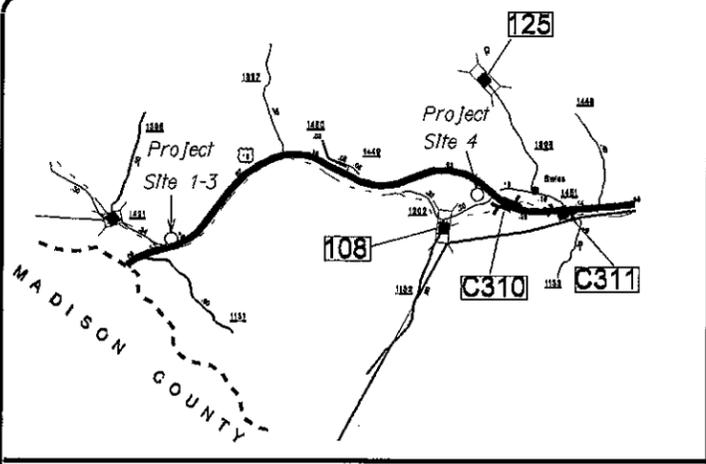


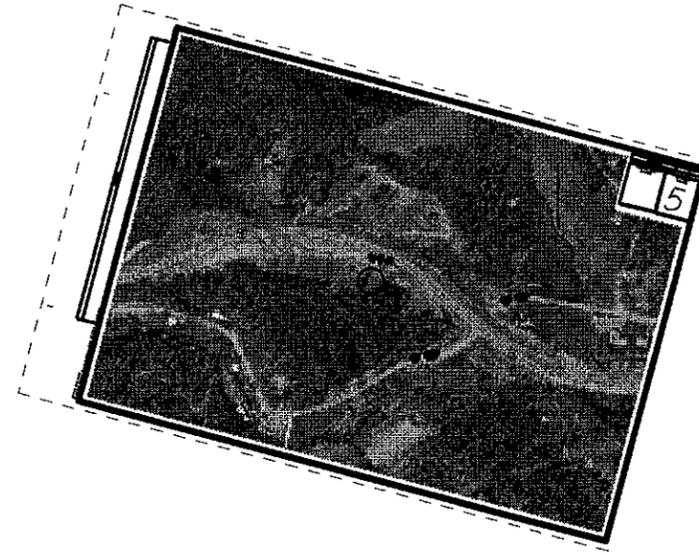
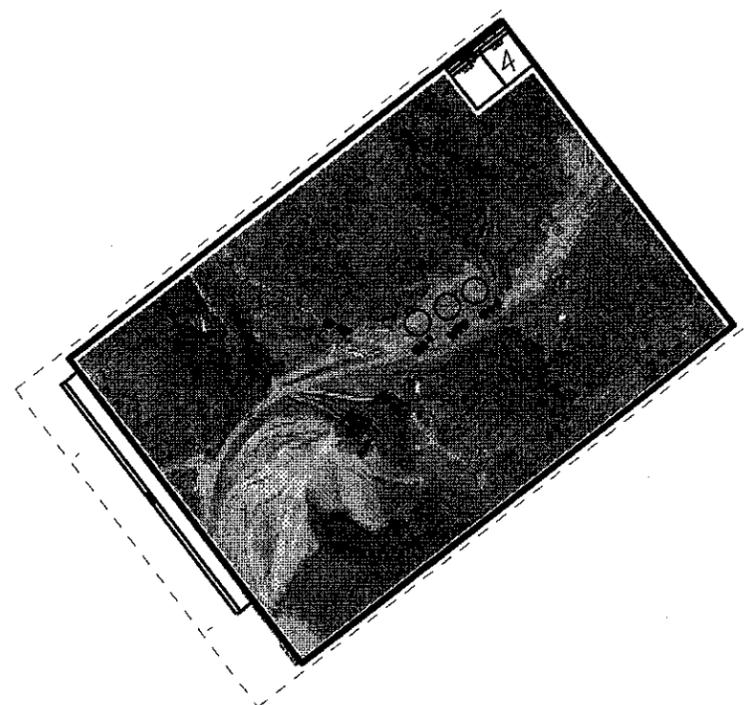
TIP PROJECT: R-2518B

CONTRACT: DM00093



VICINITY MAP

See Sheet 1-A For Index of Sheets



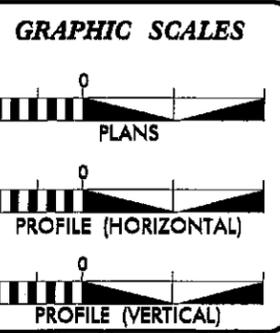
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**YANCEY COUNTY**

LOCATION: US 19 FROM SR 1421 TO SR 1202

TYPE OF WORK: SLOPE STABILIZATION

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2518B	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34445.4.2		CONST.	



**DESIGN DATA**

ADT	=	
ADT	=	
DHV	=	%
D	=	%
T	=	% *
V	=	MPH
* TTST	=	DUAL
FUNC CLASS	=	

**PROJECT LENGTH**

SPOT LOCATION ALONG 137 MILES

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
55 Orange Street, Asheville NC 28802

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: KENNETH ARTHUR WILSON, P.E.  
PROJECT ENGINEER

LETTING DATE:  
APRIL 16, 2014

M.K. PENLAND  
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.



27-FEB-2014 14:26 R:\Slope Repair Projects\Yancey\US 19\US19\_ddc\_tsh.dgn \$\$\$USERNAME\$\$\$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2518B	1-A

ROADWAY DESIGN ENGINEER

SHEET NUMBER	INDEX OF SHEETS SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
2 THRU 2-A	DETAIL PHOTOS OF SLIDE SITES
2-B	DETAIL OF SOIL NAIL SLOPE STABILIZATION
4 THRU 5	PLAN SHEETS
EC-1 THRU EC-2	EROSION CONTROL PLANS

GENERAL NOTES:

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

2012 SPECIFICATIONS  
EFFECTIVE: 01-17-2012  
REVISED: 07-30-2012

EFF. 01-17-2012  
REV. 10-30-2012

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO. TITLE

27-FEB-2014 14:37  
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12/20/11

Note: Not to Scale

\*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# CONVENTIONAL PLAN SHEET SYMBOLS

## BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○

Property Corner	-----
Property Monument	□
Parcel/Sequence Number	①②③
Existing Fence Line	× × ×
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-----
Proposed Wetland Boundary	-----
Existing Endangered Animal Boundary	-----
Existing Endangered Plant Boundary	-----
Known Soil Contamination: Area or Site	☠
Potential Soil Contamination: Area or Site	☠

## BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
Well	○
Small Mine	×
Foundation	□
Area Outline	□
Cemetery	+
Building	□
School	□
Church	□
Dam	□

## HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	-----
Jurisdictional Stream	-----
Buffer Zone 1	BZ 1
Buffer Zone 2	BZ 2
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	-----
Proposed Lateral, Tail, Head Ditch	-----
False Sump	-----

## RAILROADS:

Standard Gauge	-----
RR Signal Milepost	①
Switch	□
RR Abandoned	-----
RR Dismantled	-----

## RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite R/W Marker	-----
Proposed Control of Access Line with Concrete C/A Marker	-----
Existing Control of Access	-----
Proposed Control of Access	-----
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage / Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----
Proposed Permanent Easement with Iron Pin and Cap Marker	-----

## ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
Proposed Curb Ramp	-----
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	-----

## VEGETATION:

Single Tree	○
Single Shrub	○
Hedge	-----
Woods Line	-----

Orchard	-----
Vineyard	-----

## EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	-----
Bridge Wing Wall, Head Wall and End Wall	-----
MINOR:	
Head and End Wall	-----
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□
Paved Ditch Gutter	-----
Storm Sewer Manhole	⊕
Storm Sewer	-----

## UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊕
Power Line Tower	⊗
Power Transformer	⊗
H-Frame Pole	-----
U/G Power Cable Hand Hole	□
Recorded U/G Power Line	-----
Designated U/G Power Line (S.U.E.*)	-----

## TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Booth	□
Telephone Pedestal	□
Telephone Cell Tower	⊗
U/G Telephone Cable Hand Hole	□
Recorded U/G Telephone Cable	-----
Designated U/G Telephone Cable (S.U.E.*)	-----
Recorded U/G Telephone Conduit	-----
Designated U/G Telephone Conduit (S.U.E.*)	-----
Recorded U/G Fiber Optics Cable	-----
Designated U/G Fiber Optics Cable (S.U.E.*)	-----

## WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊕
Water Hydrant	⊕
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	-----

## TV:

TV Satellite Dish	⊗
TV Pedestal	□
TV Tower	⊗
U/G TV Cable Hand Hole	□
Recorded U/G TV Cable	-----
Designated U/G TV Cable (S.U.E.*)	-----
Recorded U/G Fiber Optic Cable	-----
Designated U/G Fiber Optic Cable (S.U.E.*)	-----

## GAS:

Gas Valve	◇
Gas Meter	⊕
Recorded U/G Gas Line	-----
Designated U/G Gas Line (S.U.E.*)	-----
Above Ground Gas Line	-----

## SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
Recorded SS Forced Main Line	-----
Designated SS Forced Main Line (S.U.E.*)	-----

## MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	□
Utility Unknown U/G Line	-----
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	⊕
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

DETAIL PHOTOS OF SLIDE SITES

SITE NO. 1



SITE NO. 2



08C25521

PROJECT NO.	SHEET NO.
R-2518B	2-A

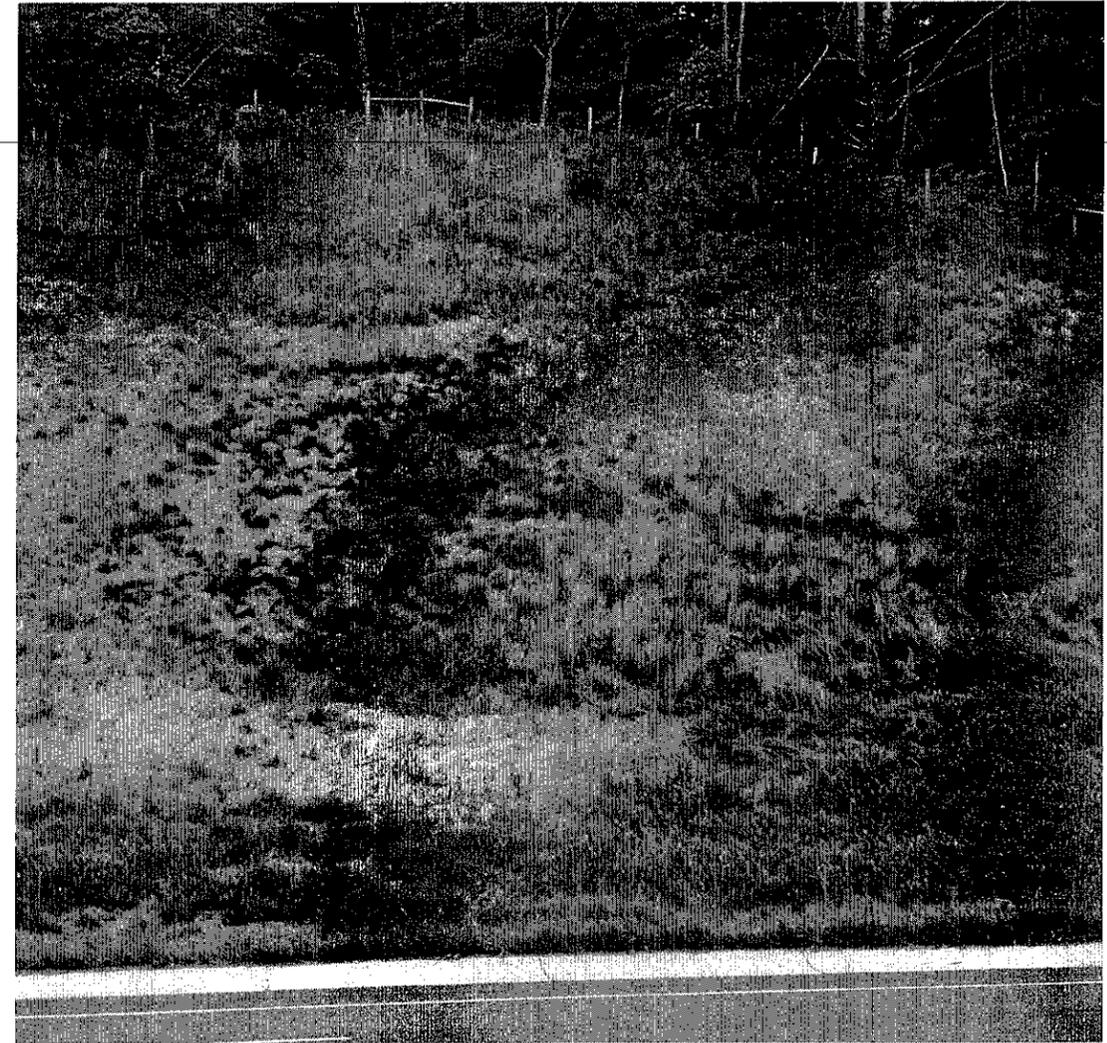
GBC25521

### DETAIL PHOTOS OF SLIDE SITES

SITE NO. 3



SITE NO. 4

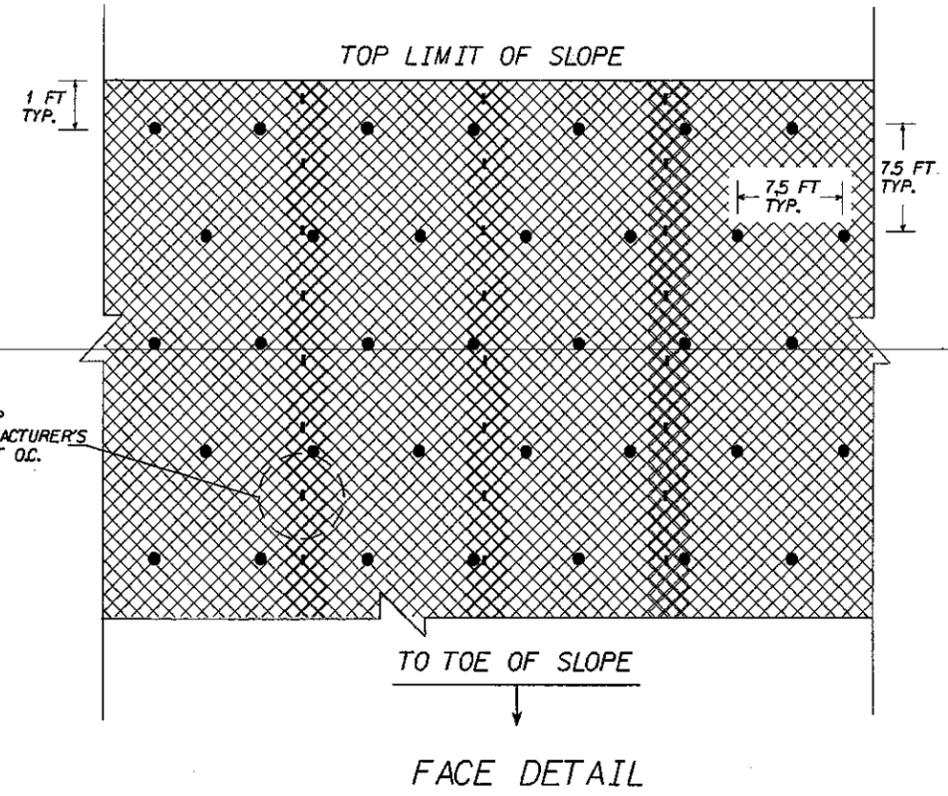


GEOTECHNICAL ENGINEER

ENGINEER

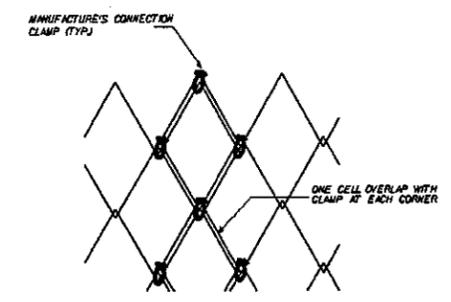
10/11/13

TOTAL BILL OF MATERIAL	
SITE 1 - SOIL NAIL SLOPE STABILIZATION UNCLASSIFIED EXCAVATION	835 SQ. YDS. 500 CU. YDS.
SITE 2 - SOIL NAIL SLOPE STABILIZATION UNCLASSIFIED EXCAVATION	2250 SQ. YDS. 1500 CU. YDS.
SITE 3 - SOIL NAIL SLOPE STABILIZATION UNCLASSIFIED EXCAVATION	1250 SQ. YDS. 850 CU. YDS.
SITE 4 - SOIL NAIL SLOPE STABILIZATION DRAINAGE EXCAVATION	2100 SQ. YDS.

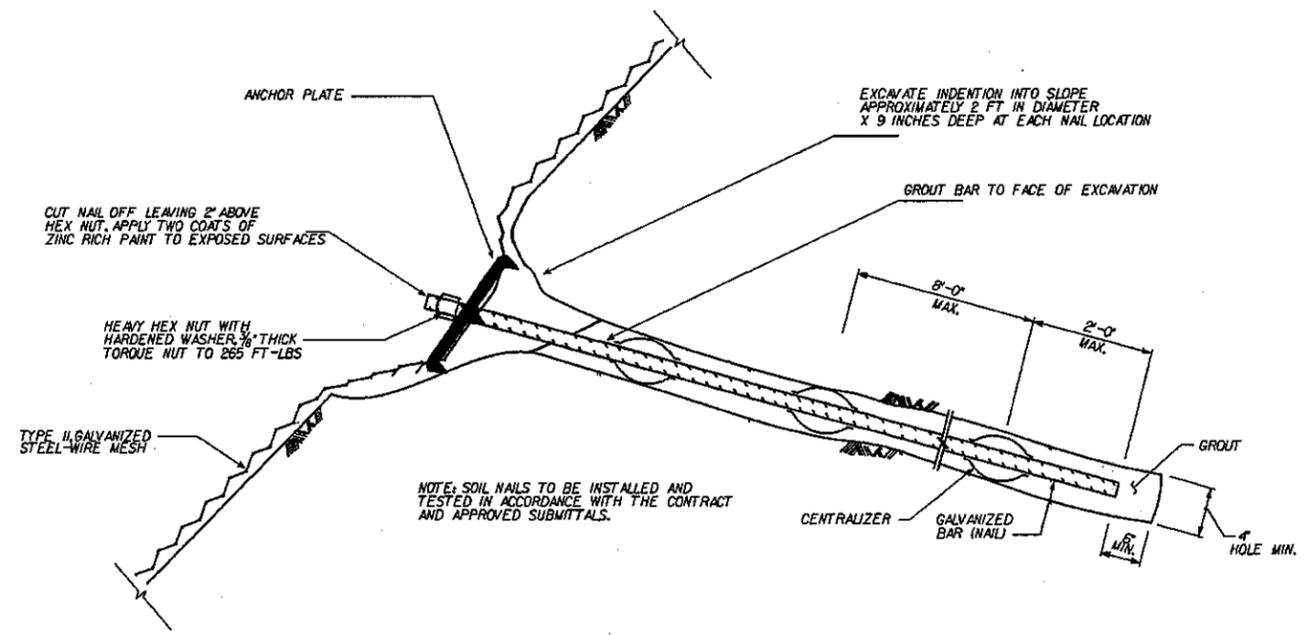


**NOTES:**

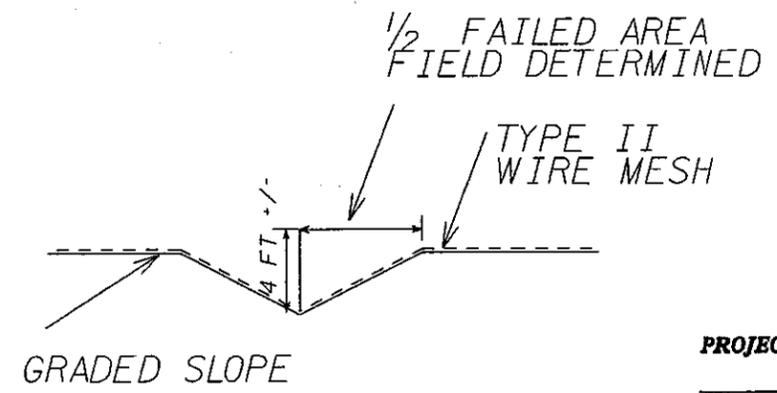
- 1) GRADE SLOPES AS REQUIRED TO CREATE DRAINAGE SWALE. REMOVE EXCAVATED MATERIALS AND DISPOSE OF OFF SITE.
- 2) SOIL NAIL LENGTH = 20 FT (TYP)
- 3) DESIGN TEST LOAD (DTL) = 10 KIPS
- 4) INSTALL NAILS INTO SLOPE WITH AN INCLINATION OF 15 DEGREES (+/- 2) TO THE HORIZONTAL



**MESH OVERLAP & CONNECTION DETAIL**



**TYPICAL SECTION**



**GRADED SLOPE**

PROJECT NO.: R-2518B  
 YANCEY COUNTY  
 STATION: VARIES  
 SHEET 1 OF 1

PREPARED BY: JTW DATE: 8/2013  
 REVIEWED BY: SCC DATE: 10/2013

**GEOTECHNICAL ENGINEERING UNIT**

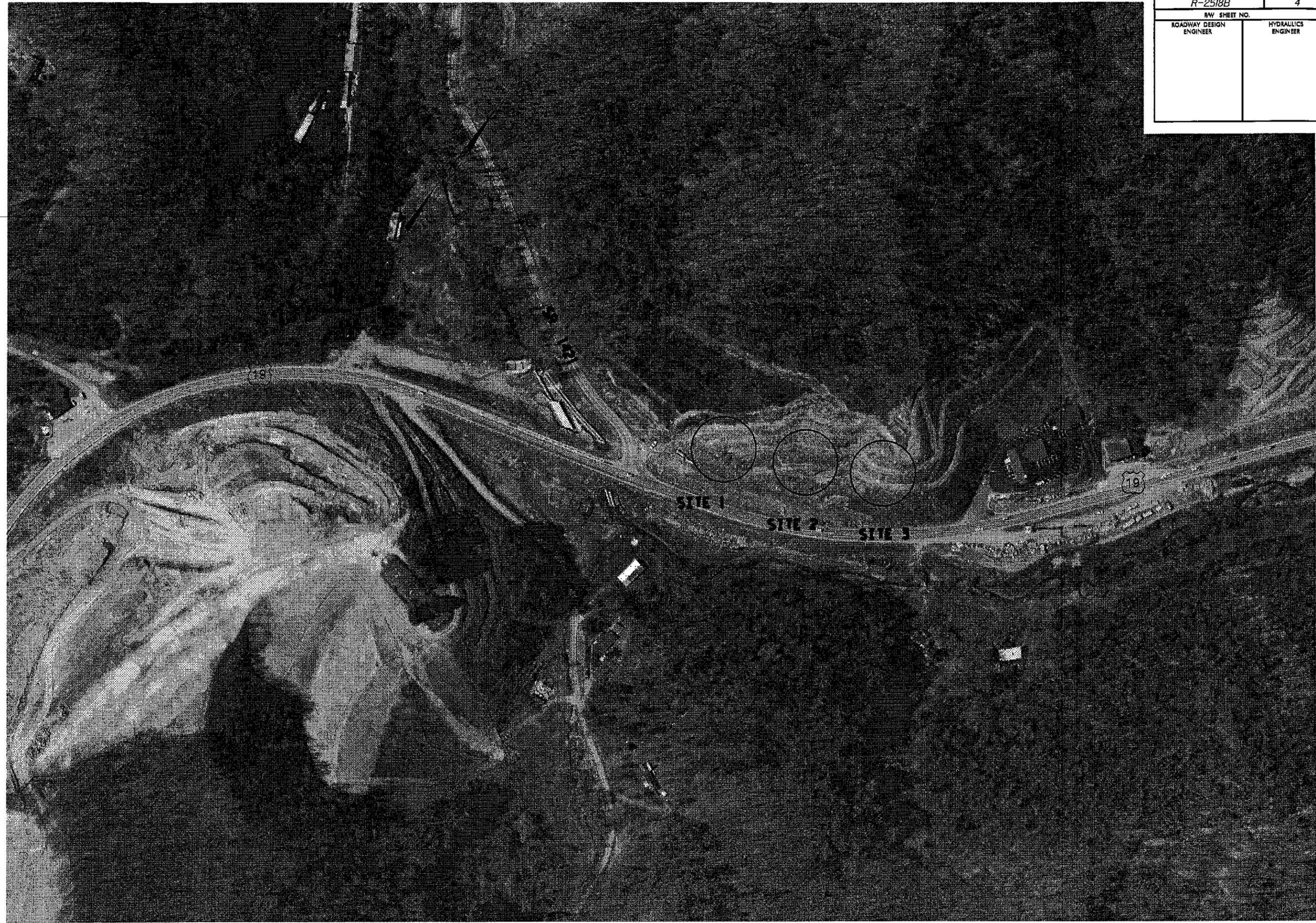
EASTERN REGIONAL OFFICE  
 WESTERN REGIONAL OFFICE  
 CONTRACTS

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**SOIL NAIL SLOPE STABILIZATION**

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	2-B
1			3			TOTAL SHEETS
2			4			

PROJECT REFERENCE NO. <i>R-2518B</i>	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



8/17/99

REVISIONS
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28-OCT-2013 15:30  
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8/17/99

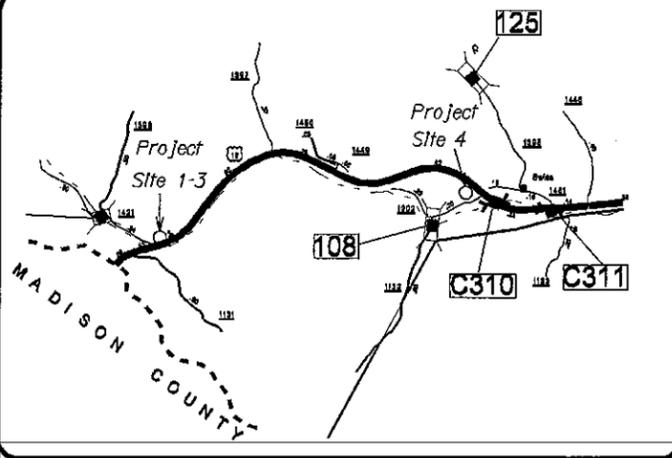
REVISIONS

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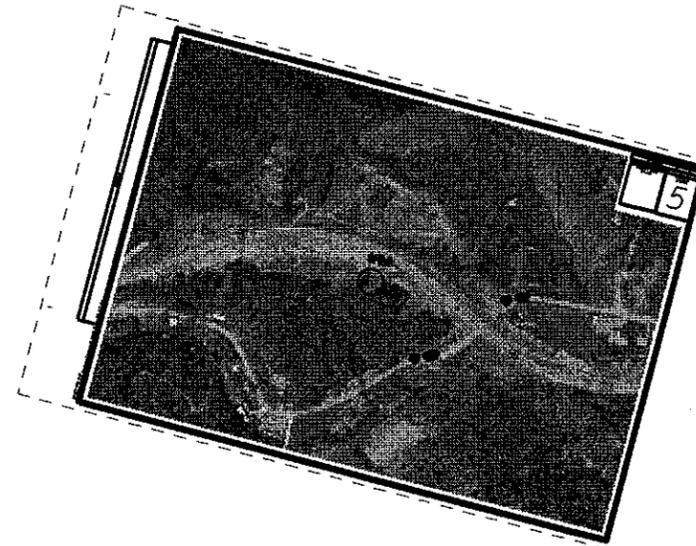
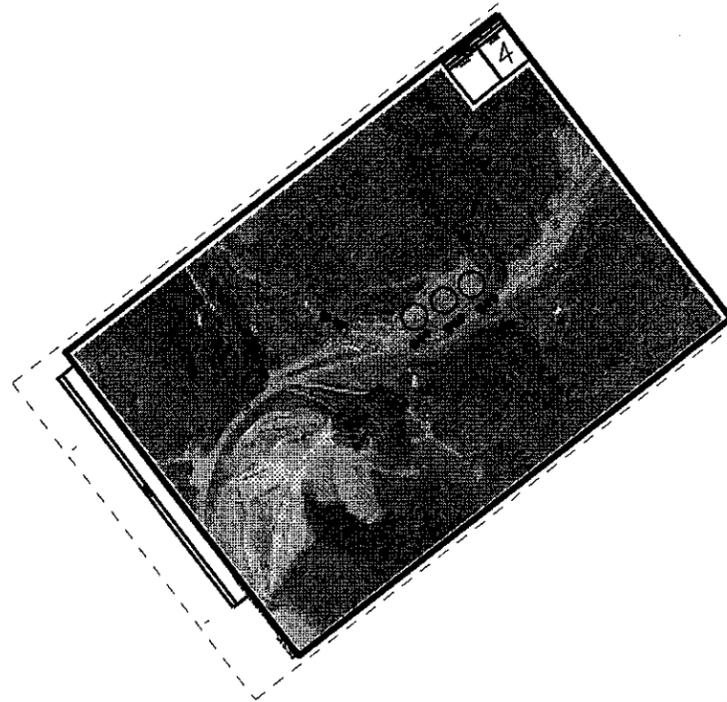
PROJECT REFERENCE NO. <i>R-2518B</i>	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**TIP PROJECT: R-2518B**



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

LOCATION: US 19 FROM SR 142 TO SR 1202



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2518B	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

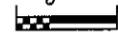
**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	---vd---
1630.05	Temporary Diversion	---to---
1605.01	Temporary Silt Fence	---   ---
1606.01	Special Sediment Control Fence	---▲▲▲---
1632.01	Temporary Berms and Slope Drains	---T---
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	---[ ]---

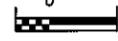
**GRAPHIC SCALE**



PLANS



PROFILE (HORIZONTAL)



PROFILE (VERTICAL)

DIVISION 13 DDC  
 DIVISION OF HIGHWAYS  
 STATE OF NORTH CAROLINA

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
 55 ORANGE STREET  
 ASHEVILLE, NC 28802  
**2012 STANDARD SPECIFICATIONS**

**Roadway Standard Drawings**

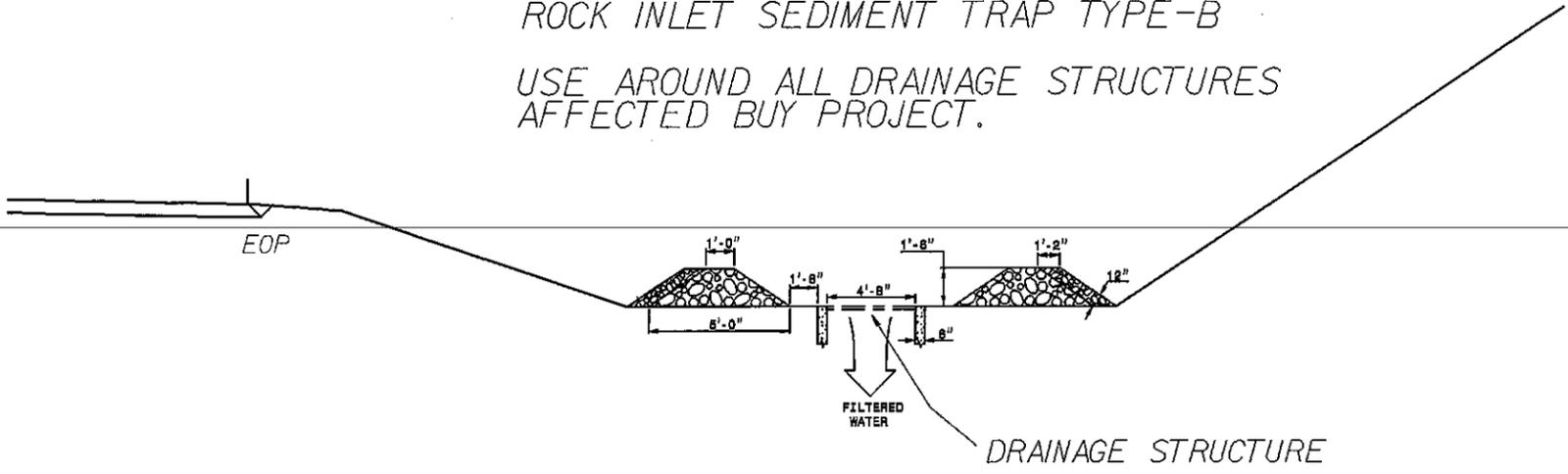
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

- 1630.02 Silt Basin Type B
- 1632.02 Rock Inlet Sediment Trap Type B
- 1640.01 Coir Fiber Baffle

PROJECT REFERENCE NO. R-2518B	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

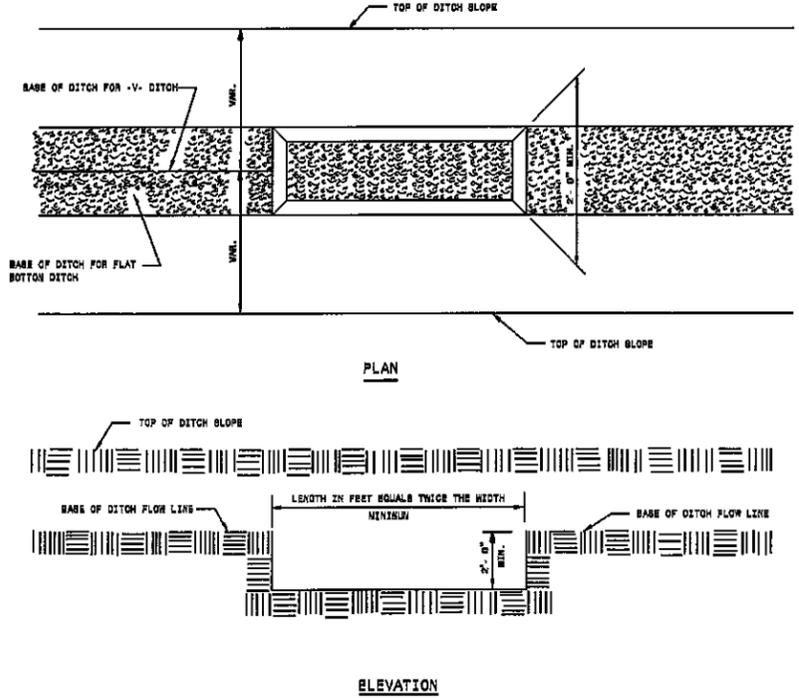
# EROSION CONTROL DETAIL

ROCK INLET SEDIMENT TRAP TYPE-B  
 USE AROUND ALL DRAINAGE STRUCTURES  
 AFFECTED BY PROJECT.



## SILT BASIN TYPE-B

PUT AT LOCATION WHERE WATER IS LEAVING PROJECT, DRAINAGE OUTLET AREAS.



COIR FIBER BAFFLES SHALL BE INSTALLED  
 IN SILT BASINS WHERE WATER IS LEAVING  
 PROJECT, DRAINAGE OUTLET AREAS.

NOT TO SCALE