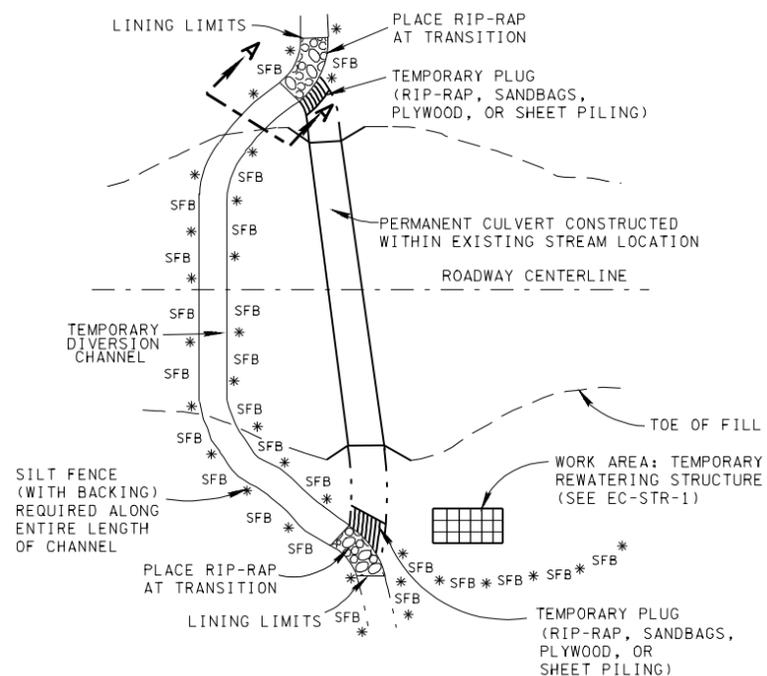
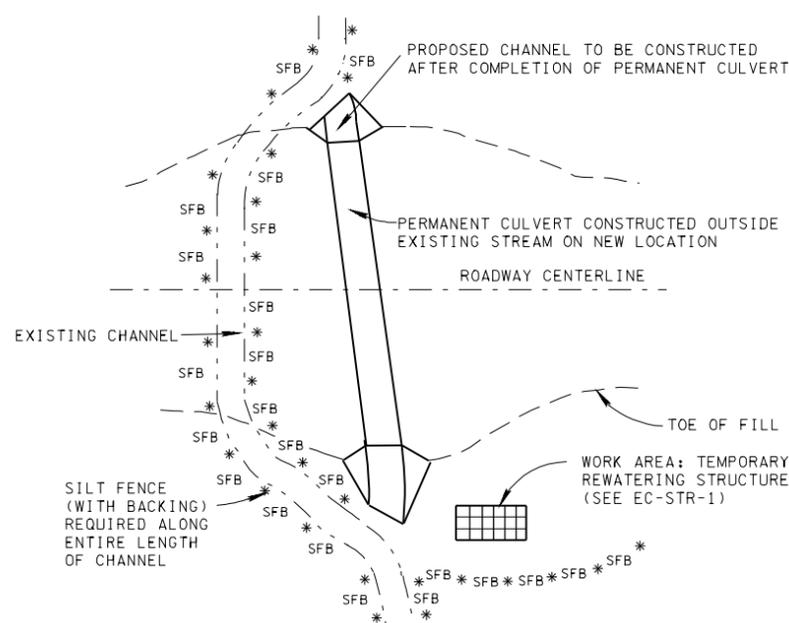


- REV. 11-1-95: CHANGED TO METRIC.
- REV. 5-27-01: CHANGED ITEM NO. 740M03.01 TO 740M10.03. CHANGED REFERENCE OF TEMPORARY EROSION CONTROL PIPE TO TEMPORARY PIPE.
- REV. 12-18-02: CHANGED ALL SILT FENCE IN DETAILS TO ENHANCED SILT FENCE. CHANGED GENERAL NOTE (E).

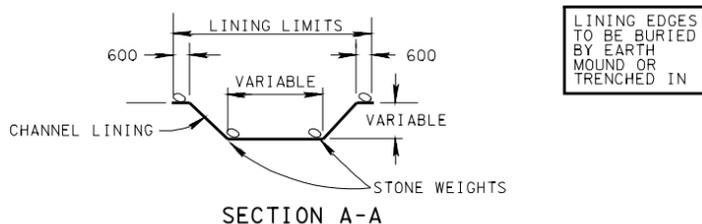
CULVERT CONSTRUCTED WITHIN EXISTING STREAM



CULVERT CONSTRUCTED OUTSIDE EXISTING STREAM



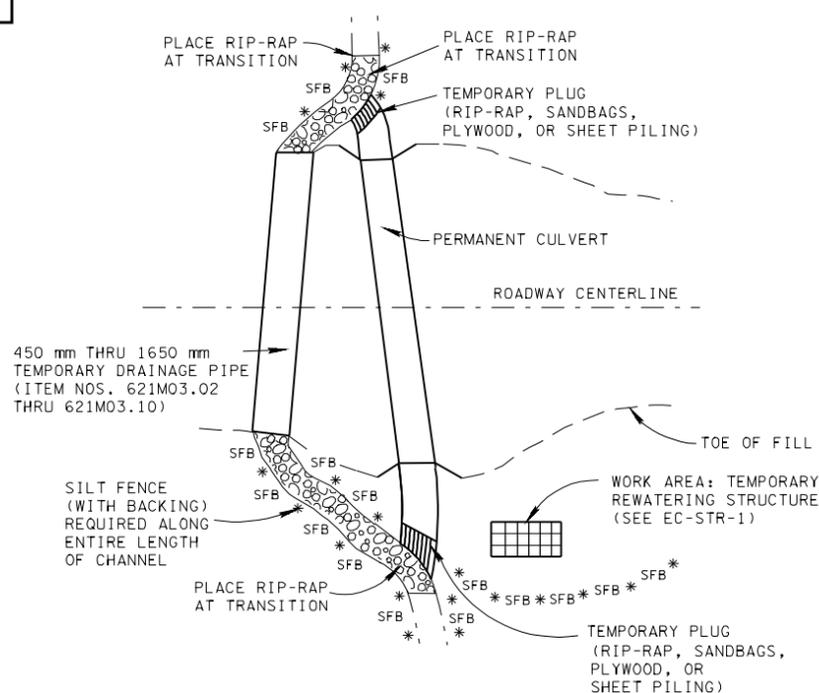
TEMPORARY DIVERSION CHANNEL WITH GEOTEXTILE FABRIC LINING



PIPE DIAMETER FOR STREAM CROSSINGS OR TEMPORARY DIVERSION CHANNELS (mm)				
DRAINAGE AREA (HECTARES)	AVERAGE SLOPE OF WATERSHED			
	1 %	2 %	3 %	4 %
1-10	600	600	750	750
11-20	600	750	900	900
21-40	750	900	1050	1200
41-60	750	1050	1200	1200
61-80	900	1050	1200	1350
81-100	900	1200	1350	1350
101-120	900	1200	1350	1500
121-140	1050	1200	1500	1500
141-160	1050	1350	1500	1500
161-180	1050	1350	1500	1800
181-200	1050	1350	1500	1800
201-220	1200	1500	1500	1800
221-240	1200	1500	1500	1800
241-260	1200	1500	1800	1800

NOTE:
 ASSUMPTIONS FOR DETERMINING THE TABLE: USDA-SCS PEAK DISCHARGE METHOD: CN=65 RAINFALL DEPTH=90 mm FOR A 2-YEAR FREQUENCY STORM.

TEMPORARY CULVERT USED DURING CONSTRUCTION



TEMPORARY DIVERSION CHANNELS GENERAL NOTES

- (A) TEMPORARY DIVERSION CHANNELS SHALL BE USED TO DIVERT NORMAL STREAM PATH FLOW FROM AN ERODIBLE AREA UNTIL SUCH AREAS CAN BE STABILIZED.
- (B) DESIGNER SHALL PROVIDE CULVERT SECTIONS FOR TEMPORARY CULVERT CROSSINGS.
- (C) ITEM NO. 740M10.03 GEOTEXTILE (TYPE III)(EROSION CONTROL) SHALL BE USED WITHOUT RIP-RAP FOR CHANNEL FLOW VELOCITIES OF LESS THAN 0.9 m/s.
- (D) ITEM NO. 740M10.03, GEOTEXTILE (TYPE III)(EROSION CONTROL) SHALL BE USED WITH RIP-RAP FOR CHANNEL FLOW VELOCITIES OF 0.9 m/s TO 2.7 m/s. THE RIP-RAP SHALL BE SIZED USING FHWA HEC-15 DESIGN OF ROADSIDE CHANNELS WITH FLEXIBLE LININGS.
- (E) GEOTEXTILE FABRIC SHALL MEET REQUIREMENTS OF THE STANDARD SPECIFICATION FOR GEOTEXTILES AASHTO DESIGNATION M-288, EROSION CONTROL.
- (F) DIVERSION CHANNEL SHALL BE STABILIZED AND INSPECTED BY THE PROJECT ENGINEER BEFORE FLOW IS DIVERTED.
- (G) DIVERSION CHANNEL SHALL BE INSPECTED AFTER EVERY RAIN EVENT OR WEEKLY AND ANY NEEDED REPAIRS SHALL BE DONE IMMEDIATELY TO PREVENT WATER POLLUTION DUE TO SEDIMENT.
- (H) DURING CONSTRUCTION OF THE DIVERSION CHANNEL, DAMAGE TO THE EXISTING STREAM, CANOPY REMOVAL, AND DEPTH OF THE CHANNEL CONSTRUCTION SHALL BE MINIMIZED. INLET-OUTLET PROTECTION SHALL ALSO BE PROVIDED, AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
- (I) GEOTEXTILE FABRIC LINING IN THE TEMPORARY DIVERSION CHANNELS SHOULD BE USED ONLY ON INTERMITTENT FLOW STREAMS OR DITCHES. USE RIP-RAP OR CULVERTS IF STREAM FLOWS YEAR ROUND.
- (J) NEW CHANNEL CONSTRUCTION SHALL BE COMPLETED IN THE DRY BEFORE DIVERTING WATER FROM THE EXISTING CHANNEL. WHERE THIS IS NOT FEASIBLE, TEMPORARY FLOW DIVERSION STRUCTURES CAN BE USED UNTIL WORK IS COMPLETE. THESE STRUCTURES CAN BE ANY NON-ERODIBLE MATERIAL.
- (K) ALL EXISTING VEGETATION OUTSIDE THE CUT AND FILL LINES BUT INSIDE THE RIGHT-OF-WAY SHALL NOT BE DISTURBED UNLESS IT INTERFERES WITH SAFETY STANDARDS.
- (L) CONSTRUCTION OF THE CHANNEL RELOCATIONS AND BOX CULVERTS AND BOX BRIDGES SHALL PROCEED AS FOLLOWS:
 - (L1) CONSTRUCT A MEANDERING TEMPORARY CHANNEL CHANGE ADJACENT TO THE PROPOSED BOX BRIDGE OR CULVERT TO DIVERT WATER TEMPORARILY DURING THE BOX CONSTRUCTION. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 209 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 - (L2) RELOCATE CHANNEL AND CONSTRUCT BOXES SIMULTANEOUSLY.
 - (L3) SOD AND/OR RIP-RAP RECONSTRUCTED BANKS. THE UPPER CHANNEL PLUG IS TO REMAIN IN PLACE UNTIL SUBNOTES (L1) THROUGH (L4) UNDER THIS HEADING ARE COMPLETED TO INSURE THAT ALL CONSTRUCTION IS IN THE DRY.
 - (L4) IF AN EARTH PLUG IS NECESSARY AT THE DOWNSTREAM END OF THE CHANNEL IT SHOULD BE REMOVED FIRST, THEN REMOVE THE UPPER PLUG TO RELEASE WATER INTO THE RECONSTRUCTED CHANNEL.
- (M) DIVERSION CHANNELS, LININGS, CULVERTS, TEMPORARY DEWATERING STRUCTURES, AND SILT FENCES, SHALL BE PAID FOR UNDER THEIR RESPECTIVE PAY ITEMS.
- (N) TEMPORARY DIVERSION CHANNELS SHALL BE DESIGNED USING A 2 YEAR FREQUENCY RUNOFF Q WHEN REMAINING IN USE FOR 3 WEEKS OR LESS; USE A 10 YEAR FREQUENCY FOR MORE THAN 3 WEEKS. MAXIMUM DRAINAGE AREA IS 260 ha.

EROSION CONTROL PLAN LEGEND: TEMPORARY DIVERSION CHANNEL (DESCRIBE - SIZE AND TYPE OF LINING)



ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

□ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

TEMPORARY
 DIVERSION
 CHANNELS

11-1-95 ECM-STR-31