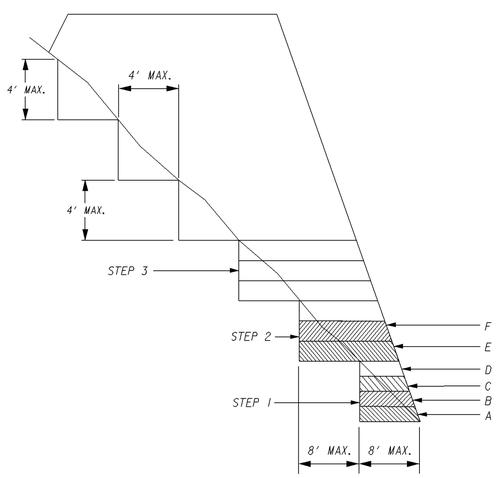
ENVIRONMENTAL RESOURCES IMPACT TABLE

Resource Name/Type	Location Beg STA.	Location End STA.	Side	Construction Activity	Permitted Activity	Controlling Criteria	Special Provision	Comments including any permit expiration dates
ESA POND BUFFER	18+00.00	18+90.00	RIGHT	ROADWAY CONSTRUCTION	ACTIVITIES WITHIN 100 FT OF THE PROPOSED BRIDGE ARE EXEMPT	MEMO FROM EPD DATED 09/20/10 RE: BUFFER VARIANCE ISSUES		ROADWAY DRAINAGE EXEMPTION-WORK BEYOND 100 FT OF THE PROPOSED BRIDGE WILL REQUIRE A BUFFER VARIANCE OR WRITTEN PERMISSION FROM EPD PRIOR TO COMMENCEMENT OF THE ACTIVITY (MARCH 18, 2012)
POND # 1	18+00.00	18+90.00	RIGHT	ROADWAY CONSTRUCTION	0.07 ACRE PERMANENT IMPACT	SECTION 404 OF THE CWA-NWP 23		ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE A PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY (MARCH 18, 2012)
ESA ENDANGERED SPECIES #1	11+00.00	24+68.40	LEFT	ROADWAY CONSTRUCTION	REFER TO SPECIAL PROVISION 107.23G	ENDANGERED SPECIES ACT	107.23G	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION (MARCH 18, 2012)
ESA ENDANGERED SPECIES #2	19+00.00	24+61.76	RIGHT	ROADWAY CONSTRUCTION	REFER TO SPECIAL PROVISION 107.23G	ENDANGERED SPECIES ACT	107.23G	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION (MARCH 18, 2012)
MIGRATORY BIRDS	16+20.00	17+90.00	BOTH	DEMOLITION	REFER TO SPECIAL PROVISION 107.23G	MIGRATORY BIRD TREATY ACT	107.23G	THE OFFICE OF ENVIRONMENTAL SERVICES SHALL BE CONTACTED PRIOR TO INSTALLATION OF EXCLUSIONARY DEVICES. CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION (MARCH 18, 2012)
ESA HISTORIC BOUNDARY # 1	27+57.06	30+80.00	LEFT	ROADWAY CONSTRUCTION		SECTION 106 COMMITMENT		THE CONTRACTOR AND ALL ACTIVITY SHALL STAY OUT OF AREAS DESIGNATED AS "ESA-HISTORIC."IF NECESSARY.CONTRACTOR SHALL DIRECT QUESTIONS TO THE OFFICE OF ENVIRONMENTAL SERVICES. (MARCH 18, 2012)
ESA HISTORIC BOUNDARY # 2	16+12.00	17+90.00	LEFT	ROADWAY CONSTRUCTION	REFER TO RAILROAD AGREEMENT	SECTION 106 COMMITMENT		THE CONTRACTOR AND/OR ANY WORK OUTSIDE OF 16+12 TO 17+90, AND ARE NOT COVERED UNDER THE EASEMENT RAILROAD AGREEMENT ARE PROHIBITED. IF NECESSARY.CONTRACTOR SHALL DIRECT QUESTIONS TO THE OFFICE OF ENVIRONMENTAL SERVICES. (MARCH 18.2012)
ESA HISTORIC BOUNDARY # 3	16+12.00	17+90.00	RIGHT	ROADWAY CONSTRUCTION	REFER TO RAILROAD AGREEMENT	SECTION 106 COMMITMENT		



BENCHING DETAIL

Revised 9/29/08 4.5.28 NO SCALE

1. WHERE THE EMBANKMENT IS TO BE PLACED ON A HILLSIDE OR ANOTHER EXISTING EMBANKMENT HAVING A SLOPE OF 3 TO 1 OR STEEPER. THE FOUNDATION MUST BE BENCHED WHILE THE EMBANKMENT IS BEING MADE.
(SEE DIAGRAM AT LEFT.)

2. THE DIAGRAM SHOWS THAT BEFORE LAYER "A" IS PLACED THE FIRST STEP IS TO (1) CUT INTO THE SLOPE A MAXIMUM DISTANCE OF ABOUT 8 FEET (ABOUT¾ THE WIDTH OF THE TYPICAL D-8 BULLDOZER BLADE). SUCCESSIVE LAYERS B, C, AND D ARE THEN PLACED BEFORE LAYER "E" IS PLACED. THE SECOND STEP IS CUT 8 FEET INTO THE SLOPE AND SUCCESSIVE LAYERS ARE AGAIN PLACED. IF IT IS ANTICIPATED THAT THE VERTICAL PART OF THE STEP WILL EXCEED 4 FEET IF A 8 FEET HORIZONTAL CUT IS MADE, THEN THE ACTUAL CUT STOPS WHEN THE VERTICAL PART REACHES A MAXIMUM OF 4 FEET ALLOWING THE HORIZONTAL DISTANCE TO VARY.

3. THE PROCESS OF BENCHING IS CONSIDERED INCIDENTAL TO THE ITEM OF UNCLASSIFIED EXCAVATION AND BORROW OR GRADING COMPLETE IN CONSTRUCTION OF THE EBANKMENT AND NO ADDITIONAL MEASUREMENT OF QUANTITY OR PAYMENT WILL BE MADE FOR BENCHING.

PIPE CULVERT MATERIAL ALTERNATES
FOR COASTAL PLAIN REGION

TYPE OF PIPE INSTALLATION			CONCRETE	CORRUGATED STEEL AASHTO M-36: ALUMINUM COATED (TYPE 2) CORR. STEEL	CORRUGATED STEEL AASHTO M-36: PLAIN ZINC COATED	CORRUGATED ALUMINUM AASHTO M-196: PLAIN UNCOATED ALUMINUM	PLASTIC: CORR. POLY-ETHYLENE AASHTO M-252	PLASTIC: CORR. POLY-ETHYLENE SMOOTHED LINED AASHTO M-294 TYPE "S"	PLASTIC: POLY VINYL CHLORIDE (PVC) PROFILE WALL AASHTO M-304	PLASTIC: POLY VINYL CHLORIDE (PVC) CORRUGATED SMOOTH INTERIOR AASHTO F-949
STORM DRAIN	LONGITUDINAL INTERSTATE AND TRAVEL BEARING		X							
STORM DRAIN	LONGITUDINAL NON-INTERSTATE AND NON-TRAVEL BEARING		X	X		X		X	X	X
STORM DRAIN	CROSS DRAIN, GRADE ≤ 10%	ADT < 250	X	X		X		X	X	X
STORM DRAIN	CROSS DRAIN, GRADE ≤ 10%	250 < ADT < 1500	X			X		X	X	X
STORM DRAIN	CROSS DRAIN, GRADE ≤ 10%	1500 < ADT < 15,000	X					X	X	X
STORM DRAIN	CROSS DRAIN, GRADE ≤ 10%	ADT > 15,000	X							
STORM DRAIN	CROSS DRAIN, GRADE > 10%	ADT < 250		X		X		X	X	X
STORM DRAIN	CROSS DRAIN, GRADE > 10%	ADT > 250				X		X	X	X
SIDE DRAIN			X	X		X		X	X	X
PERMANENT SLOPE DRAIN				X	X	X		X	X	X
PERFORATED UNDERDRAIN				X	X	X	X	X		X

NOTE:
1. ALLOWABLE MATERIALS ARE INDICATED BY AN "X".
2. STRUCTURAL REQUIREMENTS OF STORM DRAIN PIPE WILL BE IN ACCORDANCE WITH GEORGIA STANDARD 1030-D OR 1030-P, WHICHEVER IS APPLICABLE, AND THE STANDARD SPECIFICATIONS.
3. GRADED AGGREGATE BACKFILL SHALL BE USED IN CROSS DRAIN APPLICATIONS FOR ALL PLASTIC PIPES (AASHTO M-294, HDPE PIPE ; AASHTO M-304, PVC PIPE; ASTM F-949, PVC PIPE).
4. THE CONTRACTOR SHALL PROVIDE ADDITIONAL STORM SEWER CAPACITY CALCULATIONS IF A PIPE MATERIAL OTHER THAN CONCRETE IS SELECTED.

REV. 09-03-08

GEORGIA
DEPARTMENT
OF
TRANSPORTATION

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: ROADWAY DESIGN

GENERAL NOTES

BRIDGE OVER HEART OF GEORGIA RAILROAD

DRAWING NO. 04-002

1/5/2009 GPLN