PROJECT INFORMATION

SCOPE OF WORK:	A PROPOSED EQUIPMENT SHELTER AND DIESEL GENERATOR WILL BE INSTALLED AT GRADE INSIDE AN EXISTING FENCED COMPOUND. A 10'-0" EXTENSION WILL BE ADDED TO EXISTING 90'± A.G.L. TALL MONOPOLE. THREE (3) PANEL ANTENNAS WILL BE INSTALLED (1/SECTOR) ON NEW EXTENSION. POWER & TELCO WILL COME FROM EXISTING SOURCES ON SITE.
SITE ADDRESS:	356 ROUTE 1 FALMOUTH, ME 04105
PROPERTY OWNER:	LIGHTOWER 80 CENTRAL ST. BOXBOROUGH, MA 01719
LATITUDE:	43° 44' 12.81" N (NAD 83)*
LONGITUDE:	70° 13' 35.30" W (NAD 83)*
STRUCTURE HEIGHT:	90'± A.G.L.* * PER SCIP
JURISDICTION:	CUMBERLAND COUNTY
CURRENT USE:	TELECOMMUNICATIONS FACILITY
PROPOSED USE:	TELECOMMUNICATIONS FACILITY
NAME OF APPLICANT:	AT&T MOBILITY 580 MAIN STREET BOLTON, MA 01740

AT&T RF REVISION DATE: TBD

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CONTACT & UTILITY INFORMATION

CONTACT	CONTACT	COMPANY	PHONE NO.
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UTILITIES			
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TELCO:		PINE TREE NETWORKS	(866) 746-3873

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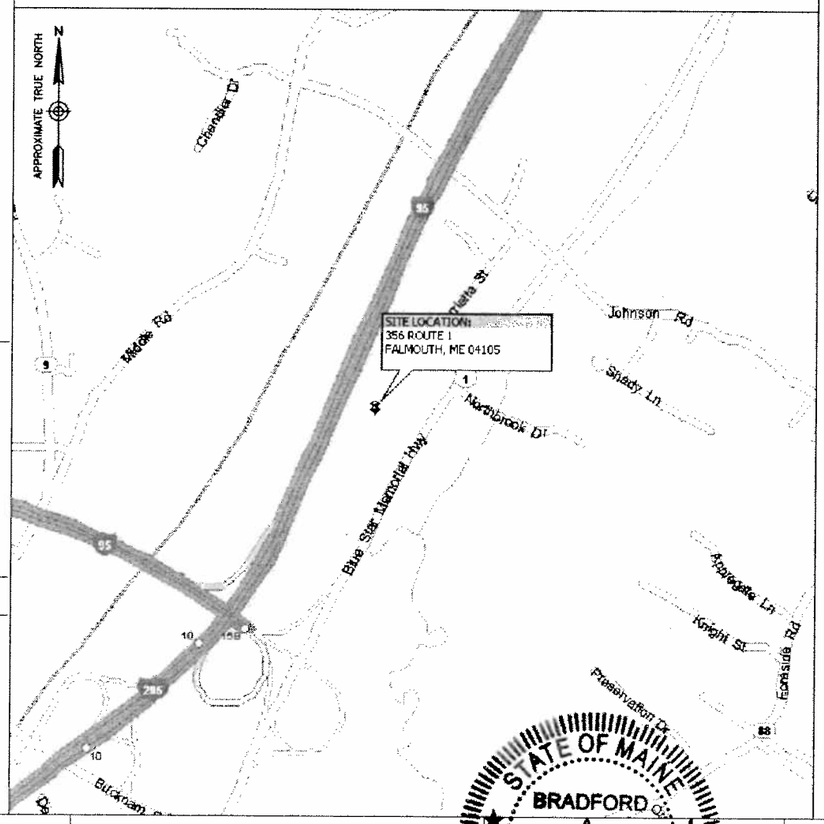
BOLTON, MA 01740

at&t Mobility

SITE NAME: FALMOUTH, ME
SITE NUMBER: 1595

VICINITY MAP

DIRECTIONS: TAKE I-495 N. MERGE ONTO I-95 N. TAKE EXIT 52 FOR I-295 N, TOWARDS BRUNSWICK/FALMOUTH/US-1. MERGE ONTO FALMOUTH SPUR. TAKE EXIT 15B FOR US-1 N. MERGE ONTO BLUE STAR MEMORIAL HIGHWAY/US-1. 356 ROUTE 1 IS ON THE LEFT. ENTER DRIVEWAY AND FOLLOW GRAVEL ACCESS ROAD TO THE SITE.



APPLICABLE BUILDING CODES AND STANDARDS

SUBCONTRACTOR'S WORK SHALL COMPLY WITH PROJECT STANDARD NOTES, SYMBOLS AND DETAILS (SEE DRAWING INDEX FOR STANDARD NOTES AND DETAILS INCLUDED WITH TYPICAL DRAWING PACKAGE). SUBCONTRACTOR WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

BUILDING CODE:
INTERNATIONAL BUILDING CODE (IBC 2003)

ELECTRICAL CODE:
NATIONAL ELECTRICAL CODE (NEC 2005)

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS.
AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION
TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-F, STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES:
TIA 607, COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS

INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM
IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRONIC EQUIPMENT

IEEE C62.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "C3" AND "HIGH SYSTEM EXPOSURE")

TELCORDIA GR-1503, COAXIAL CABLE CONNECTIONS

ANSI T1.311, FOR TELECOM – DC POWER SYSTEMS – TELECOM, ENVIRONMENTAL PROTECTION

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.

HALF SIZE PRINT
THIS DRAWING IS SCALEABLE AT HALF THE NOTED SCALE

STATE OF MAINE
BRADFORD A. MILLS
No. 5052
LICENSED PROFESSIONAL ENGINEER

AT&T MOBILITY
BOLTON, MA 01740

TITLE SHEET

DEWBERRY NO.	CONTRACT NO.	DRAWING NUMBER	REV
50014023	24782-423	A3-BOS-1595-T01	1

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	08/26/08	ISSUED FOR CONSTRUCTION	ROM	GHN	PPB
0	08/08/08	ISSUED FOR CONSTRUCTION	ROM	GHN	PPB

SCALE: AS SHOWN | DESIGNED BY: ROM | DRAWN BY: GMT

FALMOUTH, ME
SITE NO. 1595

PLAN DATE: AUGUST 26, 2008

356 ROUTE 1
FALMOUTH, ME 04105
MAP 150 LOT U53-004

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR – BECHTEL
   SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   OWNER – AT&T
   OEM – ORIGINAL EQUIPMENT MANUFACTURER
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.
4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
5. DRAWINGS PROVIDED HERE ARE NOT TO SCALE UNLESS OTHERWISE NOTED AND ARE INTENDED TO SHOW OUTLINE ONLY.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
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 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. THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
14. SUBCONTRACTOR SHALL NOTIFY DEWBERRY 48 HOURS IN ADVANCE OF POURING CONCRETE, OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS & POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEER REVIEW.
15. CONSTRUCTION SHALL COMPLY WITH SPECIFICATION 24782-000-3APS-A00Z-00002, "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF CINGULAR-GENESIS SITES."
16. 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.
17. 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.
18. 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.

SITE WORK GENERAL NOTES:

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
2. 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 RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO
   A) FALL PROTECTION
   B) CONFINED SPACE
   C) ELECTRICAL SAFETY
   D) TRENCHING & EXCAVATION.
3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES, TOP SOIL AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
5. 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 CONTRACTOR, OWNER AND/OR LOCAL UTILITIES.
6. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION.
7. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE AT&T SPECIFICATION FOR SITE SIGNAGE.
8. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE TRANSMISSION EQUIPMENT AND TOWER AREAS.
9. 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.
10. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION, SEE SOIL COMPACTION NOTES.
11. THE AREAS OF THE OWNER'S 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.
12. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL JURISDICTION'S GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, 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 4000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (4000 PSI) MAY BE USED. ALL CONCRETING WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE (UNO). SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   CONCRETE CAST AGAINST EARTH........3 IN.
   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 AND LARGER ....2 IN.
   #5 AND SMALLER & WWF.........1 1/2 IN.
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
   SLAB AND WALL ....3/4 IN.
   BEAMS AND COLUMNS.............1 1/2 IN.
5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN 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. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD OR APPROVED EQUAL.
7. CONCRETE CYLINDER TEST IS NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC 1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;
   (A) RESULTS OF CONCRETE CYLINDER TESTS PERFORMED AT THE SUPPLIER'S PLANT.
   (B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.
   FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.
8. AS AN ALTERNATIVE TO ITEM 7, TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.
9. EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS UNLESS NOTED OTHERWISE. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE PERFORMED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
2. 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 UP.
3. BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4"ø) CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
5. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN 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. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD OR APPROVED EQUAL.
6. SUBCONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL.
7. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION & TOPSOIL EXPOSE UNDISTURBED NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
3. AS AN ALTERNATIVE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.
4. COMPACTED SUBBASE SHALL BE UNIFORM & LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING 1" SIEVE.
5. AS AN ALTERNATIVE TO ITEMS 2 AND 3 PROOFROLL THE SUBGRADE SOILS WITH 5 PASSES OF A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND-OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). ANY SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL-GRADED GRANULAR FILL, AND COMPACTED AS STATED ABOVE.

COMPACTION EQUIPMENT:

1. HAND OPERATED DOUBLE DRUM, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

CONSTRUCTION NOTES:

1. FIELD VERIFICATION:
   SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, AT&T ANTENNA PLATFORM LOCATION AND ANTENNAS TO BE REPLACED.
2. COORDINATION OF WORK:
   SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.
3. CABLE LADDER RACK:
   SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
2. SUBCONTRACTOR SHALL MODIFY EXISTING CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO THE CONTRACTOR FOR APPROVAL.
3. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
4. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
5. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
6. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
7. 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 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC & OSHA, AND MATCH EXISTING INSTALLATION REQUIREMENTS.
8. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
9. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
10. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
11. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (SIZE 14 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
12. POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL.) PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC & OSHA AND MATCH EXISTING INSTALLATION REQUIREMENTS.
13. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (SIZE 6 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
14. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
15. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (SIZE 14 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
16. ALL POWER AND POWER GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
17. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
18. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
19. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
20. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
21. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
22. 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.
23. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
24. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
25. CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
26. CABINETS, BOXES, AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
27. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
28. 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 3R (OR BETTER) OUTDOORS
29. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-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.
30. 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.
31. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
32. 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.

HALF SIZE PRINT
THIS DRAWING IS SCALEABLE AT HALF THE NOTED SCALE

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BOLTON, MA 01740

AT&T MOBILITY
BOLTON, MA 01740

GENERAL NOTES

DEWBERRY NO.	CONTRACT NO.	DRAWING NUMBER	REV
50014023	24782-423	A3-BOS-1595-G01	1

STATE OF MAINE
BRADFORD A. MILLS
No. 5052
LICENSED
PROFESSIONAL ENGINEER

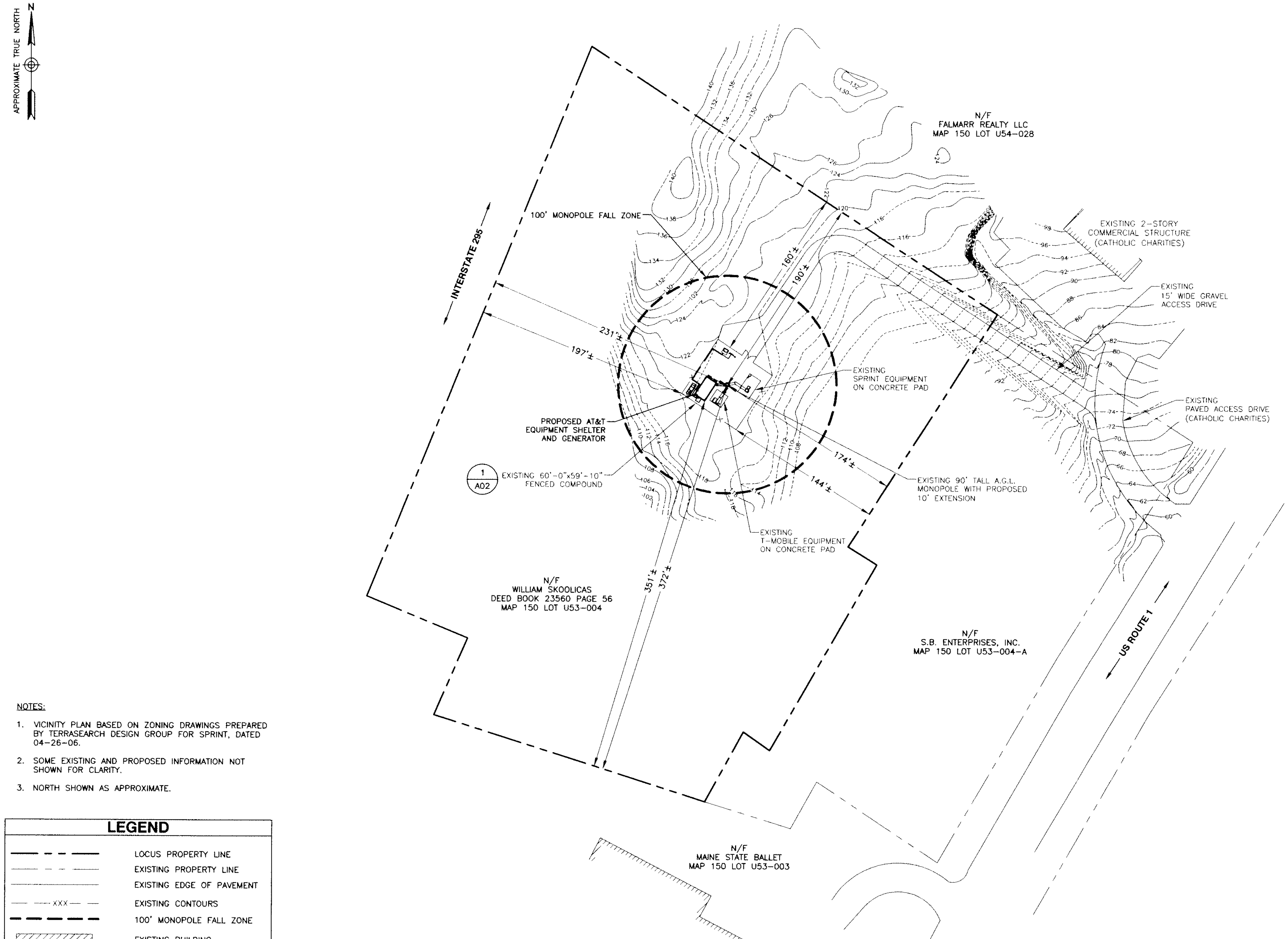
NO.	DATE	REVISIONS	BY	CHK	APP'D
	08/26/08	ISSUED FOR CONSTRUCTION	ROM	GHN	PPB
	08/08/08	ISSUED FOR CONSTRUCTION	ROM	GHN	PPB

SCALE: AS SHOWN | DESIGNED BY: ROM | DRAWN BY: GMT

FALMOUTH, ME
SITE NO. 1595

PLAN DATE: AUGUST 26, 2008

356 ROUTE 1
FALMOUTH, ME 04105
MAP 150 LOT U53-004



NOTES:

1. VICINITY PLAN BASED ON ZONING DRAWINGS PREPARED BY TERRASEARCH DESIGN GROUP FOR SPRINT, DATED 04-26-06.
2. SOME EXISTING AND PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
3. NORTH SHOWN AS APPROXIMATE.

LEGEND

- LOCUS PROPERTY LINE
- EXISTING PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CONTOURS (XXX)
- 100' MONOPOLE FALL ZONE
- EXISTING BUILDING

VICINITY PLAN (1)

SCALE: 1"=50'

0' 50' 100'

HALF SIZE PRINT
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VICINITY PLAN

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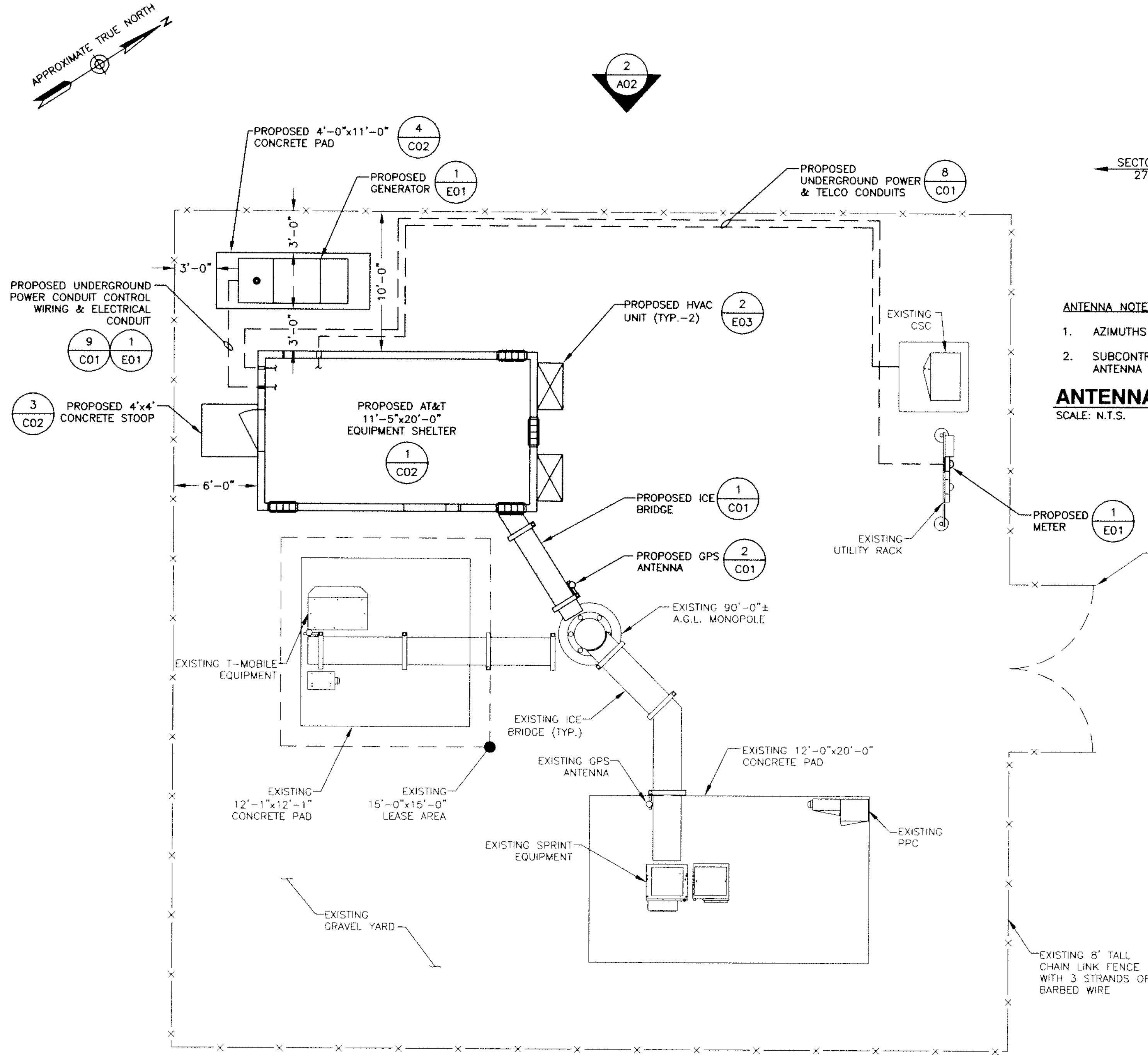
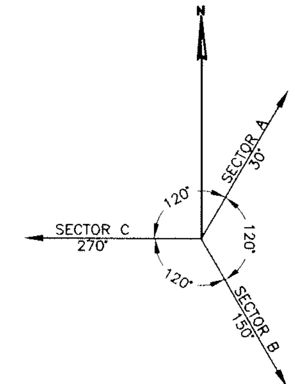
FALMOUTH, ME
SITE NO. 1595

PLAN DATE: AUGUST 26, 2008

356 ROUTE 1
FALMOUTH, ME 04105
MAP 150 LOT U53-004



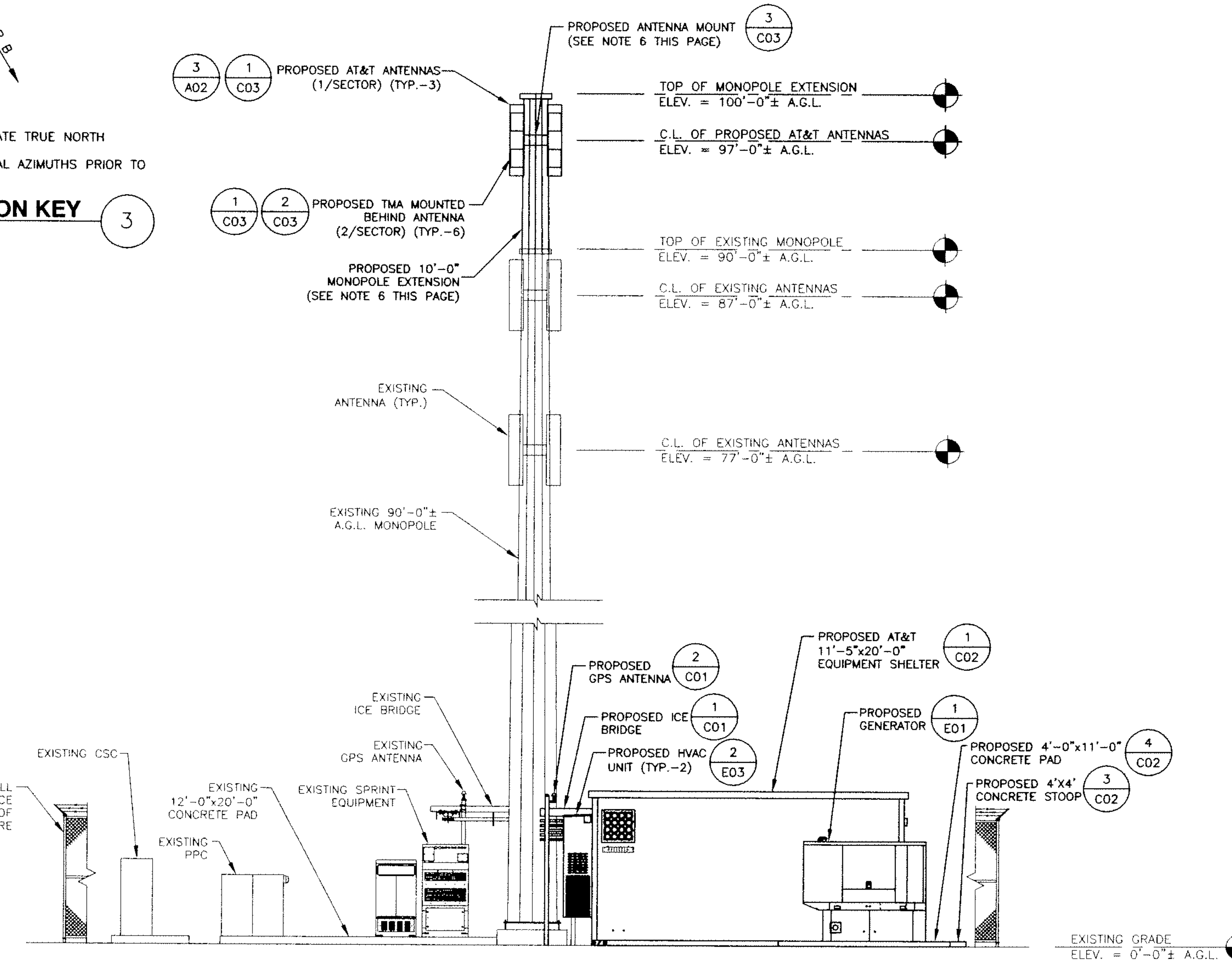


ANTENNA NOTES:

1. AZIMUTHS BASED ON APPROXIMATE TRUE NORTH
2. SUBCONTRACTOR TO VERIFY FINAL AZIMUTHS PRIOR TO ANTENNA INSTALLATION.

ANTENNA ORIENTATION KEY (3)

SCALE: N.T.S.



NOTES:

1. ALL EXISTING ANTENNAS SHOWN AS SCHEMATIC.
2. SOME EXISTING & PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
3. NORTH ARROW SHOWN AS APPROXIMATE.
4. SUBCONTRACTOR TO VERIFY FINAL POWER AND TELCO ROUTING WITH UTILITY COMPANY.
5. PLANS BASED ON OBSERVATIONS MADE DURING SITE VISIT ON 05-29-08.
6. ALL WORK SHALL BE IN STRICT CONFORMANCE WITH THE STRUCTURAL ANALYSIS BY MORRISON HERSHFIELD DATED JUNE 3, 2008, AND TOWER MANUFACTURER SPECIFICATIONS.
7. DIESEL GENERATOR TO HAVE SELF CONTAINED DIESEL FUEL SOURCE.

DETAILED SITE PLAN (1)

SCALE: 3/16"=1'-0"

0' 4' 8' 12'

A.G.L. = ABOVE GRADE LEVEL
C.L. = CENTER LINE

ELEVATION (2)

SCALE: 3/16"=1'-0"

0' 4' 8' 12'

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DETAILED SITE PLAN & ELEVATION

DEWBERRY NO.	CONTRACT NO.	DRAWING NUMBER
50014023	24782-423	A3-BOS-1595-A02

STATE OF MAINE ★ BRADFORD A. MILLS No. 5052 ★ LICENSED PROFESSIONAL ENGINEER

NO.	DATE	REVISIONS	BY	CHK	APP'D
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0	08/08/08	ISSUED FOR CONSTRUCTION	ROM	GHN	PPB

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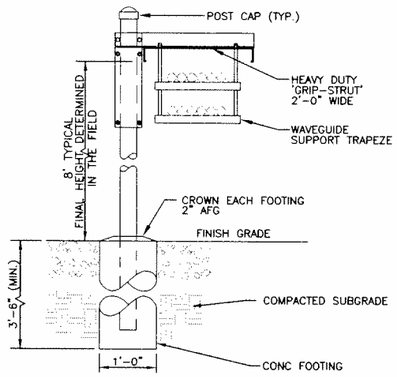
FALMOUTH, ME
SITE NO. 1595

PLAN DATE: AUGUST 26, 2008

356 ROUTE 1
FALMOUTH, ME 04105
MAP 150 LOT U53-004

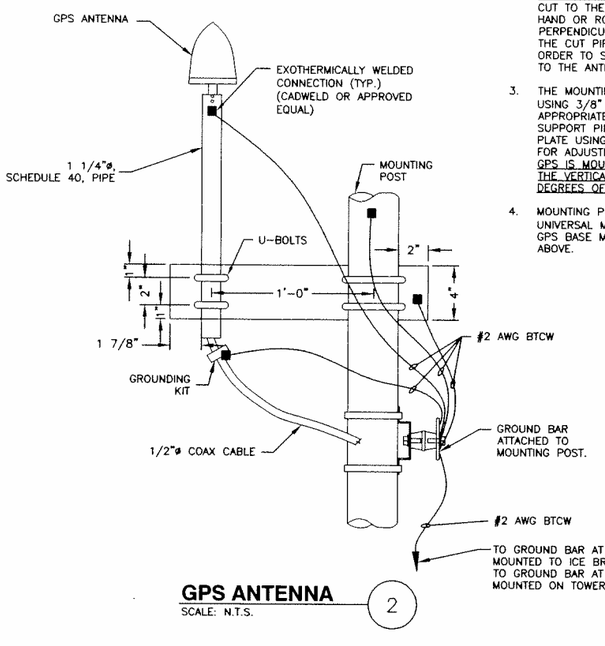


NOTES:

1. ICE BRIDGE SHALL BE VALMONT GRIP STRUT TRANSMISSION LINE BRIDGE KIT (P/N: B2959) OR APPROVED EQUAL.
2. CABLE SUPPORT SHALL BE VALMONT DOUBLE LEVEL CHANNEL (P/N: 802264) OR APPROVED EQUAL.
3. ALL COMPONENTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
4. SUBCONTRACTOR SHALL DETERMINE REQUIRED QUANTITY OF ALL ICE BRIDGE COMPONENTS.
5. SNAP-IN HANGERS, SPLICE KITS, HINGE KITS, EXTENSION KITS, STIFFENERS, AND OTHER MISCELLANEOUS HARDWARE SHALL BE PROVIDED BY THE SUBCONTRACTOR AS REQUIRED.
6. ICE BRIDGE SHALL BE ROUTED TO ACCOMMODATE THE MINIMUM BENDING RADIUS OF THE COAXIAL CABLE.
7. ICE BRIDGE COMPONENTS SHOWN ARE SCHEMATIC, CONSULT MANUFACTURER FOR EXACT AND CURRENT SPECIFICATIONS.

ICE BRIDGE DETAIL 1

SCALE: N.T.S.

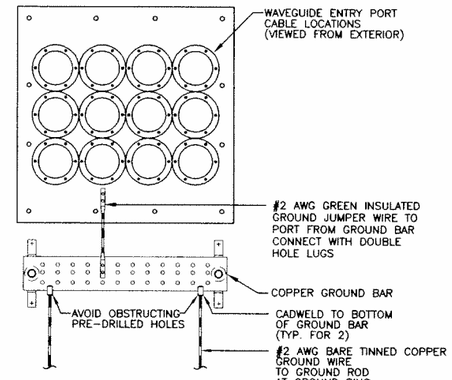


NOTES:

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 THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 18") USING 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. THE MOUNTING PLATE SHALL BE FABRICATED AS SHOWN USING 3/8" THICK GALVANIZED STEEL, AND ATTACHED TO THE APPROPRIATE SUPPORT STRUCTURE USING U-BOLTS. THE SUPPORT PIPE SHALL THEN BE ATTACHED TO THE MOUNTING PLATE USING THE OVERSIZED U-BOLTS PROVIDED TO ALLOW FOR ADJUSTMENT. IT IS CRITICAL THAT THE BASE OF THE GPS IS MOUNTED SUCH THAT IT IS WITHIN 2 DEGREES OF THE VERTICAL AND THE BASE OF THE GPS IS WITHIN 2 DEGREES OF THE LEVEL.
4. MOUNTING PLATE MAY BE SUBSTITUTED WITH VALMONT UNIVERSAL MOUNTING KIT (P/N B1841) OR APPROVED EQUAL. GPS BASE MUST BE MOUNTED AS DESCRIBED IN NOTE 3 ABOVE.

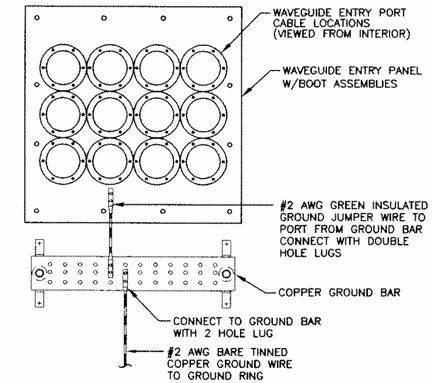
GPS ANTENNA 2

SCALE: N.T.S.



CABLE PORT GROUNDING EXTERIOR OF SHELTER (EXTERIOR VIEW) 3

SCALE: N.T.S.

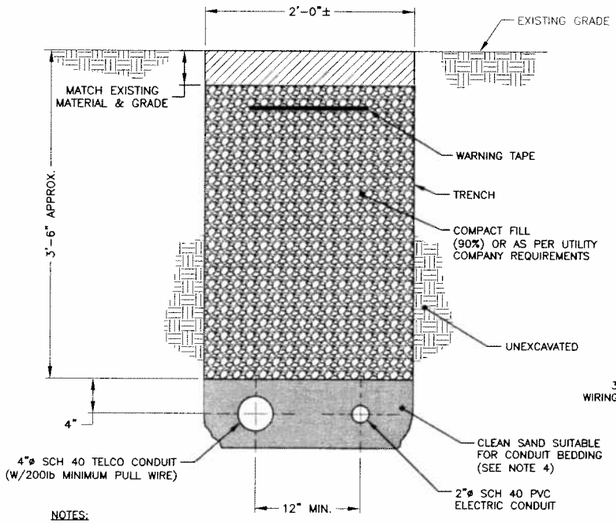


NOTE:

1. SUBCONTRACTOR SHALL INSTALL AS SHOWN UNLESS GROUND BAR IS PREINSTALLED BY SHELTER MANUFACTURER.

CABLE PORT GROUNDING ON INTERIOR OF SHELTER (INTERIOR VIEW) 4

SCALE: N.T.S.

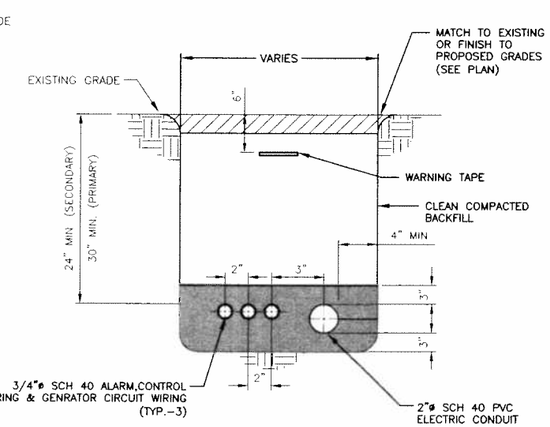


NOTES:

1. IF FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL, EXCAVATED MATERIAL MAY BE USED FOR BACKFILL.
2. IF NOT, PROVIDE CLEAN, COMPACTIBLE MATERIAL. COMPACT IN 8" LIFTS. REMOVE ANY LARGE ROCKS PRIOR TO BACKFILLING. SUBCONTRACTOR TO VERIFY LOCATION OF EXISTING U/G UTILITIES PRIOR TO DIGGING.
3. IF CURRENT AS-BUILT DRAWINGS ARE NOT AVAILABLE SUBCONTRACTOR SHALL HAND DIG U/G TRENCHING.
4. CONCRETE ENCASE CONDUIT WHEN TRENCHING UNDER SITE ACCESS ROAD.

JOINT SERVICE TRENCH BURIED CONDUIT (ELECTRIC/TELEPHONE) 8

SCALE: N.T.S.

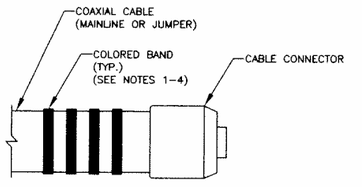


NOTES:

1. IF FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL, EXCAVATED MATERIAL MAY BE USED FOR BACKFILL.
2. IF NOT, PROVIDE CLEAN, COMPACTIBLE MATERIAL. COMPACT IN 8" LIFTS. REMOVE ANY LARGE ROCKS PRIOR TO BACKFILLING. SUBCONTRACTOR TO VERIFY LOCATION OF EXISTING U/G UTILITIES PRIOR TO DIGGING.
3. IF CURRENT AS-BUILT DRAWINGS ARE NOT AVAILABLE SUBCONTRACTOR SHALL HAND DIG U/G TRENCHING.

GENERATOR SERVICE TRENCH CONDUIT 9

SCALE: N.T.S.

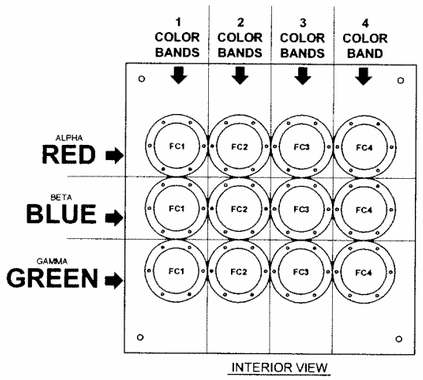


NOTES:

1. COLOR CODING SHALL BE PLACED ON BOTH ENDS OF ALL MAINLINE COAXIAL CABLES AND ALL JUMPER CABLES NEAR THE CONNECTORS. COLOR CODING SHALL ALSO BE PLACED ON EACH MAINLINE COAX ON THE EXTERIOR OF THE SHELTER NEAR THE CABLE PORT.
2. COLORED TAPE SHALL BE MINIMUM 3/4" WIDE.
3. THE SPACING BETWEEN THE COLORED BANDS SHALL NOT BE LESS THAN THE THICKNESS OF THE COLORED TAPE.
4. COLOR AND QUANTITY OF COLORED BANDS SHALL BE AS SPECIFIED IN THE RF SCHEDULE.

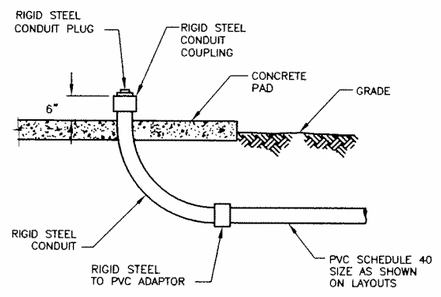
CABLE COLOR CODING DETAIL 5

SCALE: N.T.S.



COAX COLOR CODING AND LABELING DETAIL 6

SCALE: N.T.S.



NOTE:

1. DETAIL SHOWN TO BE USED ON CONDUIT RUN IN EXCESS OF 100' FROM EXISTING SOURCES TO SITE. IF LESS THEN 100' USE PVC THROUGH OUT.

UNDERGROUND CONDUIT STUB-UP DETAIL 7

SCALE: N.T.S.

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CONSTRUCTION DETAILS

DEWBERRY NO.	CONTRACT NO.	DRAWING NUMBER
50014023	24782-423	A3-BOS-1595-C01

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	08/26/08	ISSUED FOR CONSTRUCTION	ROM	GHN	PPB
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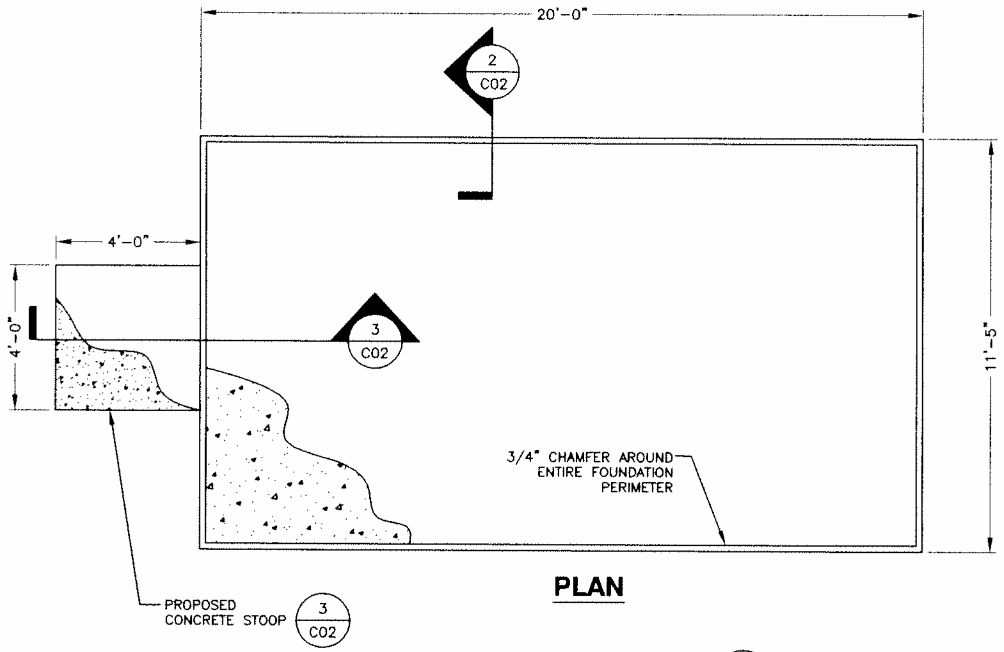
SCALE: AS SHOWN | DESIGNED BY: ROM | DRAWN BY: GMT

STATE OF MAINE
BRADFORD A. MILLS
No. 5052
LICENSED PROFESSIONAL ENGINEER

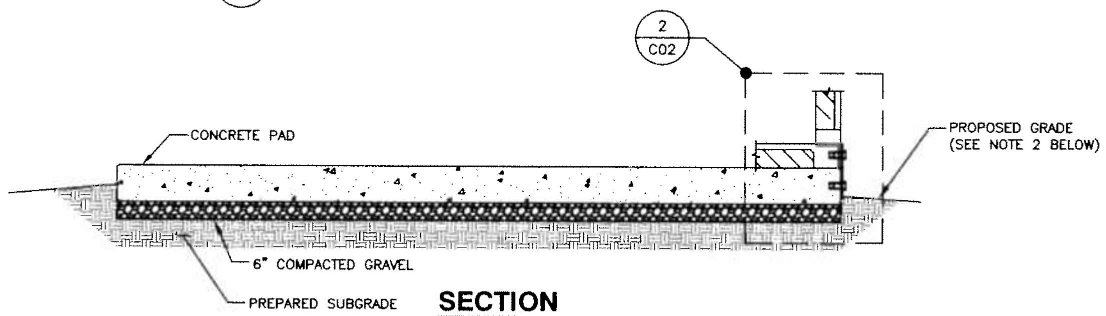
FALMOUTH, ME
SITE NO. 1595

PLAN DATE: AUGUST 26, 2008

356 ROUTE 1
FALMOUTH, ME 04105
MAP 150 LOT U53-004



PLAN



SECTION

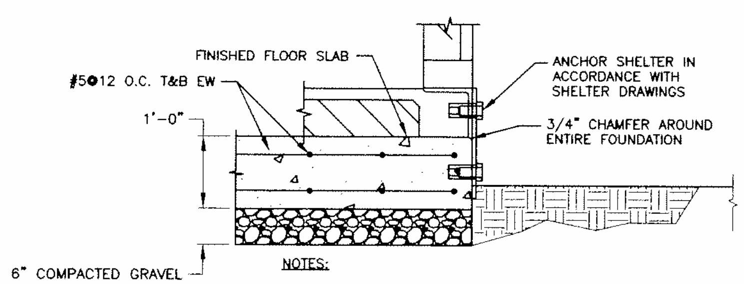
NOTES:

1. SUBCONTRACTOR TO VERIFY FINAL SHELTER DIMENSIONS PRIOR TO CONSTRUCTION OF FOUNDATION.
2. GRADE SHALL SLOPE AWAY FROM THE CONCRETE PAD TO ALLOW FOR PROPER WATER RUN OFF.
3. ANCHOR SHELTER TO FOUNDATION PER SHELTER MANUFACTURER RECOMMENDATIONS.

CONCRETE PAD FOUNDATION (1)

SCALE: 3/8"=1'-0"

0' 2' 4' 6'



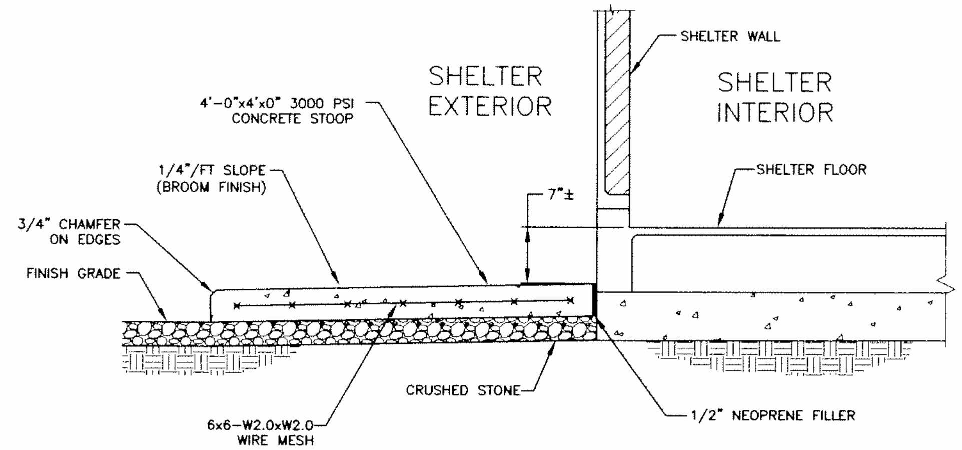
NOTES:

1. BEARING STRATA MEDIUM TO DENSE INSET GRANULAR MATERIAL OR COMPACTED GRAVEL FILL. 95% COMPACTION.
2. MAINTAIN 3" MIN. COVER ON ALL STEEL REINFORCEMENT.

FOUNDATION WALL & SLAB DETAIL (2)

SCALE: 3/4"=1'-0"

0' 1' 2' 3'

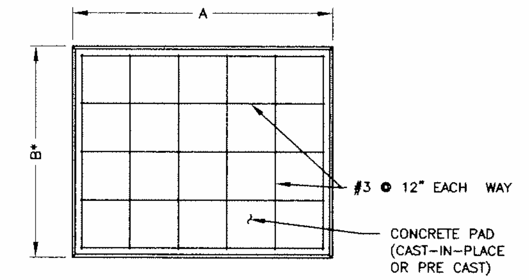


NOTE:

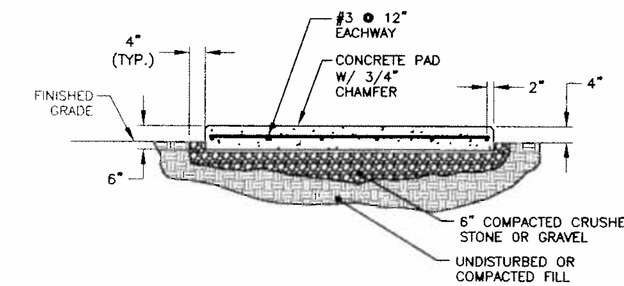
1. VERIFY DOOR LOCATION WITH SHELTER MANUFACTURER PRIOR TO CONSTRUCTION.

CONCRETE STOOP SECTION (3)

SCALE: N.T.S.



GENERATOR		
A	B	t (THICKNESS)
11'	4'	6"



NOTES:

1. USE GALVANIZED HILTI EXPANSION ANCHORS OR, APPROVED EQUAL, FOR EQUIPMENT ANCHORAGE.
2. FOR SIZE AND LOCATION OF ANCHORS AND OTHER REQUIREMENTS, SEE EQUIPMENT VENDOR DRAWINGS.

OUTDOOR PAD FOR MINOR EQUIPMENT (4)

SCALE: N.T.S.

ANTENNA AND COAXIAL CABLE BILL OF MATERIALS

SECTOR	STATUS	COLOR CODE	ANTENNA	COAX CABLE FEED LOC	AZIMUTH (TRUE NORTH)	RAD CENTER	COAXIAL CABLE LENGTH	COAXIAL CABLE	MECHANICAL DOWNTILT	TMA	DIPLEXER
IA	PROPOSED	IR & IIR	POWERWAVE 7770.00	BOTTOM	30°	97'	2 @ 125'	7/8" COMMSCOPE	0°	(2) POWERWAVE LGP17205	–
IB	PROPOSED	IB & IIB	POWERWAVE 7770.00	BOTTOM	150°	97'	2 @ 125'	7/8" COMMSCOPE	0°	(2) POWERWAVE LGP17205	–
IG	PROPOSED	IG & IIG	POWERWAVE 7770.00	BOTTOM	270°	97'	2 @ 125'	7/8" COMMSCOPE	0°	(2) POWERWAVE LGP17205	–
TOTAL QUAN.	–	–	3	–	–	–	750'	–	–	6	–

ANTENNA AND COAXIAL CABLE B.O.M. (5)

SCALE: N.T.S.

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FOUNDATION DETAILS & ANTENNA B.O.M.

DEWBERRY NO.	CONTRACT NO.	DRAWING NUMBER	REV
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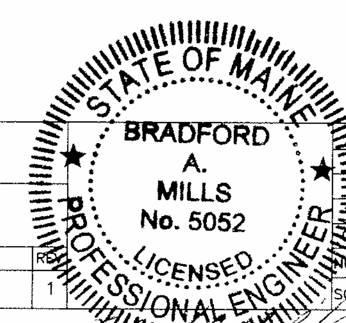

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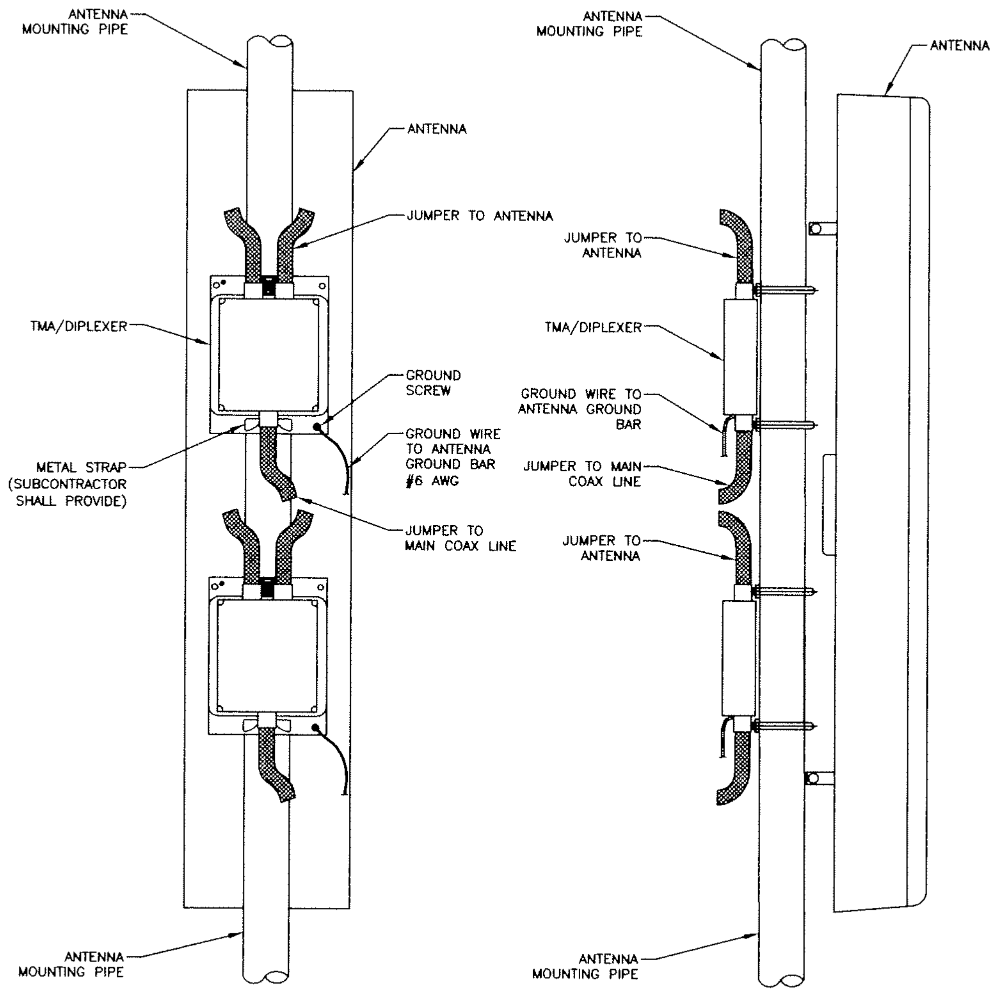
FALMOUTH, ME
SITE NO. 1595

PLAN DATE: AUGUST 26, 2008

356 ROUTE 1
FALMOUTH, ME 04105
MAP 150 LOT U53-004

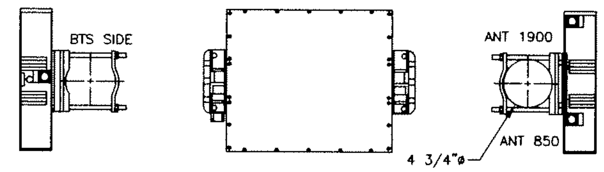


NOTES:

1. TMA IS WEATHERPROOFED ENCLOSURE RATED TO IP65.
2. TMA SHALL NOT BE PAINTED. A LABEL STATING "DO NOT PAINT" IS PROVIDED WITH TMA AND SHALL BE MOUNTED ON UNIT WHERE IT IS CLEARLY VISIBLE.
3. IF POSSIBLE, TMA SHALL BE MOUNTED BEHIND ANTENNA TO MINIMIZE WIND LOADING ON STRUCTURE.
4. PROVIDE SUFFICIENT LENGTH OF JUMPER TO ALLOW FOR PROPER APPLICATION OF WEATHER PROOFING AT ANTENNA AND TMA CONNECTIONS.
5. BOND TMA GROUND STUD TO GROUND BAR WITH NO. 6 AWG GROUND WIRE AND 2-HOLE GROUND LUG.
6. BACKPLATE AND POLE CLAMPS FOR MOUNTING TO 2 3/8" DIA. ANTENNA MOUNTING PIPE PROVIDED WITH TMA.
7. TMA SHALL BE MOUNTED VERTICALLY.
8. CONNECTORS SHALL BE WEATHERPROOFED IN ACCORDANCE WITH REQUIREMENTS OF STANDARD BECHTEL DETAIL NO. 520/E04, NOTE 13.
9. JUMPER CABLES SHALL BE SUPPORTED WITHIN 1 TO 2 FEET OF CONNECTORS.
10. SUBCONTRACTOR SHALL REPLACE ANY DAMAGED OR CORRODED HARDWARE.

TOWER MOUNTED AMPLIFIER/DIPLEXER MOUNTING (1)

SCALE: N.T.S.



NOTES:

MOUNTING TO A POLE OR BEAM

ASSEMBLE THE POLE MOUNTING HARDWARE ON THE TMA AND INSTALL THE DESIRED LOCATION AS SHOWN IN DETAIL 1, THIS SHEET.

1. INSERT THE 3/8-16 UNC x 7" LG (M8 X 180MM) HEX BOLTS WITH THE WASHERS THROUGH THE HOLES IN THE TMA BRACKETS. BOLTS AND WASHERS MAY BE PRE-INSTALLED ON SOME VERSIONS OF THE ETB SERIES TMA.
2. ORIENT THE TMA IN THE SELECTED LOCATION WITH THE BTS PORT POINTING DOWN, OR AS REQUIRED. ALIGN THE V-GRIPS OF THE TMA BRACKETS WITH THE POLE OR THE TOWER MEMBER.
3. ATTACH THE REAR BRACKETS TO THE HEX BOLTS AND INSTALL FLAT WASHER, SPLIT LOCK WASHER, AND THE HEX NUT ON EACH BOLT. TIGHTEN HEX NUTS SECURELY WHILE MAINTAINING ALIGNMENT BETWEEN TMA BRACKET AND REAR BRACKET.
4. ATTACH A GROUND CABLE TO THE TMA USING THE PRE-INSTALLED HEX BOLT AND WASHERS. ROUTE THE GROUND CABLE TO THE GROUND BAR ON THE TOWER STRUCTURE AND ATTACH SECURELY WITH SUITABLE FASTENER.
5. ROUTE A JUMPER CABLE FROM THE 850 MHz ANTENNA TO THE TMA PORT MARKED "ANT 850". ROUTE A SECOND JUMPER CABLE FROM THE 1900 MHz ANTENNA TO THE TMA PORT MARKED "ANT 1900". ROUTE A THIRD JUMPER CABLE FROM THE TMA PORT MARKED "BTS" TO THE TOWER FEEDER. BE SURE TO PROVIDE ADEQUATE CURVE OR LOOP TO RELIEVE UNDUE STRAIN ON CONNECTIONS AT EITHER END.
6. TIGHTEN RF CONNECTIONS TO 18-FT-LBS (25Nm) TORQUE.
7. WEATHERSEAL THE CABLE CONNECTIONS PER STANDARD PRACTICES IF REQUIRED BY LOCAL CONDITIONS. PROVIDED MATERIALS, IF ANY, CAN BE APPLIED ACCORDING TO THE INSTRUCTIONS ON THE PACKAGE.
8. APPLY CABLE TIES OR STRAPS (NOT SUPPLIED TO SECURE THE CABLES TO THE TOWER STRUCTURE.
9. SUBCONTRACTOR TO VERIFY MOUNTING HARDWARE SIZE.
10. SUBCONTRACTOR TO CONSULT PLUMBING DIAGRAM PRIOR TO INSTALLATION.

NOTES:

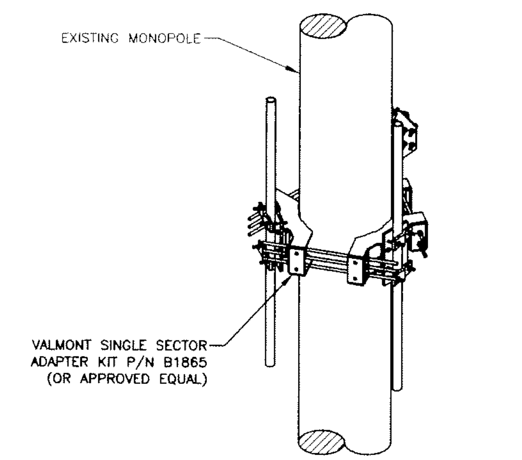
MOUNTING TO A WALL

THE TMA CAN BE MOUNTED TO A SUITABLE FLAT SURFACE.

1. THE REAR BRACKETS AND HARDWARE ARE NOT USED.
2. IF PRE-INSTALLED. 3/8-16 UNC x 6 1/4" LG (M8 X 160 MM) HEX BOLTS MUST BE REMOVED PRIOR TO WALL-MOUNTING. UNDO THE TWO CAP SCREWS TO DETACH THE TMA BRACKET AND RETRACT THE BOLTS. RE-INSTALL THE TMA BRACKETS AND TIGHTEN THE CAP SCREWS SECURELY.
3. MOUNT THE TMA TO THE WALL USING FOUR 5/16" OR 8MM BOLTS (NOT SUPPLIED) THROUGH THE HOLES IN THE TMA BRACKETS.
4. CONNECT RF AND GROUND CABLES, WEATHERSEAL AND SECURE WITH STRAPS AS OUTLINES ABOVE.
5. SUBCONTRACTOR TO VERIFY MOUNTING HARDWARE SIZE.

TMA MOUNTING DETAIL (2)

SCALE: N.T.S



NOTE:

1. INSTALL MOUNT & ANTENNA PER STRUCTURAL ANALYSIS & MANUFACTURER'S RECOMMENDATIONS.

MONOPOLE PIPE MOUNTS (3)

SCALE: N.T.S.

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TMA & DIPLEXER DETAILS

DEWBERRY NO.	CONTRACT NO.	DRAWING NUMBER	REV
50014023	24782-423	A3-BOS-1595-C03	1

STATE OF MAINE — BRADFORD A. MILLS No. 5052 — LICENSED PROFESSIONAL ENGINEER

NO.	DATE	REVISIONS	BY	CHK	APP'D
	08/26/08	ISSUED FOR CONSTRUCTION	ROM	GHN	PPB
	08/08/08	ISSUED FOR CONSTRUCTION	ROM	GHN	PPB

SCALE: AS SHOWN | DESIGNED BY: ROM | DRAWN BY: GMT

FALMOUTH, ME
SITE NO. 1595

PLAN DATE: AUGUST 26, 2008

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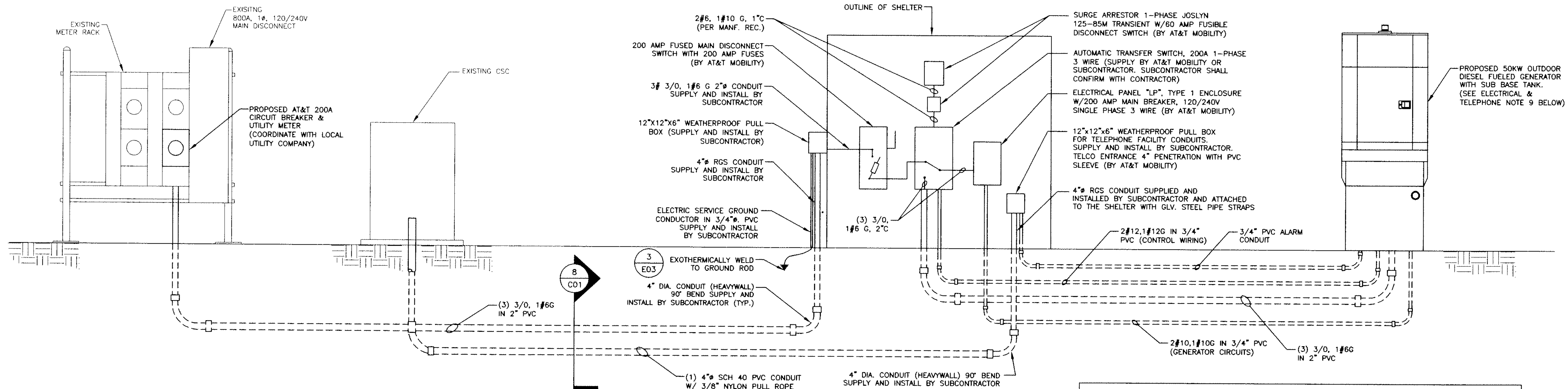
FALMOUTH, ME 04105
MAP 150 LOT U53-004



ELECTRICAL RISER DIAGRAM & SERVICE ENTRANCES

1

SCALE: N.T.S.

ELECTRICAL AND TELEPHONE CONTACTS	
POWER COMPANY: CENTRAL MAINE POWER	TELEPHONE COMPANY: PINE TREE NETWORKS
PHONE NUMBER: (800) 565-3181	PHONE NUMBER: (866) 746-3873

GENERAL ELECTRICAL NOTES

1. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES, O.S.H.A., NEC 2005, NFPA #70, AT&T MOBILITY SPECIFICATIONS, AND THE SPECIFICATIONS DETAILED IN THESE PLANS.
2. SUBMITTAL OF BID INDICATES SUBCONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
3. SUBCONTRACTOR SHALL PERFORM ALL VERIFICATION, OBSERVATION, TESTS, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. SUBCONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT, AND DISCREPANCIES.
4. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE. SUBCONTRACTOR SHALL ENSURE THAT ACCESS TO EQUIPMENT IS MAINTAINED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AND ALL APPLICABLE CODES.
5. EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)
6. SUBCONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM, ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
7. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF ALL DANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, IEEE, AND NFPA GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCOR
8. ALL CONDUIT INSTALLED MAY BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
9. COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE SUBCONTRACTOR.
10. ALL "CONDUIT ONLY" (C.O.) INSTALLATIONS SHALL HAVE A 3/8" PULL WIRE OR ROPE.
11. SUBCONTRACTOR SHALL PROVIDE AT&T MOBILITY MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
12. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
13. POWER WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID.
14. ALL CONDUCTORS LARGER THAN #10 AWG SHALL BE STRANDED COPPER WITH THWN 600V INSULATION, UNLESS NOTED OTHERWISE.
15. ALL MATING SURFACES OF GROUND CONNECTIONS SHALL BE CLEANED SMOOTH AND COATED WITH ANTIOXIDANT PRIOR TO ATTACHMENT.
16. ALL GROUND CONNECTIONS BELOW GRADE MUST BE EXOTHERMICALLY WELDED (CAD WELD OR APPROVED EQUAL)
17. ALL EXTERIOR GROUNDING CONDUCTORS SHALL BE #2 AWG SOLID TINNED BARE COPPER WIRE UNLESS NOTED OTHERWISE.
18. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C. COORDINATE SHORT CIRCUIT REQUIREMENTS WITH LOCAL UTILITY COMPANY.
19. SUBCONTRACTOR SHALL PATCH, REPAIR, AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
20. IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, M PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
21. LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND, THEREFORE, MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
22. PENETRATIONS IN FIRE RATED WALLS SHALL BE SEALED IN ACCORDANCE WITH ALL APPLICABLE CODES.
23. ALL MATERIALS SHALL BE U.L. LISTED.
24. CONDUIT:
    a. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED RAPPED WITH HUNTS WRAP PROCESS NO. 3.
    b. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL. FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
    c. FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE, SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT SHALL HAVE FULL SIZE GROUND WIRE.
    d. CONDUIT RUNS MAY BE SURFACE MOUNTED IN CEILINGS OR WALLS UNLESS INDICATED OTHERWISE. CONDUIT SHALL RUN PARALLEL OR AT RIGHT ANGLES TO CEILING, FLOOR OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH ENGINEER PRIOR TO INSTALLING.
25. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
26. SUBCONTRACTOR SHALL COORDINATE THE ELECTRICAL SERVICE WITH AT&T MOBILITY AND LOCAL UTILITY.
27. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY NEC AND ALL APPLICABLE CODES.
28. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE OWNER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE. SUBCONTRACTOR SHALL SUBMIT TO THE PROJECT MANAGER ALL TEST REPORTS AND ONE COMPLETE SET OF PRINTS SHOWING "INSTALLED WORK".
29. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, AND FALL OF POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
30. ALL EXPOSED GROUND WIRES ROUTED ALONG THE SIDE OF EQUIPMENT SHELTERS OR ROUTED OVER CONCRETE FOUNDATIONS OR OTHER EXISTING STRUCTURES SHALL BE INSTALLED IN PROPERLY ANCHORED 3/4"ø (MIN.) PVC CONDUIT.
31. SUBCONTRACTOR SHALL NOT DISTURB EXISTING GROUNDING SYSTEM. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY AT NO ADDITIONAL COST.
32. ALL ELEMENTS OF ICE BRIDGE AND AT&T MOBILITY UTILITY BACKBOARD MUST BE BONDED AND JUMPERED TO GROUNDED COMPONENTS OF THESE SYSTEMS.
33. ALL INTERIOR CABLES AND WIRING SHALL BE NEATLY ROUTED IN OVERHEAD LADDER RACK AND FASTENED TO LADDER RACK.
34. ALL GROUNDING CONDUCTORS SHALL BE ROUTED DOWNWARDS FROM POINT OF ORIGIN TO TERMINATION POINT (GROUND BAR, GROUND RING, ETC.
35. GROUNDING CONDUCTORS SHALL NOT REVERSE DIRECTION (EXCEPT HALO & BURIED GROUND RINGS). OTHER EXCEPTIONS NEED TO BE APPROVED BY AT&T MOBILITY CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
36. GROUNDING CONDUCTORS SHALL HAVE A MINIMUM BENDING RADIUS OF 8".
37. ALL CONNECTIONS TO GROUND PLATES SHALL BE CAD WELDED TO THE CENTER OF THE PLATE. ALL DETAILS SHOWING CONNECTIONS TO GROUND RODS ARE ALSO VALID FOR SIMILAR CONNECTIONS TO GROUND PLATES.

ELECTRICAL AND TELEPHONE GENERAL NOTES:

1. FOLLOWING COMPLETION OF WORK, PROVIDE OWNER WITH AS-BUILT DRAWINGS SHOWING TELEPHONE AND ELECTRIC LOCATIONS.
2. WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, NEC 2005.
3. COORDINATE WITH UTILITY AND LOCAL ELECTRICAL INSPECTOR FOR FINAL POWER CONNECTION.
4. UTILITY WILL SUPPLY METER. COORDINATE WITH UTILITY FOR METER TYPE AND INTERCONNECTION.
5. ALL EXISTING UNDERGROUND LINES ON SITE TO BE LOCATED PRIOR TO CONSTRUCTION. CALL 1-888-DIG-SAFE PRIOR TO CONSTRUCTION.
6. SEAL ALL SERVICE ENTRANCES INTO SHELTER FOLLOWING INSTALLATION.
7. SEE PAGE E02 FOR GENERAL GROUNDING NOTES.
8. COORDINATE WITH LOCAL TELEPHONE COMPANY FOR ALL ROUTING AND DESIGN.
9. SUBCONTRACTOR TO VERIFY CONTROL WIRING SIZE WITH GENERATOR MANUFACTURER PRIOR TO CONSRUCTION.

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ELECTRICAL RISER DIAGRAM

DEWBERRY NO.	CONTRACT NO.	DRAWING NUMBER	REV
50014023	24782-423	A3-BOS-1595-E01	1

REV	DATE	REVISIONS	BY	CHK	APP'D
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FALMOUTH, ME
SITE NO. 1595

PLAN DATE: AUGUST 26, 2008

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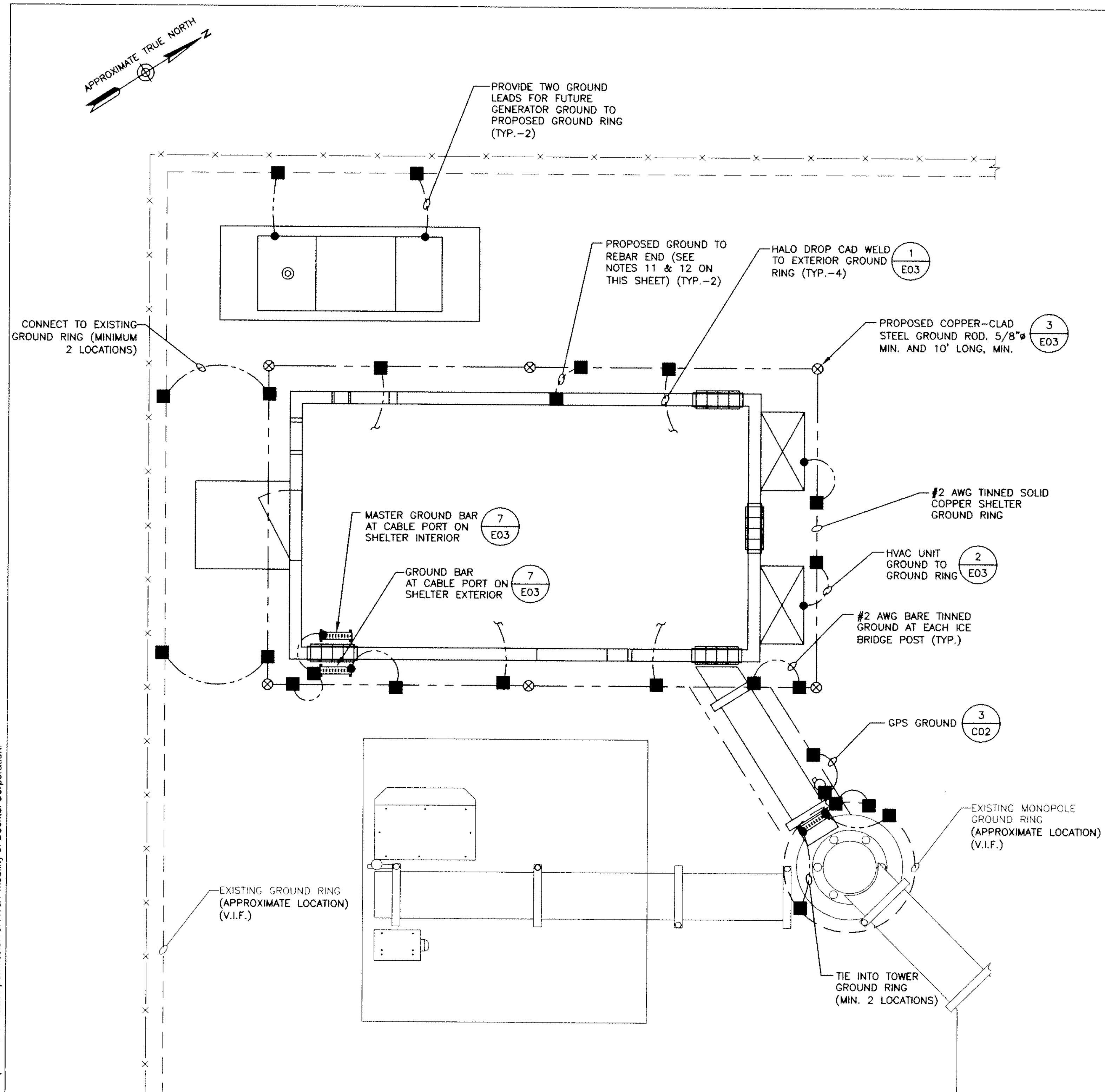
MAP 150 LOT U53-004



NOTE:

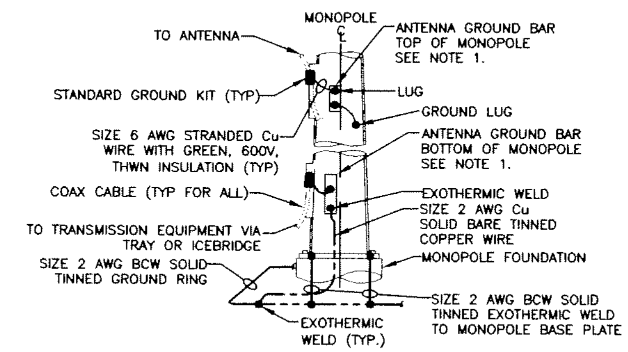
1. GROUND UTILITY METER PER N.E.C.

SCHEMATIC GROUNDING PLAN (1)

SCALE: N.T.S.

GROUNDING LEGEND

Symbol	Description
▭	GROUND BAR
— - —	GROUND COPPER WIRE, SIZE AS NOTED
—●—	MECHANICAL GROUND CONNECTION
⊗	5/8"X10' COPPER CLAD STEEL GROUND ROD
—■—	EXOTHERMIC (CADWELL) CONNECTION
— — —	EXISTING GROUND RING (V.I.F.)

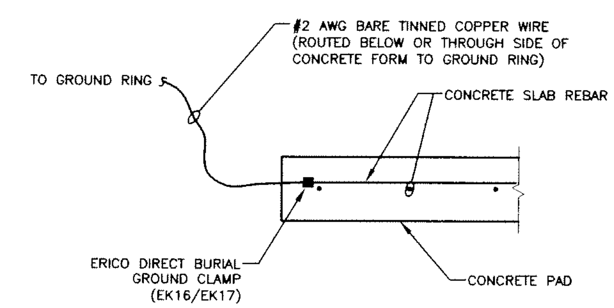


NOTE:

1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF MONOPOLE, ANTENNA LOCATION AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED.

MONOPOLE - ANTENNA CABLE GROUNDING (2)

SCALE: N.T.S.

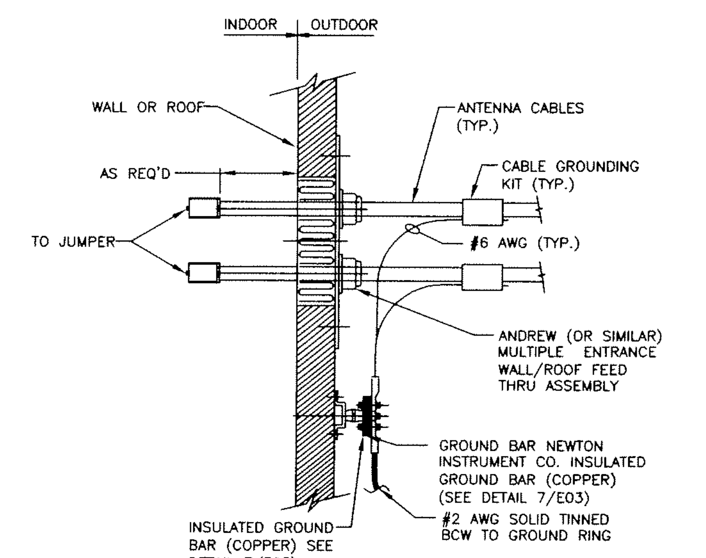


REBAR GROUNDING DETAIL (3)

SCALE: N.T.S.

GROUNDING GENERAL NOTES

1. ALL DOWN CONDUCTORS AND GROUND THE RING CONDUCTOR SHALL BE #2 AWG, SOLID, BARE, TINNED COPPER, UNLESS OTHERWISE NOTED. ALL CONNECTIONS TO GROUND RING SHALL BE EXOTHERMICALLY WELDED. CONDUCTOR SHALL BE AT A MINIMUM DEPTH BELOW GRADE OF 18 INCHES OR TO LEDGE. MINIMUM BEND RADIUS SHALL BE 8 INCHES. CONDUCTOR SHALL BE AT LEAST 24 INCHES FROM ANY FOUNDATION, UNLESS OTHERWISE NOTED.
2. GROUND RODS SHALL BE 5/8" DIAMETER COPPER CLAD, HARGER, T&B, ERICO, OR EQUIVALENT. TOP OF ROD SHALL BE A MINIMUM OF 18" BELOW GRADE. IF LEDGE IS ENCOUNTERED, INSTALL GROUND ROD AT AN ANGLE. ELECTRICAL METER GROUND ROD EXCEPTED.
3. WHERE MECHANICAL CONNECTIONS ARE SPECIFIED, BOLTED, COMPRESSION-TYPE, CLAMPS OR SPLIT-BOLT TYPE CONNECTORS SHALL BE USED.
4. GRIND OFF GALVANIZING IN AFFECTED AREA. EXOTHERMICALLY WELD #2 CONDUCTOR AT 6" ABOVE GRADE OR FOUNDATION, WHICHEVER IS HIGHER. COLD-GALV AFTER. EXOTHERMICALLY WELD OTHER END TO GROUND RING.
5. INSTALL GROUNDING KITS AT ANTENNA CENTERLINE, AND TOWER EXIT POINTS. GROUND COAX LINES. EXOTHERMICALLY WELD #2 DOWN CONDUCTOR TO PLATES, RUN DOWN TOWER, AND TIE INTO GROUNDING SYSTEM.
6. ALL GROUNDING WORK SHALL COMPLY WITH AT&T CONSTRUCTION CONTRACT STANDARDS. FOLLOWING COMPLETION OF WORK, GROUND SYSTEM MUST BE TESTED AND SHALL HAVE A RESISTANCE OF 5 OHMS OR LESS SUBMIT AN INDEPENDENT "FALL POTENTIAL" TESTING REPORT.
7. ALL GROUNDING CONDUCTORS ON EXTERIOR WALL OF SHELTER SHALL BE INSTALLED IN 3/4" SCH 40 PVC CONDUIT TO 12" BELOW GRADE. ATTACH PVC WITH GALVANIZED "C" CLAMPS.
8. CONTRACTOR SHALL HAND-DIG IN AREAS AROUND EXISTING UTILITIES.
9. NOTIFY CONSTRUCTION ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
10. GROUNDING RING IS SHOWN AS SCHEMATIC ONLY. IT IS DESIGNED WITHOUT BENEFIT OF RESISTIVITY TESTING AND DOES NOT NECESSARILY REPRESENT A GROUNDING SYSTEM TO MEET ANY SPECIFIC GROUND RESISTANCE.
11. PRIOR TO POURING CONCRETE, ALL REBAR LOCATED NEAR THE BOTTOM OF THE FOUNDATION SHALL BE BONDED TOGETHER TO FORM A SINGLE GROUNDING ELECTRODE, BY STEEL TIES OF OTHER EFFECTIVE MEANS APPROVED BY NEC 2005 AND STRUCTURAL ENGINEER, AND BONDED TO THE GROUND RING AS DETAILED IN THESE PLANS. (INSPECTION MAY BE REQUIRED PRIOR TO POURING CONCRETE AND MUST BE COORDINATED BY CONTRACTOR.)
12. IN ACCORDANCE WITH NEC 2005 REQUIREMENTS, ALL GROUNDING ELECTRODES PRESENT ON SITE SHALL BE BONDED TOGETHER (REFERENCE 2005 NEC ARTICLE 250.50).



CABLE INSTALLATION WITH WALL/ROOF FEED THRU ASSEMBLY (4)

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SCHEMATIC GROUNDING PLAN

DEWBERRY NO.	CONTRACT NO.	DRAWING NUMBER	REV
50014023	24782-423	A3-BOS-1595-E02	1

STATE OF MAINE
BRADFORD A. MILLS
No. 5052
LICENSED
PROFESSIONAL ENGINEER

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0	08/08/08	ISSUED FOR CONSTRUCTION	ROM	GHN	PPB

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FALMOUTH, ME
SITE NO. 1595

PLAN DATE: AUGUST 26, 2008

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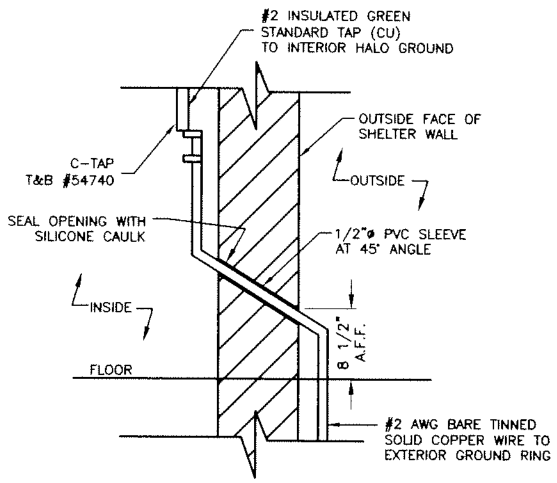
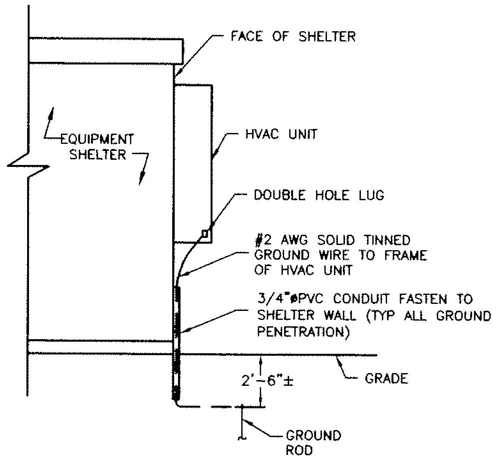


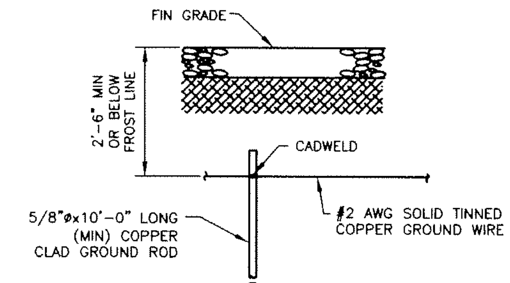
WALL GROUND PENETRATION (1)

SCALE: N.T.S.



HVAC UNIT GROUND (2)

SCALE: N.T.S.

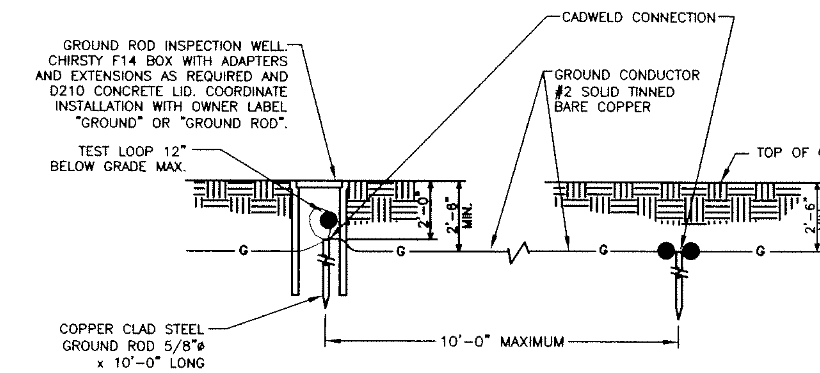


NOTES:

1. CADWELD TO GROUND RING AFTER GROUND ROD HAS BEEN DRIVEN INTO PLACE.
2. FROST LINE TO BE VERIFIED.

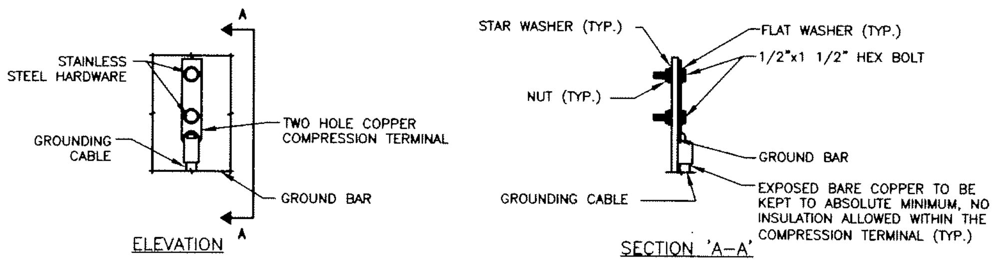
GROUND ROD (3)

SCALE: N.T.S.



GROUND BOX DETAIL (4)

SCALE: N.T.S.

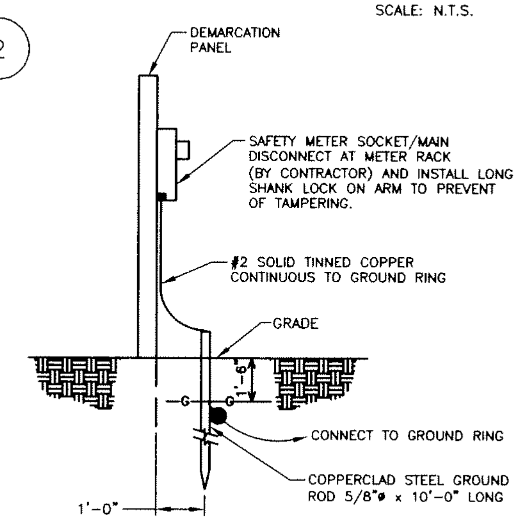


NOTES:

1. DOUBLING UP OR STACKING OF CONNECTIONS IS NOT PERMITTED
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

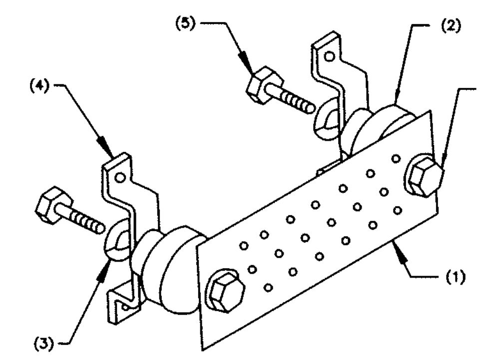
TYPICAL GROUND BAR MECHANICAL CONNECTION DETAIL (5)

SCALE: N.T.S.



METER SOCKET GROUNDING (6)

SCALE: N.T.S.

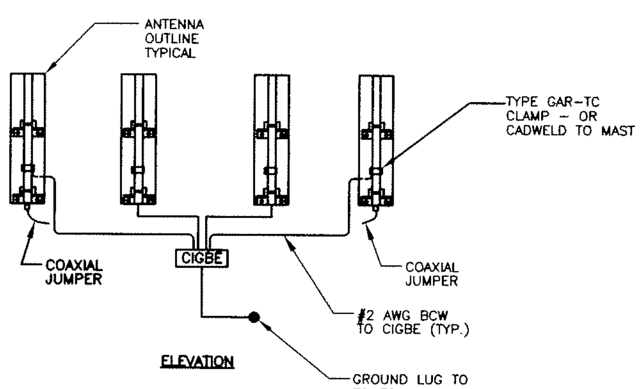


LEGEND:

1. INSULATED COPPER GROUND BAR KIT WITH WALL BRACKETS, 1/4"x4"x24", NEWTON INSTRUMENT COMPANY CAT. #2141910100
2. (2) INSULATORS (INCLUDED)
3. (2) 1/2" LOCKWASHERS (INCLUDED)
4. (2) WALL MOUNTING BRACKET (INCLUDED)
5. (2) 1/2-13 X 1" H.H.C.S. (INCLUDED)
6. (2) 1/2-13 X 7/8" H.H.C.S. (INCLUDED)

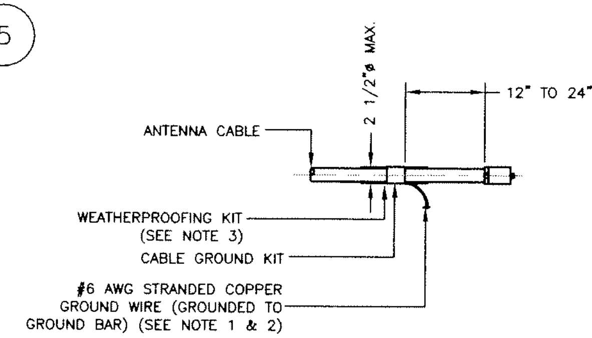
GROUND BAR PLATE (TYP.) (7)

SCALE: N.T.S.



ANTENNA MOUNT GROUNDING DETAIL (8)

SCALE: N.T.S.

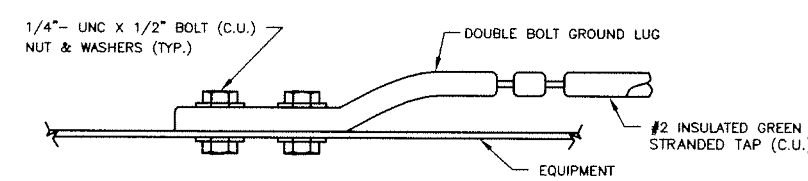


NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE ANDREW SUREGROUND TYPE KIT WITH TWO-HOLE LUG.
3. WEATHER PROOFING SHALL BE ANDREW TWO-PART TAPE SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED.

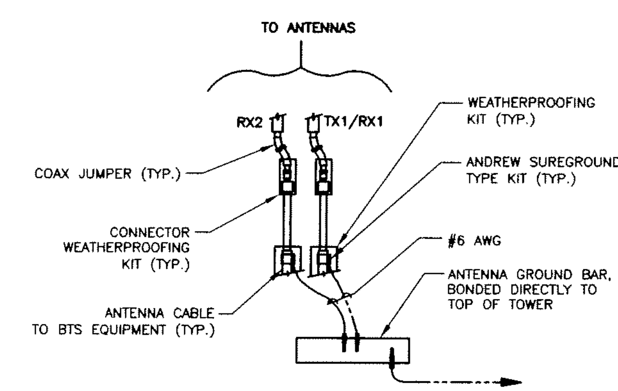
CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE DETAIL (9)

SCALE: N.T.S.



CONNECTION TO EQUIPMENT DETAIL (10)

SCALE: N.T.S.



CONNECTION OF GROUND WIRE TO GROUNDING BAR DETAIL (11)

SCALE: N.T.S.

HALF SIZE PRINT
THIS DRAWING IS SCALEABLE AT HALF THE NOTED SCALE

STATE OF MAINE — BRADFORD A. MILLS — No. 5052 — LICENSED — PROFESSIONAL ENGINEER

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GROUNDING DETAILS

DEWBERRY NO.	CONTRACT NO.	DRAWING NUMBER	REV
50014023	24782-423	A3-BOS-1595-E03	1

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	08/26/08	ISSUED FOR CONSTRUCTION	ROM	GHN	PPB
0	08/08/08	ISSUED FOR CONSTRUCTION	ROM	GHN	PPB

SCALE: AS SHOWN | DESIGNED BY: ROM | DRAWN BY: GMT

FALMOUTH, ME
SITE NO. 1595

PLAN DATE: AUGUST 26, 2008

356 ROUTE 1
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MAP 150 LOT U53-004