

TIP PROJECT: W-4704

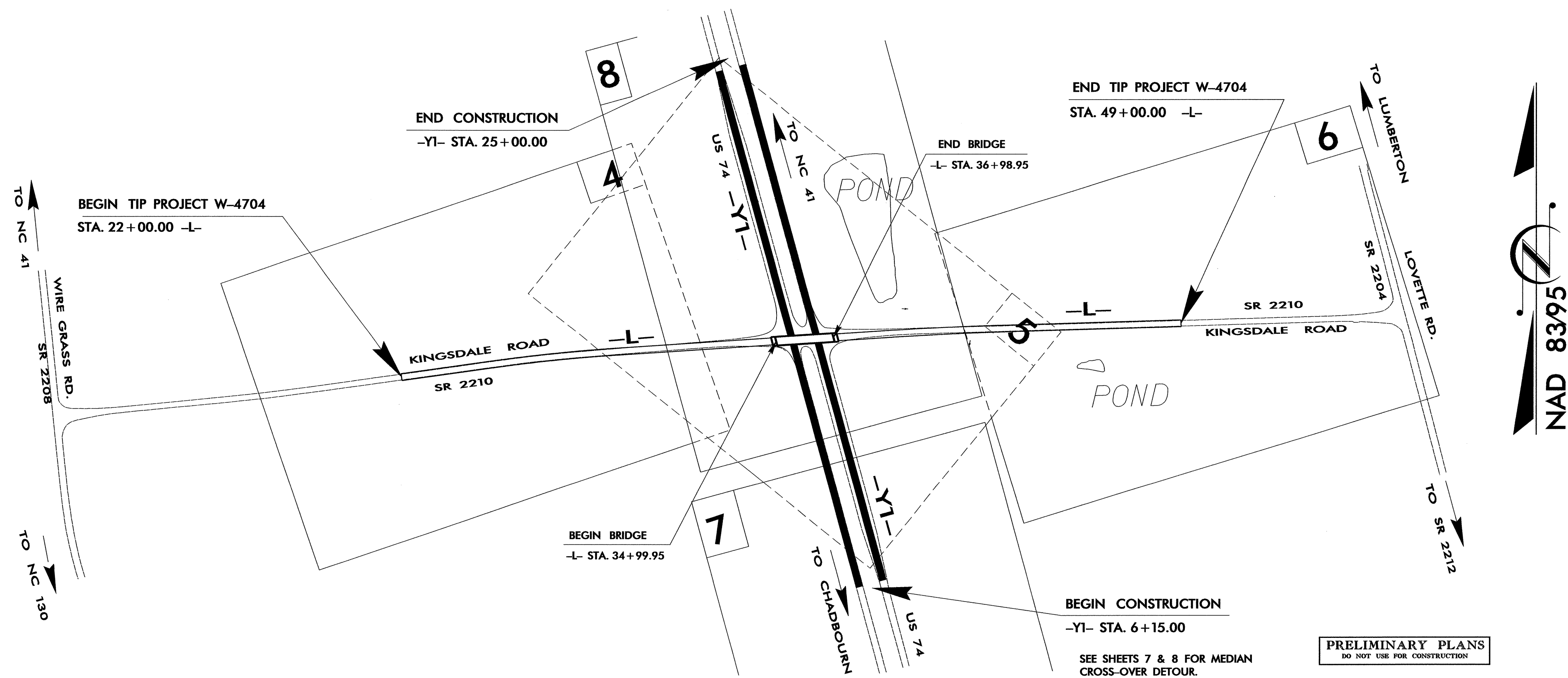
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

ROBESON COUNTY

**LOCATION: BRIDGE OVER US 74 AT SR 2210
(OLD KINGSDALE RD)**

**TYPE OF WORK: GRADING, DRAINAGE, GUARDRAIL
STRUCTURE, AND PAVING**



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|-----------------------------|-------------|--------------|
| N.C. | W-4704 | EC-1 | |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
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EROSION AND SEDIMENT CONTROL MEASURES

| Std. # | Description | Symbol |
|---------------------------|--------------------------------------|-------------|
| 1630.03 | Temporary Silt Ditch | TD |
| 1630.05 | Temporary Diversion | TD |
| 1605.01 | Temporary Silt Fence | III III III |
| 1606.01 | Special Sediment Control Fence | III III III |
| 1622.01 | Temporary Berms and Slope Drains | — T — |
| 1630.01 | Riser Basin | ⊙ |
| | Silt Basin Type B | ▨ |
| 1633.01 | Temporary Rock Silt Check Type-A | ▨ |
| | Temporary Rock Silt Check Type-B | ▨ |
| | Wattle | — |
| 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.**

GRAPHIC SCALE

0
PLANS

0
PROFILE (HORIZONTAL)

0
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Prepared In the Office of:
ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611

2006 STANDARD SPECIFICATIONS

Roadway Standard Drawings

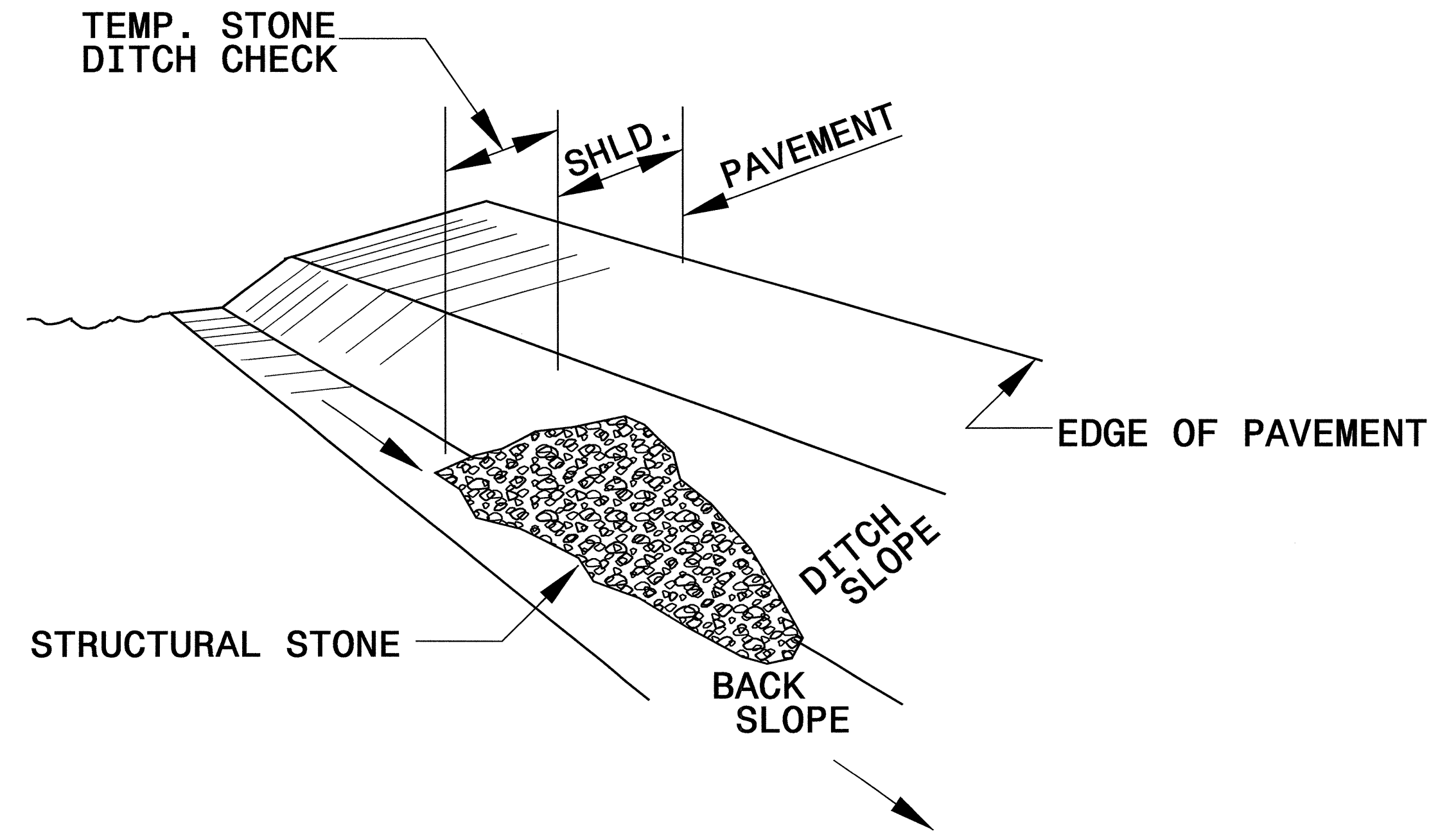
The following roadway english standards as appear in "Roadway Standard Drawings"— Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

| | |
|--|--|
| 1605.01 Temporary Silt Fence | 1632.02 Rock Inlet Sediment Trap Type B |
| 1607.01 Gravel Construction Entrance | 1632.03 Rock Inlet Sediment Trap Type C |
| 1622.01 Temporary Berms and Slope Drains | 1633.01 Temporary Rock Silt Check Type A |
| 1630.03 Temporary Silt Ditch | 1634.01 Temporary Rock Sediment Dam Type B |
| 1630.05 Temporary Diversion | 1635.02 Rock Pipe Inlet Sediment Trap Type B |

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AT REV 23/01/08

| | |
|-------------------------|---------------------|
| PROJECT REFERENCE NO. | SHEET NO. |
| W-4704 | EC-2 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

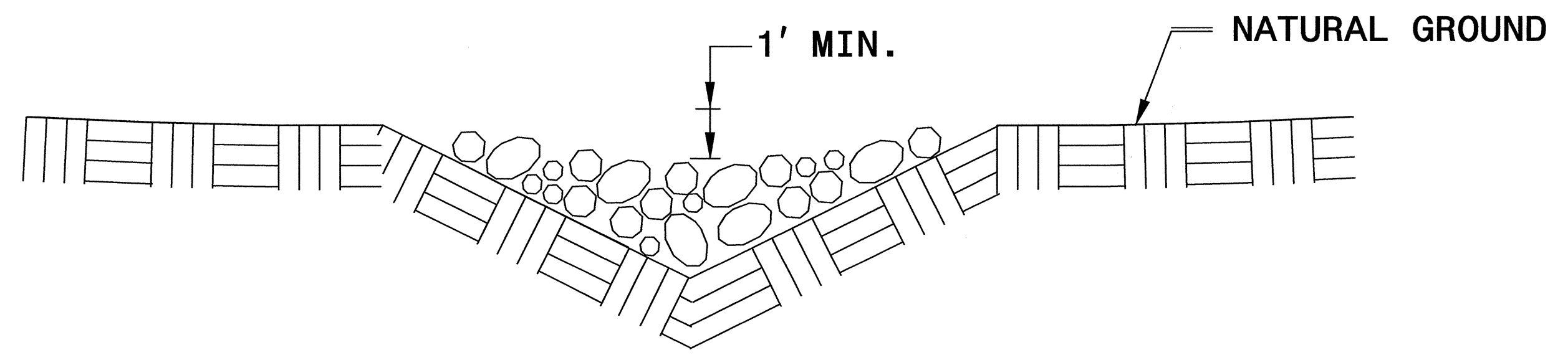


ISOMETRIC VIEW

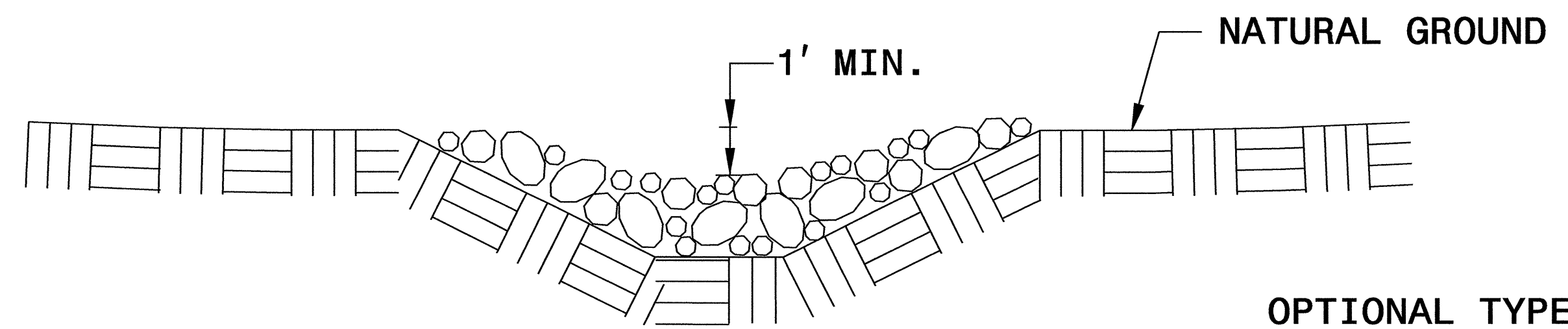
NOTES:

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

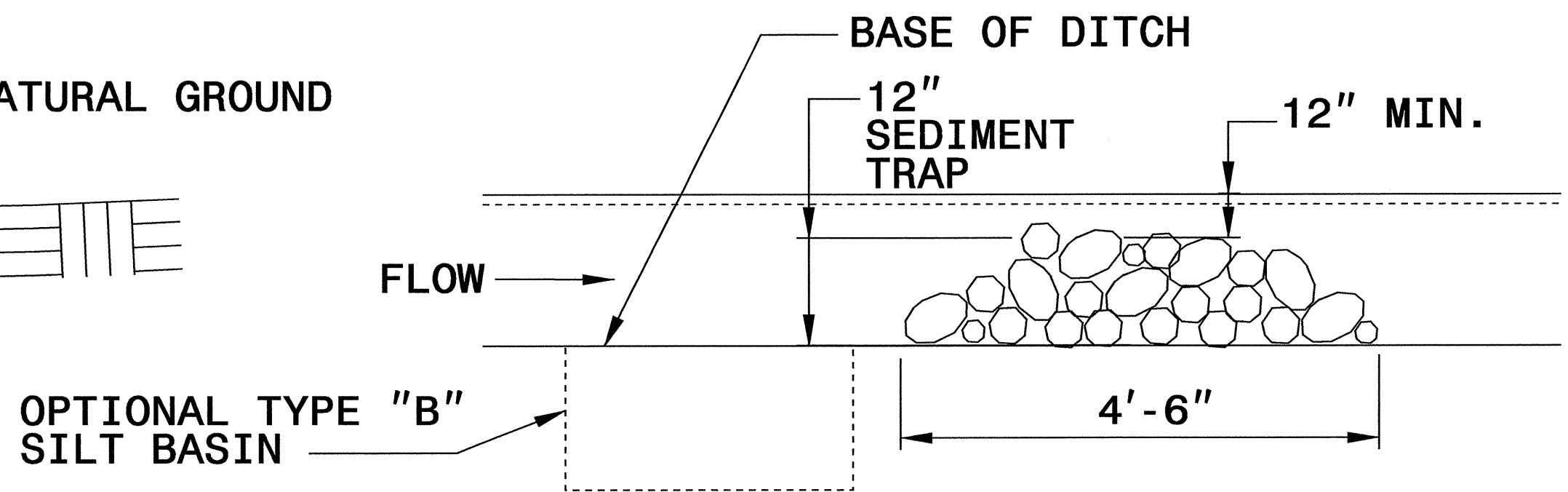
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

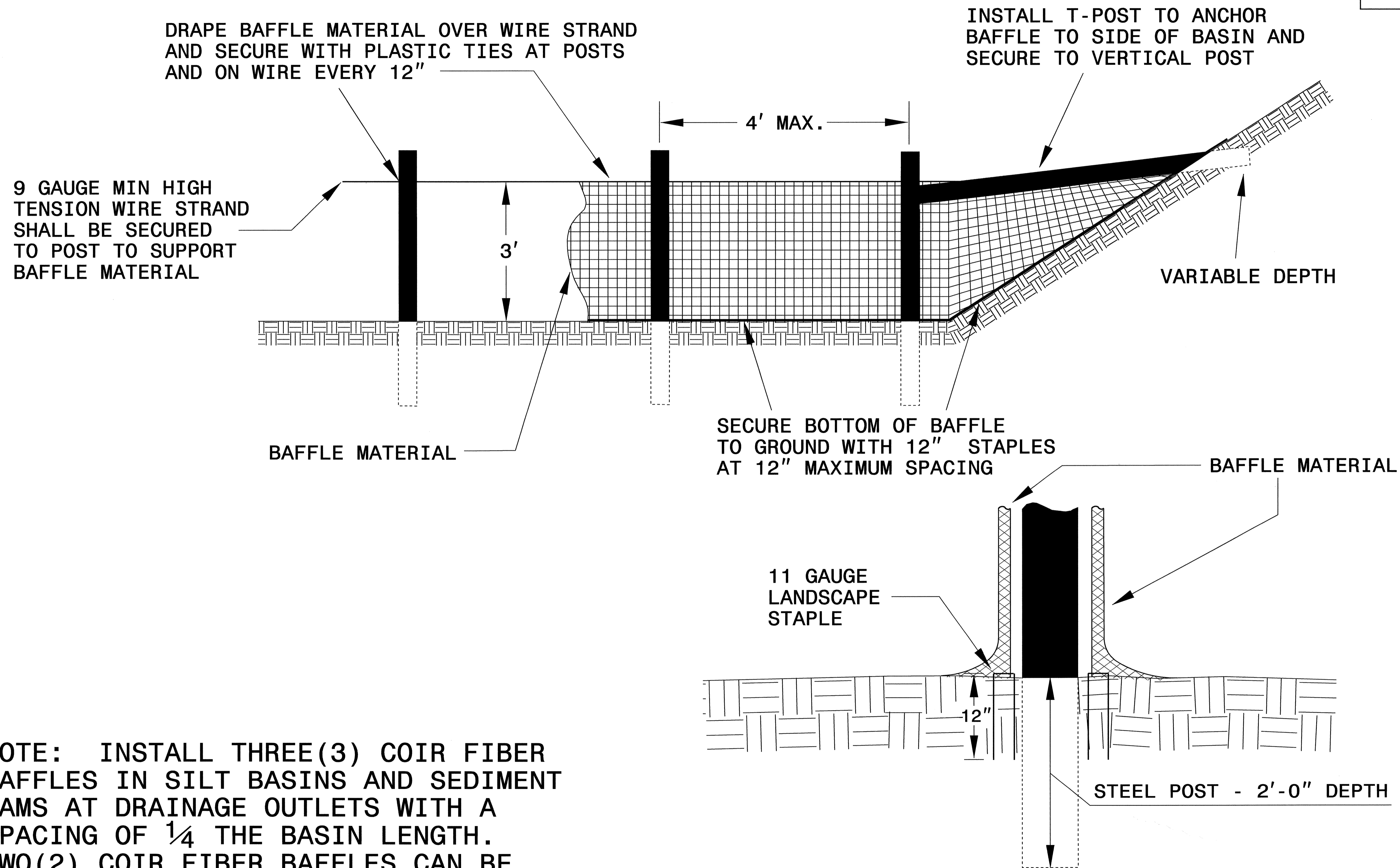


ELEVATION VIEW

OPTIONAL TYPE "B" SILT BASIN

| | |
|---------------------------------|------------------------|
| PROJECT REFERENCE NO. W-4704 | SHEET NO. EC-2A |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

COIR FIBER BAFFLE DETAIL

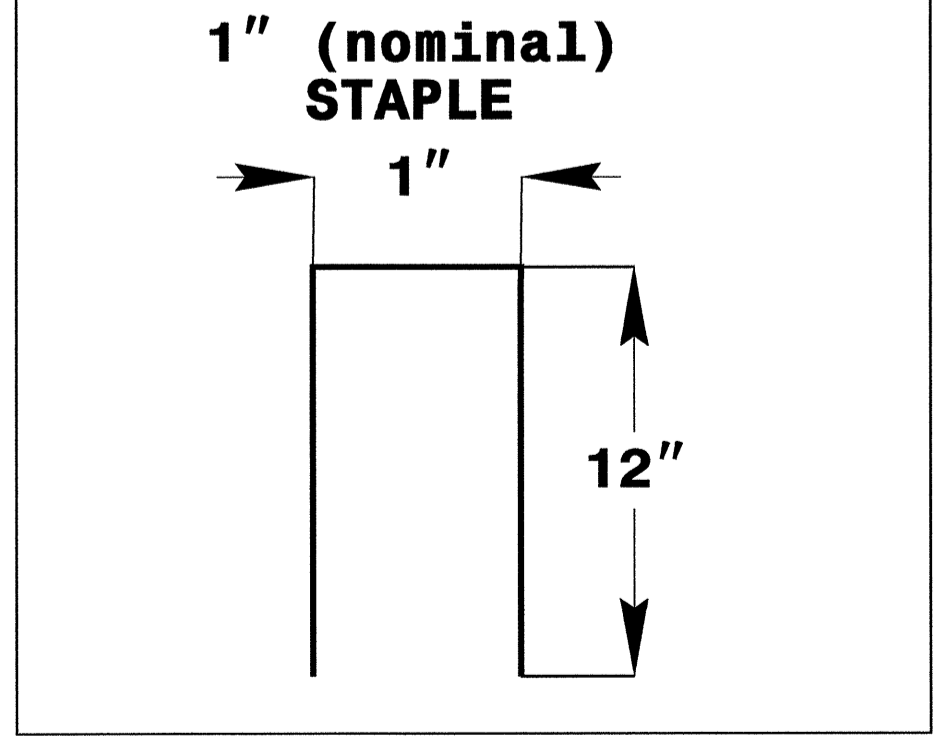
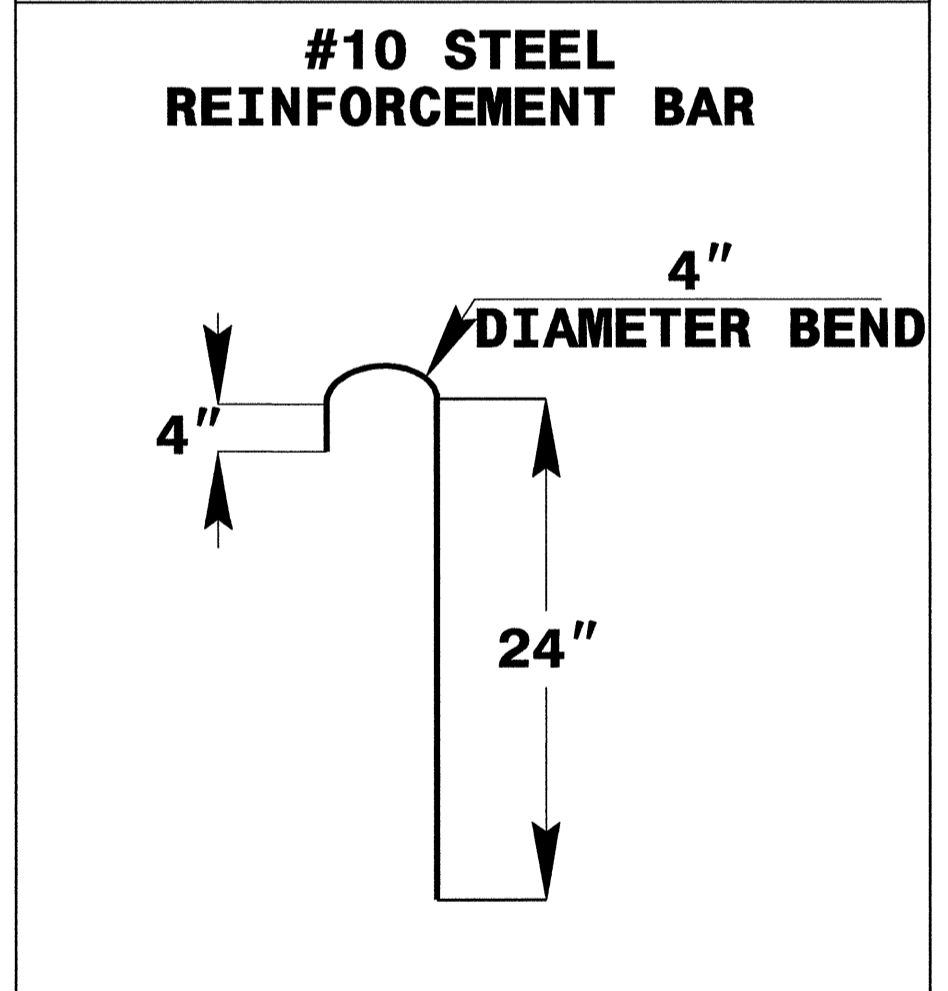
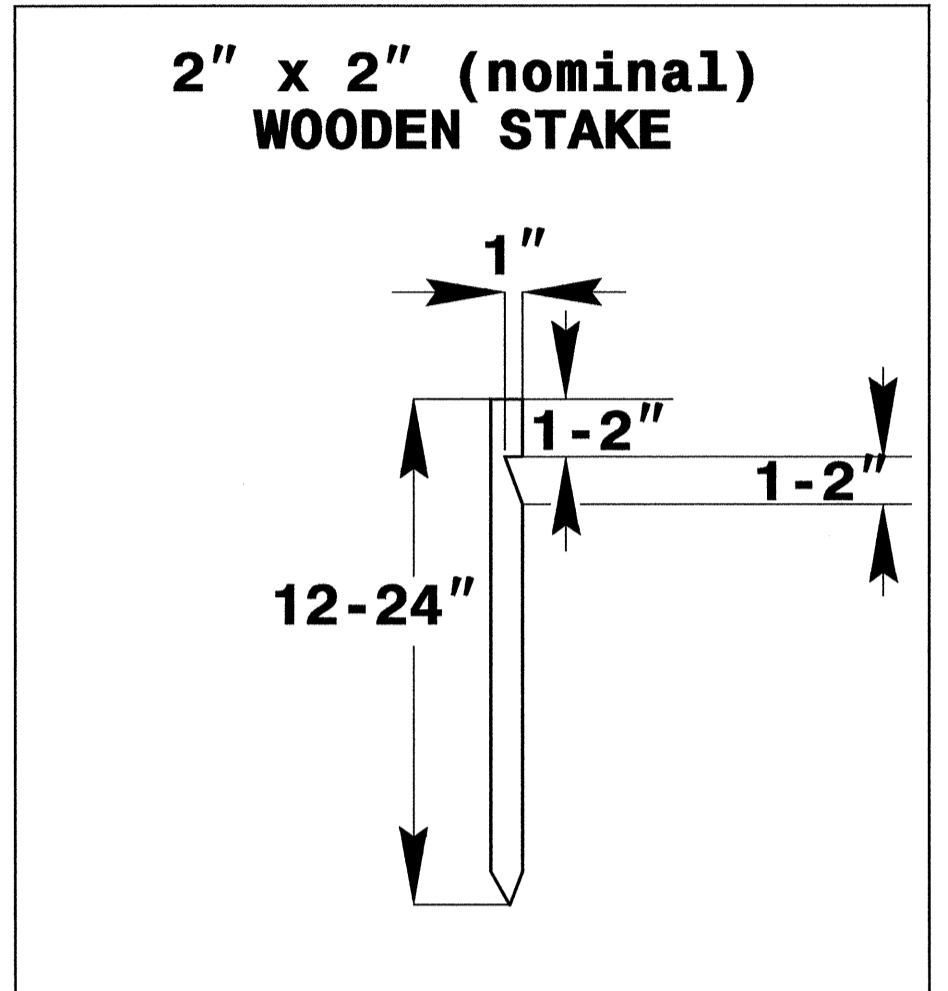
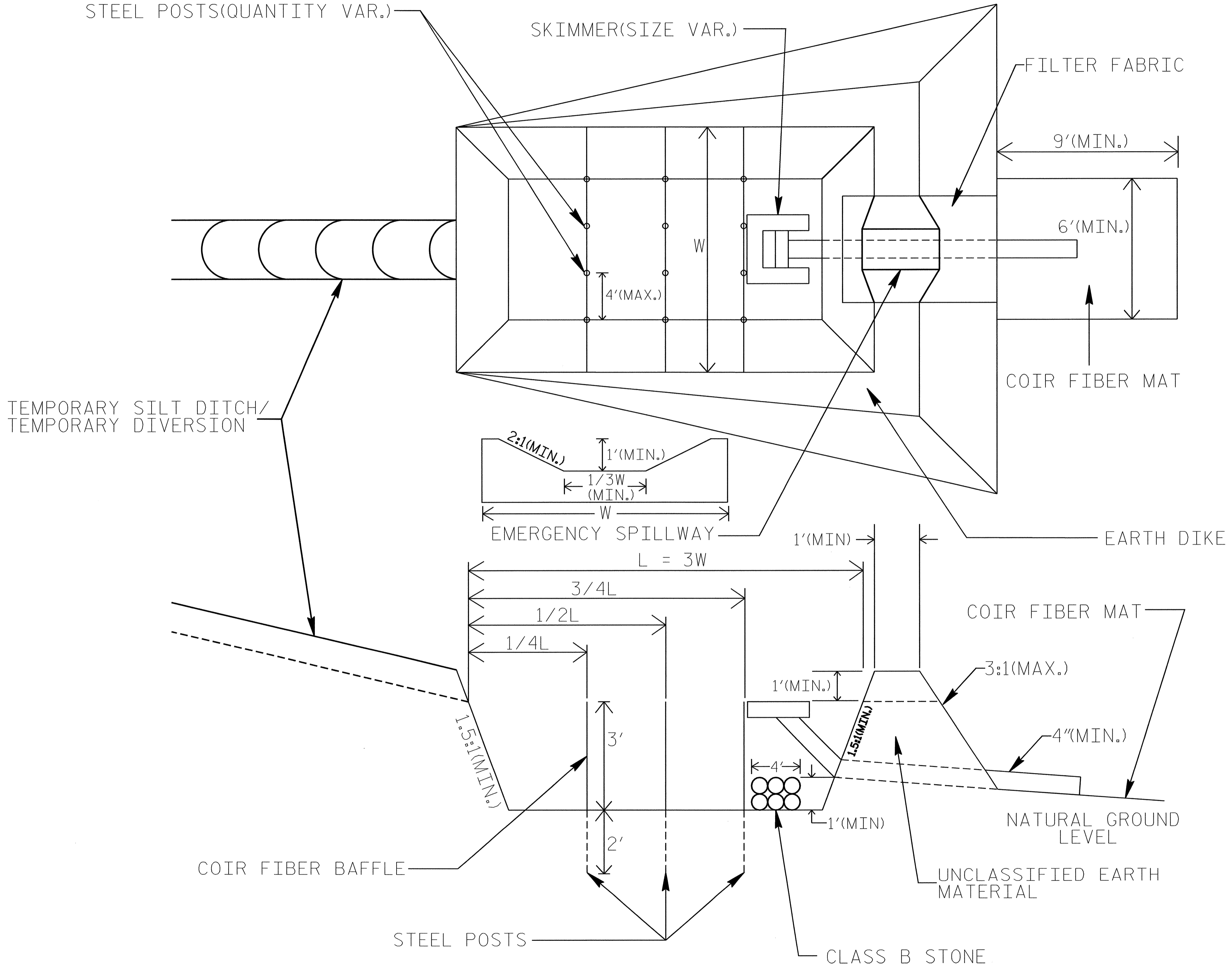


NOTE: INSTALL THREE (3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF $\frac{1}{4}$ THE BASIN LENGTH. TWO (2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF $\frac{1}{3}$ THE BASIN LENGTH.

BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES

SKIMMER BASIN WITH BAFFLES DETAIL

| | |
|---------------------------------|---------------------|
| PROJECT REFERENCE NO. W-4704 | SHEET NO. EC-2B |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

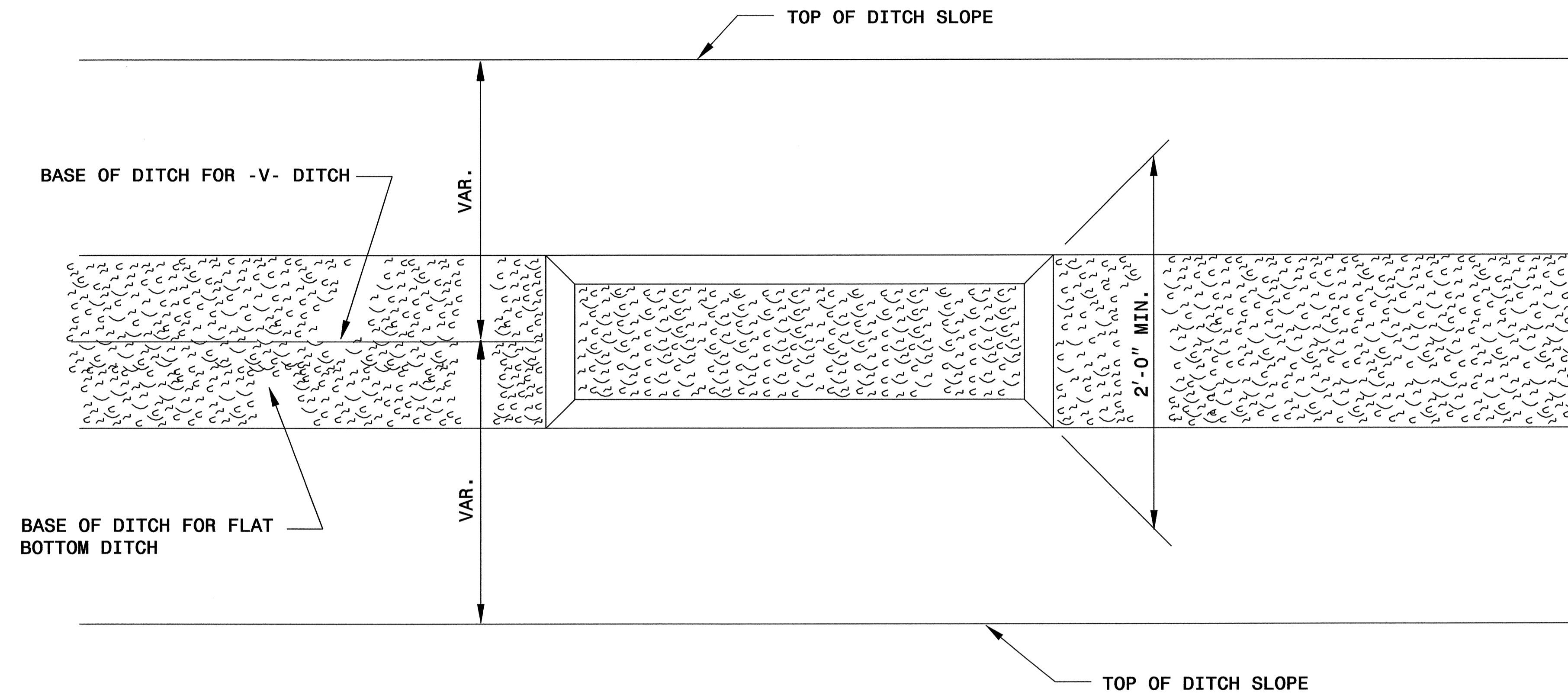


COIR FIBER MAT ANCHOR OPTIONS

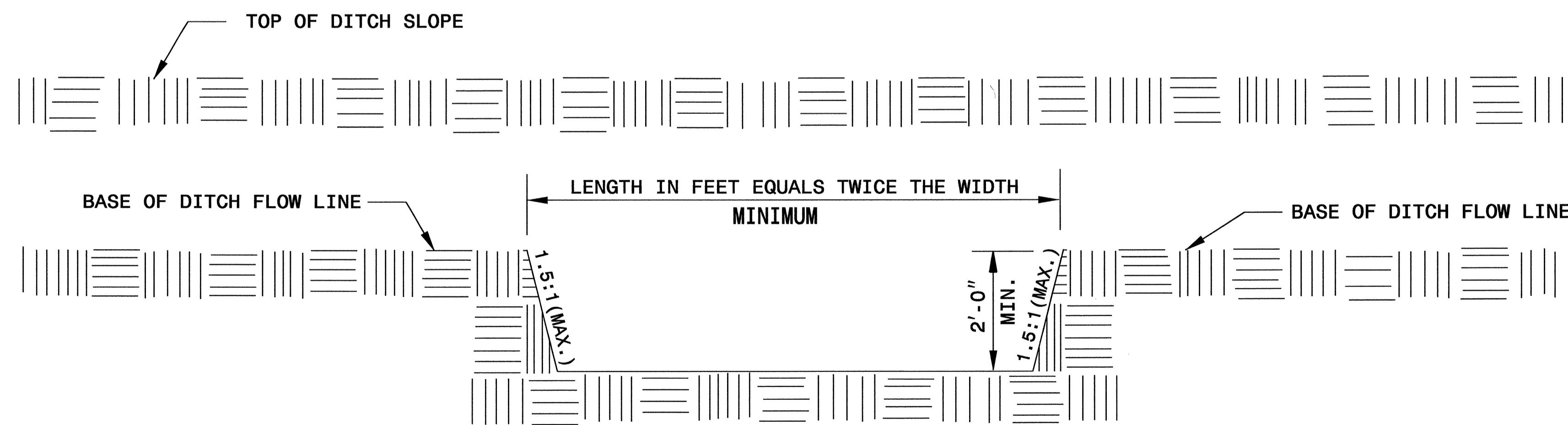
- NOTES:
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON SIDESLOPES.
 2. LIMIT EARTH DIKE HEIGHT TO 5 FT.

| | |
|-------------------------|---------------------|
| PROJECT REFERENCE NO. | SHEET NO. |
| W-4704 | EC-2C |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

SILT BASIN 'B' DETAIL

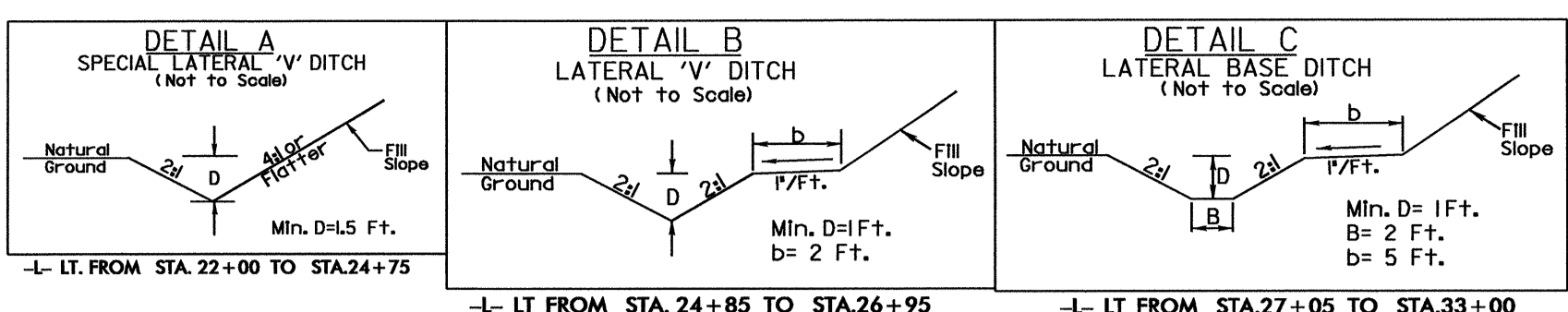


PLAN



ELEVATION

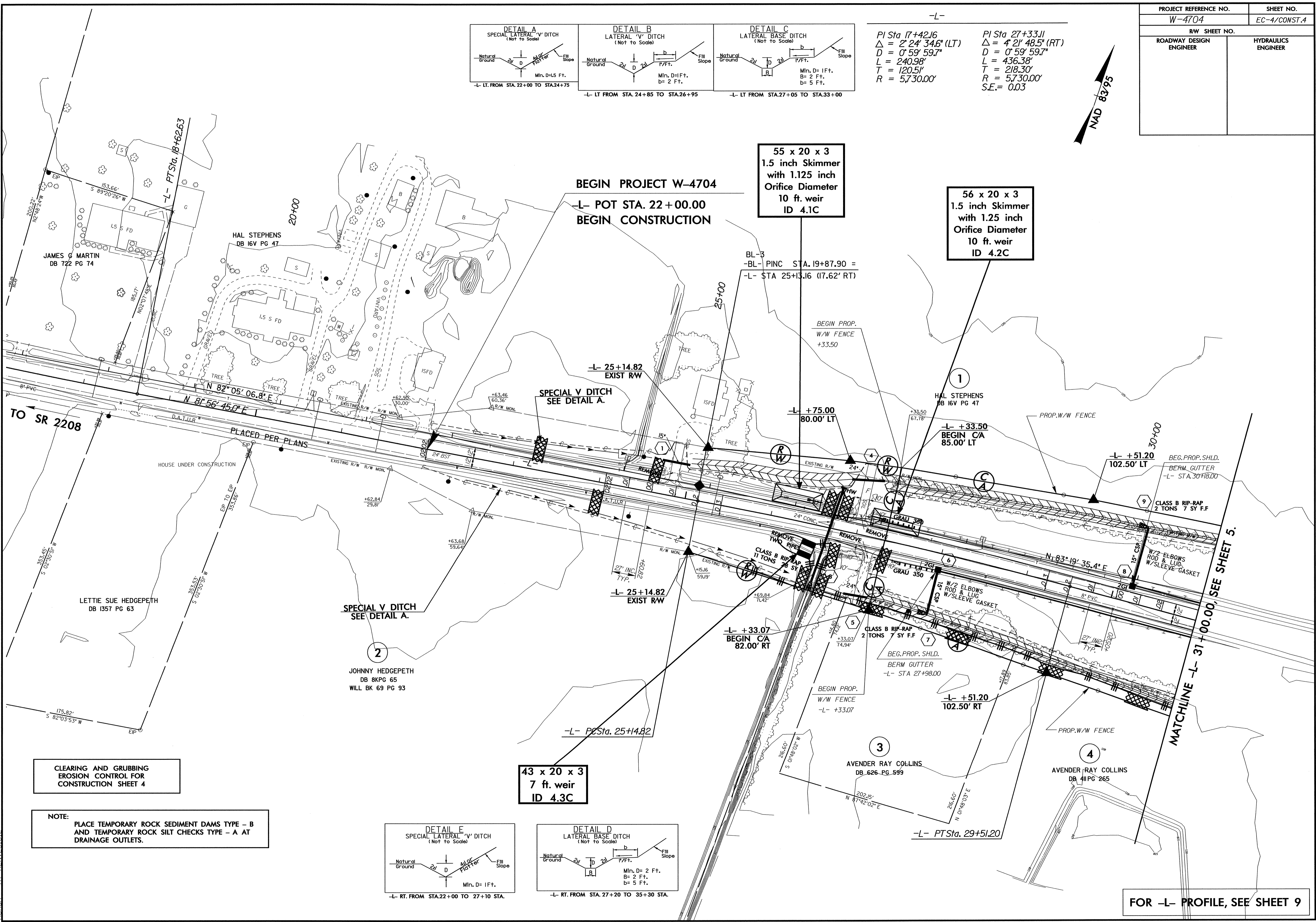
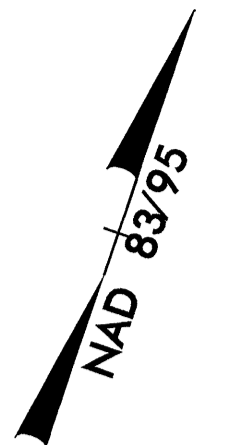
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| PROJECT REFERENCE NO. W-4704 | SHEET NO. EC-4/CONST.4 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |



-L-

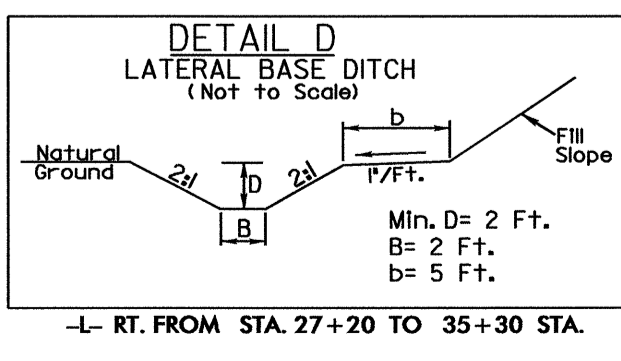
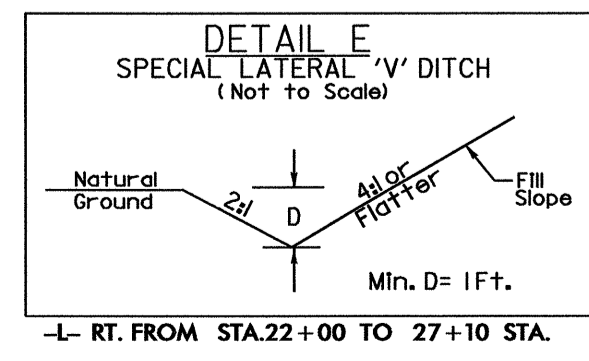
PI Sta 17+42.16
 $\Delta = 2' 24' 34.6''$ (LT)
 $D = 0' 59' 59.7''$
 $L = 240.98'$
 $T = 120.5'$
 $R = 5,730.00'$

PI Sta 27+33.11
 $\Delta = 4' 21' 48.5''$ (RT)
 $D = 0' 59' 59.7''$
 $L = 436.38'$
 $T = 218.30'$
 $R = 5,730.00'$
 $S.E. = 0.03$



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

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



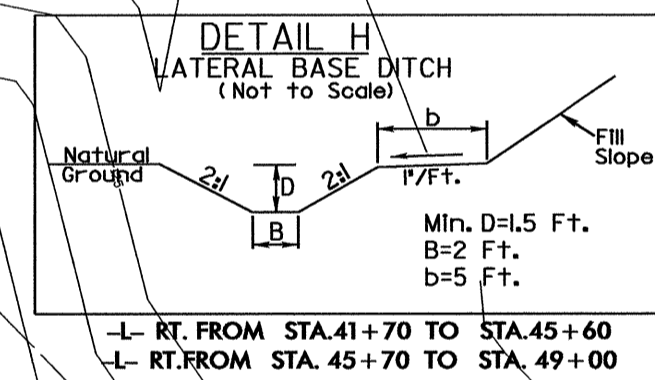
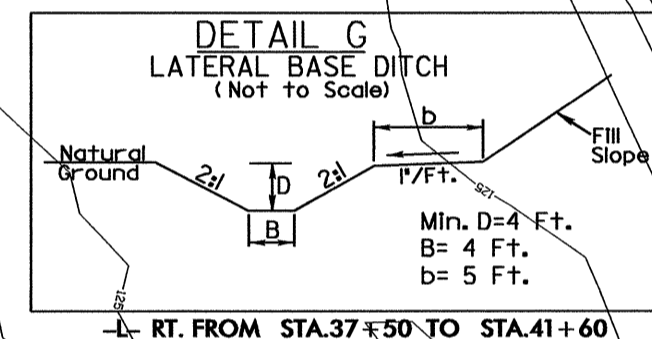
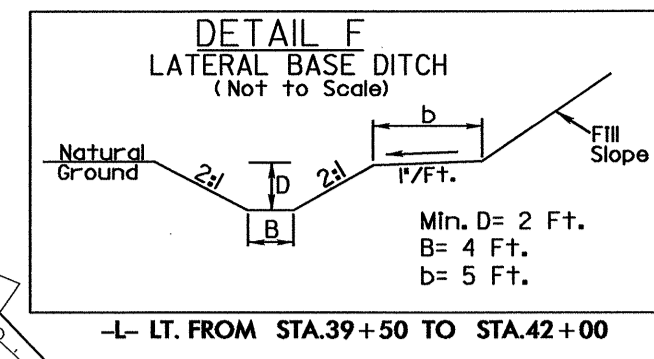
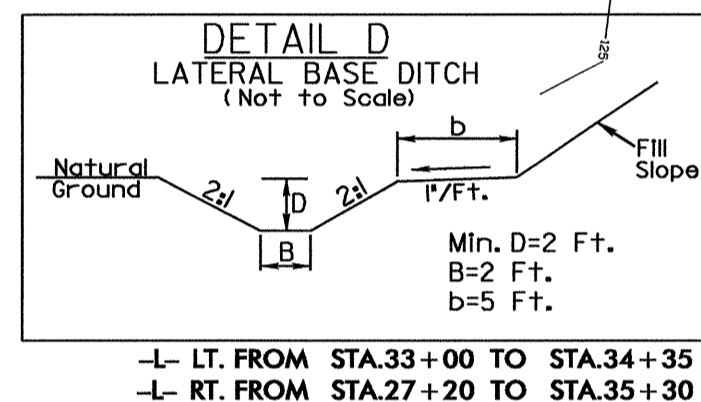
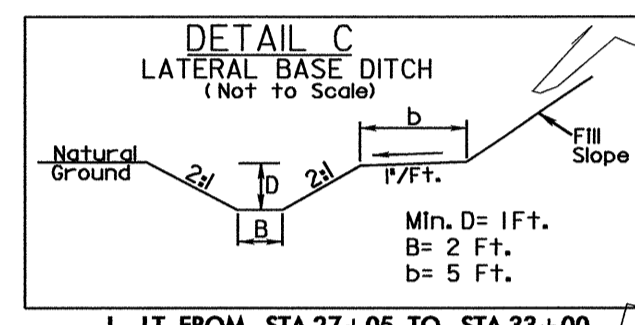
FOR -L- PROFILE, SEE SHEET 9

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CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

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

| | |
|---------------------------------|---------------------------|
| PROJECT REFERENCE NO. W-4704 | SHEET NO. EC-5/CONST.5 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |



48 x 20 x 3
ID 5.4B

47 x 18 x 3
6 ft. weir
ID 5.3B

31 x 14 x 2
ID 5.2B

49 x 20 x 3
ID 5.1C

38 x 16 x 3
5 ft. weir
ID 5.7B

34 x 15 x 3
ID 5.6B

-L- 125.00' LT
EXIST RW

END PROP.
W/W FENCE
-L- +97.01

PROP. W/W FENCE
1
HAL STEPHENS
DB 16V PG 47

-L- 132.00' RT
EXIST RW

END PROP.
W/W FENCE
-L- +52.80

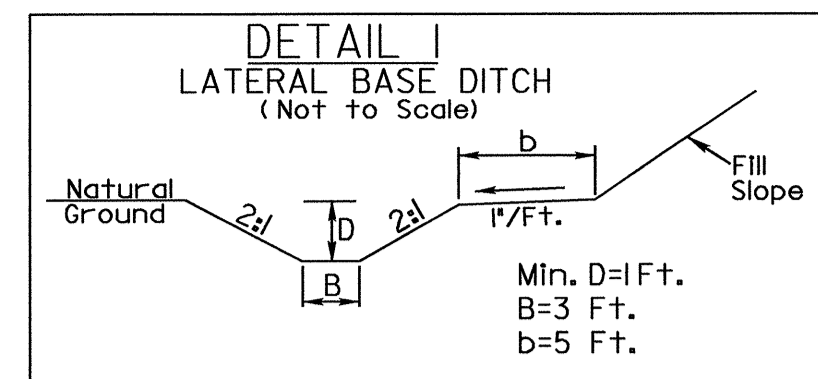
4
AVENDER RAY COLLINS
DB 41PG 265

PI Sta 40+95.31
Δ = 1° 57' 11.5" (RT)
D = 0' 28' 38.9"
L = 409.08'
T = 204.56'
R = 12,000.00'
SE = N.C

NOTE: SEE CROSS-SECTION AND ROADWAY STANDARD
DRAWINGS STD. NO. 862.01, SHEET 1 FOR SPECIAL
MEDIAN GRADING

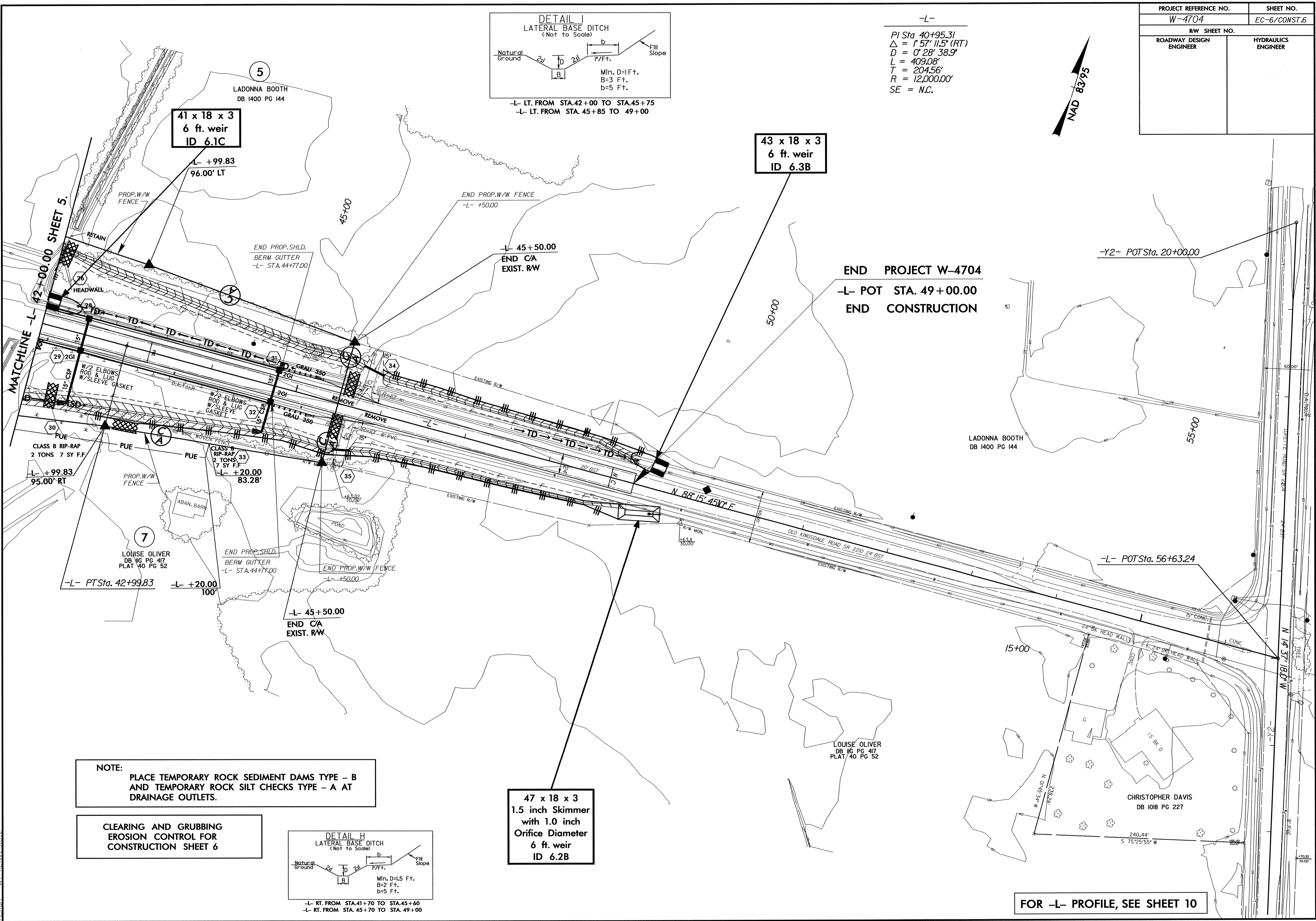
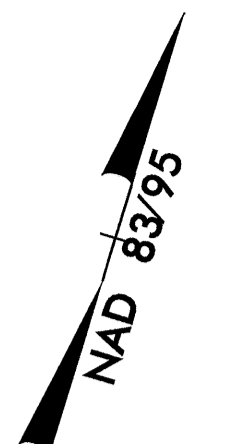
FOR -L- PROFILE, SEE SHEET 9
FOR STRUCTURE PLANS, SEE SHEET S-

| | |
|-------------------------|---------------------|
| PROJECT REFERENCE NO. | SHEET NO. |
| W-4704 | EC-6/CONST.6 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |



-L- LT. FROM STA. 42+00 TO STA. 45+75
 -L- LT. FROM STA. 45+85 TO 49+00

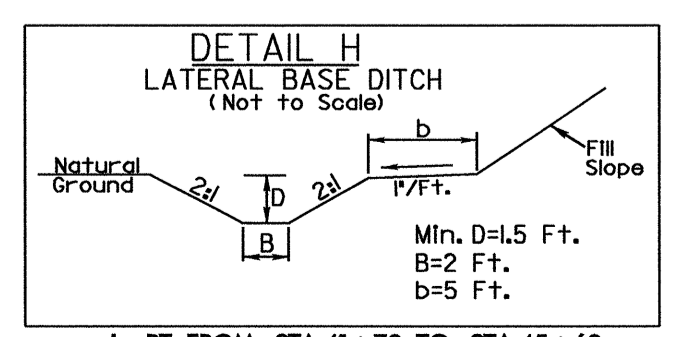
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 PI Sta 40+95.31
 $\Delta = 1.57' 11.5" (RT)$
 $D = 0' 28' 38.9"$
 $L = 409.08'$
 $T = 204.56'$
 $R = 12,000.00'$
 SE = N.C.



END PROJECT W-4704
 -L- POT STA. 49+00.00
 END CONSTRUCTION

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 6



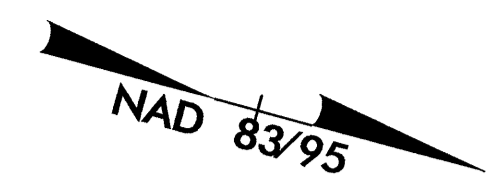
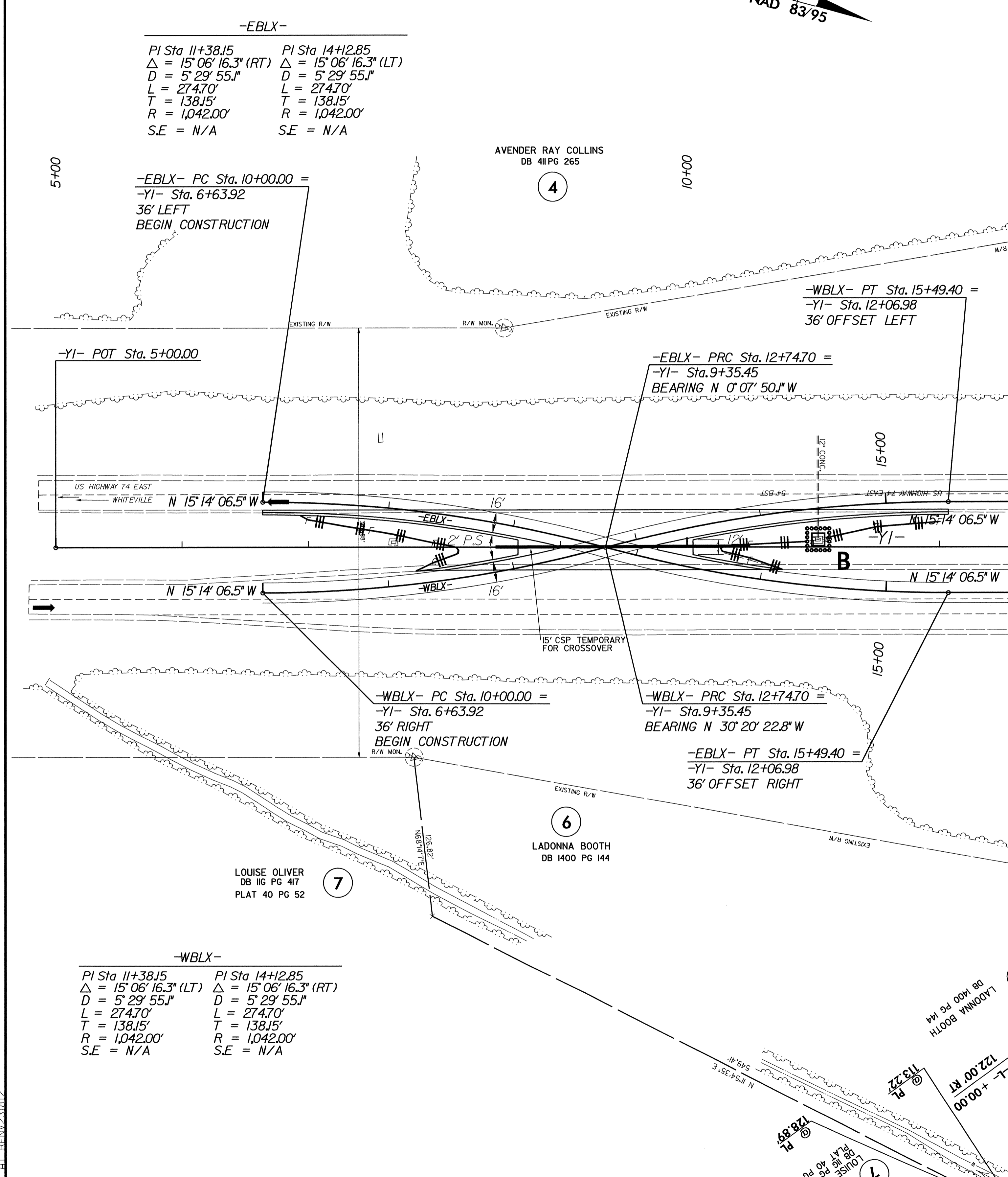
-L- RT. FROM STA. 41+70 TO STA. 45+60
 -L- RT. FROM STA. 45+70 TO STA. 49+00

FOR -L- PROFILE, SEE SHEET 10

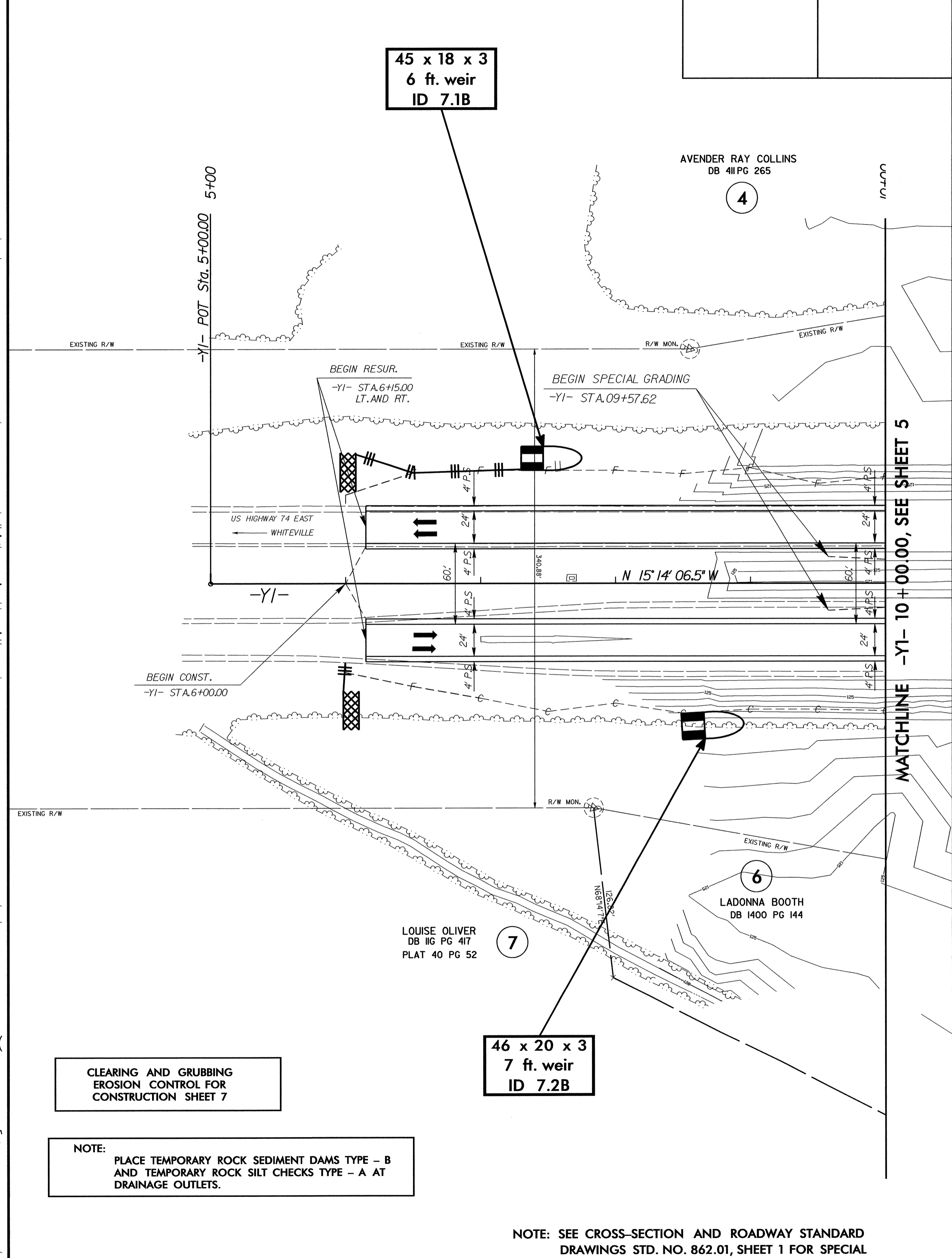
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US 74 TEMPORARY CROSSOVER FOR BRIDGE CONSTRUCTION (SOUTH)

| | |
|-------------------------|---------------------|
| PROJECT REFERENCE NO. | SHEET NO. |
| W-4704 | EC-7/CONST.7 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |



45 x 18 x 3
6 ft. weir
ID 7.1B



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

NOTE: SEE CROSS-SECTION AND ROADWAY STANDARD
DRAWINGS STD. NO. 862.01, SHEET 1 FOR SPECIAL
MEDIAN GRADING

5/14/99
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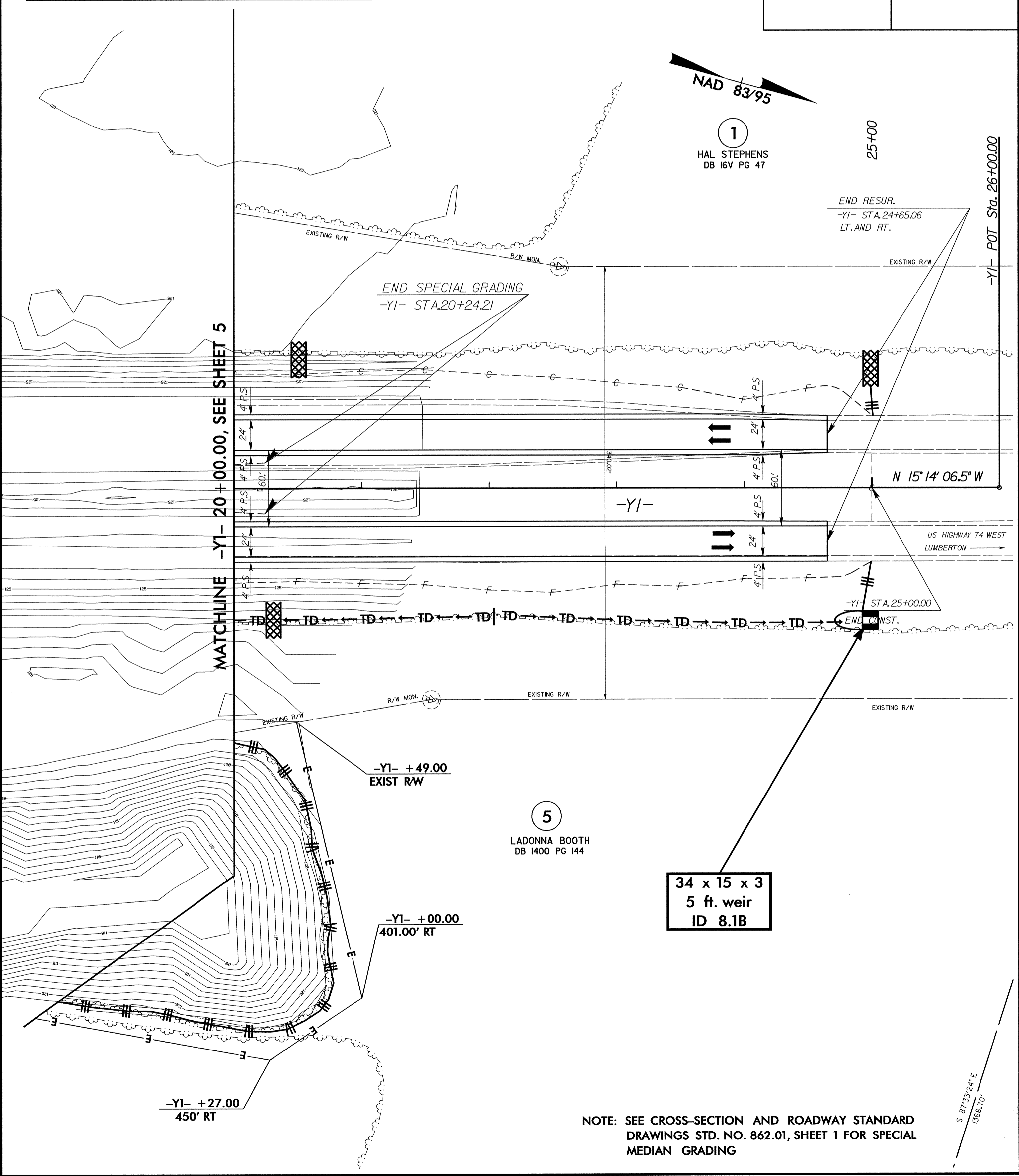
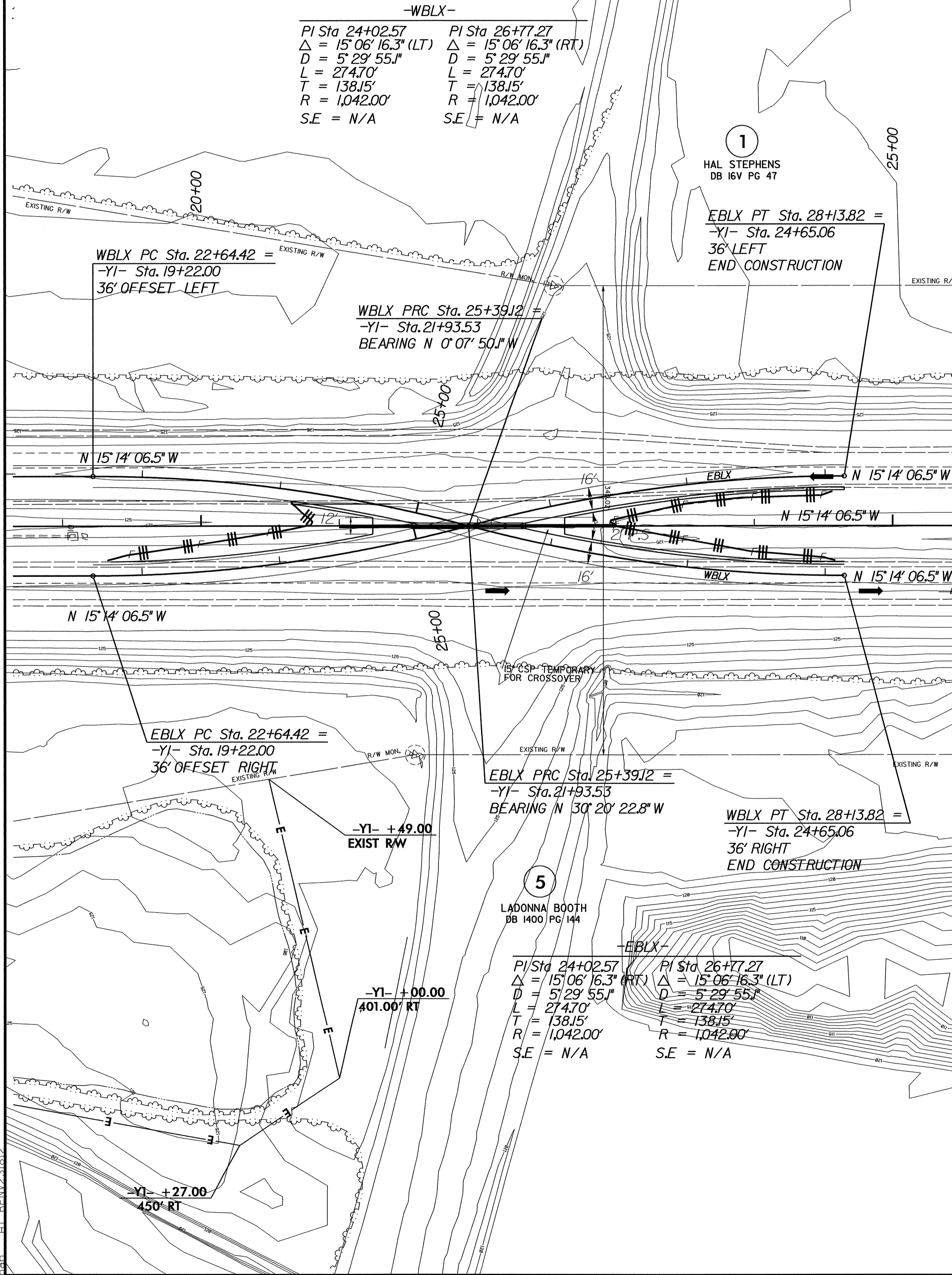
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US 74 TEMPORARY CROSSOVER FOR BRIDGE CONSTRUCTION (NORTH)

| | |
|---------------------------------|---------------------------|
| PROJECT REFERENCE NO. W-4704 | SHEET NO. EC-8/CONST.8 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

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



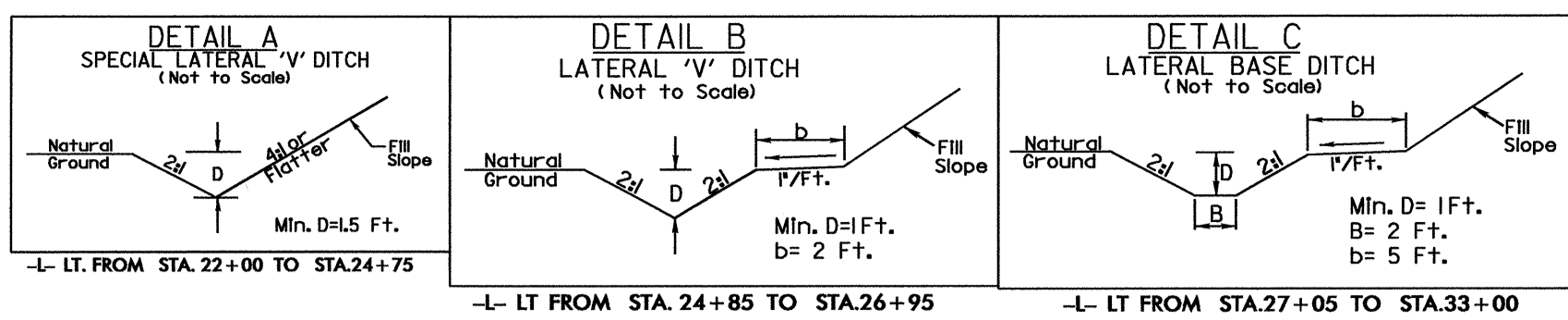
23-JUN-2008 12:59
jngs\jngs\desks\p\w-4704\environmental\design\w-4704_rdy_psh_08.dgn
AT REV 2/18/13

34 x 15 x 3
5 ft. weir
ID 8.1B

NOTE: SEE CROSS-SECTION AND ROADWAY STANDARD
DRAWINGS STD. NO. 862.01, SHEET 1 FOR SPECIAL
MEDIAN GRADING

S 87°33'24"E
1866.70'

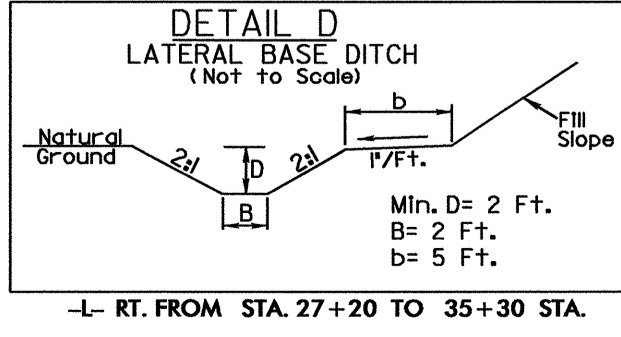
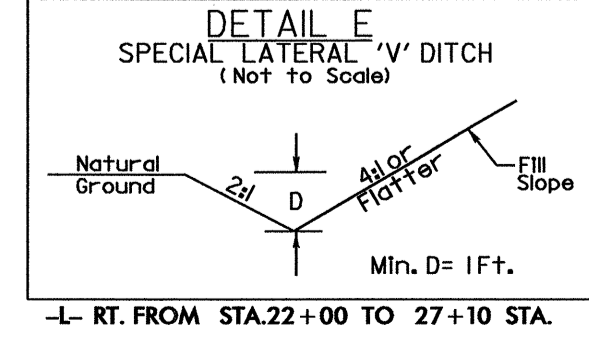
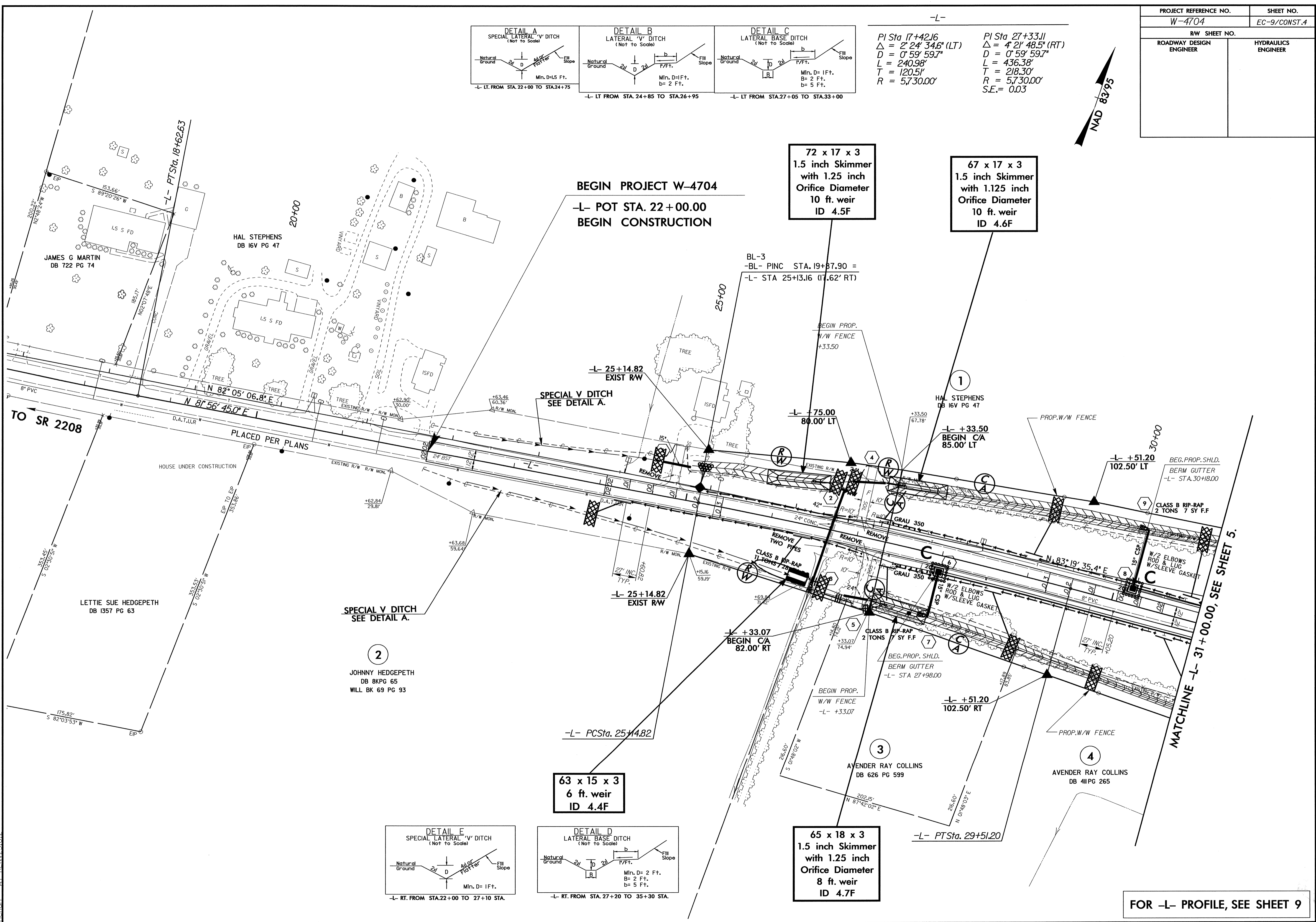
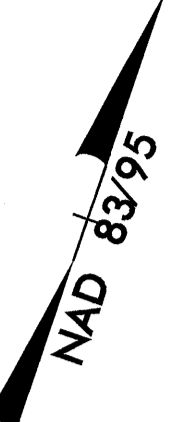
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|-------------------------|---------------------|
| PROJECT REFERENCE NO. | SHEET NO. |
| W-4704 | EC-9/CONST.4 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |



-L-

PI Sta 17+42.16
 $\Delta = 2' 24' 34.6"$ (LT)
 $D = 0' 59' 59.7"$
 $L = 240.98'$
 $T = 120.5'$
 $R = 5,730.00'$

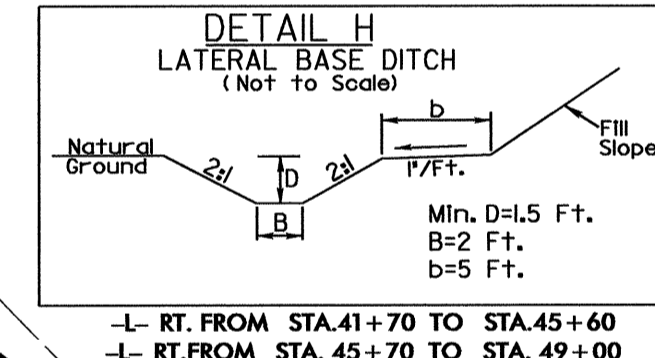
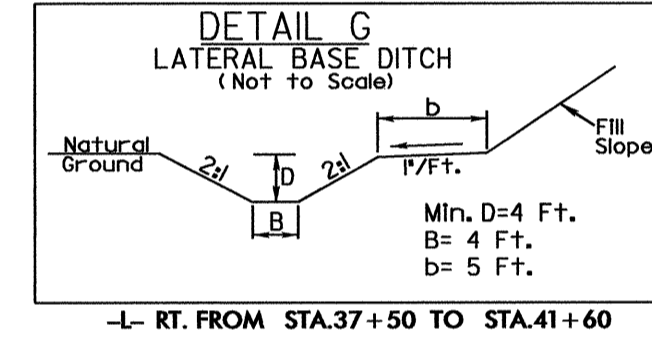
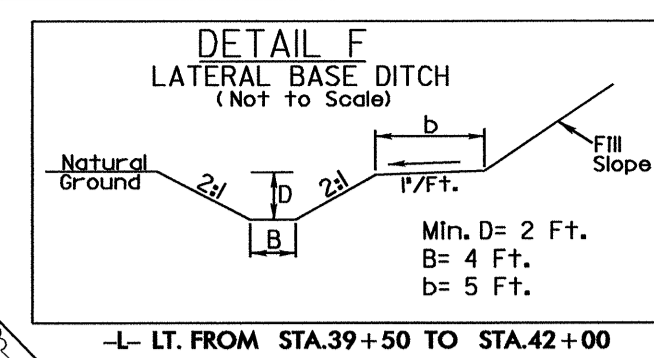
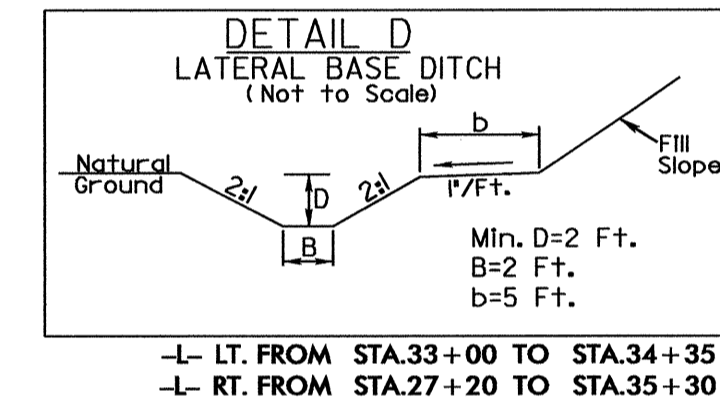
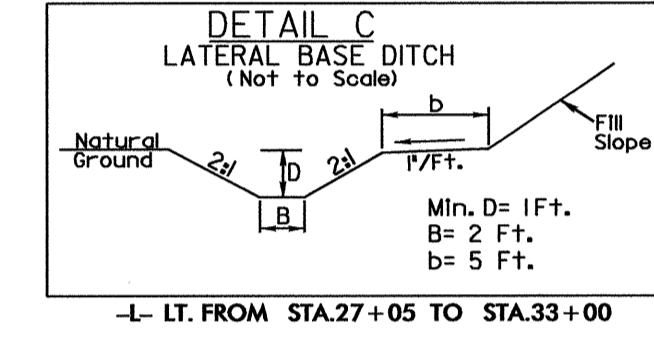
PI Sta 27+33.11
 $\Delta = 4' 21' 48.5"$ (RT)
 $D = 0' 59' 59.7"$
 $L = 436.38'$
 $T = 218.30'$
 $R = 5,730.00'$
 $S.E. = 0.03$



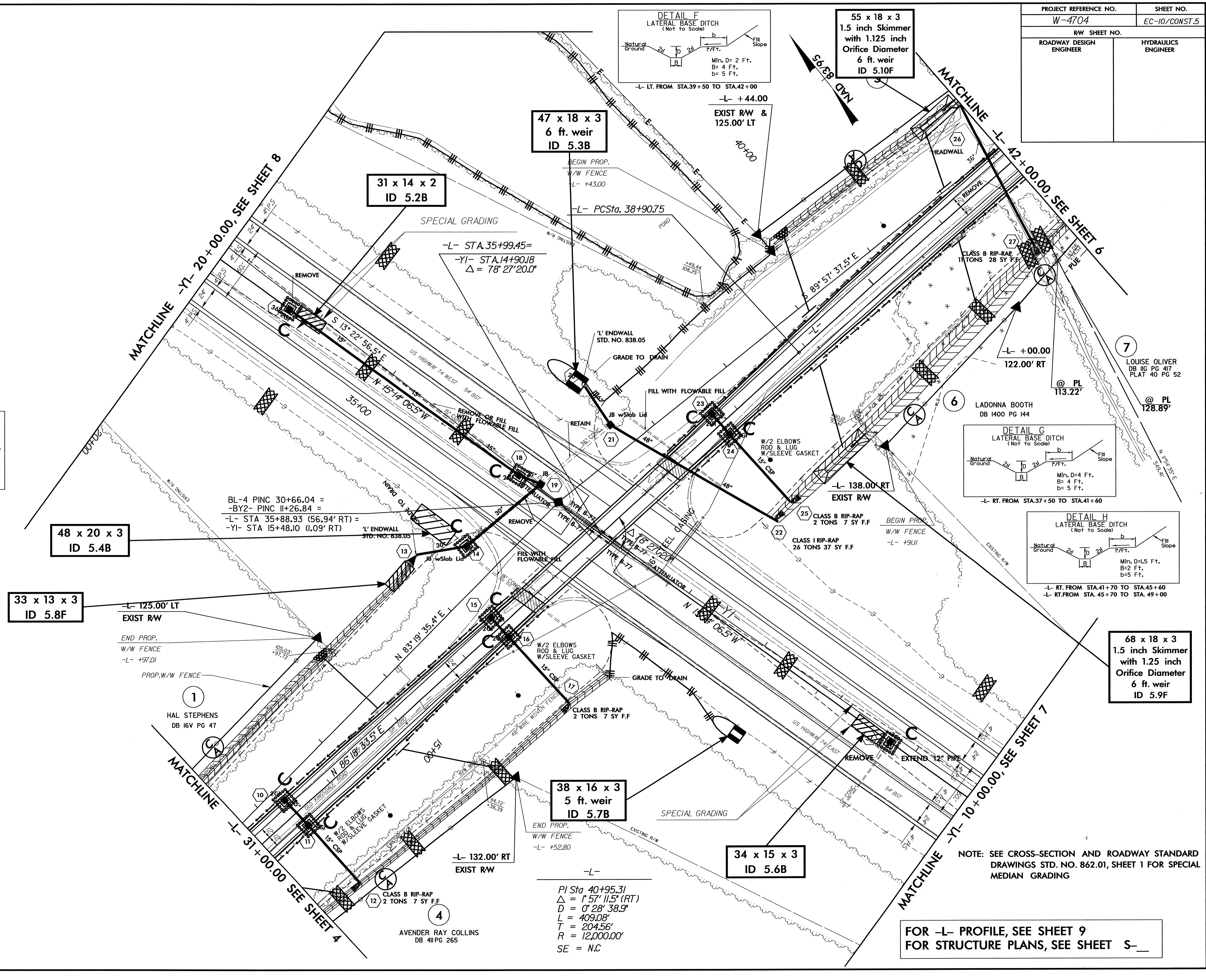
FOR -L- PROFILE, SEE SHEET 9

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|-------------------------|---------------------|
| PROJECT REFERENCE NO. | SHEET NO. |
| W-4704 | EC-10/CONST.5 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |



5/14/09
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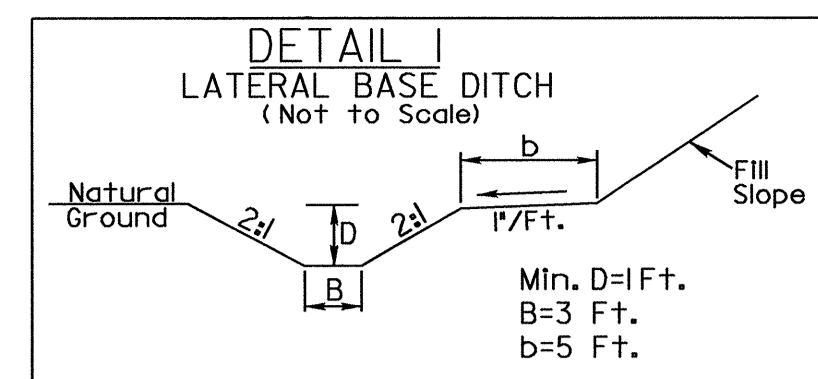
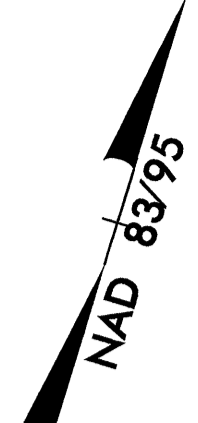


NOTE: SEE CROSS-SECTION AND ROADWAY STANDARD DRAWINGS STD. NO. 862.01, SHEET 1 FOR SPECIAL MEDIAN GRADING

FOR -L- PROFILE, SEE SHEET 9
FOR STRUCTURE PLANS, SEE SHEET S-

| | |
|-------------------------|---------------------|
| PROJECT REFERENCE NO. | SHEET NO. |
| W-4704 | EC-II/CONST.6 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

-L-
 PI Sta 40+95.31
 $\Delta = 1.57' 11.5' (RT)$
 $D = 0' 28' 38.9"$
 $L = 409.08'$
 $T = 204.56'$
 $R = 12,000.00'$
 $SE = N.C.$

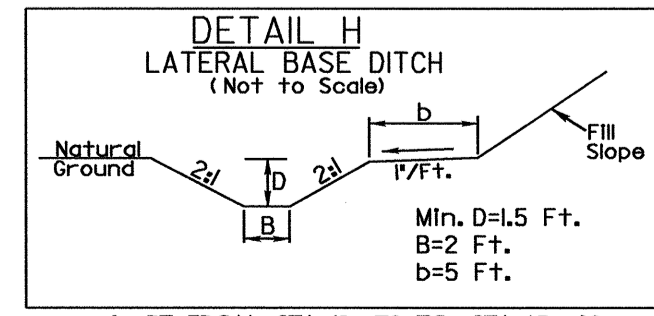


-L- LT. FROM STA.42+00 TO STA.45+75
 -L- LT. FROM STA. 45+85 TO 49+00

45 x 14 x 3
 1.5 inch Skimmer
 with 0.75 inch
 Orifice Diameter
 5 ft. weir
 ID 6.4F

43 x 18 x 3
 6 ft. weir
 ID 6.3B

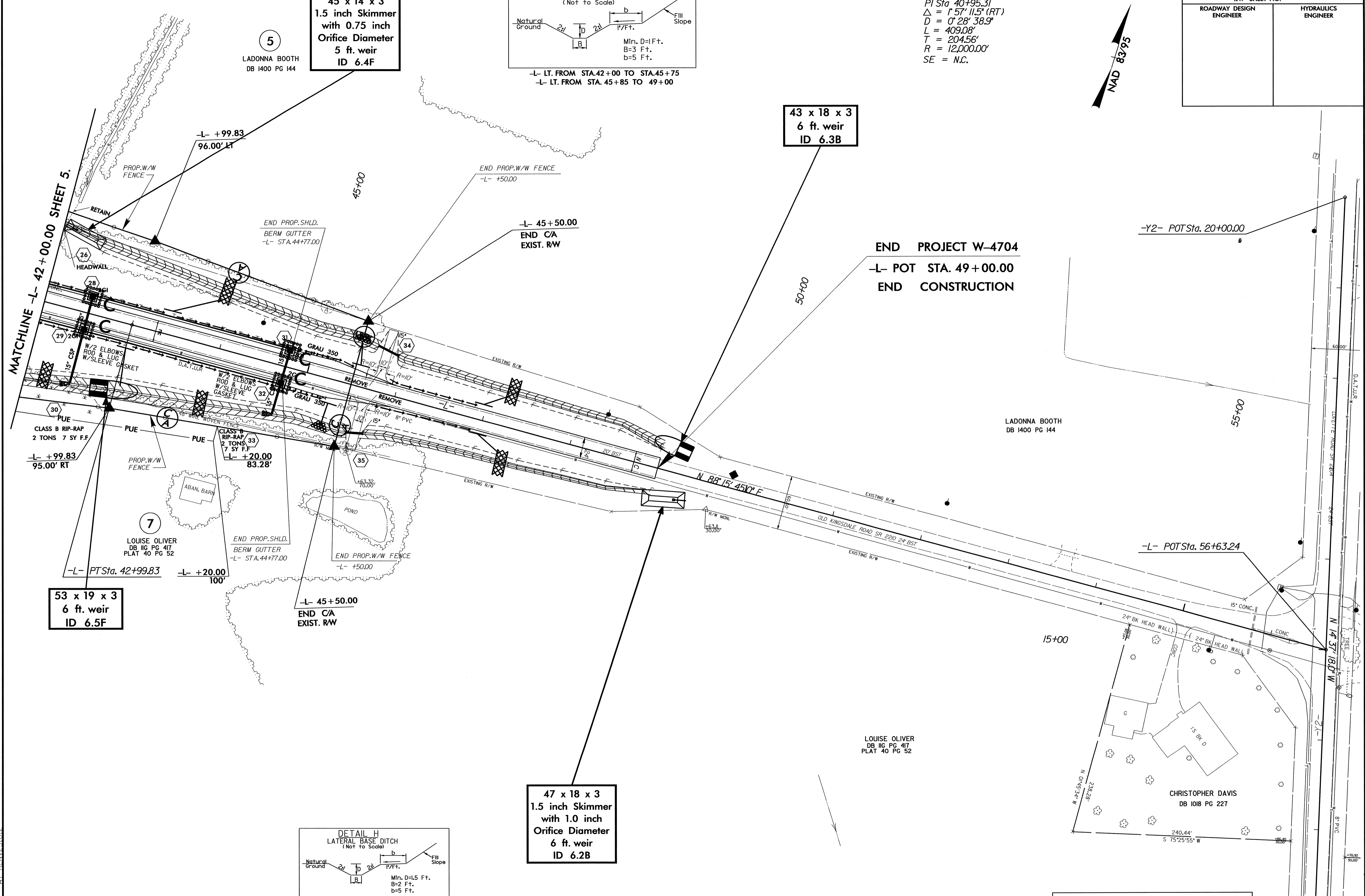
47 x 18 x 3
 1.5 inch Skimmer
 with 1.0 inch
 Orifice Diameter
 6 ft. weir
 ID 6.2B



-L- RT. FROM STA.41+70 TO STA.45+60
 -L- RT. FROM STA. 45+70 TO STA. 49+00

END PROJECT W-4704
 -L- POT STA. 49+00.00
 END CONSTRUCTION

MATCHLINE -L- 42+00.00 SHEET 5.



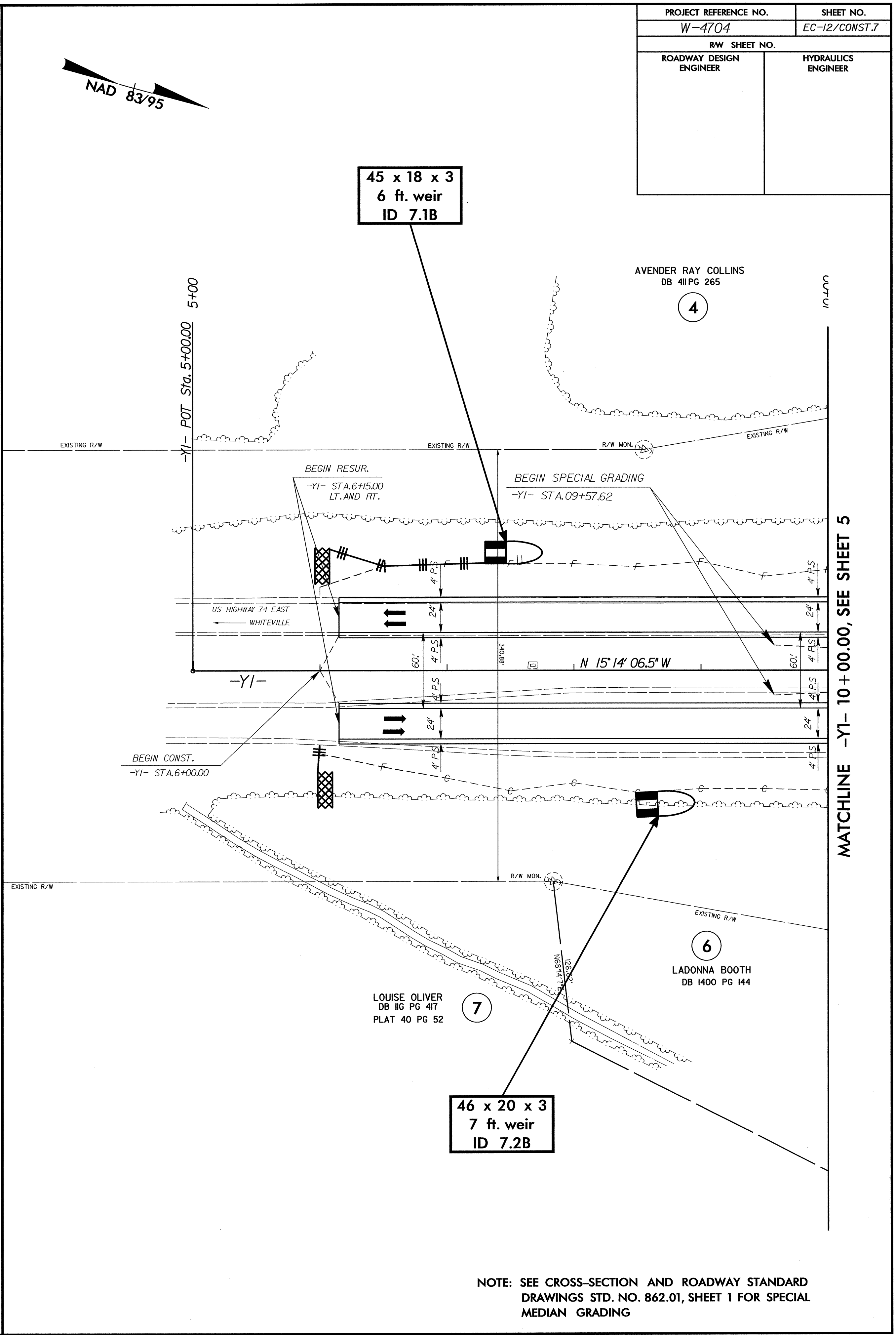
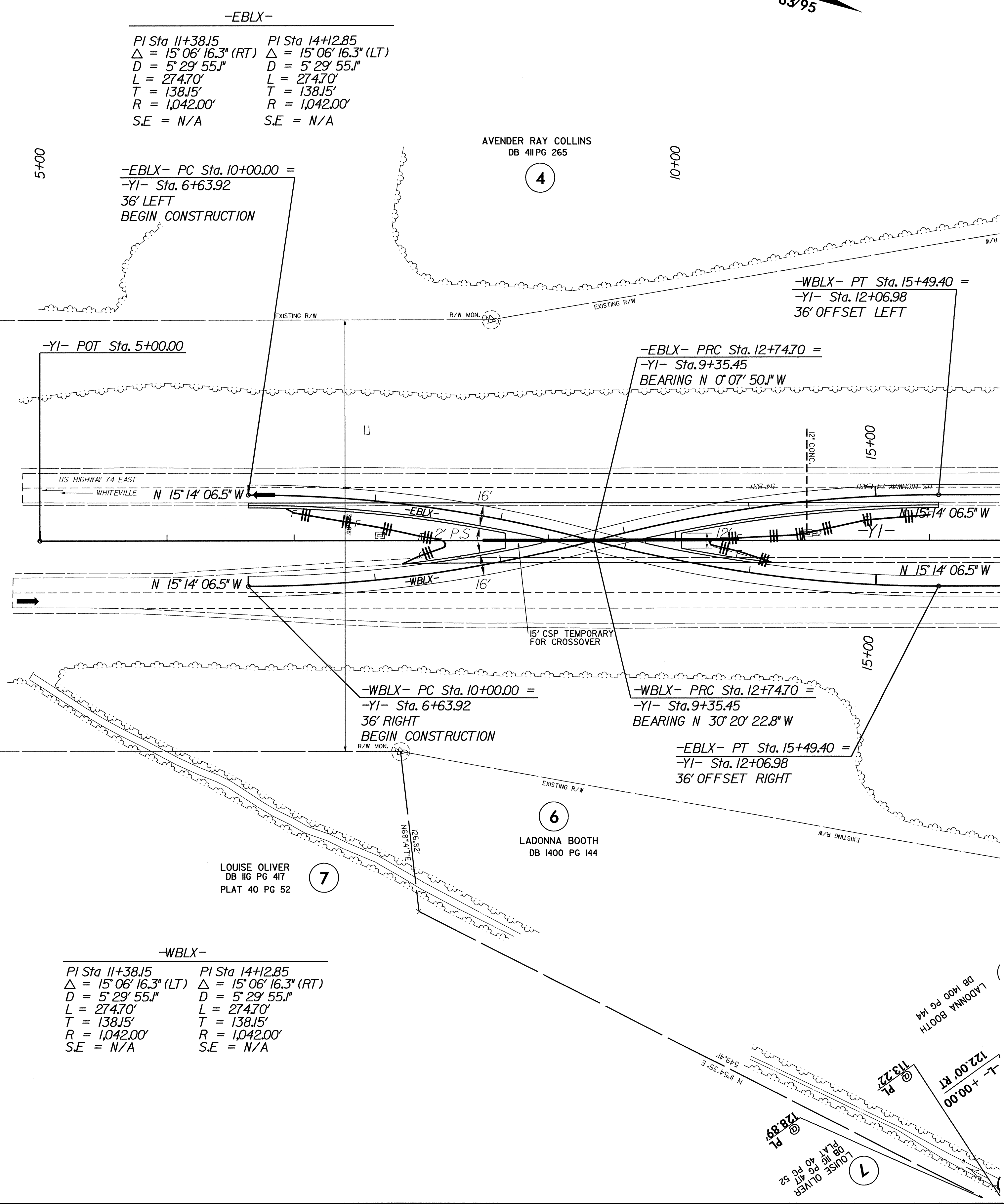
FOR -L- PROFILE, SEE SHEET 10

23-JUN-2008 13:01
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US 74 TEMPORARY CROSSOVER FOR BRIDGE CONSTRUCTION (SOUTH)

| | |
|--|-----------------------------------|
| PROJECT REFERENCE NO. <i>W-4704</i> | SHEET NO. <i>EC-12/CONST.7</i> |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

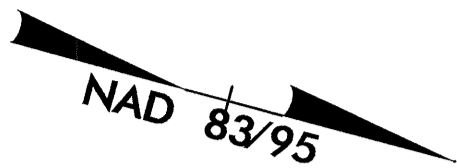


NOTE: SEE CROSS-SECTION AND ROADWAY STANDARD DRAWINGS STD. NO. 862.01, SHEET 1 FOR SPECIAL MEDIAN GRADING

MATCHLINE -YI- 10+00.00, SEE SHEET 5

US 74 TEMPORARY CROSSOVER FOR BRIDGE CONSTRUCTION (NORTH)

| | |
|---------------------------------|----------------------------|
| PROJECT REFERENCE NO. W-4704 | SHEET NO. EC-13/CONST.8 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |



-WBLX-
 PI Sta 24+02.57 PI Sta 26+77.27
 $\Delta = 15^{\circ} 06' 16.3''$ (LT) $\Delta = 15^{\circ} 06' 16.3''$ (RT)
 D = 5' 29' 55.1" D = 5' 29' 55.1"
 L = 274.70' L = 274.70'
 T = 138.15' T = 138.15'
 R = 1,042.00' R = 1,042.00'
 S.E = N/A S.E = N/A

1
 HAL STEPHENS
 DB 16V PG 47

EBLX PT Sta. 28+13.82 =
 -YI- Sta. 24+65.06
 36' LEFT
 END CONSTRUCTION

WBLX PC Sta. 22+64.42 =
 -YI- Sta. 19+22.00
 36' OFFSET LEFT

WBLX PRC Sta. 25+39.12 =
 -YI- Sta. 21+93.53
 BEARING N 0° 07' 50.1" W

N 15° 14' 06.5" W

N 15° 14' 06.5" W

N 15° 14' 06.5" W

N 15° 14' 06.5" W

EBLX PC Sta. 22+64.42 =
 -YI- Sta. 19+22.00
 36' OFFSET RIGHT

EBLX PRC Sta. 25+39.12 =
 -YI- Sta. 21+93.53
 BEARING N 30° 20' 22.8" W

WBLX PT Sta. 28+13.82 =
 -YI- Sta. 24+65.06
 36' RIGHT
 END CONSTRUCTION

-YI- +49.00
 EXIST RW

-YI- +49.00
 EXIST RW

5
 LADONNA BOOTH
 DB 1400 PG 144

5
 LADONNA BOOTH
 DB 1400 PG 144

-EBLX-
 PI Sta 24+02.57 PI Sta 26+77.27
 $\Delta = 15^{\circ} 06' 16.3''$ (RT) $\Delta = 15^{\circ} 06' 16.3''$ (LT)
 D = 5' 29' 55.1" D = 5' 29' 55.1"
 L = 274.70' L = 274.70'
 T = 138.15' T = 138.15'
 R = 1,042.00' R = 1,042.00'
 S.E = N/A S.E = N/A

-YI- +00.00
 401.00' RT

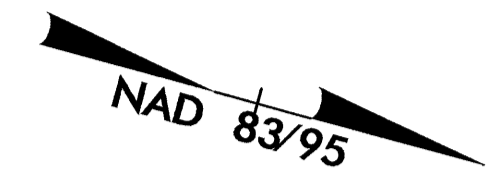
-YI- +00.00
 401.00' RT

-YI- +27.00
 450' RT

-YI- +27.00
 450' RT

34 x 15 x 3
 5 ft. weir
 ID 8.1B

NOTE: SEE CROSS-SECTION AND ROADWAY STANDARD DRAWINGS STD. NO. 862.01, SHEET 1 FOR SPECIAL MEDIAN GRADING



1
 HAL STEPHENS
 DB 16V PG 47

END RESUR.
 -YI- STA. 24+65.06
 LT. AND RT.

END SPECIAL GRADING
 -YI- STA. 20+24.21

MATCHLINE -YI- 20+00.00, SEE SHEET 5

-YI- POT Sta. 26+00.00

N 15° 14' 06.5" W

US HIGHWAY 74 WEST
 LUMBERTON

-YI- STA. 25+00.00
 END CONST.

5/14/99

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S 87° 33' 24" E
 1366.70'