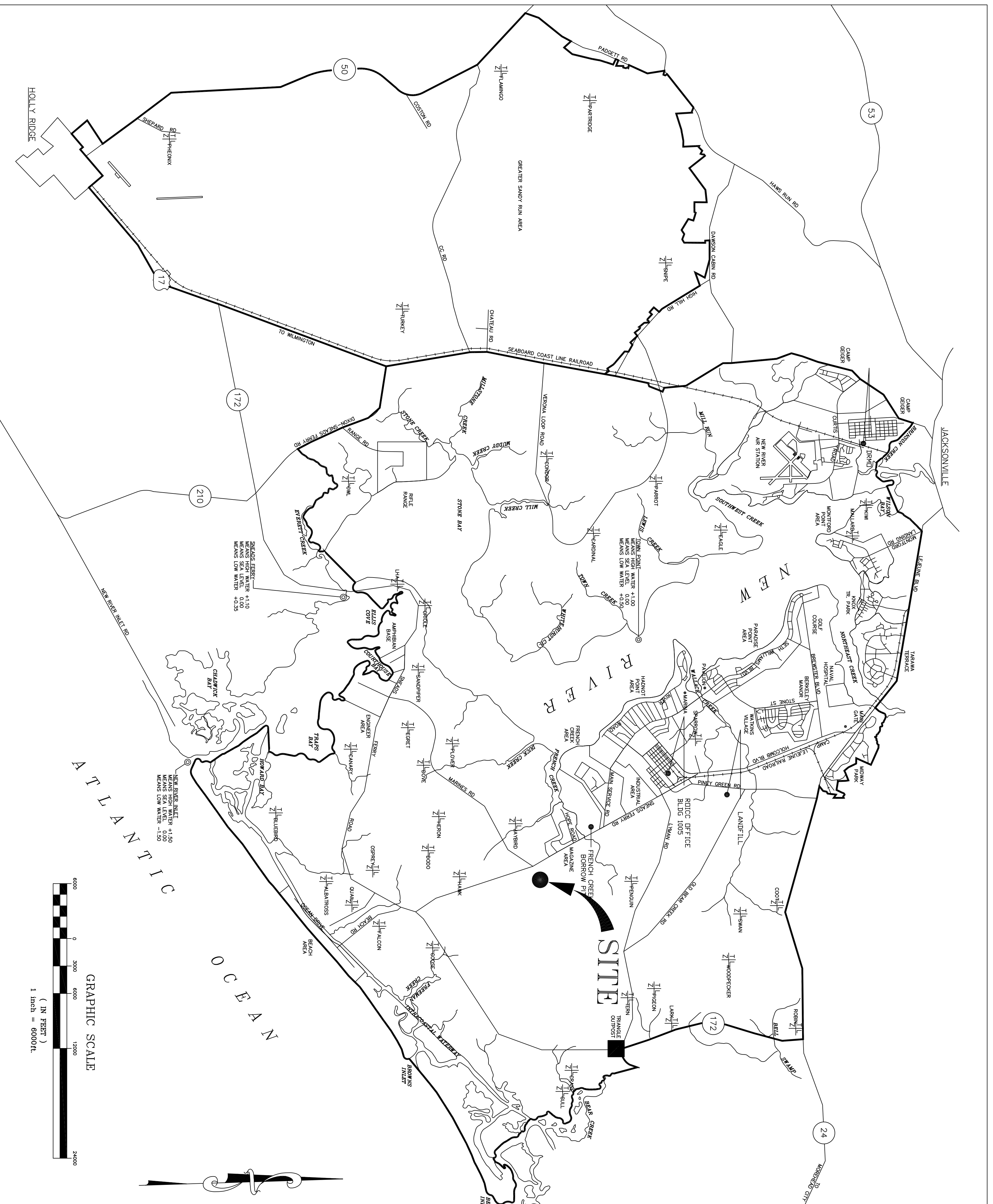


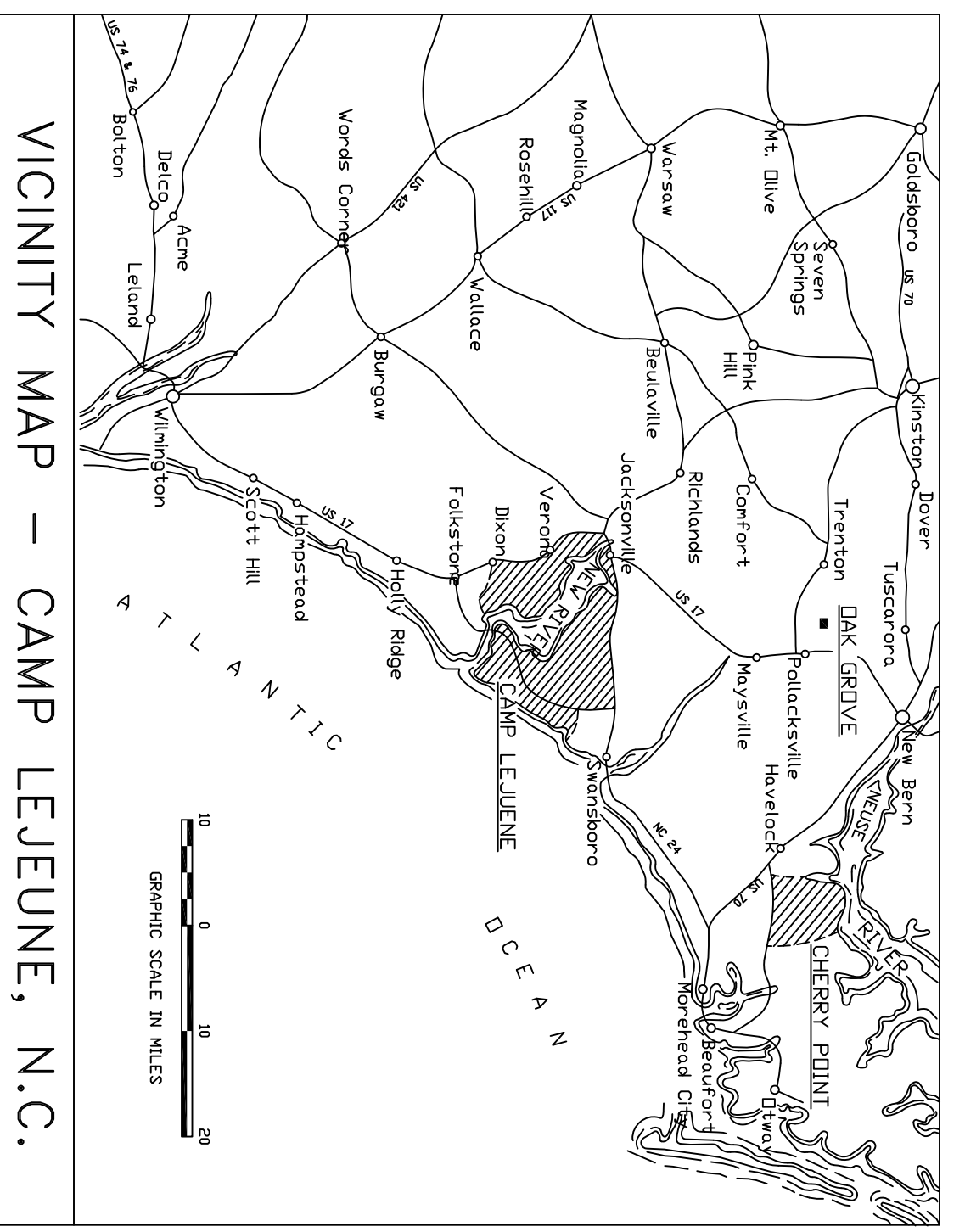


# C16-0067 CULVERT PIPE REPLACEMENT G-10



LOCATION MAP - U.S. MARINE CORPS BASE, CAMP LEJEUNE, N.C.  
SCALE: 1" = 6000'

DRAWING INDEX		
NAVFAC DWG NO.	SHEET NO.	TITLE
60018350	T-1	LOCATION AND VICINITY MAP
60018351	C-1	OVERALL SITE LAYOUT/EXISTING UTILITIES
60018352	C-2	DETAILS



VICINITY MAP - CAMP LEJEUNE, N.C.

DISCLOSURE OF INFORMATION CONTRACTOR SHALL COMPLY AS FOLLOWS:

(A) THE CONTRACTOR SHALL NOT RELEASE TO ANYONE OUTSIDE THE CONTRACTOR'S ORGANIZATION ANY UNCLASSIFIED INFORMATION, REGARDLESS OF MEDIUM (E.G., FILM, TAPE, DOCUMENT), PERTAINING TO ANY PART OF THIS CONTRACT OR ANY PROGRAM RELATED TO THIS CONTRACT, UNLESS-

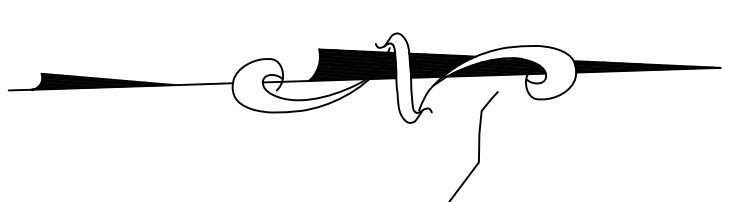
(1) THE CONTRACTING OFFICER HAS GIVEN PRIOR WRITTEN APPROVAL; OR

(2) THE INFORMATION IS OTHERWISE IN THE PUBLIC DOMAIN BEFORE THE DATE OF RELEASE.

(B) REQUESTS FOR APPROVAL SHALL IDENTIFY THE SPECIFIC INFORMATION TO BE RELEASED, THE MEDIUM TO BE USED, AND THE PURPOSE FOR THE RELEASE. THE CONTRACTOR SHALL SUBMIT ITS REQUEST TO THE CONTRACTING OFFICER AT LEAST 45 DAYS BEFORE THE PROPOSED DATE FOR RELEASE.

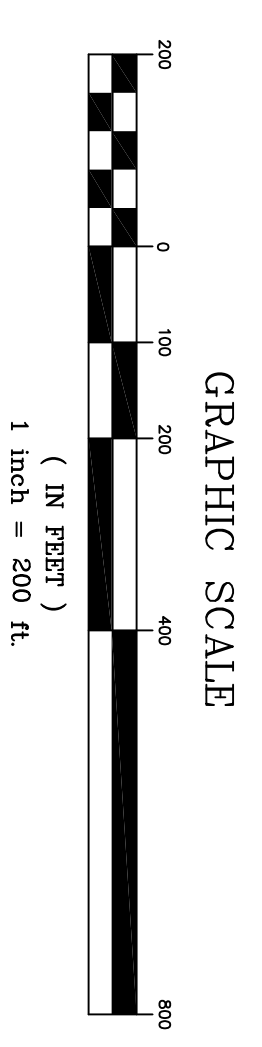
(C) THE CONTRACTOR AGREES TO INCLUDE A SIMILAR REQUIREMENT IN EACH SUBCONTRACT UNDER THIS CONTRACT. SUBCONTRACTORS SHALL SUBMIT REQUESTS FOR AUTHORIZATION TO RELEASE THROUGH THE PRIME CONTRACTOR TO THE CONTRACTING OFFICER.

DES. DAVID TOWLER DR. DAVID TOWLER CHK. T. BRADSHAW SUBMITTED BY: DAVID TOWLER DESIGN DIR. T. BURTON, PE DATE 09 DECEMBER 2016	<div style="text-align: center; font-weight: bold; font-size: 1.2em;">T-1</div> DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA C16-0067 CULVERT PIPE REPLACEMENT, G-10 LOCATION AND VICINITY MAP FWO DRAWING NO. <b>60018350</b> SIZE CODE IDENT NO. <b>F 80091</b> CONST. CONTR. NO. 440085-16-B-0067 SCALE: NOTED SPEC. 05-16-0067 SHEET 1 OF 3
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**GENERAL NOTES:**

1. CONTRACTOR SHALL FIELD VERIFY ALL MEASUREMENTS, EQUIPMENT AND MATERIALS. ALL WORK ON UTILITIES TO BE IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL (LAW) CODES.
2. ALL EXISTING UTILITIES SHALL BE LOCATED PRIOR TO ANY WORK. EXISTING UTILITIES SHALL NOT BE DISTURBED. EXERCISE CAUTION WHILE EXCAVATING IN THE VICINITY OF MAIN LINES.
3. CULVERTS ARE TO BE LOCATED WHERE SHOWN ON PLAN.
4. WORK SITE SHALL BE KEPT CLEAN AND FREE OF DEBRIS.
5. NO SITE CLEARING IS REQUIRED
6. SEDIMENT FENCE SHOULD NOT BE NEEDED FOR PIPE INSTALLATION BUT IS SHOWN ON DETAIL SHEET. SHOULD EITHER BE NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE WORK AREA, CONTRACTOR SHALL INSTALL AS SEEN ON SHEET C-2.



DISCLOSURE OF INFORMATION AS FOLLOWS:  
 CONTRACTOR SHALL MAINTAIN THE STATUS OF ALL INFORMATION AS FOLLOWS:  
 (A) THE CONTRACTOR SHALL NOT RELEASE TO ANYONE OUTSIDE THE CONTRACTOR'S ORGANIZATION ANY UNCLASSIFIED INFORMATION, REGARDLESS OF THE SOURCE, THAT IS UNCLASSIFIED INFORMATION, UNLESS THE CONTRACTOR HAS BEEN ADVISED BY THE CONTRACTING OFFICER THAT THE INFORMATION IS TO BE RELEASED.  
 (B) THE CONTRACTOR SHALL NOT RELEASE TO ANYONE OUTSIDE THE CONTRACTOR'S ORGANIZATION ANY INFORMATION THAT IS UNCLASSIFIED INFORMATION, UNLESS THE CONTRACTOR HAS BEEN ADVISED BY THE CONTRACTING OFFICER THAT THE INFORMATION IS TO BE RELEASED.  
 (C) THE CONTRACTOR AGREES TO INCLUDE A SIMILAR REQUIREMENT IN EACH SUBCONTRACT UNDER THIS CONTRACT. SUBCONTRACTORS SHALL SUBMIT TO THE CONTRACTING OFFICER TO RELEASE THROUGH THE PRIME CONTRACTOR TO THE CONTRACTING OFFICER.

**LEGEND**

EXISTING	CONCRETE SIDEWALK	NEW	NPP
PP	UTILITY POLE/LIGHT	NPP	NPP
EOP	OVERHEAD ELEC	NOS	NOS
UE	UNDERGROUND ELEC	NFS	NFS
FSEW	FORCE MAIN SEWER	NSS	NSS
GSEW	GRAVITY SEWER	NW	NW
W	WATER	NSS	NSS
SS	STORM SEWER	NCOM	NCOM
COM	COMM LINE		
X	FENCE LINE		

**ABBREVIATIONS**

AC	ASPHALTIC CONCRETE (ASPHALT)
ABC	AGGREGATE BASE COURSE
CD	CHECK DAM
UE	UNDERGROUND ELECTRIC
EW	EXISTING WATER LINE
NW	NEW WATER LINE
COM	COMMUNICATION LINE
PP	POWER POLE
CP	COMM PEDESTAL
T	TELEPHONE
FO	FIBER OPTIC
MH	MAN HOLE
MON	MON. WELL
LP	LIGHT POLE
FM	FORCE MAIN
OMP	CORRODED METAL PIPE

**ELEVATIONS**

(99.5±) (EXIST)  
 96.2' (PROPOSED)

**4** SITE OF CURRENT TRAIL WASHOUT. CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DISPOSING OF EXISTING DEBRIS. PREPARING SITE FOR NEW PIPES. INSTALLING NEW PIPES, AND INSTALLING GRAVEL ON TOP OF PIPE TO BRING TRAIL BACK TO ORIGINAL GRADE AND CROSS SECTION. PIPES, MATERIAL WASHED DIRT FROM DAMAGE (GRAVEL, SOIL, PIPES, ETC) SHALL BE REMOVED TO THE EXTENT PRACTICABLE WITHOUT CAUSING IMPACT TO STREAM BED AND SURROUNDING NATURAL AREA.

WORK SITE IS WITHIN THE G-10 IMPACT AREA. WORK SHALL BE LIMITED TO THE DAYS OF FRIDAY THROUGH MONDAY. UNDO SWEEP IN WORK AREAS SHALL BE REQUIRED. UNDO TECH SUPPORT DURING CONSTRUCTION WILL ALSO BE REQUIRED.

INSTALL 2 NEW 48 FOOT SECTIONS OF 54 INCH REINFORCED CONCRETE PIPE. PIPES SHALL BE PLACED 2 FEET APART (SEE PIPE CROSS SECTION A, SHEET C-3). ALL NEW PIPE JOINTS SHALL BE SEALED AND TAPED. INSTALL NEW CONCRETE PIPE IN ACCORDANCE WITH NCDOT SPEC SECTION 300 FOR RCP PIPE.

BOTTOM OF NEW 54 INCH PIPES SHALL BE BURIED 1 FOOT BELOW EXISTING STREAM BED ELEVATION.

NEW PIPES SHALL HAVE ABC GRAVEL FOUNDATIONS. 12 INCHES UNDER PIPES AND 12 INCHES ON SIDE OF PIPES. AFTER INSTALLATION OF PIPES AND FOUNDATION STONE IS COMPLETE, INSTALL ABC GRAVEL IN 8 INCH LIFTS UNTIL GRAVEL MATCHES EXISTING ROAD CROWN AND ELEVATION. MINIMUM 24 INCHES OF GRAVEL COVER IS REQUIRED OVER PIPES. INSTALL ABC IN COMPLIANCE WITH NCDOT SPEC SECTION 300 & 320.

AFTER GRAVEL TRAIL IS RE-BUILT, RE-INSTALL SOIL EMBANKMENTS AT CONSTANT SIDE SLOPES (2:1 MAX) AND SOD SOIL IMMEDIATELY UPON COMPLETION OF INSTALLATION OF SHOULDER. SOD SHALL BE LAID PERPENDICULAR TO SLOPE. EMBANKMENTS SHALL BE IN COMPLIANCE WITH NCDOT SPEC SECTION 235.

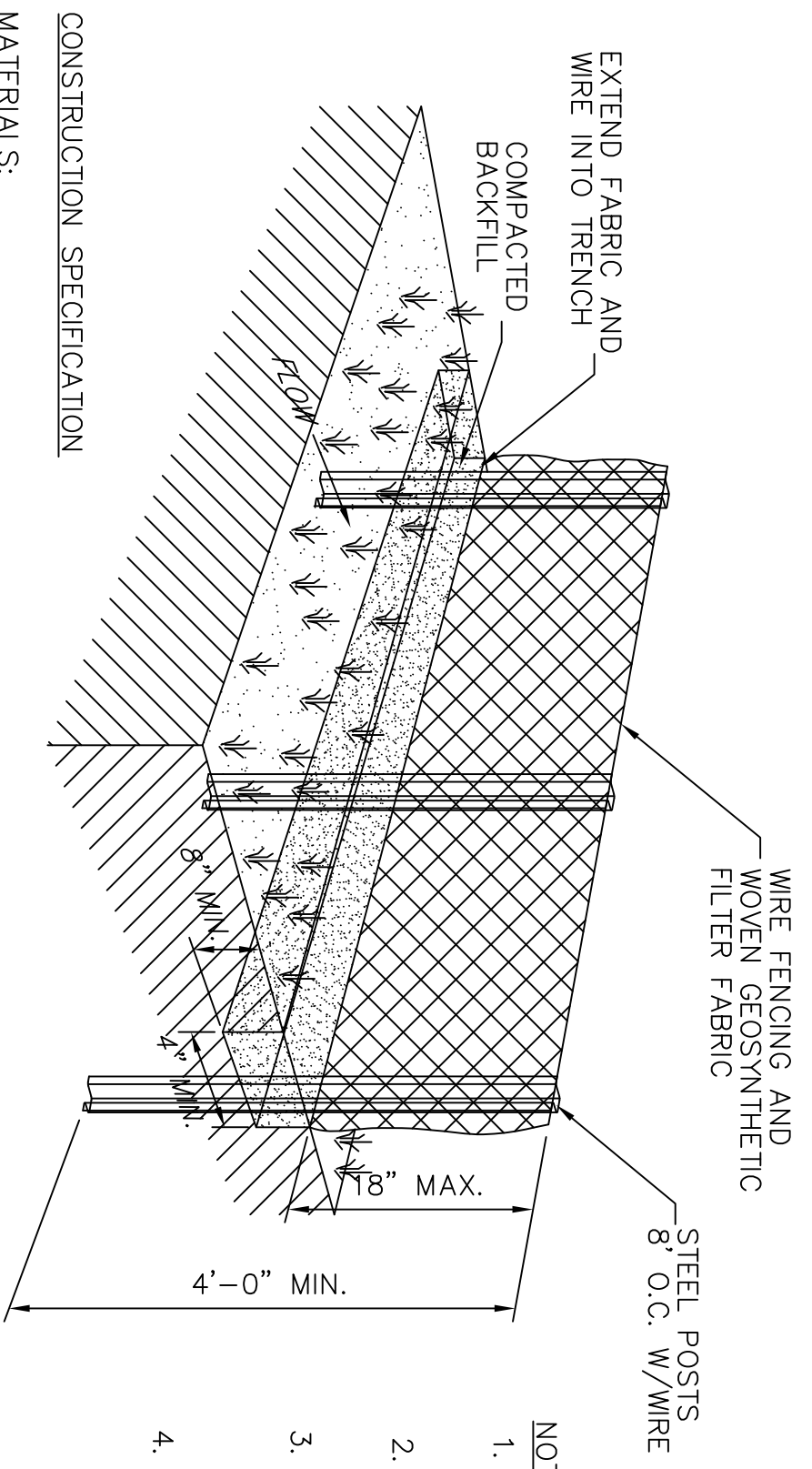
CONTRACTOR SHALL ASSUME QUANTITIES BELOW FOR BIDDING PURPOSES:  
 54" RCP PIPE = 96 LINEAR FEET  
 NCDOT SPEC ABC STONE = 450 CUBIC YARDS  
 FILL DIRT = 500 CUBIC YARDS

SOD ANY DISTURBED AREAS UPON COMPLETION OF GROUND DISTURBING ACTIVITIES.

STREAM DIVERSION MAY BE NECESSARY TO COMPLETE WORK. ALL WORK SHALL COMPLY WITH ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT 3 FOR MAINTENANCE.

CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES ON SITE. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES.

<b>C-1</b>	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEVINE, NORTH CAROLINA	
DES. DAVID TOWLER	C16-0067
CHK. T. BRADSHAW	CUIVERT PIPE
SUBMITTED BY: DAVID TOWLER	REPLACEMENT, G-10
DESIGN DIR. T. BURTON, PE	OVERALL SITE LAYOUT/EXISTING UTILITIES
DATE 09 DECEMBER 2016	SIZE CODE IDENT NO. 60018351
	F 80091
	CONST. CONTR. NO.44005-16-B-0067
SCALE: NOTED	SPEC. 05-16-0067
	SHEET 2 OF 3



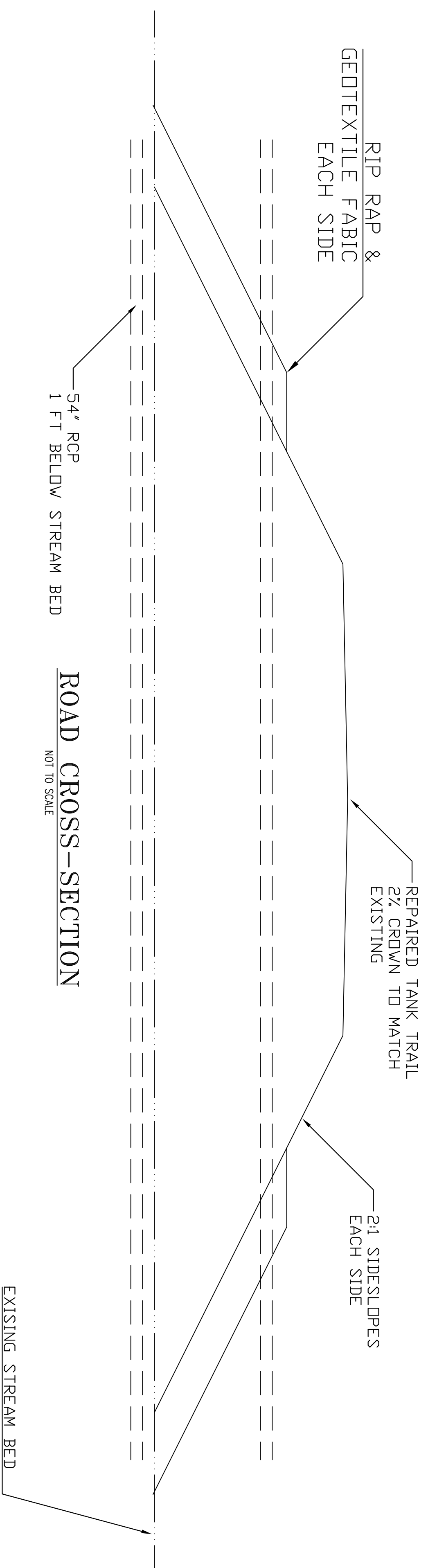
- NOTE:
1. REMOVE ANY SEDIMENT GREATER THAN 1/2\"/>
  2. AT LOW POINTS IN SILT FENCE, SEE DETAIL.
  3. CONTRACTORS OPTION TO USE AT TOE OF SLOPES ADJACENT TO SLOPES TO PROTECT PAVED SURFACES.
  4. FABRIC SHALL BE INSTALLED ON THE UPSLOPE SIDE OF THE WIRE FENCING.

CONSTRUCTION SPECIFICATION

- MATERIALS:
1. USE A SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFINS OR POLYESTER WHICH IS CERTIFIED BY THE MANUFACTURER'S PRODUCT CERTIFICATION AND MEETS REQUIREMENTS IN ASTM D 6461, WHICH IS SHOWN IN PART IN TABLE 5.6.2B.
  2. SYNTHETIC FILTER FABRIC SHOULD CONTAIN DURALOKE (RAX) FIBERS AND STABILIZERS TO PROTECT FROM UV RADIATION AND TO PROVIDE USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 TO 120° F.
  3. FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC USE WIRE FENCE WITH A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.

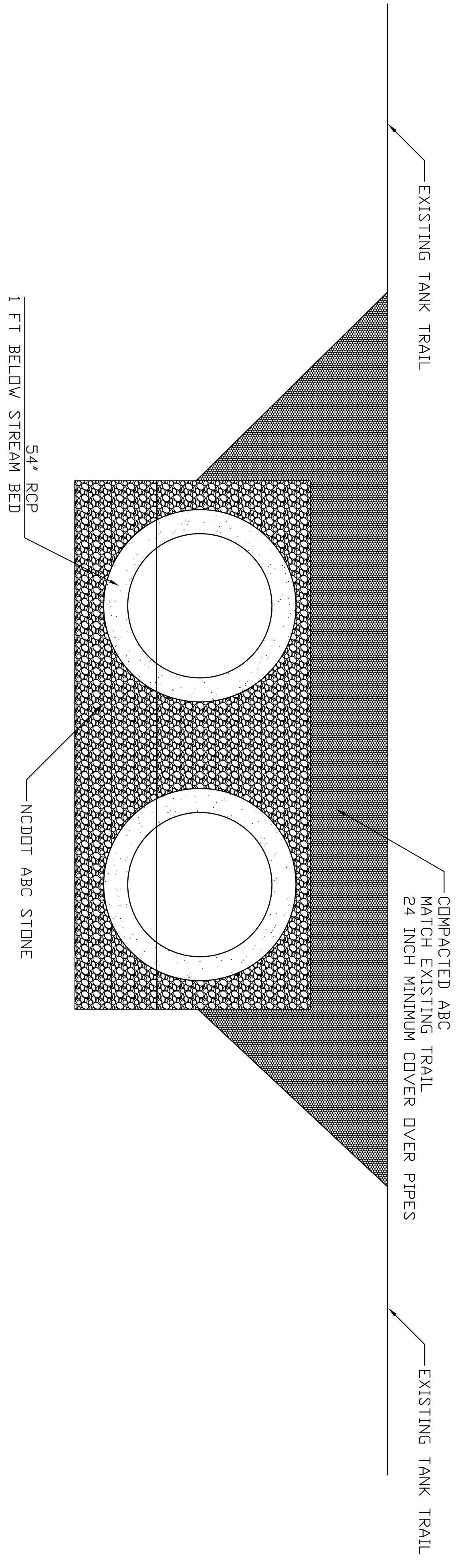
SILT FENCE

NOT TO SCALE



ROAD CROSS-SECTION

NOT TO SCALE



PIPE CROSS-SECTION

NOT TO SCALE

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<b>C-2</b>	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJUNE, NORTH CAROLINA	
DES. DAVID TOWLER CHK. T. BRADSHAW SUBMITTED BY: DAVID TOWLER DESIGN DIR. T. BURTON, PE DATE 09 DECEMBER 2016	
C16-0067 CULVERT PIPE REPLACEMENT, G-10 DETAILS	
SIZE CODE IDENT NO. <b>F 80091</b>	PWD DRAWING NO. <b>60018352</b>
SCALE: NOTED	SPEC. 05-16-0067
	SHEET 3 OF 3