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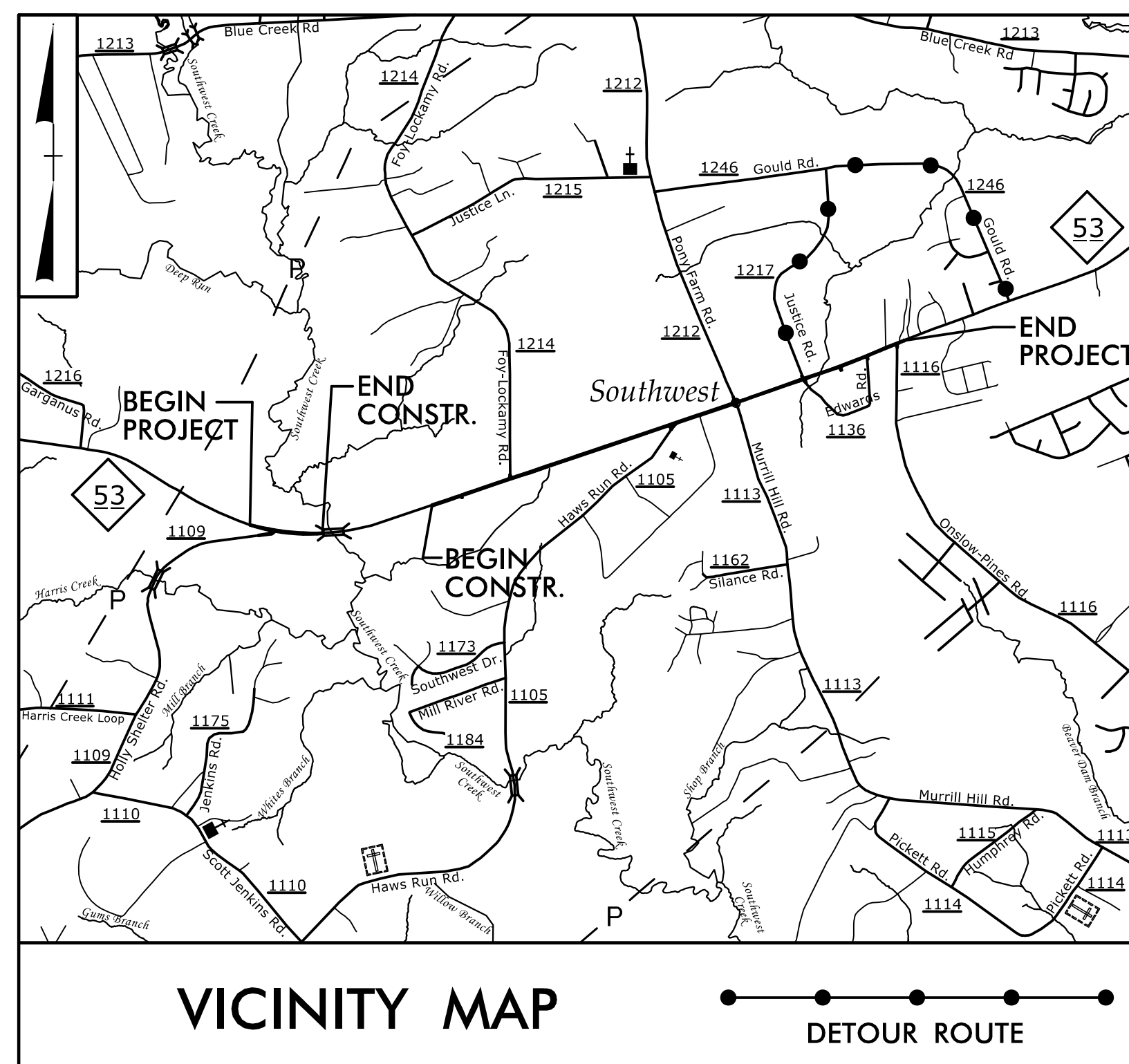
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09/08/19

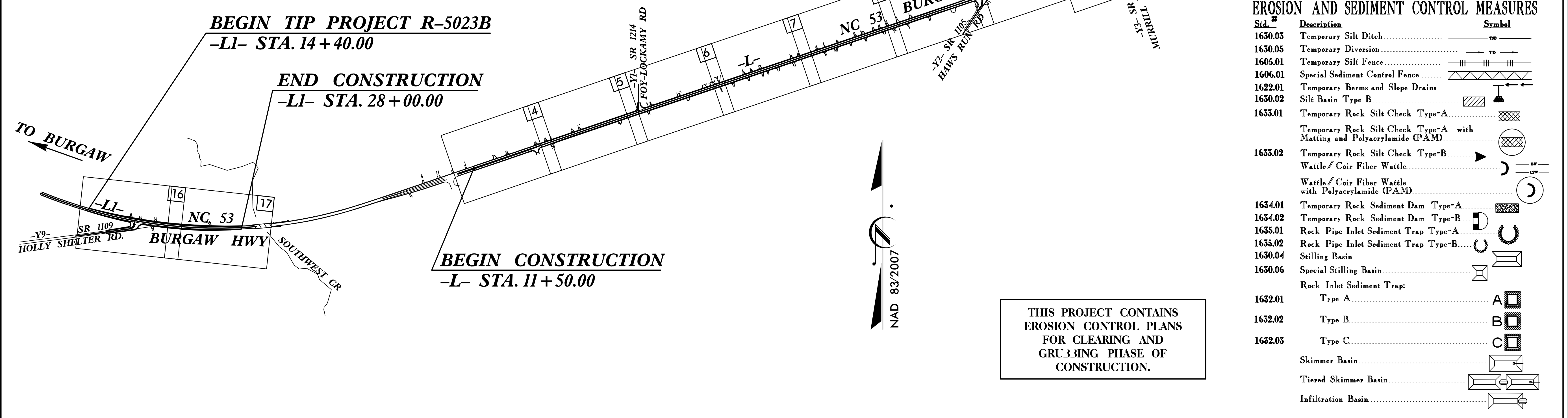
TIP PROJECT: R-5023B

See Sheet 1-A For Index of Sheets



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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5023B	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
41922.3.1	STP-0053(8)	PE	
41922.3.2	STP-0053(8)	RW	
41922.3.3	STP-0053(8)	CONST.	

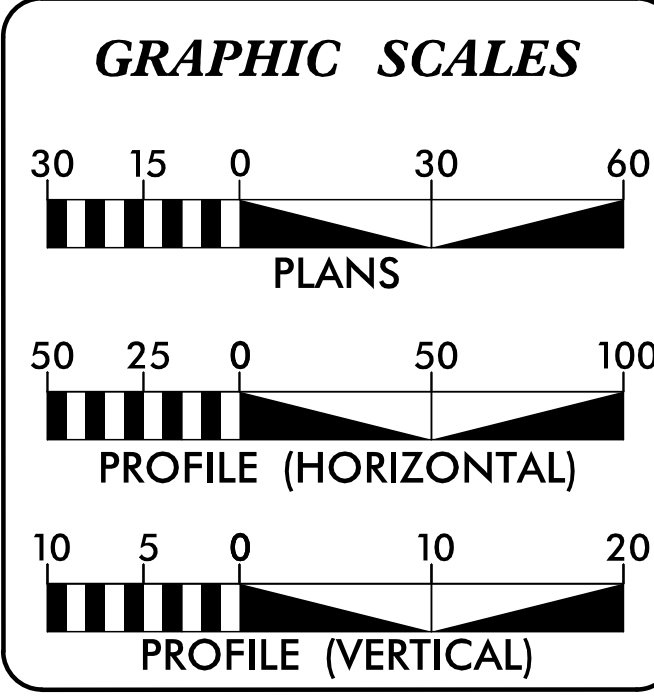


EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	[Symbol]
1630.05	Temporary Diversion	[Symbol]
1605.01	Temporary Silt Fence	[Symbol]
1606.01	Special Sediment Control Fence	[Symbol]
1622.01	Temporary Berms and Slope Drains	[Symbol]
1630.02	Silt Basin Type B	[Symbol]
1633.01	Temporary Rock Silt Check Type-A	[Symbol]
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	[Symbol]
1633.02	Temporary Rock Silt Check Type-B	[Symbol]
	Wattle / Coir Fiber Wattle	[Symbol]
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	[Symbol]
1634.01	Temporary Rock Sediment Dam Type-A	[Symbol]
1634.02	Temporary Rock Sediment Dam Type-B	[Symbol]
1635.01	Rock Pipe Inlet Sediment Trap Type-A	[Symbol]
1635.02	Rock Pipe Inlet Sediment Trap Type-B	[Symbol]
1630.04	Stilling Basin	[Symbol]
1630.06	Special Stilling Basin	[Symbol]
	Rock Inlet Sediment Trap:	
1632.01	Type A	[Symbol]
1632.02	Type B	[Symbol]
1632.03	Type C	[Symbol]
	Skimmer Basin	[Symbol]
	Tiered Skimmer Basin	[Symbol]
	Infiltration Basin	[Symbol]

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

CONTRACT:



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:
HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

2012 STANDARD SPECIFICATIONS

Designed by:
BEN HENEGAR, PE 3564
 NAME LEVEL III CERTIFICATION NO.

Reviewed In the Office of:
**ROADSIDE ENVIRONMENTAL
 FIELD OPERATIONS DIV. 3 & 6**
 419 TRANSPORTATION DRIVE
 FAYETTEVILLE, NC 28301

2012 STANDARD SPECIFICATIONS

Reviewed by:
AARON HARPER

Roadway Standard Drawings

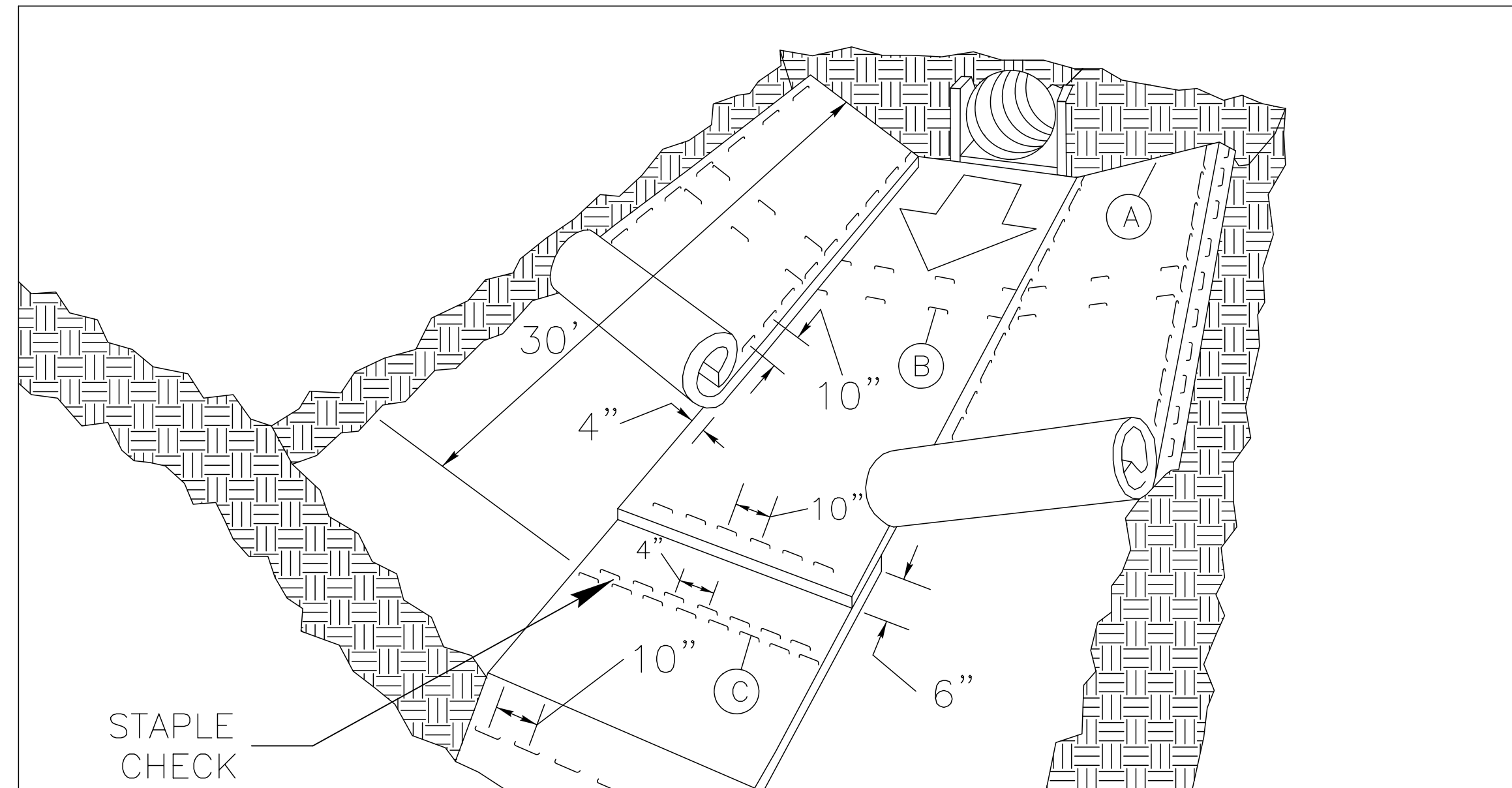
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type J
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type J
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type 3	1634.02	Temporary Rock Sediment Dam Type J
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type J
1630.05	Temporary Diversion	1640.01	Coir Fiber Jaffle
1630.06	Special Stilling Basin	1640.01	Coir Fiber Jaffle
1631.01	Matting Installation	1645.01	Temporary Stream Crossing

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 HNTB

PROJECT REFERENCE NO. <i>R-5023B</i>	SHEET NO. <i>EC-2A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATTING INSTALLATION DETAIL



MATTING IN DITCHES

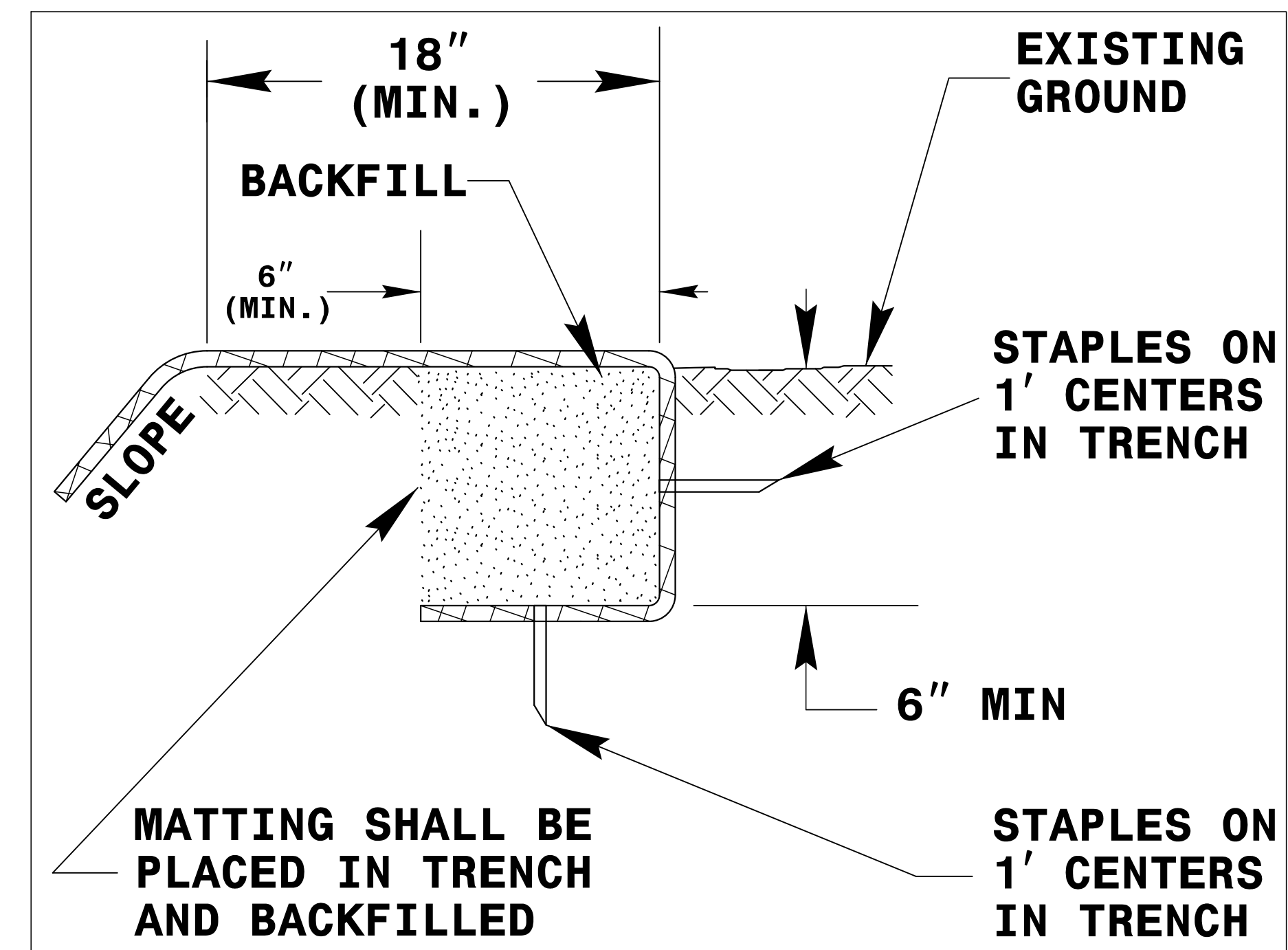
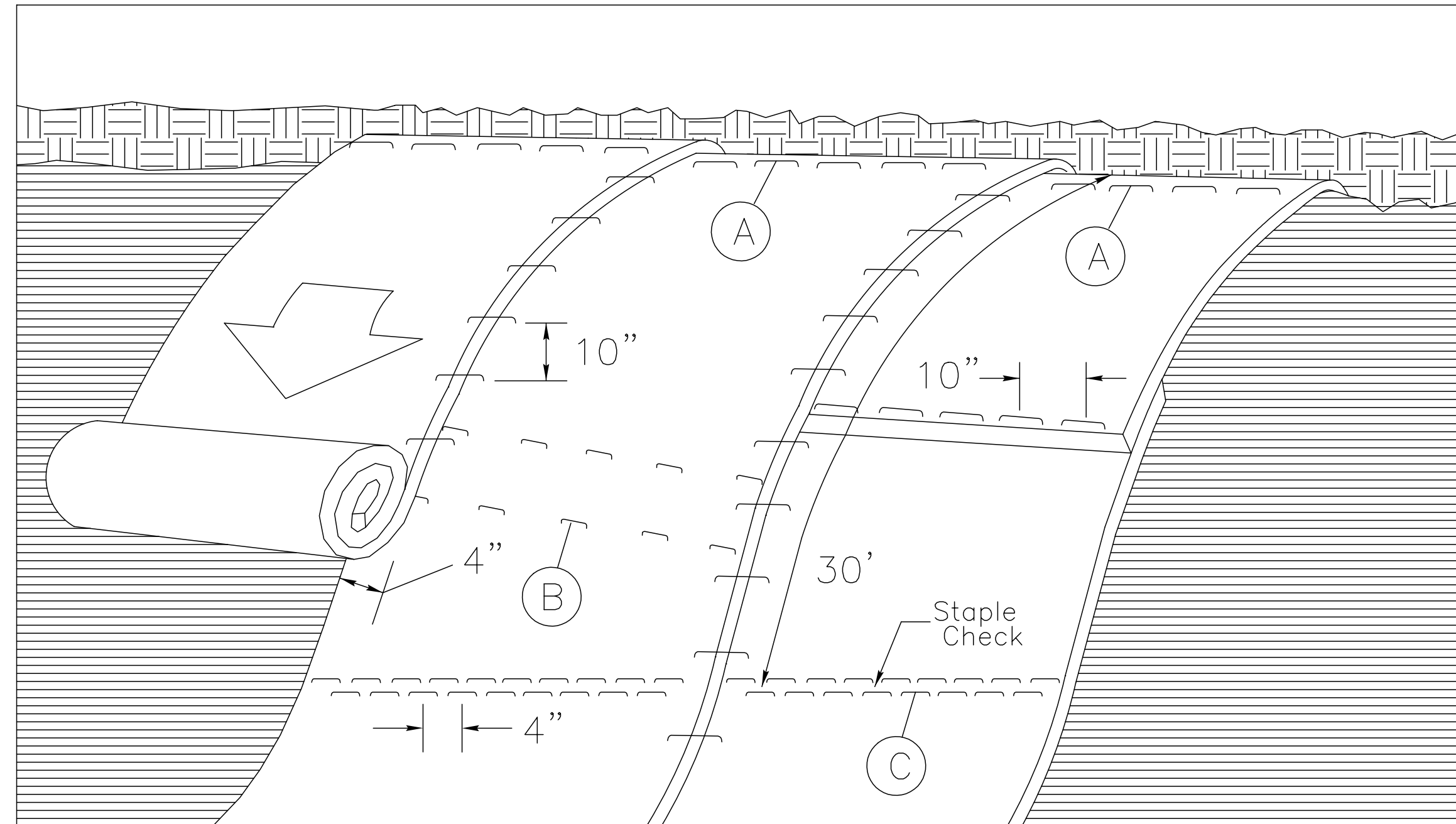


DIAGRAM (A)



MATTING ON SLOPES

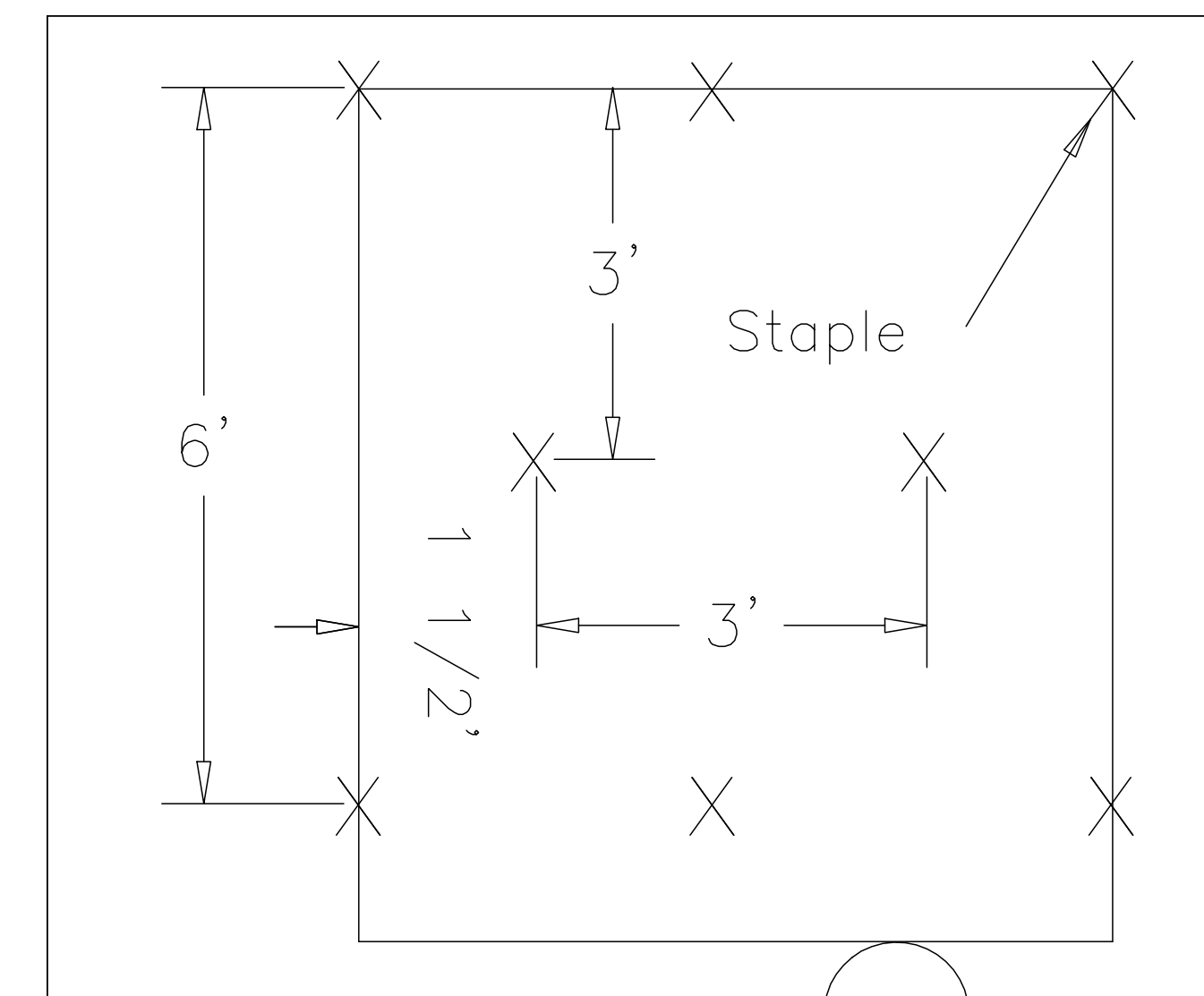


DIAGRAM (B)

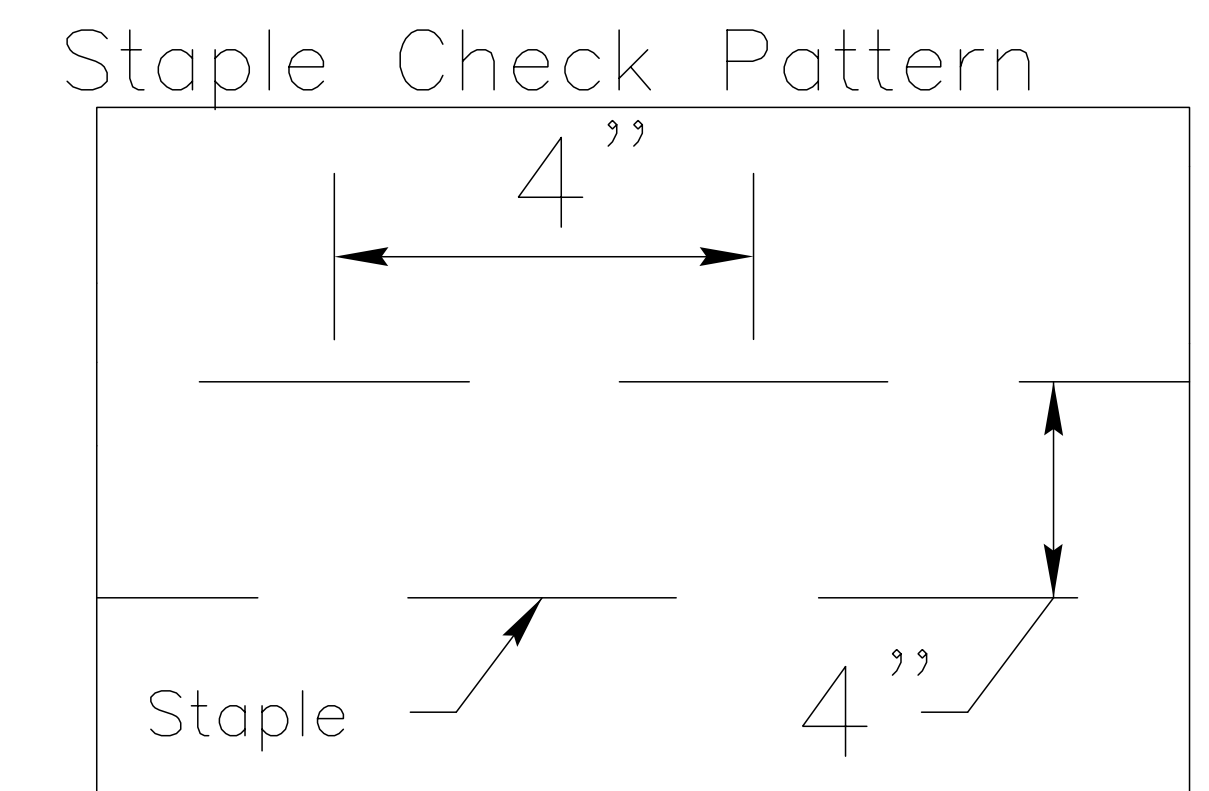


DIAGRAM (C)

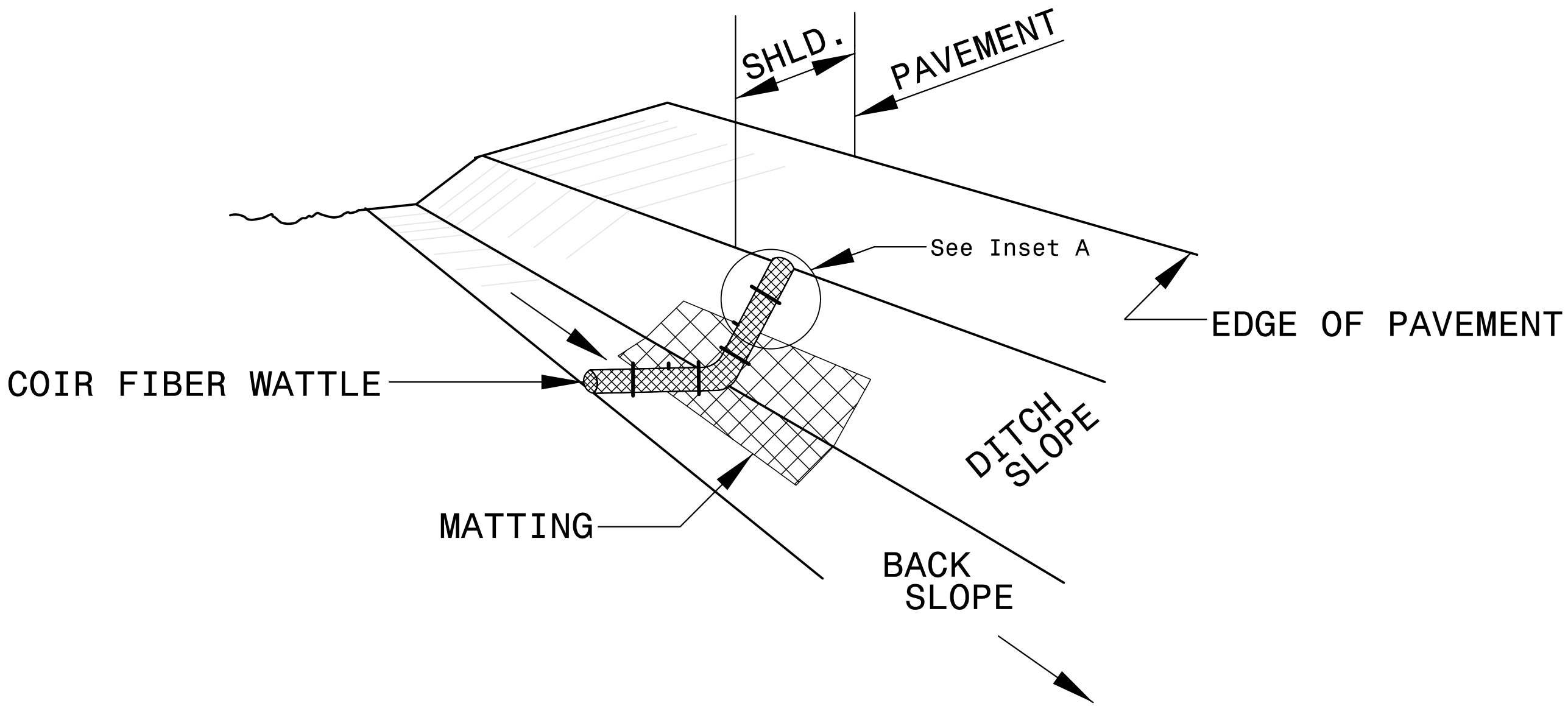
NOTES:

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.
 STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

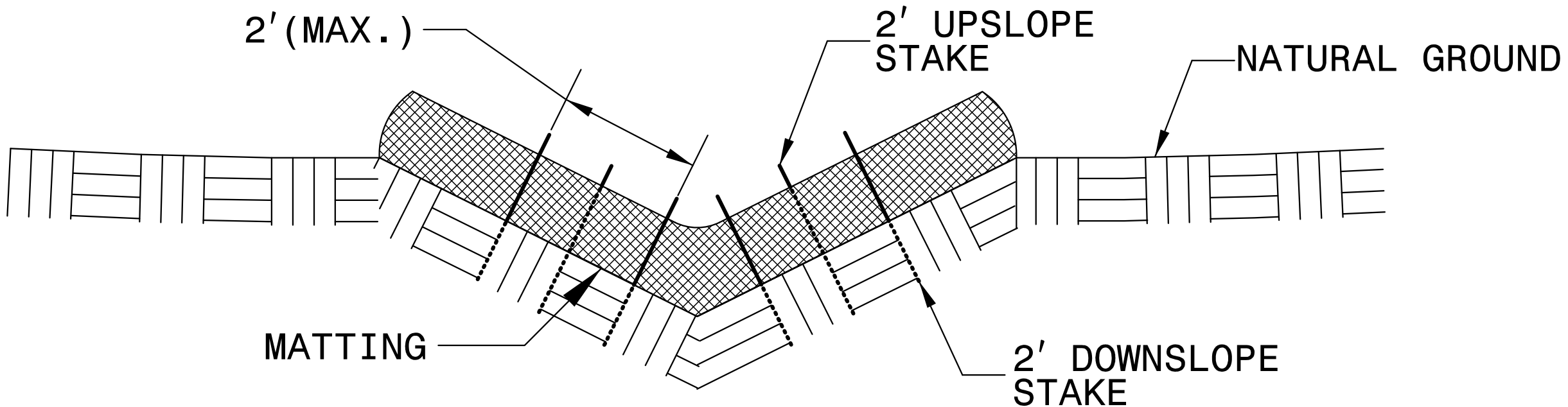
NOT TO SCALE

PROJECT REFERENCE NO. <i>R-5023B</i>	SHEET NO. <i>EC-2B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

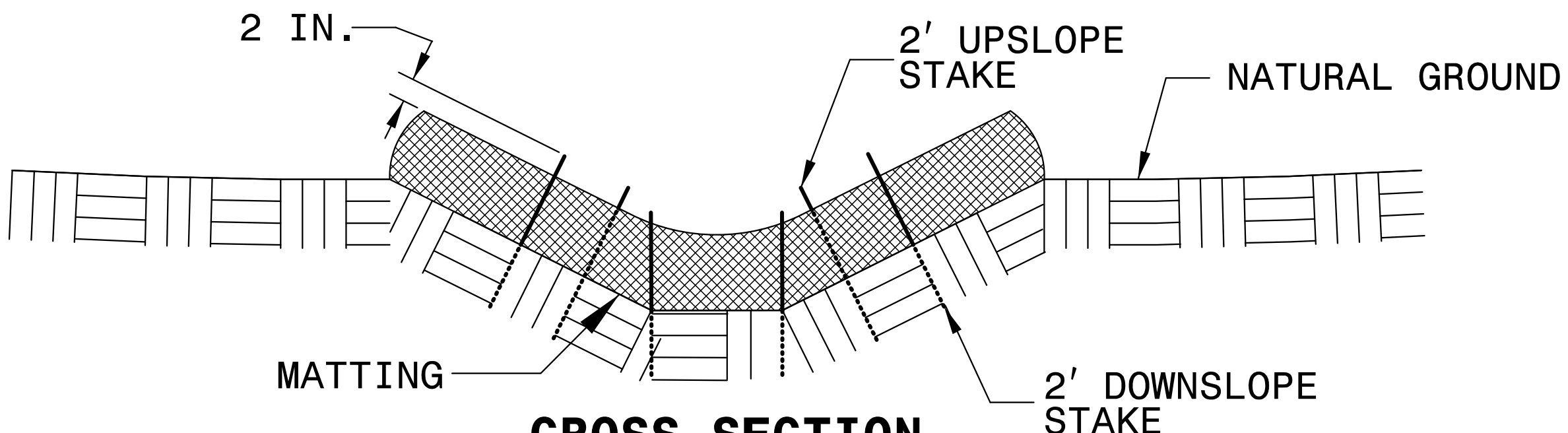
COIR FIBER WATTLE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

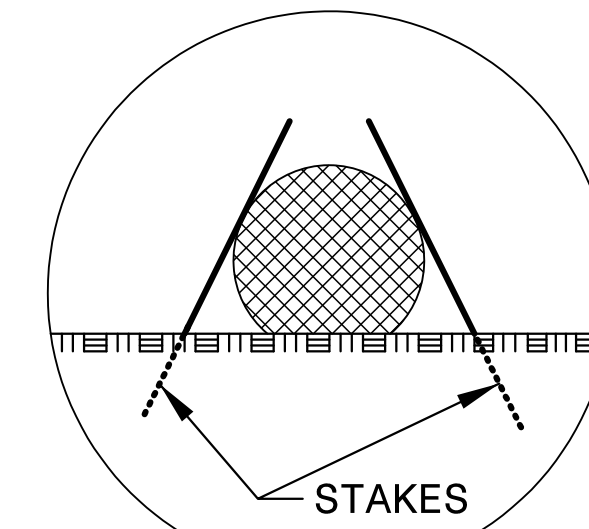
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

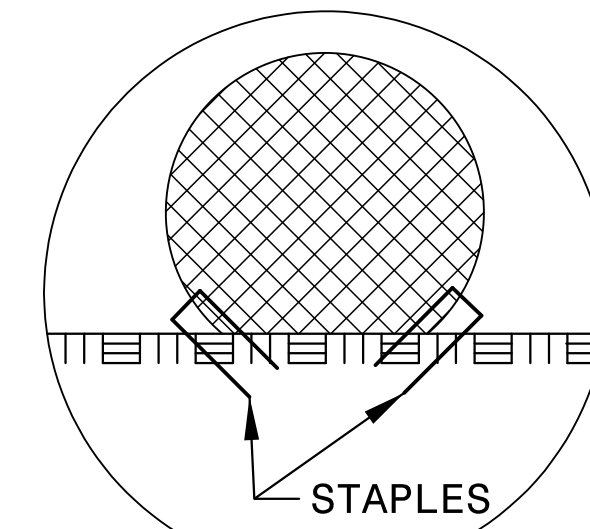
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

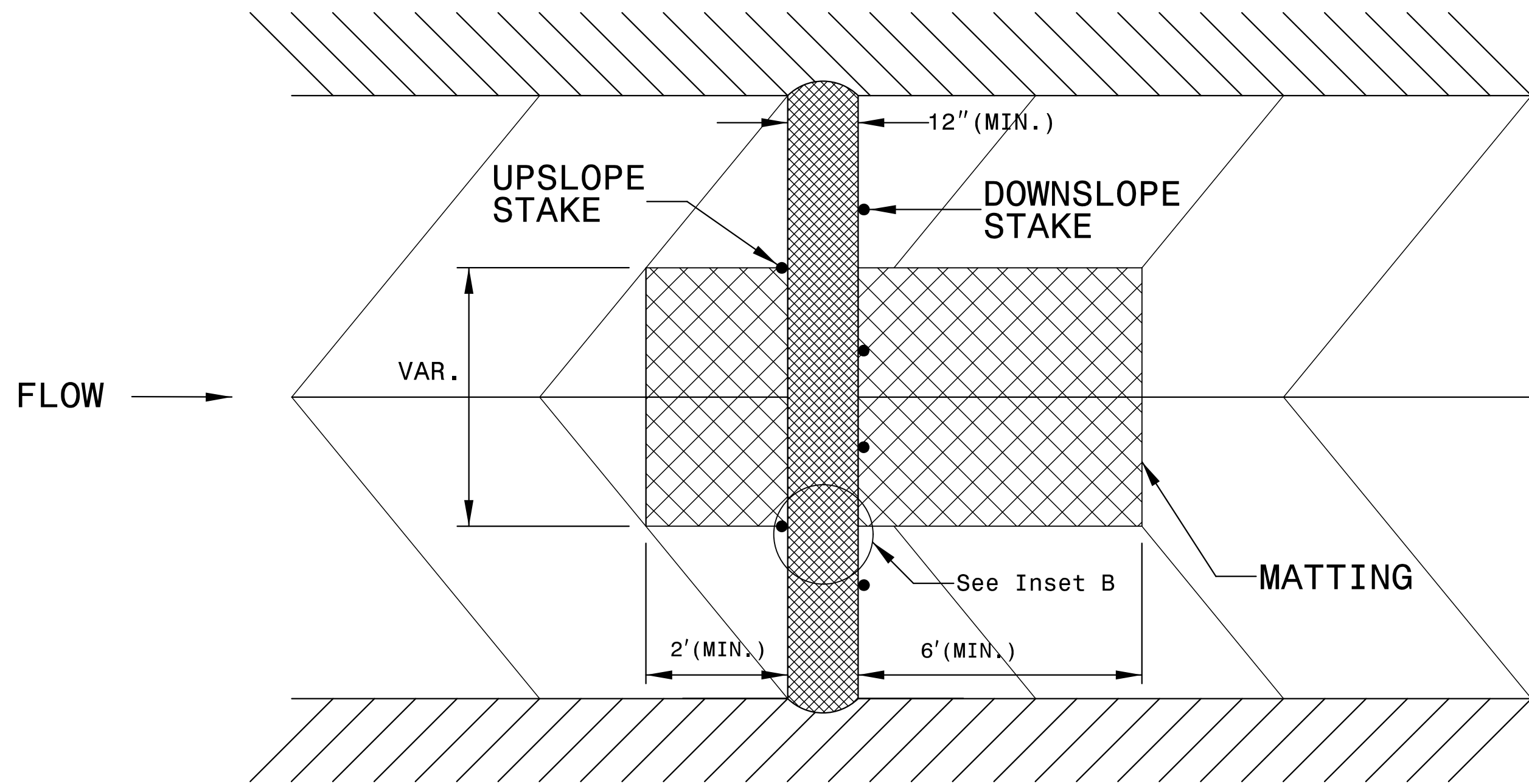
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



INSET A



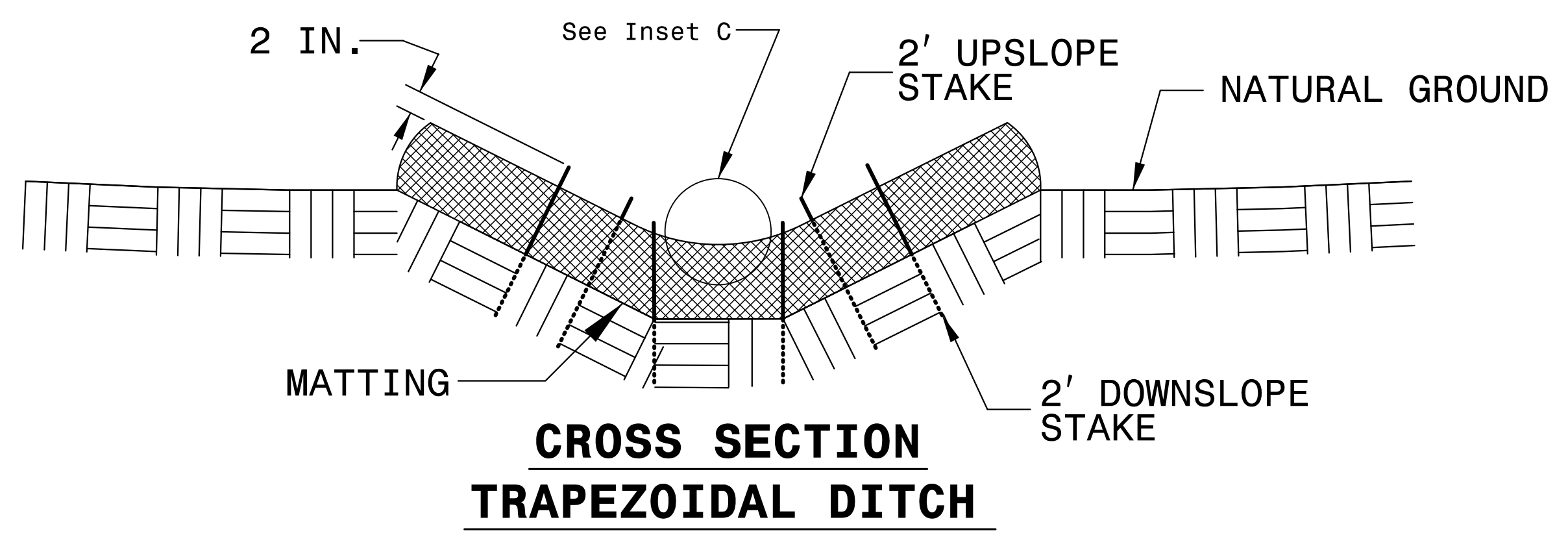
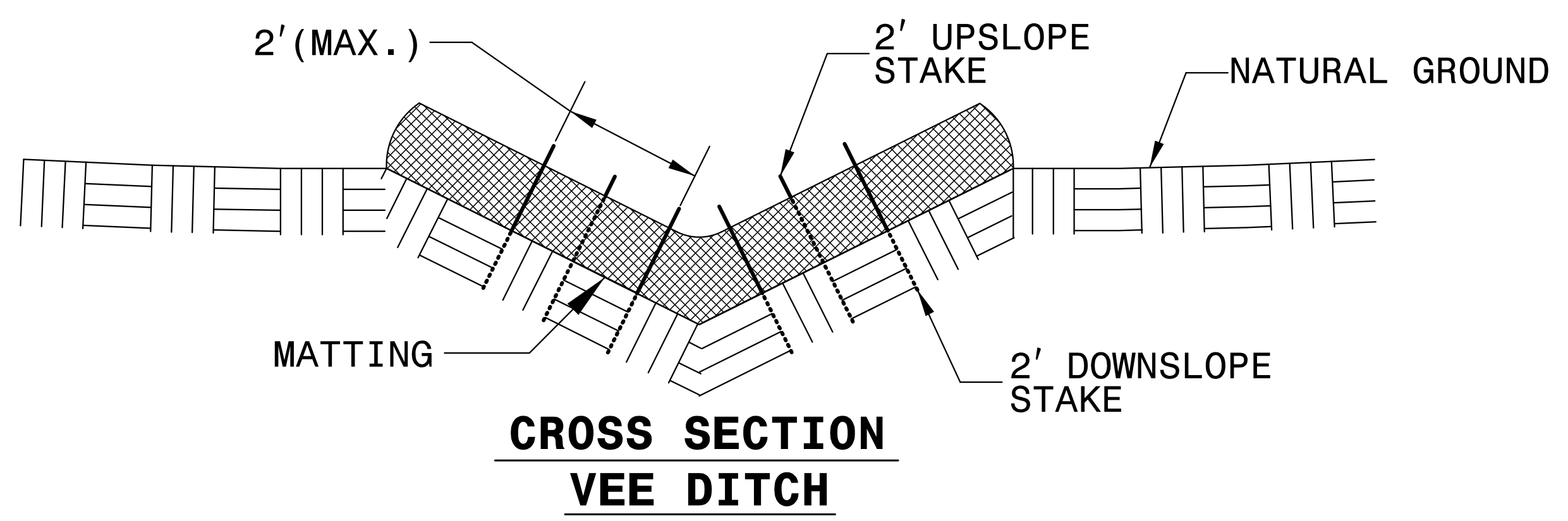
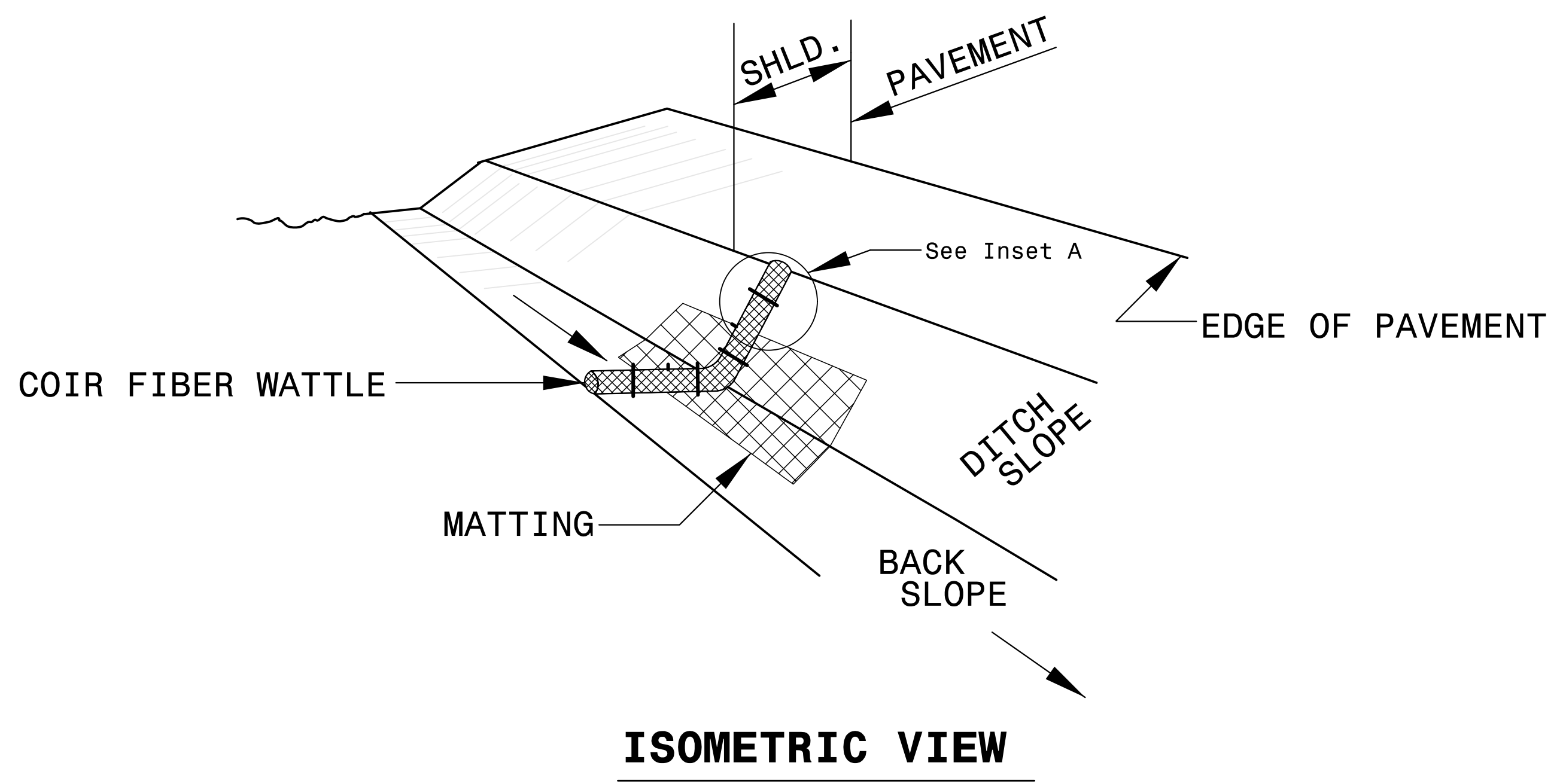
INSET B



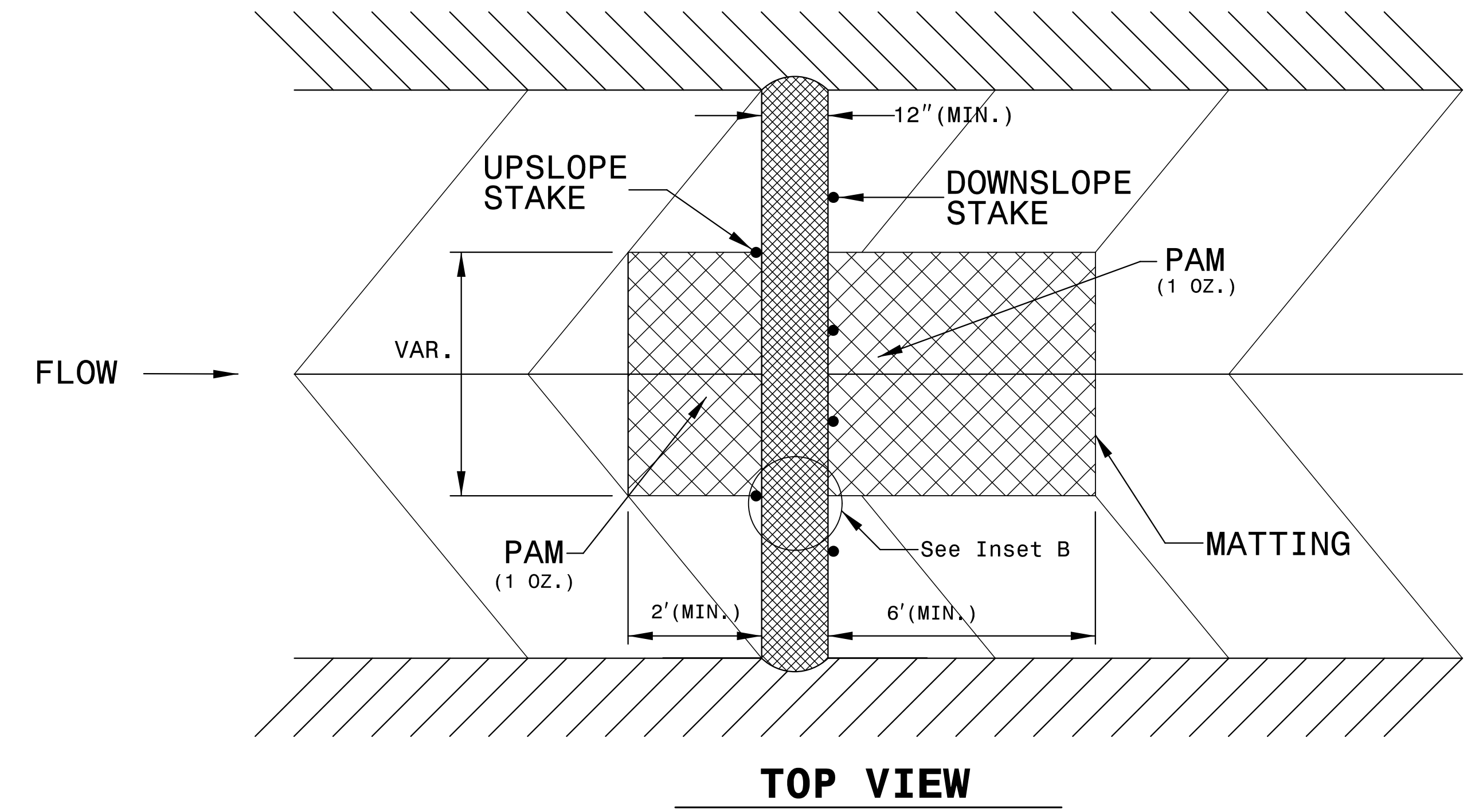
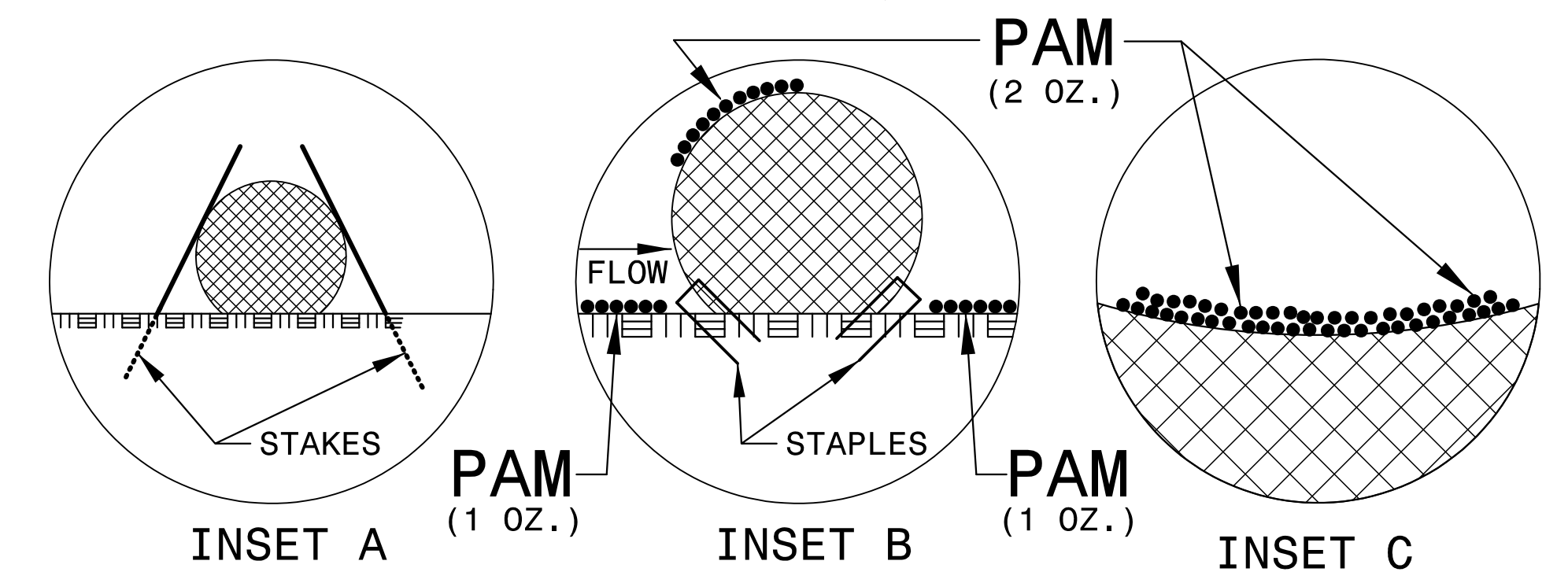
TOP VIEW

PROJECT REFERENCE NO. <i>R-5023B</i>	SHEET NO. <i>EC-2C</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

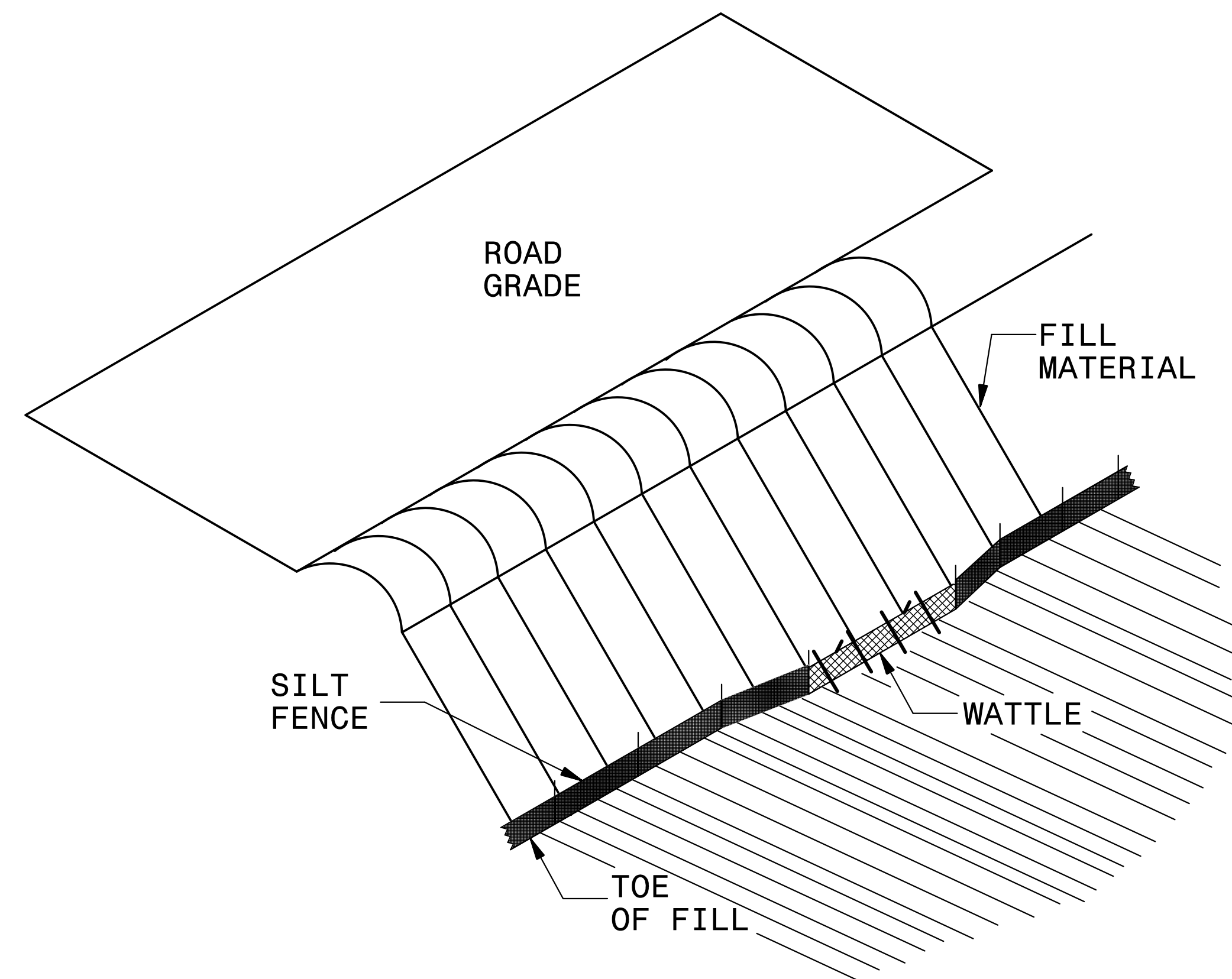


- NOTES:
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
 - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
 - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
 - INSTALL A MINIMUM OF 2 UPSLOPE 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 EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

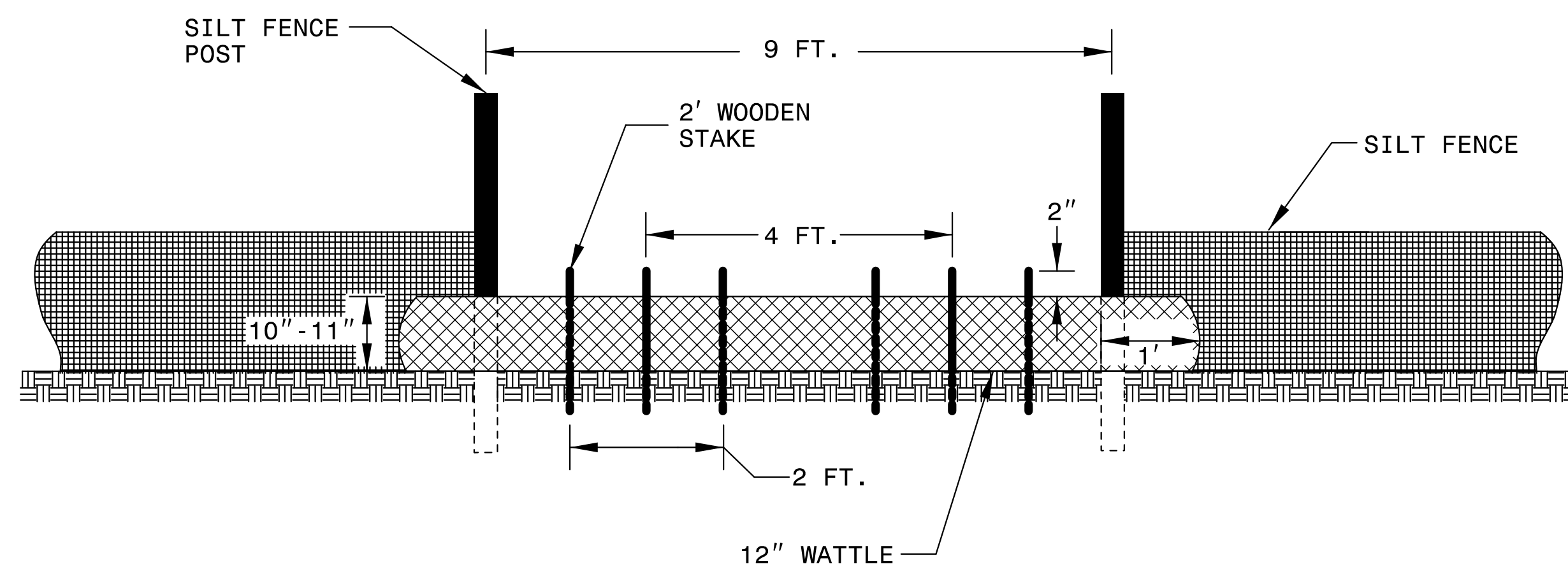


SILT FENCE COIR FIBER WATTLE BREAK DETAIL

PROJECT REFERENCE NO. <i>R-5023B</i>	SHEET NO. <i>EC-2D</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



ISOMETRIC VIEW



VIEW FROM SLOPE

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE ON TOE OF SLOPE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

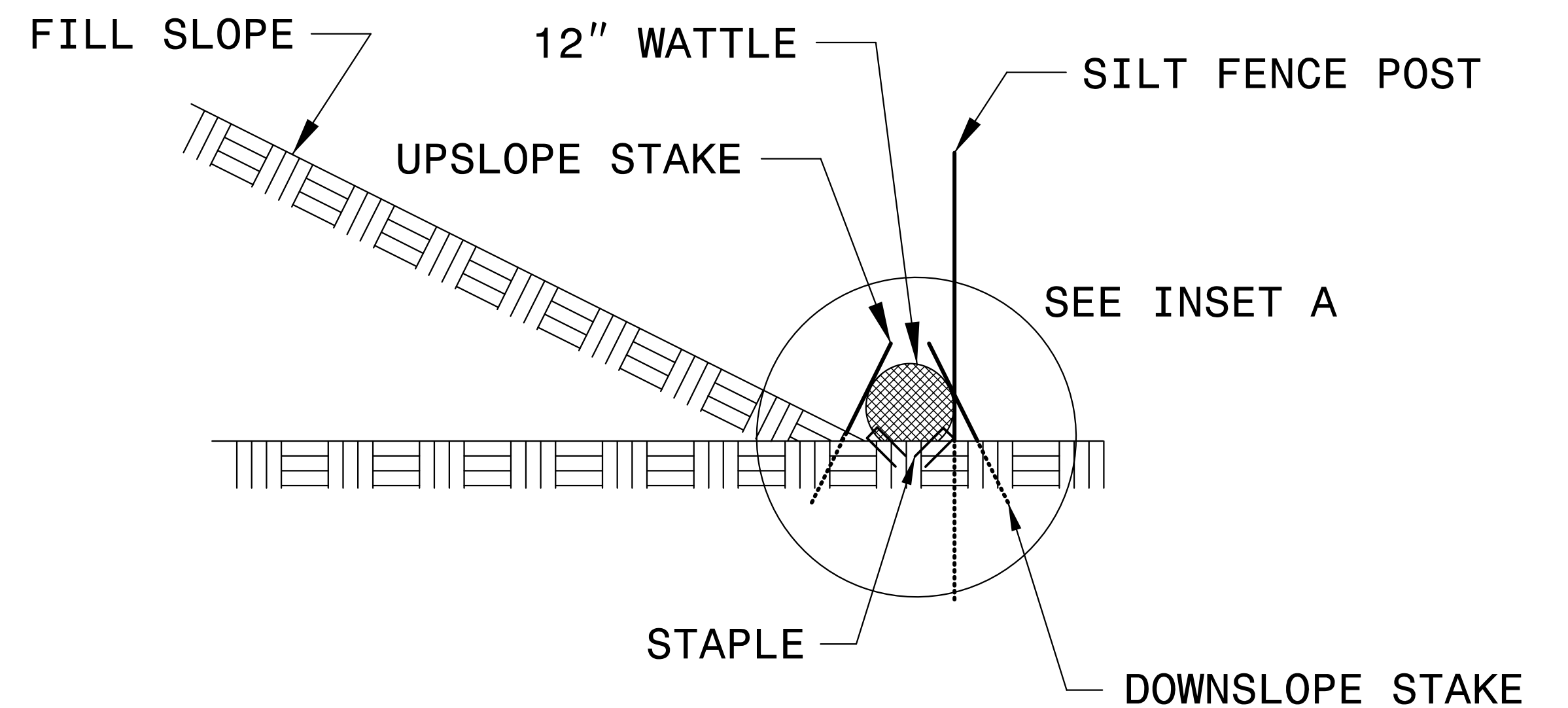
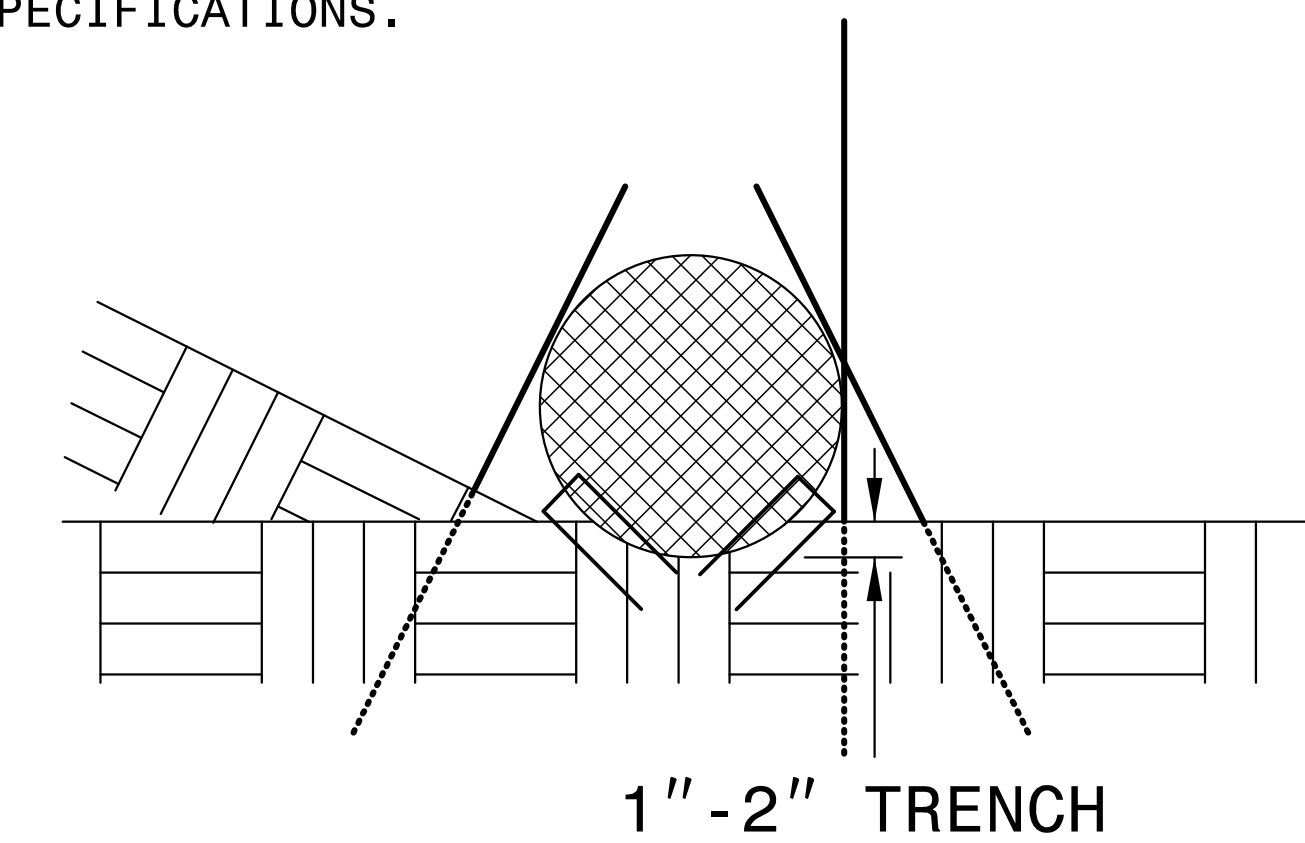
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

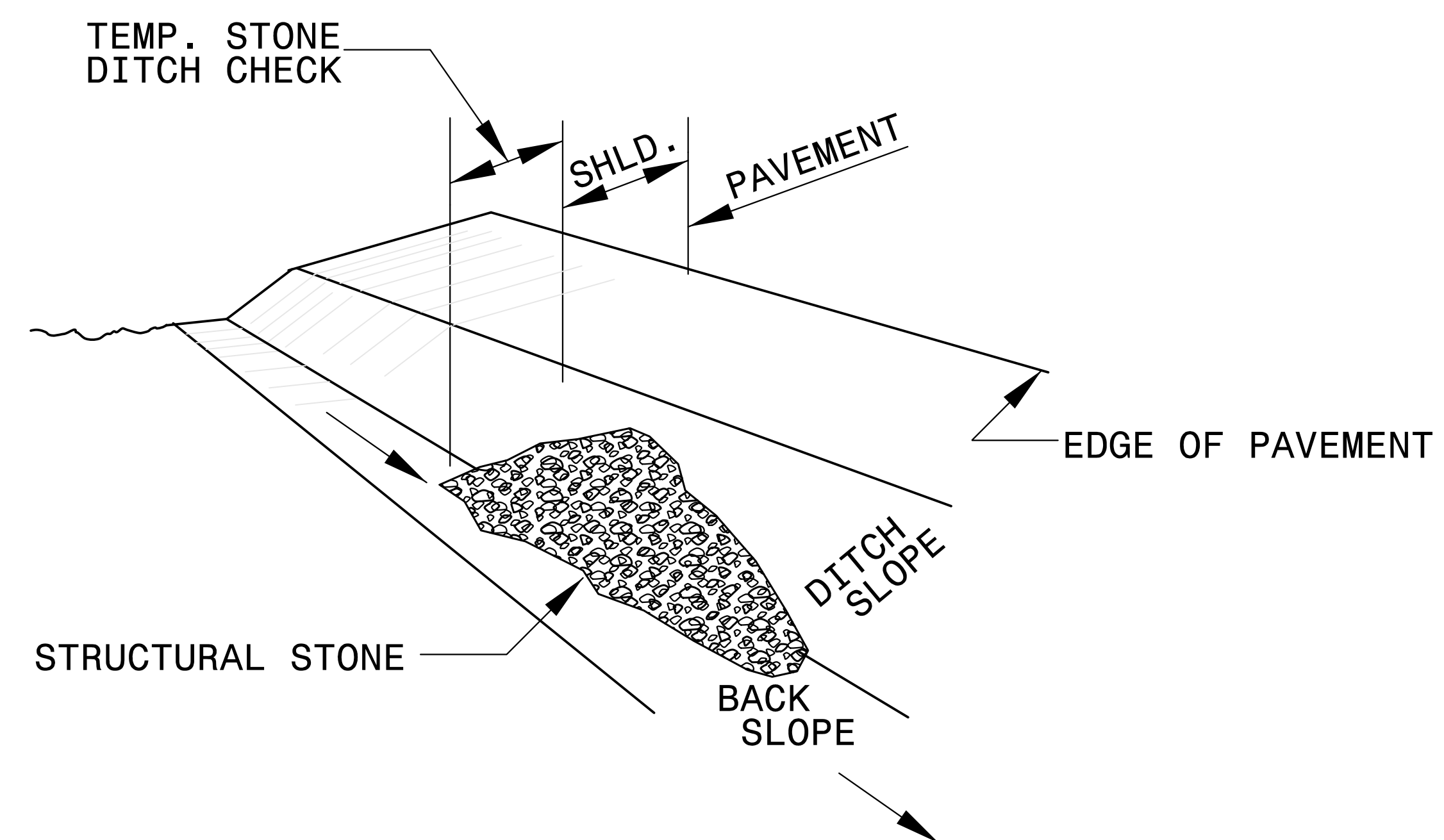
INSET A



SIDE VIEW

PROJECT REFERENCE NO. <i>R-5023B</i>	SHEET NO. <i>EC-2E</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

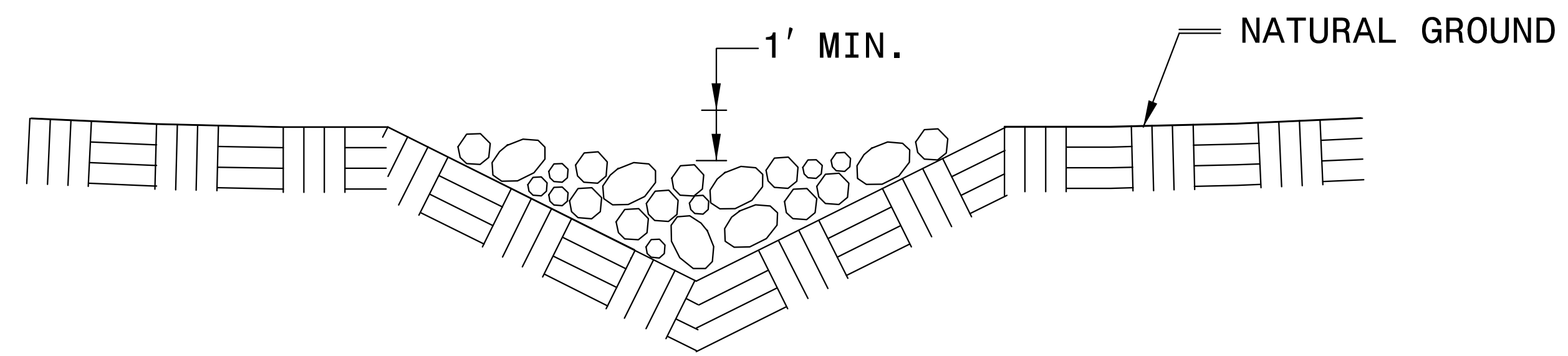


ISOMETRIC VIEW

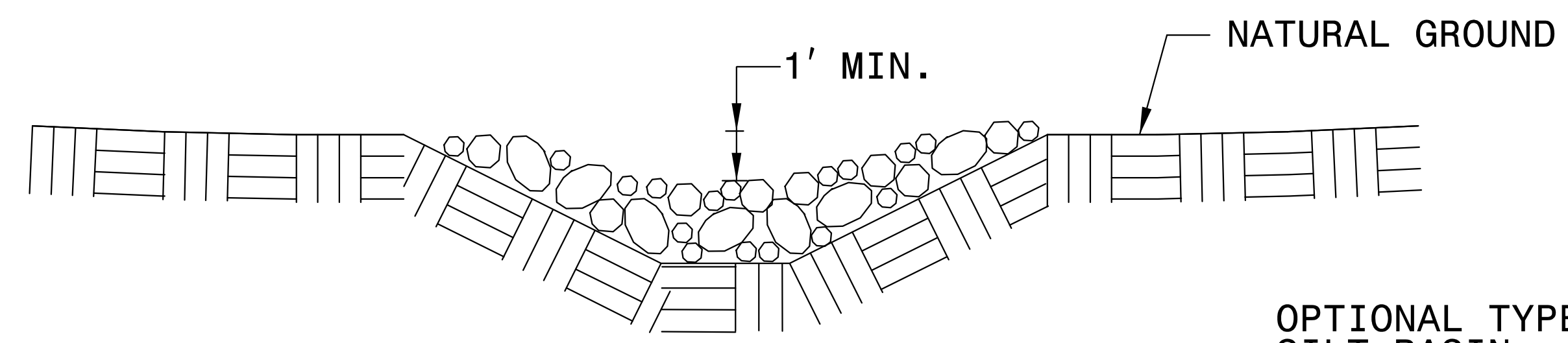
NOTES:

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

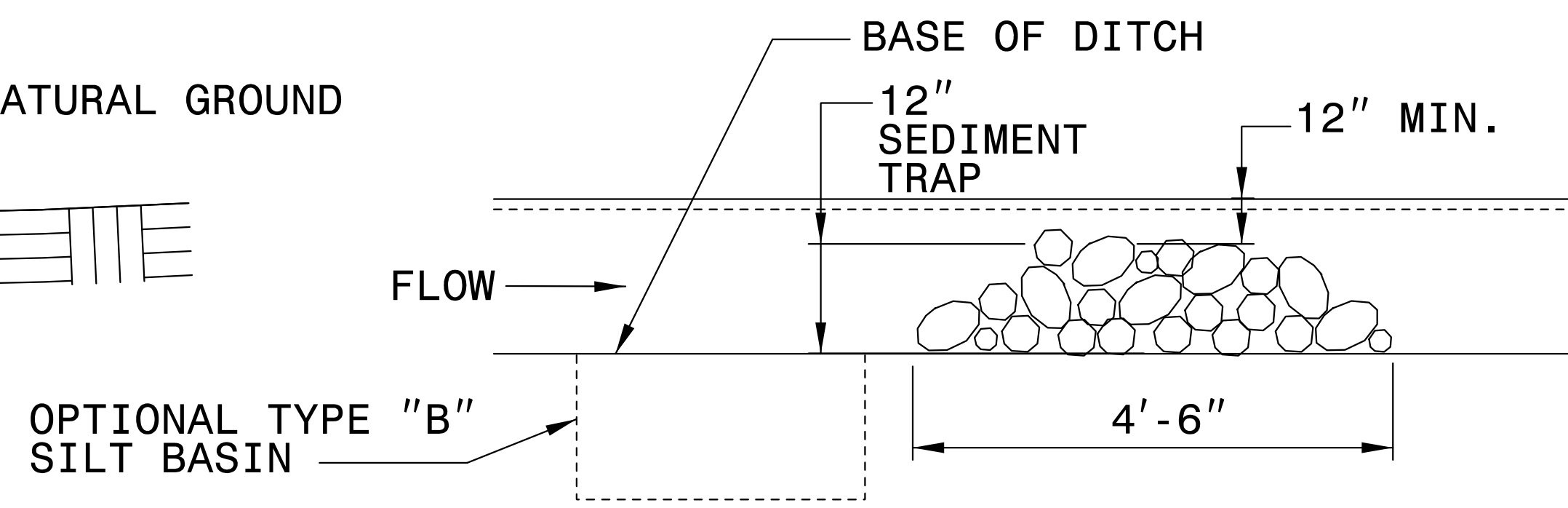
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



CROSS SECTION VEE DITCH



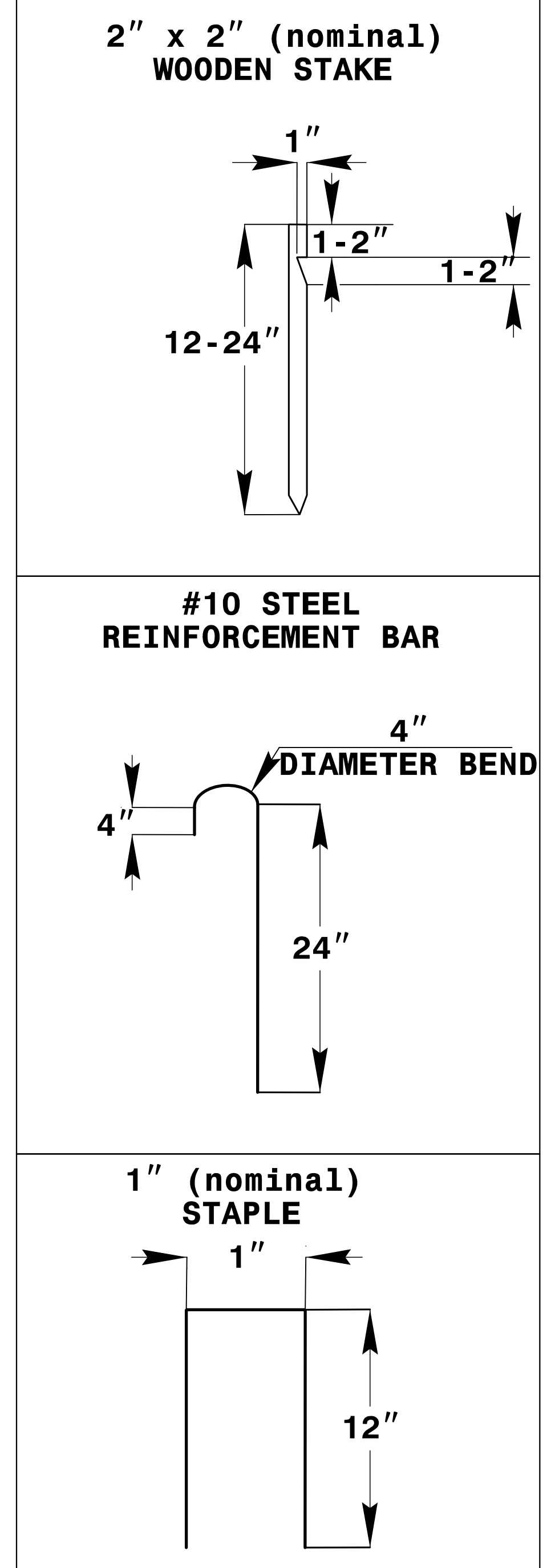
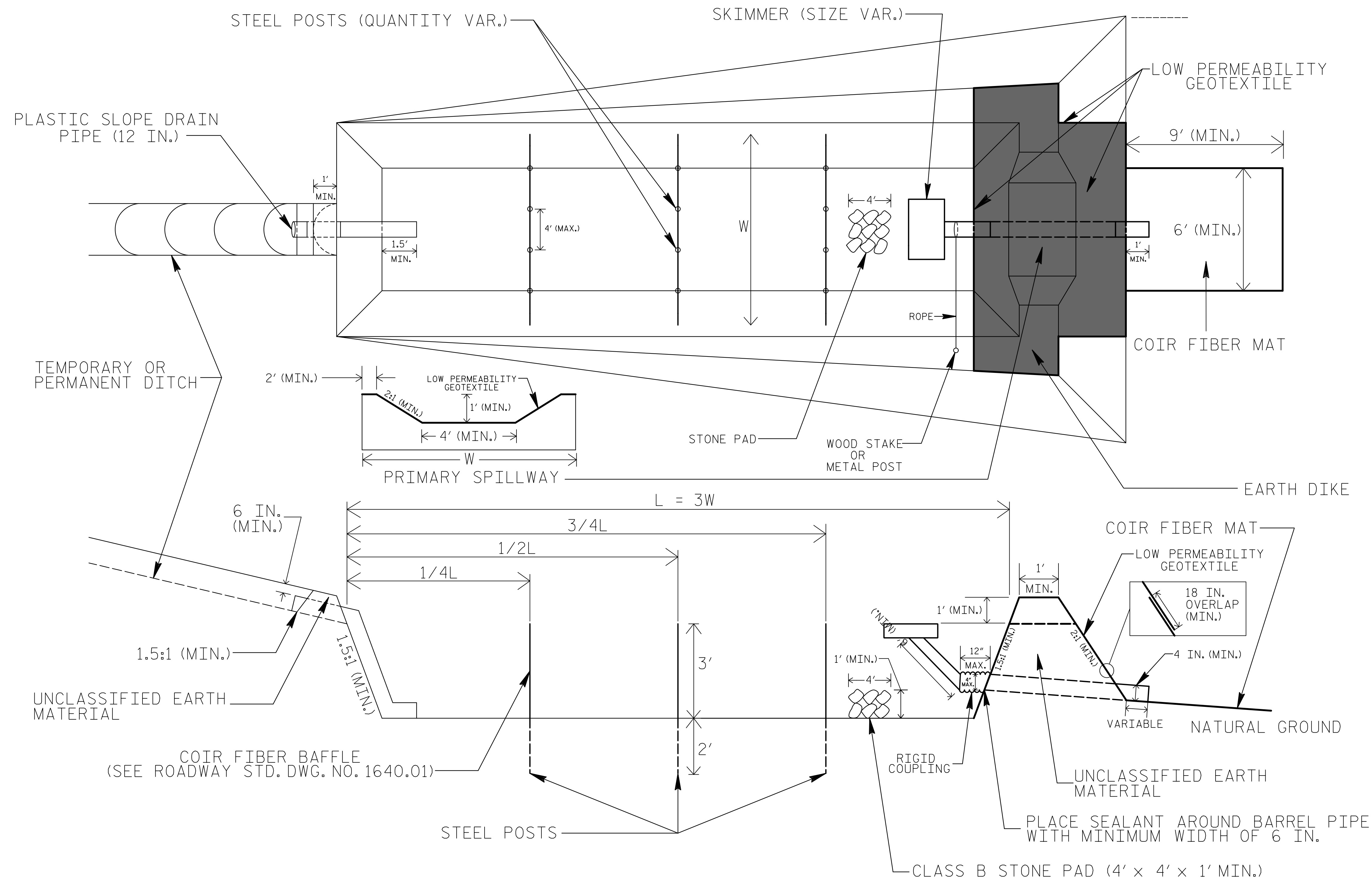
CROSS SECTION TRAPEZOIDAL DITCH



ELEVATION VIEW

PROJECT REFERENCE NO. R-5023B	SHEET NO. EC-2F
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL (EAST)



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 $Q/0.4$, 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

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

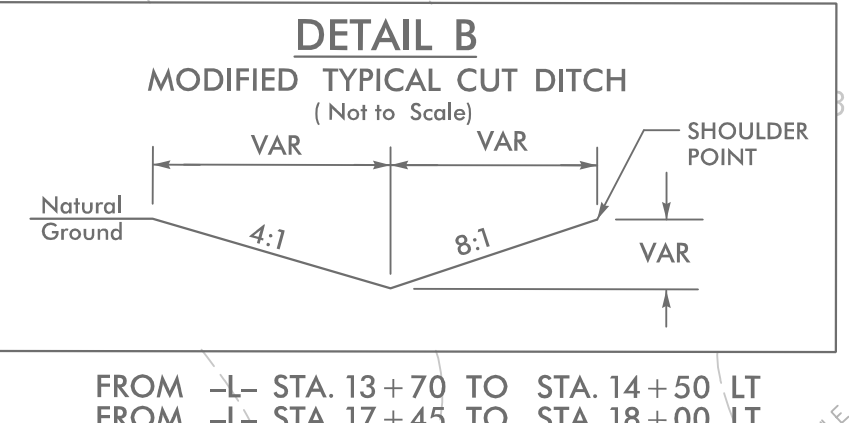
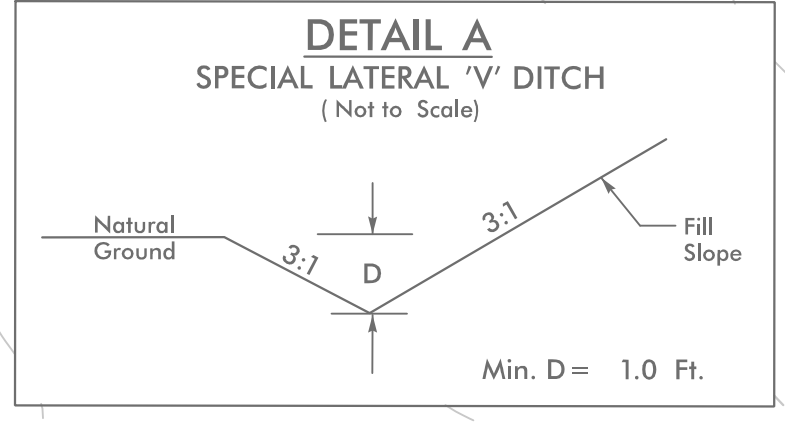
PROJECT REFERENCE NO. <i>R-5023B</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

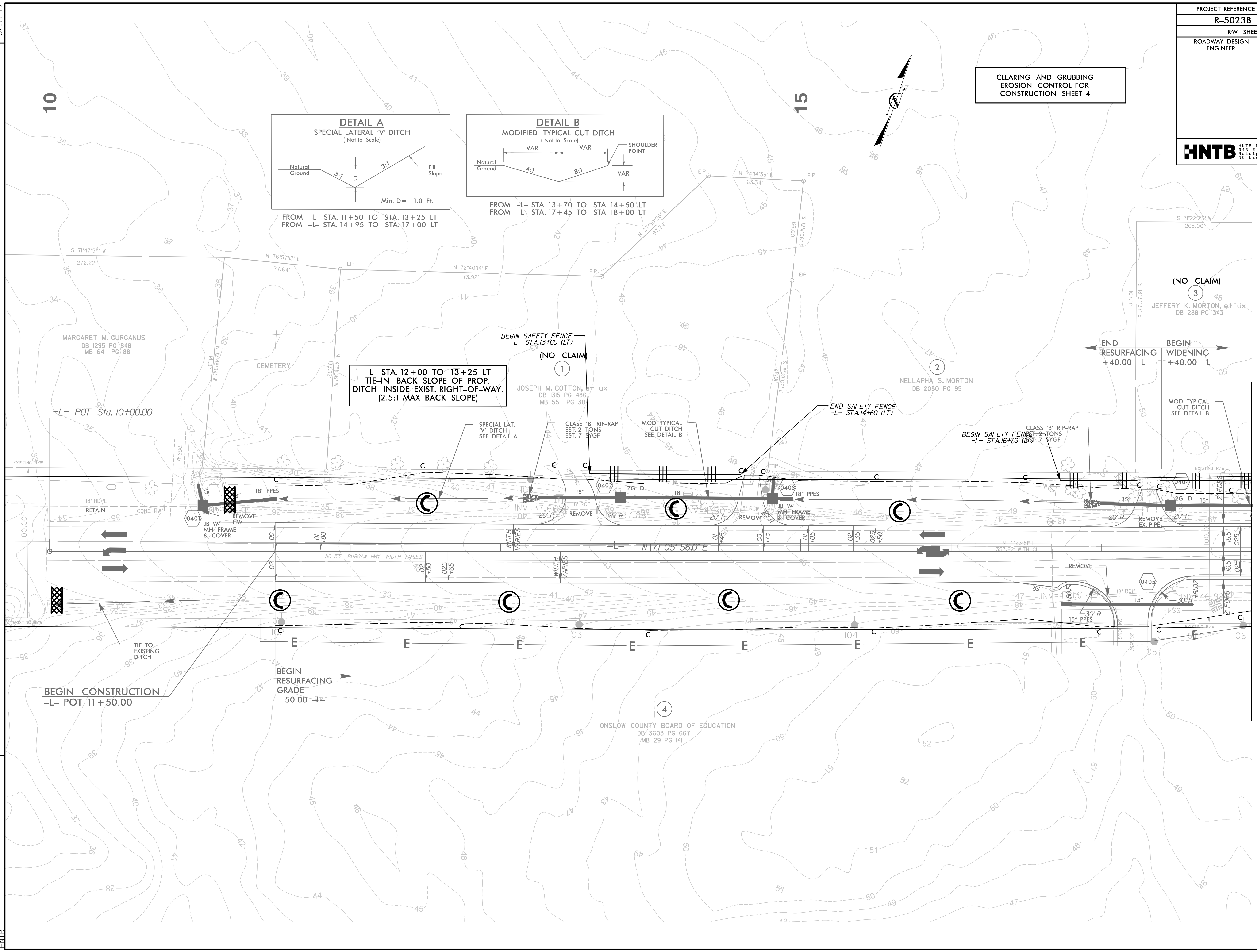
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 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.

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-4/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO. C-1554	

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4



-L- STA. 12+00 TO 13+25 LT
TIE-IN BACK SLOPE OF PROP.
DITCH INSIDE EXIST. RIGHT-OF-WAY.
(2.5:1 MAX BACK SLOPE)



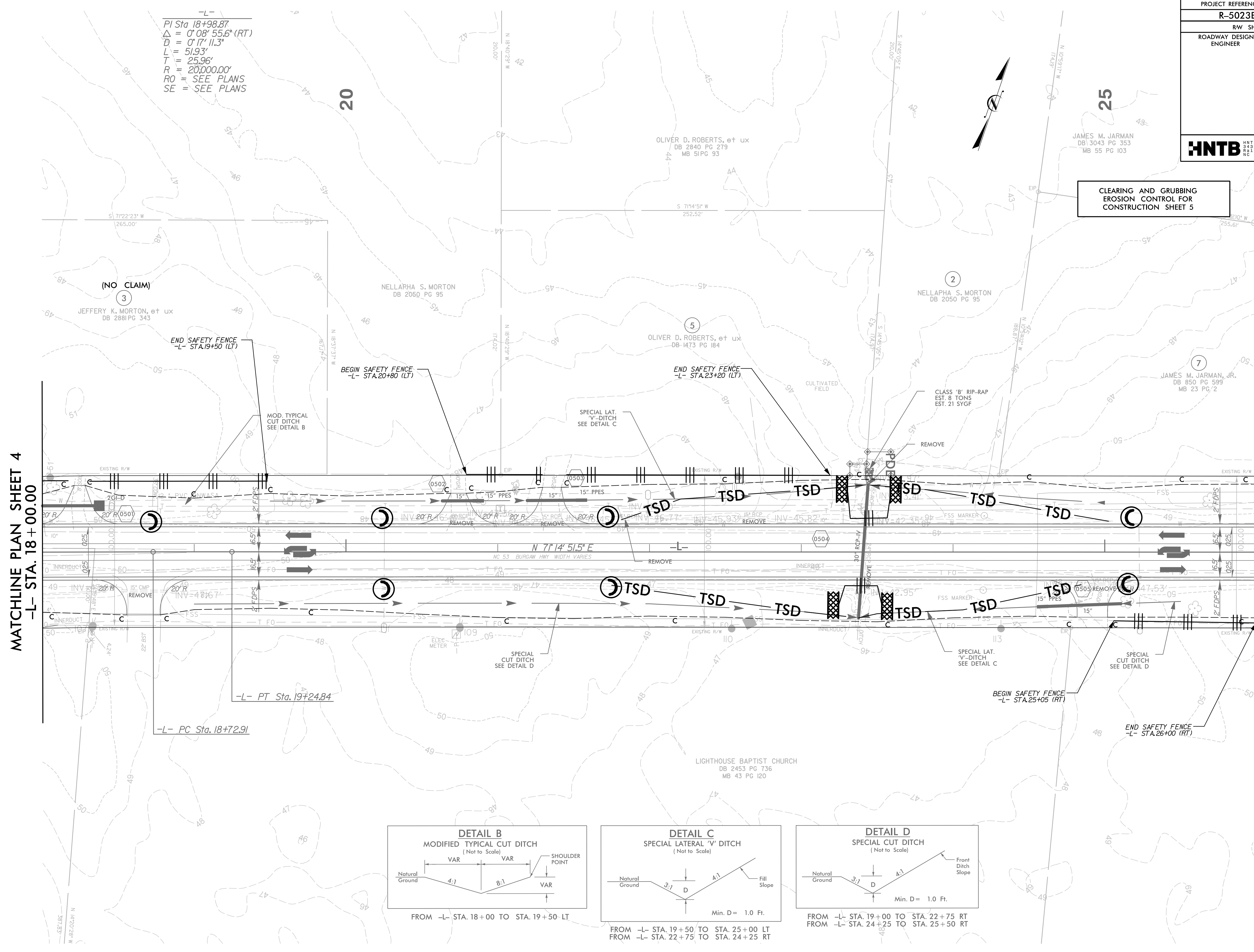
REVISIONS

MATCHLINE PLAN SHEET 5
-L- STA. 18+00.00

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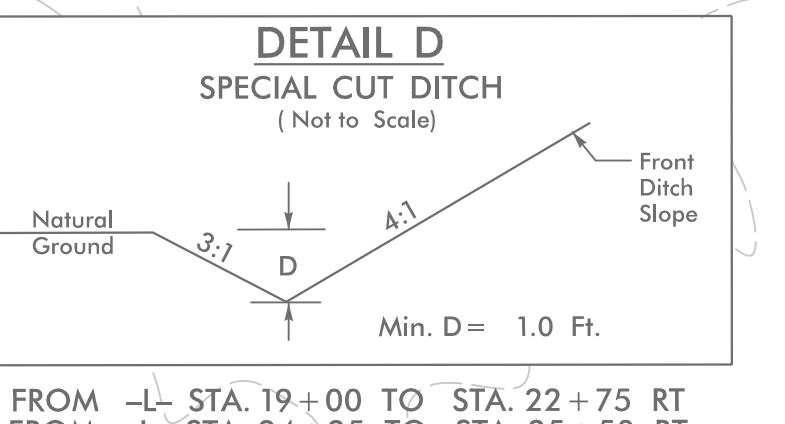
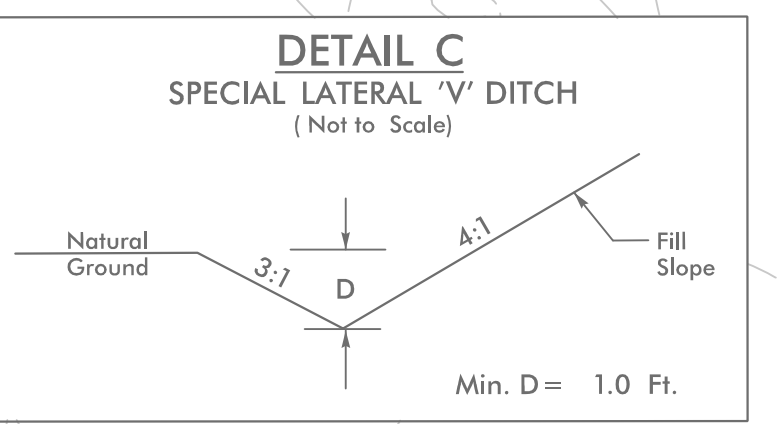
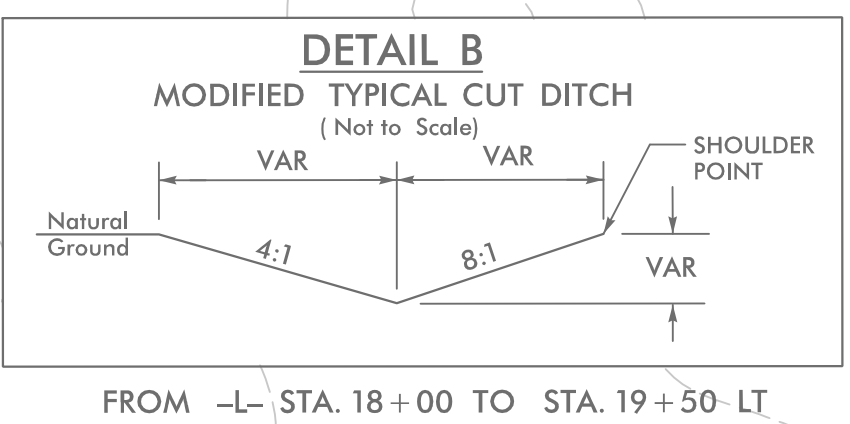
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R-5023B	EC-5/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
<small>HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC License No. C-1554</small>	

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 5



MATCHLINE PLAN SHEET 4
 -L- STA. 18 + 00.00

MATCHLINE PLAN SHEET 6
 -L- STA. 26 + 00.00

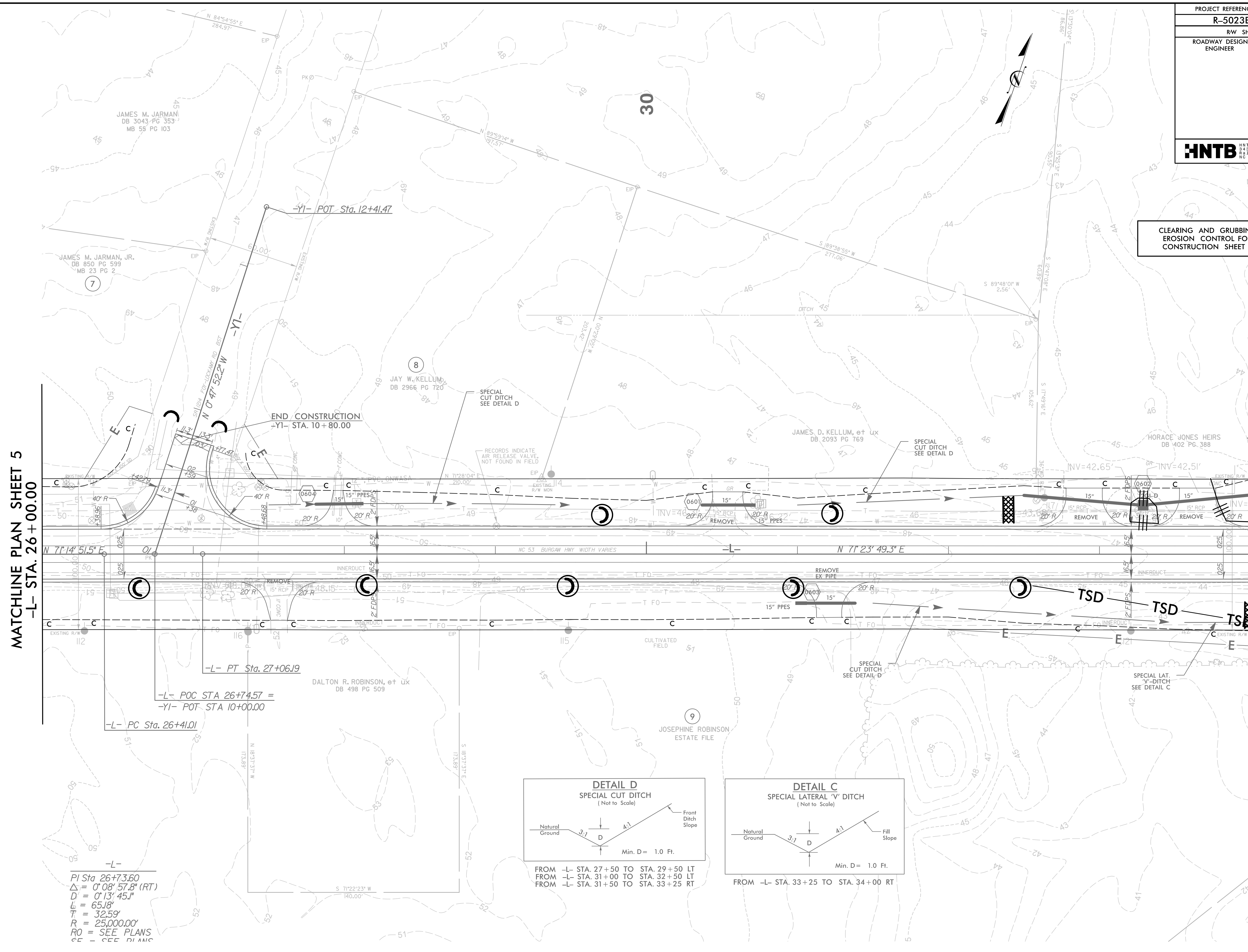


REVISIONS

8/17/99
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PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-6/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
<small>HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554</small>	

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

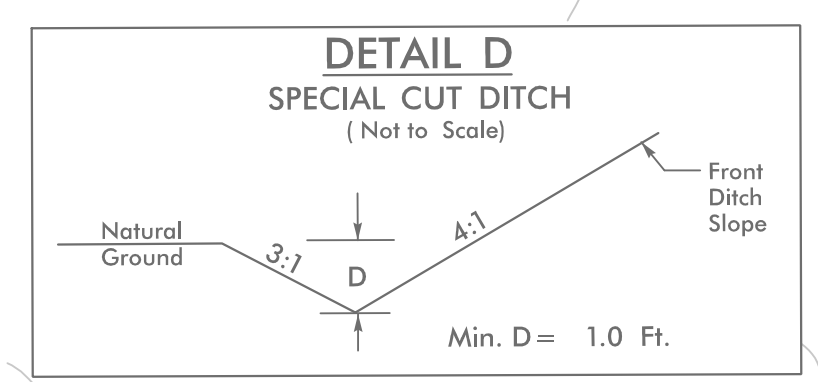


MATCHLINE PLAN SHEET 5
-L- STA. 26+00.00

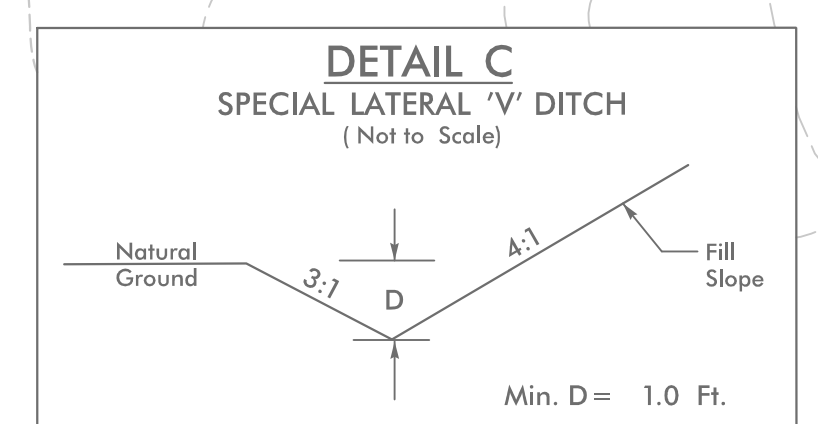
MATCHLINE PLAN SHEET 7
-L- STA. 34+00.00

REVISIONS

-L-
 PI Sta 26+73.60
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 $D = 0' 13' 45.1''$
 $L = 65.18'$
 $T = 32.59'$
 $R = 25,000.00'$
 RO = SEE PLANS
 CE = SEE PLANS



FROM -L- STA. 27+50 TO STA. 29+50 LT
 FROM -L- STA. 31+00 TO STA. 32+50 LT
 FROM -L- STA. 31+50 TO STA. 33+25 RT

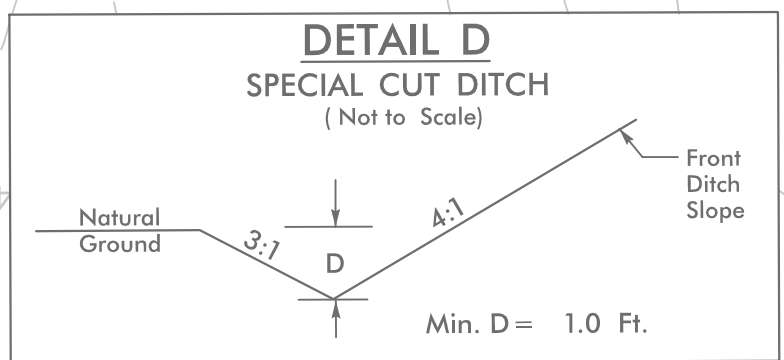


FROM -L- STA. 33+25 TO STA. 34+00 RT

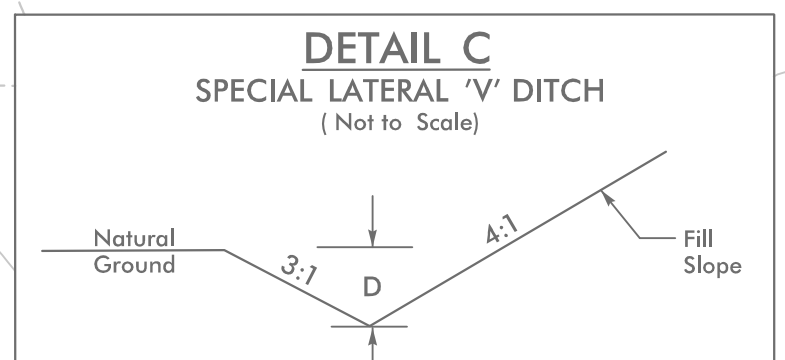
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PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-7/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO: C-1554	

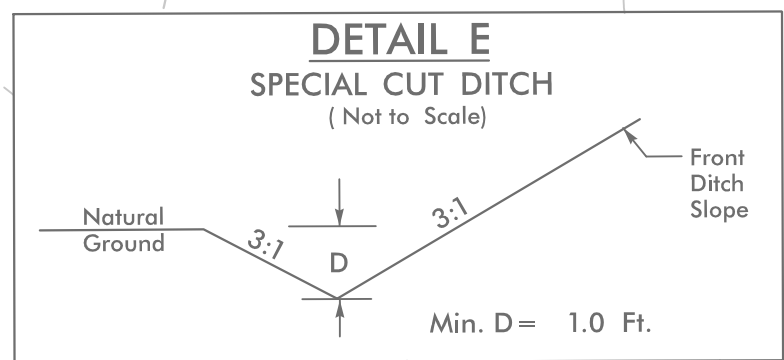
PI Sta 40+21.47
 $\Delta = 0^{\circ} 02' 05.9"$ (LT)
 $D = 0^{\circ} 03' 16.4"$
 $L = 64.07'$
 $T = 32.03'$
 $R = 105,000.00'$
 RO = SEE PLANS
 SE = SEE PLANS



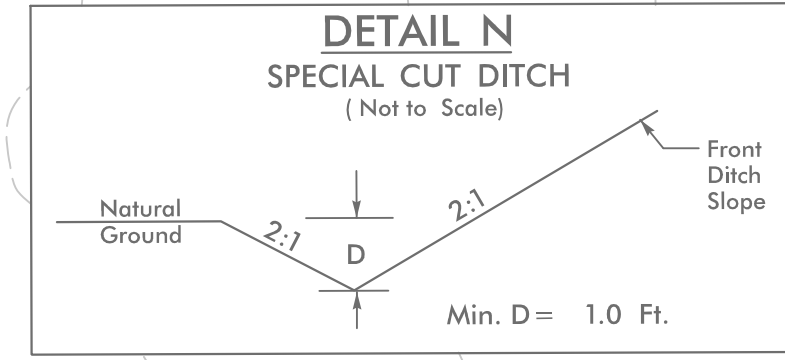
FROM -L STA. 34+25 TO STA. 42+00 LT
 FROM -L STA. 35+25 TO STA. 40+00 RT
 FROM -L STA. 41+50 TO STA. 42+00 RT



FROM -L STA. 34+00 TO STA. 35+25 RT



FROM -L STA. 40+00 TO STA. 41+50 RT



FROM -L STA. 34+00 TO STA. 34+18 LT

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

MATCHLINE PLAN SHEET 6

-L- STA. 34+00.00

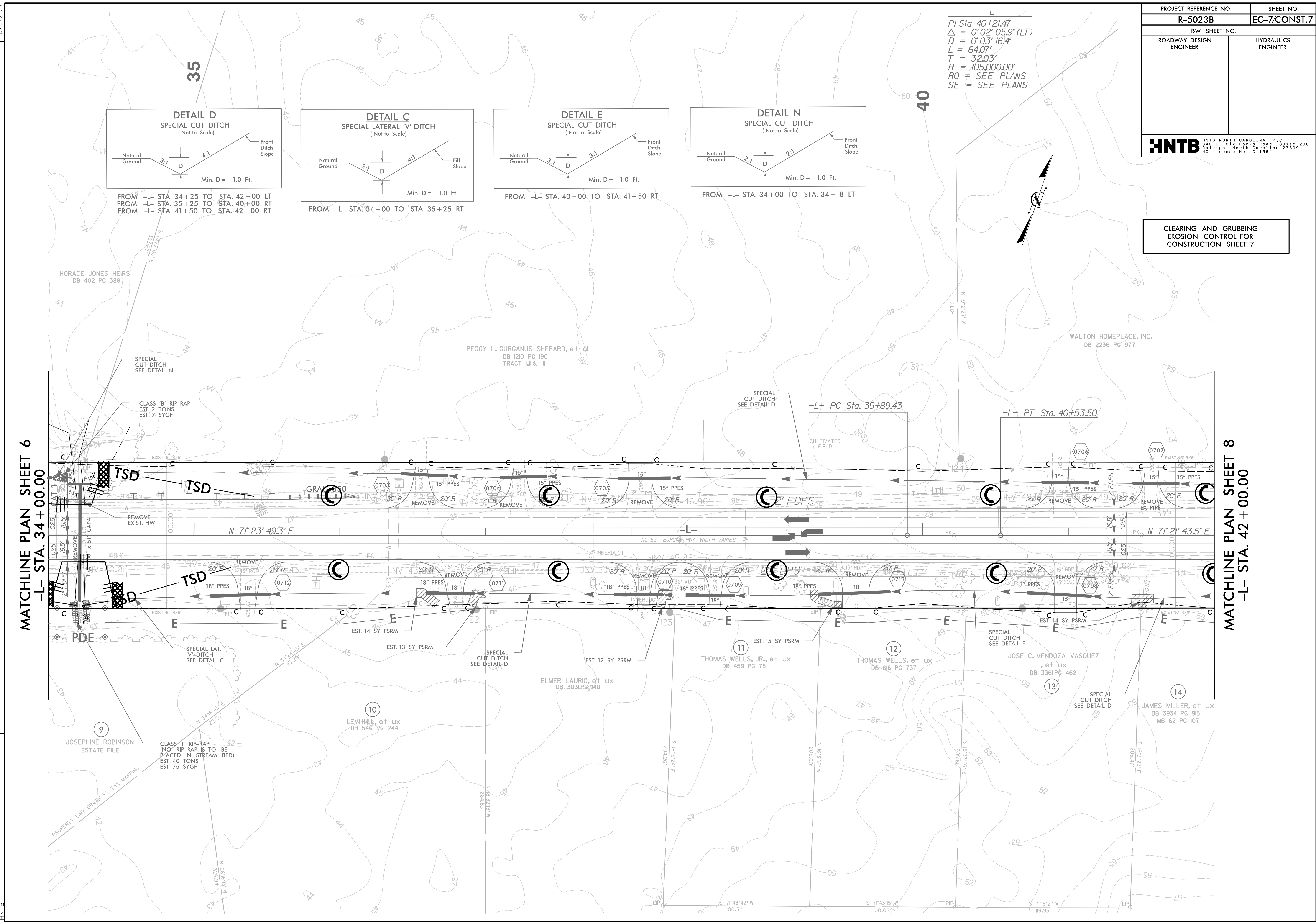
MATCHLINE PLAN SHEET 8

-L- STA. 42+00.00

REVISIONS

8/17/99

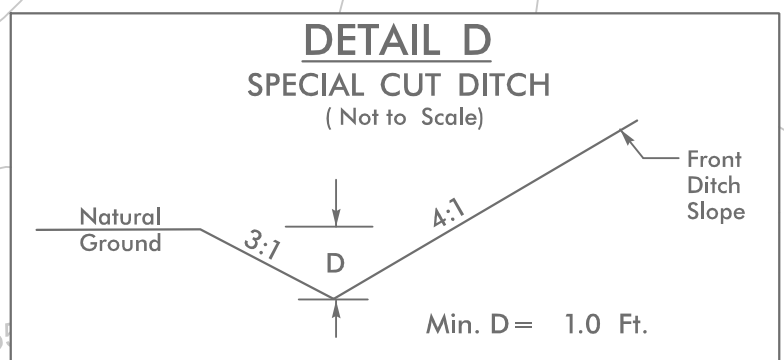
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 HNTB



PROJECT REFERENCE NO.		SHEET NO.	
R-5023B		EC-8/CONST.8	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
HNTB			
HNTB NORTH CAROLINA, P.C. 121 W. Trade St., Ste 2050 Charlotte, North Carolina 28202 NC License No: C-1854			

MATCHLINE PLAN SHEET 7
-L- STA. 42 + 00.00

MATCHLINE PLAN SHEET 9
-L- STA. 50 + 00.00

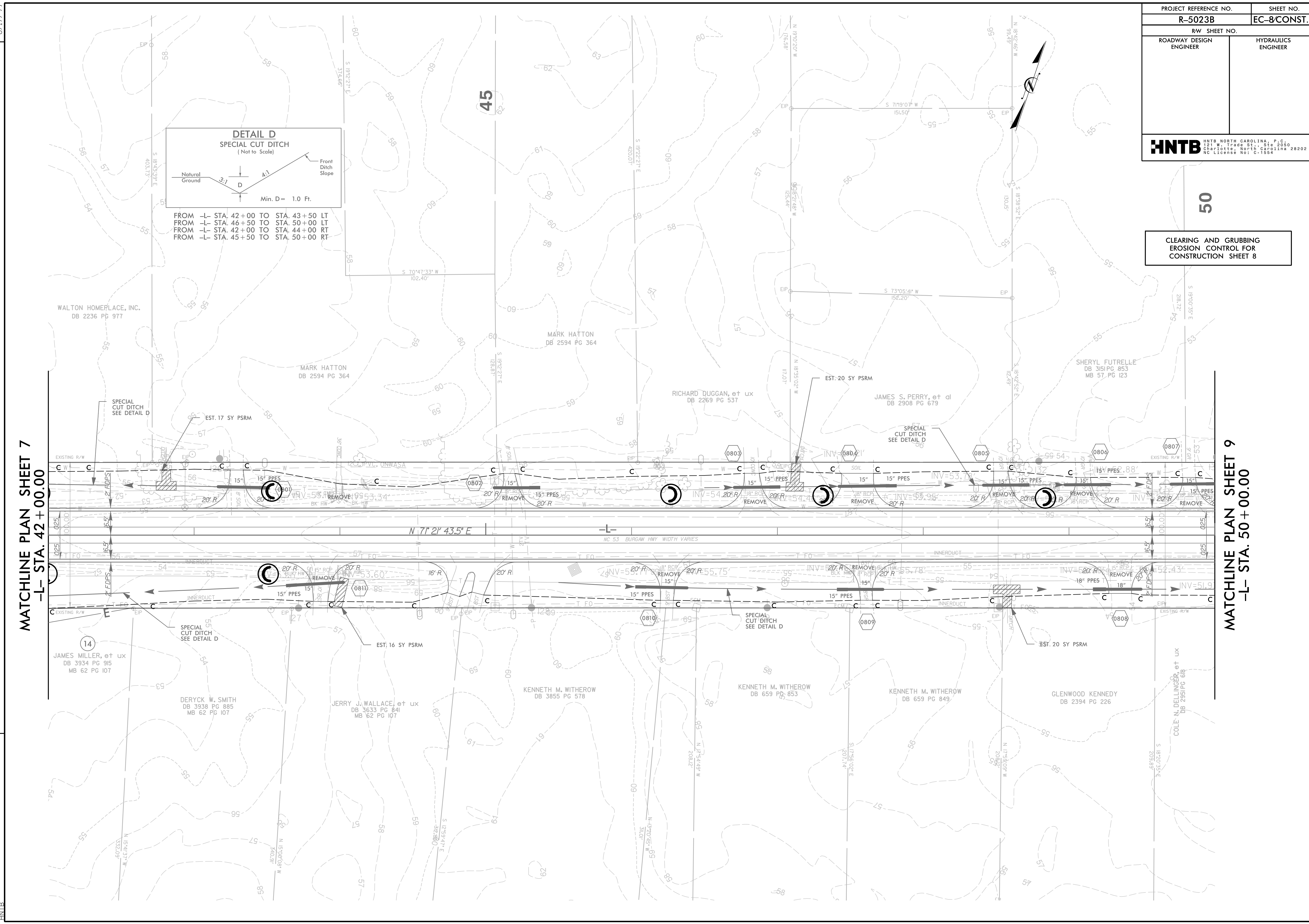


FROM -L- STA. 42+00 TO STA. 43+50 LT
 FROM -L- STA. 46+50 TO STA. 50+00 LT
 FROM -L- STA. 42+00 TO STA. 44+00 RT
 FROM -L- STA. 45+50 TO STA. 50+00 RT

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 8

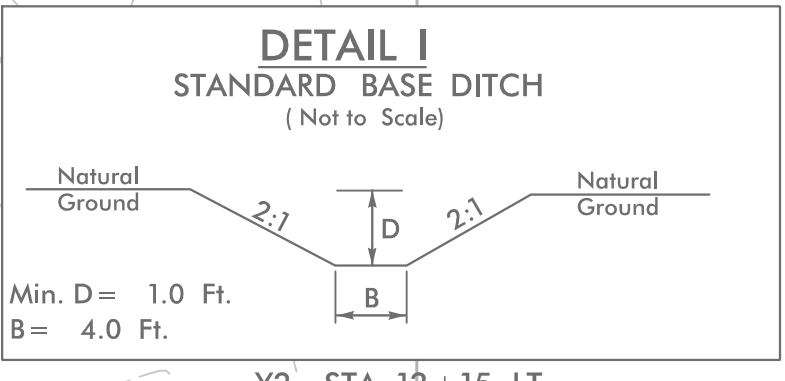
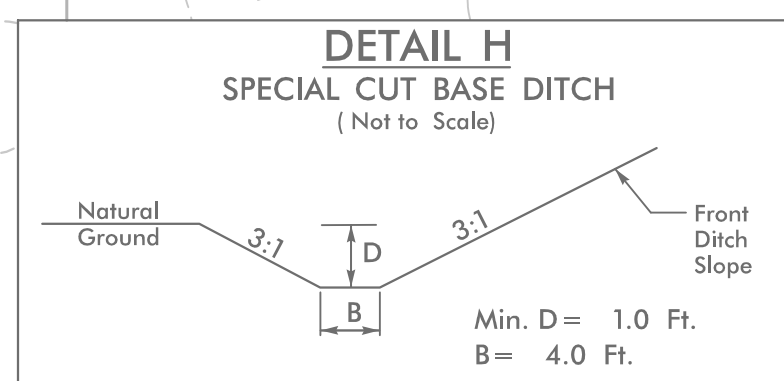
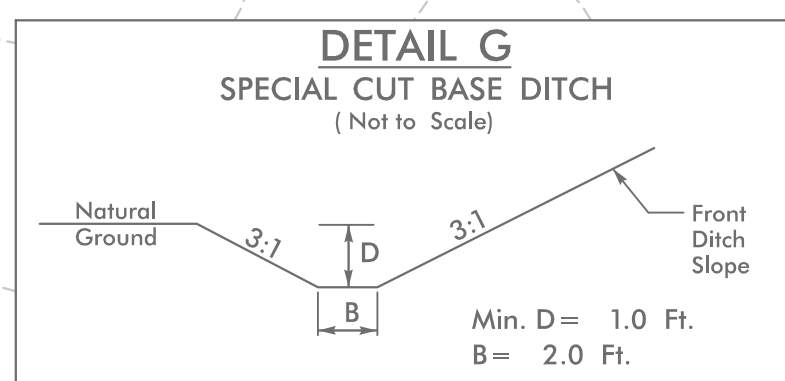
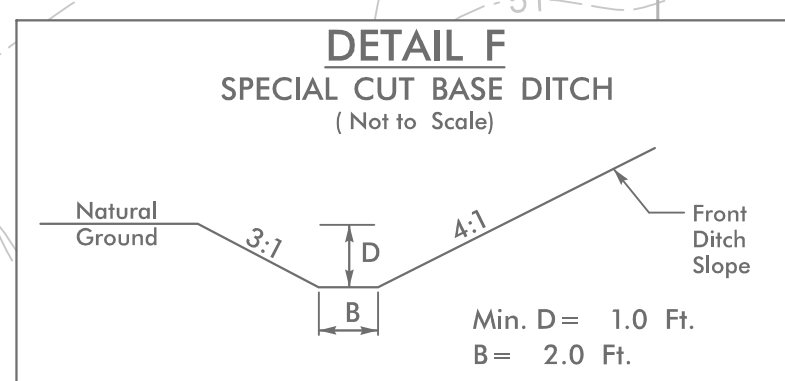
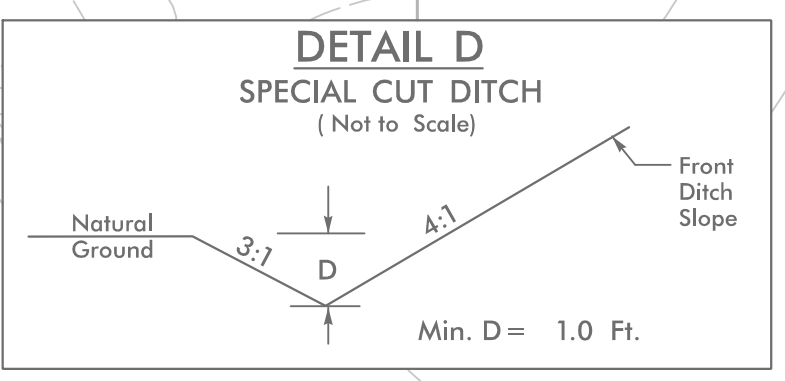
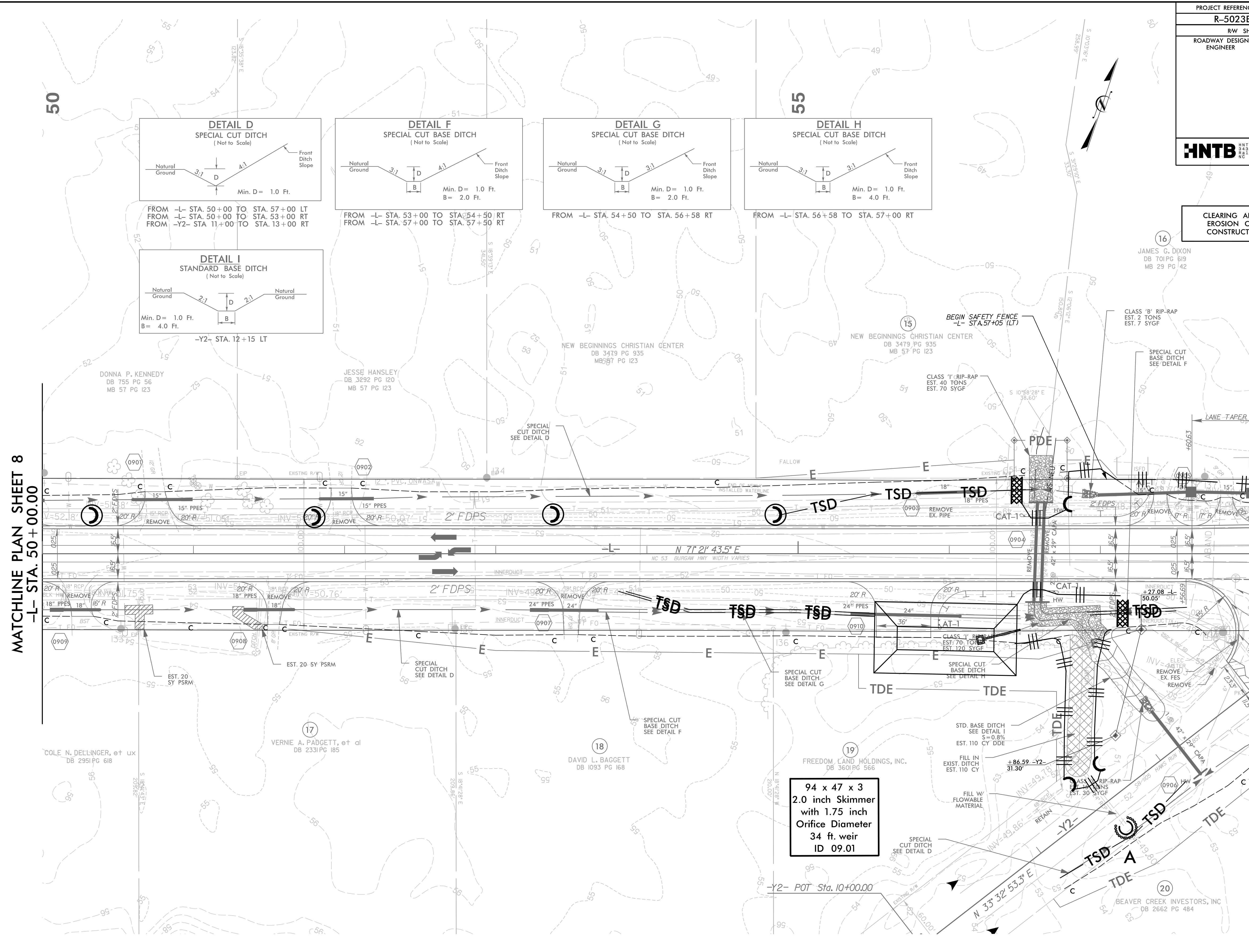
REVISIONS

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 8/17/99
 HNTB



PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-9/CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO: C-1554	

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9



94 x 47 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
34 ft. weir
ID 09.01

REVISIONS

MATCHLINE PLAN SHEET 8
-L- STA. 50 + 00.00

MATCHLINE PLAN SHEET 10
-L- STA. 58 + 00.00

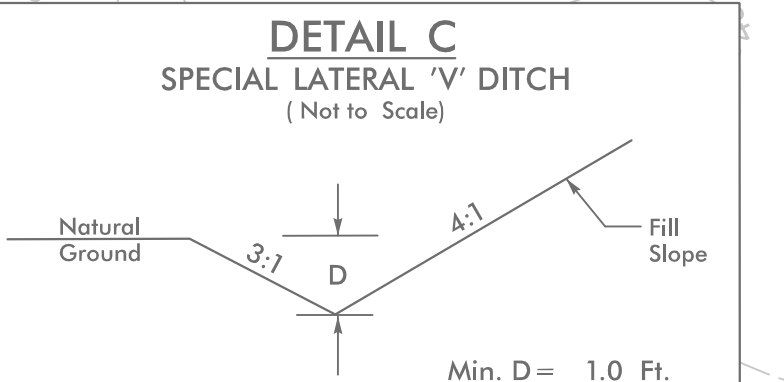
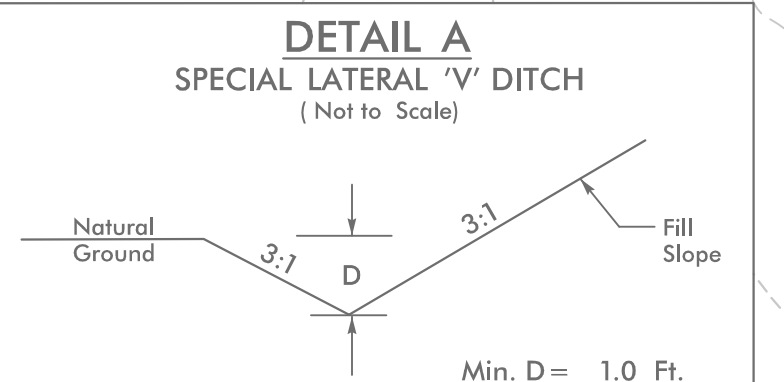
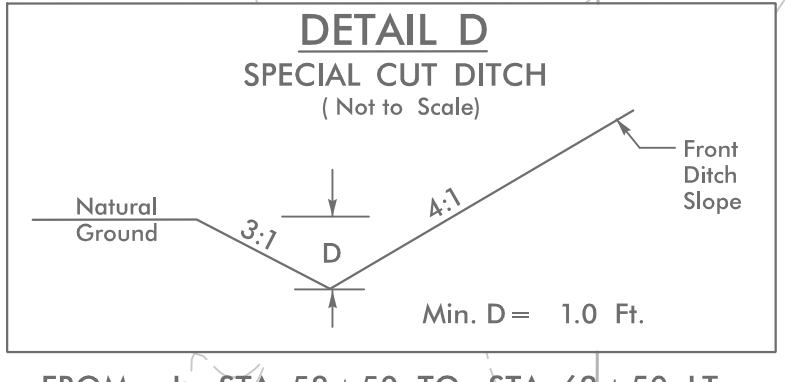
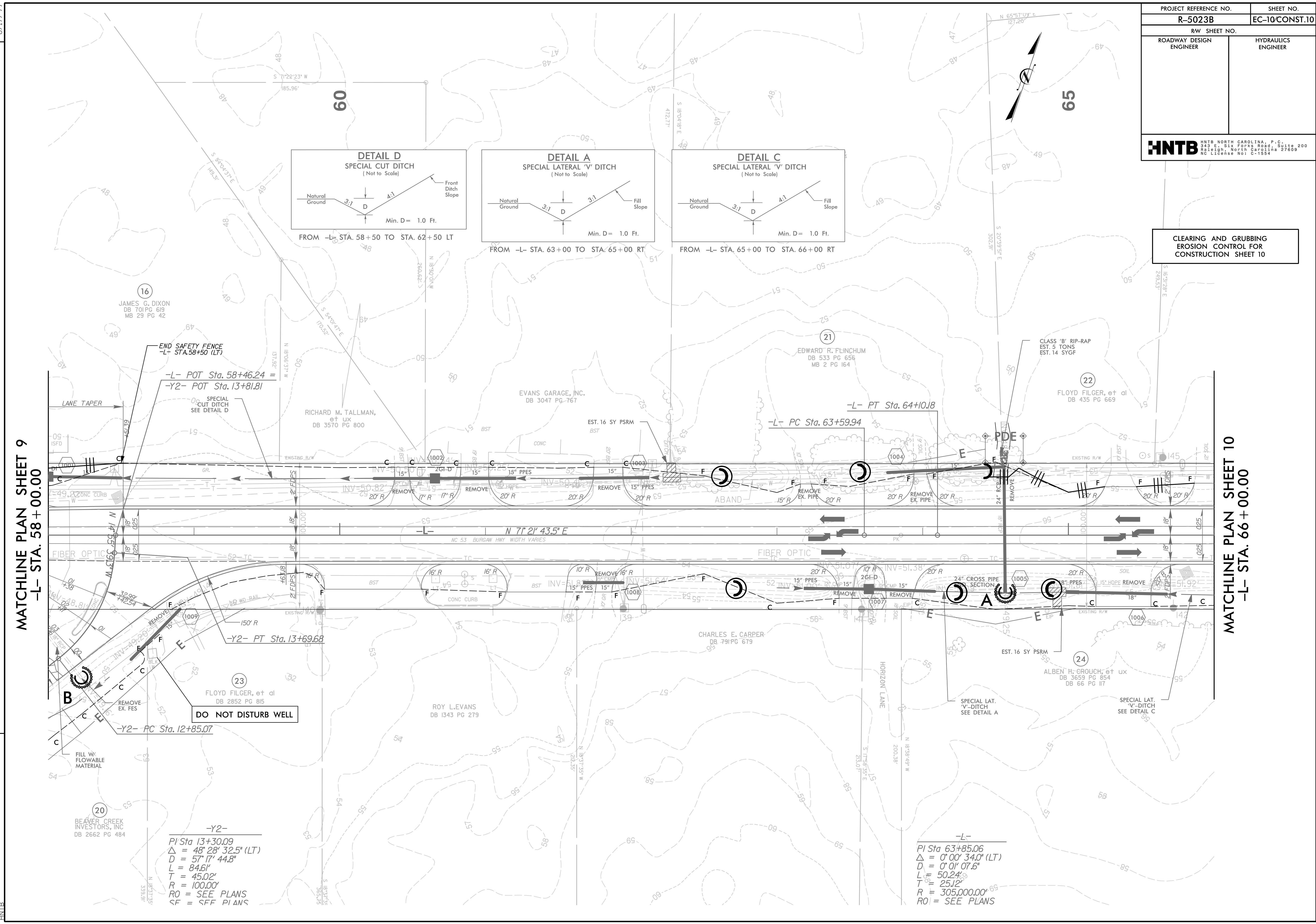
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HNTB

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-10CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO: C-1554	

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

MATCHLINE PLAN SHEET 9
-L- STA. 58 + 00.00

MATCHLINE PLAN SHEET 10
-L- STA. 66 + 00.00



-Y2-
PI Sta 13+30.09
Δ = 48° 28' 32.5" (LT)
D = 57' 17" 44.8"
L = 84.6'
T = 45.02'
R = 100.00'
RO = SEE PLANS
SF = SFF PLANS

-L-
PI Sta 63+85.06
Δ = 0° 00' 34.0" (LT)
D = 0' 01' 07.6"
L = 50.24'
T = 25.12'
R = 305,000.00'
RO = SEE PLANS

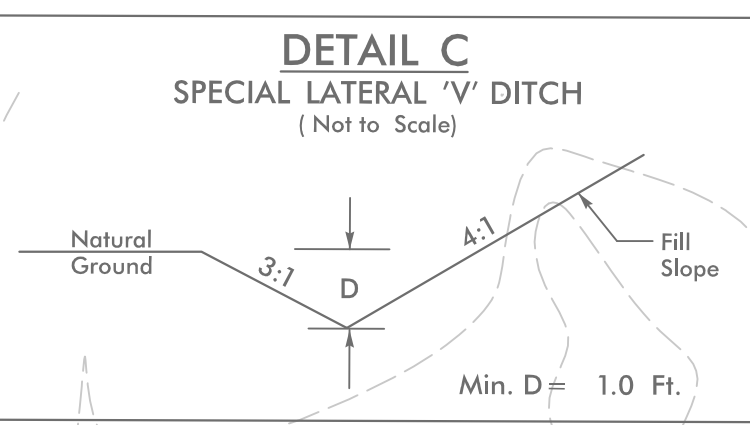
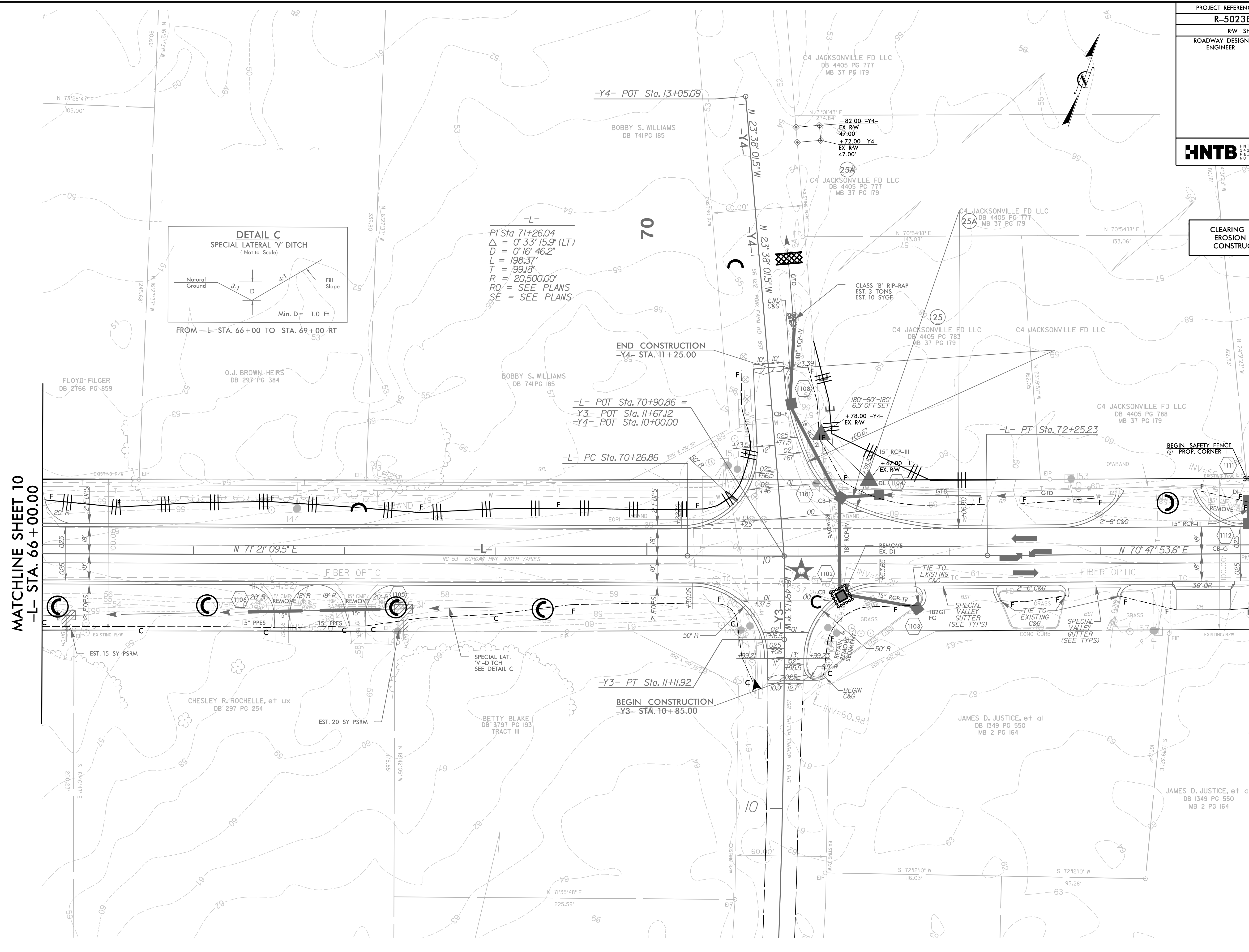
REVISIONS

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4:07:52 PM
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HNTB

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-11/CONST.11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
<small>HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC License No. 0-1954</small>	

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11



-L-
PI Sta 71+26.04
Δ = 0° 33' 15.9" (LT)
D = 0° 16' 46.2"
L = 198.37'
T = 99.18'
R = 20,500.00'
RO' = SEE PLANS
SE = SEE PLANS

-L- POT Sta. 70+90.86 =
-Y3- POT Sta. 11+67.12
-Y4- POT Sta. 10+00.00

-L- PC Sta. 70+26.86

BEGIN CONSTRUCTION
-Y3- STA. 10+85.00

END CONSTRUCTION
-Y4- STA. 11+25.00

MATCHLINE SHEET 10
-L- STA. 66+00.00

MATCHLINE SHEET 12
-L- STA. 74+00.00

REVISIONS

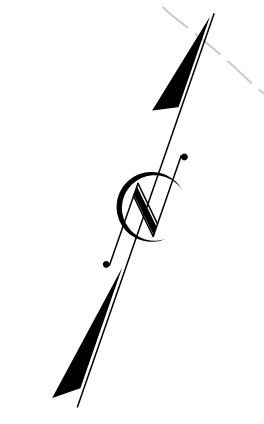
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 8/17/99

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-12/CONST.12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO: C-1554	

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

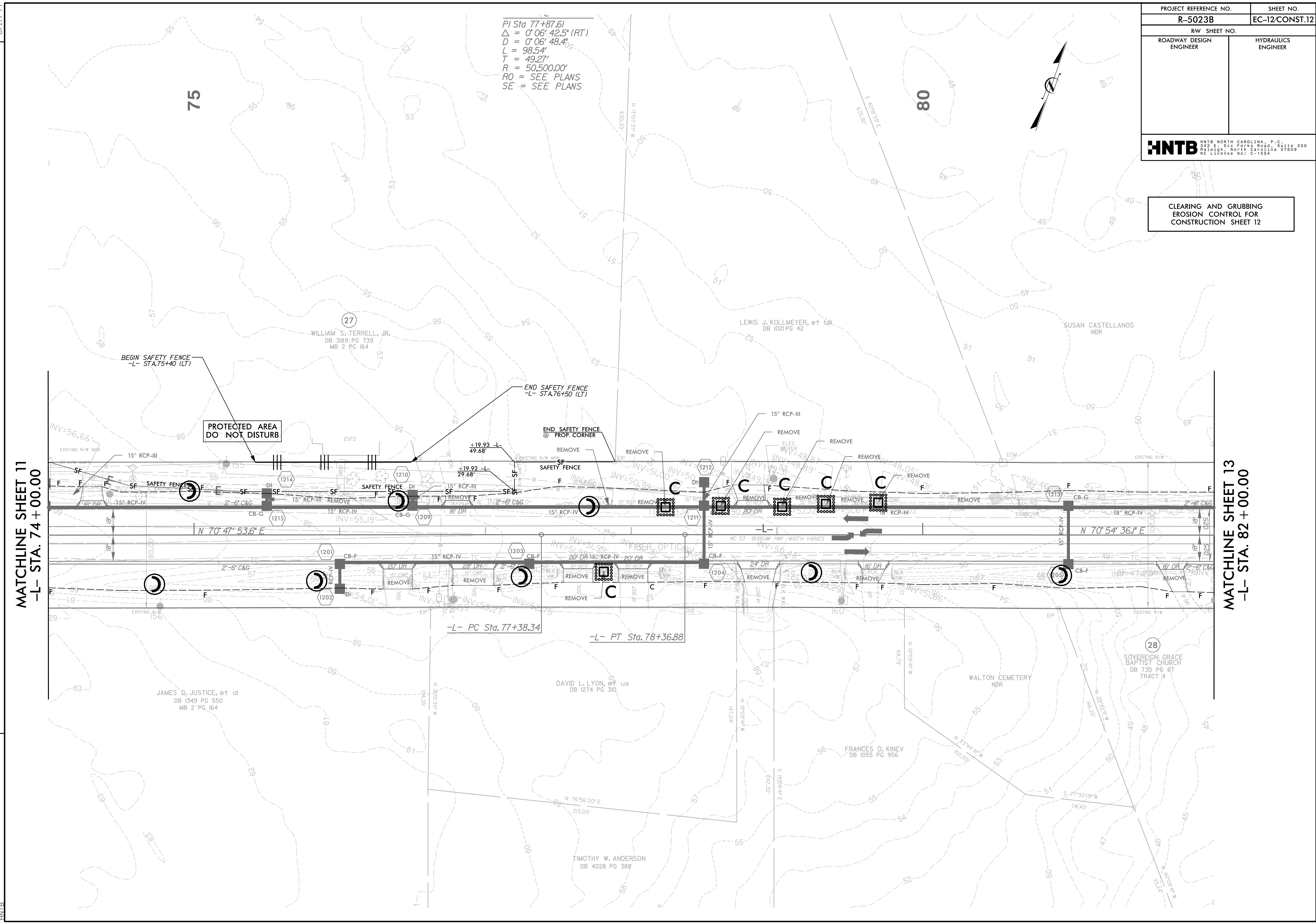
PI Sta 77+87.61
 $\Delta = 0^{\circ} 06' 42.5''$ (RT)
 $D = 0^{\circ} 06' 48.4''$
 $L = 98.54'$
 $T = 49.27'$
 $R = 50,500.00'$
 RO = SEE PLANS
 SE = SEE PLANS



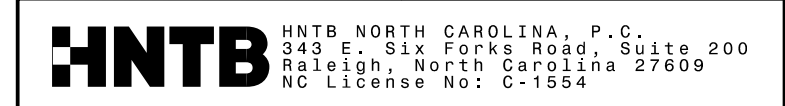
REVISIONS

MATCHLINE SHEET 11
-L- STA. 74 + 00.00

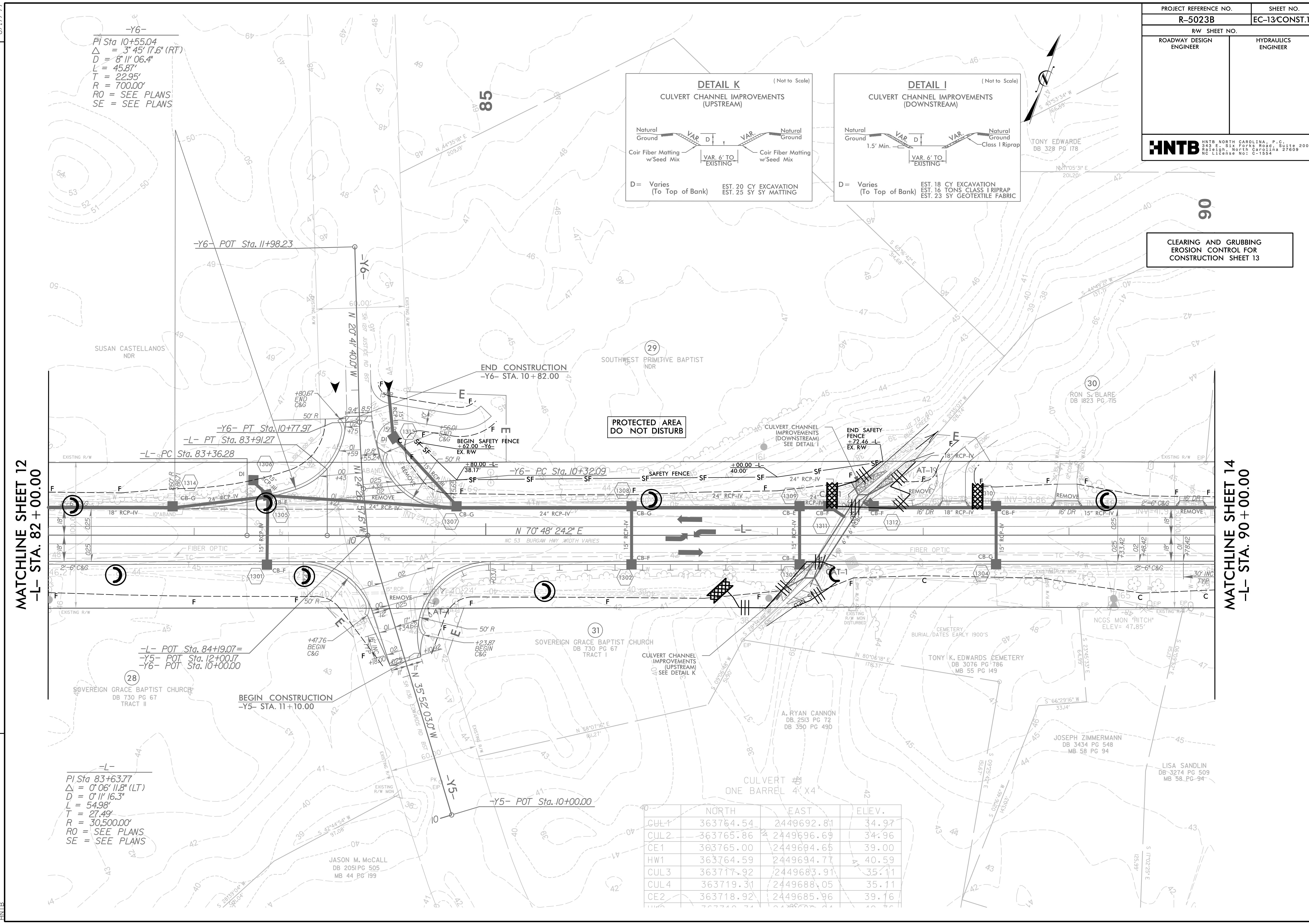
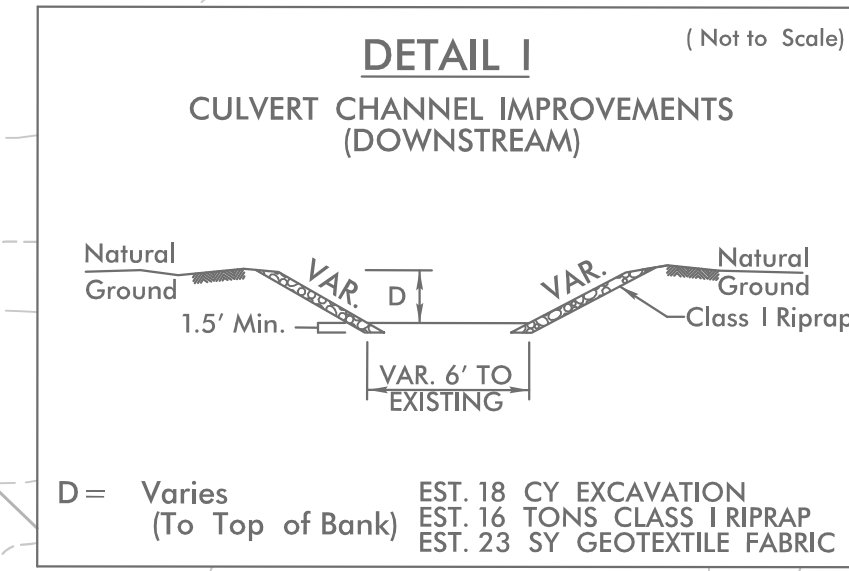
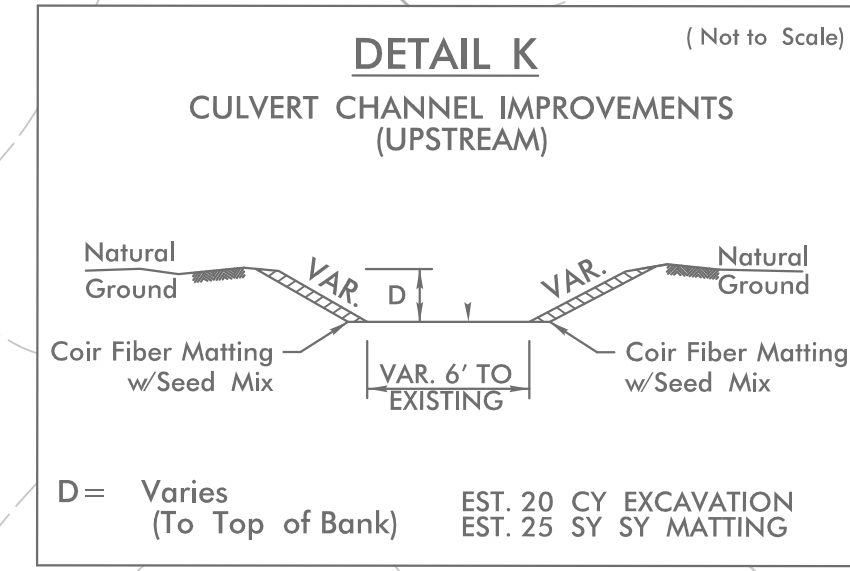
MATCHLINE SHEET 13
-L- STA. 82 + 00.00



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 HNTB



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13



-Y6-
PI Sta 10+55.04
Δ = 3° 45' 17.6" (RT)
D = 8' 11" 06.4"
L = 45.87'
T = 22.95'
R = 700.00'
RO = SEE PLANS
SE = SEE PLANS

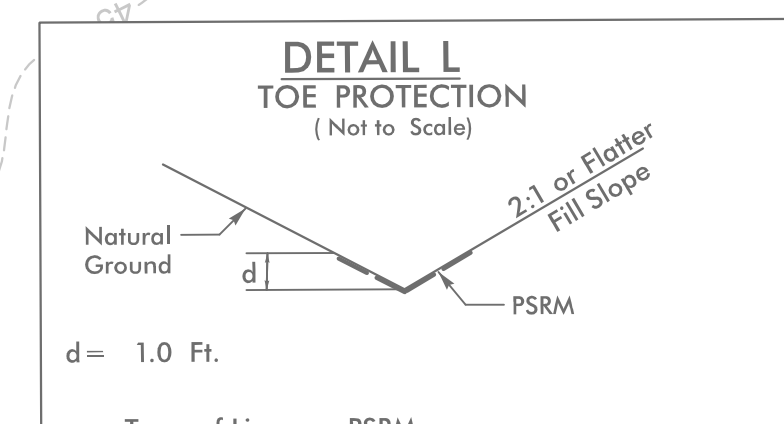
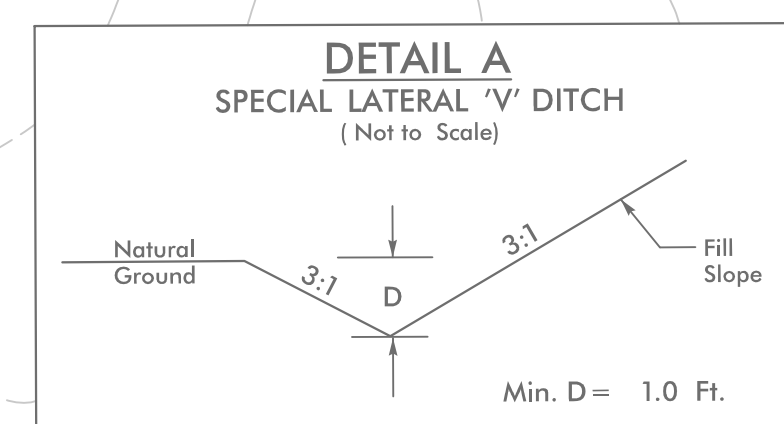
-L-
PI Sta 83+63.77
Δ = 0° 06' 11.8" (LT)
D = 0' 11" 16.3"
L = 54.98'
T = 27.49'
R = 30,500.00'
RO = SEE PLANS
SE = SEE PLANS

	NORTH	EAST	ELEV.
CUL1	363764.54	2449692.81	34.97
CUL2	363765.86	2449696.69	34.96
CE1	363765.00	2449694.65	39.00
HW1	363764.59	2449694.77	40.59
CUL3	363717.92	2449683.91	35.11
CUL4	363719.31	2449688.05	35.11
CE2	363718.92	2449685.96	39.16
HW2	363718.92	2449685.96	39.16

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-14/CONST.14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
<small>HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554</small>	

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 14

-L-
 PI Sta. 92+90.02
 $\Delta = 3^\circ 11' 20.1''$ (LT)
 $D = 0^\circ 40' 26.6''$
 $L = 473.09'$
 $T = 236.60'$
 $R = 8,500.00'$
 RO = SEE PLANS
 SE = SEE PLANS



FROM -L- STA. 92+20 TO STA. 95+00 RT

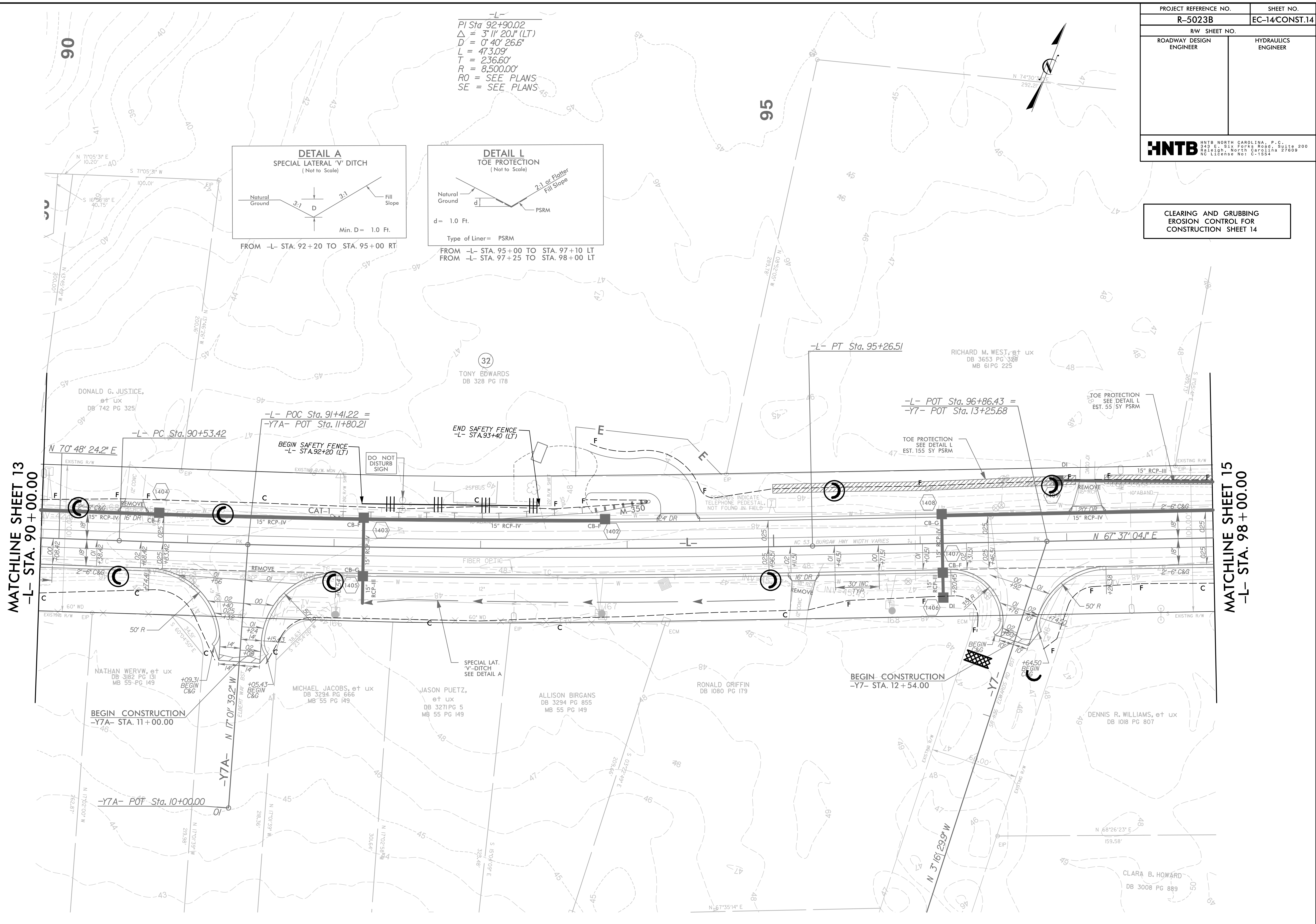
FROM -L- STA. 95+00 TO STA. 97+10 LT
 FROM -L- STA. 97+25 TO STA. 98+00 LT

MATCHLINE SHEET 13
-L- STA. 90+00.00

MATCHLINE SHEET 15
-L- STA. 98+00.00

REVISIONS

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 HNTB

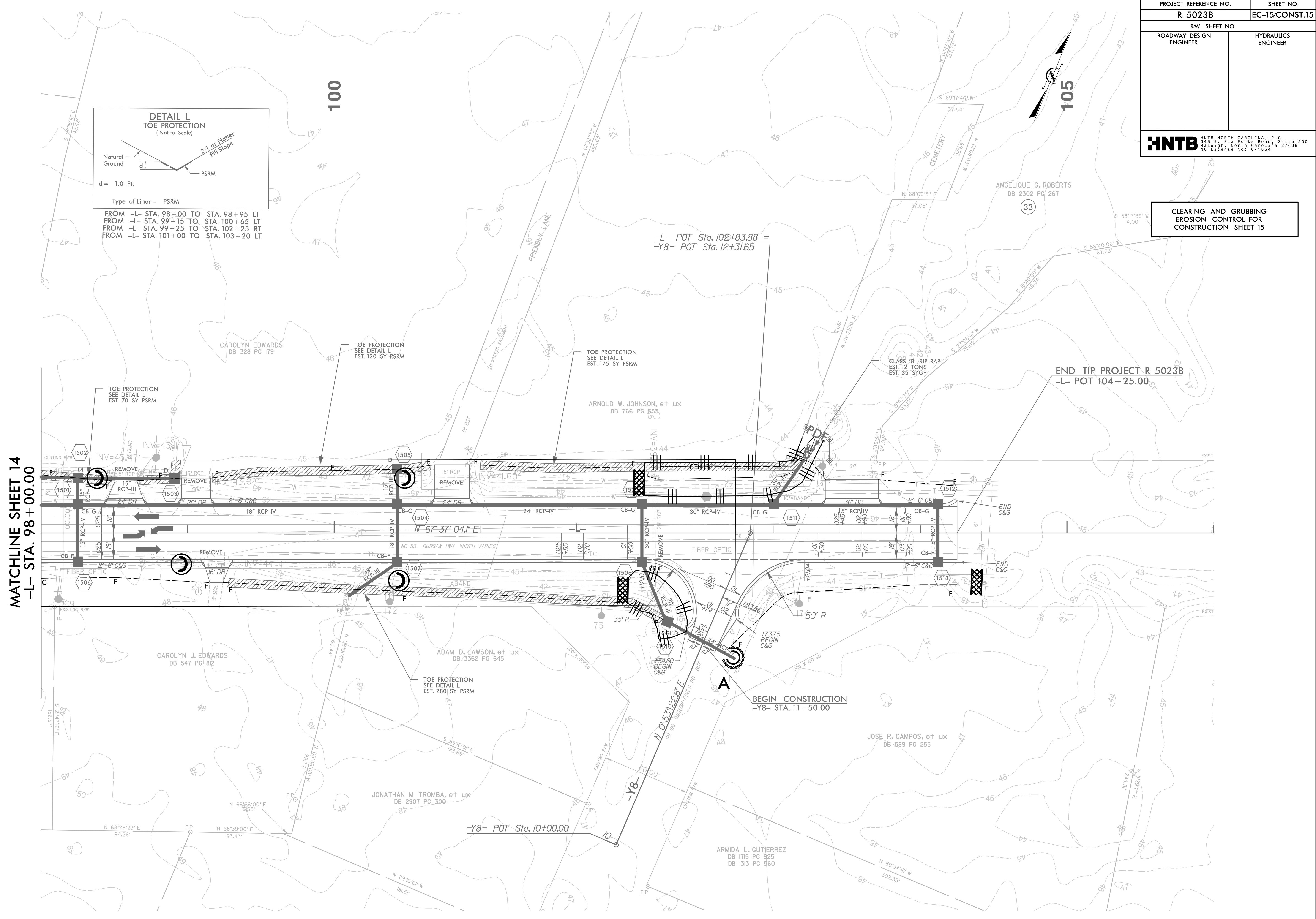
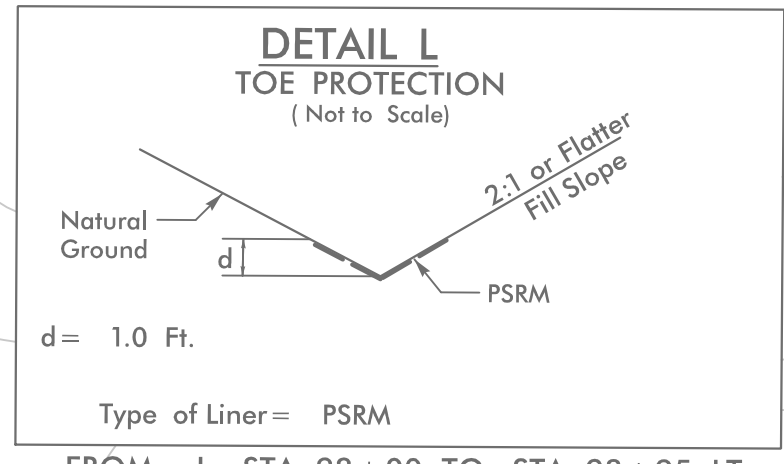


8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-15/CONST.15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
<small>HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO: C-1554</small>	

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15

MATCHLINE SHEET 14
-L- STA. 98 + 00.00

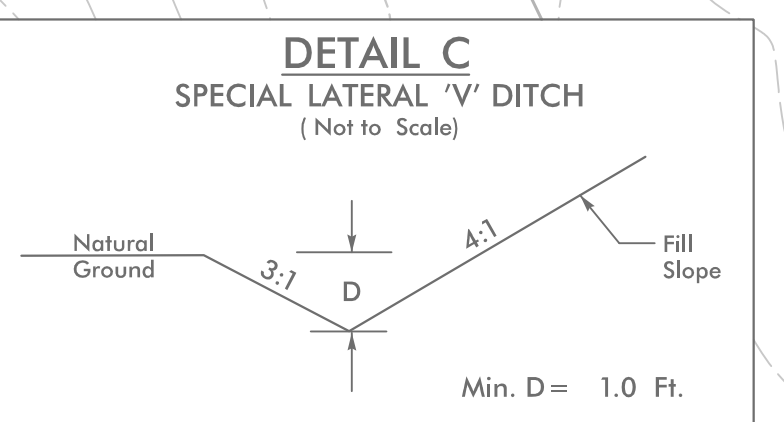
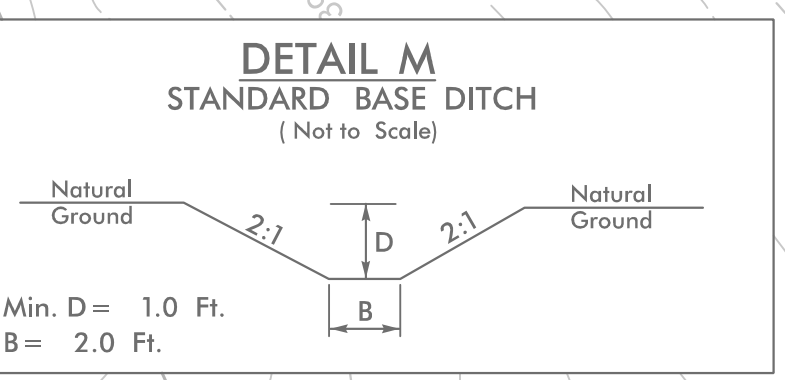
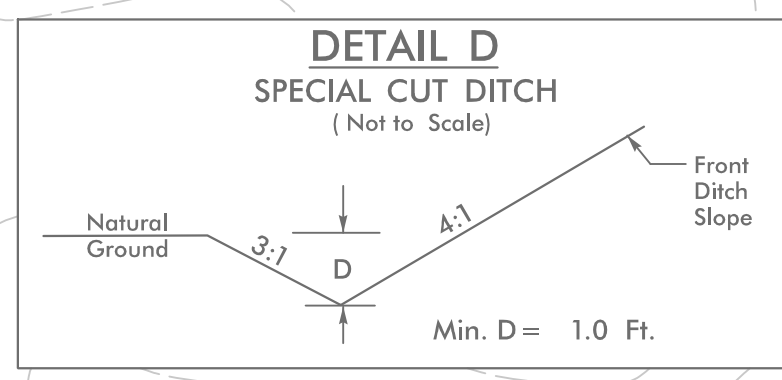


REVISIONS

8/17/99
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 HNTB

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-16CONSTR. 16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO. C-1554	

PI Sta 19+84.23
 $\Delta = 26^{\circ} 59' 05.5" (LT)$
 $D = 1' 23" 48.4"$
 $L = 1,931.94'$
 $T = 984.23'$
 $R = 4,102.00'$
 RO = SEE PLANS
 SE = SEE PLANS



FROM -L1- STA. 15+00 TO STA. 18+00 LT
 FROM -Y9- STA. 12+50 TO STA. 15+00 LT
 FROM -Y9- STA. 13+00 TO STA. 15+00 RT

-L1- STA. 17+38 RT

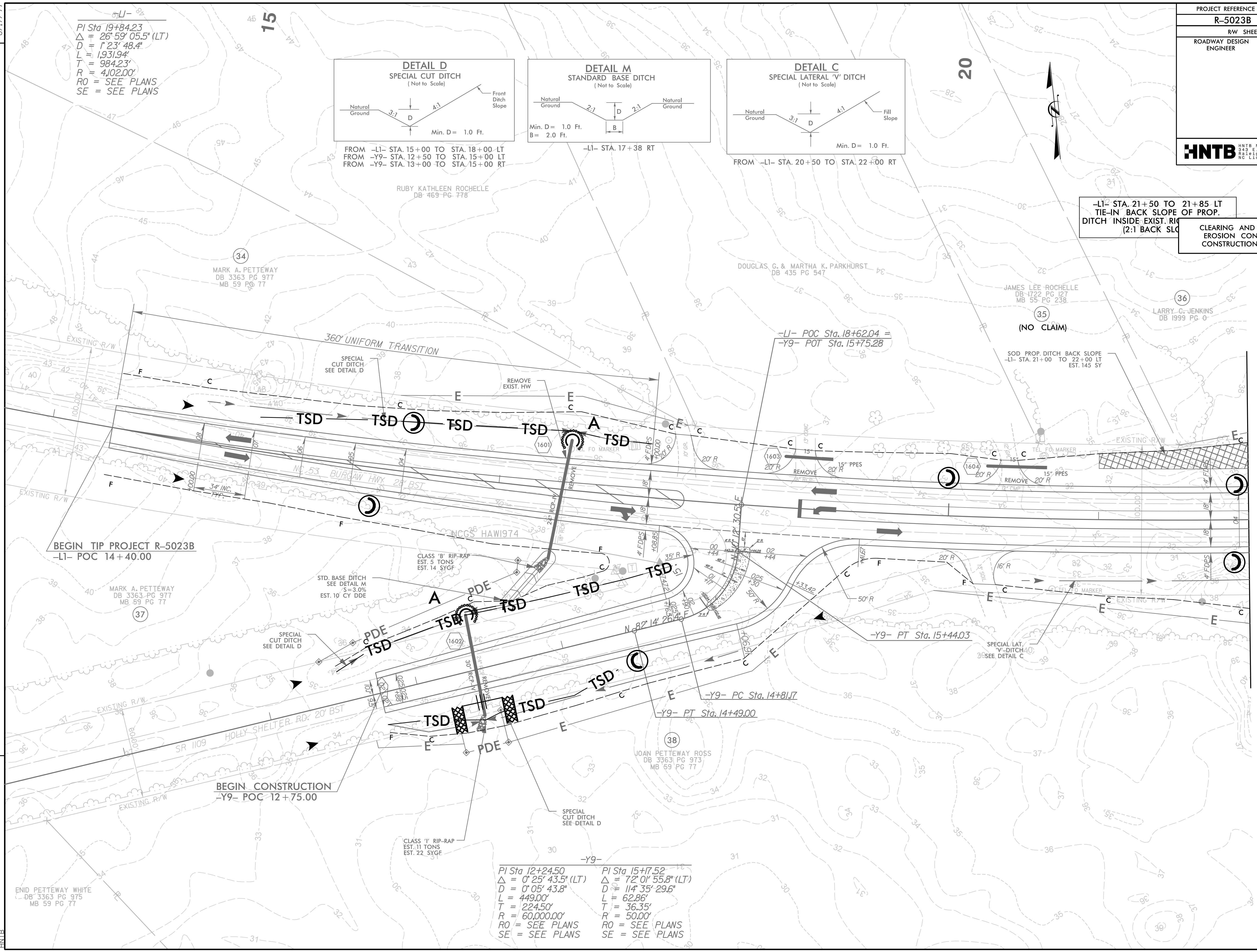
FROM -L1- STA. 20+50 TO STA. 22+00 RT

-L1- STA. 21+50 TO 21+85 LT
 TIE-IN BACK SLOPE OF PROP.
 DITCH INSIDE EXIST. R/W
 (2:1 BACK SLOPE)

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 16

REVISIONS

MATCHLINE PLAN SHEET 17
-L1- STA. 22+00.00



PI Sta 12+24.50
 $\Delta = 0^{\circ} 25' 43.5" (LT)$
 $D = 0^{\circ} 05' 43.8"$
 $L = 449.00'$
 $T = 224.50'$
 $R = 60,000.00'$
 RO = SEE PLANS
 SE = SEE PLANS

PI Sta 15+17.52
 $\Delta = 72^{\circ} 01' 55.8" (LT)$
 $D = 114^{\circ} 35' 29.6"$
 $L = 62.86'$
 $T = 36.35'$
 $R = 50.00'$
 RO = SEE PLANS
 SE = SEE PLANS

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HNTB

ENID PETTEWAY WHITE
 DB 3363 PG 975
 MB 59 PG 77

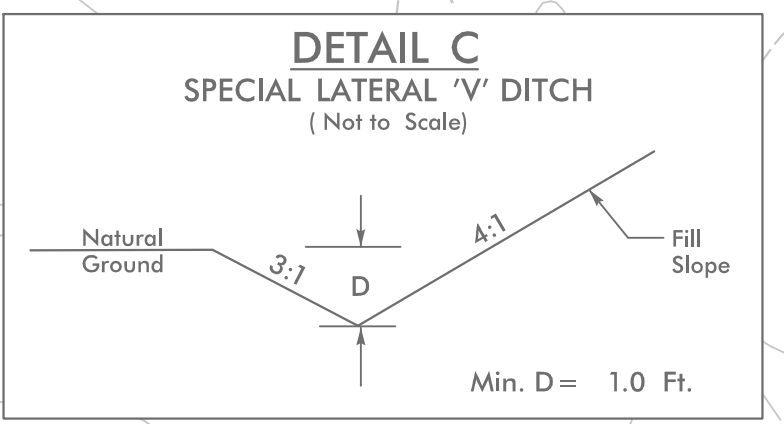
BEGIN CONSTRUCTION
 -Y9- POC 12+75.00

BEGIN TIP PROJECT R-5023B
 -L1- POC 14+40.00

8/17/99

-L1-
 PI Sta 19+84.23
 $\Delta = 26^{\circ}59'05.5"$ (LT)
 $D = 1'23'48.4"$
 $L = 1,931.94'$
 $T = 984.23'$
 $R = 4,102.00'$
 RO = SEE PLANS
 SE = SEE PLANS

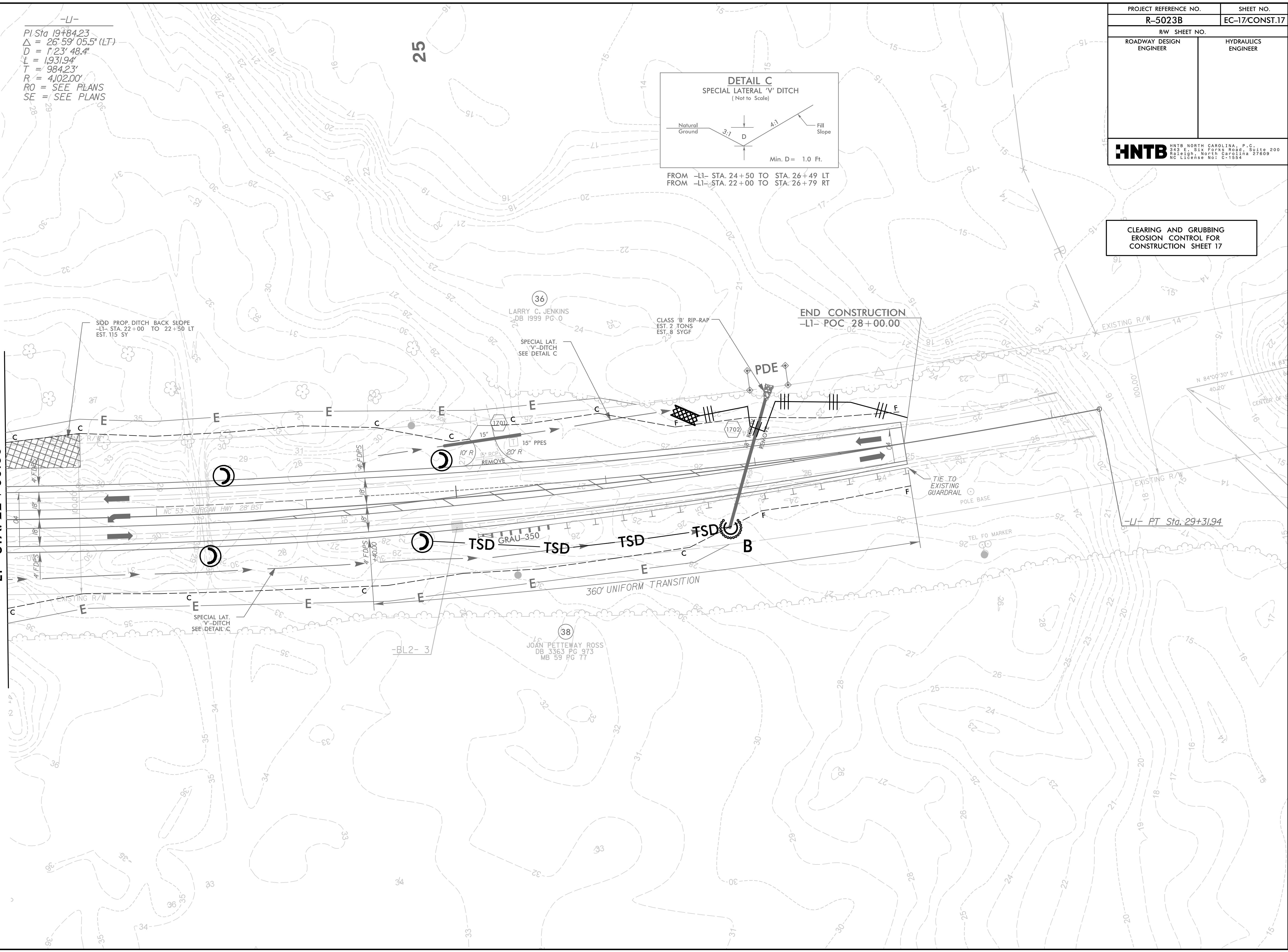
PROJECT REFERENCE NO. R-5023B	SHEET NO. EC-17/CONST.17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB <small>HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO: C-1554</small>	



FROM -L1- STA. 24+50 TO STA. 26+49 LT
 FROM -L1- STA. 22+00 TO STA. 26+79 RT

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 17

MATCHLINE PLAN SHEET 16
 -L1- STA. 22+00.00



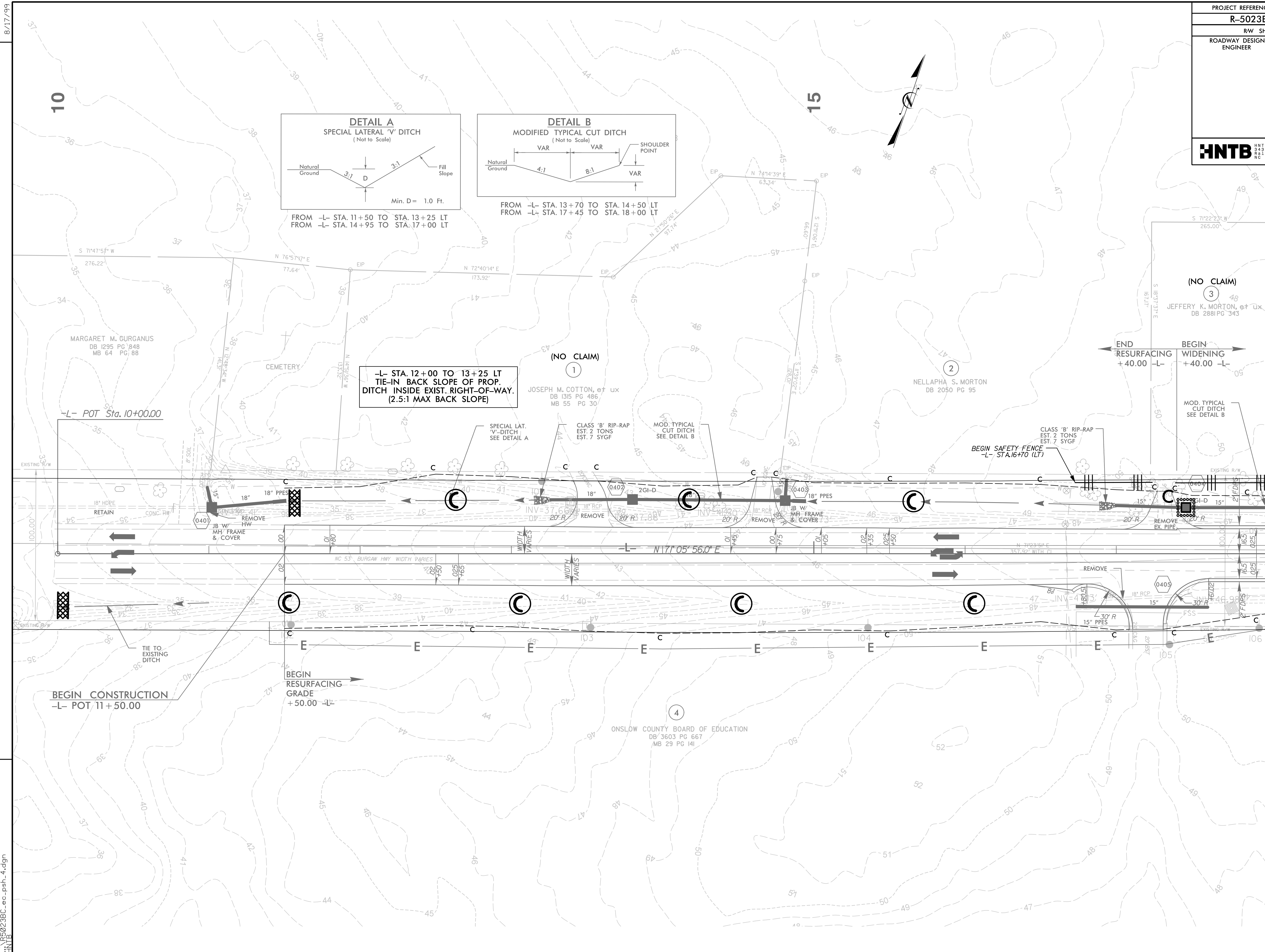
REVISIONS

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 HNTB

PROJECT REFERENCE NO. R-5023B	SHEET NO. EC-18/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO. C-1554	

8/17/99

REVISIONS



MATCHLINE PLAN SHEET 5
 -L- STA. 18+00.00

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 HNTB

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-19/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC License No. C-1554	

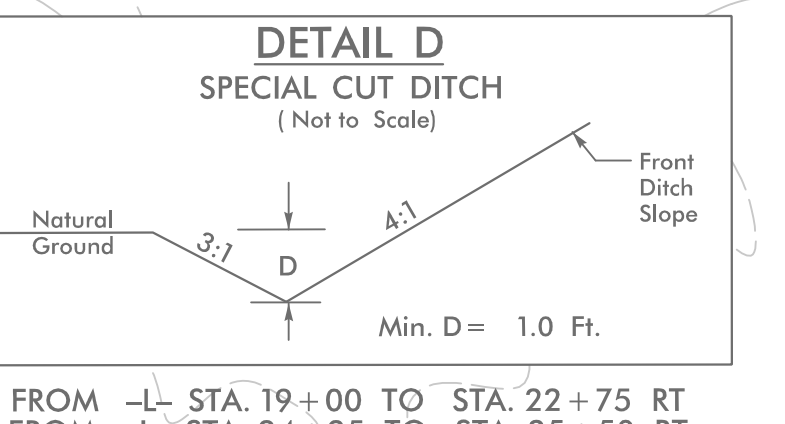
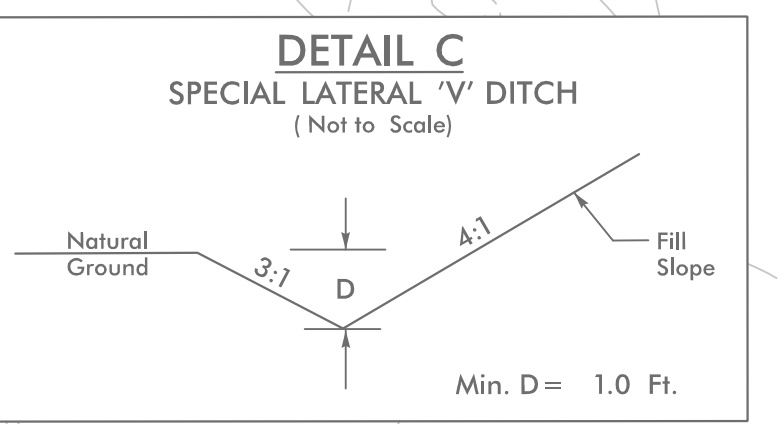
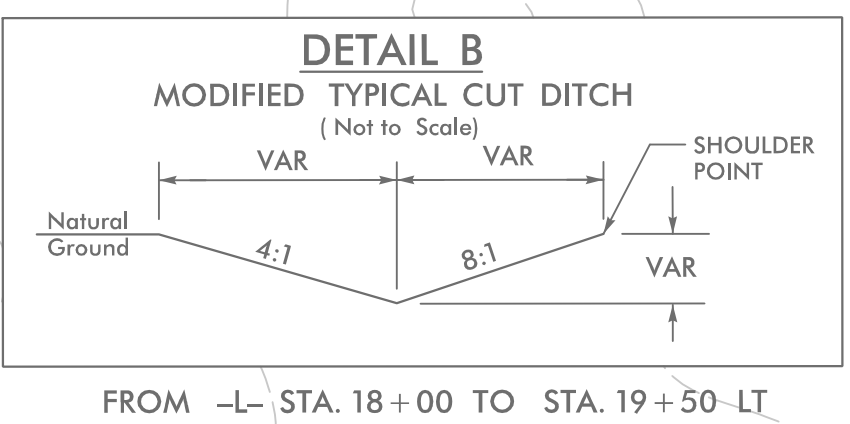
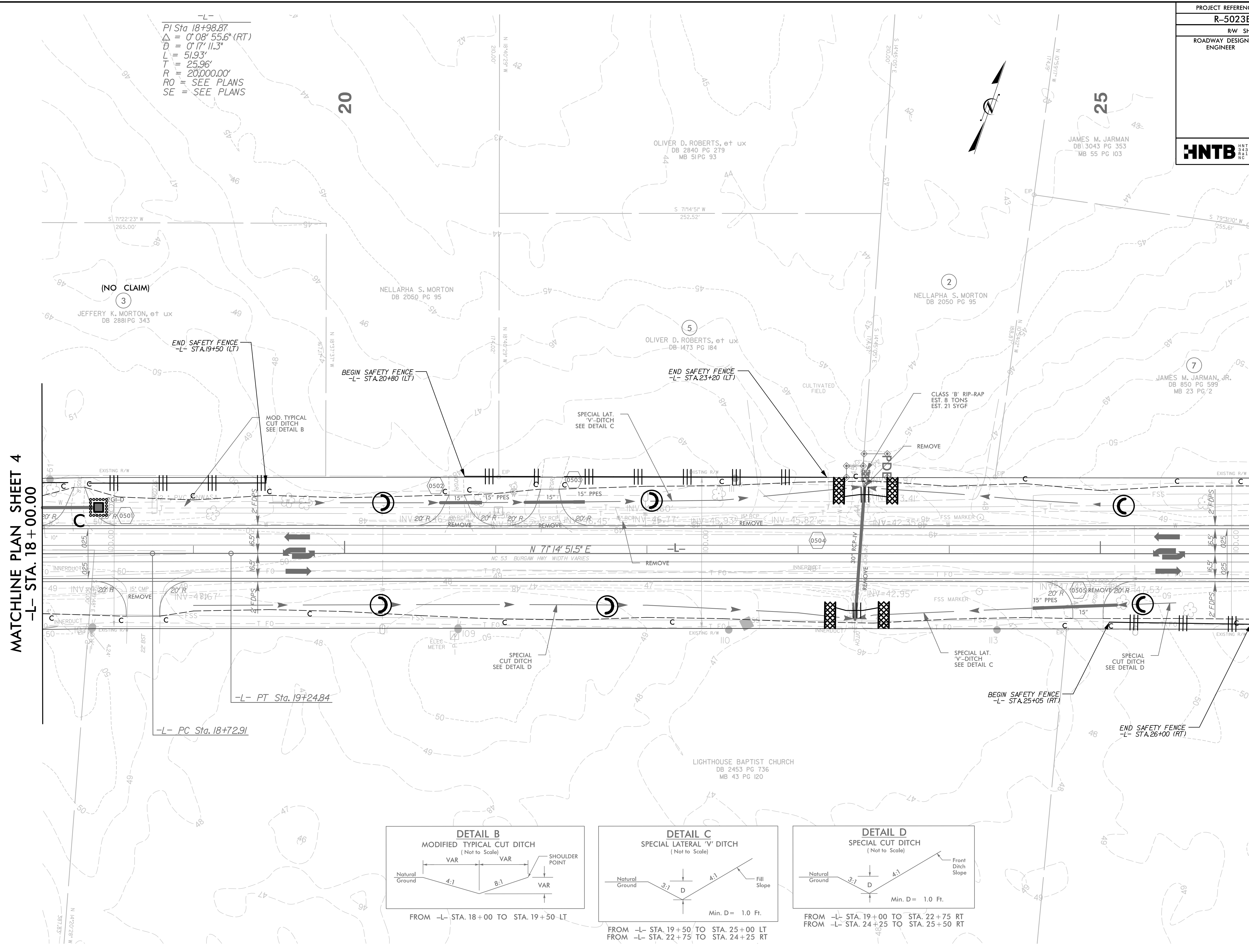
8/17/99

-L-
 PI Sta 18+98.87
 $\Delta = 0^{\circ}08'55.6''$ (RT)
 $D = 0^{\circ}17'11.3''$
 $L = 51.93'$
 $T = 25.96'$
 $R = 20,000.00'$
 RO = SEE PLANS
 SE = SEE PLANS

MATCHLINE PLAN SHEET 4
-L- STA. 18 + 00.00

MATCHLINE PLAN SHEET 6
-L- STA. 26 + 00.00

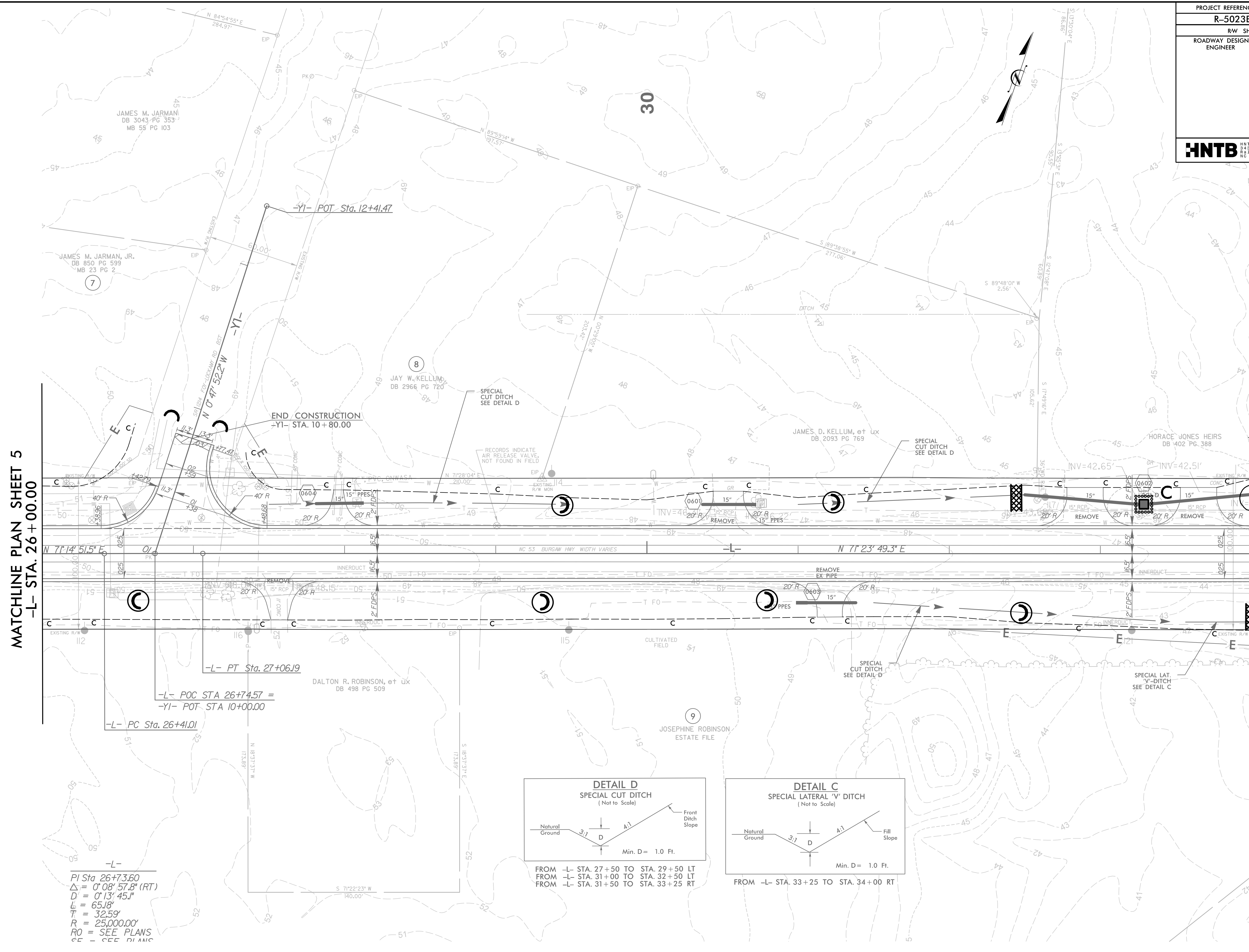
REVISIONS



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 HNTB

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-20/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
<small>HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554</small>	

8/17/99

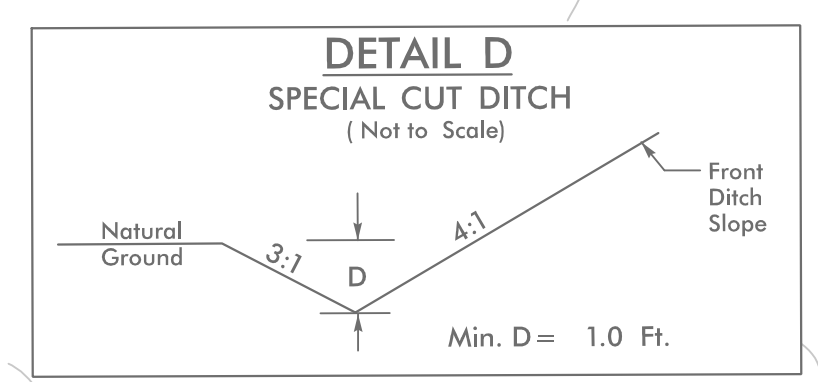


MATCHLINE PLAN SHEET 5
-L- STA. 26+00.00

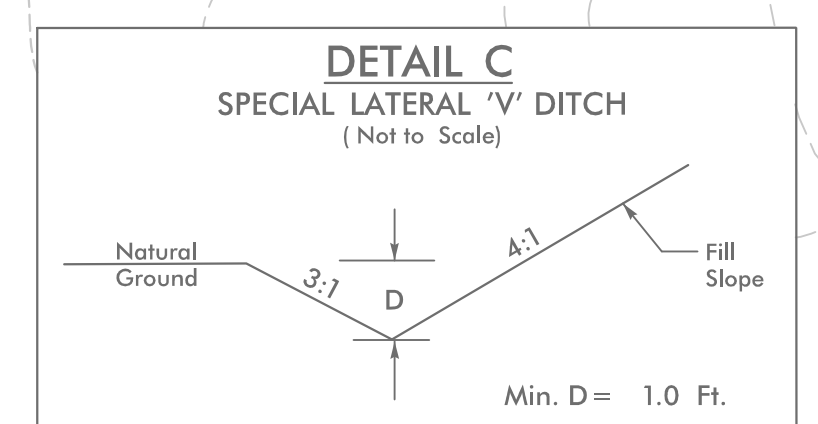
MATCHLINE PLAN SHEET 7
-L- STA. 34+00.00

REVISIONS

-L-
 PI Sta 26+73.60
 $\Delta = 0^{\circ} 08' 57.8''$ (RT)
 $D = 0^{\circ} 13' 45.1''$
 $L = 65.18'$
 $T = 32.59'$
 $R = 25,000.00'$
 RO = SEE PLANS
 SE = SEE PLANS



FROM -L- STA. 27+50 TO STA. 29+50 LT
 FROM -L- STA. 31+00 TO STA. 32+50 LT
 FROM -L- STA. 31+50 TO STA. 33+25 RT



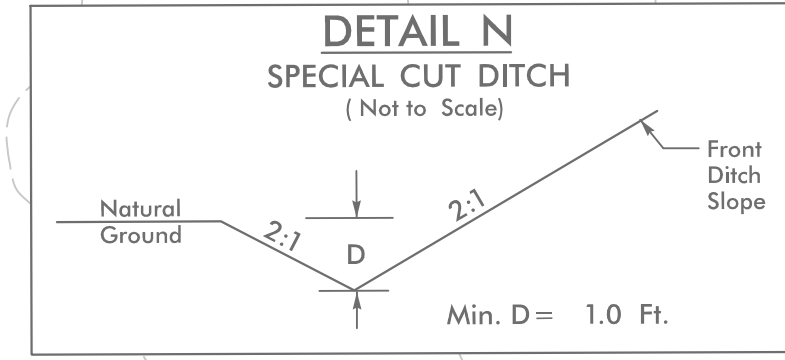
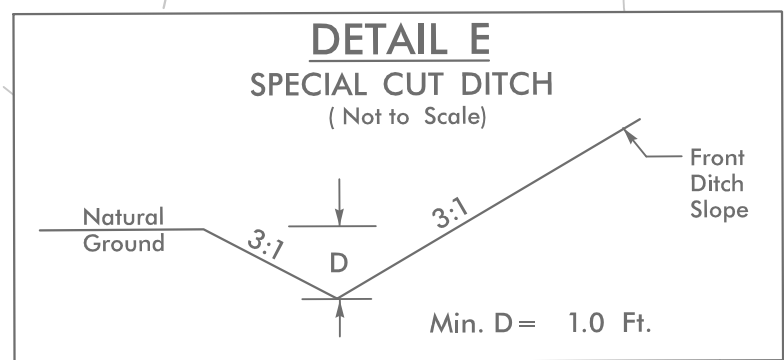
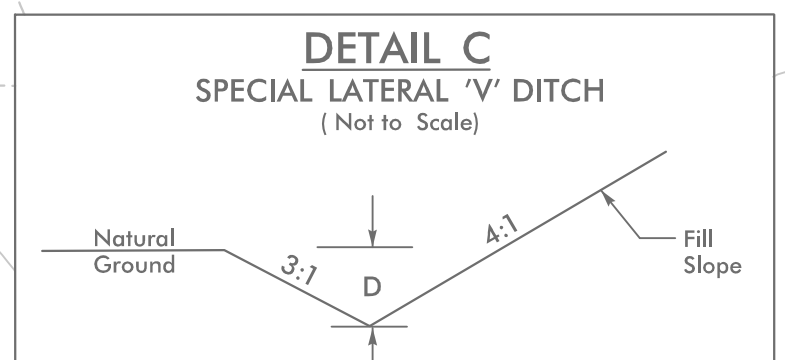
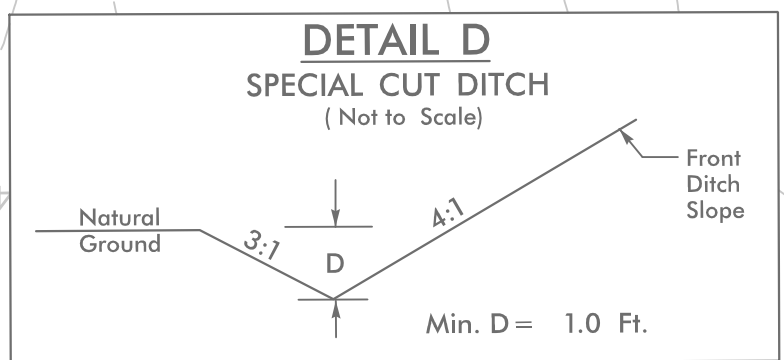
FROM -L- STA. 33+25 TO STA. 34+00 RT

44249.PW
 4/15/02 BC.ec.psh.6.dgn
 HNTB

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-2\CONSTR.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO: C-1554	

$PI\ Sta\ 40+21.47$
 $\Delta = 0^\circ 02' 05.9" (LT)$
 $D = 0' 03' 16.4"$
 $L = 64.07'$
 $T = 32.03'$
 $R = 105,000.00'$
 $RO = SEE\ PLANS$
 $SE = SEE\ PLANS$



FROM -L STA. 34+25 TO STA. 42+00 LT
 FROM -L STA. 35+25 TO STA. 40+00 RT
 FROM -L STA. 41+50 TO STA. 42+00 RT

FROM -L STA. 34+00 TO STA. 35+25 RT

FROM -L STA. 40+00 TO STA. 41+50 RT

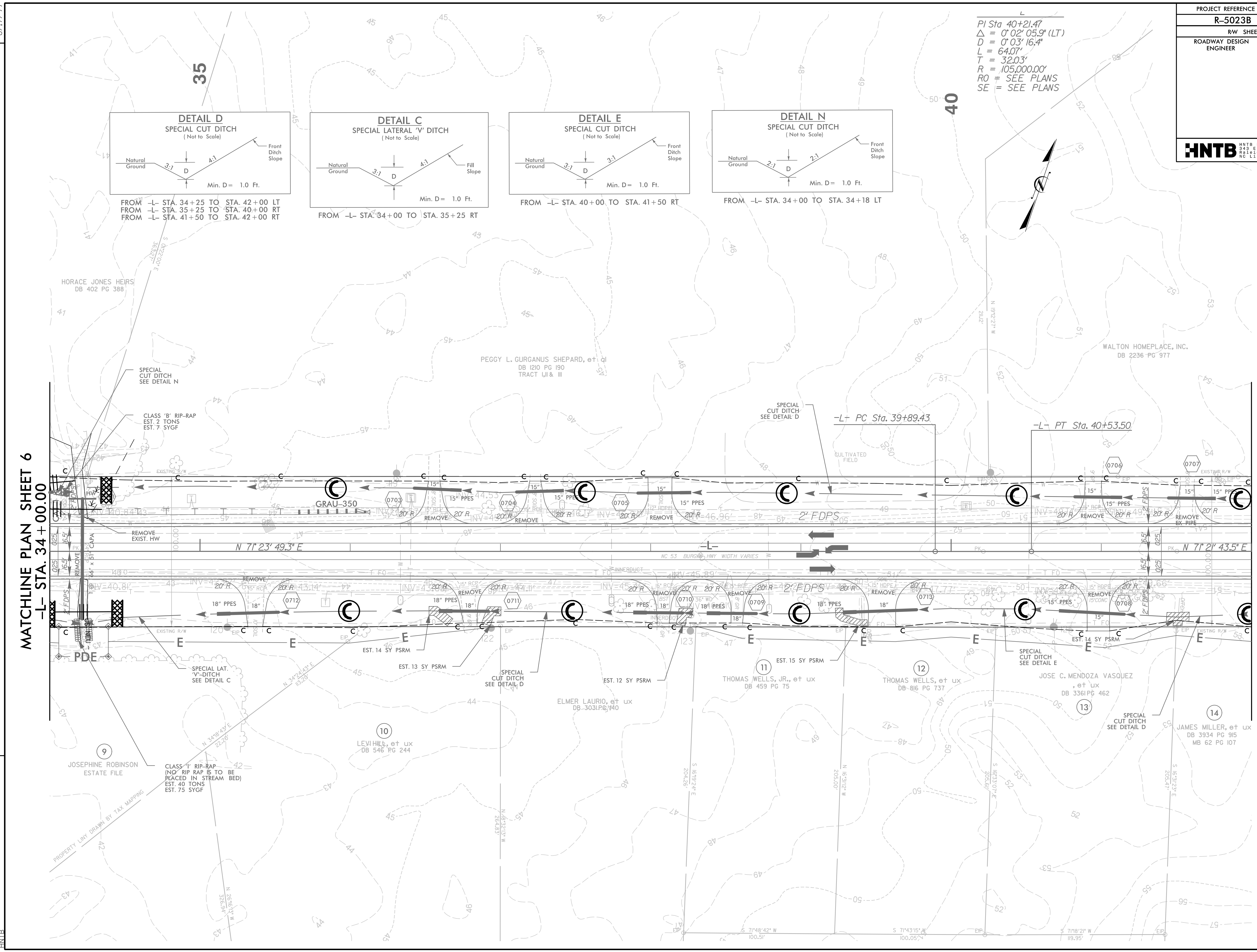
FROM -L STA. 34+00 TO STA. 34+18 LT

MATCHLINE PLAN SHEET 6
 -L- STA. 34+00.00

MATCHLINE PLAN SHEET 8
 -L- STA. 42+00.00

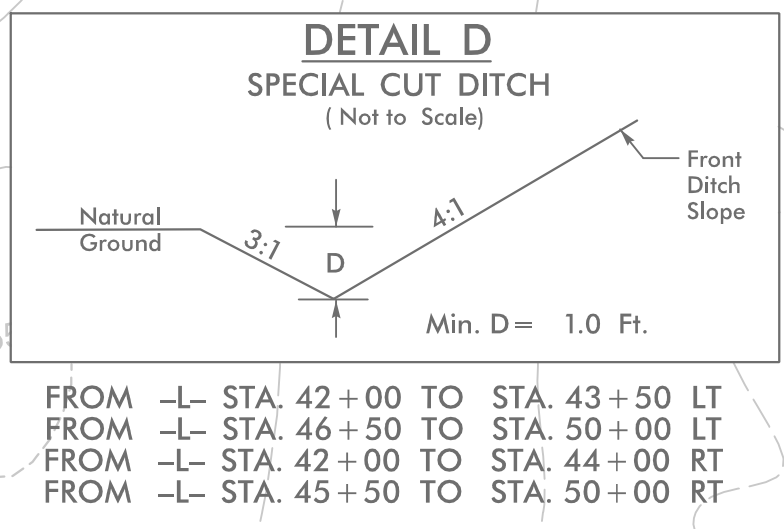
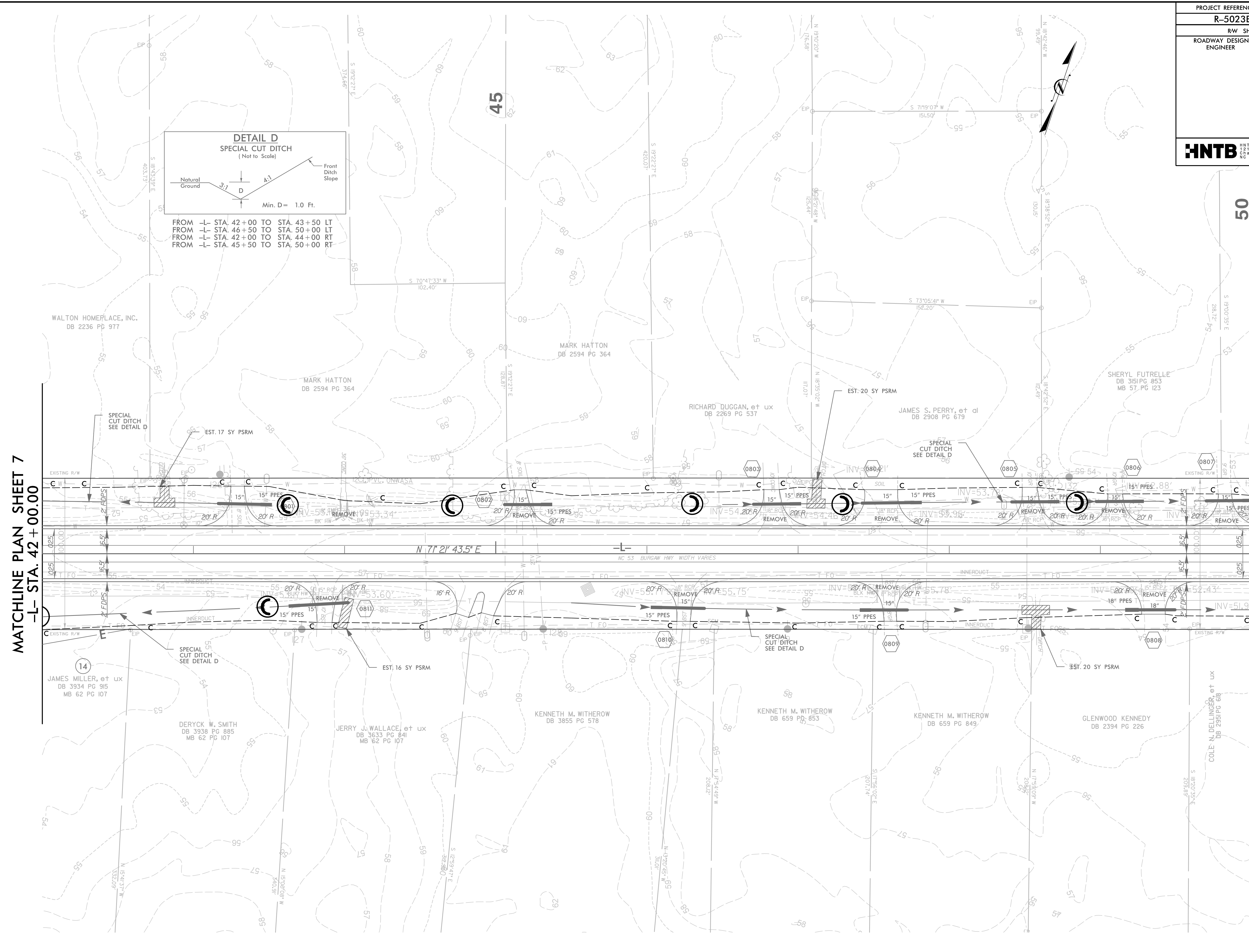
REVISIONS

4/2/05 PM
 R-5023B.ec.psh_7.dgn
 HNTB



PROJECT REFERENCE NO.		SHEET NO.	
R-5023B		EC-22/CONST.8	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
HNTB			
<small>HNTB NORTH CAROLINA, P.C. 121 W. Trade St., Ste 2050 Charlotte, North Carolina 28202 NC License No: C-1854</small>			

8/17/99



REVISIONS

MATCHLINE PLAN SHEET 7
 -L- STA. 42 + 00.00

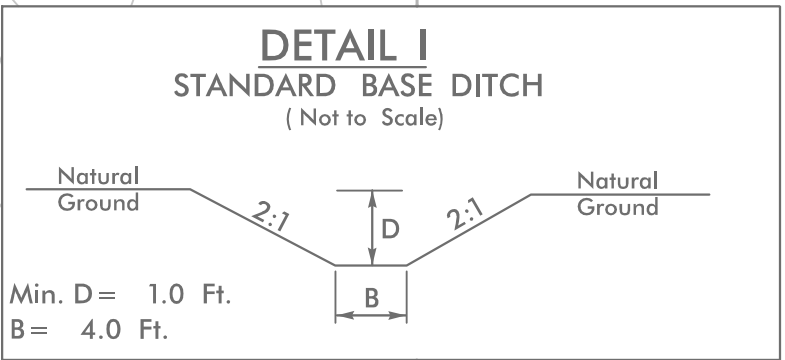
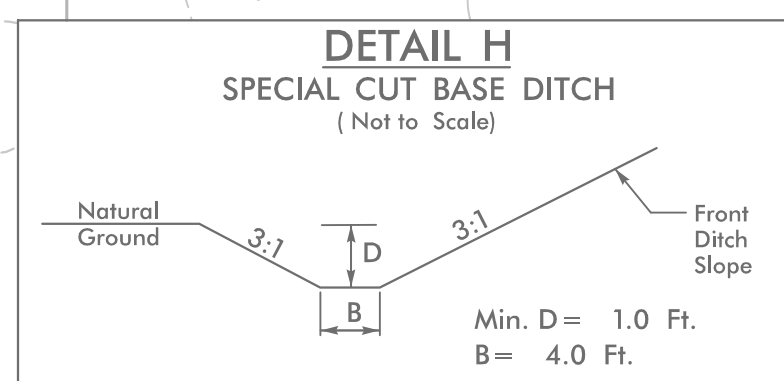
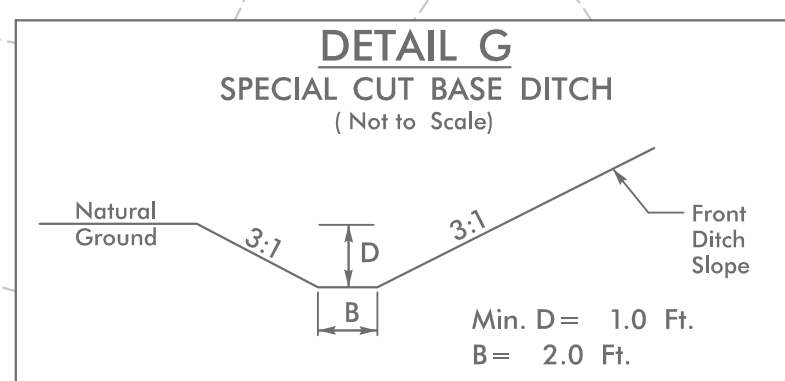
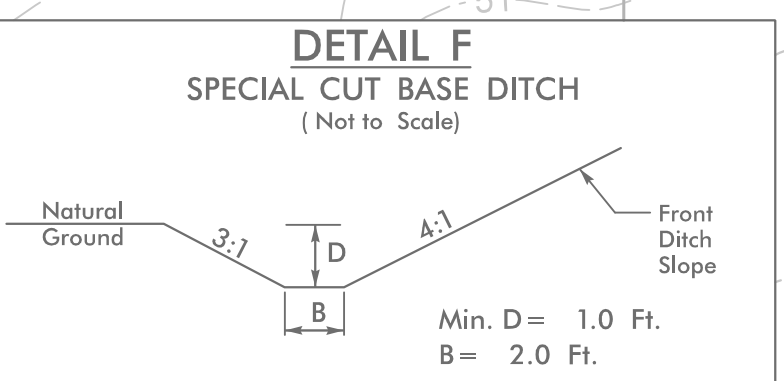
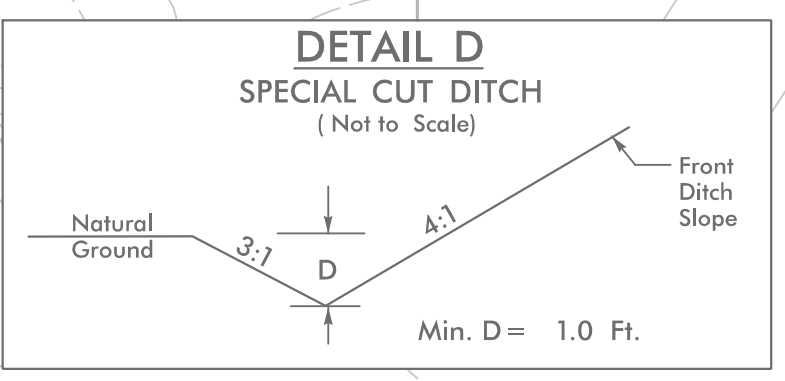
MATCHLINE PLAN SHEET 9
 -L- STA. 50 + 00.00

441312.PW
 8/16/02/BC.ec.psh_8.dgn
 HNTB

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-23/CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO: C-1554	

MATCHLINE PLAN SHEET 8
-L- STA. 50 + 00.00

MATCHLINE PLAN SHEET 10
-L- STA. 58 + 00.00



FROM -L- STA. 50+00 TO STA. 57+00 LT
FROM -L- STA. 50+00 TO STA. 53+00 RT
FROM -Y2- STA 11+00 TO STA. 13+00 RT

FROM -L- STA. 53+00 TO STA. 54+50 RT
FROM -L- STA. 57+00 TO STA. 57+50 RT

FROM -L- STA. 54+50 TO STA. 56+58 RT

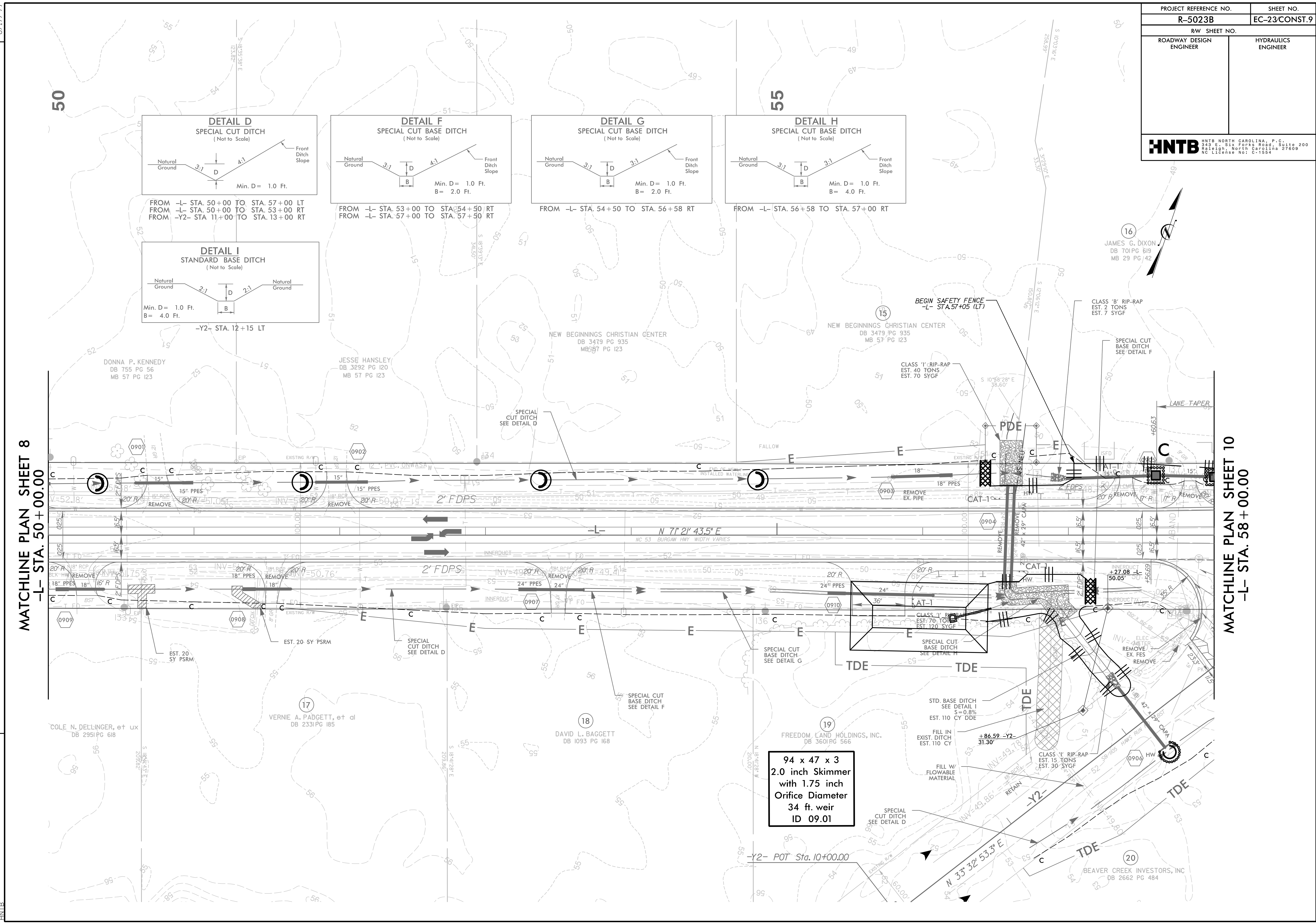
FROM -L- STA. 56+58 TO STA. 57+00 RT

-Y2- STA. 12 + 15 LT

94 x 47 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
34 ft. weir
ID 09.01

REVISIONS

7:20:34 AM
C:\projects\230230\ec_psh_9.dgn
HNTB

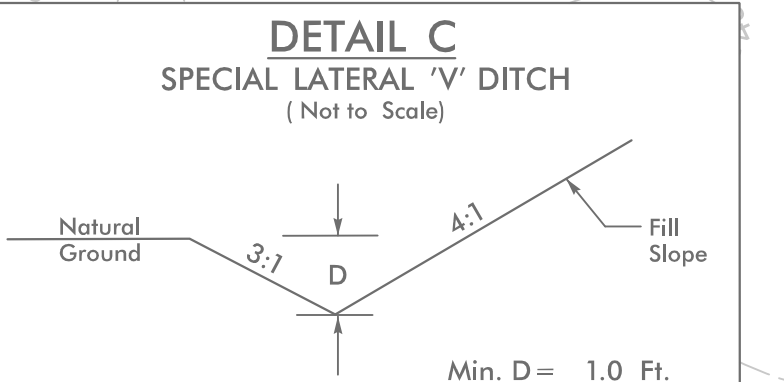
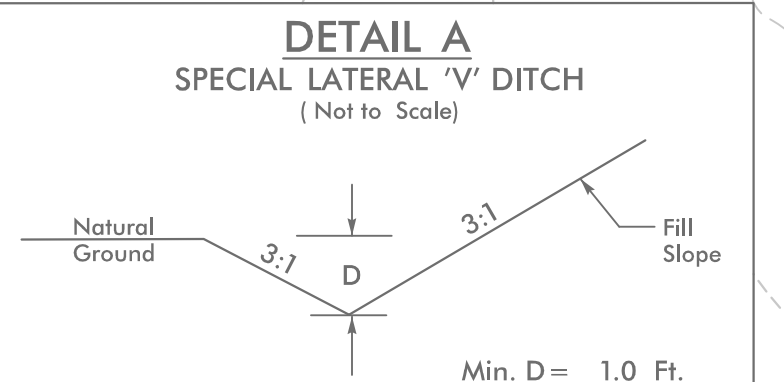
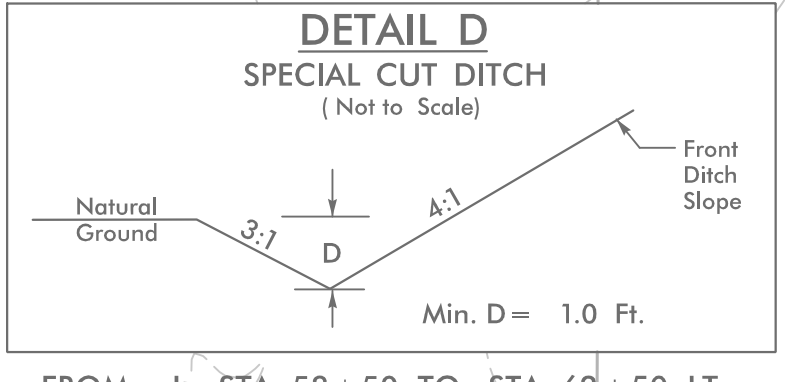
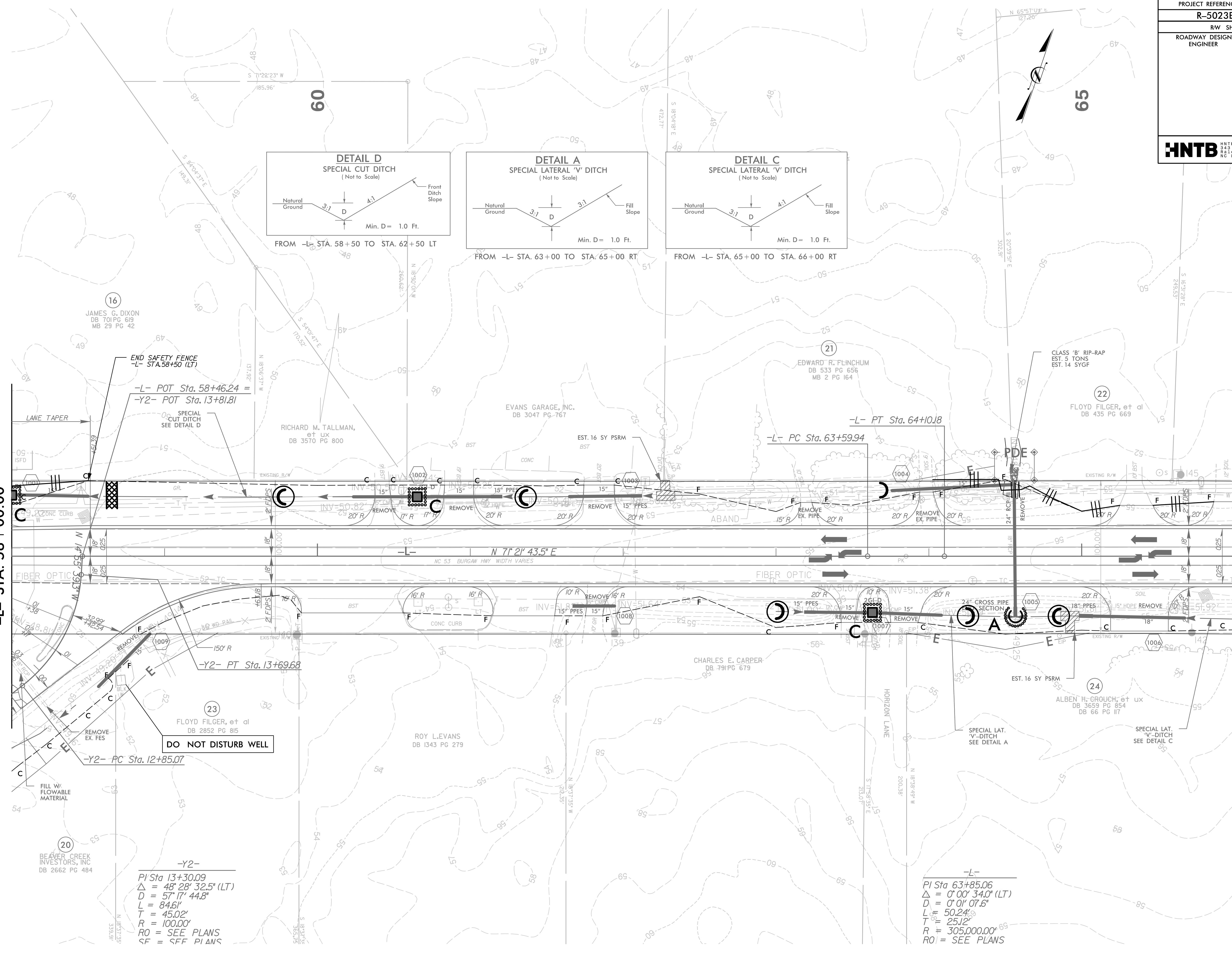


8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-24/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
<small>HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO: C-1554</small>	

MATCHLINE PLAN SHEET 9
-L- STA. 58 + 00.00

MATCHLINE PLAN SHEET 10
-L- STA. 66 + 00.00



FROM -L- STA. 58+50 TO STA. 62+50 LT

FROM -L- STA. 63+00 TO STA. 65+00 RT

FROM -L- STA. 65+00 TO STA. 66+00 RT

-Y2-
 PI Sta 13+30.09
 $\Delta = 48^\circ 28' 32.5''$ (LT)
 $D = 57' 17'' 44.8''$
 $L = 84.6'$
 $T = 45.02'$
 $R = 100.00'$
 RO = SEE PLANS
 SF = SFF PLANS

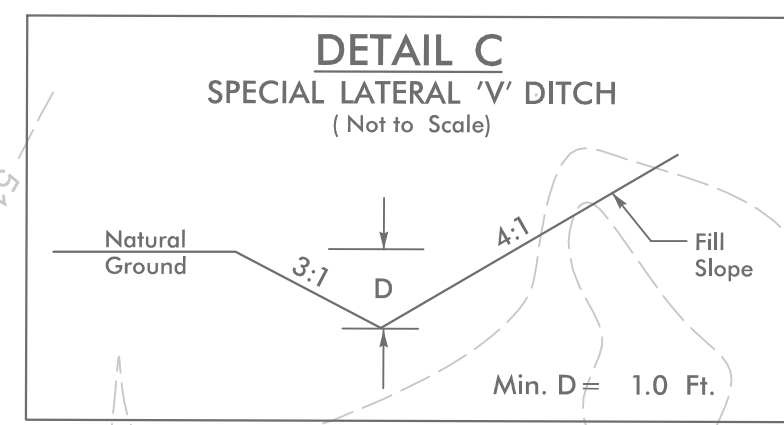
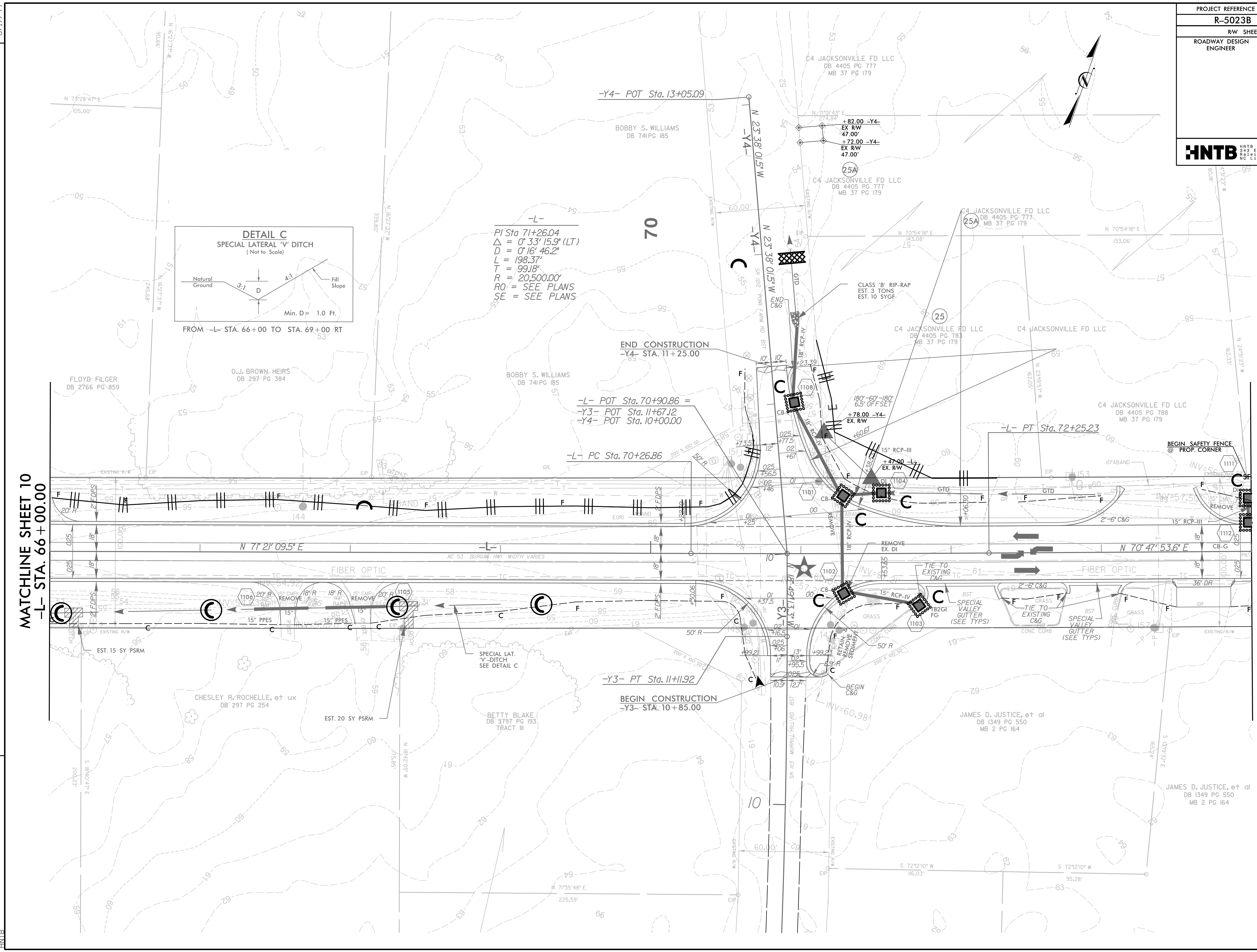
-L-
 PI Sta 63+85.06
 $\Delta = 0^\circ 00' 34.0''$ (LT)
 $D = 0^\circ 01' 07.6''$
 $L = 50.24'$
 $T = 25.12'$
 $R = 305,000.00'$
 RO = SEE PLANS

REVISIONS

8/17/99

4/14/05 PM
 R-5023B.ec.psh_10.dgn
 HNTB

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-25/CONST.11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
<small>HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 LICENSE NO. 0-1954</small>	



-L-
 PI Sta 71+26.04
 $\Delta = 0^\circ 33' 15.9''$ (LT)
 $D = 0' 16' 46.2''$
 $L = 198.37'$
 $T = 99.18'$
 $R = 20,500.00'$
 RO' = SEE PLANS
 SE = SEE PLANS

MATCHLINE SHEET 10
-L- STA. 66+00.00

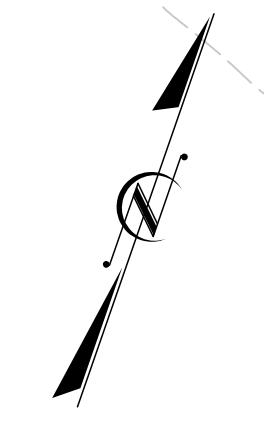
MATCHLINE SHEET 12
-L- STA. 74+00.00

REVISIONS

44141.dwg
 R-5023B.ec.psh_11.dgn
 8/17/99

PROJECT REFERENCE NO.		SHEET NO.	
R-5023B		EC-26/CONST.12	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
HNTB			
HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO: C-1554			

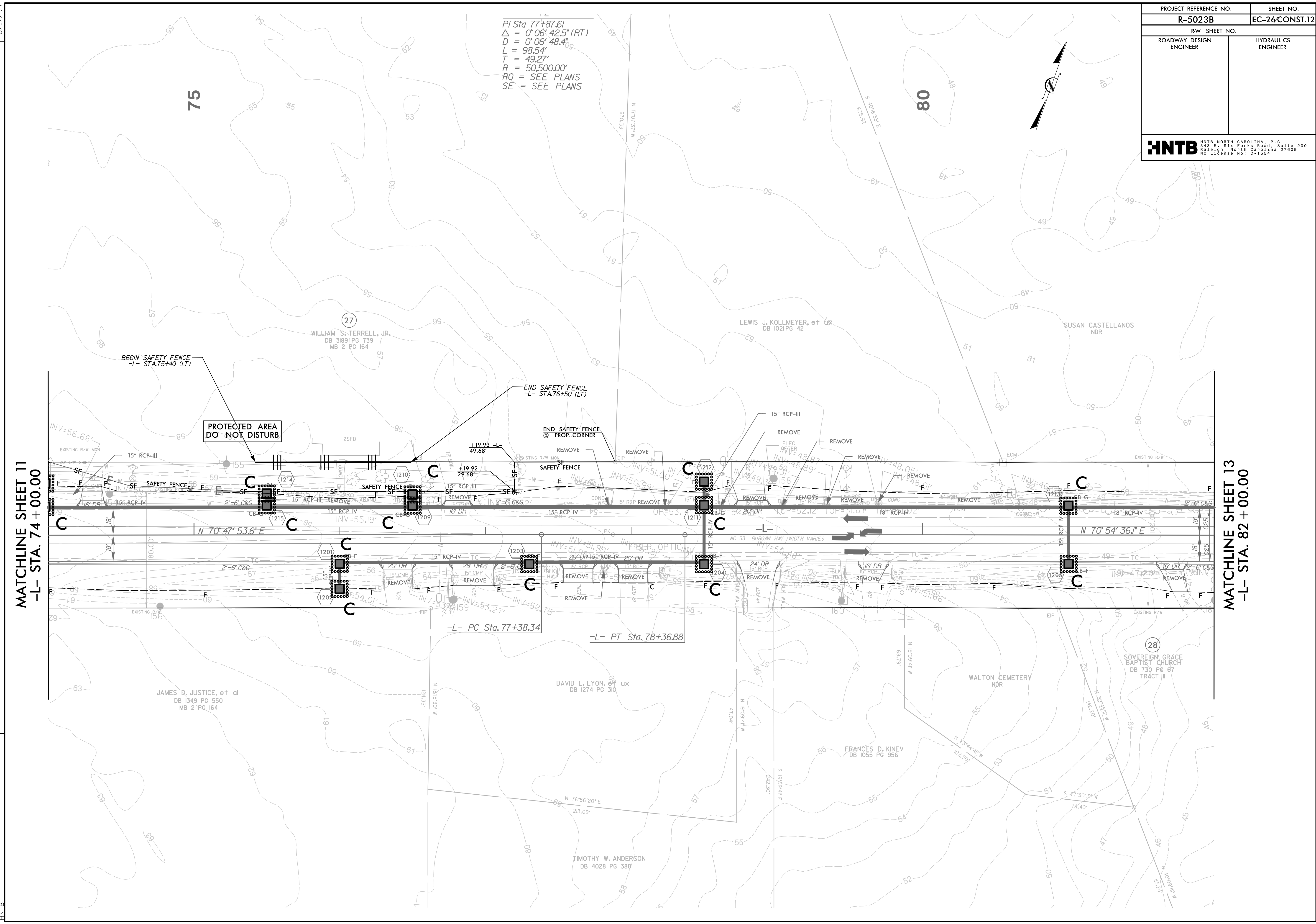
PI Sta 77+87.61
 $\Delta = 0^{\circ} 06' 42.5''$ (RT)
 $D = 0^{\circ} 06' 48.4''$
 $L = 98.54'$
 $T = 49.27'$
 $R = 50,500.00'$
 RO = SEE PLANS
 SE = SEE PLANS

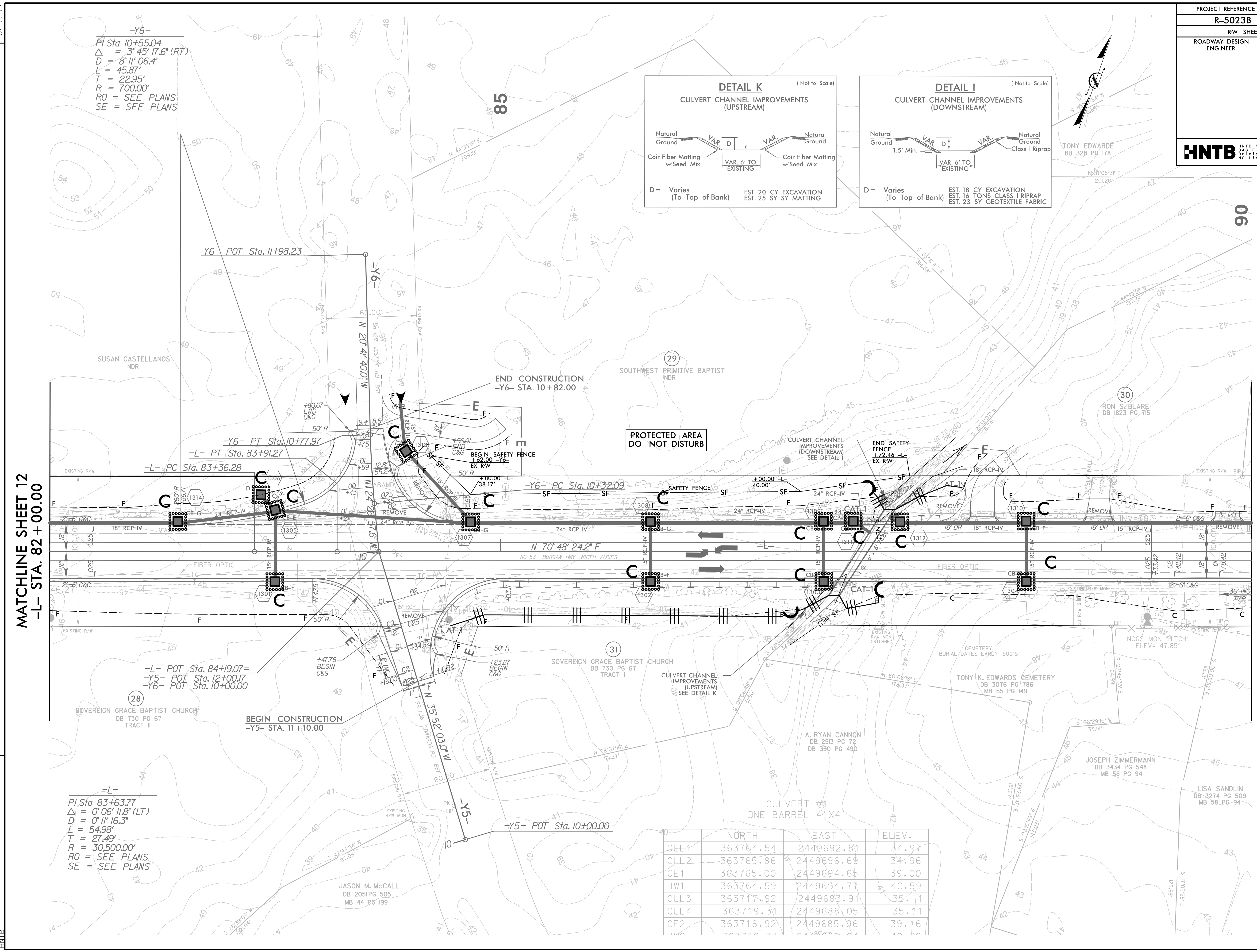


REVISIONS

MATCHLINE SHEET 11
 -L- STA. 74 + 00.00

MATCHLINE SHEET 13
 -L- STA. 82 + 00.00





-Y6-
PI Sta 10+55.04
Δ = 3° 45' 17.6" (RT)
D = 8' 11" 06.4"
L = 45.87'
T = 22.95'
R = 700.00'
RO = SEE PLANS
SE = SEE PLANS

-L- POT Sta. 84+19.07=
-Y5- POT Sta. 12+00.17
-Y6- POT Sta. 10+00.00

-L-
PI Sta 83+63.77
Δ = 0° 06' 11.8" (LT)
D = 0' 11" 16.3"
L = 54.98'
T = 27.49'
R = 30,500.00'
RO = SEE PLANS
SE = SEE PLANS

JASON M. McCALL
DB 2051 PG 505
MB 44 PG 199

TONY EDUARDE
DB 328 PG 178

RON S. BLARE
DB 1823 PG 715

SOVEREIGN GRACE BAPTIST CHURCH
DB 730 PG 67
TRACT I

TONY K. EDWARDS CEMETERY
DB 3076 PG 786
MB 55 PG 149

JOSEPH ZIMMERMANN
DB 3434 PG 548
MB 58 PG 94

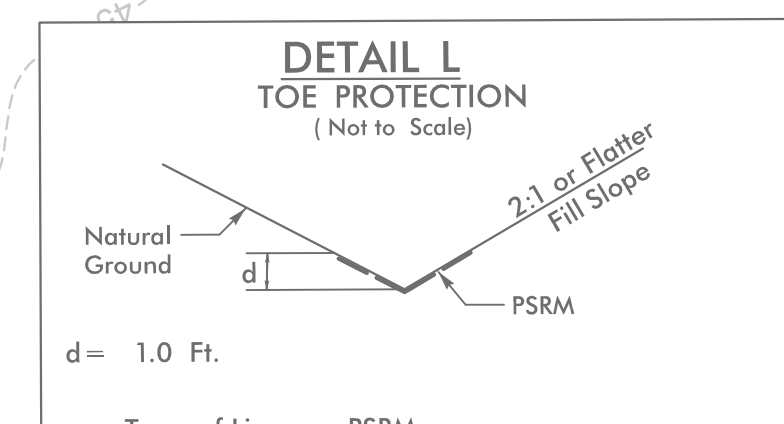
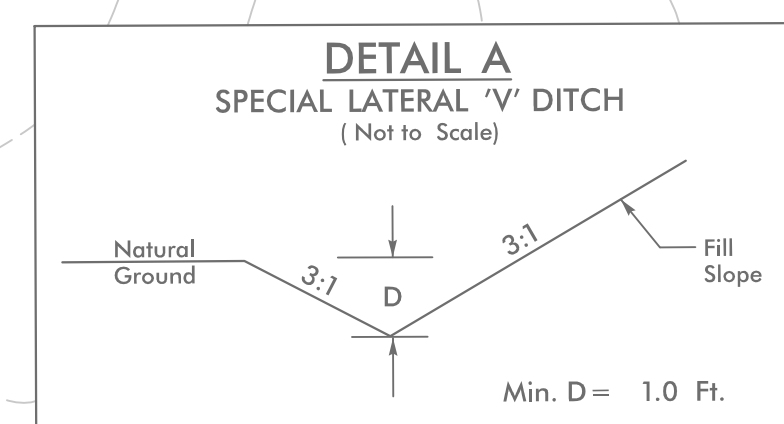
LISA SANDLIN
DB 3274 PG 509
MB 58 PG 94

8/17/99

4/15/97, PM
R-5023B.ec.psh_13.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-28/CONST.14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
<small>HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554</small>	

$PI\ Sta\ 92+90.02$
 $\Delta = 3^\circ 11' 20.1" (LT)$
 $D = 0^\circ 40' 26.6"$
 $L = 473.09'$
 $T = 236.60'$
 $R = 8,500.00'$
 $RO = SEE\ PLANS$
 $SE = SEE\ PLANS$



FROM -L- STA. 92+20 TO STA. 95+00 RT

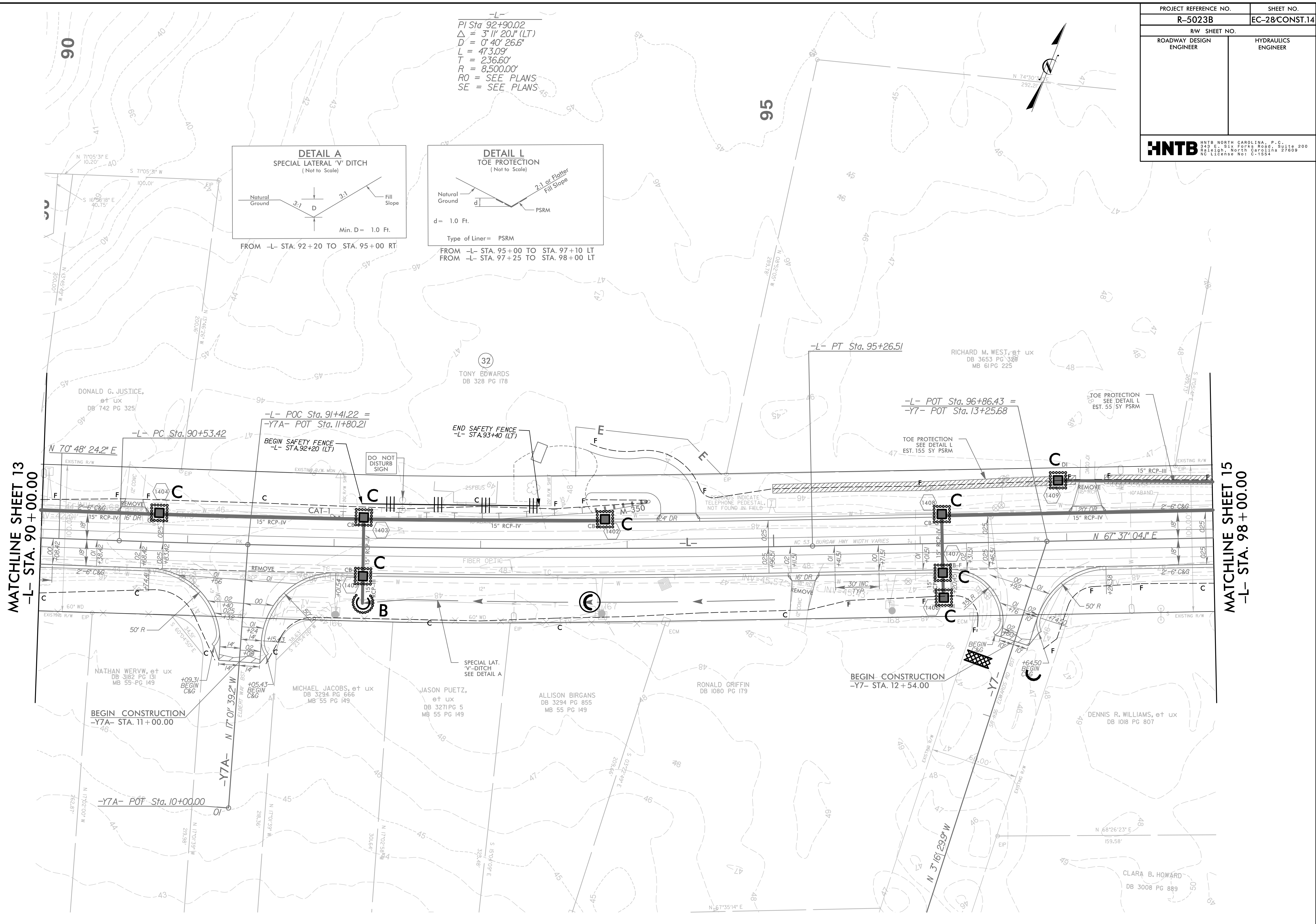
FROM -L- STA. 95+00 TO STA. 97+10 LT
FROM -L- STA. 97+25 TO STA. 98+00 LT

MATCHLINE SHEET 13
-L- STA. 90+00.00

MATCHLINE SHEET 15
-L- STA. 98+00.00

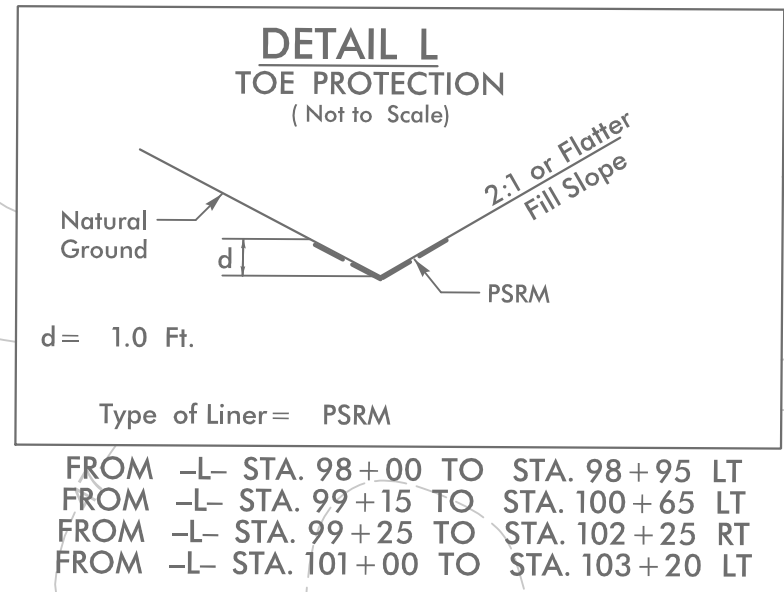
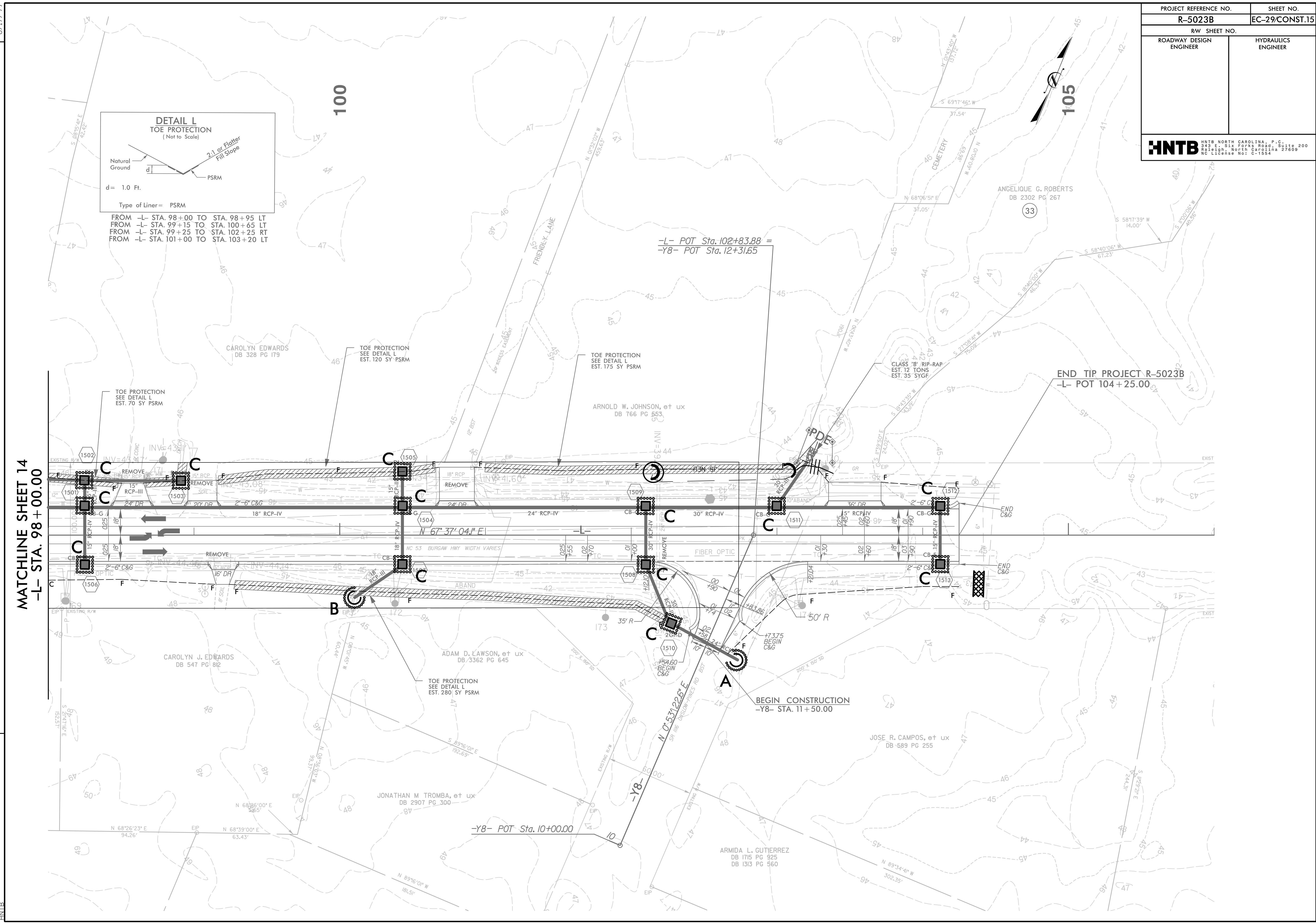
REVISIONS

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R-5023B.ec.psh_14.dgn
HNTB



8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-29/CONST.15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
<small>HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO: C-1554</small>	



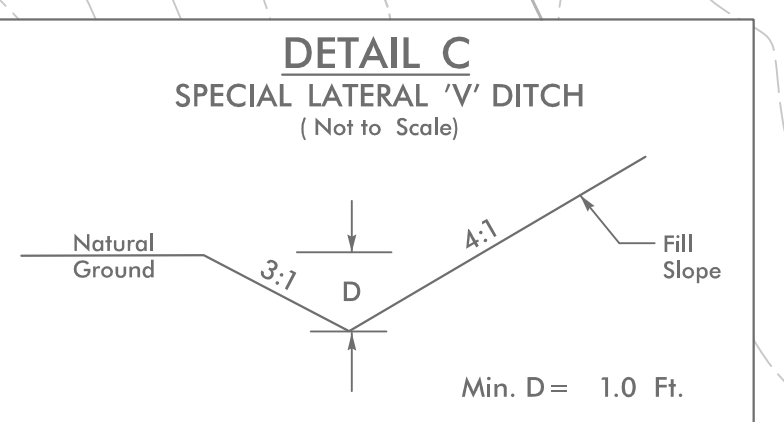
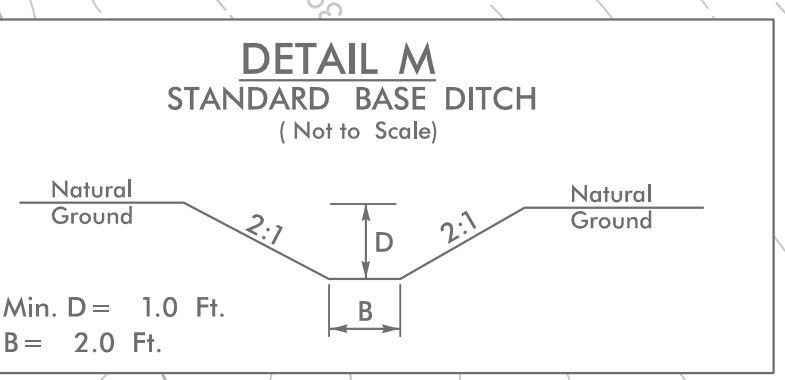
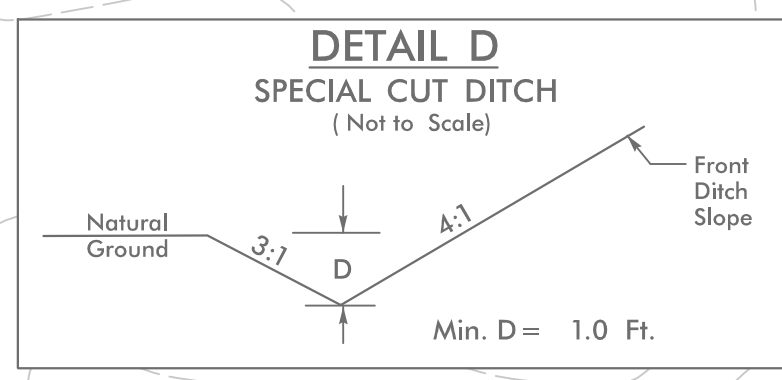
REVISIONS

8/17/99

4/16/21 BY: [unclear]
 4/16/21 EC: [unclear]
 HNTB

PROJECT REFERENCE NO.	SHEET NO.
R-5023B	EC-30/CONST.16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB	
HNTB NORTH CAROLINA, P.C. 343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO. C-1554	

$PI\ Sta\ 19+84.23$
 $\Delta = 26^{\circ}59'05.5" (LT)$
 $D = 1'23"48.4"$
 $L = 1,931.94'$
 $T = 984.23'$
 $R = 4,102.00'$
 RO = SEE PLANS
 SE = SEE PLANS



FROM -L1- STA. 15+00 TO STA. 18+00 LT
 FROM -Y9- STA. 12+50 TO STA. 15+00 LT
 FROM -Y9- STA. 13+00 TO STA. 15+00 RT

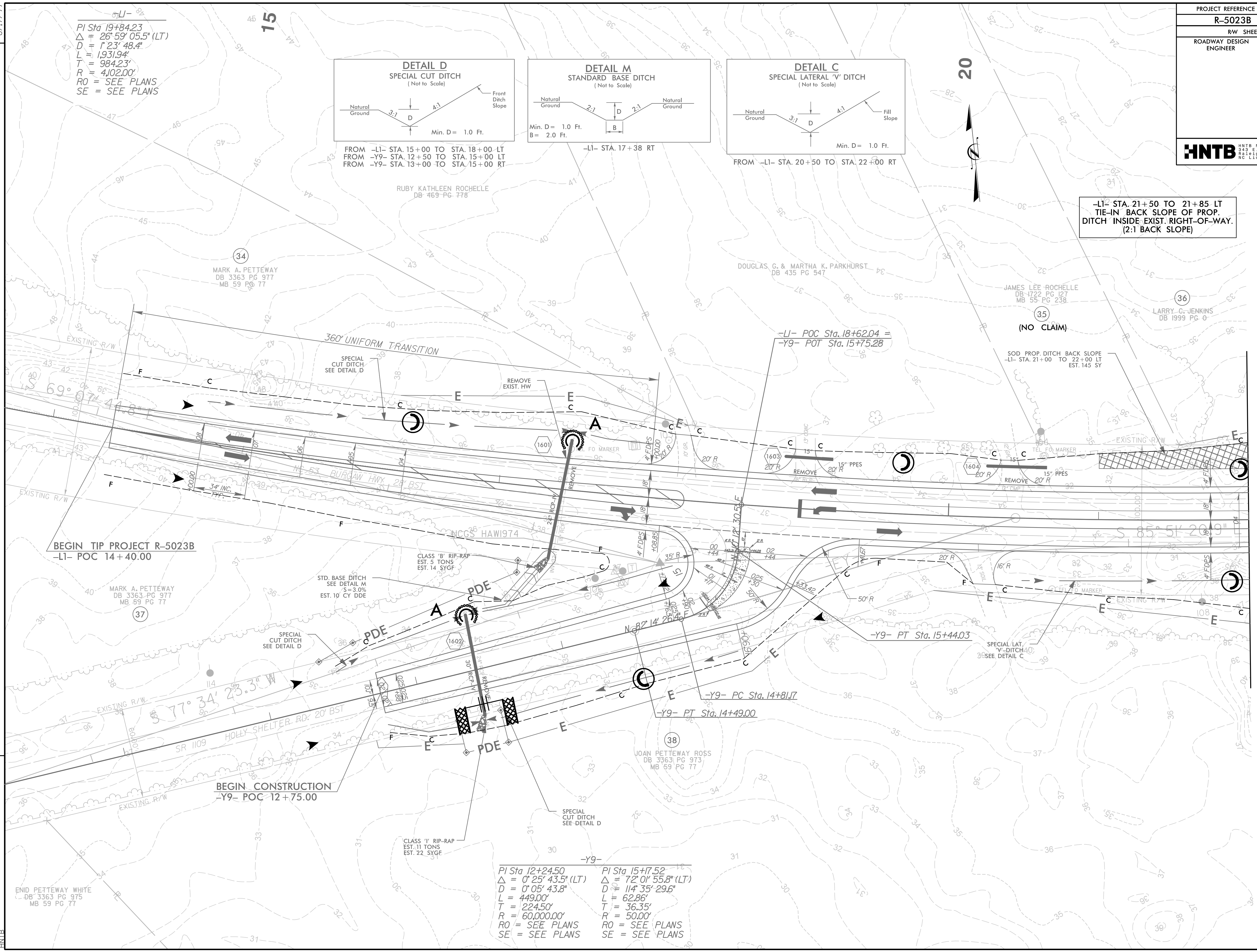
-L1- STA. 17+38 RT

FROM -L1- STA. 20+50 TO STA. 22+00 RT

-L1- STA. 21+50 TO 21+85 LT
 TIE-IN BACK SLOPE OF PROP.
 DITCH INSIDE EXIST. RIGHT-OF-WAY.
 (2:1 BACK SLOPE)

REVISIONS

MATCHLINE PLAN SHEET 17
-L1- STA. 22+00.00



BEGIN TIP PROJECT R-5023B
-L1- POC 14+40.00

BEGIN CONSTRUCTION
-Y9- POC 12+75.00

$PI\ Sta\ 12+24.50$
 $\Delta = 0^{\circ}25'43.5" (LT)$
 $D = 0^{\circ}05'43.8"$
 $L = 449.00'$
 $T = 224.50'$
 $R = 60,000.00'$
 RO = SEE PLANS
 SE = SEE PLANS

$PI\ Sta\ 15+17.52$
 $\Delta = 72^{\circ}01'55.8" (LT)$
 $D = 114^{\circ}35'29.6"$
 $L = 62.86'$
 $T = 36.35'$
 $R = 50.00'$
 RO = SEE PLANS
 SE = SEE PLANS

4/16/17, PM
R-5023B-C.ec.psh_16.dgn
HNTB

ENID PETTEWAY WHITE
DB 3363 PG 975
MB 59 PG 77

MARK A. PETTEWAY
DB 3363 PG 977
MB 59 PG 77

MARK A. PETTEWAY
DB 3363 PG 977
MB 59 PG 77

RUBY KATHLEEN ROCHELLE
DB 469 PG 778

DOUGLAS G. & MARTHA K. PARKHURST
DB 435 PG 547

JAMES LEE ROCHELLE
DB 1722 PG 127
MB 55 PG 238

LARRY C. JENKINS
DB 1999 PG 8

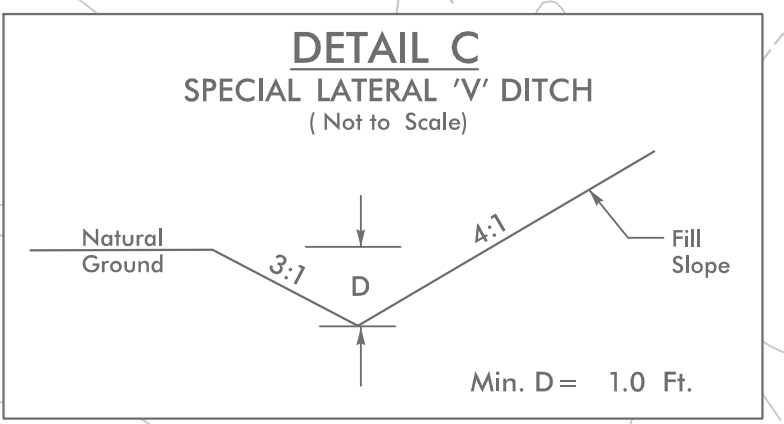
JOAN PETTEWAY ROSS
DB 3363 PG 973
MB 59 PG 77

8/17/99

8/17/99

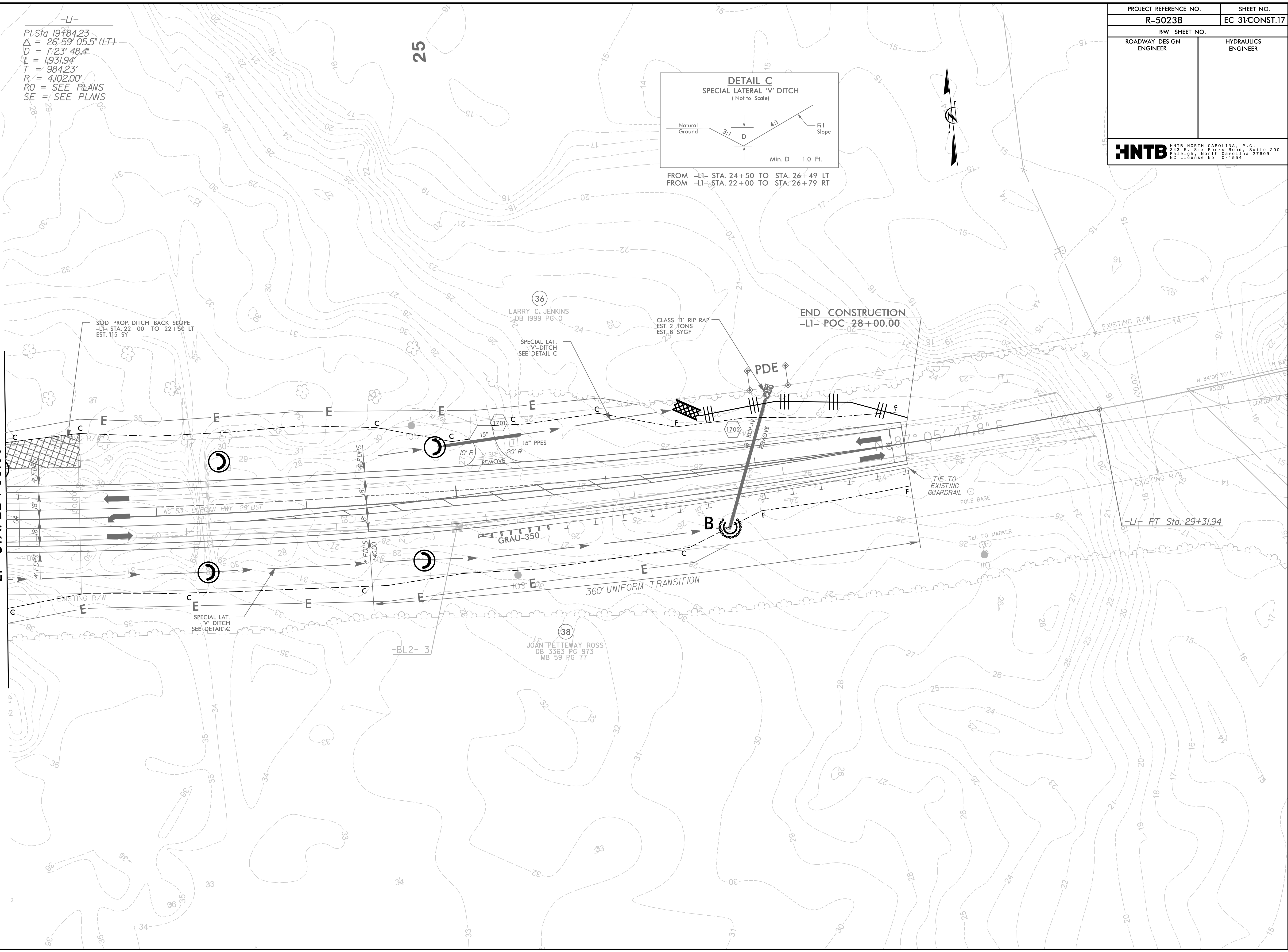
-L1-
 PI Sta 19+84.23
 $\Delta = 26^{\circ}59'05.5"$ (LT)
 $D = 1'23'48.4"$
 $L = 1,931.94'$
 $T = 984.23'$
 $R = 4,102.00'$
 RO = SEE PLANS
 SE = SEE PLANS

PROJECT REFERENCE NO. R-5023B	SHEET NO. EC-31/CONST.17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
HNTB HNTB NORTH CAROLINA, P.C. <small>343 E. SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609 NC LICENSE NO. C-1554</small>	



FROM -L1- STA. 24+50 TO STA. 26+49 LT
 FROM -L1- STA. 22+00 TO STA. 26+79 RT

MATCHLINE PLAN SHEET 16
 -L1- STA. 22+00.00



REVISIONS

44742.PW
 R-5023B.ec.psh_17.dgn
 HNTB