



Northeast Site Solutions
Victoria Masse
5 Melrose Drive
Farmington, CT 06032
victoria@northeastsitesolutions.com

August 18, 2025

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Notice of Exempt Modification
530 Bushy Hill Rd (aka 498 Bushy Hill Rd), Simsbury CT 06070
Latitude: 41.816781
Longitude: -72.8651357
T-Mobile Site#: CT11975A_Anchor

Dear Ms. Bachman:

T-Mobile currently maintains three (3) antennas at the 111.6-foot level of the existing 118-foot flagpole at 530 Bushy Hill Rd (aka 498 Bushy Hill Rd), Simsbury CT 06070. The flagpole and property are owned by Simsbury Commons LLC. T-Mobile now intends to install (6) new TMA. The new TMA would be installed at the 113-foot level of the flagpole. This modification includes B2, B5 hardware that is both 4G (LTE), and 5G capable.

T-Mobile Planned Modifications:

Remove:

- (5) Coax
- (3) Diplexers

Remove and Replace:

None

Install New:

- (6) Coax
- (6) TMA

Existing to Remain:

- (3) RFS APXVAALL24 600/700/1900/2100 MHz Antenna
- (6) Coax

5 Melrose Drive, Farmington CT 06032



This facility was initially approved by the Connecticut Siting Council in Docket No. 279 on June 30, 2004. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Wendy Mackstutis, First Selectman, and Douglas Wenz, Zoning Enforcement Officer for the Town of Simsbury, as well as the property owner and tower owner.

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

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

Sincerely,

Victoria Masse
Mobile: 860-306-2326
Fax: 413-521-0558
Office: 5 Melrose Drive, Farmington, CT 06032
Email: victoria@northeastsitesolutions.com



Attachments

Cc:

Wendy Mackstutis, First Selectman
Town of Simsbury
933 Hopmeadow Street
Simsbury, CT 06070

Joseph Hollis, Code Compliance Officer
Town of Simsbury
933 Hopmeadow Street
Simsbury, CT 06070

Simsbury Commons LLC c/o Lincoln Property, Property and Tower Owner
75 Holly Hill Lane
Greenwich, CT 06830

Exhibit A

Original Facility Approval



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@po.state.ct.us

Web Site: www.ct.gov/csc

JUL - 1 2004

43825

June 30, 2004

Thomas J. Regan, Esquire
Brown Rudnick Berlack Isreals LLP
CityPlace I, 38th Floor
185 Asylum Street
Hartford, CT 06103-3402

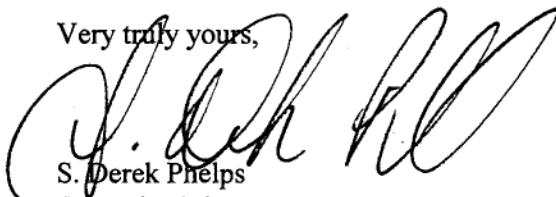
RE: **DOCKET NO. 279** - Sprint Spectrum, L.P. d/b/a Sprint PCS application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility at 530 Bushy Hill Road, Simsbury, Connecticut.

Dear Attorney Regan:

By its Decision and Order dated June 23, 2004, the Connecticut Siting Council (Council) granted a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance and operation of a wireless telecommunications facility at 530 Bushy Hill Road, Simsbury, Connecticut.

Enclosed are the Council's Certificate, Findings of Fact, Opinion, and Decision and Order.

Very truly yours,



S. Derek Phelps
Executive Director

SDP/laf

Enclosures (4)

DOCKET NO. 279 – Sprint Spectrum, L.P. d/b/a Sprint PCS } Connecticut
application for a Certificate of Environmental Compatibility and }
Public Need for the construction, maintenance and operation of a } Siting
wireless telecommunications facility at 530 Bushy Hill Road, }
Simsbury, Connecticut. } Council

June 23, 2004

Opinion

On December 4, 2003, Sprint Spectrum L.P. (Sprint) applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, operation and maintenance of a wireless telecommunications facility proposed to be located at 530 Bushy Hill Road (the Simsbury Common Mall) in Simsbury, Connecticut. Sprint had been searching for a tower site in this vicinity to provide Sprint service to existing coverage gaps in the area surrounding the intersection of Route 167 and Route 44 on the Simsbury-Canton border.

Sprint's facility would consist of a 120-foot flagpole tower designed to accommodate a total of three wireless carriers. AT&T Wireless PCS, an intervenor in this proceeding, seeks to place its antennas within the flagpole at a centerline of 108 feet above ground level (agl). Sprint's antennas would be located within the flagpole at the top of the tower. Sprint has offered the Town of Simsbury space on the tower for Town antennas.

The flagpole would be placed behind commercial buildings at the edge of a parking lot. No clearing of vegetation or access road construction would be required. The tower compound would be enclosed by a fence.

The flagpole would be fully visible along commercially-developed Route 44. Four homes along Joyce Lane would have some visibility of the flagpole above the trees. A visual analysis of the proposed tower indicates it would be visible to only approximately one percent of a two-mile radius study area.

The tower would have no effect on any rare, threatened or species of special concern in the area. The facility would have no effect on historic, architectural or archaeological resources listed on as eligible for the National Register of Historic Places. The closest wetland is approximately 50 feet east of the parking lot on which the facility would be built; however, this wetland is protected by an existing stockade fence.

The radio frequency power density levels at the base of the proposed tower would be well below federal and State standards for the frequencies used by wireless companies. If federal or state standards change, the Council will require that the tower be brought into compliance with such standards. The Council will require that the power densities be remodeled in the event other carriers add antennas to the tower.

Based on the record of this proceeding, the Council concludes that the proposed facility would be well sited to provide coverage to a heavily traveled area where several carriers currently have limited or unreliable service.

Therefore, the Council finds that the effects associated with the construction, operation, and maintenance of the proposed telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with policies of the State concerning such effects, and are not sufficient reason to deny this application. Therefore, the Council will issue a Certificate for the construction, operation, and maintenance of a 120-foot flagpole tower and associated ground equipment at 530 Bushy Hill Road (the Simsbury Commons Mall), Simsbury, Connecticut.

DOCKET NO. 279 – Sprint Spectrum, L.P. d/b/a Sprint PCS } Connecticut
application for a Certificate of Environmental Compatibility and }
Public Need for the construction, maintenance and operation of a } Siting
wireless telecommunications facility at 530 Bushy Hill Road, }
Simsbury, Connecticut. } Council

June 23, 2004

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to Sprint Spectrum, L.P. for the construction, maintenance and operation of a wireless telecommunications facility at 530 Bushy Hill Road, Simsbury, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The tower shall be designed as a flagpole and shall be constructed no taller than 120 feet above ground level to provide the proposed telecommunications services to both public and private entities.
2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Simsbury and all parties and intervenors, as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment building, access, utility line, and landscaping; and
 - b) construction plans for site preparation, water drainage, and erosion and sedimentation control consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.
3. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of electromagnetic radio frequency power density is submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

4. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
5. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
6. The Certificate Holder shall provide reasonable space on the tower for no compensation for any municipal antennas, provided such antennas are compatible with the structural integrity of the tower.
7. If the facility does not initially provide wireless services within one year of completion of construction or ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
8. Any antenna that becomes obsolete and ceases to function shall be removed within 60 days after such antennas become obsolete and cease to function.
9. Unless otherwise approved by the Council, this Decision and Order shall be void if the facility authorized herein is not operational within one year of the effective date of this Decision and Order or within one year after all appeals to this Decision and Order have been resolved. Any request for extensions of the period shall be filed with the Council not later than sixty days prior to expiration date of the Certificate and shall be served on all parties and intervenors, as listed in the service list. Any proposed modifications to this Decision and Order shall likewise be so served.

Pursuant to General Statutes § 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Hartford Courant, Valley News, and The Farmington Valley Post.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

Applicant

Sprint Spectrum L.P. d/b/a Sprint PCS

Intervenor

AT&T Wireless PCS, LLC
d/b/a AT&T Wireless

Its Representative

Thomas J. Regan
Brown, Rudnick, Berlack, Israels, LLP
City Place I
185 Asylum Avenue
Hartford, CT 06103-3402
(860) 509-6500

Its Representative

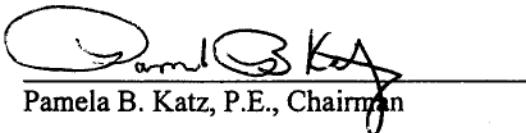
Christopher B. Fisher, Esq.
Cuddy & Feder, LLP
90 Maple Avenue
White Plains, NY 10601

CERTIFICATION

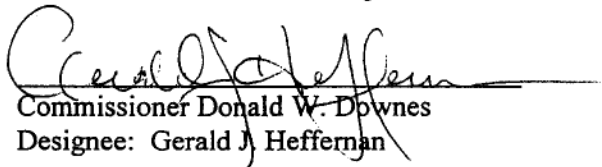
The undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, in **DOCKET NO. 279 - Sprint Spectrum, L.P. d/b/a Sprint PCS** application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility at 530 Bushy Hill Road, Simsbury, Connecticut, and voted as follows to approve the proposed site:

Council Members

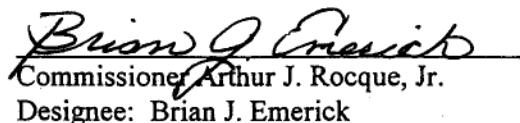
Vote Cast


Pamela B. Katz, P.E., Chairman

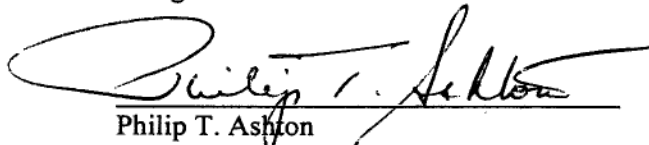
Yes


Commissioner Donald W. Downes
Designee: Gerald J. Heffernan

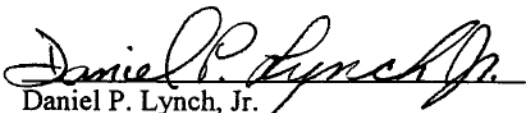
Yes


Commissioner Arthur J. Rocque, Jr.
Designee: Brian J. Emerick

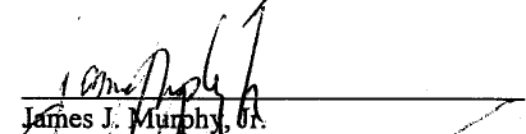
Abstained


Philip T. Ashton

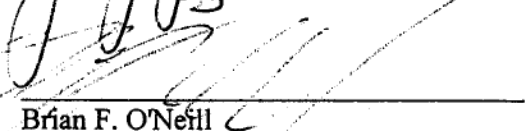
Yes


Daniel P. Lynch, Jr.

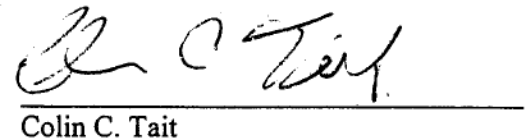
Yes


James J. Murphy, Jr.

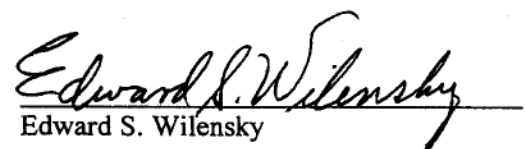
Abstained


Brian F. O'Neill

Yes


Colin C. Tait

Yes


Edward S. Wilensky

Yes

Dated at New Britain, Connecticut June 23, 2004.

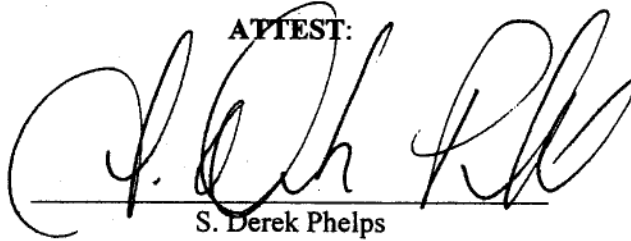
STATE OF CONNECTICUT)

ss. New Britain, Connecticut :

COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the Findings of Fact, Opinion, and Decision and Order issued by the Connecticut Siting Council, State of Connecticut.

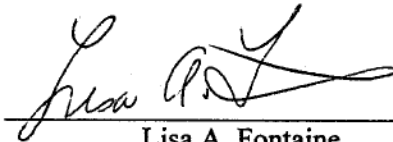
ATTEST:

A handwritten signature in black ink, appearing to read 'S. Derek Phelps', written over a horizontal line.

S. Derek Phelps
Executive Director
Connecticut Siting Council

I certify that a copy of the Findings of Fact, Opinion, and Decision and Order in Docket No. 279 has been forwarded by Certified First Class Return Receipt Requested mail on June 30, 2004, to all parties and intervenors of record as listed on the attached service list, dated December 22, 2003.

ATTEST:

A handwritten signature in black ink, appearing to read 'Lisa A. Fontaine', written over a horizontal line.

Lisa A. Fontaine
Administrative Assistant
Connecticut Siting Council

Exhibit B

Property Card

Unique ID: 31116210

Simsbury

Card No: 1 Of 1

Location:	498 BUSHY HILL ROAD	Map Id:	B20 508 001-B	Zone:	B-3	Date Printed:	8/13/2025				
		Neighborhood:	0238			Last Update:	8/13/2025				
Owner Of Record		Volume/Page	Date	Sales Type		Valid	Sale Price				
SIMSBURY COMMONS LLC		0950/0685	11/27/2019	Warranty Deed		No	41,850,000				
C/O LINCOLN PROPERTY, 75 HOLLY HILL LANE, GREENWICH, CT 06830				Exempt							
Prior Owner History											
E & A/I & G SIMSBURY COMMONS LP		0676/0595	11/10/2004	Warranty Deed		No	14,588,160				
SIMSBURY COMMONS NORTH E&A LLC		0595/0533	11/21/2002	Warranty Deed		No	10,232,845				
Permit Number	Date	Permit Description									
B-23-0267	4/18/2023	STOP and SHOP - Vacuum existing ballast stone, Lacerate EPDM, leave in place, Mechanically att									
B-21-1213	3/18/2021	YEARLY 22X48 TEMP GREENHOUSE									
B-20-217	4/29/2020	22'X48' TEMPORARY GREENHOUSE (APRIL - JULY)									
P-19-193	10/3/2019	Relocate 4 sprinkler heads in online pickup area per drawings									
E-19-313	9/19/2019	Renovate an existing Stop and Shop to accommodate the new online pick up area.									
B-19-545	8/23/2019	RECONFIGURE EXISTING ONLINE PICKUP AREA									
Supplemental Data				Appraised Value							
Census/Tract	4661020	I&E Status		Total Land Value		4,950,000					
Dev Map ID		Chimneys		Total Building Value		6,654,800					
GIS ID		Cross Boarder Pro		Total Outbldg Value		457,700					
Route		In Home Business		Total Market Value		12,062,500					
District		Conversion Review check sa ft in pro									
Utilities	Sewer										
Acres				State Item Codes							
Land Type	Acres	490	Total Value	Code	Quantity	Value					
Primary Site	9.00	0.00	4,950,000	22-Commercial Building	1.00	4,658,360					
				21-Commercial Land	9.00	3,465,000					
				25-Com Outbuilding	1.00	320,390					
Total	9.0000	0.00	4,950,000								
Assessment History (Prior Years as of Oct 1)						490 Appraised Totals					
	2025	2024	2023	2022	2021	Type	Acres	Value	Type	Acres	Value
Land	3,465,000	3,465,000	3,465,000	3,465,000	3,213,000						
Building	4,658,360	4,658,360	4,658,360	4,658,360	5,427,650						
Outbuilding	320,390	320,390	320,390	320,390	354,350						
Total	8,443,750	8,443,750	8,443,750	8,443,750	8,995,000				Totals	0.00	0
						Application Date:	Expiration Date:				
Comments											

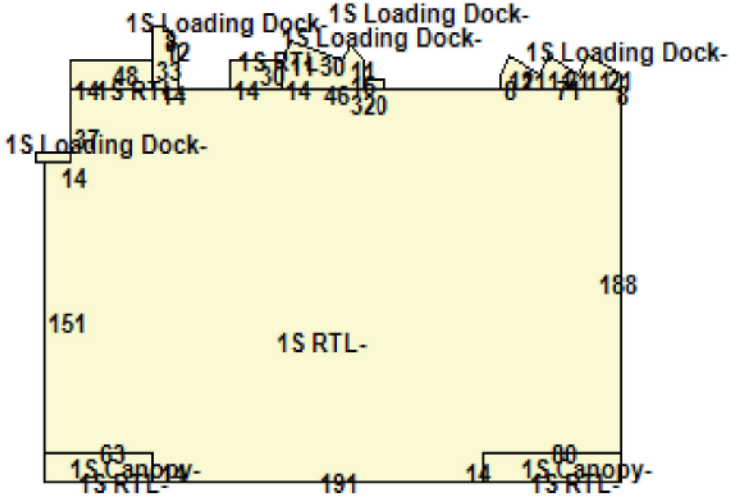
Information may be deemed reliable, but not guaranteed.

Revaluation Date: 10/1/2022

Unique ID: 31116210

Simsburv

Location:		498 BUSHY HILL ROAD		Unit
Commercial Building Description		Description	Area/Qty	
Building Use	Retail	Base Value	64948	
Class	Masonrv and Wood Frame	Central Air	51958	
Overall Condition	Average/Good	Commercial Elevator	1	
Construction Quality	Average/Good	Wet Sprinklers	66040	
Stories	1.00			
Year Built	1993			
Remodel				
Percent Complete	100			
GLA	64948			
Basement				
Basement Area	0			
HVAC				
Heating Type	FHA	Attached Component Computations		
Fuel Type	Gas	Type	Yr Blt	Area/Qty
Cooling Type	Central	UnCovered Loading Dock	1993	95
Interior		UnCovered Loading Dock	1993	886
Floors	Tile	Canopy Canopy	1993	882
Walls	Dry Wall	Canopy Canopy	1993	1120
Wall Height		UnCovered Loading Dock	1993	879
Exterior		UnCovered Loading Dock	1993	70
Exterior Walls	B. V. Solid/Concrete Block	UnCovered Loading Dock	1993	432
Roof Type	Compo Built-Up	Paving Paving	1993	1120
Roof Cover		Finished Mezzanine	1993	1455
		Paving Paving	1993	882
Special Features				
Commercial Elevator	1			
Extra Plumbing Fixtures	21			
Wet Sprinklers	66040			
		Type	Year	Condition
		Paving Paving	1993	Average



Town of Simsbury

Geographic Information System (GIS)



Date Printed: 8/13/2025



MAP DISCLAIMER - NOTICE OF LIABILITY

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

Approximate Scale: 1 inch = 200 feet

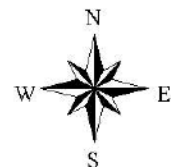


Exhibit C

Construction Drawings

APPROVED BY JASON MATTHEWS

By jmatthews at 4:11:44 PM, 8/5/2025

APPROVED

By Jorge Labayo at 9:28 am, Aug 07, 2025

APPROVED

By Mike DeLia at 9:55 am, Aug 08, 2025



T-MOBILE NORTHEAST LLC ANCHOR

SITE #: CT11975A
SITE NAME: CT11975A
530 BUSHY HILL ROAD
SIMSBURY, CT 06070
HARTFORD COUNTY

RAN CONFIGURATION: 67G5C998G 6160

A&L CONFIGURATION: 67G5C998G_10+1QuadDiplexer

GENERAL NOTES

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY, AND COPYRIGHTED WORK OF T-MOBILE. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

THE FACILITY IS AN UNMANNED, PRIVATE, AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND, THEREFORE, DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT COVERED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.

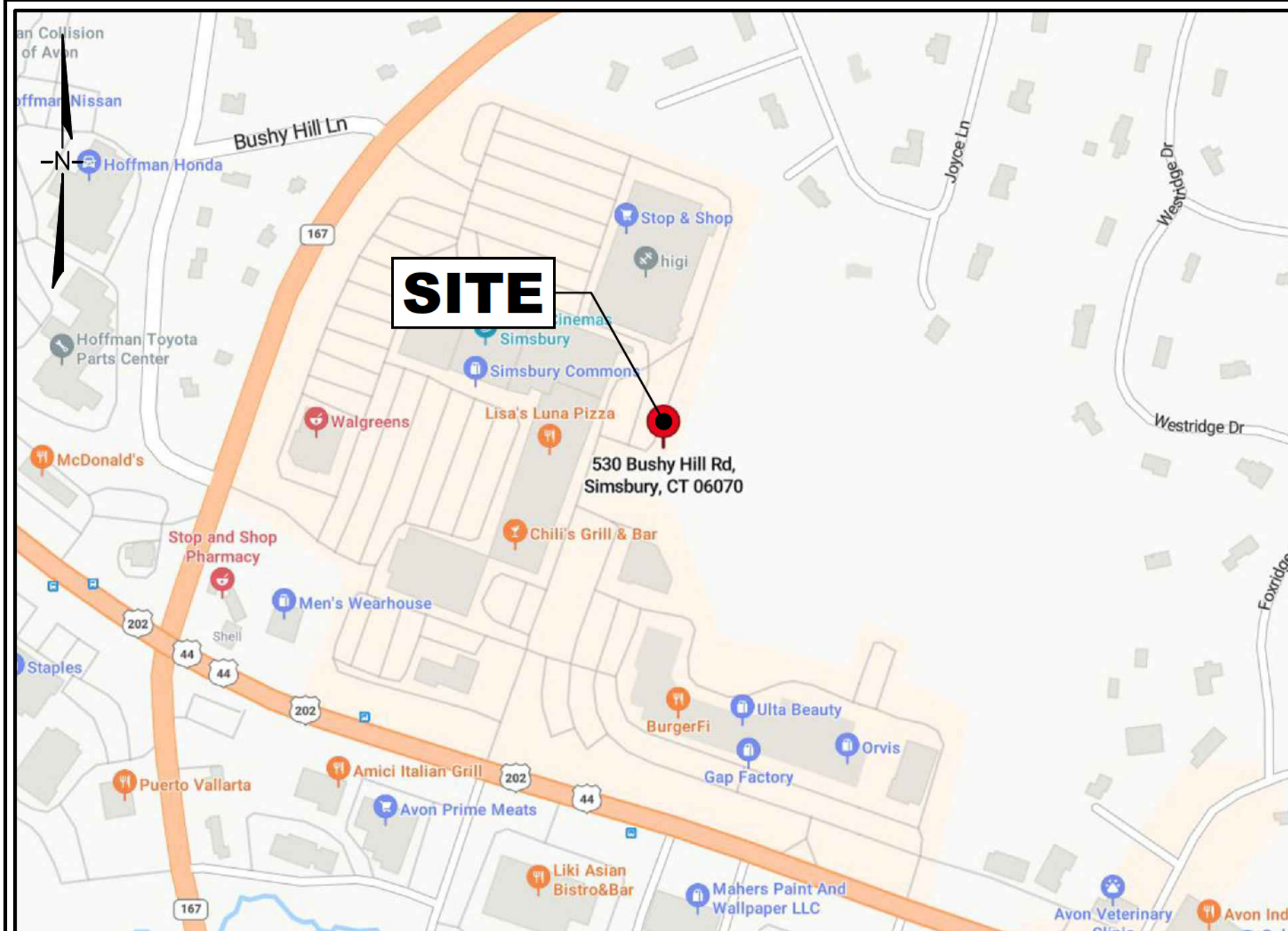
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE T-MOBILE NORTHEAST, LLC REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SPECIAL STRUCTURAL NOTES

STRUCTURE OWNER SHALL BE RESPONSIBLE FOR GLOBAL STRUCTURAL STABILITY ANALYSIS OF EXISTING SUPPORT STRUCTURE. GENERAL CONTRACTOR SCOPE OF WORK SHALL INCLUDE ALL REQUIRED STRUCTURAL MODIFICATIONS, RE-BUNDLING OF COAXIAL CABLES OR OTHER SPECIAL MODIFICATIONS AS OUTLINED THEREIN.

STRUCTURAL DESIGNS AND DETAILS FOR ANTENNA MOUNTS COMPLETED BY ELEVATED ENGINEERING, PLLC ON BEHALF OF T-MOBILE ARE INCLUSIVE OF THE ENTIRE ANTENNA SUPPORT STRUCTURE (GLOBAL STRUCTURAL STABILITY ANALYSIS BY OTHERS), EXISTING PLATFORM, EXISTING ANTENNA MOUNTS, AND ALL OTHER ASPECTS OF THE STRUCTURE THAT WILL SUPPORT THE T-MOBILE EQUIPMENT DEPLOYMENT AS DEPICTED HEREIN.

ELEVATED ENGINEERING, PLLC ASSUMES THAT THE STRUCTURE IS PROPERLY CONSTRUCTED AND MAINTAINED. ALL STRUCTURAL MEMBERS AND THEIR CONNECTIONS ARE ASSUMED TO BE IN GOOD CONDITION AND ARE FREE FROM DEFECTS WITH NOT DETERIORATION TO IT'S MEMBER CAPACITIES.



KEY MAP

SCALE = N.T.S.

SITE LOCATION INFORMATION

SITE NUMBER: CT11975A
SITE ADDRESS: 530 BUSHY HILL ROAD
SIMSBURY, CT 06070
JURISDICTION: TOWN OF SIMSBURY
COUNTY: HARTFORD COUNTY
PARCEL ID: TBD
TOWER OWNER: WIRELESS PROPCO, LLC
WHITE PLAINS, NY 10601
APPLICANT: T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

SITE CHARACTERISTICS

LATITUDE: 41.8181306°
LONGITUDE: -72.8630417°
STRUCTURE TYPE: CONCEALMENT POLE
LOCATION OF EQUIPMENT: EXISTING CONCRETE PAD AT GRADE
STRUCTURE HEIGHT: ±118'-0" AGL (TOP OF CONCEALMENT POLE)
ANTENNA (RAD CENTER) ALPHA - ±111'-6" AGL
BETA - ±111'-6" AGL
GAMMA - ±111'-6" AGL

SHEET INDEX

SHEET NO.	SHEET DESCRIPTION
T-1	TITLE SHEET
GN-1	GENERAL NOTES
A-1	COMPOUND PLAN
A-2	ELEVATION
A-3	EQUIPMENT PLANS & ANTENNA PLANS
A-4	DETAILS
E-1	GROUNDING DETAILS & NOTES

APPROVALS

PROJECT MANAGER	DATE
CONSTRUCTION	DATE
RF ENGINEERING	DATE
ZONING / SITE ACQUISITION	DATE
OPERATIONS	DATE
OWNER	DATE

UNDERGROUND SERVICE ALERT



Know what's below.
Call before you dig.

CALL TOLL FREE: 800-922-4455

CONSTRUCTION DRAWINGS

ALL SCALES RELATIVE TO 24"X36" PAGE SIZE



T-MOBILE NORTHEAST LLC

35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

ELEVATED ENGINEERING

99 FANNY ROAD
BOONTON, NEW JERSEY 07005
862-242-8050

Documents prepared by Elevated Engineering, including this document, are to be used only for the specific project and specific use for which they were intended. Any extension of use to any other projects, by owner or by any other party, without the expressed written consent of Elevated Engineering, is done unlawfully and at the users own risk. If used in a way other than that specifically intended, user will hold Elevated Engineering, harmless from all claims and losses.

SCHEDULE OF REVISIONS

7		
6		
5		
4		
3		
2	08/01/25	REVISED PER CLIENT COMMENTS
1	06/27/25	ISSUED AS FINALS
0	06/26/25	INITIAL SUBMISSION
REV. NO.	DATE	DESCRIPTION OF CHANGES

DRAWN BY:	CJT
CHECKED BY:	NDB
SCALE:	AS NOTED
JOB NO:	25028-NSS

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NICHOLAS D. BARILE

PROFESSIONAL ENGINEER, CT LIC. No. 28643

SITE ID: CT11975A
SITE NAME: CT11975A
530 BUSHY HILL ROAD
SIMSBURY, CT 06070
HARTFORD COUNTY

DRAWING TITLE:

TITLE SHEET

DRAWING SHEET:

T-1

GENERAL NOTES

1. FOR THE PURPOSE OF THE CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

CONTRACTORS – TO BE DETERMINED
SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
OWNER – T–MOBILE
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE PROVIDED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSED AND ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY CONTRACTOR.

9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY . SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT THE EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTORS EXPENSE TO THE SATISFACTION OF OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIAL SUCH AS COAXIAL CABLE AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNERS DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR–ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCH UP ALL SCRATCHED AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH UMTS SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF T–MOBILE SITES."
17. SUBCONTRACTORS SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

18. THE EXISTING CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

19. APPLICABLE BUILDING CODES:

SUBCONTRACTORS WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

- BUILDING CODE: 2022 CONNECTICUT STATE BUILDING CODE

• ELECTRICAL CODE: NFPA 70 NATIONAL ELECTRICAL CODE, 2020 EDITION

• LIGHTNING CODE: NFPA 780–2020 LIGHTNING PROTECTION CODE

SUBCONTRACTORS WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

- AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENT FOR STRUCTURAL CONCRETE

- AMERICAN INSTITUTE FOR STEEL CONSTRUCTION (AISC)

- MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION

- TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222–H, STRUCTURAL STANDARDS FOR STEEL

- ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS A CONFLICT BETWEEN A GENERAL REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ELECTRICAL & GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE SPECIFIC (UL, LPI, OR NFPA) LIGHTNING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO LIGHTNING PROTECTION AND AS POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL–OF–POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO THE BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATING (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON–ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.

11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWS COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURE WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50.
13. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
14. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
15. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATIONS INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
16. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
17. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
18. RIGID STEEL CONDUITS SHALL BE GROUNDED AT BOTH ENDS.
19. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN OR THIN INSULATION.
20. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL ROOM AND PROPOSED CELL SITE POWER PEDESTAL AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
21. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROPOSED CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON DRAWING A–1. PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
22. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.

23. GROUNDING SHALL COMPLY WITH NEC ART. 250.

24. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.

25. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON DRAWING.

26. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.

27. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.

28. CONNECTIONS TO MGB SHALL BE ARRANGED IN THREE MAIN GROUPS: SURGE PRODUCERS (COAXIAL CABLE GROUND KITS, TELCO AND POWER PANEL GROUND); (GROUNDING ELECTRODE RING OR BUILDING STEEL); NON–SURGING OBJECTS (EGB GROUND IN BTS UNIT)

29. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.

30. BOND ANTENNA MOUNTING BRACKETS. COAXIAL CABLE GROUND KITS AND ALNA TO EGB PLACES NEAR THE ANTENNA LOCATION.

31. BOND ANTENNA EGB’S AND MGB TO WATER MAIN.

32. TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE–OUT DOCUMENTATION.

33. BOND ANY METAL OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.

34. VERIFY PROPOSED SERVICE UPGRADE WITH LOCAL UTILITY COMPANY PRIOR TO CONSTRUCTION.

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	G.C.	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
AWG	AMERICAN WIRE GAUGE	MGB	MASTER GROUND BUS		
BCW	BARE COPPER WIRE	MIN	MINIMUM	TBD	TO BE DETERMINED
BTS	BASE TRANSCEIVER STATION	PROPOSED	NEW	TBR	TO BE REMOVED
EXISTING	EXISTING	N.T.S.	NOT TO SCALE	TBRR	TO BE REMOVED AND REPLACED
EG	EQUIPMENT GROUND	REF	REFERENCE		
EGR	EQUIPMENT GROUND RING	REQ	REQUIRED	TYP	TYPICAL



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7		
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2	08/01/25	REVISED PER CLIENT COMMENTS
1	06/27/25	ISSUED AS FINALS
0	06/26/25	INITIAL SUBMISSION
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CHECKED BY:	NDB
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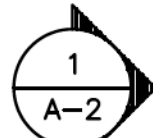
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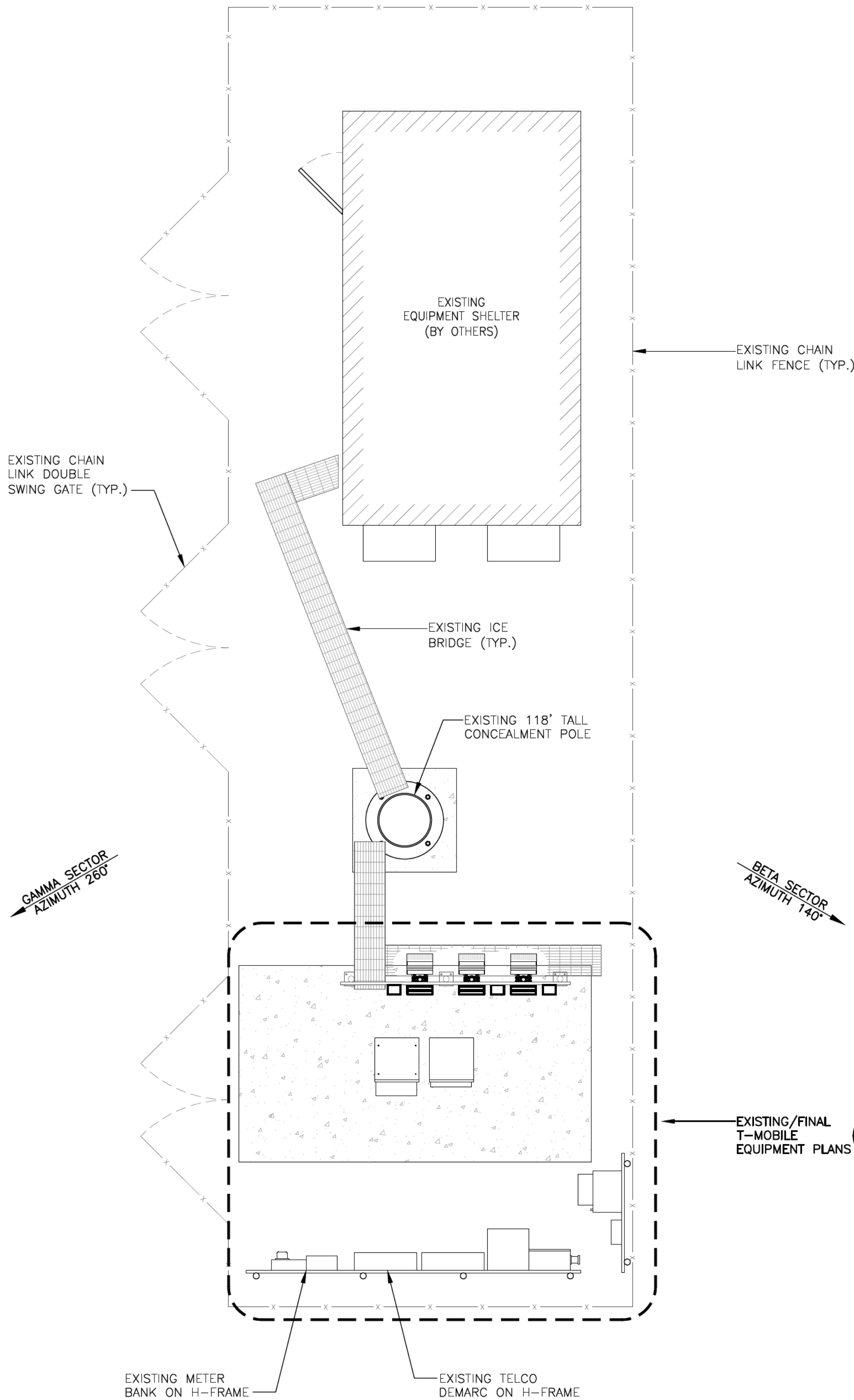
GENERAL NOTES

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GN-1



ALPHA SECTOR
AZIMUTH 20°



1
A-1

COMPOUND PLAN
SCALE: 1/4"=1'-0"

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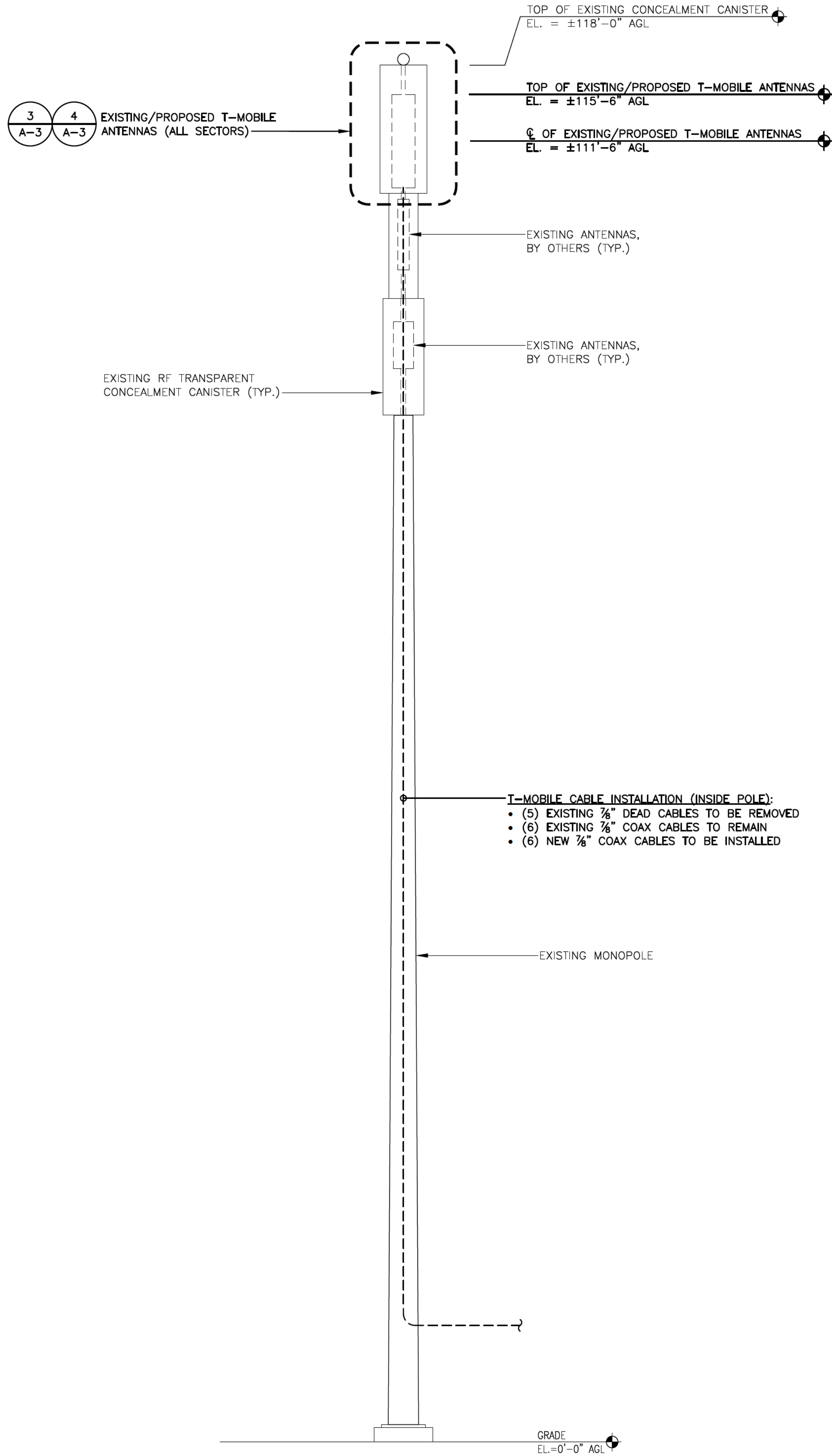
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COMPOUND PLAN

DRAWING SHEET:

A-1



1
A-2 ELEVATION
SCALE: N.T.S.

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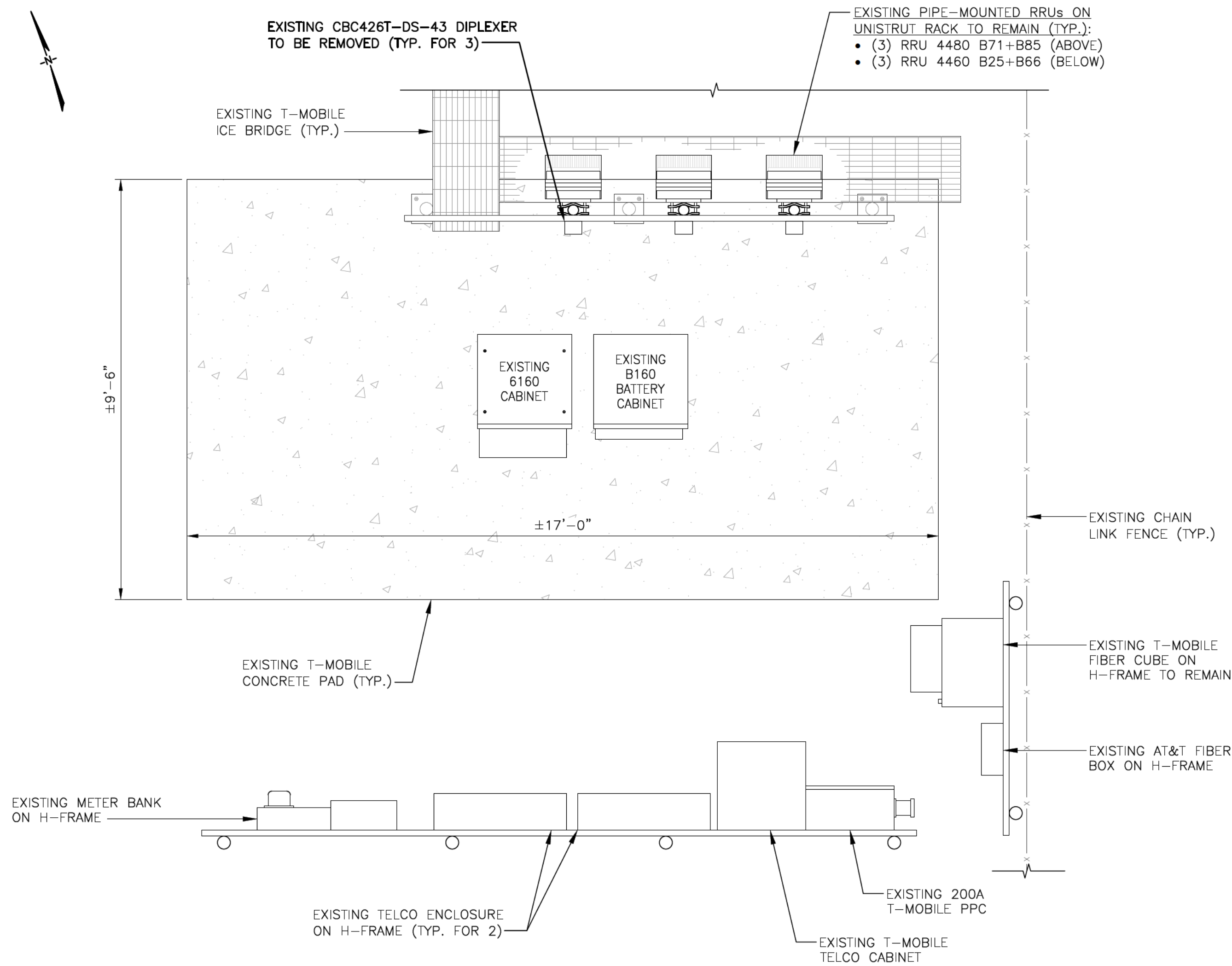
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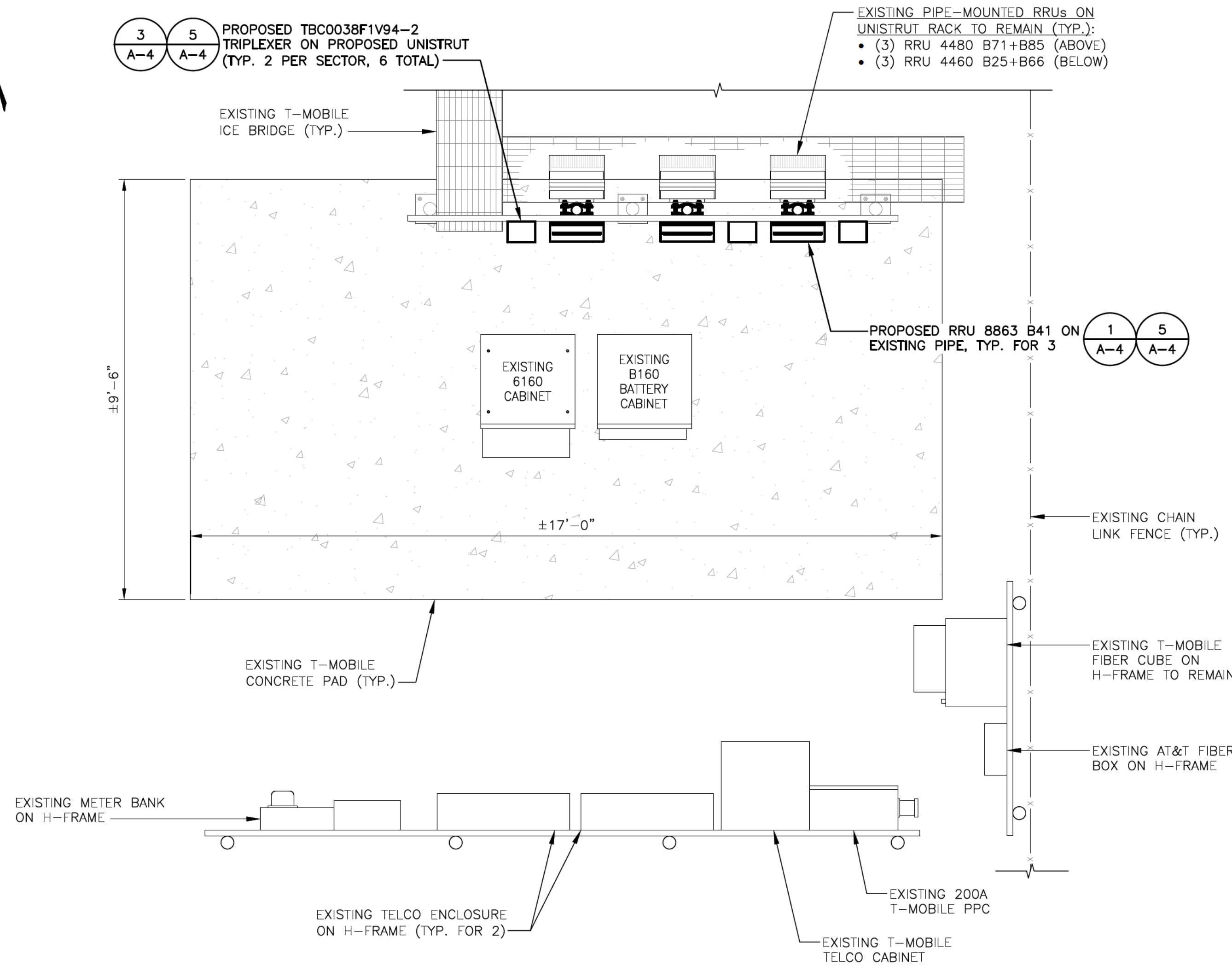
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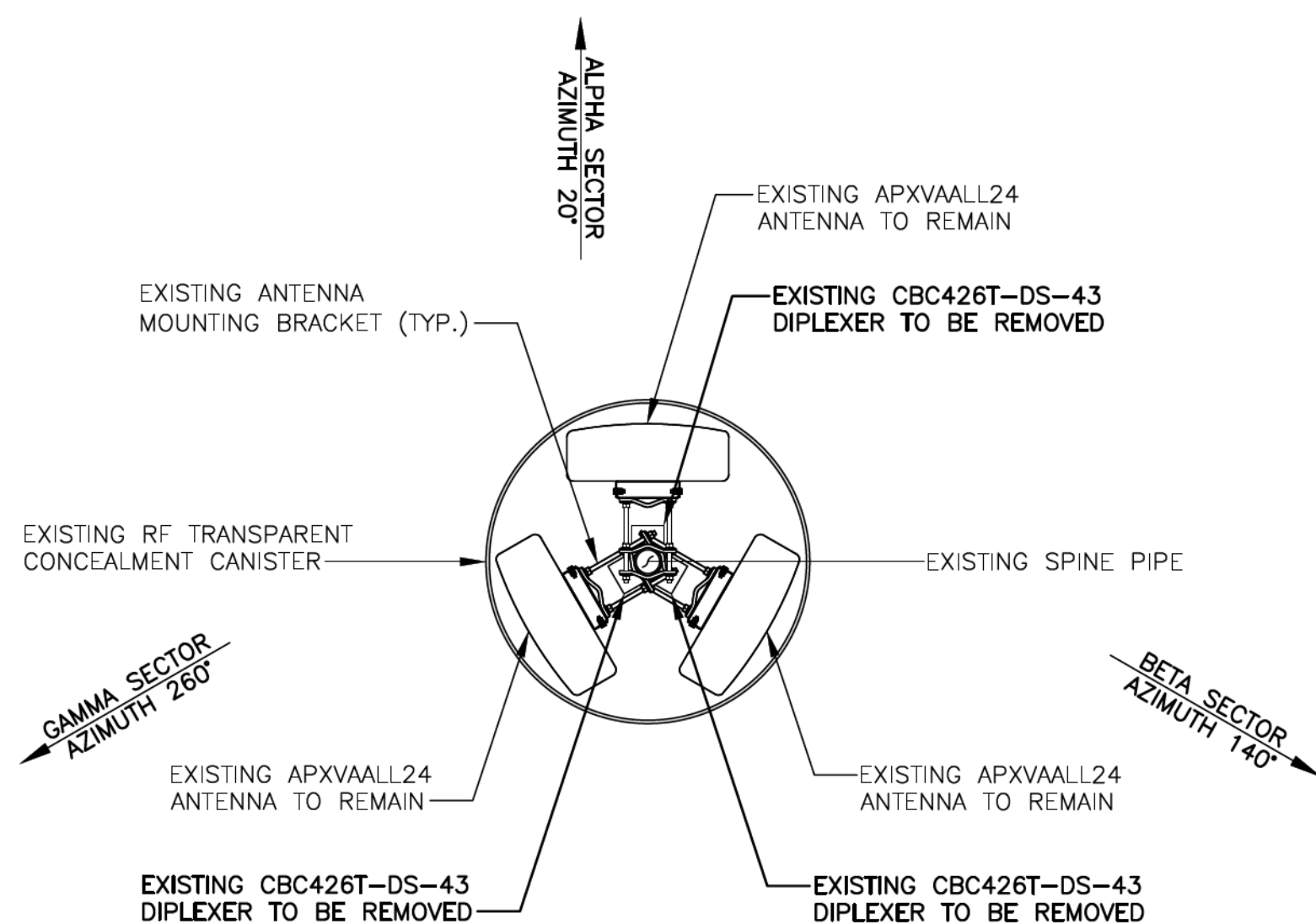
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1
A-3 EXISTING EQUIPMENT PLAN
SCALE: 1/2"=1'-0"

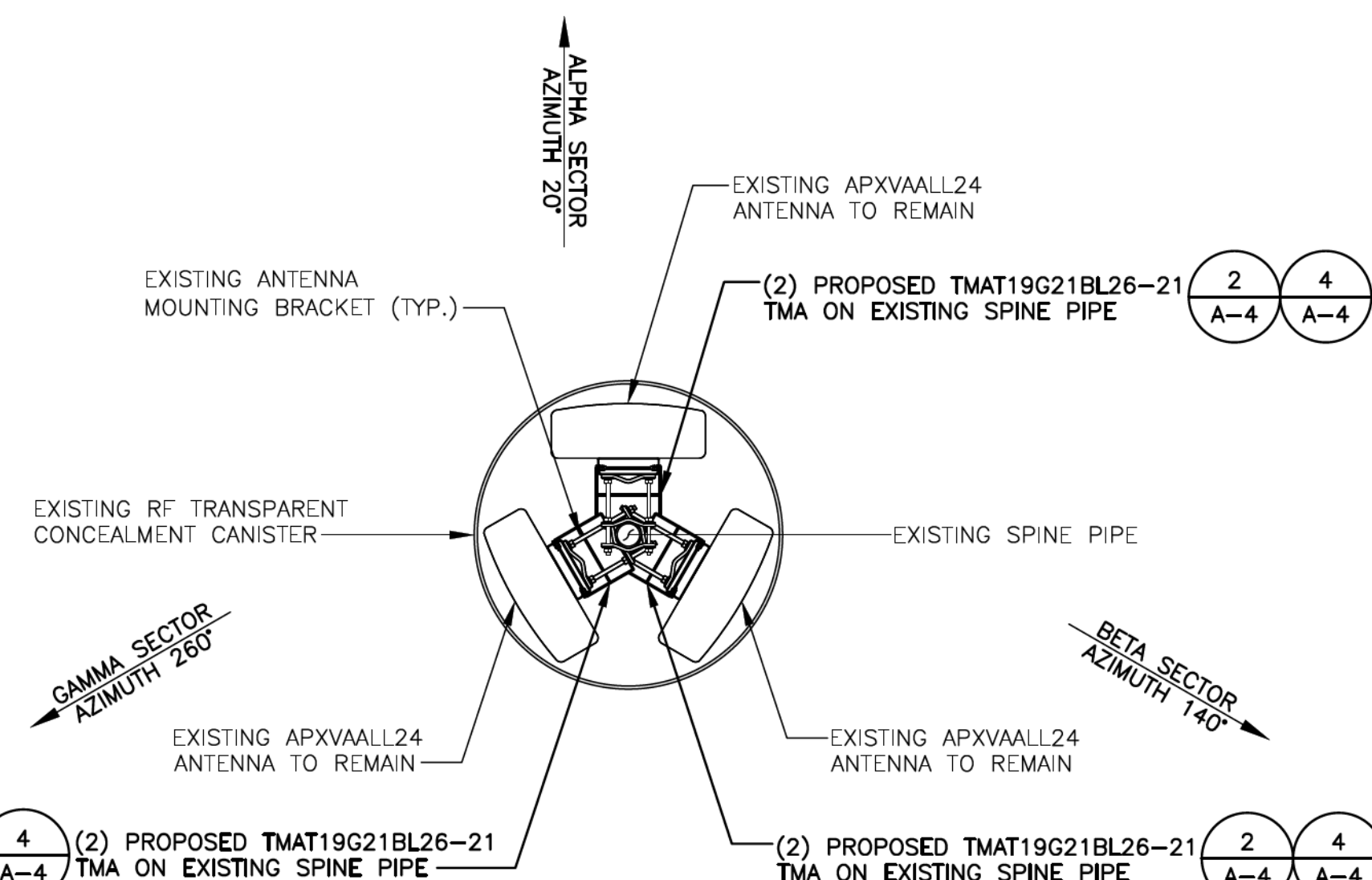


2
A-3 FINAL EQUIPMENT PLAN
SCALE: 1/2"=1'-0"



3
A-3 EXISTING ANTENNA PLAN
SCALE: 1/2"=1'-0"

GRAPHIC SCALE: 1/2"=1'-0"



4
A-3 PROPOSED ANTENNA PLAN
SCALE: 1/2"=1'-0"

GRAPHIC SCALE: 1/2"=1'-0"

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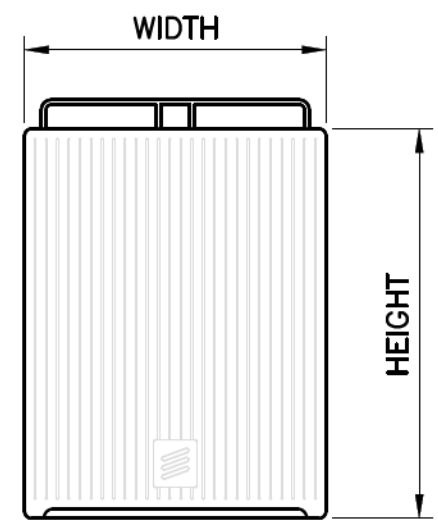
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**EQUIPMENT
PLANS &
ANTENNA PLANS**

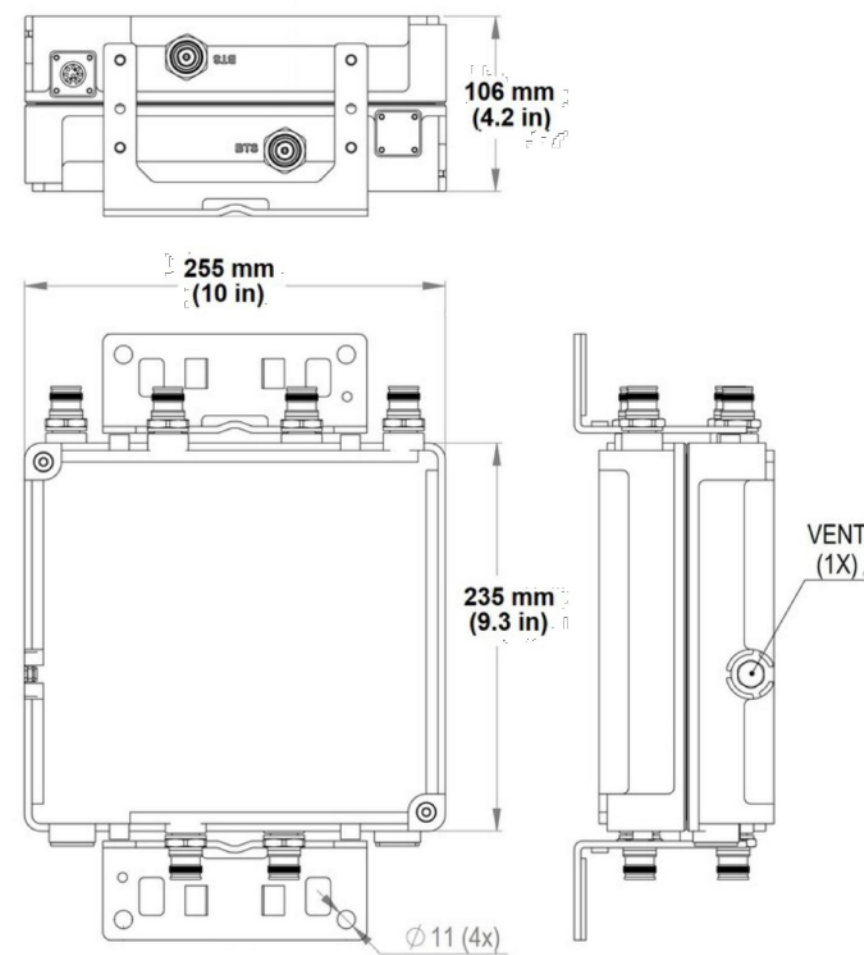
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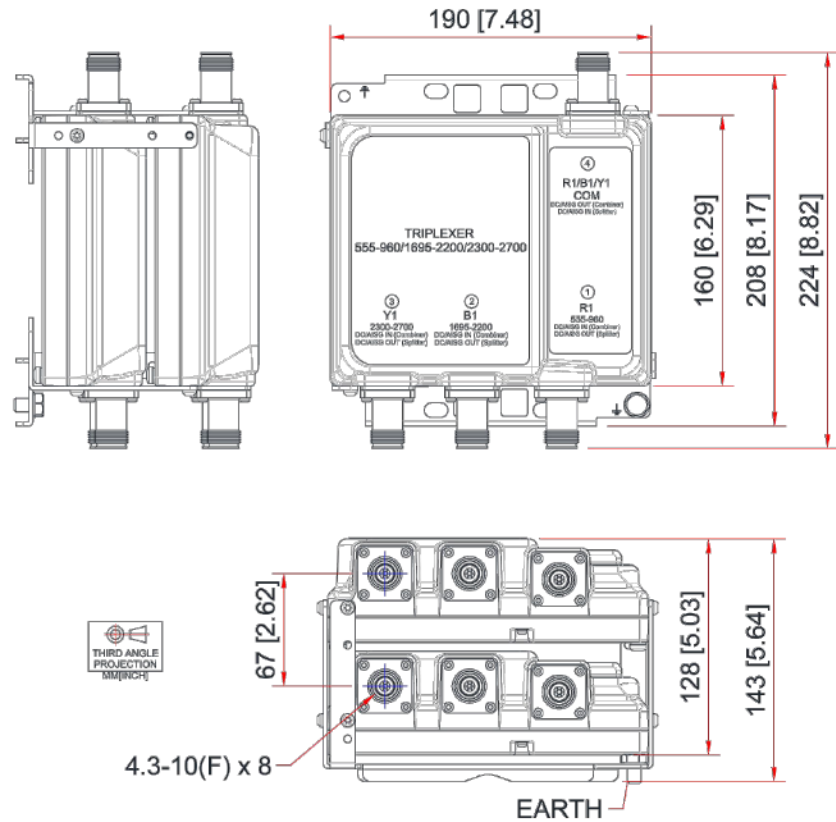
RRH	HEIGHT	WIDTH	DEPTH	WEIGHT
RADIO 8863 B41	18.5"	14.5"	5.5"	51 LBS.

1
A-4 RRU DETAIL
SCALE: N.T.S.



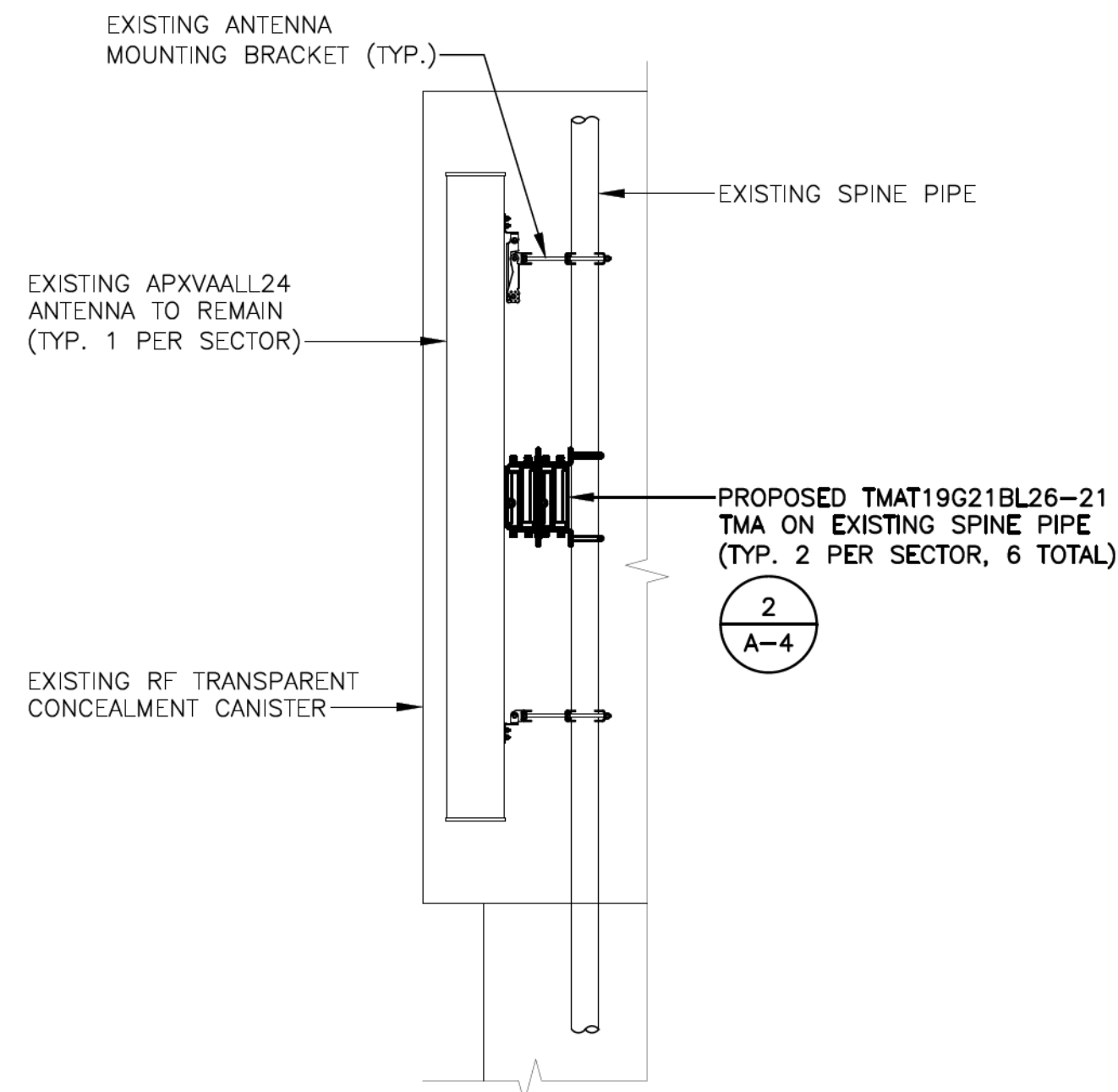
TMA	HEIGHT	WIDTH	DEPTH	WEIGHT
TMAT19G21BL26-21	9.252"	10.039"	4.173"	16.87 LBS.

2
A-4 ANDREW: TMAT19G21BL26-21 TMA
SCALE: N.T.S.

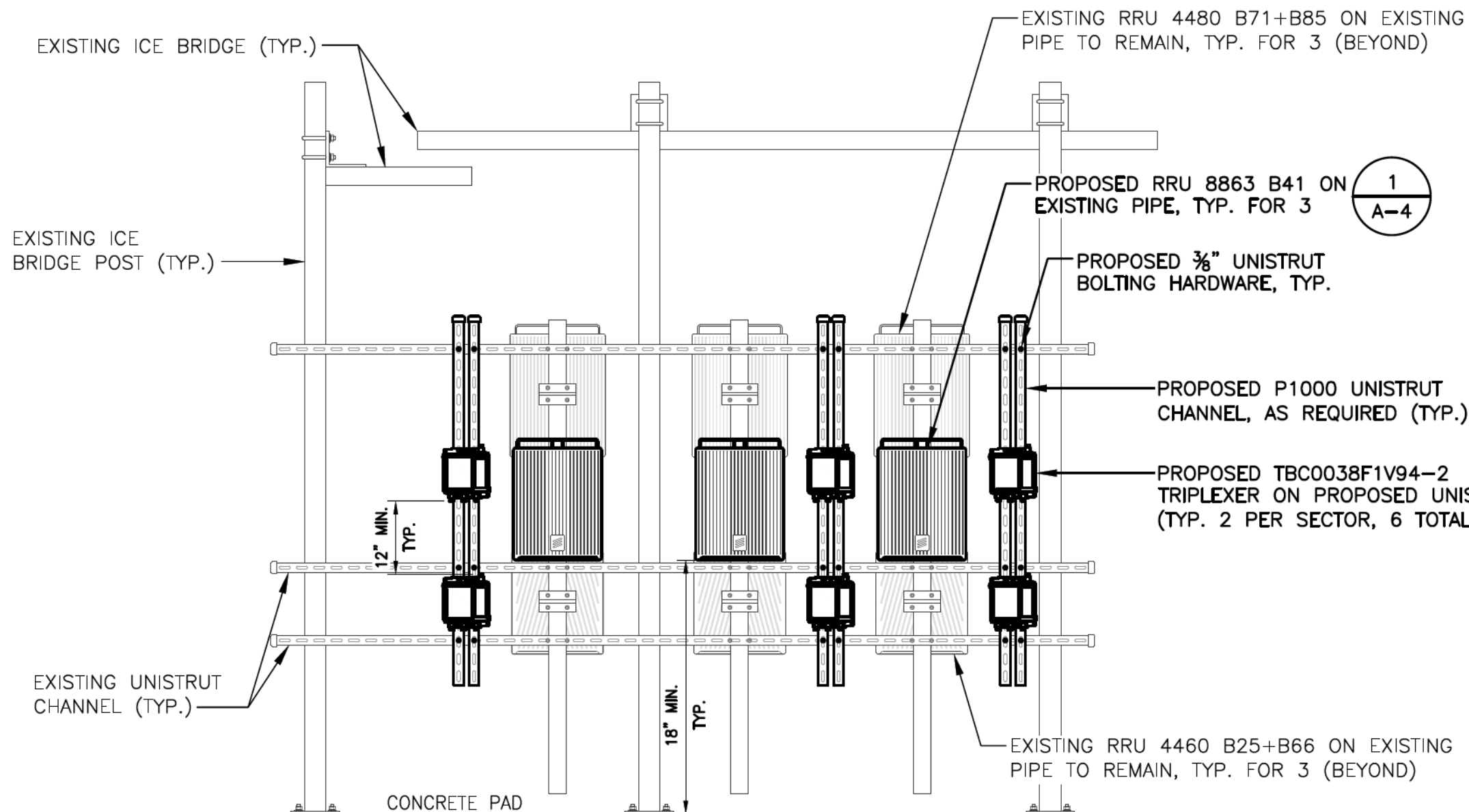


TRIPLEXER	HEIGHT	WIDTH	DEPTH	WEIGHT
TBC0038F1V94-2	6.3"	7.48"	5.0"	13.2 LBS.

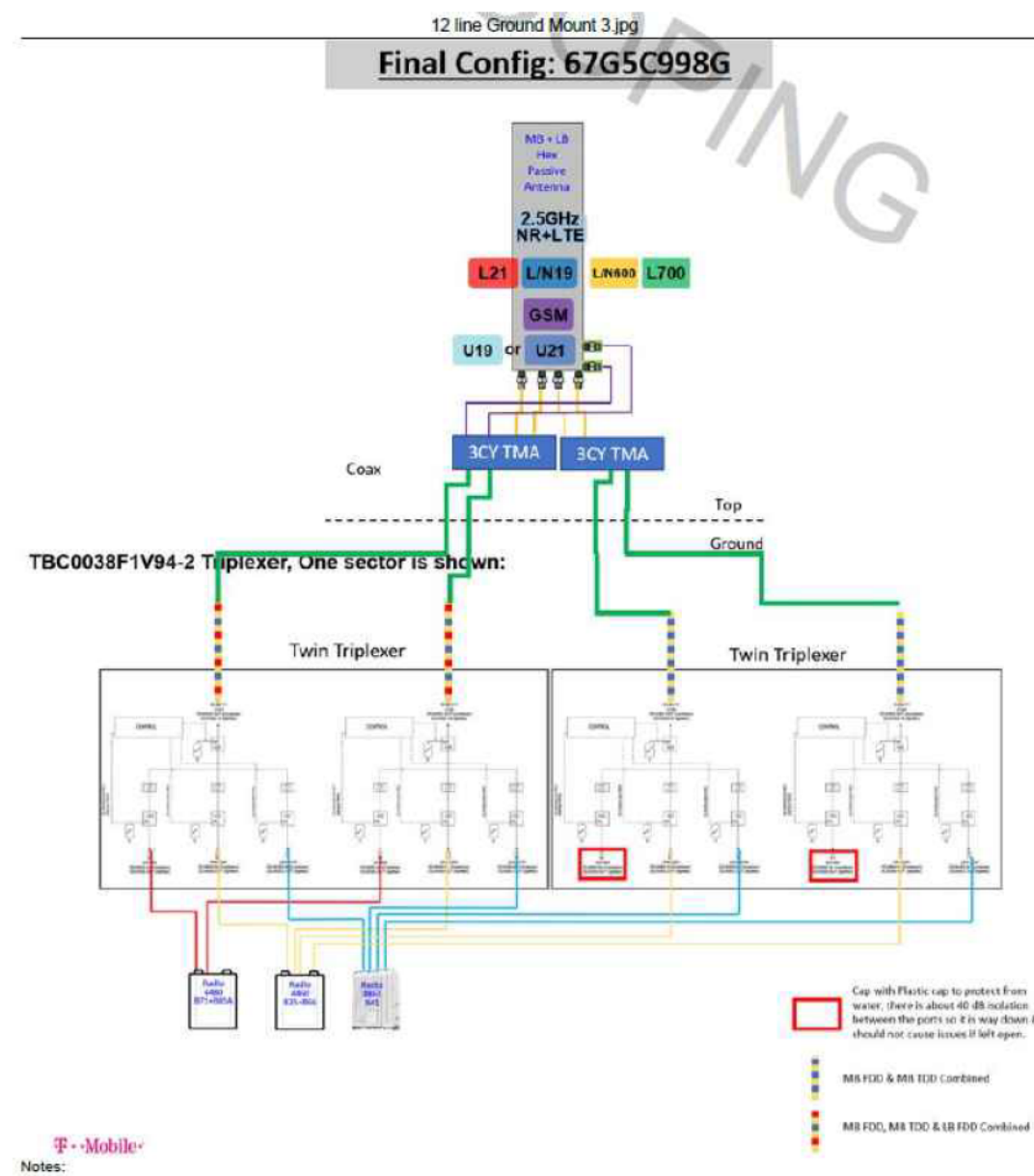
3
A-4 KAEUS: TBC0038F1V94-2 TRIPLEXER
SCALE: N.T.S.



4
A-4 TYPICAL TMA MOUNTING DETAIL
SCALE: N.T.S.



5
A-4 RRU & TRIPLEXER MOUNTING DETAIL
SCALE: N.T.S.



6
A-4 ANTENNA & COAX CABLE SCHEMATIC
SCALE: N.T.S.

ANTENNA INFORMATION														
SECTOR	POSITION (FROM REAR LEFT TO RIGHT)	EXISTING		PROPOSED										
		MODEL	QTY.	MODEL	ANT. C.L.	SECTOR MARK	QTY.	E-TILT	M-TILT	RRU (GROUND) MODEL/QUANTITY	DIPLEXER/ COMBINERS (GROUND)	TMA (TOWER TOP)	COAX/ FIBER QUANTITY	COAX/ FIBER SIZE LENGTH
ALPHA 20°	R1	APXVAALL24_43-U-NA20	1	APXVAALL24_43-U-NA20	111'-6"	L700/N600/ L2100/L1900/ N2500	1	0/0/0/0	0	(1) 4460 B25+B66 (1) 4480 B71+B85 (1) 8863 B41	(2) TBC0038F1V94-2	(2) TMAT19G21BL26-21	4 4 1	COAX JUMPER 3/4" COAX CABLE 6x24 HYBRID 10' 130' 10M
BETA 140°	W1	APXVAALL24_43-U-NA20	1	APXVAALL24_43-U-NA20	111'-6"	L700/N600/ L2100/L1900/ N2500	1	0/0/0/0	0	(1) 4460 B25+B66 (1) 4480 B71+B85 (1) 8863 B41	(2) TBC0038F1V94-2	(2) TMAT19G21BL26-21	4 4 1	COAX JUMPER 3/4" COAX CABLE 6x24 HYBRID 10' 130' 10M
GAMMA 260°	B1	APXVAALL24_43-U-NA20	1	APXVAALL24_43-U-NA20	111'-6"	L700/N600/ L2100/L1900/ N2500	1	0/0/0/0	0	(1) 4460 B25+B66 (1) 4480 B71+B85 (1) 8863 B41	(2) TBC0038F1V94-2	(2) TMAT19G21BL26-21	4 4 4	COAX JUMPER 3/4" COAX CABLE 6x24 HYBRID 10' 130'

AT TIME OF CONSTRUCTION, CONTRACTOR TO VERIFY AZIMUTHS OF EXISTING ANTENNAS. IF DIFFERENT FROM RFDS, PLEASE NOTIFY THE RF ENGINEER AND CONSTRUCTION MANAGER WITH ACTUAL AZIMUTH TO ENSURE T-MOBILE'S DATABASE IS ACCURATE AND UP-TO-DATE.

INFORMATION SHOWN PROVIDED ON T-MOBILE RFDS DATED 05/01/25.

ANTENNA LOCATIONS TO BE VERIFIED IN FIELD. RFDS TO BE REDLINED ACCORDINGLY.

T-Mobile
T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

**ELEVATED
ENGINEERING**
99 FANNY ROAD
BOONTON, NEW JERSEY 07005
862-242-8050

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SCHEDULE OF REVISIONS

REV. NO.	DATE	DESCRIPTION OF CHANGES
7		
6		
5		
4		
3		
2	08/01/25	REVISED PER CLIENT COMMENTS
1	06/27/25	ISSUED AS FINALS
0	06/26/25	INITIAL SUBMISSION

DRAWN BY: CJT
CHECKED BY: NDB
SCALE: AS NOTED
JOB NO: 25028-NSS

INFORMATION ON THIS SET OF DRAWINGS IS NOT FOR OFFICIAL USE UNLESS ACCOMPANIED BY THE STAMPED SEAL & SIGNATURE OF A PROFESSIONAL ENGINEER

Nicholas D. Barile
NICHOLAS D. BARILE
PROFESSIONAL ENGINEER, CT LIC. No. 28643

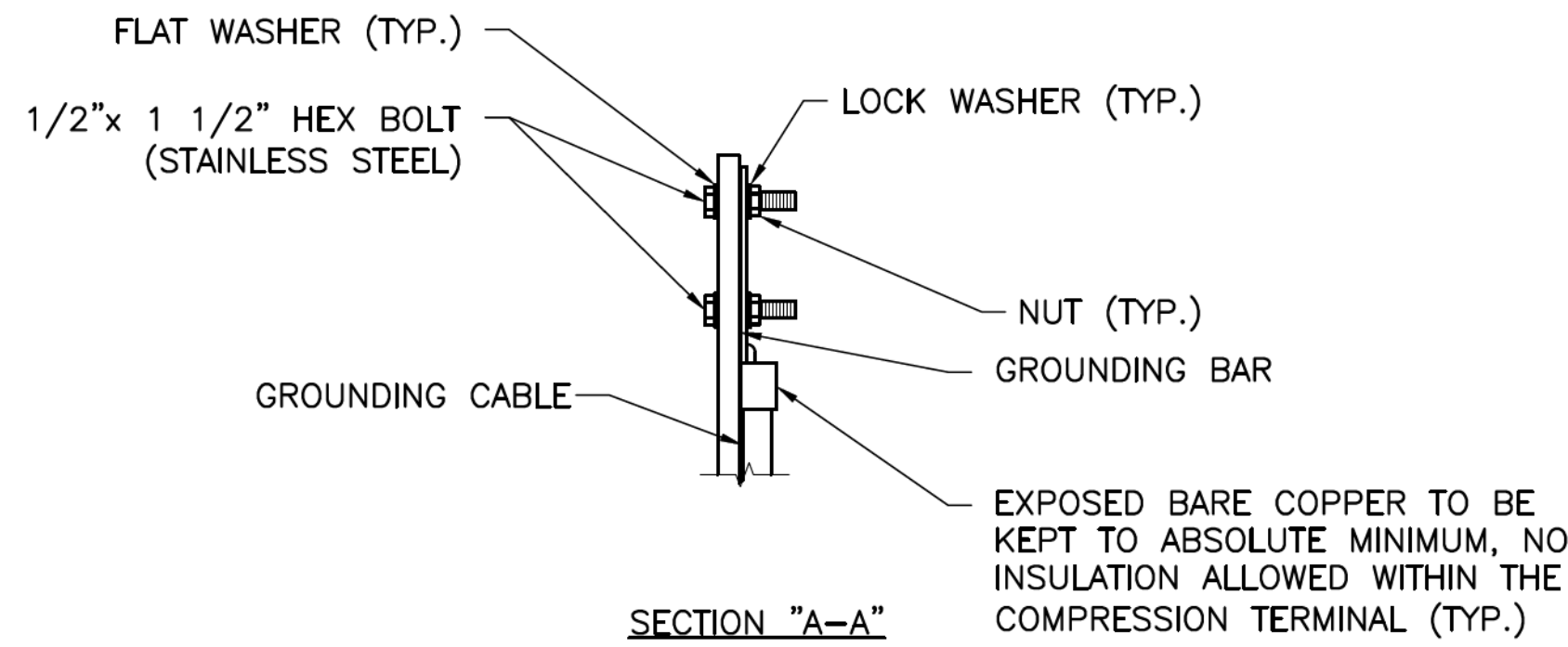
SITE ID: CT11975A
SITE NAME: CT11975A
530 BUSHY HILL ROAD
SIMSBURY, CT 06070
HARTFORD COUNTY

DRAWING TITLE:

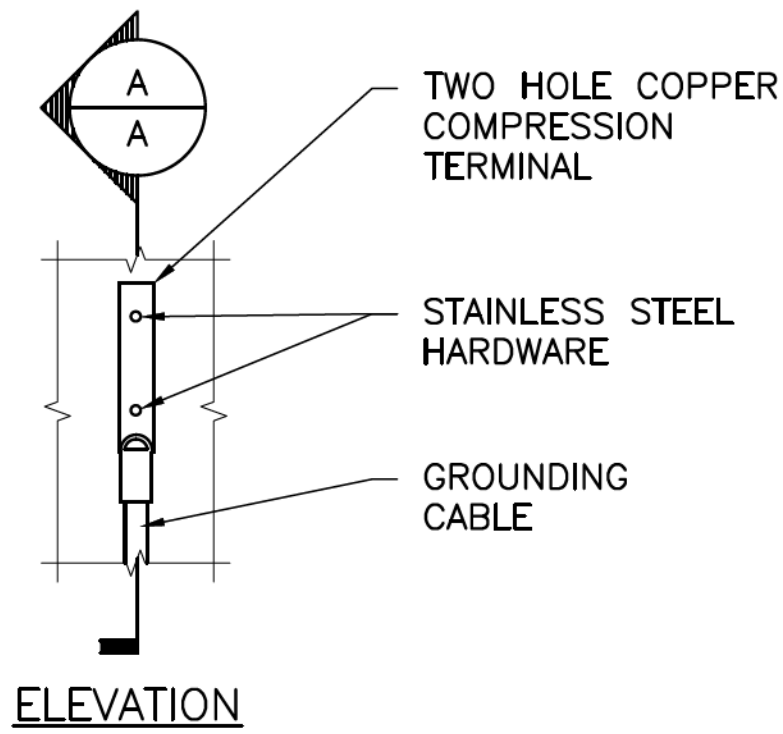
DETAILS

DRAWING SHEET:

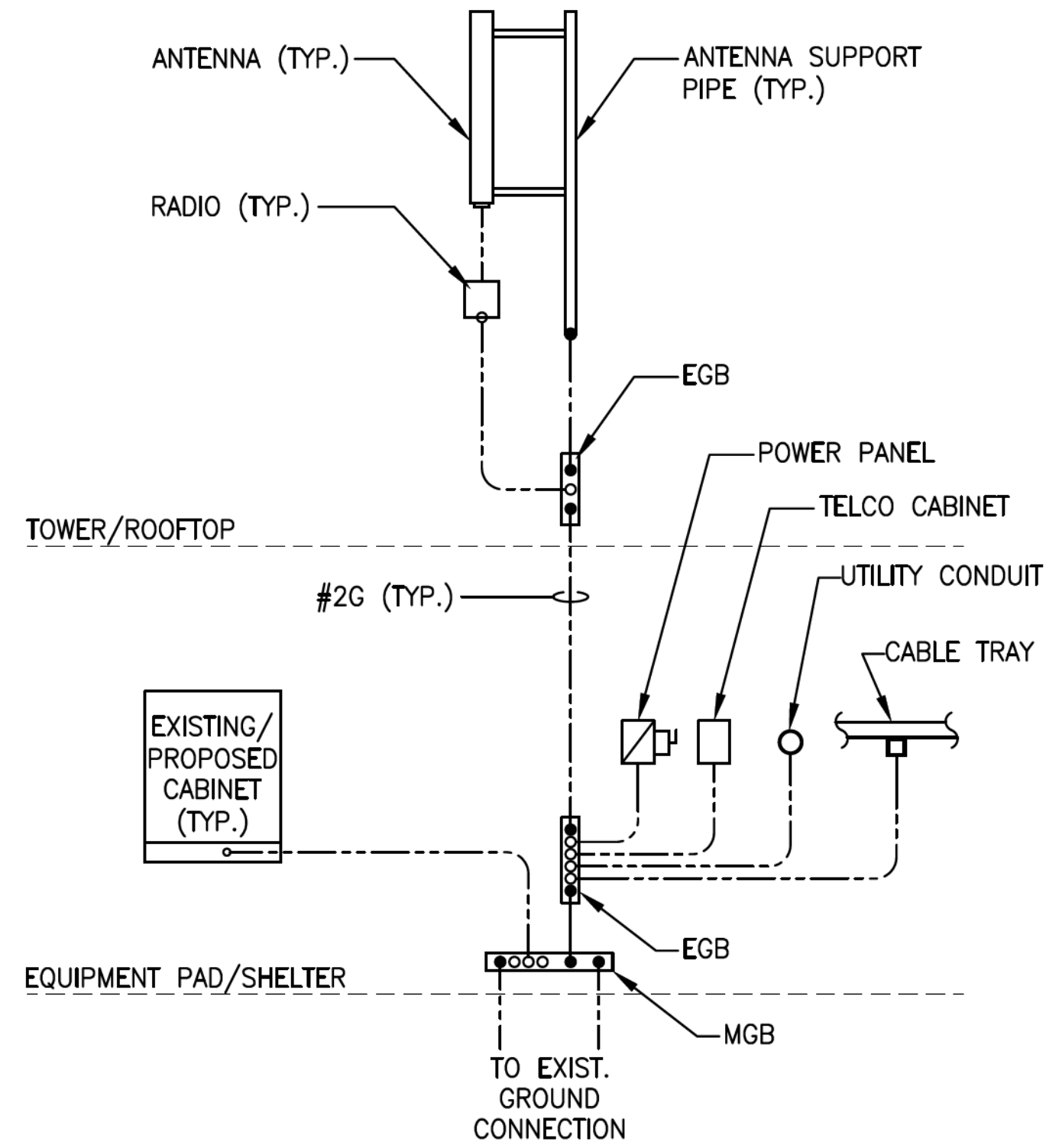
A-4



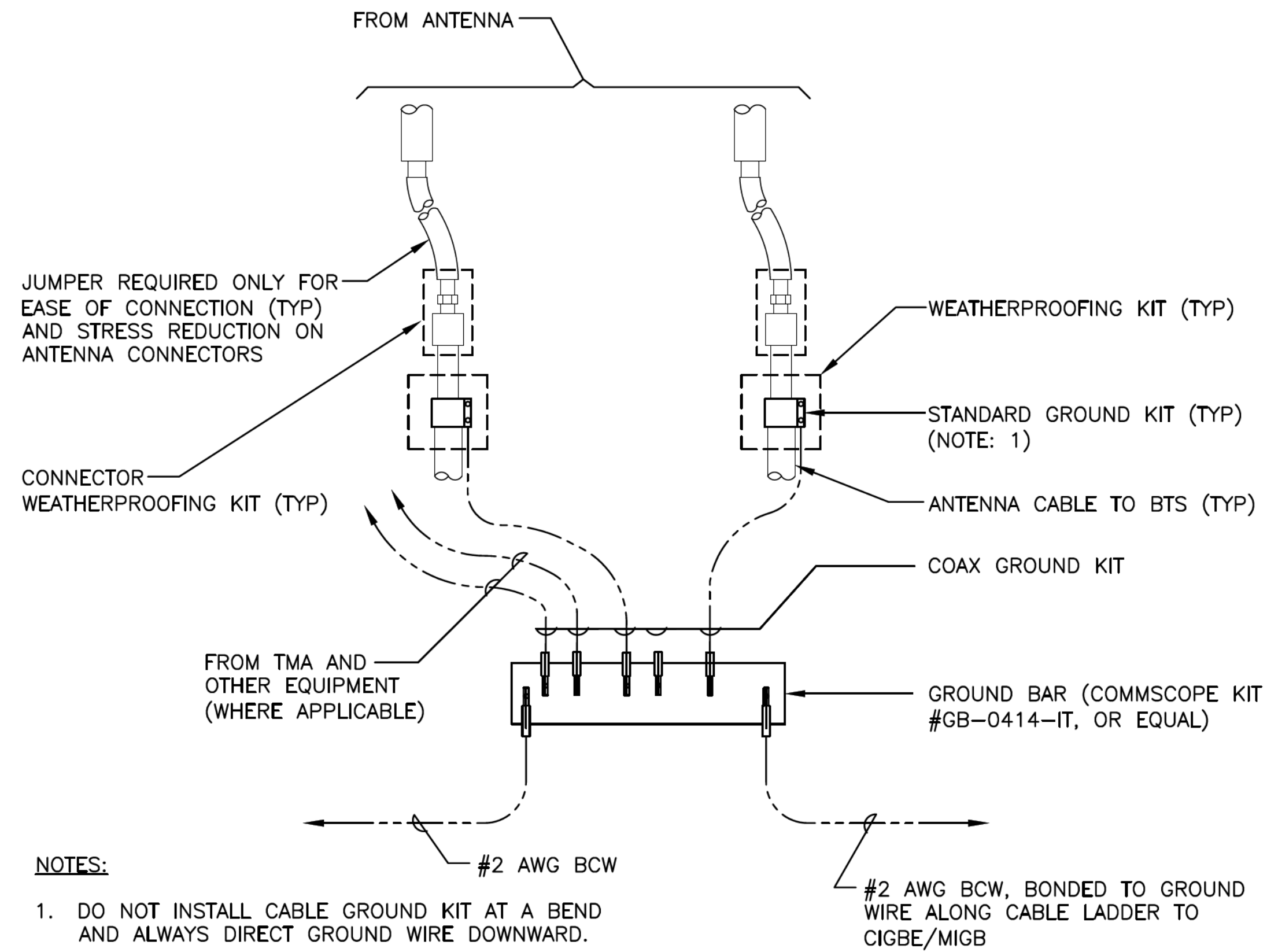
- NOTE:
- "DOUBLING UP" OR "STACKING" OF CONNECTIONS IS NOT PERMITTED.
 - OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.



1 TYPICAL GROUND BAR CONNECTION DETAIL
SCALE: N.T.S.

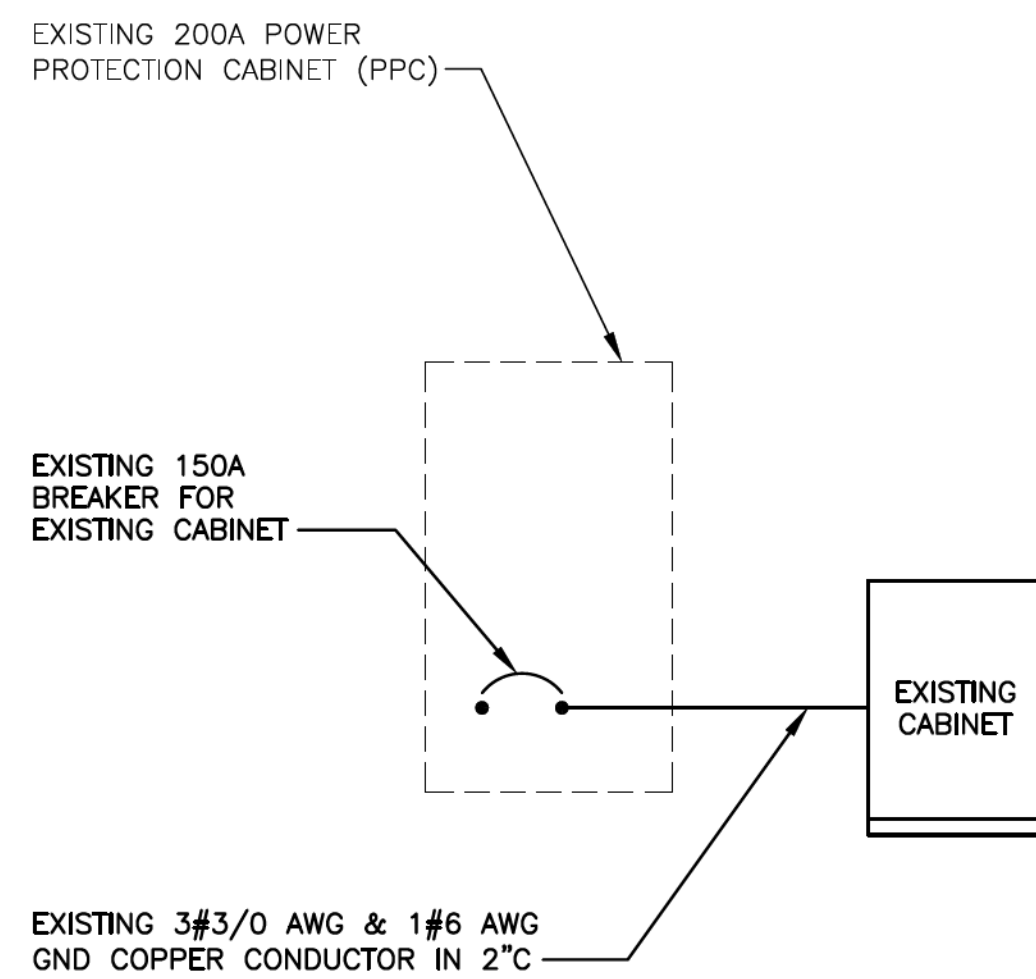


2 GROUNDING RISER DIAGRAM
SCALE: N.T.S.



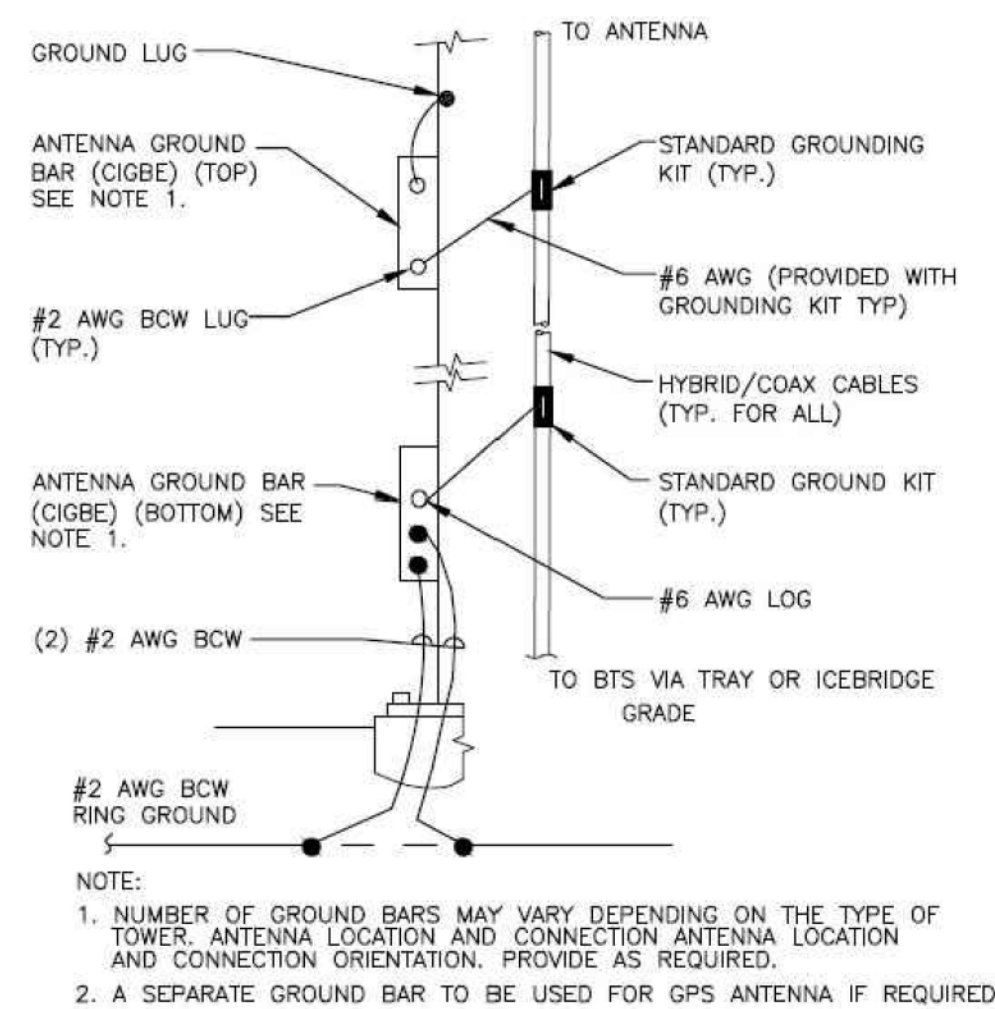
- NOTES:
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWNWARD.

3 GROUND WIRE TO GROUND BAR CONNECTION DETAIL
SCALE: N.T.S.



EXISTING ELECTRIC FEEDERS AND CONDUIT TO BE UPGRADED AS REQUIRED, CONDUIT AND WIRE LENGTH/SIZE TO BE VERIFIED BY LICENSED ELECTRICIAN

4 ONE LINE DIAGRAM
SCALE: N.T.S.



- NOTE:
- NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATION AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED.
 - A SEPARATE GROUND BAR TO BE USED FOR GPS ANTENNA IF REQUIRED.

5 ANTENNA CABLE GROUNDING
SCALE: N.T.S.

ELECTRICAL LEGEND	
A	AMPERE
V	VOLT
KWH	KILOWATT - HOUR
C	CONDUIT
GRC	GALVANIZED RIGID CONDUIT
G	GROUND
MGB	MASTER GROUND BAR
EGB	EQUIPMENT GROUND BAR
G	GROUND COPPER WIRE, SIZE AS NOTED
EXP	EXPOSED WIRING
COAX	COAXIAL CABLE
5/8"x8"	5/8"x8" COPPER CLAD STAINLESS STEEL GROUND ROD
EX	EXOTHERMIC (CAD WELD) OR MECHANICAL (COMPRESSION TYPE) CONNECTION
PPC	POWER PROTECTION CABINET
EMS	OMNI-DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALL

T-Mobile
T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

ELEVATED
ENGINEERING
99 FANNY ROAD
BOONTON, NEW JERSEY 07005
862-242-8050

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SCHEDULE OF REVISIONS		
7		
6		
5		
4		
3		
2	08/01/25	REVISED PER CLIENT COMMENTS
1	06/27/25	ISSUED AS FINALS
0	06/26/25	INITIAL SUBMISSION
REV. NO.	DATE	DESCRIPTION OF CHANGES

DRAWN BY:	CJT
CHECKED BY:	NDB
SCALE:	AS NOTED
JOB NO:	25028-NSS

INFORMATION ON THIS SET OF DRAWINGS IS NOT FOR OFFICIAL USE UNLESS ACCOMPANIED BY THE STAMPED SEAL & SIGNATURE OF A PROFESSIONAL ENGINEER

Nicholas D. Barile
NICHOLAS D. BARILE
PROFESSIONAL ENGINEER, CT LIC. No. 28643

SITE ID: CT11975A
SITE NAME: CT11975A
530 BUSHY HILL ROAD
SIMSBURY, CT 06070
HARTFORD COUNTY

DRAWING TITLE:
**GROUNDING
DETAILS
& NOTES**

DRAWING SHEET:
E-1

Exhibit D

Structural Analysis Report

ELEVATED ENGINEERING

99 Fanny Road, Boonton, NJ 07005

CT11975A

530 Bushy Hill Road, Simsbury, CT 06070
(Hartford County)

Structural Analysis ANCHOR

June 27, 2025

Item	Pass/Fail	Capacity
Monopole	Pass	56.0%
Anchor Bolts	Pass	49.0%
Base Plate	Pass	64.9%
Concrete Pad and Pier	Pass	22.4%
Soil	Pass	90.2%
Overturning	Pass	57.1%



Nicholas D. Barile, PE
CT PE License No.: 28643
Elevated Engineering Project No.: 25028-NSS

ELEVATED ENGINEERING

99 Fanny Road, Boonton, NJ 07005

Summary

At the request of T-Mobile, ELEVATED ENGINEERING has performed a structural analysis of the monopole for proposed antenna equipment loading under the *2022 Connecticut Building Code, ASCE 7, ANSI/TIA-222-H, and AISC (LRFD14)*. Information pertaining to the flagpole was obtained from:

- Structural report by Centek Engineering dated 07/15/2021.
- RFDS Version-2 by T-Mobile last modified 05/01/2025.
- Design visit notes by Elevated Engineering dated 06/11/2025.
- Construction drawings by Centek Engineering dated 08/09/2021.
- Construction drawings by Elevated Engineering dated 06/27/25.

Loading Criteria per Appendix P

Wind Factors			
	Basic Wind Speed; Vult	120	mph
	Risk Category	III	
	Exposure	B	
	Flat Terrain		
	Ground Elevation	275	ft
	Ice Thickness	1"	
	Wi	50	mph
Seismic Factors			
	Ss:	0.177	
	S1:	0.054	
Loading Combinations at (12) 30° Intervals			

Conclusions

Per our analysis, the flagpole, and its foundation can support the proposed loading under the *2022 Connecticut Building Code*. Additionally, the equipment upgrades are within the canister system of the flagpole. There is no additional sail effect associated with the upgrades, and the deadload associated with the upgrade is negligible.

General Comments

If there are substantial modifications to be made or the assumptions made in this analysis are not accurate, ELEVATED ENGINEERING should be notified immediately to perform a revised analysis. This report is not a condition assessment and assumes good workmanship will be used and systems will be properly maintained.

Limitations

All opinions and conclusions are considered accurate to a reasonable degree of engineering certainty based upon the evidence available at the time of this report. All opinions and conclusions are subject to revision based upon receipt of new or additional/updated information. All services are provided exercising a level of care and diligence equivalent to the standard and care of our profession. No other warranty or guarantee, expressed or implied, is offered. Our services are confidential in nature, and we will not release this report to any other party without the client's consent. The use of this engineering work is limited to the express purpose for which it was commissioned, and it may not be reused, copied, or distributed for any other purpose without the written consent of ELEVATED ENGINEERING.

ELEVATED ENGINEERING

99 Fanny Road, Boonton, NJ 07005

Attachment A Final Equipment Configuration

Final Alpha Sector Antenna Configuration

Rad Center 111'-6"

- (1) Amphenol APXVAALL24_43-U-NA20 Antenna
- (2) CommScope TMAT19G21BL26-21 Style 3CY TMA

Final Beta Sector Antenna Configuration

Rad Center 111'-6"

- (1) Amphenol APXVAALL24_43-U-NA20 Antenna
- (2) CommScope TMAT19G21BL26-21 Style 3CY TMA

Final Gamma Sector Antenna Configuration

Rad Center 111'-6"

- (1) Amphenol APXVAALL24_43-U-NA20 Antenna
- (2) CommScope TMAT19G21BL26-21 Style 3CY TMA

Final Cable Configuration

- (12) 7/8" Coax Cables



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
APXVAALL24-43 Antenna	111.5	DTMABP7819VG12A TMA	103
APXVAALL24-43 Antenna	111.5	SBNH-1D6565B Antenna	103
APXVAALL24-43 Antenna	111.5	10'X48" Canister	103
(2) TMAT19G21BL26-21 Style 3CY TMA	111.5	SBNH-1D6565B Antenna	103
(2) TMAT19G21BL26-21 Style 3CY TMA	111.5	TMABPDB7823VG12A	94
(2) TMAT19G21BL26-21 Style 3CY TMA	111.5	TMABPDB7823VG12A	94
(2) TMAT19G21BL26-21 Style 3CY TMA	111.5	TMABPDB7823VG12A	94
10'X48" Canister	111.5	TMABPDB7823VG12A	94
(12) 7/8" Coax Cable	N/A	TMABPDB7823VG12A	94
SBNH-1D6565B Antenna	103	DMP65R-BU4D TMA	94
DTMABP7819VG12A TMA	103	DMP65R-BU4D TMA	94
DTMABP7819VG12A TMA	103	DMP65R-BU4D TMA	94
		10'X48" Canister	93

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

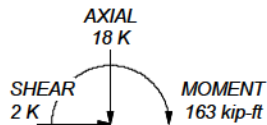
1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 120 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.000 ft
8. TOWER RATING: 65%

88.0 ft

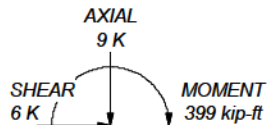
48.7 ft

1.5 ft

ALL REACTIONS
ARE FACTORED



TORQUE 1 kip-ft
50 mph WIND - 1.500 in ICE



TORQUE 2 kip-ft
REACTIONS - 120 mph WIND

Section	1	2
Length (ft)	38.320	50.820
Number of Sides	18	18
Thickness (in)	0.188	0.188
Socket Length (ft)	3.640	24.179
Top Dia (in)	19.500	31.250
Bot Dia (in)	25.070	
Grade	A572-65	
Weight (K)	1.8	2.8

Job:	25028-NSS		
Project:	Monopole		
Client:	Elevated Engineering	Drawn by:	App'd:
Code:	TIA-222-H	Date:	07/02/25
Path:	C:\Users\jason\OneDrive\Documents\25028-NSS\25028-NSS.dwg		
Phone:	FAX:		Scale: NTS
			Dwg No. E-1

tnxTower Phone: FAX:	Job	25028-NSS	Page 1 of 13
	Project	Monopole	Date 12:05:00 07/02/25
	Client	Elevated Engineering	Designed by

Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

Tower is located in Hartford County, Connecticut.

Tower base elevation above sea level: 276.500 ft.

Basic wind speed of 120 mph.

Risk Category II.

Exposure Category B.

Simplified Topographic Factor Procedure for wind speed-up calculations is used.

Topographic Category: 1.

Crest Height: 0.000 ft.

Nominal ice thickness of 1.500 in.

Ice thickness is considered to increase with height.

Ice density of 57 pcf.

A wind speed of 50 mph is used in combination with ice.

Temperature drop of 15 °F.

Deflections calculated using a wind speed of 60 mph.

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in pole design is 1.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	88.000-48.680	39.320	3.640	18	19.500	25.070	0.188	0.750	A572-65 (65 ksi)
L2	48.680-1.500	50.820		18	24.179	31.250	0.188	0.750	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L1	19.772	11.493	541.578	6.856	9.906	54.672	1083.869	5.748	3.102	16.544
	25.428	14.808	1158.318	8.833	12.736	90.951	2318.159	7.406	4.082	21.772
L2	25.038	14.278	1038.335	8.517	12.283	84.534	2078.037	7.140	3.926	20.936
	31.703	18.486	2253.486	11.027	15.875	141.952	4509.937	9.245	5.170	27.573

tnxTower Phone: FAX:	Job	25028-NSS	Page 2 of 13
	Project	Monopole	Date 12:05:00 07/02/25
	Client	Elevated Engineering	Designed by

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontal in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft ²	in							
L1 88.000-48.680				1	1	1			
L2 48.680-1.500				1	1	1			

Monopole Base Plate Data

Base Plate Data	
Base plate is square	
Base plate is grouted	
Anchor bolt grade	A615-75
Anchor bolt size	2.250 in
Number of bolts	4
Embedment length	60.000 in
f_c	4.000 ksi
Grout space	2.000 in
Base plate grade	A633-60
Base plate thickness	1.500 in
Bolt circle diameter	39.000 in
Outer diameter	45.000 in
Inner diameter	31.250 in
Base plate type	Plain Plate

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		$C_A A_A$ ft ² /ft	Weight klf
7/8	C	No	No	Inside Pole	88.000 - 1.500	6	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
							2" Ice	0.000	0.001
1 1/4	C	No	No	Inside Pole	88.000 - 1.500	6	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
							2" Ice	0.000	0.001
1 1/4	C	No	No	Inside Pole	88.000 - 1.500	9	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
							2" Ice	0.000	0.001

Feed Line/Linear Appurtenances Section Areas

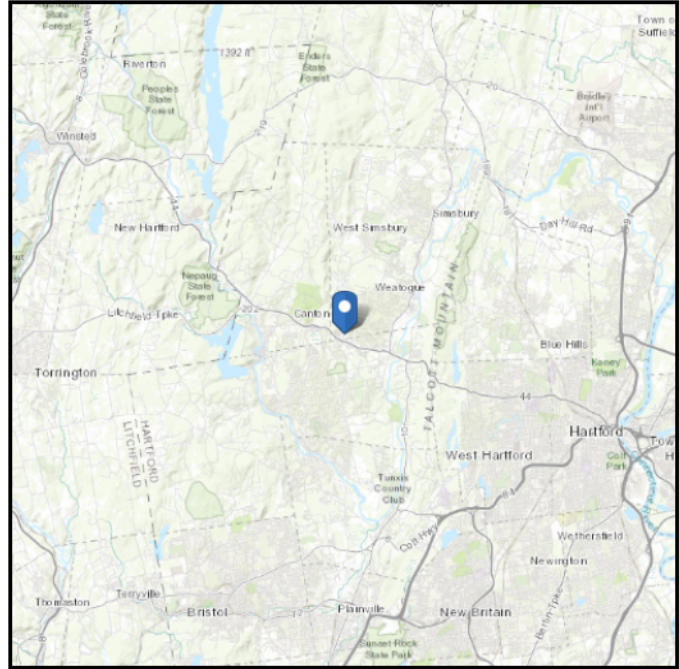
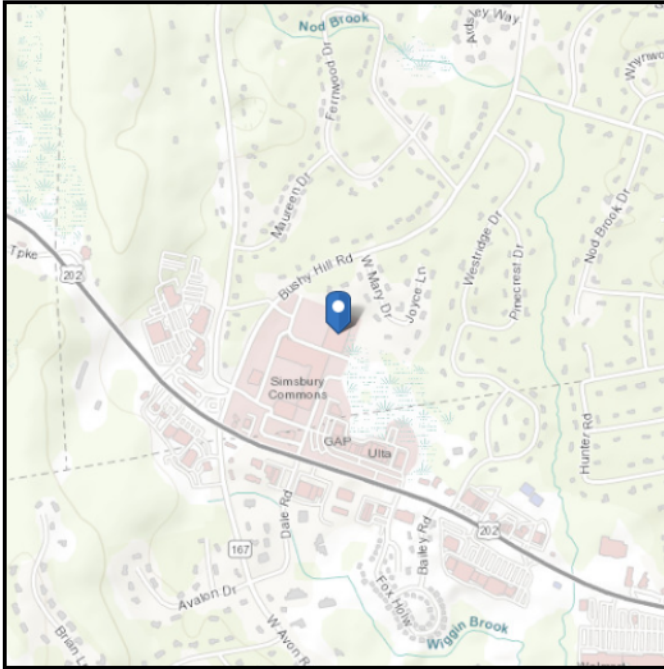
Tower Section	Tower Elevation ft	Face	A_R ft ²	A_F ft ²	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²	Weight K
------------------	--------------------------	------	--------------------------	--------------------------	---	--	-------------

ASCE Hazards Report

Address:
498 Bushy Hill Rd
Simsbury, Connecticut
06070

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

Latitude: 41.819343
Longitude: -72.863118
Elevation: 275.8574636633965 ft
(NAVD 88)



Wind

Results:

Wind Speed	116 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	96 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed: Mon Jun 23 2025

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

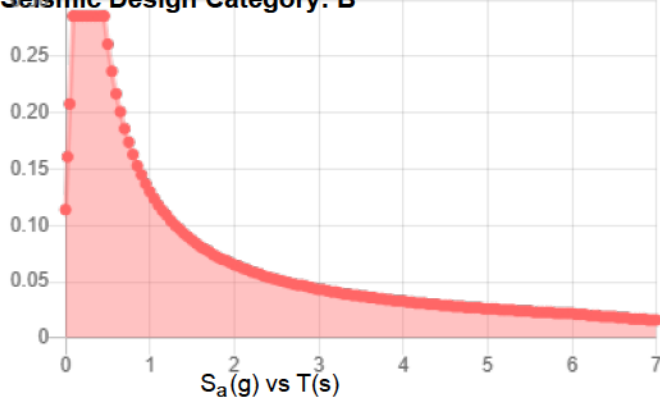
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Stiff Soil

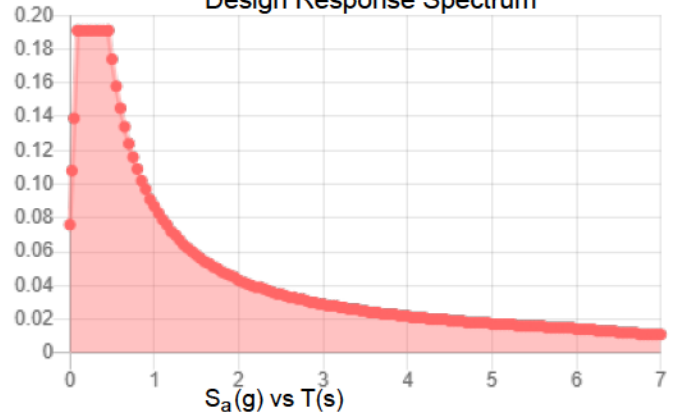
Results:

S_s :	0.179	S_{D1} :	0.087
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.095
F_v :	2.4	PGA _M :	0.152
S_{MS} :	0.286	F_{PGA} :	1.6
S_{M1} :	0.13	I_e :	1
S_{DS} :	0.191	C_v :	0.7

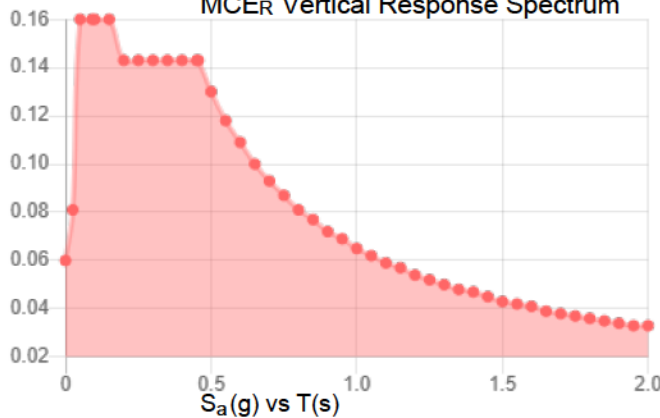
Seismic Design Category: B MCE_R Response Spectrum



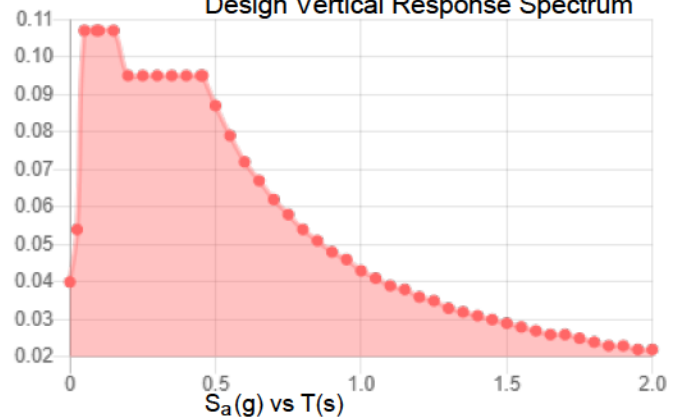
Design Response Spectrum



MCE_R Vertical Response Spectrum



Design Vertical Response Spectrum



Data Accessed: Mon Jun 23 2025

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 1.50 in.
Concurrent Temperature: 5 F
Gust Speed 50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Mon Jun 23 2025

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

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

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ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE Hazard Tool.

Exhibit E

Power Density/RF Emissions Report



FOX HILL TELECOM

Radio Frequency Emissions Analysis Report



Site ID: CT11975A

CT11975A
530 Bushy Hill Road
Simsbury, CT 06070

August 18, 2025

Fox Hill Telecom Project Number: 250314

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit at ground level:	3.34 %



August 18, 2025

T-MOBILE
Attn: RF Manager
35 Griffin Road South
Bloomfield, CT 06009

Emissions Analysis for Site: **CT11975A – CT11975A (Simsbury)**

Fox Hill Telecom, Inc (“Fox Hill”) was directed to analyze the proposed upgrades to the existing T-MOBILE Monopole facility located at **530 Bushy Hill Road, Simsbury, CT**, for the purpose of determining whether the emissions from the Proposed T-MOBILE Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which people 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 population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes people in a nearby residential area.

General population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 600 MHz & 700 MHz bands are approximately $400 \mu\text{W}/\text{cm}^2$ and $467 \mu\text{W}/\text{cm}^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 2500 MHz (BRS) bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report the percentage of MPE rather than power density.



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Occupational/controlled exposure limits apply to situations in which people are exposed as a consequence of their employment and in which those people 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.

Additional details can be found in FCC OET 65.



CALCULATIONS

Calculations were performed for the proposed upgrades to the T-MOBILE antenna facility located at **530 Bushy Hill Road, Simsbury, CT**, using the equipment information listed below. All calculations were performed following the specifications under FCC OET 65 for far field modeling calculations.

In OET-65, power density values in the Far Field of an antenna are calculated by considering the transmit power in each band specified and multiplied by the antenna gain values per the antenna manufacturer specifications.

Since the radiation pattern of an antenna has developed in the **Far Field** region, the power gain in specific directions needs to be considered in exposure predictions to yield an Effective Radiated Power (ERP) in each specific direction from the antenna. Also, since the vertical radiation pattern of the antenna is considered, the exposure calculations would most likely be reduced at ground level, when compared to an isotropic model, resulting in a more realistic estimate of the actual exposure levels.

A worst-case **Far Field** prediction is described in OET-65 where field strength may double due to 100% reflection of the incoming radiation. Considering an EPA recommendation that a multiplier of 1.6 is a more realistically representation of this effect is rewritten as follows:

$$S_{FF} = \frac{33.4 \cdot P_{in} \cdot G_{dBd}}{R^2} \quad (\mu W/cm^2)$$

- S_{FF} = Power Density (in $\mu W/cm^2$)
- P_{in} is Watts
- R is meters to study point
- G is gain to study point as specified in manufacturer horizontal and vertical patterns

This model calculates the power density at a single point in space. In order to determine the spatial power density in comparison to the FCC limits, the average of several points calculated within the human profile (0 to 6 feet) must be conducted. Seven power density values, between 0 and 6 feet above the specified study plane at each point, were calculated and a linear spatial average of these values was used to create the spatially averaged result for that point on the plane.



For each T-Mobile sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
5G NR	600 MHz	4	60
LTE	700 MHz	4	20
LTE	1900 MHz (PCS)	4	35
5G NR	1900 MHz (PCS)	4	40
LTE	2100 MHz (AWS)	4	60
5G NR	2500 MHz (BRS)	8	40

Table 1: Channel Data Table



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The following T-Mobile antennas listed in *Table 2* were used in the modeling for transmission in the 600 MHz, 700 MHz, 1900 MHz (PCS), 2100 MHz (AWS) and 2500 MHz (BRS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	RFS APXVAALL24 43-U-NA20	111.5
B	1	RFS APXVAALL24 43-U-NA20	111.5
C	1	RFS APXVAALL24 43-U-NA20	111.5

Table 2: Antenna Data

All calculations were made with respect to uncontrolled / general population threshold limits.



RESULTS

Per the calculations completed for the proposed T-MOBILE configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit, at ground level.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	RFS APXVAALL24 43-U-NA20	600 MHz / 700 MHz / 1900 MHz (PCS) / 2100 MHz (AWS) / 2500 MHz (BRS)	13.65 / 13.85 / 16.65 / 16.95 / 16.55	28	1180	47,724.66	1.24
Sector A Composite MPE%							1.24
Antenna B1	RFS APXVAALL24 43-U-NA20	600 MHz / 700 MHz / 1900 MHz (PCS) / 2100 MHz (AWS) / 2500 MHz (BRS)	13.65 / 13.85 / 16.65 / 16.95 / 16.55	28	1180	47,724.66	1.24
Sector B Composite MPE%							1.24
Antenna C1	RFS APXVAALL24 43-U-NA20	600 MHz / 700 MHz / 1900 MHz (PCS) / 2100 MHz (AWS) / 2500 MHz (BRS)	13.65 / 13.85 / 16.65 / 16.95 / 16.55	28	1180	47,724.66	1.24
Sector C Composite MPE%							1.24

Table 3: T-MOBILE Emissions Levels at ground level



The Following table (*table 4*) shows all additional identified carriers on site and their emissions contribution estimates, along with the newly calculated maximum T-MOBILE MPE contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 5* below shows a summary for each T-MOBILE Sector as well as the composite estimated MPE value for the site.

Site Composite MPE%	
Carrier	MPE%
T-MOBILE – Max Per Sector Value	1.24 %
AT&T	2.10 %
Site Total MPE %:	3.34 %

Table 4: All Carrier MPE Contributions at ground level

T-MOBILE Sector A Total:	1.24 %
T-MOBILE Sector B Total:	1.24 %
T-MOBILE Sector C Total:	1.24 %
Site Total:	3.34 %

Table 5: Site MPE Summary



Table 6 below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated T-MOBILE sector(s). For this site, all three T-Mobile sectors have the same configuration, yielding the same results for all three sectors.

T-MOBILE Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
T-Mobile 600 MHz 5G NR	4	1,390.44	111.5	0.64	600 MHz	400	0.16%
T-Mobile 700 MHz LTE	4	485.32	111.5	0.37	700 MHz	467	0.08%
T-Mobile 1900 MHz (PCS) LTE	4	1,618.33	111.5	2.40	1900 MHz (PCS)	1000	0.24%
T-Mobile 1900 MHz (PCS) 5G NR	4	1,849.52	111.5	2.80	1900 MHz (PCS)	1000	0.28%
T-Mobile 2100 MHz (AWS) LTE	4	2,972.70	111.5	3.20	2100 MHz (AWS)	1000	0.32%
T-Mobile 2500 MHz (BRS) 5G NR	8	1,807.42	111.5	1.60	2500 MHz (BRS)	1000	0.16%
						Total:	1.24 %

Table 6: T-MOBILE Maximum Sector MPE Power Values



Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the T-MOBILE facility as well as the site composite emissions estimates value with regard to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

T-MOBILE Sector	Power Density Value (%)
Sector A:	1.24 %
Sector B:	1.24 %
Sector C:	1.24 %
T-MOBILE Maximum Total (per sector):	1.24 %
Site Total:	3.34 %
Site Compliance Status:	COMPLIANT





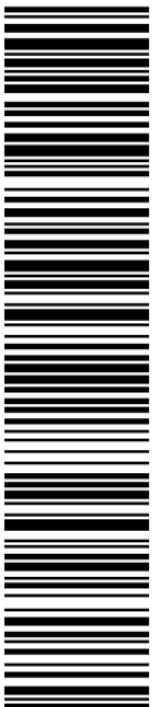

The estimated composite MPE value for this site assuming all carriers present is **3.34 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon the far field calculations performed for all carriers identified in this report.


FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite estimated values calculated were well within the allowable 100% threshold standard per the federal government.




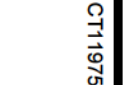
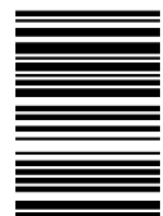

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Exhibit F

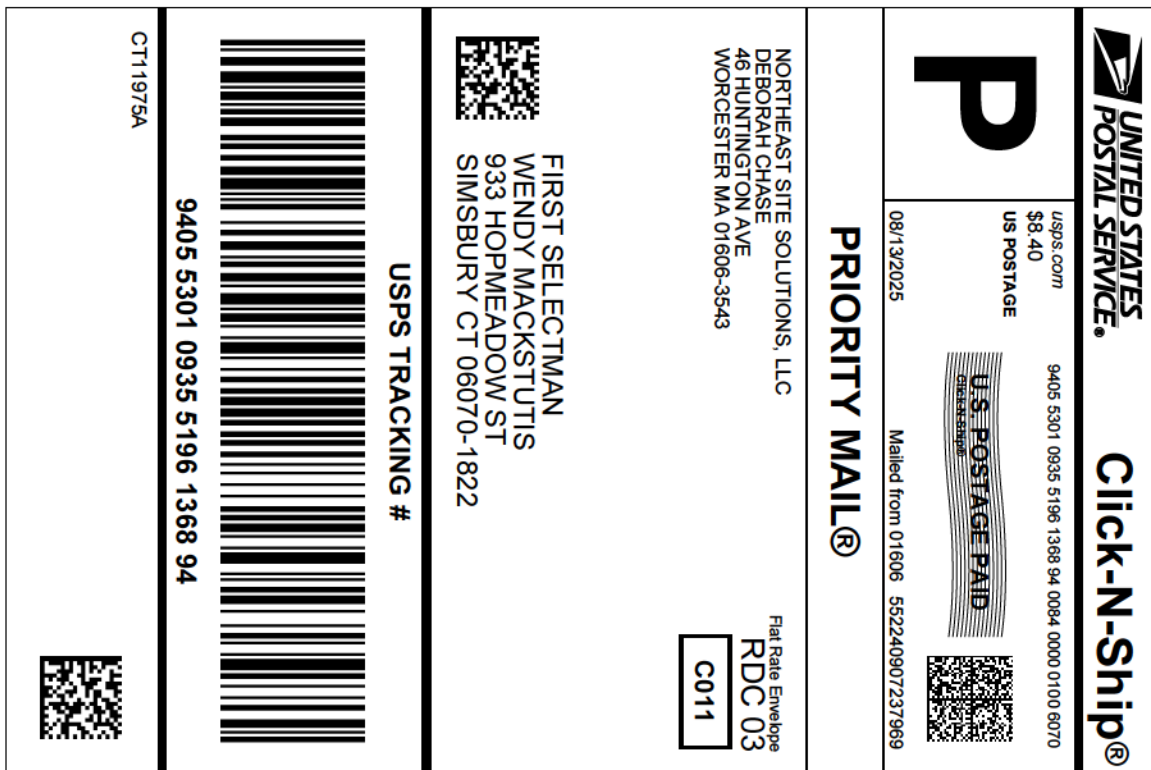
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