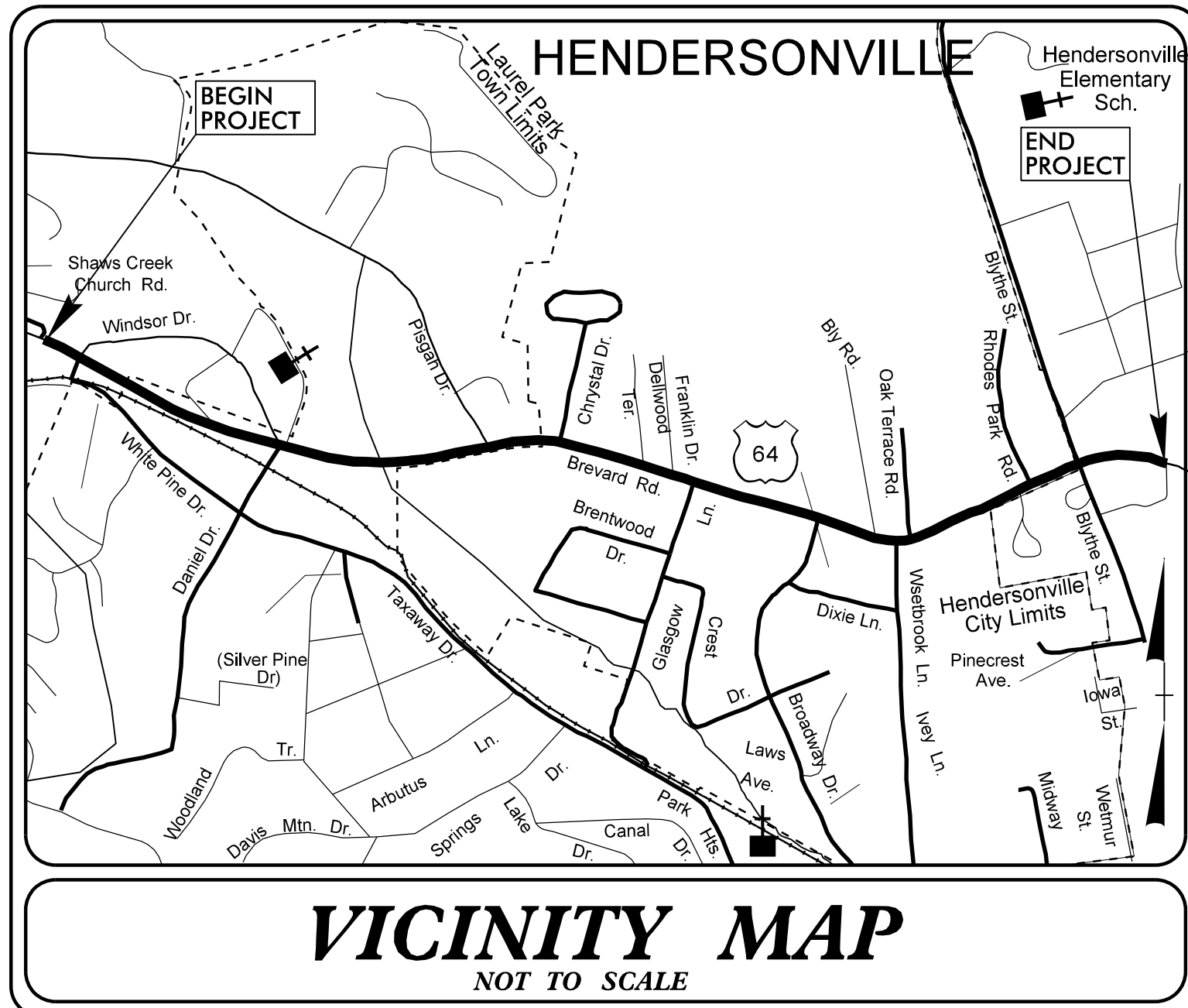


TIP PROJECT: U-5783

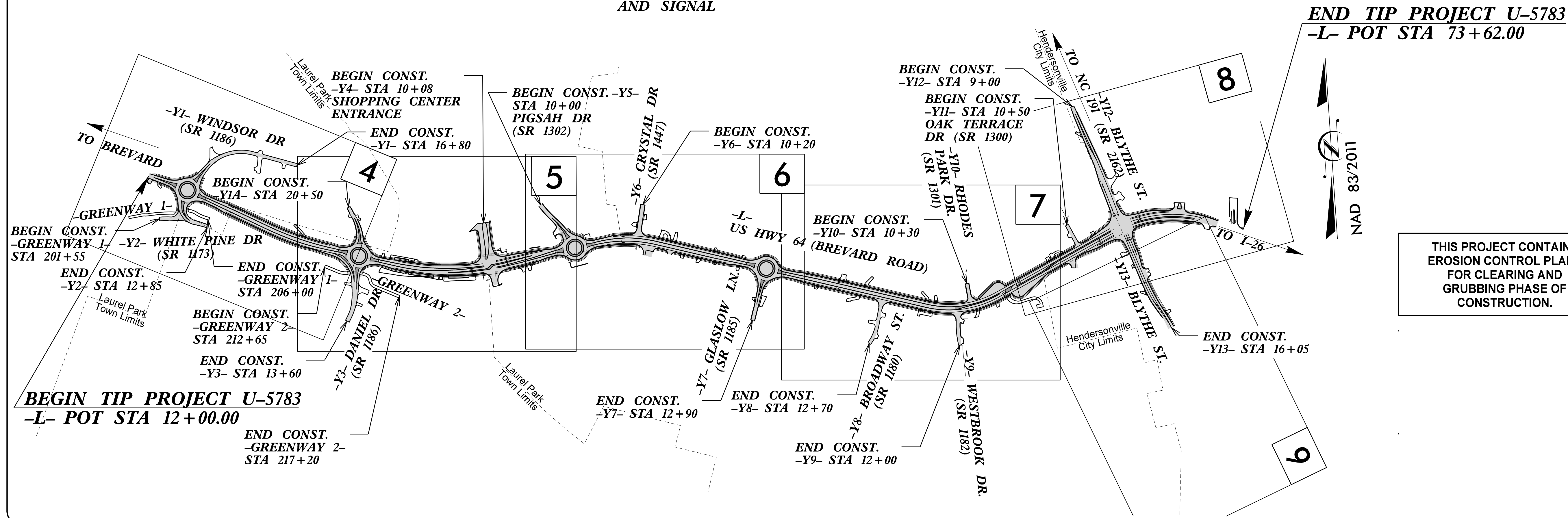


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL
HENDERSON COUNTY

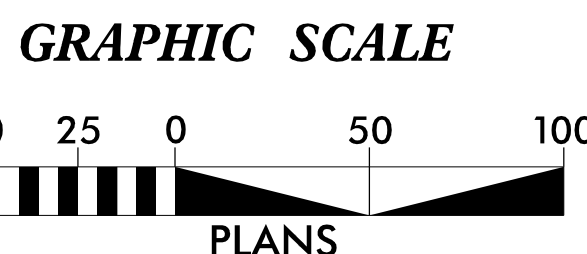
**LOCATION: US 64 (BREVARD ROAD) FROM SR 1173 (WHITE PINE DRIVE)
TO SR 2162 (BLYTHE STREET)**
**TYPE OF WORK: GRADING, DRAINAGE, PAVING, RETAINING WALLS,
AND SIGNAL**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5783	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44354.1.R1		P.E.	
44354.2.1		ROW	
44354.2.2		UTILITIES	
44354.3.1		CONST.	

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12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201
FAX (828) 254-4562
NC LIC. NO. C-1154



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



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY
WITH THE REGULATIONS SET FORTH BY THE
NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019
ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND
NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:
MATTERN & CRAIG
12 Broad St.
Asheville NC, 28801
2024 STANDARD SPECIFICATIONS

Designed by:
BRIAN G. ROSS 4636
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.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

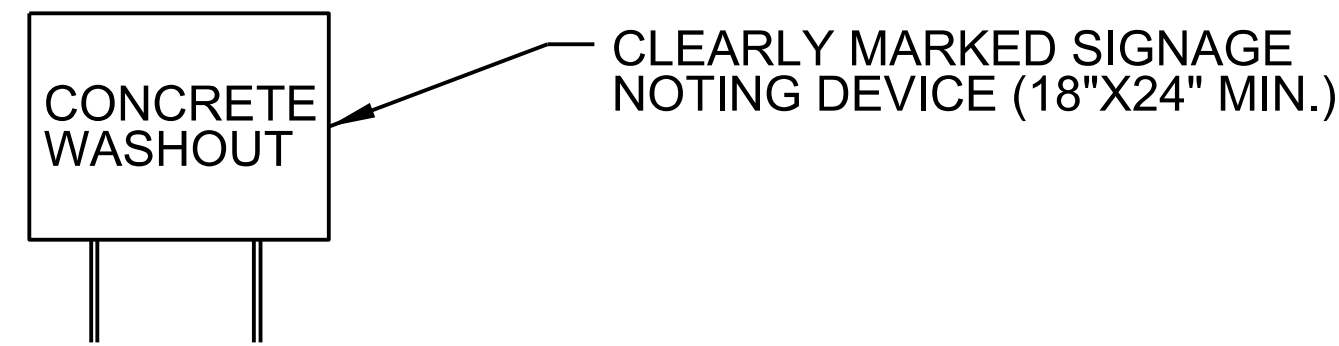
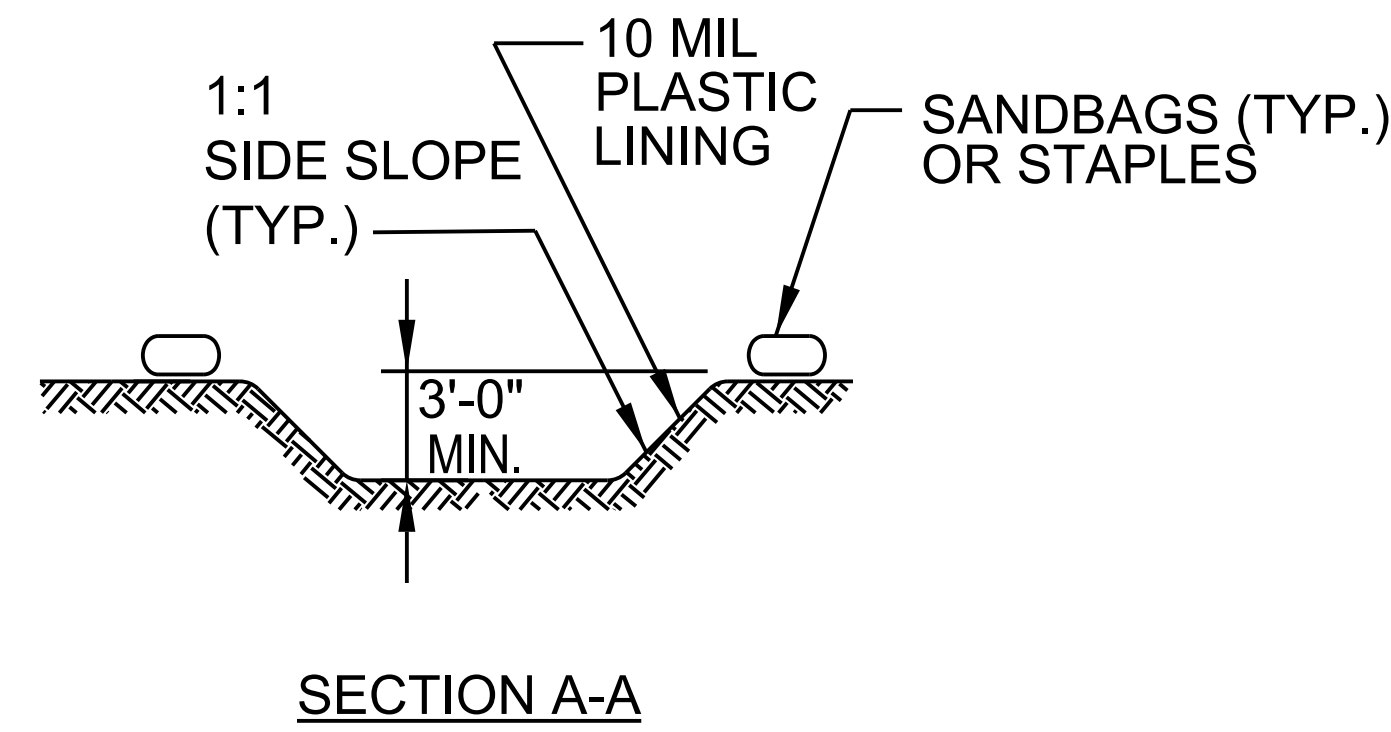
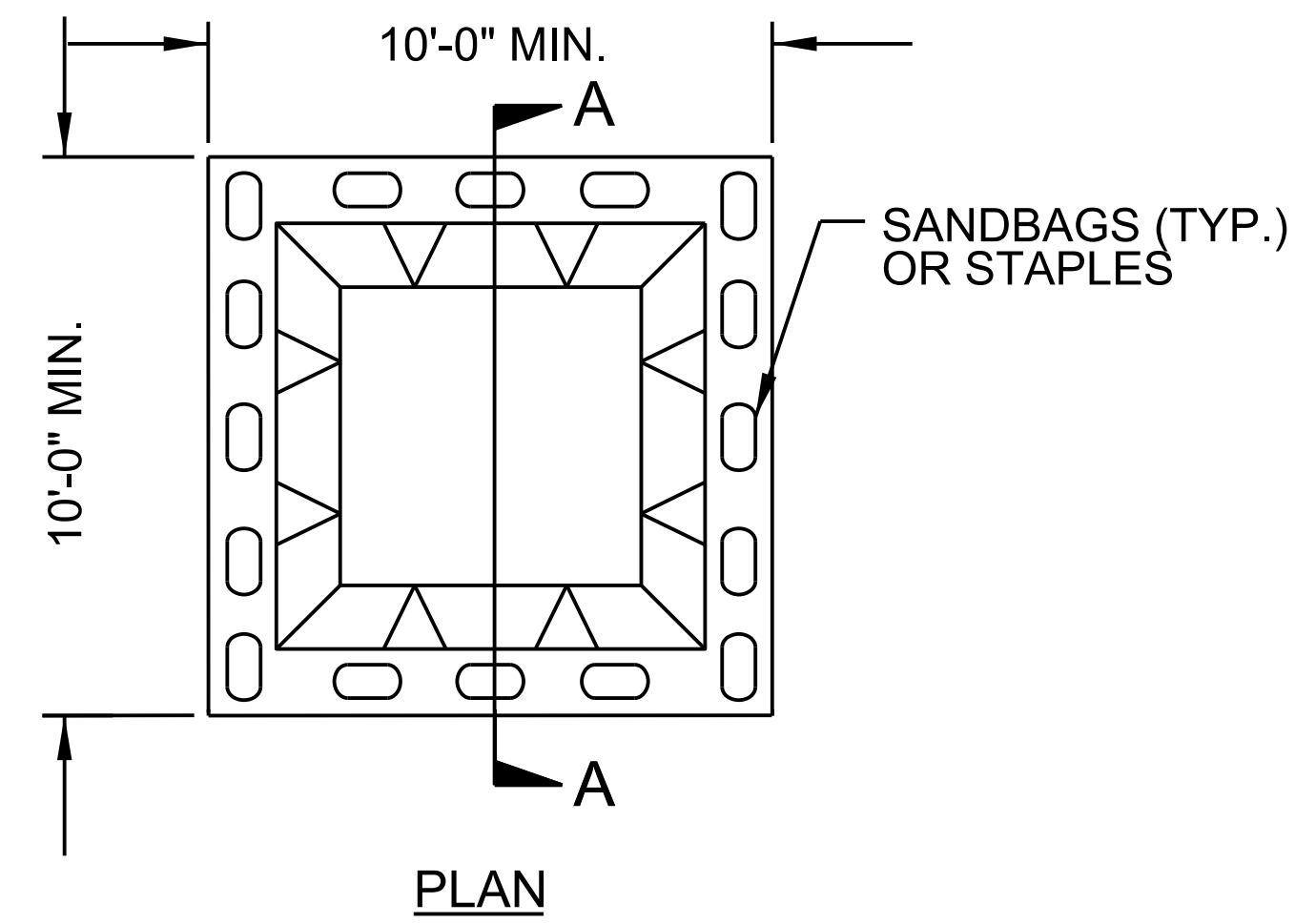
PROJECT REFERENCE NO. U-5783	SHEET NO. EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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		1636.02	Silt Fence Excelsior Wattle Break	
1632.02	Type B		1636.03	Excelsior Wattle Barrier	
1632.03	Type C		1636.03	Coir Fiber Wattle Barrier	

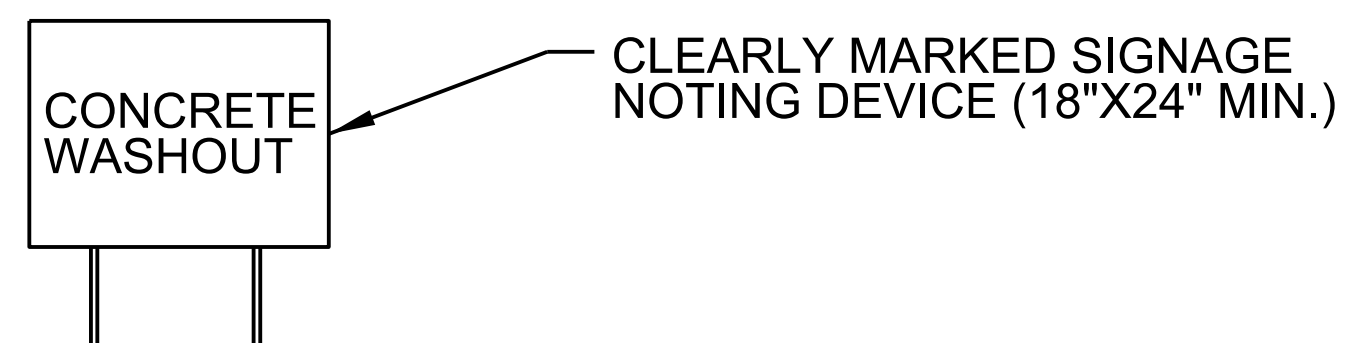
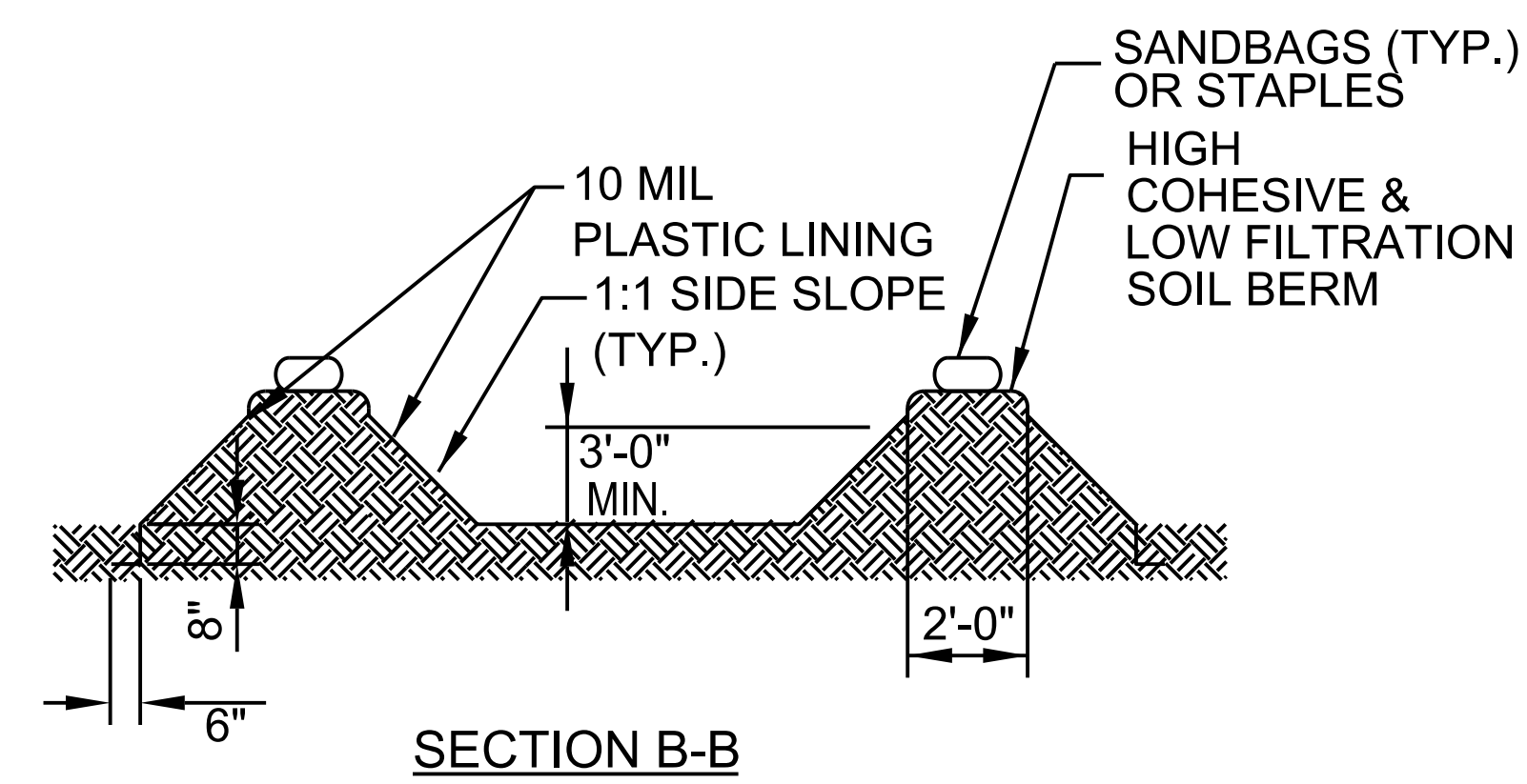
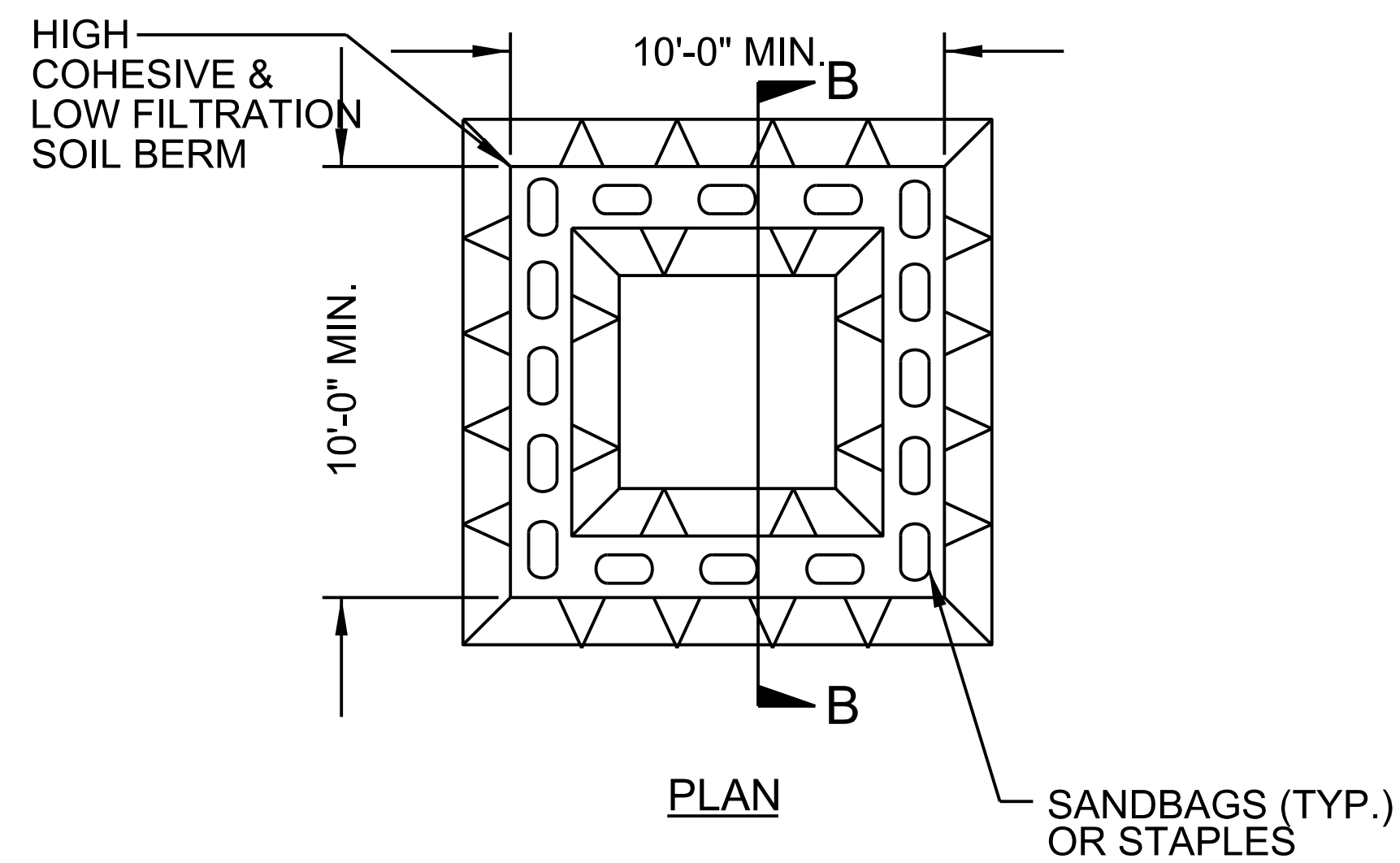
PROJECT REFERENCE NO. <i>U-5783</i>	SHEET NO. <i>EC-2A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

PROJECT REFERENCE NO. <i>U-5783</i>	SHEET NO. <i>EC-3</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL ON SLOPES

MATTING FOR EROSION CONTROL IN DITCHES (EXCELSIOR)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-Y1-	11+00	12+50	LT	302
4	-Y1-	30+00	30+50	LT	152
5	-Y5-	10+50	12+50	LT	414
5	-GREENWAY1-	13+00	18+50	RT	118
SUBTOTAL FOR MATTING ON SLOPES					986

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-Y2-	10+79	10+92	RT	45
7	-L-	50+22	50+40	LT	25
8	-L-	65+90	66+60	LT	170
SUBTOTAL					240

MATTING FOR EROSION CONTROL IN DITCHES

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-Y1-	L12+55	Y1 11+10	LT	195
4	-L-	15+92	16+75	LT	170
6	-L-	38+00	38+31	LT	65
6	-L-	38+31	39+00	LT	140
6	-L-	45+36	45+69	LT	70
7	-L-	45+69	46+89	LT	160
7	-L-	49+50	50+52	LT	100
6	-L-	57+75	58+71	RT	195
SUBTOTAL FOR MATTING IN DITCHES					1095

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
SUBTOTAL FOR MATTING ON SLOPES					986
SUBTOTAL FOR MATTING IN DITCHES					1095
SUBTOTAL FOR MATTING IN DITCHES EXCELSIOR					240
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					42600
TOTAL					44921
SAY					45000

REVISIONS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>U-5783</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

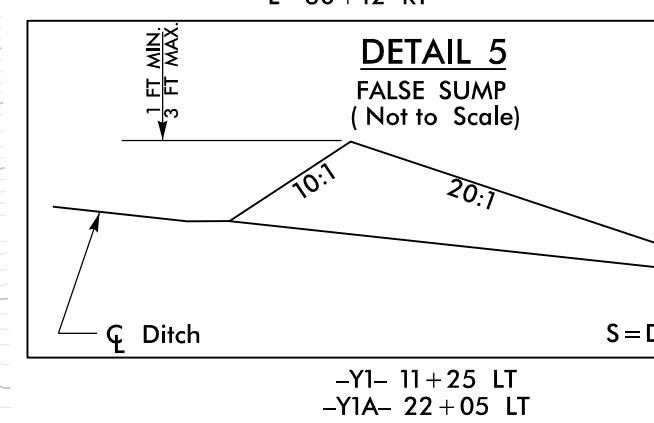
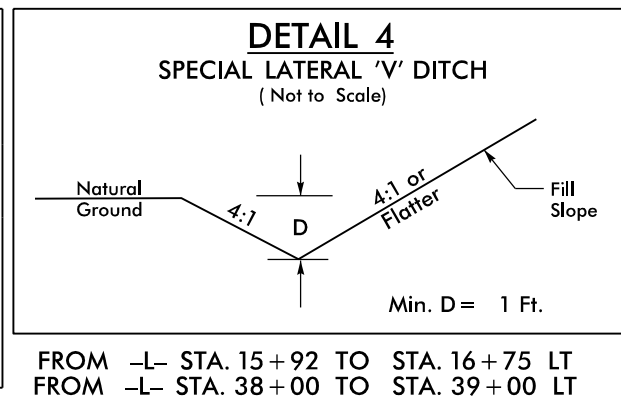
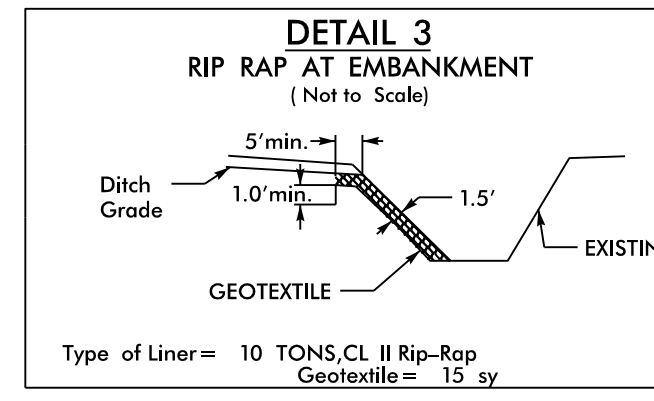
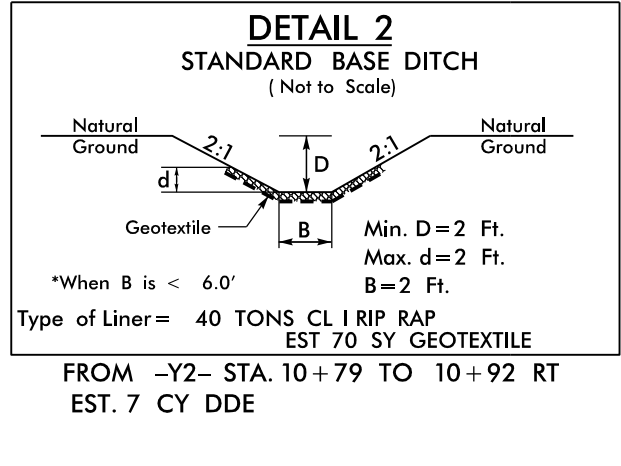
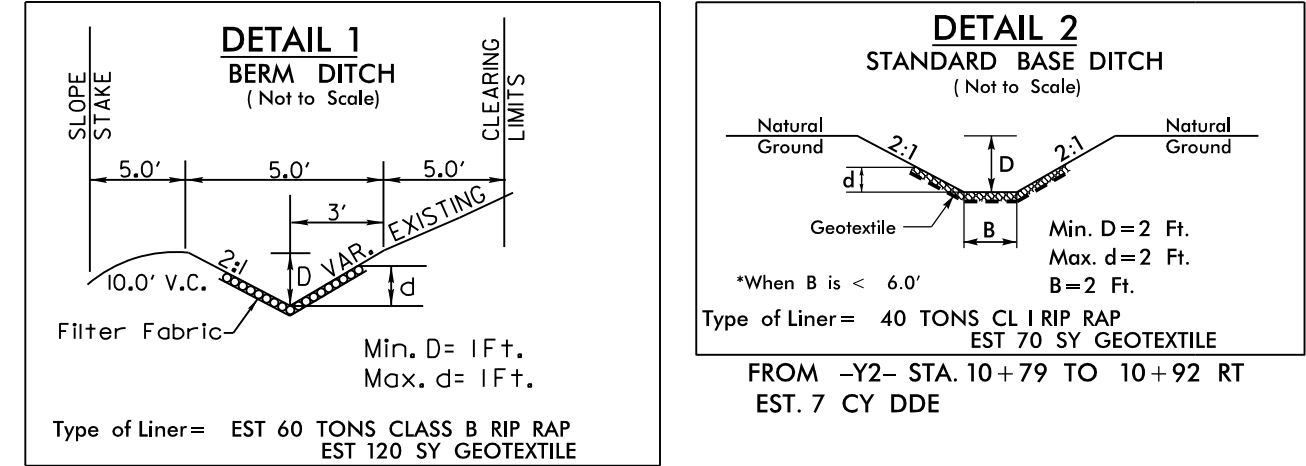
SOIL STABILIZATION TIMEFRAMES

<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 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

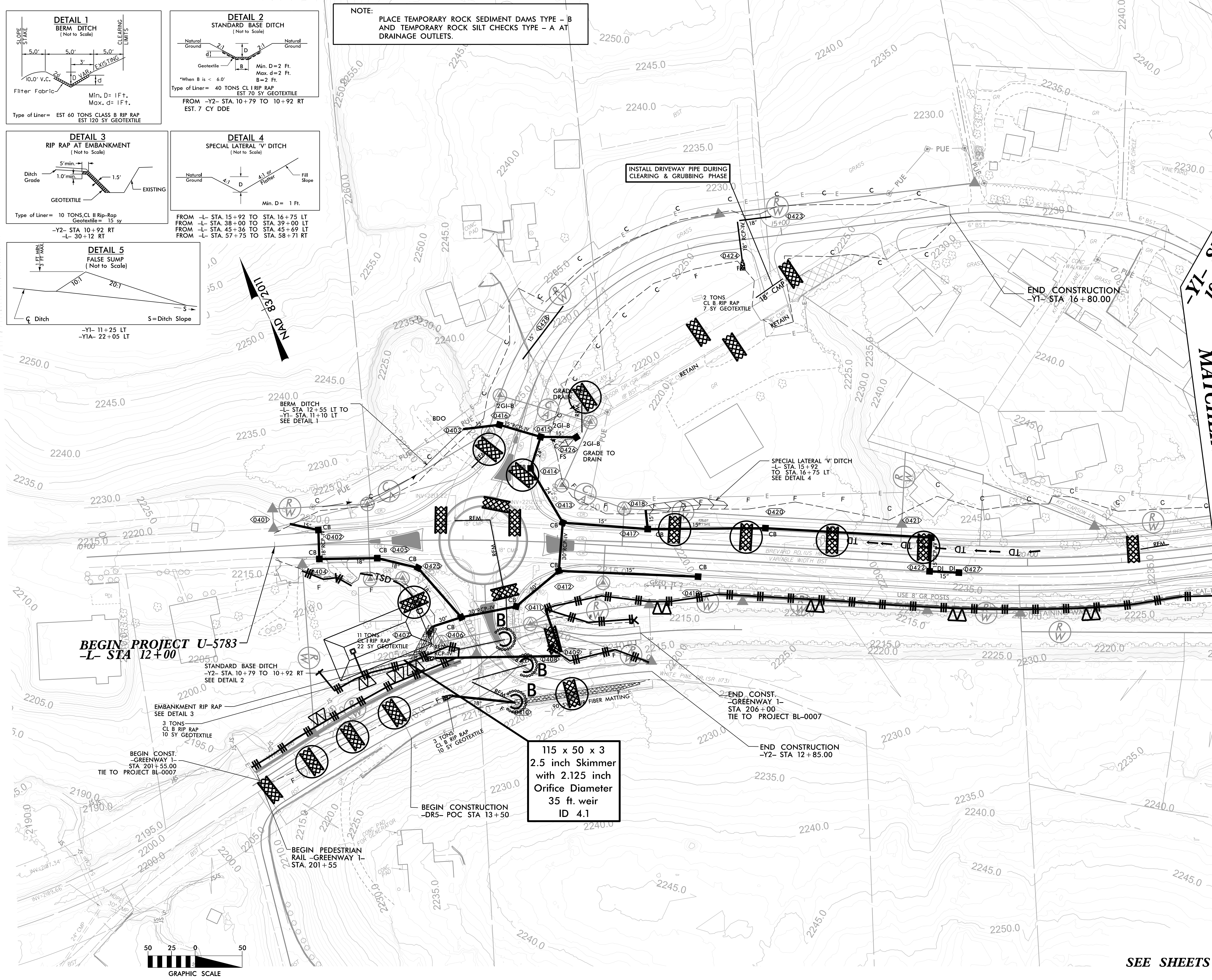
PROJECT REFERENCE NO. U-5783	SHEET NO. EC-4/CONS.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

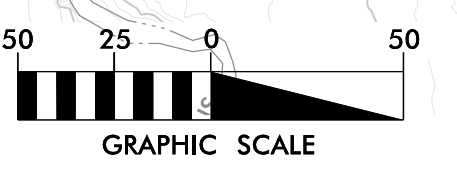
Mattern & Craig
ENGINEERS - SURVEYORS
FIRM LICENSE No. C-1154
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201
FAX (828) 254-4562



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

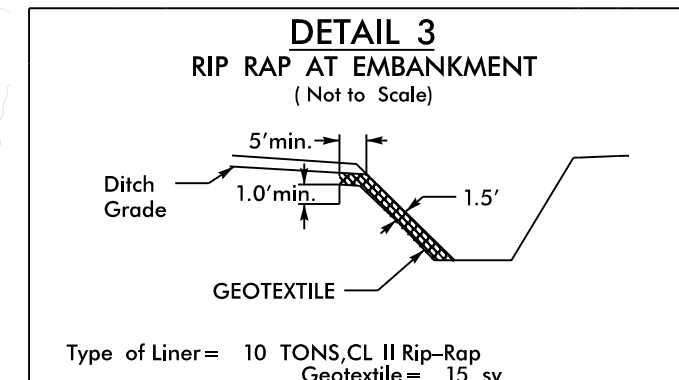
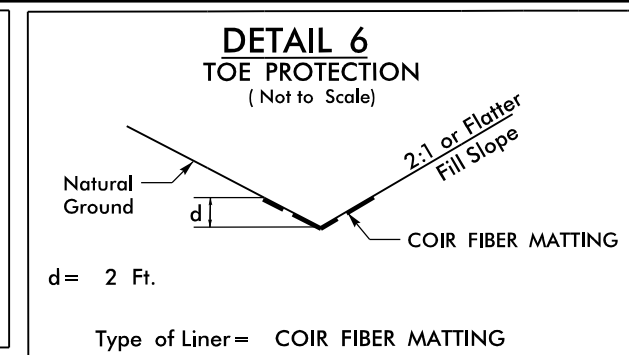
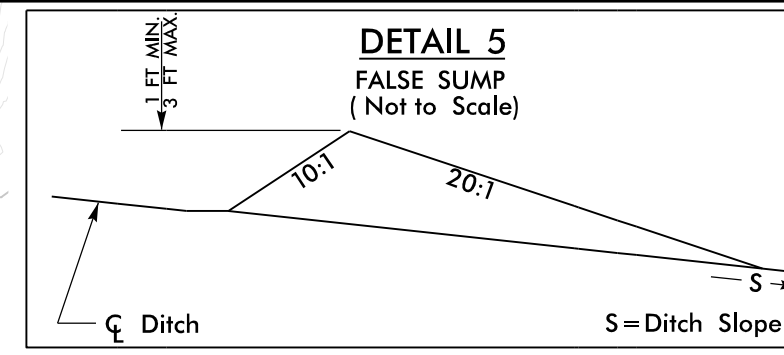


115 x 50 x 3
2.5 inch Skimmer
with 2.125 inch
Orifice Diameter
35 ft. weir
ID 4.1



SEE SHEETS 10, 15, & 16 FOR PROFILES

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



Type of Liner = COIR FIBER MATTING
FROM -Y1A- STA. 22+00 TO STA. 22+65 LT
-Y1A- STA. 21+23 TO STA. 22+50 RT
-Y8- 11+25 TO STA. 12+00 LT

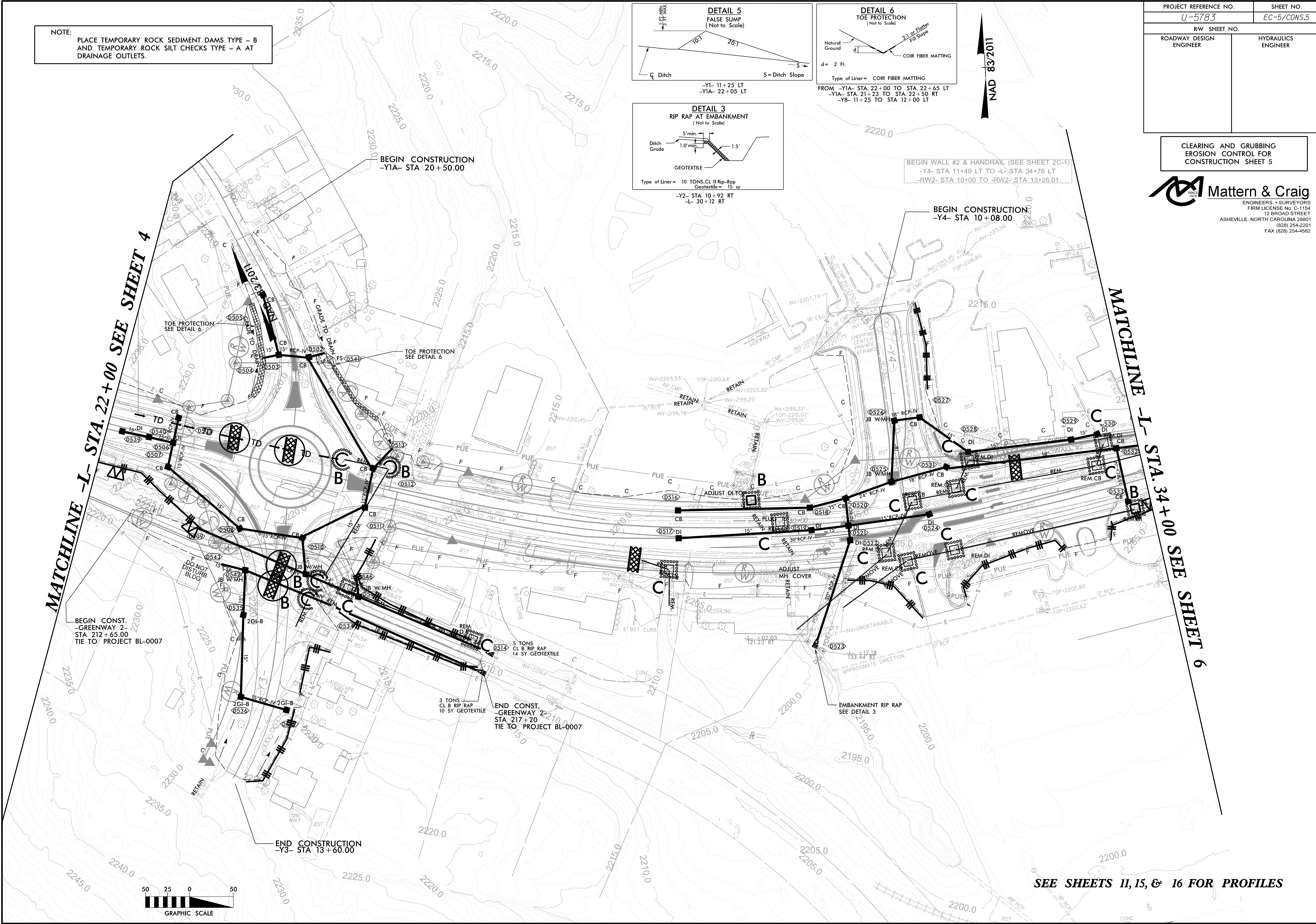
BEGIN WALL #2 & HANDRAIL (SEE SHEET 2C-1)
-Y4- STA 11+49 LT TO -L- STA 34+78 LT
-RW2- STA 10+00 TO -RW2- STA 13+26.01



PROJECT REFERENCE NO. <i>U-5783</i>	SHEET NO. <i>EC-5/CONS.5</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

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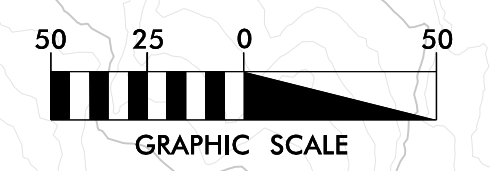
MATCHLINE -L- STA. 22+00 SEE SHEET 4

MATCHLINE -L- STA. 34+00 SEE SHEET 6

BEGIN CONST.
-GREENWAY 2-
STA 212+65.00
TIE TO PROJECT BL-0007

END CONST.
-GREENWAY 2-
STA 217+20
TIE TO PROJECT BL-0007

END CONSTRUCTION
-Y3- STA 13+60.00



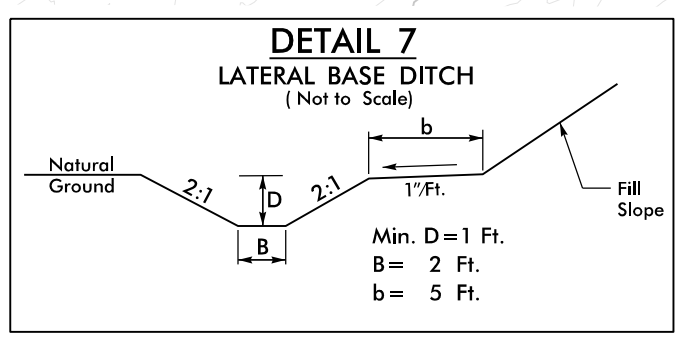
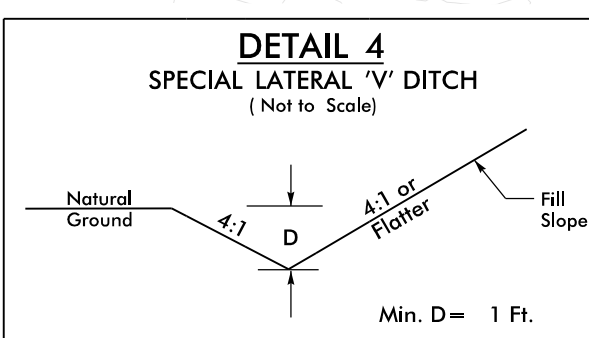
SEE SHEETS 11, 15, & 16 FOR PROFILES

PROJECT REFERENCE NO. U-5783	SHEET NO. EC-6/CONS.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

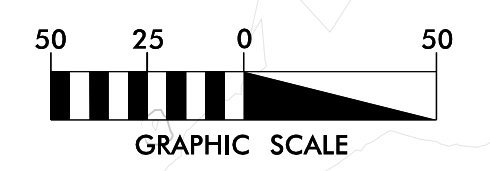
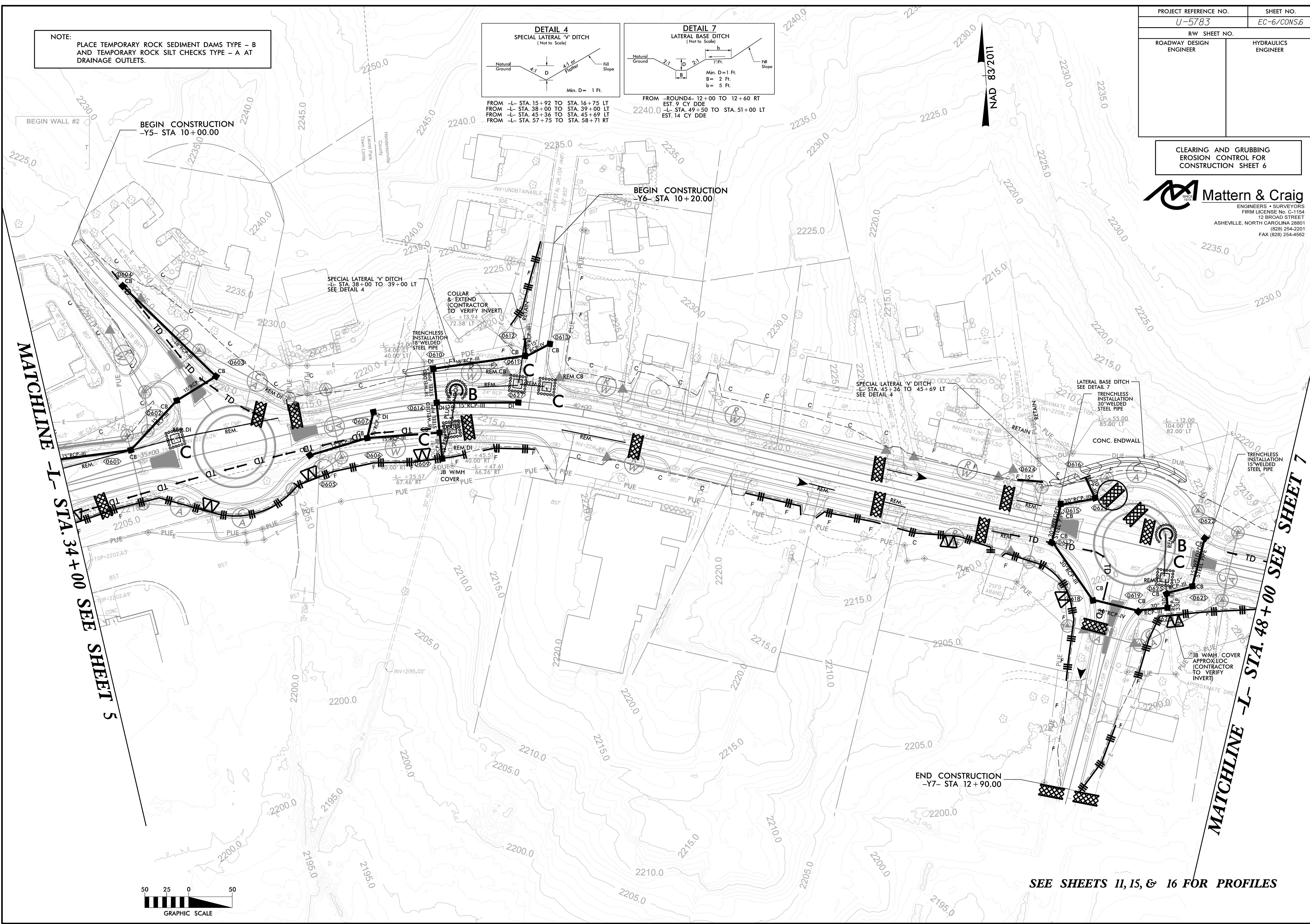
Mattern & Craig
ENGINEERS - SURVEYORS
FIRM LICENSE No. C-1154
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201
FAX (828) 254-4562

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



FROM -L- STA. 15+92 TO STA. 16+75 LT
FROM -L- STA. 38+00 TO STA. 39+00 LT
FROM -L- STA. 45+36 TO STA. 45+69 LT
FROM -L- STA. 57+75 TO STA. 58+71 RT

FROM -ROUND- 12+00 TO 12+60 RT
EST. 9 CY DDE
2240.0 -L- STA. 49+50 TO STA. 51+00 LT
EST. 14 CY DDE



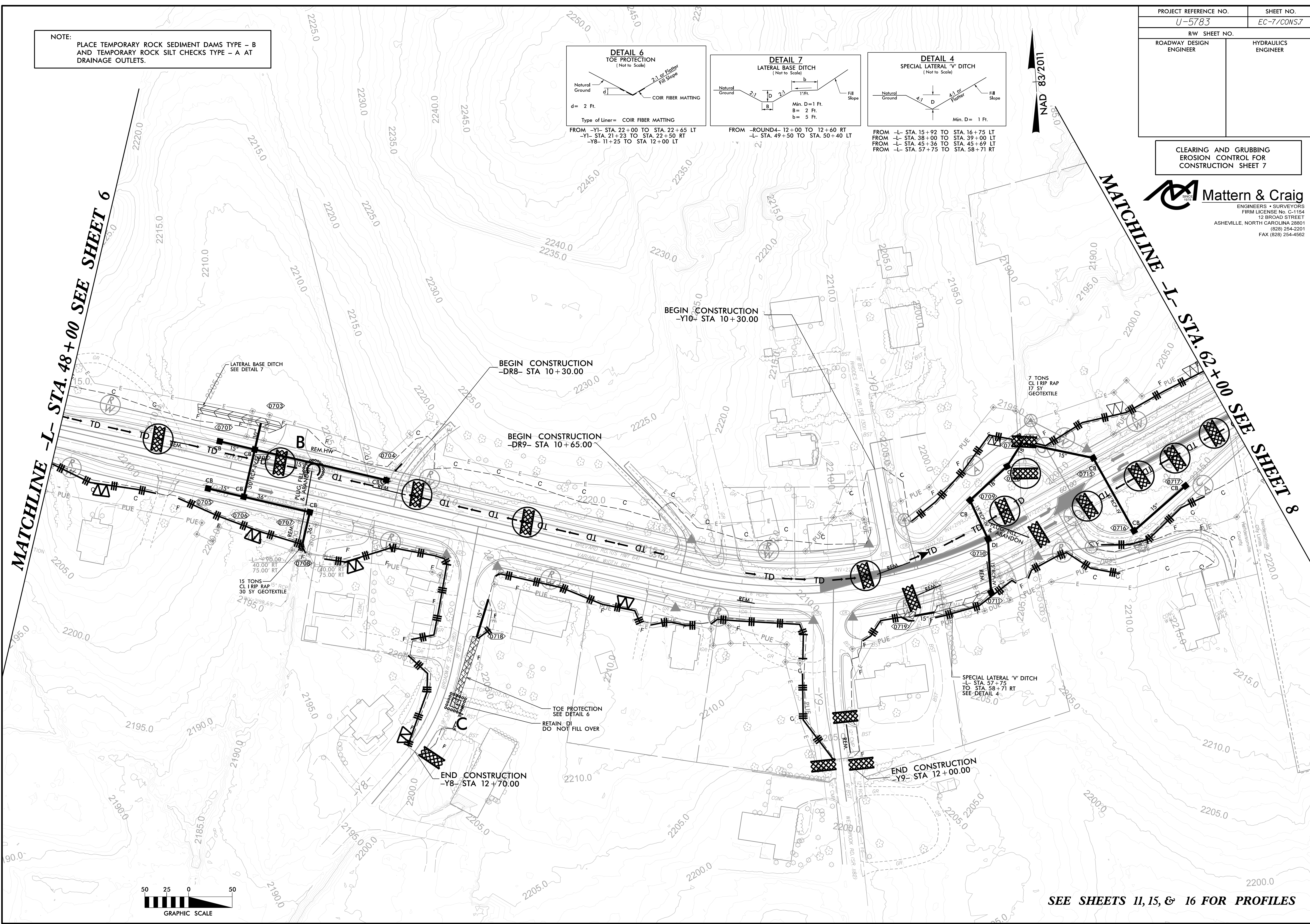
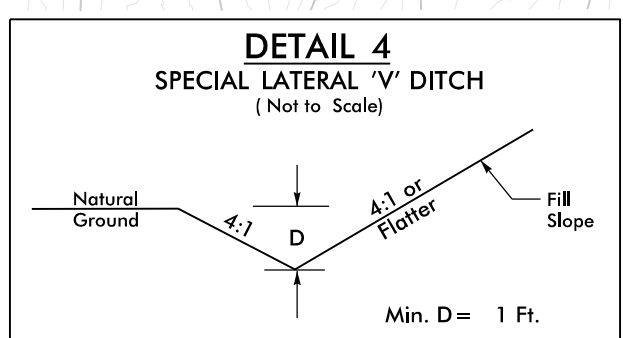
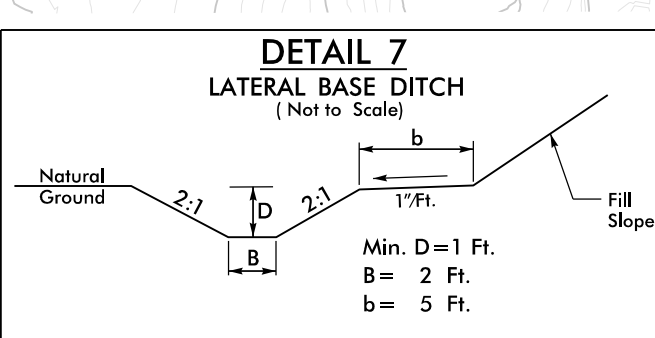
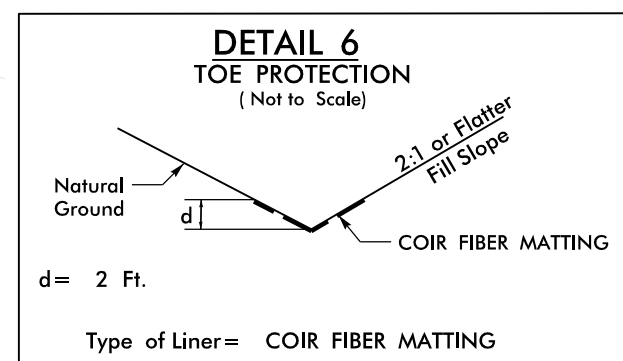
SEE SHEETS 11, 15, & 16 FOR PROFILES

PROJECT REFERENCE NO. U-5783	SHEET NO. EC-7/CONS.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

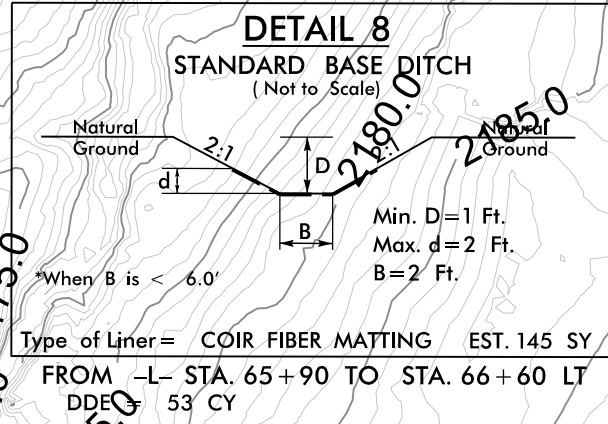
Mattern & Craig
ENGINEERS + SURVEYORS
FIRM LICENSE No. C-1154
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201
FAX (828) 254-4562

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



SEE SHEETS 11, 15, & 16 FOR PROFILES

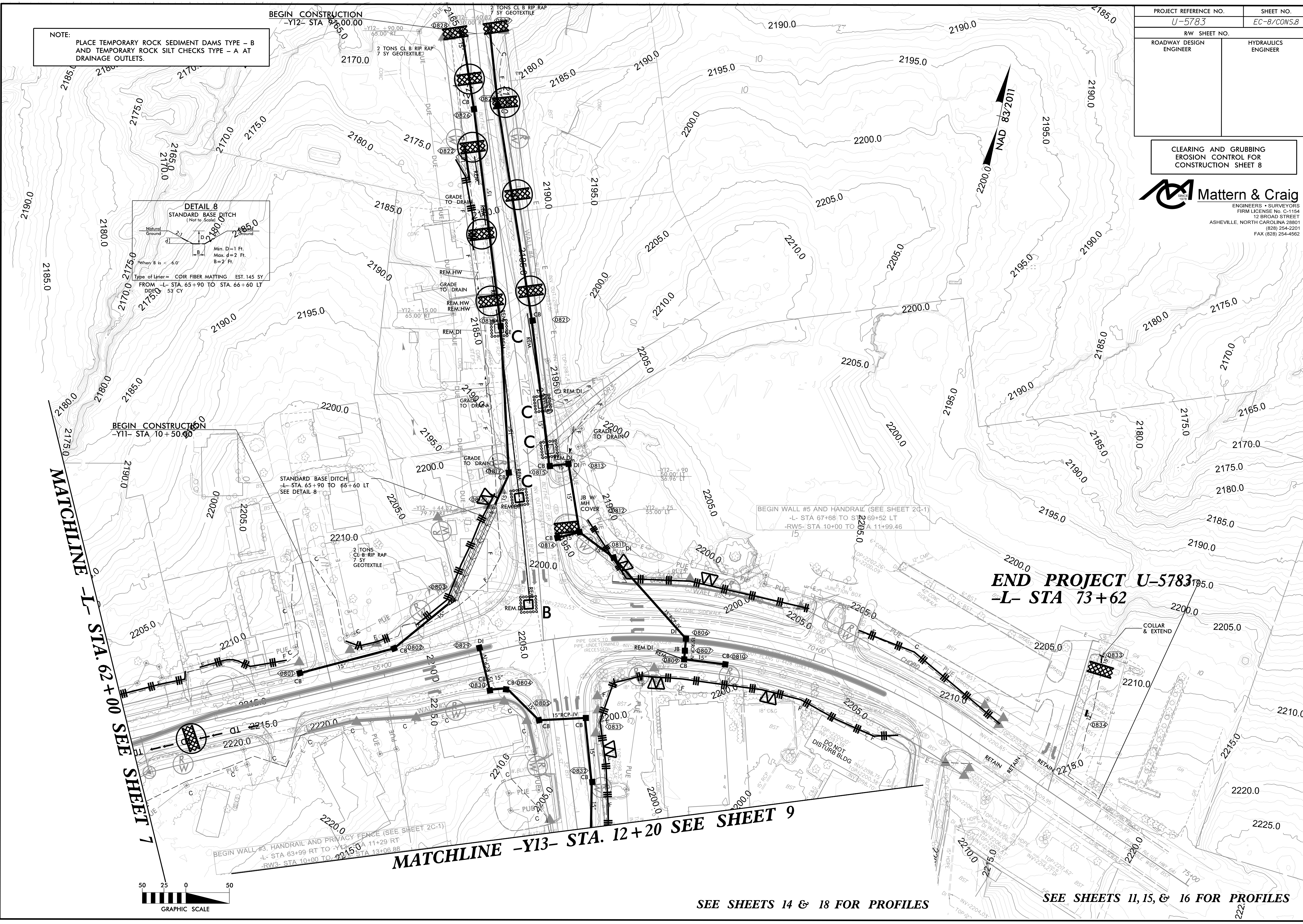
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.



PROJECT REFERENCE NO. U-5783	SHEET NO. EC-8/CONS.8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

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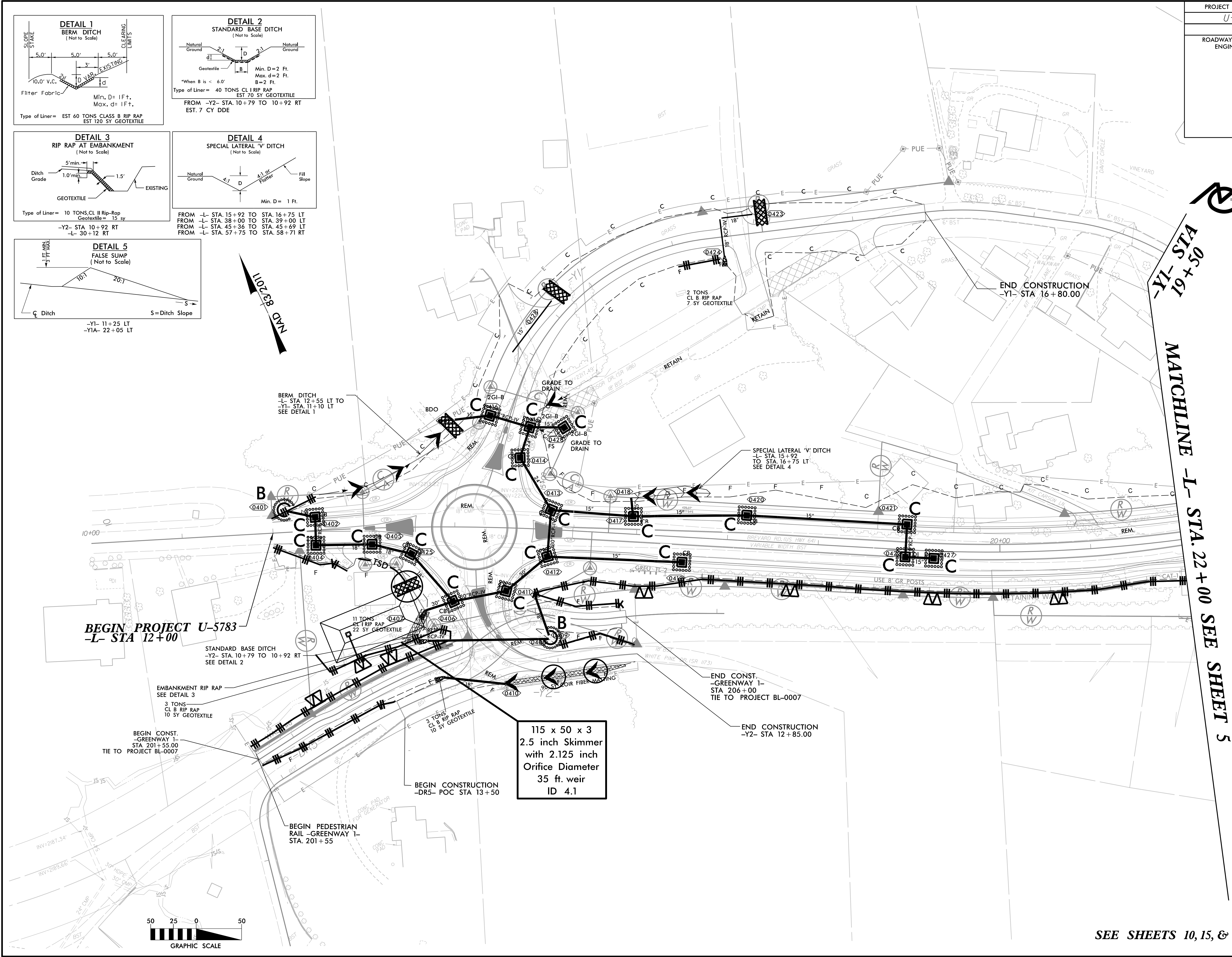
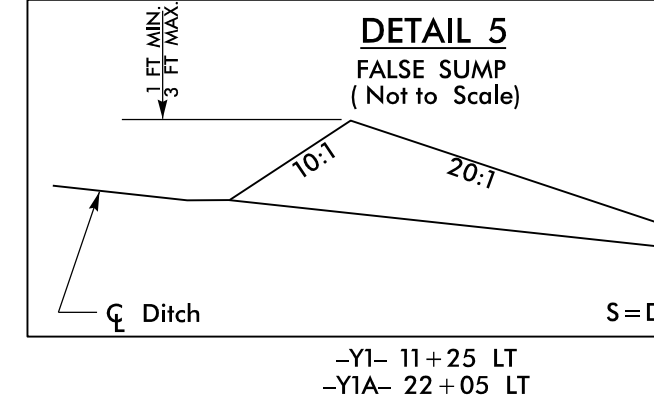
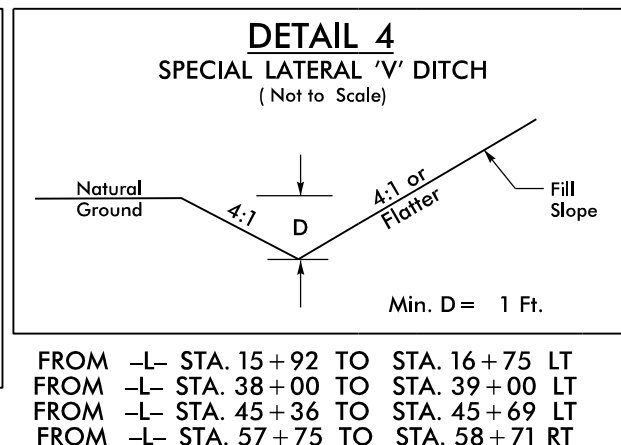
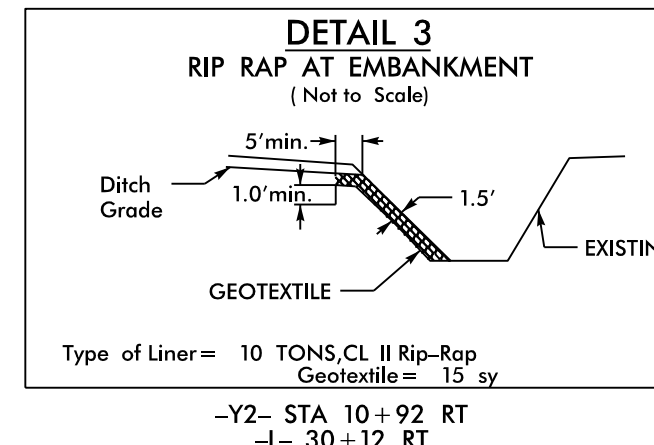
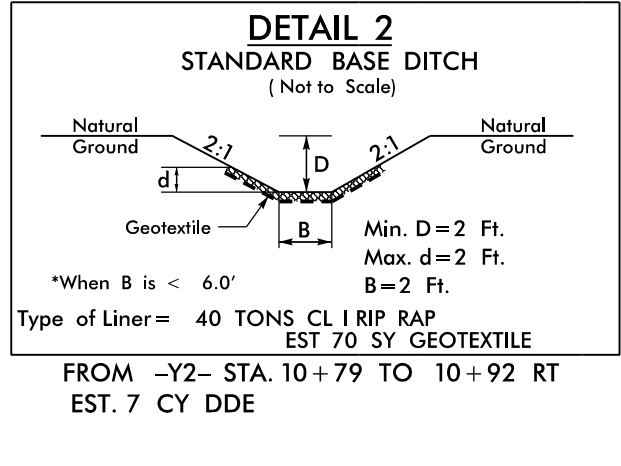
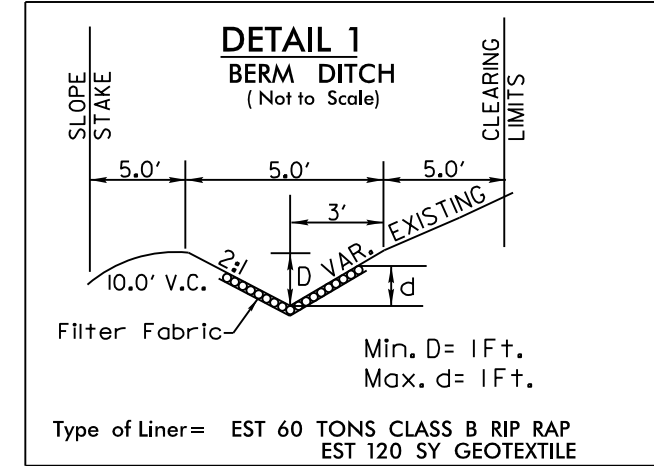


SEE SHEETS 14 & 18 FOR PROFILES

SEE SHEETS 11, 15, & 16 FOR PROFILES

PROJECT REFERENCE NO. <i>U-5783</i>	SHEET NO. <i>EC-10/CONS.4</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Mattern & Craig
 ENGINEERS • SURVEYORS
 FIRM LICENSE No. C-1154
 12 BROAD STREET
 ASHEVILLE, NORTH CAROLINA 28801
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 FAX (828) 254-4562



BEGIN PROJECT U-5783
 -L- STA 12+00

STANDARD BASE DITCH
 -Y2- STA. 10+79 TO 10+92 RT
 SEE DETAIL 2

EMBANKMENT RIP RAP
 SEE DETAIL 3
 3 TONS
 CL B RIP RAP
 10 SY GEOTEXTILE

BEGIN CONST.
 -GREENWAY 1-
 STA 201+55.00
 TIE TO PROJECT BL-0007

BEGIN PEDESTRIAN
 RAIL -GREENWAY 1-
 STA. 201+55

BEGIN CONSTRUCTION
 -DR5- POC STA 13+50

115 x 50 x 3
 2.5 inch Skimmer
 with 2.125 inch
 Orifice Diameter
 35 ft. weir
 ID 4.1

END CONST.
 -GREENWAY 1-
 STA 206+00
 TIE TO PROJECT BL-0007

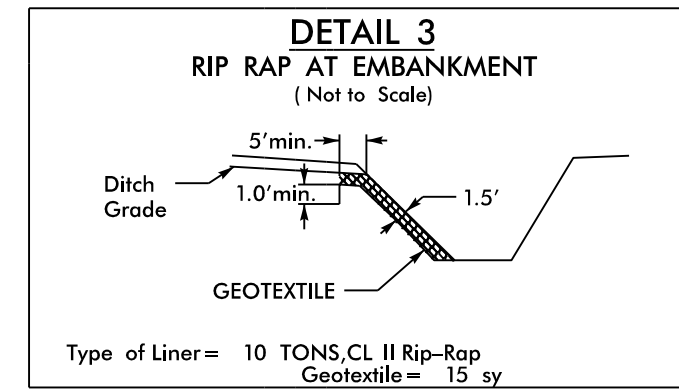
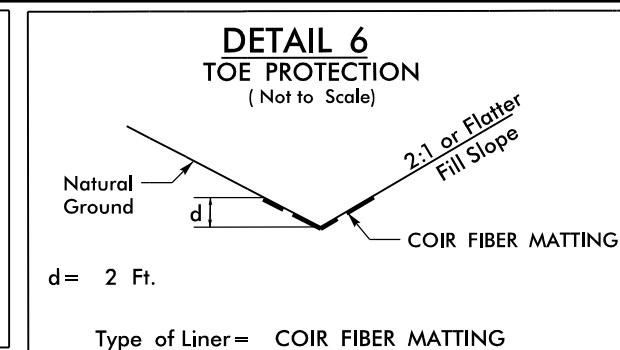
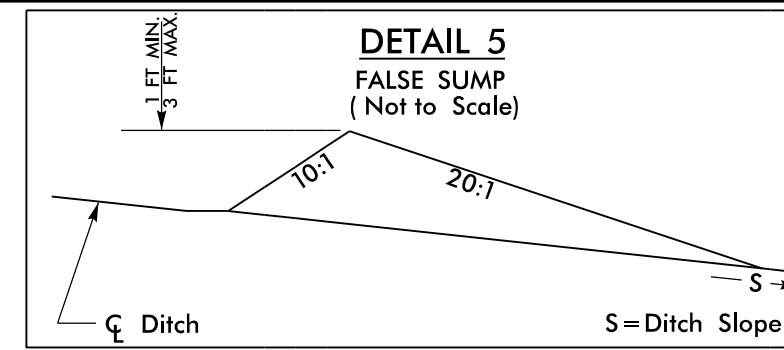
END CONSTRUCTION
 -Y2- STA 12+85.00

END CONSTRUCTION
 -Y1- STA 16+80.00

MATCHLINE -L- STA. 22+00 SEE SHEET 5
 -Y1- STA. 19+50

SEE SHEETS 10, 15, & 16 FOR PROFILES

PROJECT REFERENCE NO. <i>U-5783</i>	SHEET NO. <i>EC-II/CONS.5</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

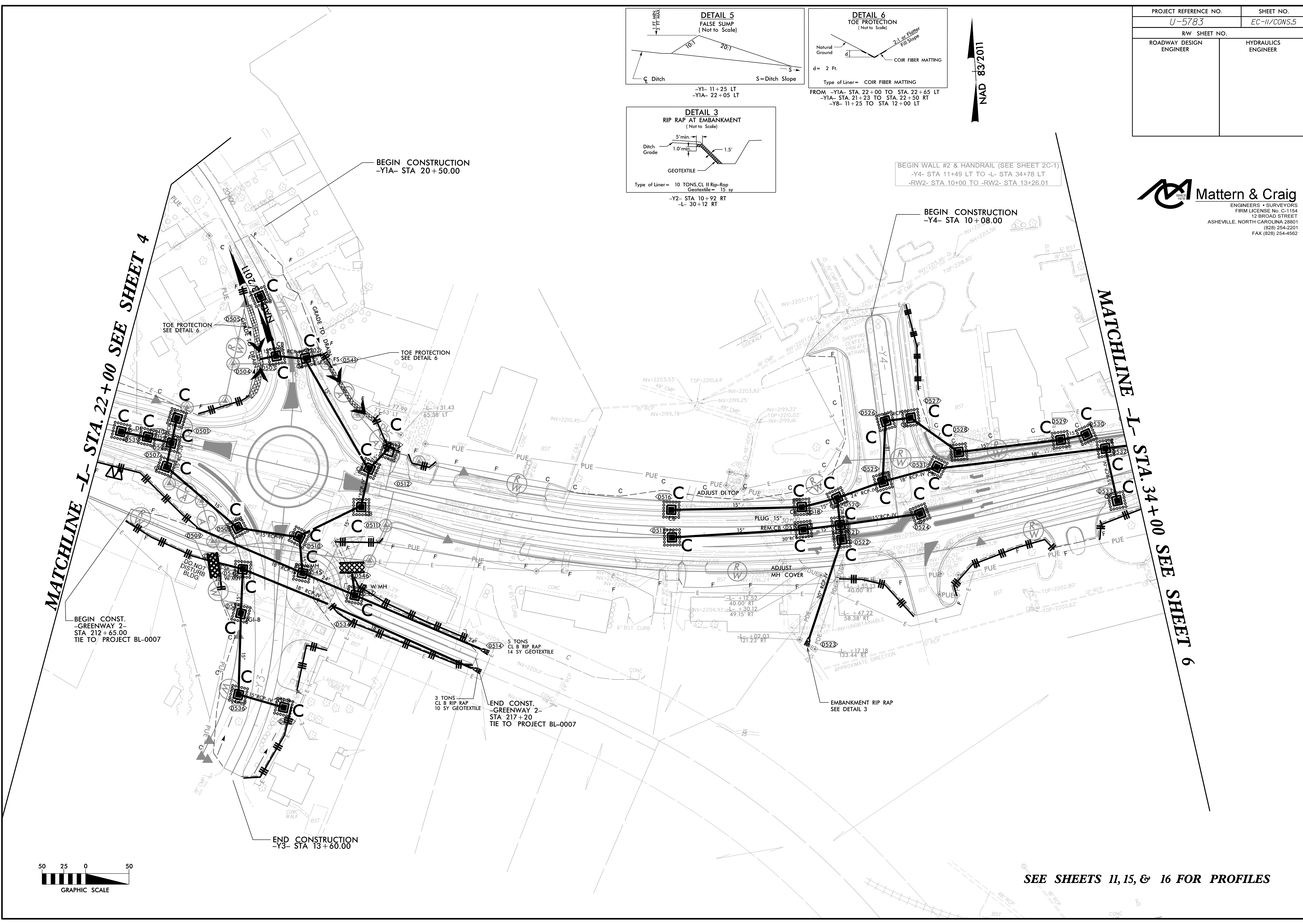


BEGIN WALL #2 & HANDRAIL (SEE SHEET 2C-1)
 -Y4- STA 11+49 LT TO -L- STA 34+78 LT
 -RW2- STA 10+00 TO -RW2- STA 13+26.01

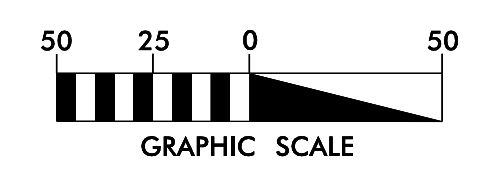
NAD 83/2011

MATCHLINE -L- STA. 22+00 SEE SHEET 4

MATCHLINE -L- STA. 34+00 SEE SHEET 6

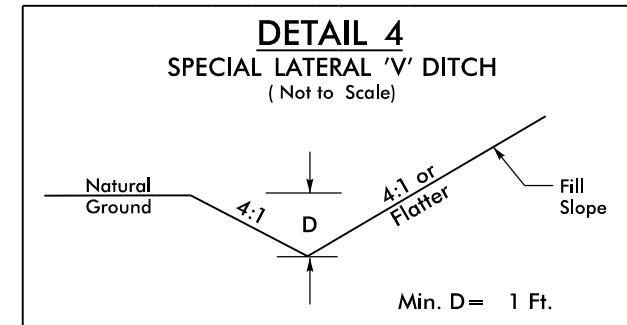


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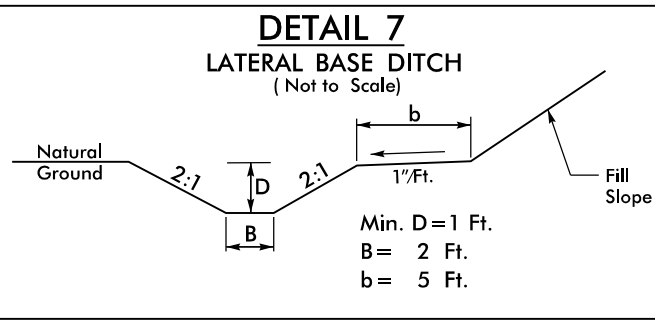


SEE SHEETS 11, 15, & 16 FOR PROFILES

PROJECT REFERENCE NO.	SHEET NO.
U-5783	EC-12/CONS.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



FROM -L- STA. 15+92 TO STA. 16+75 LT
 FROM -L- STA. 38+00 TO STA. 39+00 LT
 FROM -L- STA. 45+36 TO STA. 45+69 LT
 FROM -L- STA. 57+75 TO STA. 58+71 RT



FROM -ROUND- 12+00 TO 12+60 RT
 -L- STA. 49+50 TO STA. 51+00 LT

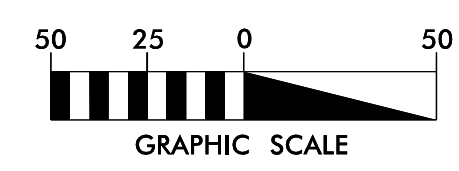
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MATCHLINE -L- STA. 34+00 SEE SHEET 5

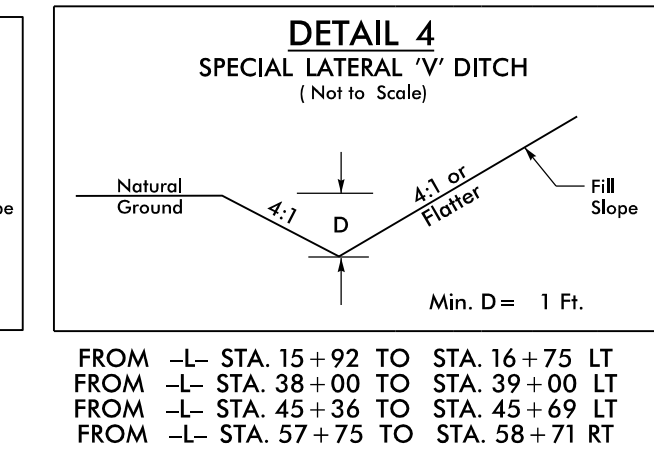
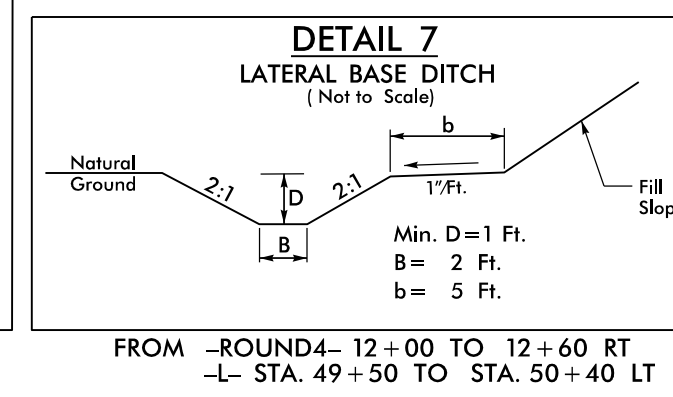
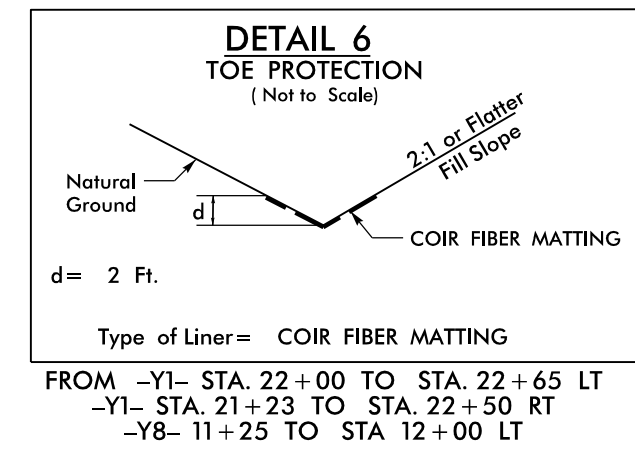
MATCHLINE -L- STA. 48+00 SEE SHEET 7



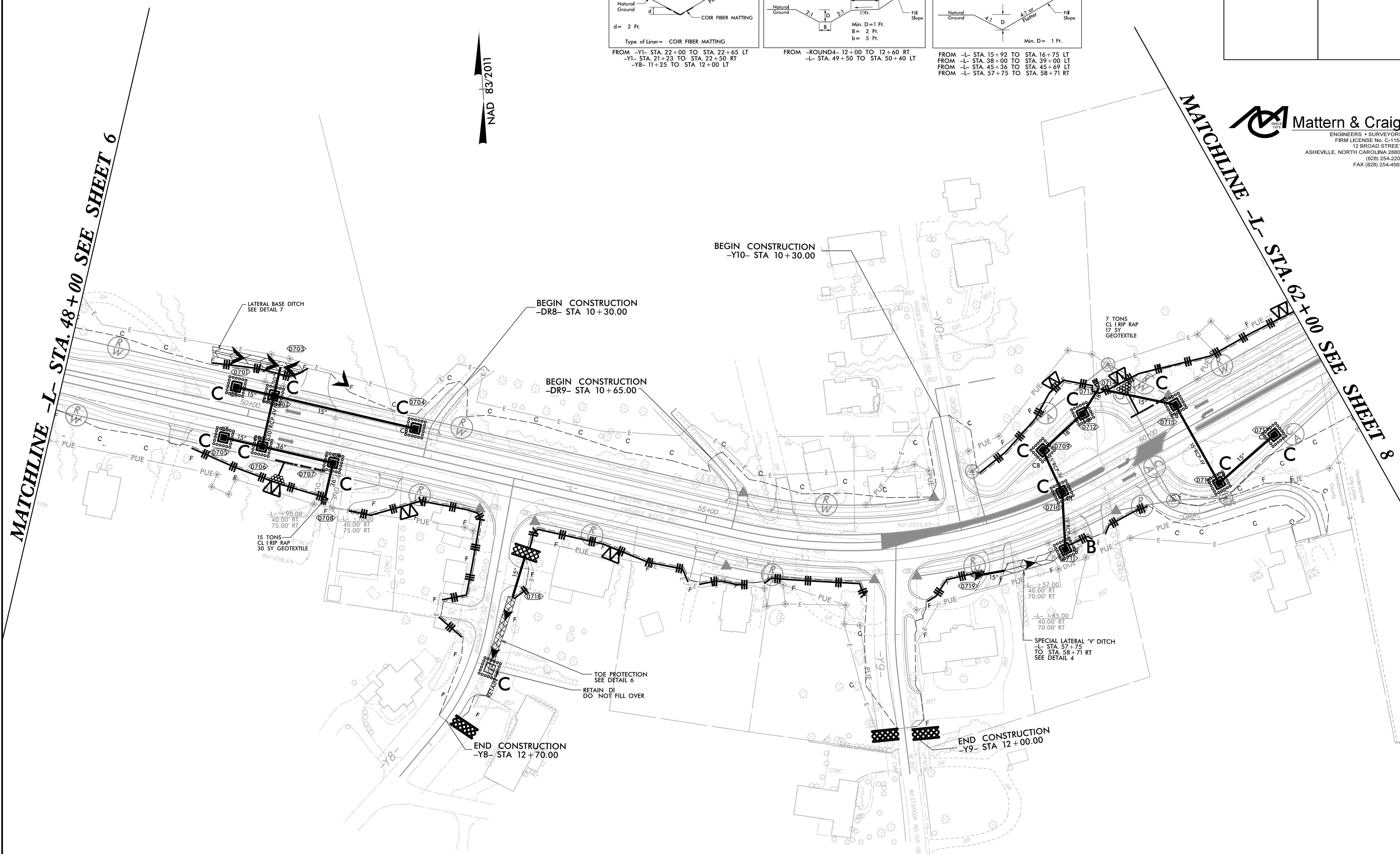
END CONSTRUCTION
 -Y7- STA 12+90.00

SEE SHEETS 11, 15, & 16 FOR PROFILES

PROJECT REFERENCE NO. <i>U-5783</i>	SHEET NO. <i>EC-13/CONS.7</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

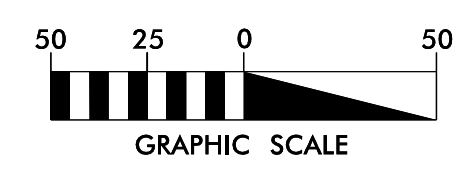


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MATCHLINE -L- STA. 48+00 SEE SHEET 6

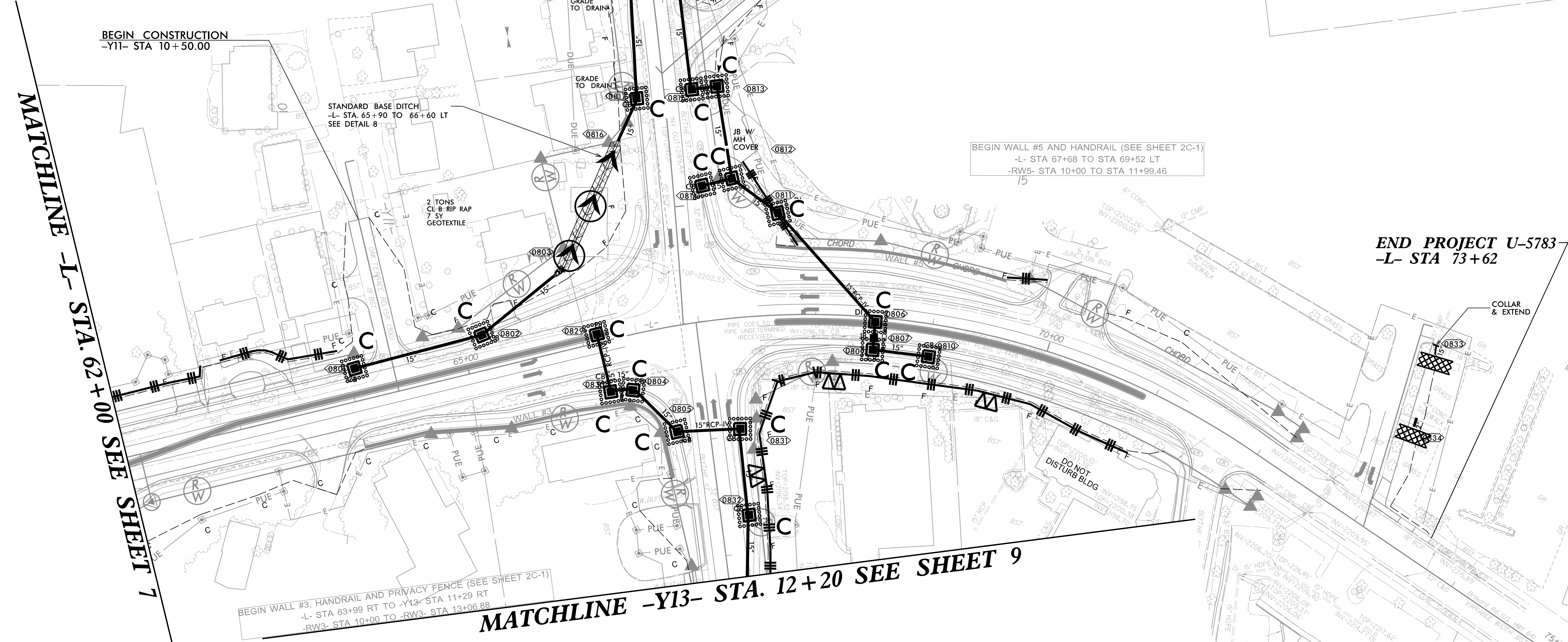
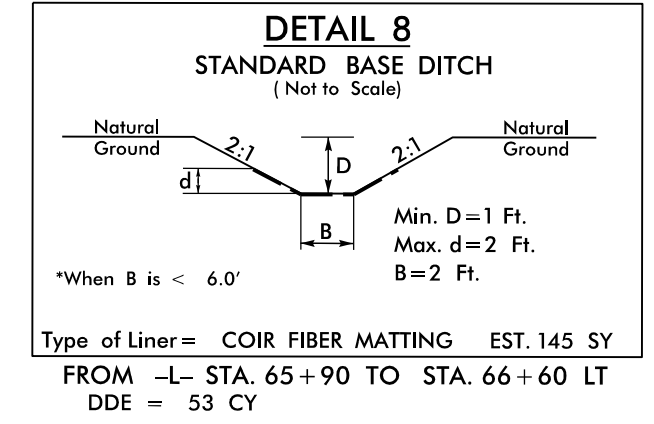
MATCHLINE -L- STA. 62+00 SEE SHEET 8



SEE SHEETS 11, 15, & 16 FOR PROFILES

PROJECT REFERENCE NO. U-5783	SHEET NO. EC-14/CONS.8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

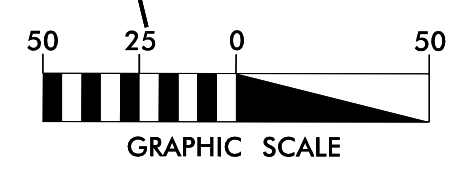
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MATCHLINE -L- STA. 62+00 SEE SHEET 7

MATCHLINE -Y13- STA. 12+20 SEE SHEET 9

END PROJECT U-5783
 -L- STA 73+62



SEE SHEETS 14 & 18 FOR PROFILES

SEE SHEETS 11, 15, & 16 FOR PROFILES

