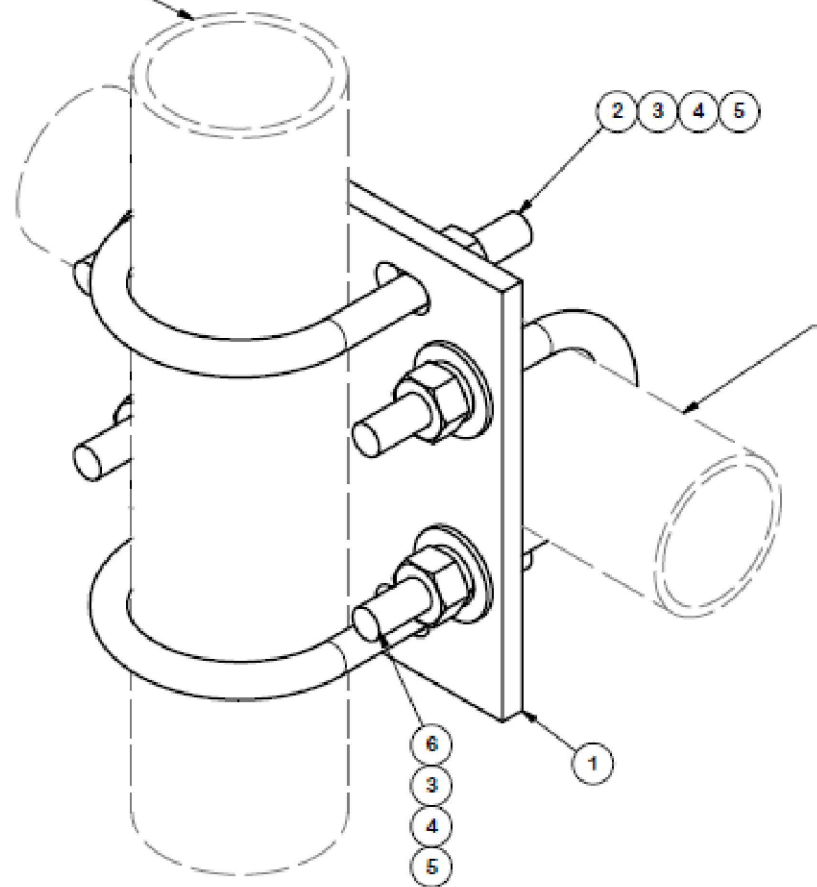
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SUPPLEMENTAL

SHEET NUMBER: R-601	REVISION: 0
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PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	SCX2	CROSSOVER PLATE	7 in	4.80	4.80
2	2	X-UB1300	1/2" X 3" X 5" X 2" U-BOLT (HDG.)		0.66	1.31
3	8	G12FW	1/2" HDG USS FLATWASHER		0.03	0.27
4	8	G12LW	1/2" HDG LOCKWASHER		0.01	0.11
5	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
6	2	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.63	1.25
TOTAL WT. #						8.39

2-7/8" O.D. ANTENNA PIPE
(ORDERED SEPARATELY)



2-3/8" O.D. PIPE
(ORDERED SEPARATELY)

TOLERANCE NOTES
 TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES (± 0.030)
 DRILLED AND GAS CUT HOLES (± 0.030) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES (± 0.010) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING (± 0.030)
 ALL OTHER ASSEMBLY (± 0.060)

PROPRIETARY NOTE:
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION
CROSSOVER PLATE KIT

SITE PRO 1
 Engineering Support Team: 1-888-753-7446
 Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX
 A valmont COMPANY

CPD NO.	DRAWN BY CEK	6/30/2011	ENG. APPROVAL
CLASS	SUB	DRAWING USAGE SHOP	CHECKED BY BMC
		7/1/2011	

PART NO. SCX2-K	1 OF 1 PAGE
DWG. NO. SCX2-K	

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SUPPLEMENTAL

SHEET NUMBER: R-602	REVISION: 0
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11:19 AM 4/21/2021

Option 1 - Modify: Estimate for AT&T Mobility @ 88011 (EAST KILLINGLY NORTH) -- 13320909_C9_08

Site Data and Design Parameters		Dates and Designers	
Asset OTM #	88011	Mount Analysis Date / By	3/9/2021 / MJJC
Asset Name	EAST KILLINGLY NORTH	Design Date / By	4/21/2021 / TCR
State	Connecticut	Checked Date / By	/ /
County	Windham	Detailer (Prev/Current/Level)	/ /
City	Dayville	Software	RISA
Failing Analysis Eng. #	13320909_C8_07	Tower Type	Self-Support 4-sided
Mod. Drawing Eng. #	13320909_C9_08	Mount Type	T-Frame
Building Codes		Carriers	
TIA/IBC:	ANSI/TIA-222-H / 2015 IBC	# of RADs	1
Local:	2018 Connecticut State Building Code	Carrier	AT&T Mobility
Failing Analysis % / Code	545% / TIA-H		
Post Mod % / Controlling Member	90% / Mount Pipes		
Usage Limit % / Reason	105% / N/A		

Any modification design comments or assumptions? **No** (including notes to the Estimator)

Modification Summary	
Item #	Scope Item
1	Install Site Pro 1 SFS-V-L V Style Stabilizer on All sector(s)
2	Install Site Pro 1 SFS-V-L V Style Stabilizer on All sector(s)
3	Install Site Pro 1 P30150 Pipe w/ SCX2-K crossovers on All sector(s)
4	Install Site Pro 1 P30150 Pipe w/ SCX2-K crossovers on All sector(s)

Estimated Modification Cost \$20,000

X:\C-E\East Killingly North, CT (88011)\13320909 AT&T MOBILITY\13320909_08_MOUNT_DRW\Mount Modification SOW v1.4.6

Option 2 - Replace: Estimate for AT&T Mobility @ 88011 (EAST KILLINGLY NORTH) -- 13320909_C9_08

Tower Info		Additional Info	
Tower Number	88011	Can modifications be Installed?	Yes
Tower Name	EAST KILLINGLY NORTH	What is the post-mod capacity?	90%
State	Connecticut		
Jurisdictional Codes		Project Requirements	
Design TIA Code	ANSI/TIA-222-H	New Mount Face Width	150 in
Current TIA Code	ANSI/TIA-222-H	Number of Sectors	3
IBC	2015 IBC		
Other	2018 Connecticut State Building Code		
Project Information			
Carrier	AT&T Mobility		
Structure Type	Self-Support		
Recommended Mount Replacement	Sabre C10857007C*	Estimated Replacement Cost	\$ 36,000.00
	*or approved equivalent		

SUPPLEMENTAL

SHEET NUMBER:

R-901

REVISION:

0



Post Modification Antenna Mount Analysis Report

ATC Site Name : EAST KILLINGLY NORTH, CT
 ATC Site Number : 88011
 Engineering Number : 13320909_C9_08
 Mount Elevation : 246 ft
 Carrier : AT&T Mobility
 Carrier Site Name : CTL01289
 Carrier Site Number : CTL01289
 Site Location : 1375 North Road
 Killingly, CT 06241-1404
 41.871525, -71.82154444
 County : Windham
 Date : April 21, 2021
 Max Usage : 90%
 Result : Contingent Pass

Prepared By: Trevor Ridilla
 Structural Engineer II

Reviewed By:

Trevor Ridilla

COA: PEC.0001553



Eng. Number 13320909_C9_08
 April 21, 2021

Table of Contents

Introduction	1
Supporting Documents	1
Analysis	1
Conclusion	1
Antenna Loading	2
Structure Usages	2
Mount Layout	3
Equipment Layout	4
Standard Conditions	6
Calculations	Attached



Eng. Number 13320909_C9_08
 April 21, 2021
 Page 1

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for AT&T Mobility at 246 ft.

Supporting Documents

Mount Mapping	ETS Project #205063.IE.01, dated October 26, 2020
Radio Frequency Data Sheet	RFDS ID #CTL01289, dated August 21, 2020
Reference Photos	Site photos from 2020

Analysis

This antenna mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D

Basic Wind Speed:	122 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.186, S1 = 0.055
Site Class:	D - Stiff Soil
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above provided the modifications listed below are completed:

- Install modification per ATC Drawing #13320909_C9_08

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



Eng. Number 13320909_C9_08
 April 21, 2021
 Page 2

Application Loading

Mount Centerline (ft)	Antenna Centerline (ft)	Qty	Antenna Model
246.0	246.0	3	Powerwave Allgon P65-16-XXH-RR
		3	CCI OPA65R-BUBD
		3	CCI DMP65R-BUBD
		3	Powerwave Allgon TT19-088P111-001
		6	Powerwave Allgon LGP21901
		2	Raycap DC6-48-60-18-8F
		3	Ericsson RRU5 4478 B14
		3	Ericsson RRU5 4449 B5, B12
		3	Ericsson RRU5 8843 B2, B66A
		3	

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Horizontals	78%	Pass
Verticals	57%	Pass
Diagonals	26%	Pass
Tie-Backs	6%	Pass
Mount Pipes	90%	Pass
Mod-Kit	69%	Pass

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

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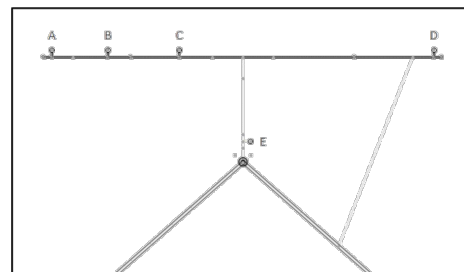
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0	FIRST ISSUE	NYG	04/22/21

ATC SITE NUMBER:
 88011
 ATC SITE NAME:
 EAST KILLINGLY NORTH
 CONNECTICUT
 SITE ADDRESS:
 1375 NORTH ROAD
 KILLINGLY, CT 06241



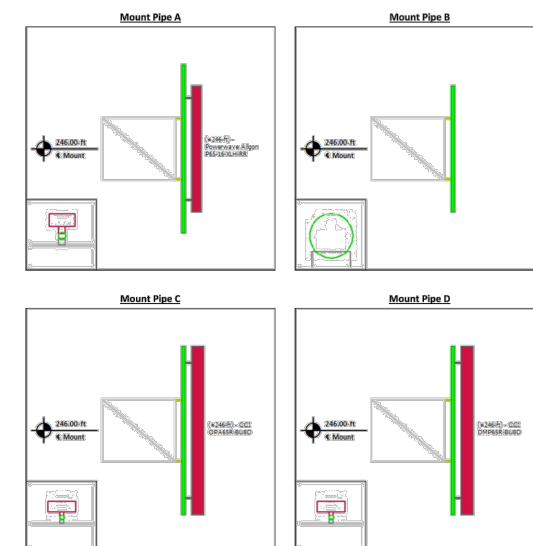
Eng. Number 13320909_C9_08
 April 21, 2021
 Page 3

Mount Layout



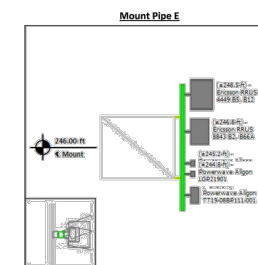
Eng. Number 13320909_C9_08
 April 21, 2021
 Page 4

Equipment Layout



Eng. Number 13320909_C9_08
 April 21, 2021
 Page 5

Equipment Layout Cont'd.



Eng. Number 13320909_C9_08
 April 21, 2021
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Standard Conditions

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

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

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

American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

All connections are to be verified for condition and tightness by the installation contractor preceding any changes to the appearance mounting system and/or equipment attached to it.

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

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



DRAWN BY:	NYG
APPROVED BY:	TCR
DATE DRAWN:	04/22/21
ATC JOB NO:	13320909_C9_08

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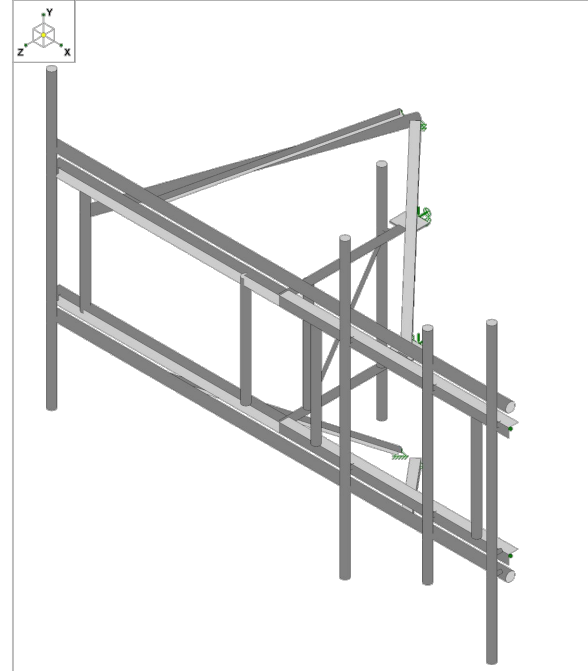
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 Project Number: 13320909_C9_08
 Carrier: AT&T Mobility
 Mount Elevation: 246 ft
 Date: 4/21/2021

Mount Analysis Force Calculations

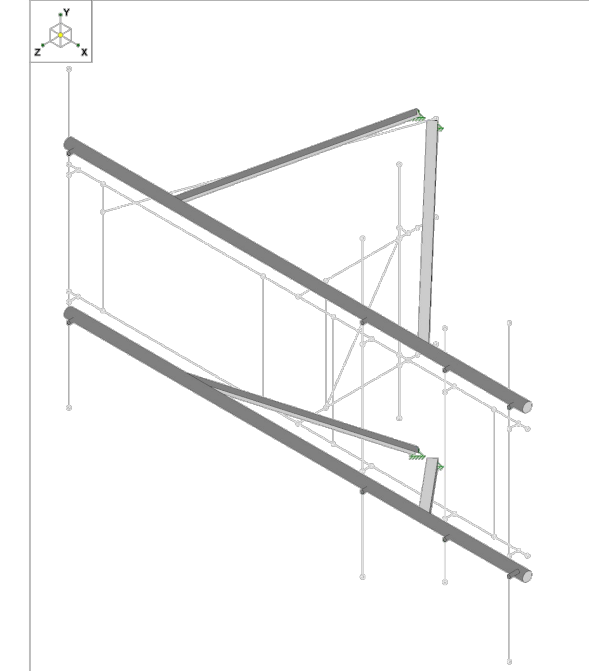
Wind & Ice Load Calculations		Seismic Load Calculations	
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Topographic Factor	K_{zt} 1.00	1 Second DSRAP	S_{D1} 0.088
Rooftop Wind Speed-up Factor	K_s 1.00	Importance Factor	I 1.0
Shielding Factor	K_d 0.90	Response Modification Coefficient	R 2.0
Ground Elevation Factor	K_e 0.97	Seismic Response Coefficient	C_s 0.099
Wind Direction Probability Factor	K_d 0.95	Amplification Factor	A 1.0
Basic Wind Speed	V 122 mph	Total Weight	W 1163.1 lbs
Velocity Pressure	q_z 45.0 psf	Total Shear Force	V_s 115.4 lbs
Height Escalation Factor	K_e 1.22	Horizontal Seismic Load	F_h 115.4 lbs
Thickness of Radial Glaze Ice	T_g 1.22 in	Vertical Seismic Load	F_v 46.2 lbs

Antenna Calculations (Elevations per Application/RFD5)*							
Equipment	Height	Width	Depth	Weight	EPA _W	EPA _L	EPA _H
Model #	in	in	in	lbs	soft	soft	soft
Powerwave Algon P65-16-XLH-RR	72.0	12.0	6.0	53.0	8.13	1.95	10.12
CCI OP65R-BUBD	96.0	21.0	7.8	76.5	18.09	3.12	20.71
CCI DMP65R-BUBD	96.0	20.7	7.7	95.7	17.87	3.08	20.49
Powerwave Algon TT19-088P111-001	9.9	6.7	5.4	16.0	0.55	0.45	0.94
Powerwave Algon LGP21901	4.0	6.0	3.0	5.5	0.20	0.10	0.45
Raycap DC5-48-60-18-8P	23.5	9.7	9.7	20.0	1.90	1.90	2.63
Ericsson RRU5 4478 B14	16.5	13.4	7.7	59.9	1.84	1.06	2.50
Ericsson RRU5 4449 B5, B12	17.9	13.2	9.4	71.0	1.97	1.40	2.65
Ericsson RRU5 B843 B2, B66A	14.9	13.2	10.9	72.0	1.64	1.35	2.26

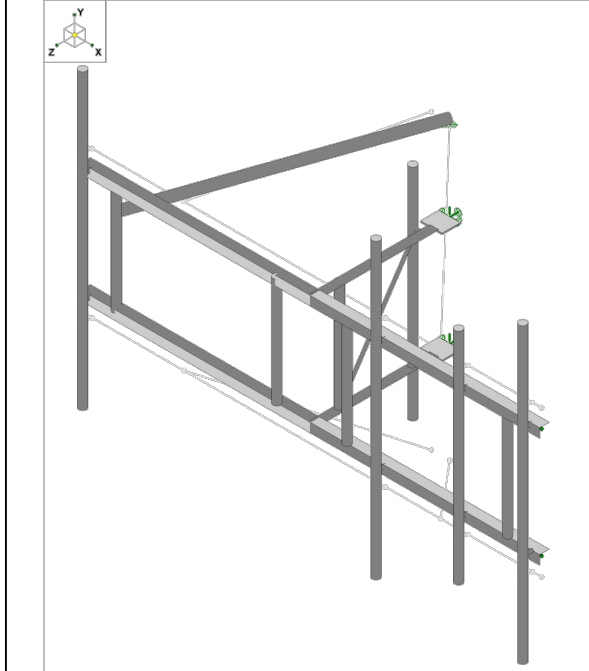
* Equipment with EPA values N/A were not considered in the mount analysis



American Tower Corp.
 Trevor.Ridilla
 13320909_C9_08
 88011, EAST KILLINGLY NORTH
 3D Rendering (Final Configuration)
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 R3D: AT&T MOBILITY @ 88011, E...



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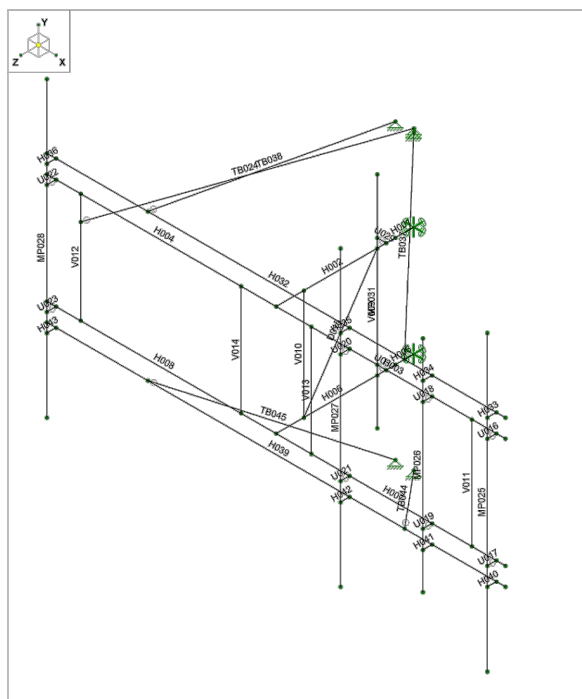
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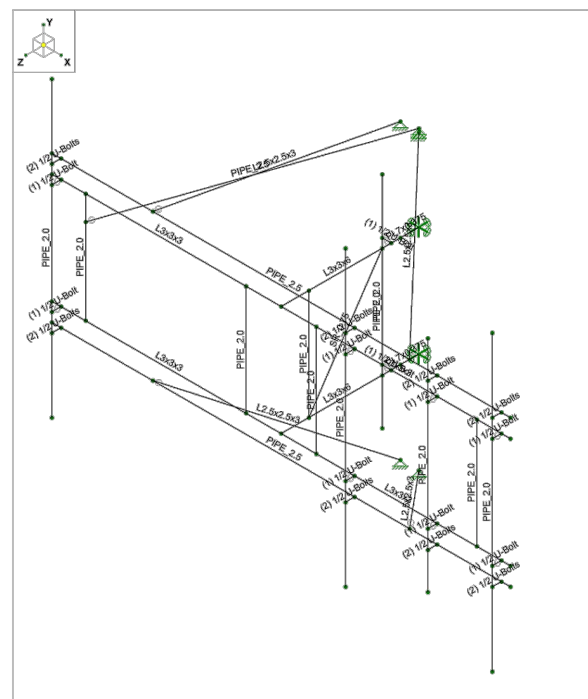
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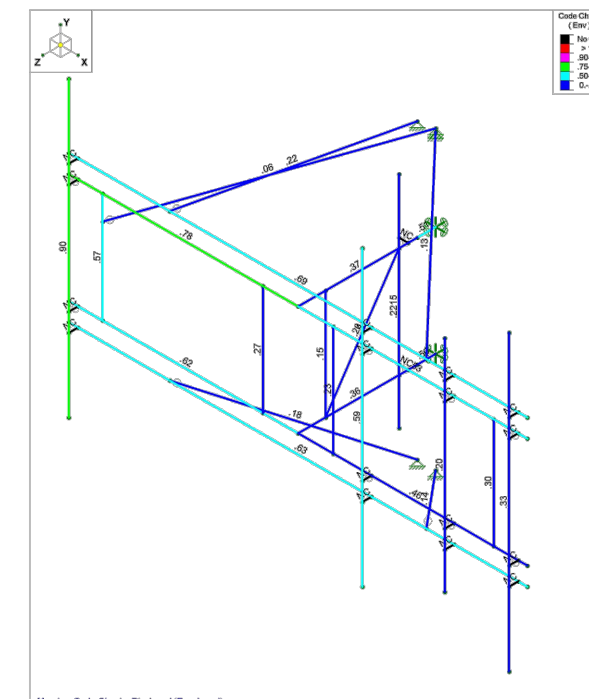
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 ATC SITE NAME:
EAST KILLINGLY NORTH CONNECTICUT
 SITE ADDRESS:
 1375 NORTH ROAD
 KILLINGLY, CT 06241



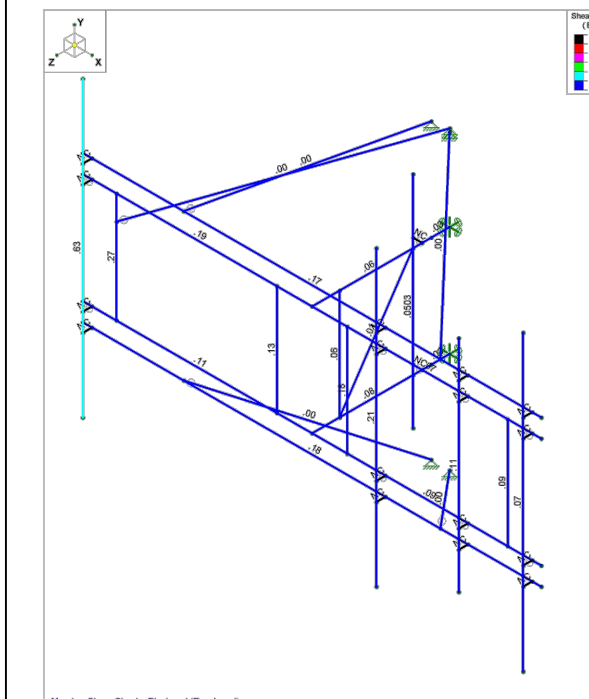
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 88011, EAST KILLINGLY NORTH
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 88011, EAST KILLINGLY NORTH
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Member Code Checks Displayed (Enveloped)
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 Trevor.Ridilla
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 Shear Checks
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DRAWN BY:	NYG
APPROVED BY:	TCR
DATE DRAWN:	04/22/21
ATC JOB NO:	13320909_C9_08

SUPPLEMENTAL

SHEET NUMBER:
R-903
 REVISION:
0

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Exhibit 5

Post Modification Antenna Mount Analysis Report



AMERICAN TOWER®
CORPORATION

Post Modification Antenna Mount Analysis Report

ATC Site Name : EAST KILLINGLY NORTH, CT
ATC Site Number : 88011
Engineering Number : 13320909_C9_08
Mount Elevation : 246 ft
Carrier : AT&T Mobility
Carrier Site Name : CTL01289
Carrier Site Number : CTL01289
Site Location : 1375 North Road
Killingly, CT 06241-1404
41.871525 , -71.82154444
County : Windham
Date : April 21, 2021
Max Usage : 90%
Result : Contingent Pass

Prepared By:
Trevor Ridilla
Structural Engineer II

Reviewed By:

COA: PEC.0001553



Table of Contents

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Antenna Loading..... 2

Structure Usages..... 2

Mount Layout 3

Equipment Layout 4

Standard Conditions..... 6

Calculations Attached



Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for AT&T Mobility at 246 ft.

Supporting Documents

Mount Mapping	ETS Project #205063.IE.01, dated October 26, 2020
Radio Frequency Data Sheet	RFDS ID #CTL01289, dated August 21, 2020
Reference Photos	Site photos from 2020

Analysis

This antenna mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D

Basic Wind Speed:	122 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.186, S1 = 0.055
Site Class:	D - Stiff Soil
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above provided the modifications listed below are completed:

- Install modification per ATC Drawing #13320909_C9_08

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



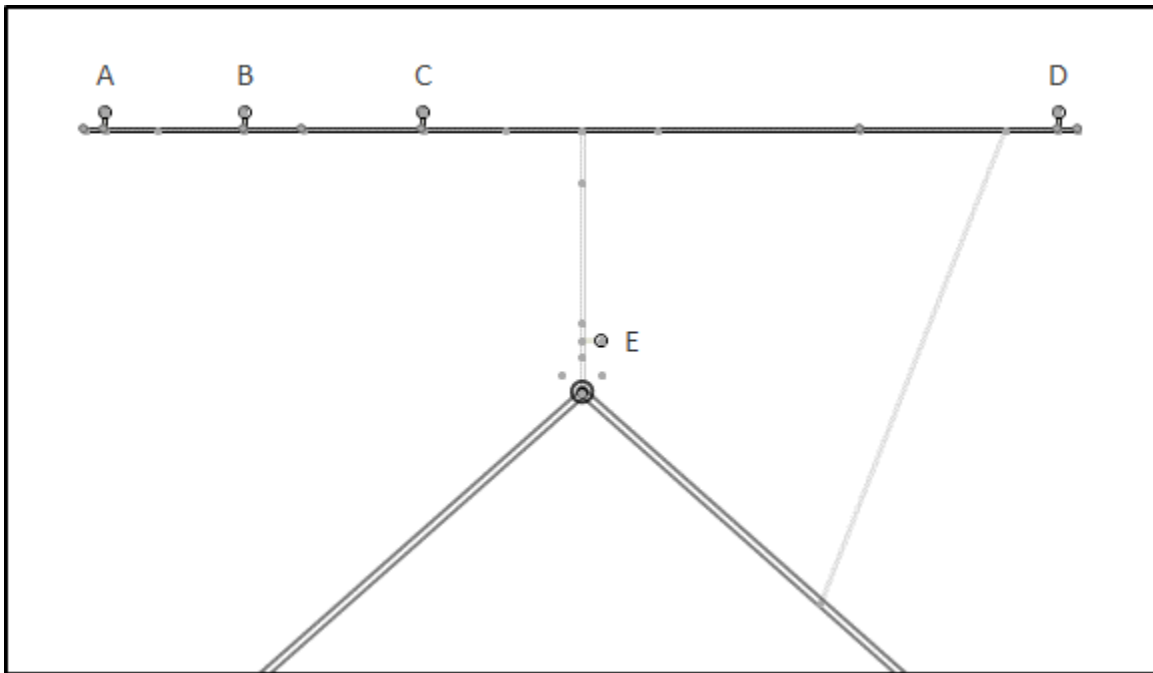
Application Loading

Mount Centerline (ft)	Antenna Centerline (ft)	Qty	Antenna Model
246.0	246.0	3	Powerwave Allgon P65-16-XLH-RR
		3	CCI OPA65R-BU8D
		3	CCI DMP65R-BU8D
		3	Powerwave Allgon TT19-08BP111-001
		6	Powerwave Allgon LGP21901
		2	Raycap DC6-48-60-18-8F
		3	Ericsson RRUS 4478 B14
		3	Ericsson RRUS 4449 B5, B12
		3	Ericsson RRUS 8843 B2, B66A

Structure Usages

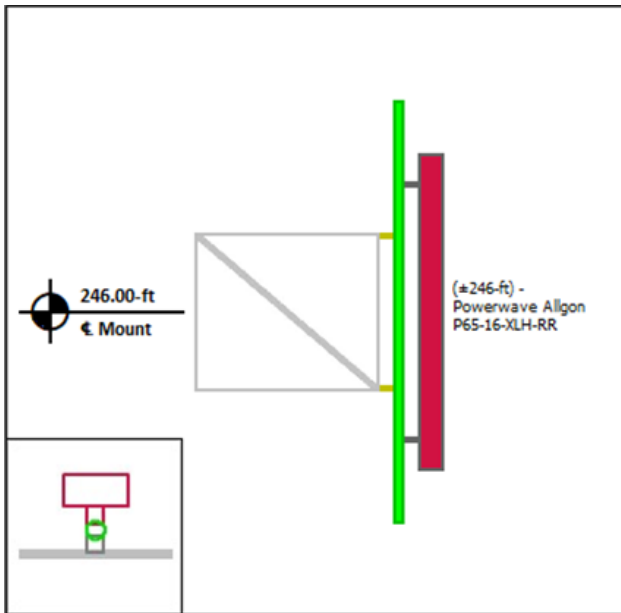
Structural Component	Controlling Usage	Pass/Fail
Horizontals	78%	Pass
Verticals	57%	Pass
Diagonals	26%	Pass
Tie-Backs	6%	Pass
Mount Pipes	90%	Pass
Mod-Kit	69%	Pass

Mount Layout

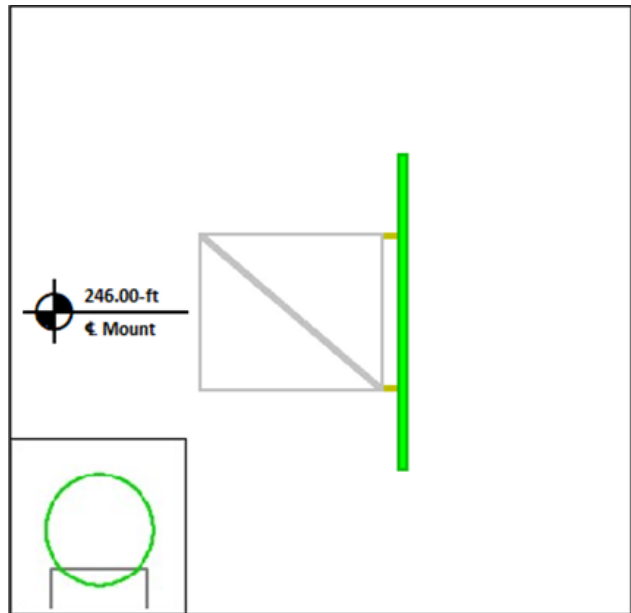


Equipment Layout

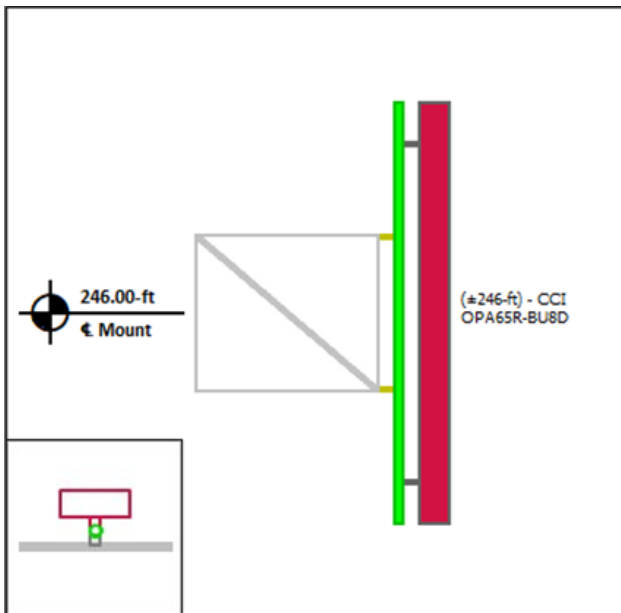
Mount Pipe A



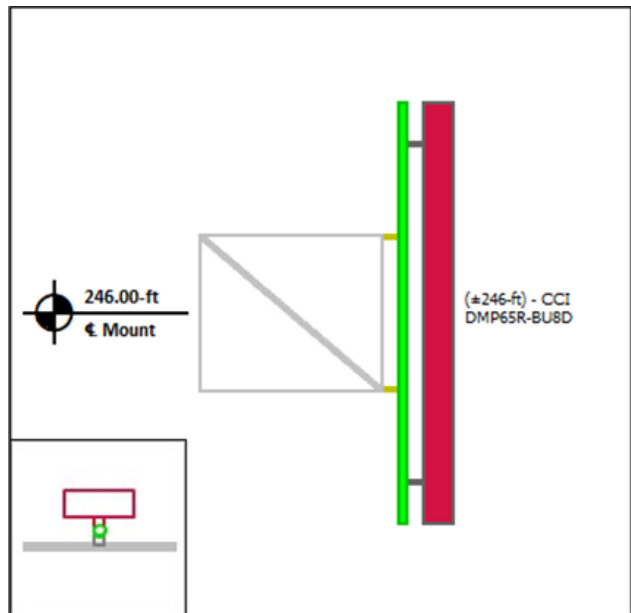
Mount Pipe B



Mount Pipe C

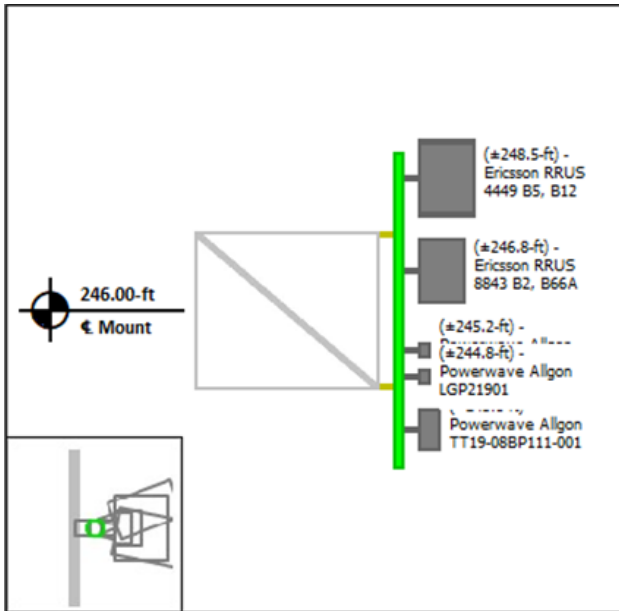


Mount Pipe D



Equipment Layout Cont'd.

Mount Pipe E





Standard Conditions

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

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

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

American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

All connections are to be verified for condition and tightness by the installation contractor preceding any changes to the appurtenance mounting system and/or equipment attached to it.

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

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

Exhibit 6

NIER Study Report



**Lawrence Behr
Associates** INC
www.lbagroup.com

NIER Study Report

SITE NAME:

88011 East Killingly North

LOCATION:

Killingly, Connecticut

COMPANY:

**American Tower Corporation
Woburn, Massachusetts**

March 10, 2021

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DISCLAIMER NOTICE

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

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GREENVILLE, NORTH CAROLINA

NIER STUDY REPORT

88011 East Killingly North

Killingly, Connecticut

INTRODUCTION

Lawrence Behr Associates, Inc. (LBA) has been retained by American Tower Corporation (ATC) of Woburn, Massachusetts to evaluate the RF emissions of an existing tower at this location.

SITE AND FACILITY CONSIDERATIONS

Site 88011 East Killingly North is located at 1375 North Road, in Killingly, Connecticut at coordinates 41.87152, -71.82154. The support structure is a 288' self-support. The installation consists of one antenna level with radiation center of 306', 291', 290', 277', 266', 246', and 210.5' above ground level. All antennae will have a radiation center as described above. All data used in this study was provided by one or more of the following sources:

1. ATC furnished data
2. Compiled from carrier and manufacturer standard configurations
3. Empirical data collected by LBA

A satellite view of the study area is located in Appendix 2. The load list may be seen in Appendix 3.

POWER DENSITY CALCULATIONS

Graphs of the power density at different distances from the transmitter, compared to FCC MPE general population and occupational limits, may be seen in Appendix 7. These limits are based upon the Information Relating to MPE Standards found in Appendix 8. Study methodology may be seen in Appendix 9, which describes the Non-Ionizing Radiation Prediction Models. As long as the site has perimeter fencing of at least 15 feet from the tower base, with signage in compliance with OET-65 and internal vendor compliance, this site WILL BE in compliance with FCC OET-65 MPE limits. This site IS in compliance with FCC OET-65 MPE limits.

March 10, 2021

Jeutuanna Walston

Jeutuanna Walston
Wireless Services Coordinator

APPENDIX 1

Executive Summary

This report presents non-ionizing radio frequency (RF) emissions analysis, which predicts the Maximum Permissible Exposure (MPE) potential to humans at or near wireless communication sites. The predicted RF emissions are evaluated against acceptable MPE limits as defined by specific established standards. The analysis then determines if the communications site is in compliance with these standards or other regulations regarding safe human exposure to radio frequency radiation.

The analysis was performed on the ATC_88011 East Killingly North site/tower. The report consists of Sections that provide details of the communications site, antenna systems, operational frequencies, MPE analysis and associated Appendices.

A summary of the MPE analysis results is depicted in the following Table.

MPE Zone	Max %	Feet	% of Total	Status
Zone 1	20%	0	0	N/A
Zone 2	50%	151	34.55	Pass
Zone 3	75%	286	65.45	Pass
Zone 4	100%	0	0	N/A
Zone 5	150%	0	0	N/A

The *MPE Zone* column represents the five MPE Zone classifications. The *Max %* column indicates the maximum percentage level calculated for that particular Zone.

The *Feet* column indicates the number of feet on a tower or area (square feet) on a rooftop that has MPE levels for that particular Zone. The *% of Total* column indicates the percentage of the total tower height or total area of a rooftop that has MPE levels for that particular Zone.

The *Status* column indicates a Pass or Fail of the analysis for that particular Zone.

The percentage of exposure in the above Table is a worst-case exposure for the General population.

APPENDIX 2

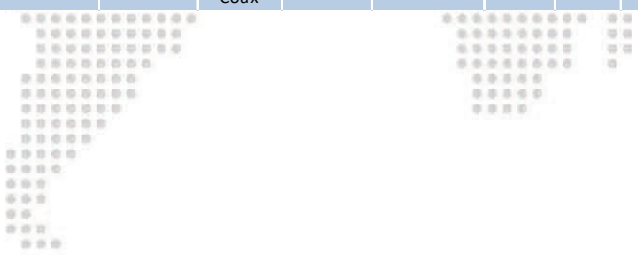
Satellite Photo



APPENDIX 3

Load List

Proposed	Customer	RAD Height (ft)	Equipment Quantity	Equipment Type	Manufacturer	Model Number	Line Quantity	Line size	Mount Type	Azimuths	TX Power	ERP	TX Frequency	RX Frequency
No	SPRINT NEXTEL	306	3	PANEL	RFS	APXVTM14-ALU-I20	6	1 5/8" Coax	Side Arm	0/140/240			2496-2690	2496-2690
No	SPRINT NEXTEL	306	3	PANEL	Commscope	NNVV-65B-R4				0/140/240			1850-1995, 806-869	1850-1995, 806-869
No	SPRINT NEXTEL	291	3	PANEL	Generic	72" x 8" Panel	6	1 5/8" Coax	Platform with	0/140/240				
No	SIGFOX S.A.	290	1	OMNI	Procom	CXL 900-3LW			Side Arm	0			905.2	905.2
No	T-MOBILE	277	4	PANEL	Ericsson	AIR32 B66Aa/B2a	4	1 5/8" Hybriflex	Sector Frame	45/135/225/315			1850-1910, 2110-2155	1710-1780, 1930-1990
No	T-MOBILE	277	4	PANEL	Ericsson	Air6449 B41	0		Sector Frame	45/135/225/315			2496-2690	2496-2690
No	T-MOBILE	277	4	PANEL	RFS	APXVAARR2 4_43-U-NA20	0		Sector Frame	45/135/225/315			1850-1910, 2110-2155, 617-652,	1710-1780, 1930-1990, 663-697,
No	T-MOBILE	277	1	DISH-HP		SHP2-13	1	1/2"	Sector	45			2130-2155	1730-1755
No	VERIZON WIRELESS	266	4	PANEL	Commscope	JAHH-45B-R3B			Stand-Off	0/200			185-1970, 2110-2130, 746-757,	1710-1730, 1890-1905, 776-787,
No	VERIZON WIRELESS	266	2	PANEL	Commscope	JAHH-65B-R3B			Stand-Off	280			1970-1985, 2110-2130, 746-757,	1710-1730, 1890-1905, 776-787,
No	VERIZON WIRELESS	266	6	PANEL	Amphenol Antel	LPA-80063-4CF-EDIN-X	6	1 5/8" Coax	Stand-Off	0/185/270			869-880, 890-892	824-835, 845-847
No	AT&T MOBILITY	246	3	PANEL	CCI	DMP65R-BU8D	0		Side Arm	30/150/270			1710-1720, 1730-1735, 704-710, 710-716, 716-722,	2135-2140, 722-728, 734-740, 740-746, 845-846.5,
No	AT&T MOBILITY	246	3	PANEL	CCI	OPA65R-BU8D	0		Side Arm	30/150/270			1850-1865, 704-710, 710-716,	1930-1945, 722-728, 734-740,
No	AT&T MOBILITY	246	3	PANEL	Kathrein Scala	800 10122	6	2 1/4" Coax	Side Arm	30/150/270			824-835, 835-845, 869-880,	845-846.5, 846.5-849, 890-891.5,
No	US DEPT OF JUSTICE	210.5	1	DIPOLE		DB264	1	7/8" Coax		Omni			163.9375, 170.500	



APPENDIX 4

Communication Systems

The Table below presents a list of the communications systems at the site.

System	Provider	Technology	Frequency Band
1	Sprint Nextel	LTE	806 - 896 MHz - Land Mobile
2	Sprint Nextel	LTE	1710 - 1990 MHz - PCS
3	Sprint Nextel	LTE	2400 - 2483.5 MHz - ISM Wireless Data
4	SIGFOX S.A.	FM Land Mobile	896 - 960 MHz - Land Mobile
5	T-Mobile	LTE	614 - 746 MHz - Broadcast
6	T-Mobile	LTE	614 - 746 MHz - Broadcast
7	T-Mobile	LTE	1710 - 1990 MHz - PCS
8	T-Mobile	EDVO	2110 - 2200 MHz - E-Technology
9	T-Mobile	LTE	2110 - 2200 MHz - E-Technology
10	T-Mobile	LTE	2400 - 2483.5 MHz - ISM Wireless Data
11	Verizon Wireless	LTE	746 - 806 MHz - 700 MHz Band
12	Verizon Wireless	LTE	896 - 960 MHz - Land Mobile
13	Verizon Wireless	LTE	1710 - 1990 MHz - PCS
14	Verizon Wireless	LTE	2110 - 2200 MHz - E-Technology
15	AT&T	LTE	614 - 746 MHz - Broadcast
16	AT&T	LTE	806 - 896 MHz - Land Mobile
17	AT&T	LTE	2110 - 2200 MHz - E-Technology
18	AT&T	LTE	2110 - 2200 MHz - E-Technology
19	US DEPT OF JUSTICE	FM Land Mobile	150 - 174 MHz - Land Mobile

APPENDIX 5

Antenna Systems

The Table below presents a list of the antenna systems at the site.

Ant #	Mfg	Antenna Model	Gain (dBd)	Hgt (ft)	Orient (deg)	Sec-tor	Ant Use	Transmission Line Type	Line Loss (dB)	Line Length (ft)
1	RFS	APXVTM14-ALU-I20	19.5	291	0	1	Dplx	1-5/8 in. Air	2.08	336
2	RFS	APXVTM14-ALU-I20	19.5	291	140	2	Dplx	1-5/8 in. Air	2.08	336
3	RFS	APXVTM14-ALU-I20	19.5	291	240	3	Dplx	1-5/8 in. Air	2.08	336
4	Commscope	NNVV-65B-R4	16	291	0	1	Dplx	1-5/8 in. Air	3.36	336
5	Commscope	NNVV-65B-R4	16	291	140	2	Dplx	1-5/8 in. Air	3.36	336
6	Commscope	NNVV-65B-R4	16	291	240	3	Dplx	1-5/8 in. Air	3.36	336
7	Commscope	NNVV-65B-R4	16	291	0	1	Dplx	1-5/8 in. Air	4.54	336
8	Commscope	NNVV-65B-R4	16	291	140	2	Dplx	1-5/8 in. Air	4.54	336
9	Commscope	NNVV-65B-R4	16	291	240	3	Dplx	1-5/8 in. Air	4.54	336
14	Procom	CXL 900-3LW	8.1	290	0	0	Dplx	1/4 in. Air	17.28	320
10	RFS	APXVAARR24_43-U-NA20	15.7	277	45	1	Dplx	1-5/8 in. Foam	2.21	307
11	RFS	APXVAARR24_43-U-NA20	15.7	277	135	2	Dplx	1-5/8 in. Air	1.9	307
12	RFS	APXVAARR24_43-U-NA20	15.7	277	225	3	Dplx	1-5/8 in. Air	1.9	307
13	RFS	APXVAARR24_43-U-NA20	15.7	277	315	4	Dplx	1-5/8 in. Air	1.9	307
15	RFS	APXVAARR24_43-U-NA20	15.7	277	45	1	Dplx	1-5/8 in. Air	1.9	307
16	RFS	APXVAARR24_43-U-NA20	15.7	277	135	2	Dplx	1-5/8 in. Air	1.9	307
17	RFS	APXVAARR24_43-U-NA20	15.7	277	225	3	Dplx	1-5/8 in. Air	1.9	307
18	RFS	APXVAARR24_43-U-NA20	15.7	277	315	4	Dplx	1-5/8 in. Air	1.9	307
19	RFS	APXVAARR24_43-U-NA20	15.7	277	45	1	Dplx	1-5/8 in. Air	3.07	307
20	RFS	APXVAARR24_43-U-NA20	15.7	277	135	2	Dplx	1-5/8 in. Air	3.07	307
21	RFS	APXVAARR24_43-U-NA20	15.7	277	225	3	Dplx	1-5/8 in. Air	3.07	307
22	RFS	APXVAARR24_43-U-NA20	15.7	277	315	4	Dplx	1-5/8 in. Air	3.07	307
23	Ericsson	AIR32 B66Aa/B2a	18.4	277	135	2	Dplx	1-5/8 in. Air	3.68	307
24	Ericsson	AIR32 B66Aa/B2a	18.4	277	225	3	Dplx	1-5/8 in. Air	3.68	307
25	Ericsson	AIR32 B66Aa/B2a	18.4	277	315	4	Dplx	1-5/8 in. Air	3.68	307
26	Ericsson	AIR32 B66Aa/B2a	18.4	277	45	1	Dplx	1-5/8 in. Air	3.68	307
27	Ericsson	AIR32 B66Aa/B2a	18.4	277	45	1	Dplx	1-5/8 in. Air	3.68	307
28	Ericsson	AIR32 B66Aa/B2a	18.4	277	135	2	Dplx	1-5/8 in. Air	3.68	307
29	Ericsson	AIR32 B66Aa/B2a	18.4	277	225	3	Dplx	1-5/8 in. Air	3.68	307
30	Ericsson	AIR32 B66Aa/B2a	18.4	277	315	4	Dplx	1-5/8 in. Air	3.68	307
31	Ericsson	Air6449 B41	19.5	277	45	1	Dplx	1-5/8 in. Air	4.14	307
32	Ericsson	Air6449 B41	19.5	277	135	2	Dplx	1-5/8 in. Air	4.14	307
33	Ericsson	Air6449 B41	19.5	277	225	3	Dplx	1-5/8 in. Air	4.14	307
34	Ericsson	Air6449 B41	19.5	277	315	4	Dplx	1-5/8 in. Air	4.14	307
35	Amphenol	LPA-80063-4CF-EDIN-X	15.7	266	0	1	Dplx	1-5/8 in. Air	1.84	296
36	Amphenol	LPA-80063-4CF-EDIN-X	15.7	266	185	2	Dplx	1-5/8 in. Air	1.84	296
37	Amphenol	LPA-80063-4CF-EDIN-X	15.7	266	270	3	Dplx	1-5/8 in. Air	1.84	296
38	Amphenol	LPA-80063-4CF-EDIN-X	15.7	266	0	1	Dplx	1-5/8 in. Air	1.84	296
39	Amphenol	LPA-80063-4CF-EDIN-X	15.7	266	185	2	Dplx	1-5/8 in. Air	1.84	296
40	Amphenol	LPA-80063-4CF-EDIN-X	15.7	266	270	3	Dplx	1-5/8 in. Air	1.84	296
41	Commscope	JAHH-45B-R3B	17.5	266	0	1	Dplx	1-5/8 in. Air	2.96	296

42	Commscope	JAHH-45B-R3B	17.5	266	185	2	Dplx	1-5/8 in. Air	2.96	296
43	Commscope	JAHH-45B-R3B	17.5	266	270	3	Dplx	1-5/8 in. Air	2.96	296
44	Commscope	JAHH-65B-R3B	17.5	266	30	1	Dplx	1-5/8 in. Air	3.55	296
45	Commscope	JAHH-65B-R3B	17.5	266	150	2	Dplx	1-5/8 in. Air	3.55	296
46	Commscope	JAHH-65B-R3B	17.5	266	270	3	Dplx	1-5/8 in. Air	3.55	296
47	CCI	DMP65R-BU8D	15.7	246	30	1	Dplx	1-5/8 in. Air	1.71	276
48	CCI	DMP65R-BU8D	15.7	246	150	2	Dplx	1-5/8 in. Air	1.71	276
49	CCI	DMP65R-BU8D	15.7	246	270	3	Dplx	1-5/8 in. Air	1.71	276
50	CCI	OPA65R-BU8D	15.7	246	30	1	Dplx	1-5/8 in. Air	1.71	276
51	CCI	OPA65R-BU8D	15.7	246	150	2	Dplx	1-5/8 in. Air	1.71	276
52	CCI	OPA65R-BU8D	15.7	246	270	3	Dplx	1-5/8 in. Air	1.71	276
53	Kathrein	800 10122	18.4	246	30	1	Dplx	1-5/8 in. Air	3.31	276
54	Kathrein	800 10122	18.4	246	150	2	Dplx	1-5/8 in. Air	3.31	276
55	Kathrein	800 10122	18.4	246	270	3	Dplx	1-5/8 in. Air	3.31	276
56	Kathrein	800 10122	18.4	246	30	1	Dplx	1-5/8 in. Air	3.31	276
57	Kathrein	800 10122	18.4	246	150	2	Dplx	1-5/8 in. Air	3.31	276
58	Kathrein	800 10122	18.4	246	270	3	Dplx	1-5/8 in. Air	3.31	276
59	DIPOLE	DB264	8.5	211	0	0	Tx	7/8 in. Air	1.21	241



APPENDIX 6

Transmitter Frequencies

The Table below presents a list of all transmitter frequencies at the site.

Freq #	Ant #	Provider	Model	Technology	Channel Label	ID	Frequency	Power (Watts)	BW (KHz)
1	1	Sprint Nextel	Ericsson	LTE	1	A	806.000000	16	5000
2	2	Sprint Nextel	Ericsson	LTE	1	B	806.000000	16	5000
3	3	Sprint Nextel	Ericsson	LTE	1	C	806.000000	16	5000
4	4	Sprint Nextel	Ericsson	LTE	1	D	1850.000000	16	5000
5	5	Sprint Nextel	Ericsson	LTE	1	E	1850.000000	16	5000
6	6	Sprint Nextel	Ericsson	LTE	1	F	1850.000000	16	5000
7	7	Sprint Nextel	Ericsson	LTE	1	G	2496.000000	16	5000
8	8	Sprint Nextel	Ericsson	LTE	1	H	2496.000000	16	5000
9	9	Sprint Nextel	Ericsson	LTE	1	I	2496.000000	16	5000
10	10	SIGFOX S.A.	Ericsson	FM Land Mobile	1	N	905.000000	50	16
11	11	T-Mobile	Ericsson	LTE	1	J	663.000000	16	5000
12	12	T-Mobile	Ericsson	LTE	1	K	663.000000	16	5000
13	13	T-Mobile	Ericsson	LTE	1	L	663.000000	16	5000
14	14	T-Mobile	Ericsson	LTE	1	M	663.000000	16	5000
15	15	T-Mobile	Ericsson	LTE	1	O	728.000000	16	5000
16	16	T-Mobile	Ericsson	LTE	1	P	728.000000	16	5000
17	17	T-Mobile	Ericsson	LTE	1	Q	728.000000	16	5000
18	18	T-Mobile	Ericsson	LTE	1	R	728.000000	16	5000
19	19	T-Mobile	Ericsson	LTE	1	S	1930.000000	16	5000
20	20	T-Mobile	Ericsson	LTE	1	T	1930.000000	16	5000
21	21	T-Mobile	Ericsson	LTE	1	U	1930.000000	16	5000
22	22	T-Mobile	Ericsson	LTE	1	V	1930.000000	16	5000
23	26	T-Mobile	Ericsson	EDVO	1	W	2110.000000	16	5000
24	23	T-Mobile	Ericsson	EDVO	1	X	2110.000000	16	5000
25	24	T-Mobile	Ericsson	EDVO	1	Y	2110.000000	16	5000
26	25	T-Mobile	Ericsson	EDVO	1	Z	2110.000000	16	5000
27	27	T-Mobile	Ericsson	LTE	1	AA	2130.000000	16	5000
28	28	T-Mobile	Ericsson	LTE	1	AB	2130.000000	16	5000
29	29	T-Mobile	Ericsson	LTE	1	AC	2130.000000	16	5000
30	30	T-Mobile	Ericsson	LTE	1	AD	2130.000000	16	5000
31	31	T-Mobile	Ericsson	LTE	1	AE	2496.000000	16	5000
32	32	T-Mobile	Ericsson	LTE	1	AF	2496.000000	16	5000
33	33	T-Mobile	Ericsson	LTE	1	AG	2496.000000	16	5000
34	34	T-Mobile	Ericsson	LTE	1	AH	2496.000000	16	5000
35	35	Verizon Wireless	Ericsson	LTE	1	AI	776.000000	16	5000
36	36	Verizon Wireless	Ericsson	LTE	1	AJ	776.000000	16	5000
37	37	Verizon Wireless	Ericsson	LTE	1	AK	776.000000	16	5000
38	38	Verizon Wireless	Ericsson	LTE	1	AL	869.000000	16	5000

39	39	Verizon Wireless	Ericsson	LTE	1	AM	869.000000	16	5000
40	40	Verizon Wireless	Ericsson	LTE	1	AN	869.000000	16	5000
41	41	Verizon Wireless	Ericsson	LTE	1	AO	1970.000000	16	5000
42	42	Verizon Wireless	Ericsson	LTE	1	AP	1970.000000	16	5000
43	43	Verizon Wireless	Ericsson	LTE	1	AQ	1970.000000	16	5000
44	44	Verizon Wireless	Ericsson	LTE	1	AR	2110.000000	16	5000
45	45	Verizon Wireless	Ericsson	LTE	1	AS	2110.000000	16	5000
46	46	Verizon Wireless	Ericsson	LTE	1	AT	2110.000000	16	5000
47	47	AT&T	Ericsson	LTE	1	AU	734.000000	16	5000
48	48	AT&T	Ericsson	LTE	1	AV	734.000000	16	5000
49	49	AT&T	Ericsson	LTE	1	AW	734.000000	16	5000
50	50	AT&T	Ericsson	LTE	1	AX	890.000000	16	5000
51	51	AT&T	Ericsson	LTE	1	AY	890.000000	16	5000
52	52	AT&T	Ericsson	LTE	1	AZ	890.000000	16	5000
53	53	AT&T	Ericsson	LTE	1	BA	1930.000000	16	5000
54	54	AT&T	Ericsson	LTE	1	BB	1930.000000	16	5000
55	55	AT&T	Ericsson	LTE	1	BC	1930.000000	16	5000
56	56	AT&T	Ericsson	LTE	1	BH	2110.000000	16	5000
57	57	AT&T	Ericsson	LTE	1	BI	2110.000000	16	5000
58	58	AT&T	Ericsson	LTE	1	BJ	2110.000000	16	5000
59	59	US DEPT OF JUSTICE	Ericsson	FM Land Mobile	1	BK	170.500000	100	16
60	59	US DEPT OF JUSTICE	Ericsson	FM Land Mobile	2	BL	163.900000	100	16

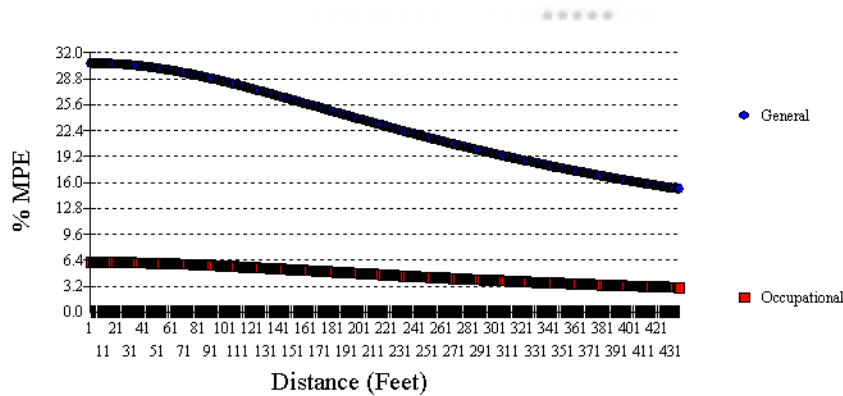


APPENDIX 7

Maximum Permissible Emission Analysis

The MPE analysis consists of evaluating the RF transmitter power being emitted from each active antenna at the communications site. Power density calculations are performed based on where a human (observer) would be located at the site. The power density values are then converted to MPE percentages and each antenna's MPE percentages are summed together to provide a composite MPE percentage for each observer location.

The composite graph is presented below. As shown on the graph, the MPE levels are highest where the antennas are concentrated. Any MPE levels above the 100% Limit Line exceeds the maximum permissible exposure levels for humans, based on the MPE Standard selected.



Composite Maximum Permissible Emissions Graph

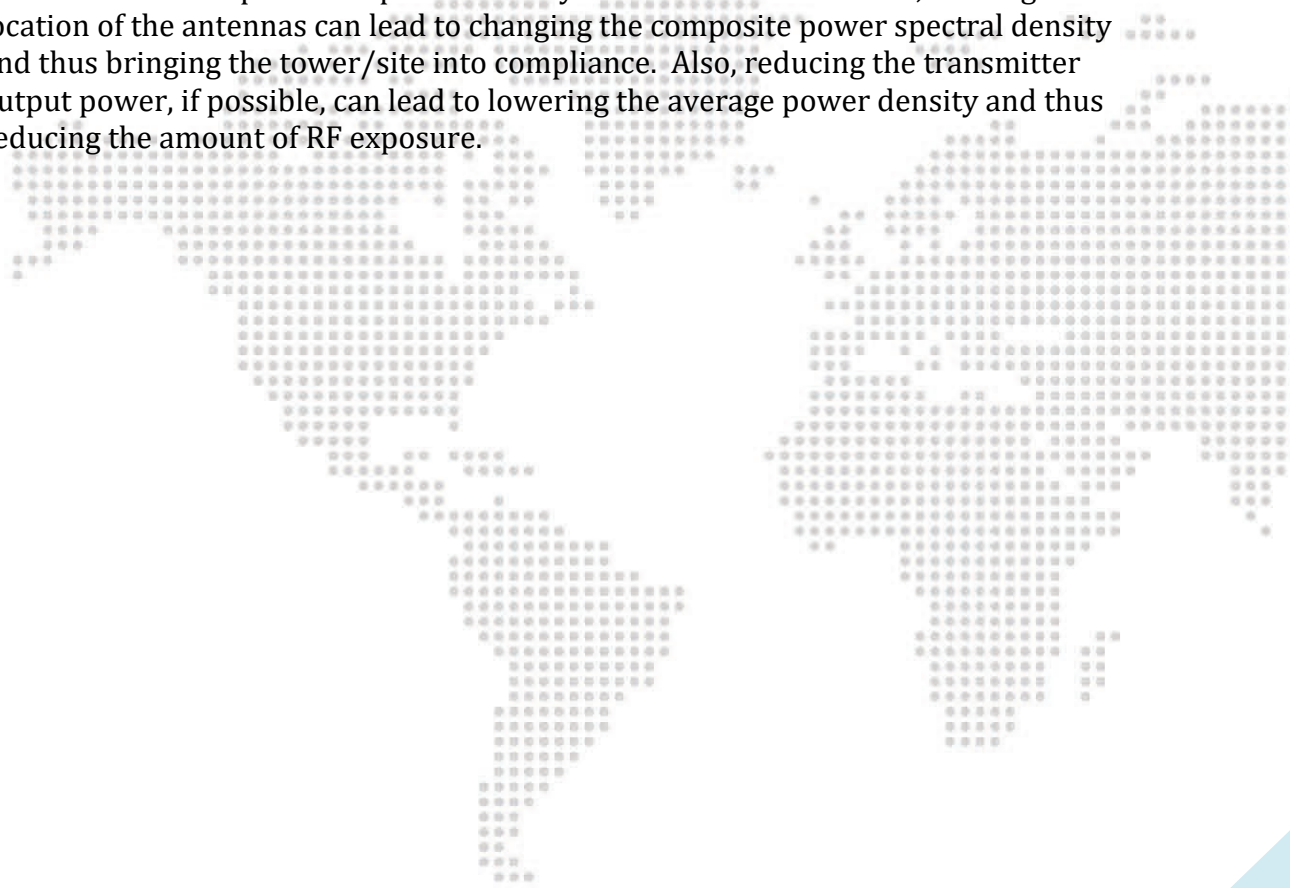
Calculation details for each antenna are provided in the following Table. The Max %MPE column depicts the General Population Maximum Permissible Exposure percentage for that particular antenna.

The calculated Antenna Gain and Antenna EIRP are based on the antenna pattern gain at the location where the Maximum %MPE is determined.

Provider	Ant Nbr	Ant Hgt (feet)	Ant Lgth (feet)	Frequency (MHz)	Line Loss (dB)	Filter Loss (dB)	Tx Qty	Total Tx Pwr (watts)	Calc'd Ant Gain (dB)	Ant EIRP (watts)	Max %MPE
Sprint Nextel	1	291	6.35	806.0000	2.08	0.81	1	8.21	0	13.47	0.79
Sprint Nextel	2	291	6.35	806.0000	2.08	0.81	1	8.21	0	13.47	0.79
Sprint Nextel	3	291	6.35	806.0000	2.08	0.81	1	8.21	0	13.47	0.79
Sprint Nextel	4	291	4.83	1850.0000	3.36	0.81	1	6.12	0	10.04	0.44
Sprint Nextel	5	291	4.83	1850.0000	3.36	0.81	1	6.12	0	10.04	0.44
Sprint Nextel	6	291	4.83	1850.0000	3.36	0.81	1	6.12	0	10.04	0.44
Sprint Nextel	7	291	7	2496.0000	4.54	0.81	1	4.67	0	7.66	0.04
Sprint Nextel	8	291	7	2496.0000	4.54	0.81	1	4.67	0	7.66	0.04
Sprint Nextel	9	291	7	2496.0000	4.54	0.81	1	4.67	0	7.66	0.04
SIGFOX S.A.	10	290	11.9	905.0000	17.28	1	1	0.74	0	1.22	0.01
T-Mobile	11	277	7.95	663.0000	1.90	0.81	1	8.56	0	14.04	0.89
T-Mobile	12	277	7.95	663.0000	1.90	0.81	1	8.56	0	14.04	0.89
T-Mobile	13	277	7.95	663.0000	1.90	0.81	1	8.56	0	14.04	0.89
T-Mobile	14	277	7.95	663.0000	2.21	0.81	1	7.98	0	13.08	0.89
T-Mobile	15	277	7.95	728.0000	1.90	0.81	1	8.56	0	14.04	0.81
T-Mobile	16	277	7.95	728.0000	1.90	0.81	1	8.56	0	14.04	0.81
T-Mobile	17	277	7.95	728.0000	1.90	0.81	1	8.56	0	14.04	0.81
T-Mobile	18	277	7.95	728.0000	1.90	0.81	1	8.56	0	14.04	0.81
T-Mobile	19	277	4.83	1930.0000	3.07	0.81	1	6.54	0	10.73	0.49
T-Mobile	20	277	4.83	1930.0000	3.07	0.81	1	6.54	0	10.73	0.49
T-Mobile	21	277	4.83	1930.0000	3.07	0.81	1	6.54	0	10.73	0.49
T-Mobile	22	277	4.83	1930.0000	3.07	0.81	1	6.54	0	10.73	0.49
T-Mobile	23	277	276	2110.0000	3.68	0.81	1	5.68	0	9.32	0.00
T-Mobile	24	277	276	2110.0000	3.68	0.81	1	5.68	0	9.32	0.00
T-Mobile	25	277	276	2110.0000	3.68	0.81	1	5.68	0	9.32	0.00
T-Mobile	26	277	276	2110.0000	3.68	0.81	1	5.68	0	9.32	0.00
T-Mobile	27	277	276	2130.0000	3.68	0.81	1	5.68	0	9.32	0.00
T-Mobile	28	277	276	2130.0000	3.68	0.81	1	5.68	0	9.32	0.00
T-Mobile	29	277	276	2130.0000	3.68	0.81	1	5.68	0	9.32	0.00
T-Mobile	30	277	276	2130.0000	3.68	0.81	1	5.68	0	9.32	0.00
T-Mobile	31	277	7	2496.0000	4.14	0.81	1	5.11	0	8.38	0.05
T-Mobile	32	277	7	2496.0000	4.14	0.81	1	5.11	0	8.38	0.05
T-Mobile	33	277	7	2496.0000	4.14	0.81	1	5.11	0	8.38	0.05
T-Mobile	34	277	7	2496.0000	4.14	0.81	1	5.11	0	8.38	0.05
Verizon Wireless	35	266	7.95	776.0000	1.84	0.81	1	8.7	0	14.26	0.81
Verizon Wireless	36	266	7.95	776.0000	1.84	0.81	1	8.7	0	14.26	0.81
Verizon Wireless	37	266	7.95	776.0000	1.84	0.81	1	8.7	0	14.26	0.81

Verizon Wireless	38	266	7.95	869.0000	1.84	0.81	1	8.7	0	14.26	0.72
Verizon Wireless	39	266	7.95	869.0000	1.84	0.81	1	8.7	0	14.26	0.72
Verizon Wireless	40	266	7.95	869.0000	1.84	0.81	1	8.7	0	14.26	0.72
Verizon Wireless	41	266	7	1970.0000	2.96	0.81	1	6.71	0	11.01	0.06
Verizon Wireless	42	266	7	1970.0000	2.96	0.81	1	6.71	0	11.01	0.06
Verizon Wireless	43	266	7	1970.0000	2.96	0.81	1	6.71	0	11.01	0.06
Verizon Wireless	44	266	276	2110.0000	3.55	0.81	1	5.86	0	9.6	0.00
Verizon Wireless	45	266	276	2110.0000	3.55	0.81	1	5.86	0	9.6	0.00
Verizon Wireless	46	266	276	2110.0000	3.55	0.81	1	5.86	0	9.6	0.00
AT&T	47	246	7.95	734.0000	1.71	0.81	1	8.95	0	14.67	0.95
AT&T	48	246	7.95	734.0000	1.71	0.81	1	8.95	0	14.67	0.95
AT&T	49	246	7.95	734.0000	1.71	0.81	1	8.95	0	14.67	0.95
AT&T	50	246	7.95	890.0000	1.71	0.81	1	8.95	0	14.67	0.79
AT&T	51	246	7.95	890.0000	1.71	0.81	1	8.95	0	14.67	0.79
AT&T	52	246	7.95	890.0000	1.71	0.81	1	8.95	0	14.67	0.79
AT&T	53	246	276	1930.0000	3.31	0.81	1	6.19	0	10.15	0.00
AT&T	54	246	276	1930.0000	3.31	0.81	1	6.19	0	10.15	0.00
AT&T	55	246	276	1930.0000	3.31	0.81	1	6.19	0	10.15	0.00
AT&T	56	246	276	2110.0000	3.31	0.81	1	6.19	0	10.15	0.00
AT&T	57	246	276	2110.0000	3.31	0.81	1	6.19	0	10.15	0.00
AT&T	58	246	276	2110.0000	3.31	0.81	1	6.19	0	10.15	0.00
US DEPT OF JUSTICE	59	211	20	170.5000	1.21	3.5	2	67.69	0	111.01	7.95

In cases where the predicted power density levels exceed MPE limits, altering the location of the antennas can lead to changing the composite power spectral density and thus bringing the tower/site into compliance. Also, reducing the transmitter output power, if possible, can lead to lowering the average power density and thus reducing the amount of RF exposure.



APPENDIX 8

Information Pertaining to MPE Studies

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

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

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

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

MPE limits are defined in terms of power density (units of milliwatts per centimeter squared: mW/cm²), electric field strength (units of volts per meter: V/m) and magnetic field strength (units of amperes per meter: A/m). The far-field of a transmitting antenna is where the electric field vector (E), the

magnetic field vector (H), and the direction of propagation can be considered to be all mutually orthogonal ("plane-wave" conditions).

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

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



APPENDIX 9

MPE Standards Methodology

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

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

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

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

f = frequency

* = Plane-wave equivalent power density

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

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

f = frequency

* = Plane-wave equivalent power density

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

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

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

Two models are utilized to predict Near and Far field power densities. They are based on the formulae in FCC OET 65. As this study is concerned only with Near Field calculations, we will only describe the model used for this study. For additional details, refer to FCC OET Bulletin 65.

Cylindrical Model (Near Field Predictions)

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

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

Where:

S = Power Density

P = Total Power into antenna

R = Distance from the antenna

L = Antenna aperture length

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

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

Where:

S = Power Density

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

P = Total Power into antenna

R = Distance from the antenna

L = Antenna aperture length

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

Spherical Model (Far Field Predictions)

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

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

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

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

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

Where:

S = Power Density

EIRP = Effective Radiated Power from antenna

Rc = Reflection Coefficient (2.56)

R = Distance from the antenna

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

Exhibit 7

Original Facility Approval

Exhibit 8

(4) Notice Confirmations

Kimberly Revak

From: UPS <pkginfo@ups.com>
Sent: Thursday, August 26, 2021 10:53 PM
To: Kimberly Revak
Subject: UPS Schedule Delivery Update, Tracking Number 1Z9Y45030310289041



Your scheduled delivery date has changed.

Scheduled Delivery Date: Monday, 08/30/2021

Important Delivery Information

From: CENTERLINE SITE ACQUISITION
Tracking Number: [1Z9Y45030310289041](#)

Shipment Details

Ship To: Gary Waitt - Site Development
American Tower Corporation
10 Presidential Way
WOBURN, MA 018011053
US

Number of Packages: 1
Weight: 1.0 LBS
Reference Number 1: Killingly - ATC



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From: CENTERLINE SITE ACQUISITION
Tracking Number: [1Z9Y45030331966207](#)

Shipment Details

Ship To: Gary Waitt - Site Development
American Tower Corporation
10 Presidential Way
WOBURN, MA 018011053
US

Number of Packages: 1
Weight: 1.0 LBS
Reference Number 1: Killingly - LL



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Important Delivery Information

From: CENTERLINE SITE ACQUISITION
Tracking Number: [1Z9Y45030316345086](#)

Shipment Details

Ship To: Jason Anderson, Chairman
Town of Killingly
172 Main Street
KILLINGLY, CT 062392822
US

Number of Packages: 1
Weight: 1.0 LBS
Reference Number 1: Killingly - Selectman



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To: Kimberly Revak
Subject: UPS Schedule Delivery Update, Tracking Number 1Z9Y45030310728076



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Scheduled Delivery Date: Friday, 08/27/2021

Important Delivery Information

From: CENTERLINE SITE ACQUISITION
Tracking Number: [1Z9Y45030310728076](#)

Shipment Details

Ship To: Ann-Marie L. Aubrey, Dir Plan & Dev
Town of Killingly
172 Main Street
KILLINGLY, CT 062392822
US

Number of Packages: 1
Weight: 1.0 LBS
Reference Number 1: Killingly - Town



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