TIP PROJECT: B-2848

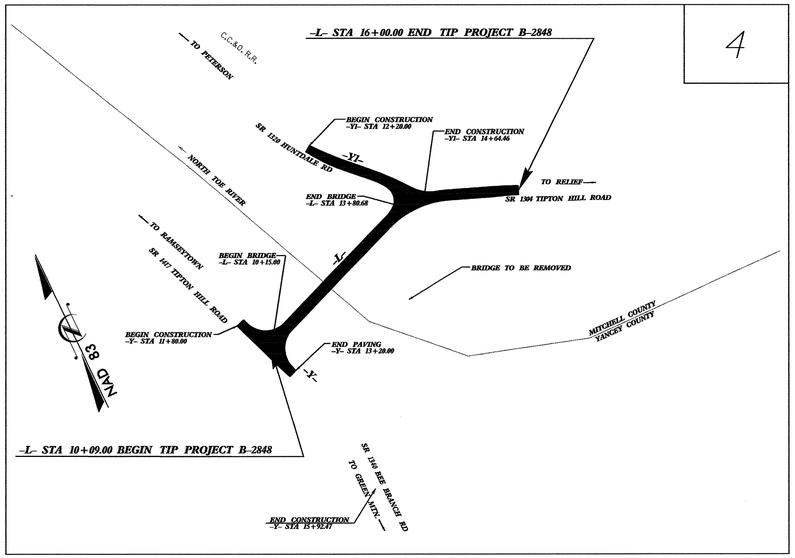
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

YANCEY & MITCHELL COUNTIES

LOCATION: Bridge #143 on SR 1304
over North Toe River

TYPE OF WORK: Grading, Paving, Drainage, and Structure



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-2848	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
	Streambank Reforestation	
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.01	Riser Basin	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-B	
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	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	

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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Refer To E. C. Special Provisions for Special Considerations.

GRAPHIC SCALE

0
PLANS
0
PROFILE (HORIZONTAL)
0
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Prepared In the Office of:

ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611

2006 STANDARD SPECIFICATIONS

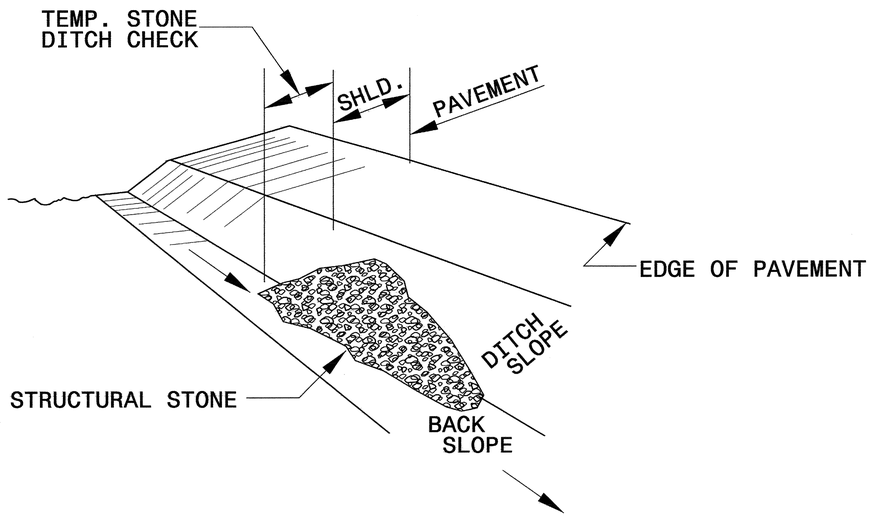
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated July 18, 2006 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

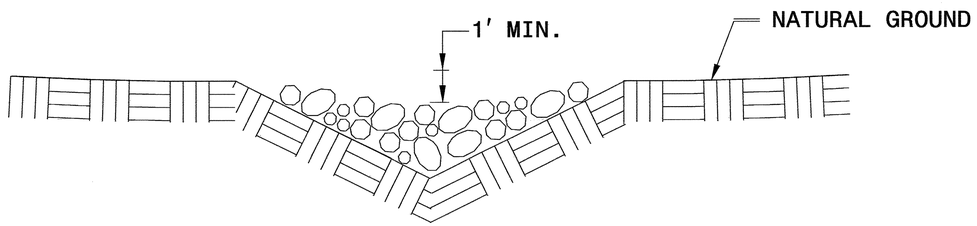
1605.01 Temporary Silt Fence
1607.01 Gravel Construction Entrance
1630.02 Silt Basin Type B
1630.05 Temporary Diversion
1630.06 Special Stilling Basin
1632.03 Rock Inlet Sediment Trap Type C
1633.01 Temporary Rock Silt Check Type A

PROJECT REFERENCE NO.	SHEET NO.
B-2848	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

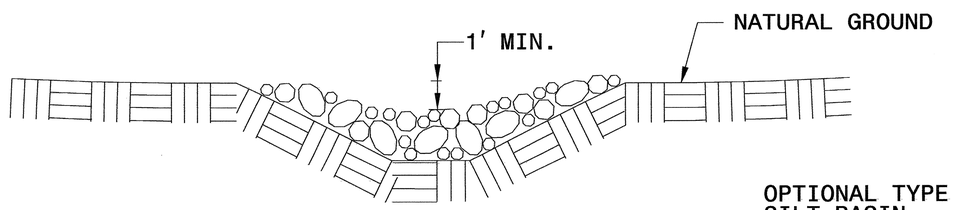
TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH

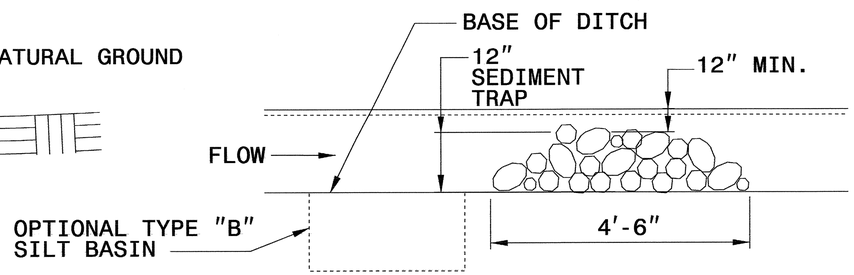


CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



ELEVATION VIEW

PROJECT REFERENCE NO.	SHEET NO.
B-2848	EC-3/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "HUNTDALE" WITH NAD 1983/95 STATE PLANE GRID COORDINATES OF NORTHING: 844886.890(ft) EASTING: 1019080.400(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99905557 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "HUNTDALE" TO -L- STATION 10+00.00 IS S 85° 39' 48.1" W 1,105.69' ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AND/OR TEMPORARY ROCK SILT CHECK TYPE – A AS STILLING BASIN WHERE APPLICABLE.

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

NOTE: INSTALL 6" DECK DRAIN SYSTEM 12' OC FROM BEGIN BRIDGE TO END BRIDGE RT

NOTE: SHOULDER BERM GUTTER
-Y- STA 11+91.83 (LT) TO END BRIDGE (LT)
END BRIDGE (RT) TO -Y- STA 13+09.95 (LT)
END BRIDGE (LT) TO -Y1- STA 13+85.23(RT)
END BRIDGE (RT) TO -L- STA 14+19.75 (RT)

BEGIN CONST. -Y1- STA 12+20.00
END APP. SLAB -L- STA 13+86.96
END BRIDGE -L- STA 13+80.68
END PROJECT -L- STA 16+00.00
BEGIN CONST. -Y- STA 11+80.00
BEGIN BRIDGE -L- STA 10+15.00
BEGIN PROJECT /APP. SLAB -L- STA 10+09.00
END PAVING -Y- STA 13+20.00
END CONST. -Y- STA 15+92.47

-L- POTSta. 10+00.00= -Y- POCSta. 12+51.06

BRIDGE TO BE REMOVED

-L- CURVE DATA

PI Sta 13+99.65	PI Sta 16+05.95
△ = 41° 55' 21.9" (RT)	△ = 4° 19' 27.3" (RT)
D = 30° 58' 14.5"	D = 6° 06' 53.3"
L = 135.36'	L = 70.72'
T = 70.87'	T = 35.38'
** R = 185.00'	R = 937.00'
SE = 0.06	SE = 0.04
RO = 34.34'	RO = 39'

-Y- CURVE DATA

PI Sta 12+25.37	PI Sta 13+21.66	PI Sta 14+41.58
△ = 2° 36' 43.8" (LT)	△ = 1° 26' 35.8" (RT)	△ = 17° 18' 52.2" (RT)
D = 1° 41' 55.6"	D = 3° 42' 52.7"	D = 8° 40' 52.3"
L = 153.77'	L = 38.85'	L = 199.45'
T = 76.90'	T = 19.43'	T = 100.49'
R = 3,372.74'	R = 1,542.44'	R = 660.00'
SE = NC	SE = NC	SE = NC

-Y1- CURVE DATA

PI Sta 12+08.00	PI Sta 14+05.07
△ = 22° 54' 43.0" (LT)	△ = 13° 07' 17.7" (RT)
D = 12° 02' 12.9"	D = 10° 59' 50.2"
L = 190.35'	L = 119.32'
T = 96.46'	T = 59.92'
R = 476.00'	R = 521.00'
SE = 0.02	SE = 0.03
RO = 32'	RO = 32'

** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE

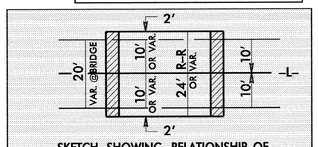
SEE SHEETS 5 & 6 FOR PROFILES

2001 ADT
2025 ADT

HUNTDALE ROAD S.R. 1320 -Y1-
TIPTON HILL ROAD S.R. 1304 -L-
100 100 100 100 300 500
100 100 200 400 300 500
TIPTON HILL ROAD S.R. 1304 -L-

2001 ADT
2025 ADT

TIPTON HILL ROAD S.R. 1304 -L-
300 500 200 300 100 200
TIPTON HILL ROAD S.R. 1417 -Y-
BEE BRANCH ROAD S.R. 1340 -Y-



SKETCH SHOWING RELATIONSHIP OF PAVEMENT WIDTH TO BRIDGE WIDTH

PROJECT REFERENCE NO.	SHEET NO.
B-2848	EC-4/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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NOTE: UTILIZE SPECIAL STILLING BASIN AND/OR TEMPORARY ROCK SILT CHECK TYPE – A AS STILLING BASIN WHERE APPLICABLE.

10 x 5 x 3

INSTALL PSRM IN THE PROPOSED DITCH LINE.

BEGIN CONST. -Y1- STA 12+20.00

BEGIN BRIDGE -L- STA 13+80.68

END BRIDGE -L- STA 13+80.68

END APP. SLAB -L- STA 13+86.96

END PROJECT -L- STA 16+00.00

BEGIN CONST. -Y- STA 11+80.00

BEGIN BRIDGE -L- STA 10+15.00

BEGIN PROJECT /APP. SLAB -L- STA 10+09.00

END PAVING -Y- STA 13+20.00

END CONST. -Y- STA 15+92.47

NOTE: INSTALL 6" DECK DRAIN SYSTEM 12' OC FROM BEGIN BRIDGE TO END BRIDGE RT

NOTE: SHOULDER BERM GUTTER
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END BRIDGE (RT) TO -Y- STA 13+09.95 (LT)
END BRIDGE (LT) TO -Y- STA 13+85.23(RT)
END BRIDGE (RT) TO -L- STA 14+19.75 (RT)

BRIDGE TO BE REMOVED

SPECIAL "V" DITCH – SEE DETAIL

CLASS I RIPRAP EST. +2 TONS 6 SY FF

TYPE III DIVERSION

CAT-1

REMOVE PAVEMENT

REMOVE GUARDRAIL

REMOVE GUARDRAIL LT. & RT.

AREA UNDER CONSTRUCTION

-L- CURVE DATA

PI Sta 13+99.65	PI Sta 16+05.95
△ = 41° 55' 21.9" (RT)	△ = 4° 19' 27.3" (RT)
D = 30° 58' 14.5"	D = 6° 06' 53.3"
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2025 ADT

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TIPTON HILL ROAD S.R. 1304 -L-
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TIPTON HILL ROAD S.R. 1417 -Y-
BEE BRANCH ROAD S.R. 1340 -Y-

SKETCH SHOWING RELATIONSHIP OF PAVEMENT WIDTH TO BRIDGE WIDTH