PROJECT NARRATIVE: T-MOBILE ANTENNA SITE MODIFICATION

Site:

#286 Water Tower at the Henry A. Wallace Beltsville Agricultural Research Center (BARC) located in Beltsville, Maryland. The BARC property covers over 6,500 acres. Other Federal facilities located adjacent to BARC property include the Patuxent Wildlife Research Center, the Goddard Space Flight Center, and the U.S. Secret Service James T. Rowley Training Center. The cities of College Park and Greenbelt are located south of BARC property.

Background:

This project is being undertaken by T-Mobile in an effort to update their sites within the Washington/Baltimore market.

Proposal:

T-Mobile proposes to modify their antenna site by replacing nine existing antennas with nine new antennas, and replacing three existing remote radio units with six new remote radio units in the same locations on the Water Tower. They also propose to replace an existing equipment cabinet with two new cabinets, and add six lines of hybrid cabling within the existing coaxial.

The new antennas will be painted to blend with the color of the Water Tower to minimize visibility.

The Radio Frequency (RF) Radio Frequency Report prepared by Centerline Communications indicates the antenna site would comply with RF safety requirements.

National Environmental Policy Act (NEPA):

In accordance with the National Environmental Policy Act, BARC has determined that the modifications proposed by T-Mobile are a categorical exclusion under ARS regulations 7 CFR 520.5 (b) (1).

National Historic Preservation Act (NHPA):

On June 7, 2021, the Maryland Historical Trust concurred with the no adverse effect finding regarding this undertaking.

PROJECT INFORMATION

SITE NAME: USDA - LAUREL SITE NUMBER: 7WAS039C

SITE ADDRESS: EDMONSTON ROAD

GREENBELT, MARYLAND 20770

COUNTY PRINCE GEORGE'S COUNTY

ZONING: LATITUDE: 39.01700000

LONGITUDE: -76.86086110 TYPE OF SITE WATER TANK

STRUCTURE HEIGHT: 152'-2" AGL (TOP OF WATER TANK)

ANTENNA CENTER: 135' AGL GROUND ELEVATION: 171' (NAVD 88)

BUILDING OWNER NAME UNITED STATES OF AMERICA

BUILDING OWNER GSA OFFICE COMM PUB BLDG SE

18TH & F STREETS NORTHWEST WASHINGTON DC, 20405-0001

APPLICANT: T-MOBILE NORTHEAST, LLC.

12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 20705

APPLICANT PHONE (240) 264-8600 APPLICANT FAX: (240) 264-8610

BUILDING CODES:

2015 NFPA 101 LIFE SAFETY CODE AND SUBTITLE 11 PRINCE GEORGE'S COUNTY FIRE SAFETY CODE 2015 INTERNATIONAL BUILDING CODE AND SUBTITLE 4 PRINCE GEORGE'S COUNTY BUILDING CODE 2015 INTERNATIONAL EXISTING BUILDING

ELECTRICAL CODE:

CODE (IEBC) NFPA- 2014 70 NATIONAL ELECTRICAL CODE & SUBTITLE 9 PRINCE GEORGE'S COUNTY BUILDING CODE

PROJECT DIRECTORY

ENGINEERING FIRM: CENTERLINE COMMUNICATIONS 750 WEST CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 PHILIP BURTNER (610) 730-5430

T-MOBILE NORTHEAST, LLC. 12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 20705 PHONE: (240) 264-8600 FAX: (240) 264-8610





T - Mobile NORTHEAST LLC

USDA - LAUREL SITE NAME: SITE ID: 7WAS039C

EDMONSTON ROAD ADDRESS:

GREENBELT, MARYLAND 20770

TECHNOLOGY: 67D5A997DB OUTDOOR

MODIFICATION: L600_CMP5_ANCHOR_PHASE 3





LOCATION MAP

GENERAL NOTES

1. 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 PURPOSE 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 GOVERNED 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 REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE

SCOPE OF WORK

- REMOVE AND REPLACE NINE EXISTING ANTENNAS W/NINE NEW ANTENNAS
- REMOVE AND REPLACE THREE EXISTING RRUS W/SIX NEW RRUS
- INSTALL ONE NEW 6160 AC ENCLOSURE
- INSTALL ONE NEW B160 BATTERY ENCLOSURE INSTALL SIX NEW 6X24 HYBRID CABLES
- REMOVE ALL UNUSED CABLES AND EQUIPMENT

DRAWING INDEX

NO.	DESCRIPTION
T-1	TITLE SHEET
GN-1	GENERAL NOTES, RF NOTES, CABLING NOTES
A-1	SITE PLAN
A-2	COMPOUND PLAN
A-3	EQUIPMENT LAYOUT PLANS
A-4	SOUTH ELEVATION
A-5	ANTENNA PLANS & SCHEDULE
A-6	ANTENNA & RRU MOUNTING DETAILS
A-7	EQUIPMENT DETAILS
G-1	GROUNDING DETAILS & ONE LINE DIAGRAM

DRAWING SCALE NOTES:

THESE DRAWINGS ARE FORMATTED TO BE FULL SIZE AT 22"x34". CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME

T - Mobile NORTHEAST LLC

T-MOBILE NORTHEAST, LLC. 12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 2070! PHONE: (240) 264-8600 FAX: (240) 264-8610



750 W CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379

	REVISIONS						
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DATE: 08/03/21

PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

USDA - LAUREL

SITE ID: 7WAS039C

SITE ADDRESS:

EDMONSTON ROAD GREENBELT, MARYLAND 20770

TITLE SHEET

T-1

RF NOTES

ANTENNA CABLE & SCHEDULING NOTES

GENERAL NOTES

- . ACTUAL LENGTHS SHALL BE DETERMINED PER SITE CONDITION BY SUBCONTRACTOR
- 2. THE DESIGN IS BASED ON RF DATA SHEETS, SIGNED AND APPROVED.
- RADIO SIGNAL CABLE AND RACEWAY SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC, NFPA 70), CHAPTER 8
- ALL SPECIFIED MATERIAL FOR EACH LOCATION (E.G. OUT DOORS-OCCUPIED, INDOORS-UNOCCUPIED, PLENUMS, RISER SHAFTS, ETC.) SHALL BE APPROVED, LISTED, OR LABELED AS REQUIRED BY THE NEC.
- RADIO SIGNAL CABLE SHALL BE SUPPORTED AT MINIMUM OF EVERY THREE (3)
 FEET EXCEPT INSIDE MONOPOLES OR MONOPOLES WHERE CABLE AND
 CONNECTOR MANUFACTURERS SUPPORT RECOMMENDATIONS SHALL BE
 FOLLOWED. MANUFACTURER RECOMMENDATION CABLES SUPPORT
 ACCESSORIES SHALL BE USED.
- 6. THE OUTDOOR CABLE SUPPORT SYSTEM SHALL BE PROVIDED WITH AN ICE SHIELD TO SUPPORT AND PROTECT ANTENNA CABLE RUNS.
- 7. DRIP LOOPS SHALL BE REQUIRED ON ALL OUTSIDE CABLES. CABLES SHALL BE SLOPED AWAY FROM BUILDING OR OUTDOOR BTS CABINETS TO PREVENT WATER FROM ENTERING THROUGH THE COAXIAL CARLE PORT
- 8. ALL FEEDER LINE AND JUMPER CONNECTORS SHALL BE 7/16 DIN CABLE CONNECTORS THAT MEET IP68 STANDARDS.
- 7/16 DIN CONNECTORS REQUIRE NO ADDITIONAL WEATHER PROOFING IN INDOOR APPLICATIONS IF INSTALLED AND TORQUED PROPERLY. IN OUTDOOR APPLICATIONS WEATHER PROOFING IS REQUIRED AND THE FOLLOWING PROCEDURE SHOULD BE FOLLOWED.
- 10. USING WEATHERPROOFING KIT APPROVED BY CABLE MANUFACTURER AND CONTRACTOR START TAPE APPROXIMATELY 5 INCHES FROM THE CONNECTOR, AND WRAP 2 INCHES TOWARD THE CONNECTOR, THEN REVERSE THE TAPE SO THAT THE STICKY SIDE IS UP. TAPE OVER THE CONNECTOR OR SURGE ARRESTOR UNTIL THREE (3) TO FOUR (4) INCHES BEYOND THE CONNECTOR AND REVERSE AGAIN WITH THE STICKY SIDE DOWN FOR ANOTHER INCH OR TWO. PASS THE BUTYL RUBBER AND FINISH WITH A FINAL LAYER OF TAPE.
- 11. ANTENNAS SHALL BE PAINTED, WHEN REQUIRED, BY THE LANDLORD OR AUTHORITY OF HAVING JURISDICTION IN ACCORDANCE WITH ANTENNA MANUFACTURERS' SURFACES PREPARATION AND PAINTING REQUIREMENTS.
- 12. CABLE SHIELDS AND TOWER CONDUITS SHALL BE GROUNDED AT THE TOP OF THE TOWER WITHIN 10 FEET OF THEIR CONNECTORS, AND AT THE BOTTOM OF THE TOWER ABOUT 6 INCHES BEFORE THEY TURN TOWARD THE FACILITY. THEY SHALL BE GROUNDED AT THE MIDPOINT OF THE TOWERS THAT ARE BETWEEN 60 FEET AND 200 FEET HIGH, AND AT INTERVALS OF 60 FEET OR LESS ON TOWERS THAT ARE HIGHER THAN 200 FEET.

- SUBCONTRACTOR SHALL VERIFY THE ACTUAL LENGTH IN THE FIELD BEFORE INSTALLATION.
- TAG AND COLOR CODE ALL MAIN CABLES AT LOCATIONS PER T-MOBILE ANTENNA CABLE MARKING STANDARD:
- TOP OF TOWER END OF MAIN COAX
- BOTTOM OF TOWER END OF MAIN COAX
- DIRECTLY BEFORE AND AFTER RF EQUIPMENT
- END OF JUMPERS AT BTS EQUIPMENT
- 3. ANTENNAS SHALL BE PROCURED AND INSTALLED WITH DOWN TILT MOUNTING BRACKETS SUPPLIED BY ANTENNA MANUFACTURER.
- I. PRIOR APPROVAL IS REQUIRED BEFORE PERFORMING ANY WORK ON EXISTING CELL SITE FOLIPMENT

- 1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 - CONTRACTOR CENTERLINE COMMUNICATIONS SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION) OWNER - T-MOBILE MOBILITY
- 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 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 SUPPLIED BY THE SUBCONTRACTOR.
- 7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- 8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE 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 EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER
- 11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S 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

EQUIPMENT GROUND RING

- 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 ksj). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC BICH DAINT.
- 16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF T-MOBILE MOBILITY SITES"
- 17. SUBCONTRACTOR 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 IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- 19. SINCE THE 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.

20. APPLICABLE BUILDING CODES:

SUBCONTRACTOR'S 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.

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

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

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-G, 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 CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

T - Mobile

T-MOBILE NORTHEAST, LLC. 12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 2070! PHONE: (240) 264-8600 FAX: (240) 264-8610

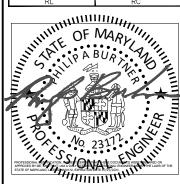


750 W CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 PHONE: 781.713.4725

DEVICIONS

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DESIGNED BY: APPROVED BY: RC



DATE: 08/03/21

PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER TO ALTER THIS DOCUME UNLESS EXPLICITLY AGREED TO BY THE ENGINEER IN WRITING, THE ENGINE DISCLAMS ALL LIABILITY ASSOCIATED WITH THE REUSE, ALTERATION OR

ABBREVIATIONS

AGI ABOVE GRADE LEVEL G.C. GENERAL CONTRACTOR RADIO FREQUENCY TO BE DETERMINED AWG AMERICAN WIRE GAUGE MGB MASTER GROUND BUS TO BE REMOVED **BCW** BARE COPPER WIRE MIN MINIMIIM TO BE REMOVED & REPLACED BTS BASE TRANSCEIVER STATION PROPOSED NFW EXISTING EXISTING N.T.S. NOT TO SCALE TYP TYPICAL **EQUIPMENT GROUND** RFF FG REFERENCE

REQUIRED

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SITE NAME:

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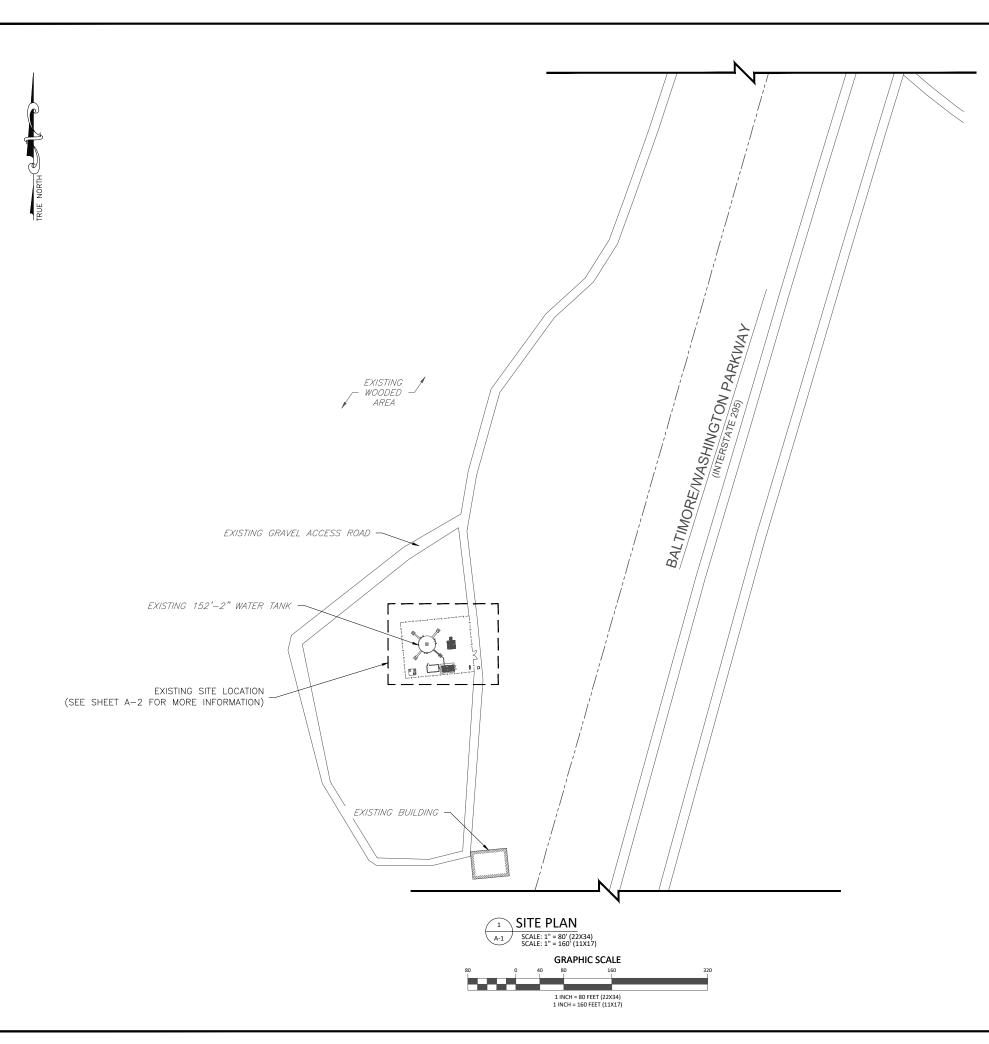
7WAS039C

SITE ADDRESS:

EDMONSTON ROAD
GREENBELT, MARYLAND 20770

GENERAL NOTES, RF NOTES, CABLING NOTES

GN-1



NOTES

- CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING
- CONSTRUCTION TO COMMENCE UPON COMPLETION OF A PASSING STRUCTURAL ANALYSIS. STRUCTURAL ANALYSIS TO BE PERFORMED BY CENTERLINE COMMUNICATIONS.
- REFERENCE STRUCTURAL ANALYSIS BY CENTERLINE COMMUNICATIONS FOR FURTHER INFORMATION REGARDING THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THIS FOUIPMENT UPGRADE
- REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA MODELS AND SETTINGS.

SEC. 27-445.04. ANTENNAS, MONOPOLES, AND RELATED EQUIPMENT BUILDINGS FOR WIRELESS TELECOMMUNICATIONS (RESIDENTIAL).

(A) ANTENNAS, MONOPOLES, AND RELATED EQUIPMENT BUILDINGS PERMITTED (P) IN THE

(A) UNLESS OTHERWISE, BOUNDEDGES, AND REDAILED COOPERING DELIZIONS FERMINED (F) IN TABLE OF USES SHALL BE SUBJECT TO THE FOLLOWING REQUIREMENTS:

(1) THE ANTENNA SHALL COMPLY WITH THE FOLLOWING STANDARDS:

(A) UNLESS OTHERWISE PROHIBITED BELOW, IT SHALL BE CONCEALED WITHIN THE OPAQUE EXTERIOR OF A STRUCTURE OR BE ATTACHED TO A PUBLIC UTILITY, RADIO, TELEVISION, OR TELECOMMUNICATIONS BROADCASTING TOWER/MONOPOLE; A LIGHT POLE; A MULTIFAMILY DWELLING AT LEAST FIVE (5) STORIES IN HEIGHT; A STRUCTURE OWNED BY A MUNICIPALITY, THE BOARD OF EDUCATION FOR PRINCE GEORGE'S COUNTY, OR BY PRINCE GEORGE'S COUNTY; OR A STRUCTURE OWNED AND PRIMARILY USED BY A GOVERNMENT AGENCY THAT IS EXEMPT FROM THE REQUIREMENTS OF THIS SUBTITLE;

(B) IT SHALL NOT EXTEND MORE THAN FIFTEEN (15) FEET ABOVE THE HEIGHT OF THE TOWER OR STRUCTURE TO WHICH IT IS ATTACHED;
(C) IT SHALL NOT EXCEED THE FOLLOWING DIMENSIONS:

- (I) TWENTY (20) FEET IN LENGTH AND SEVEN (7) INCHES IN DIAMETER FOR WHIPS:
- (II) TEN (10) FEET IN LENGTH AND TWO (2) FEET IN WIDTH FOR PANELS; (III) SEVEN (7) FEET IN LENGTH AND ONE (1) FOOT IN DIAMETER FOR CYLINDERS;
- (IV) SEVEN (7) FEET IN DIAMETER FOR PARABOLIC DISHES; AND (D) ON PRIVATELY OWNED LAND, IT SHALL NOT SUPPORT LIGHTS OR SIGNS UNLESS REQUIRED FOR AIRCRAFT WARNING OR OTHER SAFETY REASONS.
- (2) THE RELATED TELECOMMUNICATIONS EQUIPMENT BUILDING OR ENCLOSURE SHALL
- (2) THE RELATED TELECOMMUNICATIONS EQUIPMENT BUILDING OR ENCLOSURE SHALL COMPLY WITH THE FOLLOWING STANDARDS:

 (A) IT SHALL NOT EXCEED FIVE HUNDRED SIXTY (560) SQUARE FEET OF GROSS FLOOR AREA OR TWELVE (12) FEET IN HEIGHT;
- (B) THE BUILDING OR ENCLOSURE SHALL BE SCREENED BY MEANS OF LANDSCAPING OR BERMING TO ONE HUNDRED PERCENT (100%) OPACITY FROM ANY ADJOINING LAND IN
- A RESIDENTIAL ZONE (OR LAND PROPOSED TO BE USED FOR RESIDENTIAL PURPOSES ON AN APPROVED BASIC PLAN FOR A COMPREHENSIVE DESIGN ZONE, OR ANY APPROVED CONCEPTUAL OR DETAILED SITE PLAN);

 (C) WHEN ATTACHED TO AN EXISTING BUILDING, IT SHALL MATCH THE CONSTRUCTION
- MATERIAL AND COLOR(S) OF THAT BUILDING;

 (D) WHEN CONSTRUCTED AS A FREESTANDING BUILDING, IT SHALL BE CONSTRUCTED

 OF BRICK AND ITS DESIGN SHALL COORDINATE WITH THE DESIGN OF ANY EXISTING MAIN BUILDING ON THE SAME LOT OR ON AN ADJOINING LOT; AND
- (E) THE BUILDING OR ENCLOSURE SHALL BE UNMANNED, WITH INFREQUENT (FOUR (4) OR FEWER PER YEAR) VISITS BY MAINTENANCE PERSONNEL, AND WITH ACCESS AND
- (4) OR FERRING FOR NO MORE THAN ONE (1) VEHICLE.

 (3) THE MONOPOLE SHALL COMPLY WITH THE FOLLOWING STANDARDS:
 (A) THE MAXIMUM HEIGHT SHALL BE ONE HUNDRED NINETY—NINE (199) FEET WHEN
- LOCATED ON PUBLIC PROPERTY OR ONE HUNDRED (100) FEET WHEN LOCATED ON ALL
- LOCATED ON PUBLIC PROPERTY OF STREET OF THE MINIMUM SETBACK FROM ALL ADJOINING LAND AND DWELLING UNITS SHALL BE EQUAL TO THE HEIGHT OF THE STRUCTURE MEASURED FROM ITS BASE; FOR PUBLICLY OWNED LAND, THE MINIMUM SETBACK SHALL BE ONE—HALF (1/2) OF THE HEIGHT OF THE STRUCTURE MEASURED FROM THE BASE TO THE ADJOINING PROPERTY LINES;
- (C) ON PRIVATELY OWNED LAND, THE STRUCTURE SHALL NOT SUPPORT LIGHTS OR SIGNS UNLESS REQUIRED FOR AIRCRAFT WARNING OR OTHER SAFETY REASONS;
- (D) THE STRUCTURE SHALL BE DESIGNED, GALVANIZED, AND/OR PAINTED IN A MANNER WHICH IS HARMONIOUS WITH SURROUNDING PROPERTIES;
 (E) THE APPLICANT SHALL PROVIDE CERTIFICATION FROM A REGISTERED ENGINEER THAT THE STRUCTURE WILL WEET THE APPLICABLE DESIGN STANDARDS FOR WIND LOADS
- OF THE ELECTRONIC INDUSTRIES ASSOCIATION (EIA) FOR PRINCE GEORGE'S COUNTY; AND (F) ANY MONOPOLE WHICH IS NO LONGER USED FOR TELECOMMUNICATIONS
- PURPOSES FOR A CONTINUOUS PERIOD OF ONE (1) YEAR SHALL BE REMOVED BY THE MONOPOLE OWNER AT OWNER'S EXPENSE. (CB-61-1988; CB-81-1993; CB-123-1994; CB-103-1997; CB-13-1998;

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PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

USDA - LAUREL

SITE ID:

7WAS039C SITE ADDRESS:

EDMONSTON ROAD GREENBELT, MARYLAND 20770

SITE PLAN

DRAWING

A-1

T - Mobile NORTHEAST LLC T-MOBILE NORTHEAST, LLC. 12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 2070 PHONE: (240) 264-8600 FAX: (240) 264-8610 CENTERLINE 750 W CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 PHONE: 781.713.4725 REVISIONS

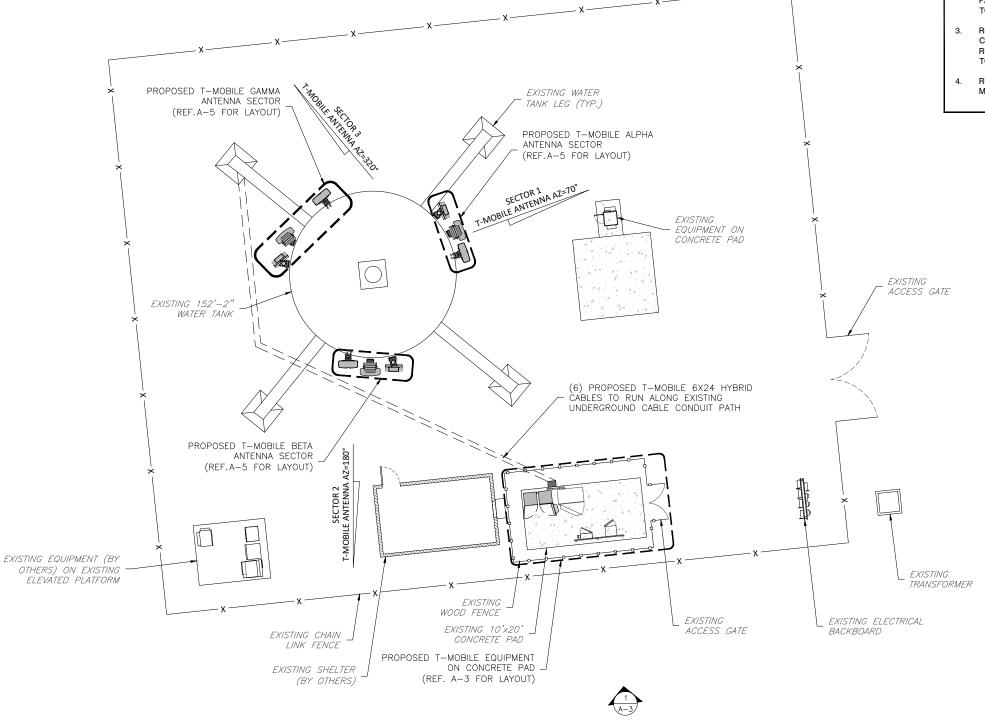
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COMPOUND PLAN SCALE: 1/8" = 1' (22X34) SCALE: 1/16" = 1' (11X17)

> **GRAPHIC SCALE** 0 1 2 4

1/8 INCH = 1 FOOT (22X34) 1/16 INCH = 1 FOOT (11X17)

NOTES

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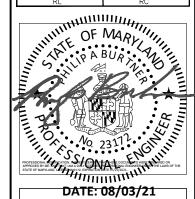
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ΕV	DATE	DESCRIPTION	ΒY
		·	

DESIGNED BY:



DATE: 08/03/21

PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

SITE ID:

USDA - LAUREL

7WAS039C

SITE ADDRESS:

EDMONSTON ROAD GREENBELT, MARYLAND 20770

SHEET TITLE:

COMPOUND PLAN

A-2

EXISTING UNDERGROUND

EXISTING RBS 2106 CABINET (TO BE REMOVED)

CABLE CONDUIT (TYP.)

(TO REMAIN)

NOTES

- CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
- REFERENCE STRUCTURAL ANALYSIS FOR FURTHER INFORMATION REGARDING THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THIS EQUIPMENT UPGRADE.
- REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA MODELS AND SETTINGS.

EXISTING 10'x20' CONCRETE PAD

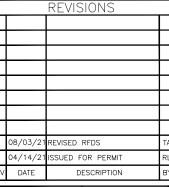


T - Mobile

NORTHEAST LLC

T-MOBILE NORTHEAST, LLC. 12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 20705 PHONE: (240) 264-8600 FAX: (240) 264-8610

750 W CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 PHONE: 781.713.4725



DESIGNED BY



DATE: 08/03/21

PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

USDA - LAUREL

SITE ID:

7WAS039C

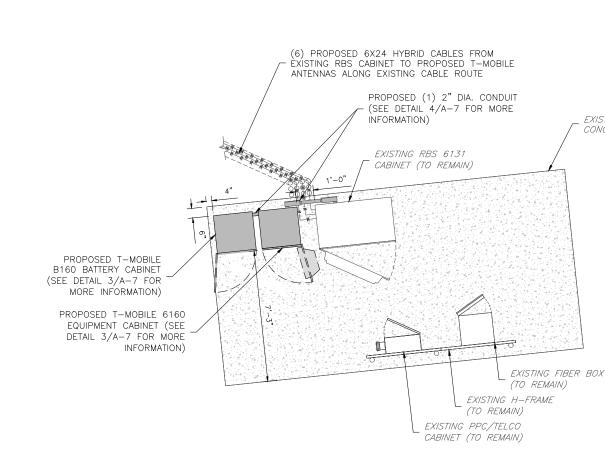
SITE ADDRESS:

EDMONSTON ROAD GREENBELT, MARYLAND 20770

DRAWING

EQUIPMENT LAYOUT PLANS

A-3





EXISTING 3X6 HYBRID CABLES

EXISTING RBS 6131

CABINET (TO REMAIN)

EXISTING 10'x20' CONCRETE PAD

EXISTING FIBER BOX

(TO REMAIN)

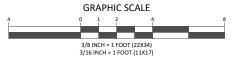
EXISTING H-FRAME

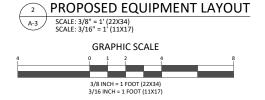
(TO REMAIN)

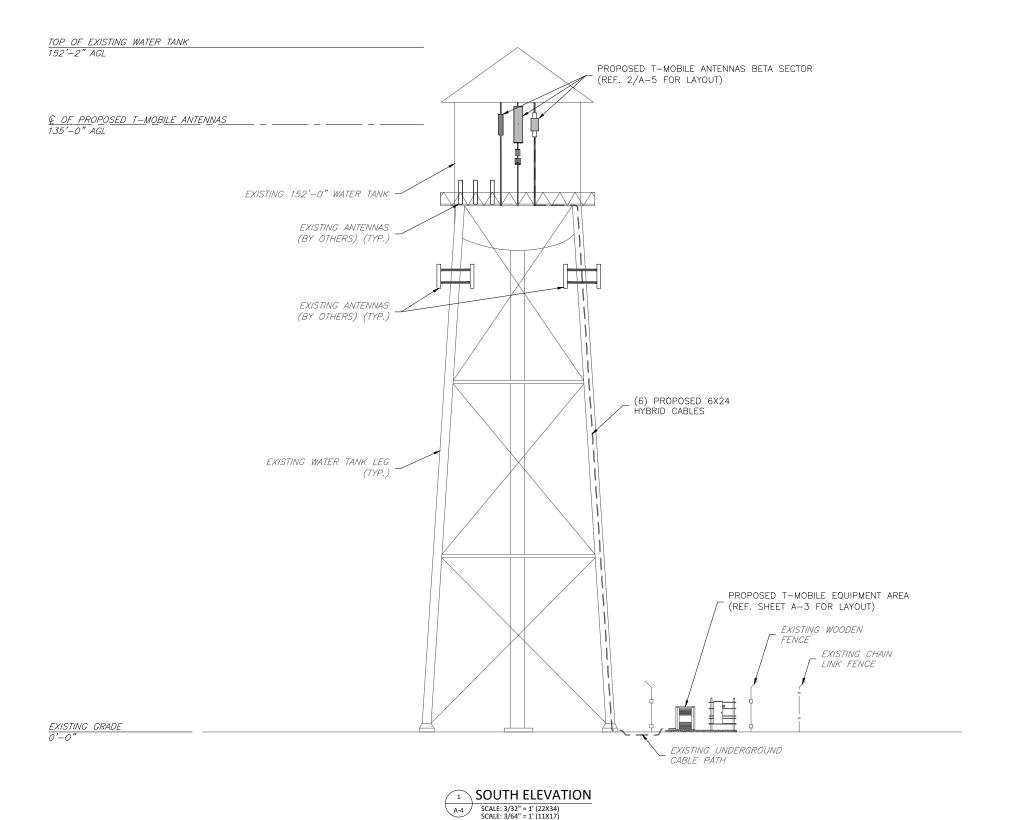
EXISTING PPC/TELCO

CABINET (TO REMAIN)

(TO BE REMOVED)







GRAPHIC SCALE 012 4 8

3/32 INCH = 1 FOOT (22X34) 3/64 INCH = 1 FOOT (11X17)



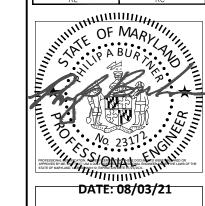
T-MOBILE NORTHEAST, LLC. 12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 20705 PHONE: (240) 264-8600 FAX: (240) 264-8610



750 W CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 PHONE: 781.713.4725

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DESIGNED BY:



PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

USDA - LAUREL SITE ID:

7WAS039C

SITE ADDRESS:

EDMONSTON ROAD GREENBELT, MARYLAND 20770

SOUTH ELEVATION

DRAWING:

A-4

NOTES:

- REFERENCE LATEST STRUCTURAL / MOUNT ANALYSIS BY CENTERLINE COMMUNICATIONS DATED XX/XX/2021 FOR MORE STRUCTURAL INFORMATION
- REFER TO THE FINAL RF DATA SHEET FOR
- REMOVE ALL UNUSED CABLE, RRUS AND

ANTENNA & CABLE SCHEDULE:

LOC	ATION	AZIMUTH	RAD CENTER	STATUS	TECHNOLOGY	ANTENNA MODEL NO.	MECH DOWNTILT	ELEC DOWNTILT	CABLES	DIPLEXERS	TMA/RRU	CABLE SIZE	CABLE LENGTH
4	A-1	70°	135'-0"	PROPOSED	L2500, N2500	AIR6449 B41	0°	3°/3°	N/A	N/A	N/A	6x24 HYBRID	±270'
LPHA	A-2	70°	135'-0"	PROPOSED	L600, L700, N600	APXVAALL24_ 43-U-NA20	0°	5°/5°	COAX JUMPER (X4)	N/A	RRUS 4480 B71+B85	6x24 HYBRID	±270'
ALI	A-3	70°	135'-0"	PROPOSED	U1900, L1900 L2100, G1900	VV-65A-R1	0°	4°/4°	COAX JUMPER (X4)	N/A	RRUS 4460 B25+B66	SHARED	N/A
	B-1	180°	135'-0"	PROPOSED	L2500, N2500	AIR6449 B41	0°	3°/3°	N/A	N/A	N/A	6x24 HYBRID	±270'
ВЕТА	B-2	180°	135'-0"	PROPOSED	L600, L700, N600 U2100, L1900	APXVAALL24_ 43-U-NA20	0°	7°/7°/0°/0°	COAX JUMPER (X4)	N/A	RRUS 4480 B71+B85	6x24 HYBRID	±270'
	B-3	180°	135'-0"	PROPOSED	U1900, L1900 L2100, G1900	VV-65A-R1	0°	4°/4°	COAX JUMPER (X4)	N/A	RRUS 4460 B25+B66	SHARED	N/A
1A	G-1	320°	135'-0"	PROPOSED	L2500, N2500	AIR6449 B41	0°	3°/3°	N/A	N/A	N/A	6x24 HYBRID	±240'
GAMMA	G-2	320°	135'-0"	PROPOSED	L600, L700, N600 U2100, L1900	APXVAALL24_ 43-U-NA20	0°	5°/5°/0°/0°	COAX JUMPER (X4)	N/A	RRUS 4480 B71+B85	6x24 HYBRID	±240'
₽ 75	G-3	320°	135'-0"	PROPOSED	U1900, L1900 L2100, G1900	VV-65A-R1	0°	4°/4°	COAX JUMPER (X4)	N/A	RRUS 4460 B25+B66	SHARED	N/A
	NOTE: DARK TEXT IN TABLE ABOVE DENOTES PROPOSED EQUIPMENT TOTAL 6x12 HYBRID CABLE ±1560'												

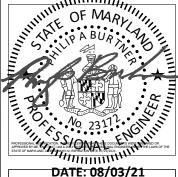




750 W CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 PHONE: 781.713.4725

		REVISIONS	
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APPROVED BY:



DATE: 08/03/21

PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

USDA - LAUREL

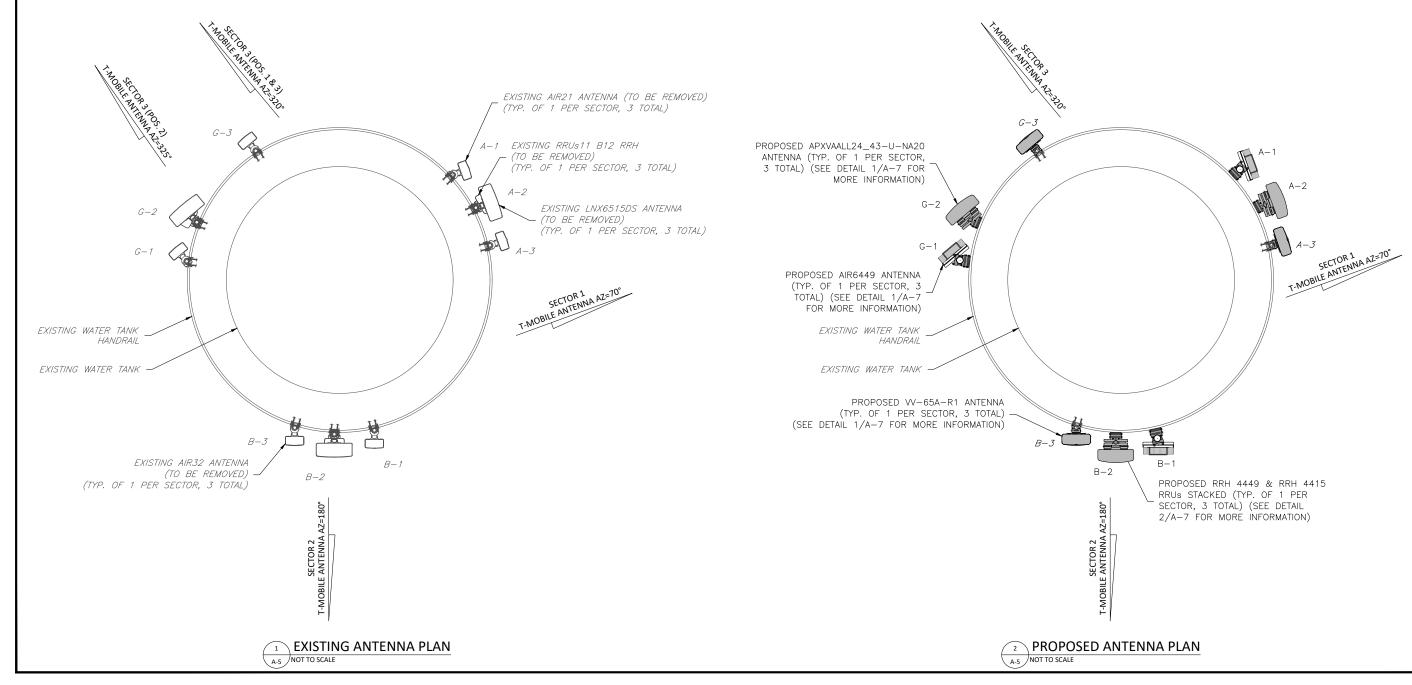
SITE ID: 7WAS039C

SITE ADDRESS:

EDMONSTON ROAD GREENBELT, MARYLAND 20770

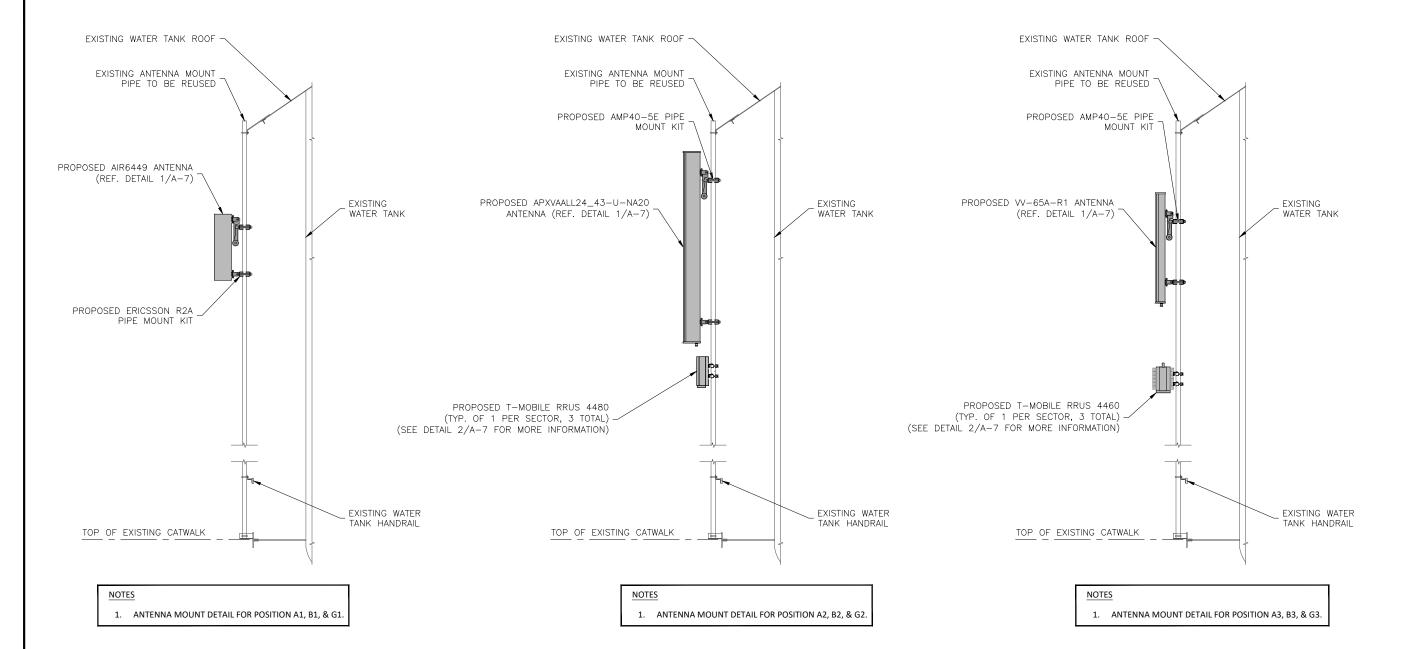
ANTENNA PLANS & SCHEDULE

A-5





- 1. AIR 32: KATHREIN SCALA PIPE MOUNT KIT # P/N 85010070
- 2. AIR6449: ERICSSON R2A PIPE MOUNT KIT
- APXVAALL24-43-U-NA20: APM40-5E PIPE MOUNT KIT



ANTENNA MOUNTING DETAIL A-6 NOT TO SCALE



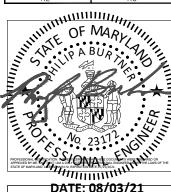
T-MOBILE NORTHEAST, LLC. 12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 20705 PHONE: (240) 264-8600 FAX: (240) 264-8610



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		REVISED RFDS	TA
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DESIGNED BY:



DATE: 08/03/21

PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

USDA - LAUREL

SITE ID:

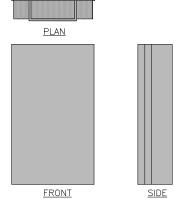
7WAS039C

SITE ADDRESS:

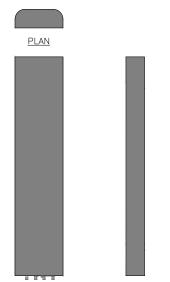
EDMONSTON ROAD GREENBELT, MARYLAND 20770

ANTENNA & RRU MOUNTING DETAILS

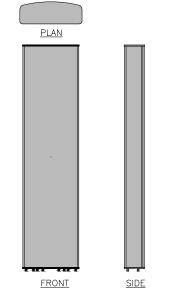
ERICSSON AIR 6449 B41				
AIR 6449 B41				
ERICSSON				
33.1"				
20.6"				
8.6"				
104.0 LBS				



CON	COMMSCOPE VV-65A-R1						
MODEL #	VV-65A-R1						
MANUF.	COMMSCOPE						
HEIGHT	54.724"						
WIDTH	12.087"						
DEPTH	4.646						
WEIGHT	23.81/32.408 LBS WITH MOUNTING HARDWARE						



RFS A	PXVAALL24_43-U-NA20
MODEL #	APXVAALL24_43-U-NA20
MANUF.	RFS
HEIGHT	95.9"
WIDTH	24.0"
DEPTH	8.5"
WEIGHT	128/153.3 LBS with
	Mounting Hardware





FRONT

cification	for	Enclosure	6160	AC

0 0 0 0

CAPACITY	
Rack space user equipment	19U (19* rack)
Hardware capabilities	Power and CPRI support for multi-standard remote radios (RRU or AIR)
	ERS Baseband and Transport units
	Li-lon batteries
	3PP equipment
	Additional power feed available as option
MECHANICAL SPECIFICATION	I.
Weight	145 kg (excluding active equipment) 320 lbs (excluding active equipment)
Dimension (H x W x D)	1500 x 550 x 550 mm (incl. Base frame) 53 x 25 x 25 in. (incl. Base frame)
Base frame height	150 mm 6 in.
Mounting position	Ground
Enclosure material	Aluminum
Color	Power paint NCS 2002-B
Door	Front access
Rack type	19" (IEC 60297-3-100)
Looking type	Pad lock or Cylinder

Capacity

-	VRLA 12V:	100Ah / 150Ah / 170Ah / 190Ah / 210Ah
	1.1.7	2411101112711

— Li-Ion: 24U 19" / 23" — Sodium-Nickel: 3x FIAMM

Electrical specification — DC Output: -48VDC/200A

Battery breakers: 2x 125/2p

Door open, Climate failure, MCB Connection — Alarms:

Mechanical specification

— Weight:

Dimensions: 63 x 26 x 26 in. (incl. Base frame)

Base frame height: 6 in.

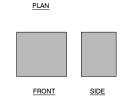
— Material: Galvanized steel (180g/m²) Powder paint NCS 2002-B — Color: — Door: Pad lock / cylinder Locking type:

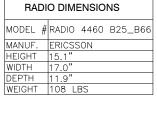
6160 EQUIPMENT ENCLOSURE

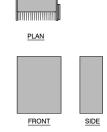
B160 BATTERY ENCLOSURE

PROPOSED EQUIPMENT CABINET SPECIFICATIONS



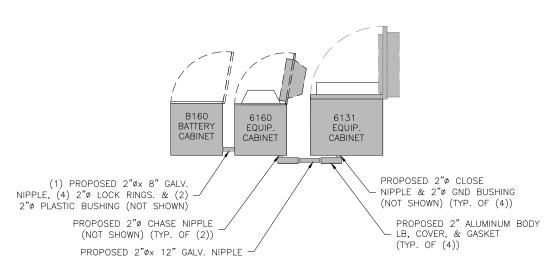






RADIO DIMENSIONS				
MODEL #	RADIO 4480 B66			
MANUF.	ERICSSON			
HEIGHT	19.5"			
WIDTH	15.1"			
DEPTH	7.8"			
WEIGHT	87 LBS			

² RADIO DETAILS



NEW EQUIPMENT CONDUIT DETAIL

T - Mobile NORTHEAST LLC

T-MOBILE NORTHEAST, LLC. 12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 20705 PHONE: (240) 264-8600 FAX: (240) 264-8610



750 W CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 PHONE: 781.713.4725

		REVISIONS	
		REVISED RFDS	TA
	04/14/21	ISSUED FOR PERMIT	Rl
V	DATE	DESCRIPTION	B,
			_

APPROVED BY: DESIGNED BY:



DATE: 08/03/21

PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

USDA - LAUREL

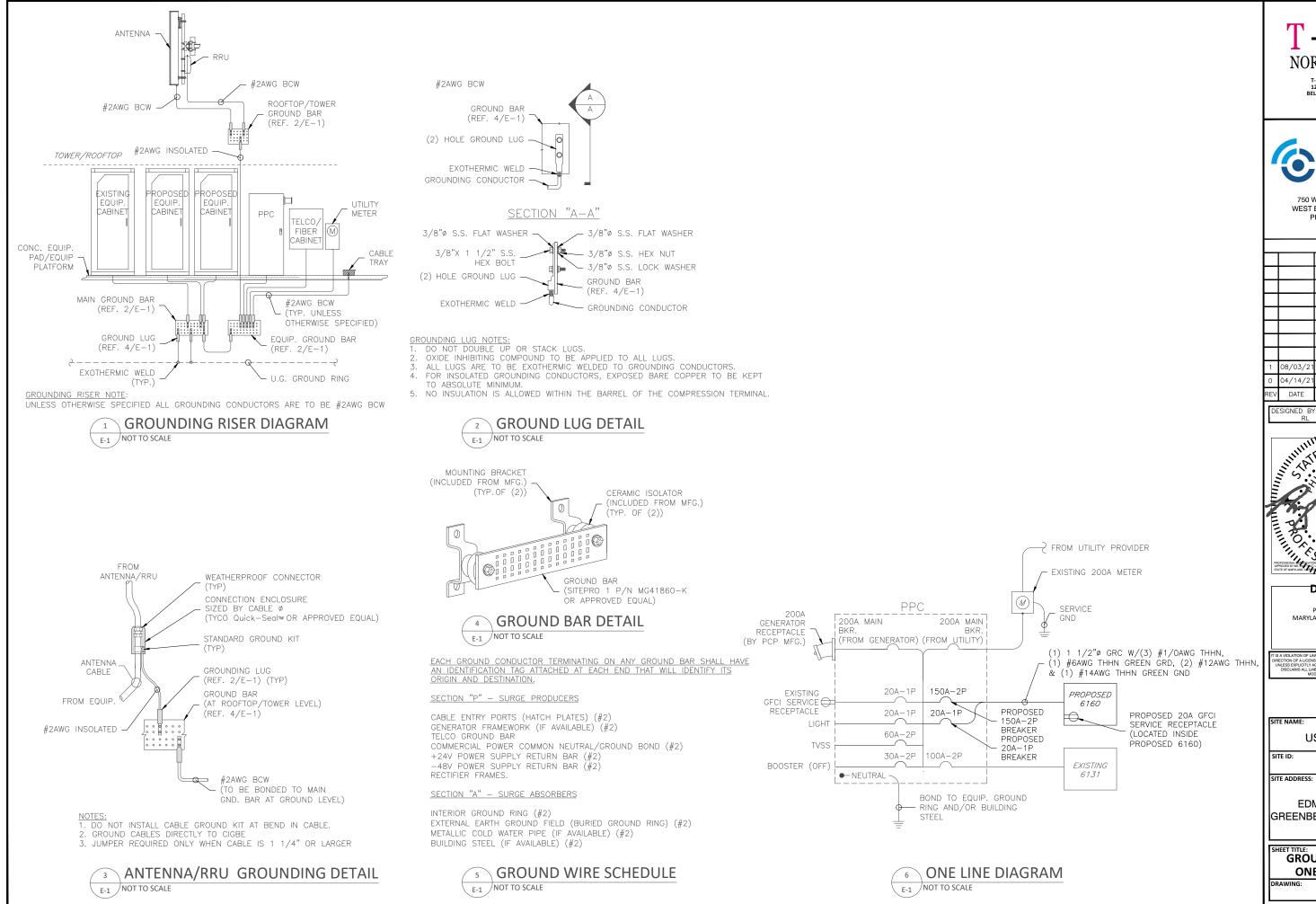
SITE ID: 7WAS039C

SITE ADDRESS:

EDMONSTON ROAD GREENBELT, MARYLAND 20770

EQUIPMENT DETAILS

A-7

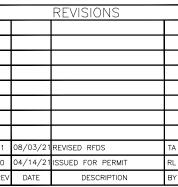


T - Mobile NORTHEAST LLC

T-MOBILE NORTHEAST, LLC. 12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 2070! PHONE: (240) 264-8600 FAX: (240) 264-8610



750 W CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 PHONE: 781.713.4725



APPROVED BY

OF MARY AND A BUR . A SUR PROFESSION AND PROPERTY OF THE PROFESSION AND PROFE

DATE: 08/03/21

PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

SITE NAME

USDA - LAUREL

7WAS039C

SITE ADDRESS:

EDMONSTON ROAD GREENBELT, MARYLAND 20770

GROUNDING DETAILS & ONE LINE DIAGRAM

G-1





Revised Structural Analysis Report

Site ID: 7WAS039C Site Name: USDA - Laurel Project Name: Anchor Address: Edmonston Rd. Greenbelt, MD 20770

Client:



NORTHEAST, LLC 12050 Baltimore Avenue Beltsville, MD 20705

Date: 8/2/2021 (Rev. 1) 4/13/2021 (Rev. 0)





Scope of Work:

Centerline Communications was authorized by T-Mobile Northeast LLC to perform an analysis of the existing structure to determine its capacity to support the proposed T-Mobile equipment listed in this report.

Proposed Equipment:

- (1) Ericsson 6160 Cabinet (Max. Weight = 605 lbs.)
- (1) Ericsson B160 Cabinet (Max. Weight = 1900 lbs.)

Existing Equipment:

- (1) Ericsson RBS 6131 (Approx. Weight = 1400 lbs.)
- (1) PPC (Approx. Weight = 150 lbs.)
- (1) Fiber Box (Approx. Weight = 250 lbs.)

Proposed Appurtenances:

- (3) APXVAALL24_43-U-NA20 Antennas
- (3) VV-65A-R1 Antennas
- (3) AIR6449 B41 Antennas
- (3) 4480 B71+B85 RRHs
- (3) 4460 B25+B66 RRHs



Design Criteria:

Design Codes:

2018 International Building Code
ASCE 7-16
TIA-222-H Standards
Maryland Building Performance Standards (MBPS)

Ultimate Wind Speed	120 mph
Wind Speed with Ice	40 mph
Ice Thickness	1 in.
Exposure Category	В
Topographic Method	Method 1, Cat. 1
Structure Class	III
Site Soil Class (Assumed)	D-Stiff Soil
Seismic Design Category	В
Spectral Response Acceleration Parameter at a Short Periods, S _S	0.132 g
Spectral Response Acceleration Parameter at a Period of 1 Second, S ₁	0.043 g
Short Period Site Coefficient, Fa	1.6
Long Period Site Coefficient, F _v	2.4
Ground Snow Load, Pg	25 psf

^{*}Refer to calculations for additional design criteria.

Conclusions:

Based on the results of the analysis, we have determined that the existing structure *is adequate* to support the proposed and existing T-Mobile equipment loading.

Based on the results of the analysis, we have determined that the existing mounts <u>are adequate</u> to support the proposed T-Mobile equipment loading.

	Stress Ratio	Overall Result
Existing Mount	75%	PASS



Reference Documents:

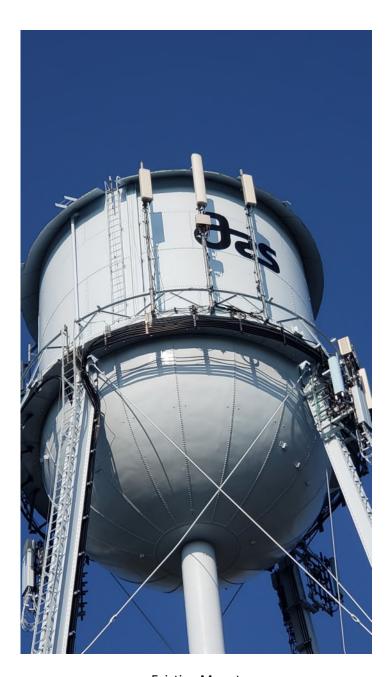
- T-Mobile RFDS # 7WAS039C_Anchor_4, dated 07/26/2021
- Structural Analysis by Entrex, dated 04/07/2017
- Construction Drawings by Entrex, dated 04/07/2017

Assumptions and Limitations:

- The calculations performed by Centerline Communications are limited to the structural members in these calculations only.
- The existing structure is assumed to have been correctly designed and installed.
- The equipment pad is assumed to provide adequate structural support the proposed T-Mobile equipment.
- The analysis is only for the T-Mobile equipment loading listed in the report.
- The calculation assumes all structural members to be in good condition i.e. no damage, rust, or other defects.



Photos:



Existing Mount





Existing Equipment Pad



Design Calculations



Address:

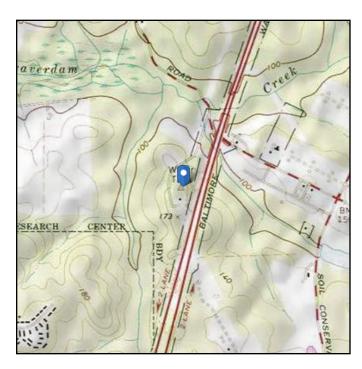
No Address at This Location

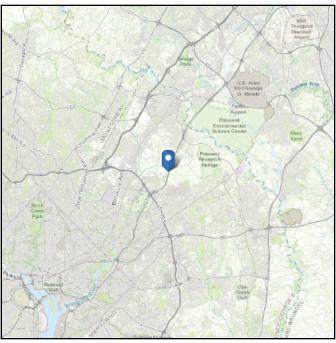
ASCE 7 Hazards Report

Standard: ASCE/SEI 7-16 Elevation: 172.48 ft (NAVD 88)

Risk Category: III Latitude: 39.017

Soil Class: D - Stiff Soil Longitude: -76.860861





Wind

Results:

Wind Speed: 120 Vmph
10-year MRI 75 Vmph
25-year MRI 84 Vmph
50-year MRI 89 Vmph
100-year MRI 95 Vmph

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

Date Accessed: Mon Apr 12 2021

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 3% probability of exceedance in 50 years (annual exceedance probability = 0.000588, MRI = 1,700 years).

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



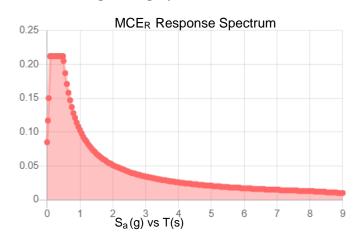
Seismic

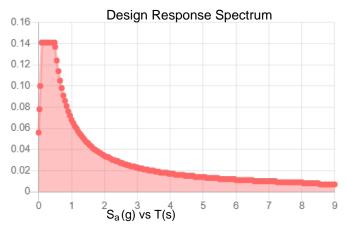
Site Soil Class:	D - Stiff Soil
Descriter	

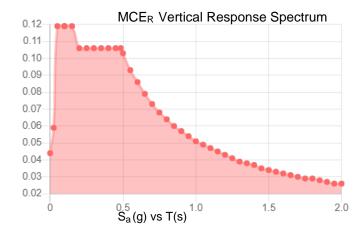
Results:

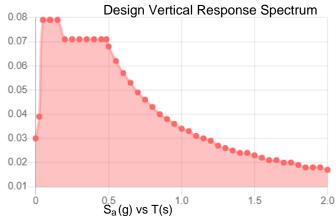
S _s :	0.132	S _{D1} :	0.068
S_1 :	0.043	T _L :	8
F _a :	1.6	PGA:	0.068
F_{ν} :	2.4	PGA _M :	0.109
S _{MS} :	0.212	F _{PGA} :	1.6
S _{M1} :	0.103	l _e :	1.25
S _{DS} :	0.141	C_v :	0.7

Seismic Design Category B









Data Accessed: Mon Apr 12 2021

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: 1.00 in.

Concurrent Temperature: 15 F

Gust Speed: 40 mph

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

Date Accessed: Mon Apr 12 2021

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

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

Snow

Results:

Ground Snow Load, p_g : 25 lb/ft 2 Elevation: 172.5 ft

Data Source: ASCE/SEI 7-16, Table 7.2-8

Date Accessed: Mon Apr 12 2021

Values provided are ground snow loads. In areas designated "case study required," extreme local variations in ground snow loads preclude mapping at this scale. Site-specific case studies are required to establish ground snow

loads at elevations not covered.



The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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 7 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 7 Hazard Tool.



↑ 750 West Center Street, Suite 301 West Bridgewater, MA 02379

781.713.4725

Site Details		
Site Name	USDA - Laurel	
Carrier	T-Mobile	
City, State	Greenbelt, MD	
Project	Anchor	

Mount Details			
Mount Type	Pipe Mount		
Mount Height, z	135	ft	
Number of Sectors	3		
Structure Type	Water Tank		
Structure Height, h	152.2	ft	

Topographic Factors							
Topographic Procedure No Topo							
Feature	Flat						
Crest Height, H	N/A	ft					
Distance from Crest, x	N/A	ft					
Slope (H/L)	N/A						
Topographic Factor, K _{zt}	1.00						

Seismic Factors							
Importance Factor, I _E	1.15						
Short Period Spectral Acceleration, S_s	0.132	g					
1 Second Period Spectral Acceleration, S ₁	0.043	g					
Long-Period Transition Period, T _L	8						
Design Category	В						
Short Period Site Coefficient, F _a	1.60						
Long-Period Site Coefficient, F _v	2.4						

Site Parameters								
Wind Speed, V	V 120 r							
Wind Speed with Ice, V _i	40	mph						
Design Ice Thickness, t _i	1	in						
Risk Category	III							
Exposure Category	В							
AMSL	172.48	ft						
Site Soil Class	D-Stiff Soil (Assumed)							

Code						
Building Code	2018 IBC					
TIA Code	TIA-222-H					
ASCE Code	7-16					

Site Constants		
Importance Factor, I	1.15	
Wind Direction Prob. Factor, K _d	0.95	
Velocity Pressure Coefficient, K _z	1.08	
Ground Elevation Factor, K _e	0.99	
Rootop Wind Speed-Up Factor, K _s	1.00	
Gust Effect Factor, G _h	1.00	
Design Ice Thickness, t _{iz}	1.32	in
Velocity Pressure, q _z	37.47	psf
Velocity Pressure with Ice, q _{zi}	4.16	psf
Shielding Factor, K _a	0.90	
Flat Velocity Pressure (Ca =2.0)	74.94	psf
Round Velocity Pressure (Ca = 1.2)	44.97	psf
Round Velocity Pressure with Ice (Ca = 1.2)	5.00	psf
Engineer Initials	АР	



- ↑ 750 West Center Street, Suite 301 West Bridgewater, MA 02379
- **781.713.4725**

Members Forces									
Member Label	Shape	Туре	w, lbs/ft	q _z , psf	W _i , lbs/ft	q _{zi} , psf	E _v , lbs./ft	V _s , lbs/ft	
Mount Pipe	PIPE_3.0	Beam	7.04	44.967	7.80	5	0.20	0.62	
Top Plate	PL6.5x3/8	Beam	8.30	74.945	12.67	5	0.23	0.73	
Handrail Connection	L2.5x2x4	Beam	3.64	74.945	7.32	5	0.10	0.32	
Bottom Connection	L3X3X4	Beam	4.90	74.945	9.00	5	0.14	0.43	



- ↑ 750 West Center Street, Suite 301 West Bridgewater, MA 02379
- **781.713.4725**

Sector 1										
		Wind Force				Dimensions	Weights			
Appurtenances	Rad. Ht., ft	Front EPA ft ²	Side EPA ft ²	0° Force lbs.	90° Force Ibs.	H/W/D, in	Wt./Wt. _{ice} , lbs.			
APXVAALL24_43-U-NA20 Antenna	135	20.24	8.73	682.68	294.53	95.9\24\8.5	148.3\314.74			
4480 B71+B85 RRH	135	2.45	1.27	82.75	42.75	19.5\15.1\7.8	87\58.66			

^{*}Dish force coefficient is calculated per Annex C of TIA-222-H, if available.



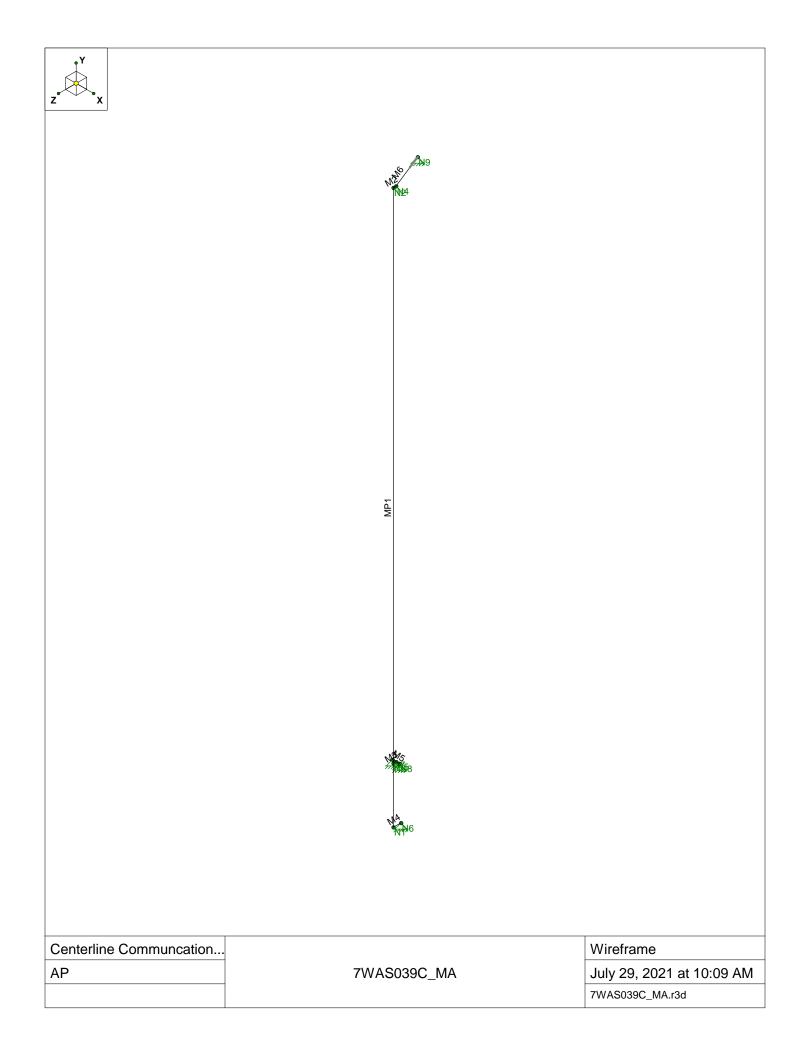
- ↑ 750 West Center Street, Suite 301 West Bridgewater, MA 02379
- **781.713.4725**

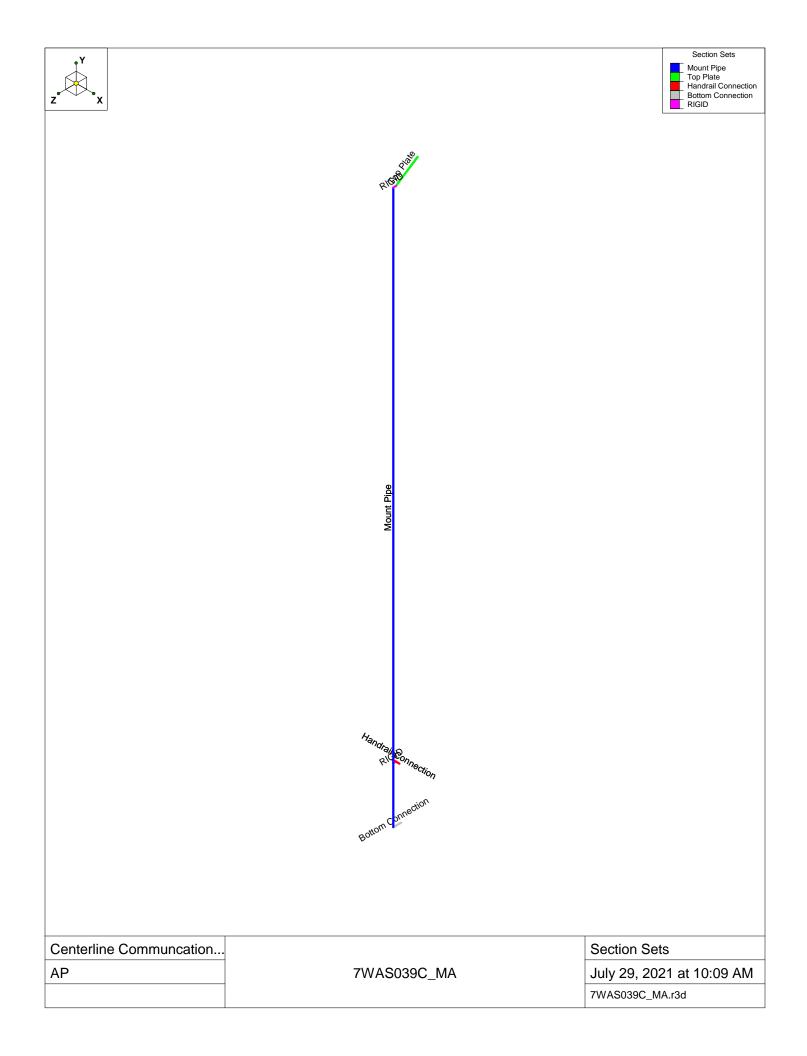
Sector 1 Continue										
		Wind Force with Ice Wind Force			e V = 30 mph Seisn		mic Force			
Appurtenances	Rad. Ht., ft	Front EPA ft ²	Side EPA ft ²	0° Force lbs.	90° Force lbs.	0° Force lbs.	90° Force lbs.	Ev, lbs	Vs, lbs	
APXVAALL24_43-U-NA20 Antenna	135	13.25	6.42	125.51	56.76	42.67	18.41	4.18	13.05	
4480 B71+B85 RRH	135	1.91	1.12	16.36	8.96	5.17	2.67	2.45	7.66	

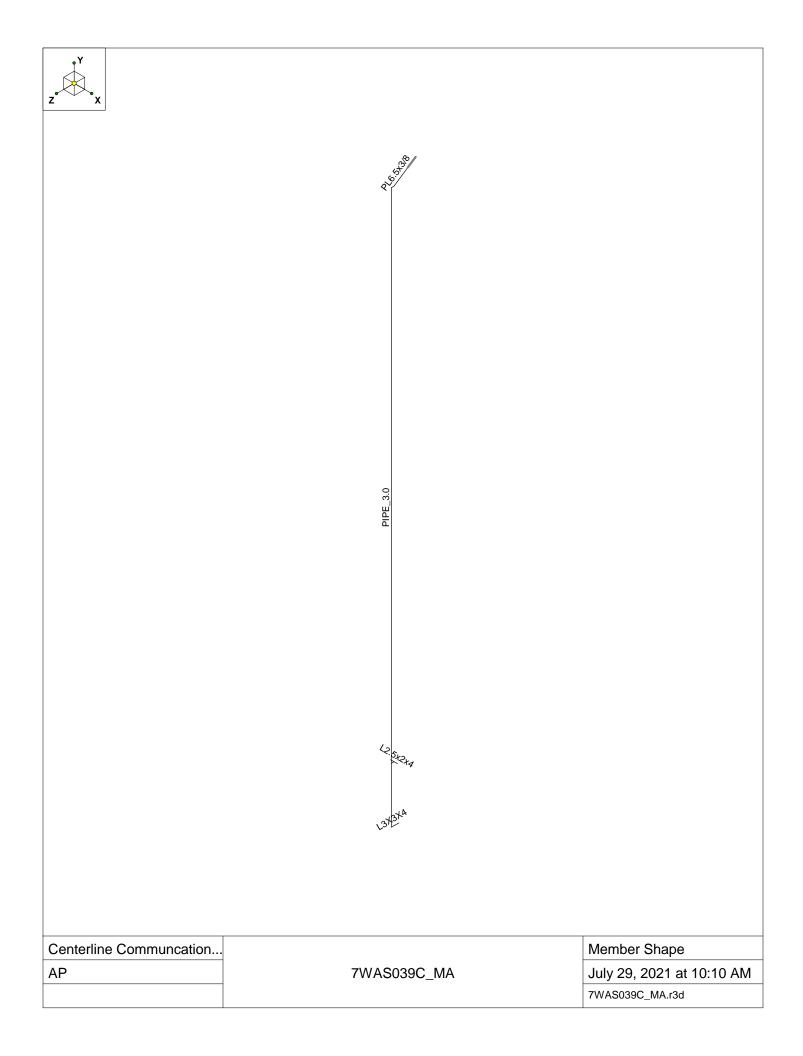


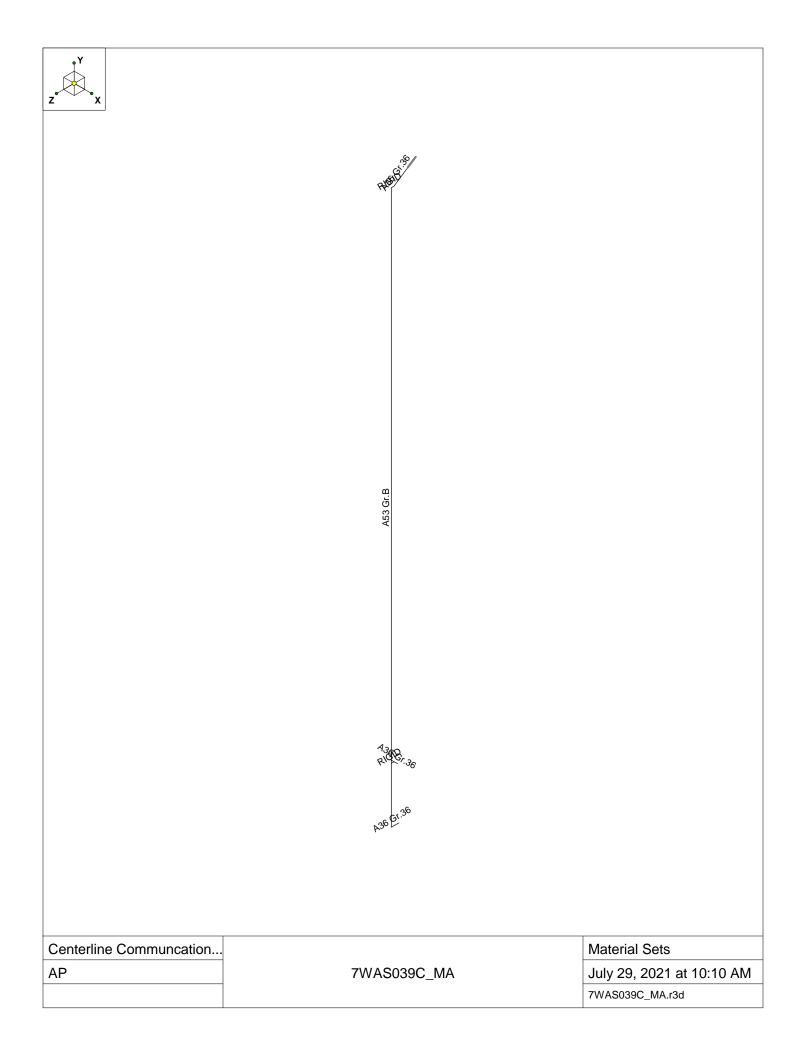
Existing Mount Results

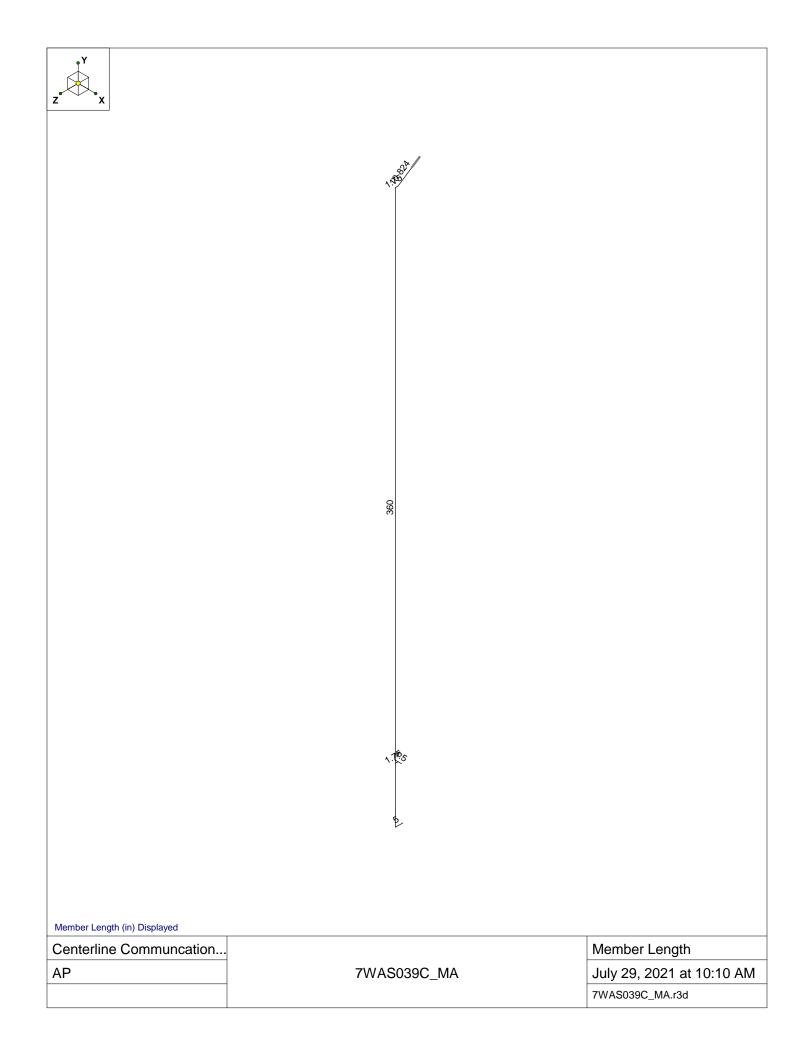


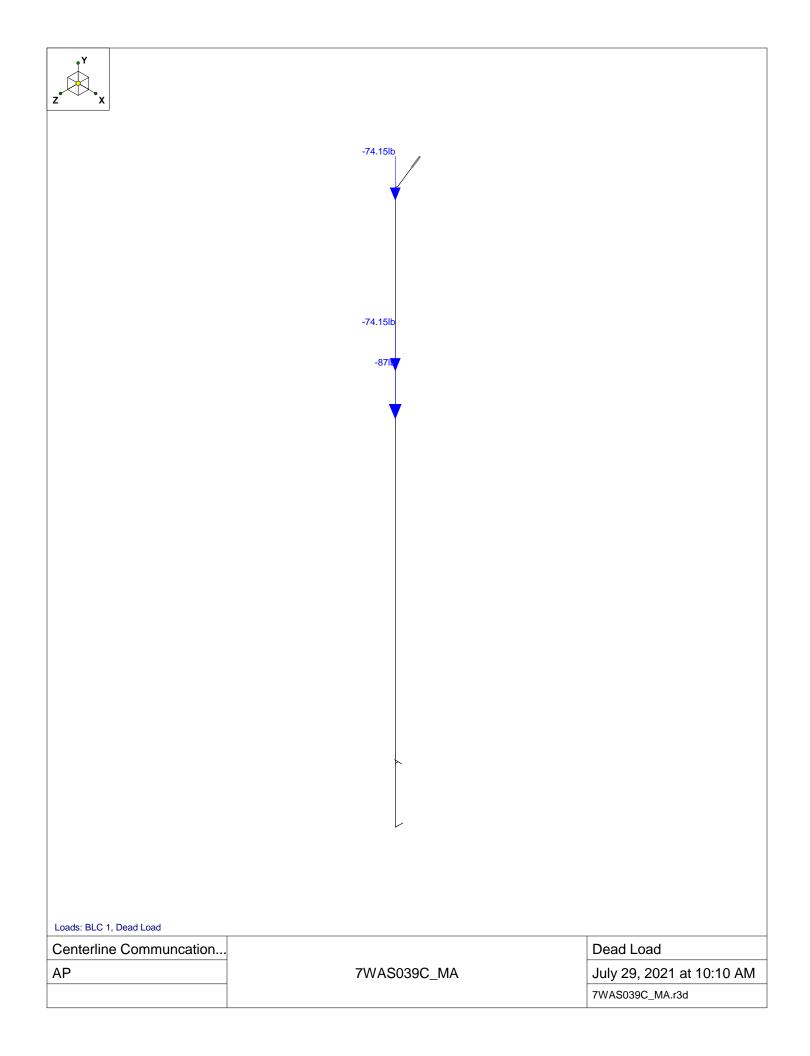


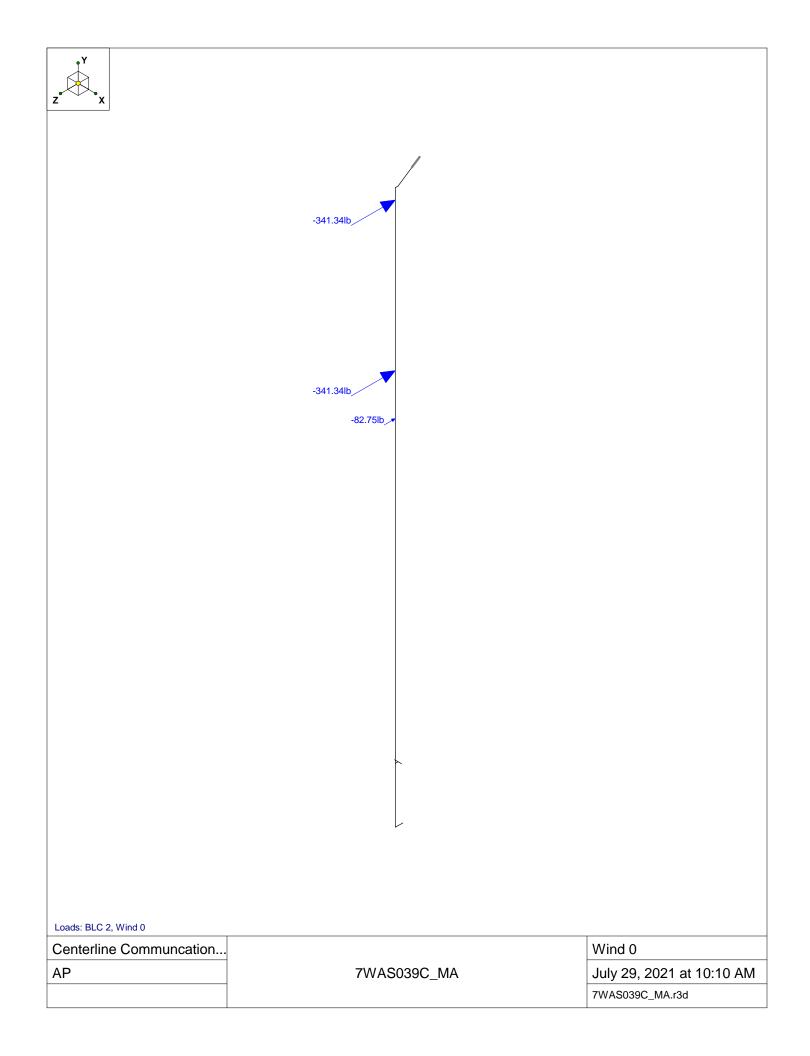


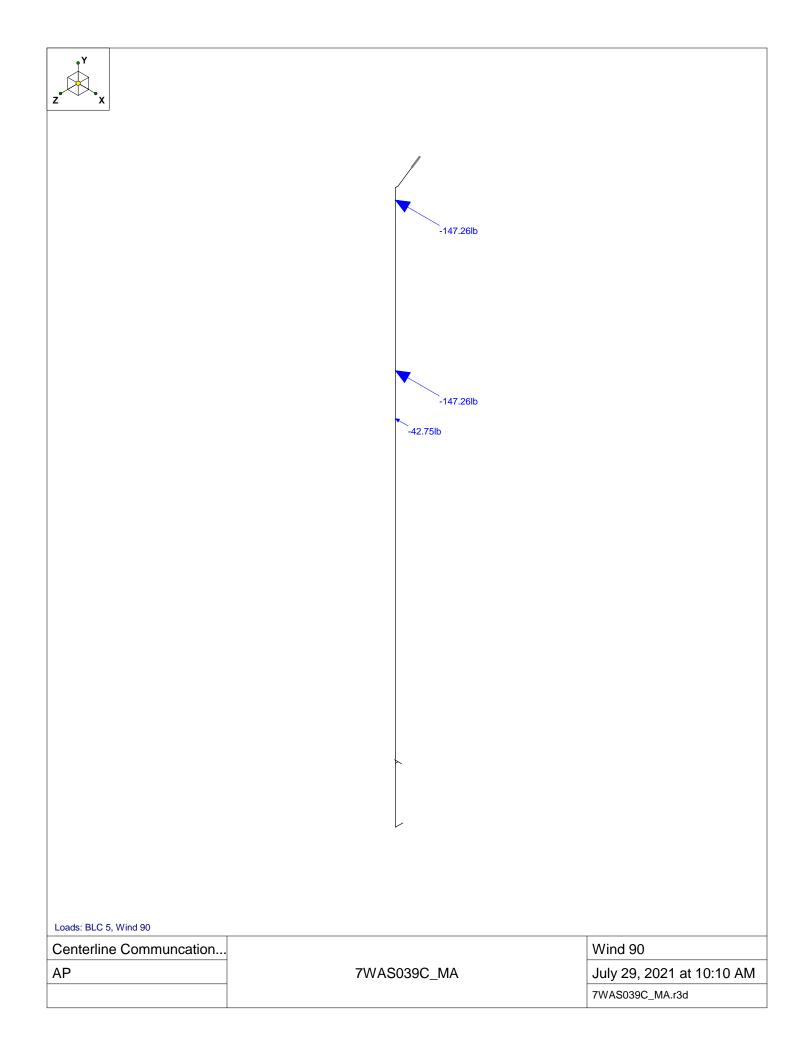










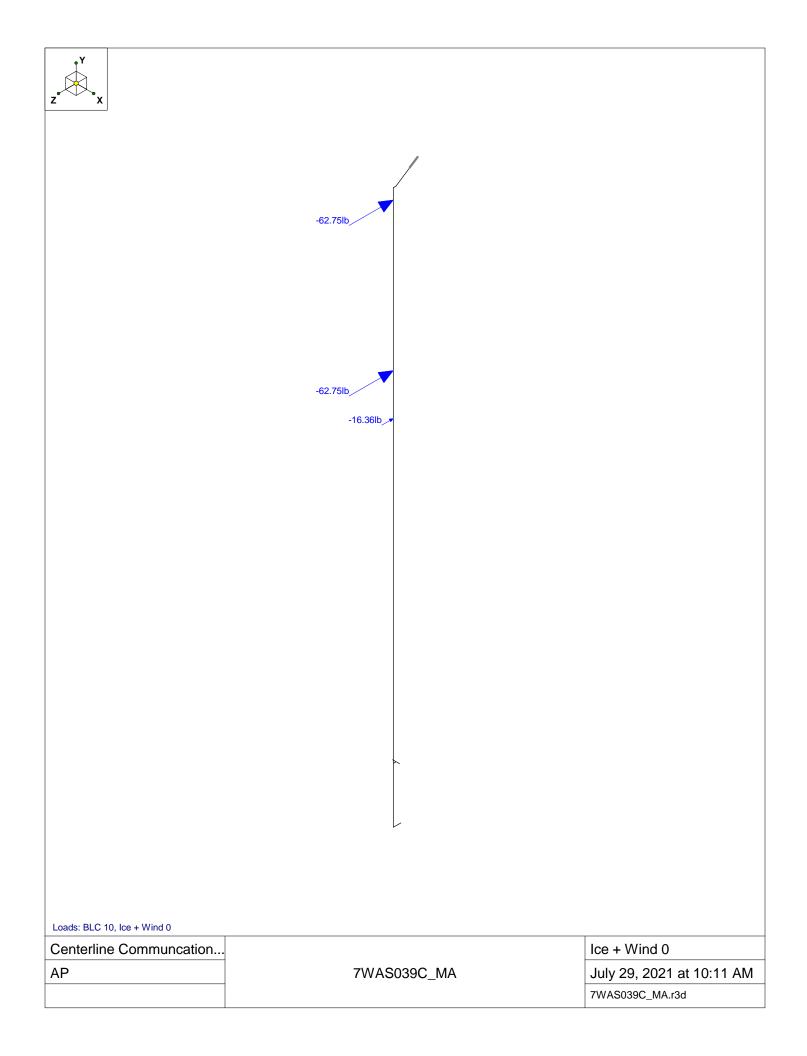


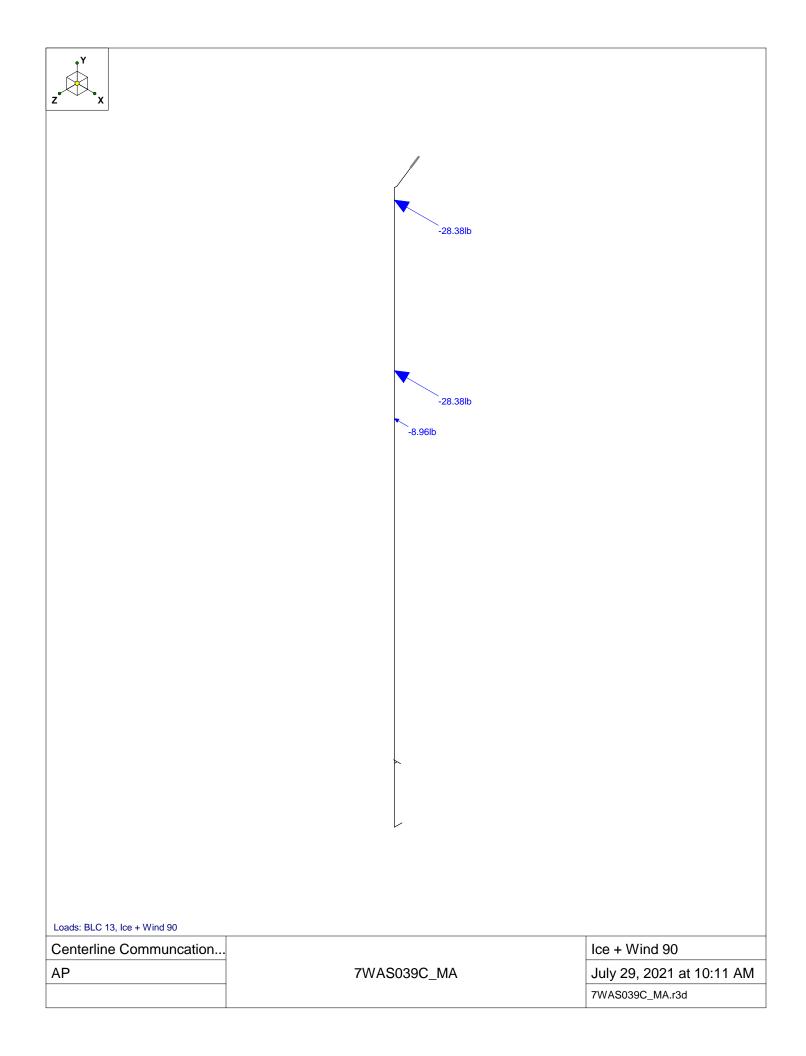




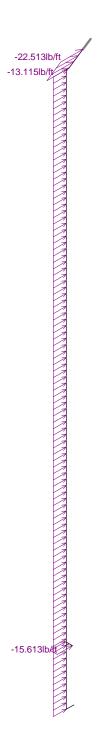
Loads: BLC 9, Ice Weight

Centerline Communcation		Ice Weight
AP	7WAS039C_MA	July 29, 2021 at 10:11 AM
		7WAS039C_MA.r3d





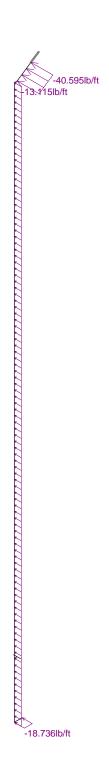




Loads: BLC 17, Distri. Wind Z

Centerline Communication		Distr. Wind 0
AP	7WAS039C_MA	July 29, 2021 at 10:11 AM
		7WAS039C_MA.r3d

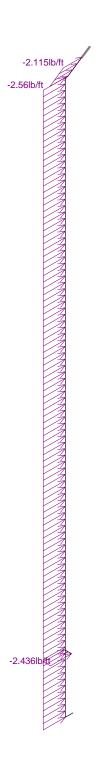




Loads: BLC 18, Distri. Wind X

Centerline Communcation		Distr. Wind 90	
AP	7WAS039C_MA	July 29, 2021 at 10:12 AM	
		7WAS039C_MA.r3d	ı

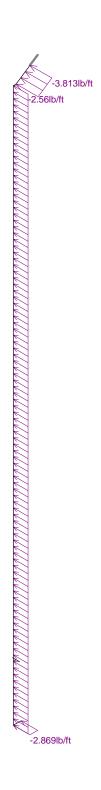




Loads: BLC 19, Distri. Ice + Wind Z

Centerline Communication		Distr. Ice + Wind 0
AP	7WAS039C_MA	July 29, 2021 at 10:12 AM
		7WAS039C_MA.r3d





Loads: BLC 20, Distrr. Ice + Wind X

Centerline Communcation		Distr. Ice + Wind 90	
AP	7WAS039C_MA	July 29, 2021 at 10:12 AM	
		7WAS039C_MA.r3d	

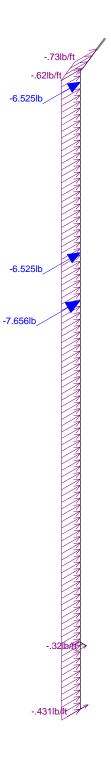




Loads: BLC 21, Seismic Load Y

Centerline Communcation		Seismic Y
AP	7WAS039C_MA	July 29, 2021 at 10:12 AM
		7WAS039C_MA.r3d

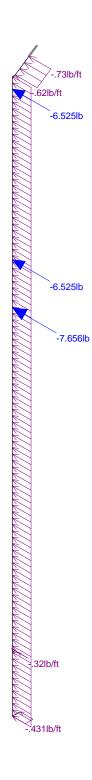




Loads: BLC 22, Seismic Load Z

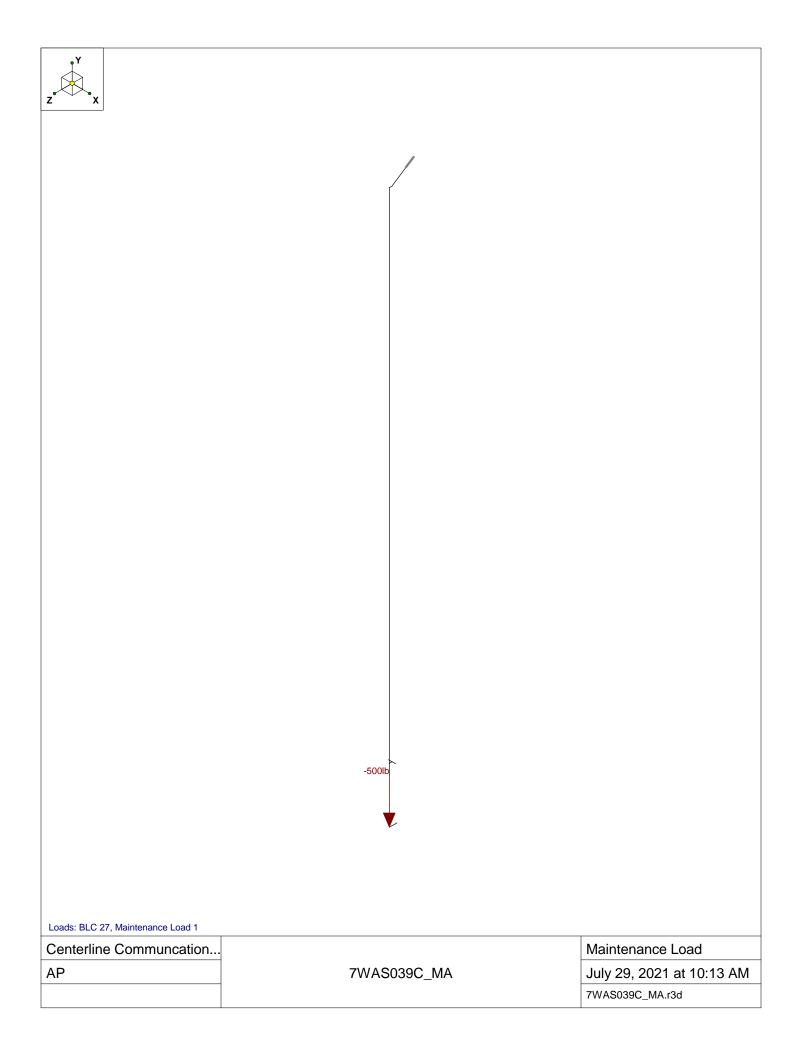
Centerline Communication		Seismic Z
AP	7WAS039C_MA	July 29, 2021 at 10:12 AM
		7WAS039C_MA.r3d





Loads: BLC 23, Seismic Load X

Centerline Communcation		Seismic X	
AP	7WAS039C_MA	July 29, 2021 at 10:12 AM	ı
		7WAS039C_MA.r3d	





Company :
Designer :
Job Number :
Model Name :

: Centerline Communcations, LLC

: AF

: 7WAS039C_MA

July 29, 2021 10:13 AM Checked By: JG

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/	Density[lb/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	490	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	490	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	490	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	490	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	490	50	1.25	65	1.15
8	A913 Gr.65	29000	11154	.3	.65	490	65	1.1	80	1.1

Hot Rolled Steel Section Sets

	Label	Shape	Туре	Design List	Material	Design	A [in2]	lyy [in4]	Izz [in4]	J [in4]
1	Mount Pipe	PIPE 3.0	Beam	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
2	Top Plate	PL6.5x3/8	Beam	RECT	A36 Gr.36	Typical	2.438	.029	8.582	.11
3	Handrail Connecti	L2.5x2x4	Beam	Single Angle	A36 Gr.36	Typical	1.07	.372	.656	.024
4	Bottom Connection	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.44	1.23	1.23	.031

Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap
1	N1	0	0	0	0	•
2	N2	0	360	0	0	
3	N3	0	36	0	0	
4	N4	0	360	-1.75	0	
5	N5	0	36	-1.75	0	
6	N6	0	0	-5	0	
7	N7	-2.25	36	-1.75	0	
8	N8	2.25	36	-1.75	0	
9	N9	0	369.33	-15.75	0	

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N9	max	392.113	5	835.285	8	738.536	9	Ō	60	0	60	0	60
2		min	039	8	-818.264	9	-739.499	8	0	1	0	1	0	1
3	N7	max	274.187	12	4717.305	4	1571.582	11	0	60	0	60	0	60
4		min	-3.916	9	-1306.804	15	-726.074	8	0	1	0	1	0	1
5	N8	max	274.187	12	1588.277	2	688.18	9	0	60	0	60	0	60



Company : Designer : Job Number :

: Centerline Communcations, LLC

: AF

Model Name : 7WAS039C_MA

July 29, 2021 10:13 AM Checked By: JG

Envelope Joint Reactions (Continued)

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
6		min	-3.916	9	-4221.316	13	-1474.804	6	0	1	0	1	0	1
7	N6	max	7.797	9	2086.821	8	995.874	8	0	60	0	60	0	60
8		min	-165.325	5	-1947.26	9	-942.407	9	0	1	0	1	0	1
9	Totals:	max	775.111	12	1299.001	54	1185.055	9						
10		min	0	9	411.75	15	-1185.055	8						

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N9	Reaction	Reaction	Reaction			-
2	N7	Reaction	Reaction	Reaction			
3	N8	Reaction	Reaction	Reaction			
4	N6	Reaction	Reaction	Reaction			

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]Lco	mp bot[in] L-1	torq	Kyy	Kzz	Cb	Function
1	MP1	Mount Pipe	360	,,,		Lbyy		·	• • • • • • • • • • • • • • • • • • • •			Lateral
2	M4	Bottom Con	5			Lbyy						Lateral
3	M5	Handrail Co	4.5			Lbyy						Lateral
4	M6	Top Plate	16.824			Lbyy						Lateral

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	MP1	N2	N1		, ,	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
2	M2	N2	N4			RIGID	None	None	RIGID	Typical
3	M3	N3	N5			RIGID	None	None	RIGID	Typical
4	M4	N1	N6			Bottom Conne	Beam	Single Angle	A36 Gr.36	Typical
5	M5	N8	N7			Handrail Conn	Beam	Single Angle	A36 Gr.36	Typical
6	M6	N9	N4		90	Top Plate	Beam	RECT	A36 Gr.36	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl RatAnaly	sis Inactive	Seismic
1	MP1					-	Yes			None
2	M2						Yes	** NA **		None
3	M3						Yes	** NA **		None



Company Designer Job Number Model Name

: Centerline Communcations, LLC

: AF

me : 7WAS039C_MA

July 29, 2021 10:13 AM Checked By: JG

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat	.Analysis	Inactive	Seismic
4	M4						Yes				None
5	M5						Yes				None
6	M6			6			Yes				None

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me	Surface(P
1	Dead Load	DĽ		-1			3		,	,
2	Wind 0	WLZ					6			
3	Wind 30	None					6			
4	Wind 60	None					6			
5	Wind 90	WLX					6			
6	Wind 120	None					6			
7	Wind 150	None					6			
8	Wind 180	WLZ					6			
9	Ice Weight	DL					3	6		
10	Ice + Wind 0	WLZ					6			
11	Ice + Wind 30	None					6			
12	Ice + Wind 60	None					6			
13	Ice + Wind 90	WLX					6			
14	Ice + Wind 120	None					6			
15	Ice + Wind 150	None					6			
16	Ice + Wind 180	WLZ					6			
17	Distri. Wind Z	WLZ						6		
18	Distri. Wind X	WLX						6		
19	Distri. Ice + Wind Z	WLZ						6		
20	Distrr. Ice + Wind X	WLX						6		
21	Seismic Load Y	ELY					3	6		
22	Seismic Load Z	ELZ					3	6		
23	Seismic Load X	ELX					3	6		
24	Live Loads 1	LL								
25	Live Loads 2	LL								
26	Live Loads 3	LL								
27	Maintenance Load 1	None				1				



Company Designer Job Number Model Name

: Centerline Communcations, LLC : AP

: 7WAS039C_MA

July 29, 2021 10:13 AM Checked By: JG

Load Combinations

	Description	Solve	P S	S _. B	Fa	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa
1	1.4D	Yes	Υ	1	1.4																		
2	1.2D + 1.0W 0°	Yes	Y	1	1.2	2	1	17	1	18													
3	1.2D + 1.0W 30°	Yes	Y	1	1.2	3	1	17	.866														
4	1.2D + 1.0W 60°	Yes	Y	1	1.2	4	1	17	.5	18	.866												
5	1.2D + 1.0W 90°	Yes	Υ	1	1.2	5	1	17		18													
6	1.2D + 1.0W 120°	Yes	Y	1	1.2	6	1	17	5	18	.866												
7	1.2D + 1.0W 150°	Yes	Y	1	1.2	7	1	17	866														
8	1.2D + 1.0W 180°	Yes	Υ	1	1.2	8	1	17		18													
9	0.9D + 1.0W 0°	Yes	Y	1	.9	2	1	17	1	18													
10	0.9D + 1.0W 30°	Yes	Υ	1	.9	3	1	17	.866	18	.5												
11	0.9D + 1.0W 60°	Yes	Υ	1	.9	4	1	17	.5	18	.866												
12	0.9D + 1.0W 90°	Yes	Υ	1	.9	5	1	17		18													
13	0.9D + 1.0W 120°	Yes	Υ	1	.9	6	1		5														
14	0.9D + 1.0W 150°	Yes	Υ	1	.9	7	1		866														
15	0.9D + 1.0W 180°	Yes	Υ	1	.9	8	1	17		18													
	1.2D + 1.0Di + 1.0Wi 0°	Yes	Υ	1	1.2	9	1	10	1	19		20											
	1.2D + 1.0Di + 1.0Wi 3	Yes	Y	1	1.2	9	1	11	1	<u> 19</u>	.866												
	1.2D + 1.0Di + 1.0Wi 6	Yes	Υ	1	1.2	9	1	12	1	19	.5	20	.866										
	1.2D + 1.0Di + 1.0Wi 9	Yes	Υ	1	1.2	9	1	13		<u> 19</u>		20											
	1.2D + 1.0Di + 1.0Wi 1	Yes	Y	1	1.2	9	1	14	1	19	5	20	.866										
	1.2D + 1.0Di + 1.0Wi 1	Yes	Υ	1	1.2	9	1	15	1	19	866	20	.5										
	1.2D + 1.0Di + 1.0Wi 1	Yes	Υ	1	1.2	9	1	16	1	19	-1	20											
	1.2D + 1.0Ev + 1.0Eh 0°	Yes	Υ	1	1.2	21	1	22		23													
	1.2D + 1.0Ev + 1.0Eh	Yes	Υ	1	1.2	21	1	22	.866	23	.5												
	1.2D + 1.0Ev + 1.0Eh	Yes	Υ	1	1.2	21	1	22	.5	23	.866												
	1.2D + 1.0Ev + 1.0Eh	Yes	Υ	1	1.2	21	1	22		23													
27	1.2D + 1.0Ev + 1.0Eh	Yes	Υ	1	1.2	21	1	22	5	23	.866												
_	1.2D + 1.0Ev + 1.0Eh	Yes	Υ	1	1.2	21	1	22	866	23	.5												
	1.2D + 1.0Ev + 1.0Eh	Yes	Υ	1	1.2	21	1	22		23													
	1.0D +1.5Lv + 1.0W (6	Yes	Υ	1	1		1.5				.224												
<u> </u>	1.0D +1.5Lv + 1.0W (6	Yes	Υ	1	1						.194												
	1.0D +1.5Lv + 1.0W (6	Yes	Υ	1	1		_				.112	_											
33	1.0D +1.5Lv + 1.0W (6	Yes	Υ	1	1				.224				.224										
34	1.0D +1.5Lv + 1.0W (6	Yes	Υ	1	1	24	1.5	6	.224	17	112	18	.194										
35	1.0D +1.5Lv + 1.0W (6	Yes	Υ	1	1	24	1.5	7	.224	17	194	18	.112										
36	1.0D +1.5Lv + 1.0W (6	Yes	Υ	1	1	24	1.5	8	.224	17	224	18											
37	1.0D +1.5Lv + 1.0W (6	Yes	Υ	1	1	25	1.5	2	.224	17		18											
38	1.0D +1.5Lv + 1.0W (6	Yes	Υ	1	1	25	1.5	3			.112												
39	1.0D +1.5Lv + 1.0W (6	Yes	Υ	1	1		1.5		.224	17	.194	18											
40	1.0D +1.5Lv + 1.0W (6	Yes	Υ	1	1	25	1.5	5	.224	17		18											



Company Designer Job Number Model Name : Centerline Communcations, LLC

: 7WAS039C_MA

July 29, 2021 10:13 AM Checked By: JG

Load Combinations (Continued)

Description	Solve	P S.	B	Fa	B	Fa	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa	В	Fa	B	Fa
41 1.0D +1.5Lv + 1.0W (6	Yes	Y	1	1	25	1.5	6			.194												
42 1.0D +1.5Lv + 1.0W (6	Yes	Y	1	1	25	1.5	7	.224	17	.112	18											
43 1.0D +1.5Lv + 1.0W (6	Yes	Υ	1	1	25	1.5	8	.224	17		18											
44 1.0D +1.5Lv + 1.0W (6	Yes	Y	1	1	26	1.5	2	.224	17	.05	18											
45 1.0D +1.5Lv + 1.0W (6	Yes	Y	1	1	26	1.5	3	.224	17	.043	18	.025										
46 1.0D +1.5Lv + 1.0W (6	Yes	Y	1	1	26	1.5	4	.224	17	.025	18	.043										
47 1.0D +1.5Lv + 1.0W (6	Yes	Y	1	1	26	1.5	5	.224	17		18	.05										
48 1.0D +1.5Lv + 1.0W (6	Yes	Y	1	1	26	1.5	6	.224	17	025	18	.043										
49 1.0D +1.5Lv + 1.0W (6	Yes	Υ	1	1	26	1.5	7	.224	17	043	18	.025										
50 1.0D +1.5Lv + 1.0W (6	Yes	Y	1	1	26	1.5	8	.224	17	05	18											
51 1.2D + 1.5Lv	Yes	Υ	1	1.2	24	1.5																
52 1.2D + 1.5Lv	Yes	Υ	1	1.2	25	1.5																
53 1.2D + 1.5Lv	Yes	Υ	1	1.2	26	1.5																
54 1.2D + 1.5Lm + 1.0W	Yes	Υ	1	1.2	27	1.5	2	.063	17	.063	18											
55 1.2D + 1.5Lm + 1.0W	Yes	Υ	1	1.2	27	1.5	3	.063	17	.054	18	.031										
56 1.2D + 1.5Lm + 1.0W	Yes	Y	1	1.2	27	1.5	4	.063	17	.031	18	.054										
57 1.2D + 1.5Lm + 1.0W	Yes	Υ	1	1.2	27	1.5	5	.063	17		18	.063										
58 1.2D + 1.5Lm + 1.0W	Yes	Υ	1	1.2	27	1.5	6	.063	17	031	18	.054										
59 1.2D + 1.5Lm + 1.0W	Yes	Υ	1	1.2	27	1.5	7	.063	17	054	18	.031										
60 1.2D + 1.5Lm + 1.0W	Yes	Y	1	1.2	27	1.5	8	.063	17	063	18											

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*P	phi*P	phi*M	phi*M	Egn
1	M5	L2.5x2x4	.745	2.25	4	.388	4.5	V	4	34462.	. 34668	802.7	1944	H2-1
2	MP1	PIPE_3.0	.721	326.25	8	.115	0		5	4967	65205	5748	5748	H1-1a
3	M6	PL6.5x3/8	.650	10.824	9	.012	0	٧	5	46656.	. 78975	616.9	10694	H1-1b
4	M4	L3X3X4	.549	0	8	.143	5	V	8	46476.	. 46656	1688	3755	H2-1



July 21, 2021

Ms. Shaya Samuel T-Mobile Northeast, LLC 12050 Baltimore Avenue Beltsville, Maryland 20705

Re: Section 106 Review Report

Proposed Modification Site - T-Mobile "7WAS039C"

Edmonston Road

Greenbelt, Maryland 20770

39°01'01.2" North 76°51'39.1" West

AEC Project No. CL-2021-005

Dear Mr. Samuel:

As required by Section 106, 36 CFR 800 of the National Historic Preservation Act (NHPA) of 1966, Advantage Environmental Consultants, LLC (AEC) completed a Section 106 submittal for the proposed undertaking at the above-referenced property (i.e., "the Site"). Centerline, on behalf of T-Mobile Northeast LLC, proposes replacing six existing antennas (three 56-inch tall by 12-inch wide, three 96.6-inch tall by 11.9-inch wide) with six new antennas (three 95.9-inch tall by 24-inch wide, and three 33.1-inch tall by 20.5-inch wide) on existing mounts. T-Mobile also proposes the addition of three new RRUs and two replacement equipment cabinets. Please note that no ground disturbance is proposed for this project. AEC's findings are included below.

AEC conducted a preliminary screening of the Site to determine if the proposed construction installation design met the relevant stipulations to exclude the Site from additional Section 106 evaluation. These stipulations are referenced in the *Nationwide Programmatic Agreement for the Collocation of Wireless Antennas*, dated March 16, 2001, as executed by the Federal Communications Commission (FCC), National Conference of State Historic Preservation Officers (SHPOs), and the Advisory Council on Historic Preservation.

The Site structure was determined to have been constructed before 1957 (and thus, is greater than 45 years in age), and is within the Beltsville Agricultural Resource Center and 250 of the Baltimore Washington Parkway historic properties, which are National Register of Historic Places (NRHP) Eligible and Listed respectively. Based on AEC's review of the *Nationwide Programmatic Agreement for the Collocation of Wireless Antennas*, dated March 16, 2001; and per Stipulation V, Part A, No. 1 and 2, a Section 106 submittal for the proposed installation was required.

FCC Tower Construction Notification System

On April 29, 2021, AEC uploaded the Site information into the FCC's Tower Construction Notification System (TCNS), to notify Native American Indian Tribes and historic preservation officers of the proposed installation. Based on response e-mails generated by TCNS (TCNS #230708), seven tribes had indicated geographical interest in the Site area and were thereby notified of the proposed construction (Delaware Nation, Bad River Band of Lake Superior Tribe of Chippewa Indians, Eastern Shawnee Tribe of Oklahoma, Wyandotte Nation, Shawnee Tribe, Delaware Tribe of Indians of Oklahoma, and Rappahannock Tribe [Cultural Heritage Partners]).

AEC forwarded the Delaware Nation additional Site information on May 21, 2021. A response was received from the Delaware Nation on June 21, 2021, indicating that the project will have No Adverse Effect on properties of sacred and/or cultural significance to the Tribe.

The Bad River Band of Lake Superior Tribe of Chippewa Indians has stated that they do not wish to consult on projects that they do not reply to directly through the TCNS online consultation system. As of this date, no reply has been received from this tribe through the TCNS online consultation system, and AEC does not anticipate receiving one.

AEC forwarded Site information to the Eastern Shawnee Tribe of Oklahoma on May 21, 2021. A response was received from the Eastern Shawnee Tribe of Oklahoma on May 10, 2021, indicating that the project will have No Adverse Effect on properties of sacred and/or cultural significance to the Tribe.

AEC forwarded the Wyandotte Nation additional Site information on May 21, 2021. Thirty-five days passed with no response from the Wyandotte Nation. Thus, the Wyandotte Nation was referred to the FCC on June 24, 2021. The FCC's final contact was sent on July 1, 2021. An additional fifteen days passed with no response from the Wyandotte Nation, and thus concurrence was assumed.

AEC forwarded Site information to the Shawnee Tribe on May 21, 2021. Thirty-five days passed with no response from the Shawnee Tribe. Thus, the Shawnee Tribe was referred to the FCC on June 24, 2021. The FCC's final contact was sent on July 1, 2021. An additional fifteen days passed with no response from the Shawnee Tribe, and thus concurrence was assumed.

The Delaware Tribe of Indians of Oklahoma has stated that they do not wish to consult on projects that they do not reply to directly through the TCNS online consultation system. As of this date, no reply has been received from this tribe through the TCNS online consultation system, and AEC does not anticipate receiving one.

AEC forwarded the Rappahannock Tribe (Cultural Heritage Partners) additional Site information on May 21, 2021. Thirty-five days passed with no response from the Rappahannock Tribe. Thus, the Rappahannock Tribe was referred to the FCC on June 24, 2021. The FCC's final contact was sent on July 1, 2021. An additional fifteen days passed with no response from the Rappahannock Tribe, and thus concurrence was assumed.

Based on stated exclusions on the TCNS system or correspondence with tribal representatives, no further consultation with native tribes is considered warranted. However, it should be noted that if human remains or funerary objects are uncovered during construction, all work should be stopped and the appropriate tribes should be contacted.

Section 106 SHPO Submittal

On May 20, 2021, AEC sent a Report of Findings to the Maryland Historical Trust (MD SHPO), on behalf of T-Mobile, with a finding of *No Effect* in the Area of Potential Effects (APE) for Direct Effects and *No Adverse Effect* in the APE for Indirect/Visual Effects via the FCC's E-106 online system. AEC received a response from the MD SHPO on June 7, 2021, indicating concurrence with the finding of *No Effect* for Direct Effects and *No Adverse Effect* for Indirect/Visual Effects.

Conclusion

Based on the tribal responses and the determination of the MD SHPO, no additional Section 106 evaluation is necessary for this undertaking. It should be noted that if significant changes are made to the proposed installation plan, further Section 106 review may be necessary.

A copy of AEC's pertinent Section 106 submittal documentation is included as attachments to this document. If you have any questions regarding this letter report, please contact the undersigned at (301) 776-0500.

Sincerely,

ADVANTAGE ENVIRONMENTAL CONSULTANTS. LLC

Catherine Moses
Staff Scientist

Catherine Moses

Andrew L. Fleming Senior Project Manager

Attachments

ATTACHMENT 1

MD SHPO Correspondence and AEC's Section 106 Submittal Documentation

 $\begin{tabular}{lll} From: & & & & & & & & & & \\ \hline towernotifyinfo@fcc.gov \\ \hline To: & & & & & & & \\ \hline cmoses@aec-env.com \\ \hline \end{tabular}$

Subject: Section 106 Notification of SHPO/THPO Concurrence- Email ID #5888310

Date: Monday, June 7, 2021 1:15:43 PM

This is to notify you that the Lead SHPO/THPO has concurred with the following filing:

Date of Action: 06/07/2021

Direct Effect: No Historic Properties in Area of Potential Effects (APE)

Visual Effect: No Adverse Effect on Historic Properties in APE

Comment Text: MHT Log No. 202102067

File Number: 0009560209 TCNS Number: 230708

Purpose: Collocation Submission Packet

Has the Communications Tower or Non-Tower Structure been the subject of SHPO/THPO

review? Yes

Notification Date: 7AM EST 05/24/2021

Applicant: T-Mobile Northeast, LLC

Consultant: Advantage Environmental Consultants, LLC

Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: No

Site Name: 7WAS039C

Site Address: Edmonston Road

Detailed Description of Project: 7WAS039C - T-Mobile proposes modifications to an existing

telecommunications facility. No ground disturbance is proposed for this project.

Site Coordinates: 39-1-1.2 N, 76-51-39.1 W

City: Greenbelt

County: PRINCE GEORGE'S

State:MD

Lead SHPO/THPO: Maryland Historical Trust

NOTICE OF FRAUDULENT USE OF SYSTEM, ABUSE OF PASSWORD AND RELATED MISUSE

Use of the Section 106 system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act and may contain information that is confidential, privileged or otherwise protected from disclosure under applicable laws. Any person having access to Section 106 information shall use it only for its intended purpose. Appropriate action will be taken with respect to any misuse of the system.

FCC Form 621

FCC Wireless Telecommunications Bureau Collocation ("CO") Submission Packet

Approved by OMB 3060 – 1039 See instructions for

Notification Date: 7AM EST 05/24/2021

File Number: 0009560209			General	Informatio	n		public burden estimates
1) (Select only one) (NE) NE – New U	4 – Upd	ate of A	pplication		ithdrawal of Application	on	
If this application is for an Update or W currently on file.	/ithdraw	al, ente	r the file numbe	r of the pendin	g application	File Number:	
			Applican	t Informatio	on		
3) FCC Registration Number (FRN): 001	87127	45					
4) Name: T-Mobile Northeast, LLC							
Contact Name							
5) First Name: Robert			6) MI:	7) Last Name	e: Neely		8) Suffix: 499
9) Title:							
Contact Information							
10) P.O. Box: 20705	And /Or	11) St	reet Address: '	12050 Baltim	ore Avenue		
12) City: Beltsville					13) State: MD	14) Zip Code	: 20705
15) Telephone Number: (410)499-891	2			16) Fax N	umber:	•	
17) E-mail Address: robert.neely11@	Γ-mobi	le.com	1				
			Consult	ant Informa	ation		
18) FCC Registration Number (FRN): 00	13100	953					
19) Name: Advantage Environment	al Con	sultan	ts, LLC				
Principal Investigator							
20) First Name: David			21) MI:	22) Last Nam	ne: Berg		23) Suffix:
24) Title:							
Principal Investigator Contact Infor	mation						
25) P.O. Box:	And /Or		treet Address: 8	3610 Washin	gton Boulevard, S	Suite 217 Suite 2	17
27) City: Jessup					28) State: MD	29) Zip Code	: 20794
30) Telephone Number: (301)776-0500)			31) Fax N	umber:	•	
32) E-mail Address: cmoses@aec-en	v.com						

Professional Qualification			
33) Does the Principal Investigator satisfy the	Secretary of the Interi	or's Professional Qualification Standards?	(x) <u>Y</u> es () <u>N</u> o
34) Areas of Professional Qualification:			
() Archaeologist			
(X) Architectural Historian			
() Historian			
() Architect			
() Other (Specify)			
Additional Staff	e Professional Qualific	cation Standards of the Secretary of the Interior?	() <u>Y</u> es (X) <u>N</u> o
If "YES," complete the following:			() (X)
36) First Name:	37) MI:	38) Last Name:	39) Suffix:
40) Title:			•
41) Areas of Professional Qualification:			
()Archaeologist			
() Architectural Historian			
() Historian			
() Architect			

) Other (Specify) _

Site Information

Tower Construction Notification System		
1) TCNS Notification Number: 230708		
Site Information		
2) Positive Train Control Filing Subject to Expedited Treatment Under Program Comme	ent: () <u>Y</u> es (χ) <u>N</u> o)
3) Site Name: 7WAS039C		
4) Site Address: Edmonston Road		
5) Detailed Description of Project: 7WAS039C - T-Mobile proposes modifications to an existing telecommu proposed for this project.	unications facility. No	ground disturbance is
6) City: Greenbelt	7) State: MD	8) Zip Code: 20770
9) County/Borough/Parish: PRINCE GEORGE'S		
10) Nearest Crossroads: Baltimore Washington Parkway and Beaver Dam R	oad	
11) NAD 83 Latitude (DD-MM-SS.S): 39-01-01.2	(X) <u>N</u> or () <u>S</u>
12) NAD 83 Longitude (DD-MM-SS.S): 076-51-39.1	() <u>E</u> or (X) <u>W</u>
Collocation Information		
13) Antennas will be located on (Select One):		
() Communications Tower (Select One): () Guyed Lattice Tower () S () Other (Describe):	elf-supporting Lattice	() Monopole
(X) Non-Tower Structure (Describe Structure): Any type of Tank (Water, Gas, o	etc)	
14) Tower height above ground level (including top-mounted attachments such as lightr	ning rods):	() Feet (X) Meters
15) Description of Antennas to be collocated (e.g. number, type, shape, dimensions, col	lor):	
replacing six existing antennas (three 56-inch tall by 12-inch wide, three antennas (three 95.9-inch tall by 24-inch wide, and three 33.1-inch tall b		
16) Will the Antennas be placed at multiple levels on the structure? If "Yes", describe placement:		() <u>Y</u> es (X) <u>N</u> o
If "No", specify the height of collocation above ground: 135.0	(X) Feet () N	Meters
17) Structure Completion Year: (YYYY) (X) Check here if your year provided is approximate.		1

18) Has the Communications Tower or Non-	(X) <u>Y</u> es () <u>N</u> o							
If "Yes", specify the following: Company that made the submission:	Advantage Environmental Consultants							
Date submitted:	SHPO/THPO Reference Number:0008714731							
19) Is the Communications Tower or Non-To	ower Structure eligible for listing on the National Register?	() <u>Y</u> es (X) <u>N</u> o						
Collocation Status								
20) Current Collocation Status (Select One)	:							
(X) Construction and/or installation has	not yet commenced							
() Construction and/or installation has	commenced, but is not completed							
Construction and/or installation comi	menced on:							
() Construction has been completed								
Construction and/or installation com	Construction and/or installation commenced on: Construction and/or installation completed on:							
Determination of Effect								
21) Direct Effects (Select One):								
(X) No Historic Properties in Area of Pot	tential Effects (APE)							
() No Effect on Historic Properties in A	PE							
() No Adverse Effect on Historic Prope	erties in APE							
() Adverse Effect on one or more Histo	oric Properties in APE							
22) Visual Effects (Select One):								
() No Historic Properties in Area of Pot	tential Effects (APE)							
() No Effect on Historic Properties in A	PE							
(x) No Adverse Effect on Historic Prope	erties in APE							

) Adverse Effect on one or more Historic Properties in APE

Have Indian Tribes or Native Hawaiian Organiza significance to historic properties which may be effects?			(X) <u>Y</u> es () <u>N</u> o				
2a) Tribes/NHOs contacted through TCNS Notifica	tion Number: _230	Number of Tribes/NHOs	:				
2b) Tribes/NHOs contacted through an alternate sy			Number of Tribes/NHOs: 0				
Tribe/NHO Contacted Through TCNS							
3) Tribe/NHO FRN:							
4) Tribe/NHO Name: Bad River Band of Lake	Superior Tribe	of Chippewa Indians					
Contact Name							
5) First Name: Edith	6) MI:	7) Last Name: Leoso	8) Suffix:				
9) Title: THPO	•	-	<u> </u>				
Dates & Response							
10) Date Contacted	11) Date	e Replied					
(X)No Reply							
() Replied/No Interest							
() Replied/Have Interest							
() Replied/Other							
Tribe/NHO Contacted Through TCNS							
3) Tribe/NHO FRN:							
4) Tribe/NHO Name: Cultural Heritage Partne	ers						
Contact Name							
5) First Name: Ellen	6) MI:	7) Last Name: Chapman	8) Suffix:				
9) Title: Program Manager	•						
Dates & Response							
10) Date Contacted	11) Dat	e Replied					
(X)No Reply							
() Replied/No Interest							
() Replied/Have Interest							
() Replied/Other							

Have Indian Tribes or Native Hawaiian Organizat significance to historic properties which may be effects?			(X) <u>Y</u> es () <u>N</u> o				
2a) Tribes/NHOs contacted through TCNS Notificat	ion Number: 2307	Number of Tribes/NHOs:	7				
2b) Tribes/NHOs contacted through an alternate sys			Number of Tribes/NHOs:				
Tribe/NHO Contacted Through TCNS							
3) Tribe/NHO FRN:							
4) Tribe/NHO Name: Delaware Nation							
Contact Name							
5) First Name: Erin	6) MI:	7) Last Name: Paden	8) Suffix:				
9) Title: Historic Preservation Director							
Dates & Response							
10) Date Contacted	11) Date	Replied					
(X)No Reply							
() Replied/No Interest							
() Replied/Have Interest							
() Replied/Other							
Tribe/NHO Contacted Through TCNS							
3) Tribe/NHO FRN:							
4) Tribe/NHO Name: Delaware Tribe of Indiar	ns of Oklahoma						
Contact Name							
5) First Name: Dr. Brice	6) MI: M	7) Last Name: Obermeyer	8) Suffix:				
9) Title:		1	-				
Dates & Response							
10) Date Contacted	11) Date	Replied					
(X)No Reply							
() Replied/No Interest							
() Replied/Have Interest							
() Replied/Other							

Have Indian Tribes or Native Hawaiian Organizations significance to historic properties which may be affect effects?	(NHOs) been id ted by the under	lentified that may attach religious and cultural rtaking within the APEs for direct and visual	(X) <u>Y</u> es () <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification N	Jumber: 2307 (Number of Tribes/NHOs:7	
2b) Tribes/NHOs contacted through an alternate system.		Number of Tribes/NHOs: _0	
Tribe/NHO Contacted Through TCNS			
3) Tribe/NHO FRN:			
4) Tribe/NHO Name: Eastern Shawnee Tribe of O	klahoma		
Contact Name			
5) First Name: Kelly	6) MI:	7) Last Name: Nelson	8) Suffix:
9) Title: Cell Tower Coordinator			
Dates & Response			
10) Date Contacted	11) Date F	Replied <u>05/10/2021</u>	
() No Reply			
() Replied/No Interest			
() Replied/Have Interest			
(X) Replied/Other			
Tribe/NHO Contacted Through TCNS	_		
3) Tribe/NHO FRN:			
4) Tribe/NHO Name: Shawnee Tribe			
Contact Name			
5) First Name: Kim	6) MI:	7) Last Name: Jumper	8) Suffix:
9) Title: Cell t	<u>.I</u>		
Dates & Response			
10) Date Contacted 05/05/2021	11) Date F	Replied	
(X)No Reply			
() Replied/No Interest			
() Replied/Have Interest			
() Replied/Other			

Have Indian Tribes or Native Hawaiian Organizations significance to historic properties which may be affect effects?				X) <u>Y</u> es () <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification N	umber: _230	708 Number of Tribes/N	HOs: 7		
2b) Tribes/NHOs contacted through an alternate system:		Number of Tribes/l	NHOs: 0		
Tribe/NHO Contacted Through TCNS					
3) Tribe/NHO FRN:					
4) Tribe/NHO Name: Wyandotte Nation					
Contact Name					
5) First Name: Sherri	6) MI:	7) Last Name: Clemons		8) Suffix:	
9) Title: THPO					
Dates & Response					
10) Date Contacted	11) Date	Replied			
(X)No Reply					
() Replied/No Interest					
() Replied/Have Interest					
() Replied/Other					

Other Tribes/NHOs Contacted

Tribe/NHO Information								
1) FCC Registration Number (FRN):								
2) Name:								
Contact Name								
3) First Name:			4) MI: 5) Last Name: 6) Suffix:					6) Suffix:
7) Title:								
Contact Information								
8) P.O. Box:	And /Or 9) Street Address:							
10) City:					11) State: 12) Zip Code:			:
13) Telephone Number:				14) Fax	ر Nu	mber:		
15) E-mail Address:								
16) Preferred means of communication:								
() E-mail								
() Letter								
() Both								
Dates & Response								
17) Date Contacted			18) Date F	Replied				
() No Reply								
() Replied/No Interest								
() Replied/Have Interest								
() Replied/Other								

Historic Properties

Properties Identified	,		
1) Have any historic properties been identified within the APEs for direct and visual effect.	ect?		(x) <u>Y</u> es () <u>N</u> o
An approximation process located archaeological materials that would be directly cultural or religious significance to Tribes/NHOs?		of	() <u>Y</u> es (<u>X</u>) <u>N</u> o
Are there more than 10 historic properties within the APEs for direct and visual effect if "Yes", you are required to attach a Cultural Resources Report in lieu of adding the state of the state o			() <u>Y</u> es (X) <u>N</u> o
Historic Property			
4) Property Name: Beltsville Agricultural Resource Center (BARC)			
5) SHPO Site Number: PG: 62-14			
Property Address			
6) Street Address: 10300 Baltimore Ave			
7) City: Beltsville	8) State: MD	9) Zip Co	ode: 20770
10) County/Borough/Parish: PRINCE GEORGE'S			
Status & Eligibility			
11) Is this property listed on the National Register?			
Source:			() <u>Y</u> es (χ) <u>N</u> o
12) Is this property eligible for listing on the National Register?			
Source: Maryland Medusa Website			(X) <u>Y</u> es () <u>N</u> o
13) Is this property a National Historic Landmark?			() <u>Y</u> es (X) <u>N</u> o
14) Direct Effects (Select One):			
(X) No Effect on this Historic Property in APE			
() No Adverse Effect on this Historic Property in APE			
() Adverse Effect on this Historic Property in APE			
15) Visual Effects (Select One):			
() No Effect on this Historic Property in APE			
(X) No Adverse Effect on this Historic Property in APE			

) Adverse Effect on this Historic Property in APE

Historic Properties

Properties I	dentified
--------------	-----------

) Adverse Effect on this Historic Property in APE

nistoric Properties	•		
Properties Identified			1
1) Have any historic properties been identified within the APEs for direct and visual effe	ect?		(X) <u>Y</u> es () <u>N</u> o
2) Has the identification process located archaeological materials that would be directly cultural or religious significance to Tribes/NHOs?	r affected, or sites that are	∍ of	() <u>Y</u> es (χ) <u>N</u> o
3) Are there more than 10 historic properties within the APEs for direct and visual effect If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the			() <u>Y</u> es (X) <u>N</u> o
Historic Property			
4) Property Name: Baltimore-Washington Parkway			
5) SHPO Site Number: PG: 69-26			
Property Address			
6) Street Address: na			
7) City: Beltsville	8) State: MD	9) Zip Co	ode: 20770
10) County/Borough/Parish: PRINCE GEORGE'S			
Status & Eligibility			
11) Is this property listed on the National Register?			
Source: Maryland Medusa website			(X) <u>Y</u> es () <u>N</u> o
12) Is this property eligible for listing on the National Register?	_		
Source:			() <u>Y</u> es (X) <u>N</u> o
13) Is this property a National Historic Landmark?			() <u>Y</u> es (X) <u>N</u> o
14) Direct Effects (Select One):			
(X) No Effect on this Historic Property in APE			
() No Adverse Effect on this Historic Property in APE			
() Adverse Effect on this Historic Property in APE			
15) Visual Effects (Select One):			
() No Effect on this Historic Property in APE			
(Y) No Adverse Effect on this Historic Property in APE			

Local Government Involvement

1) FCC Registration Number (FRN):								
2) Name: Prince Georges County F	riannin	ig Dep	artment					
Control Name								
Contact Name 3) First Name: Howard			4) MI:	5) Las	st Name	: Berger		6) Suffix:
7) Title:								
r) Tiuc.								
Contact Information	And	0) 0:		4744.6				
8) P.O. Box:	/Or	9) Str	eet Address: 1	4/41 G	overn	or Oden Bowie Drive	Γ	
10) City: Upper Marlboro			_	T		11) State: MD	12) Zip Code:	20772
13) Telephone Number: (301)952-359 4	4			14)) Fax N	umber:		
15) E-mail Address: howard.berger@	ppd.m	ıncppc	org.					
16) Preferred means of communication:								
() E-mail								
() Letter								
(X) Both								
Dates & Response								
17) Date Contacted 05/10/2021			18) Date R	Replied				
(X) No Reply								
() Replied/No Interest								
() Replied/Have Interest								
() Replied/Other								
Additional Information								
19) Information on local government's rol	le or inte	erest (or	otional):					
			,					

Other Consulting Parties

Other Consulting Parties Contacted								
1) Has any other agency been contacted	and inv	ited to b	ecome a consu	Iting party?			(X) <u>Y</u> es () <u>N</u> o
Consulting Party								
2) FCC Registration Number (FRN):								
3) Name: Prince Georges County F	listorio	cal Soc	eiety					
Contact Name								
4) First Name: na			5) MI:	6) Last Name	e: na		7) Suffix:	
8) Title:								
Contact Information								
9) P.O. Box: 1513	And /Or	10) St	reet Address:					
11) City: Upper Marlboro			12) State: MD	13) Zip (Code: 20773			
14) Telephone Number: (123)456-7890				15) Fax N	umber:			
16) E-mail Address: info@pghistory.	org							
17) Preferred means of communication:								
() E-mail								
() Letter								
(χ) Both								
Dates & Response								
18) Date Contacted 05/10/2021			19) Date R	eplied				
(X) No Reply								
() Replied/No Interest								
() Replied/Have Interest								
() Replied/Other								
Additional Information								
20) Information on other consulting partie	s' role o	or interes	st (optional):					

Designation of SHPO/THPO

1) Designate the Lead State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) based on the location of the tower/collocation.

SHPO/THPO				
Name: Maryland Historical Trust				
2) You may also designate up to three additional SHPOs/Iname of the National Historic Preservation Agency and an			clude other co	untries, enter the
SHPO/THPO Name:				
SHPO/THPO Name:				
SHPO/THPO Name:				
Certification				
I certify that all representations on this FCC Form 621 Submission Packet and the accompanying attachments are true, correct, and complete.				
Party Authorized to Sign				
First Name: Catherine	MI:	Last Name: Moses		Suffix:

FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.

Signature: Catherine Moses

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

14 of 15 FCC Form 621

Date:

05/21/2021

Attachments:

Туре	Description	Date Entered
Resumes/Vitae	Attachment 1 - Resume	05/21/2021
Additional Site Information	Attachment 2 - SOW	05/21/2021
Tribal/NHO Involvement	Attachment 3 - NOO	05/21/2021
Local Government Involvement	Attachment 4 - Local Gov	05/21/2021
Public Involvement	Attachment 5 - Public Notice	05/21/2021
Other	Attachment 6 - Historical Societies	05/21/2021
Area of Potential Effects	Attachment 7 - APE	05/21/2021
Historic Properties for Visual Effects	Attachment 8 - Visual Effects	05/21/2021
Historic Properties for Direct Effects	Attachment 9 - Direct Effects	05/21/2021
Cultural Resources Report	Attachment 10 - SOE	05/21/2021
Photographs	Attachment 11 - Photos	05/21/2021
Map Documents	Attachment 12 - Maps	05/21/2021

Attachment 1. Resumes/Vitae

Provide a current copy of the resume or curriculum vitae for the Principal Investigator and any researcher or other person who contributed to, reviewed, or provided significant input into the research, analysis, writing or conclusions presented in the submission packet for the proposed facility.

Please see the attached resumes of the Principal Investigator and other contributing personnel.

DAVID C. BERG

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Section 106 Consultation/Environmental Assessment for Proposed AT&T Wireless Telecommunication Facilities, Rock Creek Park, Washington, DC.
Section 106 Consultation/Environmental Assessment for Proposed AT&T Wireless Telecommunication Facilities, Catoctin Mountain Park, Maryland.
Maryland Public Safety Interoperable Communications (PSIC) Environmental Assessments, Maryland Department of Information Technology (DOIT).
George Washington Memorial Parkway (GWMP) North Design Environmental Assessment, Arlington County, Virginia. Or to ational are or included a fitter fructure of tions of time included a fitter of a fittation drainal incremental are included a fitter of a fittation drainal incremental are included a fitter of a fittation drainal incremental are included a fitter of a fittation drainal incremental Assessment, Arlington County, Virginia. Or to ational and included a fitter of a fittation drainal incremental Assessment, Arlington County, Virginia.
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Attachment 2. Additional Site Information

Describe any additional structures, access roads, utility lines, fences, easements or other construction planned for the site in conjunction with the proposed collocation and related facilities. Use this attachment to provide additional details needed to provide a full and accurate description of any structural alterations, additions, or other construction activities that will take place to complete the collocation.

T-Mobile proposes the modification of an existing telecommunications facility on the existing water tank located at the above-referenced coordinates. T-Mobile proposes replacing six existing antennas (three 56-inch tall by 12-inch wide, three 96.6-inch tall by 11.9-inch wide) with six new antennas (three 95.9-inch tall by 24-inch wide, and three 33.1-inch tall by 20.5-inch wide) on existing mounts. T-Mobile also proposes the addition of three new RRUs and two replacement equipment cabinets. Please note that no ground disturbance is proposed for this project. Please refer to the construction drawings included in this attachment.

PROJECT INFORMATION

7WAS039C

SITE NAME: USDA - LAUREL SITE NUMBER:

SITE ADDRESS: EDMONSTON ROAD

GREENBELT, MARYLAND 20770

COUNTY PRINCE GEORGE'S COUNTY

ZONING: LATITUDE:

39.01700000 LONGITUDE: -76.86086110 TYPE OF SITE WATER TANK

STRUCTURE HEIGHT: 152'-2" AGL (TOP OF WATER TANK)

ANTENNA CENTER: 135' AGL GROUND ELEVATION: 171' (NAVD 88)

BUILDING OWNER NAME UNITED STATES OF AMERICA

BUILDING OWNER

GSA OFFICE COMM PUB BLDG SE 18TH & F STREETS NORTHWEST WASHINGTON DC, 20405-0001

APPLICANT: T-MOBILE NORTHEAST, LLC.

12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 20705

APPLICANT PHONE (240) 264-8600 APPLICANT FAX: (240) 264-8610

BUILDING CODES:

ELECTRICAL CODE:

2015 NFPA 101 LIFE SAFETY CODE AND SUBTITLE 11 PRINCE GEORGE'S COUNTY FIRE SAFETY CODE 2015 INTERNATIONAL BUILDING CODE AND SUBTITLE 4 PRINCE GEORGE'S COUNTY BUILDING CODE 2015 INTERNATIONAL EXISTING BUILDING

CODE (IEBC)

NFPA- 2014 70 NATIONAL ELECTRICAL CODE & SUBTITLE 9 PRINCE GEORGE'S COUNTY BUILDING CODE

PROJECT DIRECTORY

ENGINEERING FIRM: CENTERLINE COMMUNICATIONS 750 WEST CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 PHILIP BURTNER (610) 730-5430

T-MOBILE NORTHEAST, LLC. 12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 20705 PHONE: (240) 264-8600 FAX: (240) 264-8610





T - Mobile NORTHEAST LLC

USDA - LAUREL SITE NAME: SITE ID: 7WAS039C

EDMONSTON ROAD ADDRESS:

GREENBELT, MARYLAND 20770

TECHNOLOGY: 67D5A997DB OUTDOOR

MODIFICATION: L600_CMP5_ANCHOR_PHASE 3





LOCATION MAP

GENERAL NOTES

1. 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 PURPOSE 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 GOVERNED 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 REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE

SCOPE OF WORK

- REMOVE AND REPLACE SIX EXISTING ANTENNAS W/SIX NEW ANTENNAS
- REMOVE AND REPLACE THREE EXISTING RRUS W/SIX NEW RRUS INSTALL ONE NEW 6160 AC ENCLOSURE
- INSTALL ONE NEW B160 BATTERY ENCLOSURE
- INSTALL SIX NEW 6X12 HYBRID CABLES
- REMOVE ALL UNUSED CABLES AND EQUIPMENT

DRAWING INDEX

	DIAWING INDLA
NO.	DESCRIPTION
T-1	TITLE SHEET
GN-1	GENERAL NOTES, RF NOTES, CABLING NOTES
A-1	SITE PLAN
A-2	COMPOUND PLAN
A-3	EQUIPMENT LAYOUT PLANS
A-4	SOUTH ELEVATION
A-5	ANTENNA PLANS & SCHEDULE
A-6	ANTENNA & RRU MOUNTING DETAILS
A-7	EQUIPMENT DETAILS
G-1	GROUNDING DETAILS & ONE LINE DIAGRAM

DRAWING SCALE NOTES:

THESE DRAWINGS ARE FORMATTED TO BE FULL SIZE AT 22"x34". CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME

T - Mobile NORTHEAST LLC

T-MOBILE NORTHEAST, LLC. 12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 2070! PHONE: (240) 264-8600 FAX: (240) 264-8610



750 W CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 PHONE: 781.713.4725

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MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

USDA - LAUREL

SITE ID: 7WAS039C

SITE ADDRESS:

EDMONSTON ROAD GREENBELT, MARYLAND 20770

TITLE SHEET

T-1

RF NOTES

ANTENNA CABLE & SCHEDULING NOTES

GENERAL NOTES

- ACTUAL LENGTHS SHALL BE DETERMINED PER SITE CONDITION BY SUBCONTRACTOR
- THE DESIGN IS BASED ON RF DATA SHEETS, SIGNED AND APPROVED.
- RADIO SIGNAL CABLE AND RACEWAY SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC, NFPA 70), CHAPTER 8
- ALL SPECIFIED MATERIAL FOR EACH LOCATION (E.G. OUT DOORS-OCCUPIED, INDOORS-UNOCCUPIED, PLENUMS, RISER SHAFTS, ETC.) SHALL BE APPROVED, LISTED, OR LABELED AS REQUIRED BY THE NEC.
- RADIO SIGNAL CABLE SHALL BE SUPPORTED AT MINIMUM OF EVERY THREE (3) FEET EXCEPT INSIDE MONOPOLES OR MONOPOLES WHERE CABLE AND CONNECTOR MANUFACTURERS SUPPORT RECOMMENDATIONS SHALL BE FOLLOWED. MANUFACTURER RECOMMENDATION CABLES SUPPORT ACCESSORIES SHALL BE USED.
- THE OUTDOOR CABLE SUPPORT SYSTEM SHALL BE PROVIDED WITH AN ICE SHIELD TO SUPPORT AND PROTECT ANTENNA CABLE RUNS.
- DRIP LOOPS SHALL BE REQUIRED ON ALL OUTSIDE CABLES. CABLES SHALL BE SLOPED AWAY FROM BUILDING OR OUTDOOR BTS CABINETS TO PREVENT WATER FROM ENTERING THROUGH THE COAXIAL CARLE PORT
- ALL FEEDER LINE AND JUMPER CONNECTORS SHALL BE 7/16 DIN CABLE CONNECTORS THAT MEET IP68 STANDARDS.
- 7/16 DIN CONNECTORS REQUIRE NO ADDITIONAL WEATHER PROOFING IN INDOOR APPLICATIONS IF INSTALLED AND TORQUED PROPERLY. IN OUTDOOR APPLICATIONS WEATHER PROOFING IS REQUIRED AND THE FOLLOWING PROCEDURE SHOULD BE FOLLOWED.
- 10. USING WEATHERPROOFING KIT APPROVED BY CABLE MANUFACTURER AND CONTRACTOR START TAPE APPROXIMATELY 5 INCHES FROM THE CONNECTOR, AND WRAP 2 INCHES TOWARD THE CONNECTOR, THEN REVERSE THE TAPE SO THAT THE STICKY SIDE IS UP. TAPE OVER THE CONNECTOR OR SURGE ARRESTOR UNTIL THREE (3) TO FOUR (4) INCHES BEYOND THE CONNECTOR AND REVERSE AGAIN WITH THE STICKY SIDE DOWN FOR ANOTHER INCH OR TWO. PASS THE BUTYL RUBBER AND FINISH WITH A FINAL LAYER OF TAPE.
- ANTENNAS SHALL BE PAINTED, WHEN REQUIRED, BY THE LANDLORD OR AUTHORITY OF HAVING JURISDICTION IN ACCORDANCE WITH ANTENNA MANUFACTURERS' SURFACES PREPARATION AND PAINTING REQUIREMENTS.
- 12. CABLE SHIELDS AND TOWER CONDUITS SHALL BE GROUNDED AT THE TOP OF THE TOWER WITHIN 10 FEET OF THEIR CONNECTORS, AND AT THE BOTTOM OF THE TOWER ABOUT 6 INCHES BEFORE THEY TURN TOWARD THE FACILITY. THEY SHALL BE GROUNDED AT THE MIDPOINT OF THE TOWERS THAT ARE BETWEEN 60 FEET AND 200 FEET HIGH, AND AT INTERVALS OF 60 FEET OR LESS ON TOWERS THAT ARE HIGHER THAN 200 FEET.

- SUBCONTRACTOR SHALL VERIFY THE ACTUAL LENGTH IN THE FIELD BEFORE INSTALLATION
- TAG AND COLOR CODE ALL MAIN CABLES AT LOCATIONS PER T-MOBILE ANTENNA CABLE MARKING STANDARD:
- TOP OF TOWER FND OF MAIN COAX
- BOTTOM OF TOWER FND OF MAIN COAX
- DIRECTLY BEFORE AND AFTER RE EQUIPMENT
- END OF JUMPERS AT BTS EQUIPMENT
- ANTENNAS SHALL BE PROCURED AND INSTALLED WITH DOWN TILT MOUNTING BRACKETS SUPPLIED BY ANTENNA MANUFACTURER.
- PRIOR APPROVAL IS REQUIRED BEFORE PERFORMING ANY WORK ON EXISTING CELL SITE FOUIPMENT

- 1. FOR THE PURPOSE OF CONSTRUCTION DRAWING. THE FOLLOWING **DEFINITIONS SHALL APPLY**
 - **CONTRACTOR CENTERLINE COMMUNICATIONS** SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION) **OWNER - T-MOBILE MOBILITY**
- 2. PRIOR TO THE SUBMISSION OF BIDS. THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIABIZE 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 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 BULLES 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
- 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 SUPPLIED BY THE SUBCONTRACTOR
- 7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE
- 8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS. THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE 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 EXISTING IMPROVEMENTS. PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION
- 11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S 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

EQUIPMENT GROUND RING

- 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. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC
- 16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF T-MOBILE MOBILITY
- 17. SUBCONTRACTOR 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 IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT
- 19. SINCE THE 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.

20 APPLICABLE BUILDING CODES:

SUBCONTRACTOR'S 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

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS

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

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-G, 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 CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT. THE SPECIFIC REQUIREMENT SHALL

T - Mobile NORTHEAST LLC

T-MOBILE NORTHEAST, LLC. 12050 BALTIMORE AVENUE ELTSVILLE, MARYLAND 2070 PHONE: (240) 264-8600 FAX: (240) 264-8610

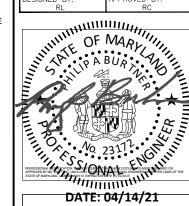


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DESIGNED BY:



PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

ABBREVIATIONS

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

REQUIRED

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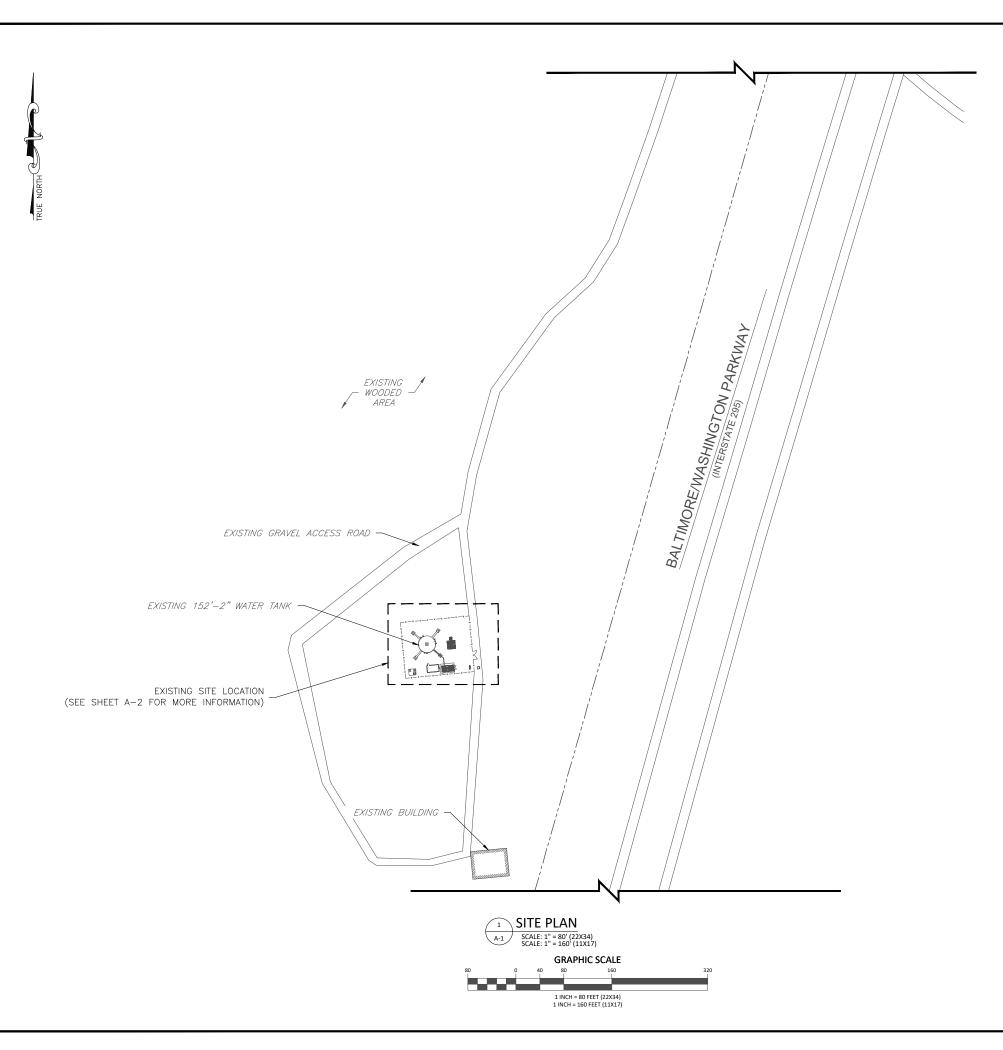
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SITE ADDRESS:

EDMONSTON ROAD GREENBELT, MARYLAND 20770

GENERAL NOTES. RF NOTES. CABLING NOTES

GN-1



NOTES

- CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
- CONSTRUCTION TO COMMENCE UPON COMPLETION OF A PASSING STRUCTURAL ANALYSIS. STRUCTURAL ANALYSIS TO BE PERFORMED BY CENTERLINE COMMUNICATIONS.
- REFERENCE STRUCTURAL ANALYSIS BY CENTERLINE COMMUNICATIONS FOR FURTHER INFORMATION REGARDING THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THIS FOUIPMENT UPGRADE
- REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA MODELS AND SETTINGS.

SEC. 27-445.04. ANTENNAS, MONOPOLES, AND RELATED EQUIPMENT BUILDINGS FOR WIRELESS TELECOMMUNICATIONS (RESIDENTIAL).

(A) ANTENNAS, MONOPOLES, AND RELATED EQUIPMENT BUILDINGS PERMITTED (P) IN THE

(A) UNLESS OTHERWISE, BOUNDEDGES, AND REDAILED GOVERNMEN GUILDINGS PERMITTED (F) IN TABLE OF USES SHALL BE SUBJECT TO THE FOLLOWING REQUIREMENTS:

(1) THE ANTENNA SHALL COMPLY WITH THE FOLLOWING STANDARDS:

(A) UNLESS OTHERWISE PROHIBITED BELOW, IT SHALL BE CONCEALED WITHIN THE OPAQUE EXTERIOR OF A STRUCTURE OR BE ATTACHED TO A PUBLIC UTILITY, RADIO, TELEVISION, OR TELECOMMUNICATIONS BROADCASTING TOWER/MONOPOLE; A LIGHT POLE; A MULTIFAMILY DWELLING AT LEAST FIVE (5) STORIES IN HEIGHT; A STRUCTURE OWNED BY A MUNICIPALITY, THE BOARD OF EDUCATION FOR PRINCE GEORGE'S COUNTY, OR BY PRINCE GEORGE'S COUNTY; OR A STRUCTURE OWNED AND PRIMARILY USED BY A GOVERNMENT AGENCY THAT IS EXEMPT FROM THE REQUIREMENTS OF THIS SUBTITLE;

(B) IT SHALL NOT EXTEND MORE THAN FIFTEEN (15) FEET ABOVE THE HEIGHT OF THE TOWER OR STRUCTURE TO WHICH IT IS ATTACHED;
(C) IT SHALL NOT EXCEED THE FOLLOWING DIMENSIONS:

- (I) TWENTY (20) FEET IN LENGTH AND SEVEN (7) INCHES IN DIAMETER FOR WHIPS;
- (II) TEN (10) FEET IN LENGTH AND TWO (2) FEET IN WIDTH FOR PANELS; (III) SEVEN (7) FEET IN LENGTH AND ONE (1) FOOT IN DIAMETER FOR CYLINDERS;
- (IV) SEVEN (7) FEET IN DIAMETER FOR PARABOLIC DISHES; AND
- (D) ON PRIVATELY OWNED LAND, IT SHALL NOT SUPPORT LIGHTS OR SIGNS UNLESS REQUIRED FOR AIRCRAFT WARNING OR OTHER SAFETY REASONS.
- (2) THE RELATED TELECOMMUNICATIONS EQUIPMENT BUILDING OR ENCLOSURE SHALL COMELY WITH THE FOLLOWING STANDARDS:
 (A) IT SHALL NOT EXCEED FIVE HUNDRED SIXTY (560) SQUARE FEET OF GROSS FLOOR AREA OR TWELVE (12) FEET IN HEIGHT;
- (B) THE BUILDING OR ENCLOSURE SHALL BE SCREENED BY MEANS OF LANDSCAPING OR BERMING TO ONE HUNDRED PERCENT (100%) OPACITY FROM ANY ADJOINING LAND IN A RESIDENTIAL ZONE (OR LAND PROPOSED TO BE USED FOR RESIDENTIAL PURPOSES ON AN APPROVED BASIC PLAN FOR A COMPREHENSIVE DESIGN ZONE, OR ANY APPROVED CONCEPTUAL OR DETAILED SITE PLAN);

 (C) WHEN ATTACHED TO AN EXISTING BUILDING, IT SHALL MATCH THE CONSTRUCTION
- MATERIAL AND COLOR(S) OF THAT BUILDING;

 (D) WHEN CONSTRUCTED AS A FREESTANDING BUILDING, IT SHALL BE CONSTRUCTED

 OF BRICK AND ITS DESIGN SHALL COORDINATE WITH THE DESIGN OF ANY EXISTING MAIN
 BUILDING ON THE SAME LOT OR ON AN ADJOINING LOT; AND
- BUILDING ON THE SAME LOT OR ON AN ADJUNING LOT; AND

 (E) THE BUILDING OF ENCLOSURE SHALL BE UNMANNED, WITH INFREQUENT (FOUR

 (4) OR FEWER PER YEAR) VISITS BY MAINTENANCE PERSONNEL, AND WITH ACCESS AND
 PARKING FOR NO MORE THAN ONE (1) VEHICLE.

 (3) THE MONOPOLE SHALL COMPLY WITH THE FOLLOWING STANDARDS:

 (A) THE MAXIMUM HEIGHT SHALL BE ONE HUNDRED NINETY—NINE (199) FEET WHEN
- LOCATED ON PUBLIC PROPERTY OR ONE HUNDRED (100) FEET WHEN LOCATED ON ALL
- LOCATED ON PUBLIC PROPERTY OR ONE HUNDRED (100) FEET WHEN LOCATED ON ALL OTHER PROPERTIES;

 (B) FOR PRIVATELY OWNED LAND, THE MINIMUM SETBACK FROM ALL ADJOINING LAND AND DWELLING UNITS SHALL BE EQUAL TO THE HEIGHT OF THE STRUCTURE MEASURED FROM ITS BASE; FOR PUBLICLY OWNED LAND, THE MINIMUM SETBACK SHALL BE ONE—HALF (1/2) OF THE HEIGHT OF THE STRUCTURE MEASURED FROM THE BASE TO THE ADJOINING PROPERTY LINES;

 (C) ON PRIVATELY OWNED LAND, THE STRUCTURE SHALL NOT SUPPORT LICHTS OR
- (C) ON PRIVATELY OWNED LAND, THE STRUCTURE SHALL NOT SUPPORT LIGHTS OR SIGNS UNLESS REQUIRED FOR AIRCRAFT WARNING OR OTHER SAFETY REASONS;
- SIGNS UNLESS REQUIRED FOR AIRCRAFT WARNING OR OTHER SAFETY REASONS;

 (D) THE STRUCTURE SHALL BE DESIGNED, GALVANIZED, AND/OR PAINTED IN A

 MANNER WHICH IS HARMONIOUS WITH SURROUNDING PROPERTIES;

 (E) THE APPLICANT SHALL PROVIDE CERTIFICATION FROM A REGISTERED ENGINEER
 THAT THE STRUCTURE WILL MEET THE APPLICABLE DESIGN STANDARDS FOR WIND LOADS

 OF THE ELECTRONIC INDUSTRIES ASSOCIATION (EIA) FOR PRINCE GEORGE'S COUNTY; AND

 (F) ANY MONOPOLE WHICH IS NO LONGER USED FOR TELECOMMUNICATIONS
- PURPOSES FOR A CONTINUOUS PERIOD OF ONE (1) YEAR SHALL BE REMOVED BY THE MONOPOLE OWNER AT OWNER'S EXPENSE. (CB-61-1988; CB-81-1993; CB-123-1994; CB-103-1997; CB-13-1998;

T - Mobile NORTHEAST LLC

T-MOBILE NORTHEAST, LLC. 12050 BALTIMORE AVENUE BELTSVILLE, MARYLAND 2070! PHONE: (240) 264-8600 FAX: (240) 264-8610



750 W CENTER ST, SUITE 301 WEST BRIDGEWATER. MA 02379 PHONE: 781.713.4725

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\'\ \\\ - \	BURNA

APPROVED BY:



DATE: 04/14/21

PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

USDA - LAUREL

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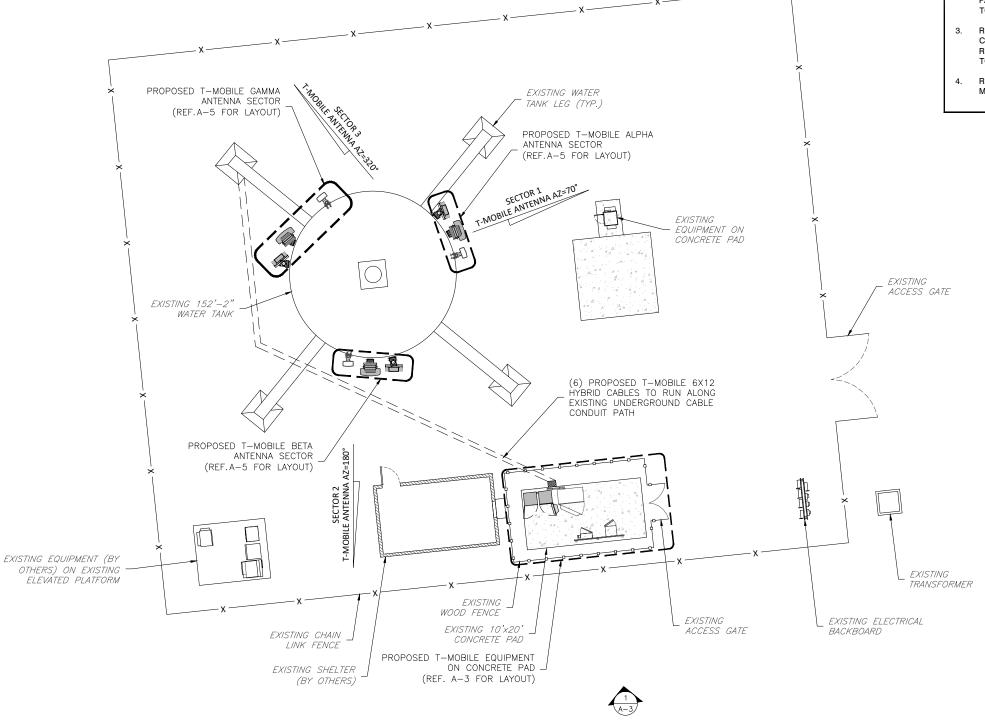
SITE ADDRESS:

EDMONSTON ROAD GREENBELT, MARYLAND 20770

SITE PLAN

DRAWING

A-1



COMPOUND PLAN SCALE: 1/8" = 1' (22X34) SCALE: 1/16" = 1' (11X17)

GRAPHIC SCALE

1/8 INCH = 1 FOOT (22X34) 1/16 INCH = 1 FOOT (11X17)

NOTES

- CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
- CONSTRUCTION TO COMMENCE UPON COMPLETION OF A PASSING STRUCTURAL ANALYSIS. STRUCTURAL ANALYSIS TO BE PERFORMED BY CENTERLINE COMMUNICATIONS.
- REFERENCE STRUCTURAL ANALYSIS BY CENTERLINE COMMUNICATIONS FOR FURTHER INFORMATION REGARDING THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THIS EQUIPMENT UPGRADE.
- REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA MODELS AND SETTINGS.

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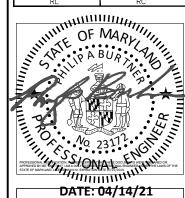
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SITE ID:

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SITE ADDRESS:

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COMPOUND PLAN

A-2

NOTES

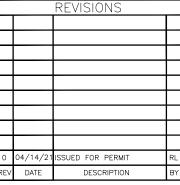
- CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
- CONSTRUCTION TO COMMENCE UPON COMPLETION OF A PASSING STRUCTURAL ANALYSIS.
- REFERENCE STRUCTURAL ANALYSIS FOR FURTHER INFORMATION REGARDING THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THIS EQUIPMENT UPGRADE.
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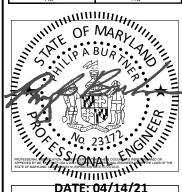
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DESIGNED BY:



DATE: 04/14/21

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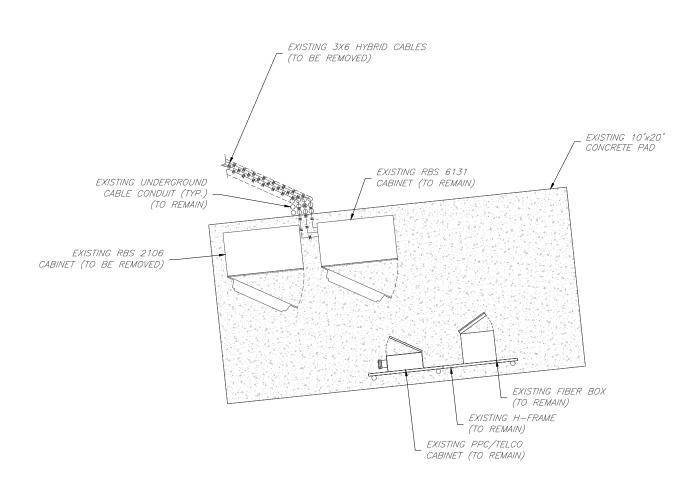
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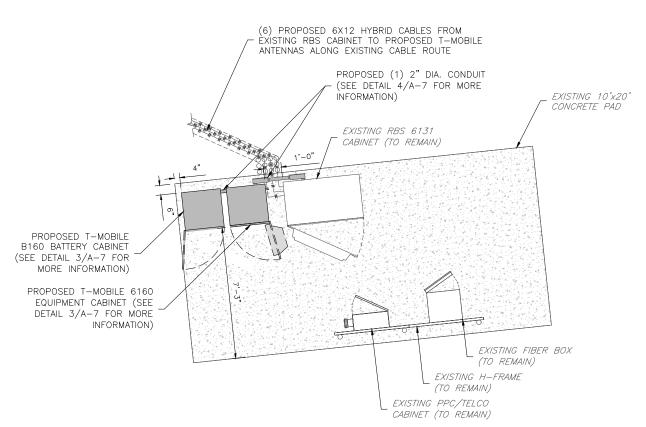
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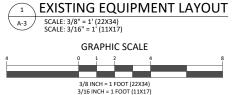
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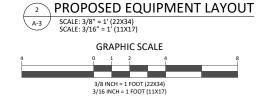
EDMONSTON ROAD GREENBELT, MARYLAND 20770

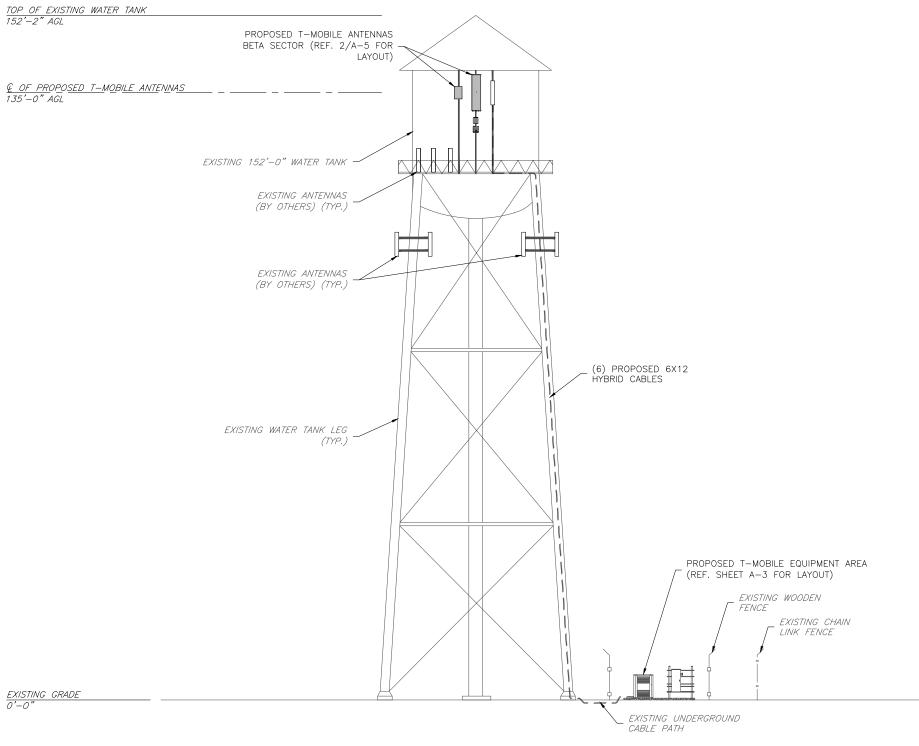
EQUIPMENT LAYOUT PLANS DRAWING A-3



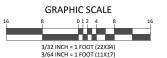












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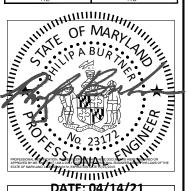
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SOUTH ELEVATION

DRAWING:

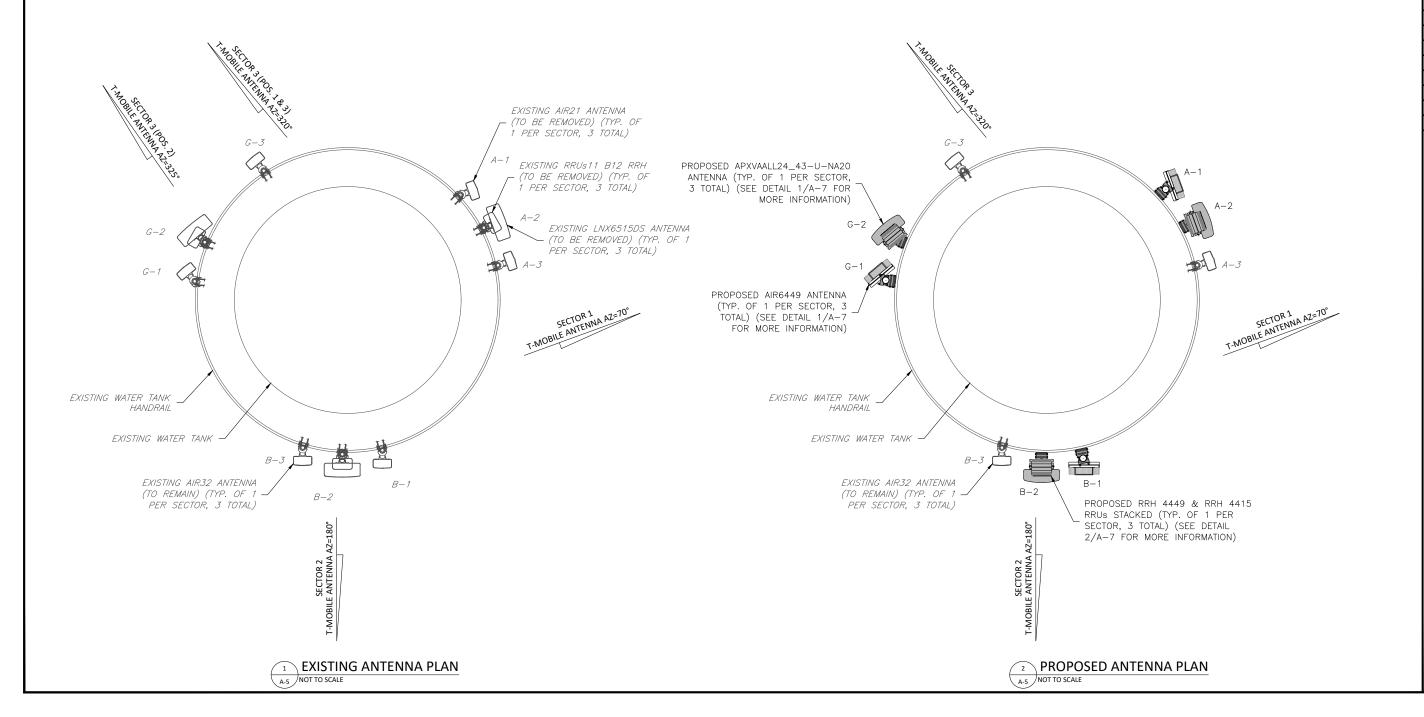
A-4

NOTES:

- REFERENCE LATEST STRUCTURAL / MOUNT ANALYSIS BY CENTERLINE COMMUNICATIONS DATED 04/13/2021 FOR MORE STRUCTURAL INFORMATION
- REFER TO THE FINAL RF DATA SHEET FOR
- REMOVE ALL UNUSED CABLE, RRUS AND

ANTENNA & CABLE SCHEDULE:

LOC	ATION	AZIMUTH	RAD CENTER	STATUS	TECHNOLOGY	ANTENNA MODEL NO.	MECH DOWNTILT	ELEC DOWNTILT	CABLES	DIPLEXERS	TMA/RRU	CABLE SIZE	CABLE LENGTH
4	A-1	70°	135'-0"	PROPOSED	L2500, N2500	AIR6449 B41	0°	3°/3°	N/A	N/A	N/A	6x12 HYBRID	±270'
ALPHA	A-2	70°	135'-0"	PROPOSED	L600, L700, N600 U1900, L1900	APXVAALL24_ 43-U-NA20	0°	5°/5°/4°/4°	COAX JUMPER (X8)	N/A	RRUS 4449 B71+B85 RRUS 4415 B25	6x12 HYBRID	±270'
⋖	A-3	70*	135'-0"	EXISTING	L2100, L1900, G1900	AIR32 B66A B2	0*	4*/4*/4*/4*	N/A	N/A	N/A	SHARED	SHARED
	B-1	180°	135'-0"	PROPOSED	L2500, N2500	AIR6449 B41	0°	3°/3°	N/A	N/A	N/A	6x12 HYBRID	±270'
BETA	B-2	180°	135'-0"	PROPOSED	L600, L700, N600 U2100, L1900	APXVAALL24_ 43-U-NA20	0°	7°/7°/4°/4°	COAX JUMPER (X8)	N/A	RRUS 4449 B71+B85 RRUS 4415 B25	6x12 HYBRID	±270'
	B-3	180°	135'-0"	EXISTING	L2100, L1900, G1900	AIR32 B66A B2	0*	4*/4*/4*/4*	N/A	N/A	N/A	SHARED	SHARED
ΙĄ	G-1	320°	135'-0"	PROPOSED	L2500, N2500	AIR6449 B41	0°	3°/3°	N/A	N/A	N/A	6x12 HYBRID	±240'
AMMA	G-2	320°	135'-0"	PROPOSED	L600, L700, N600 U2100, L1900	APXVAALL24_ 43-U-NA20	0°	5°/5°/4°/4°	COAX JUMPER (X8)	N/A	RRUS 4449 B71+B85 RRUS 4415 B25	6x12 HYBRID	±240'
ď	G-3	320°	135'-0"	EXISTING	L2100, L1900, G1900	AIR32 B66A B2	0*	4*/4*/4*/4*	N/A	N/A	N/A	SHARED	SHARED
	NOTE: DARK TEXT IN TABLE ABOVE DENOTES PROPOSED EQUIPMENT TOTAL 6x12 HYBRID CABLE ±15							±1560'					



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DATE: 04/14/21

PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

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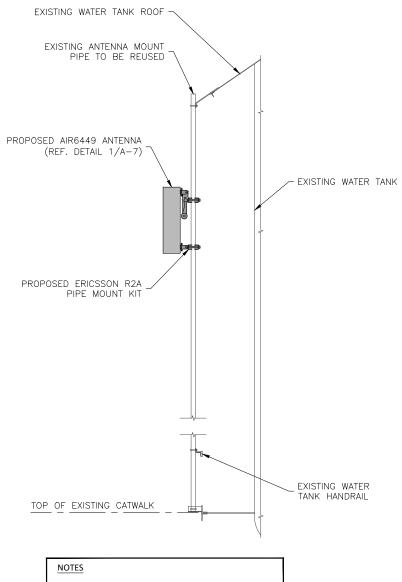
EDMONSTON ROAD GREENBELT, MARYLAND 20770

ANTENNA PLANS & SCHEDULE

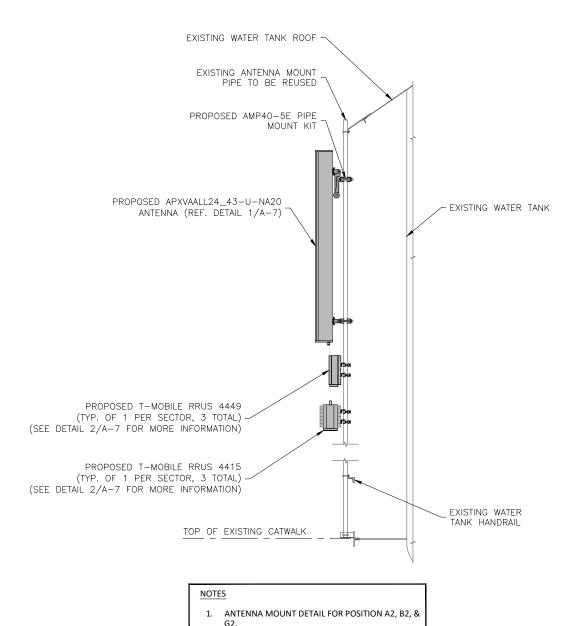
A-5

NOTES FOR ANTENNA MOUNTS:

- 1. AIR 32: KATHREIN SCALA PIPE MOUNT KIT # P/N 85010070
- 2. AIR6449: ERICSSON R2A PIPE MOUNT KIT
- APXVAALL24-43-U-NA20: APM40-5E PIPE MOUNT KIT



1. ANTENNA MOUNT DETAIL FOR POSITION A1, B1, &



ANTENNA MOUNTING DETAIL A-6 NOT TO SCALE

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ANTENNA & RRU MOUNTING DETAILS





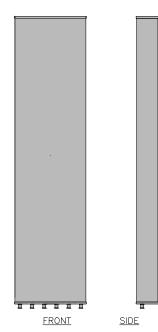






ERICSSON AIR6449-B41 ANTENNA DETAILS

MODEL #	AIR6449	
MANUF.	ERICSSON	
WIDTH	20.6"	
DEPTH (W/ DOOR)	8.6"	
HEIGHT	33.1"	
WEIGHT	104± LBS	
(INSTALL PER MANUFACTURER'S		
INSTALLATION GUIDEI	LINES)	



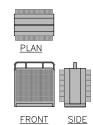
RFS APXVAALL24_43-U-NA20			
MODEL #	APXVAALL24_43-U-NA20 (OCTA)		
MANUF.	RFS		
HEIGHT	95.9"		
WIDTH	24"		
DEPTH	8.5"		
WEIGHT	123/148.3 LBS with Mounting Hardware		







RADIO 4415 DIMENSIONS		
MODEL #	RADIO 4415 B25	
MANUF.	ERICSSON	
HEIGHT	13.47"	
WIDTH	5.9"	
DEPTH	16.54"	
WEIGHT	49.6± LBS	



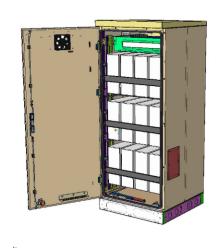
RAD	IO 4449 DIMENSIONS
MODEL #	RADIO 4449 B71+B85
MANUF.	ERICSSON
HEIGHT	15.0"
WIDTH	13.2"
DEPTH	10.4"
WEIGHT	75± LBS











Capacity — VRLA 12V:

100Ah / 150Ah / 170Ah / 190Ah / 210Ah

— Li-Ion: 24U 19" / 23" Sodium-Nickel: 3x FIAMM

Electrical specification — DC Output:

-48VDC/200A Battery breakers: 2x 125/2p

— Alarms: Door open, Climate failure, MCB Connection

Mechanical specification

— Weight:

— Dimensions: 63 x 26 x 26 in. (incl. Base frame)

Base frame height: 6 in.

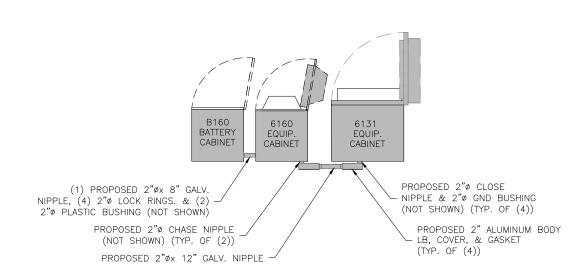
— Material: Galvanized steel (180g/m²) Powder paint NCS 2002-B — Color: — Door: Front access

Pad lock / cylinder Locking type:

6160 EQUIPMENT ENCLOSURE

B160 BATTERY ENCLOSURE

PROPOSED EQUIPMENT CABINET SPECIFICATIONS



NEW EQUIPMENT CONDUIT DETAIL

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DATE: 04/14/21

PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

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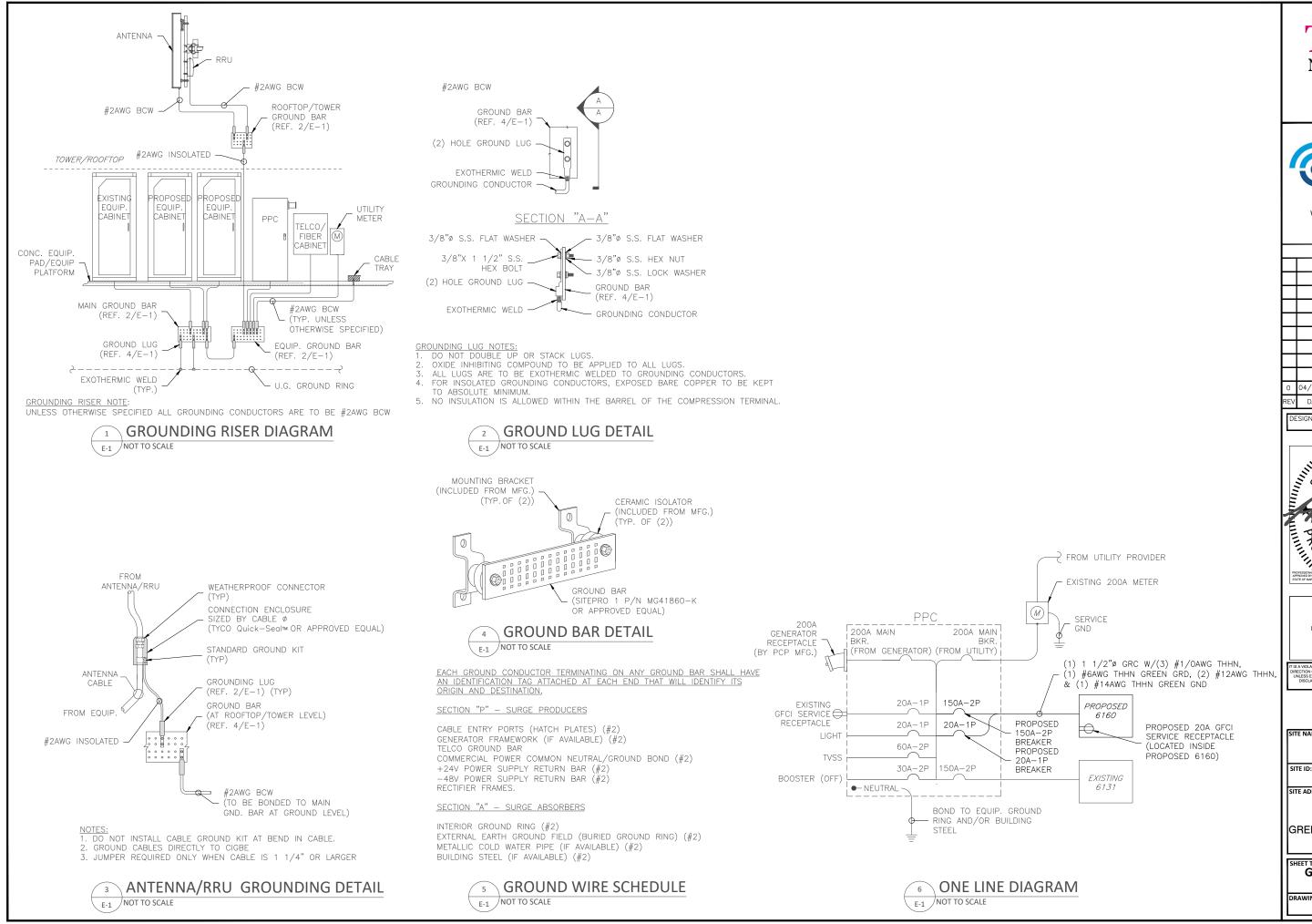
SITE ID: 7WAS039C

SITE ADDRESS:

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EQUIPMENT DETAILS

A-7

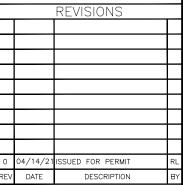


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DESIGNED BY APPROVED BY



DATE: 04/14/21

PHILIP A. BURTNER, P.E. MARYLAND PROFESSIONAL ENGINEER LICENSE #23172

SITE NAME

USDA - LAUREL

7WAS039C

SITE ADDRESS:

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GROUNDING DETAILS & ONE LINE DIAGRAM

G-1

Attachment 3. Tribal and NHO Involvement

At an early stage in the planning process, the Nationwide Agreement requires the Applicant to gather information from appropriate Indian Tribes or Native Hawaiian Organizations (NHOs) to assist in the identification of historic properties of religious and cultural significance to them. Describe measures taken to identify Indian Tribes and NHOs that may attach religious and cultural significance to historic properties that may be affected by the collocation within the Areas of Potential Effect (APE) for direct and visual effects. If such Indian Tribes or NHOs were identified, list them and provide a summary of contacts by either the FCC, the Applicant, or the Applicant's representative. Provide copies of relevant documents, including correspondence. If no such Indian Tribes or NHOs were identified, please explain.

On April 29, 2021, AEC uploaded the Site installation information to the FCC's Tower Construction Notification System (response email attached). To date, seven tribes have responded with interest. AEC will forward additional information to the interested tribes, and any pertinent responses received will be forwarded to Maryland Historic Trust (MHT).

 From:
 towernotifyinfo@fcc.gov

 To:
 cmoses@aec-env.com

 Cc:
 tcnsweekly@fcc.gov

Subject: NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION

INFORMATION - Email ID #7684880

Date: Friday, May 7, 2021 3:07:06 AM

Dear Applicant:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the notification that you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter). We note that the review period for all parties begins upon receipt of the Submission Packet pursuant to Section VII.A of the NPA and notifications that do not provide this serve as information only.

Persons who have received the notification that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribal Nations"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribal Nations and NHOs and in making further contacts, the City and State of the Seat of Government for each Tribal Nation and NHO, as well as the designated contact person, is included in the listing below. We note that Tribal Nations may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribal Nations and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribal Nation or NHO. (NPA, Section IV.F.4).

The notification that you provided was forwarded to the following Tribal Nations and NHOs. A Tribal Nation or NHO may not respond until a full Submission Packet is provided. If, upon receipt, the Tribal Nation or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribal Nation or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event a Tribal Nation or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribal Nation or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Second Report and Order released on March 30, 2018 (FCC 18-30).

1. Historic Preservation Director Erin Paden - Delaware Nation - 31064 State Highway 281 (PO Box: 825) Anadarko, OK - banderson@delawarenation-nsn.gov; epaden@delawarenation-nsn.gov - 405-247-2448 (ext: 1403) - electronic mail

Exclusions: The Delaware Nation of Oklahoma Historic Preservation Office has developed the following consultation procedures for all TCNS projects identified as undertakings by the Federal Communications Commission. Please submit a 1 page cover letter with the TCNS Number, Project Name, City, County, State, Project Type, Height of tower, Land use, Explanation of ground disturbance, Geographic Coordinates in decimal degrees, and Contact information including individuals name, address, phone, fax, and email.

If the applicant/tower builder receives no response from the Bad River Band of Lake Superior Tribe of Chippewa Indians within 30 days after notification through TCNS, the Bad River Band of Lake Superior Tribe of Chippewa Indians has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder,

however, must immediately notify the Bad River Band of Lake Superior Tribe of Chippewa Indians in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

3. Cell Tower Coordinator Kelly Nelson - Eastern Shawnee Tribe of Oklahoma - 70500 East 128 Road Wyandotte, OK - celltower@estoo.net - 918-238-5151 (ext: 1861) - regular mail Exclusions: DO NOT EMAIL DOCUMENTATION; it will be deleted without being opened. Submit one printed color copy by US postal mail or other parcel carrier of all documentation to:

Eastern Shawnee Tribe Attn: CellTower Program 70500 E. 128 Rd. Wyandotte, OK 74370

Provide a 1-page cover letter with the following information:

- a. TCNS Number
- b. Company Name
- c. Project Name, City, County, State
- d. Project type
- e. Project coordinates
- f. Contact information

The Eastern Shawnee Procedures document is available and highly recommended for guidance; send an email to celltower@estoo.net requesting our most current copy.

4. THPO Sherri Clemons - Wyandotte Nation - 64700 E, Hwy 60 Wyandotte, OK - sclemons@wyandottenation.org - 918-678-6344 - electronic mail

Exclusions: Please refrain from sending information via mail. We ONLY accept information via email to: sclemons@wyandotte-nation.org. We will advise if we require additional information.

5. Cell t Kim Jumper - Shawnee Tribe - 29 South 69A Highway Miami, OK - tcns@shawnee-tribe.com - 918-542-2441 - electronic mail

6. Dr. Brice M Obermeyer - Delaware Tribe of Indians of Oklahoma - 1 Kellog Drive Roosevelt Hall, Room 212 Emporia, KS - bobermeyer@delawaretribe.org; sbachor@delawaretribe.org - 620-341-6699 - electronic mail Exclusions: The Delaware Tribe of Indians areas of interest include our aboriginal territories (circa 1600), known locations of historic Delaware settlements, routes of removal and forced migration, and all lands of Delaware aboriginal title ceded by treaty to the United States. If you are receiving this notification, then your project falls within these areas of interest and we ask that you provide us with a cover letter describing the project and its location (including the project coordinates) as well as a topographic map showing the project location. If an archaeological survey has already been performed in preparation for the project, please send a copy of that as well. Additionally, we may request a biological assessment of culturally significant treaty resources which may be affected by the proposed undertaking.

We are only interested in consulting on projects that involve ground disturbance that is planned to take place in both undisturbed and previously disturbed contexts. We are not interested in consulting on collocations or projects that involve no ground disturbance. If your project does involve ground disturbance or you do not receive a response from us within 30 days of submitting the above project information, then we have no objection to the project. However, if any archaeological resources or human remains are disturbed at any point in the project planning or construction, we ask that the project be halted until we can be notified of the inadvertent discovery and can determine the most appropriate course of action. If your company would like a formal written response from the Delaware Tribe concerning the potential impact of your project to culturally and religiously significant sites, please contact Brice Obermeyer at bobermeyer@delawaretribe.org to request such a response.

In order to better facilitate consultation throughout our areas of interest we have three regional tribal historic preservation offices. While our Tribal Headquartersremains in Oklahoma, our Eastern Office in Pennsylvania is the point of contact for all consultation within our Eastern Region which includes the states of Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland and Virginia. If your project exists in any

of these states, please contact Susan Bachor with the above project information at the following e-mail address. Our

eastern office prefers to receive digital submissions and the project information can be submitted by e-mail.

Susan Bachor, DTHPO Special Assistant Eastern Office P.O. Box 64 Pocono Lake, PA 18347 (610) 761-7452 sbachor@delawaretribe.org

Our Midwestern office in Minnesota is the point of contact for all consultation within our Midwestern region which includes the states of West Virginia, Ohio, Indiana, Michigan and Illinois. If your project exists in any of these states, please contact Larry Heady with the above project information at the following e-mail address. Our Midwestern office prefers to receive digital submissions and the projectinformation can be submitted by e-mail.

Larry Heady, DTHPO Special Assistant Midwestern Office 1929 E. 6th Street Duluth, MN 55812 (262) 825-7586 lheady@delawaretribe.org

Our main office in Emporia, Kansas is the point of contact for all consultation within our Western Region which

includes the states of Oklahoma, Kansas and Missouri. If your project exists in any of these states, please contact Brice Obermeyer with the above project information at the following e-mail address. Our Main Office prefers to receive digital submissions and the project information can be submitted by e-mail.

Dr. Brice Obermeyer, DTHPO Director, Main Office 1 Kellogg Circle Roosevelt Hall, Rm 212 Emporia State University Emporia, KS 66801 (602) 341-6699 bobermeyer@delawaretribe.org

We, at the Delaware Tribe Historic Preservation Office, along with our Chief and Tribal Council remain committed to protecting the cultural and physical integrity of our historic sites, traditional cultural properties, sacred sites, objects of cultural patrimony, and most importantly, the remains of our Ancestors. We look forward to working with you on our shared interests in preserving and protecting Delaware heritage within our areas of interest.

If the applicant/tower builder receives no response from the Delaware Tribe of Indians of Oklahoma within 30 days after notification through TCNS, the Delaware Tribe of Indians of Oklahoma has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder,

however, must immediately notify the Delaware Tribe of Indians of Oklahoma in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

7. Program Manager Ellen Chapman - Cultural Heritage Partners - 1811 East Grace St Suite A Richmond, VA - ellen@culturalheritagepartners.com; rapn8n@gmail.com - 434-327-6663 - electronic mail

The notification that you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA unless the project is excluded from SHPO review under Section III D or E of the NPA.

- 8. Architectural Historian Anne Brockett D.C. Historic Preservation Office 801 North Capitol Street NE 3rd Floor Washington, DC anne.brockett@dc.gov 202-442-8842 electronic mail
- 9. SHPO Elizabeth Hughes Maryland Historical Trust 100 Community Place Third Floor Crownsville, MD beth.cole@maryland.gov 410-514-7631 electronic mail
- 10. Historic Preservation Supervisor Barbara Frederick Pennsylvania State Historic Preservation Office Pennsylvania Historical & Museum Commission 400 North St, 2nd Floor Harrisburg, PA bafrederic@pa.gov -

11. Deputy SHPO Susan Pierce - West Virginia Division of Culture & History, Historic Preservation Office - 1901 Kanawha Boulevard East Charleston, WV - susan.pierce@wvculture.org - -- electronic mail

TCNS automatically forwards all notifications to all Tribal Nations and SHPOs that have an expressed interest in the geographic area of a proposal. However, if a proposal for PTC wayside poles falls within a designated exclusion, you need not expect any response and need not pursue any additional process with that Tribal Nation or SHPO. In addition, a particular Tribal Nation or SHPO may also set forth policies or procedures within its details box that exclude from review certain facilities (for example, a statement that it does not review collocations with no ground disturbance; or that indicates that no response within 30 days indicates no interest in participating in preconstruction review).

Please be advised that the FCC cannot guarantee that the contact(s) listed above have opened and reviewed an electronic or regular mail notification. If you learn that any of the above contact information is no longer valid, please contact the FCC by emailing tcnshelp@fcc.gov. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 04/29/2021

Notification ID: 230708

Excluded from SHPO Review: No

Tower Owner Individual or Entity Name: T-Mobile Northeast, LLC

Consultant Name: Catherine Moses

Street Address: 8610 Washington Boulevard

Suite 217

City: Jessup

State: MARYLAND Zip Code: 20794 Phone: 301-776-0500

Email: cmoses@aec-env.com

Structure Type: TANK - Any type of Tank (Water, Gas, etc)

Latitude: 39 deg 1 min 1.2 sec N Longitude: 76 deg 51 min 39.1 sec W Location Description: Edmonston Road

City: Greenbelt State: MARYLAND

County: PRINCE GEORGE'S

Detailed Description of Project: 7WAS039C - T-Mobile proposes modifications to an existing telecommunications

facility. No ground disturbance is proposed for this project.

Ground Elevation: 52.1 meters

Support Structure: 46.3 meters above ground level Overall Structure: 46.3 meters above ground level Overall Height AMSL: 98.4 meters above mean sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic Help Request form located on the FCC's website at:

https://www.fcc.gov/wireless/available-support-services

a.m. to 6:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you, Federal Communications Commission

Attachment 4. Local Government

A. Has any local government agency been contacted and invited to become a consulting party pursuant to Section V.A. of the Nationwide Agreement? If so, list the local government agencies contacted. Provide a summary of contacts and copies of any relevant documents.

AEC contacted the Prince George's County Planning Department on May 10, 2021 to determine if they were interested in commenting on the project's potential effects to historic properties. Any response received from the Prince George's County Planning Department will be forwarded to MHT.

B. If a local government agency will be contacted but has not been to date, explain why and when such contact will take place. N/A



May 10, 2021

Mr. Howard Berger, Supervisor
Prince George's County Planning Department
Historic Preservation Commission
14741 Governor Oden Bowie Drive

Subject: Section 106 Submittal Comments

Proposed Modification Site - Sprint "7WAS039C"

Edmonston Road

Greenbelt, Maryland 20770

39°01'01.2" North 76°51'39.1" West AEC Project No. CL-2021-005

Dear Mr. Berger,

T-Mobile proposes the modification of an existing telecommunications facility on the existing water tank located at the above-referenced coordinates. T-Mobile proposes replacing six existing antennas (three 56-inch tall by 12-inch wide, three 96.6-inch tall by 11.9-inch wide) with six new antennas (three 95.9-inch tall by 24-inch wide, and three 33.1-inch tall by 20.5-inch wide) on existing mounts. T-Mobile also proposes the addition of three new RRUs and two replacement equipment cabinets. Please note that no ground disturbance is proposed for this project. The Site consists of a 152.2-foot-tall water tower located approximately 1,200 feet southwest from the intersection of Baltimore Washington Parkway and Beaver Dam Road.

In accordance with Section 106 of the National Historic Preservation Act, we are seeking comments from the public and any interested parties on potential effects to historic properties.

If you would like to comment on this project, please contact me at your earliest convenience. I can be reached by phone at (301) 776-0500, or by email at cmoses@aec-env.com. Thank you.

Sincerely,

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC

Catherine Moses

Catherine Moses Staff Scientist

Enclosure

Attachment 5. Public Involvement

Describe measures taken to obtain public involvement in this project (e.g. notices, letters, or public meetings). Provide copies of relevant documentation.

A public notice ad for the proposed installation is to run in the Enquirer-Gazette on May 20, 2021. Any comments received in response to the ad will be forwarded to MHT. A copy of the public notice ad is included in this attachment.

Invitation to Comment on a Proposed Wireless Telecommunications Facility

Interested persons are invited to comment on the wireless telecommunications project proposed on a water tower located at 39°01'01.2"N 76°51'39.1"W in Greenbelt, Maryland with respect to impacts on, and specifically, the potential effects to, historic properties located at or near this facility. The project involves the replacing of six existing antennas with six new antennas, on a 152.2-foot water tower. Three new radio units and two replacement equipment cabinets are also proposed. Comments regarding potential effects to historic properties should be submitted within 30 days from the date of this publication to Mr. Andrew Fleming at 8610 Washington Boulevard, Suite 217, Jessup, MD 20794, (301) 776-0500, or afleming@aec-env.com. This notice is provided in accordance with regulations of the Federal Communications Commission, 47 C.F.R. Part 1, Subpart I and Appendices B.

2946268 EQ 5/20/2021

CERTIFICATE OF PUBLICATION

STATE OF: MARYLAND

COUNTY OF: Prince George's County

This is to certify that the annexed legal advertisement has been published in the publications and insertions listed below. "Invitation - Water Tower in Greenbelt..." was published in the:

The Enquirer-Gazette

05/20/21

games F. Normandin President & Publisher Invitation to Comment on a Proposed Wireless Telecommunications Facility

Interested persons are invited to comment on the wireless telecommunications project proposed on a water tower located at 39°01'01.2"N 76°51'39.1"W in Greenbelt, Maryland with respect to impacts on, and specifically, the potential effects to, historic properties located at or near this facility. The project involves the replacing of six existing antennas with six new antennas, on a 152.2-foot water tower. Three new radio units and two replacement equipment cabinets are also proposed. Comments regarding potential effects to historic properties should be submitted within 30days from the date of this publication to Mr. Andrew Fleming at 8610 Washington Boulevard, Suite 217, Jessup, MD 20794, (301) 776-0500, or afleming@aec-env.com. This notice is provided in accordance with regulations of the Federal Communications Commission, 47 C.F.R. Part 1, Subpart I and Appendices B.

2946268 EQ 5/20/2021

Attachment 6. Additional Consulting Parties

List additional consulting parties that were invited to participate by the applicant, or independently requested to participate. Provide any relevant correspondence or other documents.

AEC contacted the Prince George's County Historical Society on May 10, 2021, inviting them to comment on the proposed installation. Any response received from the Prince George's County Historical Society will be forwarded to MHT.



May 10, 2021

Prince George's County Historical Society P.O Box 1513 Upper Marlboro, Maryland 20773

Subject: Section 106 Submittal Comments

Proposed Modification Site - Sprint "7WAS039C"

Edmonston Road

Greenbelt, Maryland 20770

39°01'01.2" North 76°51'39.1" West AEC Project No. CL-2021-005

To Whom It May Concern,

T-Mobile proposes the modification of an existing telecommunications facility on the existing water tank located at the above-referenced coordinates. T-Mobile proposes replacing six existing antennas (three 56-inch tall by 12-inch wide, three 96.6-inch tall by 11.9-inch wide) with six new antennas (three 95.9-inch tall by 24-inch wide, and three 33.1-inch tall by 20.5-inch wide) on existing mounts. T-Mobile also proposes the addition of three new RRUs and two replacement equipment cabinets. Please note that no ground disturbance is proposed for this project. The Site consists of a 152.2-foot-tall water tower located approximately 1,200 feet southwest from the intersection of Baltimore Washington Parkway and Beaver Dam Road.

In accordance with Section 106 of the National Historic Preservation Act, we are seeking comments from the public and any interested parties on potential effects to historic properties.

If you would like to comment on this project, please contact me at your earliest convenience. I can be reached by phone at (301) 776-0500, or by email at cmoses@aec-env.com. Thank you.

Sincerely,

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC

Catherine Moses

Catherine Moses
Staff Scientist

Enclosure

Attachment 7. Areas of Potential Effects

A. Describe the APE for direct effects and describe how this was determined.

The APE for direct effects is limited to any structures that will be directly altered by the proposed installation, and proposed areas of ground disturbance. Based on review of construction drawings and site reconnaissance, AEC determined that the APE for direct effects is limited to the existing Site building. The APE for direct effects is shown on the drawings included in Attachment 2.

B. Describe the APE for visual effects and describe how this was determined.

As this project is a collocation on a 152.2-foot-tall water tower, a 500-APE for visual effects was used. This was determined based on the site reconnaissance and guidance within the NPA.

Attachment 8. Historic Properties Identified in the APE for Visual Effects

A. Currently Listed and Eligible Properties:

Review of MHT files identified the following listed and/or eligible historic resources within the APE for visual effects:

Name of Resource	Distance from Project Site	NR Status
Beltsville Agricultural Resource Center (BARC) (PG: 62-14)	Within	Eligible
Baltimore-Washington Parkway (PG: 69-26)	230 feet	Listed

A copy of the inventory form for the identified resource is included within this attachment. A copy of the historic resource's location map is included within Attachment 12

B. Properties Identified Through Comments of Indian Tribes, Local Governments, or Members of the Public:

No such properties have been identified.

C. Properties Listed in 8a Considered No Longer Eligible For Inclusion on the National Register:

No such properties have been identified.

Attachment 9. Historic Properties Identified in the APE for Direct Effects

A. Properties Identified in 8a or 8b Within the APE for Direct Effects:

No such properties were identified.

B. Properties Identified, Not Listed Within Attachment 9A, Within the APE for Direct Effects that are Considered to be Eligible for Listing in the National Register:

No such properties were identified.

C. Techniques and Methodology Used to Identify Historic Properties Within the APE for Direct Effects:

For identification of historic structures and previously recorded archaeological sites, AEC conducted a review at the MHT library.

No archeological investigation was conducted as no ground disturbance is proposed to occur during T-Mobile's installation.

Attachment 10. Statement of Effects

For each property identified as an historic property in Attachments 8 and 9:

A. Indicate whether the Applicant believes the proposed collocation would have a) no effect; b) no adverse effect; or, c) adverse effect. Explain how each assessment was made. Provide supporting documentation if necessary.

A copy of the Statement of Effect, prepared by Architectural Historian David C. Berg, is included within this Attachment.

B. Provide copies of any correspondence and summaries of any oral communication with the SHPO/THPO.

No correspondence with the SHPO has occurred to date.

C. Describe any alternatives that have been considered that might avoid, minimize or mitigate any adverse effects. N/A

Attachment 10: Effects on Identified Properties

April 29, 2021

Site Number: 7WAS039C Edmonston Road Greenbelt, MD 20770

This Statement of Effects has been prepared for the proposed changes to an existing telecommunications installation at Edmonston Road in Greenbelt, Maryland. Because telecommunication facilities are Federal Communication Commission (FCC)-licensed entities, the construction of the facility constitutes an undertaking and its potential impact on historic properties must be considered in accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended).

The subject property is a water tank constructed before 1957 according to aerial photographs. Existing installations include antennas and equipment by T-Mobile and other carriers. T-Mobile installations include three (3) antennas per sector for a total of nine (9) antennas and one (1) RRU per sector for a total of three (3) RRUs. Existing installations also include cable and equipment cabinets on a concrete pad within an existing chain-link fenced compound. T-Mobile proposes the removal and replacement of two (2) antenna per sector for a total of six (6) antenna removals and replacements and the removal and replacement of one (1) RRU per sector for a total of three (3) RRU removals and replacements. T-Mobile also proposes the removal of existing 3x6 hybrid cables to be replaced with six (6) new 6x12 hybrid cables. One existing equipment cabinet within the equipment area will be replaced with two smaller equipment cabinets. Existing and proposed T-Mobile antennas are mounted at a radial center of 135'-0" agl. The top of the water tower is at a height of 152'-2" agl. No other construction related activities are anticipated. The undertaking does not involve any ground disturbance.

Area of Potential Effects

Federal regulations related to telecommunication projects define the Area of Potential Effect (APE) as "the geographic area or areas within which an Undertaking may directly or indirectly cause alterations in the character or use of Historic Properties, if any such properties exist." As there is no ground disturbance associated with this project, the APE for direct effects for this project is limited to the equipment installation locations. Based upon conditions observed in the field, the APE has been determined to be a 500-foot radius around the installation site.

Identified Properties

A review of previously inventoried historic properties was conducted to assess potential direct and indirect/visual effects. The subject water tank is subject to SHPO review because it is over 45 years of age. It has not been determined eligible for the National Register of Historic Places. The subject property is a common water tank. It is not associated with historically significant persons or events and is not a noteworthy example of its type or method of construction, nor is it the work of a master and is therefore not eligible for the National Register of Historic Places. The subject property lies within the Beltsville Agricultural Resource Center [BARC] (PG: 62-14) which was determined eligible for the National Register of Historic Places in 1999. The Baltimore-Washington Parkway (PG: 69-26) lies approximately 230 feet east of the structure and was listed on the National Register in 1991. Also with

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the APE is the BARC Garage/Hydrology Lab Annex Building 288A (PG: 67-43), which has been determined not eligible for the National Register. The BARC Potable Water System (PG: 61-23) is located at various locations within BARC and has been determined not eligible for the National Register. There are no other National Register listed or eligible properties within the APE for indirect/visual effects (Map 1, Table 1).

Effects on Identified Properties

Direct Effects

As the subject water tank is not individually eligible for the National Register of Historic Places, there will be **No Effect** with respect to direct effects.

Indirect/Visual Effects

The subject water tank is located in a secluded area surrounded by forest and present installations are not highly visible from resources within the Beltsville Agricultural Resource Center [BARC] or the Baltimore-Washington Parkway. The proposed antenna and RRU removals and replacements constitute a minor change to this existing facility and the changes will not be readily distinguishable from existing installations. Existing and proposed antennas do not rise above the top to the water tank and blend into the massing of the water tank. The additions will not endanger those qualities that make either resource eligible for the National Register of Historic Places. Therefore, there will be **No Adverse Effect** with respect to indirect/visual effects.

Please refer to the following maps and photographs for additional information.

David C. Berg Architectural Historian

Attachment 11. Photographs



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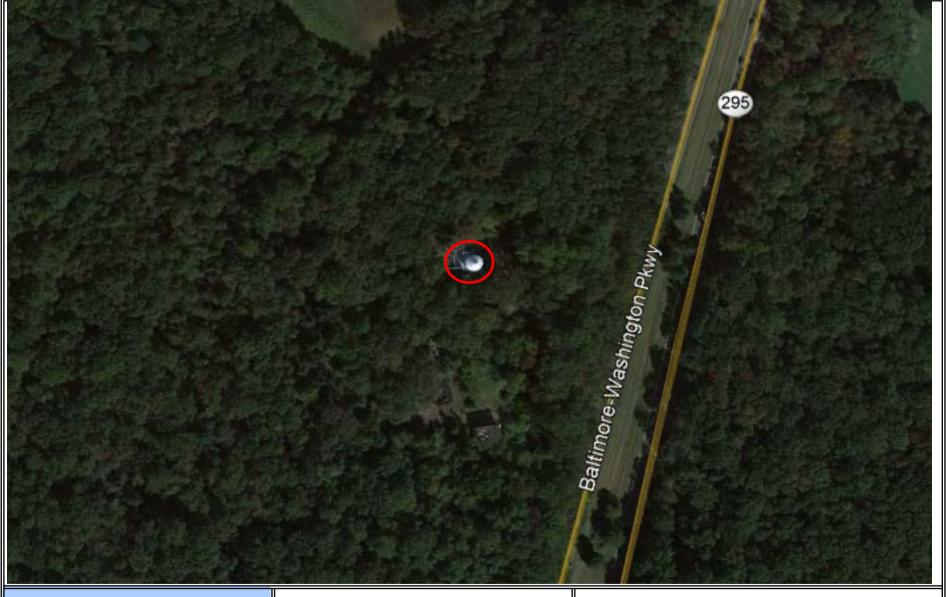
Attachment 12. Maps

Please see the attached topographic map, SHPO map, and APE map. Please note that as all photographs were taken from the general Site location, no photograph location map was included for the Site.

Applicant's Name: T-Mobile Project Name: 7WAS039C Project Number: CL-2021-005



Table 1. Historic Properties within a 500-foot radius of the project site					
Name	Distance from project site	National Register Status	Effect		
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Phone: 301-776-0500 Fax: 301-776-1123

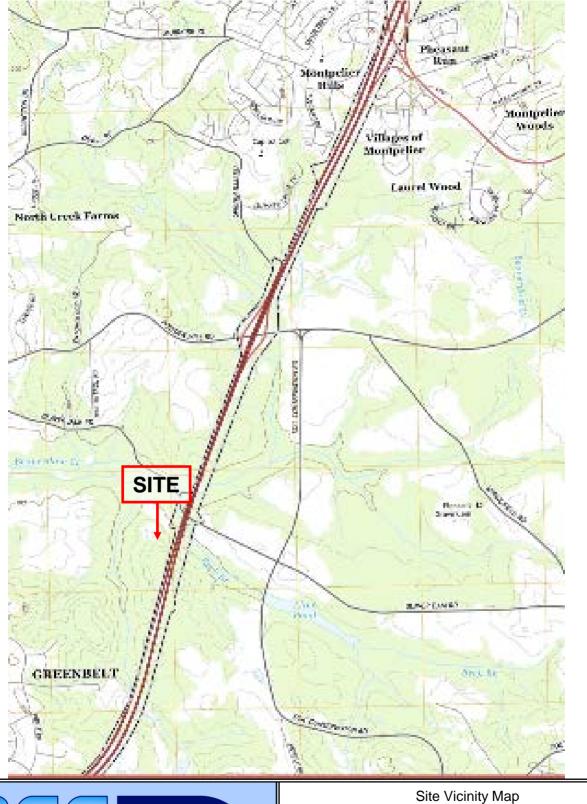
Legend

= Approximate Site Boundary



Site Plan "7WAS039C" Edmonston Road Greenbelt, Maryland 20770

Project No.: CL-2021-005 Report Date: May 2021 Drawn By: CEM





8610 Washington Boulevard, Suite 217 Jessup, Maryland 20794 Phone: 301-776-0500 Fax: 301-776-1123

AEC Project No.: CL-2021-005

USGS Laurel, MD, Quadrangle 2014 "7WAS039C" Edmonston Road Greenbelt, Maryland 20770

May 2021

Report Date:

Drawn By: CEM

ATTACHMENT 2

Tribal Correspondence



Erin Paden Historic Preservation Director Delaware Nation PO Box: 825 Anadarko, Oklahoma

Subject: TCNS ID # 230708, Project Information

Proposed Modification Site - Sprint "7WAS039C"

Edmonston Road

Greenbelt, Maryland 20770

39°01'01.2" North 76°51'39.1" West AEC Project No. CL-2021-005

To Whom It May Concern:

Advantage Environmental Consultants, LLC (AEC), on behalf of T-Mobile Northeast, LLC, respectfully requests your comment on the above-referenced project. The project was initially uploaded into the TCNS system on April 29, 2021. T-Mobile proposes the modification of an existing telecommunications facility on the existing water tank located at the above-referenced coordinates. T-Mobile proposes replacing six existing antennas (three 56-inch tall by 12-inch wide, three 96.6-inch tall by 11.9-inch wide) with six new antennas (three 95.9-inch tall by 24-inch wide, and three 33.1-inch tall by 20.5-inch wide) on existing mounts. T-Mobile also proposes the addition of three new RRUs and two replacement equipment cabinets. Please note that no ground disturbance is proposed for this project.

The Site consists of a 152.2-foot-tall water tower located approximately 1,200 feet southwest from the intersection of Baltimore Washington Parkway and Beaver Dam Road. I have enclosed the FCC Form 621 for your review.

We look forward to receiving your written response so that we can best address the concerns of the Delaware Nation. Please address your response to my attention at the address listed on the letterhead below, or email me at cmoses@aec-env.com. If you have any questions, please call me at (301) 776-0500. Thank you for your assistance.

Sincerely,

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC

Catherine Moses

Catherine Moses
Staff Scientist



June 21, 2021

To Whom It May Concern:

The Delaware Nation Historic Preservation Department received correspondence regarding the following referenced project(s).

Project(s): TCNS# 230708

Edmonston Road, Greenbelt, MD 20770

AEC Project# CL-2021-005

Our office is committed to protecting tribal heritage, culture and religion with particular concern for archaeological sites potentially containing burials and associated funerary objects.

The Lenape people occupied the area indicated in your letter prior to European contact until their eventual removal to our present locations. According to our files, the location of the proposed project does not endanger cultural, or religious sites of interest to the Delaware Nation. Please continue with the project as planned keeping in mind during construction should an archaeological site or artifacts inadvertently be uncovered, all construction and ground disturbing activities should immediately be halted until the appropriate state agencies, as well as this office, are notified (within 24 hours), and a proper archaeological assessment can be made.

Please note the Delaware Nation, the Delaware Tribe of Indians, and the Stockbridge Munsee Band of Mohican Indians are the only Federally Recognized Delaware/Lenape entities in the United States and consultation must be made only with designated staff of these three tribes. We appreciate your cooperation in contacting the Delaware Nation Historic Preservation Office to conduct proper Section 106 consultation. Should you have any questions, feel free to contact our offices at 405-247-2448 ext. 1403.

Erin Paden

Director of Historic Preservation

Crie M. Paden

Delaware Nation

31064 State Highway 281

Anadarko, OK 73005

Ph. 405-247-2448 ext. 1403

epaden@delawarenation-nsn.gov



Edith Leoso THPO

Bad River Band of Lake Superior Tribe of Chippewa Indians

PO Box: 39

Odanah, Wisconsin

Subject: TCNS ID # 230708, Project Information

Proposed Modification Site - Sprint "7WAS039C"

Edmonston Road

Greenbelt, Maryland 20770

39°01'01.2" North 76°51'39.1" West AEC Project No. CL-2021-005

To Whom It May Concern:

Advantage Environmental Consultants, LLC (AEC), on behalf of T-Mobile Northeast, LLC, respectfully requests your comment on the above-referenced project. The project was initially uploaded into the TCNS system on April 29, 2021. T-Mobile proposes the modification of an existing telecommunications facility on the existing water tank located at the above-referenced coordinates. T-Mobile proposes replacing six existing antennas (three 56-inch tall by 12-inch wide, three 96.6-inch tall by 11.9-inch wide) with six new antennas (three 95.9-inch tall by 24-inch wide, and three 33.1-inch tall by 20.5-inch wide) on existing mounts. T-Mobile also proposes the addition of three new RRUs and two replacement equipment cabinets. Please note that no ground disturbance is proposed for this project.

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Sincerely,

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC

Catherine Moses

Catherine Moses
Staff Scientist



Kelly Nelson Cell Tower Coordinator Eastern Shawnee Tribe of Oklahoma 70500 East 128 Road Wyandotte, Oklahoma

Subject: TCNS ID # 230708, Project Information

Proposed Modification Site - Sprint "7WAS039C"

Edmonston Road

Greenbelt, Maryland 20770

39°01'01.2" North 76°51'39.1" West AEC Project No. CL-2021-005

To Whom It May Concern:

Advantage Environmental Consultants, LLC (AEC), on behalf of T-Mobile Northeast, LLC, respectfully requests your comment on the above-referenced project. The project was initially uploaded into the TCNS system on April 29, 2021. T-Mobile proposes the modification of an existing telecommunications facility on the existing water tank located at the above-referenced coordinates. T-Mobile proposes replacing six existing antennas (three 56-inch tall by 12-inch wide, three 96.6-inch tall by 11.9-inch wide) with six new antennas (three 95.9-inch tall by 24-inch wide, and three 33.1-inch tall by 20.5-inch wide) on existing mounts. T-Mobile also proposes the addition of three new RRUs and two replacement equipment cabinets. Please note that no ground disturbance is proposed for this project.

The Site consists of a 152.2-foot-tall water tower located approximately 1,200 feet southwest from the intersection of Baltimore Washington Parkway and Beaver Dam Road. I have enclosed the FCC Form 621 for your review.

We look forward to receiving your written response so that we can best address the concerns of the Eastern Shawnee Tribe of Oklahoma. Please address your response to my attention at the address listed on the letterhead below, or email me at cmoses@aec-env.com. If you have any questions, please call me at (301) 776-0500. Thank you for your assistance.

Sincerely.

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC

Catherine Moses

Catherine Moses
Staff Scientist

 From:
 towernotifyinfo@fcc.gov

 To:
 cmoses@aec-env.com

 Cc:
 tcns.fccarchive@fcc.gov

Subject: Reply to Proposed Tower Structure (Notification ID: 230708) - Email ID #7696154

Date: Monday, May 10, 2021 12:00:18 PM

Dear Catherine Moses,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from Cell Tower Coordinator Kelly Nelson of the Eastern Shawnee Tribe of Oklahoma in reference to Notification ID #230708:

The Cultural Preservation Department of the Eastern Shawnee Tribe of Oklahoma (ESTO) has received the documentation for the referenced TCNS project. ESTO has reviewed the project in accordance with Section 106 of the National Historic Preservation Act (NHPA). Based on the information provided and a review of our records, we find that this project will have No Adverse Effect on properties of sacred and/or cultural significance to the Tribe. The project site is within the known regional area of the Shawnee prehistorically and historically, be aware of inadvertent discoveries. However, ESTO has no objection to the project proceeding as described. Please note that any future changes to this project will require additional consultation.

In accordance with the NHPA of 1966 (16 U.S.C. § 470-470w-6), federally funded, licensed, or permitted undertakings that are subject to the Section 106 review process must determine effects to significant historic properties. As clarified in Section 101(d)(6)(A-B), historic properties may have religious and/or cultural significance to Indian Tribes. Section 106 of NHPA requires Federal agencies to consider the effects of their actions on all significant historic properties (36 CFR Part 800) as does the National Environmental Policy Act of 1969 (43 U.S.C. § 4321-4347 and 40 CFR § 1501.7(a).

However, if during construction cultural objects or human remains are inadvertently discovered, please stop work immediately and contact the Cultural Preservation Department of the Eastern Shawnee Tribe of Oklahoma. (918)238-5151 x1861

Neyiwa,

Kelly Nelson Cell Tower Coordinator Eastern Shawnee Tribe of Oklahoma

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 04/29/2021

Notification ID: 230708

Tower Owner Individual or Entity Name: T-Mobile Northeast, LLC

Consultant Name: Catherine Moses

Street Address: 8610 Washington Boulevard

Suite 217

City: Jessup

State: MARYLAND Zip Code: 20794 Phone: 301-776-0500

Email: cmoses@aec-env.com

Structure Type: TANK - Any type of Tank (Water, Gas, etc)

Latitude: 39 deg 1 min 1.2 sec N Longitude: 76 deg 51 min 39.1 sec W Location Description: Edmonston Road

City: Greenbelt State: MARYLAND

County: PRINCE GEORGE'S

Detailed Description of Project: 7WAS039C - T-Mobile proposes modifications to an existing telecommunications facility. No ground disturbance is proposed for this project.

Ground Elevation: 52.1 meters

Support Structure: 46.3 meters above ground level Overall Structure: 46.3 meters above ground level

Overall Height AMSL: 98.4 meters above mean sea level



Sherri Clemons THPO Wyandotte Nation 64700 E, Hwy 60 Wyandotte, Oklahoma

Subject: TCNS ID # 230708, Project Information

Proposed Modification Site - Sprint "7WAS039C"

Edmonston Road

Greenbelt, Maryland 20770

39°01'01.2" North 76°51'39.1" West AEC Project No. CL-2021-005

To Whom It May Concern:

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The Site consists of a 152.2-foot-tall water tower located approximately 1,200 feet southwest from the intersection of Baltimore Washington Parkway and Beaver Dam Road. I have enclosed the FCC Form 621 for your review.

We look forward to receiving your written response so that we can best address the concerns of the Wyandotte Nation. Please address your response to my attention at the address listed on the letterhead below, or email me at cmoses@aec-env.com. If you have any questions, please call me at (301) 776-0500. Thank you for your assistance.

Sincerely,

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC

Catherine Moses

Catherine Moses
Staff Scientist

 From:
 towernotifyinfo@fcc.gov

 To:
 cmoses@aec-env.com

 Cc:
 tcnsweekly@fcc.gov

Subject: Proposed Construction of Communications Facilities Notification of Final Contacts - Email ID #29680

Date: Thursday, July 1, 2021 9:19:30 AM

T-Mobile Northeast, LLC Catherine Moses 8610 Washington Boulevard Suite 217 Jessup, MD 20794

Dear Applicant:

This letter addresses the proposed communications facilities listed below that you have referred to the Federal Communications Commission (Commission) for purposes of contacting federally recognized Indian Tribes, including Alaska Native Villages (collectively Indian Tribes), and Native Hawaiian Organizations (NHOs), as specified by Section IV.G of the Nationwide Programmatic Agreement (NPA). Consistent with the procedures outlined in the Commission's Wireless Infrastructure Second Report and Order (1), we have contacted the Indian Tribes or NHOs identified in the attached Table for the projects listed in the attached Table. You referred these projects to us between 06/24/2021 and 07/01/2021. Our contact with these Tribal Nations or NHOs was sent on 07/01/2021.

Thus, as described in the Wireless Infrastructure Second Report and Order (2), if you or Commission staff do not receive a statement of interest regarding a particular project from any Tribe or NHO within 15 calendar days of 07/01/2021, your obligations under Section IV of the NPA with respect to these Tribal Nations or NHOs are complete. If a Tribal Nation or NHO responds that it has concerns about a historic property of traditional religious and cultural significance that may be affected by the proposed construction within the 15 calendar day period, the Applicant must involve it in the review as set forth in the NPA, and may not begin construction until the process set forth in the NPA is completed.

You are reminded that Section IX of the NPA imposes independent obligations on an Applicant when a previously unidentified site that may be a historic property, including an archeological property, is discovered during construction or after the completion of review. In such instances, the Applicant must cease construction and promptly notify, among others, any potentially affected Tribal Nation or NHO. A Tribal Nation's or NHO's failure to express interest in participating in pre-construction review of an undertaking does not necessarily mean it is not interested in archeological properties or human remains that may inadvertently be discovered during construction. Hence, an Applicant is still required to notify any potentially affected Tribal Nation or NHO of any such finds pursuant to Section IX or other applicable law.

Sincerely,
Jill Springer
Federal Preservation Officer
Federal Communications Commission
jill.springer@fcc.gov

1) See Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Deployment, Second Report and Order, FCC 18-30 (Mar. 30, 2018) (Wireless Infrastructure Second Report and Order).

2) See id. at paras. 111-112.

LIST OF PROPOSED COMMUNICATIONS TOWERS

TCNS# 231123 Referred Date: 06/30/2021 Location: 1330 Maryland Avenue SW, Washington,

DC

Detailed Description of Project: 7WDC113B - Proposed modification to an existing rooftop telecommunication site.

No ground disturbance proposed.

Tribe Name: Cultural Heritage Partners

TCNS# 231195 Referred Date: 06/30/2021 Location: 1101 King Street, Alexandria, VA

Detailed Description of Project: 7WAC014A - T-Mobile proposes modifications to an existing telecommunications facility. Please note that no ground disturbance is proposed for this project.

Tribe Name: Catawba Indian Nation Tribe Name: Chickahominy Indian Tribe Tribe Name: Cultural Heritage Partners

Tribe Name: Delaware Nation

Tribe Name: Nansemond Indian Tribe

Tribe Name: Shawnee Tribe

Tribe Name: The Upper Mattaponi Indian Tribe

TCNS# 230709 Referred Date: 06/30/2021 Location: 1911 North Fort Myer Drive, Arlington, VA

Detailed Description of Project: 7WAC398B - T-Mobile proposes modifications to an existing telecommunications facility. No ground disturbance is proposed for this project.

Tribe Name: Nansemond Indian Tribe

TCNS# 230709 Referred Date: 06/24/2021 Location: 1911 North Fort Myer Drive, Arlington, VA

Detailed Description of Project: 7WAC398B - T-Mobile proposes modifications to an existing telecommunications facility. No ground disturbance is proposed for this project.

Tribe Name: Chickahominy Indian Tribe Tribe Name: Cultural Heritage Partners

Tribe Name: Delaware Nation Tribe Name: Shawnee Tribe

Tribe Name: The Upper Mattaponi Indian Tribe

TCNS# 230708 Referred Date: 06/24/2021 Location: Edmonston Road, Greenbelt, MD

Detailed Description of Project: 7WAS039C - T-Mobile proposes modifications to an existing telecommunications facility. No ground disturbance is proposed for this project.

Tribe Name: Cultural Heritage Partners

Tribe Name: Shawnee Tribe
Tribe Name: Wyandotte Nation

LEGEND:

* - Notification numbers are assigned by the Commission staff for sites where initial contact was not made through TCNS.



Kim Jumper Shawnee Tribe 29 South 69A Highway Miami, Oklahoma

Subject: TCNS ID # 230708, Project Information

Proposed Modification Site - Sprint "7WAS039C"

Edmonston Road

Greenbelt, Maryland 20770

39°01'01.2" North 76°51'39.1" West AEC Project No. CL-2021-005

To Whom It May Concern:

Advantage Environmental Consultants, LLC (AEC), on behalf of T-Mobile Northeast, LLC, respectfully requests your comment on the above-referenced project. The project was initially uploaded into the TCNS system on April 29, 2021. T-Mobile proposes the modification of an existing telecommunications facility on the existing water tank located at the above-referenced coordinates. T-Mobile proposes replacing six existing antennas (three 56-inch tall by 12-inch wide, three 96.6-inch tall by 11.9-inch wide) with six new antennas (three 95.9-inch tall by 24-inch wide, and three 33.1-inch tall by 20.5-inch wide) on existing mounts. T-Mobile also proposes the addition of three new RRUs and two replacement equipment cabinets. Please note that no ground disturbance is proposed for this project.

The Site consists of a 152.2-foot-tall water tower located approximately 1,200 feet southwest from the intersection of Baltimore Washington Parkway and Beaver Dam Road. I have enclosed the FCC Form 621 for your review.

We look forward to receiving your written response so that we can best address the concerns of the Shawnee Tribe. Please address your response to my attention at the address listed on the letterhead below, or email me at cmoses@aec-env.com. If you have any questions, please call me at (301) 776-0500. Thank you for your assistance.

Sincerely,

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC

Catherine Moses

Catherine Moses Staff Scientist
 From:
 towernotifyinfo@fcc.gov

 To:
 cmoses@aec-env.com

 Cc:
 tcnsweekly@fcc.gov

Subject: Proposed Construction of Communications Facilities Notification of Final Contacts - Email ID #29680

Date: Thursday, July 1, 2021 9:19:30 AM

T-Mobile Northeast, LLC Catherine Moses 8610 Washington Boulevard Suite 217 Jessup, MD 20794

Dear Applicant:

This letter addresses the proposed communications facilities listed below that you have referred to the Federal Communications Commission (Commission) for purposes of contacting federally recognized Indian Tribes, including Alaska Native Villages (collectively Indian Tribes), and Native Hawaiian Organizations (NHOs), as specified by Section IV.G of the Nationwide Programmatic Agreement (NPA). Consistent with the procedures outlined in the Commission's Wireless Infrastructure Second Report and Order (1), we have contacted the Indian Tribes or NHOs identified in the attached Table for the projects listed in the attached Table. You referred these projects to us between 06/24/2021 and 07/01/2021. Our contact with these Tribal Nations or NHOs was sent on 07/01/2021.

Thus, as described in the Wireless Infrastructure Second Report and Order (2), if you or Commission staff do not receive a statement of interest regarding a particular project from any Tribe or NHO within 15 calendar days of 07/01/2021, your obligations under Section IV of the NPA with respect to these Tribal Nations or NHOs are complete. If a Tribal Nation or NHO responds that it has concerns about a historic property of traditional religious and cultural significance that may be affected by the proposed construction within the 15 calendar day period, the Applicant must involve it in the review as set forth in the NPA, and may not begin construction until the process set forth in the NPA is completed.

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Jill Springer
Federal Preservation Officer
Federal Communications Commission
jill.springer@fcc.gov

1) See Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Deployment, Second Report and Order, FCC 18-30 (Mar. 30, 2018) (Wireless Infrastructure Second Report and Order).

2) See id. at paras. 111-112.

LIST OF PROPOSED COMMUNICATIONS TOWERS

TCNS# 231123 Referred Date: 06/30/2021 Location: 1330 Maryland Avenue SW, Washington,

DC

Detailed Description of Project: 7WDC113B - Proposed modification to an existing rooftop telecommunication site.

No ground disturbance proposed.

Tribe Name: Cultural Heritage Partners

TCNS# 231195 Referred Date: 06/30/2021 Location: 1101 King Street, Alexandria, VA

Detailed Description of Project: 7WAC014A - T-Mobile proposes modifications to an existing telecommunications facility. Please note that no ground disturbance is proposed for this project.

Tribe Name: Catawba Indian Nation Tribe Name: Chickahominy Indian Tribe Tribe Name: Cultural Heritage Partners

Tribe Name: Delaware Nation

Tribe Name: Nansemond Indian Tribe

Tribe Name: Shawnee Tribe

Tribe Name: The Upper Mattaponi Indian Tribe

TCNS# 230709 Referred Date: 06/30/2021 Location: 1911 North Fort Myer Drive, Arlington, VA

Detailed Description of Project: 7WAC398B - T-Mobile proposes modifications to an existing telecommunications facility. No ground disturbance is proposed for this project.

Tribe Name: Nansemond Indian Tribe

TCNS# 230709 Referred Date: 06/24/2021 Location: 1911 North Fort Myer Drive, Arlington, VA

Detailed Description of Project: 7WAC398B - T-Mobile proposes modifications to an existing telecommunications facility. No ground disturbance is proposed for this project.

Tribe Name: Chickahominy Indian Tribe Tribe Name: Cultural Heritage Partners

Tribe Name: Delaware Nation Tribe Name: Shawnee Tribe

Tribe Name: The Upper Mattaponi Indian Tribe

TCNS# 230708 Referred Date: 06/24/2021 Location: Edmonston Road, Greenbelt, MD

Detailed Description of Project: 7WAS039C - T-Mobile proposes modifications to an existing telecommunications facility. No ground disturbance is proposed for this project.

Tribe Name: Cultural Heritage Partners

Tribe Name: Shawnee Tribe
Tribe Name: Wyandotte Nation

LEGEND:

* - Notification numbers are assigned by the Commission staff for sites where initial contact was not made through TCNS.



Dr. Brice M Obermeyer Delaware Tribe of Indians of Oklahoma 1 Kellog Drive Roosevelt Hall, Room 212 Emporia, Kansas

Subject: TCNS ID # 230708, Project Information

Proposed Modification Site - Sprint "7WAS039C"

Edmonston Road

Greenbelt, Maryland 20770

39°01'01.2" North 76°51'39.1" West AEC Project No. CL-2021-005

To Whom It May Concern:

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The Site consists of a 152.2-foot-tall water tower located approximately 1,200 feet southwest from the intersection of Baltimore Washington Parkway and Beaver Dam Road. I have enclosed the FCC Form 621 for your review.

We look forward to receiving your written response so that we can best address the concerns of the Delaware Tribe of Indians of Oklahoma. Please address your response to my attention at the address listed on the letterhead below, or email me at cmoses@aec-env.com. If you have any questions, please call me at (301) 776-0500. Thank you for your assistance.

Sincerely,

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC

Catherine Moses

Catherine Moses Staff Scientist



Ellen Chapman Program Manager Cultural Heritage Partners 1811 East Grace St Suite A Richmond, Virginia

Subject: TCNS ID # 230708, Project Information

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Greenbelt, Maryland 20770

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Catherine Moses

Catherine Moses
Staff Scientist

 From:
 towernotifyinfo@fcc.gov

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 Cc:
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Tribe Name: Shawnee Tribe

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Tribe Name: Chickahominy Indian Tribe Tribe Name: Cultural Heritage Partners

Tribe Name: Delaware Nation Tribe Name: Shawnee Tribe

Tribe Name: The Upper Mattaponi Indian Tribe

TCNS# 230708 Referred Date: 06/24/2021 Location: Edmonston Road, Greenbelt, MD

Detailed Description of Project: 7WAS039C - T-Mobile proposes modifications to an existing telecommunications facility. No ground disturbance is proposed for this project.

Tribe Name: Cultural Heritage Partners

Tribe Name: Shawnee Tribe Tribe Name: Wyandotte Nation

LEGEND:

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ATTACHMENT 3

Resumes of Key Staff

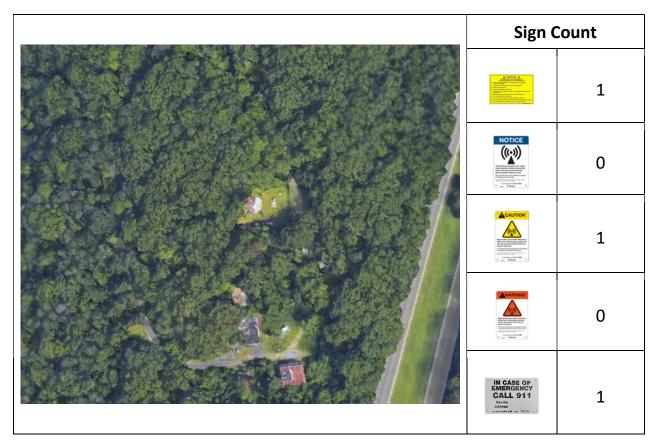


Radio Frequency Emissions Analysis Report

T-Mobile Wireless Tower Facility

August 12, 2021

Analysis Format: Theoretical Calculations



Statement of Compliance

T-Mobile will be compliant with FCC Regulations once the mitigation measures recommended in this report are implemented.

7WAS039C USDA - Laurel Edmonston Rd., Greenbelt, MD 20770



Contents

Overview	3
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Calculation Methodology & Data	
Results	7
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Compliance Actions	21
APPENDIX B: RF Signage Description Table	22
APPENDIX C: FCC Emissions Threshold Limits	24
APPENDIX D: Certifications	26



Overview

Centerline Communications, LLC ("Centerline") has been contracted to provide a Radio Frequency (RF) Analysis for the following T-Mobile wireless tower facility to determine whether the facility is in compliance with federal standards and regulations regarding RF emissions. This analysis includes theoretical emissions calculations for all existing equipment for T-Mobile .

The facility is located on a Water Tank in Greenbelt, Maryland. Access to the facility is restricted to authorized personnel and facility management.

Analysis Site Data

Site ID:	7WAS039C	
Site Name:	USDA - Laurel	
Site Address:	Edmonston Rd., Greenbelt, MD 20770	
Site Latitude:	39.017000	
Site Longitude:	-76.86086	
Facility Type:	Tower	

Compliance Summary

Status:	T-Mobile will be compliant with FCC Regulations Upon	
Installation of Barriers and Sigange		
Site Modeled Composite MPE% (General Public Limit):	10.64 %	
T-Mobile Max Modeled MPE% (General Public Limit):	10.64 %	
Lock or Control Measures if Present:	Unlocked Gate	

In addition to the T-Mobile antennas and radio equipment there are antennas and radio equipment for AT&T, Sprint, Verizon, & Unknown Carrier(s) which have been included in this analysis as part of the overall site compliance determination.

^{*}To be conservative, all sites are considered uncontrolled for modeling purposes unless confirmed otherwise by a site visit.



FCC Guidelines

All power density values used in this report were analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μ W/cm²). The number of μ W/cm² 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 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.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter (μ W/cm²). The general population exposure limit for the 600, 700, and 800 MHz Bands is approximately 400 μ W/cm², 467 μ W/cm², and 567 μ W/cm² respectively, and the general population exposure limit for the 1900 MHz PCS, 2100 MHz AWS, 2500 MHz, 3500 MHz CBRS, 5000 MHz LAA, 28GHz, and 39GHz bands is 1000 μ W/cm². Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density. Reference the Site Antenna Data Table for list of frequencies in operation at this site.

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, have been properly trained in RF safety 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, have been trained in RF safety and can exercise control over his or her exposure by leaving the area or by some other appropriate means. The Occupational/Controlled exposure limits all utilized frequency bands is five (5) times the FCC's General Public / Uncontrolled exposure limit.

Additional details can be found in FCC OET 65.



Calculation Methodology & Data

Centerline has performed theoretical calculations on all transmission equipment located on this facility. All calculations have been performed using the RoofMaster® software from Waterford Consultants LLC. This software performs calculations using a cylindrical model for very conservative power density predictions within the near-field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations the power decreases inversely with the square of the distance. This modeling technique is accurate with low antenna centerlines, such as rooftops, where persons can get close to the antennas and pass through fields in close proximity.

The below calculation in Figure 1 shows the theoretical distribution of power over an imaginary cylinder with equal power distribution in all directions.

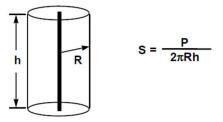


Figure 1: Distribution of power over an imaginary cylinder in all directions

This model can be modified for directional antennas to show directionality of power distribution. This formula will tend to be conservative as it assumes that all power is focused between the 3 dB power roll off points as shown in Figure 2.

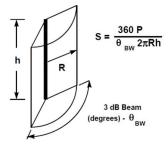


Figure 2: Distribution of power over an imaginary cylinder in all directions inside the half power roll off points (HBW)

ΤX



The **proposed antenna configuration** for T-Mobile and any other known wireless carriers at this facility are shown below in **Table 1 – Site Antenna Data Table**.

All calculations for this facility were performed assuming that all radios were running at full power and were uncombined in their RF paths with the configuration shown in table 1. FCC OET Bulletin 65 – Edition 97-01 recommends that modeling of this nature should be done as described prior to yield a worst-case scenario. Due to the dynamic nature of many deployed systems the "real world" values will most likely be less than those shown in this report due to worst-case values being shown in all instances.

For all "Other" systems on this facility, exact equipment was used if available. In instances where "Other" system equipment was not available, standard radio configurations for these systems were utilized based upon prior experience with these systems on facilities in this area.

Site Antenna Data Table

			Power							Antenna	
		Frequency	Per	Tx				Gain		Centerline	Z Value
Sector	Operator	Band	Channel	#	ERP	Antenna Make	Antenna Model	(dBd)	Az (°)	Height (ft)	(ft)**
A1	T-Mobile	L2500	30	1	1004.90	ERICSSON	AIR6449 LTE BrM	15.25	70	135	128.62
A1	T-Mobile	N2500	30	1	1004.90	ERICSSON	AIR6449 NR BrM	15.25	70	135	128.62
A1	T-Mobile	L2500	90	1	15461.18	ERICSSON	SON AIR6449 LTE	22.35	70	135	128.62
A1	T-Mobile	N2500	90	1	15461.18	ERICSSON	SON AIR6449 NR	22.35	70	135	128.62
A2	T-Mobile	L700	40	4	3389.38	RFS	APXVAARR24 43-U-NA20	13.26	70	135	126.00
A2	T-Mobile	L600	40	2	1610.98	RFS	APXVAARR24 43-U-NA20	13.04	70	135	126.00
A2	T-Mobile	N600	30	2	1208.23	RFS	APXVAARR24 43-U-NA20	13.04	70	135	126.00
A3	T-Mobile	U1900	40	1	1355.38	COMMSCOPE	VV-65A-R1B	15.3	70	135	127.72
A3	T-Mobile	L2100	140	2	11121.36	COMMSCOPE	VV-65A-R1B	15.99	70	135	127.72
A3	T-Mobile	L1900	140	2	9487.64	COMMSCOPE	VV-65A-R1B	15.3	70	135	127.72
A3	T-Mobile	G1900	15	1	508.27	COMMSCOPE	VV-65A-R1B	15.3	70	135	127.72
B4	T-Mobile	L2500	30	1	1004.90	ERICSSON	AIR6449 LTE BrM	15.25	180	135	128.62
B4	T-Mobile	N2500	30	1	1004.90	ERICSSON	AIR6449 NR BrM	15.25	180	135	128.62
B4	T-Mobile	L2500	90	1	15461.18	ERICSSON	SON_AIR6449 LTE TB	22.35	180	135	128.62
B4	T-Mobile	N2500	90	1	15461.18	ERICSSON	SON AIR6449 NR TB	22.35	180	135	128.62
B5	T-Mobile	L700	40	4	3389.38	RFS	APXVAARR24 43-U-NA20	13.26	180	135	126.00
B5	T-Mobile	L600	40	2	1610.98	RFS	APXVAARR24 43-U-NA20	13.04	180	135	126.00
B5	T-Mobile	N600	30	2	1208.23	RFS	APXVAARR24 43-U-NA20	13.04	180	135	126.00
В6	T-Mobile	U1900	40	1	1355.38	COMMSCOPE	VV-65A-R1B	15.3	180	135	127.72
В6	T-Mobile	L2100	140	2	11121.36	COMMSCOPE	VV-65A-R1B	15.99	180	135	127.72
В6	T-Mobile	L1900	140	2	9487.64	COMMSCOPE	VV-65A-R1B	15.3	180	135	127.72
В6	T-Mobile	G1900	15	1	508.27	COMMSCOPE	VV-65A-R1B	15.3	180	135	127.72
C7	T-Mobile	L2500	30	1	1004.90	ERICSSON	AIR6449 LTE BrM	15.25	320	135	128.62
C7	T-Mobile	N2500	30	1	1004.90	ERICSSON	AIR6449 NR BrM	15.25	320	135	128.62
C7	T-Mobile	L2500	90	1	15461.18	ERICSSON	SON AIR6449 LTE TB	22.35	320	135	128.62
C7	T-Mobile	N2500	90	1	15461.18	ERICSSON	SON_AIR6449 NR TB	22.35	320	135	128.62
C8	T-Mobile	L700	40	4	3389.38	RFS	APXVAARR24 43-U-NA20	13.26	320	135	126.00
C8	T-Mobile	L600	40	2	1610.98	RFS	APXVAARR24 43-U-NA20	13.04	320	135	126.00
C8	T-Mobile	N600	30	2	1208.23	RFS	APXVAARR24 43-U-NA20	13.04	320	135	126.00
C9	T-Mobile	U1900	40	1	1355.38	COMMSCOPE	VV-65A-R1B	15.3	320	135	127.72
C9	T-Mobile	L2100	140	2	11121.36	COMMSCOPE	VV-65A-R1B	15.99	320	135	127.72
C9	T-Mobile	L1900	140	2	9487.64	COMMSCOPE	VV-65A-R1B	15.3	320	135	127.72
C9	T-Mobile	G1900	15	1	508.27	COMMSCOPE	VV-65A-R1B	15.3	320	135	127.72
10	Unknown	-850	60	1	1096.86	GENERIC	PANEL 6FT	12.62	70	120	112.00
11	Unknown	-850	60	1	1096.86	GENERIC	PANEL 6FT	12.62	70	120	112.00
12	Unknown	-850	60	1	1096.86	GENERIC	PANEL 6FT	12.62	70	120	112.00
13	Unknown	-850	60	1	1096.86	GENERIC	PANEL 6FT	12.62	180	100	92.00
14	Unknown	-850	60	1	1096.86	GENERIC	PANEL 6FT	12.62	180	100	92.00
15	Unknown	-850	60	1	1096.86	GENERIC	PANEL 6FT	12.62	320	100	92.00
16	Unknown	-850	60	1	1096.86	GENERIC	PANEL 6FT	12.62	320	100	92.00

Table 1: Total Site Antenna data table **(Z Value is distance from bottom of antenna to walking surface)



Results

All calculations performed based upon the data listed for this facility have produced results that are within allowable limits for General Population for exposure to RF emissions as specified by federal standards.

T-Mobile's RF Exposure: Responsibilities, Procedures & Guidelines document states that microwave dishes are compliant if they are mounted 20 feet or greater above any accessible walking or working surface.

Maximum Predicted MPE Level on Site:	% of MPE Limit:	Location:
Accessible General Population MPE Limits:	10.64%	Sector A
Accessible Occupational MPE Limits:	2.13%	Sector A

Ground Level Assessment:	% of MPE Limit:
Ground Level General Population MPE Limits:	0.15%
Ground Level Occupational MPE Limits:	0.03%

Sector A: Transmitting over Catwalk	% of MPE Limit:	*Distance from Antenna:
Accessible General Population MPE Limits:	10.64%	0
Accessible Occupational MPE Limits:	2.13%	0

Sector B: Transmitting over Catwalk	% of MPE Limit:	*Distance from Antenna:
Accessible General Population MPE Limits:	0.88%	0
Accessible Occupational MPE Limits:	0.18%	0

Sector C: Transmitting over Catwalk	% of MPE Limit:	*Distance from Antenna:
Accessible General Population MPE Limits:	3.41%	0
Accessible Occupational MPE Limits:	0.68%	0

^{*}Distance from Antenna is the distance in feet that the MPE limits are exceeded from the front face of the antenna, outward across an accessible area.



APPENDIX A: Emissions Thresholds for Walking Surfaces and Signage









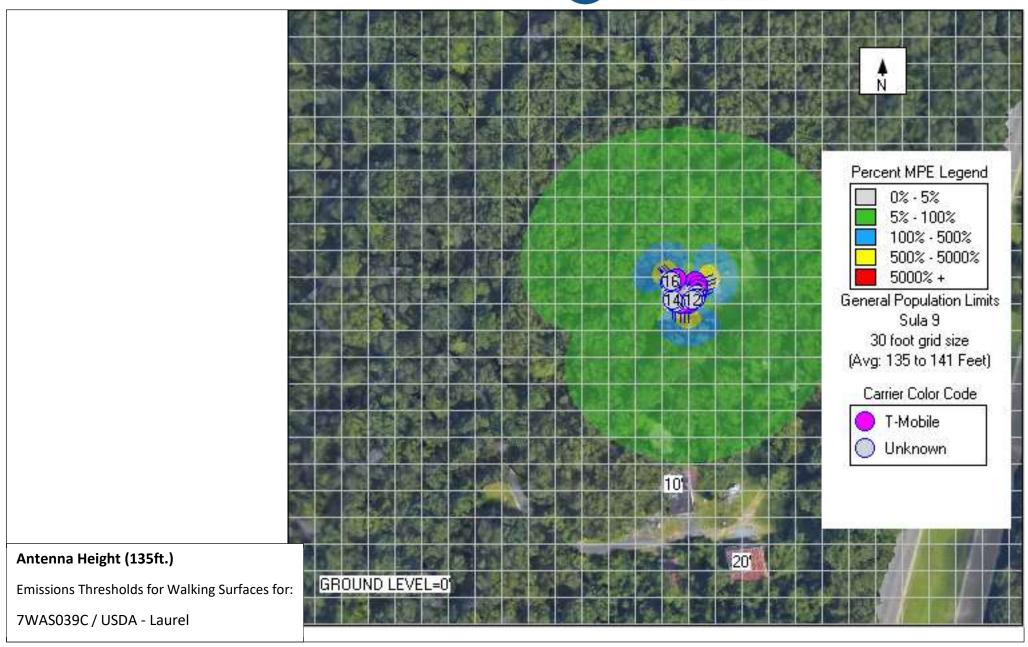




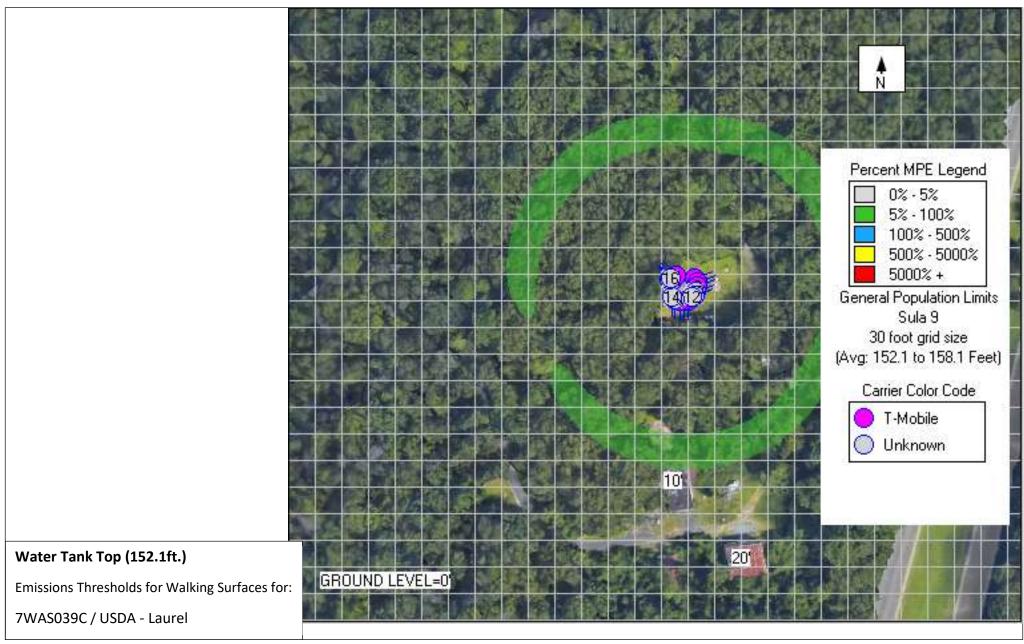




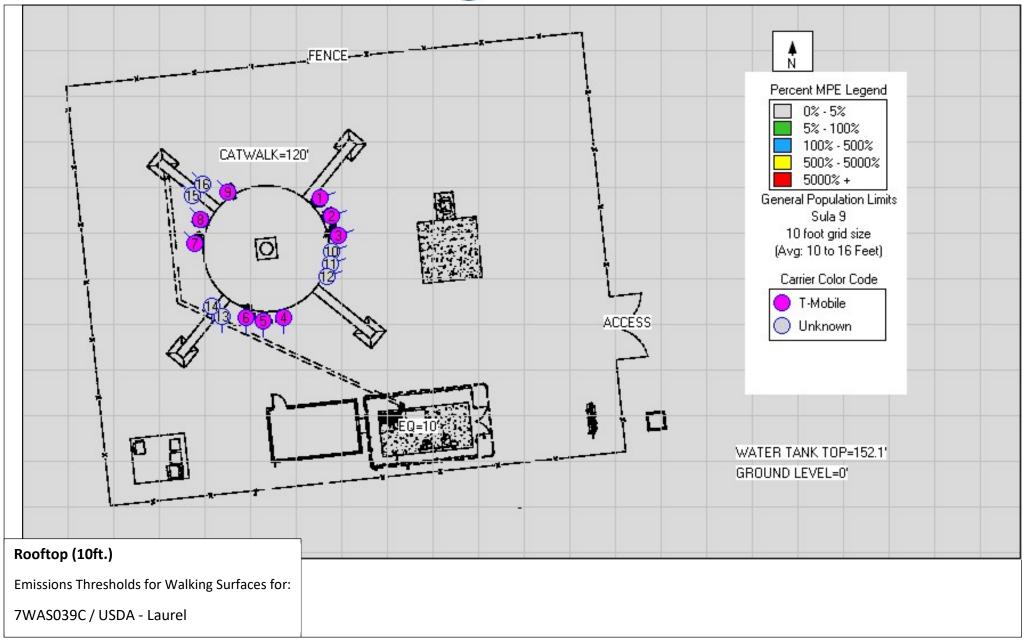


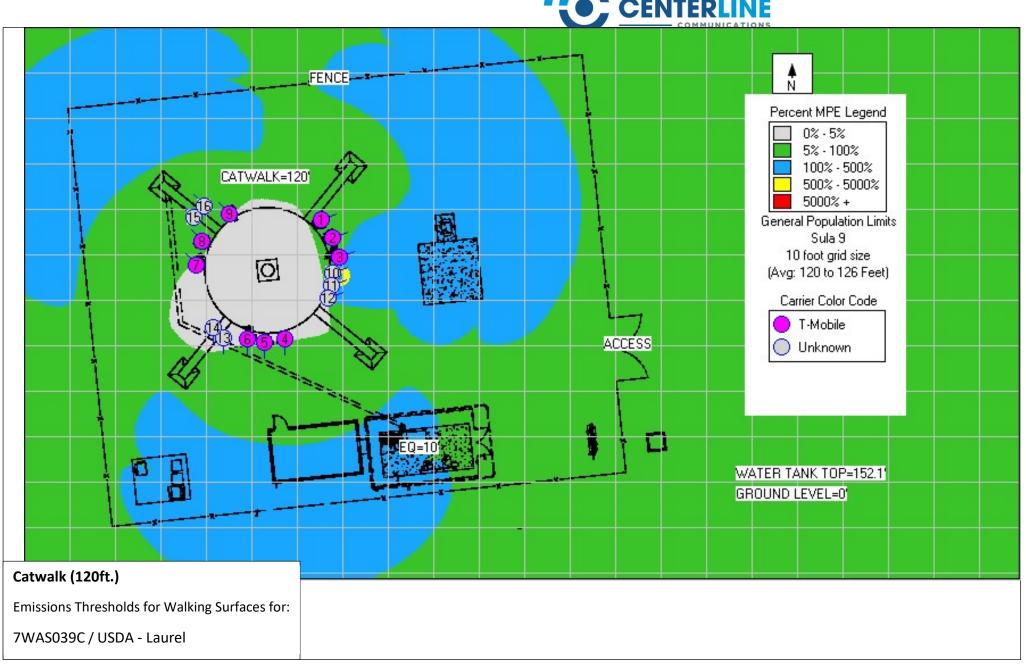




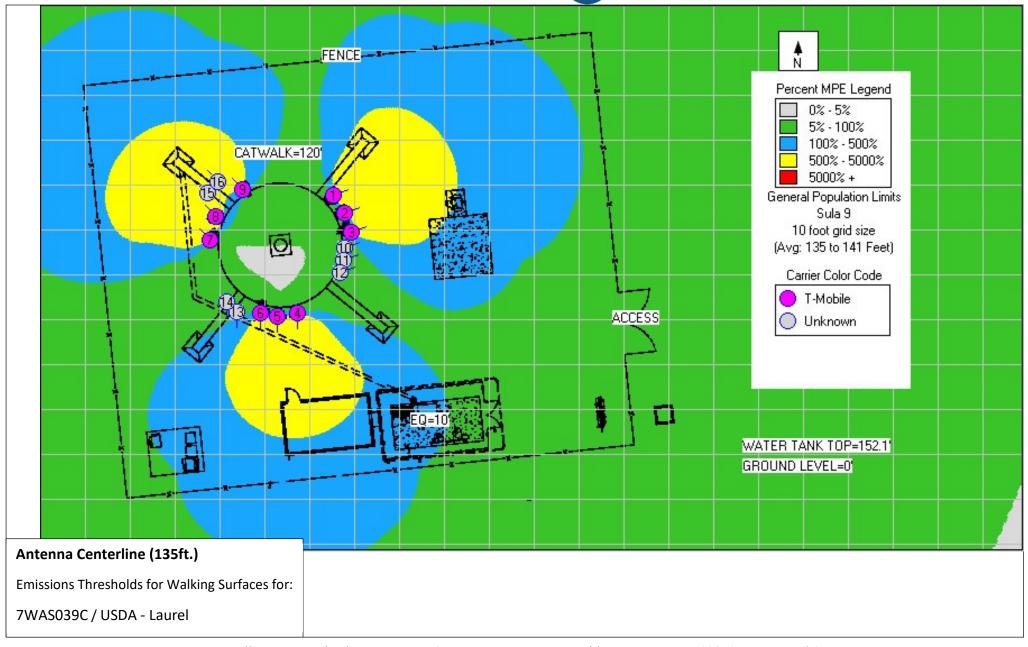




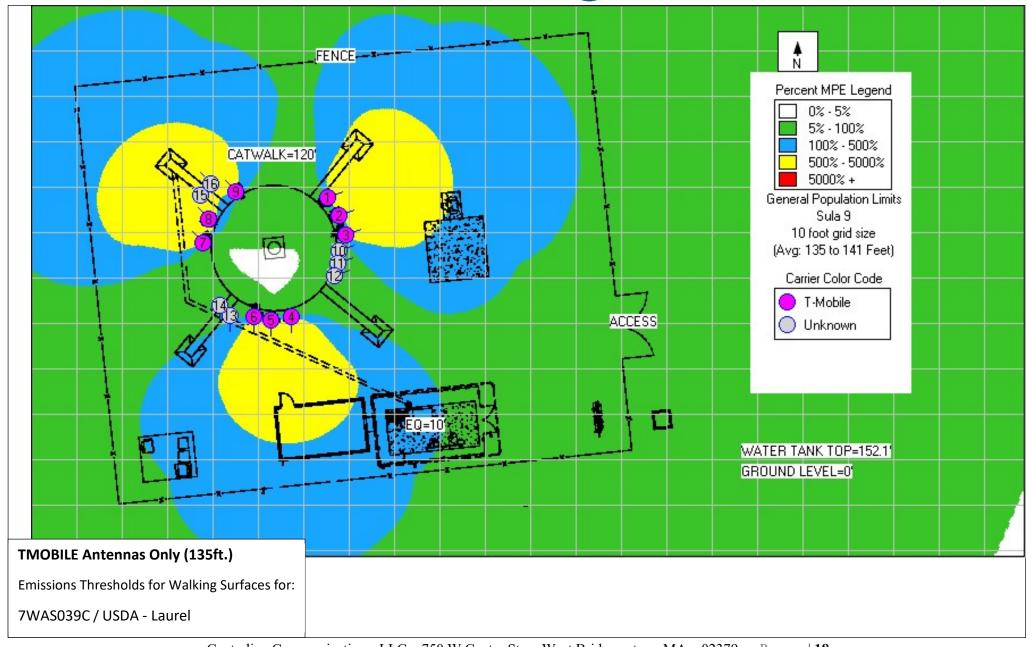




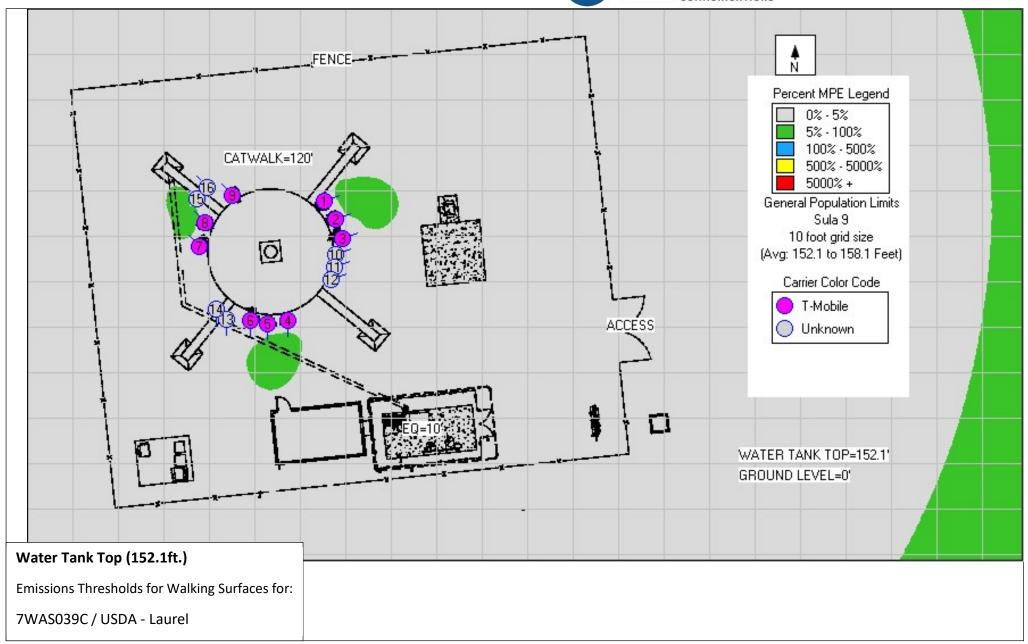




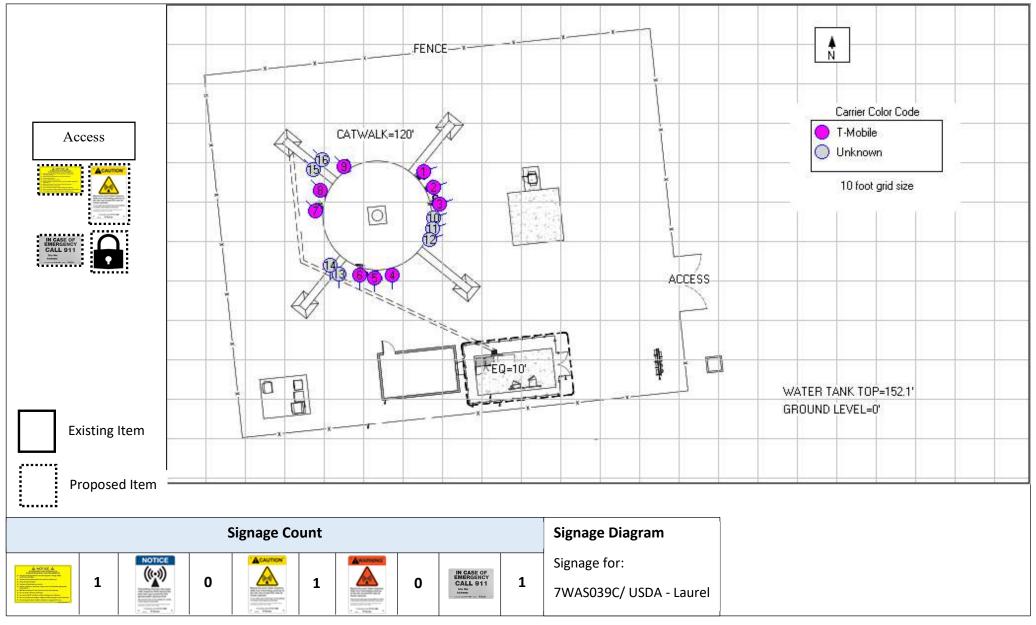














Compliance Actions

Access	Ensure all access points are locked.			
	 Install (1) Guideline sign on the inside of the access point. 			
	 Install (1) Caution sign on the inside of the access point. 			
	 Install (1) Emergency sign on the inside of the access point. 			
Alpha Sector	No Action Needed.			
Beta Sector	No Action Needed.			
Gamma Sector	No Action Needed.			
Notes:	 If there is a fixed climbing point located on this site, a Guideline and 			
	Caution sign should be installed at that location.			



APPENDIX B: RF Signage Description Table



Sign	Description			
ACTION AND ACTION AND ACTION AND ACTION AND ACTION AND ACTION ACTION AND ACTION	RF Guideline Sign Gives guidelines on how to proceed in areas that may exceed either the FCC's General Population or Occupational emissions limits.			
IN CASE OF EMERGENCY CALL 911 Site Not Address:	Emergency Sign Used to inform individuals to call 911 in case of emergency.			
Radio foregreety forestabilities on the rate of the forestabilities on the rate of the forestabilities on the rate of the forestabilities of the rate of the forestabilities of the for	Blue Notice Sign Used to inform individuals that they are entering an area that may exceed the FCC's General Population limits. Must be placed anywhere the public can get within 30 feet vertically or horizontally of an antenna.			
Redis largering frame early successful for the first frame and their framework of the first	Yellow Caution Sign Used to inform individuals that they are entering an area that may exceed the either the FCC's General Population or Occupational Emissions limits. It must be placed so it is visible from all approachable sides. It must also be just outside of the area predicted to exceed the MPE limits so it can be read without standing within the affected area.			
Radio Property Crist Party excel CFC Bash for possibility and an accommodate and accommodate a	Orange Warning Sign (Previously Red) Used to inform individuals that they are entering an area that may exceed 5x the FCC's Occupational emissions limit. It must be placed so it is visible from all approachable sides. It must also be just outside of the area predicted to exceed the MPE limits so it can be read without standing within the affected area.			



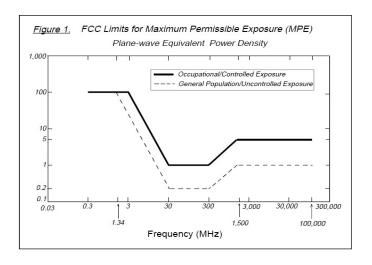
APPENDIX C: FCC Emissions Threshold Limits



(A) Limits for Occupatio	nal/Controlled Exposure			
Frequency Range (MHz)	Electric Field Strength (E)	Magnetic Field Strength (H)	Power Density (S)	Averaging Time [E] ² , [H] ² , or S
	(V/m)	(A/m)	(mW/cm²)	(minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f²)*	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General P	ublic/Uncontrolled Exposure			
Frequency Range (MHz)	Electric Field Strength (E)	Magnetic Field Strength (H)	Power Density (S)	Averaging Time [E] ² , [H] ² , or S
	(V/m)	(A/m)	(mW/cm²)	(minutes)
0.3-1.34	614	1.63	(100)*	30
0.5 1.54				
	824/f	2.19/f	(180/f²)*	30
1.34-30	824/f 27.5	2.19/f 0.073	(180/f²)* 0.2	30 30
1.34-30 30-300 300-I,500	·			

f = Frequency in (MHz)

^{*} Plane-wave equivalent power density





APPENDIX D: Certifications



I, Huesee Yang, preparer of this report certify that I am fully trained and aware of the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation. I have been trained in the procedures and requirements outlined in T-Mobile's FCC Regulatory Compliance Manual.

Huesee Yang

8/12/2021

I, Brandon Green, reviewer and approver of this report certify that I am fully trained and aware of the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation. I have been trained in the procedures and requirements outlined in T-Mobile's FCC Regulatory Compliance Manual.

Brandon Green

8/12/2021