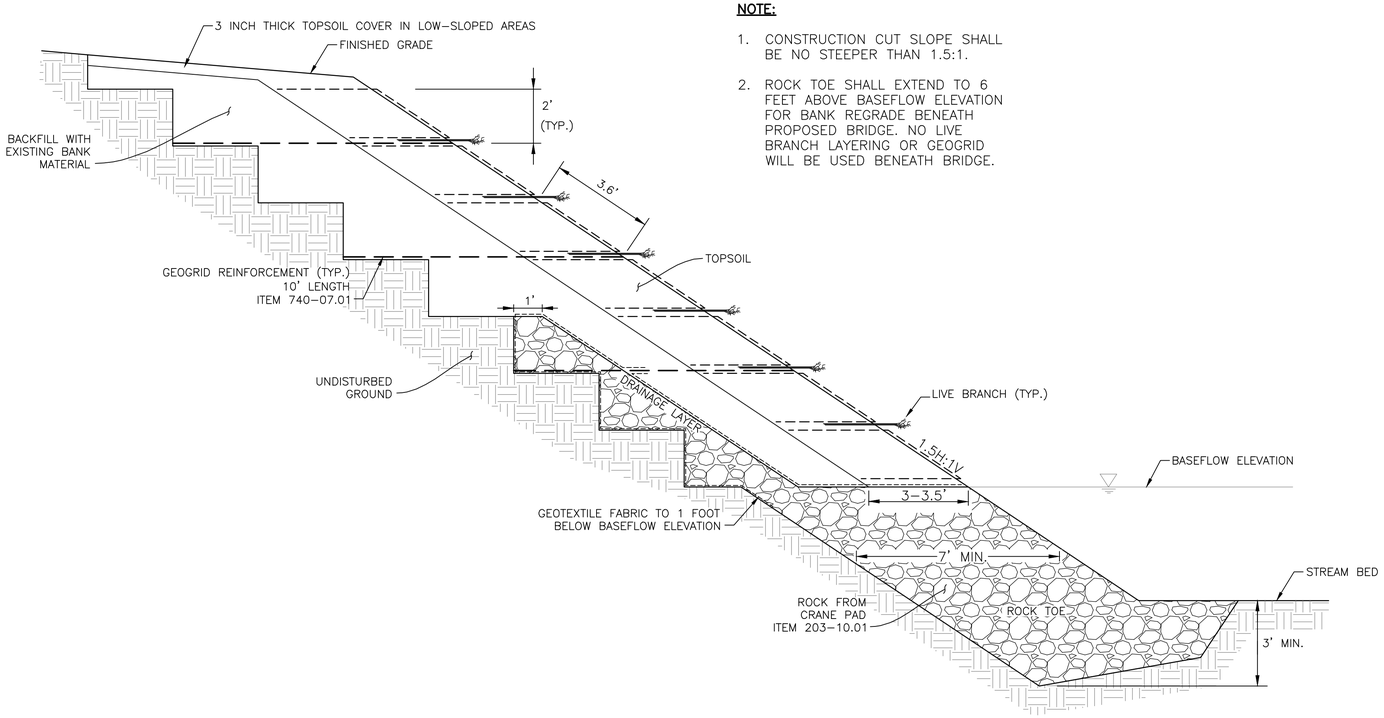
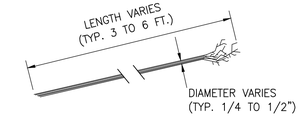
TYPE	YEAR	PROJECT NO.	SHEET NO.
ROW	2012	BRZE-2600(37)	2C
CONST	2013	BRZE-2600(37)	2H

REV 10/31/13 ADDED THIS SHEET



NOTE:

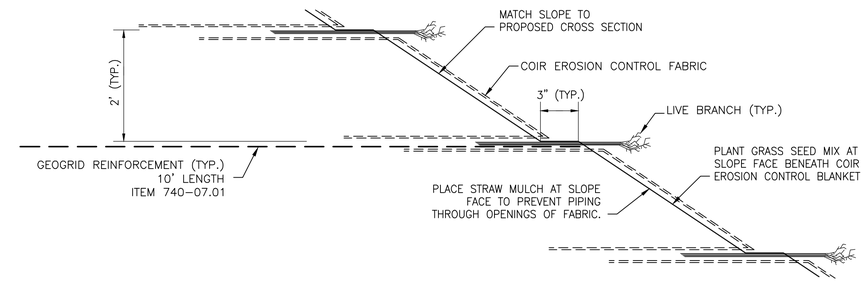
1. CONSTRUCTION CUT SLOPE SHALL BE NO STEEPER THAN 1.5:1.
2. ROCK TOE SHALL EXTEND TO 6 FEET ABOVE BASEFLOW ELEVATION FOR BANK REGRADE BENEATH PROPOSED BRIDGE. NO LIVE BRANCH LAYERING OR GEOGRID WILL BE USED BENEATH BRIDGE.



LIVE BRANCH

NOTE:

TOPSOIL SHALL BE PLACED IMMEDIATELY ABOVE AND BELOW LIVE BRANCHES.



NOTES:

1. EXCAVATE THE AMOUNT OF BANK AND STREAMBED NECESSARY TO CONSTRUCT THE EMBANKMENT AS SHOWN. EXCAVATE THE BANK, "STAIR-STEPPING" AS SHOWN TO HELP PREVENT SLOPE FAILURE OF THE EMBANKMENT.
3. PLACE GEOTEXTILE FABRIC ON THE BACK OF THE EXCAVATED SLOPE ALONG THE "STAIR-STEPS" FROM 1 FOOT BELOW THE BASEFLOW ELEVATION UP TO THE LEVEL SHOWN TO PREVENT PIPING OF SOIL THROUGH THE ROCK. ALLOW AN ADDITIONAL 5 FEET OF GEOTEXTILE FABRIC AT THE TOP TO LAY OVER THE ROCK ONCE THE ROCK IS PLACED.
4. PLACE A MINIMUM 7 FOOT WIDTH OF ROCK STARTING A MINIMUM 3 FOOT BELOW THE STREAMBED AND EXTENDING UP TO THE BASEFLOW ELEVATION. EXTEND ROCK UP THE BACK OF THE EXCAVATED SLOPE ON TOP OF THE GEOTEXTILE FABRIC AS SHOWN TO PROVIDE A DRAINAGE LAYER.
5. PLACE GEOTEXTILE FABRIC ABOVE THE ROCK AT THE BASEFLOW ELEVATION AND EXTEND UP DRAINAGE LAYER.
6. PLACE A 3 INCH LAYER OF TOPSOIL A MINIMUM OF 3 FEET WIDE OVER THE GEOTEXTILE FABRIC AND BACKFILL WITH EXISTING BANK MATERIAL
7. USING A 3 METER WIDE STRIP OF EROSION CONTROL BLANKET, LAY THE EROSION CONTROL BLANKET OVER THE GEOTEXTILE SUCH THAT A MINIMUM OF 3 FEET OF BLANKET IS OVER THE NEWLY PLACED TOPSOIL. LAY THE BLANKET DOWN-SLOPE. PLACE A ONE FOOT TOPSOIL/BACKFILL LAYER OVER THE BLANKET. GENTLY COMPACT THIS SOIL BY USING THE EXCAVATOR BUCKET SO THAT THE UNDERLYING GEOTEXTILE/LIVE BRANCHES ARE NOT DISPLACED OR DAMAGED. COMPACT TO CONSISTENT GRADE AND REMOVE LOOSE MATERIAL. PLACE ANOTHER ONE FOOT TOPSOIL/BACKFILL LAYER AND GENTLY COMPACT AS ABOVE. SEED THE OUTER FACE OF THE BANK. COVER WITH STRAW MULCH SUCH THAT SOIL CANNOT PIPE THROUGH OPENINGS IN THE BLANKET. WRAP THE EROSION CONTROL BLANKET OVER THE FACE OF THE SLOPE AND CREATE A NEW PLANTING SURFACE FOR THE NEXT LAYER OF LIVE BRANCHES.
8. WHEN STARTING TO PLACE THE FILL, OFFSET THE TOPSOIL AND BACKFILL LAYER APPROXIMATELY 3 INCHES BACK FROM THE FACE OF THE SLOPE TO CREATE A SLIGHT TERRACE.
9. PLACE 2 INCHES OF TOPSOIL A MINIMUM OF 3 FEET WIDE ON PLANTING SURFACE. PLACE LIVE BRANCHES SUCH THAT 2/3 OF THE BRANCH WILL BE COVERED WITH SOIL AND 1/3 OF THE BRANCH IS EXPOSED, EXTENDING BEYOND THE FACE OF THE BANK. PLACE A MINIMUM OF 8 TO 12 STEMS PER RUNNING FOOT OF BANK IN A SLIGHT CRISS-CROSS PATTERN. PLACE A 3 INCH LAYER OF TOPSOIL OVER THE LIVE BRANCHES, AND BACKFILL WITH EXISTING BANK MATERIAL.
10. REPEAT STEPS 7-9 ABOVE TO BUILD THE NEXT SOIL WRAP AND LIVE BRANCH LAYER.
11. FOR LAYERS WHERE GEOGRID WILL BE PLACED, PLACE THE GEOGRID BELOW THE LIVE BRANCHES. REFER TO DETAIL FOR LAYERS WHERE GEOGRID WILL BE PLACED.
12. RECONSTRUCT THE SLOPES SUCH THAT THE OVERALL SLOPE MATCHES THE PROPOSED CROSS SECTION SHAPE.
13. GEOGRID REINFORCEMENTS SHALL BE TENSAR BX TYPE 1, OR APPROVED EQUIVALENT
14. COIR EROSION CONTROL FABRIC SHALL BE GEOCOIR DEKOWE 700, OR APPROVED EQUIVALENT
15. GEOTEXTILE FABRIC SHALL BE NON-WOVEN TYPE I.

1 / 2C/H DETAIL – EMBANKMENT RECONSTRUCTION
SCALE: NTS

LIVE BRANCHES

SCIENTIFIC NAME	COMMON NAME	SPACING	PLANT LENGTH	PLANT DIAMETER	COMPOSITION	TOTAL STEMS
Salix nigra	Black Willow	1 inch	3-6 feet	1/4-1/2 inch	25%	630
Cephalanthus occidentalis	Buttonbush	1 inch	3-6 feet	1/4-1/2 inch	25%	630
Cornus amomum	Silky Dogwood	1 inch	3-6 feet	1/4-1/2 inch	25%	630
Sambucus canadensis	Elderberry	1 inch	3-6 feet	1/4-1/2 inch	25%	630

GRASS SEED MIX

SCIENTIFIC NAME	COMMON NAME	LBS/ACRE	COMPOSITION %
Panicum virgalum	Switchgrass	12.9	37.9%
Sorghastrum nutans	Indian grass	8.5	25.0%
Andropogon gerardii	Big blue stem	4.1	12.1%
Dichanthelium clandestinum	Deer tongue grass	1.7	5.0%
Elymus hystrix	Bottlebrush grass	1.7	5.0%
Elymus virginicus	Virginia wild rye	1.7	5.0%
Chasmanthium latifolium	River wood oats	1.7	5.0%
Glyceria striata	Fowl manna grass	1.7	5.0%
	TOTAL	34.0	100.0%

SPECIAL NOTES FOR LEON STEPHENS BANK STABILIZATION

AS-BUILT DRAWINGS

DURING CONSTRUCTION, THE CONTRACTOR AND THE ENGINEER SHALL WORK TOGETHER TO MAINTAIN A SET OF PRINTS SHOWING ANY CHANGES OR CORRECTIONS IN RED. THESE PRINTS SHALL BE SUBMITTED TO THE ENGINEER AT THE COMPLETION OF WORK.

BANK STABILIZATION

THE CONTRACTOR SHALL STAKE OUT THE PROPOSED EMBANKMENT RECONSTRUCTION LOCATION FOR APPROVAL BY THE ENGINEER BEFORE INITIATING CONSTRUCTION. DEPENDING ON THE SITE CONDITIONS, SOME SHIFTING MAY BE NECESSARY. ANY SHIFTING SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.

LEON STEPHENS BANK STABILIZATION DRAFT QUANTITIES

TDOT ITEM NO.	DESCRIPTION	UNIT	QUANTITY
203-01.77	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	CY	70
203-01.79	EXCAVATION/BACKFILL	CY	120
203-07	FURNISHING AND SPREADING TOPSOIL	CY	60
203-10.01*	EMBANKMENT (SOLID ROCK)	CY	120
209-03.42**	STREAM MITIGATION - LIVE BRANCH LAYERING	LF	35
740-07.01	GEOGRID REINFORCEMENT	SY	110

* ROCK SHALL BE OBTAINED FROM THE ROCK PAD UTILIZED DURING CONSTRUCTION. THIS ITEM IS FOR ONSITE MOVEMENT ONLY.

** ITEM 209-03.42 SHALL INCLUDE THE LABOR AND MATERIALS FOR PLACING SOIL LIFTS, GEOCOIR FABRIC AND LIVE BRANCH CUTTINGS FOR 6 LAYERS OF LIVE BRANCH LAYERING PER RUNNING FOOT OF BANK. TOPSOIL SHALL BE PAID UNDER ITEM 203-07, AND GEOGRID REINFORCEMENT IS INCLUDED IN ITEM 740-07.01

DETAIL

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED BANK STABILIZATION
STA. 14+56 TO STA. 15+40

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