

240 LEIGH FARM ROAD, SUITE 230 DURHAM, NC 27707

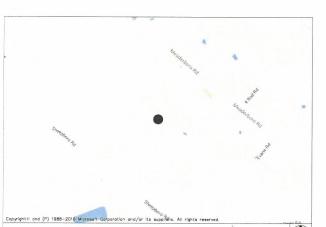
ECO-SITE NUMBER: NH-0002 T-MOBILE SITE NUMBER: 4NB0203A T-MOBILE DESIGN: 4SEC-67D97DB

SITE ADDRESS

144 MEADERBORO ROAD ROCHESTER, NH 03867 STRAFFORD COUNTY

LATITUDE: 43° 18' 38.28" (43.310633°) N LONGITUDE: 71° 03' 13.95" (71.053875°) W

> PARCEL ID #: 232-16-3 **ZONING: AGRICULTURAL**



VICINITY MAP

FROM BOSTON LOGAN INTERNATIONAL AIRPORT: TAKE I-90 E TO MA-1A N. IN 2.5 MILES TURN SLIGHTLY LEFT ONTO MA-60 W. IN 1.0 MILES, AT THE TRAFFIC CIRCLE, TAKE THE 3RD EXIT ONTO MA-60 W/SQUIRE RD HEADING TO MALDEN. IN 0.9 MILES AT THE TRAFFIC CIRCLE, TAKE THE 1ST EXIT ONTO THE US-1 N RAMP TO NEWBURYPORT. MERGE ONTO US-1 N. CONTINUE ON US-1N FOR 8.27 MILES AND TAKE THE I-95 N RAMP TO NEW HAMPSHIRE/MAINE. MERGE ONTO I-95 N. IN 37.9 MILES TAKE EXIT 4 TO MERGE ONTO NH-16 N/US-4 W TOWARD WHITE MTS. IN 20.3 MILES TAKE EXIT 13 TOWARD CONCORD. IN 0.3 MILES TURN LEFT ONTO WASHINGTON ST. IN 1.3 MILES TURN RIGHT ONTO ESTES RD. IN 1.4 MILES CONTINUE ONTO MEADERBORO RD. SITE ACCESS DRIVE WILL BE LOCATED APPROXIMATELY 1.4 MILES ON THE LEFT

DRIVING DIRECTIONS

MUNICIPALITY: STRAFFORD COUNTY

STATE: NEW HAMPSHIRE

TOWER TYPE: MONOPINE

TOWER HEIGHT: 145' (145' TO HIGHEST APPURTENANCE)

NUMBER OF CARRIERS: 0 EXISTING, 1 PROPOSED

PROPOSED TELECOMMUNICATIONS TOWER AND UNMANNED EQUIPMENT

CONSULTANT NB+C ENGINEERING SERVICES, LLC 100 APOLLO DRIVE, SUITE 303 CHELMSFORD, MA 01824 PHONE: (978) 856-8308 ATTN .: PATRICK CORBETT

PROJECT SUMMARY

DEVELOPER

ECO-SITE 240 LEIGH FARM ROAD, SUITE 415 DURHAM, NC 27707 PHONE: (919) 636-6810 ATTN: TBD

POWER COMPANY EVERSOURCE ATTN .: TBD

PHONE: 1 (888) 783-6617

TELEPHONE COMPANY

PHONE: TBD

ATTN.: CUSTOMER SERVICE

PROPERTY OR TOWER OWNER MATTHEW G. SCRUTON 195 TEN ROD ROAD ROCHESTER, NH 03867

CONTACTS

PLANNING BOARD APPROVAL SIGNATURE DATE SIGNATURE DATE SIGNATURE DATE SIGNATURE DATE SIGNATURE DATE SIGNATURE DATE SIGNATURE DATE

FLOOD PLAIN NOTE

SITE IS LOCATED WITHIN FEMA FLOOD MAP AREA X (AREA OF MINIMAL FLOODING) AS PER F.I.R.M. MAP #33017C0195D. COMMUNITY PANEL #195 OF 405, DATED MAY 17TH, 2005.

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SHEET	DESCRIPTION	REV.
T1	COVER SHEET	3
GN1	GENERAL NOTES	3
GN2	GENERAL NOTES	3
C1	OVERALL SITE PLAN	3
C2	SITE PLAN	3
С3	CARRIER EQUIPMENT PLATFORM DETAILS	3
C4	FENCE, GATE, AND COMPOUND DETAILS	3
C5	FENCE GROUNDING DETAILS	3
C6	STORMWATER MANAGEMENT & EROSION CONTROL PLAN	3
C6.1	GRADING & EROSION CONTROL PLAN	3
C7	EROSION CONTROL DETAILS	3
C8	ACCESS ROAD DETAILS	3
C9	SITE SIGNAGE DETAILS	3
C10	ANTENNA AND TOWER ELEVATION DETAILS	3
C11	ANTENNA PLAN & SCHEDULE	3
C12	ANTENNA DETAILS & SPECIFICATIONS	3
C13	ANTENNA PLAN DETAILS	3
C14	ANTENNA CABLING & SCHEMATIC	3
E1	OVERALL UTILITY SERVICE PLAN	3
E2	CARRIER UTILITY PLAN	3
E3	GENERATOR INSTALLATION DETAILS	3
E3A	GENERATOR SPECS	3
E4	GROUNDING PLAN	3
E5	SINGLE LINE DIAGRAM	3
E6	ELECTRICAL DETAILS	3
E7	H-FRAME DETAILS	3
SHE	EET INDEX	

CITY OF ROCHESTER NH DEPARTMENT OF BUILDING, ZONING, AND LICENSING SERVICES CITY HALL 31 WAKEFIELD STREET ROCHESTER, NH 03867

PERMIT INFORMATION



PROJECT INFORMATION:

ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

CURRENT ISSUE DATE: 07/22/19

FINAL

REV.:=DATE:===ISSUED FOR:= 0 02/18/19 CONSTRUCTION 1 03/01/19 REVISED 2 04/04/19 REVISED 3 07/22/19 REVISED

CONSULTANT: TOTALLY COMMITTED NB+C ENGINEERING SERVICES, LLC.

PRC



COVER SHEET

SHEET NUMBER:

3

REVISION:

SITE WORK GENERAL NOTES:

- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONTRACTOR IS TO POT HOLE UTILITY LOCATES POST MARKING TO VERIFY
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR/SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES.
- 3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS
- 4. IF NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK SHALL BE REMOVED AND/OR CAPPED PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF THE CONTRACTOR, OWNER AND/OR LOCAL UTILITIES.
- THE OWNER SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION
- THE SITE SHALL BE GRADED TO CAUSE CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND FROZEN MATERIALS SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION
- 10. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE PROJECT SPECIFICATIONS
- 1. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION, EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

CONTRACTOR SHALL NOT INSTALL EQUIPMENT THAT WILL IMPEDE DOOR OR ACCESS PANELS.

STRUCTURAL STEEL NOTES:

- ALL STEEL WORK SHALL BE PAINTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND IN DRDANCE WITH ASTM A36 UNLESS NOTED OTHERWISE
- ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". PAINTED SURFACES SHALL BE TOUCHED UI
- BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4"Ø) CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE
- NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" ASTM A307 BOLTS UNLESS NOTED OTHERWISE
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS.

CONCRETE AND REINFORCING STEEL NOTES

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACL301 ACL318 ACL336 ASTM A184 ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE
- 2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS UNI FSS NOTED OTHERWISE. SLAB FOUNDATION DESIGN ASSUMING ALLOWABLE SOIL BEARING PRESSURE
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED UNI ESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD,
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS
- 4.1. CONCRETE CAST AGAINST EARTH
- 4.2. CONCRETE EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:

 - 4.2.2. #5 AND SMALLER & WWF
- 4.3 CONCRETE NOT EXPOSED TO FARTH OR WEATHER OR NOT CAST AGAINST THE GROUND

- 5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UND. IN ACCORDANCE

MASONRY NOTES:

- HOLLOW CONCRETE MASONRY UNITS SHALL MEET A.S.T.M. SPECIFICATION C90, GRADE N. TYPE 1. THE SPECIFIED DESIGN COMPRESSIVE STRENGTH OF CONCRETE MASONRY (Fm) SHALL BE 1500 PSI.
- MORTAR SHALL MEET THE PROPERTY SPECIFICATION OF A.S.T.M. C270 TYP. "S" MORTAR AND SHALL
- GROUT SHALL MEET A.S.T.M. SPECIFICATION C475 AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000 PSI
- CONCRETE MASONRY SHALL BE LAID IN RUNNING (COMMON) BOND.
- WALL SHALL RECEIVE TEMPORARY BRACING, TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL GROUT IS FULL CURED.

GENERAL NOTES:

OWNER -

FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:

CONTRACTOR SUBCONTRACTOR -

SUBCONTRACTOR HIRED BY GENERAL CONTRACTOR. ECO-SITE

ORIGINAL EQUIPMENT MANUFACTURER

- PRIOR TO THE SUBMISSION OF BID, THE CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LOWS 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
- DRAWINGS PROVIDED WERE DESIGNED AND SCALED TO 11x17 FORMAT
- UNLESS NOTED OTHERWISE. THE WORK SHALL INCLUDE FURNISHING MATERIALS, FOUIPMENT APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS. THE
- CONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES. GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWINGS
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS. PAVEMENTS. CURBS. LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION
- 12. CONSTRUCTION SHALL COMPLY WITH ECO-SITE MASTER SPECIFICATIONS AND THESE DRAWINGS; WHERE A CONFLICT EXISTS IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE OWNER.
- . NOTHING CONTAINED IN THESE DRAWINGS SHALL CREATE ANY CONTRACTUAL RELATIONSHIP BETWEEN ANY SUBCONTRACTOR(S) AND ECO-SITE.
- CONTRACTOR SHALL HOLD HARMLESS ECO-SITE AND ITS REPRESENTATIVES FROM ALL SUITS ACTIONS, OR CLAIMS OF ANY KIND BROUGHT ABOUT AS A RESULT OF ANY INJURIES OR DAMAGES SUSTAINED BY PERSON(S) OR PROPERTY DURING THE CONSTRUCTION OF THIS PROJECT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS FOR ANY AND ALL PERSONS, INCLUDING SUBCONTRACTORS, ON SITE AS REQUIRED BY CURRENT OSHA STANDARDS; INCLUDING BUT NOT LIMITED TO:
- PERSONAL PROTECTIVE & LIFE SAVING EQUIPMENT SIGNS, SIGNALS, AND BARRICADES
- TOOLS HAND AND POWER FLECTRICAL
- **EXCAVATIONS** CONCRETE AND MASONRY CONSTRUCTION
- STEEL ERECTION
 POWER TRANSMISSION AND DISTRIBUTION
- J. CRANES AND DERRICKS IN CONSTRUCTION

ABBREVIATIONS

ABOVE GRADE LEVEL BASE TRANSCEIVER STATION BTS EXISTING MIN. NTS MINIMUM NOT TO SCALE

REF REFERENCE RADIO FREQUENCY TO BE DETERMINED

TBD TBR TYP REQ. EGR TO BE RESOLVED TYPICAL REQUIRED EQUIPMENT GROUND RING AMERICAN WIRE GAUGE

AWG MASTER GROUND BUSS EQUIPMENT GROUND

BCW BARE COPPER WIRE SMART INTEGRATED ACCESS DEVICE

INTERIOR GROUND RING (HALO) RADIO BASE STATION

U.N.O. UNLESS NOTED OTHERWISE

SYMBOLS

S/G SOLID GROUND BUSS BAR

S/N SOLID NEUTRAL BUSS BAR

SUPPLEMENTAL GROUND CONDUCTOR

2-POLE THERMAL-MAGNETIC CIRCUIT BREAKER

SINGLE-POLE THERMAL-MAGNETIC CIRCUIT BREAKER

8 CHEMICAL GROUND ROD

DISCONNECT SWITCH

METER

EXOTHERMIC WELD (CADWELD) (UNLESS NOTED OTHERWISE

MECHANICAL WELD

3/4"Ø x 10'-0" COPPER CLAD STEEL GROUND ROD

3/4"Ø x 10'-0" COPPER CLAD STEEL

- G- GROUNDING WIRE



PROJECT INFORMATION:

ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

LONGITUDE:

CURRENT ISSUE DATE:

07/22/19

ISSUED FOR:

FINAL

REV.:=DATE:====BY: 0 02/18/19 CONSTRUCTION 1 03/01/19 REVISED PRO 2 04/04/19 REVISED MJS 3 07/22/19 REVISED MJS

CONSULTANT:

CONSULTANT:=



=DRAWN BY:==CHK.:====APV.:== DFR PRC PRC

=LICENSER: = W HAMPINI NH PROPESSIONAL ENGINEER LIC. #13868

> **GENERAL** NOTES

SHEET NUMBER:

SHEET TITLE:=

3 1889300

ELECTRICAL INSTALLATION NOTES:

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
- 3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- 4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE
- 5. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- 6. EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E. HOTS), GROUNDING AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH PLASTIC TAPE PER COLOR SCHEDULE. ALL
 EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, BRANCH CIRCUIT ID NUMBERS (I.E. PANEL
 BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- 9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- 10. POWER, CONTROL AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET & DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.
- 11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600V. OIL RESISTANT THHN OR THWN-2 GREEN INSULATION CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET & DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM UNLESS OTHERWISE SPECIFIED.
- 12. POWER, CONTROL AND EQUIPMENT GROUND WIRING NOT IN TUBING OR CONDUIT SHALL BE MULTI-, CONDUCTOR, TYPE TO CABLE, #14 AWG OR LARGER), 600Y, OIL RESISTANT THIN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90°C (WET & DRY) OPERATION WITH OUTER JACKET LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.
- 13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL), LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75° C (90° C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL. ANSI/IEEE AND NEC.
- 15. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E. RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 30 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT) OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- 17. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
- 18. RIGID NONMETALLIC CONDUIT (I.E. RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
- LIQUID-TITE FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- 20. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
- 21. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL. ANSI/IEEE AND NEC.
- 22. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER).

ELECTRICAL INSTALLATION NOTES CONTINUED:

- 23. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND RATED NEMA 1 (OR BETTER) INDOORS OR NEMA 3 (OR BETTER) OUTDOORS.
- 24. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EOPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL. 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- 25. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- 26. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- 27. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
- 28. INSTALL PLASTIC LABEL ON THE METER CENTER IDENTIFYING SPECIFIC CARRIER

KEY NOTES: (SEE GROUNDING PLAN DIAGRAM - SHEET E-2)

- TOWER GROUNDING: EXTEND #2 SOLID TINNED CU WIRE FROM BURIED GROUND RING TO TOWER AND MAKE EXOTHERMIC CONNECTION.
- 2. GROUND ROD: COPPER CLAD STEEL, 3/4"Ø X TEN (10) FEET LONG.
- 3. ICE BRIDGE SUPPORT POST GROUNDING: EXTEND #2 TINNED CU WRE FROM BURIED GROUND RING TO ALL ICE BRIDGE SUPPORT POST WITH CADWELD CONNECTION WELD.
- 4. FENCE GROUNDING: IF FENCE IS WITHIN 6' OF GROUNDING RING, EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING TO FENCE CORNER POSTS AND EXOTHERMICALLY WELDED. BOND INTERMEDIATE POST IF REQUIRED TO MAINTAIN 25' MAX. SPACING.
- TOWER GROUNDING BAR: EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING UP TO THE TOWER GROUND BAR AND MAKE A MECHANICAL CONNECTION. SECURE GROUND BAR DIRECTLY TO TOWER WITH ISOLATOR KIT USING STAINLESS STEEL MOUNTING MATERIAL.
- 6. MULTI TENANT UTILITY FRAME: BOND METER, TELCO BOX AND FRAME POST TO COMPOUND GROUND RING WITH MECHANICAL CONNECTION AT CABINET AND EXOTHERMIC WELD AT GROUND RING.
- 7. ANTENNA GROUND BAR: MOUNT GROUND BAR DIRECTLY TO THE TOWER AT TOP OF COAX RUNS, SECURE TO TOWER WITH ISOLATOR KIT USING STAINLESS STEEL MOUNTING MATERIAL.
- 8. FENCE/GATE: BOND ALL FENCE POSTS AND GATES TO COMPOUND GROUND RING WITH EXOTHERMIC WELDS.
- 9. EXTERIOR GFCI RECEPTACLE GROUNDING: EXTEND #2 TINNED CU WRE FROM BURIED GROUND RING TO THE EXTERIOR GFCI RECEPTACLE AND MAKE A MECHANICAL CONNECTION.
- 10. SSC AND FCOA, SHALL BE MECHANICALLY LUGGED WITH EXOTHERMIC WELD TO THE GROUND RING (OR MECHANICALLY LUGGED TO A BUS BAR PLACED BETWEEN THEM ON THE PAD, WHICH IS THEN WELDED TO THE GROUND RING. UTILITY HERAME POSTS AND ICEBRIDGE SHALL BE WELDED.

GREENFIELD GROUNDING NOTES:

- 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.
- THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 11000 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEXT RESULT OF 5 OHMS OR LESS.
- THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND
 CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE
 TO THE CONDUIT AND PROVIDE TESTING RESULTS.
- 4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- 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; 32 AWG SOLID TINNED COPPER FOR OUTDOOR BTS.
- 7. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- 8. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- 9. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
- 10. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- 11. ALL GROUND CONNECTION ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS
- 12. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- 13. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER CROLLING BAR.
- 14. APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- 15. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- 17. BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND WIRES WITH (1) #2 AWG TIN-PLATED COPPER
- 18. GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALL OR FLOORS, WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OF LOCAL CONDITIONS, NON-METALIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G. NONMETALIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.



PROJECT INFORMATION:

ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

> ROCHESTER, NH 03867 STRAFFORD COUNTY LATITUDE: 43.310633' LONGITUDE: -71.053875'

CURRENT ISSUE DATE:

07/22/19

SSUED FOR:

FINAL

REV.:=DATE:=SSUED FOR:=BY:

0 02/18/19 CONSTRUCTION PRC

1 03/01/19 REVISED PRC

2 04/04/19 REVISED MJS

3 07/22/19 REVISED MJS

CONSULTANT:

CONSULTANT:=



NB+C ENGINEERING SERVICES, LLC.

100 APOLLO DRIVE, SUITE 303
CHEI MSFORD, MA 01874

=DRAWN BY:==CHK.:====APV.=

DFR PRC PRC



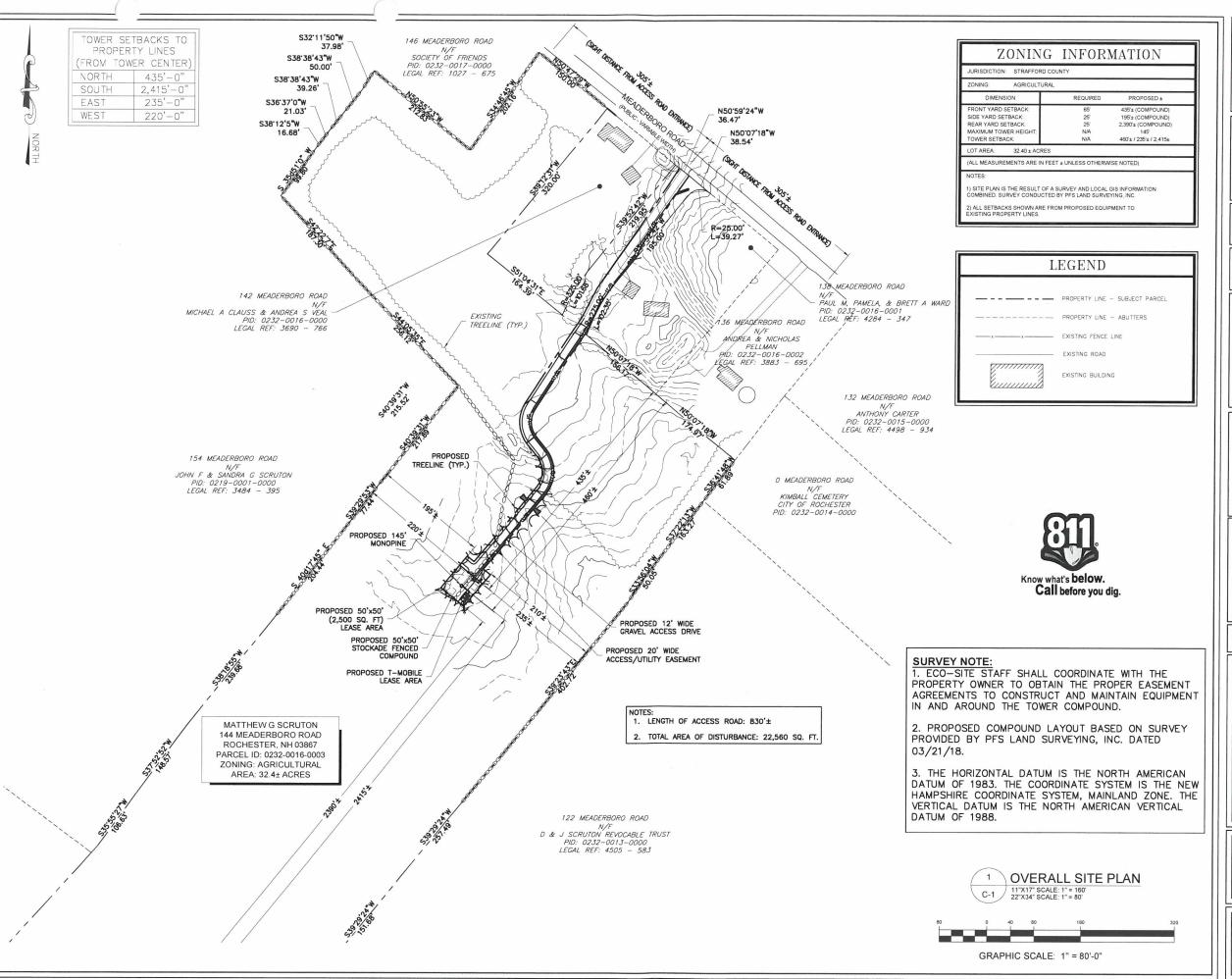
GENERAL NOTES

SHEET NUMBER:

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=REVISION-





ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

ROCHESTER, NH 03867 STRAFFORD COUNTY LATITUDE: 43,310633' LONGITUDE: -71.053875'

CURRENT ISSUE DATE:

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CONSULTANT:



NB+C ENGINEERING SERVICES, LLC.

100 APOLLO DRIVE, SUITE 303 CHELMSFORD, MA 01824 (978) 856-8308

=CONSULTANT:

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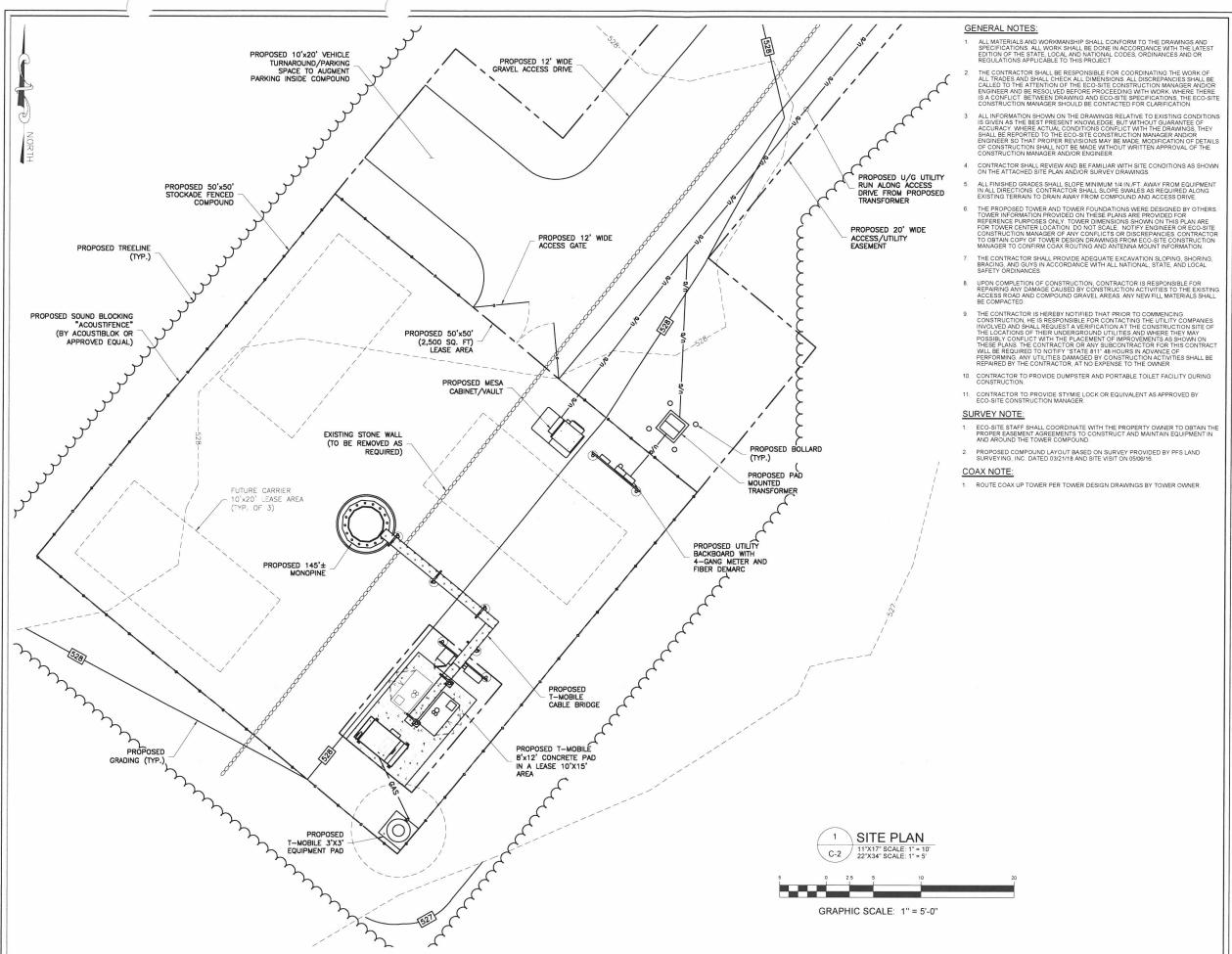
=SHEET TITLE:=

OVERALL SITE PLAN

SHEET NUMBER:

21

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ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

LATITUDE: LONGITUDE:

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CONSULTANT:



NB+C ENGINEERING SERVICES, LLC.

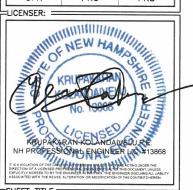
100 APOLLO DRIVE, SUITE 30 CHELMSFORD, MA 01824 (978) 856-8308

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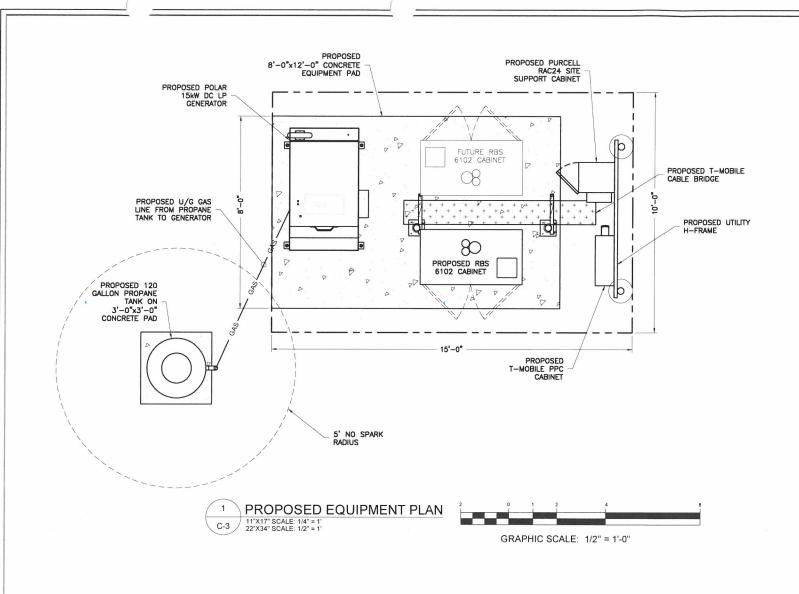


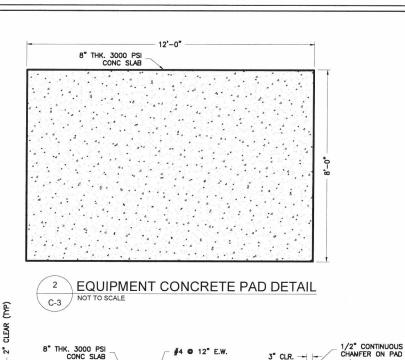
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SITE PLAN

SHEET NUMBER:

3 01889300

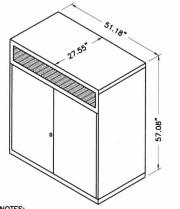




EQUIPMENT CONCRETE PAD DETAIL C-3 NOT TO SCALE

6" CLEAN STONE

3" CLR. -

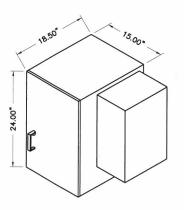


NOTES:

1. WEIGHT OF BTS UNIT IS 727.52 LBS (330 KG)
(WEIGHT IS WITHOUT BATTERIES).

2. BASE FRAME NOT SHOWN

4 RBS 6102 CABINET C-3



NOTES:

1. WEIGHT OF CABINET IS 67 LBS. (15.8 KG)
(WEIGHT IS EMPTY CABINET WITH SIDE
MOUNTED THERMOELECTRIC COOLING OPTION).

RAC24 SITE SUPPORT CABINET NOT TO SCALE C-3



PROJECT INFORMATION:

ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

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CONSULTANT:



NB+C ENGINEERING SERVICES, LLC.

CONSULTANT:=

=DRAWN BY:==CHK.:====APV.:= DFR PRC PRC

LICENSER:

SHEET TITLE:=

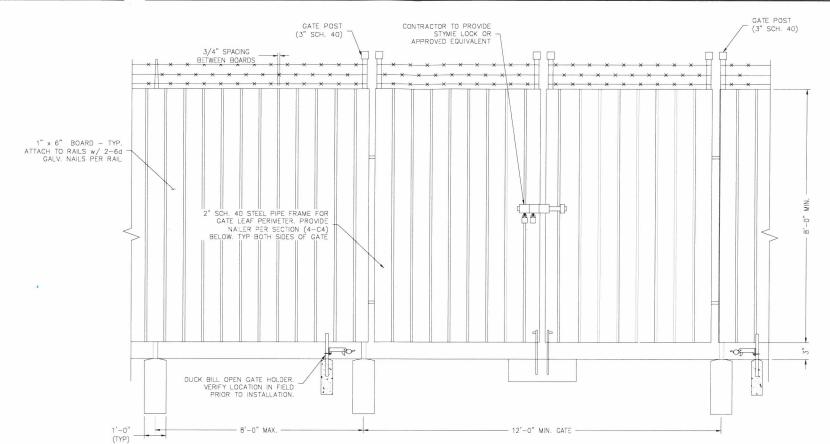
CARRIER **EQUIPMENT DETAILS**

SHEET NUMBER:

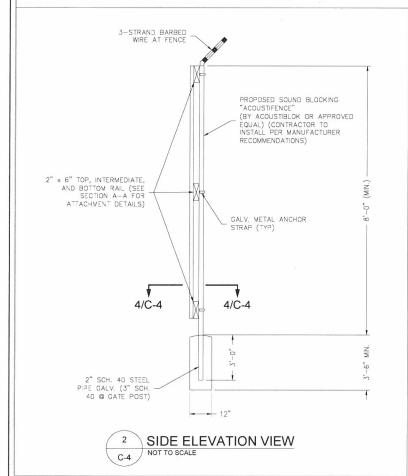
3 01889300

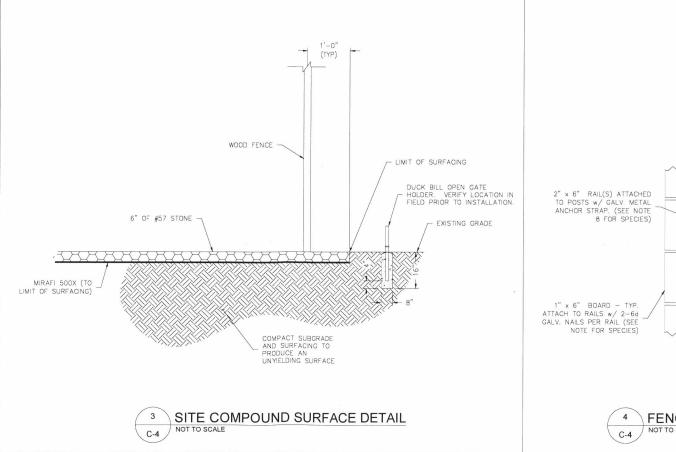


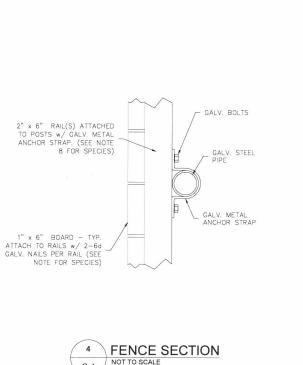
- 1 USE 3000-PSI CONCRETE FULLY CONSOLIDATED AROUND THE POST.
- 2. WHERE THE POST IS SET IN ROCK OR CONCRETE, CORE A HOLE 12" DEEP AND 1" LARGER IN DIAMETER THAN THE POST. SET THE POST AND GROUT IN PLACE USING NON-SHRINK GROUT.
- 3. ALL POSTS MUST BE PLUMB AND ALIGNED WITH ONE ANOTHER IN BOTH HORIZONTAL AND VERTICAL PLANES.
- 4. CORNER AND GATEPOSTS FOR CHAIN LINK FENCES SHALL EXTEND ABOVE THE TOP STRAND OF BARBED WIRE TO PROVIDE TENSIONING FOR THE BARBED WIRE.
- 5. PROVIDE MIDRAILS AND BRACING AT ALL CORNER POSTS WHERE THE FENCE CHANGES DIRECTION BY MORE THAN 30 DEGREES.
- 6. THE GRADE OF THE SITE AND INSTALLATION OF THE FENCE SHALL PROVIDE FOR NO MORE THAN A 1" GAP BETWEEN THE BOTTOM OF THE FENCE MATERIAL AND FINISH GRADE.
- 7. CONTRACTOR SHALL PROVIDE HOLD OPEN DEVICES FOR ALL GATES AT THE SPECIFIED OPEN POSITIONS, DRIVEN PIPE TYPE RECEIVERS ARE NOT AUTHORIZED.
- 8. ALL WOOD SHALL BE SOUTHERN YELLOW PINE OR SPRUCE PINE FIR, NO. 2 OR BTR AND PRESSURE TREATED.



WOODEN FENCE AND GATE ELEVATION NOT TO SCALE









PROJECT INFORMATION:

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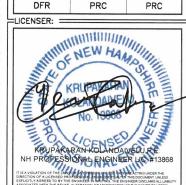
_CONSULTANT: _



NB+C ENGINEERING SERVICES, LLC.

CONSULTANT:=

DRAWN BY:=CHK.: ====APV.:= DFR PRC

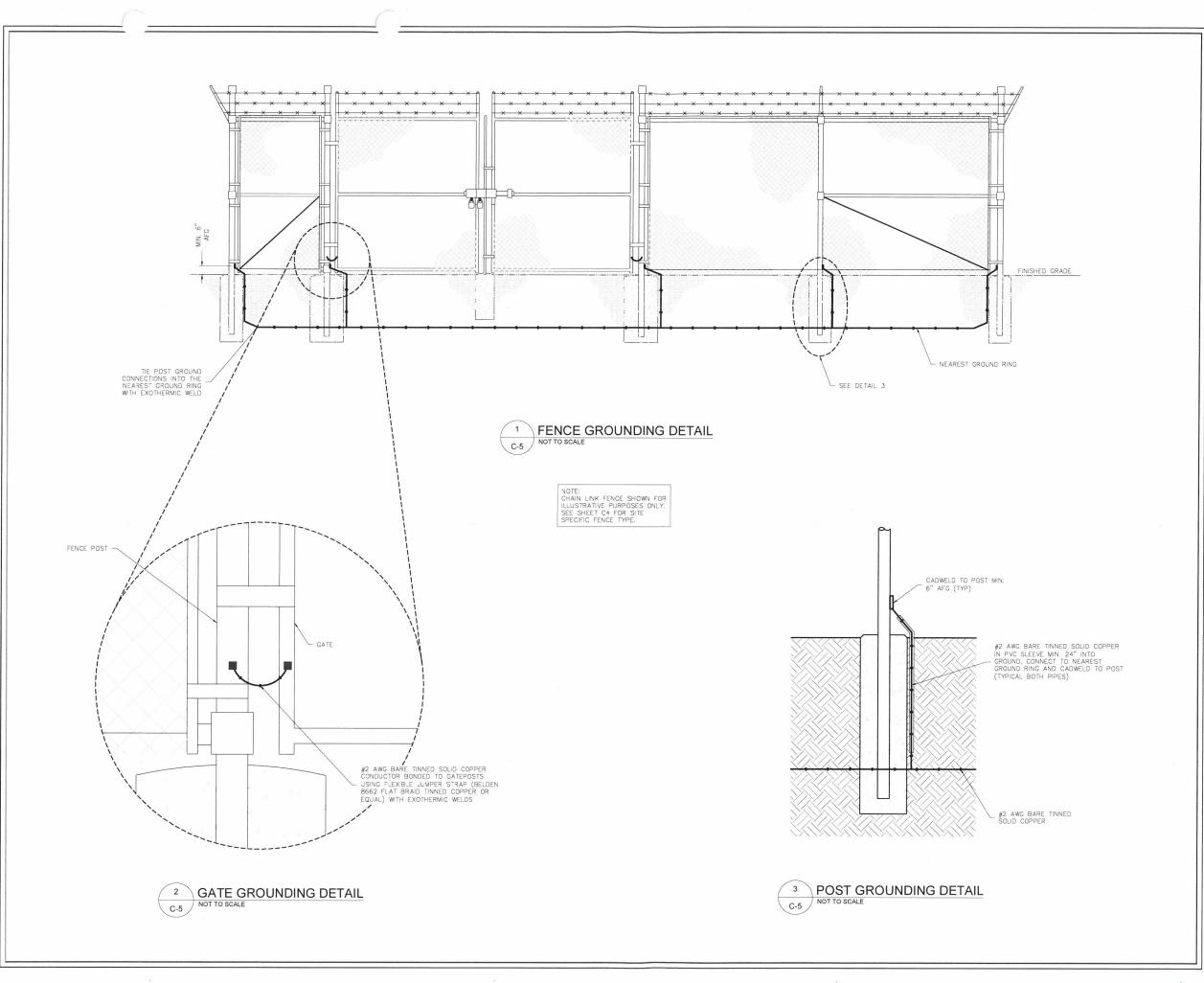


FENCE GATE AND COMPOUND

DETAILS SHEET NUMBER:

SHEET TITLE:

3 01889300





ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

ROCHESTER, NH 0386 STRAFFORD COUNTY LATITUDE: 43.31063 LONGITUDE: -71.05387

CURRENT ISSUE DATE:

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_CONSULTANT: _



NB+C ENGINEERING SERVICES, LLC. 100 APOLLO DRIVE, SUITE 303 CHELMSFORD, MA 01824 (978) 856-8308

CONSULTANT:

DRAWN BY:=CHK.: APV.:

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LICENSER:

DFR



SHEET TITLE:

FENCE GROUNDING DETAILS

SHEET NUMBER:

C5

3 01889300



STORMWATER BEST MANAGEMENT PRACTICES (BMPs)

- 1			
1	TOTAL AREA OF DISTURBANCE:	22,560 SQ. FT.	
	TOTAL AREA TO BE FILLED INSIDE WETLAND BOUNDARY:	412 SQ. FT.	
	100 YEAR FLOOD PLAIN ELEVATION:	ZONE X, DOES NOT LIE IN THE 100 YEAR FLOOD PLAIN	

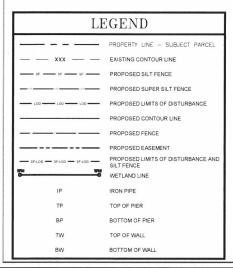
DESCRIPTION OF BMPs

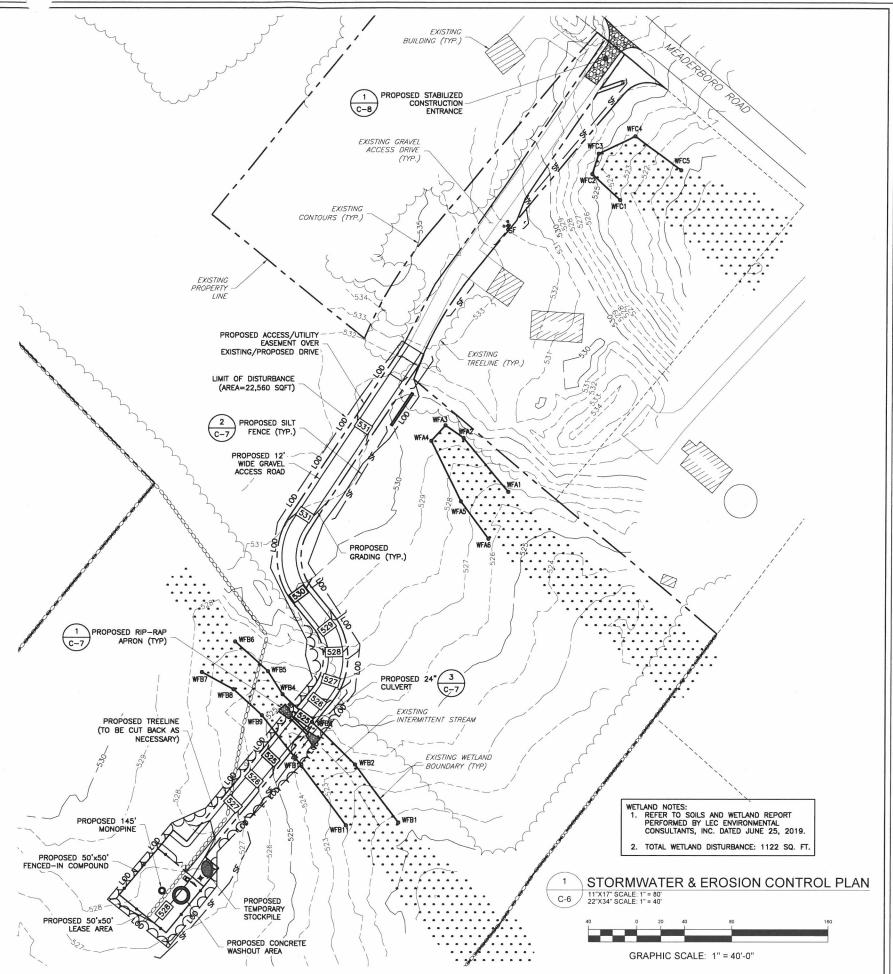
- 1. THE TOPOGRAPHY IN THIS AREA CONSISTS OF A FLAT AREA AT THE LOCATION OF THE PROPOSED TOWER AND ITS FENCEDIN COMPOUND AND A SIGNET UPGRADE FOR ACCESS TO THE COMPOUND 2. BMPs. IMPLEMENTED FOR THIS PROJECT CONSIST MOSTLY OF EROSION CONTROL, IN-APY WATTLES AND SILT FENCE, AND A CULVERT IN THE AREA WHERE AN INTERMITTENT STREAM AND HYDRIC SOILS HAVE BEEN IDENTIFIED.

 3. THESE MEASURES ARE TEMPORARY AND SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION ALONG WITH CONFIRMED.

INSPECTIONS OF THE STORMWATER AND EROSION CONTROL MEASURES SHALL BE EVERY 14 CALENDAR DAYS AND WITHIN 24 HRS AFTER A STORM EVENT WHERE 1/2" OF RAIN WITHIN A 24-HR PERIOD HAS OCCURRED.









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_CONSULTANT: _



NB+C ENGINEERING SERVICES, LLC.

CONSULTANT:

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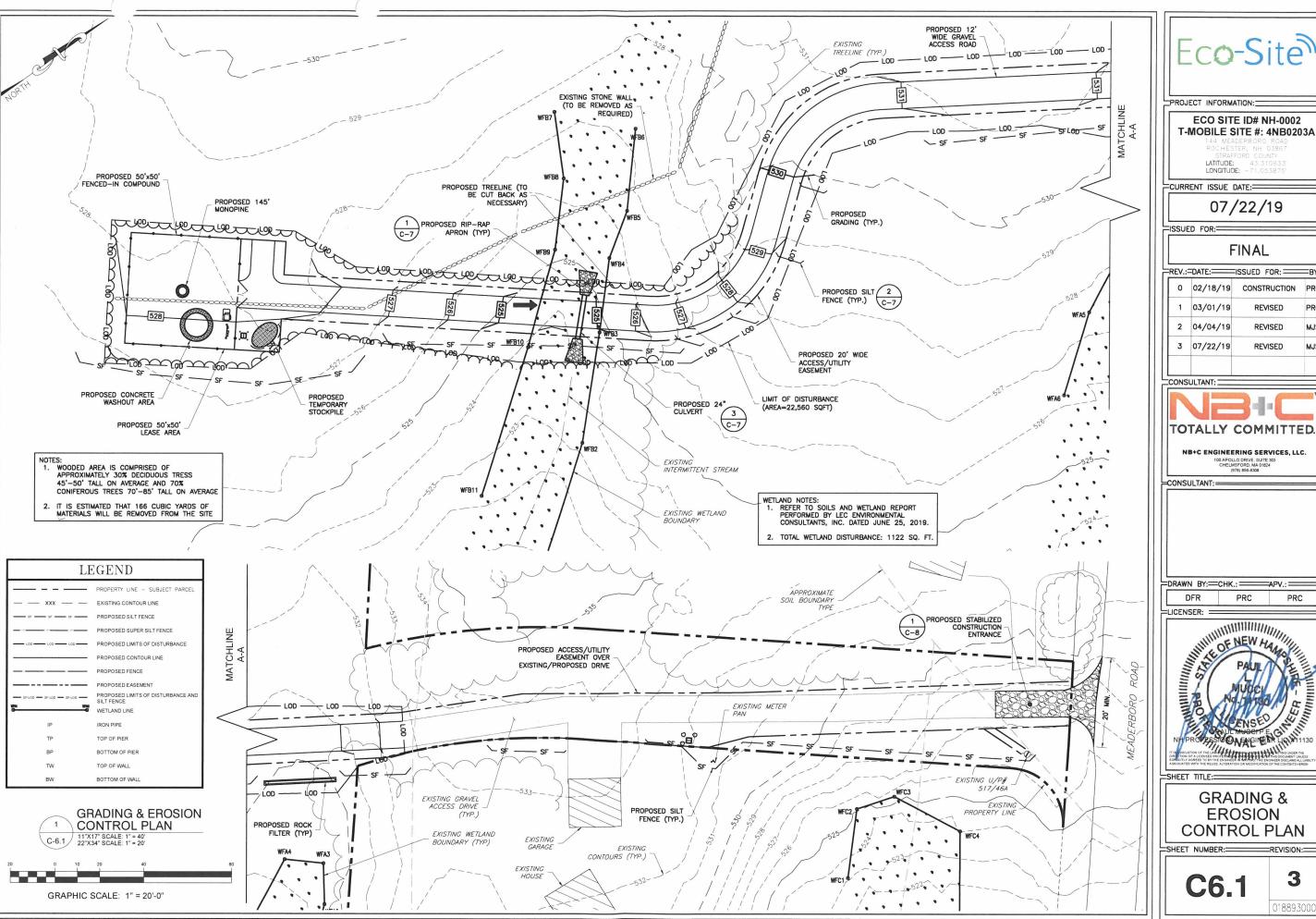
STORMWATER MANAGEMENT & EROSION CONTROL PLAN

SHEET NUMBER:

C6

3 01889300

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0	02/18/19	CONSTRUCTION	PRO
1	03/01/19	REVISED	PRO
2	04/04/19	REVISED	MJS
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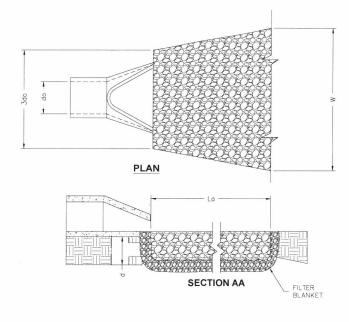
CONTROL PLAN

EROSION CONTROL NOTES:

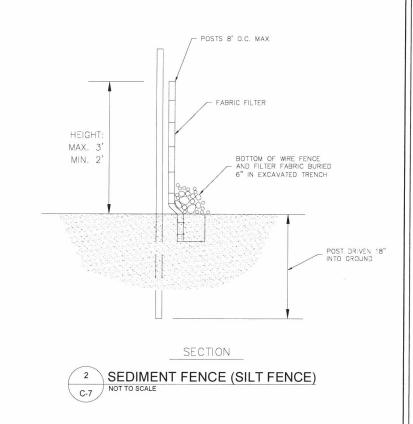
- EROSION CONTROLS SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE ADEQUATE TO MAINTAIN SEDIMENT ON SITE
- ALL EXCAVATED SOILS NOT NEEDED ON SITE FOR BACKFILL OPERATIONS SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE TAKEN OFF SITE AND LEGALLY
- 3. SOIL REMAINING ON SITE SHALL HAVE SILT FENCE TIGHTLY PLACED AROUND THE ENTIRE CIRCUMFERENCE OF THE PILE.
- 4. PROVIDE EROSION CONTROLS AS NECESSARY TO PREVENT EXISTING SOILS FROM DRAINING OFF SITE OR INTO EXISTING
- 5. ERECTION OF EROSION CONTROLS SHALL BE IN ACCORDANCE WITH STATE AND LOCAL EROSION CONTROL REGULATIONS.

NOTES:

- 1. La IS THE LENGTH OF THE RIPRAP APRON
- 2 d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT
- 3. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
- A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION







CONSTRUCTION SEQUENCE

AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE O/RP SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES. THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER, AND THE CONSERVATION DISTRICT TO AN ON-SITE MEETING. ALSO, AT LEAST 3 WORKING DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE NEW HAMSHIRE ONE CALL SYSTEM INCORPORATED AT 811 FOR BURIED UTILITIES LOCATIONS.

EROSION AND SEDIMENT BMPS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.

- 1. MOBILIZATION
- 2. INSTALL SILT FENCE AROUND COMPOUND AREA.
- 3. COMMENCE CLEARING AND GRUBBING. SOIL STOCKPILE AREA AND ROUGH GRADE SITE
- 4. EXCAVATE AND POUR TOWER FOUNDATION, BACKFILL AND COMPACT FOUNDATION AREA
- 5. CONSTRUCT AND MAINTAIN TEMPORARY COVER TO STABILIZE DISTURBED
- 6. INSTALL UTILITIES.
- 7. COLLECT SILT AND SEDIMENT AND PLACE BACK ON SITE
- 8. ESTABLISH PERMANENT COVER
- 9. REMOVE EROSION AND CONTROL MEASURES

IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE O/RP SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION

AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.

AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPS MUST BE STABILIZED IMMEDIATELY.

SEEDING SCHEDULE FOR WINTER / SPRING CONSTRUCTION ACTIVITIES

SEEDING MIXTURE SPECIES RATE (LB/ACRE) RYE (GRAIN) ANNUAL LESPEDEZA (KOBE IN PIEDMONT AND COASTAL PLAIN, KOREAN IN MOUNTAINS)

OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE.

SEEDING DATES
MOUNTAINS -- ABOVE 2500 FT: FEB 15 - MAY 15 BELOW 2500 FT.: FEB. 1 - MAY 1 JAN. 1 - MAY 1 COASTAL PLAIN --DEC. 1 - APR. 15

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER

MULCH
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH

SEEDING SCHEDULE FOR SUMMER CONSTRUCTION ACTIVITIES

 SEEDING MIXTURE
 RATE (LB/ACRE)

 SPECIES
 RATE (LB/ACRE)

 COMMON BERMUDAGRASS
 40-80 (1-2 LB/1,000 SQ. FT.)

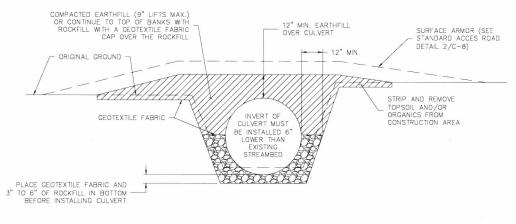
PIEDMONT -

APR. 15 - JUNE 30

SOIL AMENDMENTS
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 3,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 500 LB/ACRE 10-10-10 FERTILIZER.

MULCH
USE JUTE, EXCELSIOR MATTING, OR OTHER EFFECTIVE CHANNEL LINING MATERIAL TO COVER THE
USE JUTE, EXCELSIOR MATTING, OR OTHER EFFECTIVE CHANNEL LINING MATERIAL TO COVER THE BOTTOM OF CHANNELS AND DITCHES. THE LINING SHOULD EXTEND ABOVE THE HIGHEST CALCULATED DEPTH OF FLOW. ON CHANNEL SIDE SLOPES ABOVE THIS HEIGHT, AND IN DRAINAGES NOT REQUIRING TEMPORARY LINING, APPLY 4,000 LB/ACRE GRAIN STRAW AND ANCHOR STRAW BY STAPLING NETTING OVER THE TOP

MAINTENANCE
A MINIMUM OF 3 WEEKS IS REQUIRED FOR ESTABLISHMENT. INSPECT AND REPAIR MULCH FREQUENTLY. REFERTILIZE THE FOLLOWING APR. WITH 50 LB/ACRE NITROGEN



SINGLE CULVERT CROSSING SECTION DETAIL NOT TO SCALE



PROJECT INFORMATION:

ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

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CONSULTANT:



=CONSULTANT:=

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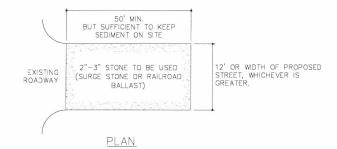
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GRADING & EROSION CONTROL DETAILS

SHEET NUMBER:

SHEET TITLE:

=REVISION:=

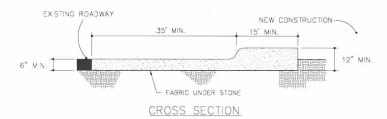


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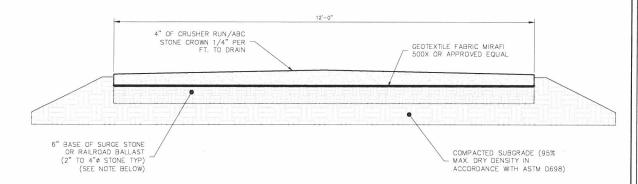
1. PUT SILT FENCE OR TREE PROTECTION FENCE UP TO ENSURE CONSTRUCTION ENTRANCE IS USED.

2. IF CONSTRUCTION ON THE SITES ARE SUCH THAT THE MUD IS NOT REMOVED BY THE VEHICLE TRAVELING OVER THE STONE, THEN THE TIRES OF THE VEHICLES MUST BE WASHED BEFORE ENTERING THE PUBLIC ROAD.

3. IF A PROJECT CONTINUES TO PULL MUD AND DEBRIS ON TO THE PUBLIC ROAD, THE GOVERNING AUTHORITY WILL CLEAN THE AREA AND INVOICE THE FINANCIALLY RESPONSIBLE PERSON AS INDICATED ON THE FINANCIAL RESPONSIBILITY FORM.



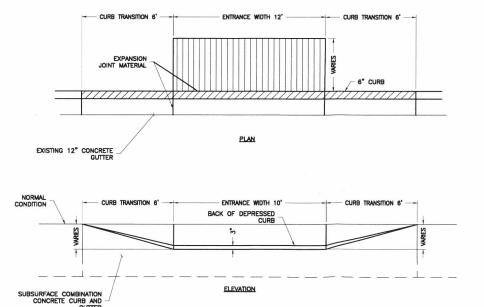
CONSTRUCTION ENTRANCE C-8 NOT TO SCALE



NOTE:

IF DETERMINED NECESSARY DURING GRADING AND CONSTRUCTION OF THE ACCESS ROAD BY THE ECO-SITE PROJECT MANAGER, THE CONTRACTOR SHALL INSTALL 6' BASE OF SURGE STONE OR RAILROAD BALLAST (2" TO 4"Ø STONE TYP.)

² STANDARD ACCESS ROAD DETAIL C-8







PROJECT INFORMATION:

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_CONSULTANT: =



NB+C ENGINEERING SERVICES, LLC.

100 APOLLO DRIVE, SUITE 303 CHELMSFORD, MA 01824 (978) 856-8308

CONSULTANT:

=DRAWN BY:=CHK.:===APV.:=

DFR PRC



SHEET TITLE:=

ACCESS ROAD DETAILS

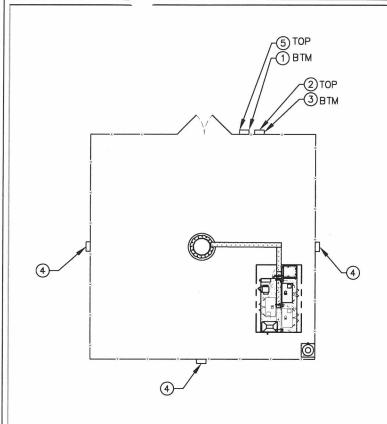
SHEET NUMBER:

C8

3

==REVISION:=

PRC



NOTE: SEE TYPICAL SIGNS AND SPECIFICATIONS DETAIL ON THIS SHEET FOR SIGN DESIGNATIONS.

OVERALL SIGN PLACEMENT PLAN VIEW











1 NOTICE - RF SIGN (BLUE)

TOWER ID: SITE NAME:

12" x 18" DIGITAL PRINT MOUNTED TO 0.40 THICK ALUMINUM (OPERATIONS PROVIDED)

12" x 18" DIGITAL PRINT MOUNTED TO 0.40

THICK ALUMINUM (OPERATIONS PROVIDED)

Eco-Site

2 WARNING - RF SIGN 3 CAUTION - RF SIGN (YELLOW) 4 NO-TRESSPASSING SIGN 12" x 18" DIGITAL PRINT MOUNTED TO 0.40

12" x 18" DIGITAL PRINT MOUNTED TO 0.40 THICK ALUMINUM THICK ALUMINUM (OPERATIONS PROVIDED) (OPERATIONS PROVIDED)

NOTE:

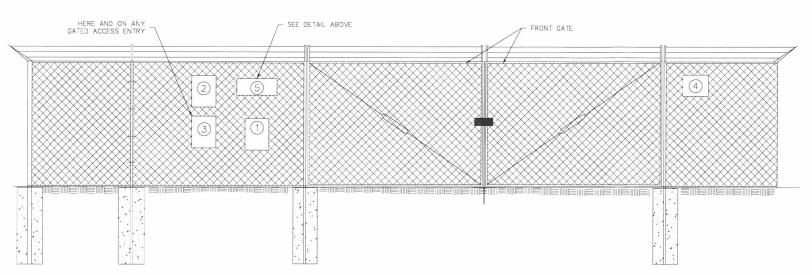
SIGN REQUIREMENTS SHOWN ARE MINIMUM REQUIREMENTS SET BY ECO-SITE. CONFIRM ADDITIONAL SIGNAGE REQUIREMENTS WITH LOCAL BUILDING AUTHORITY.

E911 ADDRESS: FCC#: FOR TOWER LEASING INFORMATION & **EMERGENCY CONTACT** 1-866-899-6191

(5) ECO-SITE ID SIGN

18" HIGH X 24" WIDE (OPERATIONS PROVIDED)

TYPICAL SIGNS AND SPECIFICATIONS



SIGNAGE NOTES:

SIGNS SHALL BE FABRICATED FROM CORROSION RESISTANT PRESSED METAL, AND PAINTED WITH LONG LASTING UV RESISTANT COATINGS.

SIGNS (EXCEPT WHERE NOTED OTHERWISE) SHALL BE MOUNTED TO THE TOWER, GATE, AND FENCE USING A MINIMUM OF 9 GAUGE ALUMINUM WIRE, HOG RINGS (AS UTILIZED IN FENCE INSTALLATIONS) OR BRACKETS WHERE NECESSARY. BRACKETS SHALL BE OF SIMILAR METAL AS THE STRUCTURE TO AVOID GALVANIC CORROSION.

Eco-Site

PROJECT INFORMATION:

ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

LATITUDE: LONGITUDE:

CURRENT ISSUE DATE:

07/22/19

SSUED FOR:

FINAL

F-	REV.:	=DATE:====	ISSUED FOR:	BY:
11	0	02/18/19	CONSTRUCTION	PRC
	1	03/01/19	REVISED	PRC
	2	04/04/19	REVISED	MJS
$\ $	3	07/22/19	REVISED	MJS

CONSULTANT:



NB+C ENGINEERING SERVICES, LLC.

CONSULTANT:=

=DRAWN BY:==CHK.:====APV.:==

DFR PRC PRC =LICENSER: ===



SHEET TITLE:

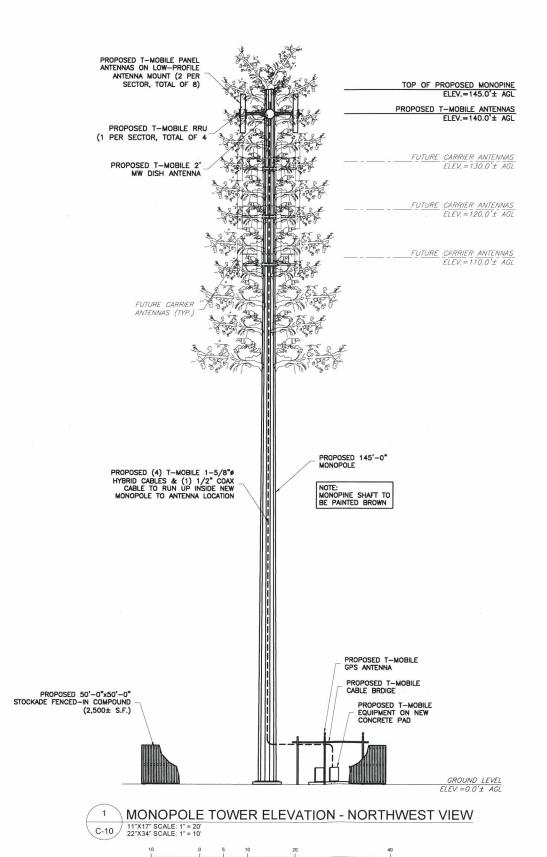
SITE SIGNAGE **DETAILS**

SHEET NUMBER:

3 01889300

===REVISION:=

SITE SIGNAGE FRONT GATE VIEW



GRAPHIC SCALE: 1" = 10'-0"



PROJECT INFORMATION:

ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

ROCHESTER, NH 03867 STRAFFORD COUNTY LATITUDE: 43,310633* LONGITUDE: -71.053875'

CURRENT ISSUE DATE:

07/22/19

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1 -	REV.:	=DATE:===	ISSUED FOR:	BY:
Ш	0	02/18/19	CONSTRUCTION	PRC
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CONSULTANT:



NB+C ENGINEERING SERVICES, LLC.

CHELMSFORD, MA 01824 (978) 856-8308

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=DRAWN BY:==CHK.:====APV.:=

DFR PRC PRC

LICENSER:



SHEET TITLE:=

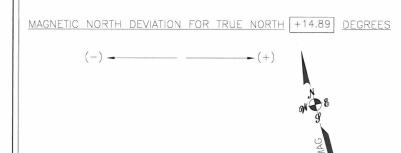
ANTENNA AND TOWER ELEVATION DETAILS

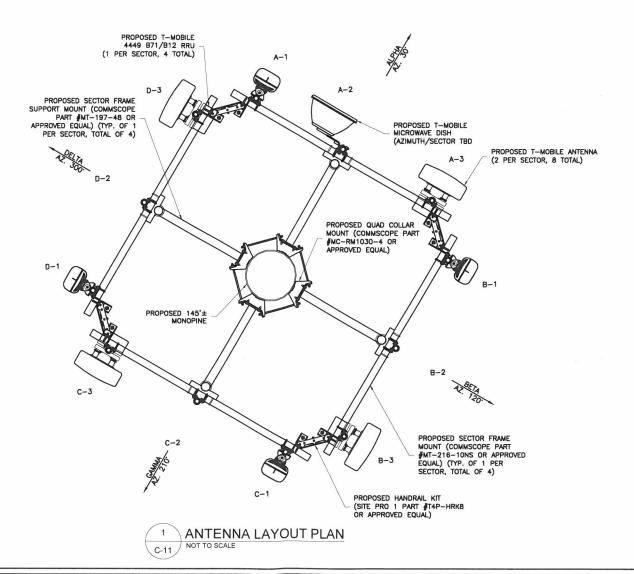
SHEET NUMBER: REVISION:

C10

	ANTENNA INFORMATION										
SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	ANTENNA DIMENSIONS (HxWxD)	MECHANICAL DOWN TILT	ELECTRICAL DOWN TILT	RAD CENTER	AZIMUTH	TMA/RRU QUANTITY & MODEL	CABLE QUANTITY & TYPE	CABLE LENGTH
A1	PROPOSED	ERICSSON	AIR 32 DB	56.6"x12.9"x8.7"	0. \ 0.	2./2./2./2.	140'	30.	_	(1) 6X12 HYBRID CABLE	180'±
A2	PROPOSED	RFS	SC2-W100AC	26.4"ø	-	-	140'	TBD	****	(1) 1/2" COAX CABLE	180'±
A3	PROPOSED	RFS	APXVAARR24_43-U-NA20	95.9"x24.0"x8.5"	0.	4./4.	140'	30°	(1) ERICSSON 4449 B71/B12	SHARED WITH A-1	-
B1	PROPOSED	ERICSSON	AIR 32 DB	56.6"x12.9"x8.7"	0. \ 0.	2.\2.\2.\3.	140'	120	-	(1) 6X12 HYBRID CABLE	180'±
82	FUTURE	Nec		-	Her	seer	-	***	,	anne	- Calabora
В3	PROPOSED	RFS	APXVAARR24_43-U-NA20	95.9"x24.0"x8.5"	0.	4./4.	140'	120°	(1) ERICSSON 4449 B71/B12	SHARED WITH B-1	-
C1	PROPOSED	ERICSSON	AIR 32 DB	56.6"x12.9"x8.7"	0. \ 0.	2.\2.\3.\3.	140'	210	-	(1) 6X12 HYBRID CABLE	180'±
C2	FUTURE	Asset	ven	100A	/***	see"	140'	water	1984	ères	Algori.
C3	PROPOSED	RFS	APXVAARR24_43-U-NA20	95.9"x24.0"x8.5"	0.	4./4.	140'	210	(1) ERICSSON 4449 B71/B12	SHARED WITH C-1	-
D1	PROPOSED	ERICSSON	AIR 32 DB	56.6"x12.9"x8.7"	0. \ 0.	2./2./2./2.	140'	300°	-	(1) 6X12 HYBRID CABLE	180'±
D2	FUTURE	New York	See	•••	500m.	(wheet	- QUAN	-3404	-160	name .	
D3	PROPOSED	RFS	APXVAARR24_43-U-NA20	95.9"x24.0"x8.5"	0.	4./4.	140'	300.	(1) ERICSSON 4449 B71/B12	SHARED WITH D-1	-

NOTES:
1. CONTRACTOR TO VERIFY PROPOSED ANTENNA INFORMATION IS THE MOST CURRENT DATA AT TIME OF CONSTRUCTION.
2. CONTRACTOR TO CONFIRM CABLE LENGTHS PRIOR TO CONSTRUCTION.







PROJECT INFORMATION:

ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

LATITUDE: LONGITUDE: -

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_CONSULTANT:



NB+C ENGINEERING SERVICES, LLC.

100 APOLLO DRIVE, SUITE 303 CHELMSFORD, MA 01824 (978) 856-8308

CONSULTANT:

DRAWN BY:-CHK.:-APV.:

DFR PRC

LICENSER:



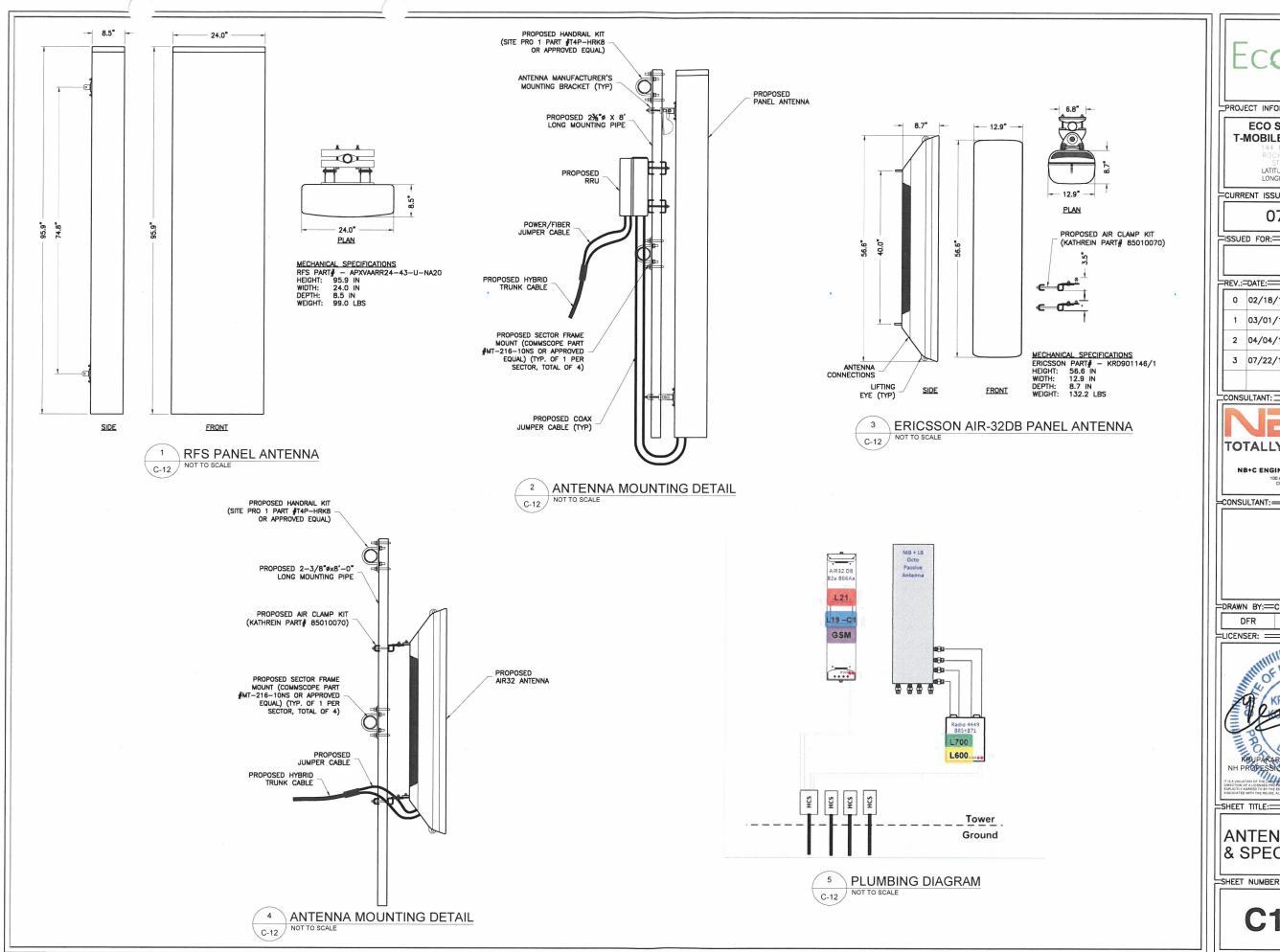
=SHEET TITLE:=

ANTENNA PLAN & SCHEDULE

SHEET NUMBER: REVISION:

3 01889300

PRC





ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

LATITUDE: 43.31063 LONGITUDE: -71.05387

CURRENT ISSUE DATE:

07/22/19

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3	07/22/19	REVISED	MJS

CONSULTANT:



NB+C ENGINEERING SERVICES, LLC.

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PRC

LICENSER:

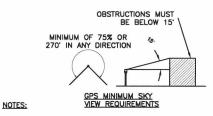


SHEET TITLE:=

ANTENNA DETAILS & SPECIFICATIONS

SHEET NUMBER:

3 01889300



1. THE ELEVATION AND LOCATION OF THE GPS ANTENNA SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORT.

2.THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1-1/4" DIAMETER, SCHEDULE 40, GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE GROUND BAR THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 18 INCHES) USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.

3.IT IS CRITICAL THAT THE GPS ANTENNA IS MOUNTED SUCH THAT IT IS WITHIN 2 DEGREES OF VERTICAL AND THE BASE OF THE ANTENNA IS WITHIN 2 DEGREES OF LEVEL. #2 AWG BCW

4.DO NOT SWEEP TEST GPS ANTENNA.



PROPOSED GPS ANTENNA

PROPOSED 1-1/4"ø SCH. 40 STAINLESS STEEL OR GALV. PIPE

PIPE CAP

PROPOSED GROUNDING KIT
PROPOSED 1/2" COAX CABLE 8"
MINIMUM BENDING RADIUS PER

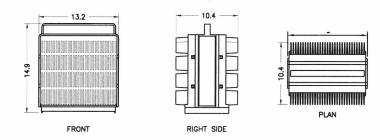
MANUFACTURER'S STANDARD #6 AWG GROUNDING KIT CABLE (PROVIDED WITH KIT)

TO GROUND RING

3 1/2" DIA. ICE BRIDGE SUPPORT PIPE

1 1/4" PIPE TO

3" PIPE CLAMP

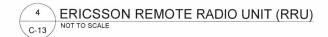


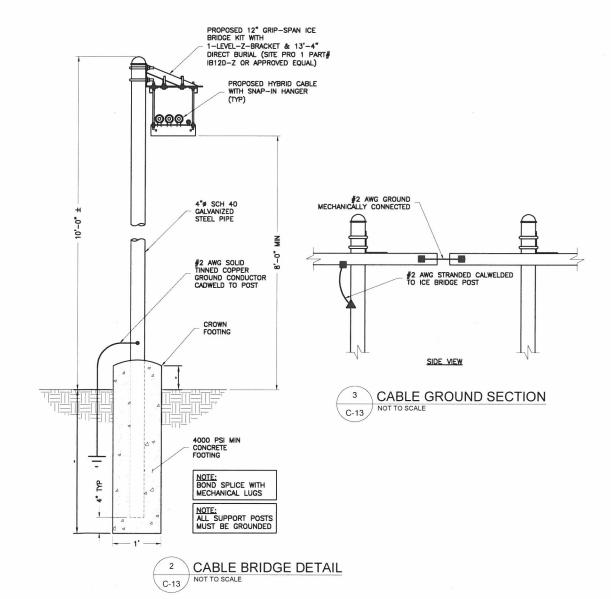
SIZE AND WEIGHT TABLE

RRU	WIDTH	DEPTH	HEIGHT	WEIGHT W/O BRACKET
RADIO 4449 B71/B12	13.2"	10.4"	14.9"	74.0 LBS.

NOTES:

 DO NOT PAINT THE RRU. RRU SOLAR SHIELD CAN BE PAINTED PER MANUFACTURER'S METHOD OF PROCEDURE.







PROJECT INFORMATION:

ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

ROCHESTER, NH 0386 STRAFFORD COUNTY LATITUDE: 43.31063 LONGITUDE: -71.05387

CURRENT ISSUE DATE:

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_CONSULTANT: =



NB+C ENGINEERING SERVICES, LLC.

100 APOLLO DRIVE, SUITE 303
CHELMSFORD, MA 01824

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CONSULTANT:=



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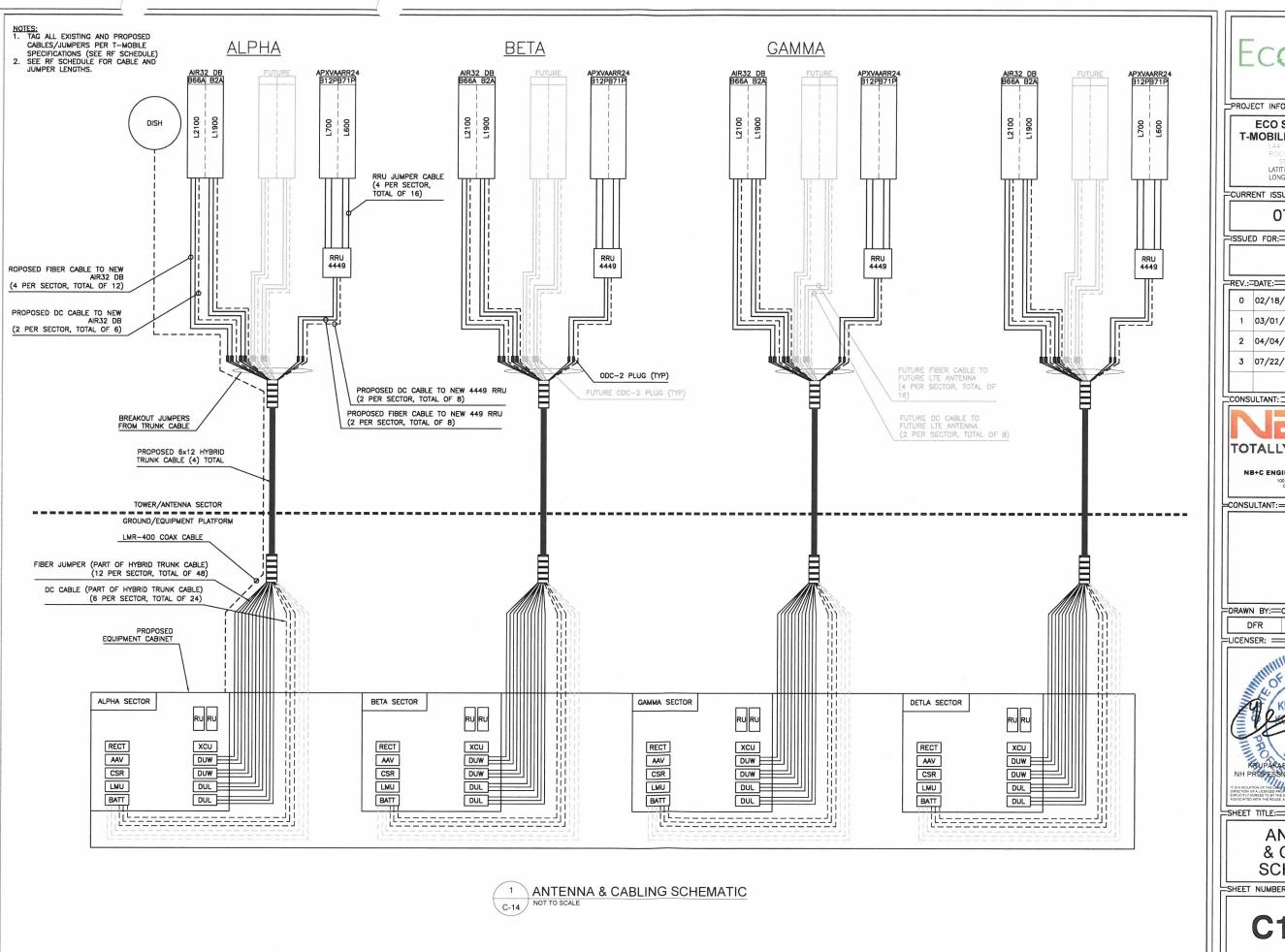
SHEET TITLE:

ANTENNA PLAN DETAILS

SHEET NUMBER:

C13

3



Eco-Site

PROJECT INFORMATION:

ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

LATITUDE: LONGITUDE:

CURRENT ISSUE DATE:

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CONSULTANT:



NB+C ENGINEERING SERVICES, LLC. 100 APOLLO DRIVE, SUITE 3 CHELMSFORD, MA 01824 (978) 856-8308

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SHEET TITLE:

ANTENNA & CABLING **SCHEMATIC**

SHEET NUMBER:

01889300

3

==REVISION:=

PRC

ELECTRICAL NOTES AND SPECIFICATIONS ALL ELECTRICAL WORK SHALL COMPLY WITH NEC, STATE, AND LOCAL ALL CONDUIT ROLITED ABOVE GROUND SHALL BE RIGID CONDUIT CONTRACTOR SHALL OBTAIN OWNER/TENANT SPECIFICATIONS AND REVIEW FOR ADDITIONAL DETAILS AND REQUIREMENTS THAT MAY NOT BE SHOWN IN THESE DRAWINGS. CONTRACTOR SHALL COMPLY WITH ANY ADDITIONAL OWNER/TENANT SPECIFICATIONS AND PROPOSED 4" SCH. 40 PVC CONDUIT W/ PROPOSED (3) 600 KCMIL THHN FROM EXISTING U/P##517/46A TO PROPOSED TRANSFORMER CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL LITILITY FOR THE EXACT TRANSFORMER LOCATION, METERING REQUIREMENTS, AND SERVICE ROUTING, CONTRACTOR SHALL COORDINATE WITH THE TELEPHONE UTILITY FOR THE EXACT TELEPHONE REQUIREMENTS AND (APPROXIMATELY 160 L.F.) PROPOSED LANDSCAPE EXISTING U/P# 517/46A PRIOR TO PURCHASING EQUIPMENT, THE CONTRACTORS SHALL CONTACT THE ELECTRIC UTILITY AND LOCATION IN WRITING THE PROPOSED PAD MOUNTED 100kVA TRANSFORMER (BY UTILITY COMPANY) MAXIMUM AVAILABLE FAULT CURRENT AT THE UTILITY SERVICE POINT. PROVIDE MAX AFC SIGNAGE AS REQUIRED PER NEC 110.24. THE CONTRACTOR SHALL ENSURE ALL ELECTRICAL EQUIPMENT, CIRCUIT PROPOSED 3' WIDE UTILITY EASEMENT TO BREAKERS, DISCONDECTS, FUSES, AND PANEL BOARDS HAVE A FAULT CURRENT INTERRUPTING RATING GREATER THAN THE AVAILABLE FAULT CURRENT. IN NO CASE SHALL THE FAULT CURRENT 142 MEADERBORO ROAD U/P#517/46A N/F MICHAEL A CLAUSS & ANDREA S VEAL INTERRUPTING RATING BE LESS THAN 10,000 AMPS PID: 0232-0016-0000 LEGAL REF: 3690 - 766 CONTRACTOR TO PROVIDE 2-200 LB TEST POLYETHYLENE PULL CORDS EXISTING METER PAN SECURELY FASTENED AT EACH END OF POWER AND TELCO CONDUIT PROVIDE CAPS ON ENDS OF UNUSED CONDUIT EXISTING PROPERTY PROPOSED 3" SCH. 40 PVC CONDUIT 6. CONTRACTOR TO PROVIDE A REBAR MARKER WITH AT LEAST 2 FEET BOUNDARY LINE TO RE-FEED EXISTING METER PAN (SERVICE SIZE TO BE DETERMINED EXPOSED ABOVE GRADE AND PAINTED BRIGHT ORANGE TO INDICATE LOCATION OF CONDUIT CAPPED BELOW GRADE BY POWER COMPANY (APPROXIMATELY 20 L.F.) PRIOR TO TRENCHING. CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL REPAIR AT CONTRACTOR'S EXPENSE ANY DAMAGE TO EXISTING UTILITIES. 8. CONTRACTOR TO VERIFY EXACT ROUTING OF POWER AND TELCO CONDUIT WITH LOCAL UTILITIES AND OWENRITEMANT. ENSURE ALL CONDUIT STUB-UPS ACCOMMODATE EQUIPMENT REQUIREMENTS. PROPOSED 4" SCH. 40 PVC CONDUIT UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC UNLESS NOTED OTHERWISE. USE SCHEDULE 80 PVC UNDER ROADS. USE W/ PROPOSED (3) 600 KCMIL THHN FROM PROPOSED TRANSFORMER TO PROPOSED UTILITY PULLBOX 138 MEADERBORO ROAD LONG-SWEP RIGID GALVANIZED STEEL (RGS) FOR ELBOWS, USE RGS N/F PAUL M, PAMELA, & BRETT A WARD PID: 0232-0016-0001 LEGAL REF: 4284 - 347 FOR RISERS TO EQUIPMENT. MANUFACTURED BENDS SHALL HAVE A (APPROXIMATELY 360 L.F.) MINIMUM RADIUS OF 36" FOR CONDUIT. 10. CONDUIT RUNS SHALL HAVE A CONTINUOUS SLOPE DOWNWARD AND AWAY FROM THE EQUIPMENT TO ALLOW WATER TO FLOW AWAY FROM THE EQUIPMENT AND SHELTER. EXCAVATE TRENCHES ALONG STRAIGHT LINES PRIOR TO INSTALLING CONDUIT TO ACCOMMODATE EXISTING TREELINE ADJUSTING THE ELEVATION, AS NEEDED. 11. CONDUIT ENTERING EQUIPMENT SHALL BE SEALED WITH A SEALANT THAT IS IDENTIFIED FOR USE WITH THE CABLE. CONDUCTOR INSULATION, SHIELDING, ETC. 12. THE OWNER SHALL FURNISH AND THE CONTRACTOR SHALL INSTALL ADDITIONAL SIGNAGE TO BE LOCATED AT THE COMPOUND FENCE. CONTRACTOR SHALL COORDINATE WITH OWNER/TENANT ECO-SITE CONSTRUCTION MANAGER FOR PLACEMENT OF SIGNAGE. PROPOSED 12' WIDE GRAVEL ACCESS DRIVE 136 MEADERBORO ROAD 13. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY N/F ANDREA & NICHOLAS PELLMAN CONSTRUCTION ACTIVITIES TO THE LANDSCAPING AREA PID: 0232-0016-0002 LEGAL REF: 3883 - 695 PROPOSED UTILITY PULLBOX 14. IF GENERATOR/FUEL CELL IS INSTALLED, CONTRACTOR SHALL PROVIDE A LABEL TO READ: "OPENING THE DISCONNECT WILL CAUSE THE GENERATOR TO START. TO REMOVE POWER ENTIRELY FROM THE EQUIPMENT, THE GENERATOR MUST BE TURNED OFF AND THE GENERATOR BREAKER MUST BE OPENED. PROPOSED 20' WIDE 15. CONTRACTORS SHALL ENSURE A MINIMUM 3' CLEARANCE IN FRONT OF ACCESS/UTILITY EASEMENT ALL ELECTRICAL MATERIALS, DEVISES, APPLIANCES AND EQUIPMENT SHALL BE LABEL LISTED BY AN APPROVED THIRD PARTY TESTING AGENCY. PROPOSED 17. FLEX CONDUIT RUNS NOT TO EXCEED 36" WITHOUT PRIOR TMO TREELINE (TYP.) PROPOSED 4" SCH. 40 PVC CONDUIT MEADERBORO ROAD W/ PROPOSED (3) 600 KCMIL THHN FROM PROPOSED UTILITY PULLBOX TO PROPOSED TRANSFORMER AT COMPOUND (APPROXIMATELY 360 L.F.) **CONDUIT ROUTING NOTE:** PROPOSED 2" SCH. 40 PVC W/ MULE TAPE PULLSTRING FOR TELCO SERVICE FROM EXISTING U/P##517/46A. TO PROPOSED TELCO DEMARC. CONTRACTOR TO INSTALL COPPERHEAD TRACER WIRE ALONG SIDE 2" CONDUIT (FIBER/TELCO FIBER PROVIDER TO BE DETERMINED UPON UTILITY POWER WALK KIMBALL CEMETERY CONTRACTOR TO PROVIDE PULL BOXES AS NEEDED TO ENSURE NO GREATER THAN 360 DEGREES OF BENDS BETWEEN PULL POINTS IN CITY OF ROCHESTER PID: 0232-0014-0000 CONDUIT RUNS CONTRACTOR COORDINATE WITH LOCAL UTILITY COMPANY FOR SERVICE TO THIS POINT. ALL CONDUIT TO BE RUN WITHIN 2' UTILITY BUFFER AS SHOWN ON CIVIL PLANS. CONDUIT SHOWN OUTSIDE OF 2' UTILITY BUFFER FOR CLARITY PURPOSES ONLY PROPOSED MESA CABINET/VAULT PROPOSED 145' MONOPINE **ELECTRICAL & UTILITY PLAN** 11"X17" SCALE: 1" = 80' 22"X34" SCALE: 1" = 40' PROPOSED 50'x50' (2,500 SQ. FT) LEASE AREA PROPOSED PAD MOUNTED GRAPHIC SCALE: 1" = 40'-0" (BY UTILITY COMPANY) PROPOSED 50'x50' STOCKADE FENCED COMPOUND

PROPOSED UTILITY
BACKBOARD WITH 4-GANG
METER AND FIBER DEMARC

PROPOSED T-MOBILE LEASE AREA



PROJECT INFORMATION:

ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

ROCHESTER, NH 03867 STRAFFORD COUNTY LATITUDE: 43.310633' LONGITUDE: -71.053875'

=CURRENT ISSUE DATE:=

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=ISSUED FOR:=

FINAL

REV.:=DATE:=ISSUED FOR:=BY:

0 02/18/19 CONSTRUCTION PRC

1 03/01/19 REVISED PRC

2 04/04/19 REVISED MJS

3 07/22/19 REVISED MJS

CONSULTANT:



NB+C ENGINEERING SERVICES, LLC.

CHELMSFORD, MA 01824

-CONSULTANT:

DFR PRC PRC

DFR __LICENSER: ==



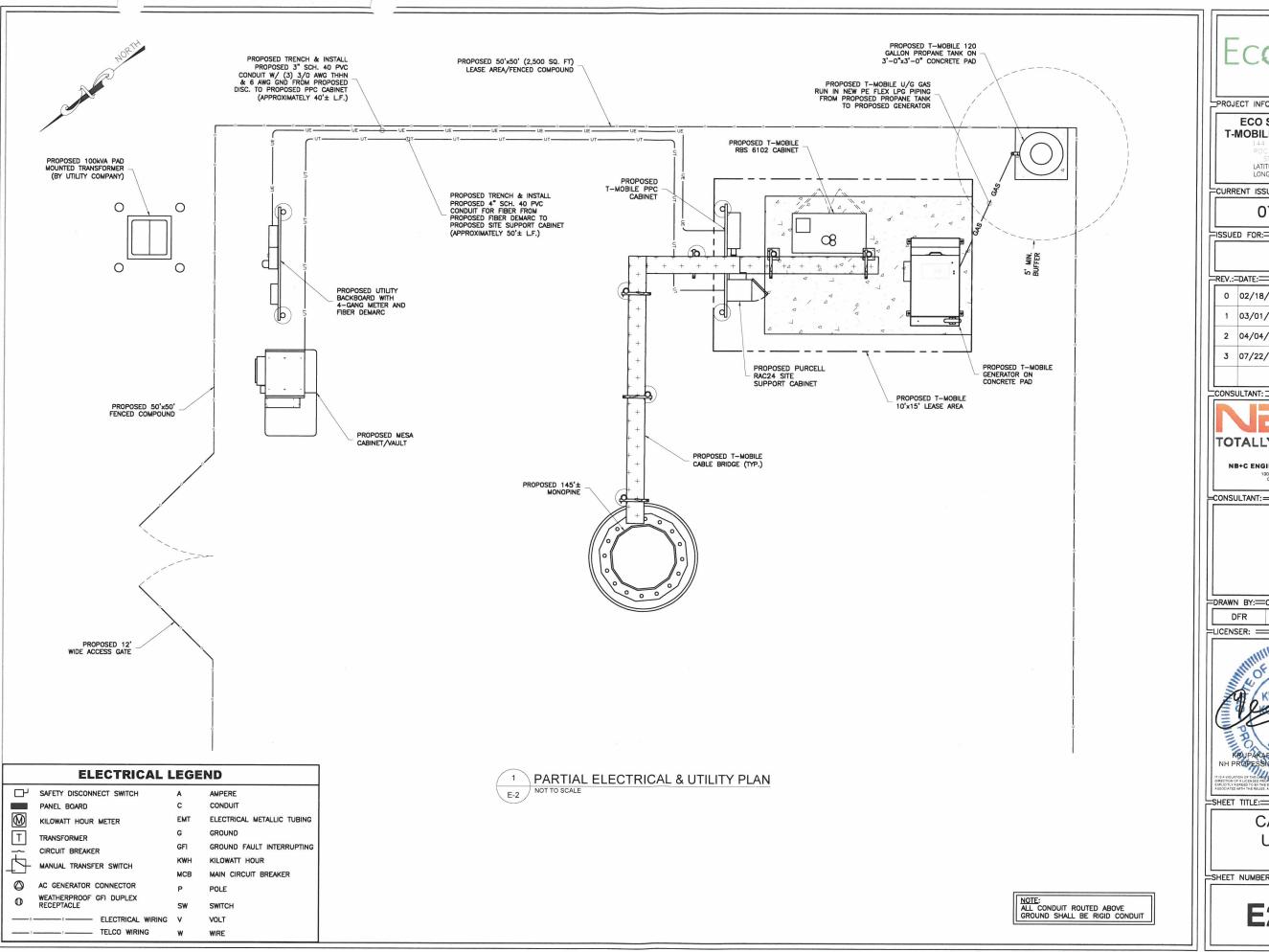
SHEET TITLE:=

ELECTRICAL & UTILITY PLAN

SHEET NUMBER:

E1

3





ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

LATITUDE: LONGITUDE:

=CURRENT ISSUE DATE:=

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REV.:=DATE:====ISSUED FOR:== 0 02/18/19 CONSTRUCTION 1 03/01/19 REVISED 2 04/04/19 REVISED MJS 3 07/22/19 REVISED MJS

CONSULTANT:



NB+C ENGINEERING SERVICES, LLC. 100 APOLLO DRIVE, SUITE 30 CHELMSFORD, MA 01824 (978) 856-8308

DRAWN BY: CHK .: APV .: -

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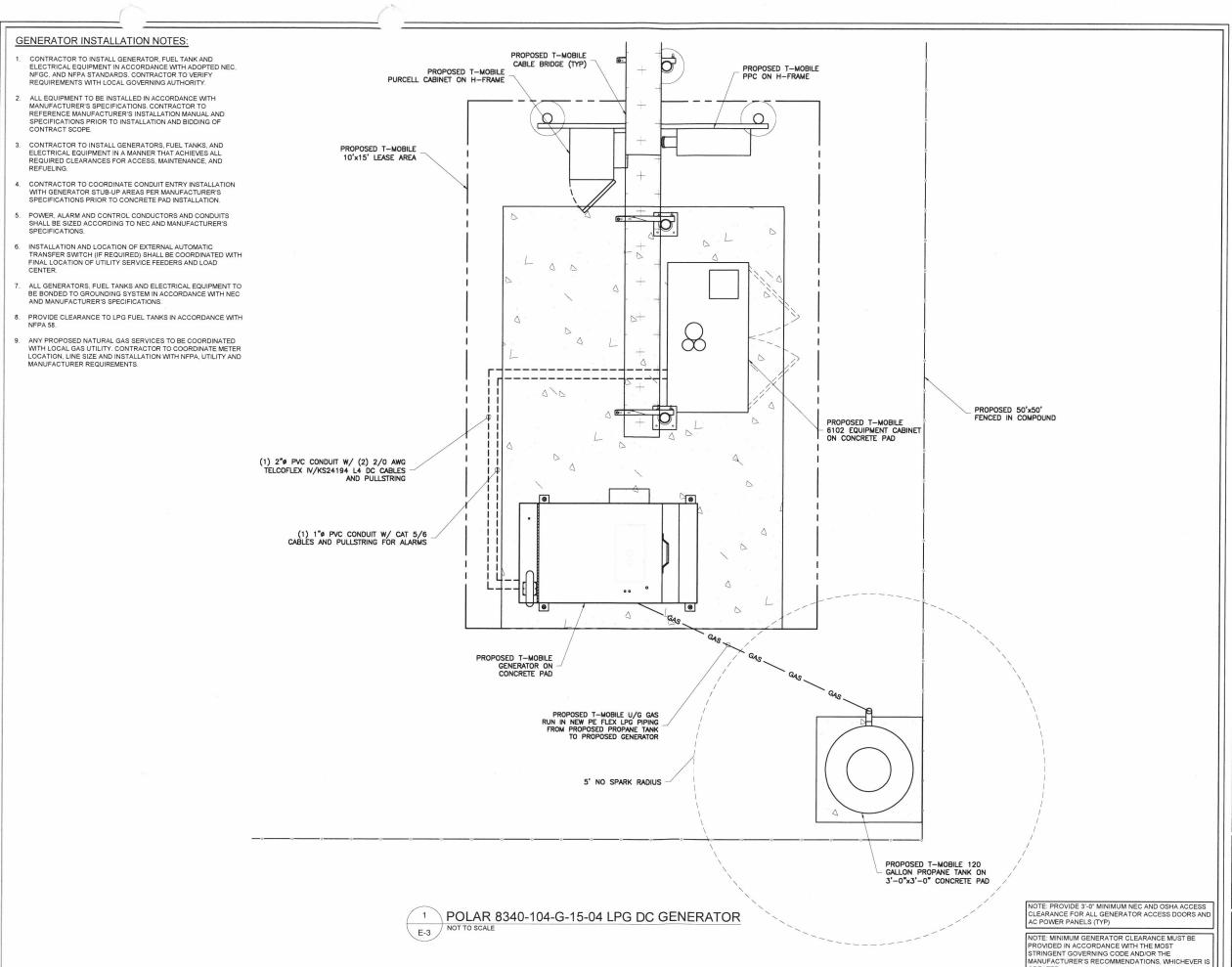
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NH PROPESIONAL ENGINEER LIG. #13868

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SHEET TITLE:=

CARRIER UTILITY **PLAN**

SHEET NUMBER: REVISION:





ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

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/	/22/19	/22/19 REVISED

CONSULTANT:



NB+C ENGINEERING SERVICES, LLC.

100 APOLLO DRIVE, SUITE 30 CHELMSFORD, MA 01824 (978) 856-8308

CONSULTANT:=

DRAWN BY:-CHK.: -APV.:-

DFR PRC PRC



SHEET TITLE:

GENERATOR INSTALLATION **DETAILS**

SHEET NUMBER:

=REVISION:=

SPECIFICATIONS PN 8340-104-G-15-04

Engine

Engine Model	Toyota 1KS	
Cylinders	3 In-line	
Displacement (L)	0.952	
Bore (in./mm)	2.834/72	
Stroke (in./mm)	3.070/78	
Intake Air System	Naturally Aspirated	
Engine HP	23	
Emissions	U.S. EPA Tier 4 Interim	
Emissions Compliance	EPA Certified	
Variable RPM	2900 to 3300	

Engine lubrication system

Oil Filter Type	Full flow spin-on canister
Oil Capacity (L)	3.3
Oil Pressure Switch	Yes
Oil Pressure Transducer	Optional

Fuel consumption LPG

Output (kW)	gal/hr	L/hr
4	0.97	3.67
5	1.1	4.16
6	1.26	4.77
7	1.475	5.58
8	1.69	6.4
9	1.945	7.36
10	2.2	8.33
12	2.52	9.54
14.5	3.55	13.44

Fuel pressure

Minimum	Recommended	Maximum
0.14 psi	0.39 psi	0.5 psi
4 in H2O	11 in H2O	13.9 in H2O
10 mbar	27.4 mbar	34.5 mbar

Туре	Pressurized Aluminum Radiator	
Water Pump	Belt-driven, Pre-lubed, self-sealing	
Fan Type	Belt -driven	
Airflow CFM	1300	
Fan Mode	Pusher	
Temperature Sensor	Yes	

Environmental

Engine cooling system

Operating Temperature (°C/°F)	-23 to 50 / -10 to 122
Operating Humidity %	100
Cold Start Aids	Spark Plugs

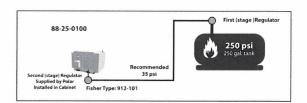
Optional: manifold heater available for temperatures < -10 °F

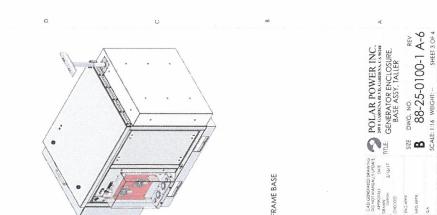
Power adjustment for conditions

Temperature Deration	1% derate for every 5.6 °C (10 °F) above 25 °C (77 °F)
Altitude Deration	3% derate for every 300 m (1000 ft) above 91 m (300 ft)

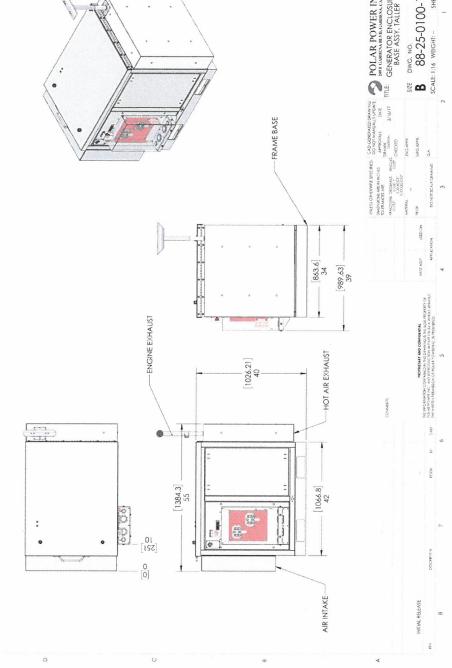
Fuel system

Type	Natural gas or propane	
Fuel Pump Type	Electrical	
Injector Type	Float Feed Carburetor	
Fuel Filtering	Paper Element	
Fuel Tank/Line	Supplied by customer	
Max fuel flow rate (BTU/hr)	325,000	





DRAWING FOR PN 8340-104-G-15-04



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PROJECT INFORMATION:

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=REV.:=DATE:====BY 0 02/18/19 CONSTRUCTION 1 03/01/19 REVISED 2 04/04/19 REVISED 3 07/22/19 REVISED

CONSULTANT:



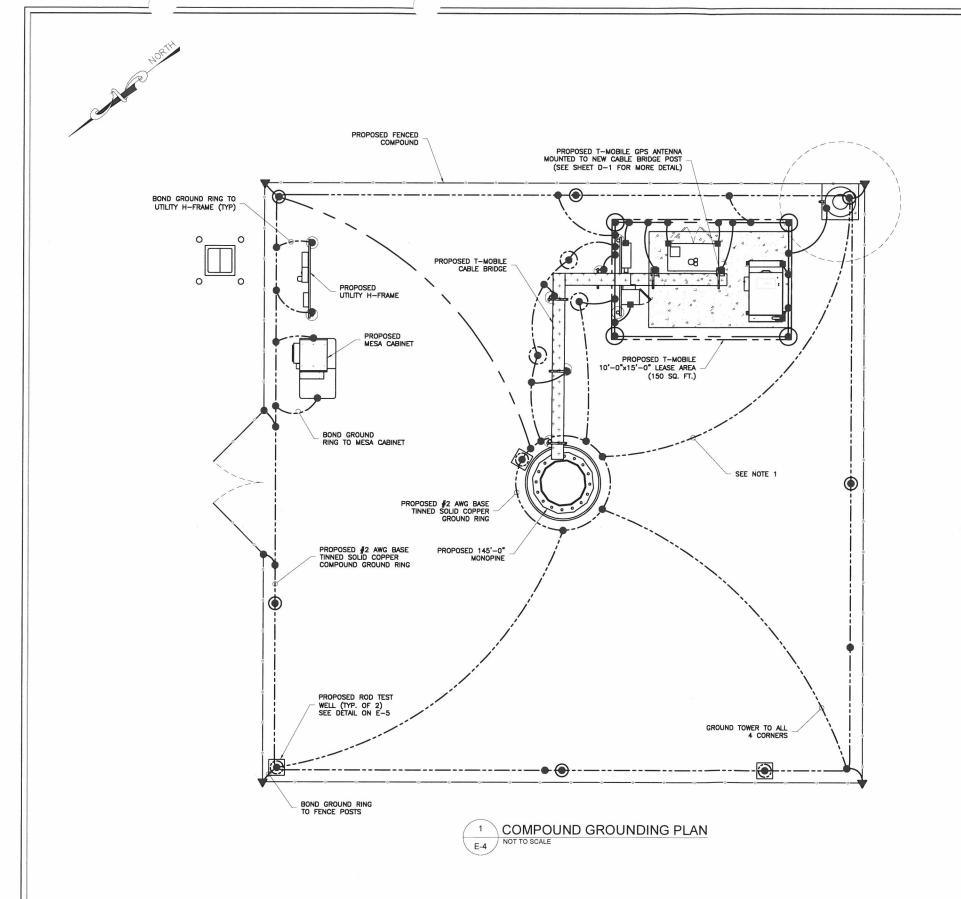
CONSULTANT:=

DRAWN BY:-CHK.:-APV.:-

GENERATOR SPECS

SHEET NUMBER:

E₃A



GROUNDING NOTES AND SPECIFICATIONS:

- THE COPPER GROUND RING SHALL CONSIST OF 2 AWG TINNED SOLID BARE COPPER CONDUCTOR, UNLESS NOTED OTHERWISE, BURIED AT 24" BELOW FINISHED GRADE (OR 6" BELOW FROSTLINE). ALL CONNECTIONS SHALL BE MADE USING AN EXOTHERMIC WELD, UNLESS NOTED OTHERWISE.
- 2. GROUND CONDUCTOR BEND RADIUS SHALL NOT BE LESS THAN 12".
- GROUND RODS SHOULD BE SPACED 2X HEIGHT APART AROUND COMPOUND GROUND RING. (EX. 10' ROD SHOULD BE SPACED 20' APART). MINIMUM SPACING BETWEEN GROUND RODS IS 10' UNLESS NOTED OTHERWISE.
- 4. GATES SHALL BE BONDED TO GATE POSTS USING FLEXIBLE JUMPER STRAP (BELDEN 8662 FLAT BRAID TINNED COPPER OR EQUAL) WITH EXOTHERMIC WELDS.
- 5. ALL GROUNDING/BONDING CONDUCTORS LOCATED ABOVE FINISHED GRADE SHALL BE RUN IN 1/2" FLEX CONDUIT.
- CONTRACTOR SHALL NOTIFY THE OWNER/TENANT ECO-SITE
 CONSTRUCTION MANAGER TO INSPECT THE GROUNDING SYSTEM PRIOR TO BACKFILLING.

LEGEND:



GROUND ROD EXOTHERMICALLY WELDED TO GROUND RING

GROUND RING



EXOTHERMIC WELD

GROUND ROD TEST WELL



PROJECT INFORMATION:

ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

LATITUDE: LONGITUDE:

CURRENT ISSUE DATE:

07/22/19

ISSUED FOR:

FINAL

REV.:	=DATE:	ISSUED FOR:	BY:
0	02/18/19	CONSTRUCTION	PRC
1	03/01/19	REVISED	PRC
2	04/04/19	REVISED	MJS
3	07/22/19	REVISED	MJS

CONSULTANT:

=CONSULTANT:=



NB+C ENGINEERING SERVICES, LLC.

=DRAWN BY:==CHK.:===APV.:=

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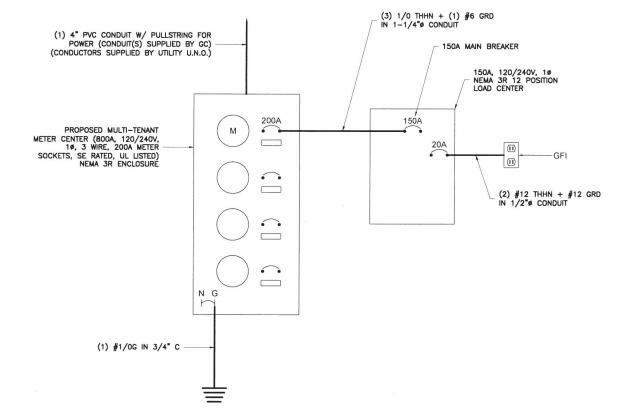
GROUNDING PLAN

SHEET NUMBER:

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NOTES AND SPECIFICATIONS

- 1. ELECTRIC UTILITY WILL PROVIDE METER AND INCOMING SERVICE LATERAL CONDUCTORS.
- 2. ALL ELECTRICAL WORK SHALL COMPLY WITH NEC. STATE AND LOCAL CODES
- CONTRACTOR SHALL OBTAIN OWNER/TENANT EQUIPMENT DRAWINGS AND REVIEW FOR ADDITIONAL DETAILS AND REQUIREMENTS THAT MAY NOT BE SHOWN IN THESE DRAWINGS. CONTRACTOR SHALL COMPLY WITH ANY ADDITIONAL OWNER/TENANT SPECIFICATIONS AND REQUIREMENTS THAT MAY BE ADDRESSED IN THE EQUIPMENT DRAWINGS.
- 4. PRIOR TO PURCHASING EQUIPMENT, THE CONTRACTOR SHALL CONTACT THE ELECTRIC UTILITY AND OBTAIN IN WRITING THE MAXIMUM AVAILABLE FAULT CURRENT AT THE UTILITY SERVICE POINT. PROVIDE MAX AFC SIGNAGE AS REQUIRED PER NEC 110.24. THE CONTRACTOR SHALL BENSURE ALL ELECTRICAL EQUIPMENT, CIRCUIT BREAKERS, DISCONNECTS, FUSES, AND PANELBOARDS HAVE A FAULT CURRENT INTERRUPTING RATING GREATER THAN THE AVAILABLE FAULT CURRENT. IN NO CASE SHALL THE FAULT CURRENT INTERRUPTING RATING BE LESS THAN 10,000 AMPS.
- 5. THE GROUNDED SERVICE CONDUCTOR (NEUTRAL CONDUCTOR) SHALL BE GROUNDED AT
- 6. ALL POWER CIRCUITS SHALL USE COPPER CONDUCTORS WITH THHN/THWN INSULATION. ALL TERMINATIONS SHALL BE RATED FOR AT LEAST 75°C.
- 7. CONTRACTOR SHALL PROVIDE GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE RECEPTACLES FOR ALL UTILITY RECEPTACLES.
- 8. CONTRACTOR SHALL ENSURE ALL NEUTRAL CONDUCTORS HAVE WHITE INSULATION AND EQUIPMENT GROUND CONDUCTORS HAVE GREEN INSULATION. COLOR TAPE IDENTIFICATION OF THESE CONDUCTORS IS NOT ALLOWED.
- 9. PER NEC ARTICLE 702 PROVIDE SIGNAGE AS FOLLOWS:

AT SERVICE DISCONNECT:

WARNING - SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS **EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE(S) IS ENERGIZED**



PROJECT INFORMATION:

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CONSULTANT:

CONSULTANT:=



NB+C ENGINEERING SERVICES, LLC.

100 APOLLO DRIVE, SUITE 30: CHELMSFORD, MA 01824 (978) 856-8308

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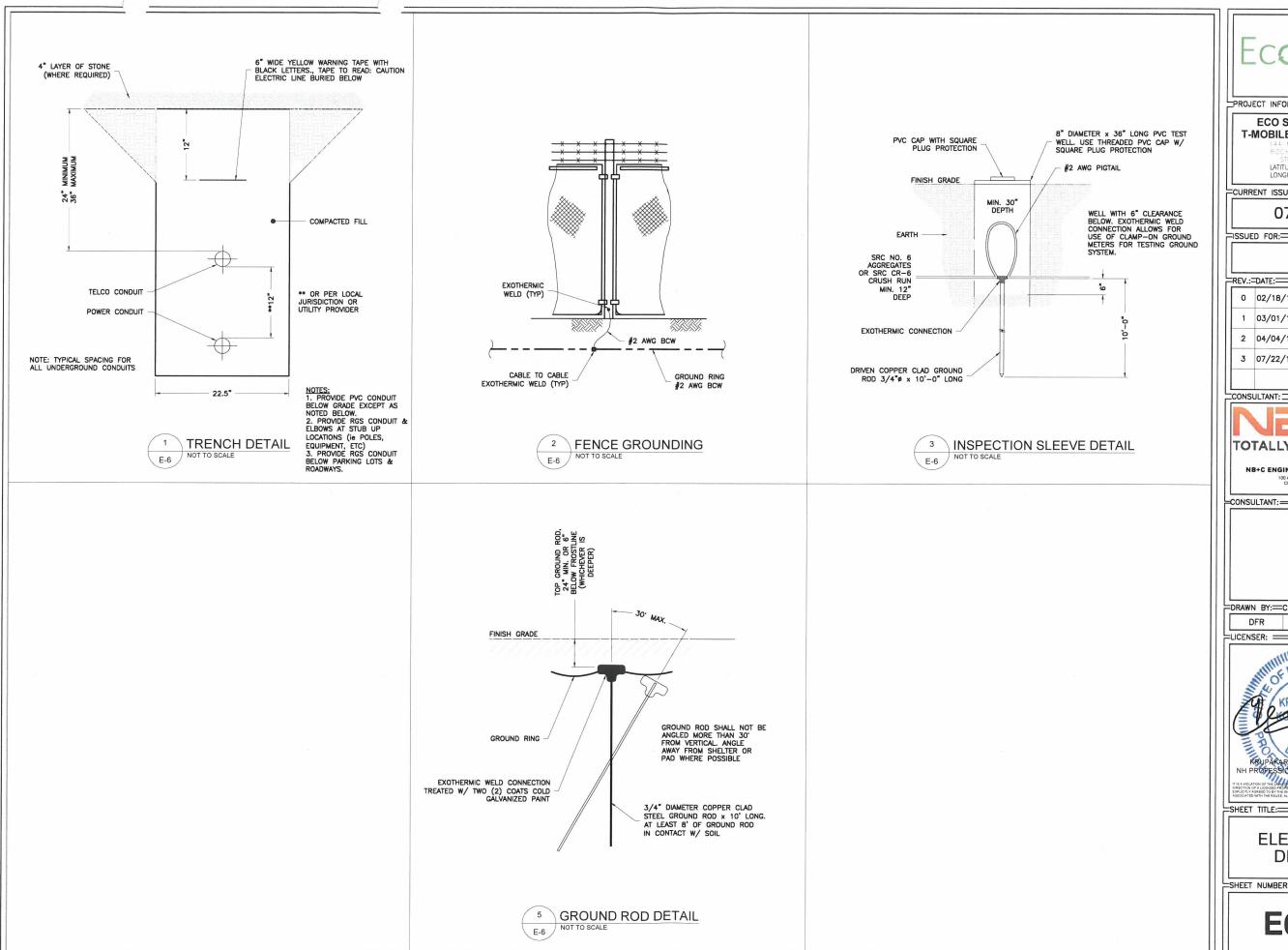
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SINGLE LINE DIAGRAM

SHEET NUMBER:

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ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

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0 02/18/19 CONSTRUCTION 1 03/01/19 REVISED

2 04/04/19 REVISED MJS 3 07/22/19 REVISED MJS

CONSULTANT:



NB+C ENGINEERING SERVICES, LLC.

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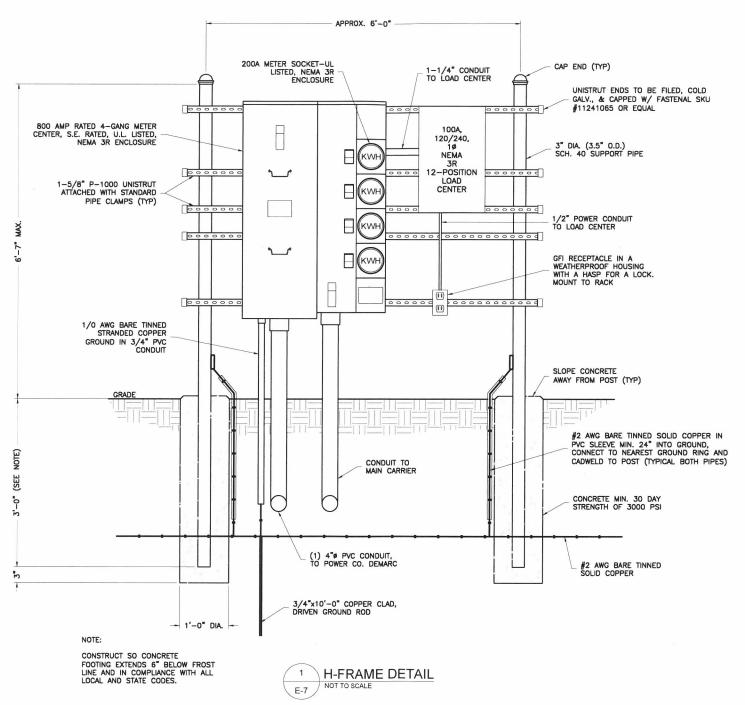
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ELECTRICAL DETAILS

SHEET NUMBER:

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- ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, STATE BUILDING CODES AND THE LOCAL BUILDING CODES. ALL COMPONENTS SHALL BE U.L. LISTED.
- 2. REFER TO SITE LAYOUT PLAN FOR THE EXACT LOCATION OF H-FRAME.
- 3. CONTRACTOR TO COORDINATE WITH LOCAL UTILITY COMPANY FOR METER.
- 4. CONTRACTOR TO PROVIDE AND INSTALL METER SOCKET.
- CONTRACTOR TO LOCATE METER RACK TO ENSURE WORKING SPACES REQUIRED BY THE NEC (ART. 110.26). STATE, OR LOCAL CODES ARE MAINTAINED BETWEEN FRONT OF ENCLOSURES AND THE CHAIN LINK FENCE.
- SHOW LOCATION (INCLUDING DIMENSIONS) OF ALL CAPPED UNDERGROUND CONDUIT ON FINAL AS-BUILT DRAWINGS SUBMITTED TO OWNER.
- COORDINATE EXACT LOCATION OF UNDERGROUND FEEDERS AND CIRCUITRY WITH THE OWNER.
- CONTRACTOR SHALL COORDINATE WITH LOCAL ELECTRICAL AUTHORITY HAVING JURISDICTION (AHJ) AND OTHER TRADES TO DETERMINE "FROST" LINE, AND TYPES OF RACEWAYS REQUIRED FOR INSTALLATION.
- 9. ALL CONDUITS ABOVE GROUND SHALL BE GALVANIZED CONDUIT.
- CONTRACTOR TO CONTACT LOCAL UTILITY PRIOR TO PURCHASING METER CENTER TO VERIFY ANY PARTICULAR REQUIREMENTS, SUCH AS LEVER BYPASS, ETC.



ECO SITE ID# NH-0002 T-MOBILE SITE #: 4NB0203A

ROCHESTER, NH 038 STRAFFORD COUNTY LATITUDE: 43.31063 LONGITUDE: -71.05387

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	1/04/19 1/22/19	

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DFR PRC



SHEET TITLE:

H-FRAME DETAIL

SHEET NUMBER:

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