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TIP PROJECT: U-5796

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5796	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
54039.1.FD1	NHP-0117(32)	PE
54039.3.1		CONST

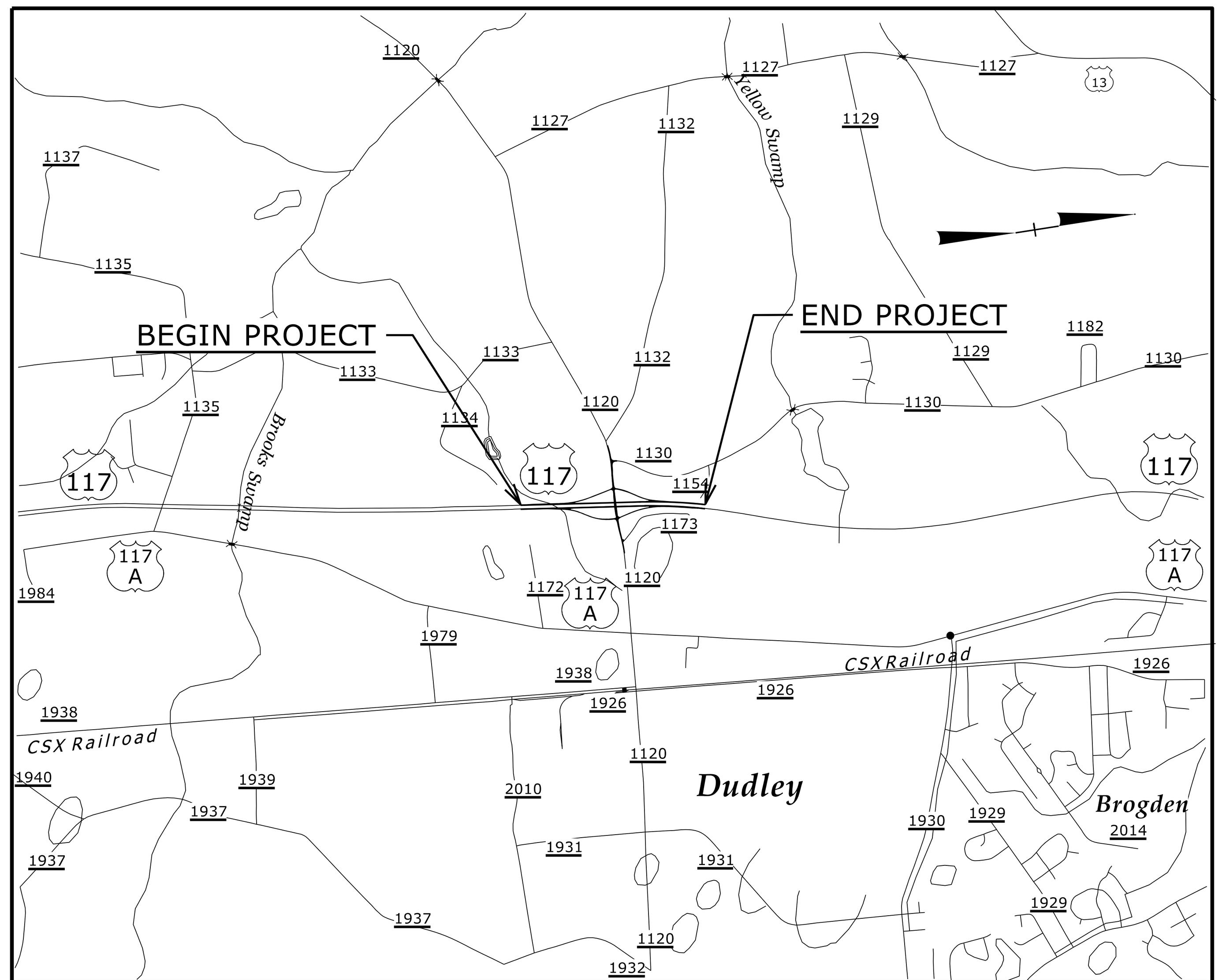
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED HIGHWAY EROSION CONTROL

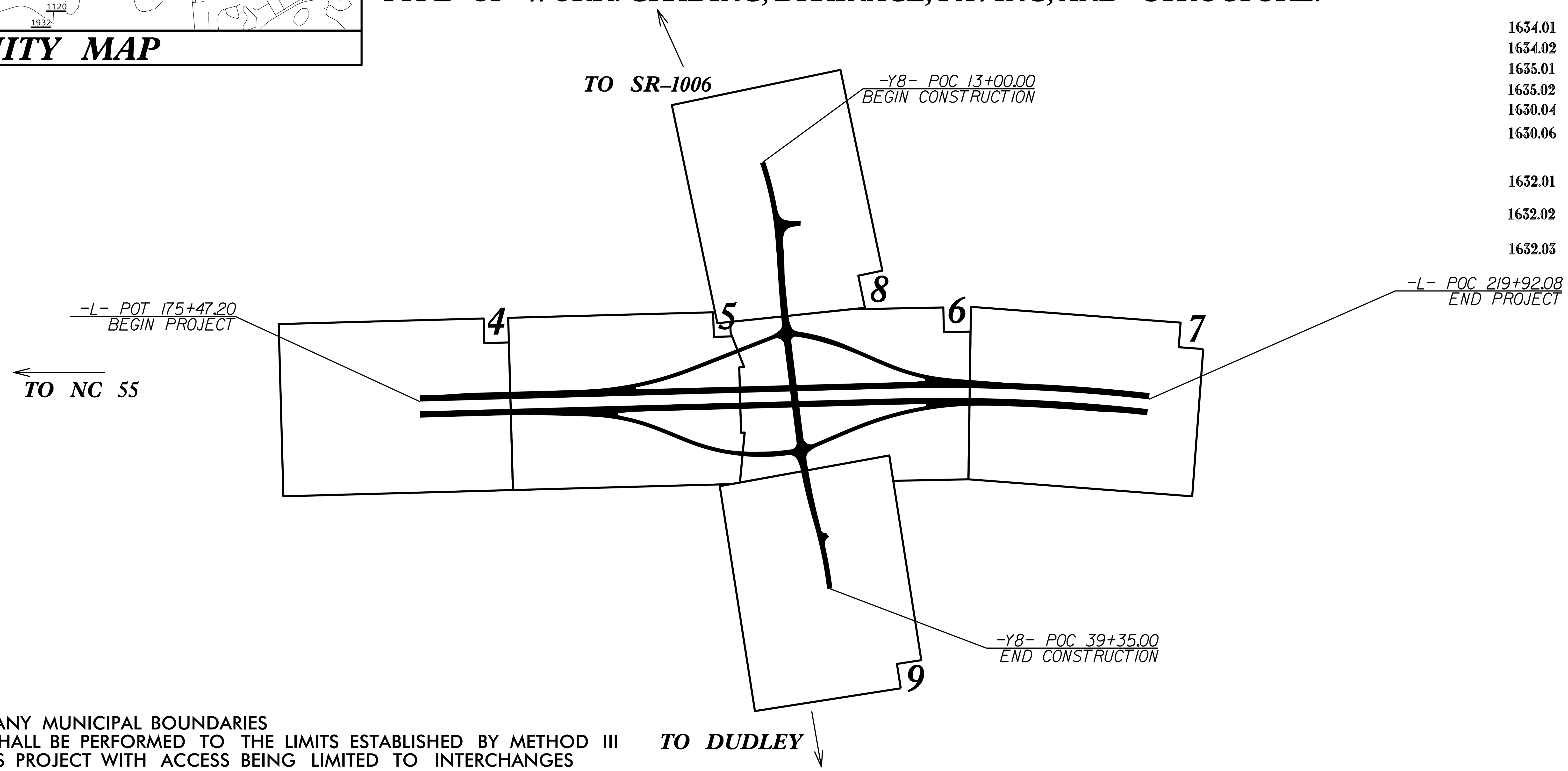
WAYNE COUNTY

LOCATION: US-117 & SR-1120 INTERCHANGE

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE.



VICINITY MAP



THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III
THIS IS A CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
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	
1630.02	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	EW, CFW
	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	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

GRAPHIC SCALE

0 50

PLANS

0

PROFILE (HORIZONTAL)

0

PROFILE (VERTICAL)

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

Prepared In the Office of:

WETHERILL ENGINEERING INC.

1223 JONES FRANKLIN RD.
RALEIGH, NC 27606

Designed by:

Jim Davis, PE 3554

NAME — LEVEL III CERTIFICATION NO.

Reviewed In the Office of:

ROADSIDE ENVIRONMENTAL UNIT

1 South Wilmington St.
Raleigh, NC 27611

2012 STANDARD SPECIFICATIONS

Reviewed by:

Jeff Walston, PE

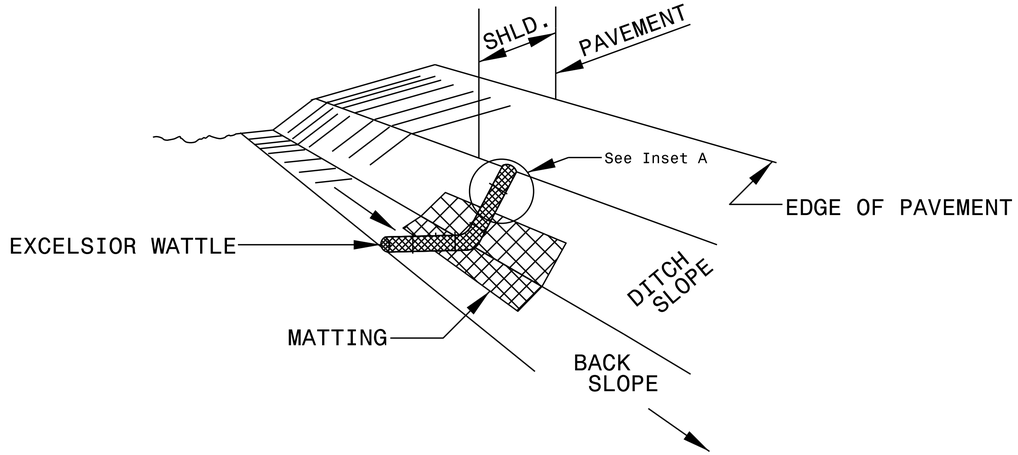
Roadway Standard Drawings

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 revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

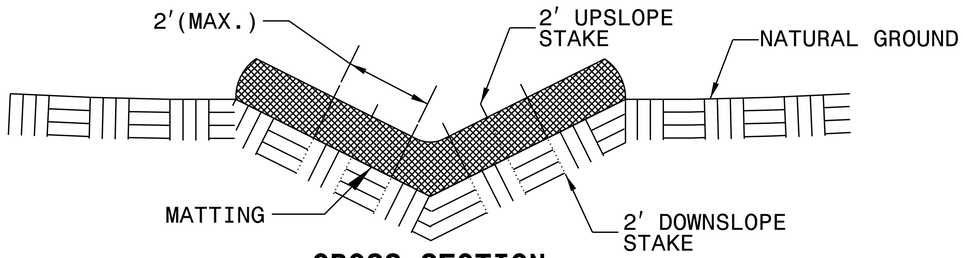
1604.01 Railroad Erosion Control Detail
1605.01 Temporary Silt Fence
1606.01 Special Sediment Control Fence
1607.01 Gravel Construction Entrance
1622.01 Temporary Berms and Slope Drains
1630.01 Riser Basin
1630.02 Silt Basin Type B
1630.03 Temporary Silt Ditch
1630.04 Stilling Basin
1630.05 Temporary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

PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

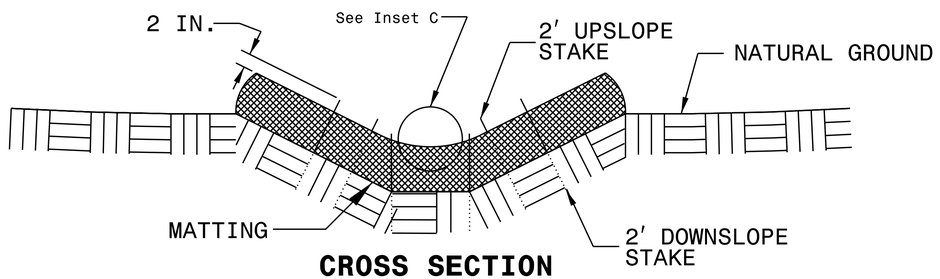
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

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.

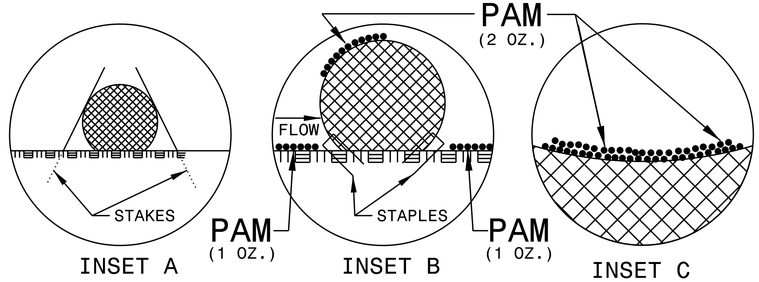
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

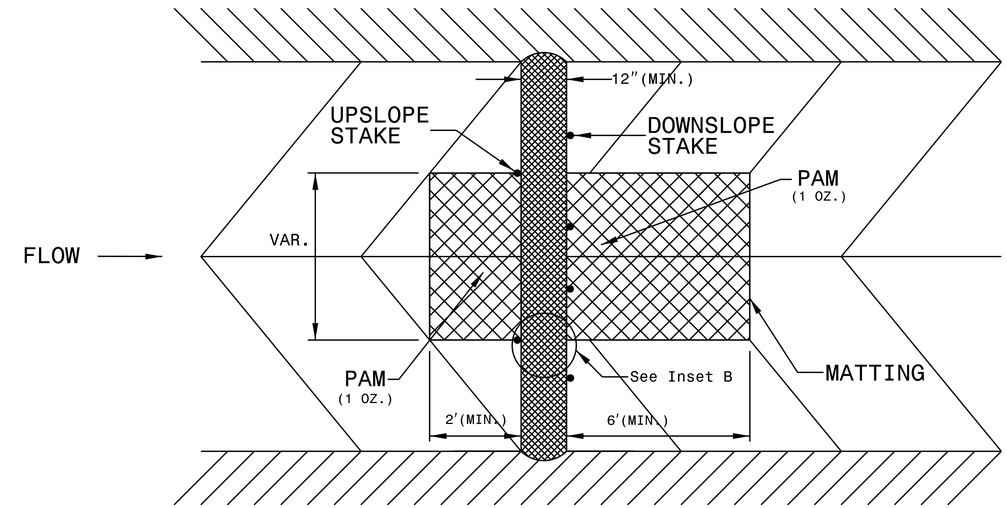
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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.

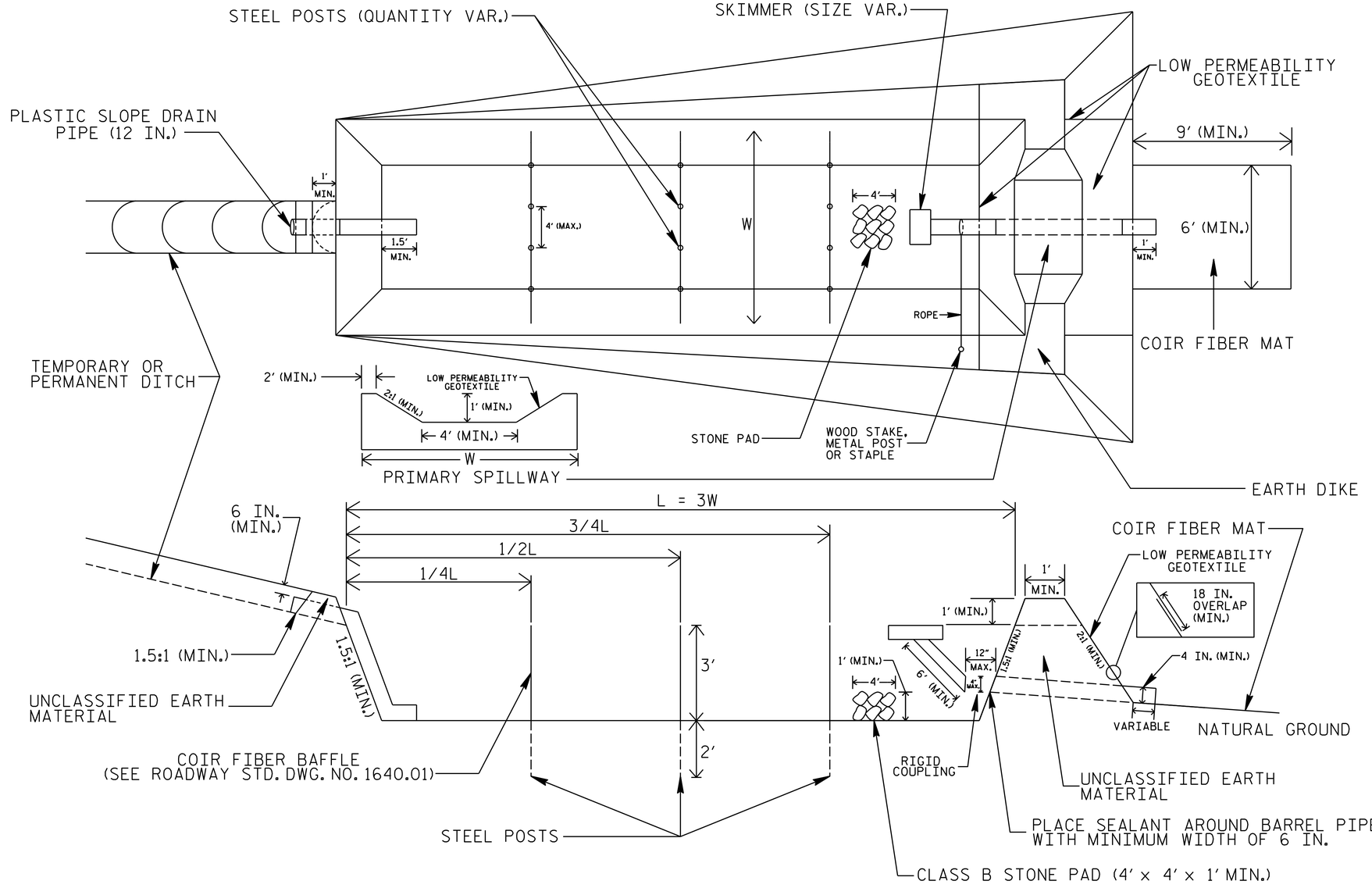




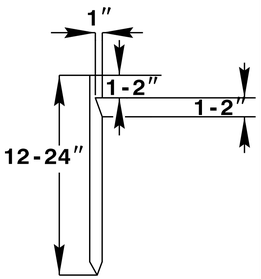
TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

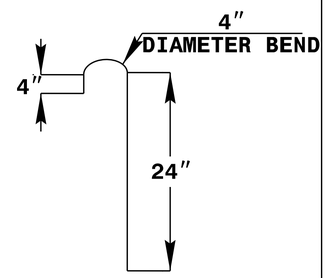
SKIMMER BASIN WITH BAFFLES DETAIL (EAST)



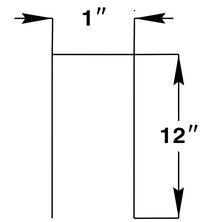
2" x 2" (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1" (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

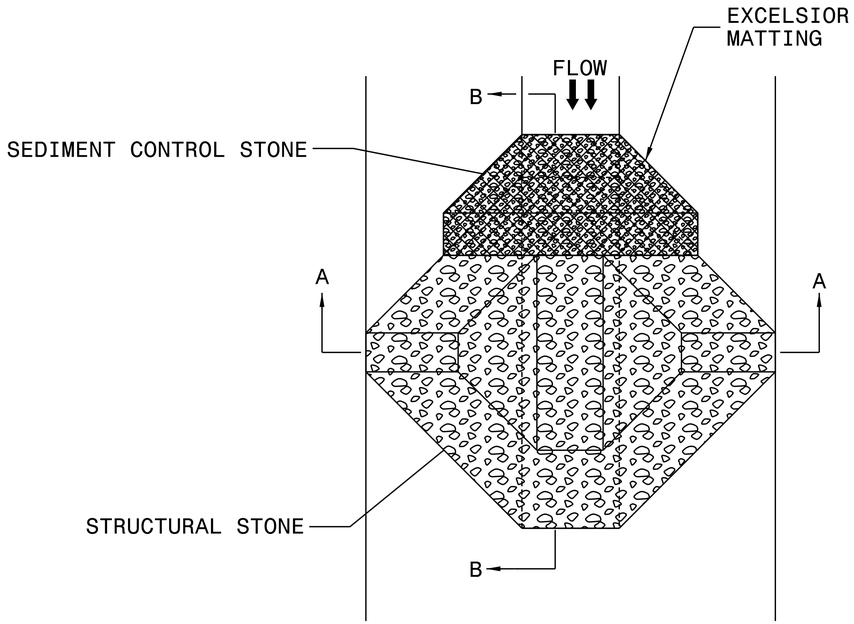
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE PRIMARY SPILLWAY WEIR LENGTH (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. LOW PERMEABILITY GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

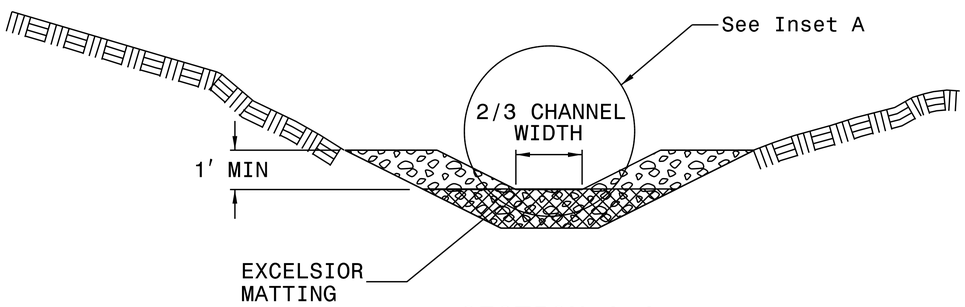
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



PLAN



SECTION A-A

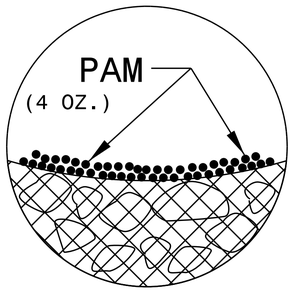
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

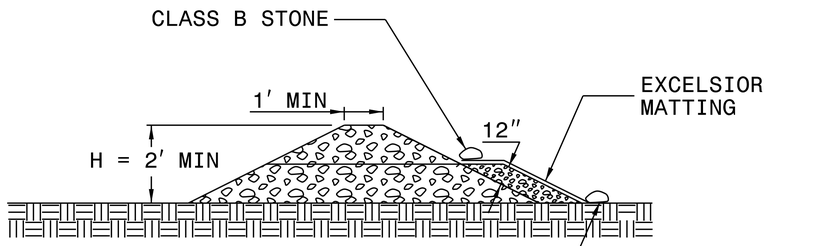
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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 ROCK SILT CHECK.

INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION B-B

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

BORROW PIT DEWATERING BASIN DETAIL

GENERAL NOTES:

DETERMINE BORROW PIT DEWATERING BASIN SIZE USING V = 8.0203 * Q * T, WHERE V IS VOLUME (FT^3), Q IS PUMP FLOW RATE (GPM), AND T IS DEWATERING TIME (HR). USE MAXIMUM FLOW RATE OF 1000 GPM AND A MINIMUM DEWATERING TIME OF 2 HOURS.

RISER SHALL BE A NON-PERFORATED, SMOOTH OR CORRUGATED MATERIAL WITH A FLASHBOARD OPTION.

CONSTRUCT THE COIR FIBER BAFFLE IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1640.01 AND WITH MATERIAL THAT MEETS THE SPECIFICATIONS OF ROADWAY STANDARD 1640-14.

PROVIDE 5′ STEEL POSTS OF THE SELF-FASTENER ANGLE STEEL TYPE. INSTALL STEEL POSTS WITH NO MORE THAN 3′ OF THE POST APPEARING ABOVE THE GROUND.

ATTACH THE COIR FIBER MAT TO THE STEEL POSTS WITH WIRE OR OTHER ACCEPTABLE MEANS AND STAPLED INTO THE BOTTOM AND SIDE SLOPES OF THE BASIN WITH 12″ STAPLES.

INSTALL TYPE 2 GEOTEXTILE ON SIDESLOPES AND BOTTOM OF BASIN AT INLET AS SHOWN IN THE DETAIL.

USE THE TYPICAL SECTION SHOWN FOR THE BORROW PIT DEWATERING BASIN AS A GUIDE. THE BASIN MAY HAVE ANY TYPE CONFIGURATION AS LONG AS SUFFICIENT VOLUME IS PROVIDED AND PROVISIONS ARE MADE FOR A NON-PERFORATED RISER.

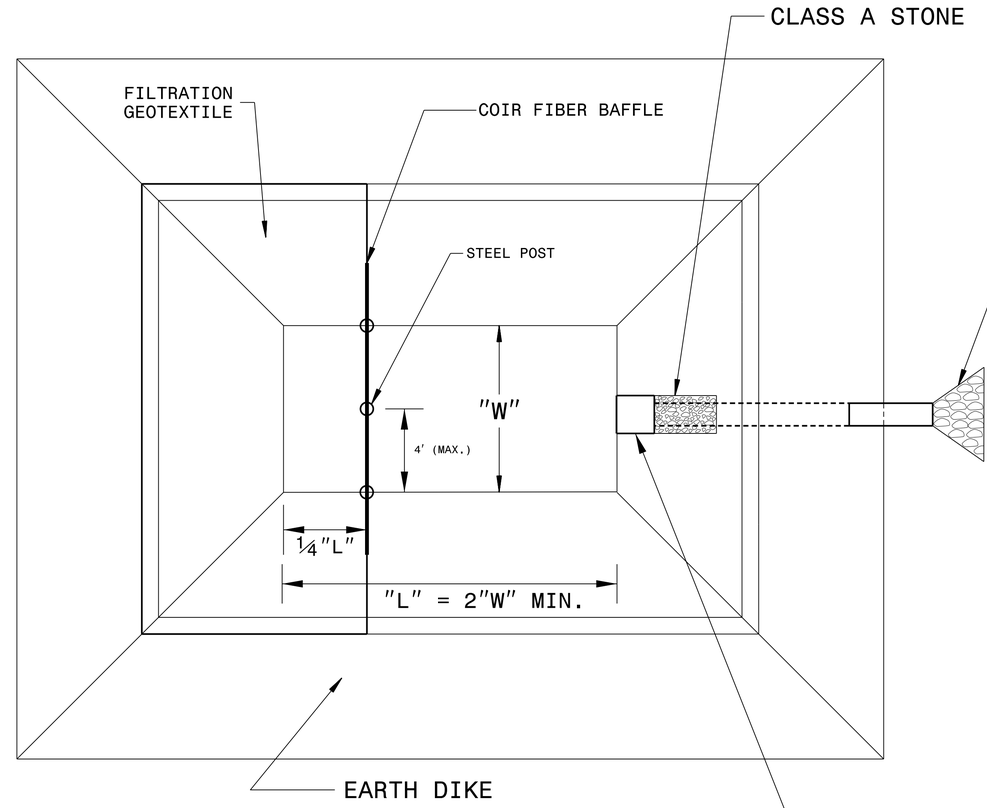
DO NOT EXCEED 3½ FT. IN HEIGHT FOR THE EARTH DIKES REQUIRED FOR BORROW PIT DEWATERING BASIN.

THE BORROW PIT DEWATERING BASIN SIZE IS VARIABLE AND DEPENDENT ON SPECIFIC SITE REQUIREMENTS AS WELL AS PROPOSED CONSTRUCTION OPERATIONS.

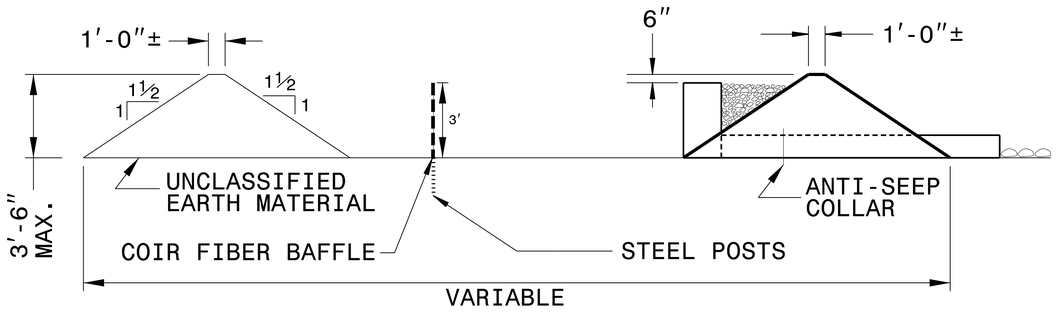
SUBMIT THE SIZE, LOCATION AND RISER PIPE MATERIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

PUMP THE EFFLUENT INTO THE BORROW PIT DEWATERING BASIN TO A MAXIMUM DEPTH OF 6 IN. BELOW TOP OF EARTH DIKE.

PROVIDE A STONE ENERGY DISSIPATOR PAD AT THE OUTLET OF THE PUMP DISCHARGE HOSE AND OUTLET OF THE RISER BARREL IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 876.02 FOR OUTLET W/O DITCH.



PLAN



TYPICAL SECTION VIEW

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-3

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL (SLOPES)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
6	RP. A	7+60	12+40	RT.	2,915
5 & 6	RP. B	10+20	13+70	LT.	1,941
5 & 6	RP. C	10+50	15+80	RT.	3,379
6	RP. D	9+50	12+60	LT.	1,501
				SUBTOTAL	9,736

MATTING FOR EROSION CONTROL (DITCHES)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4 & 5	-L-	180+50	182+00	LT.	190
5	-L-	190+00	191+50	LT.	70
8	-Y8-	17+65	18+00	LT.	25
8	-Y8-	21+50	22+00	LT.	35
8	-Y8-	19+36	20+00	RT.	45
8	-Y8-	21+50	22+00	RT.	35
9	-Y8-	35+50	35+93	RT.	30
9	-Y8-	36+47	37+00	LT.	40
				SUBTOTAL	470
				TOTAL	10,206
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					6,779
				TOTAL	16,985
				SAY	16,985

PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-3B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

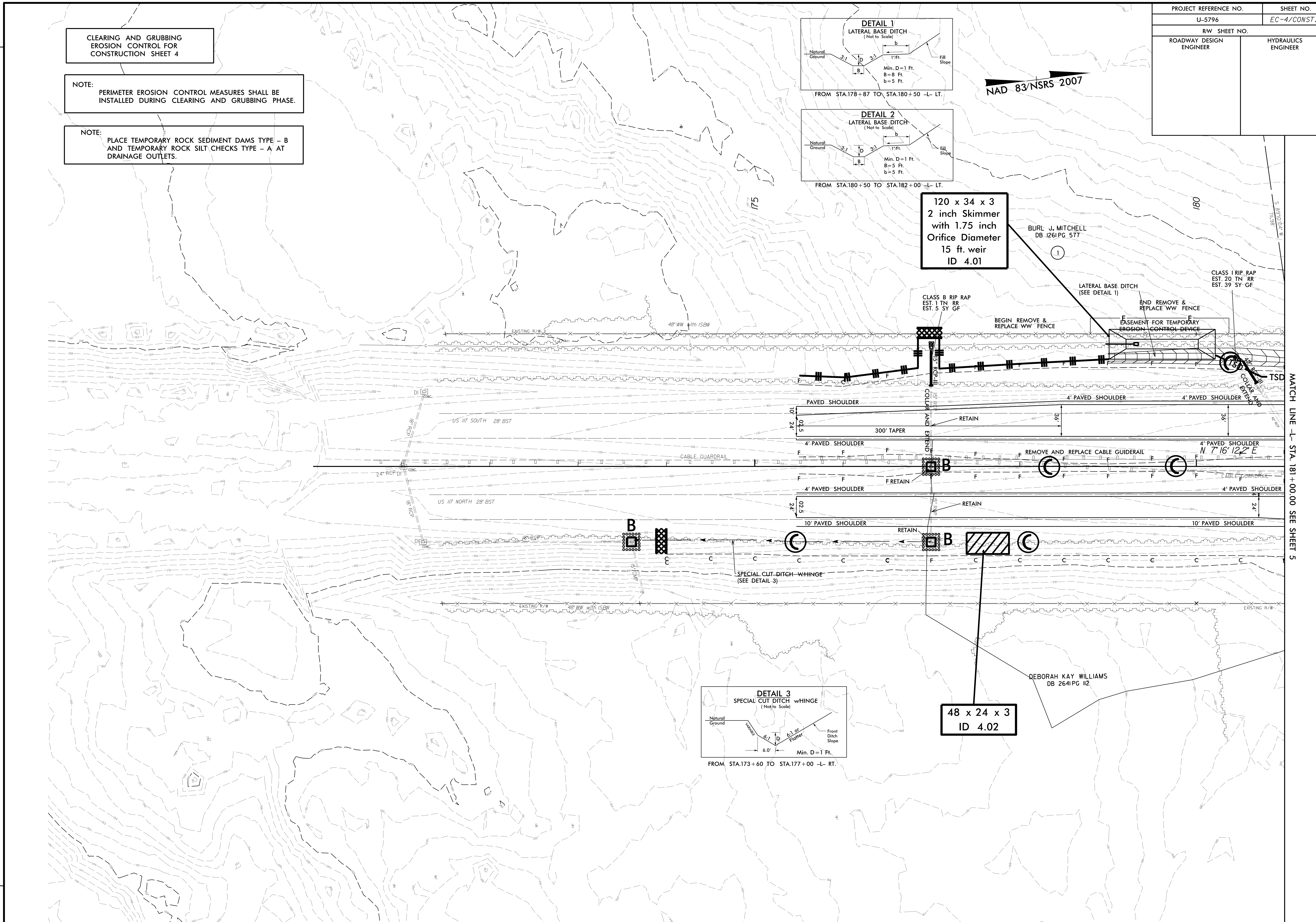
SOIL STABILIZATION TIMEFRAMES

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 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.

HP4500

REVISIONS

$$$$SYSTIME$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

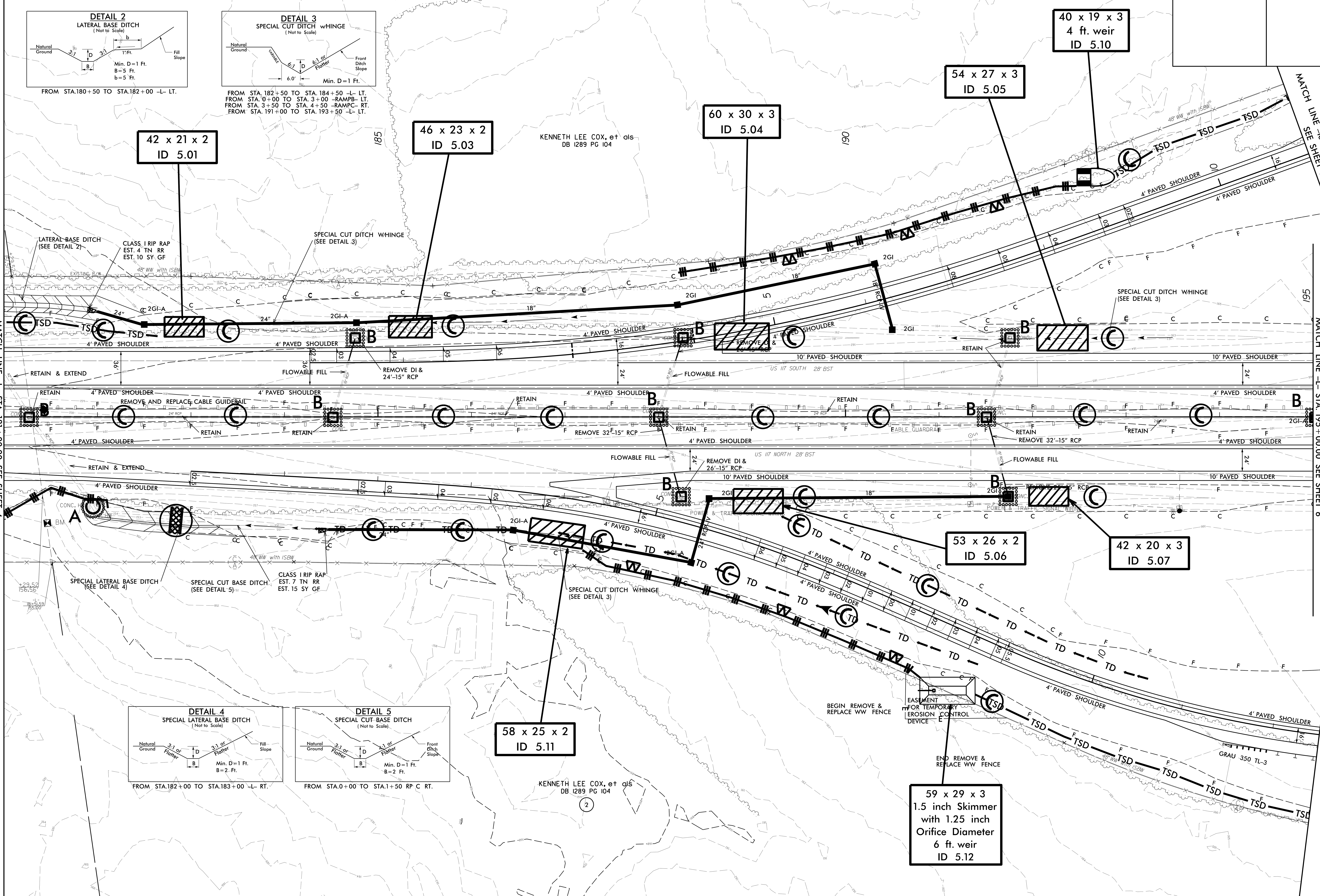


PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-5/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

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



NAD 83/NSRS 2007
DETAIL 2
LATERAL BASE DITCH
(Not to Scale)
FROM STA.180+50 TO STA.182+00 -L- LT.
DETAIL 3
SPECIAL CUT DITCH w/HINGE
(Not to Scale)
FROM STA. 182+50 TO STA. 184+50 -L- LT.
FROM STA. 0+00 TO STA. 3+00 -RAMPB- LT.
FROM STA. 3+50 TO STA. 4+50 -RAMPC- RT.
FROM STA. 191+00 TO STA. 193+50 -L- LT.
42 x 21 x 2
ID 5.01
46 x 23 x 2
ID 5.03
60 x 30 x 3
ID 5.04
54 x 27 x 3
ID 5.05
40 x 19 x 3
4 ft. weir
ID 5.10
53 x 26 x 2
ID 5.06
42 x 20 x 3
ID 5.07
58 x 25 x 2
ID 5.11
59 x 29 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
6 ft. weir
ID 5.12
KENNETH LEE COX, et als
DB 1289 PG 104
LATERAL BASE DITCH (SEE DETAIL 2)
CLASS I RIP RAP
EST. 4 TN RR
EST. 10 SY GF
SPECIAL CUT DITCH W/HINGE (SEE DETAIL 3)
SPECIAL LATERAL BASE DITCH (SEE DETAIL 4)
SPECIAL CUT BASE DITCH (SEE DETAIL 5)
CLASS I RIP RAP
EST. 7 TN RR
EST. 15 SY GF
REMOVE DI & 24'-15" RCP
REMOVE DI & 26'-15" RCP
REMOVE 32'-15" RCP
REMOVE AND REPLACE CABLE GUIDERAIL
RETAIN & EXTEND
FLOWABLE FILL
4' PAVED SHOULDER
10' PAVED SHOULDER
US 117 SOUTH 28' BST
US 117 NORTH 28' BST
BEGIN REMOVE & REPLACE WW FENCE
END REMOVE & REPLACE WW FENCE
EASEMENT FOR TEMPORARY EROSION CONTROL DEVICE
GRAU 350 TL-3
MATCH LINE -L- STA. 181+00.00 SEE SHEET 4
MATCH LINE -L- STA. 195+00.00 SEE SHEET 6
MATCH LINE -RAMPB- STA. 11+00.00 SEE SHEET 6
MATCH LINE -RAMPC- STA. 12+50.00 SEE SHEET 6
DETAIL 4
SPECIAL LATERAL BASE DITCH
(Not to Scale)
FROM STA.182+00 TO STA.183+00 -L- RT.
DETAIL 5
SPECIAL CUT BASE DITCH
(Not to Scale)
FROM STA.0+00 TO STA.1+50 RP C RT.

REVISIONS

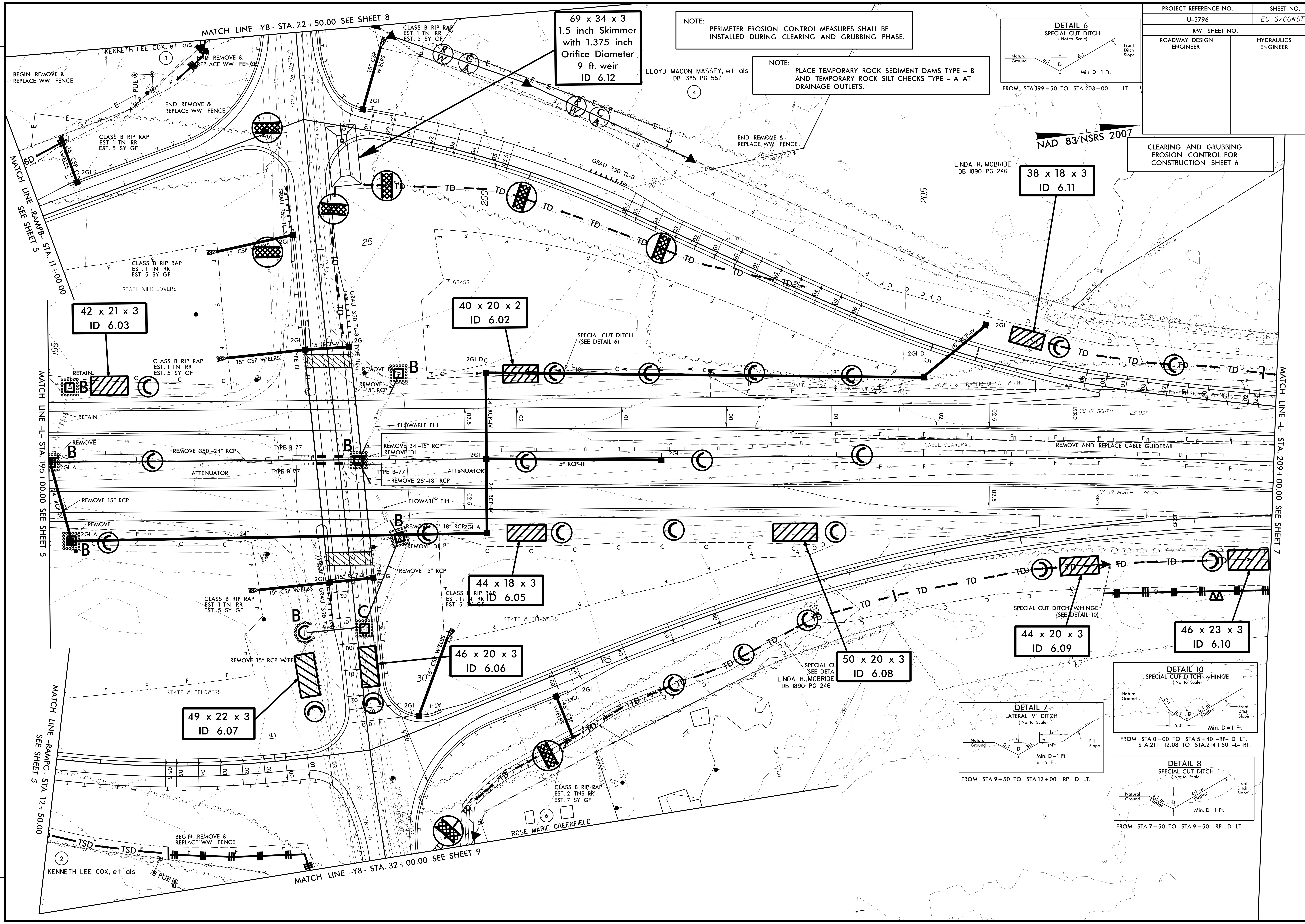
$$$$$SYSTIME$$$$$
$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-6/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 6

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

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



DETAIL 6
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground, Front Ditch Slope, Min. D=1 Ft.
FROM STA.199+50 TO STA.203+00 -L- LT.

DETAIL 7
LATERAL 'V' DITCH
(Not to Scale)
Natural Ground, Fill Slope, Min. D=1 Ft., b=5 Ft.
FROM STA.9+50 TO STA.12+00 -RP- D LT.

DETAIL 8
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground, Front Ditch Slope, Min. D=1 Ft.
FROM STA.7+50 TO STA.9+50 -RP- D LT.

DETAIL 10
SPECIAL CUT DITCH w/HINGE
(Not to Scale)
Natural Ground, Front Ditch Slope, Min. D=1 Ft.
FROM STA.0+00 TO STA.5+40 -RP- D LT.
STA.211+12.08 TO STA.214+50 -L- RT.

REVISIONS

$$$$$SYSTIME$$$$
$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$$

HP45000

PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-7/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

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 7

NAD 83/NSRS 2007

28 x 14 x 3
ID 7.01

28 x 14 x 3
ID 7.03

28 x 14 x 3
ID 7.05

44 x 22 x 3
ID 7.02

55 x 22 x 2
ID 7.04

40 x 20 x 2
ID 7.06

34 x 16 x 2
ID 7.07

KENNETH R. BEDFORD, SR.
DB 2825 PG 215

EVE & FRAN LLC
DB 1819 PG 790

THURMAN RAY LEE
DB 1042 PG 311

MATCH LINE –L– STA. 209+00.00 SEE SHEET 6

US 117 SOUTH 28' BST

US 117 NORTH 28' BST

CABLE GUARDRAIL

REMOVE AND REPLACE CABLE GUIDERAIL

10' PAVED SHOULDER

4' PAVED SHOULDER

FLOWABLE FILL

REMOVE DI & 24'–15" RCP

REMOVE 30'–15" RCP

REMOVE 31'–15" RCP

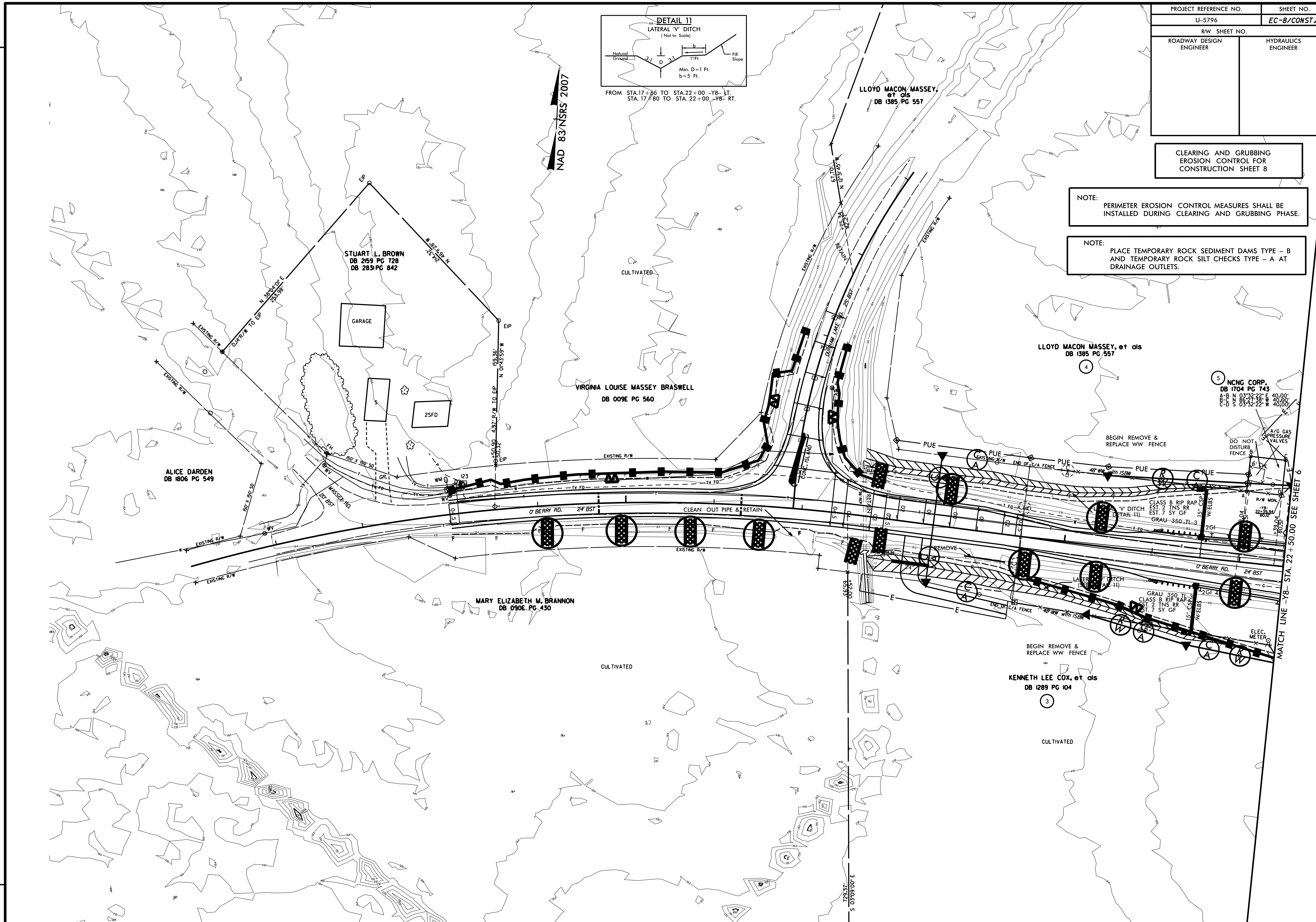
REMOVE DI & 24'–15"

SPECIAL CUT DITCH WHINGE (SEE DETAIL 10)

CLASS I RIP RAP
EST. 1 TN RR
EST. 22 SY GF

REVISIONS

SSSSSSSSYSTIMESSSSSS
SSSSSSSSSSSSSSSSSDGNSSSSSSSSSSSSSSSSSSS
SSSSUSERNAMESSSSS


DETAIL 11
LATERAL 'V' DITCH
(Not to Scale)
Natural Ground
3:1
D
3:1
b
1"/Ft.
Fill Slope
Min. D=1 Ft.
b=5 Ft.
FROM STA.17+65 TO STA.22+00 -Y8- LT.
STA. 17+80 TO STA. 22+00 -Y8- RT.
NAD 83/NSRS 2007
LLOYD MACON MASSEY, et als
DB 1385 PG 557
STUART L. BROWN
DB 2159 PG 728
DB 2831 PG 842
GARAGE
2SFD
CULTIVATED
VIRGINIA LOUISE MASSEY BRASWELL
DB 009E PG 560
ALICE DARDEN
DB 1806 PG 549
MARY ELIZABETH M. BRANNON
DB 090E PG 430
KENNETH LEE COX, et als
DB 1289 PG 104
NCNG CORP.
DB 1704 PG 743
BEGIN REMOVE & REPLACE WW FENCE
DO NOT DISTURB FENCE
A/G GAS PRESSURE VALVES
EXISTING R/W
O'BERRY RD.
24' BST
MASSEY RD.
20' BST
DURHAM LAKE RD.
25' BST
CLEAN OUT PIPE & RETAIN
CONC. ISLAND
LATERAL 'V' DITCH (DETAIL 11)
CLASS B RIP RAP
EST. 2 TNS RR
EST. 7 SY GF
GRAU 350 TL-3
48" WW with ISBW
END OF C/A FENCE
ELEC. METER
MATCH LINE -Y8- STA. 22+50.00 SEE SHEET 6

PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-8/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

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

REVISIONS

$$$$SYSTIME$$$$
$$$$$$$$$DGN$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

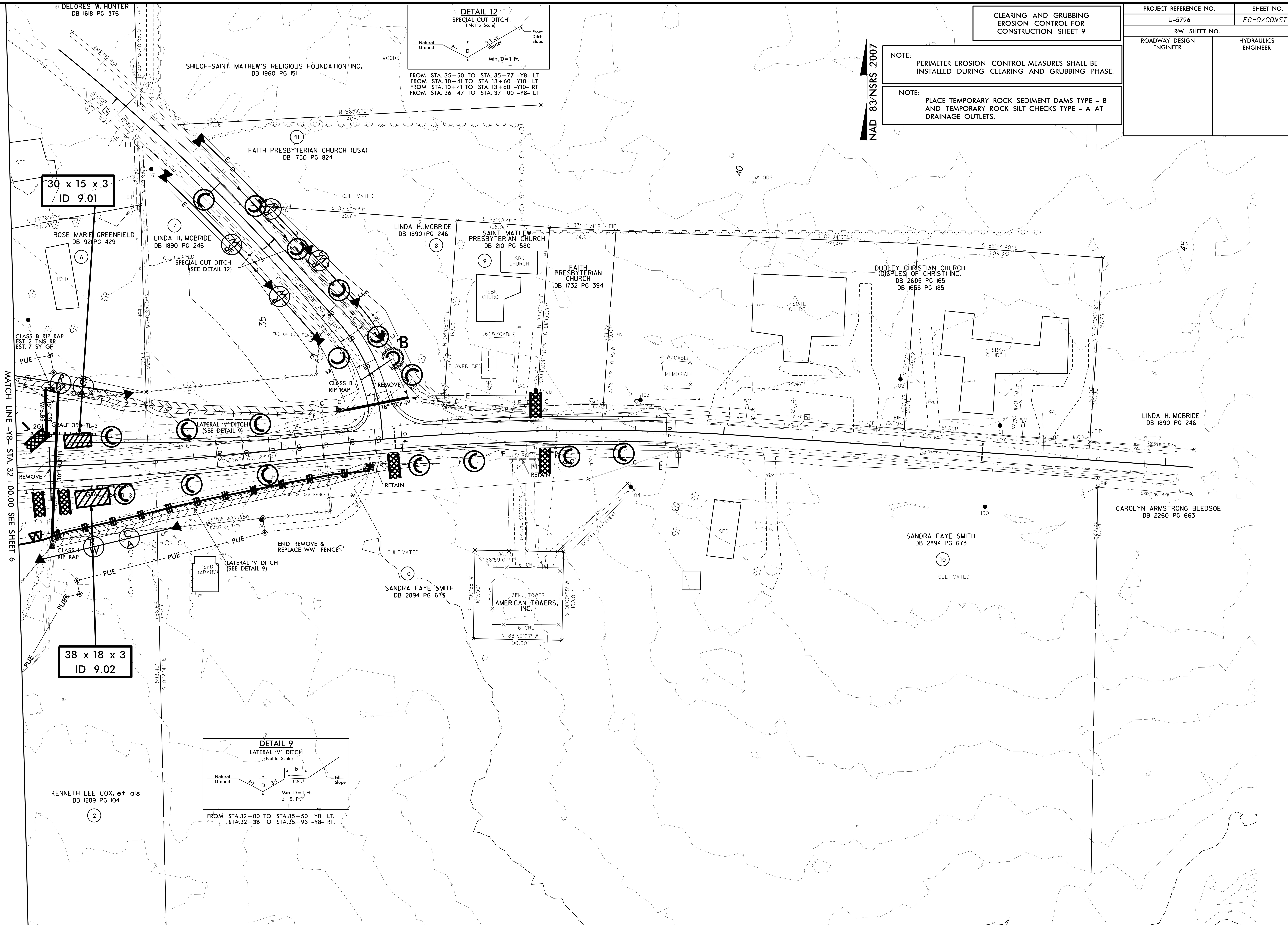
HP4500

PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-9/CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

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

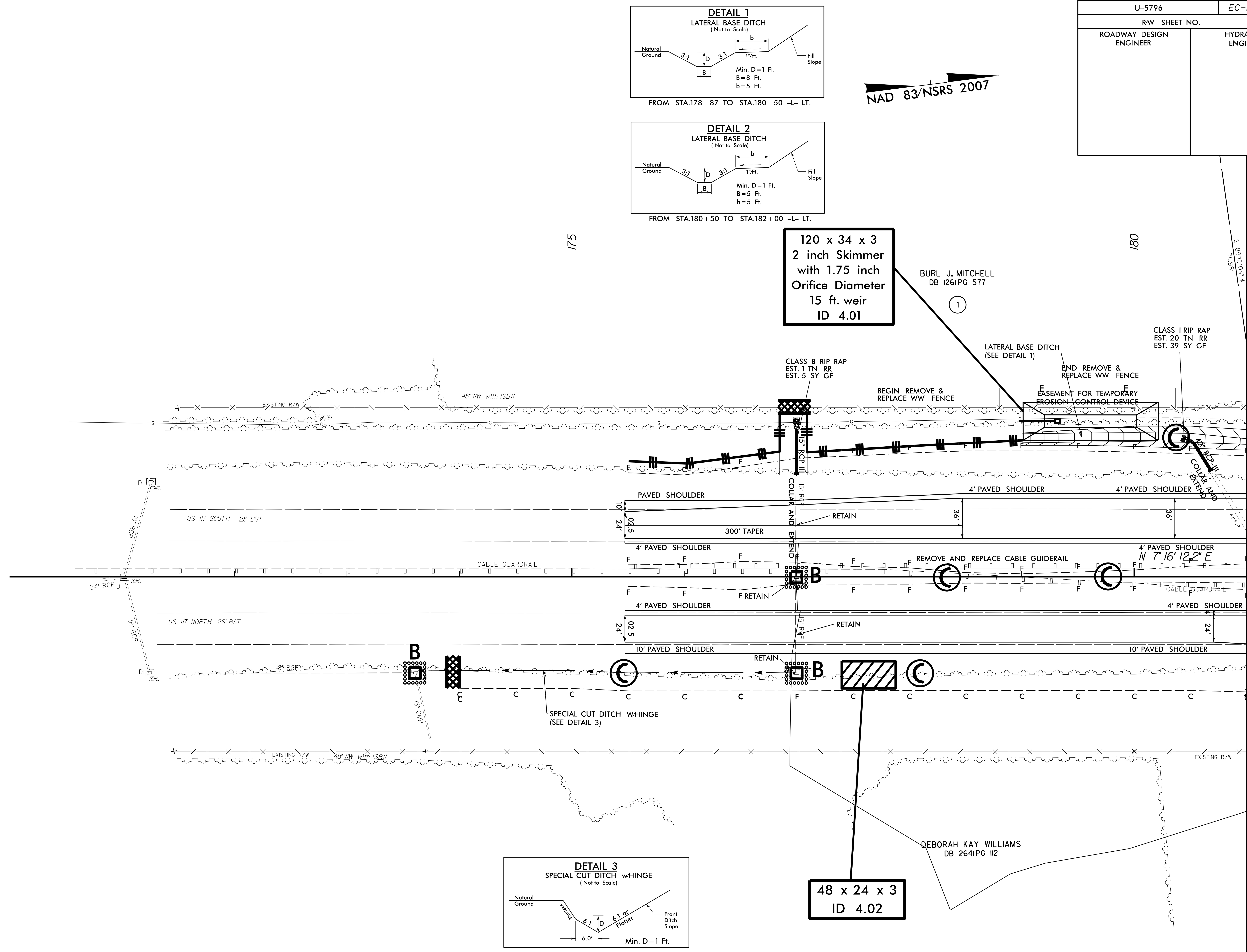


NAD 83/NSRS 2007
DETAIL 12
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground
Front Ditch Slope
3:1
3:1 or Flatter
D
Min. D=1 Ft.
FROM STA. 35+50 TO STA. 35+77 -Y8- LT
FROM STA. 10+41 TO STA. 13+60 -Y10- LT
FROM STA. 10+41 TO STA. 13+60 -Y10- RT
FROM STA. 36+47 TO STA. 37+00 -Y8- LT
DELORES W. HUNTER
DB 1618 PG 376
SHILOH-SAINT MATHEW'S RELIGIOUS FOUNDATION INC.
DB 1960 PG 151
WOODS
N 86°50'16" E
409.25'
FAITH PRESBYTERIAN CHURCH (USA)
DB 1750 PG 824
11
30 x 15 x 3
ID 9.01
CULTIVATED
S 85°50'41" E
220.64'
S 79°36'14" W
ROSE MARIE GREENFIELD
DB 921 PG 429
6
ISFD
LINDA H. MCBRIDE
DB 1890 PG 246
7
SPECIAL CUT DITCH
(SEE DETAIL 12)
LINDA H. MCBRIDE
DB 1890 PG 246
8
SAINT MATHEW
PRESBYTERIAN CHURCH
DB 210 PG 580
9
ISBK CHURCH
FAITH
PRESBYTERIAN
CHURCH
DB 1732 PG 394
S 87°04'31" E
S 87°34'02" E
341.49'
S 85°44'40" E
209.33'
DUDLEY CHRISTIAN CHURCH
(DISPLES OF CHRIST) INC.
DB 2605 PG 165
DB 1658 PG 185
ISMTL CHURCH
ISBK CHURCH
40
45
35
WOODS
CLASS B RIP RAP
EST. 2 TNS RR
EST. 7 SY GF
PUE
CLASS B RIP RAP
REMOVE
18" RCP-IV
36" W/CABLE
FLOWER BED
4' W/CABLE
MEMORIAL
GRAVEL
15' RCP
15' RCP
LATERAL 'V' DITCH
(SEE DETAIL 9)
GRAU 350 TL-3
MATCH LINE -Y8- STA. 32+00.00 SEE SHEET 6
REMOVE
RETAIN
RETAIN
END OF C/A FENCE
EXISTING R/W
LINDA H. MCBRIDE
DB 1890 PG 246
CAROLYN ARMSTRONG BLEDSOE
DB 2260 PG 663
CLASS B RIP RAP
END REMOVE &
REPLACE WW FENCE
LATERAL 'V' DITCH
(SEE DETAIL 9)
ISFD (ABAND)
CULTIVATED
10
SANDRA FAYE SMITH
DB 2894 PG 673
S 88°59'07" E
100.00'
CELL TOWER
AMERICAN TOWERS, INC.
6' CHL
N 88°59'07" W
100.00'
SANDRA FAYE SMITH
DB 2894 PG 673
10
CULTIVATED
38 x 18 x 3
ID 9.02
KENNETH LEE COX, et als
DB 1289 PG 104
2
DETAIL 9
LATERAL 'V' DITCH
(Not to Scale)
Natural Ground
3:1
D
3:1
b
1' Ft.
Fill Slope
Min. D=1 Ft.
b=5 Ft.
FROM STA.32+00 TO STA.35+50 -Y8- LT.
STA.32+36 TO STA.35+93 -Y8- RT.

REVISIONS

$$$$SYSTIME$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

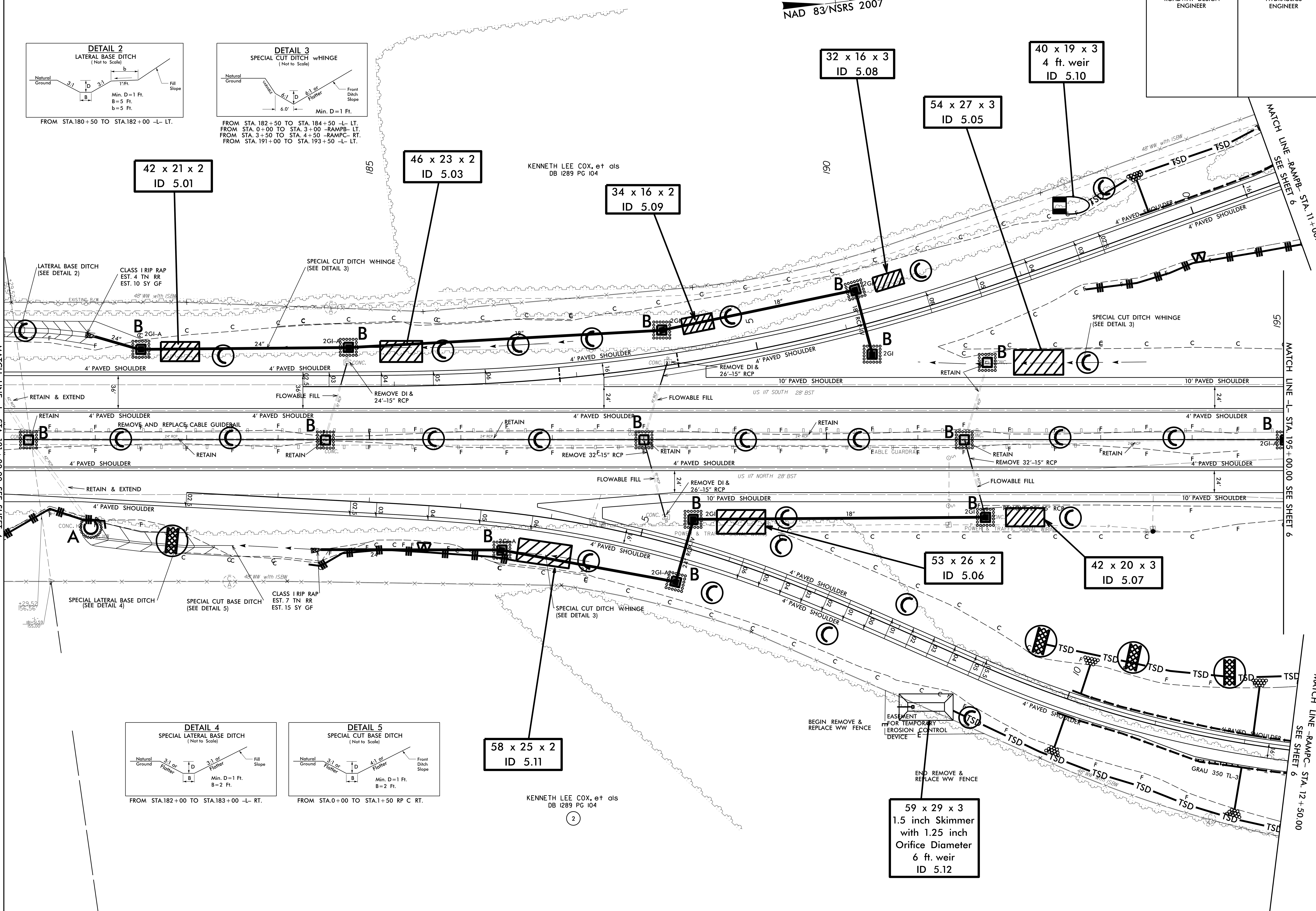
PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-10/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-II/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

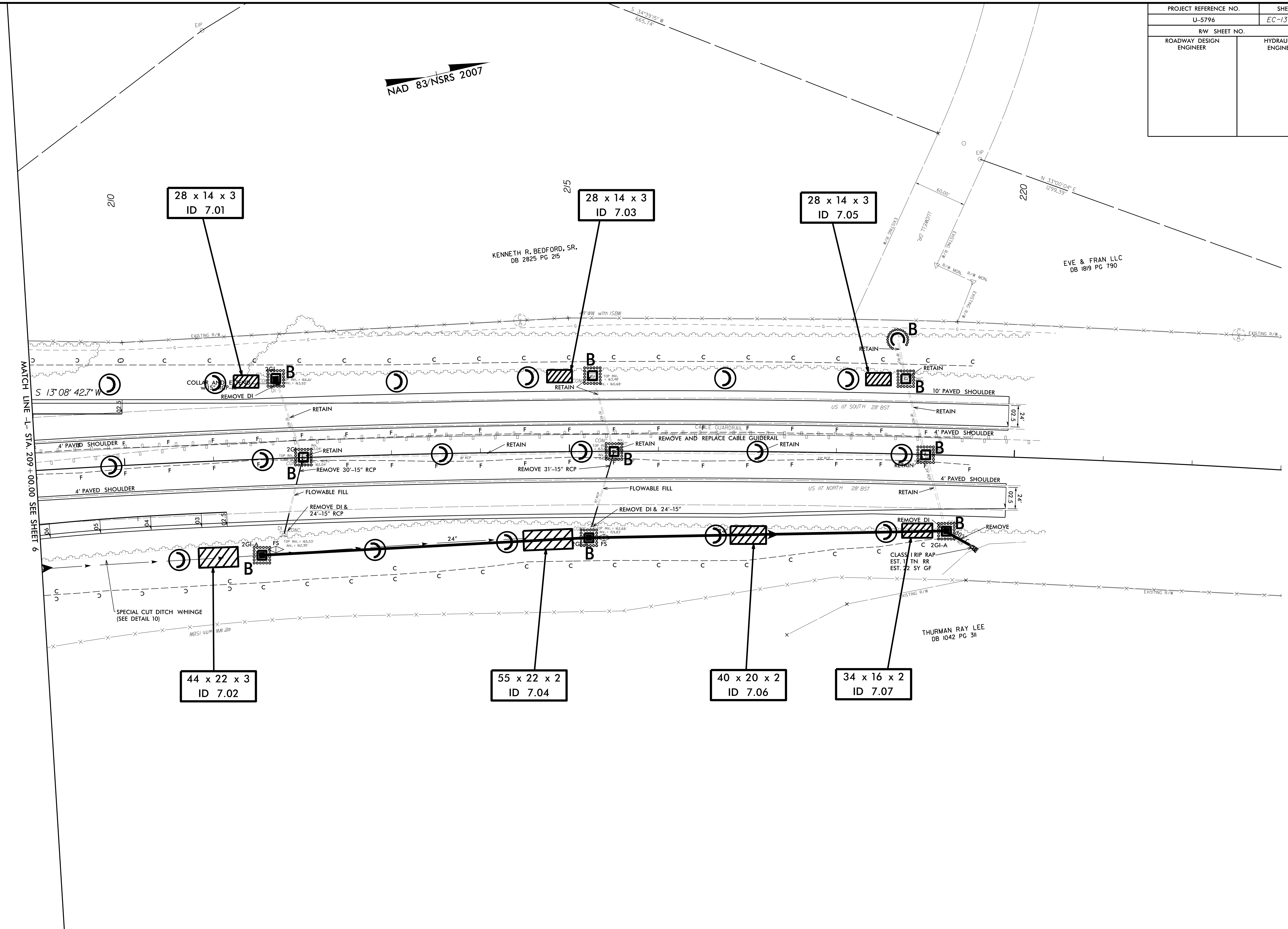


REVISIONS

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$
$$$$USERNAME$$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-12/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

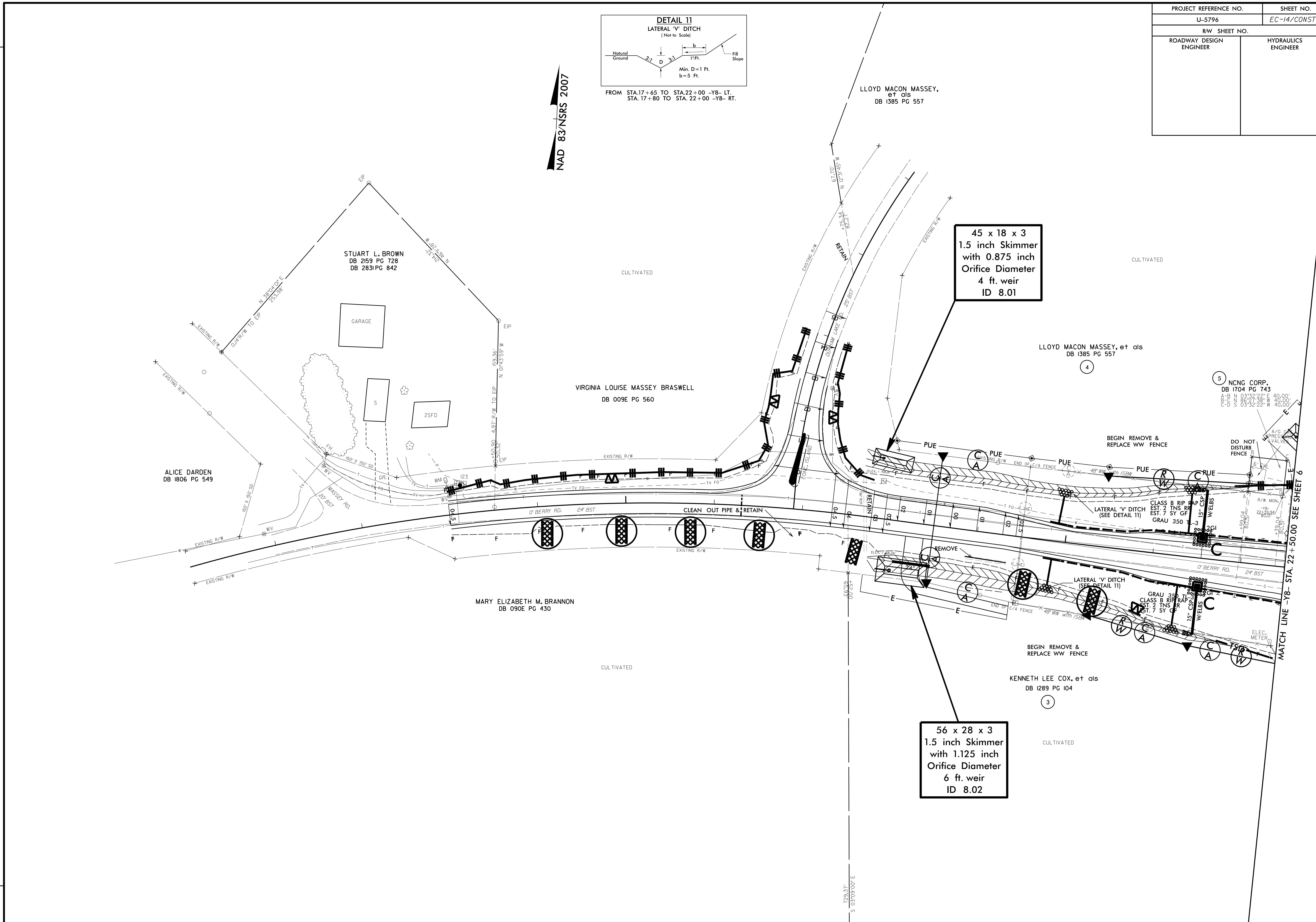
PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-13/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

$$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-5796	EC-14/CONST.8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER




PROJECT REFERENCE NO.
U-5796
SHEET NO.
EC-15/CONST.9
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
NAD 83/NSRS 2007
DETAIL 12
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground
3:1
D
3:1 or Flatter
Front Ditch Slope
Min. D=1 Ft.
FROM STA. 35+50 TO STA. 35+77 -Y8- LT
FROM STA. 10+41 TO STA. 13+60 -Y10- LT
FROM STA. 10+41 TO STA. 13+60 -Y10- RT
FROM STA. 36+47 TO STA. 37+00 -Y8- LT
DELORES W. HUNTER
DB 1618 PG 376
SHILOH-SAINT MATHEW'S RELIGIOUS FOUNDATION INC.
DB 1960 PG 151
FAITH PRESBYTERIAN CHURCH (USA)
DB 1750 PG 824
ROSE MARIE GREENFIELD
DB 921 PG 429
LINDA H. MCBRIDE
DB 1890 PG 246
SPECIAL CUT DITCH
(SEE DETAIL 12)
SAINT MATHEW PRESBYTERIAN CHURCH
DB 210 PG 580
FAITH PRESBYTERIAN CHURCH
DB 1732 PG 394
DUDLEY CHRISTIAN CHURCH
(DISPLES OF CHRIST) INC.
DB 2605 PG 165
DB 1658 PG 185
CLASS B RIP RAP
EST. 2 TNS RR
EST. 7 SY GF
LATERAL 'V' DITCH
(SEE DETAIL 9)
REMOVE
RETAIN
GRAU 350 TL-3
MATCH LINE -Y8- STA. 32+00.00 SEE SHEET 6
END REMOVE &
REPLACE WW FENCE
LINDA H. MCBRIDE
DB 1890 PG 246
CAROLYN ARMSTRONG BLEDSOE
DB 2260 PG 663
SANDRA FAYE SMITH
DB 2894 PG 673
CELL TOWER
AMERICAN TOWERS, INC.
30 x 15 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 9.03
KENNETH LEE COX, et als
DB 1289 PG 104
DETAIL 9
LATERAL 'V' DITCH
(Not to Scale)
Natural Ground
3:1
D
3:1
b
1"/Ft.
Fill Slope
Min. D=1 Ft.
b=5 Ft.
FROM STA.32+00 TO STA.35+50 -Y8- LT.
STA.32+36 TO STA.35+93 -Y8- RT.
REVISIONS
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$