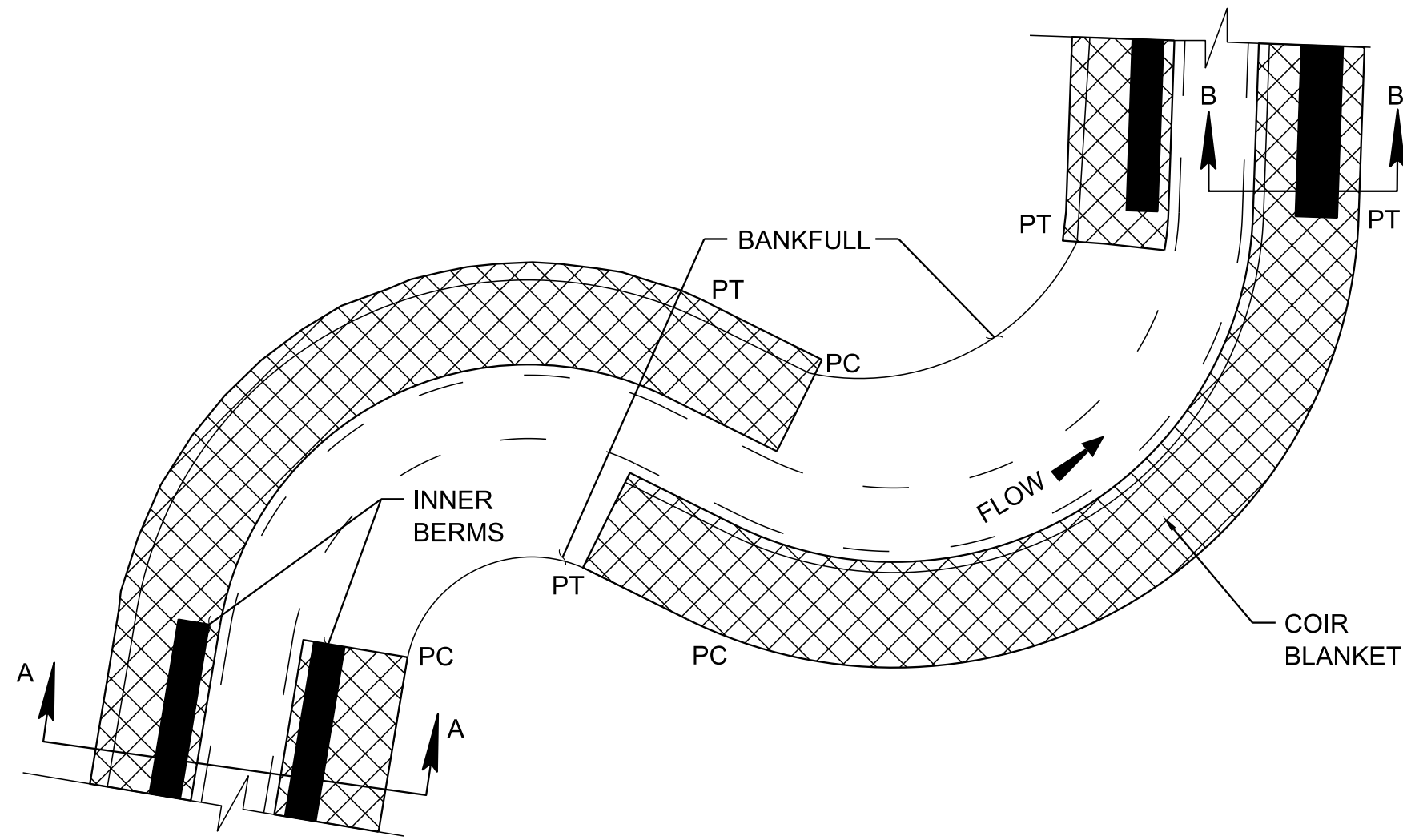
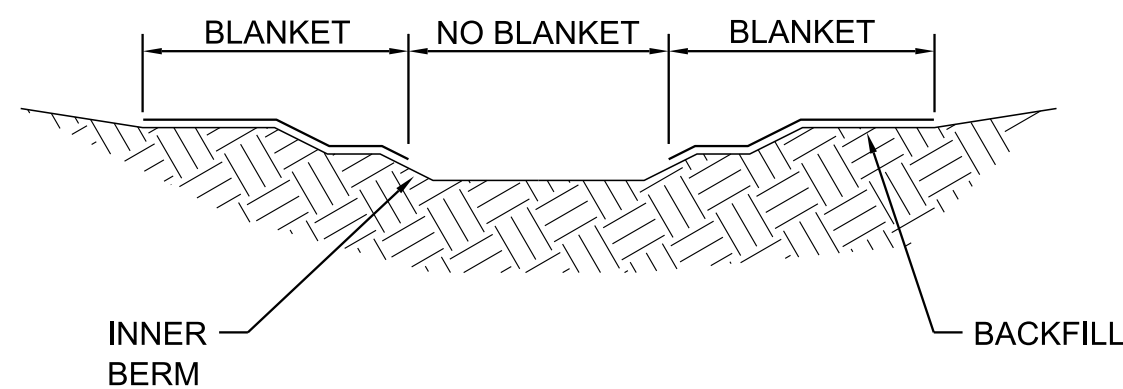


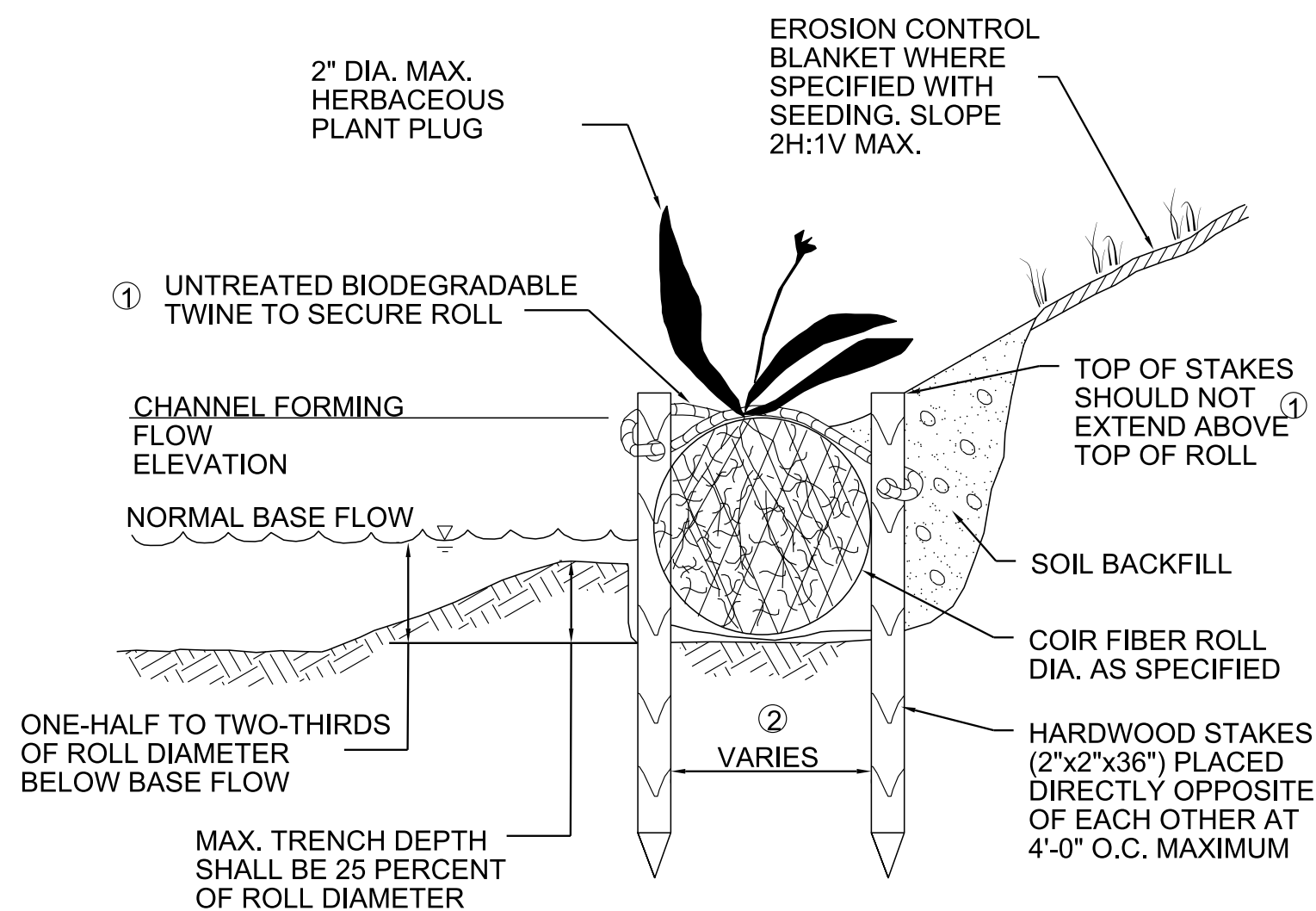
16-FEB-2017 13:33 \\AC03DCWF00008.net\ads.state.tn.us\SHARED\Standrow\DESIGN STANDARDS\Standards Drawings\Library\2017 Standard Drawing Revisions\D-NSD-33\_101016.dgn



COIR EROSION CONTROL BLANKET  
PLAN

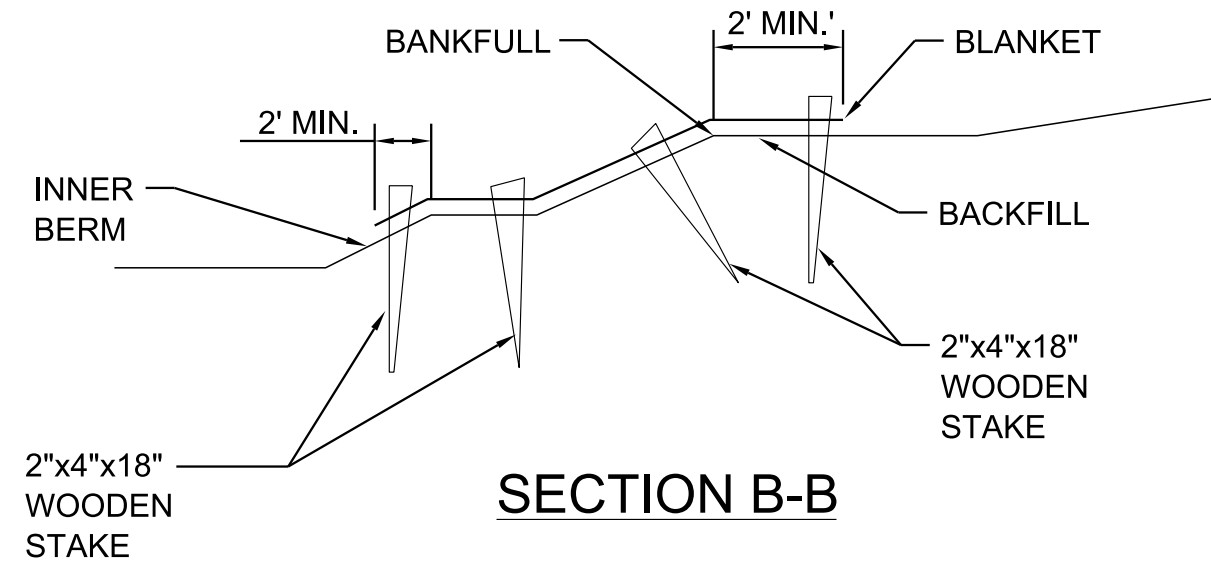


SECTION A-A

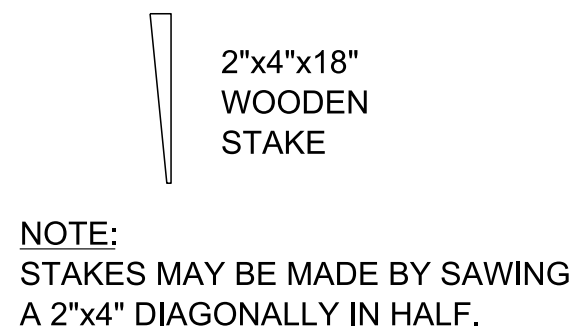


SECTION VIEW  
COIR FIBER ROLL

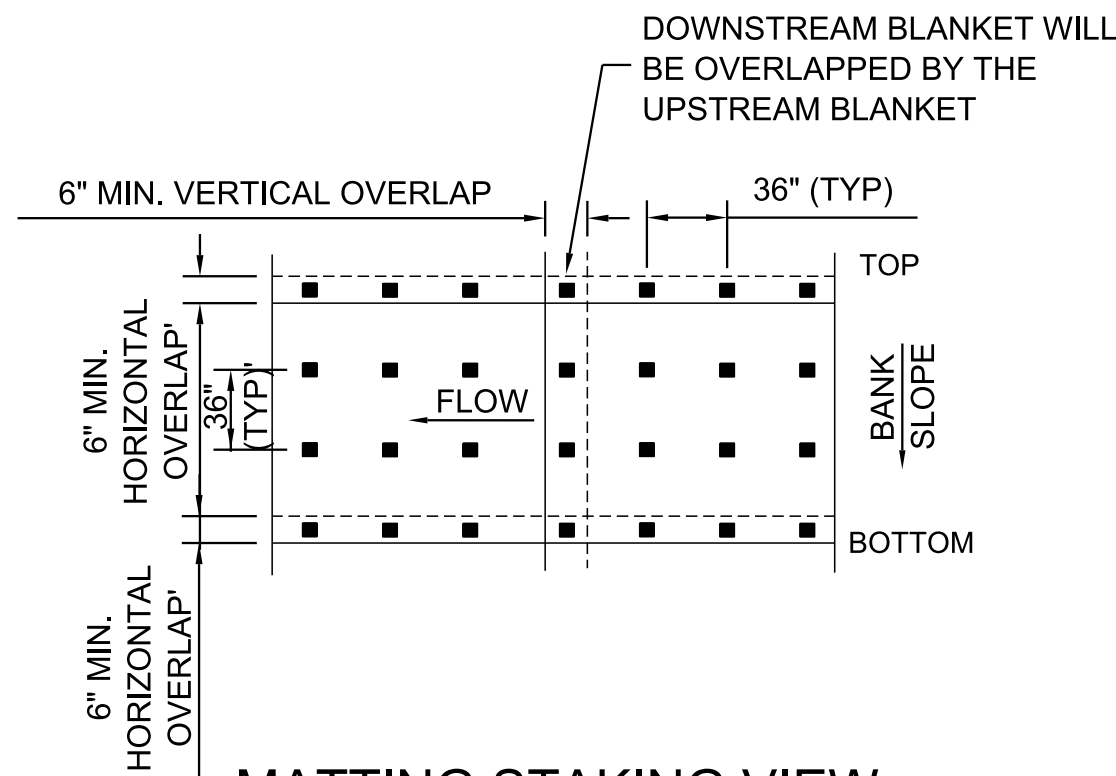
- NOTE ①: DRIVE STAKES AS NEEDED SO TWINE IS SECURED AGAINST TOP OF ROLL.
- NOTE ②: SPACING VARIES BASED ON ROLL DIAMETER 8, 12, 16, 18, 20-INCH (TYP.)



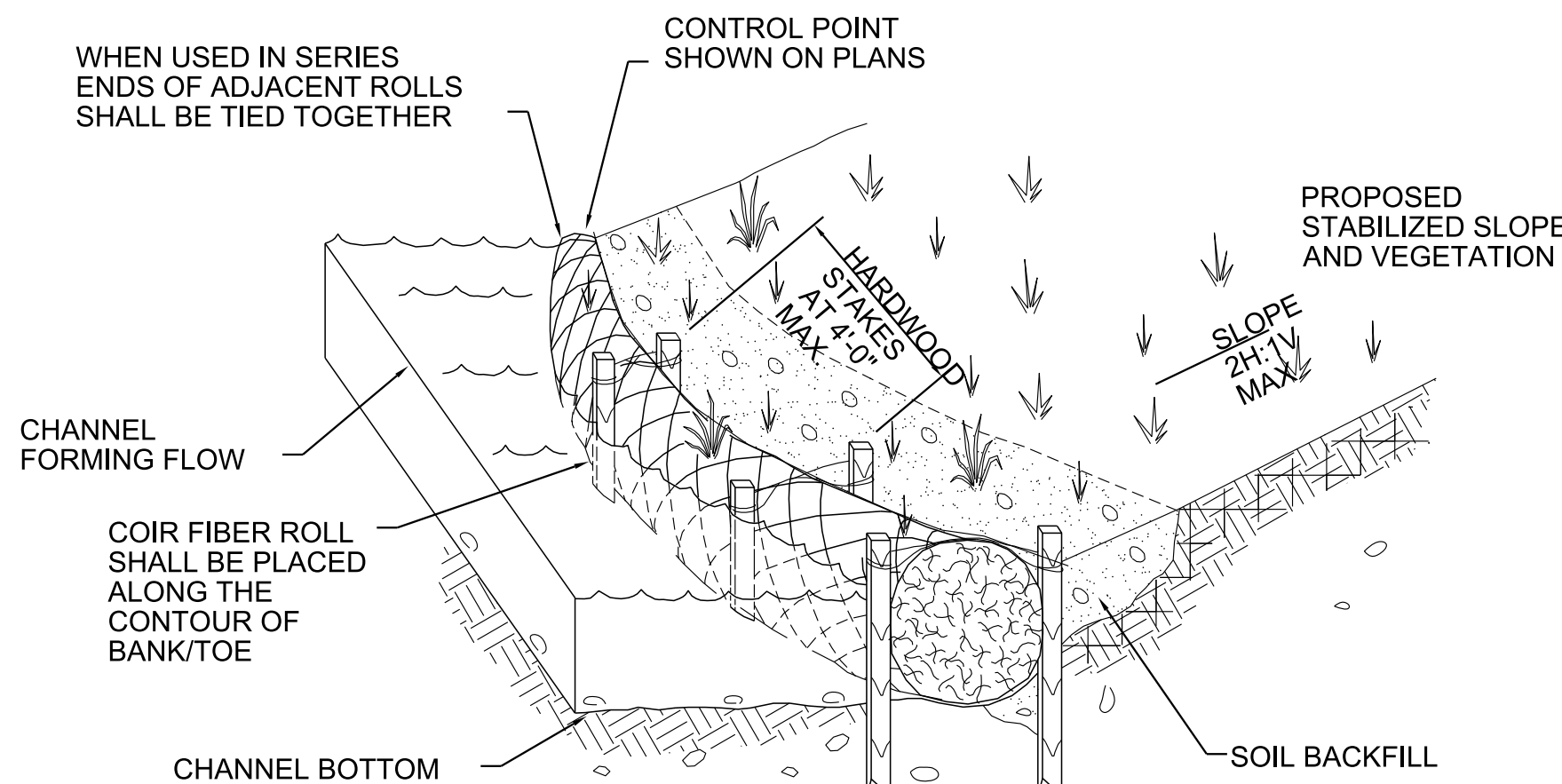
SECTION B-B



WOOD STAKE



MATting STAKING VIEW



ISOMETRIC VIEW  
COIR FIBER ROLL

FULL OR PARTIAL SUN  
REQUIRED FOR USE

### COIR FIBER ROLL NOTES

- (A) COIR FIBER ROLLS ARE A FLEXIBLE BANK STABILIZATION MEASURE CONSISTING OF INTERWOVEN COCONUT HUSK FIBERS THAT CAN BE FITTED TO THE CURVATURE OF A STREAM BANK PROVIDING IMMEDIATE TOE PROTECTION AND BANK STABILIZATION. COIR FIBER ROLLS ARE USED TO ENHANCE THE ESTABLISHMENT AND GROWTH OF NATIVE VEGETATION ALONG THE STREAM BANK BY TRAPPING SEDIMENT BEHIND THE ROLL PROVIDING A SUBSTRATE FOR PLANT GROWTH. EFFECTIVE LIFE 2 TO 3 YEARS.
- (B) COIR FIBER ROLLS ARE AN ACCEPTABLE MITIGATION PRACTICE FOR USE IN STREAMS AND ALONG THE SHORELINE OF PONDS AND WETLANDS.
- (C) COIR FIBER ROLLS MAY BE USED IN COMBINATION WITH LONGITUDINAL STONE TOES, ROOT WADS, LIVE SILTATION, OR OTHER BANK STABILIZATION MEASURES.
- (D) COIR FIBER ROLLS SHOULD NOT BE USED WHEN CHANNEL FLOW VELOCITY EXCEEDS 10 FEET PER SECOND, WHERE CHANNEL SHEAR STRESSES ARE MODERATE TO HIGH ALONG THE BANK, IN BEDROCK CHANNELS, IN CHANNELS WHERE SCOUR IS PRESENT OR EXPECTED, OR IN STREAMS WHERE SIGNIFICANT DEBRIS LOAD IS EXPECTED.
- (E) COIR FIBER ROLLS SHOULD BE CONSTRUCTED AT THE TOE OF A STREAM BANK TO A HEIGHT EQUAL TO THE CHANNEL FORMING FLOW ELEVATION.
- (F) COIR FIBER ROLLS SHALL BE SEATED IN A SHALLOW HAND-CUT TRENCH SLIGHTLY BELOW THE CHANNEL BOTTOM ELEVATION. COIR FIBER ROLL SHALL BE IN CONTACT WITH THE WATER, SUBMERGED FROM ONE-HALF TO TWO-THIRDS OF THE ROLL DIAMETER.
- (G) ENDS OF COIR FIBER ROLLS SHALL BE TURNED IN AND BURIED WITHIN THE BANK TO PREVENT WATER FROM INTRUDING BEHIND THE ROLL.
- (H) VEGETATION (SPECIES) USED FOR HERBACEOUS PLUGS TO BE INSTALLED IN THE TOP OF COIR FIBER ROLLS SHALL BE APPROVED BY THE ENVIRONMENTAL DIVISION. LIVE DORMANT STAKES MAY BE USED FOR PLUGS.
- (I) COIR FIBER ROLLS SHALL BE KEPT DRY PRIOR TO INSTALLATION.
- (J) COIR FIBER ROLLS SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBER:  
209-03.31 STREAM MITIGATION - COCONUT FIBER ROLLS PER LINEAR FOOT  
EROSION CONTROL BLANKETS AND HERBACEOUS PLANT PLUGS SHALL BE PAID FOR ACCORDING TO THEIR RESPECTIVE ITEM NUMBERS.  
PAYMENT FOR COIR FIBER ROLLS SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR THE INSTALLATION OF THE COIR FIBER ROLL.

### COIR FIBER EROSION CONTROL BLANKET NOTES

- (A) COIR FIBER EROSION CONTROL BLANKETS PROVIDE TEMPORARY BANK STABILIZATION FOLLOWING BANK GRADING, UNTIL PERMANENT VEGETATION CAN BE ESTABLISHED.
- (B) COIR FIBER EROSION CONTROL BLANKETS SHALL BE 700 GRAMS PER SQUARE METER.
- (C) BEFORE INSTALLING COIR BLANKETS, RAKE OR TILL THE UPPER THREE TO FOUR INCHES OF THE SOIL ON THE STREAM BANKS, SEED WITH TEMPORARY AND PERMANENT SEED MIXES, RAKE SOIL LEVEL, AND LIGHTLY MULCH WITH CLEAN STRAW.
- (D) COIR BLANKETS SHALL BE INSTALLED ON THE OUTSIDE OF BANKS OF MEANDERS AND ON BOTH BANKS ALONG RIFFLES, FROM THE INNER BERM OF THE CHANNEL TO TWO FEET (MIN.) BEYOND BANKFULL. BLANKET MAY BE ELIMINATED FROM THE INNER BERM AT THE DISCRETION OF THE ENGINEER.
- (E) PLACE COIR BLANKETS PARALLEL TO THE CHANNEL. WHERE MULTIPLE PANELS OF BLANKETS ARE USED, PANELS SHALL BE OVERLAPPED A MINIMUM OF SIX INCHES, IN A DOWNSTREAM AND DOWNSLOPE DIRECTION.
- (F) PULL BLANKETS TIGHT, BUT MAINTAIN CONTACT WITH THE SOIL. USE 2-INCH X 4-INCH X 18-INCH WOODEN STAKES ON THREE-FOOT CENTERS TO SECURE COIR BLANKETS.
- (G) ALL MATERIALS ARE TO BE APPROVED BY ENGINEER OR ENGINEER'S ON-SITE CONSTRUCTION OBSERVER.
- (H) COIR FIBER EROSION CONTROL BLANKETS SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBER:  
805-12.08 COIR FIBER EROSION CONTROL BLANKETS PER SY  
SEED AND MULCH SHALL BE PAID FOR ACCORDING TO THEIR RESPECTIVE ITEM NUMBERS. PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR TO INSTALL THE COIR FIBER EROSION CONTROL BLANKETS.

MATERIAL SHOWN ARE ONLY A GRAPHICAL REPRESENTATION AND DO NOT DEPICT THE ACTUAL DEPTH OR QUANTITY OF MATERIALS TO APPROPRIATELY CONSTRUCT OR STABILIZE THE CHANNEL.

NOT TO SCALE

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

COIR FIBER  
EROSION CONTROL  
BLANKET AND COIR  
FIBER ROLLS

11-01-16

D-NSD-33

STREAM MITIGATION PLAN LEGEND: \*\*ROLL\*\*ROLL\*\*ROLL\*\* COCONUT FIBER ROLLS