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VICINITY MAP



PROJECT AERIAL VIEW
SEE SITE PLAN, DWG G-101

FEMA EMERGENCY RADIO NETWORK WGAN PORTLAND, MAINE

WGAN TRANSMITTER SITE 236 LANE AVENUE PORTLAND, ME 04103 CUMBERLAND COUNTY

INDEX

G-001 VICINITY MAP AND INDEX G-101 SITE PLAN C-101 STORMWATER MANAGEMENT PLAN FOUNDATION AND FENCE PLAN S-102 SITE GENERATOR FOUNDATION PLAN S-501 MISCELLANEOUS DETAILS S-502 SIGN AND FENCE DETAILS M-201 MECHANICAL FUEL SYSTEM ELEVATIONS M-501 MECHANICAL FUEL PIPING DETAILS M-601 FUEL SYSTEM P&ID E-101 ELECTRICAL SITE PLAN E-102 ELECTRICAL GROUNDING PLAN E-103 ELECTRICAL POWER PLAN E-104 GROUNDING AND POWER PLAN E-105 GROUNDING AND POWER PLAN E-401 TRANSMITTER / GENERATOR ELECTRICAL PANEL SCHEDULES E-402 TRANSMITTER / GENERATOR ELECTRICAL RISER DIAGRAM E-403 ELECTRICAL SCHEDULES E-404 TRANSMITTER / GENERATOR UPS / TIME DELAY DIAGRAM E-501 INSTALLATION DETAILS E-502 INSTALLATION DETAILS E-503 INSTALLATION DETAILS E-504 INSTALLATION DETAILS

REFERENCED BUILDING CODES

CITY OF PORTLAND TECHNICAL MANUAL 2010

MAINE UNIFORM BUILDING CODE 2010

INTERNATIONAL BUILDING CODE 2009

INTERNATIONAL MECHANICAL CODE 2009

ASCE 7-05

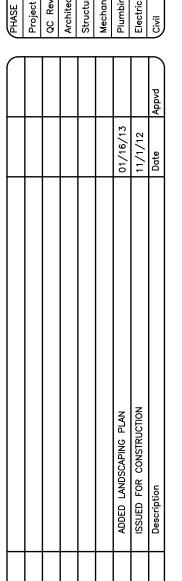
NFPA 30, 2008 EDITION

NATIONAL ELECTRIC CODE, 2008 EDITION

NFPA 101 LIFE SAFETY CODE, 2009 EDITION

Ac Reviewer

To Re



Designed by: DCB

Drawn by: Checked by:

RAM MLM

Reviewed by:

DCB

0-7600

Date:

2012

Services by FAX: (251) 450-

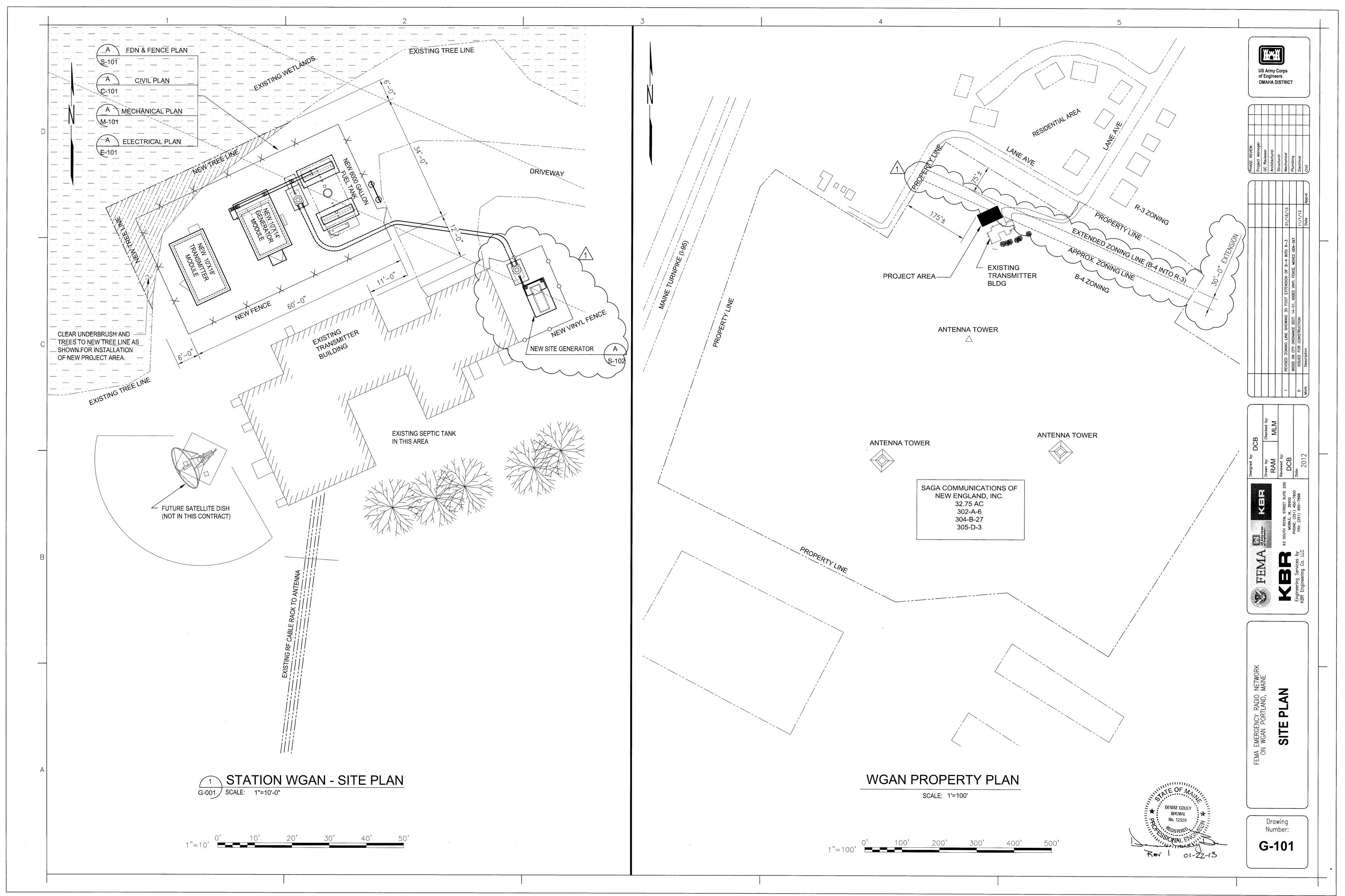
Engineering Services to

ON WGAN PORTLAND, MAINE

COVER SHEET

INITY MAP AND INDEX

Drawing Number: **G-001**





STORM WATER QUALITY NOTES - CONSTRUCTION BMP'S

- 1. THIS PROJECT SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS.
- 2. SUFFICIENT BMPS SHALL BE INSTALLED TO PREVENT SILT, MUD OR OTHER CONSTRUCTION DEBRIS FROM BEING TRACKED INTO THE ADJACENT STREET(S) OR STORM WATER CONVEYANCE SYSTEMS DUE TO CONSTRUCTION VEHICLES OR ANY OTHER CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING ANY SUCH DEBRIS THAT MAY BE IN THE STREET AT THE END OF EACH WORK DAY OR AFTER A STORM EVENT THAT CAUSES A BREECH IN THE INSTALLED CONSTRUCTION BMPS.
- 3. ALL STOCK PILES OF UNCOMPACTED SOIL AND/OR BUILDING MATERIALS THAT ARE INTENDED TO BE LEFT UNPROTECTED FOR A PERIOD GREATER THAN SEVERAL CALENDAR DAYS ARE TO BE PROVIDED WITH EROSION AND SETTLEMENT CONTROLS. SUCH SOIL MUST BE PROTECTED EACH DAY WHEN THE PROBABILITY OF RAIN IS 40% OR GREATER.
- 4. CONTRACTOR SHALL FIELD ADJUST AND PROVIDE ADDITIONAL SEDIMENT CONTROL MEANS AT NO ADDITIONAL COST TO OWNER IF WARRANTED BY FIELD CONDITIONS.
- 5. ALL SLOPES THAT ARE CREATED OR DISTURBED BY CONSTRUCTION ACTIVITY MUST BE PROTECTED AGAINST EROSION AND SEDIMENT TRANSPORT AT ALL TIMES.
- 6. THE STORAGE OF ALL CONSTRUCTION MATERIALS AND EQUIPMENT MUST BE PROTECTED AGAINST ANY POTENTIAL RELEASE OF POLLUTANTS INTO THE ENVIRONMENT.
- 7. ALL GRADED, DISTURBED OR ERODED AREAS THAT WILL NOT BE PERMANENTLY PAVED, COVERED BY STRUCTURES OR COVERED BY WEED CONTROL FABRIC AND CRUSHED STONE, SHALL BE TREATED WITH HYDROSEED, SOD OR EQUIVALENT. ALL REQUIRED REVEGETATION AND EROSION CONTROL SHALL BE COMPLETED WITHIN 90 CALENDAR DAYS.
- 8. ALL EROSION / SETTLEMENT CONTROL FACILITIES SHALL BE MAINTAINED IN WORKING ORDER AND AS SPECIFIED BY THE STATE ENVIRONMENTAL AGENCY. THESE FACILITIES SHALL BE INSPECTED AFTER EVERY PRECIPITATION EVENT. ANY NECESSARY REPAIRS WILL BE MADE IMMEDIATELY. ACCUMULATED SEDIMENTS WILL BE REMOVED AS REQUIRED TO KEEP THE DEVICES FUNCTIONAL. IN ALL CASES, REMOVE DEPOSITS WHERE ACCUMULATIONS REACH 3" ABOVE GRADE. ALL UNDERCUTTING OR EROSION OF THE TOE ANCHOR WILL BE REPAIRED IMMEDIATELY WITH COMPACTED BACKFILL MATERIALS. ADHERE TO ANY MANUFACTURER'S RECOMMENDATIONS.
- 9. ANY CONTROL STRUCTURE DISTURBED DURING DAILY OPERATIONS SHALL BE REPAIRED, REPLACED OR RECONSTRUCTED AS REQUIRED UPON COMPLETION OF THE WORK DAY.
- 10. THE CONTRACTOR WILL BE RESPONSIBLE DURING CONSTRUCTION AND FOR ONE YEAR FOR MAINTAINING THE E&S MEASURES TO INSURE COMPLIANCE WITH THE APPROVED PLAN AND THE APPLICABLE REGULATIONS OF THE STATE.
- 11. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 13 DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREA WILL BE MULCHED WITH STRAW OR EQUIVALENT MATERIAL, AT A RATE OF 2.5 TO 3 TONS PER ACRE. ANY STEEP SLOPES (GREATER THAN 3:1) SHALL BE STABILIZED DAILY.

SITE AREA

THE PROPOSED CONSTRUCTION PROJECT SHALL IMPACT APPROXIMATELY 0.09 ACRES (510 SF OF CONCRETE, 2250 SF OF GRAVEL GROUND COVER AND 1100 SF OF GRASS). GRADING PROPOSED ON THIS SITE AND POTENTIAL WETLAND IMPACT WILL BE IN ACCORDANCE WITH DWG C-102.

ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP 2300510006C, THE SITE IS OUTSIDE THE 500-YEAR FLOODPLAIN.

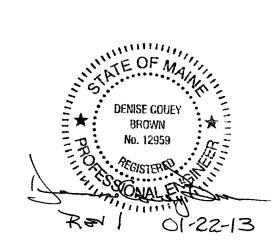
PLANNING AND ORGANIZATION

DURING CONSTRUCTION, THE KBR SITE MANAGER WILL OVERSEE THE IMPLEMENTATION AND MAINTENANCE OF THE STORMWATER PLAN.

BEST MANAGEMENT PRACTICES

- SILT FENCE THE CONSTRUCTION SITE WILL BE SURROUNDED BY A SILT FENCE TO PREVENT RUNOFF OF SEDIMENT.
 STABILIZED CONSTRUCTION EXIT A GRAVEL CONSTRUCTION EXIT WILL PREVENT DISPERSION OF SEDIMENT ONTO NEARBY ROADS.
- 3. WATER QUALITY TREATMENT 4" LAYER OF CRUSHED STONE OVER AN 18" LAYER OF CLEAN GRANULAR GRAVEL (MDOT 703.06 TYPE A)

ALL BMPs SHALL BE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION PUBLICATION "MAINE EROSION AND SEDIMENT CONTROL BMPs".





of Engineers
OMAHA DISTRICT

| Project Manager | OC Reviewer | Architectural | Structural | Structural | Mechanical | Mechanical | Date | Appvd | Oivil

Designed by:

Drawn by:

RAM MLM

Reviewed by:

DCB

Date:

2012

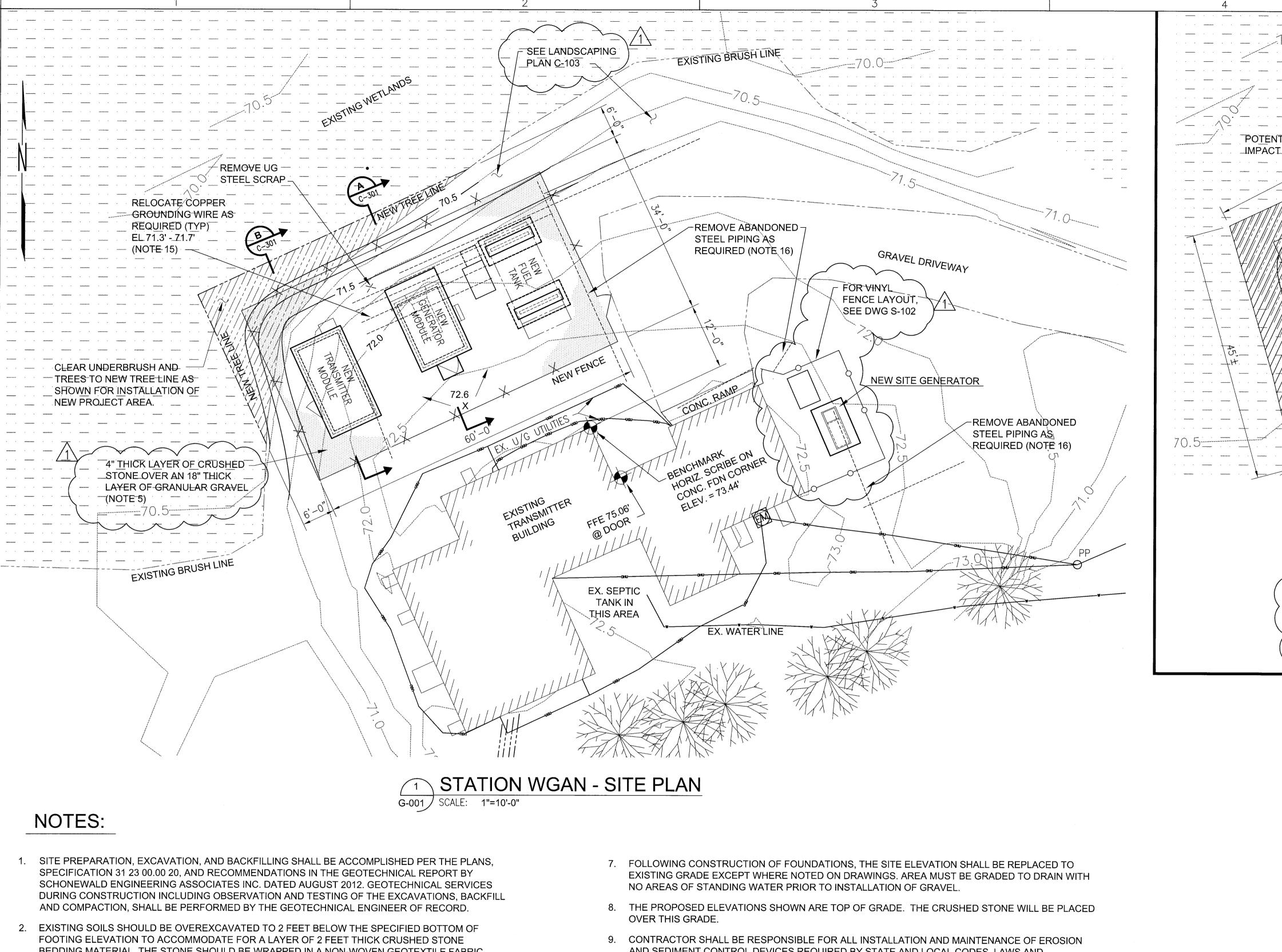
63 SOUTH ROYAL STREET SUITE 200
MOBILE, AL. 36602
PHONE: (251) 450–7600
EAX: (751) 450–7808

Engineering Services by

WATER MANAGEMENT
PLAN

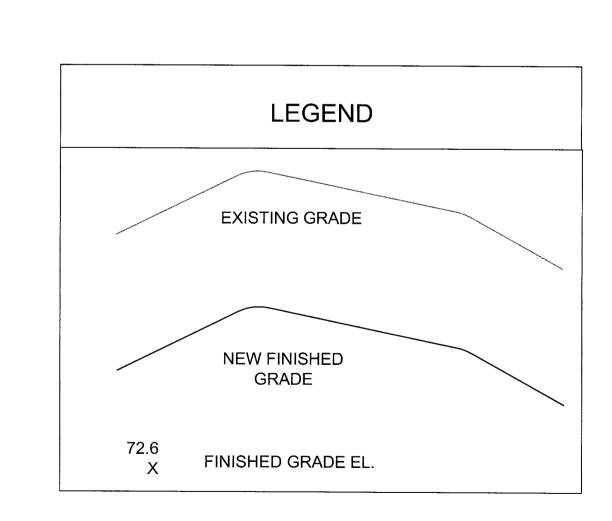
Drawing Number:

C-101



- BEDDING MATERIAL. THE STONE SHOULD BE WRAPPED IN A NON-WOVEN GEOTEXTILE FABRIC. SEE SPECIFICATION 31 23 00.00 20 FOR STONE AND FABRIC MATERIALS.
- 3. DURING DRILLING, GROUNDWATER WAS ENCOUNTERED AT AN APPROXIMATE DEPTH OF 9 FEET BELOW GRADE. POSITIVE DRAINAGE SHALL BE MAINTAINED DURING CONSTRUCTION. CONSTRUCTION DEWATERING MAY BE REQUIRED AND MUST BE PRESERVE THE UNDISTURBED CONDITION OF THE SUBGRADE.
- 4. MAINTAIN UNIFORM MOISTURE CONDITIONS IN THE EXPOSED SUBGRADE SOILS PRIOR TO CONSTRUCTION OF THE FOUNDATION. A 3 INCH THICK SEAL SLAB IS REQUIRED OVER THE BASE OF THE EXCAVATION IF FOUNDATIONS ARE NOT PLACED THE SAME DAY THE EXCAVATION IS
- 5. 4 INCHES OF CRUSHED STONE OVER 18 INCHES (MINIMUM) OF GRANULAR GRAVEL SHALL BE PLACED WITHIN FENCED AREA AS SHOWN ON THE DRAWINGS. CRUSHED STONE SHALL BE CLEAN AND CONFORM TO ASTM C 33 COARSE AGGREGATE GRADING SIZE 4 (1 $\frac{1}{2}$ " - $\frac{3}{4}$ "). GRANULAR GRAVEL (STRUCTURAL FILL) SHALL BE CLEAN AND CONFORM TO MDOT 703.06 TYPE A. WEED CONTROL FABRIC SHALL BE PLACED BETWEEN THE CRUSHED STONE AND THE GRANULAR GRAVEL, AND EXTEND 1 FOOT BEYOND FENCE LINE TO ALLOW GRAVEL TO TAPER TO EXISTING GRADE.
- WHERE THE PROPOSED DUCTBANK OR FUEL LINE CROSSES THE EXISTING DRIVEWAY/PARKING AREA, 4 INCHES OF CRUSHED STONE SHALL BE PLACED OVER THE BACKFILLED TRENCHES. WHERE THE DUCTBANK AND FUEL LINE CROSS AN EXISTING GRASSED AREA, TOPSOIL AND SEEDING SHALL BE PLACED OVER THE COMPACTED BACKFILL. DISTURBED AREAS AROUND THE PROPOSED GENSET AND SUMP SHALL BE SEEDED OR SODDED WITH 3" MINIMUM TOPSOIL. FOR DUCTBANK SECTION, SEE DWG E-504. FOR FUEL LINE TRENCH DETAIL, SEE DWG M-501. FOR TRENCH BACKFILL, SEE SPECIFICATION 31 23 00.00 20.

- AND SEDIMENT CONTROL DEVICES REQUIRED BY STATE AND LOCAL CODES, LAWS AND REGULATIONS. REFER TO DWG C-101.
- 10. WETLANDS ARE LOCATED ON THE SUBJECT PROPERTY. THE WETLANDS ARE NOT TO BE IMPACTED IN ANY WAY DURING CONSTRUCTION EXCEPT AS NOTED. THE WETLANDS SHOWN ARE NOT DELINEATED AND ARE BASED ON THE U.S. FISH AND WILDLIFE WETLANDS INVENTORY, ELEVATION AND THE EXISTING BRUSH LINE.
- 11. TOPOGRAPHIC SURVEY DATA FOR PROJECT SITE PROVIDED BY SEBAGO TECHNICS, INC. SEE SURVEY PLAN DATED JULY 2012. COORDINATES AND BEARINGS ARE REFERENCED TO GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802 (NAD 83). THE VERTICAL DATUM SHOWN IS NAVD 88.
- 12. GEOPHYSICAL DATA FOR THE PROJECT PROVIDED BY HAGER-RICHTER GEOSCIENCE, INC. SEE REPORT DATED JULY 2012 IN APPENDIX D OF THE GEOTECHNICAL REPORT.
- 13. FOR FOUNDATION ELEVATIONS, SEE DWG S-301.
- 14. FENCE TO BE IN ACCORDANCE WITH DETAIL ON DWG S-502 AND SPECIFICATION 32 31 13.53.
- 15. CONTRACTOR TO COORDINATE WITH STATION ENGINEER AND ON-SITE PROJECT MANAGER ON LOCATION OF EXISTING ANTENNA GROUNDING SYSTEMS IN ADDITION TO THOSE SHOWN ON THIS DRAWING. GROUNDING WIRES AND/OR CONDUCTORS TO BE RELOCATED AS SHOWN ON THE ELECTRICAL DRAWINGS PRIOR TO EXCAVATION ACTIVITIES.
- 16. CONTRACTOR RESPONSIBLE FOR VERIFYING EXISTING UNDERGROUND PIPING SHOWN IS NO LONGER IN SERVICE PRIOR TO REMOVAL.



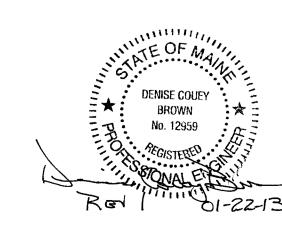
WETLANDS IMPACT PLAN

NOTE - THE LIMITS OF WETLANDS ARE CONSERVATIVELY ASSUMED TO BE

APPROXIMATE TOTAL IMPACT TO THE WETLANDS = 1170 SQ FT WHICH HAS

ALL EXCAVATION MUST BE CONTAINED WITHIN THE WETLANDS IMPACT LIMITS SHOWN AND COULD POTENTIALLY REQUIRE THE USE OF SHORING IN SOME AREA

RECEIVED USACE APPROVAL



Drawing Number:

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US Army Corps of Engineers **OMAHA DISTRICT**

C-102

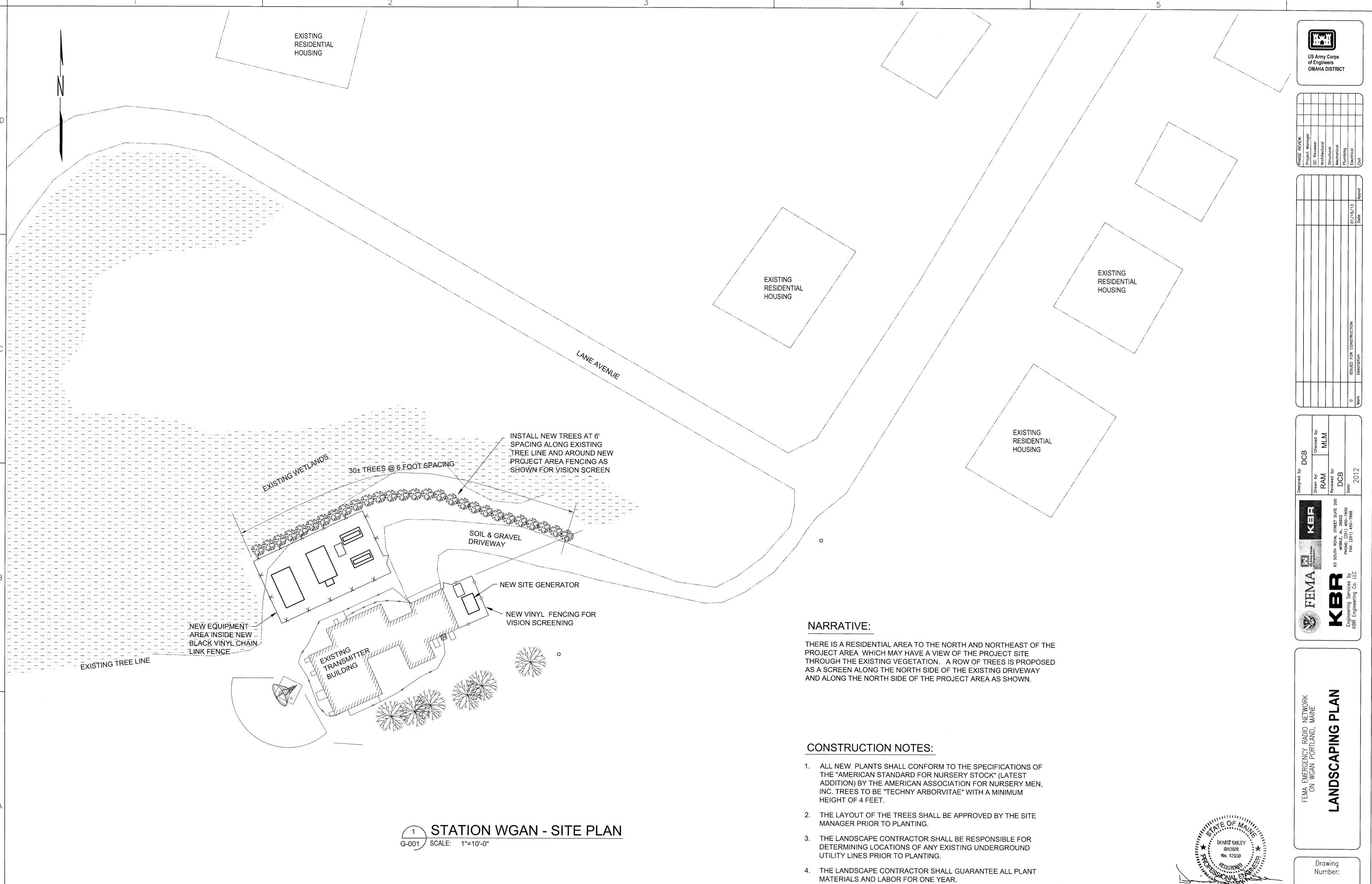
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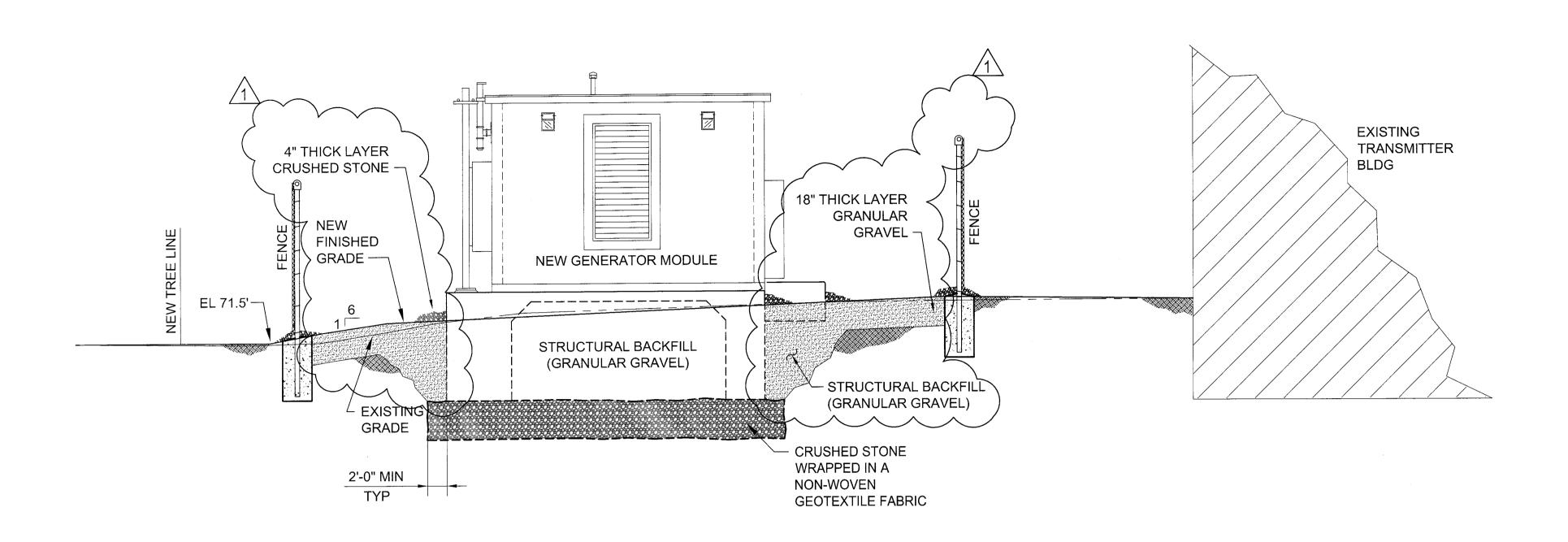
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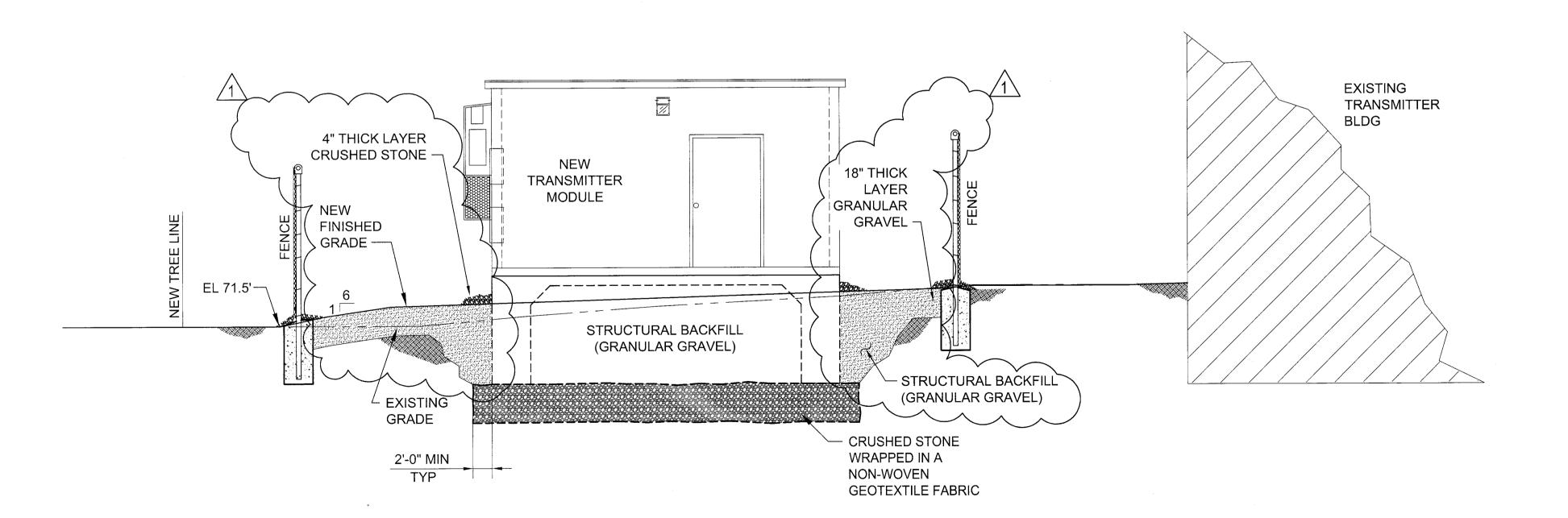


C-103



CROSS SECTION

C-102 SCALE: 1/4"=10'



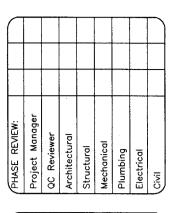
CROSS SECTION

SCALE: 1/4"=10'

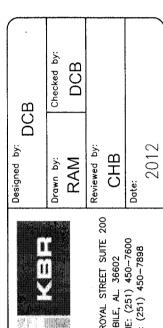
NOTES:

- 1. FOR CIVIL GENERAL NOTES AND PLAN, SEE DWG C-102.
- 2. FOR EXCAVATION & BACKFILL REQUIREMENTS, SEE GEOTECHNICAL REPORT AND SPECIFICATION 31 23 00 .00 20.
- 3. FOR TOP OF CONCRETE ELEVATIONS, SEE DWG S-301.



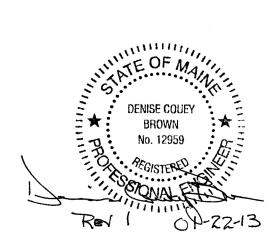


-	ADDED CRUSHED STONE AND GRANULAR GRAVEL REQUIREMENTS, DELETED 01/16/13	01/16/13	
	BARBED WIRE AND RAZOR WIRE		
0	ISSUED FOR CONSTRUCTION	11/1/12	
Mark	Description	Date	Appvd

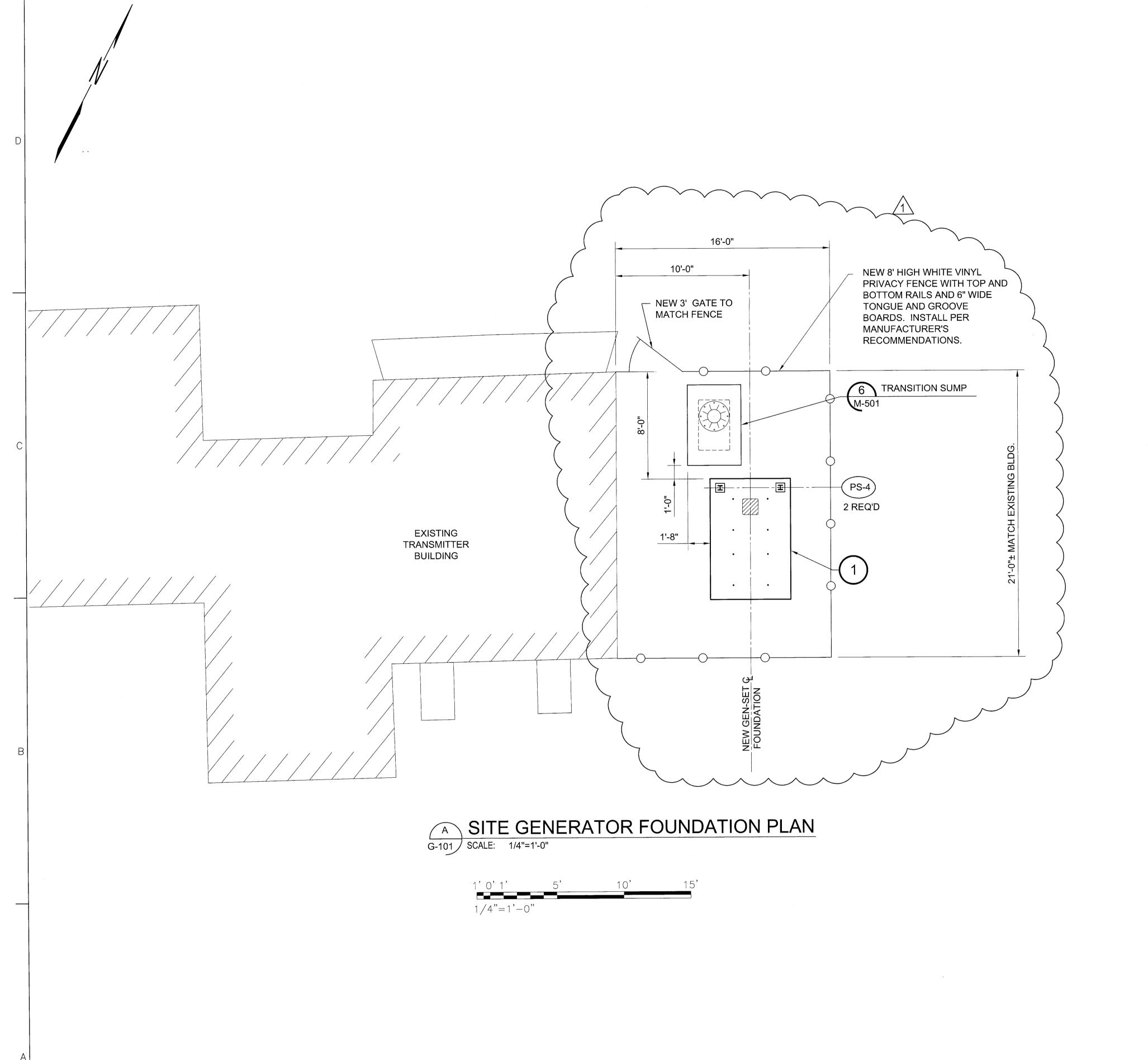




FEMA EMERGENCY RADIO NETWORK
ON WGAN PORTLAND, MAINE
CIVIL SECTIONS

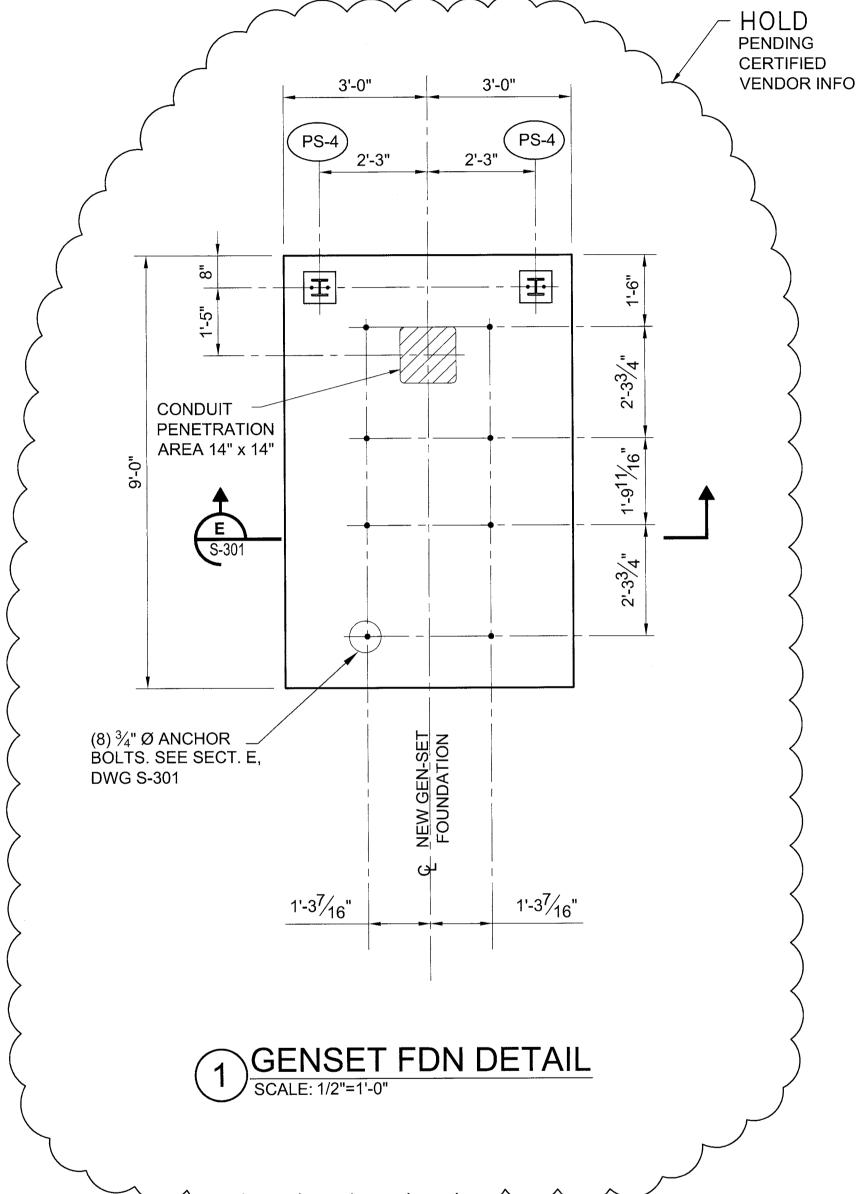


Drawing Number: **C-301**

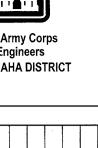


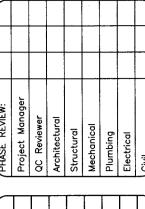
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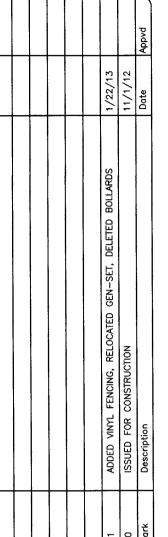
- 1. FOR STRUCTURAL GENERAL NOTES, SEE DWG S-001. FOR CIVIL NOTES, SEE DWG C-102.
- 2. (PS-1) PIPE SUPPORT DESIGNATOR. SEE DWG S-501.
- 3. SEE ELECTRICAL DRAWINGS FOR GROUNDING.









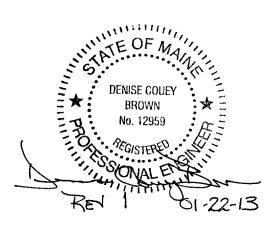


Д	Checked by:	MLM					
Designed by:	Drawn by:	RAM	Reviewed by:	CHB	Date:	2012	
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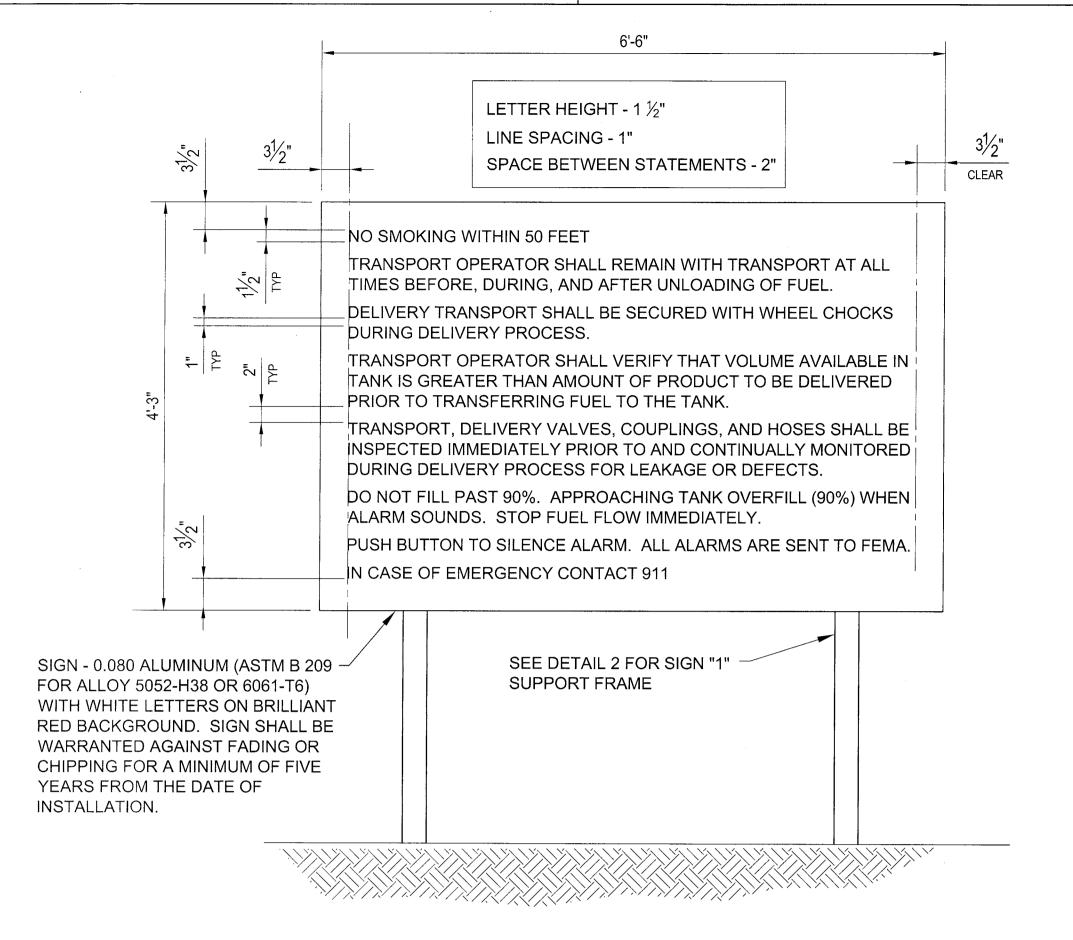




SITE GENERATOR FOUNDATION PLAN FEMA EMERGENCY RADIO NETWORK ON WGAN PORTLAND, MAINE



Drawing Number: S-102



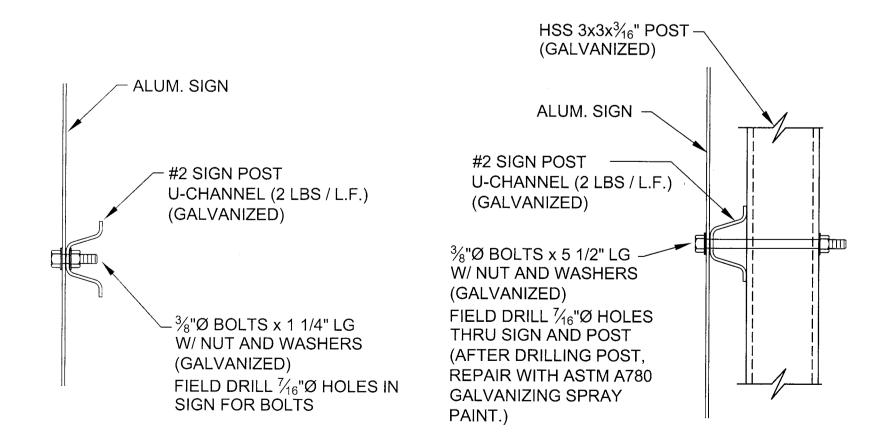
INSTALLATION CONTRACTOR TO TOUCH UP ALL

SIGN "1" DETAIL

M-101 SCALE: 1"=1'-0"

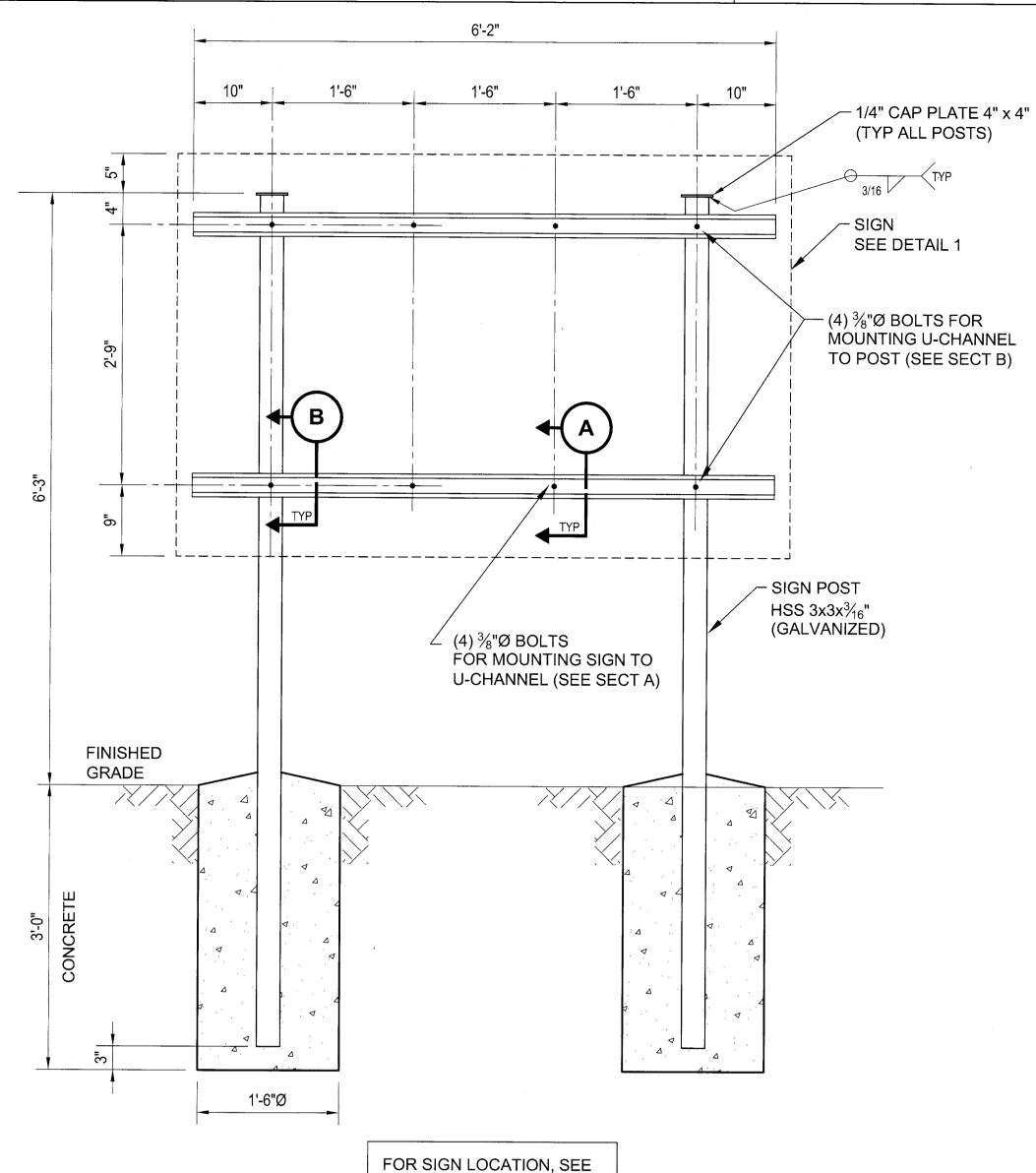
DAMAGED GALVANIZING WITH ZRC COLD

GALVANIZING COMPOUND, OR APPROVED EQUAL.



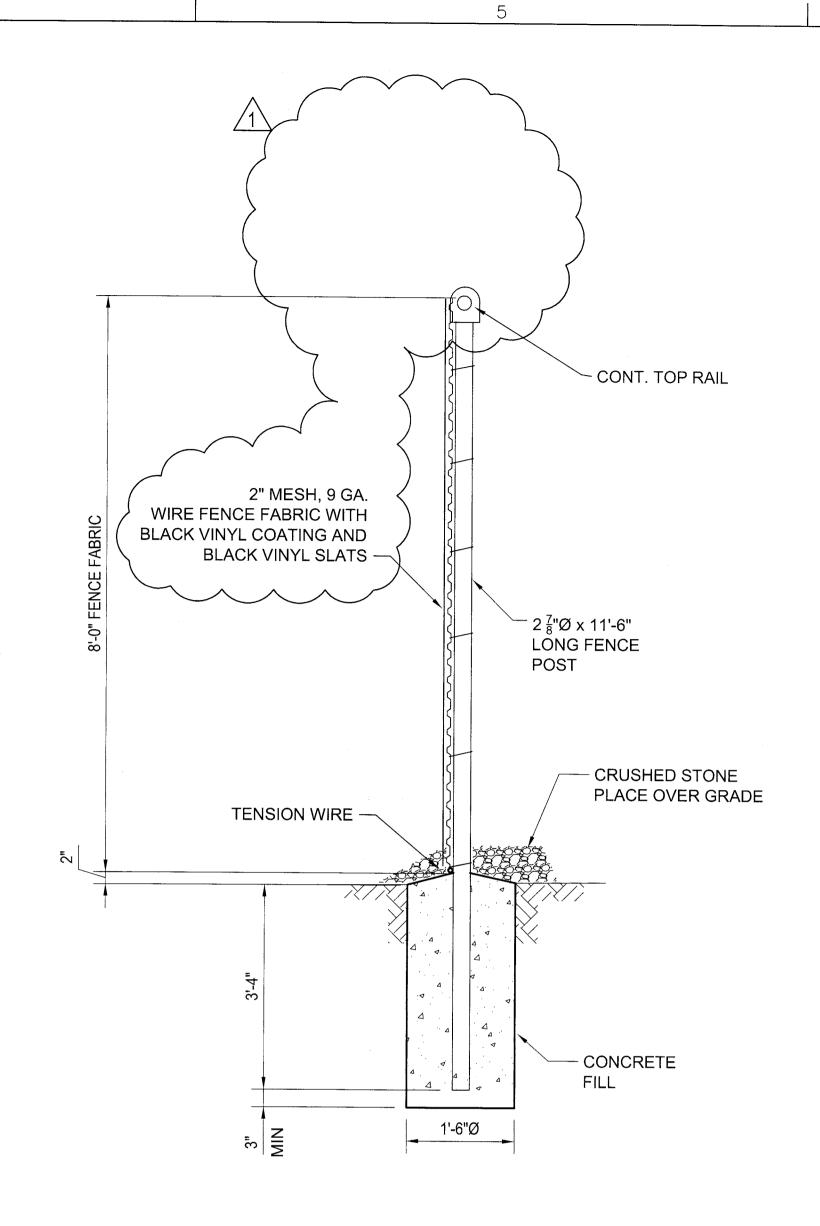
A SECTION SCALE: 3"=1'-0"

B SECTION SCALE: 3"=1'-0"



MECHANICAL DRAWINGS.

2 SIGN "1" SUPPORT FRAME DETAIL
SCALE: 1"=1'-0"



C TYP FENCE SECTION S-101 | SCALE: 3/4"=1'-0"



S **DETAIL** FENCE AND SIGN

US Army Corps

EMA FEMA

NETWO MAINE

MA EMERGENCY RADIO ON WGAN PORTLAND,

US Army Corps

of Engineers OMAHA DISTRICT

Drawing Number: S-502