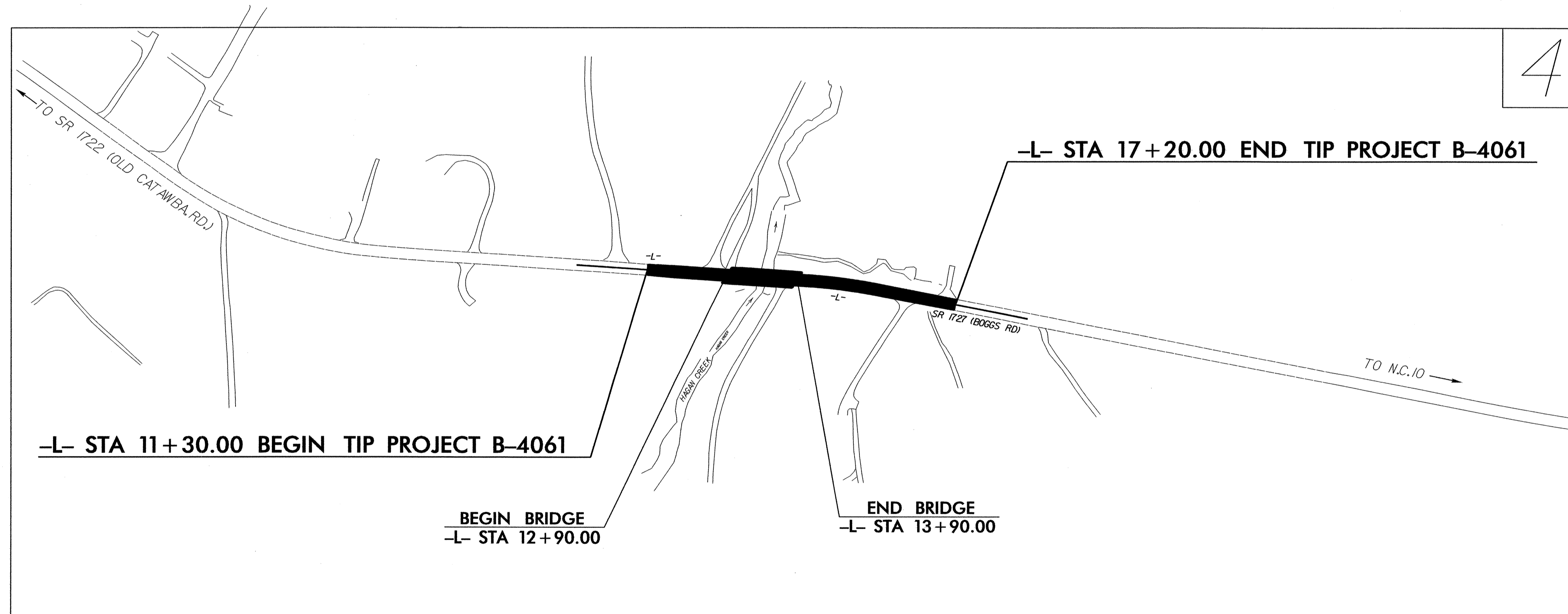


**TIP PROJECT: B-4061**

STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS  
 PLAN FOR PROPOSED  
 HIGHWAY EROSION CONTROL  
**CATAWBA COUNTY**

**LOCATION: BRIDGE NO. 90 OVER HAGAN CREEK ON SR 1727**  
**TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE AND PAVING**



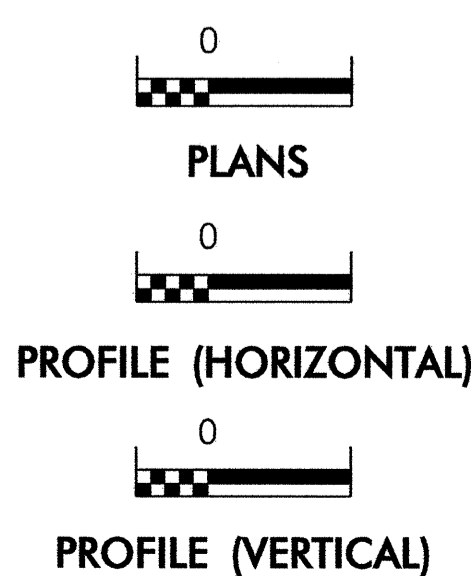
| STATE           | STATE PROJECT REFERENCE NO. | SHEET NO.   | TOTAL SHEETS |
|-----------------|-----------------------------|-------------|--------------|
| N.C.            | B-4061                      | EC-1        |              |
| STATE PROJ. NO. | F.A. PROJ. NO.              | DESCRIPTION |              |
|                 |                             |             |              |
|                 |                             |             |              |
|                 |                             |             |              |

**EROSION AND SEDIMENT CONTROL MEASURES**

| Std. #  | Description   | Symbol |
|---------|---|--------|
| 1630.03 | Temporary Silt Ditch.....   |        |
| 1630.05 | Temporary Diversion.....  |        |
| 1605.01 | Temporary Silt Fence.....   |        |
| 1606.01 | Special Sediment Control Fence.....   |        |
| 1622.01 | Temporary Berms and Slope Drains.....                                       |        |
| 1630.02 | Silt Basin Type B.....  |        |
| 1633.01 | Temporary Rock Silt Check Type-A.....                                       |        |
|         | Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)..... |        |
| 1633.02 | Temporary Rock Silt Check Type-B.....                                       |        |
|         | Wattle / Coir Fiber Wattle.....   |        |
|         | Wattle / Coir Fiber Wattle with Polyacrylamide (PAM).....                   |        |
| 1634.01 | Temporary Rock Sediment Dam Type-A.....                                     |        |
| 1634.02 | Temporary Rock Sediment Dam Type-B.....                                     |        |
| 1635.01 | Rock Pipe Inlet Sediment Trap Type-A.....                                   |        |
| 1635.02 | Rock Pipe Inlet Sediment Trap Type-B.....                                   |        |
| 1630.04 | Stilling Basin.....   |        |
| 1630.06 | Special Stilling Basin.....   |        |
|         | Rock Inlet Sediment Trap:   |        |
| 1632.01 | Type A.....   |        |
| 1632.02 | Type B.....   |        |
| 1632.03 | Type C.....   |        |
|         | Skimmer Basin.....  |        |
|         | Tiered Skimmer Basin.....   |        |
|         | Infiltration Basin.....   |        |

**THIS PROJECT CONTAINS  
 EROSION CONTROL PLANS  
 FOR CLEARING AND  
 GRUBBING PHASE OF  
 CONSTRUCTION.**

**GRAPHIC SCALE**



ROADSIDE ENVIRONMENTAL UNIT  
 DIVISION OF HIGHWAYS  
 STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY  
 WITH THE REGULATIONS SET FORTH BY THE  
 NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011  
 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND  
 NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:  
**ROADSIDE ENVIRONMENTAL UNIT**  
 1 South Wilmington St.  
 Raleigh, NC 27611  
**2012 STANDARD SPECIFICATIONS**

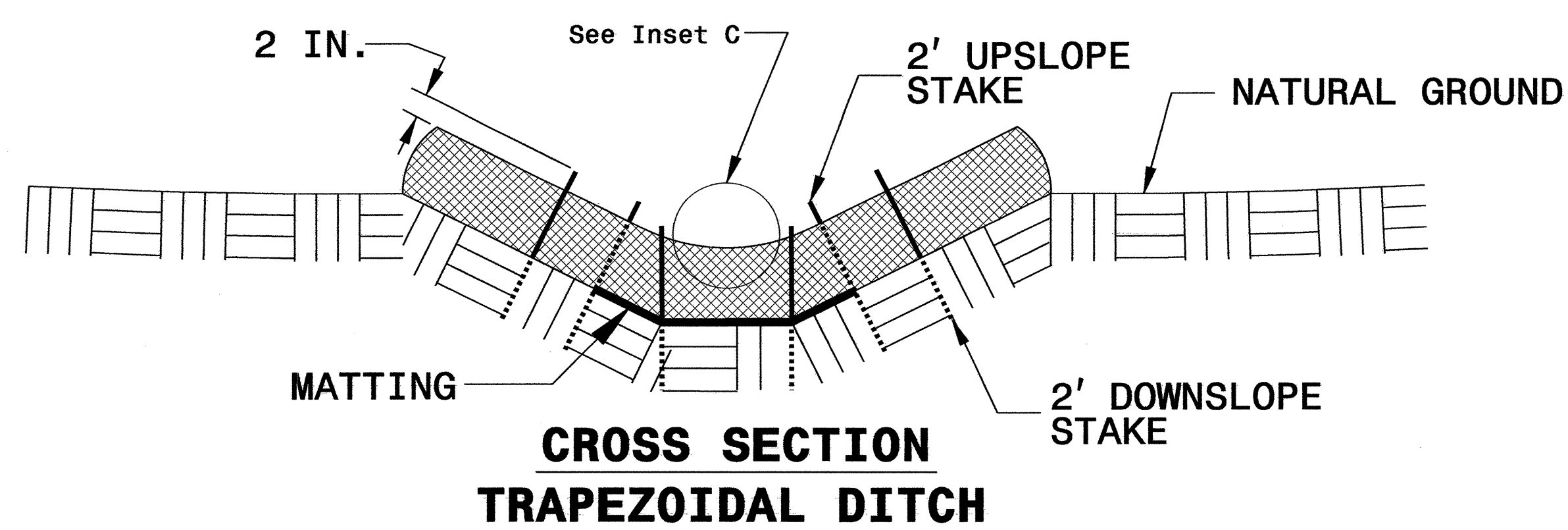
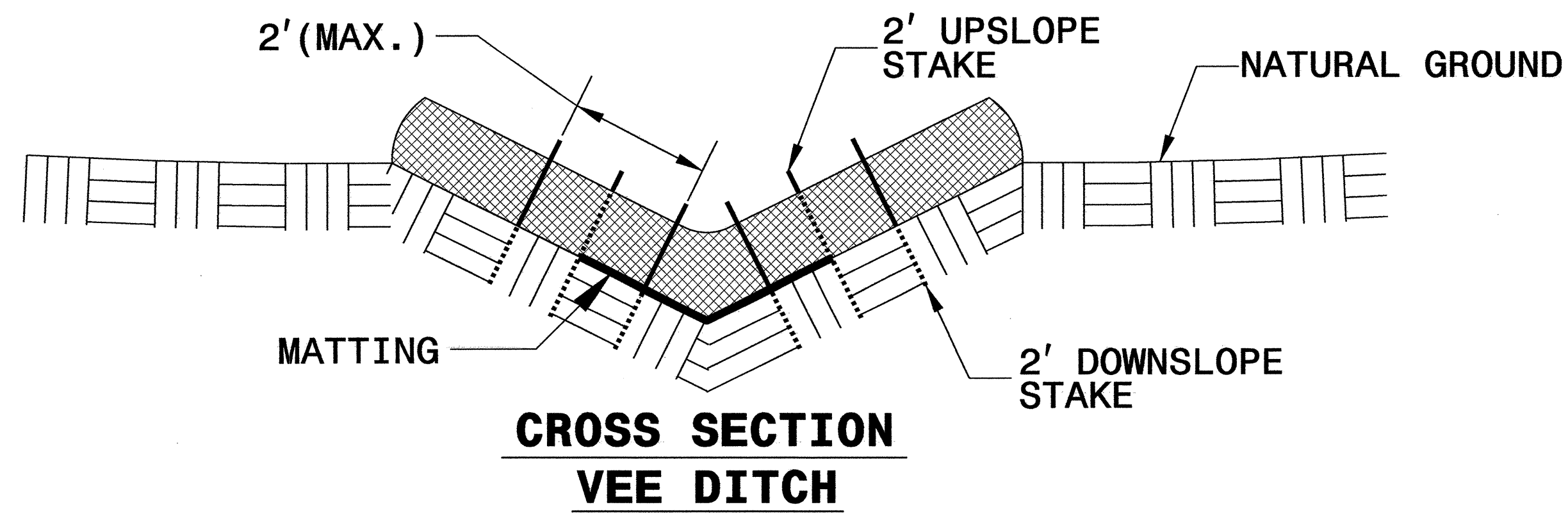
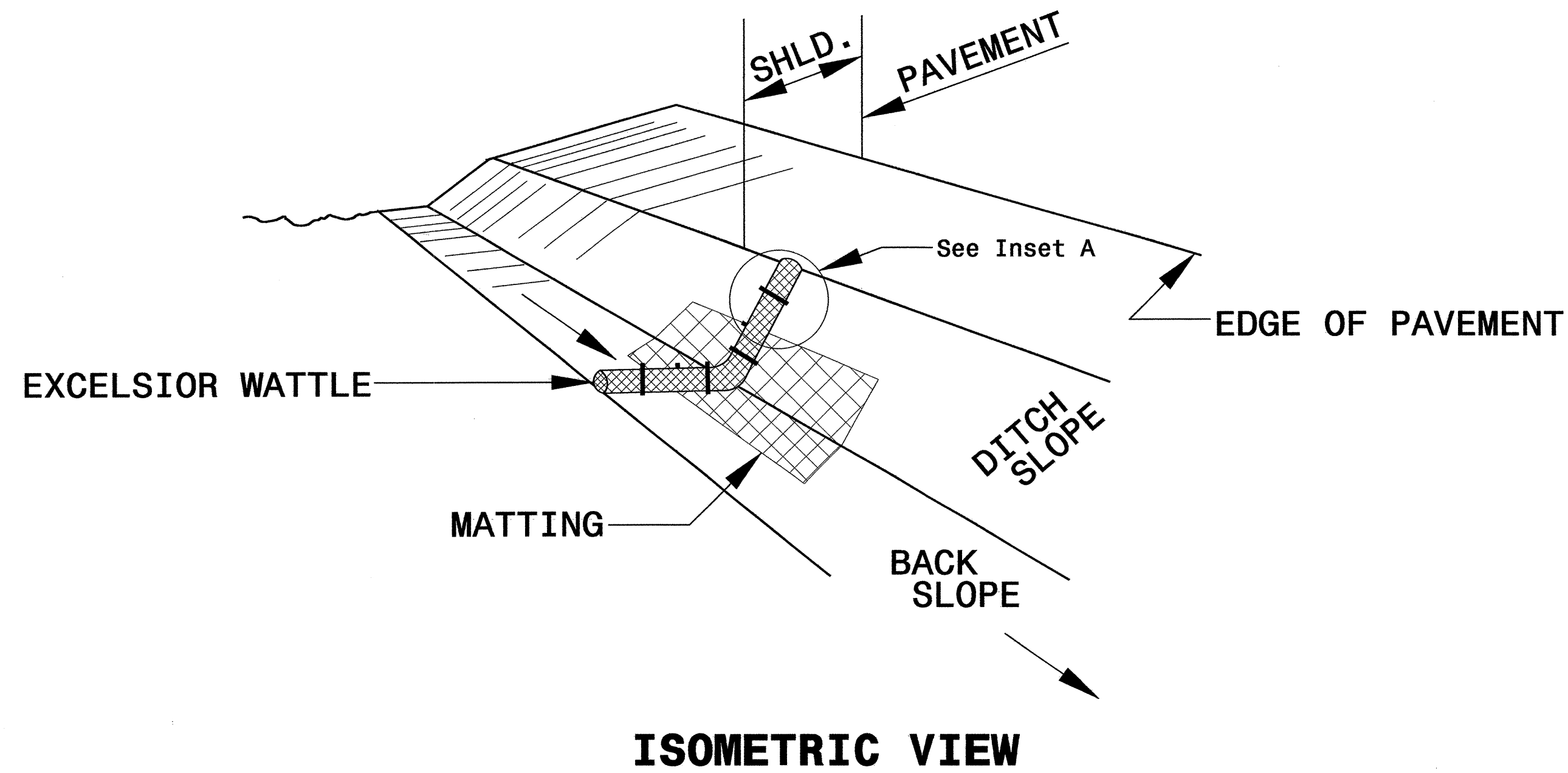
**Roadway Standard Drawings**

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

|  |  |
|--|--|
| 1604.01 Railroad Erosion Control Detail  | 1632.01 Rock Inlet Sediment Trap Type A      |
| 1605.01 Temporary Silt Fence             | 1632.02 Rock Inlet Sediment Trap Type B      |
| 1606.01 Special Sediment Control Fence   | 1632.03 Rock Inlet Sediment Trap Type C      |
| 1607.01 Gravel Construction Entrance     | 1633.01 Temporary Rock Silt Check Type A     |
| 1622.01 Temporary Berms and Slope Drains | 1633.02 Temporary Rock Silt Check Type B     |
| 1630.01 Riser Basin                      | 1634.01 Temporary Rock Sediment Dam Type A   |
| 1630.02 Silt Basin Type B                | 1634.02 Temporary Rock Sediment Dam Type B   |
| 1630.03 Temporary Silt Ditch             | 1635.01 Rock Pipe Inlet Sediment Trap Type A |
| 1630.04 Stilling Basin                   | 1635.02 Rock Pipe Inlet Sediment Trap Type B |
| 1630.05 Temporary Diversion              | 1640.01 Coir Fiber Baffle                    |
| 1630.06 Special Stilling Basin           | 1645.01 Temporary Stream Crossing            |
| 1631.01 Matting Installation             |  |

|                                 |                     |
|---------------------------------|---------------------|
| PROJECT REFERENCE NO.<br>B-4061 | SHEET NO.<br>EC-2   |
| RW SHEET NO.                    |                     |
| ROADWAY DESIGN ENGINEER         | HYDRAULICS ENGINEER |

# WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



**NOTES:**

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

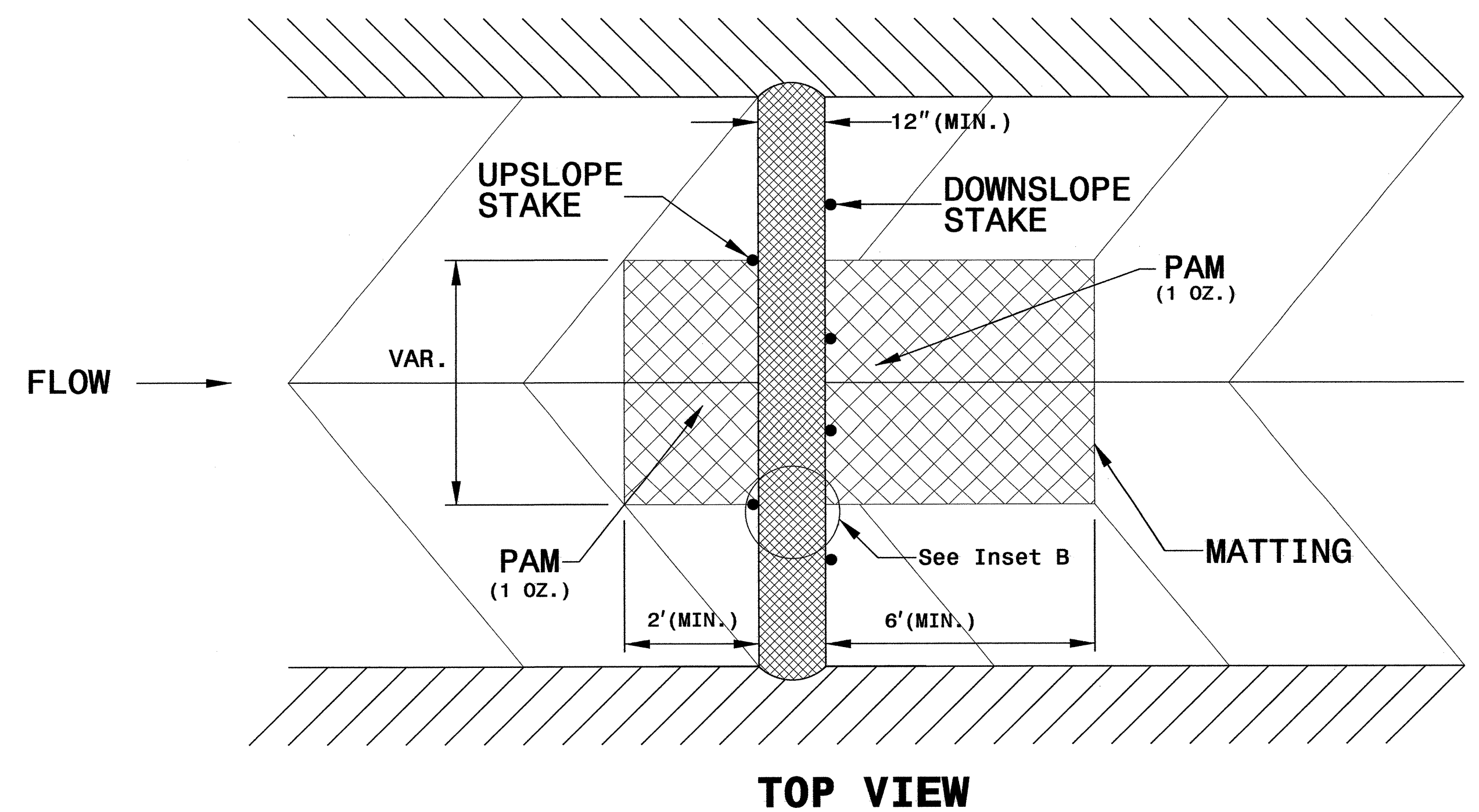
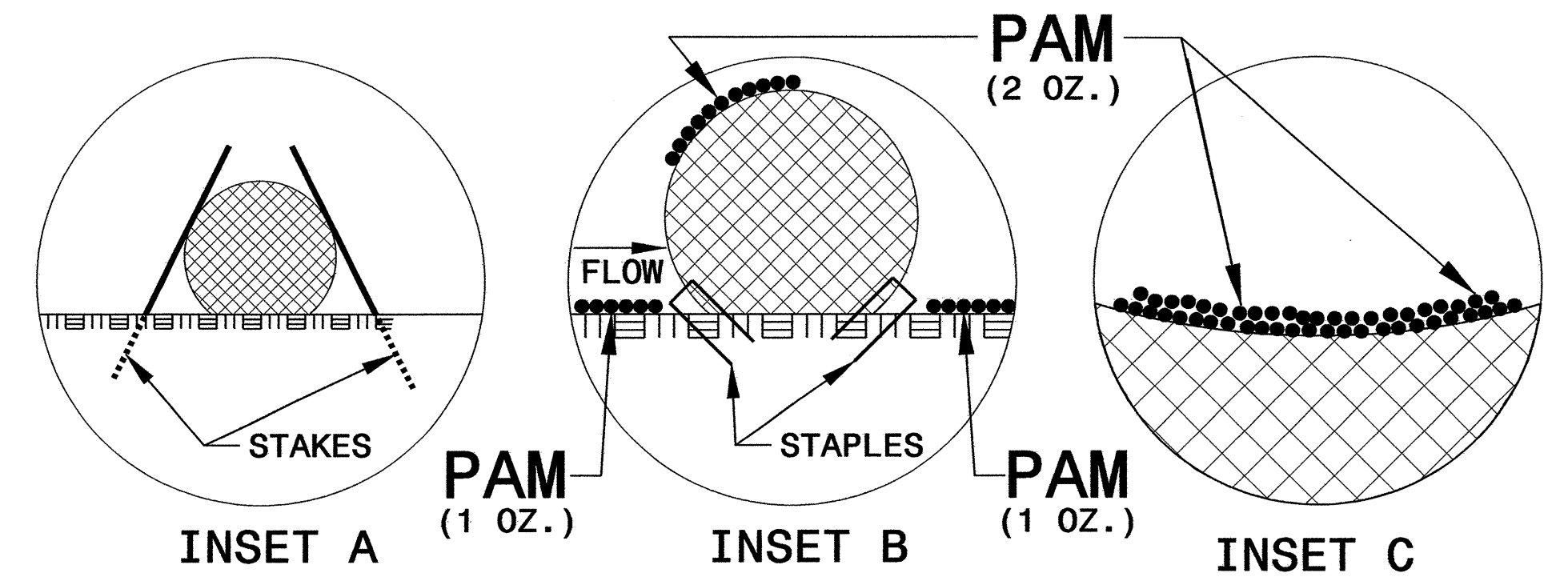
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.





DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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|  |                           |
|--|---------------------------|
| PROJECT REFERENCE NO.<br><i>B-4061</i> | SHEET NO.<br><i>EC-3A</i> |
| ROADWAY DESIGN<br>ENGINEER             | HYDRAULICS<br>ENGINEER    |

# ***SOIL STABILIZATION TIMEFRAMES***

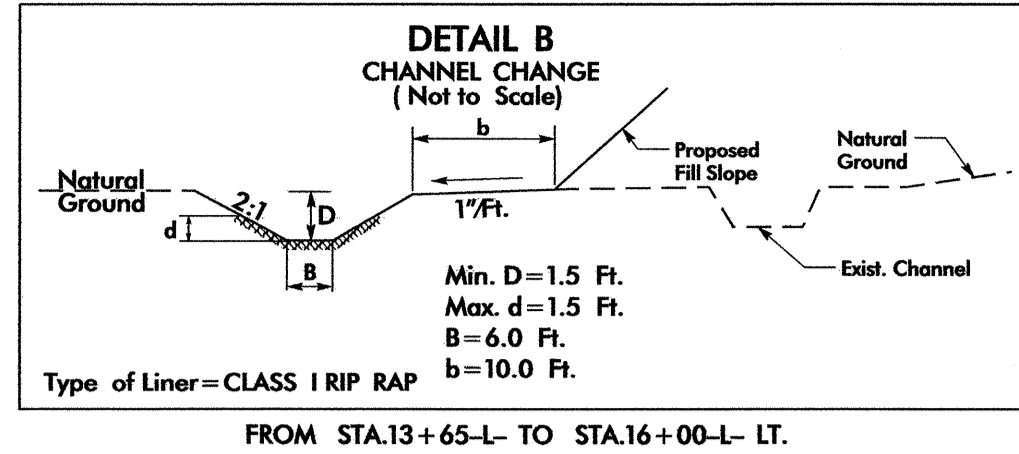
| <i>SITE DESCRIPTION</i>                      | <i>STABILIZATION TIME</i> | <i>TIMEFRAME EXCEPTIONS</i>  |
|--|---------------------------|--|
| PERIMETER DIKES, SWALES, DITCHES AND SLOPES  | 7 DAYS                    | NONE   |
| HIGH QUALITY WATER (HQW) ZONES               | 7 DAYS                    | NONE   |
| SLOPES STEEPER THAN 3:1                      | 7 DAYS                    | IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED. |
| SLOPES 3:1 OR FLATTER                        | 14 DAYS                   | 7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.  |
| ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1 | 14 DAYS                   | NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.   |

8/17/99

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

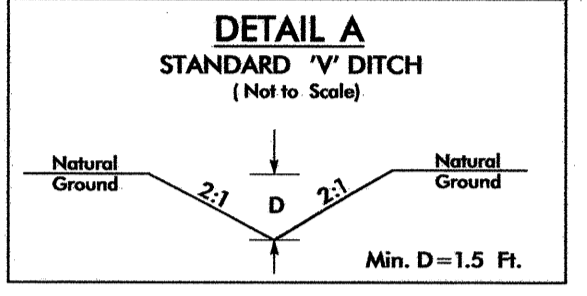
NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 04

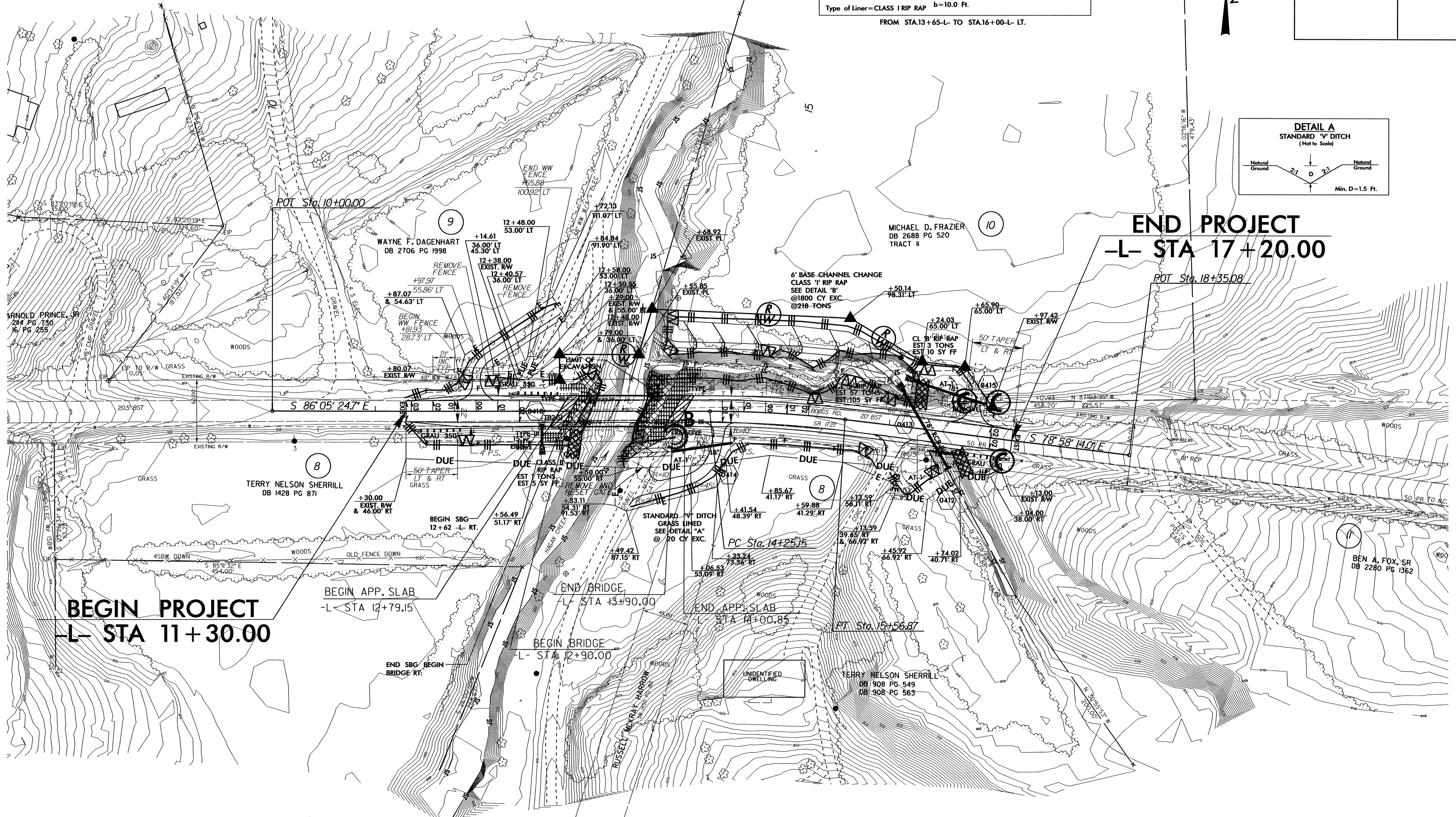


NAD 83

|                                 |                             |
|---------------------------------|-----------------------------|
| PROJECT REFERENCE NO.<br>B-4061 | SHEET NO.<br>EC-04/CONST.04 |
| RW SHEET NO.                    |                             |
| ROADWAY DESIGN ENGINEER         | HYDRAULICS ENGINEER         |



REVISIONS

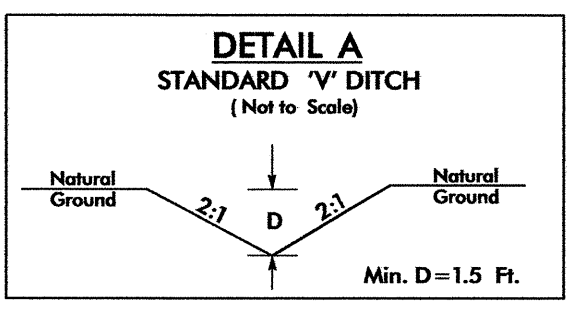
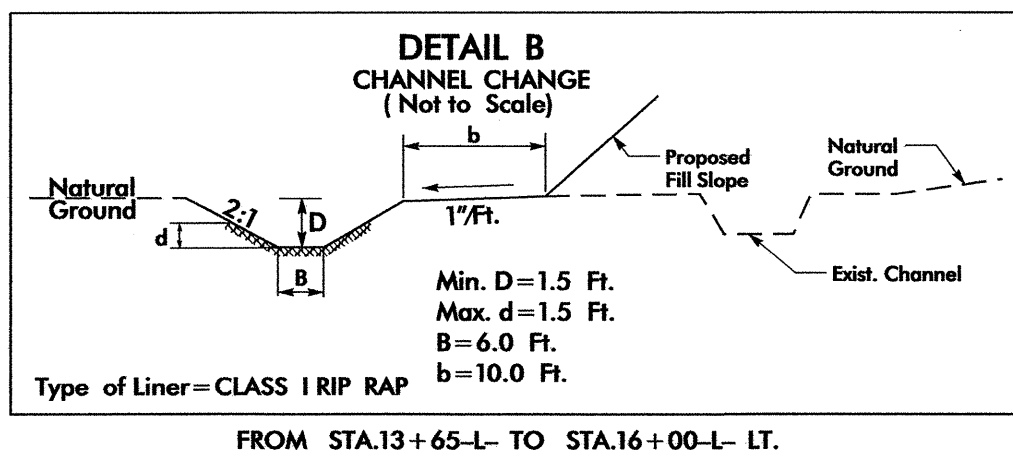


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8/17/99

507.24' W  
619.24'

|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| B-4061                  | EC-05/CONST.04      |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

NOTE:  
UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE.



NAD 83

Place Matting for Erosion Control on Slope as Work Allows.

END PROJECT  
-L- STA 17+20.00

BEGIN PROJECT  
-L- STA 11+30.00

8/17/99

REVISIONS

20-001-201107-45  
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