



Filed by:

Kri Pelletier, Property Specialist - SBA Communications
134 Flanders Rd., Suite 125, Westborough, MA 01581
508.251.0720 x 3804 - kpelletier@sbsite.com

June 12, 2018

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

Request to Amend Previously Approved Tower Share Request TS-T-Mobile-029-180227 Issued 3/16/2018
382 Colebrook River Rd., Colebrook, CT 06021
41 59 31.5 N / -73 2 23.3 W
T-Mobile #: CTNH549B_NSD

Dear Ms. Bachman:

Please accept this letter as a Request to Amend previously approved Tower Share Request TS-T-Mobile-029-180227, issued 3/16/2018. Below is T-Mobile's previously proposed and approved ground configuration. We ask that the changes noted below please be considered for approval by the Council:

Ground:

- (1) ~~9'x13' concrete pad~~ [**Request to Amend** to substitute 10'x20' concrete pad]
- (1) ~~7.5 KW APU on 4'x4' pre-cast concrete pad~~ [**Request to Amend** to substitute 25 kW DC emergency backup generator to be placed on proposed 10'x20' concrete pad noted above]
- (1) ~~120 Gallon Stationary Vertical ASME Propane (LP) Storage Tank on 3'x3' pre-cast concrete pad and associated gas line~~ [**Request to Amend** to remove]
- (1) GPS Antenna (Ground Mount to Ice Bridge Post)
- (1) Ice Bridge
- (1) AAV Purcell Cabinet (on H-Frame)
- (1) PPC (on H-Frame)
- (1) RBS 6102 cabinet
- (1) H-Frame

Revised Construction Drawings referencing the above are attached herewith.

The revised ground configuration continues to meet all requirements for a Tower Share Request. The request remains technically, legally, environmentally, and economically feasible and meets public safety concerns per Connecticut General Statute Section 16-50aa.

The proposed collocation continues to meet with all legal and technical requirements. Drawings showing the proposed revisions to the ground configuration are attached. T-Mobile's proposed collocation presents no known material changes to environmental conditions from those as documented in the Council's original Findings of Fact and presents no known public safety concerns.

There is no environmental impact associated with the revised ground configuration, including, but not limited to, visibility, wetlands and water resources, air quality or noise. T-Mobile's revised ground configuration:



- Will not have any significant adverse visual impact on the surrounding areas
- Does not affect or alter the existing site with regard to wetlands, water resources or air quality
- The generator would only be used in cases of emergency and would provide backup time of approximately 80 hours in time of need. The Town of Colebrook does not have any defined ordinance for decibel levels.

The proposed work is not thought to have any substantial adverse environmental impact. Public Need for the additional coverage outweighs any minor environmental effects that would result from the construction, operation, and maintenance of the proposed collocation.

An original and fifteen copies of this Tower Share Application are being submitted along with a \$625 filing fee per Conn. Gen. Stat. §4-189j; Regs., Conn. State Agencies §16-50v-1a. A copy of this Application and all attachments is being sent to:

- i. The Town of Colebrook's First Selectman, Thomas McKeon
- ii. The Town of Colebrook's Land Use Administrator and Zoning Enforcement Officer, Michael Halloran
- iii. The Property Owner, 382 Colebrook LLC
- iv. (Separate notice is not being sent to tower owner, as it belongs to SBA)

Please note, additionally: the planned modifications to the facility still fall squarely within those activities explicitly provided for in R.C.S.A. §16.50j-72(b)(2).

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

T-Mobile respectfully submits for the Council's review and approval this request for Amendment to previously approved Tower Share.

Sincerely,



Kri Pelletier
Property Specialist
SBA COMMUNICATIONS CORPORATION
134 Flanders Rd., Suite 125
Westborough, MA 01581
508.251.0720 x3804 + T
508.366.2610 + F
203.446.7700 + C
kpelletier@sbsite.com
Attachments



cc: Thomas McKeon, First Selectman / with attachments
562 Colebrook Road – P.O. Box 5 Colebrook, CT 06021
Michael Halloran, Land Use Administrator and Zoning Enforcement Officer / with attachments
562 Colebrook Road – P.O. Box 5 Colebrook, CT 06021
382 Colebrook LLC / with attachments
202 Hang Dog Lane, Wethersfield, CT 06109



POWER DENSITY

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C	Sector:	D
Antenna #:	1	Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson	Make / Model:	Ericsson	Make / Model:	Ericsson	Make / Model:	Ericsson
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	11	Height (AGL):	11	Height (AGL):	11	Height (AGL):	11
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)
Channel Count	4	Channel Count	4	Channel Count	4	Channel Count	4
Total TX	24	Total TX	24	Total TX	24	Total TX	24
ERP (W):	9,337.08	ERP (W):	9,337.08	ERP (W):	9,337.08	ERP (W):	9,337.08
Antenna A1 MPE%	2.7	Antenna B1 MPE%	2.7	Antenna C1 MPE%	2.7	Antenna D1 MPE%	2.7
Antenna #:	2	Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	RFS APXV18-206517S- C-A20	Make / Model:	RFS APXV18-206517S- C-A20	Make / Model:	RFS APXV18-206517S- C-A20	Make / Model:	RFS APXV18-206517S- C-A20
Gain:	16.9 dBd	Gain:	16.9 dBd	Gain:	16.9 dBd	Gain:	16.9 dBd
Height (AGL):	11	Height (AGL):	11	Height (AGL):	11	Height (AGL):	11
Frequency Bands	1900 MHz (PCS)	Frequency Bands	1900 MHz (PCS)	Frequency Bands	1900 MHz (PCS)	Frequency Bands	1900 MHz (PCS)
Channel Count	2	Channel Count	2	Channel Count	2	Channel Count	2
Total TX	6	Total TX	6	Total TX	6	Total TX	6
ERP (W):	2,806.41	ERP (W):	2,806.41	ERP (W):	2,806.41	ERP (W):	2,806.41
Antenna A2 MPE%	0.8	Antenna B2 MPE%	0.8	Antenna C2 MPE%	0.8	Antenna D2 MPE%	0.8
Antenna #:	3	Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	RFS APXVAA24-43-U-A2	Make / Model:	RFS APXVAA24-43-U-	Make / Model:	RFS APXVAA24-43-U-	Make / Model:	RFS APXVAA24-43-U-
Gain:	13.15 / 13.55 dBd	Gain:	13.15 / 13.55 dBd	Gain:	13.15 / 13.55 dBd	Gain:	13.15 / 13.55 dBd
Height (AGL):	11	Height (AGL):	11	Height (AGL):	11	Height (AGL):	11
Frequency Bands	600 MHz / 700 MHz	Frequency Bands	600 MHz / 700 MHz	Frequency Bands	600 MHz / 700 MHz	Frequency Bands	600 MHz / 700 MHz
Channel Count	2	Channel Count	2	Channel Count	2	Channel Count	2
Total TX	6	Total TX	6	Total TX	6	Total TX	6
ERP (W):	1,299.01	ERP (W):	1,299.01	ERP (W):	1,299.01	ERP (W):	1,299.01
Antenna A3 MPE%	0.8	Antenna B3 MPE%	0.8	Antenna C3 MPE%	0.8	Antenna D3 MPE%	0.8

T-Mobile Sector A Total:	4.42 %
T-Mobile Sector B Total:	4.42 %
T-Mobile Sector C Total:	4.42 %
T-Mobile Sector D Total:	4.42 %
Site Total:	8.82 %

Site Composite MPE%	
Carrier	MPE%
T-Mobile (Per Sector Max)	4.42 %
Nextel	0.38 %
AT&T	1.82 %
Verizon Wireless	2.20 %
Site Total MPE %:	8.82 %

ORIGIN ID:BBFA (508) 614-0389
RICK WOODS
SBA NETWORK SERVICES INC
34 FLANDERS ROAD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

SHIP DATE: 12 JUN 18
ACTWGT: 1.00 LB
CMD: 105843304/NET/3980

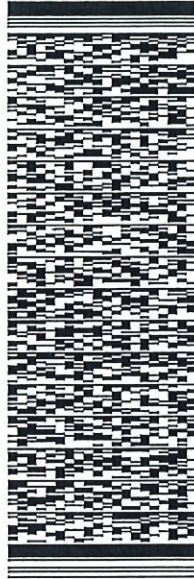
BILL SENDER

TO **THOMAS MCKEON, FIRST SELECTMAN**
TOWN OF COLEBROOK
462 COLEBROOK RD.

COLEBROOK CT 06021

(508) 251-0720 X 3804 REF: 10-56-92009-6089
INVT. DEPT.
PO:

552J293DF/DCA5



J181118012801uv

TRK# 7724 5398 7422
0201

WED - 13 JUN 10:30A
PRIORITY OVERNIGHT

EB HFDA

06021
BDL
CT-US



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SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

SHIP DATE: 12JUN18
ACTWGT: 1.00 LB
CAD: 105843304INLET3980

BILL SENDER

TO MICHAEL HALLORAN, ZONING OFFICER
TOWN OF COLEBROOK
562 COLEBROOK ROAD

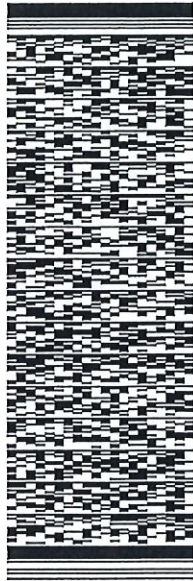
COLEBROOK CT 06021

(508) 251-0720 X.3804

REF: 10-56-92009-6099

PO:

DEPT:



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552.I283DF/DCA5

TRK# 7724 5400 3752
0201

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PRIORITY OVERNIGHT

EB HFDA

06021
BDL
CT-US



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RICK WOODS
SBA NETWORK SERVICES INC
134 F. ANDERS ROAD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

SHIP DATE: 12JUN18
ACTWGT: 1.00 LB
CAD: 108843304INET3980

BILL SENDER

TO
PRESIDENT OR MANAGER
382 COLEBROOK LLC
202 HANG DOG LANE

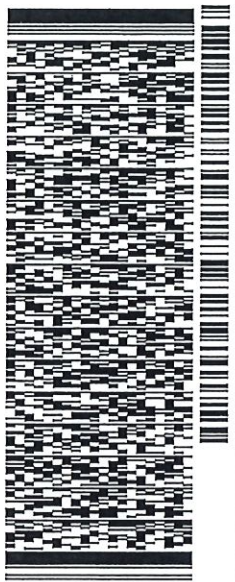
WITHERSFIELD CT 06109

(508) 251-0720 X 3804

REF: 10-96-92009-6099

PO:

DEPT:



J181118012801uw

552J283DF/DCA5

TRK#
0201
7724 5401 5984

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PRIORITY OVERNIGHT

EB BDLA

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06109
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March 16, 2018

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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

E-Mail: siting.council@ct.gov

www.ct.gov/csc

Kri Pelletier
Property Specialist
SBA Communications
134 Flanders Road, Suite 125
Westborough, MA 05181

RE: **TS-T-MOBILE-029-180227** - T-Mobile request for an order to approve tower sharing at an existing telecommunications facility located at 382 Colebrook River Road, Colebrook, Connecticut.

Dear Ms. Pelletier:

At a public meeting held on March 15, 2018, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures with the following conditions:

1. Any deviation from the proposed installation as specified in the original tower share request and supporting materials with the Council shall render this decision invalid;
2. Any material changes to the proposed installation as specified in the original tower share request and supporting materials filed with the Council shall require an explicit request for modification to the Council pursuant to Connecticut General Statutes § 16-50aa, including all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65;
3. Not less than 45 days after completion of the proposed installation, the Council shall be notified in writing that the installation has been completed;
4. Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by T-Mobile shall be removed within 60 days of the date the antenna ceased to function;
5. The validity of this action shall expire one year from the date of this letter; and
6. The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

This decision is under the exclusive jurisdiction of the Council and applies only to this request for tower sharing dated February 26, 2018. This facility has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower. Any deviation from the approved tower sharing request is enforceable under the provisions of Connecticut General Statutes § 16-50u.

The proposed shared use is to be implemented as specified in your letter dated February 26, 2018, including the placement of all necessary equipment and shelters within the tower compound.

Please be advised that the validity of this action shall expire one year from the date of this letter.

Thank you for your attention and cooperation.

Sincerely,

Robert Stein
Chairman

RS/MAB/lm

c: The Honorable Thomas D. McKeon, First Selectman, Town of Colebrook
Michael Halloran, Zoning Enforcement Officer, Town of Colebrook
382 Colebrook LLC



CONNECTICUT SITING COUNCIL

Affirmative Action / Equal Opportunity Employer

SITE NAME: CTNH549B

382 COLEBROOK RIVER ROAD
COLEBROOK, CT 06021

SITE NUMBER: CTNH549B

PROJECT: T-MOBILE L700

CONFIGURATION: 4SEC-6797DB3_1xAIR+1QP+1DP

T-MOBILE TECHNICIAN SITE SAFETY NOTES	
LOCATION	SPECIAL RESTRICTIONS
ANTENNA/TMA/RRU	
SECTOR A:	ACCESS NOT PERMITTED
SECTOR B:	ACCESS NOT PERMITTED
SECTOR C:	ACCESS NOT PERMITTED
SECTOR D:	ACCESS NOT PERMITTED
GPS/LMU:	UNRESTRICTED* (*CAUTION: OSHA-APPROVED PORTABLE 8' STEP-LADDER REQUIRED)
RADIO CABINETS:	UNRESTRICTED
PPC DISCONNECT:	UNRESTRICTED
MAIN CIRCUIT D/C:	UNRESTRICTED
NIU/T DEMARC:	UNRESTRICTED
OTHER/SPECIAL:	NONE



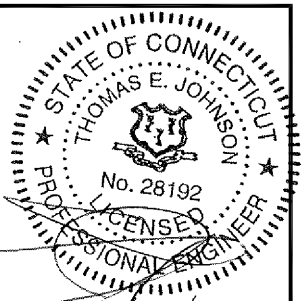
T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 648-1116



SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581 TEL: (508) 251-0720



4 Bay Road, Building A
Suite 200
Hadley, MA 01035 Ph: (413) 320-4918



CHECKED BY: JMM/TEJ

APPROVED BY: JMM/TEJ

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
6	05/22/18	CONSTRUCTION REVISED	TBD
5	04/09/18	CONSTRUCTION REVISED	PN
4	03/08/18	ISSUED FOR CONSTRUCTION	PN
3	03/01/18	ISSUED FOR CONSTRUCTION	PN
2	02/22/18	ISSUED FOR CONSTRUCTION	PN
1	02/15/18	ISSUED FOR CONSTRUCTION	PN
0	02/06/18	ISSUED FOR CONSTRUCTION	PN

SITE NUMBER:
CTNH549B
SITE NAME:
CTNH549B

SITE ADDRESS:
382 COLEBROOK RIVER ROAD
COLEBROOK, CT 06021

SHEET TITLE
TITLE SHEET

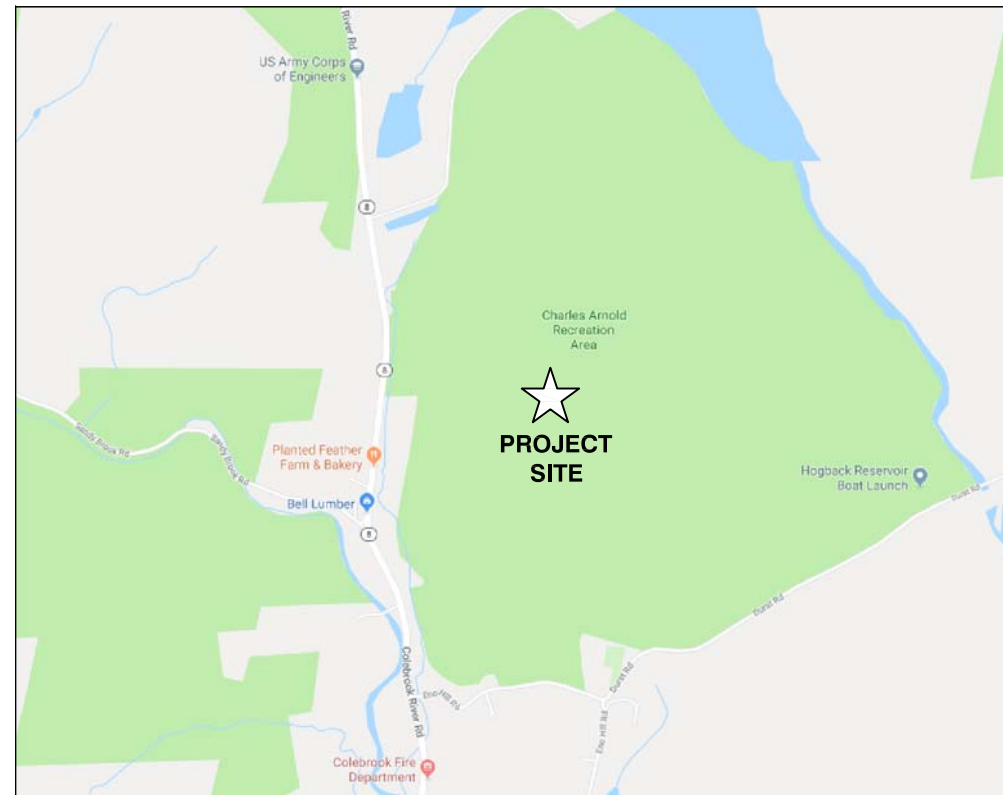
SHEET NUMBER
T-1

GENERAL NOTES

- THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
- THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT 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 NORTHEAST, LLC REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SPECIAL CONSTRUCTION NOTES

- TOWER OWNER SHALL PROVIDE GLOBAL STRUCTURAL STABILITY ANALYSIS OF EXISTING ANTENNA SUPPORT STRUCTURE. GENERAL CONTRACTOR SCOPE OF WORK SHALL INCLUDE ALL REQUIRED STRUCTURAL MODIFICATIONS, RE-BUNDLING OF COAXIAL CABLES OR OTHER SPECIAL MODIFICATIONS AS OUTLINED THEREIN.
- PROTERRA DESIGN GROUP ASSUMES THAT THE TOWER IS PROPERLY CONSTRUCTED AND MAINTAINED. ALL STRUCTURAL MEMBERS AND THEIR CONNECTION ARE ASSUMED TO BE IN GOOD CONDITION AND ARE FREE FROM DEFECTS WITH NO DETERIORATION TO ITS MEMBER CAPACITIES



PROJECT INFORMATION

SCOPE OF WORK: UNMANNED TELECOMMUNICATIONS FACILITY T-MOBILE COLLOCATION

ZONING JURISDICTION: TOWN OF COLEBROOK / CT SITING COUNCIL

T-MOBILE E911 ADDRESS: 382 COLEBROOK RIVER ROAD COLEBROOK, CT 06021

SBA BUSINESS ADDRESS: 382 COLEBROOK RIVER ROAD COLEBROOK, CT 06021

LATITUDE: 41° 59' 31.50" N (FROM SBA RECORD)

LONGITUDE: 73° 02' 23.30" W (FROM SBA RECORD)

GROUND ELEVATION: 1150± AMSL (FROM SBA RECORD)

JURISDICTION: TOWN OF COLEBROOK / CT SITING COUNCIL

BUILDING CODE: 2016 CONNECTICUT STATE BUILDING CODE WITH AMENDMENTS

ELECTRICAL CODE: 2014 NATIONAL ELECTRICAL CODE AND AMENDMENTS

CURRENT USE: TELECOMMUNICATIONS FACILITY

PROPOSED USE: TELECOMMUNICATIONS FACILITY

PROPERTY OWNER: N/F 382 COLEBROOK, LLC, 202 HANG DOG LANE WETHERSFIELD, CT 06109

TOWER OWNER: SBA TOWERS II, LLC

SBA SITE ID: CT13613-A

SBA SITE NAME: JOHNSTON

SBA REGIONAL SITE MANAGER: STEPHEN ROTH (860) 539-4920

APPROVALS

PROJECT MANAGER	DATE
CONSTRUCTION	DATE
RF ENGINEERING	DATE
ZONING / SITE ACQ.	DATE
OPERATIONS	DATE
TOWER OWNER	DATE



DIG SAFE SYSTEM
(MA, ME, NH, RI, VT):
1-888-344-7233



CALL BEFORE YOU DIG
(CT): 1-800-922-4455

UNDERGROUND SERVICE ALERT

DRAWING INDEX

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GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTNING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER SURCIRTS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

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

CONTRACTOR – SBA COMMUNICATIONS CORP.
SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
OWNER – T-MOBILE
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF 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 THE 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 CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (FY = 36 KSI) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (FY = 35 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 RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH UMS SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF T-MOBILE 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), STEEL CONSTRUCTION MANUAL, 13TH 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.

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	G.C.	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BTCW	BARE TINNED SOLID COPPER WIRE	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BGR	BURIED GROUND RING	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BTS	BASE TRANSCEIVER STATION	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
EXISTING	EXISTING OR (E)	PROPOSED	NEW OR (P)	TYP	TYPICAL
EGB	EQUIPMENT GROUND BAR	N.T.S.	NOT TO SCALE	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	RAD	RADIATION CENTERLINE (ANTENNA)		
		REF	REFERENCE		

T-Mobile

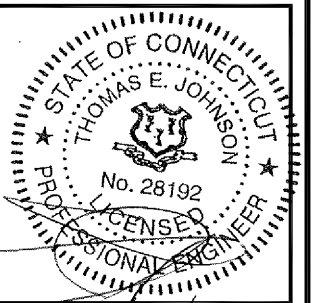
T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 648-1116



SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581 TEL: (508) 251-0720

ProTerra
DESIGN GROUP, LLC

4 Bay Road, Building A
Suite 200
Hadley, MA 01035 Ph: (413) 320-4918



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CTNH549B
SITE NAME:

CTNH549B

SITE ADDRESS:

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COLEBROOK, CT 06021

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-1

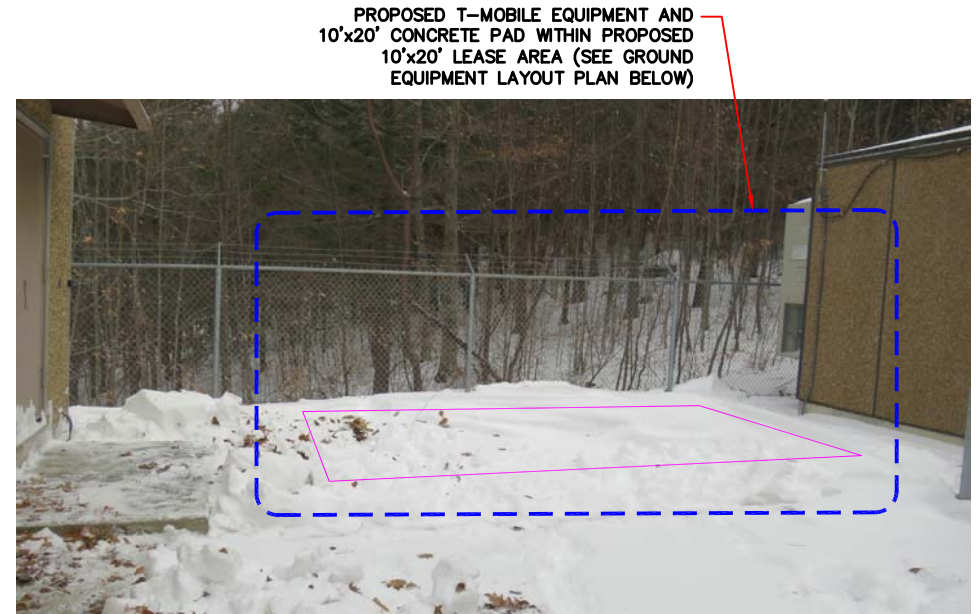
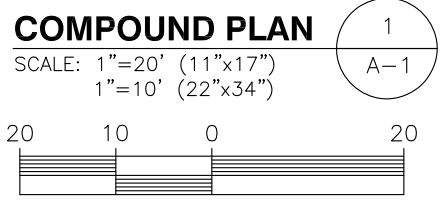
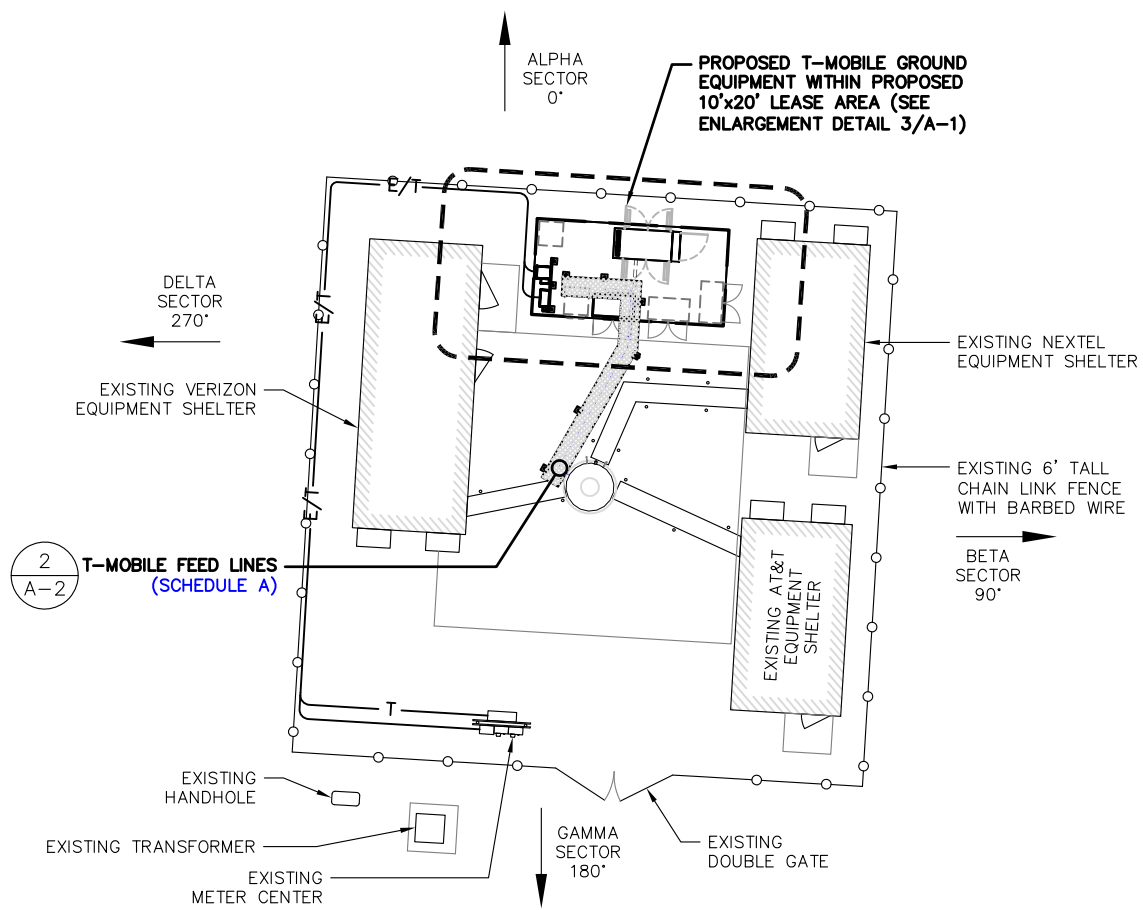
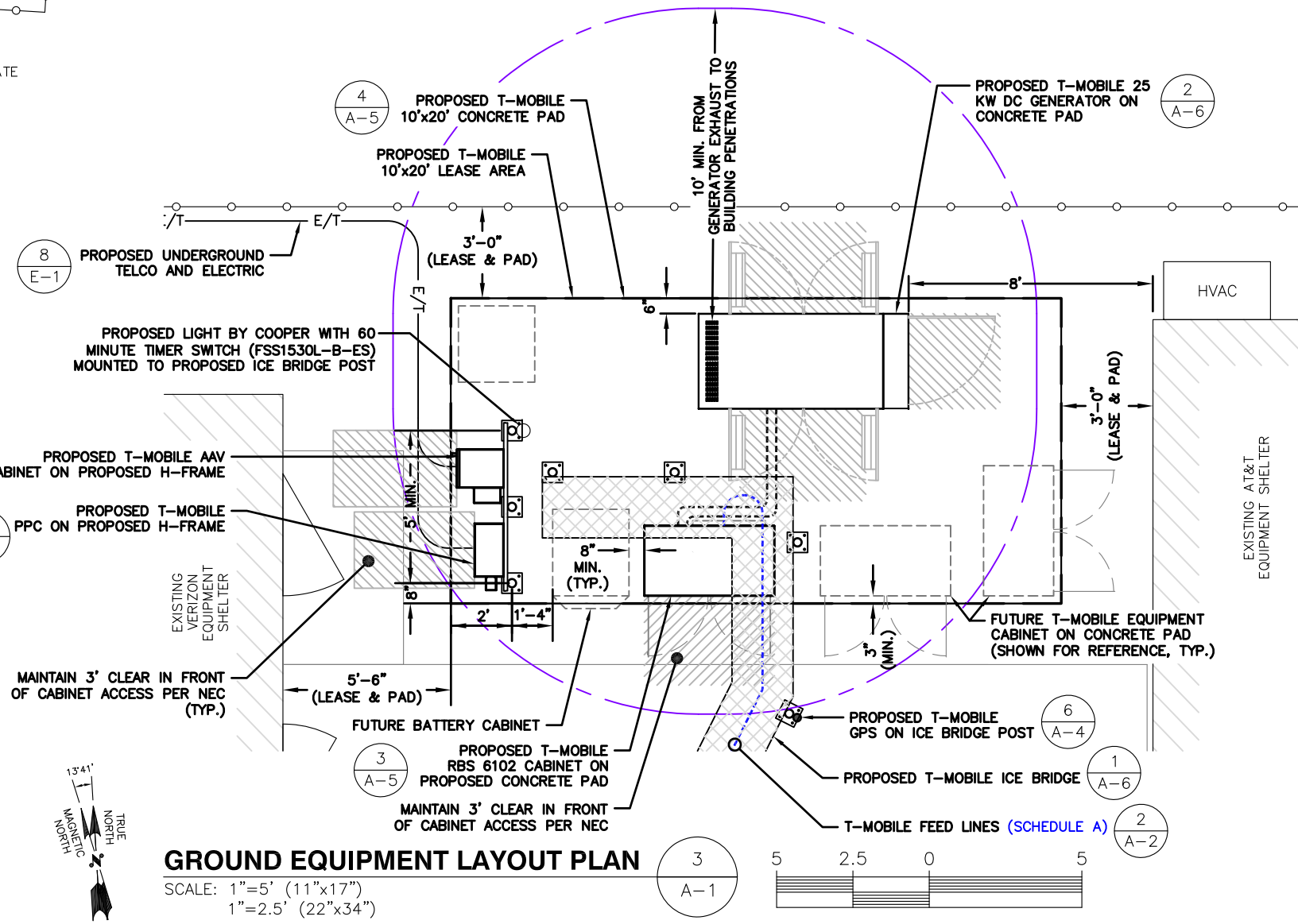


IMAGE SOURCE: PROTERRA 01/09/2018

PROPOSED EQUIPMENT AREA PHOTO DETAIL

SCALE: N.T.S.

2
A-1



GROUND EQUIPMENT LAYOUT PLAN

SCALE: 1"=5' (11"x17")
1"=2.5' (22"x34")

T-Mobile

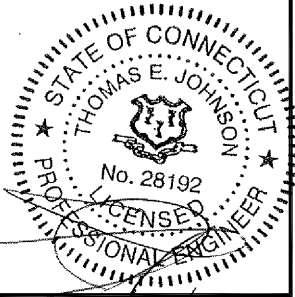
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35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 648-1116

SBA

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134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
TEL: (508) 251-0720

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4 Bay Road, Building A
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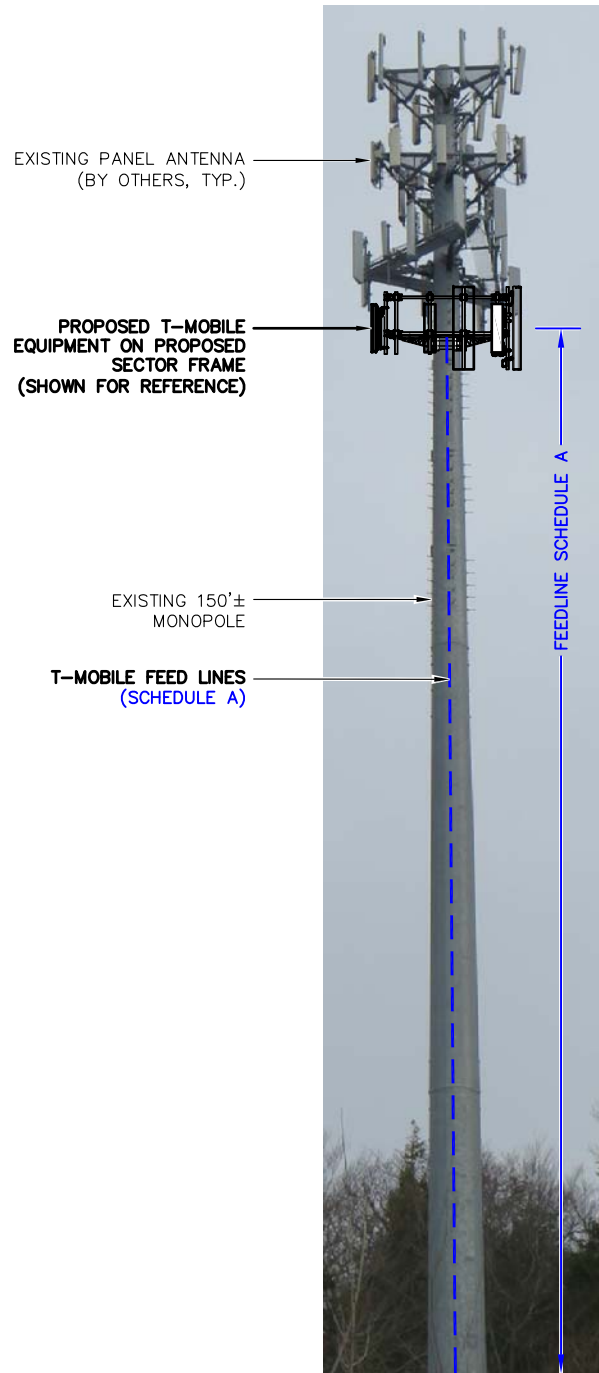
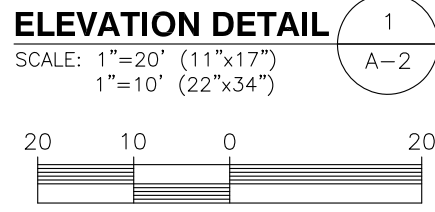
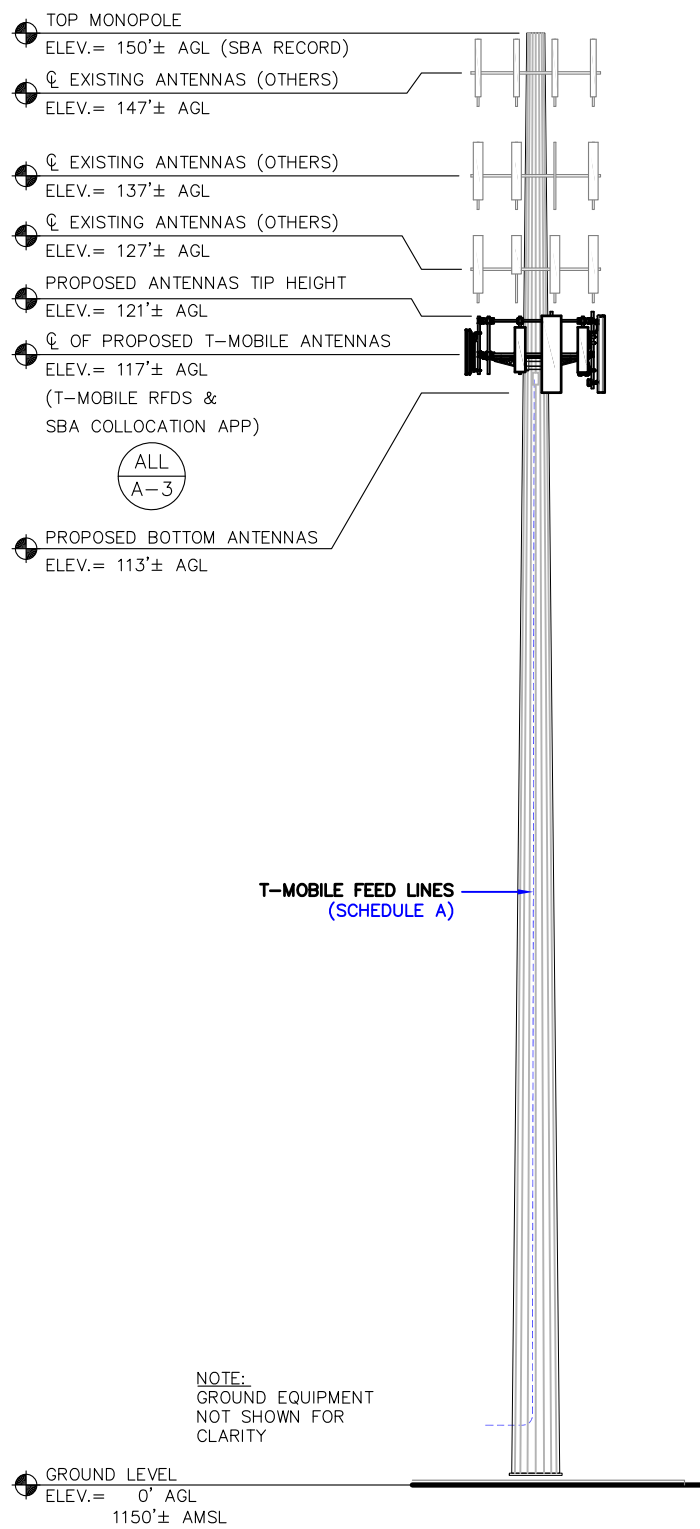
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CTNH549B

SITE NAME:
CTNH549B

SITE ADDRESS:
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COLEBROOK, CT 06021

SHEET TITLE
COMPOUND & ELEVATION PLAN

SHEET NUMBER
A-1

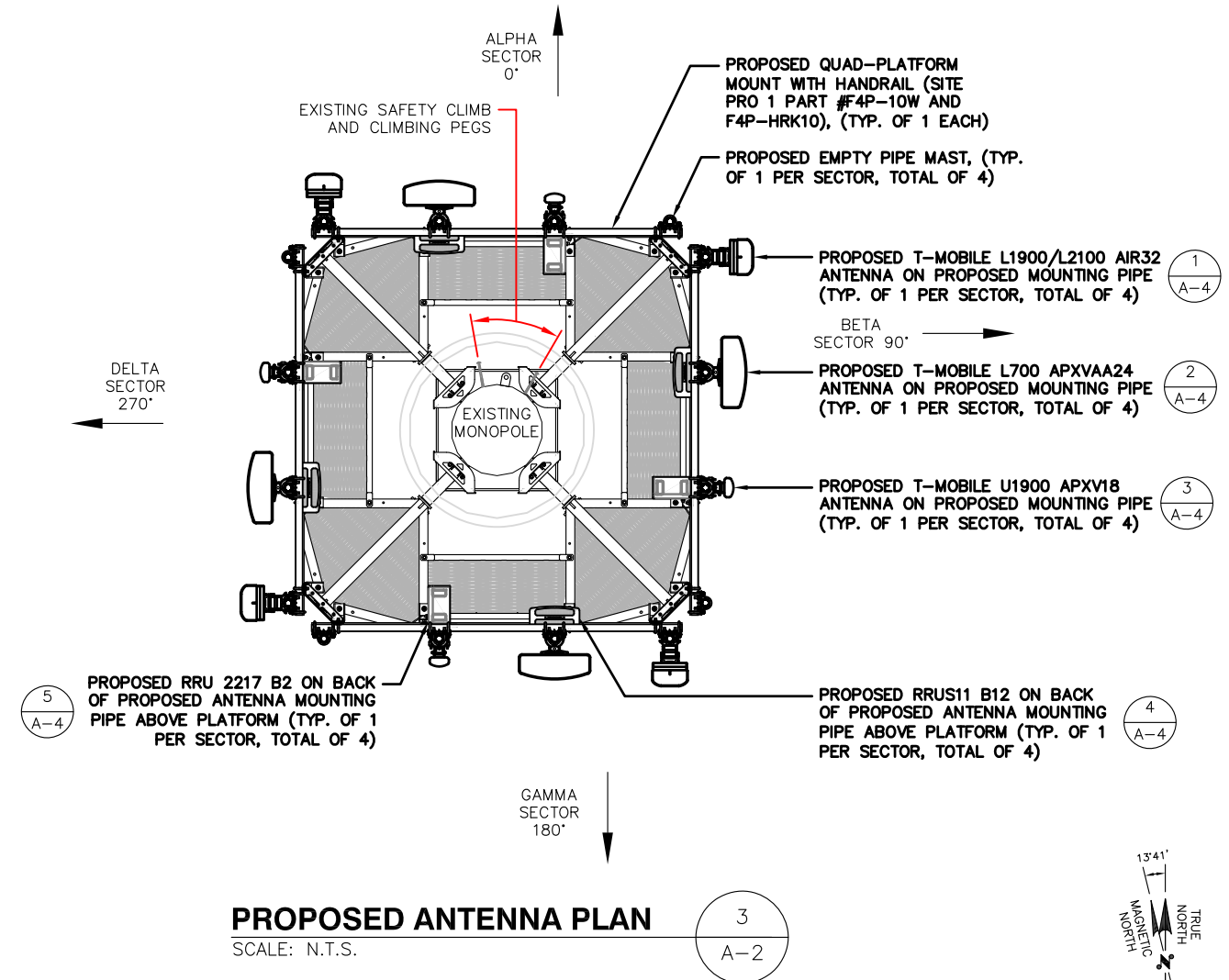


FEEDLINE SCHEDULE	FEEDLINE DESCRIPTION	LOCATION
A	PROPOSED: (4) HYBRID TO 117' RAD;	UP MONOPOLE TOWER TO RAD

NOTE:
PROPOSED T-MOBILE EQUIPMENT FEEDLINE INVENTORY BASED ON COLOCATION APPLICATION. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER.

TOWER ELEVATION PHOTO DETAIL 2
A-2

SCALE: N.T.S.



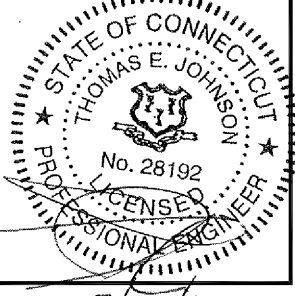
NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.

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T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 648-1116

SBA
SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
TEL: (508) 251-0720

ProTerra
DESIGN GROUP, LLC
4 Bay Road, Building A
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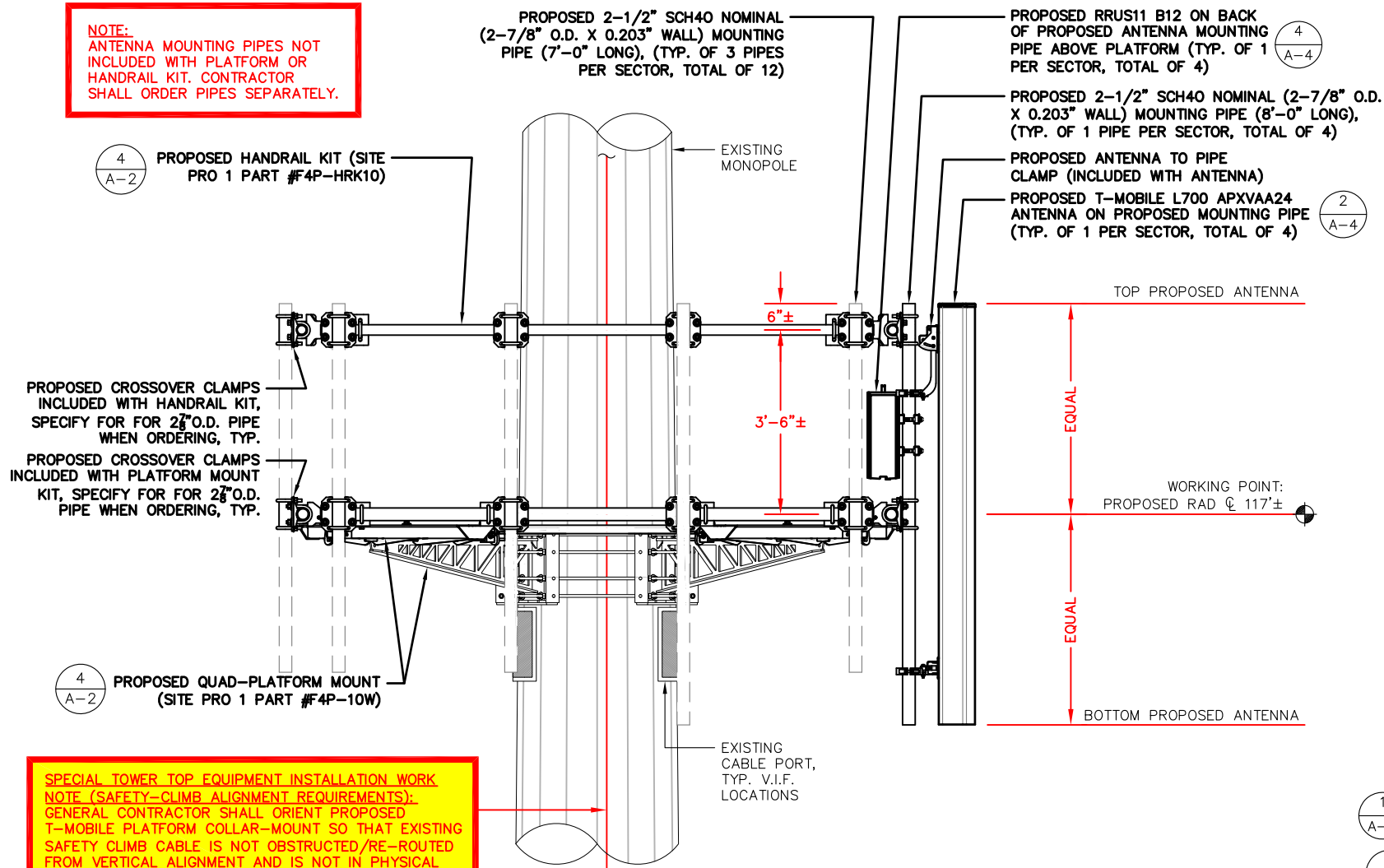
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COLEBROOK, CT 06021

SHEET TITLE
ELEVATIONS AND
PROPOSED ANTENNA
PLAN

SHEET NUMBER
A-2

NOTE:
ANTENNA MOUNTING PIPES NOT INCLUDED WITH PLATFORM OR HANDRAIL KIT. CONTRACTOR SHALL ORDER PIPES SEPARATELY.



PROPOSED L700 APX ANTENNA AND PLATFORM MOUNTING DETAIL

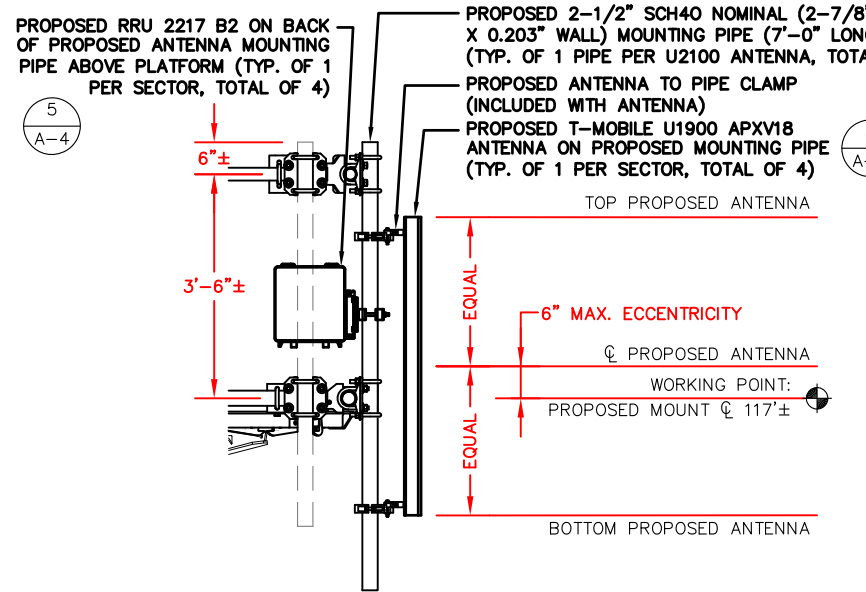
SCALE: N.T.S.

1
A-3

SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.

NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

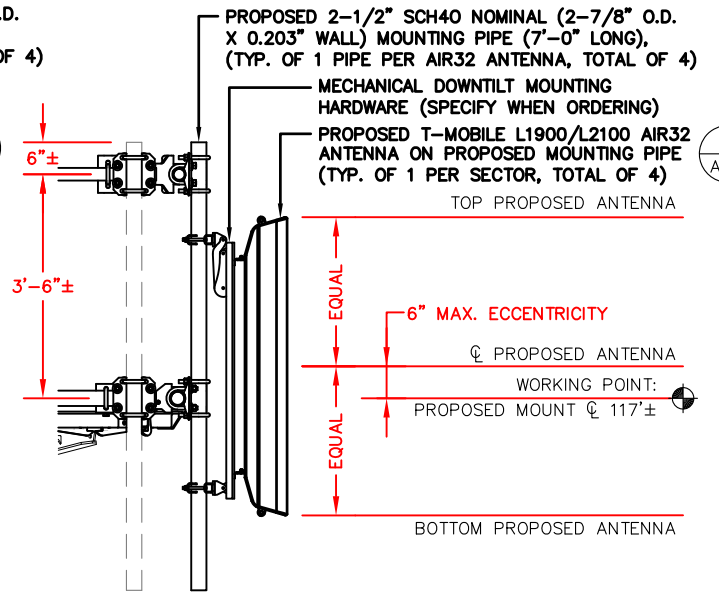
SPECIAL TOWER TOP EQUIPMENT INSTALLATION WORK NOTE (SAFETY-CLIMB ALIGNMENT REQUIREMENTS):
GENERAL CONTRACTOR SHALL ORIENT PROPOSED T-MOBILE PLATFORM COLLAR-MOUNT SO THAT EXISTING SAFETY CLIMB CABLE IS NOT OBSTRUCTED/RE-ROUTED FROM VERTICAL ALIGNMENT AND IS NOT IN PHYSICAL CONTACT WITH PROPOSED COLLAR-MOUNT HARDWARE. GENERAL CONTRACTOR SHALL INSTALL NEW OR ADDITIONAL SAFETY-CLIMB CABLE GUIDES IF ADDITIONAL CLEARANCE IS REQUIRED. ADDITIONAL CABLE GUIDES SHALL BE ATTACHED SECURELY TO THE POLE USING MECHANICAL FASTENERS OR FIELD WELDED BY A CERTIFIED WELDING TECHNICIAN.



PROPOSED U1900 ANTENNA MOUNTING DETAIL

SCALE: N.T.S.

2
A-3



PROPOSED L1900/L2100 AIR32 ANTENNA MOUNTING DETAIL

SCALE: N.T.S.

3
A-3

- 1
A-4 PROPOSED T-MOBILE L1900/L2100 AIR32 ANTENNA ON PROPOSED MOUNTING PIPE (TYP. OF 1 PER SECTOR, TOTAL OF 4)
- 2
A-4 PROPOSED T-MOBILE L700 APXVAA24 ANTENNA ON PROPOSED MOUNTING PIPE (TYP. OF 1 PER SECTOR, TOTAL OF 4)
- 4
A-4 PROPOSED RRU211 B12 ON BACK OF PROPOSED ANTENNA MOUNTING PIPE ABOVE PLATFORM (TYP. OF 1 PER SECTOR, TOTAL OF 4)
- 3
A-4 PROPOSED T-MOBILE U1900 APXV18 ANTENNA ON PROPOSED MOUNTING PIPE (TYP. OF 1 PER SECTOR, TOTAL OF 4)
- 4
A-2 PROPOSED HANDRAIL KIT (SITE PRO 1 PART #F4P-HRK10)

- 4
A-2 PROPOSED QUAD-PLATFORM MOUNT (SITE PRO 1 PART #F4P-10W)
- 5
A-4 PROPOSED RRU 2217 B2 ON BACK OF PROPOSED ANTENNA MOUNTING PIPE ABOVE PLATFORM (TYP. OF 1 PER SECTOR, TOTAL OF 4)

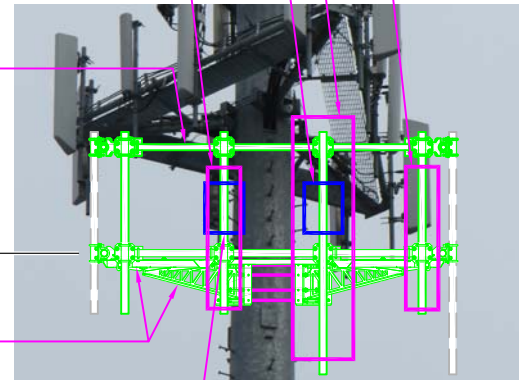


IMAGE SOURCE: PROTERRA 01/09/2018

NOTE: ONE SECTOR SHOWN FOR CLARITY

ANTENNA PHOTO DETAIL

SCALE: N.T.S.

4
A-3

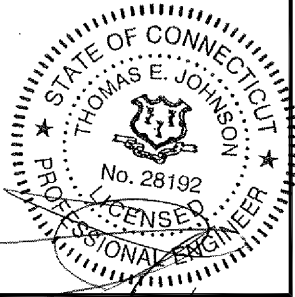
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35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 648-1116



SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581 TEL: (508) 251-0720

ProTerra
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Suite 200
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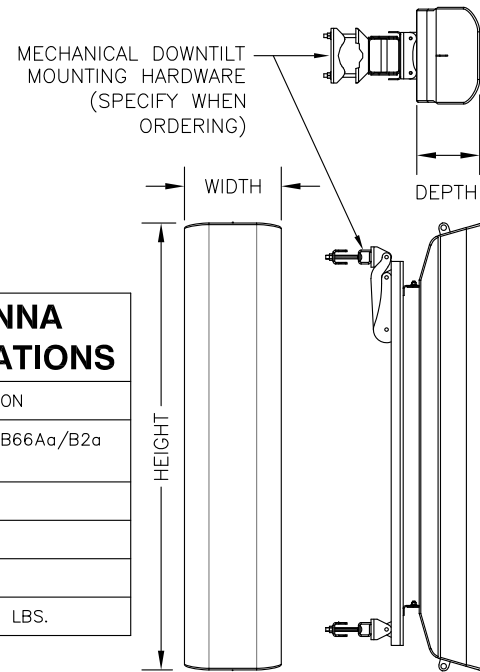
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382 COLEBROOK RIVER ROAD
COLEBROOK, CT 06021

SHEET TITLE
ANTENNA MOUNTING
DETAILS

SHEET NUMBER
A-3

AIR ANTENNA SPECIFICATIONS

MANUF.	ERICSSON
MODEL #	AIR32 B66Aa/B2a (Octa)
HEIGHT	56.6"
WIDTH	12.9"
DEPTH	8.7"
WEIGHT	132.2± LBS.



AIR32 ANTENNA DETAIL

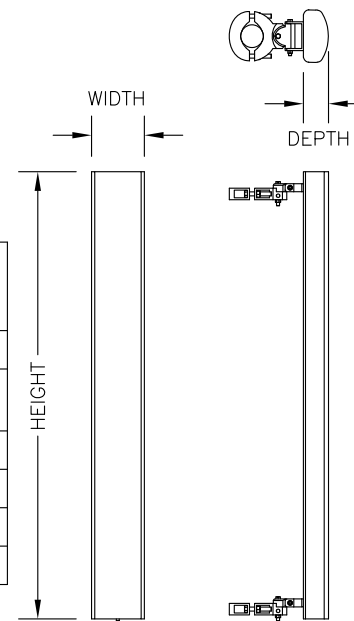
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1

A-4

U1900 ANTENNA SPECIFICATIONS

MANUF.	RFS
MODEL #	APXV18-206517S (Dual)
HEIGHT	76.0"
WIDTH	6.65"
DEPTH	3.15"
WEIGHT	12± LBS.



U1900 ANTENNA DETAIL

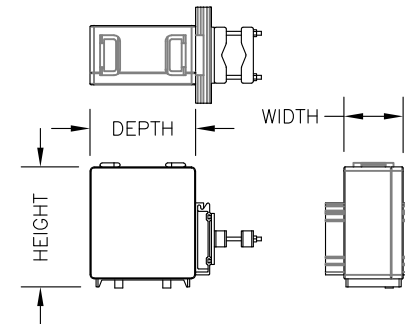
SCALE: N.T.S.

3

A-4

2217 B2 SPECIFICATIONS

MANUF.	ERICSSON
MODEL #	2217 B2
HEIGHT	13.4"
WIDTH	11.5"
DEPTH	4.1"
WEIGHT	26.5± LBS.



RRU DETAIL

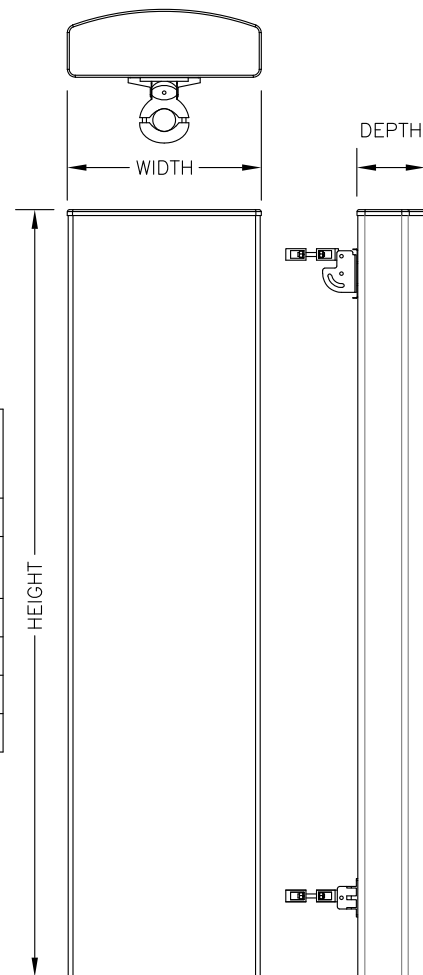
SCALE: N.T.S.

5

A-4

RFS ANTENNA SPECIFICATIONS

MANUF.	RFS
MODEL #	APXVAA24_43-U-A20
HEIGHT	95.9"
WIDTH	24.0"
DEPTH	8.5"
WEIGHT	124.3± LBS.



APX ANTENNA DETAIL

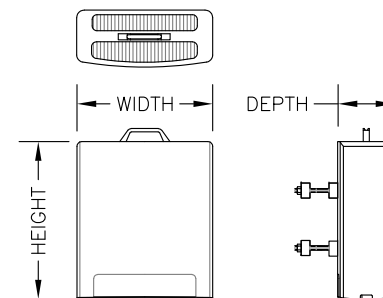
SCALE: N.T.S.

2

A-4

RRUS11 SPECIFICATIONS

MANUF.	ERICSSON
MODEL #	RRUS11 B12
HEIGHT	20.7"
WIDTH	17"
DEPTH	7"
WEIGHT	50.7± LBS.



RRU DETAIL

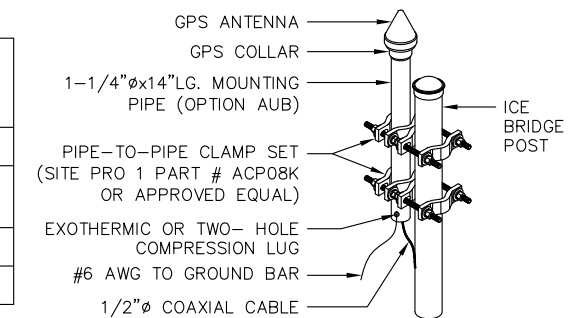
SCALE: N.T.S.

4

A-4

GPS ANTENNA

MANUF.	NAIS
MODEL #	CCAH32ST03
HEIGHT	3.9"
WIDTH	3.5"



GPS DETAIL

SCALE: N.T.S.

6

A-4

T-Mobile

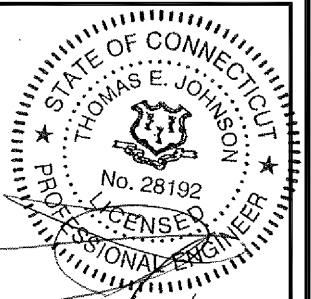
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COLEBROOK, CT 06021

SHEET TITLE

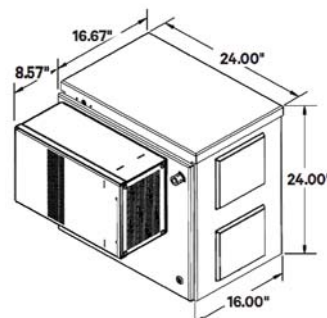
DETAILS

SHEET NUMBER

A-4

SSC SPECIFICATIONS

MANUF.	EMERSON
MODEL #	NXC2416
HEIGHT	24.0"
WIDTH	24.0"
DEPTH	16.67" (25.24 WITH HEAT EXCHANGER)
WEIGHT	64± LBS. (EMPTY) 100± LBS. (WITH 4 BATTERIES)



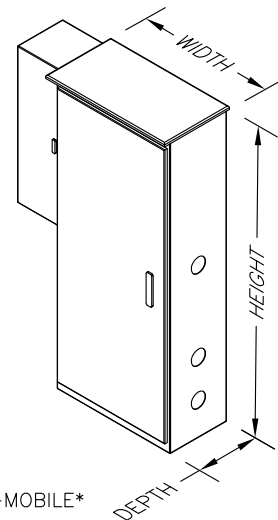
SITE SUPPORT CABINET (SSC)

SCALE: N.T.S.

1
A-5

PPC SPECIFICATIONS

MANUF.	DELTA
MODEL #	3799340400
HEIGHT	40"
WIDTH	20"
DEPTH	10"
WEIGHT	75± LBS.



TO BE PROVIDED BY T-MOBILE

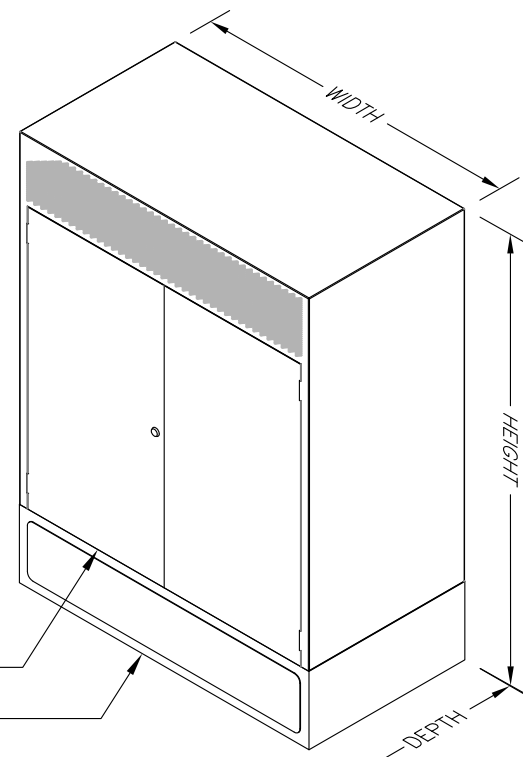
POWER PROTECTION CABINET (PPC)

SCALE: N.T.S.

2
A-5

RBS SPECIFICATIONS

MANUF.	ERICSSON
MODEL #	RBS 6102
HEIGHT	57.1"
WIDTH	51.2"
DEPTH	27.6"
WEIGHT	728± LBS. W/O BATTERIES
MAX WEIGHT	1850LBS



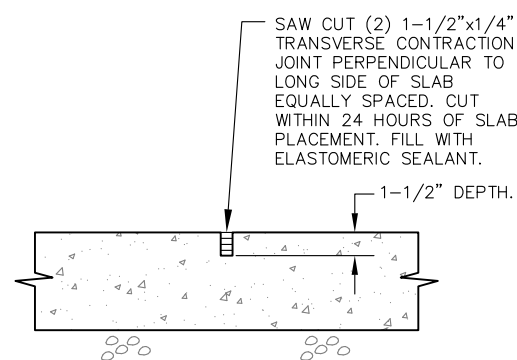
ATTACH RBS CABINET TO BASE FRAME PER MANUFACTURER'S GUIDELINES

RBS BASE FRAME (DIMENSIONS TBD). ANCHOR TO CONCRETE PAD WITH HILTI HDI 1/2" SS 303 DROP-IN ANCHORS (TYP. OF 8) OR EQUAL PER MANUFACTURER'S GUIDELINES

RBS 6102

SCALE: N.T.S.

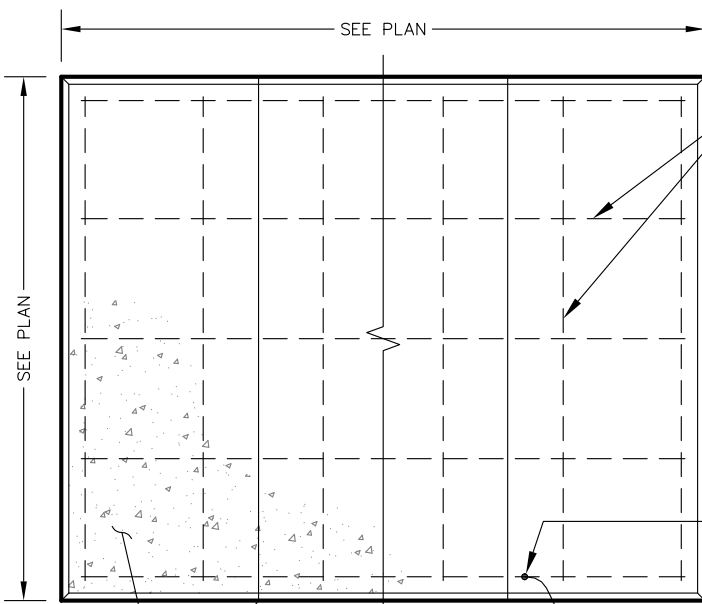
3
A-5



CONTRACTOR JOINT

NOTES:

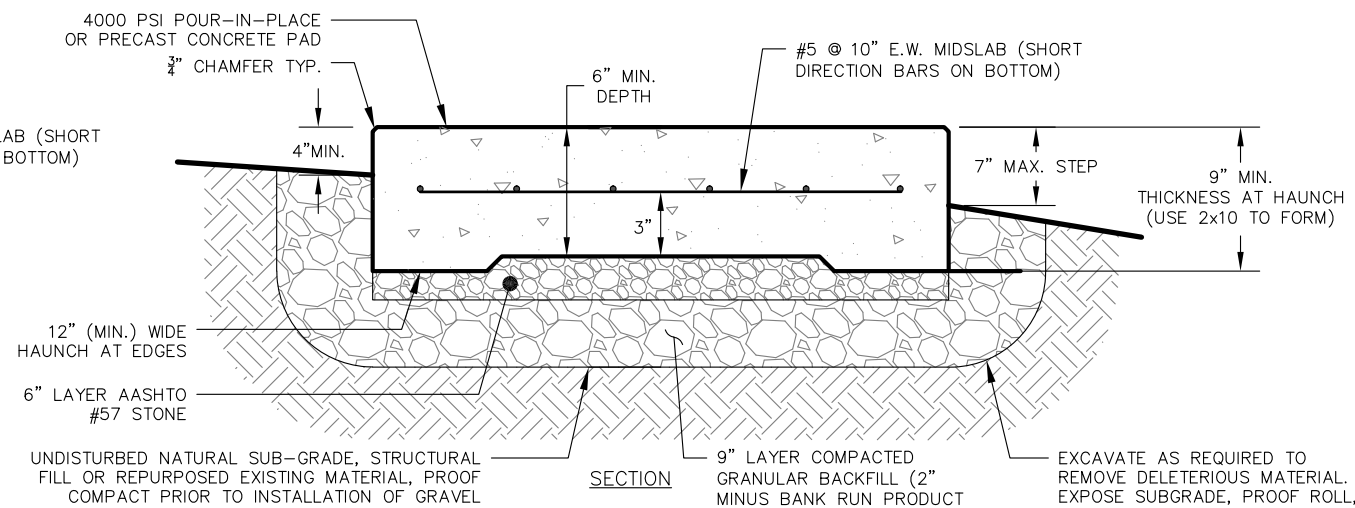
1. BEARING STRATA MEDIUM TO DENSE INSET GRANULAR MATERIAL OR COMPACTED FILL. 95% COMPACTION.
2. SUBGRADE AND FILL SHALL CONSIST OF CLEAN SOIL. NO DELETERIOUS MATERIALS OR ORGANICS TO BE USED.
3. CONCRETE FORM WORK SHALL BE CONSTRUCTED USING MINIMUM 2"x12" NOMINAL SIZE LUMBER OR EQUAL. STRIP AND REMOVE UPON COMPLETION.
4. CONCRETE SHALL HAVE 4000PSI 28-DAY COMPRESSIVE STRENGTH WITH 5(±1)% AIR ENTRAINMENT, 3"-5" SLUMP AND BRISTLE BROOM FINISH.
5. ALL REBAR TO BE DEFORMED 60KSI ASTM A615 GRADE 60 U.O.N.



STIFF BRISTLE BROOM FINISH

PLAN

TO GROUND RING



SECTION

SAW CUT (2) EQUALLY SPACED 1-1/2"x1/4" TRANSVERSE CONTRACTION JOINT PERPENDICULAR TO LONG SIDE OF SLAB WITHIN 24 HOURS OF SLAB PLACEMENT. FILL WITH ELASTOMERIC SEALANT.

CONCRETE PAD

SCALE: N.T.S.

4
A-5

T-Mobile
T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 648-1116

SBA
SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
TEL: (508) 251-0720

ProTerra
DESIGN GROUP, LLC
4 Bay Road, Building A
Suite 200
Hadley, MA 01035 Ph: (413) 320-4918

STATE OF CONNECTICUT
THOMAS E. JOHNSON
No. 28192
PROFESSIONAL ENGINEER

CHECKED BY: JMM/TEJ

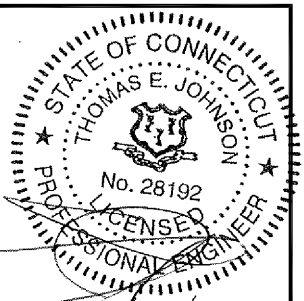
APPROVED BY: JMM/TEJ

SUBMITTALS			
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4	03/08/18	ISSUED FOR CONSTRUCTION	PN
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2	02/22/18	ISSUED FOR CONSTRUCTION	PN
1	02/15/18	ISSUED FOR CONSTRUCTION	PN
0	02/06/18	ISSUED FOR CONSTRUCTION	PN

SITE NUMBER:
CTNH549B
SITE NAME:
CTNH549B
SITE ADDRESS:
382 COLEBROOK RIVER ROAD
COLEBROOK, CT 06021

SHEET TITLE
DETAILS

SHEET NUMBER
A-5



CHECKED BY: JMM/TEJ

APPROVED BY: JMM/TEJ

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 SITE NAME:
CTNH549B
 SITE ADDRESS:
 382 COLEBROOK RIVER ROAD
 COLEBROOK, CT 06021

SHEET TITLE
 DETAILS

SHEET NUMBER
 A-6

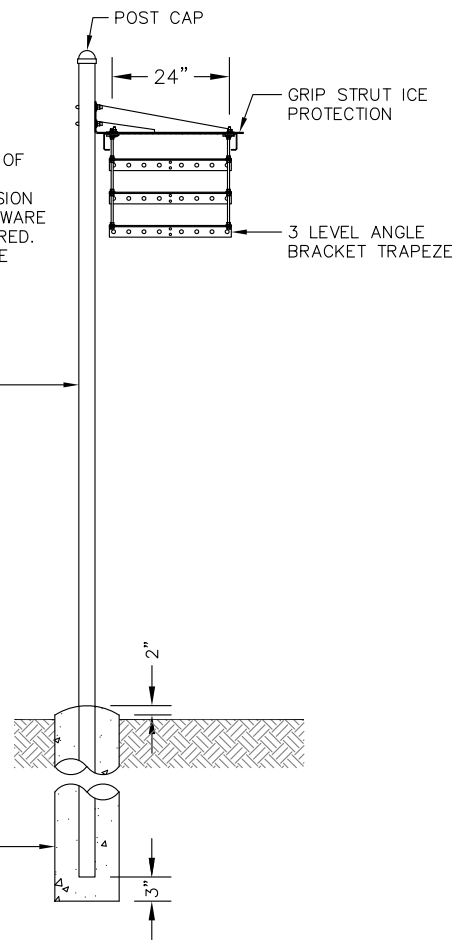
1. ALL COMPONENTS SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
2. CONTRACTOR SHALL DETERMINE REQUIRED QUANTITY OF ALL ICE BRIDGE COMPONENTS
3. SNAP-IN HANGERS, SPLICE KITS, HINGE KITS, EXTENSION KITS, STIFFENERS, AND OTHER MISCELLANEOUS HARDWARE SHALL BE PROVIDED BY THE CONTRACTOR AS REQUIRED.
4. ICE BRIDGE SHALL BE ROUTED TO ACCOMMODATE THE MINIMUM BENDING RADIUS OF THE COAXIAL CABLE.
5. ICE BRIDGE COMPONENTS SHOWN ARE SCHEMATIC. CONSULT MANUFACTURER FOR EXACT AND CURRENT SPECIFICATIONS.

ICE BRIDGE KIT (VALMONT P/N IB24D-A3 OR EQUAL) POSTS SPACED 8'-0" MAX.

ICE BRIDGE POST WITH BASE SHOE (VALMONT P/N SP126)
 5/8"Ø HILTI-KWIK BOLT, TYP. OF 4
 CONCRETE

ALTERNATE ANCHORING DETAIL

1'-0"Ø x 4' CONCRETE FOOTING



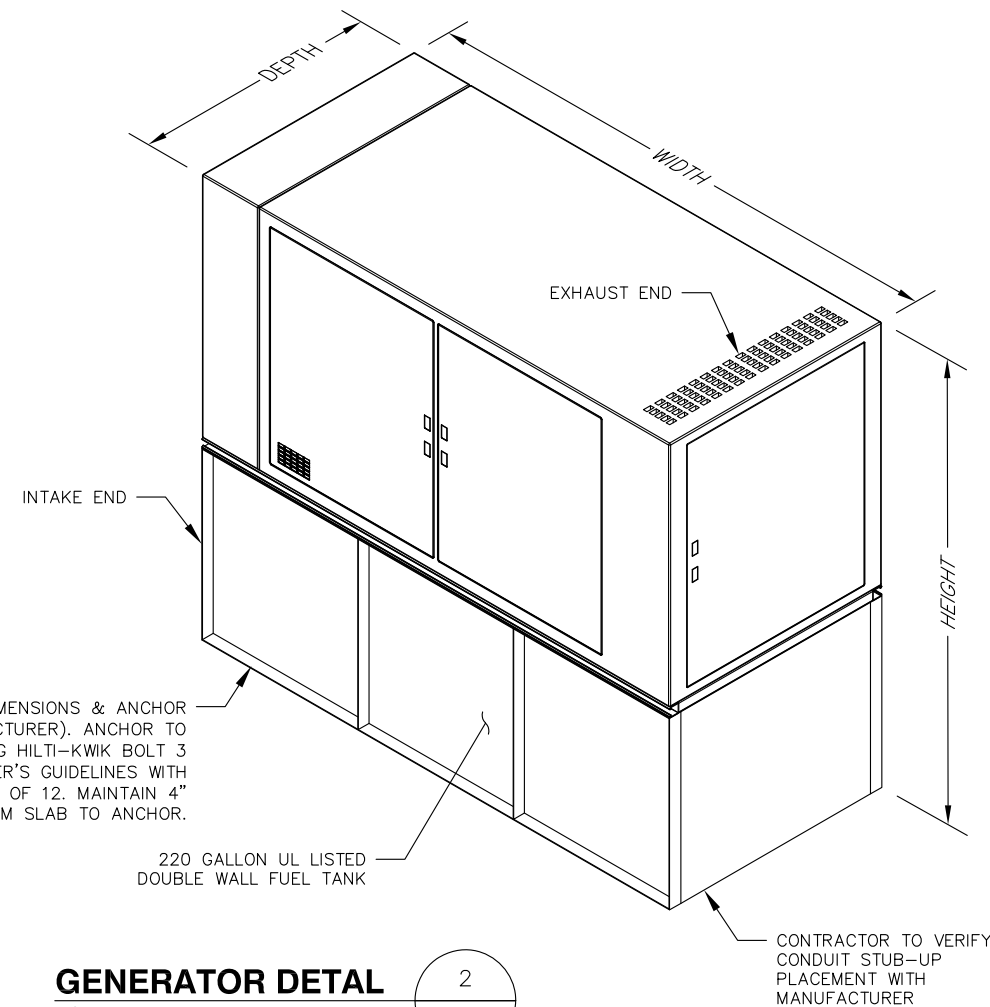
ICE BRIDGE

SCALE: N.T.S.

1
 A-6

GENERATOR SPECIFICATIONS

MANUF.	DELTA
MODEL #	POWERGEN 25000 (25kW DC)
HEIGHT	71"
WIDTH	83"
DEPTH	38"
WEIGHT	3240± LBS.

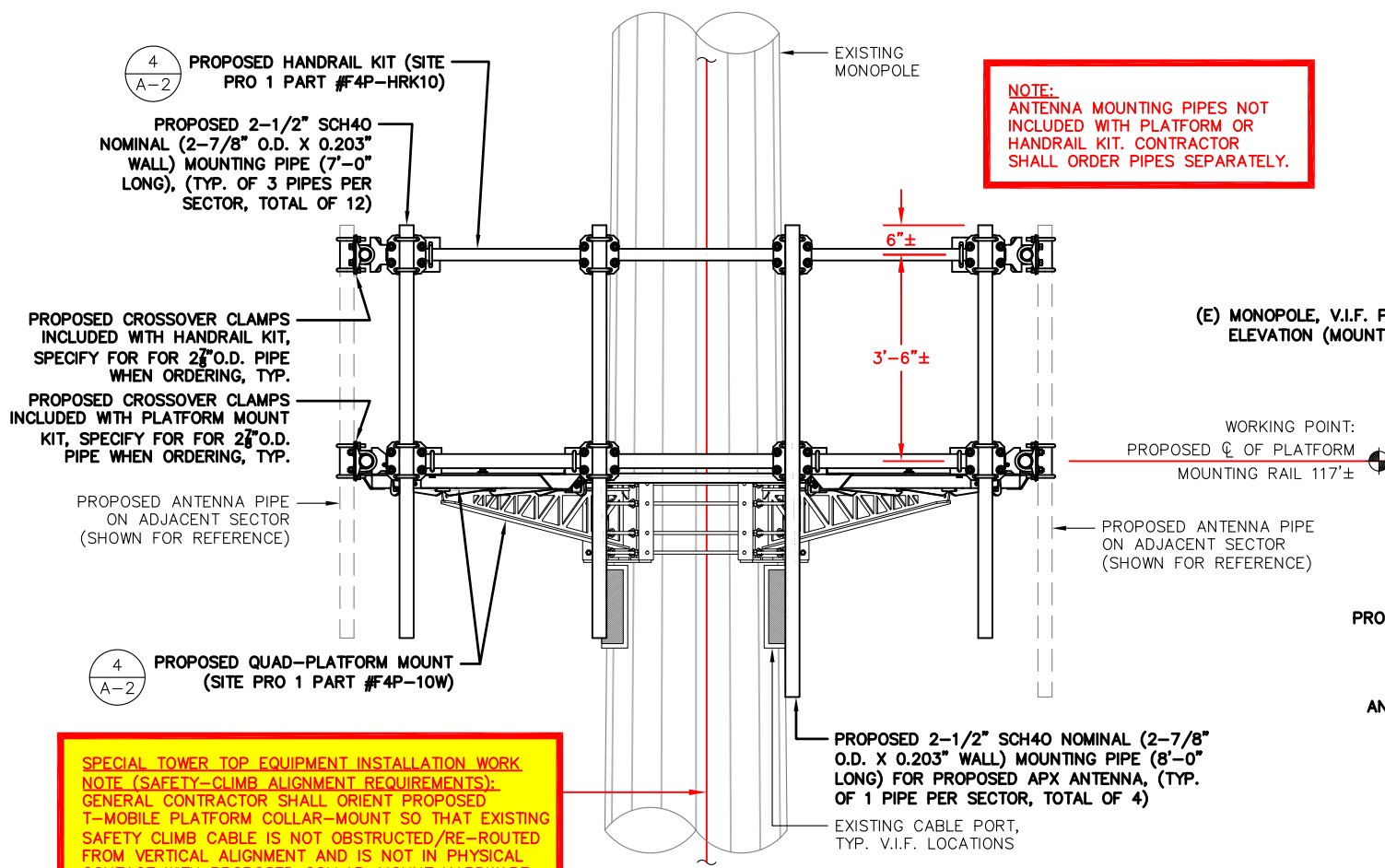


BASE FRAME (VERIFY BASE DIMENSIONS & ANCHOR LOCATIONS WITH MANUFACTURER). ANCHOR TO CONCRETE PAD WITH 3/8" HDG HILTI-KWIK BOLT 3 SIZED PER MANUFACTURER'S GUIDELINES WITH 3-1/2" MIN. EMBEDMENT, TYP. OF 12. MAINTAIN 4" MINIMUM EDGE DISTANCE FROM SLAB TO ANCHOR.

GENERATOR DETAIL

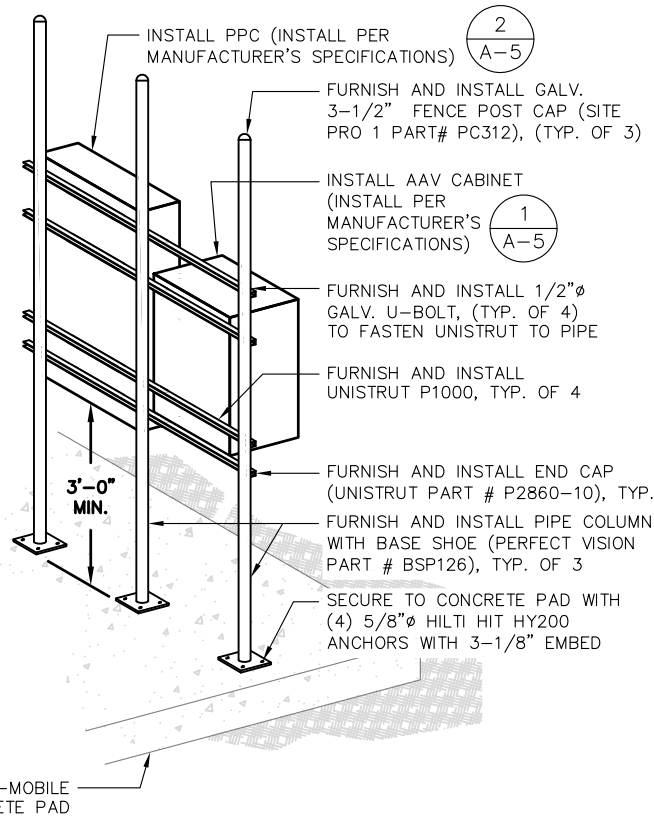
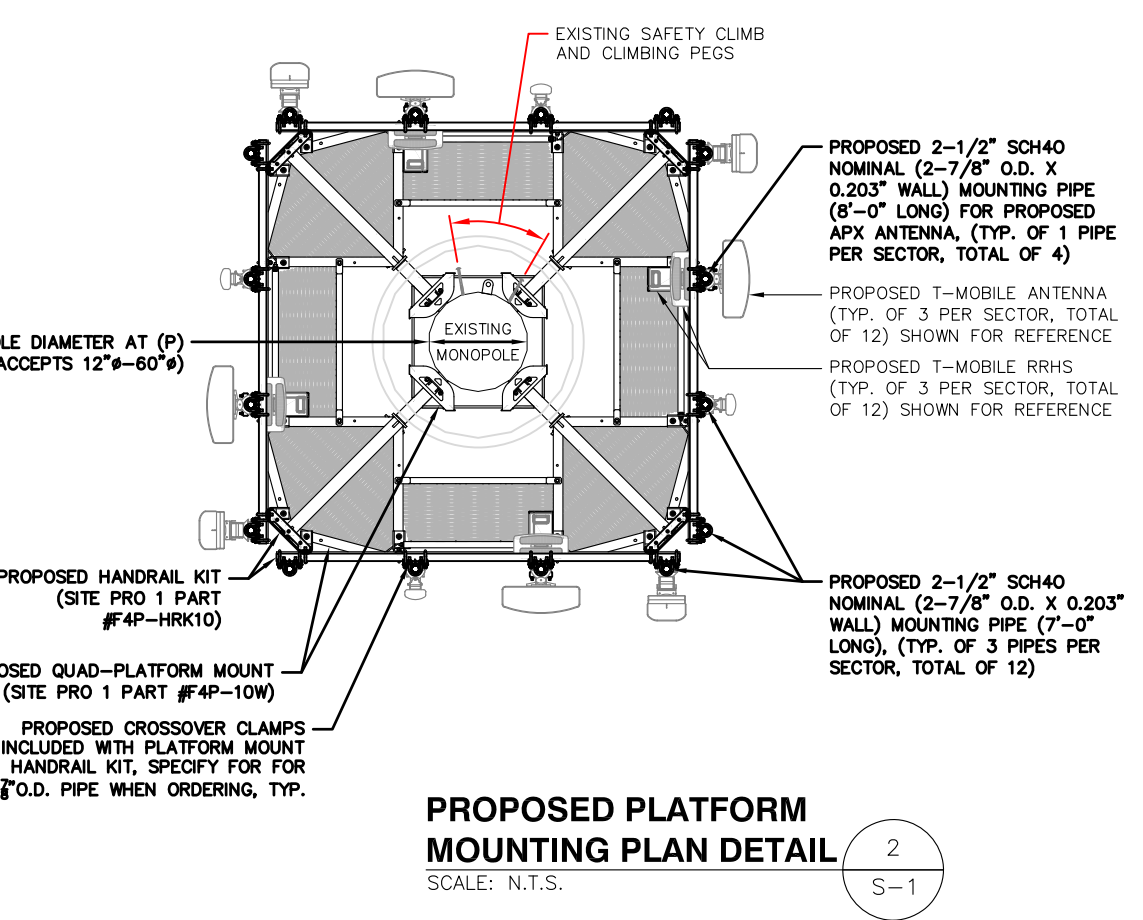
SCALE: N.T.S.

2
 A-6

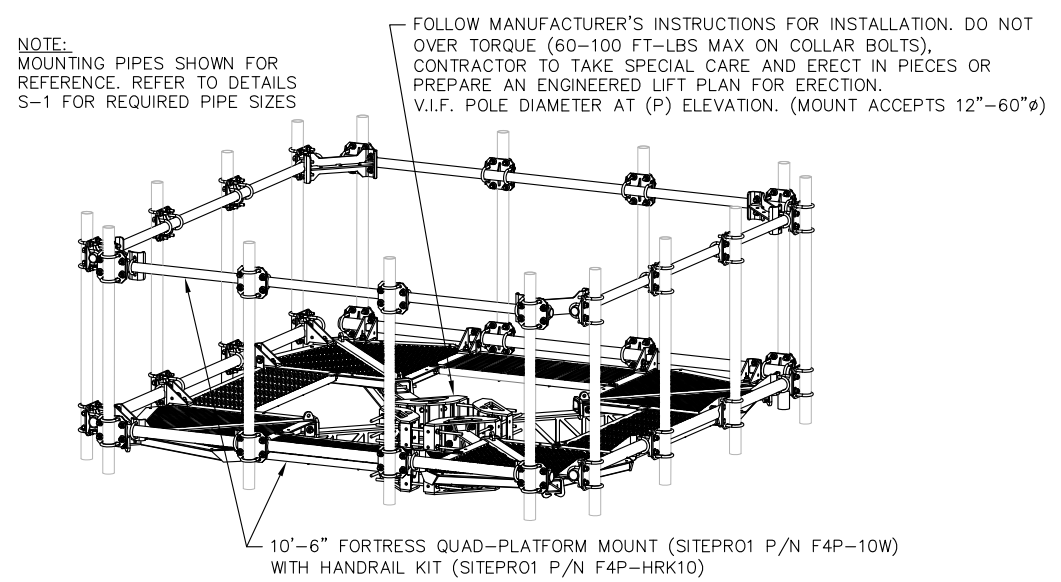


SPECIAL TOWER TOP EQUIPMENT INSTALLATION WORK NOTE (SAFETY-CLIMB ALIGNMENT REQUIREMENTS):
 GENERAL CONTRACTOR SHALL ORIENT PROPOSED T-MOBILE PLATFORM COLLAR-MOUNT SO THAT EXISTING SAFETY CLIMB CABLE IS NOT OBSTRUCTED/RE-ROUTED FROM VERTICAL ALIGNMENT AND IS NOT IN PHYSICAL CONTACT WITH PROPOSED COLLAR-MOUNT HARDWARE. GENERAL CONTRACTOR SHALL INSTALL NEW OR ADDITIONAL SAFETY-CLIMB CABLE GUIDES IF ADDITIONAL CLEARANCE IS REQUIRED. ADDITIONAL CABLE GUIDES SHALL BE ATTACHED SECURELY TO THE POLE USING MECHANICAL FASTENERS OR FIELD WELDED BY A CERTIFIED WELDING TECHNICIAN.

PROPOSED PLATFORM MOUNTING DETAIL
 SCALE: N.T.S.



PPC AND TELCO CABINET H-FRAME MOUNTING DETAIL
 SCALE: N.T.S.



SECTOR FRAME DETAIL
 SCALE: N.T.S.

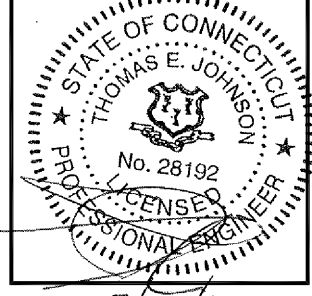
T-Mobile
T-MOBILE NORTHEAST LLC
 35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002
 OFFICE: (860) 648-1116

SBA

SBA COMMUNICATIONS CORP.
 134 FLANDERS ROAD, SUITE 125
 WESTBOROUGH, MA 01581 TEL: (508) 251-0720

ProTerra
 DESIGN GROUP, LLC

4 Bay Road, Building A
 Suite 200
 Hadley, MA 01035 Ph: (413) 320-4918



CHECKED BY: JMM/TEJ
 APPROVED BY: JMM/TEJ

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SITE NUMBER:
CTNH549B
 SITE NAME:
CTNH549B

SITE ADDRESS:
 382 COLEBROOK RIVER ROAD
 COLEBROOK, CT 06021

SHEET TITLE
STRUCTURAL DETAILS

SHEET NUMBER
S-1

Section 1 - Site Information

Site ID: CTNH549B
 Status: Final
 Version: C0.1
 Project Type: Infill/ROB/Greenfield
 Approved: 2/12/2018 6:23:19 AM -08:00
 Approved By: GSM1900/BAHter
 Last Modified: 2/12/2018 6:23:19 AM -08:00
 Last Modified By: GSM1900/BAHter

Site Name: CTNH549B
 Site Class: Monopole
 Site Type: Structure Non Building
 Solution Type:
 Plan Year:
 Market: CONNECTICUT
 Vendor: Ericsson
 Landlord: SBA TOWERS V.LLC

Latitude: 41.99233612
 Longitude: -73.03959723
 Address: 382 Colebrook River Rd
 City, State: Winsted, CT
 Region: NORTHEAST

RAN Template: 4Sec-6797DB3 A&L Template: 4Sec-6797DB3_1xAIR+1QP+1DP Power System Template: Custom
 Sector Count: 4 Antenna Count: 12 Coax Line Count: 0 TMA Count: 0 RRU Count: 8

Section 5 - RAN Equipment

Existing RAN Equipment

— This section is intentionally blank. —

Proposed RAN Equipment

Template: 4Sec-6797DB3

Enclosure	1	2
Enclosure Type	RBS 6102 MJ AC	Auxiliary Equipment
Baseband	DUW30 U1900 L2100 L1900 L700	
Hybrid Cable System		Ericsson 6x12 HCS "Select Length & AWG" (x2) Ericsson 6x12 HCS "Select AWG & Length"
Multiplexer	XMU L2100 L1900 L700	

RAN Scope of Work:

Section 6 - A&L Equipment

Existing Template: Custom
 Proposed Template: 4Sec-6797DB3_1xAIR+1QP+1DP

Sector 1 (Proposed) view from behind

Coverage Type	A- Outdoor Macro						
Antenna	1		2		3		
Antenna Model	Ericsson-AIR32 KR0901146-1_B66A_B2A (Octa)		RFS-APXVAA24_43-U-A20 (Quad)		RFS-APXV18-2065175-A20 (Dual)		
Azimuth	0		0		0		
M. Tilt	0		0		0		
Height	117		117		117		
Ports	P1	P2	P3	P4	P5	P6	P7
Active Tech.	L2100	L2100	L1900	L1900	L700		U1900
Dark Tech.							
Restricted Tech.							
Decomm. Tech.							
E. Tilt	0		0		0		
Cables	MLA Fiber Pair - 15 ft.		MLA Fiber Pair - 15 ft.		MLA Fiber Pair - 15 ft.		
TMA's							
Diplexers / Combiners							
Radio					RRUS11 B12 (At Antenn A)		Radio 2217 B2 (At Antenna)

Unconnected Equipment:

Scope of Work:

L600 is not active yet.

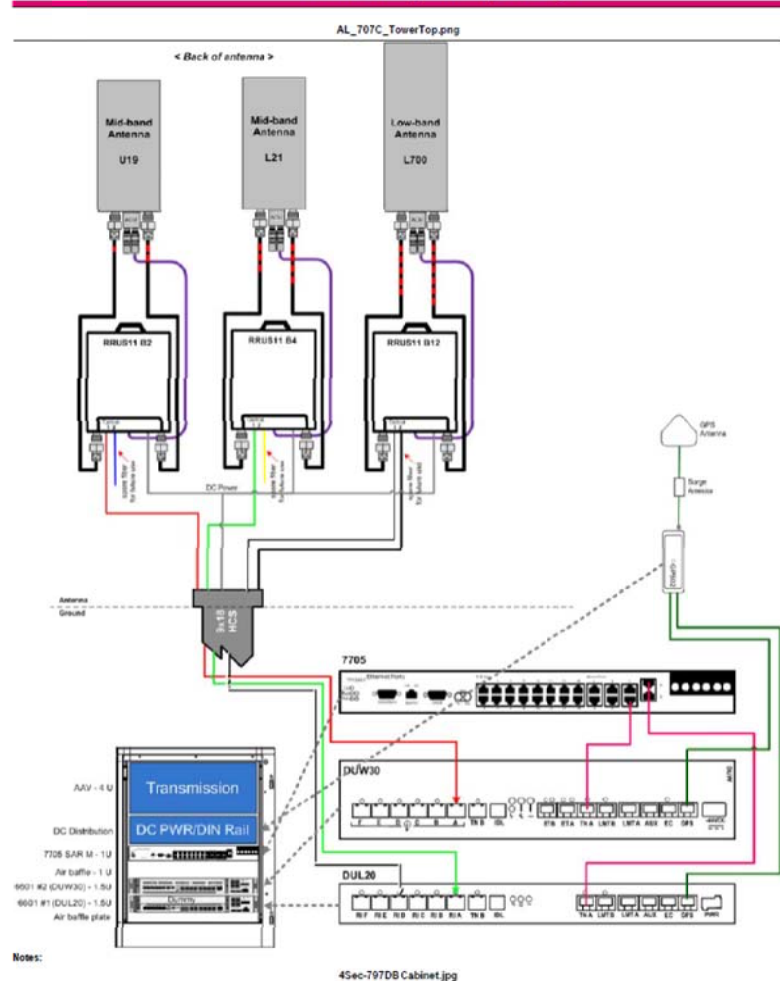
Sector 3 (Proposed) view from behind

Coverage Type	A- Outdoor Macro						
Antenna	1		2		3		
Antenna Model	Ericsson-AIR32 KR0901146-1_B66A_B2A (Octa)		RFS-APXVAA24_43-U-A20 (Quad)		RFS-APXV18-2065175-A20 (Dual)		
Azimuth	180		180		180		
M. Tilt	0		0		0		
Height	117		117		117		
Ports	P1	P2	P3	P4	P5	P6	P7
Active Tech.	L2100	L2100	L1900	L1900	L700		U1900
Dark Tech.							
Restricted Tech.							
Decomm. Tech.							
E. Tilt	0		0		0		
Cables	MLA Fiber Pair - 15 ft.		MLA Fiber Pair - 15 ft.		MLA Fiber Pair - 15 ft.		
TMA's							
Diplexers / Combiners							
Radio					RRUS11 B12 (At Antenn A)		Radio 2217 B2 (At Antenna)

Unconnected Equipment:

Scope of Work:

Section 3 - Proposed Template Images



Sector 2 (Proposed) view from behind

Coverage Type	A- Outdoor Macro						
Antenna	1		2		3		
Antenna Model	Ericsson-AIR32 KR0901146-1_B66A_B2A (Octa)		RFS-APXVAA24_43-U-A20 (Quad)		RFS-APXV18-2065175-A20 (Dual)		
Azimuth	90		90		90		
M. Tilt	0		0		0		
Height	117		117		117		
Ports	P1	P2	P3	P4	P5	P6	P7
Active Tech.	L2100	L2100	L1900	L1900	L700		U1900
Dark Tech.							
Restricted Tech.							
Decomm. Tech.							
E. Tilt	0		0		0		
Cables	MLA Fiber Pair - 15 ft.		MLA Fiber Pair - 15 ft.		MLA Fiber Pair - 15 ft.		
TMA's							
Diplexers / Combiners							
Radio					RRUS11 B12 (At Antenn A)		Radio 2217 B2 (At Antenna)

Unconnected Equipment:

Scope of Work:

Sector 4 (Proposed) view from behind

Coverage Type	A- Outdoor Macro						
Antenna	1		2		3		
Antenna Model	Ericsson-AIR32 KR0901146-1_B66A_B2A (Octa)		RFS-APXVAA24_43-U-A20 (Quad)		RFS-APXV18-2065175-A20 (Dual)		
Azimuth	270		270		270		
M. Tilt	0		0		0		
Height	117		117		117		
Ports	P1	P2	P3	P4	P5	P6	P7
Active Tech.	L2100	L2100	L1900	L1900	L700		U1900
Dark Tech.							
Restricted Tech.							
Decomm. Tech.							
E. Tilt	0		0		0		
Cables	MLA Fiber Pair - 15 ft.		MLA Fiber Pair - 15 ft.		MLA Fiber Pair - 15 ft.		
TMA's							
Diplexers / Combiners							
Radio					RRUS11 B12 (At Antenn A)		Radio 2217 B2 (At Antenna)

Unconnected Equipment:

Scope of Work:

RF DATA SHEET

SCALE: N.T.S.

NOTE: RFDS PROVIDED BY T-MOBILE DATED 02/12/2018. EXCERPTS TAKEN DEPICT RELEVANT RF DESIGN INFORMATION. A&E VENDOR SCOPE OF WORK LIMITED TO DESIGN OF MECHANICAL/STRUCTURAL EQUIPMENT ATTACHMENTS.

NOTE: VERIFY PROPOSED AZIMUTHS WITH RF ENGINEER PRIOR TO INSTALLATION



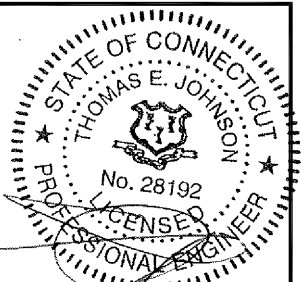
T-MOBILE NORTHEAST LLC
 35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002
 OFFICE: (860) 648-1116



SBA COMMUNICATIONS CORP.
 134 FLANDERS ROAD, SUITE 125
 WESTBOROUGH, MA 01581 TEL: (508) 251-0720



4 Bay Road, Building A
 Suite 200
 Hadley, MA 01035 Ph: (413) 320-4918



CHECKED BY: JMM/TEJ

APPROVED BY: JMM/TEJ

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SITE NUMBER:

CTNH549B

SITE NAME:

CTNH549B

SITE ADDRESS:

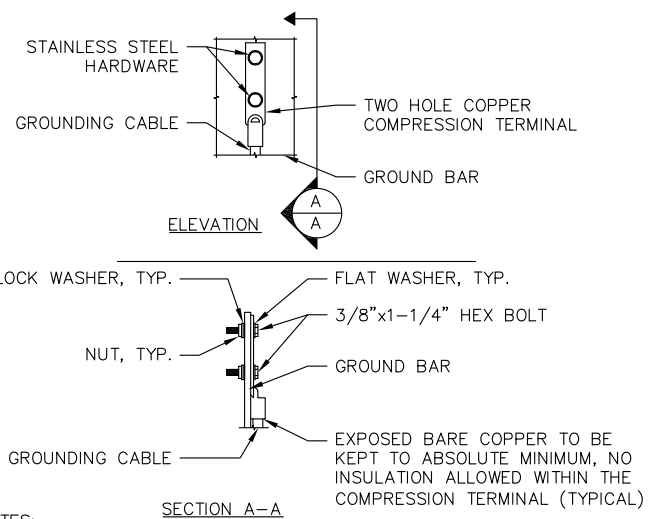
382 COLEBROOK RIVER ROAD
 COLEBROOK, CT 06021

SHEET TITLE

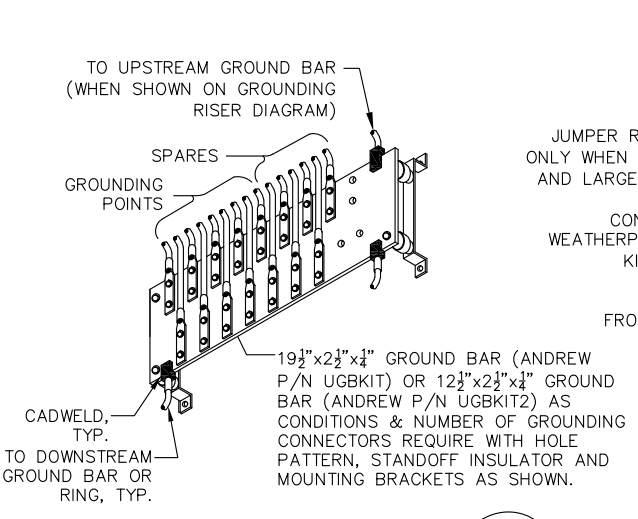
RF DATA SHEET

SHEET NUMBER

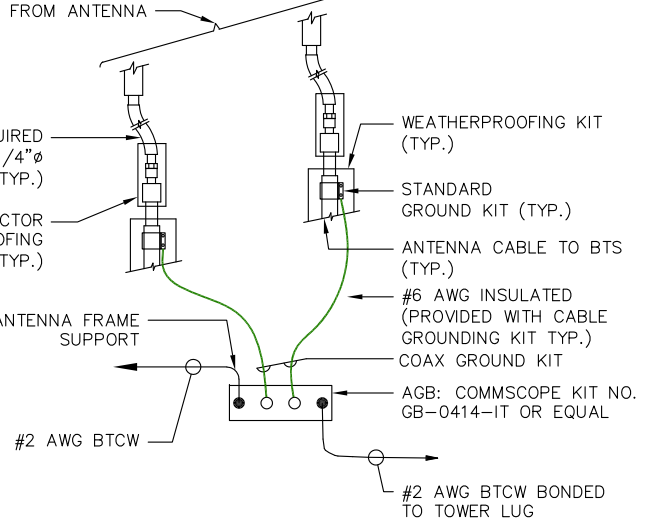
RF-1



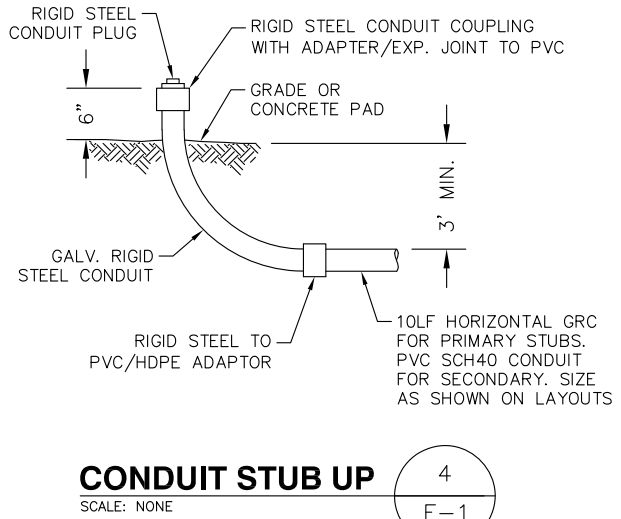
- NOTES:
 1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
 2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
 3. CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB.



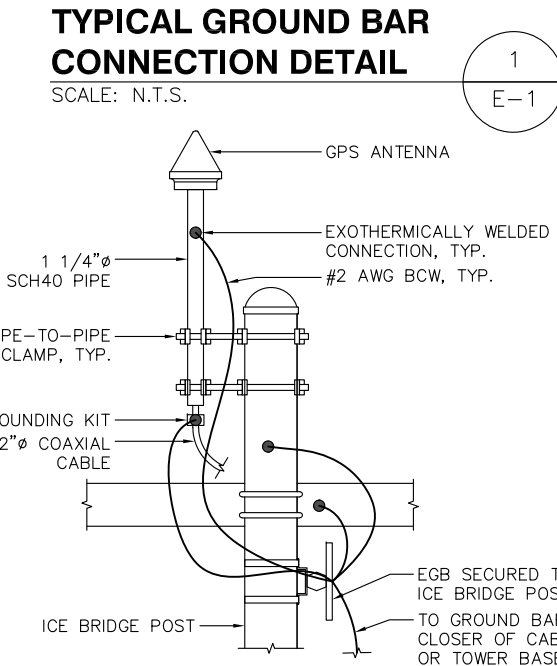
COAX GROUND BAR (MGB)
SCALE: NONE



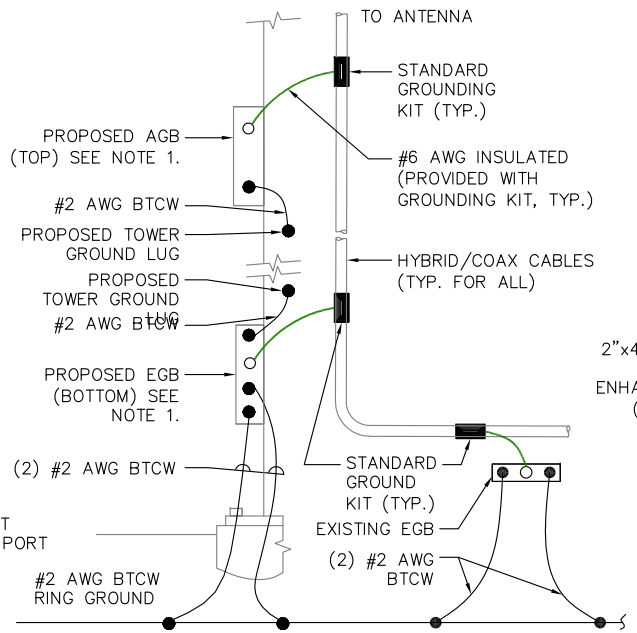
TOWER TOP CABLE GROUNDING DETAIL
SCALE: N.T.S.



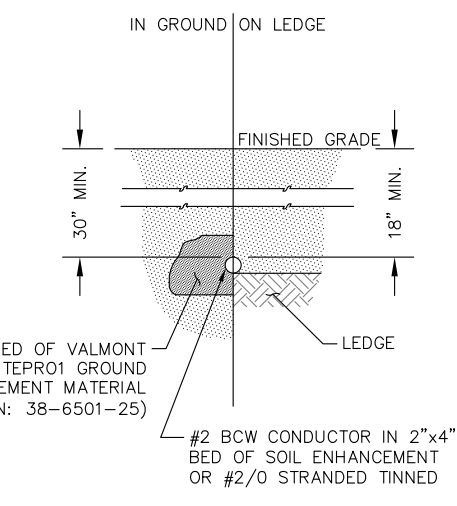
CONDUIT STUB UP
SCALE: NONE



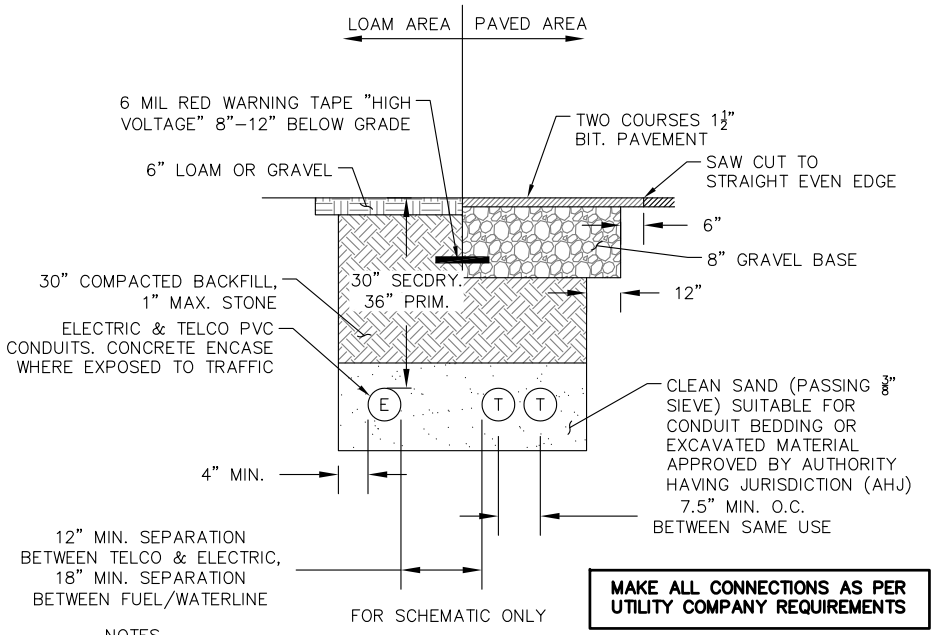
GPS ANTENNA GROUNDING DETAIL
SCALE: N.T.S.



TOWER BOTTOM CABLE GROUNDING DETAIL
SCALE: N.T.S.



SOIL ENHANCEMENT
SCALE: NONE



BURIED CONDUIT SECTION
SCALE: NONE

ELECTRICAL LEGEND

A	AMPERE
V	VOLT
KWH	KILOWATT - HOUR
C	CONDUIT
GRC	GALVANIZED RIGID CONDUIT
BTCW	BARE TINNED (SOLID) COPPER WIRE (#2 AWG, UNLESS NOTES OTHERWISE)
G	GROUND
⊕	GROUND
MGB	MASTER GROUND BAR
AGB/EGB	EQUIPMENT GROUND BAR/ANTENNA GROUND BAR
C	GROUND COPPER WIRE, SIZE AS NOTED
—	EXPOSED WIRING
—	INSULATED GROUNDING CONDUCTOR (#6 AWG STRANDED, UNLESS NOTED OTHERWISE)
⊙	5/8"x10" COPPER CLAD STAINLESS STEEL GROUND ROD
⊙	EXOTHERMIC (CAD WELD) OR MECHANICAL CONNECTION
⊙	MECHANICAL CONNECTION (COMPRESSION TYPE)
PPC	POWER PROTECTION CABINET
⊗	OMNI-DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALL

ELECTRICAL & GROUNDING NOTES:

- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) 2014 AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATIONS INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
- RIGID STEEL CONDUITS SHALL BE GROUNDED AT BOTH ENDS.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THHN INSULATION AS REQUIRED BY NEC.
- RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL ROOM AND PROPOSED CELL SITE POWER PEDESTAL AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
- RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROPOSED CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON DRAWING A-1. PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- GROUNDING SHALL COMPLY WITH NEC ART. 250.
- GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
- USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
- ALL GROUND CONNECTIONS TO BE BURNDY HYGRODUR COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.
- CONNECTIONS TO MGB SHALL BE ARRANGED IN THREE MAIN GROUPS: SURGE PRODUCERS (COAXIAL CABLE GROUND KITS, TELCO AND POWER PANEL GROUND); (GROUNDING ELECTRODE RING OR BUILDING STEEL); NON-SURGING OBJECTS (EGB GROUND IN BTS UNIT).
- CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LYGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
- BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.
- BOND ANTENNA EGB'S AND MGB TO WATER MAIN/GROUND RING.
- TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION.
- VERIFY PROPOSED SERVICE UPGRADE WITH LOCAL UTILITY COMPANY PRIOR TO CONSTRUCTION.

T-Mobile
T-MOBILE NORTHEAST LLC
 35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002
 OFFICE: (860) 648-1116

SBA
 SBA COMMUNICATIONS CORP.
 134 FLANDERS ROAD, SUITE 125
 WESTBOROUGH, MA 01581
 TEL: (508) 251-0720

ProTerra
 DESIGN GROUP, LLC
 4 Bay Road, Building A
 Suite 200
 Hadley, MA 01035 Ph: (413) 320-4918

STATE OF CONNECTICUT
 THOMAS E. JOHNSON
 No. 28192
 PROFESSIONAL ENGINEER

CHECKED BY: JMM/TEJ

APPROVED BY: JMM/TEJ

SUBMITTALS

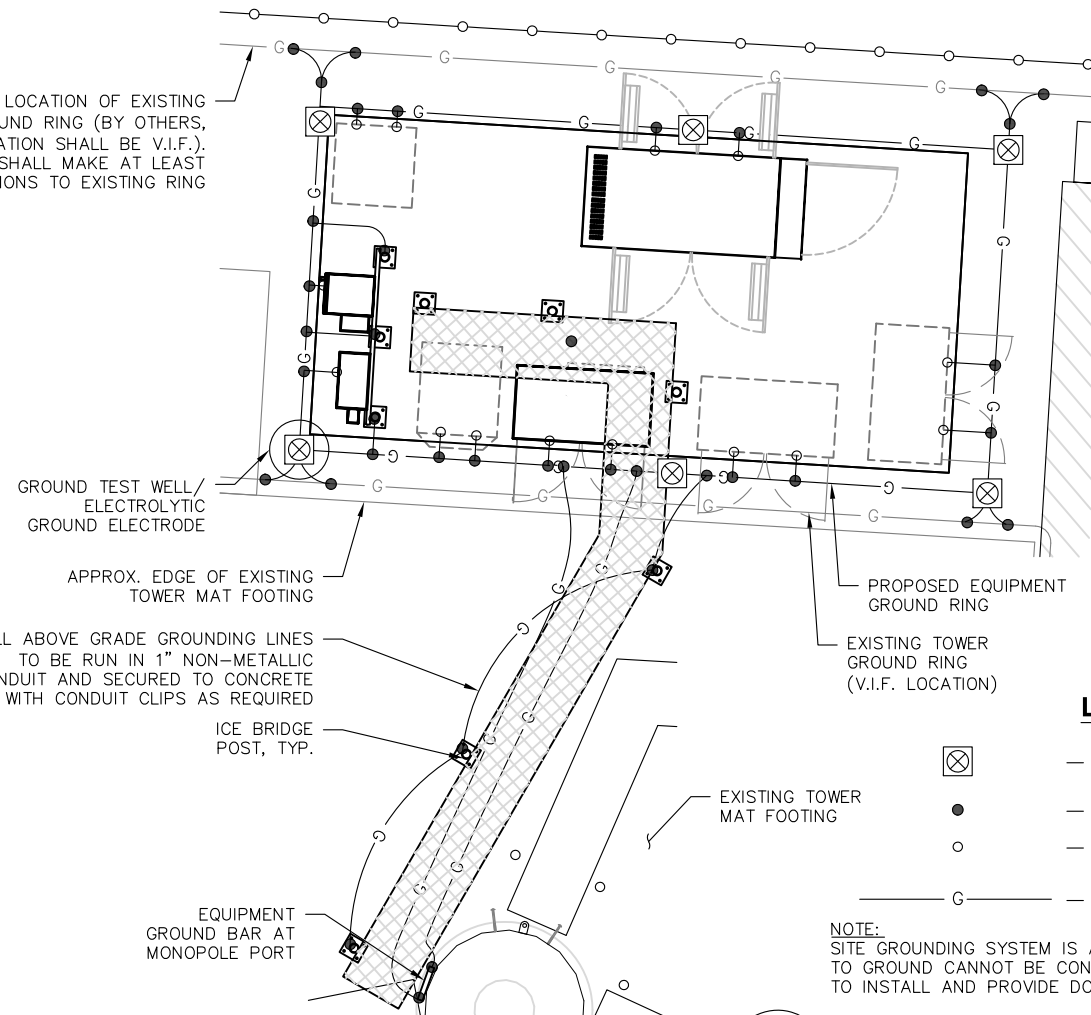
REV.	DATE	DESCRIPTION	BY
6	05/22/18	CONSTRUCTION REVISED	TBD
5	04/09/18	CONSTRUCTION REVISED	PN
4	03/08/18	ISSUED FOR CONSTRUCTION	PN
3	03/01/18	ISSUED FOR CONSTRUCTION	PN
2	02/22/18	ISSUED FOR CONSTRUCTION	PN
1	02/15/18	ISSUED FOR CONSTRUCTION	PN
0	02/06/18	ISSUED FOR CONSTRUCTION	PN

SITE NUMBER:
CTNH549B
 SITE NAME:
CTNH549B
 SITE ADDRESS:
 382 COLEBROOK RIVER ROAD
 COLEBROOK, CT 06021

SHEET TITLE
ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER
E-1

ASSUMED LOCATION OF EXISTING COMPOUND GROUND RING (BY OTHERS, ACTUAL LOCATION SHALL BE V.I.F.). CONTRACTOR SHALL MAKE AT LEAST TWO CONNECTIONS TO EXISTING RING



GROUND EQUIPMENT GROUNDING SCHEMATIC

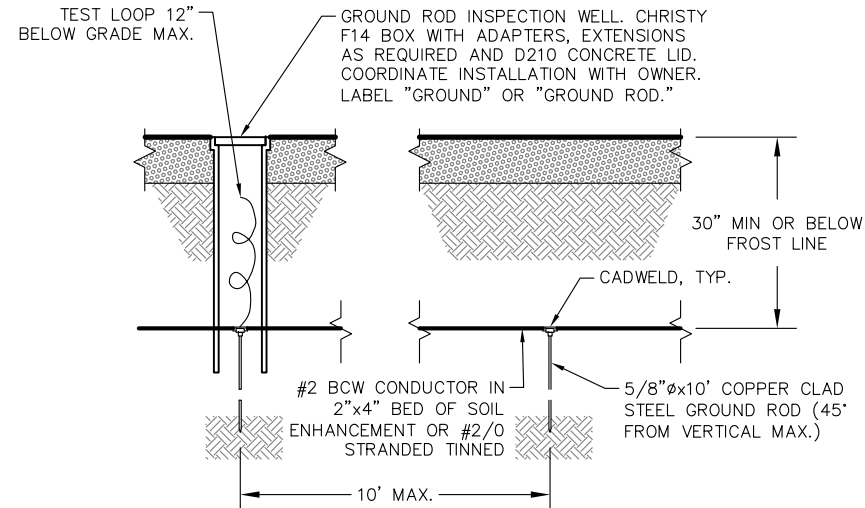
SCALE: 1"=6' (11"x17")
1"=3' (22"x34")

1
E-2

LEGEND

- 5/8"x10' COPPER CLAD STEEL GROUND ROD
- EXOTHERMIC WELD
- MECHANICAL LUG
- #2 BCW CONDUCTOR WITH 2"x4" BED OF SOIL ENHANCEMENT OR #2/0 STRANDED TINNED

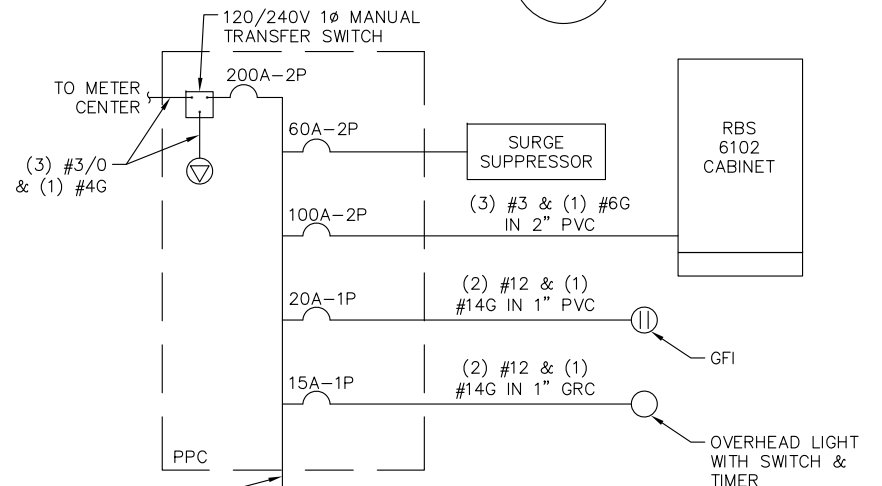
NOTE: SITE GROUNDING SYSTEM IS A BASIC DESIGN. THE ACTUAL RESISTANCE TO GROUND CANNOT BE CONFIRMED WITHOUT A FIELD TEST. CONTRACTOR TO INSTALL AND PROVIDE DOCUMENTATION AT CLOSEOUT.



GROUND ROD

SCALE: NONE

2
E-2



ONE LINE POWER SCHEMATIC

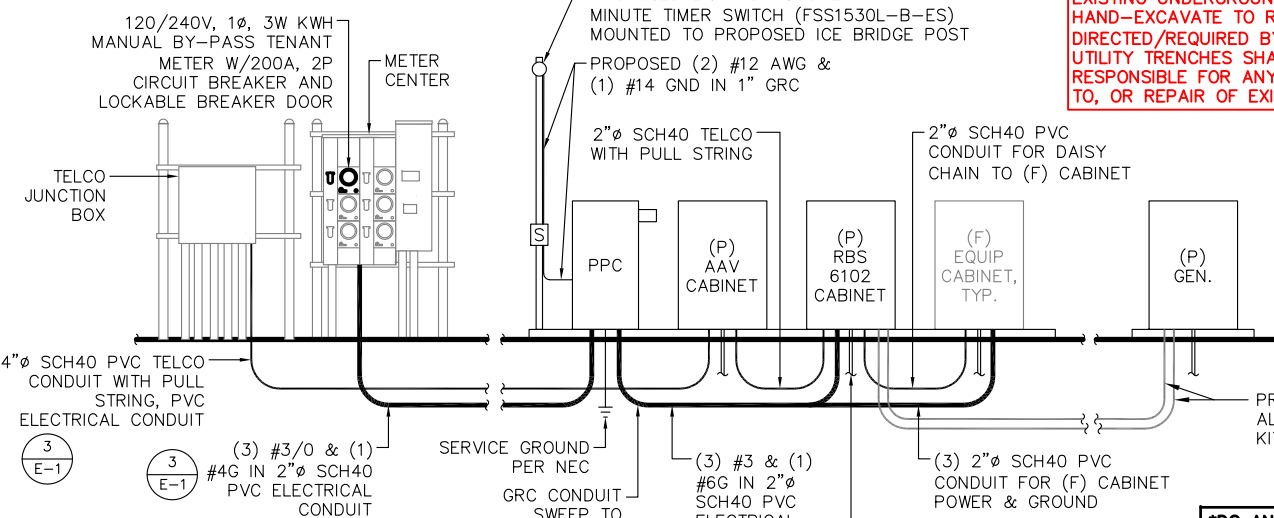
SCALE: N.T.S.

4
E-2

CONTRACTOR TO VERIFY THE POWER FEED & PHASE OF METER BANK PRIOR TO ORDERING OF EQUIPMENT

SPECIAL CONSTRUCTION WORK NOTE (HAND-DUG UTILITY TRENCH EXCAVATION REQUIRED):

EXISTING UNDERGROUND UTILITY LOCATIONS ARE UNKNOWN. GENERAL CONTRACTOR SHALL HAND-EXCAVATE TO REQUIRED SUB-GRADE DEPTH, SUFFICIENT TEST HOLES OR AS DIRECTED/REQUIRED BY SBA REGIONAL SITE MANAGER. ALL PROPOSED UNDERGROUND UTILITY TRENCHES SHALL BE HAND-EXCAVATED AS REQUIRED. GENERAL CONTRACTOR IS RESPONSIBLE FOR ANY REQUIRED SPECIAL TEMPORARY PROTECTION OF, PHYSICAL DAMAGE TO, OR REPAIR OF EXISTING UNDERGROUND CONDUIT INCLUDING RESTORATION OF SERVICE.



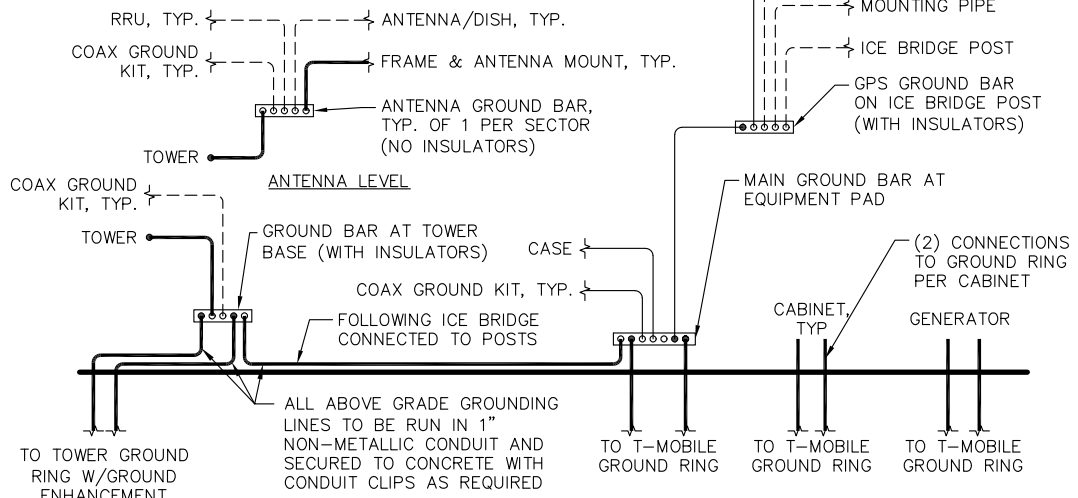
UTILITY RISER SCHEMATIC

SCALE: NONE

3
E-2

1. MAKE ALL CONNECTIONS AS PER UTILITY PURVEYOR'S & NEC REQUIREMENTS
2. CONDUIT SWEEPS TO ABOVE GROUND ELECTRICAL APPLIANCES SHALL BE GRC. SEE DETAIL 4/E-1.

*DC AND ALARM INTERCONNECT KITS INSTALLED IN (1) 2" AND (1) 1" CONDUIT ABOVE OR BELOW GRADE. ABOVE GRADE: GRC CONDUIT SUPPORTED AT VERTICAL BENDS AND EVERY 4' O.C. CONDUIT TO BE PAINTED YELLOW TO MARK TRIPPING HAZARD. BELOW GRADE: SCH40 PVC CONDUIT



GROUNDING RISER DIAGRAM

SCALE: NONE

5
E-2

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