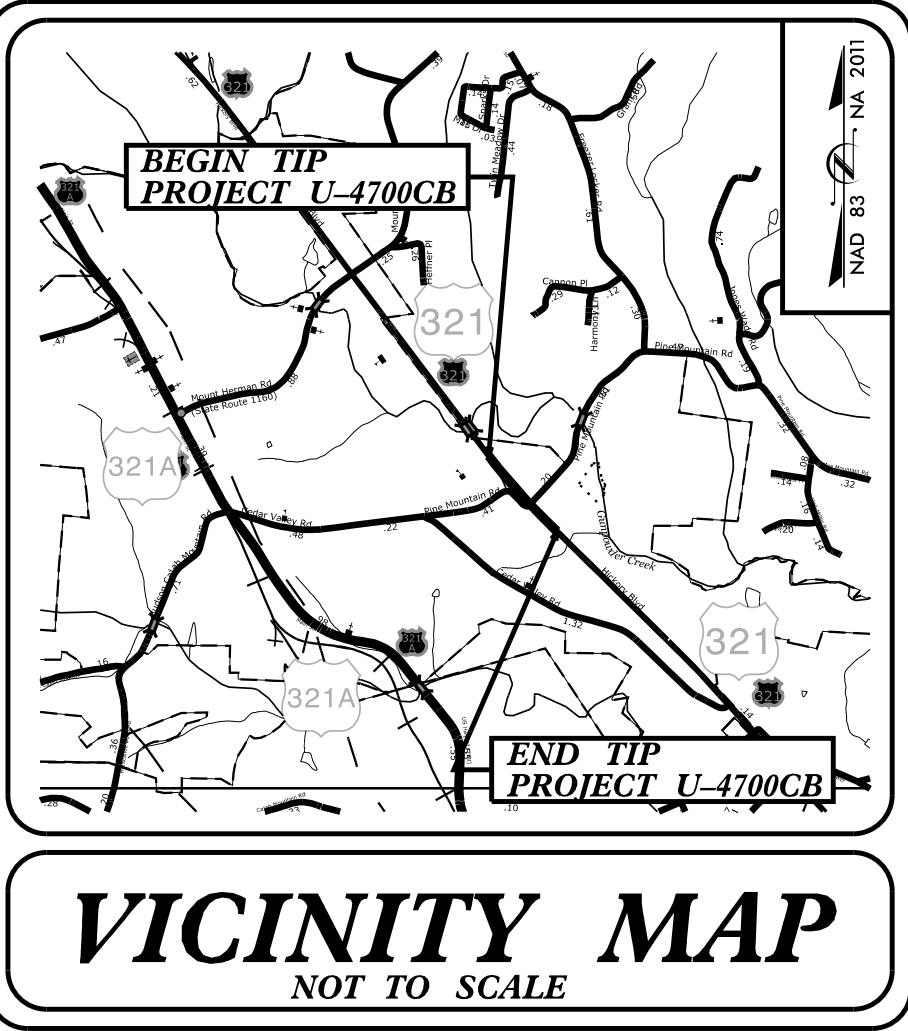
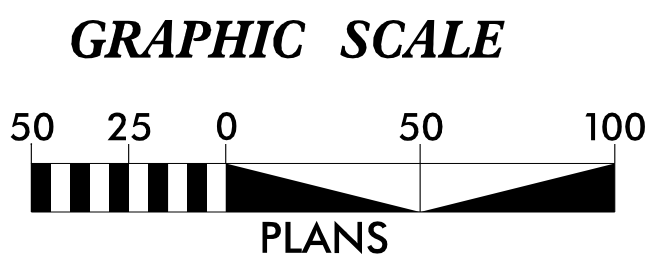
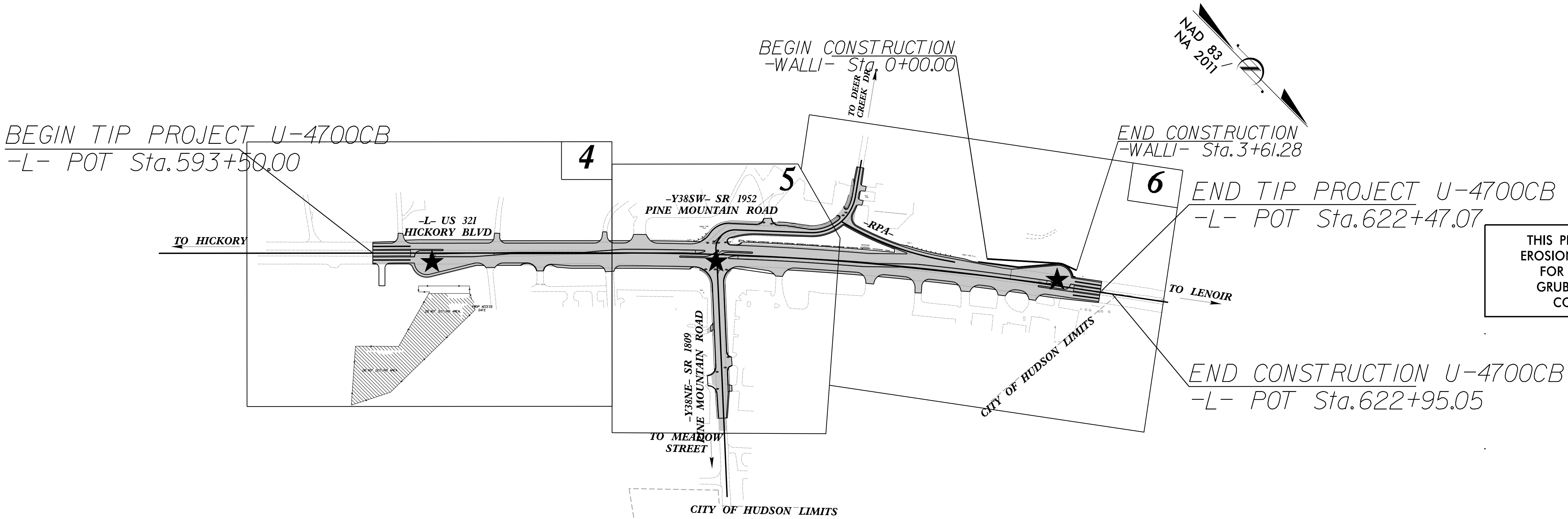


TIP PROJECT: U-4700CB



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

LOCATION: US 321 (HICKORY BLVD.) AT SR 1809 (PINE MOUNTAIN RD.)
TYPE OF WORK: DRAINAGE, PAVING, GRADING, AND SIGNALS



THESE EROSION AND SEDIMENT CONTROL
PLANS COMPLY WITH THE REGULATIONS SET
FORTH BY THE NCG 010000 GENERAL
STORMWATER CONSTRUCTION PERMIT ISSUED
BY THE NORTH CAROLINA DEPARTMENT OF
ENVIRONMENTAL QUALITY DIVISION OF
ENERGY, MINERAL, AND LAND RESOURCES.



Prepared In the Office of:
JOHNSON, MIRMIRAN, & THOMPSON
2550 W TYVOLA RD, SUITE 120
CHARLOTTE, NC 28217

2024 STANDARD SPECIFICATIONS

Designed by:
OLIVIA SMITH 4687
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The "Roadway Standard Drawings"- Roadway Design Unit - N. C.
Department of Transportation - Raleigh, N. C., dated January 2024
and the latest revision thereto are applicable to this project and by
reference hereby are considered a part of these plans.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4700CB	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
35993.1.11	NHF-321(018)	PE	

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

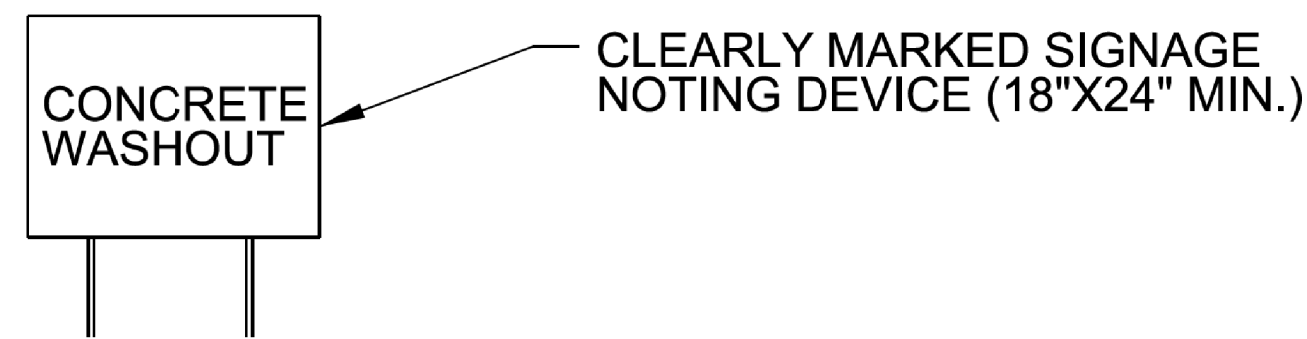
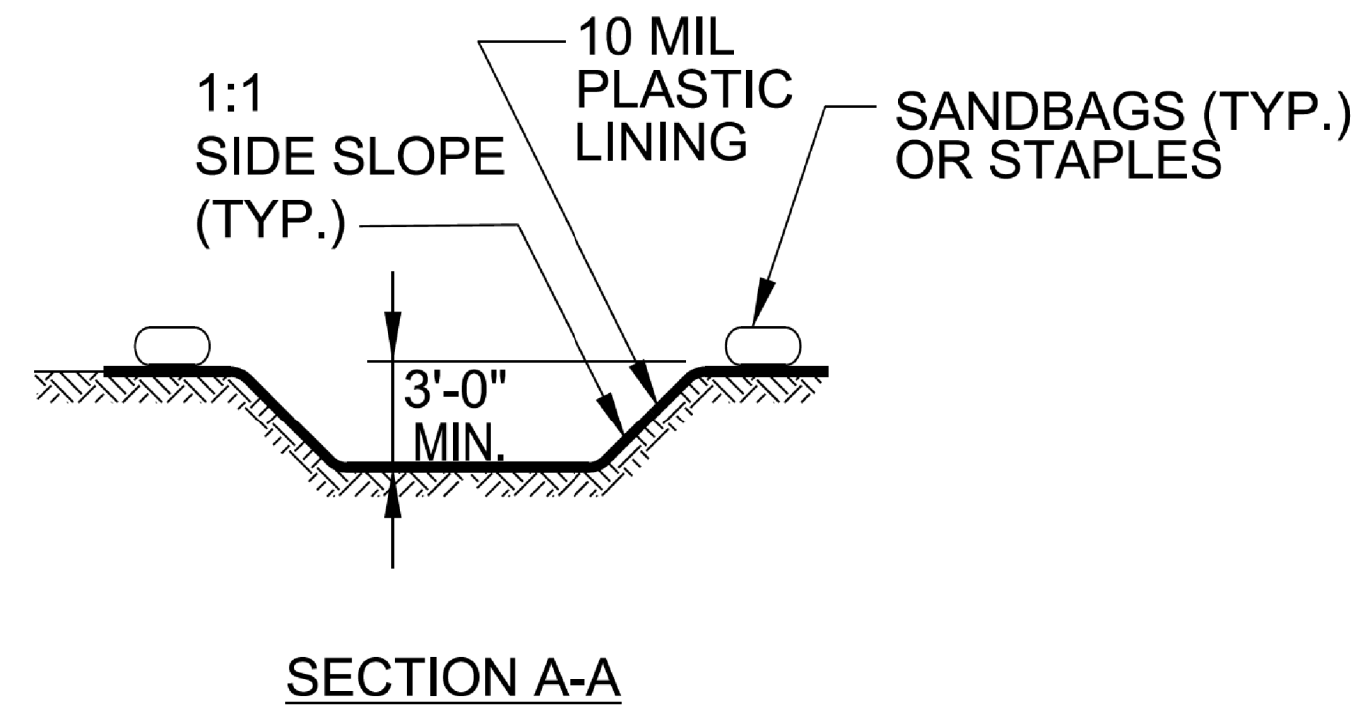
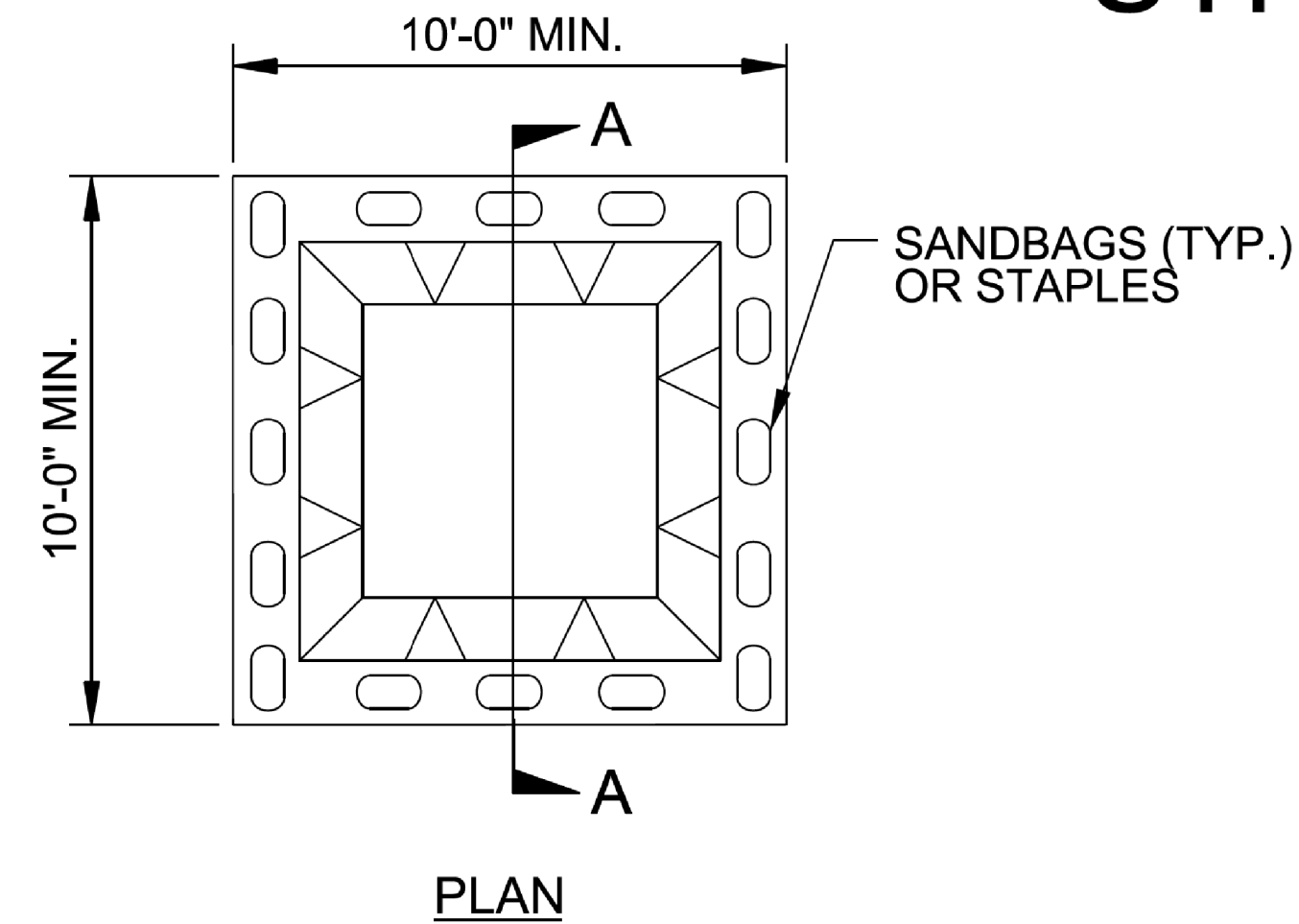
PROJECT REFERENCE NO.		SHEET NO.	
U-4700CB		EC-02	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol	Std. #	Description	Symbol
1605.01	Temporary Silt Fence		1633.01	Temporary Rock Silt Check Type A	
1606.01	Special Sediment Control Fence		1633.02	Temporary Rock Silt Check Type B	
1622.01	Temporary Berms and Slope Drains		1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1630.02	Silt Basin Type B		1634.01	Temporary Rock Sediment Dam Type A	
1630.03	Temporary Silt Ditch		1634.02	Temporary Rock Sediment Dam Type B	
1630.04	Stilling Basin		1635.01	Rock Pipe Inlet Sediment Trap Type A	
1630.05	Temporary Diversion		1635.02	Rock Pipe Inlet Sediment Trap Type B	
1630.06	Special Stilling Basin		1636.01	Excelsior Wattle Check	
1630.07	Skimmer Basin		1636.01	Excelsior Wattle Check with Flocculant	
1630.08	Tiered Skimmer Basin		1636.01	Coir Fiber Wattle Check	
1630.09	Earthen Dam with Skimmer		1636.01	Coir Fiber Wattle Check with Flocculant	
	Infiltration Basin		1636.02	Silt Fence Excelsior Wattle Break	
	Rock Inlet Sediment Trap:			Silt Fence Coir Fiber Wattle Break	
1632.01	Type A				
1632.02	Type B		1636.03	Excelsior Wattle Barrier	
1632.03	Type C		1636.03	Coir Fiber Wattle Barrier	

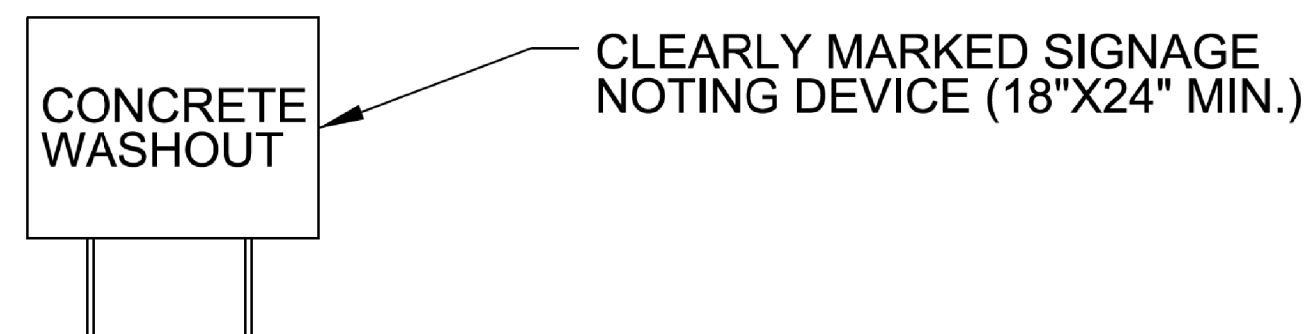
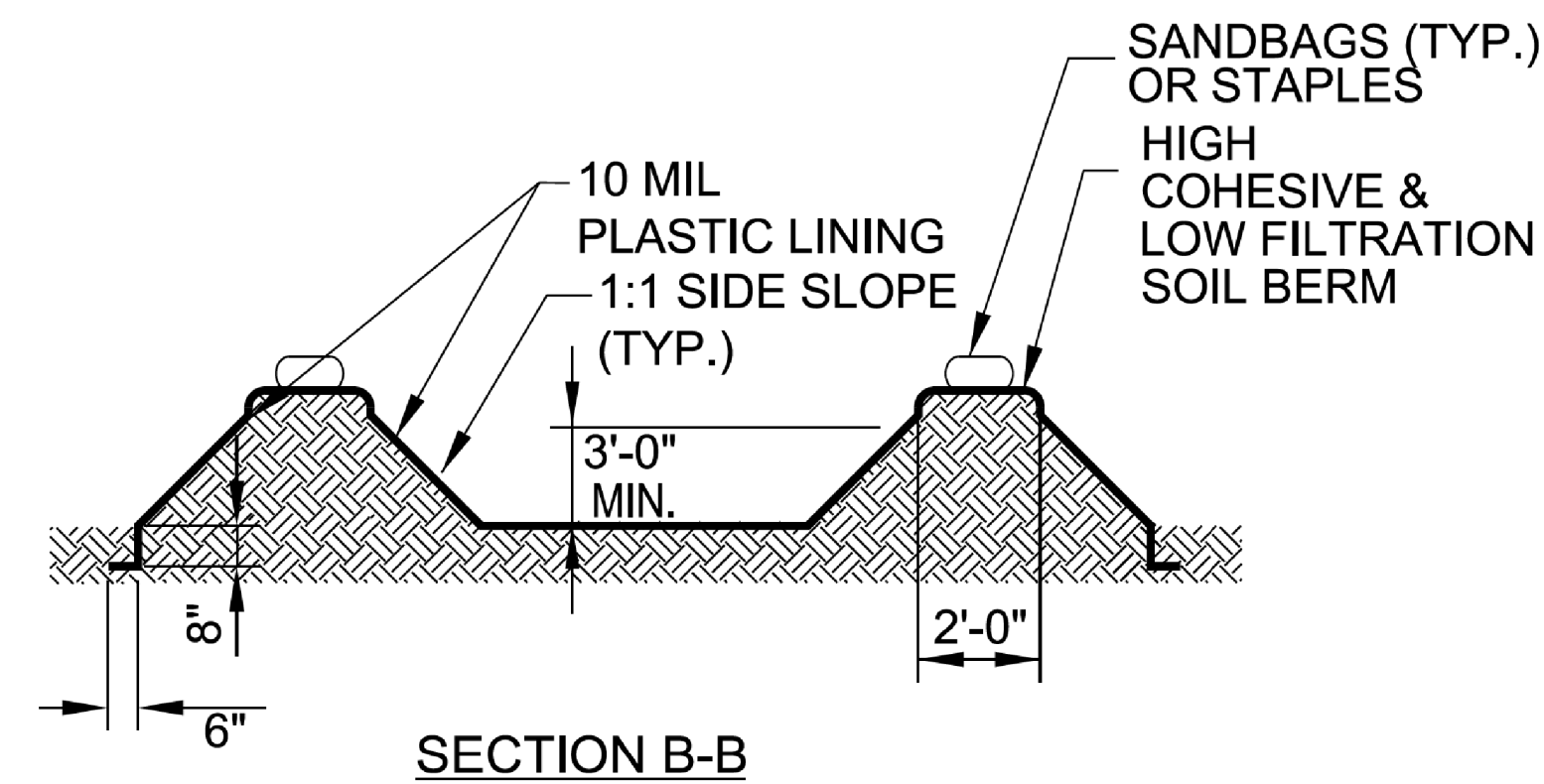
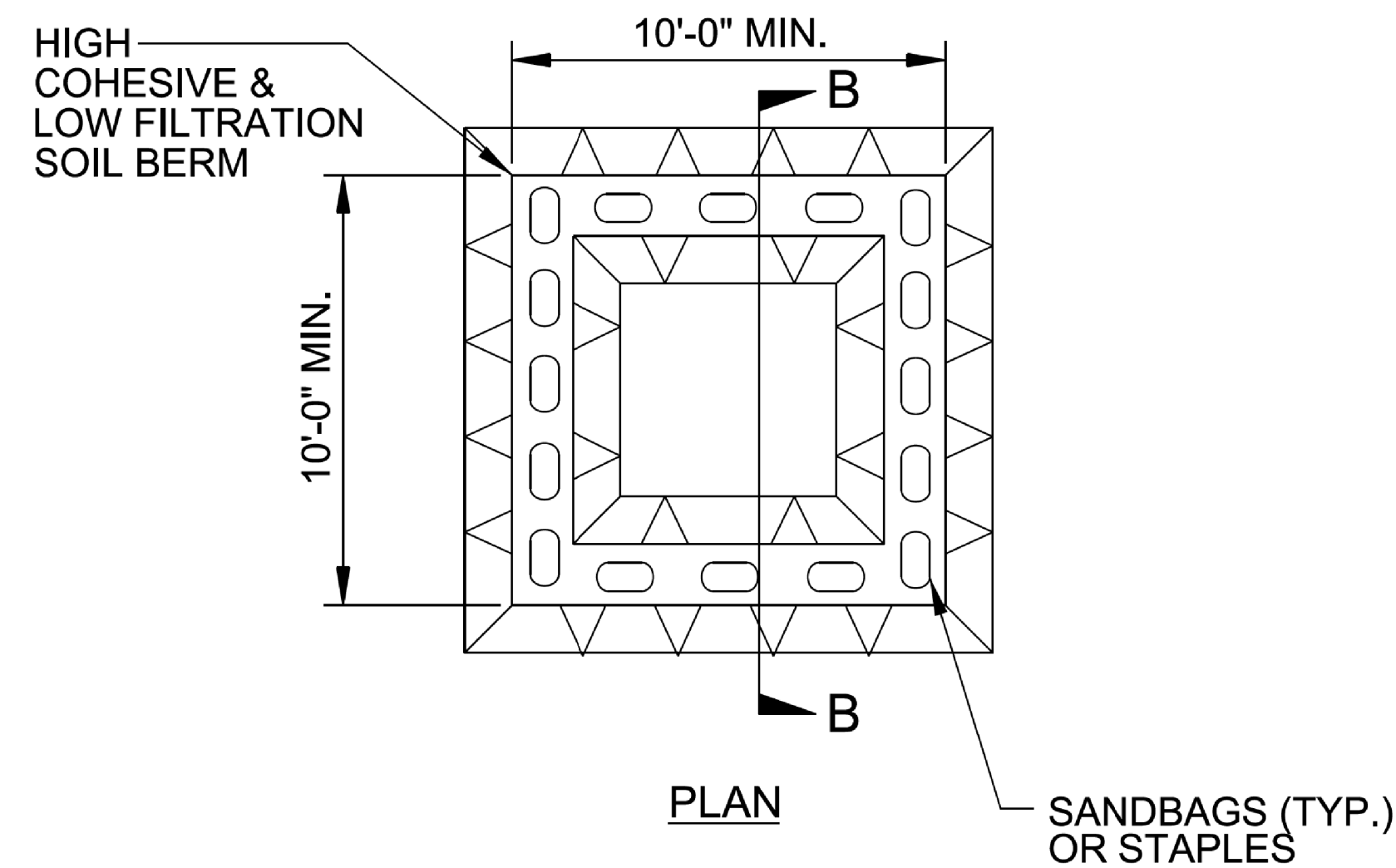
PROJECT REFERENCE NO.	SHEET NO.
U-4700CB	EC-2A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.



ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL (STRAW)

[illegible]

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

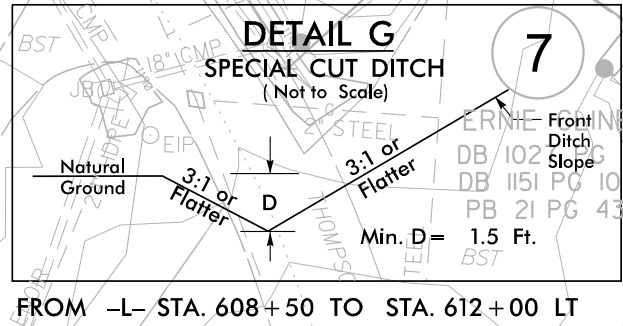
PROJECT REFERENCE NO.	SHEET NO.
U-4700CB	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
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 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH WITH SLOPES STEEPER THAN 4:1. 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

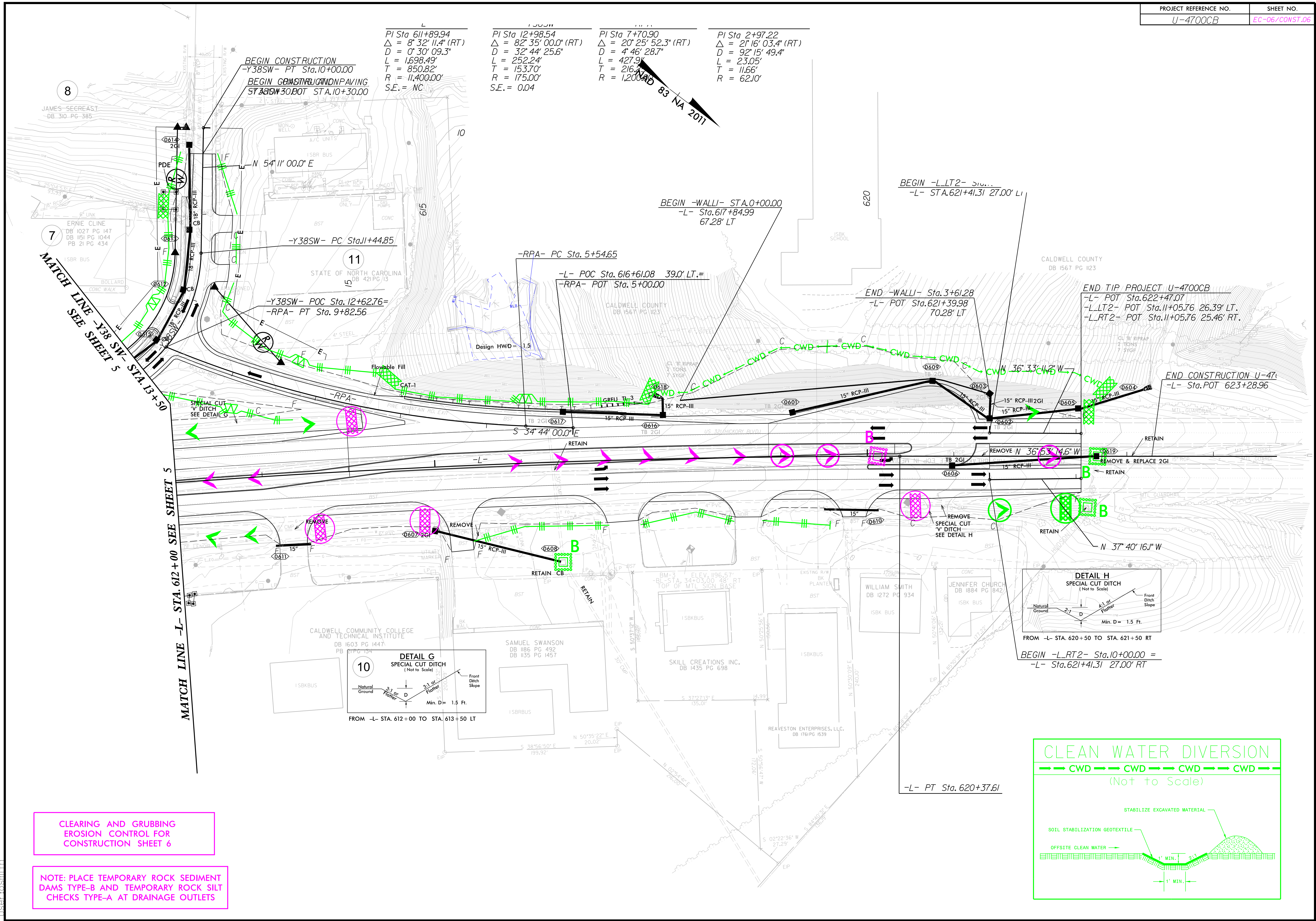
NOTE: PLACE TEMPORARY ROCK SEDIMENT
DAMS TYPE-B AND TEMPORARY ROCK SILT
CHECKS TYPE-A AT DRAINAGE OUTLETS



-L-	-Y38SW-
PI Sta 611+89.94	PI Sta 12+98.54
$\Delta = 8^{\circ} 32' 11.4"$ (RT)	$\Delta = 82^{\circ} 35' 00.0"$ (RT)
$D = 0^{\circ} 30' 09.3"$	$\Delta = 94^{\circ} 40' 13.8"$ (LT)
$L = 1,698.49'$	$D = 76^{\circ} 23' 39.7"$
$T = 850.82'$	$L = 123.92'$
$R = 11,400.00'$	$T = 81.38'$
S.E.=NC	$R = 175.00'$
	S.E.=0.03

NOTE: ADD SHOULDER BERM GUTTER
FROM -L- STA 608+5.00 TO 608+47.00 LT.

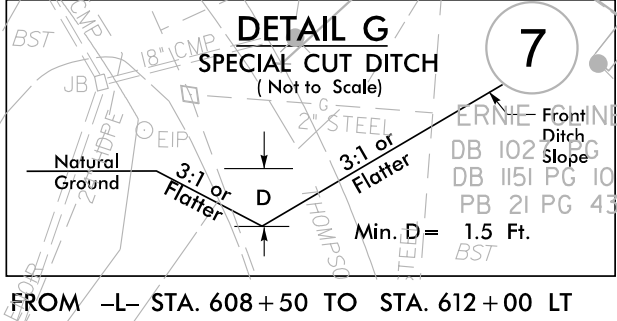
END CONSTRUCTION
-Y38NE - Sta.26+00.00



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

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

NOTE: UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF TYPE C INLET PROTECTION IN CATCH BASINS WHERE WATER MIGHT POND ON ROADWAY USED BY PUBLIC TRAFFIC AS DIRECTED BY ENGINEER.



-L-	-Y38SW-	
PI Sta 611+89.94	PI Sta 12+98.54	PI Sta 17+76.20
$\Delta = 8^{\circ} 32' 11.4''$ (RT)	$\Delta = 82^{\circ} 35' 00.0''$ (RT)	$\Delta = 94^{\circ} 40' 13.8''$ (LT)
$D = 0^{\circ} 30' 09.3''$	$D = 32^{\circ} 44' 25.6''$	$D = 76^{\circ} 23' 39.7''$
$L = 1,698.49'$	$L = 252.24'$	$L = 123.92'$
$T = 850.82'$	$T = 153.70'$	$T = 81.38'$
$R = 11,400.00'$	$R = 175.00'$	$R = 75.00'$
S.E.=NC	S.E.=0.03	S.E.=0.04

