

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

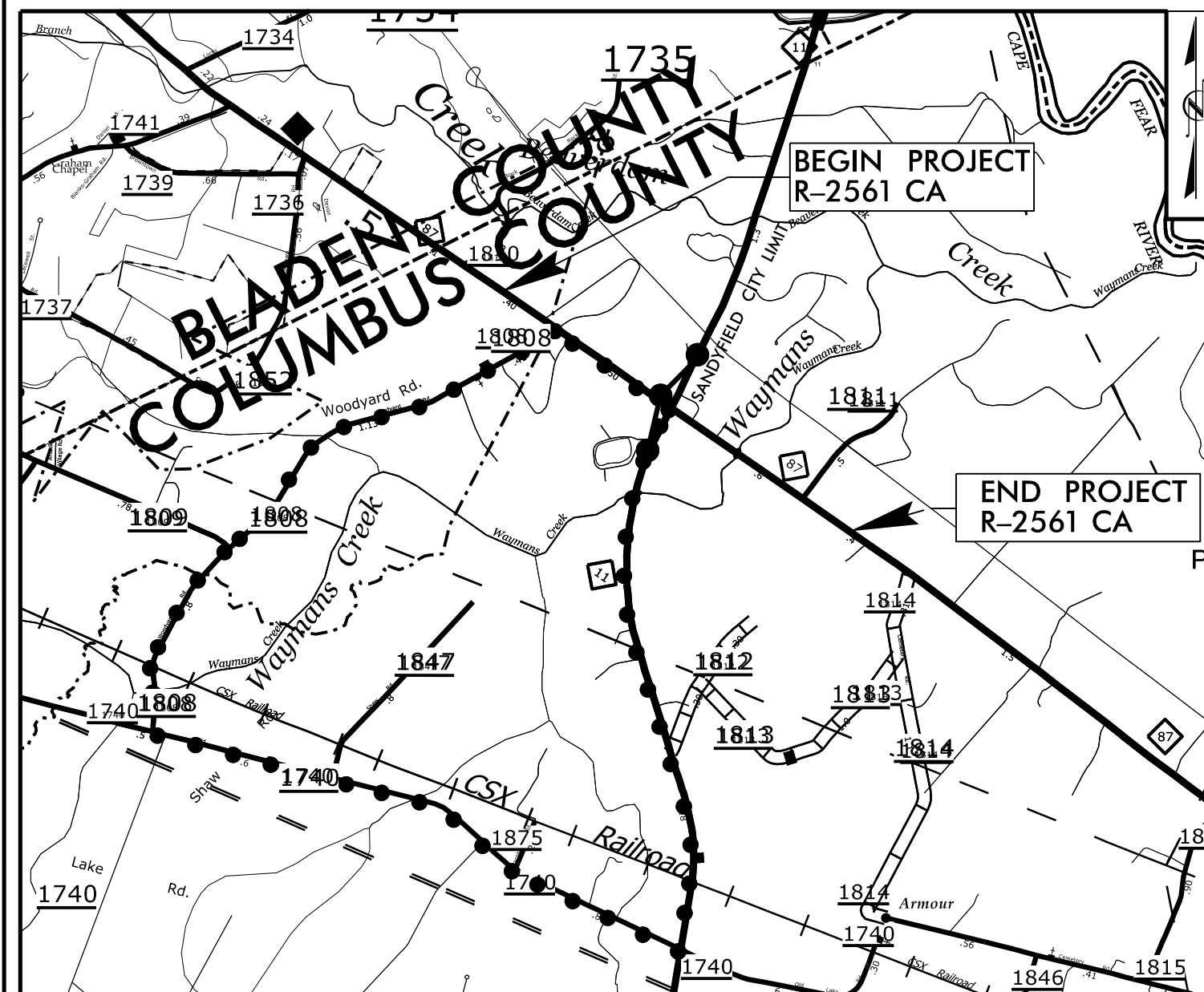
COLUMBUS COUNTY

LOCATION: NC 87 (OLD STAGE RD.)/NC 11 (GENERAL HOWE RD.) INTERCHANGE
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|-----------------------------|----------------|--------------|
| N.C. | R-2561CA | 1 | |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
| 34466.4.5 | N/A | P.E. | |
| 34466.3.8 | N/A | RW & UTILITIES | |

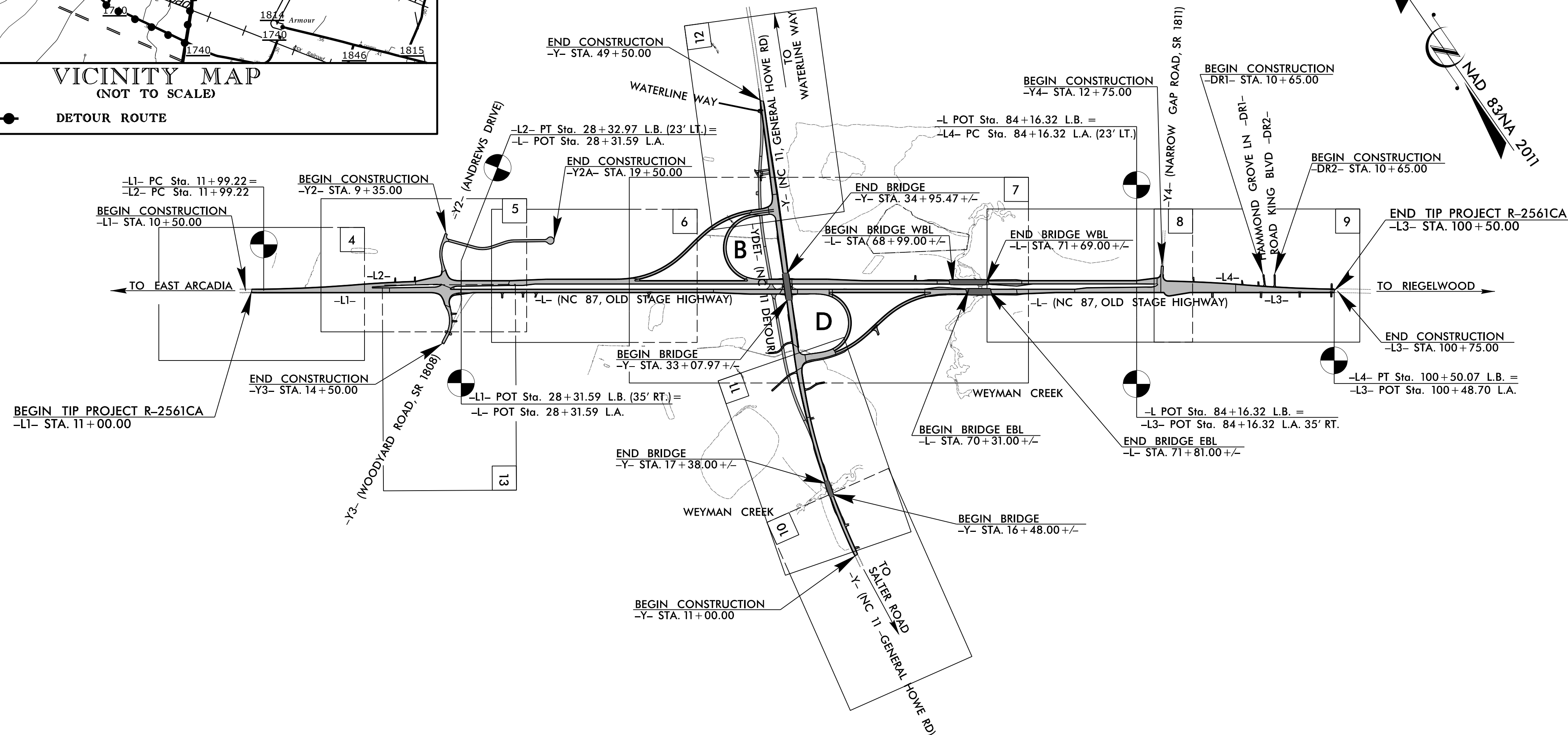
EROSION AND SEDIMENT CONTROL MEASURES

| Std. # | Description | Symbol |
|---------|--|--------|
| 1650.03 | Temporary Silt Ditch | |
| 1650.05 | Temporary Diversion | |
| 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 | |
| | 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 | |
| 1632.02 | Type B | |
| 1632.03 | Type C | |
| | Skimmer Basin | |
| | Tiered Skimmer Basin | |
| | Infiltration Basin | |



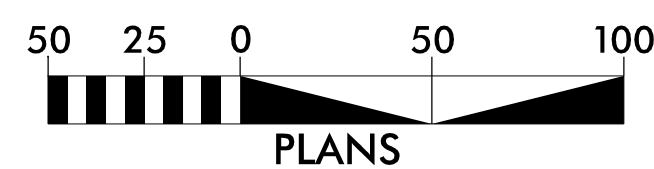
VICINITY MAP
(NOT TO SCALE)

DETOUR ROUTE



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

GRAPHIC SCALE



PLANS

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

SEPI
Engineering & Construction, Inc.
1 Glenwood Avenue
Raleigh, NC 27603
Tel: 919.789.9977
Fax: 919.789.9591
License: C-2197

Prepared in the Office of:

SEPI, Inc.
1 Glenwood Avenue
Raleigh, NC 27603

Designed by:

Tyler Overby
NAME

4140
LEVEL III CERTIFICATION NO.

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 2018 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 B |
| 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 B |
| 1630.01 Riser Basin | 1634.01 Temporary Rock Sediment Dam Type A |
| 1630.02 Silt Basin Type B | 1634.02 Temporary Rock Sediment Dam Type B |
| 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 B |
| 1630.05 Temporary Diversion | 1640.01 Coir Fiber Wattle |
| 1630.06 Special Stilling Basin | 1645.01 Temporary Stream Crossing |
| 1631.01 Matting Installation | |

TIP PROJECT: R-2561CA

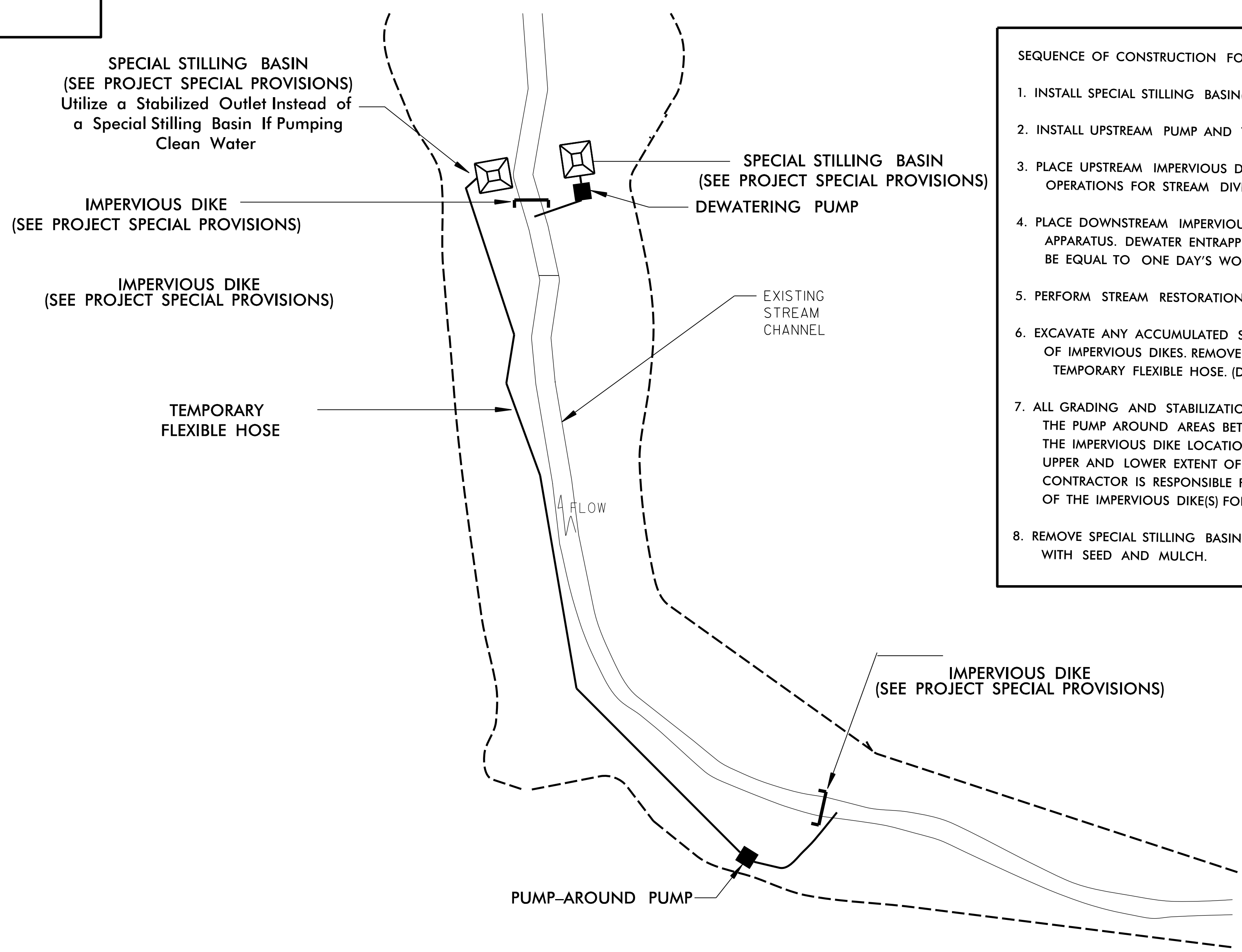
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EXAMPLE OF PUMP-AROUND OPERATION

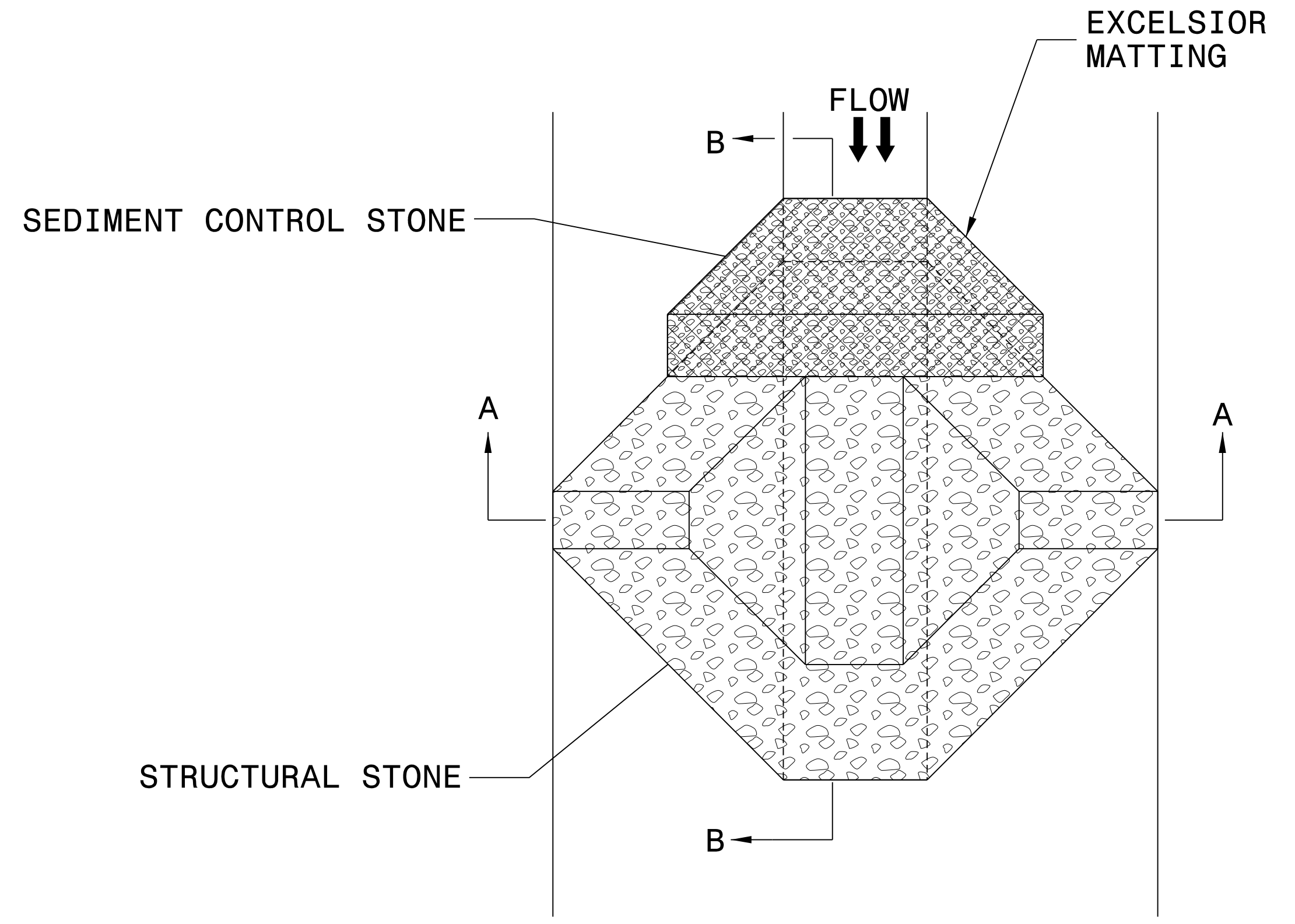
NOTES:

- 1) All excavation shall be performed in only dry or isolated sections of channel.
- 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
- 3) All graded areas shall be stabilized within 24 hours.
- 4) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
- 5) Pumps and hoses shall be of sufficient size to dewater the work area.



- SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA**
1. INSTALL SPECIAL STILLING BASIN(S).
 2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE.
 3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
 4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER ENTRAPPED AREA. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE DAY'S WORK.
 5. PERFORM STREAM RESTORATION WORK IN ACCORDANCE WITH THE PLANS.
 6. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. REMOVE IMPERVIOUS DIKES, PUMPS, AND TEMPORARY FLEXIBLE HOSE. (DOWNSTREAM IMPERVIOUS DIKES FIRST).
 7. ALL GRADING AND STABILIZATION MUST BE COMPLETED IN ONE DAY WITHIN THE PUMP AROUND AREAS BETWEEN THE IMPERVIOUS DIKES. THE IMPERVIOUS DIKE LOCATIONS AS SHOWN ON THIS SHEET ONLY SHOW THE UPPER AND LOWER EXTENT OF WORK FOR EACH STREAM SEGMENT. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF THE IMPERVIOUS DIKE(S) FOR EACH DAY'S WORK.
 8. REMOVE SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

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



PLAN

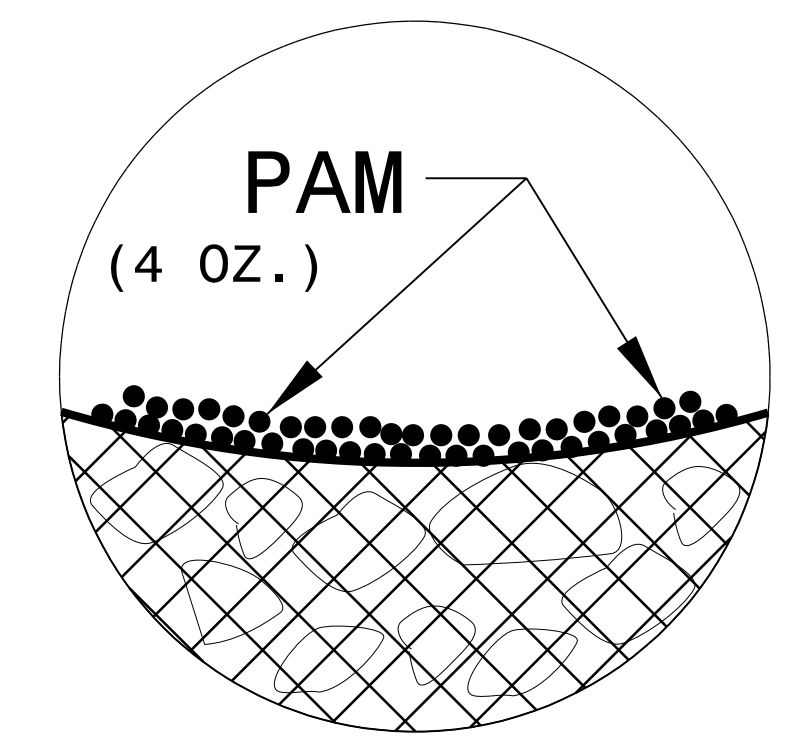
NOTES:

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

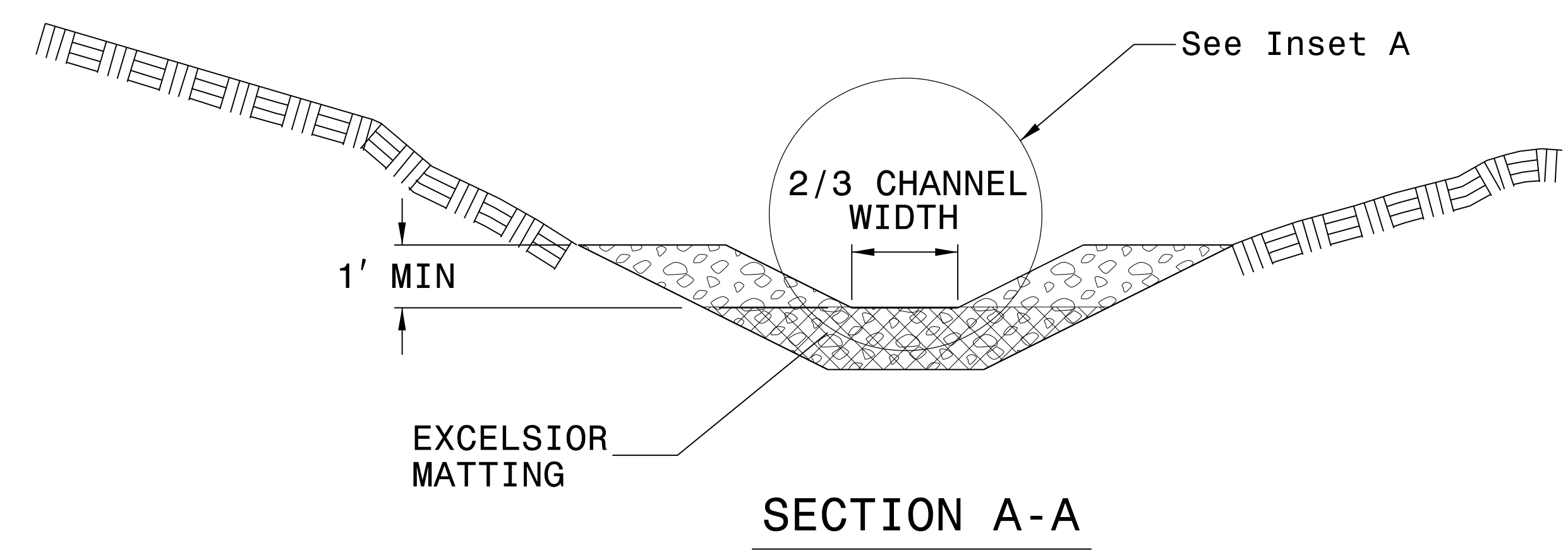
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

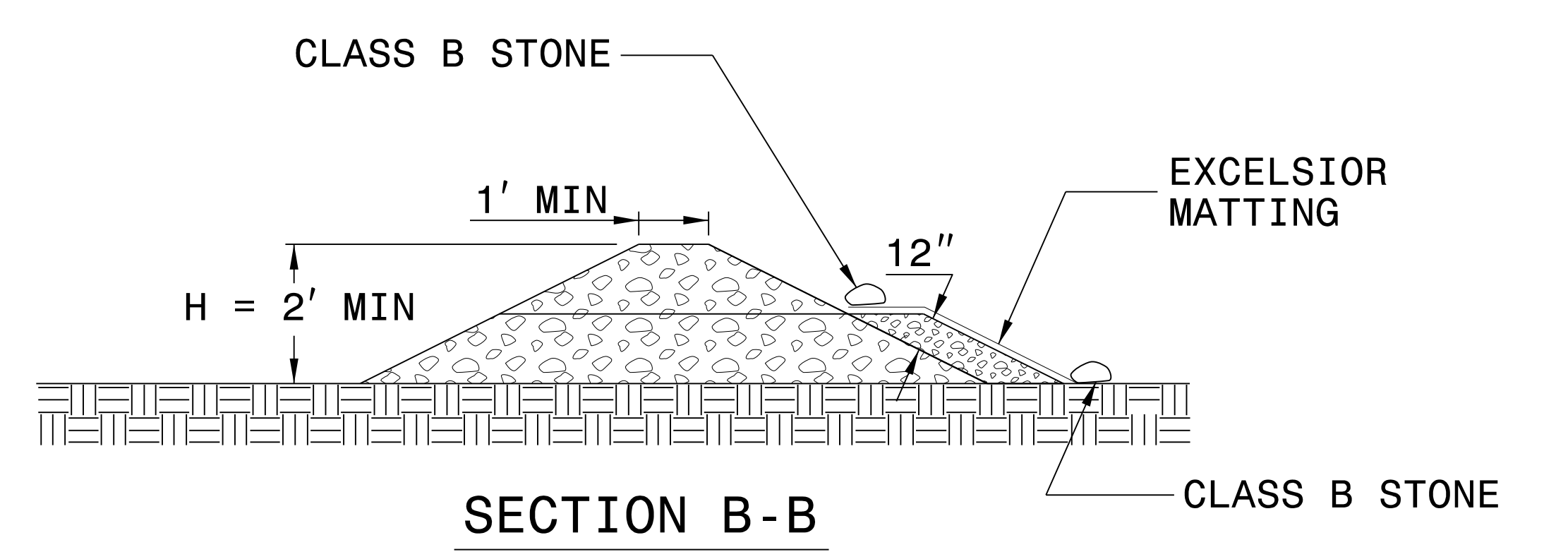
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

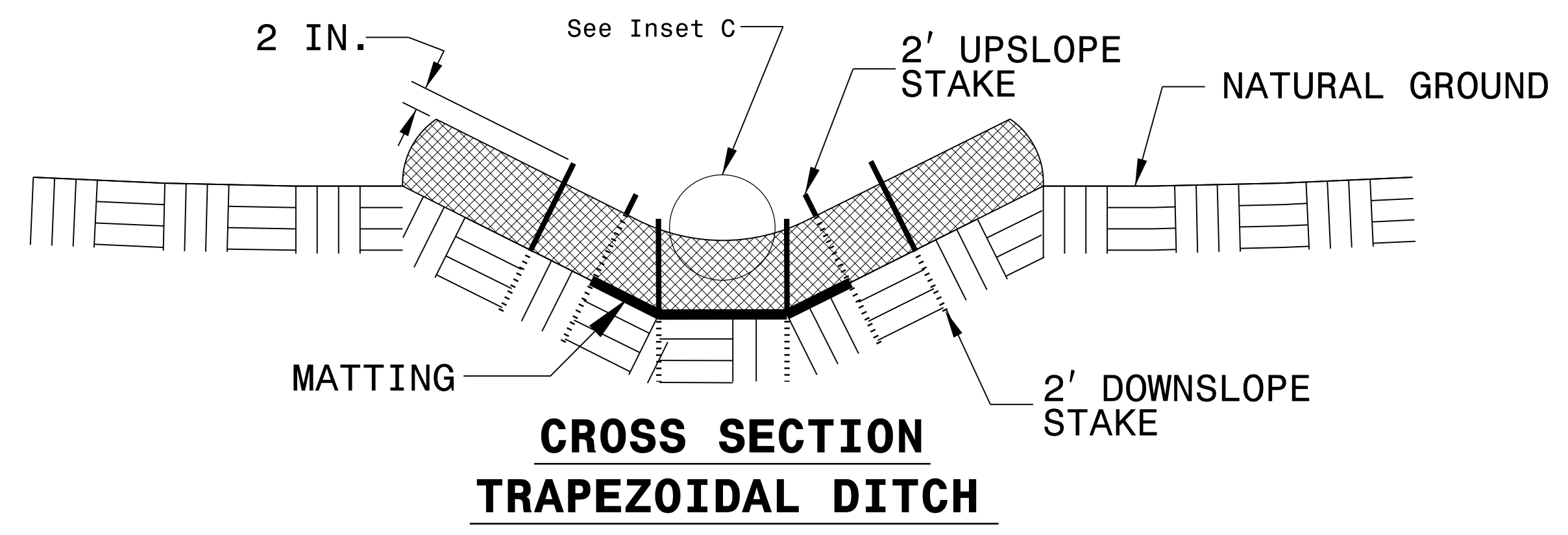
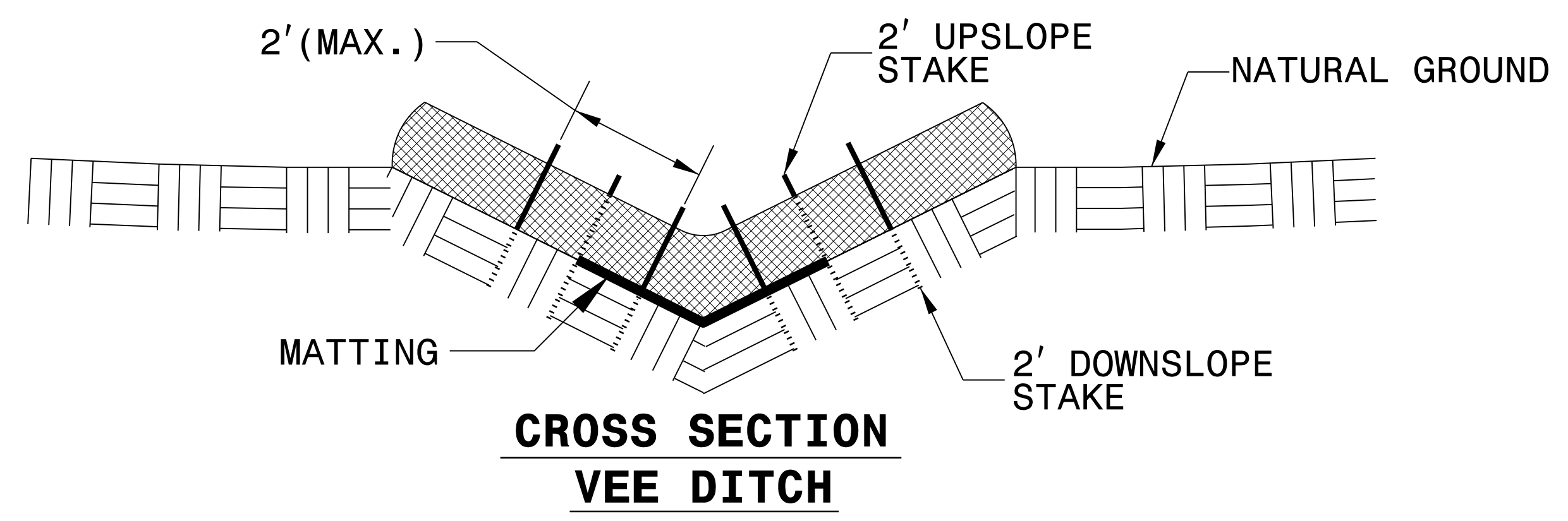
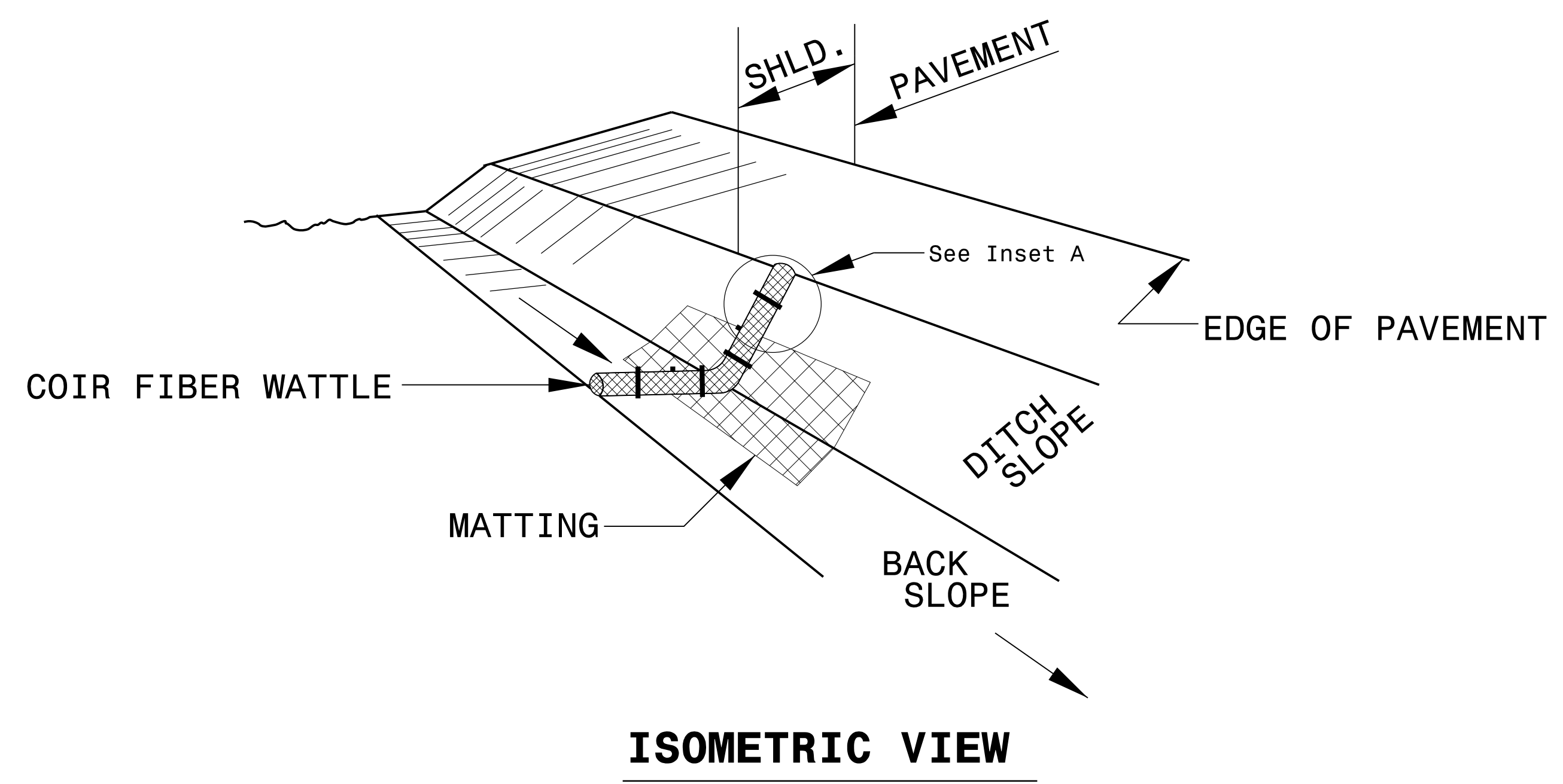
NOT TO SCALE

REVISIONS

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7/9/2020
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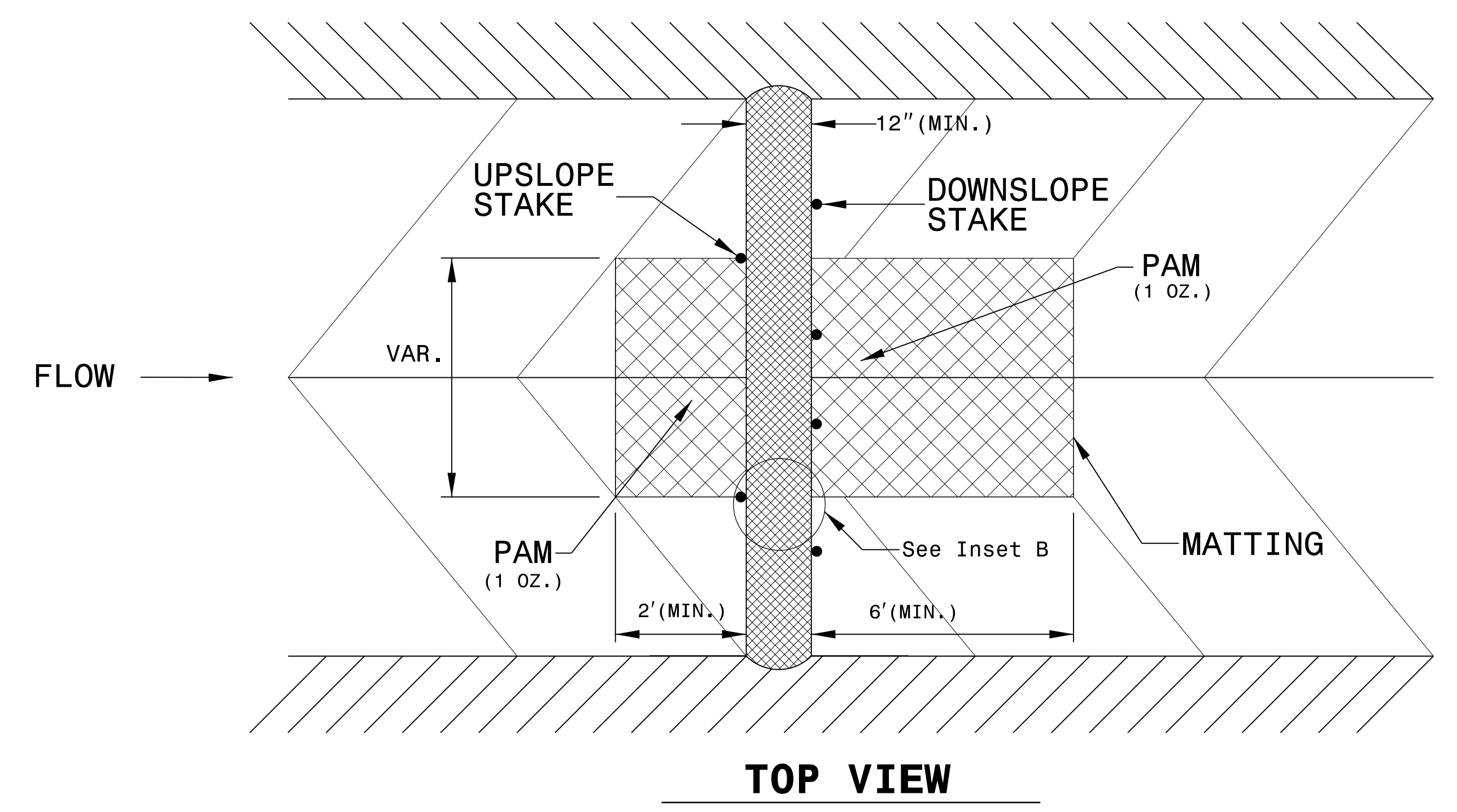
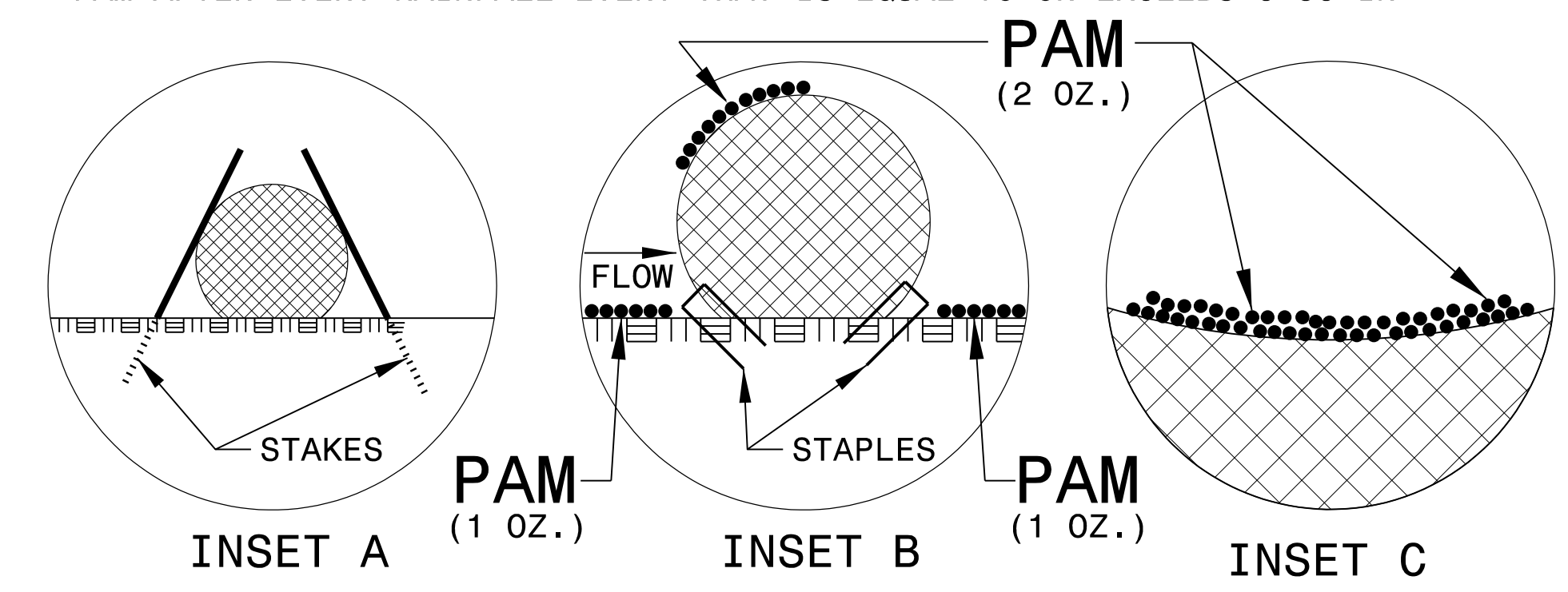
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COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



NOTES:

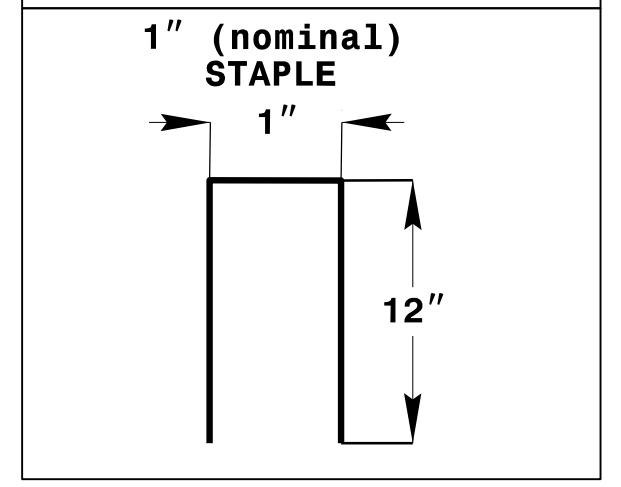
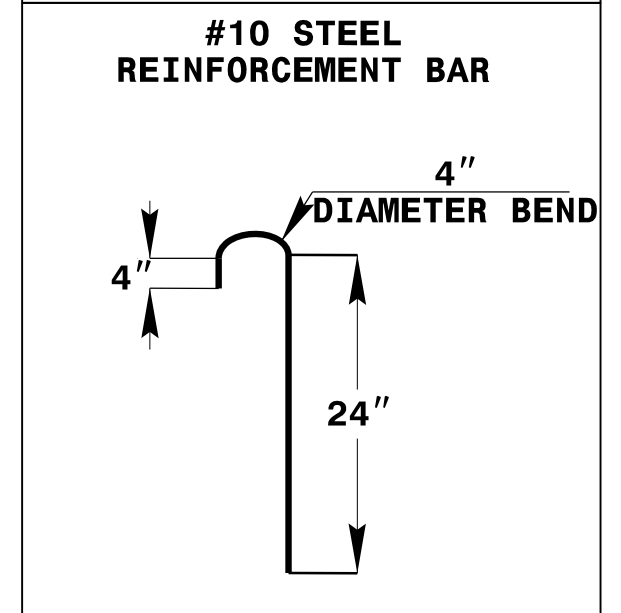
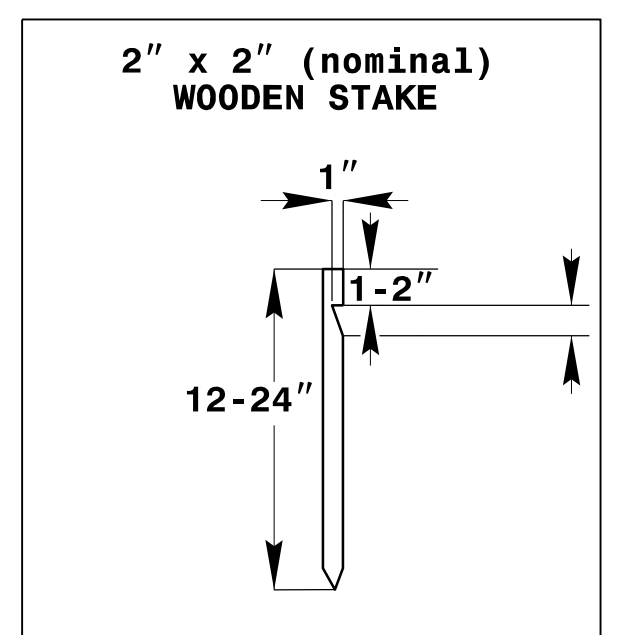
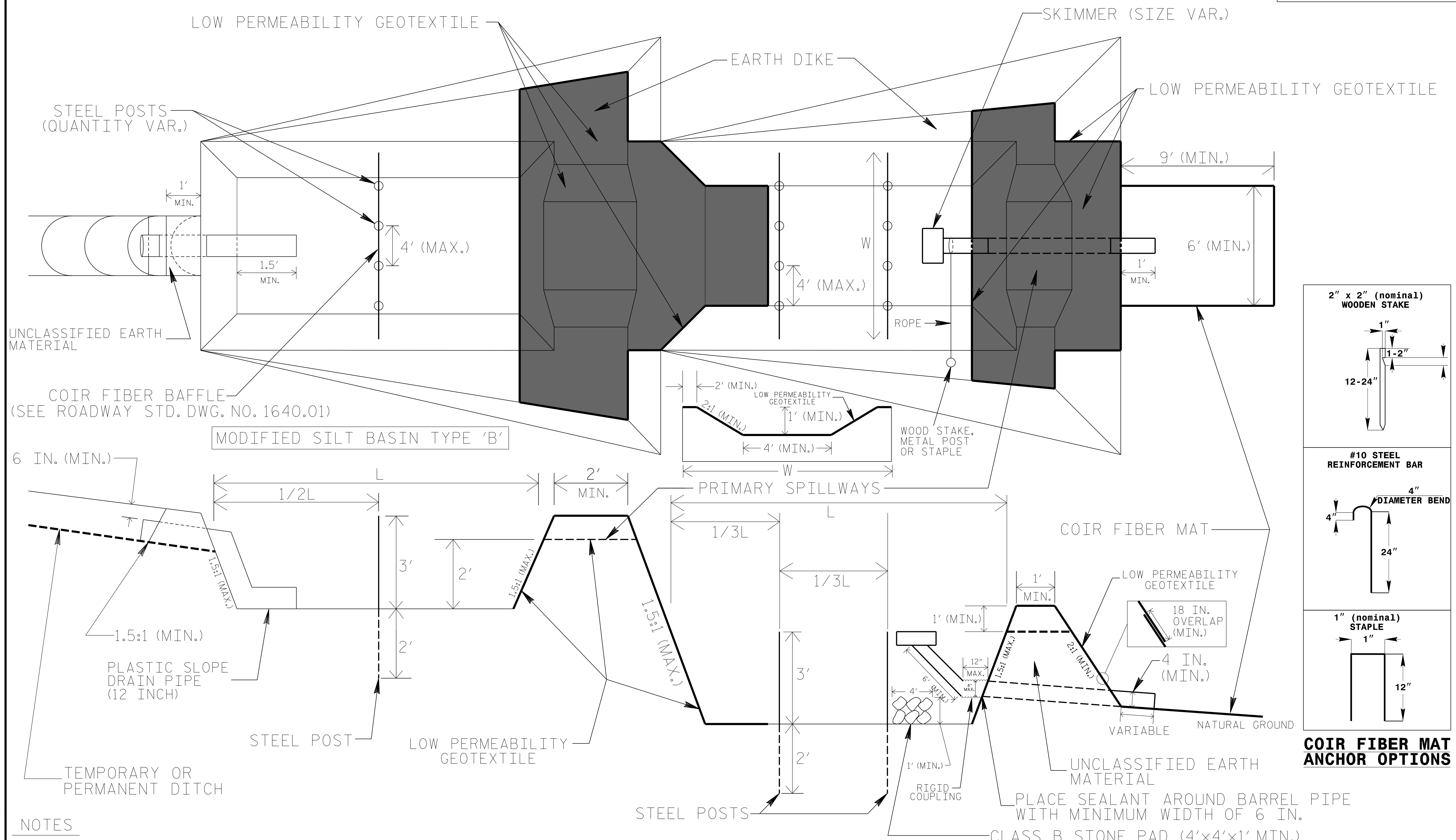
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 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.



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TIERED SKIMMER BASIN DETAIL (EAST)



COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES OF BASINS.
2. LIMIT HEIGHT OF EARTH DIKES TO 5 FT.
3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.
4. FOR BASIN DEPTHS OF 3FT., THE MINIMUM BASIN WIDTHS SHALL BE 9 FT.
5. DETERMINE PRIMARY SPILLWAY WEIR LENGTHS (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO UPPER BASIN.
6. LOW PERMEABILITY GEOTEXTILE FOR PRIMARY SPILLWAYS SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

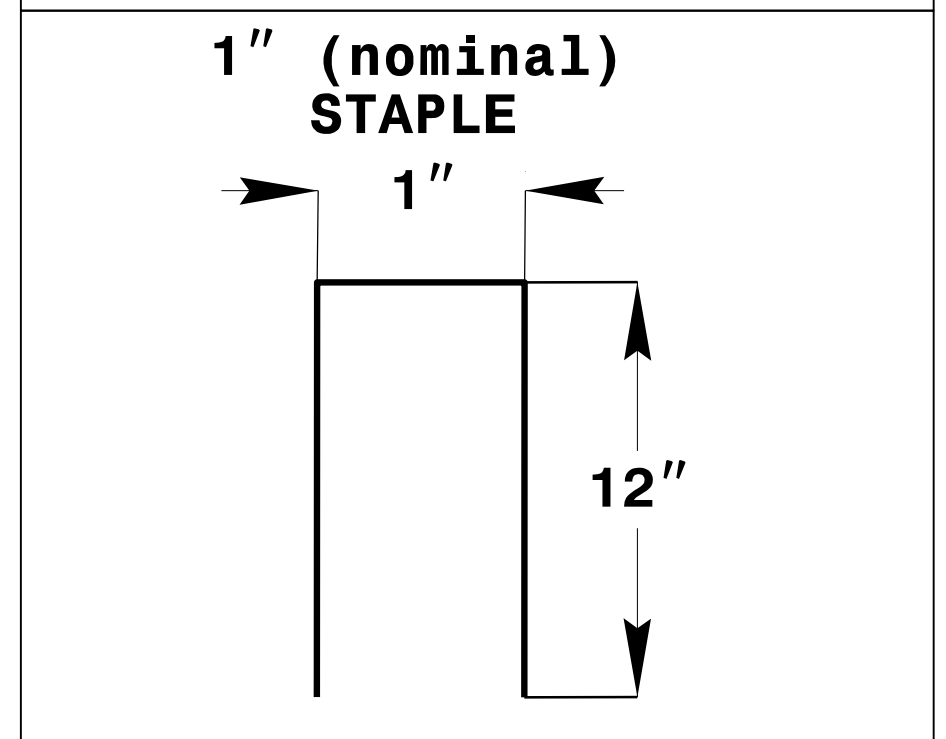
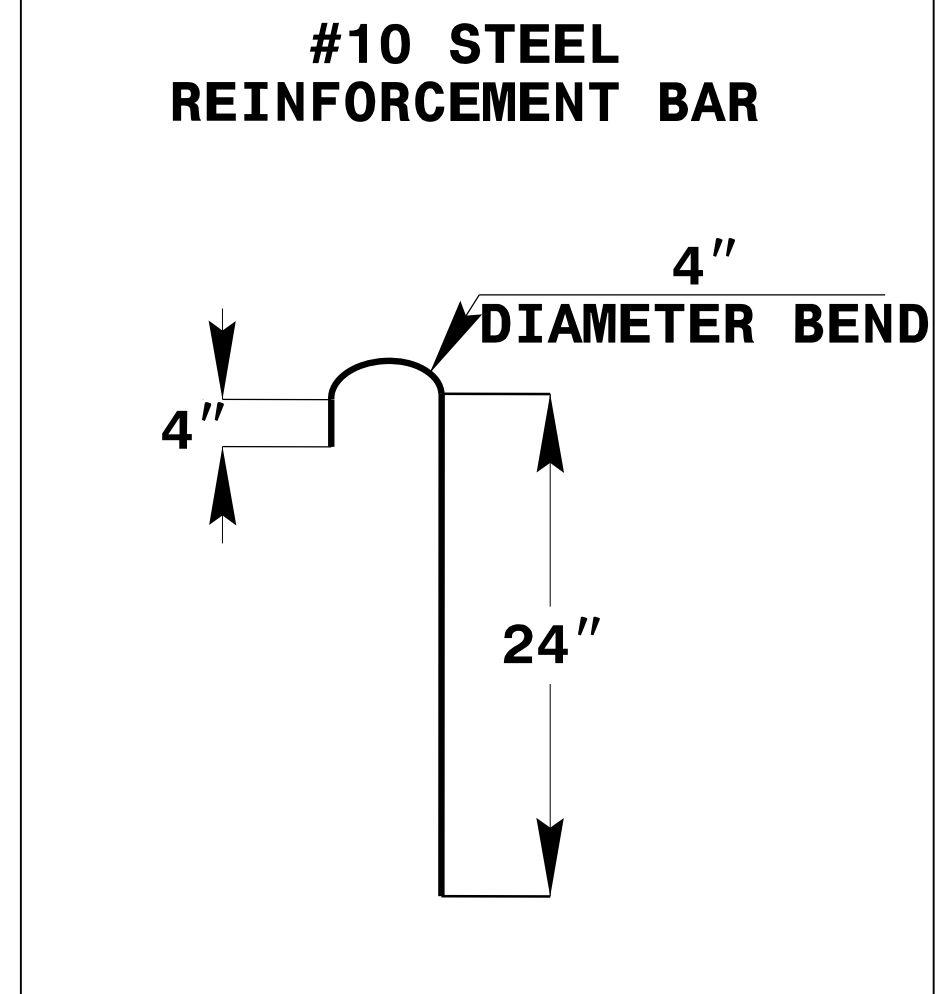
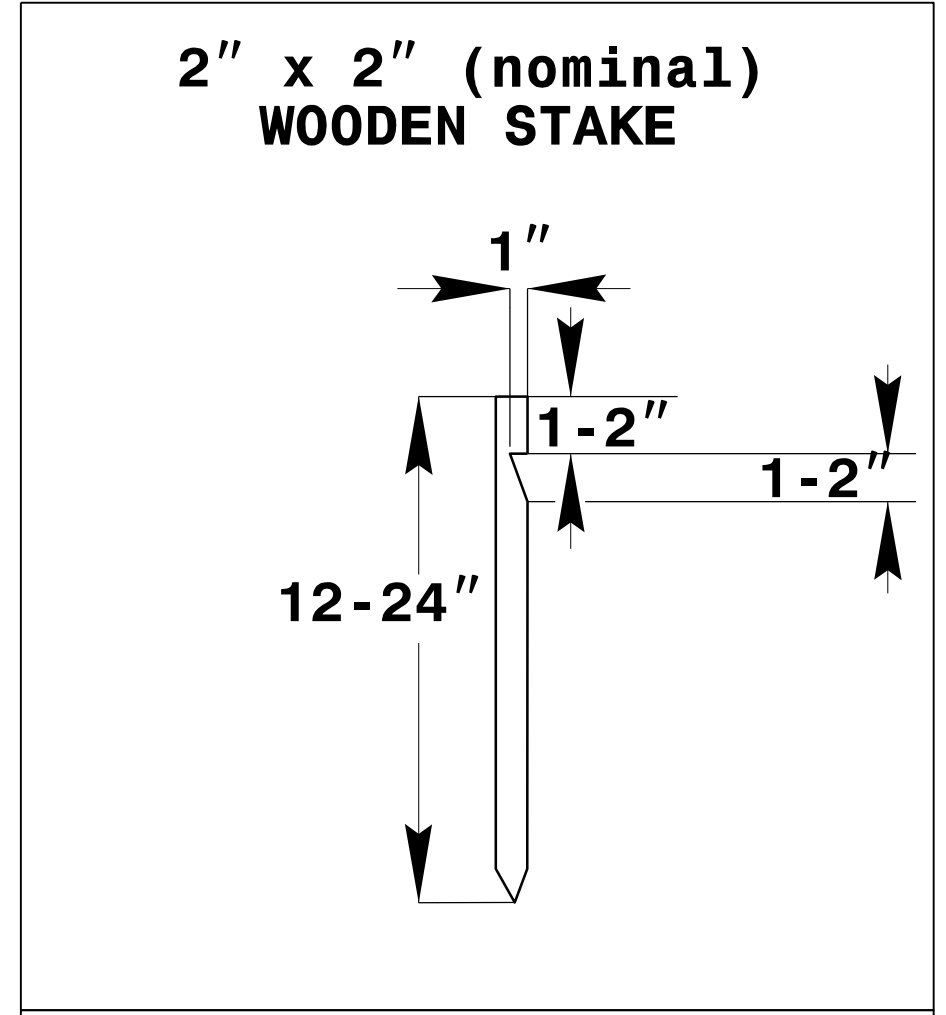
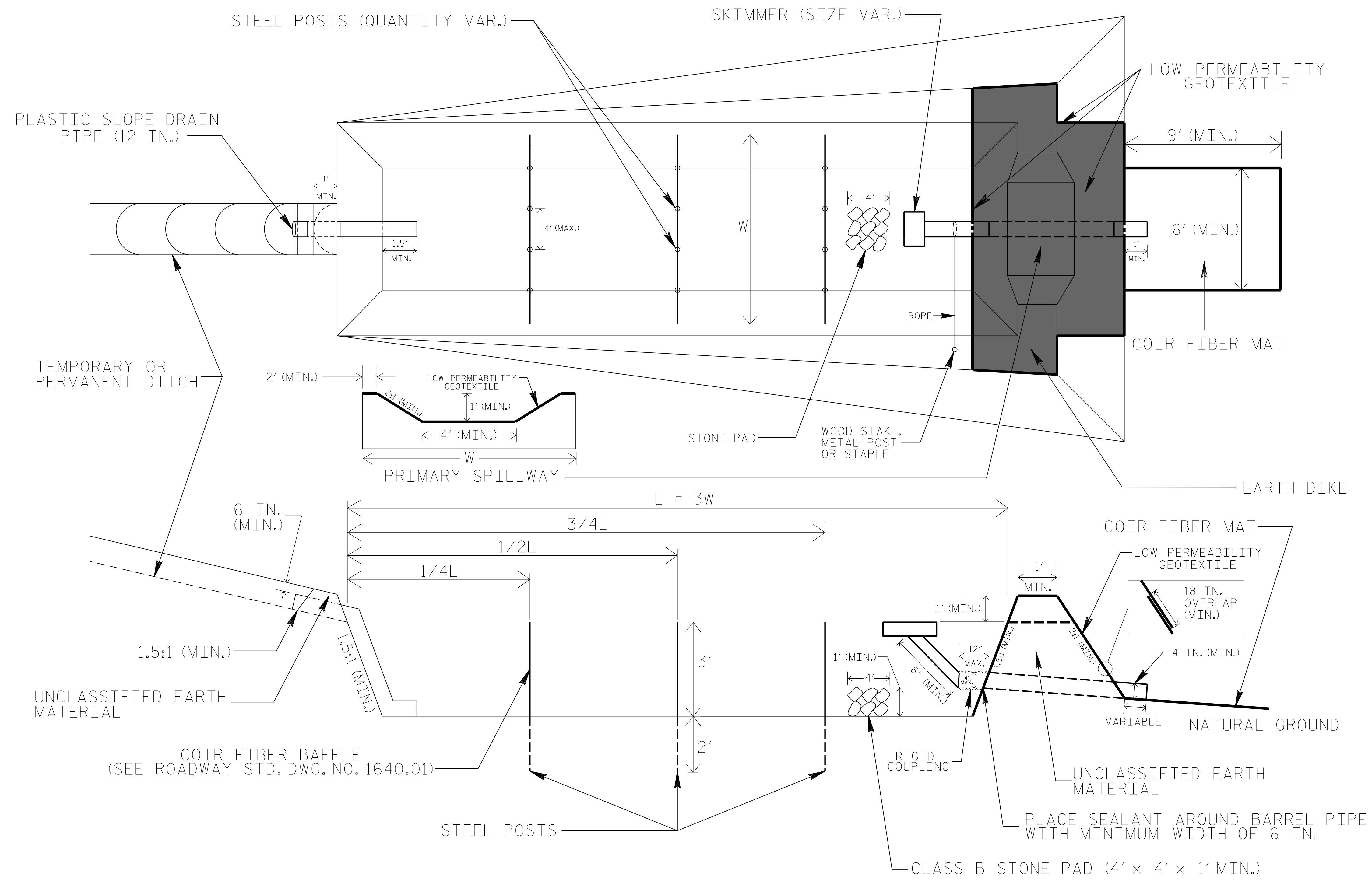
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8/17/99

SKIMMER BASIN WITH BAFFLES DETAIL (EAST)

| | |
|---|--------------------|
| PROJECT REFERENCE NO. R-256/CA | SHEET NO. EC-2D |
| SEPI | |
| 1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9977 Fax: 919.789.9591 License: C-2197 | |
| Engineering & Construction, Inc. | |



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.).

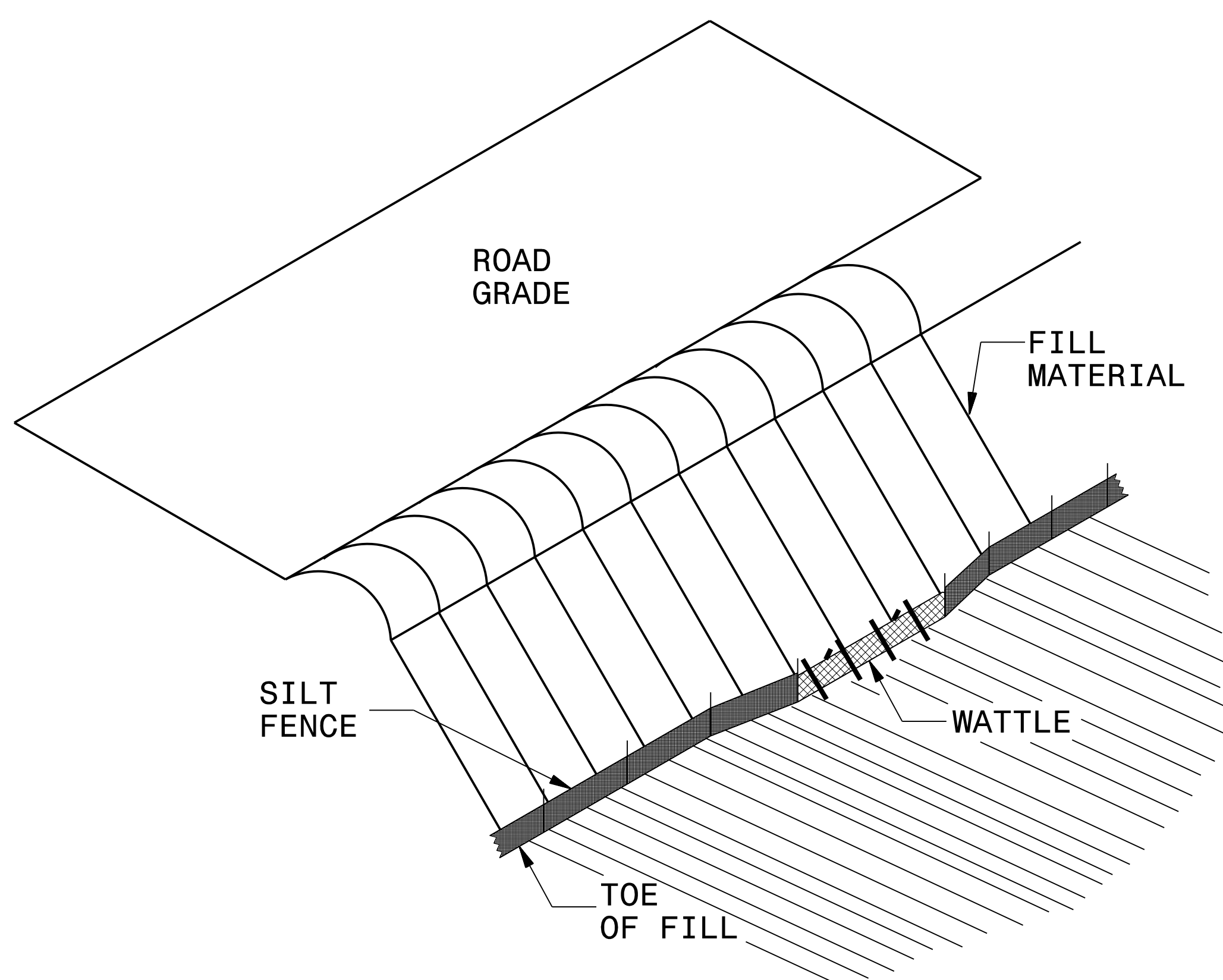
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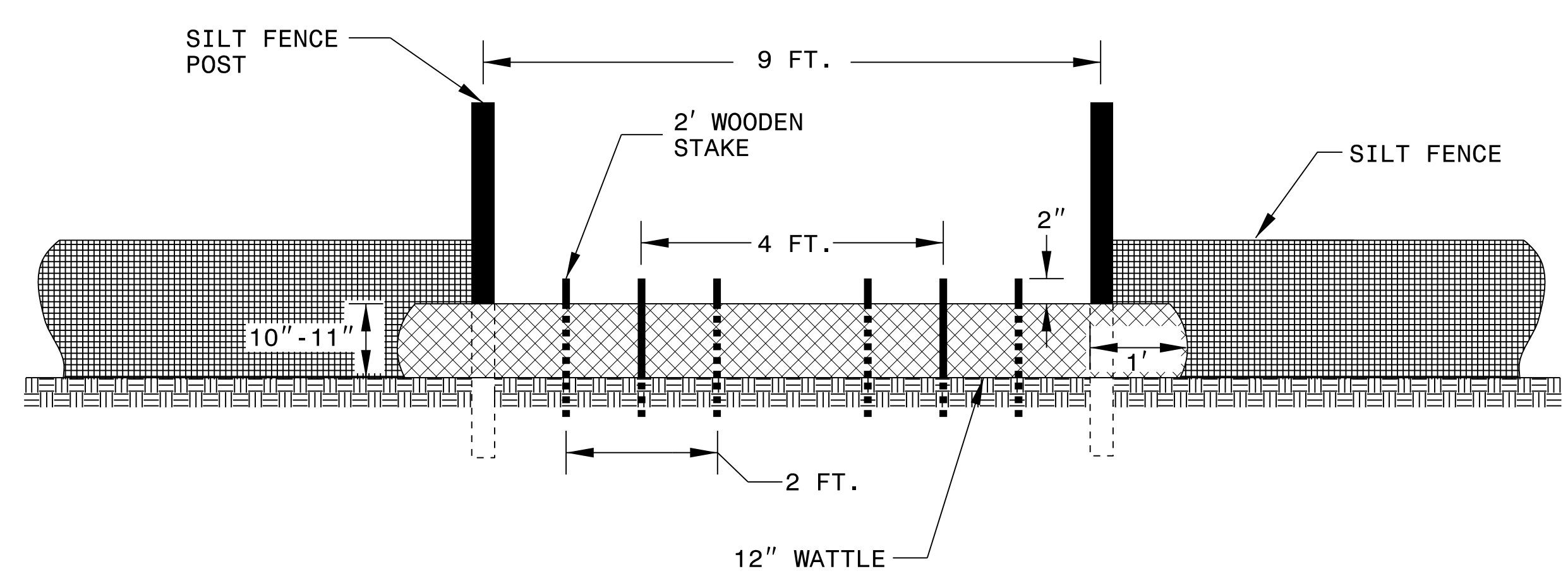
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| PROJECT REFERENCE NO. <i>R-256/CA</i> | SHEET NO. <i>EC-2E</i> |
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SILT FENCE COIR FIBER WATTLE BREAK DETAIL



ISOMETRIC VIEW

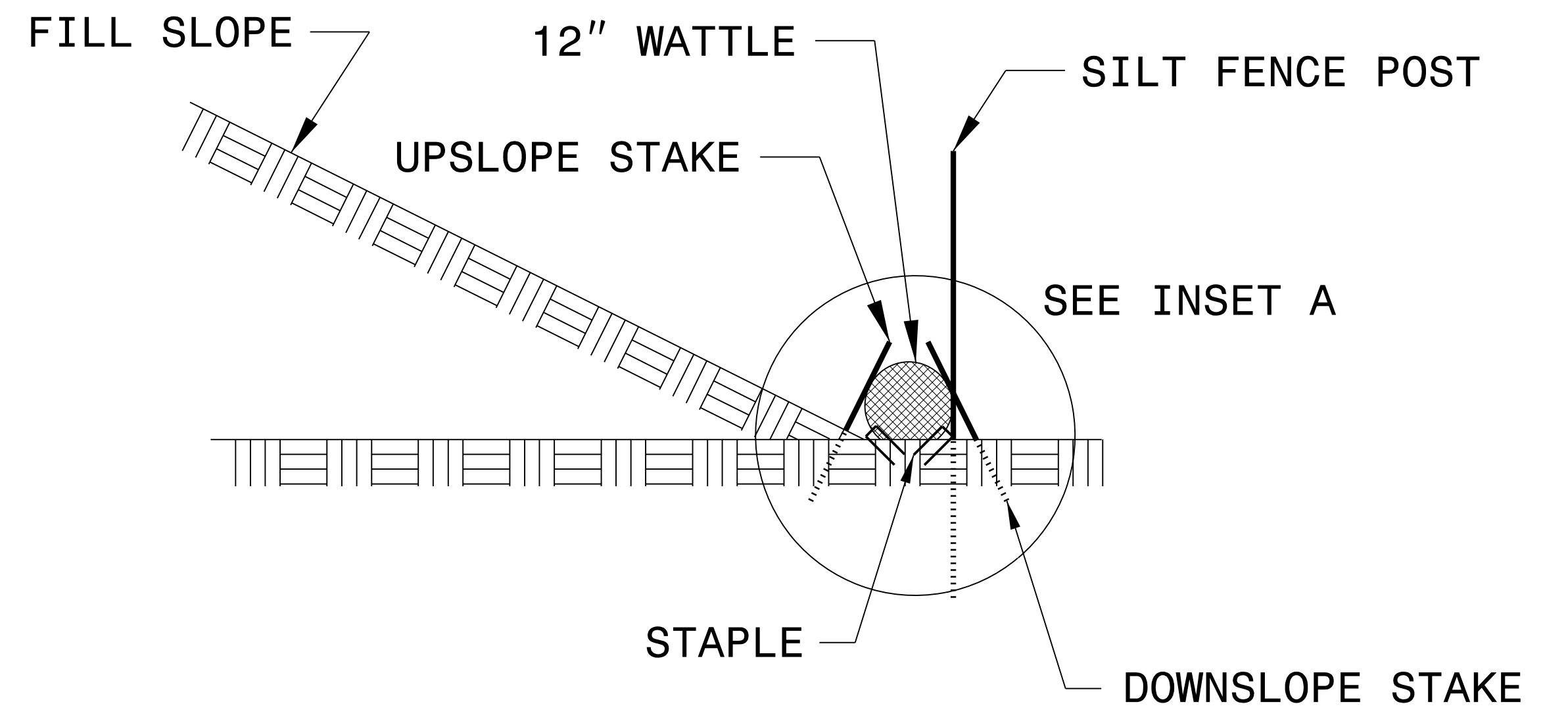
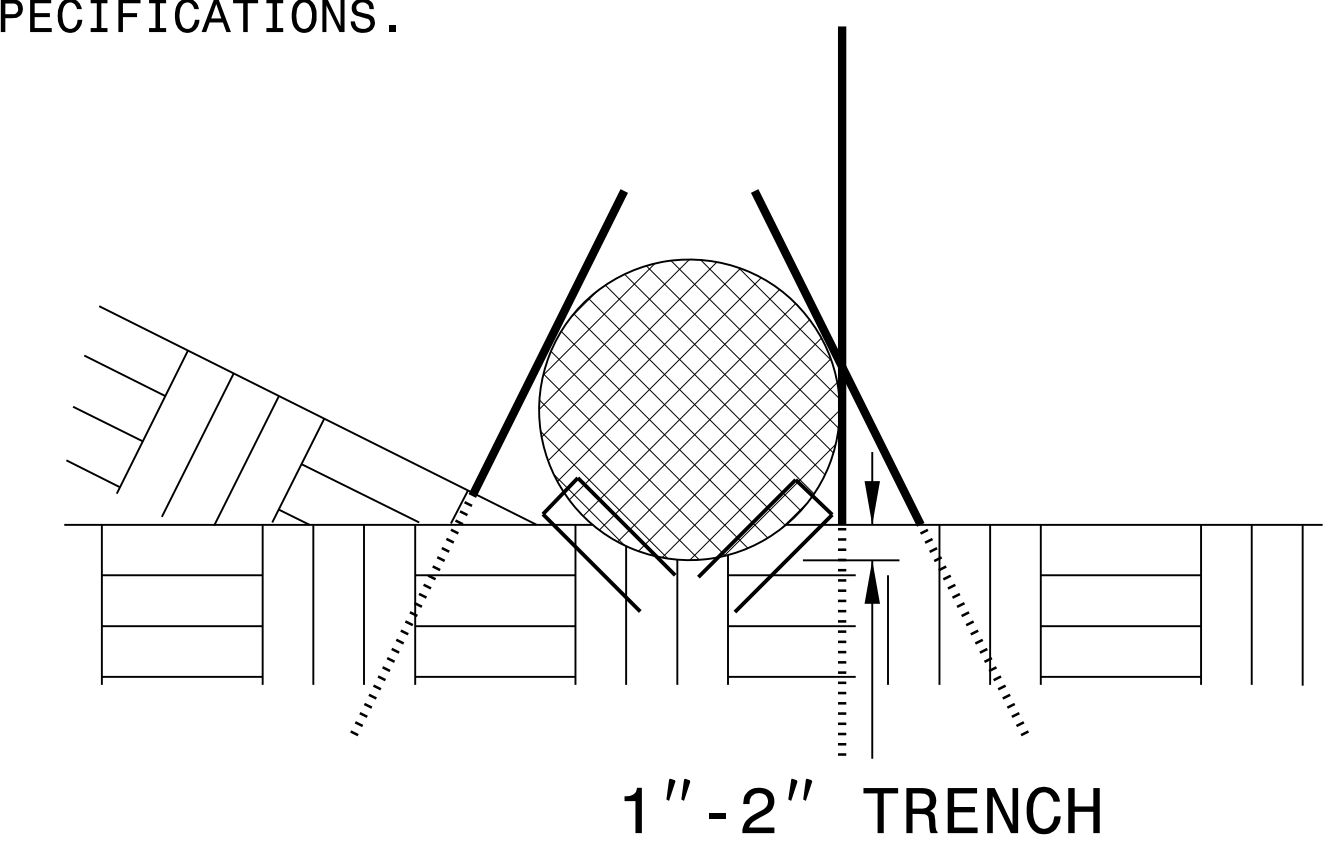


VIEW FROM SLOPE

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

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| | |
|--|--------------------|
| PROJECT REFERENCE NO. R-256/CA | SHEET NO. EC-2F |
|  | |
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BORROW PIT DEWATERING BASIN DETAIL

GENERAL NOTES:

DETERMINE BORROW PIT DEWATERING BASIN SIZE USING $V = 8.0203 * Q * T$, WHERE V IS VOLUME (FT³), 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.

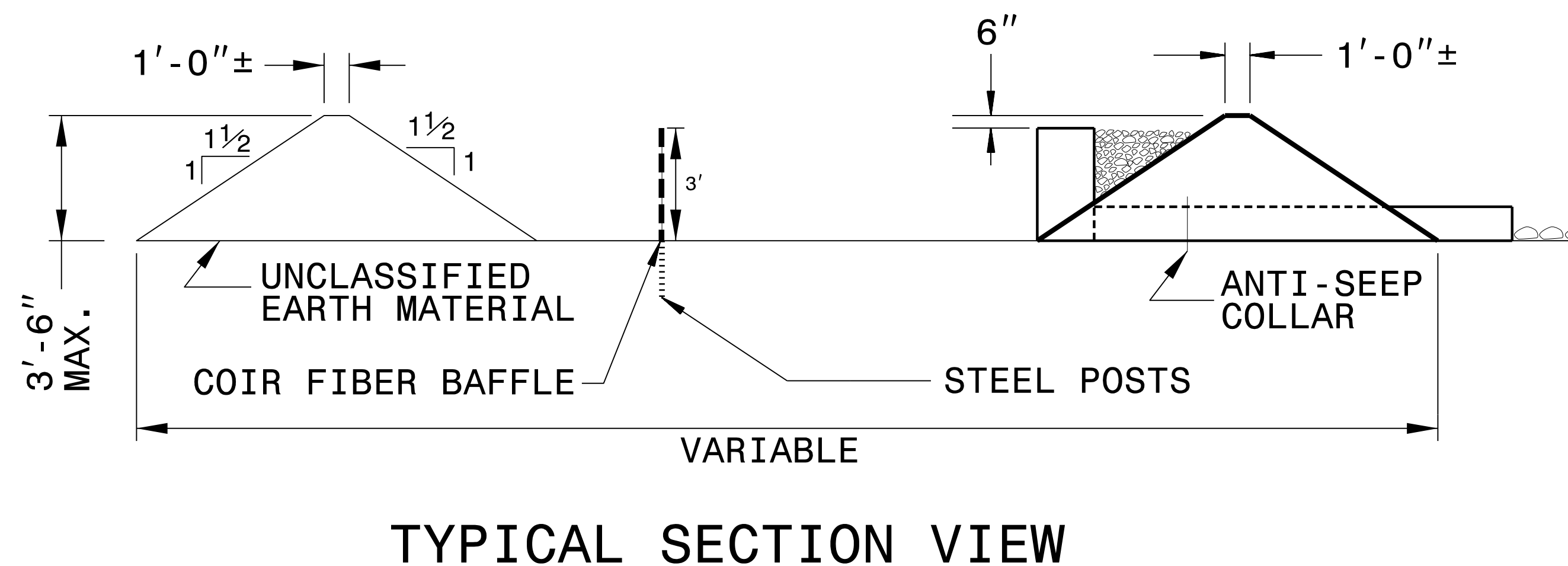
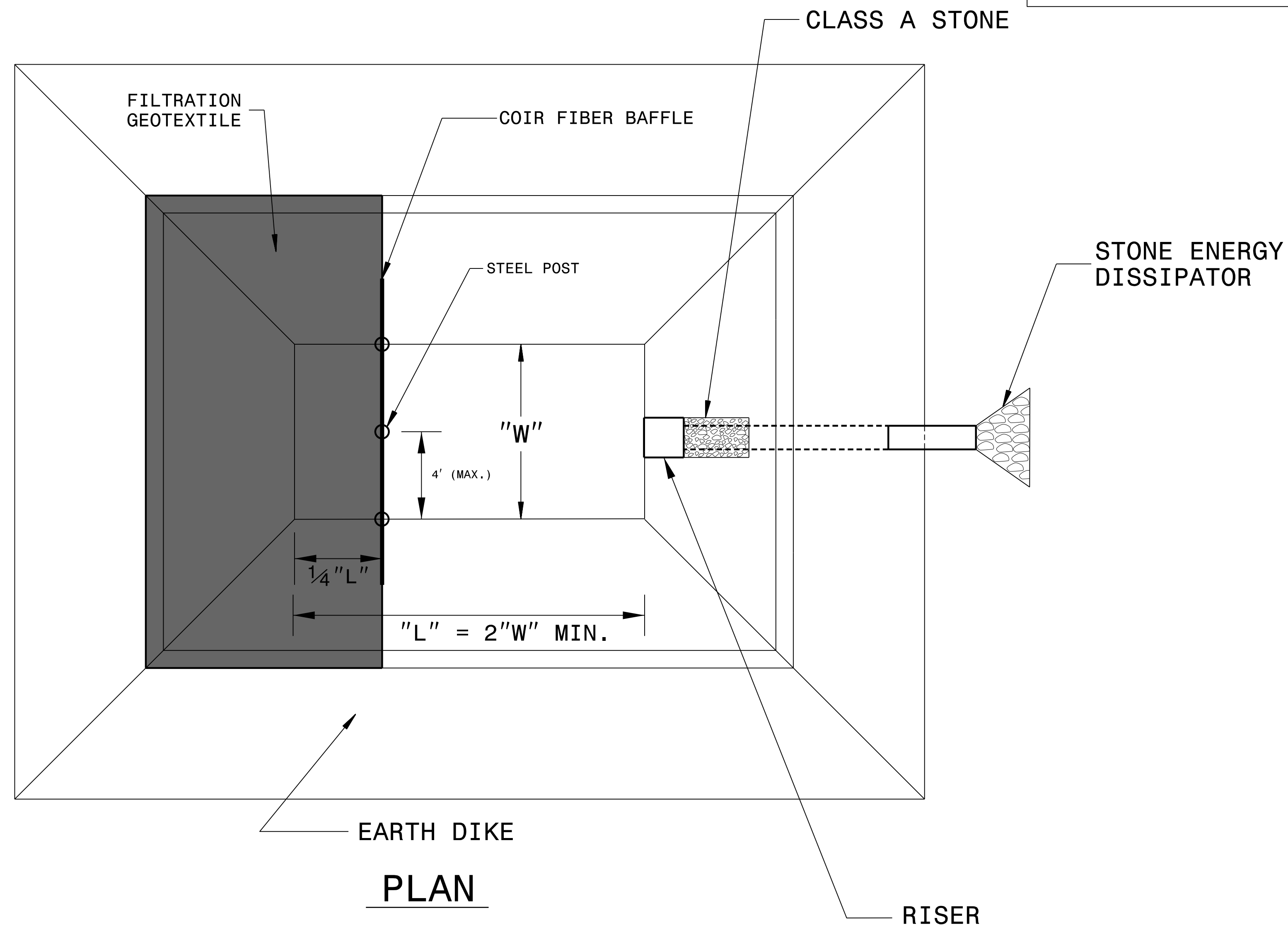
DO NOT EXCEED 3 1/2 FT. IN HEIGHT FOR THE EARTH DIKES REQUIRED FOR BORROW PIT DEWATERING BASIN.

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.

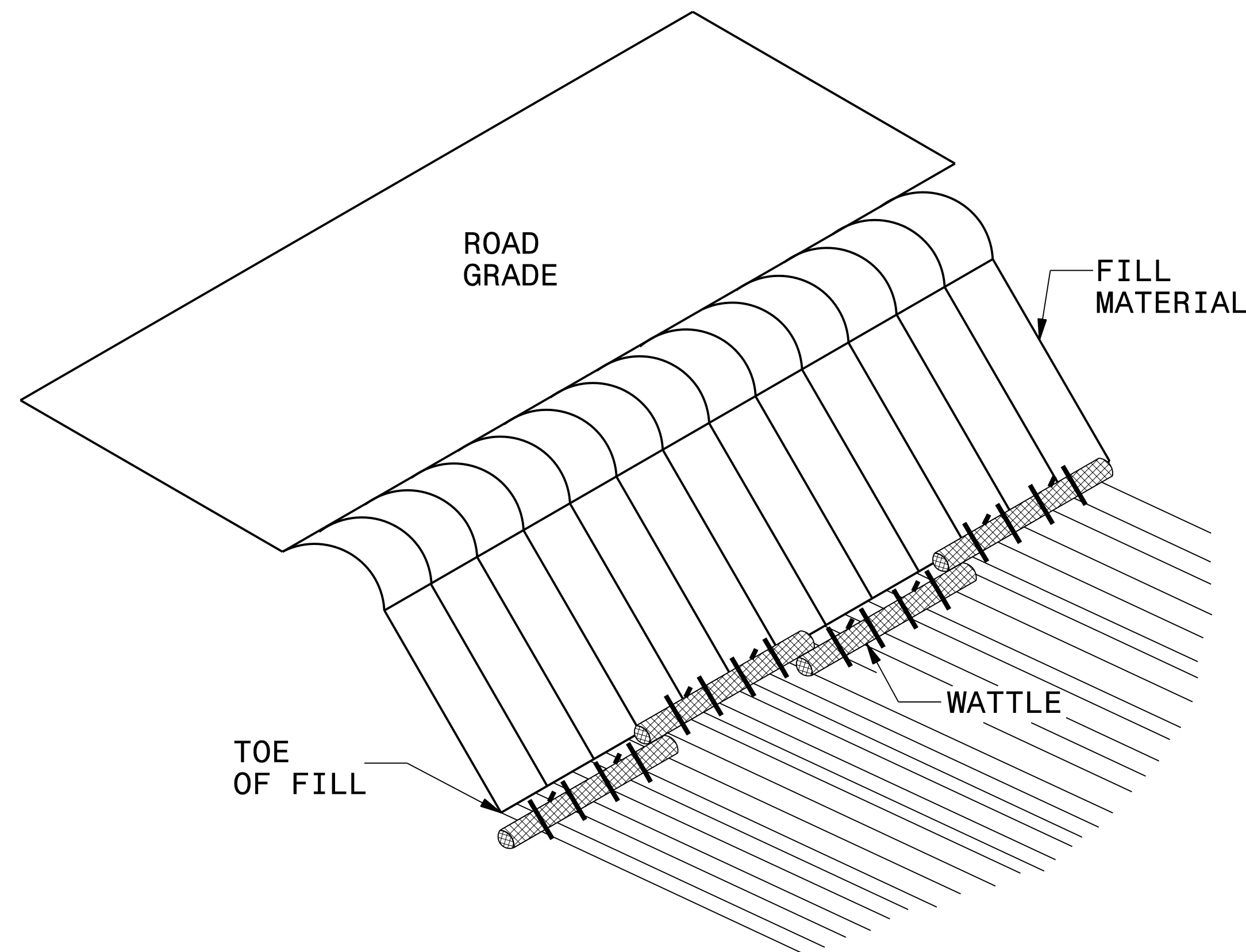
PROVIDE A STONE ENERGY DISSIPATOR PAD AT THE OUTLET OF THE PUMP DISCHARGE HOSE AND OUTLET OF THE RISER BARREL IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 876.02 FOR OUTLET W/O DITCH.



NOT TO SCALE

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COIR FIBER WATTLE BARRIER DETAIL



ISOMETRIC VIEW

NOTES:

USE MINIMUM 18 IN. NOMINAL DIAMETER COIR FIBER (COCONUT) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 2 TO 3 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLES ON TOE OF SLOPE.

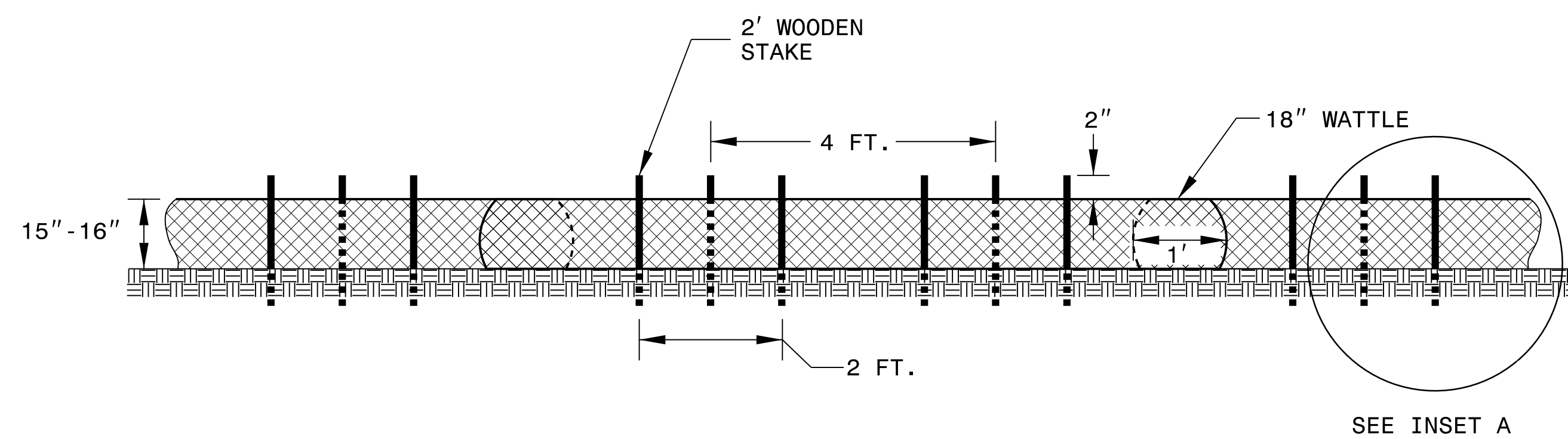
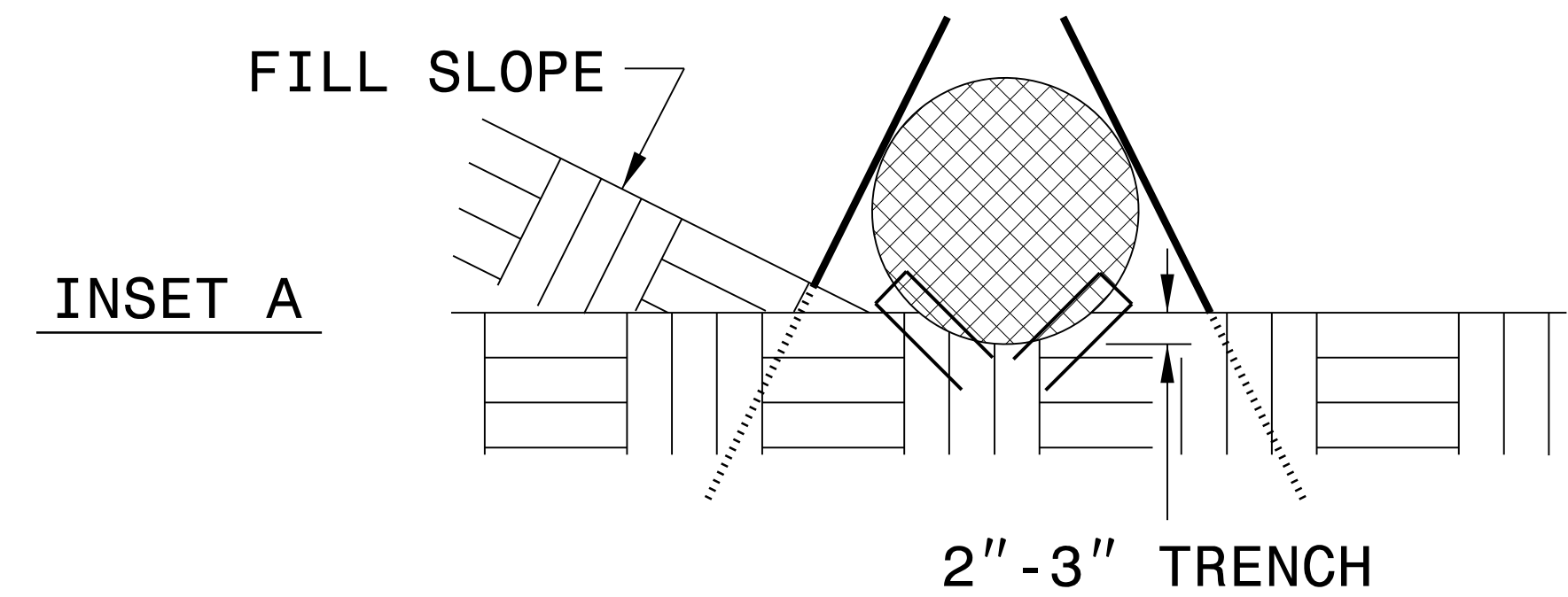
USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

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

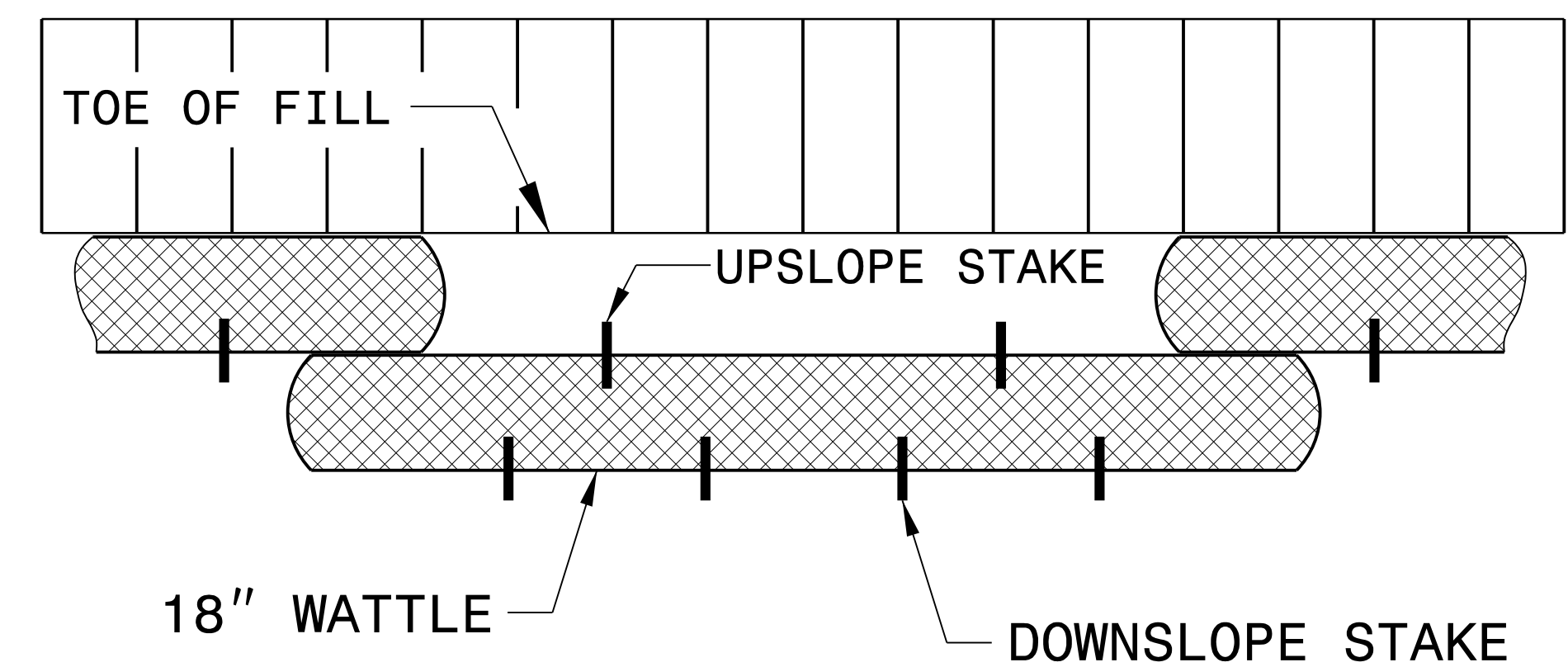
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

FOR BREAKS ALONG LARGE SLOPES, USE MAXIMUM SPACING OF 25 FT.



FRONT VIEW



TOP VIEW

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

STRAW MATTING FOR EROSION CONTROL

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SY) |
|-----------------|------|--------------|------------|------|---------------|
| 4 | -L1- | 12+00 | 15+42 | R1 | 600 |
| 5 | -L1- | 22+00 | 26+54 | R1 | 875 |
| 5 | -L1- | 27+68 | 28+32 | R1 | 125 |
| 4 | -L2- | 11+00 | 12+00 | L1 | 115 |
| 4 | -L2- | 12+00 | 15+52 | L1 | 400 |
| 4 | -L2- | 15+76 | 18+50 | L1 | 275 |
| 5 | -L2- | 21+50 | 23+50 | L1 | 225 |
| 5 | -L2- | 23+70 | 26+57 | L1 | 485 |
| 5 | -L2- | 27+50 | 28+33 | L1 | 140 |
| 5 | -L2- | 23+50 | 24+00 | MED | 35 |
| 5 | -L- | 28+33 | 29+00 | L1 | 115 |
| 5/6 | -L- | 29+50 | 35+00 | L1 | 825 |
| 6/7 | -L- | 44+50 | 50+50 | L1 | 1010 |
| 7 | -L- | 56+32 | 60+00 | L1 | 490 |
| 7 | -L- | 66+50 | 67+30 | L1 | 115 |
| 8 | -L- | 74+00 | 78+50 | L1 | 905 |
| 6 | -L- | 34+50 | 35+00 | MED | 35 |
| 7 | -L- | 72+50 | 73+00 | MED | 40 |
| 5/6 | -L- | 28+38 | 37+18 | R1 | 1705 |
| 6 | -L- | 38+00 | 46+92 | R1 | 1790 |
| 7 | -L- | 51+50 | 53+00 | R1 | 200 |
| 7 | -L- | 53+00 | 54+00 | R1 | 135 |
| 7 | -L- | 56+56 | 57+17 | R1 | 70 |
| 7 | -L- | 60+25 | 64+65 | R1 | 1185 |
| 7 | -L- | 64+65 | 65+50 | R1 | 105 |
| 8 | -L- | 81+00 | 84+16 | R1 | 775 |
| 8/9 | -L3- | 84+16 | 89+50 | R1 | 1030 |
| 9 | -L3- | 89+50 | 94+00 | R1 | 705 |
| 9 | -L3- | 94+00 | 100+75 | R1 | 1060 |
| 8 | -L4- | 86+57 | 87+00 | L1 | 50 |
| 9 | -L4- | 89+00 | 91+00 | L1 | 180 |

STRAW MATTING FOR EROSION CONTROL

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SY) |
|-----------------|-------|--------------|------------|------|---------------|
| 9 | -L4- | 93+00 | 96+00 | L1 | 470 |
| 9 | -L4- | 96+00 | 99+50 | L1 | 590 |
| 7 | -LPB- | 12+88 | 15+00 | L1 | 415 |
| 7 | -LPB- | 12+50 | 14+00 | R1 | 200 |
| 7 | -LPB- | 17+70 | 18+82 | R1 | 100 |
| 6 | -RPB- | 14+26 | 18+00 | L1 | 720 |
| 7 | -RPB- | 18+00 | 19+54 | L1 | 385 |
| 7 | -RPB- | 19+54 | 21+00 | L1 | 165 |
| 7 | -RPB- | 21+62 | 22+00 | L1 | 35 |
| 7 | -RPB- | 22+00 | 24+90 | L1 | 455 |
| 7 | -RPB- | 18+00 | 19+79 | R1 | 205 |
| 7 | -RPB- | 19+79 | 21+62 | R1 | 205 |
| 7 | -LPD- | 10+00 | 10+85 | R1 | 100 |
| 7 | -LPD- | 10+85 | 13+54 | R1 | 425 |
| 7 | -LPD- | 16+87 | 19+14 | R1 | 205 |
| 7 | -RPD- | 14+75 | 17+50 | L1 | 310 |
| 7 | -RPD- | 14+75 | 20+00 | R1 | 655 |
| 11 | -Y- | 20+25 | 26+00 | L1 | 900 |
| 7 | -Y- | 27+27 | 28+22 | L1 | 130 |
| 7 | -Y- | 30+00 | 32+75 | L1 | 365 |
| 7 | -Y- | 35+32 | 37+50 | L1 | 305 |
| 7 | -Y- | 37+50 | 39+55 | L1 | 285 |
| 12 | -Y- | 41+45 | 45+00 | L1 | 400 |
| 12 | -Y- | 45+00 | 47+78 | L1 | 205 |
| 10 | -Y- | 11+00 | 14+00 | R1 | 470 |
| 11 | -Y- | 14+00 | 16+00 | R1 | 280 |
| 11 | -Y- | 19+50 | 22+00 | R1 | 395 |
| 11 | -Y- | 22+00 | 25+00 | R1 | 400 |
| 11 | -Y- | 25+61 | 26+00 | R1 | 35 |
| 12 | -Y- | 43+50 | 48+00 | R1 | 600 |
| 5 | -Y2- | 11+71 | 14+54 | L1 | 375 |

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

| | |
|-----------------------------------|--------------------|
| PROJECT REFERENCE NO. R-256/CA | SHEET NO. EC-3B |
|-----------------------------------|--------------------|

SEPI
Engineering & Construction, Inc.

1 Glenwood Avenue
Raleigh, NC 27603
Tel: 919.789.9977
Fax: 919.789.9591
License: C-2197

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. |

-L2-

| | |
|------------------------------|------------------------------|
| PI Sta 16+07.83 | PI Sta 24+24.70 |
| $\Delta = 4' 04" 11.5" (LT)$ | $\Delta = 4' 04" 11.5" (RT)$ |
| $D = 0' 29' 53.6"$ | $D = 0' 29' 53.6"$ |
| $L = 816.87'$ | $L = 816.87'$ |
| $T = 408.61'$ | $T = 408.61'$ |
| $R = 11,500.00'$ | $R = 11,500.00'$ |
| SE = NC | SE = NC |

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

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

BEGIN TIP PROJECT R-256/ICA
-L1- STA. 11+00.00

BEGIN CONSTRUCTION
-L1- STA. 8+00.00

-L1- POT Sta. 7+00.00

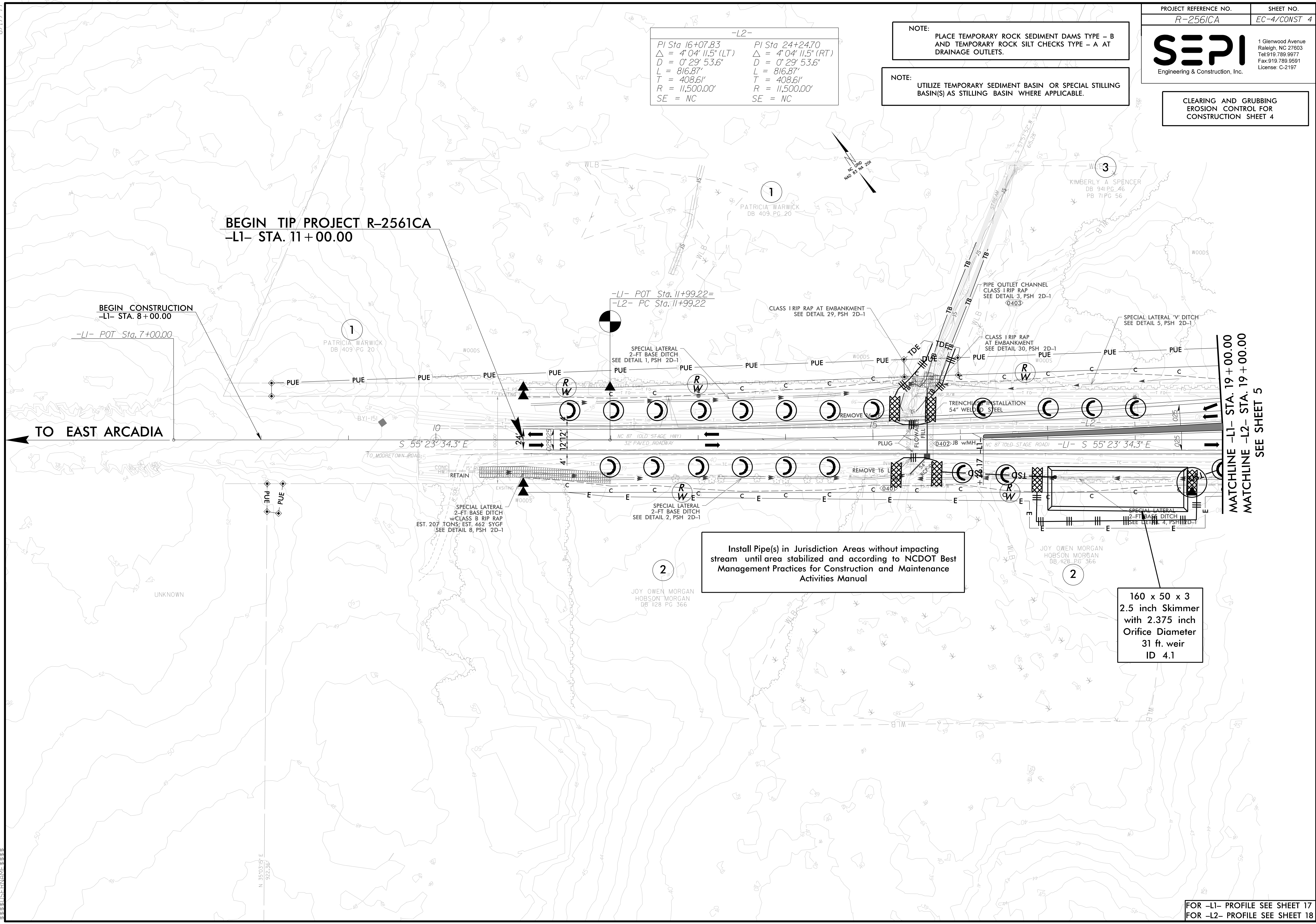
TO EAST ARCADIA

MATCHLINE -L1- STA. 19+00.00
MATCHLINE -L2- STA. 19+00.00
SEE SHEET 5

Install Pipe(s) in Jurisdiction Areas without impacting stream until area stabilized and according to NCDOT Best Management Practices for Construction and Maintenance Activities Manual

160 x 50 x 3
2.5 inch Skimmer
with 2.375 inch
Orifice Diameter
31 ft. weir
ID 4.1

8.17/99
N 35°03'15" E 922.36'
TO MOORETOWN ROAD

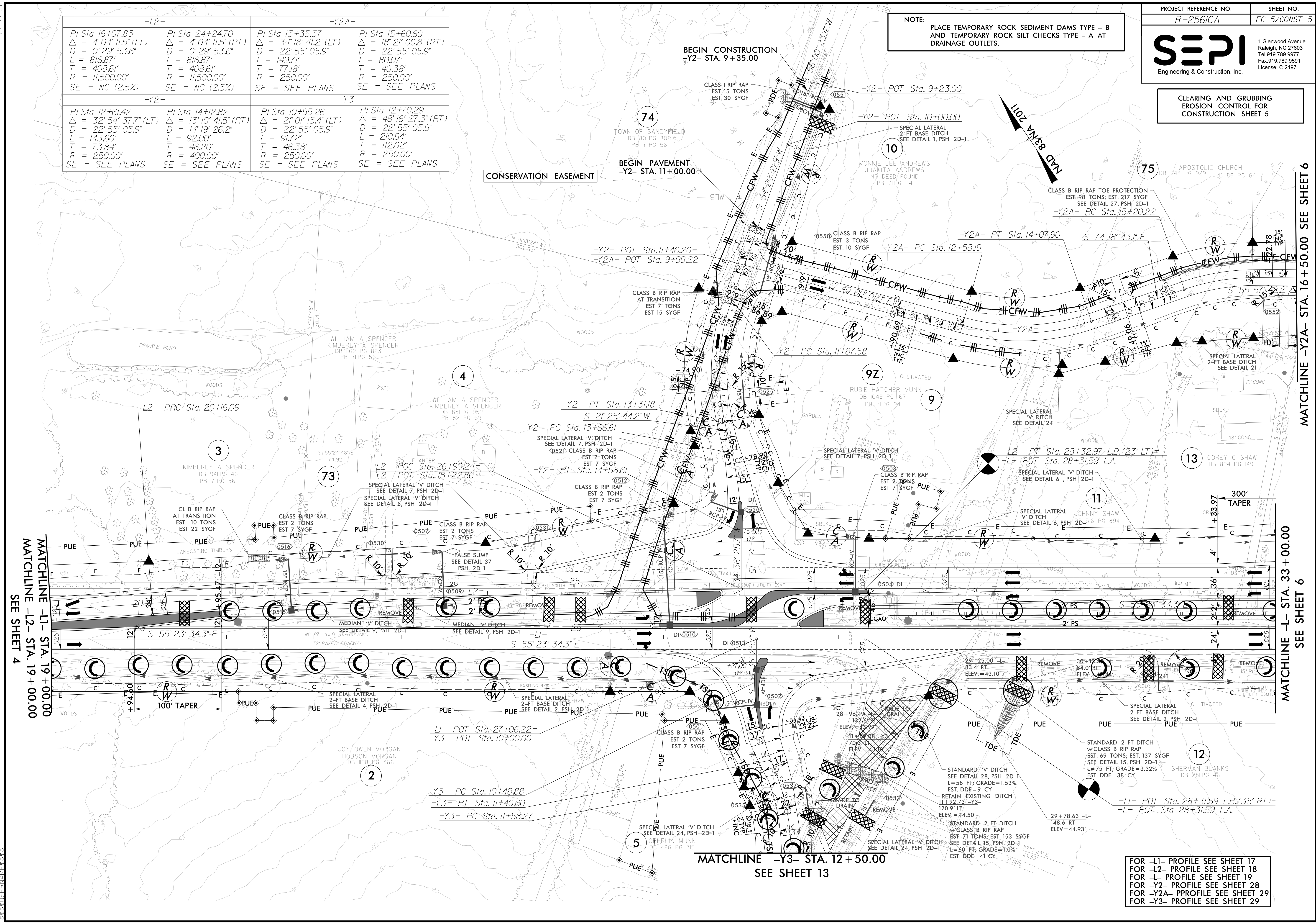




CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5

| -L2- | | -Y2A- | |
|--|--|--|---|
| PI Sta 16+07.83 Δ = 4° 04' 11.5" (LT) D = 0' 29' 53.6" L = 816.87' T = 408.61' R = 11,500.00' SE = NC (2.5%) | PI Sta 24+24.70 Δ = 4° 04' 11.5" (RT) D = 0' 29' 53.6" L = 816.87' T = 408.61' R = 11,500.00' SE = NC (2.5%) | PI Sta 13+35.37 Δ = 34° 18' 41.2" (LT) D = 22° 55' 05.9" L = 149.71' T = 77.18' R = 250.00' SE = SEE PLANS | PI Sta 15+60.60 Δ = 18° 21' 00.8" (RT) D = 22° 55' 05.9" L = 80.07' T = 40.38' R = 250.00' SE = SEE PLANS |
| -Y2- | | -Y3- | |
| PI Sta 12+61.42 Δ = 32° 54' 37.7" (LT) D = 22° 55' 05.9" L = 143.60' T = 73.84' R = 250.00' SE = SEE PLANS | PI Sta 14+12.82 Δ = 13° 10' 41.5" (RT) D = 14° 19' 26.2" L = 92.00' T = 46.20' R = 400.00' SE = SEE PLANS | PI Sta 10+95.26 Δ = 21° 01' 15.4" (LT) D = 22° 55' 05.9" L = 91.72' T = 46.38' R = 250.00' SE = SEE PLANS | PI Sta 12+70.29 Δ = 48° 16' 27.3" (RT) D = 22° 55' 05.9" L = 210.64' T = 112.02' R = 250.00' SE = SEE PLANS |

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



MATCHLINE -L1- STA. 19+00.00
MATCHLINE -L2- STA. 19+00.00
SEE SHEET 4

MATCHLINE -Y3- STA. 12+50.00
SEE SHEET 13

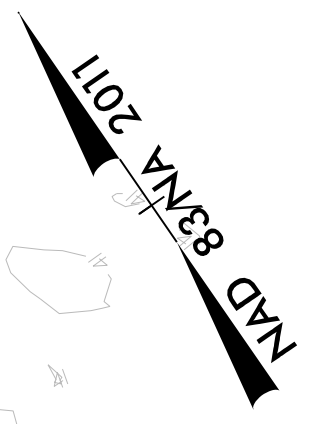
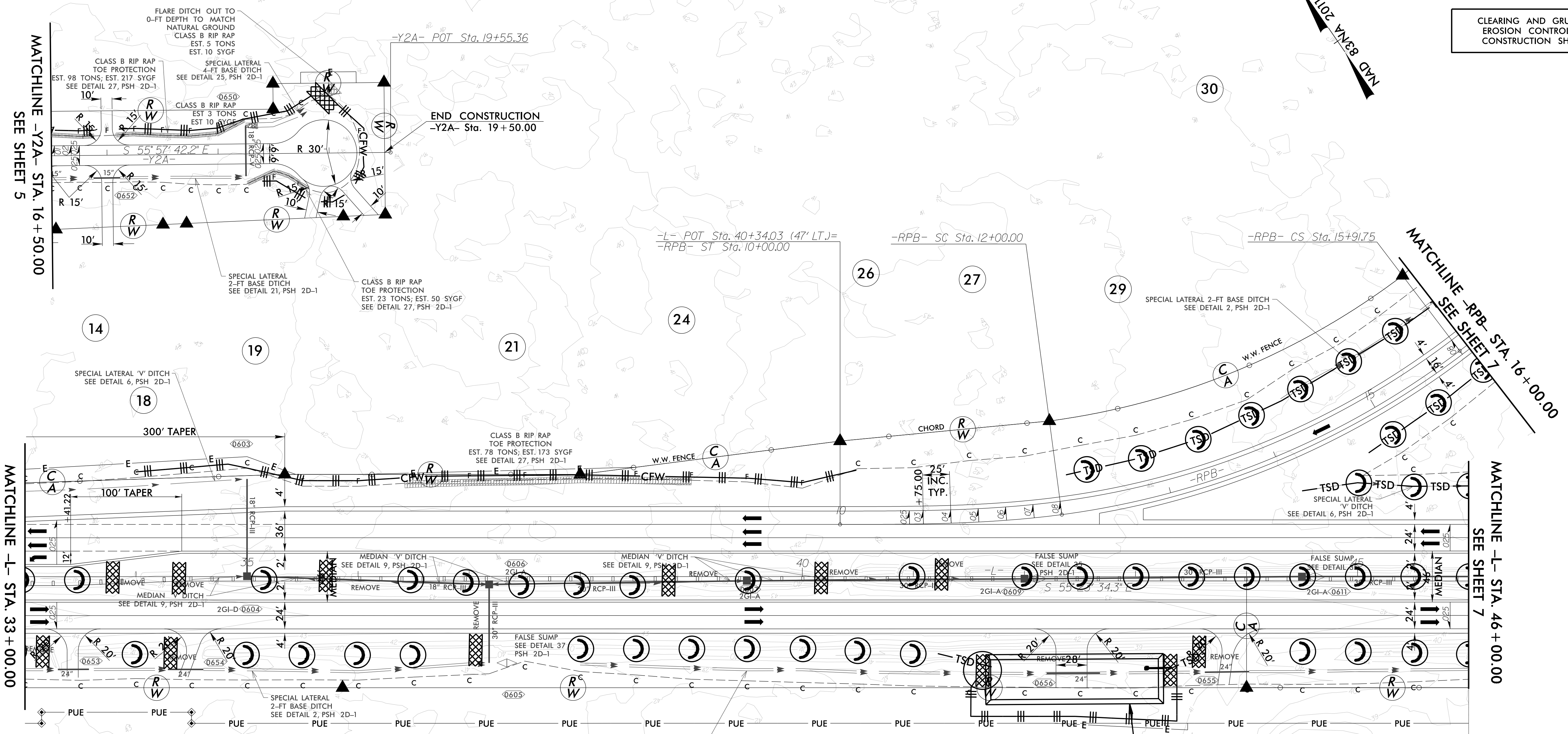
MATCHLINE -L- STA. 33+00.00
SEE SHEET 6

MATCHLINE -Y2A- STA. 16+50.00 SEE SHEET 6

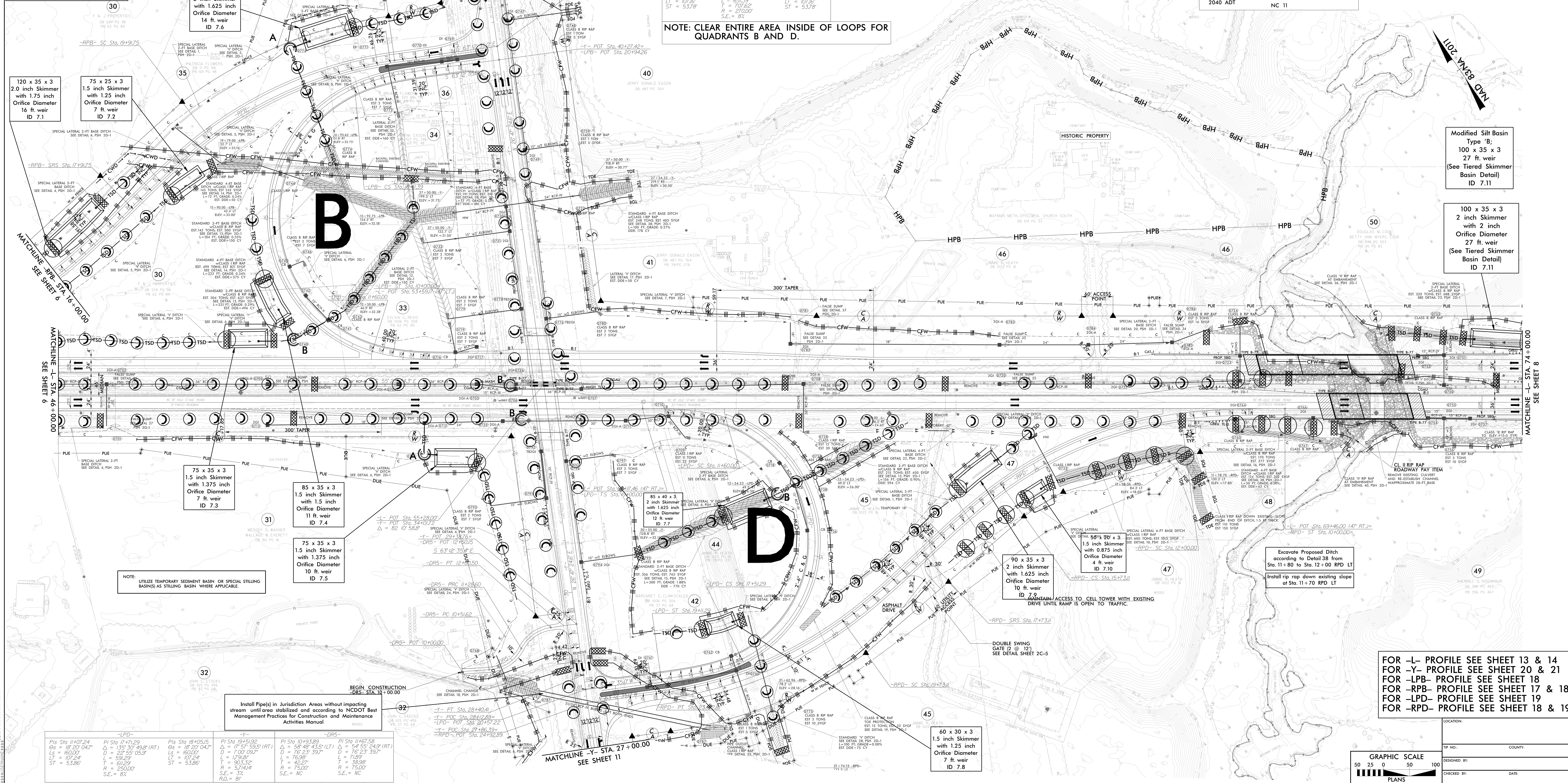
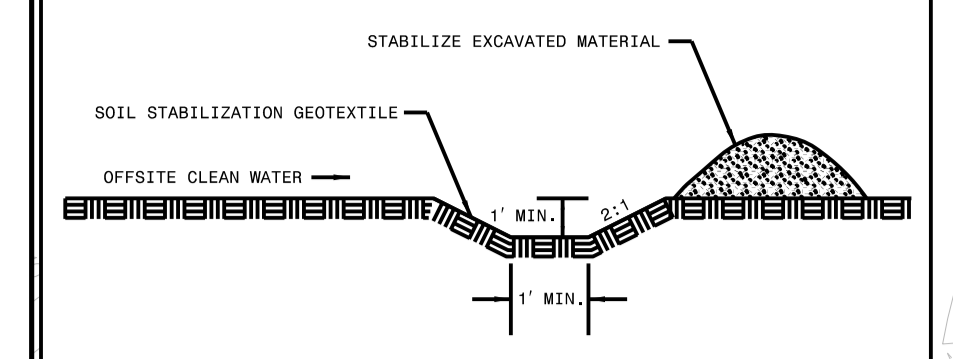
FOR -L1- PROFILE SEE SHEET 17
FOR -L2- PROFILE SEE SHEET 18
FOR -L- PROFILE SEE SHEET 19
FOR -Y2- PROFILE SEE SHEET 28
FOR -Y2A- PPROFILE SEE SHEET 29
FOR -Y3- PROFILE SEE SHEET 29

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

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

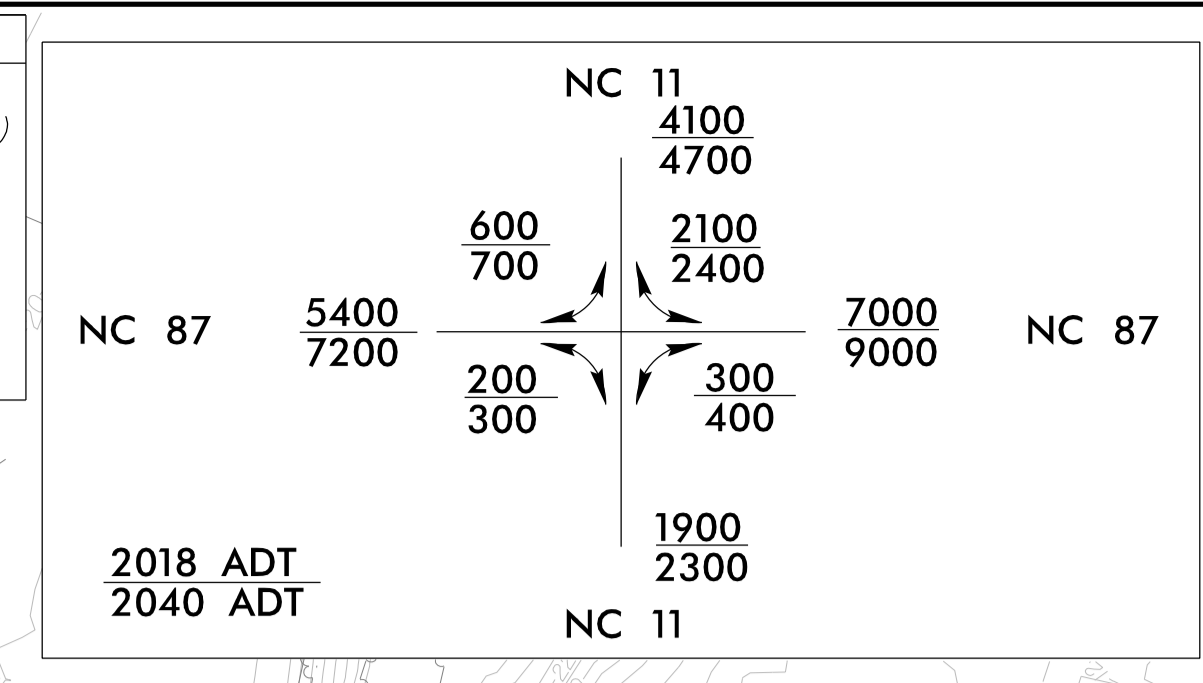


CLEAN WATER DIVERSION
CWD - CWD - CWD
(Not To Scale)



| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| Pls Sta 11+33.46 Os = 7' 33' 31.7" Ls = 200.00' Lt = 133.46' St = 66.78' R = 750.00' S.E. = 8% | Pls Sta 14+00.35 Os = 29' 36' 41.9" (LT) D = 131' 33' 31.7" L = 39.75' T = 200.35' R = 27.000' S.E. = 8% | Pls Sta 16+58.53 Os = 7' 33' 31.7" Ls = 200.00' Lt = 133.46' St = 66.78' R = 750.00' S.E. = 8% | Pls Sta 19+25.21 Os = 7' 33' 31.7" Ls = 200.00' Lt = 133.46' St = 66.78' R = 750.00' S.E. = 8% | Pls Sta 21+90.28 Os = 29' 36' 41.9" (RT) D = 131' 33' 31.7" L = 39.75' T = 200.35' R = 27.000' S.E. = 8% | Pls Sta 11+33.46 Os = 7' 33' 31.7" Ls = 200.00' Lt = 133.46' St = 66.78' R = 750.00' S.E. = 8% | Pls Sta 13+90.42 Os = 28' 12' 10.3" (RT) D = 7' 33' 31.7" L = 37.31' T = 133.46' R = 750.00' S.E. = 8% | Pls Sta 16+39.29 Os = 7' 33' 31.7" Ls = 200.00' Lt = 133.46' St = 66.78' R = 750.00' S.E. = 8% | Pls Sta 19+06.57 Os = 7' 33' 31.7" Ls = 200.00' Lt = 133.46' St = 66.78' R = 750.00' S.E. = 8% | Pls Sta 21+61.72 Os = 27' 56' 41.2" (RT) D = 7' 33' 31.7" L = 36.90' T = 186.60' R = 750.00' S.E. = 8% |
|--|--|--|--|--|--|--|--|--|--|

NOTE: CLEAR ENTIRE AREA INSIDE OF LOOPS FOR QUADRANTS B AND D.



PROJECT REFERENCE NO. **R-2561CA** SHEET NO. **EC-7/CONST 7**

SEPI
Engineering & Construction, Inc.

11 Glenwood Avenue
Raleigh, NC 27603
Phone: 919.977.9977
Fax: 919.977.9979
License: C-1197

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

120 x 35 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
16 ft. weir
ID 7.1

75 x 25 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
14 ft. weir
ID 7.2

95 x 45 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
14 ft. weir
ID 7.6

Modified Silt Basin
Type 'B',
100 x 35 x 3
27 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.11

100 x 35 x 3
2 inch Skimmer
with 2 inch
Orifice Diameter
27 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.11

75 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
7 ft. weir
ID 7.3

85 x 35 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
11 ft. weir
ID 7.4

75 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
10 ft. weir
ID 7.5

85 x 40 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
12 ft. weir
ID 7.7

90 x 35 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
10 ft. weir
ID 7.8

50' x 20' x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
ID 7.10

60 x 30 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
7 ft. weir
ID 7.8

NOTE: UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

Install Pipes in Jurisdiction Areas without impacting stream until area stabilized and according to NCDOT Best Management Practices for Construction and Maintenance Activities Manual

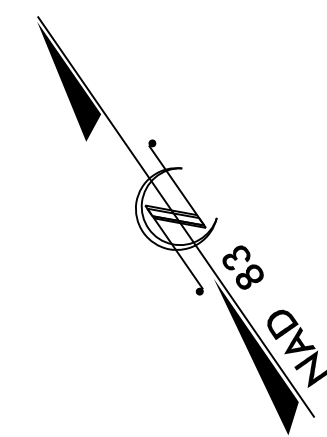
FOR -L- PROFILE SEE SHEET 13 & 14
FOR -Y- PROFILE SEE SHEET 20 & 21
FOR -LPB- PROFILE SEE SHEET 18
FOR -RBP- PROFILE SEE SHEET 17 & 18
FOR -LPD- PROFILE SEE SHEET 19
FOR -RPD- PROFILE SEE SHEET 18 & 19

| | | | | | |
|---|---|--|--|--|---|
| Pls Sta 11+07.24 Os = 18' 20' 04.7" Ls = 160.00' Lt = 107.24' St = 53.86' R = 250.00' S.E. = 8% | Pls Sta 17+71.29 Os = 135' 30' 43.9" (RT) D = 22' 55' 05.9" L = 59.25' T = 61.29' R = 750.00' S.E. = 8% | Pls Sta 18+04.515 Os = 18' 20' 04.7" Ls = 160.00' Lt = 107.24' St = 53.86' R = 250.00' S.E. = 8% | Pls Sta 19+15.92 Os = 17' 57' 53.5" (RT) D = 1' 00' 09.7" L = 179.81' T = 42.27' R = 574.44' S.E. = 8% | Pls Sta 19+93.89 Os = 58' 48' 43.5" (LT) D = 76' 23' 39.7" L = 76.98' T = 42.27' R = 750.00' S.E. = NC | Pls Sta 11+67.58 Os = 58' 48' 43.5" (LT) D = 54' 55' 24.9" (RT) L = 76.23' T = 71.89' R = 36.96' R = 750.00' S.E. = NC |
|---|---|--|--|--|---|

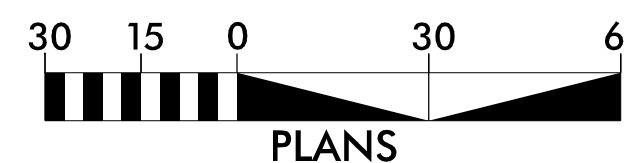
GRAPHIC SCALE
50 25 0 50 100
PLANS

DESIGNED BY: _____
CHECKED BY: _____
DATE: _____

STRUCTURE CONSTRUCTION SEQUENCE STA. 71+06 -L-



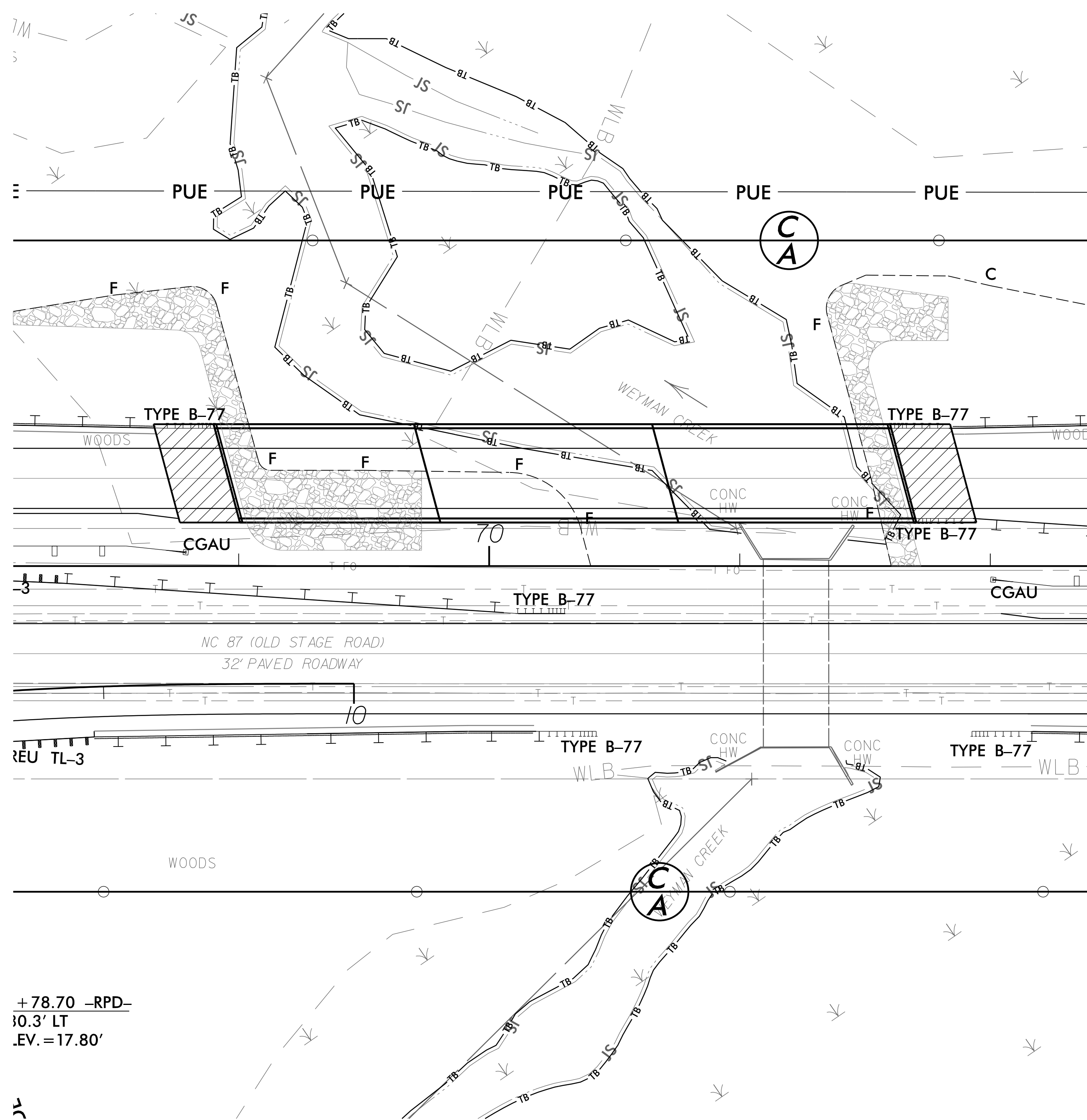
GRAPHIC SCALE



| | |
|--|----------------------------|
| PROJECT REFERENCE NO. R-2561CA | SHEET NO. EC-TA/CONST.7 |
| | |
| <small>1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9977 Fax: 919.789.9591 License: C-2197</small> | |

PHASE I

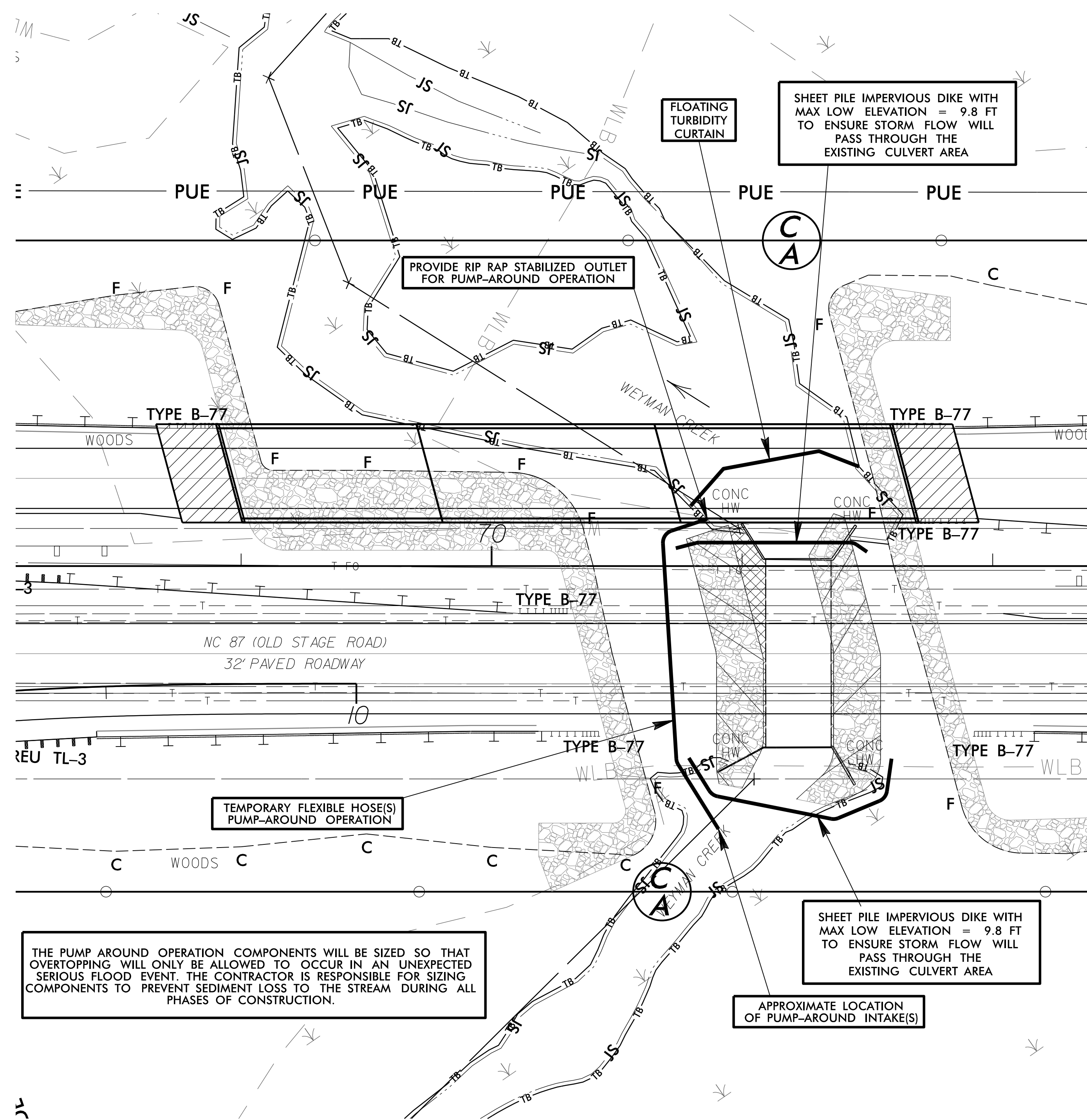
1. UTILIZE SPECIAL STILLING BASINS DURING CULVERT REMOVAL / BRIDGE CONSTRUCTION AS DIRECTED BY THE ENGINEER.
2. INSTALL PERIMETER EROSION CONTROL AS DEPICTED ON THE CLEARING AND GRUBBING PHASE PLANS.
3. CONSTRUCT ROADWAY SHOULDER, SLOPE, AND INSTALL RIP RAP FOR THE PORTION OF THE EASTBOUND LANE LOCATED BENEATH THE PROPOSED WESTBOUND LANE BRIDGE, LEAVING ROOM FOR PILE DRIVING OPERATIONS AND END BENT CONSTRUCTION.
4. INSTALL TEMPORARY CONSTRUCTION ACCESS AND/OR WORK PADS FOR CONSTRUCTION OF THE WESTBOUND LANE BRIDGE INTERIOR BENTS.
5. CONSTRUCT WESTBOUND LANE BRIDGE PER STRUCTURE PLANS.
6. CONSTRUCT WESTBOUND LANE ACCORDING TO THE TRAFFIC MANAGEMENT PLANS AND SHIFT TRAFFIC OFF THE EXISTING EASTBOUND LANES.



+78.70 -RPD-
10.3' LT
.EV. = 17.80'

PHASE II

1. UTILIZE SPECIAL STILLING BASINS DURING CULVERT REMOVAL / BRIDGE CONSTRUCTION AS DIRECTED BY THE ENGINEER.
2. INSTALL FLOATING TURBIDITY CURTAIN DOWNSTREAM OF THE CULVERT. REMOVE EXISTING CULVERT WINGWALLS AND HEADWALL, EXCAVATING ONLY ENOUGH EXISTING EMBANKMENT MATERIAL REQUIRED TO COMPLETE THIS STEP.
3. REMOVE FLOATING TURBIDITY CURTAIN, INSTALL TEMPORARY SHEET PILE IMPERVIOUS DIKES AND ESTABLISH PUMP-AROUND OPERATION IN APPROXIMATE LOCATION AS SHOWN ON PLANS.
4. ENSURE ELEVATION OF IMPERVIOUS DIKE IS SET SUCH THAT DURING PERIODS OF HIGH FLOW, THE DIKE IS ALLOWED TO OVERFLOW AND PASS THROUGH THE EXISTING CULVERT AREA.
5. PROVIDE RIP RAP STABILIZED OUTLET TO PREVENT EROSION AT TEMPORARY FLEXIBLE HOSE OUTLET TO EXISTING CHANNEL AREA.
6. EXPOSE AND REMOVE EXISTING REINFORCED CONCRETE BOX CULVERT AND CONSTRUCT PERMANENT CHANNEL CROSS SECTION PER THE ROADWAY PLANS. CONSTRUCT AND STABILIZE FLOODPLAIN BENCH AREAS PER THE ROADWAY PLANS.

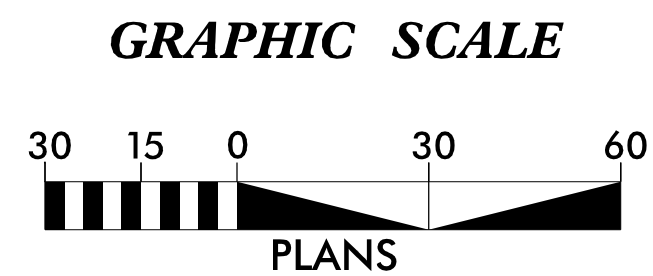
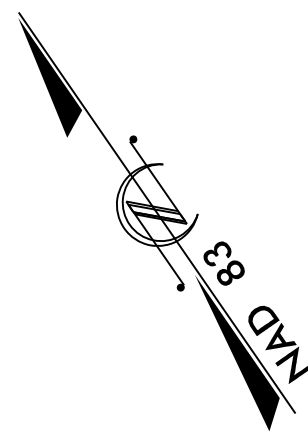


THE PUMP AROUND OPERATION COMPONENTS WILL BE SIZED SO THAT OVERTOPPING WILL ONLY BE ALLOWED TO OCCUR IN AN UNEXPECTED SERIOUS FLOOD EVENT. THE CONTRACTOR IS RESPONSIBLE FOR SIZING COMPONENTS TO PREVENT SEDIMENT LOSS TO THE STREAM DURING ALL PHASES OF CONSTRUCTION.

APPROXIMATE LOCATION OF PUMP-AROUND INTAKE(S)

8/7/2022 CA-reu-EC-07A-Structure Phasing.dgn

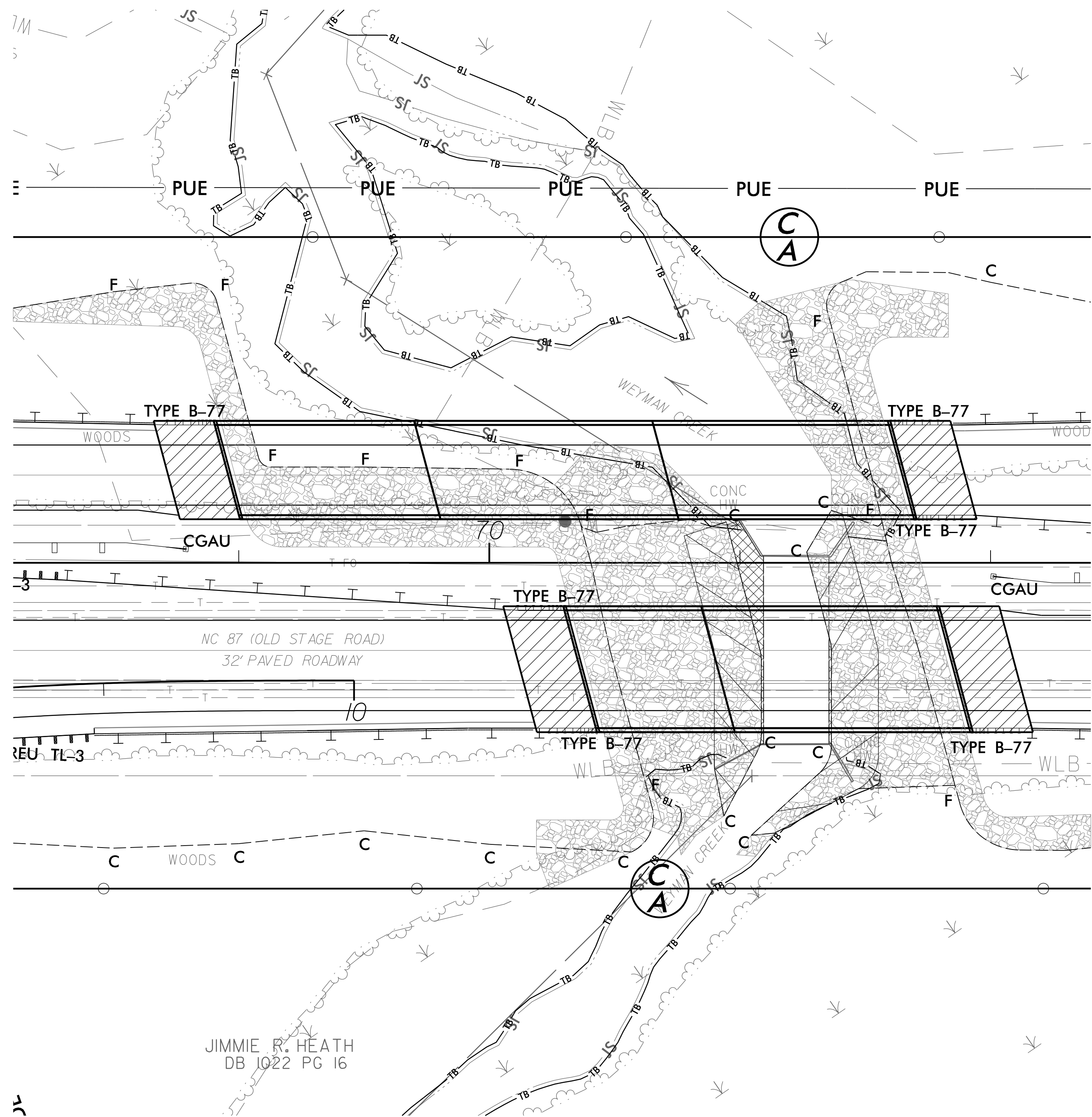
STRUCTURE CONSTRUCTION SEQUENCE STA. 71+06 -L-



| | |
|---|----------------------------|
| PROJECT REFERENCE NO. R-2561CA | SHEET NO. EC-7B/CONST.7 |
| | |
| 1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9977 Fax: 919.789.9591 License: C-2197 | |

PHASE III

1. UTILIZE SPECIAL STILLING BASINS DURING CULVERT REMOVAL / BRIDGE CONSTRUCTION AS DIRECTED BY THE ENGINEER.
2. INSTALL TEMPORARY CONSTRUCTION ACCESS AND/OR WORK PADS FOR CONSTRUCTION OF THE EASTBOUND LANE BRIDGE INTERIOR BENTS.
3. REMOVE IMPERVIOUS DIKES AND PUMP AROUND OPERATION FROM PHASE II. DIRECT STREAM FLOW BACK INTO THE COMPLETED AND STABILIZED CHANNEL.
4. CONSTRUCT EASTBOUND LANE BRIDGE PER STRUCTURE PLANS.
5. COMPLETE ANY REMAINING CONSTRUCTION RELATED TO THE PROPOSED FLOODPLAIN BENCH AND PLACEMENT OF RIP RAP.
6. CONSTRUCT EASTBOUND LANE ACCORDING TO THE TRAFFIC MANAGEMENT PLANS.
7. REMOVE SPECIAL STILLING BASINS, AND COMPLETE ROADWAY MOVING TRAFFIC TO FINAL TRAFFIC PATTERNS.

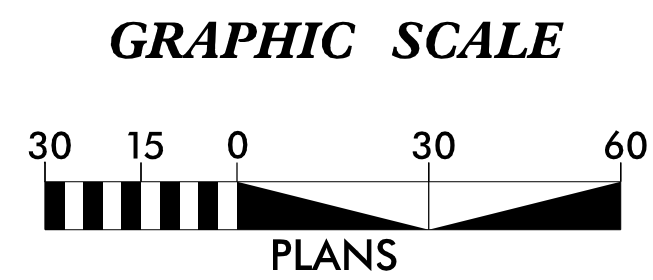
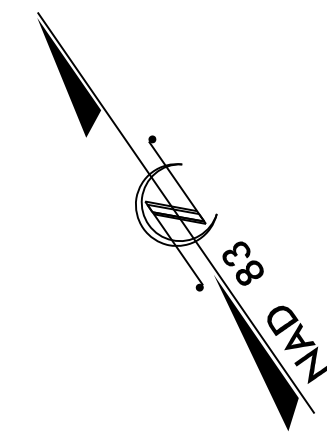


JIMMIE R. HEATH
DB 1022 PG 16

11/27/2020
 R-2561CA_reu_EC-07B_Structure Phasing.dgn
 JRE

CULVERT CONSTRUCTION SEQUENCE STA. 27+87 -Y-

--- PIPE CONSTRUCTED IN PREVIOUS PHASE



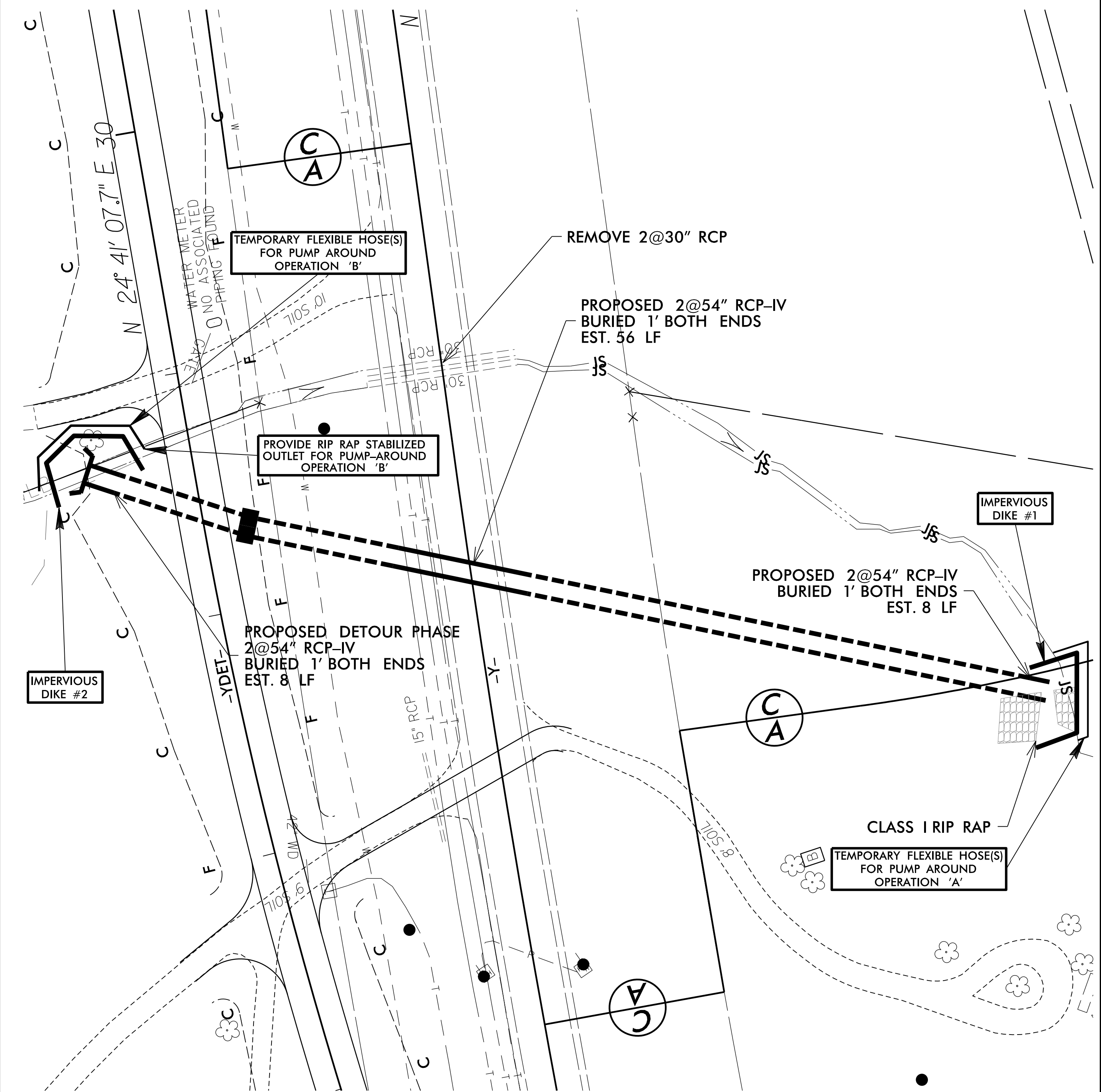
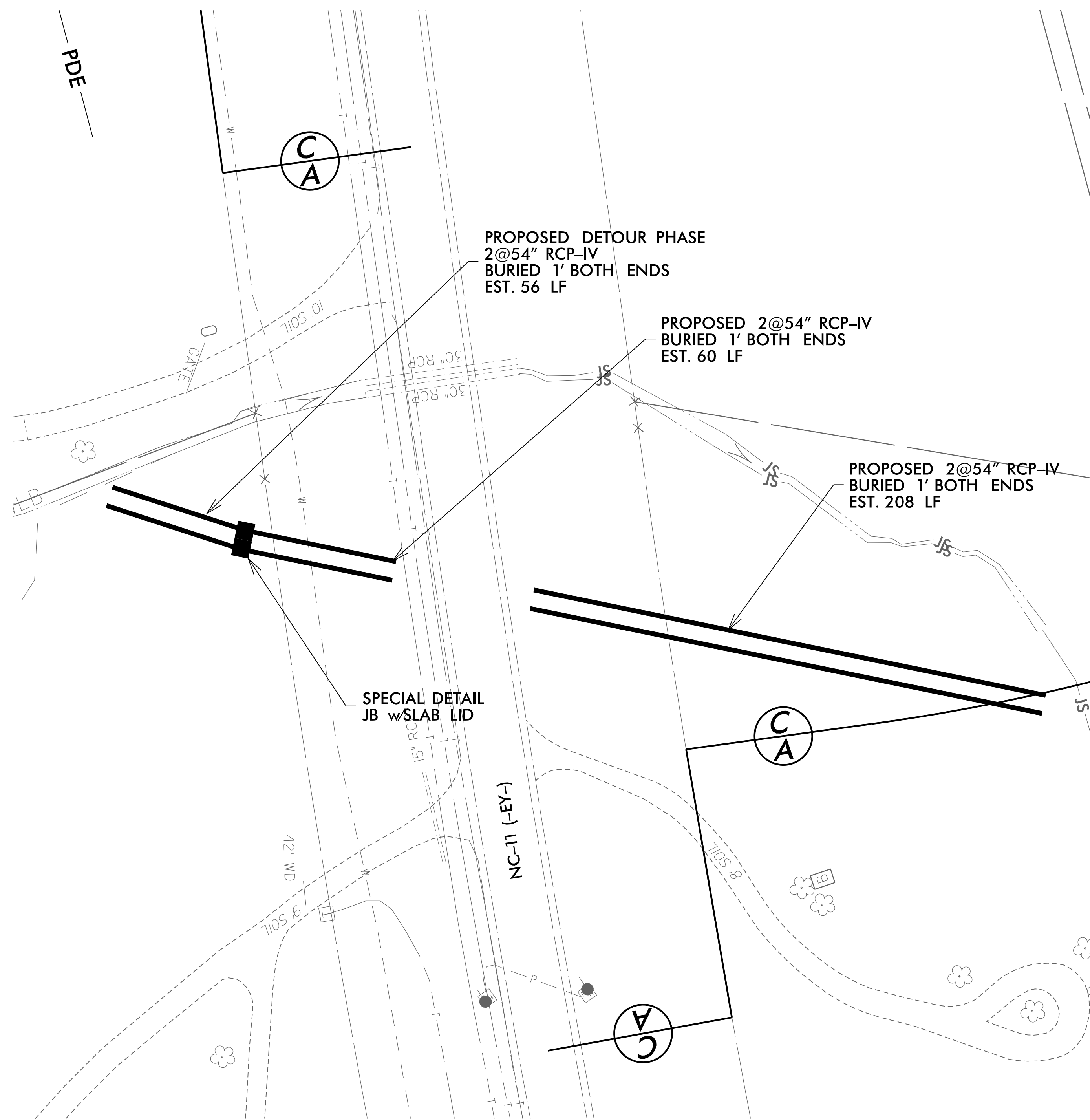
| | |
|--|----------------------------|
| PROJECT REFERENCE NO. R-2561CA | SHEET NO. EC-7C/CONST.7 |
| | |
| <small>1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9977 Fax: 919.789.9591 License: C-2197</small> | |

PHASE I

1. UTILIZE SPECIAL STILLING BASINS DURING CULVERT CONSTRUCTION AS DIRECTED BY ENGINEER.
2. CONSTRUCT PROPOSED 2@54" PIPES UPSTREAM AND DOWNSTREAM OF NC-11 IN THE DRY AS SHOWN. CONSTRUCTION ACTIVITIES IN PHASE I SHOULD NOT IMPACT EXISTING TRAFFIC PATTERNS OR THE EXISTING STREAM.
3. INSTALL DETOUR PHASE SPECIAL DETAIL JUNCTION BOX TO CONNECT PIPES.

PHASE II

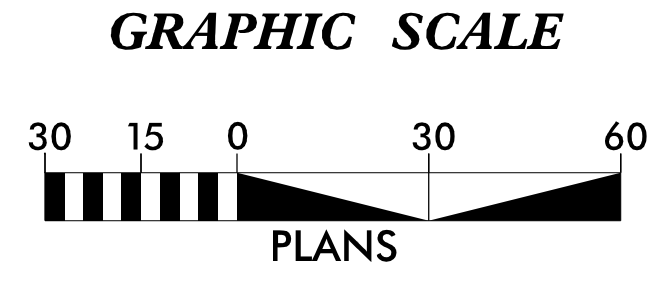
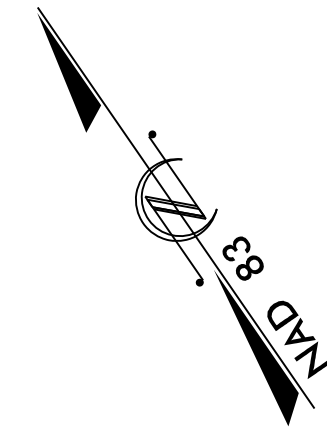
1. UTILIZE SPECIAL STILLING BASINS DURING CULVERT CONSTRUCTION AS DIRECTED BY ENGINEER.
2. BEGIN CONSTRUCTION OF ON-SITE DETOUR (-YDET-) AND COMPLETE UP TO AREA OF PROPOSED 2@54" PIPES
3. BEGIN TEMPORARY CLOSURE OF NC-11
4. INSTALL REMAINING PORTION OF 2@54" PIPES BENEATH NC-11. INSTALL IMPERVIOUS DIKE #1 AND PUMP AROUND OPERATION 'A'.
5. INSTALL REMAINING PORTION OF 2@54" PIPES AT DOWNSTREAM END AS WELL AS RIP RAP STREAM IMPROVEMENTS. REMOVE PUMP AROUND OPERATION AT DOWNSTREAM END. INSTALL IMPERVIOUS DIKE #2 FOR UPSTREAM PUMP AROUND OPERATION 'B'.
6. TEMPORARILY PUMP BASE FLOW AROUND WORK AREA TO COMPLETE INSTALLATION OF UPSTREAM DETOUR PHASE PIPE AND CONNECT TO STREAM
7. REMOVE PUMP AROUND OPERATION. DIVERT BASE FLOW INTO NEWLY CONSTRUCTED 2@54" PIPES ONCE CONNECTIONS TO STREAM ARE STABILIZED.
8. REMOVE EXISTING 2@30" PIPES AND COMPLETE DETOUR CONSTRUCTION. END TEMPORARY CLOSURE AND SHIFT TRAFFIC ONTO DETOUR.



12/16/2020 R-2561CA_reu-EC-07C_Culvert_Phasing.dgn

CULVERT CONSTRUCTION SEQUENCE STA. 27+87 -Y-

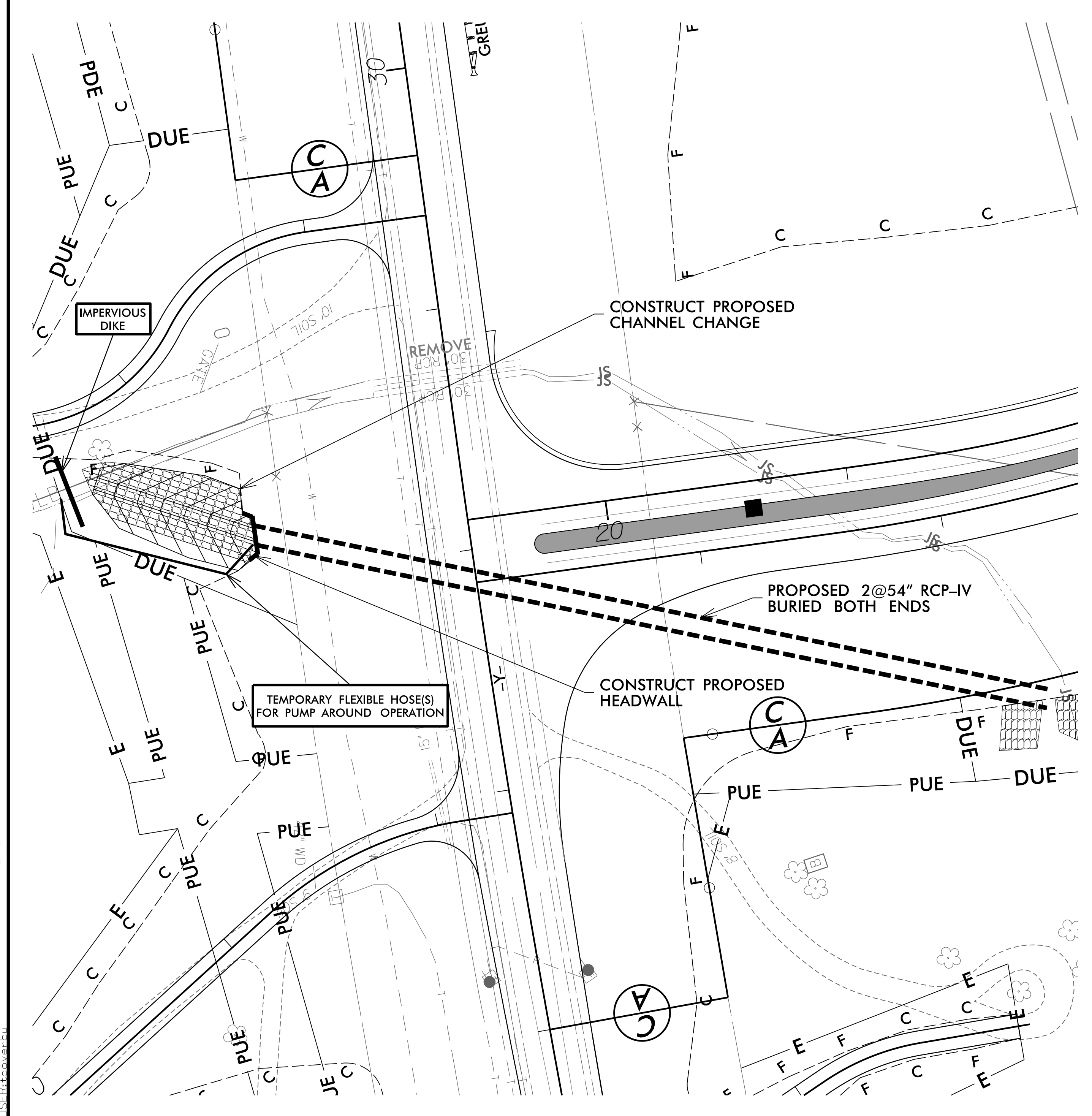
--- PIPE CONSTRUCTED IN PREVIOUS PHASE



| | |
|---|----------------------------|
| PROJECT REFERENCE NO. R-2561CA | SHEET NO. EC-7D/CONST.7 |
| | |
| 1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9977 Fax: 919.789.9591 License: C-2197 | |

PHASE III

1. UTILIZE SPECIAL STILLING BASINS DURING CULVERT CONSTRUCTION AS DIRECTED BY ENGINEER.
2. COMPLETE NEW ROADWAY CONSTRUCTION.
3. ONCE NEW ROADWAY IS STABILIZED AND READY FOR TRAFFIC, CLOSE DETOUR AND SHIFT TRAFFIC ONTO FINAL GRADE OF NC-11 (-Y-).
4. INSTALL PUMP AROUND OPERATION FOR REMOVAL OF DETOUR AND CONSTRUCTION OF CHANNEL CHANGE AND UPSTREAM END OF CULVERT WITH HEADWALL.
5. REMOVE DETOUR PHASE 2@54" PIPES AND JUNCTION BOX.
6. INSTALL PROPOSED HEADWALL AT UPSTREAM END OF 2@54" PIPES AND CONSTRUCT CHANNEL CHANGE.
7. UPON FINAL STABILIZATION OF ALL DRAINAGE CHANNELS AND STRUCTURES, REMOVE PUMP AROUND OPERATION AND DIVERT WATER IN TO CHANNEL CHANGE. REMOVE SPECIAL STILLING BASINS.



12/16/2020
 R-2561CA_reu-EC-07D_Culvert_Phasing.dgn
 JTB:dbv:rbv

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.

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING
BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

| EV. |
|------|
| 1.82 |
| 1.79 |
| 1.80 |
| 1.81 |
| 1.81 |
| 1.93 |
| 5.55 |
| 7.60 |
| 1.74 |
| 1.65 |
| 1.68 |
| 1.72 |
| 1.70 |
| 1.78 |
| 5.48 |
| 1.43 |

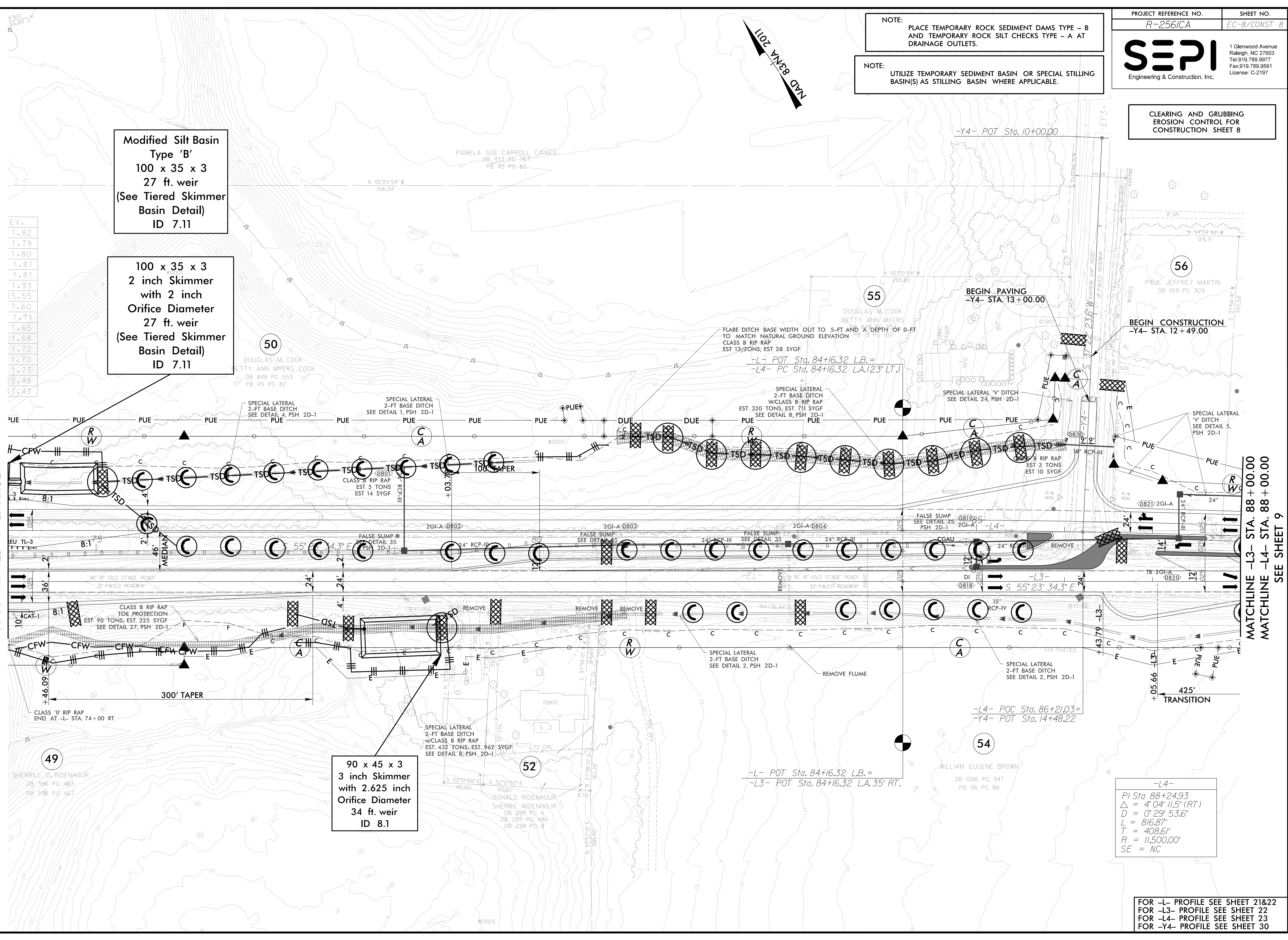
Modified Silt Basin
Type 'B'
100 x 35 x 3
27 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.11

100 x 35 x 3
2 inch Skimmer
with 2 inch
Orifice Diameter
27 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.11

90 x 45 x 3
3 inch Skimmer
with 2.625 inch
Orifice Diameter
34 ft. weir
ID 8.1

MATCHLINE -L- STA. 74+00.00
SEE SHEET 7

MATCHLINE -L3- STA. 88+00.00
MATCHLINE -L4- STA. 88+00.00
SEE SHEET 9



-L4-
PI Sta 88+24.93
 $\Delta = 4' 04" 11.5" (RT)$
 $D = 0' 29" 53.6"$
 $L = 816.87'$
 $T = 408.61'$
 $R = 11,500.00'$
 $SE = NC$

FOR -L- PROFILE SEE SHEET 21&22
FOR -L3- PROFILE SEE SHEET 22
FOR -L4- PROFILE SEE SHEET 23
FOR -Y4- PROFILE SEE SHEET 30

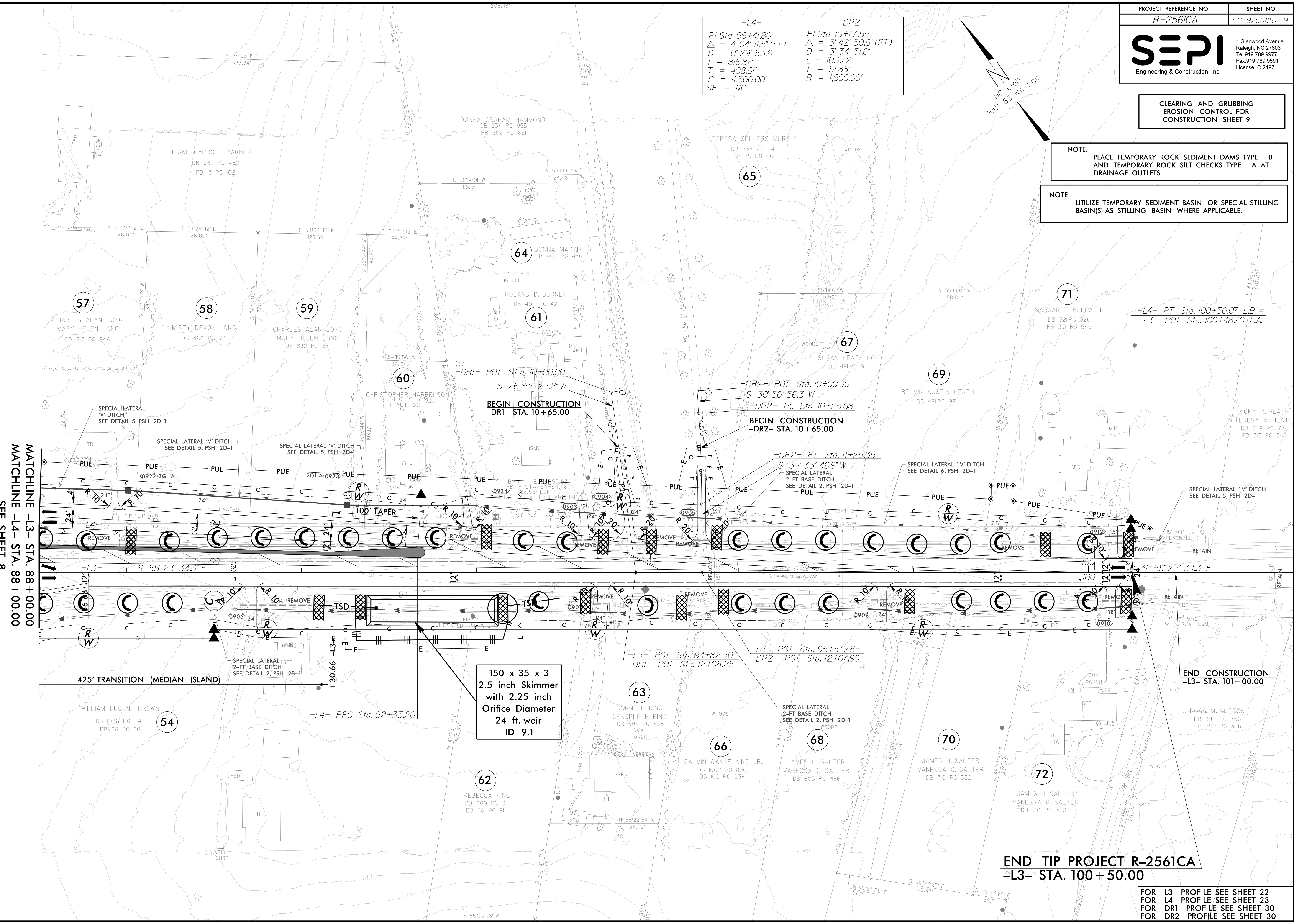
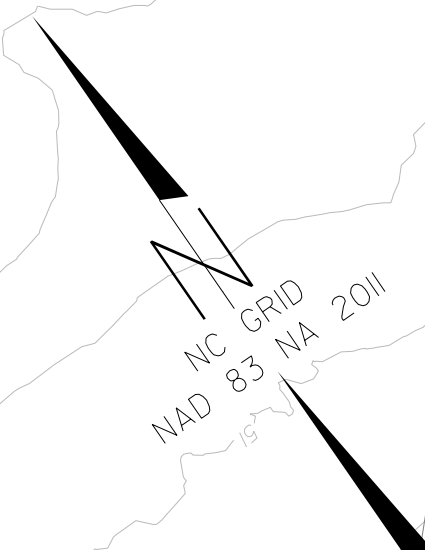
8.17/99

**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9**

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

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING
BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

| | |
|------------------------------|------------------------------|
| -L4- | -DR2- |
| PI Sta 96+41.80 | PI Sta 10+77.55 |
| $\Delta = 4' 04" 11.5" (LT)$ | $\Delta = 3' 42" 50.6" (RT)$ |
| $D = 0' 29" 53.6"$ | $D = 3' 34" 51.6"$ |
| $L = 816.87'$ | $L = 103.72'$ |
| $T = 408.61'$ | $T = 51.88'$ |
| $R = 11,500.00'$ | $R = 1,600.00'$ |
| SE = NC | |



**150 x 35 x 3
2.5 inch Skimmer
with 2.25 inch
Orifice Diameter
24 ft. weir
ID 9.1**

MATCHLINE -L3- STA. 88 + 00.00
MATCHLINE -L4- STA. 88 + 00.00
SEE SHEET 8

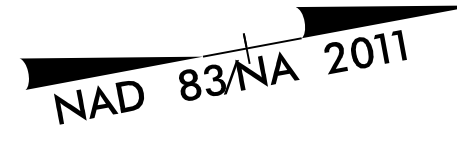
-L4- PT Sta. 100+50.07 L.B. =
-L3- POT Sta. 100+48.70 L.A.

**END TIP PROJECT R-2561CA
-L3- STA. 100 + 50.00**

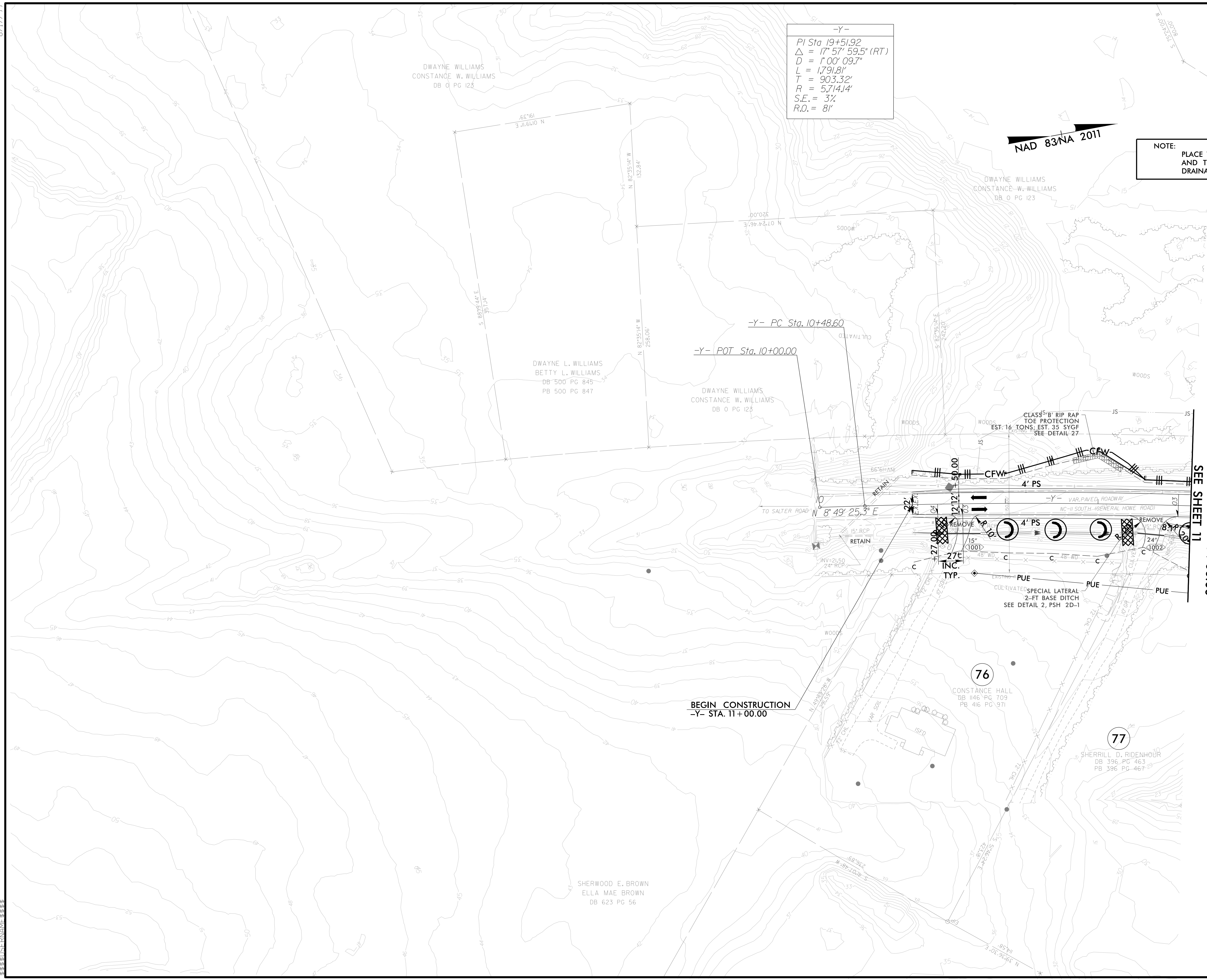
FOR -L3- PROFILE SEE SHEET 22
FOR -L4- PROFILE SEE SHEET 23
FOR -DR1- PROFILE SEE SHEET 30
FOR -DR2- PROFILE SEE SHEET 30

**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10**

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



-Y-
PI Sta 19+51.92
 $\Delta = 17^{\circ} 57' 59.5''$ (RT)
D = 1'00' 09.7"
L = 1,791.8'
T = 903.32'
R = 5,714.14'
S.E. = 3%
R.O. = 8'



MATCHLINE -Y- STA. 14+00.00
SEE SHEET 11

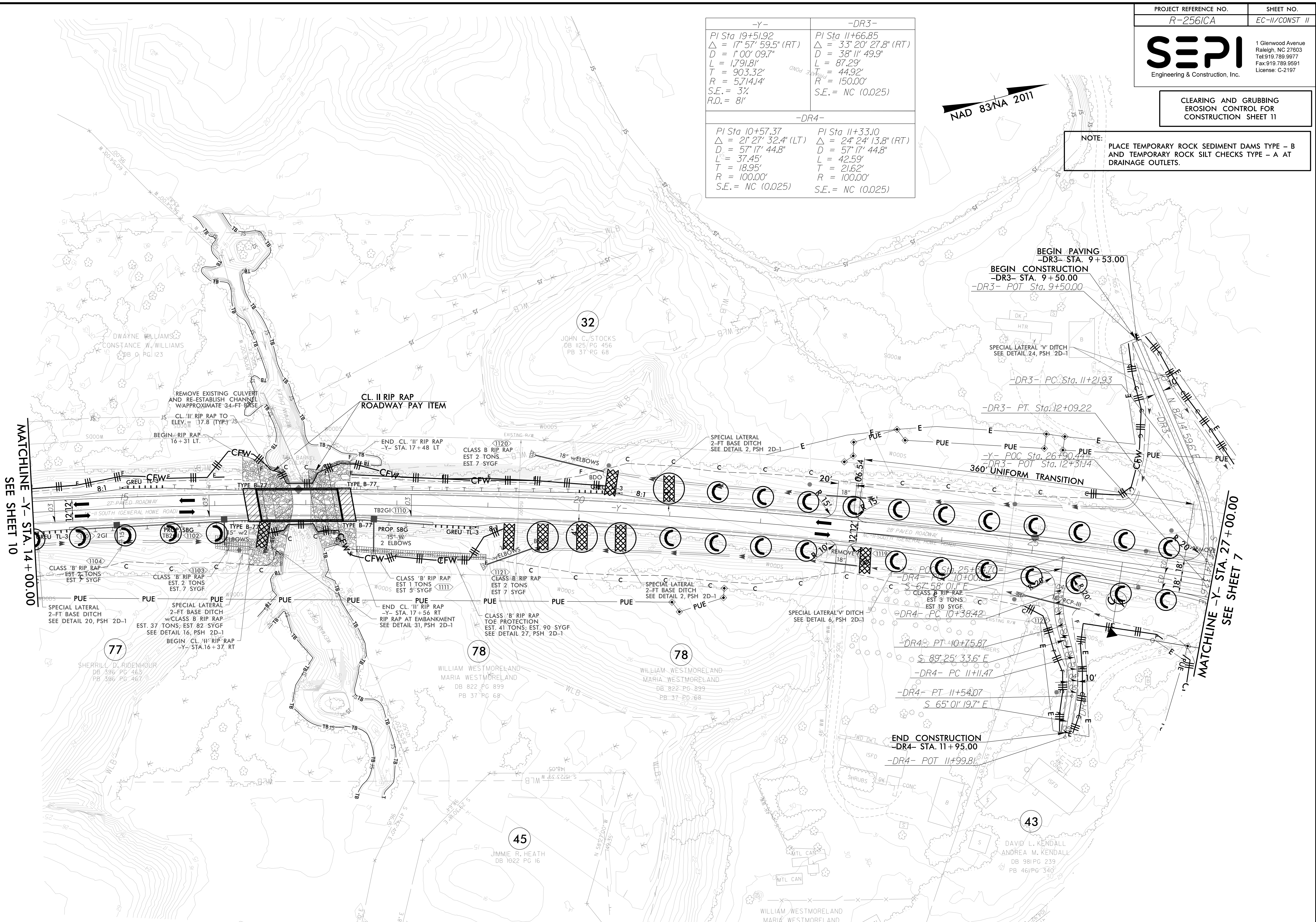
8.17/99

**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11**

| | |
|---|--|
| -Y- | -DR3- |
| PI Sta 19+51.92 Δ = 17° 57' 59.5" (RT) D = 1° 00' 09.7" L = 1,791.81' T = 903.32' R = 5,714.14' S.E. = 3% R.O. = 81' | PI Sta 11+66.85 Δ = 33° 20' 27.8" (RT) D = 38° 11' 49.9" L = 87.29' T = 44.92' R = 150.00' S.E. = NC (0.025) |
| -DR4- | |
| PI Sta 10+57.37 Δ = 21° 27' 32.4" (LT) D = 57° 17' 44.8" L = 37.45' T = 18.95' R = 100.00' S.E. = NC (0.025) | PI Sta 11+33.10 Δ = 24° 24' 13.8" (RT) D = 57° 17' 44.8" L = 42.59' T = 21.62' R = 100.00' S.E. = NC (0.025) |

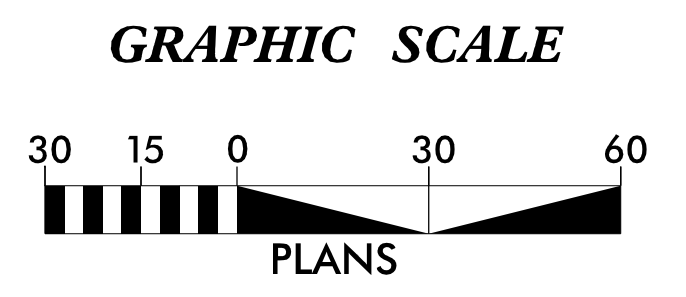
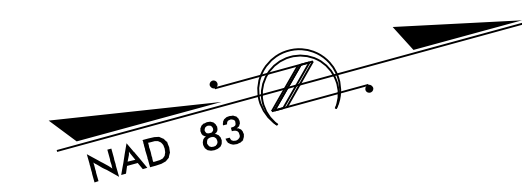
NAD 83/NA 2011

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



FOR -Y- PROFILE SEE SHEET 27
FOR -DR3- PROFILE SEE SHEET 30
FOR -DR4- PROFILE SEE SHEET 31

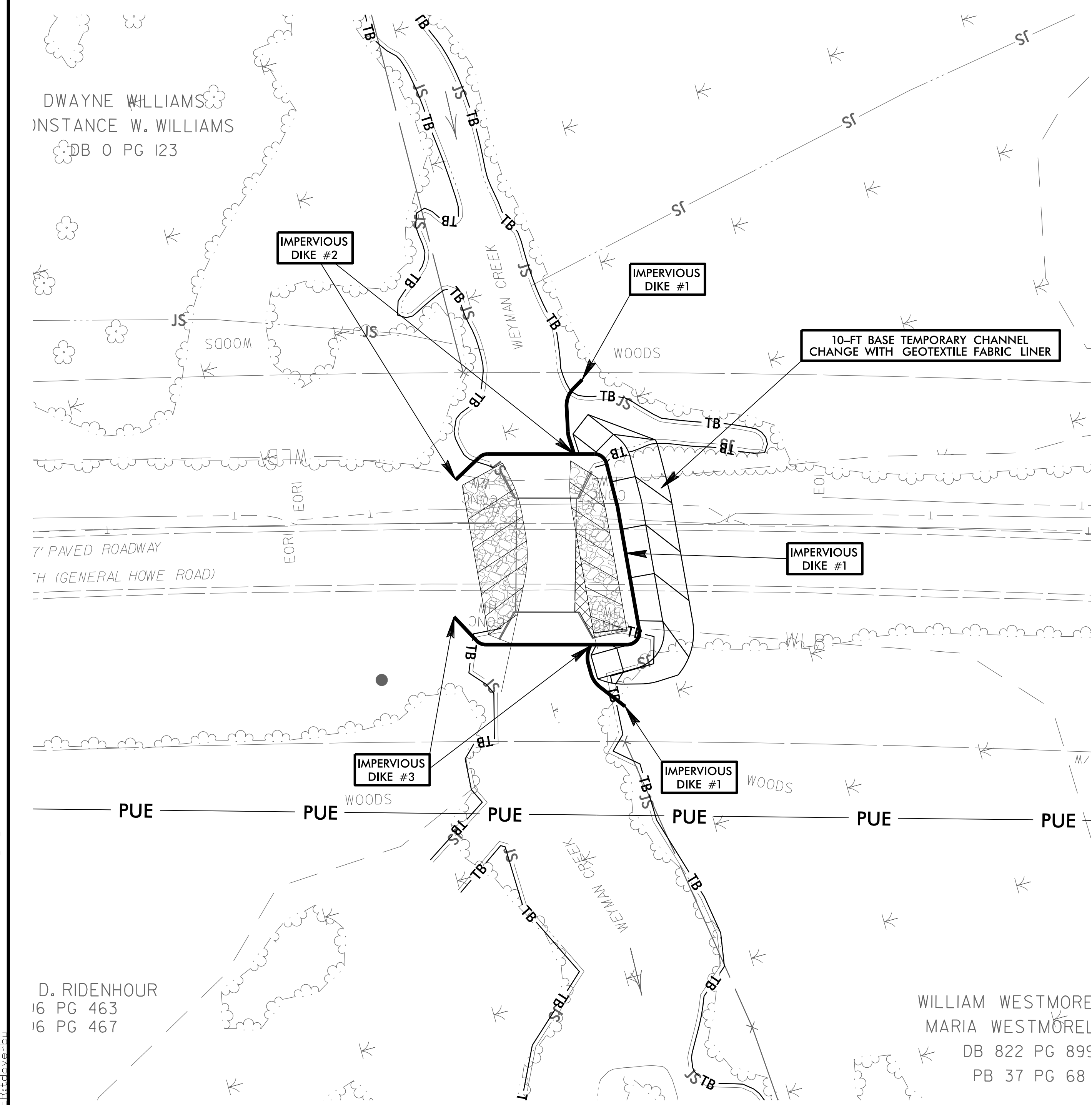
STRUCTURE CONSTRUCTION SEQUENCE STA. 16 + 93 -Y-



| | |
|--|------------------------------|
| PROJECT REFERENCE NO. R-2561CA | SHEET NO. EC-11A/CONST.II |
| | |
| <small>1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9977 Fax: 919.789.9591 License: C-2197</small> | |

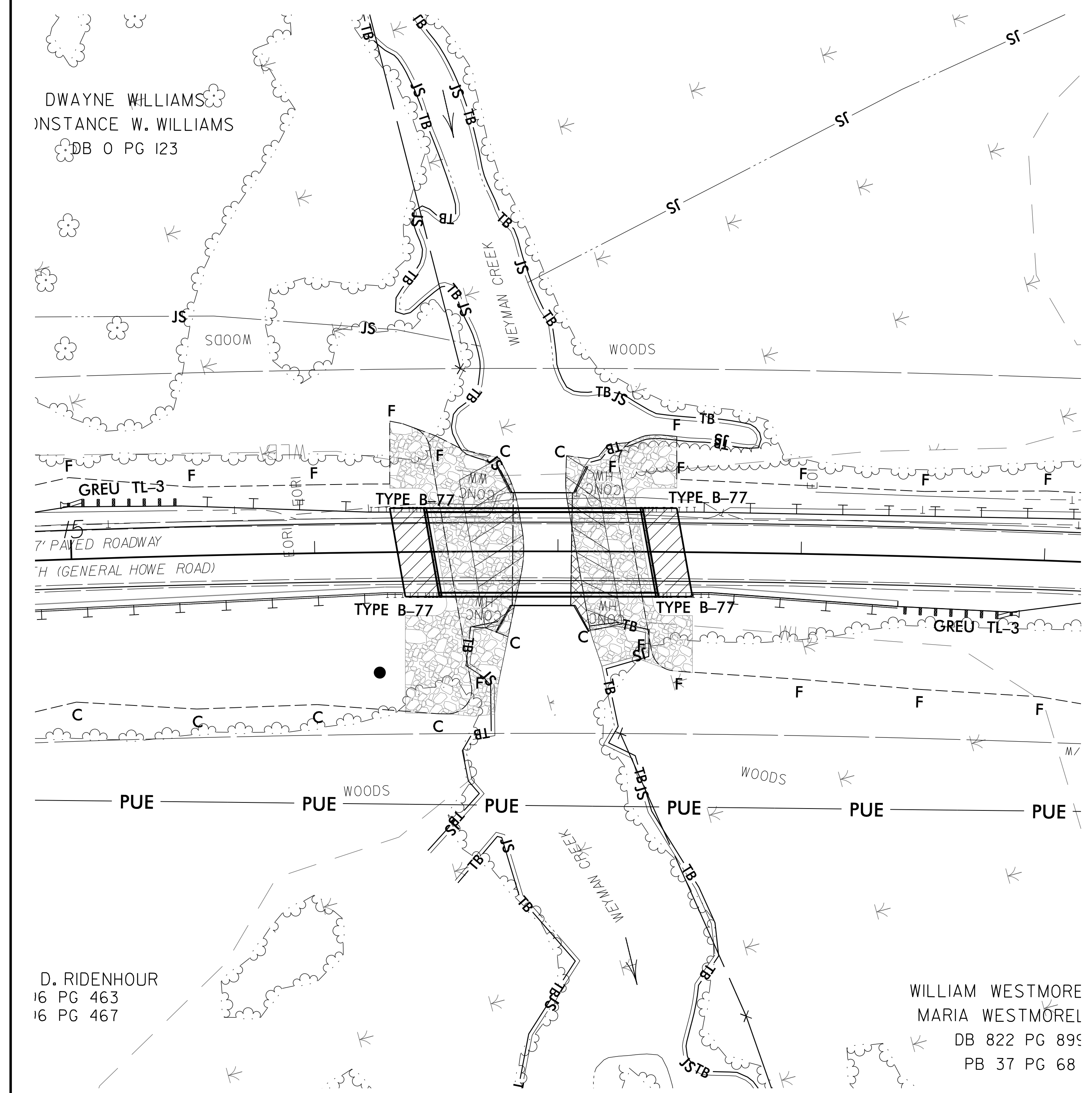
PHASE I

1. UTILIZE SPECIAL STILLING BASINS DURING CULVERT REMOVAL /BRIDGE CONSTRUCTION AS DIRECTED BY THE ENGINEER.
2. INSTALL PERIMETER EROSION CONTROL AS DEPICTED ON THE CLEARING AND GRUBBING PHASE PLANS.
3. INSTALL IMPERVIOUS DIKE #1. CONSTRUCT TEMPORARY CHANNEL CHANGE TO THE NORTH OF THE EXISTING CULVERT AS SHOWN ON THE PLANS.
4. INSTALL IMPERVIOUS DIKES #2 AND #3. REMOVE PORTIONS OF DIKE #1 AS NEEDED TO DIRECT BASE FLOW TO THE TEMPORARY CHANNEL CHANGE.
5. EXCAVATE EXISTING EMBANKMENT ON HIGHWAY 11 AND REMOVE THE EXISTING REINFORCED CONCRETE BOX CULVERT.
6. CONSTRUCT PERMANENT CHANNEL AND FLOODPLAIN BENCHES BENEATH THE HIGHWAY 11 BRIDGE PER THE ROADWAY PLANS.
7. REMOVE ALL REMAINING IMPERVIOUS DIKES, MAKING REPAIRS TO FINAL CHANNEL CROSS SECTION AS NECESSARY. DIRECT STREAM BASE FLOW TO STABILIZED FINAL CHANNEL.



PHASE II

1. UTILIZE SPECIAL STILLING BASINS DURING CULVERT REMOVAL /BRIDGE CONSTRUCTION AS DIRECTED BY THE ENGINEER.
2. CONSTRUCT HIGHWAY 11 BRIDGE PER STRUCTURE PLANS.
3. REMOVE SPECIAL STILLING BASINS AND COMPLETE HIGHWAY 11 ROADWAY IMPROVEMENTS UNDER TEMPORARY ROADWAY CLOSURE.



12/14/2020 CA_reu-EC-11A_Structure_Phasing.dgn
 11:51:10 AM
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8.17/99

-Y-

PI Sta 53+95.97
 $\Delta = 1' 37'' 22.6'' (LT)$
 $D = 0' 27'' 56.9''$
 $L = 348.4'$
 $T = 174.22'$
 $R = 12,300.35'$

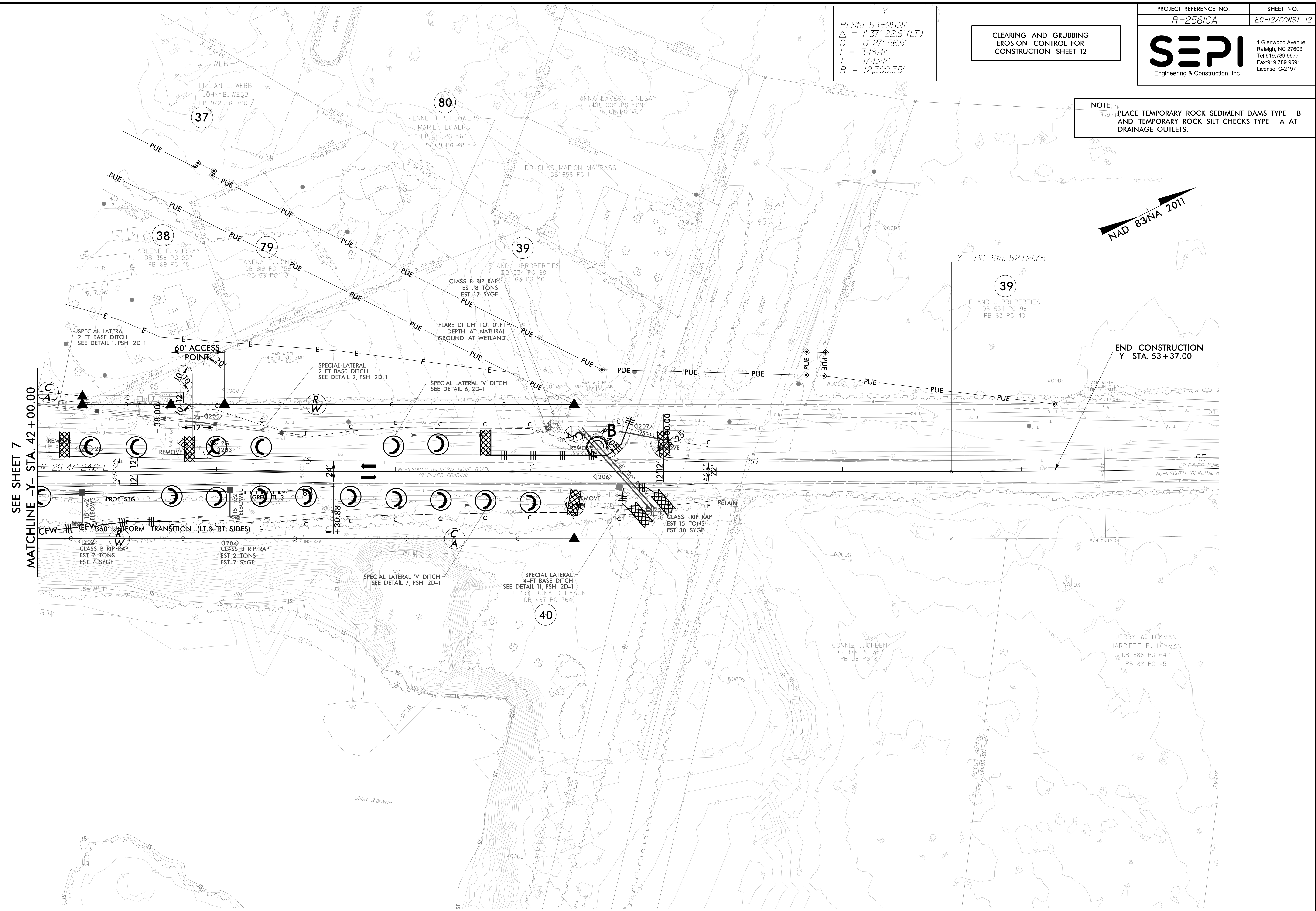
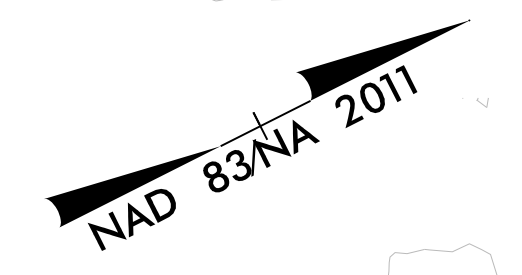
CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 12

| PROJECT REFERENCE NO. | SHEET NO. |
|-----------------------|----------------|
| R-256/CA | EC-12/CONST 12 |

SEPI
 Engineering & Construction, Inc.

1 Glenwood Avenue
 Raleigh, NC 27603
 Tel: 919.789.9977
 Fax: 919.789.9591
 License: C-2197

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



SEE SHEET 7
 MATCHLINE -Y- STA. 42 + 00.00

END CONSTRUCTION
 -Y- STA. 53 + 37.00

REVISIONS

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FOR -Y- PROFILE SEE SHEET 28

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



| -Y3- | |
|---------------------------------------|---------------------------------------|
| PI Sta 10+95.26 | PI Sta 12+70.29 |
| $\Delta = 21^{\circ} 01' 15.4''$ (LT) | $\Delta = 48^{\circ} 16' 27.3''$ (RT) |
| D = 22' 55" 05.9" | D = 22' 55" 05.9" |
| L = 91.72' | L = 210.64' |
| T = 46.38' | T = 112.02' |
| R = 250.00' | R = 250.00' |
| SE = SEE PLANS | SE = SEE PLANS |

SEE SHEET 5
MATCHLINE -Y3- STA. 12 + 50.00

END CONSTRUCTION
Y3- STA. 14 + 60.00

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 24, PSH 2D-1

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 5, PSH 2D-1

Vertical text along the left margin: C:\T... 11/11/99 11:11:11 AM

| -YDET- | | | -Y- | |
|-----------------------|-----------------------|------------------------|------------------------|--|
| PI Sta 18+84.55 | PI Sta 21+31.61 | PI Sta 25+73.17 | PI Sta 19+51.92 | |
| Δ = 1° 41' 43.2" (RT) | Δ = 9° 17' 31.7" (LT) | Δ = 15° 55' 27.4" (RT) | Δ = 17° 57' 59.5" (RT) | |
| D = 1° 00' 09.7" | D = 2° 51' 53.2" | D = 2° 51' 53.2" | D = 1° 00' 09.7" | |
| L = 169.08' | L = 324.36' | L = 555.86' | L = 1,791.81' | |
| T = 84.55' | T = 162.53' | T = 279.73' | T = 903.32' | |
| R = 5,714.14' | R = 2,000.00' | R = 2,000.00' | R = 5,714.14' | |
| S.E. = EXIST. (3%) | S.E. = 4% | S.E. = 4% | S.E. = 3% | |
| | R.O. = 76' | R.O. = 76' | R.O. = 81' | |

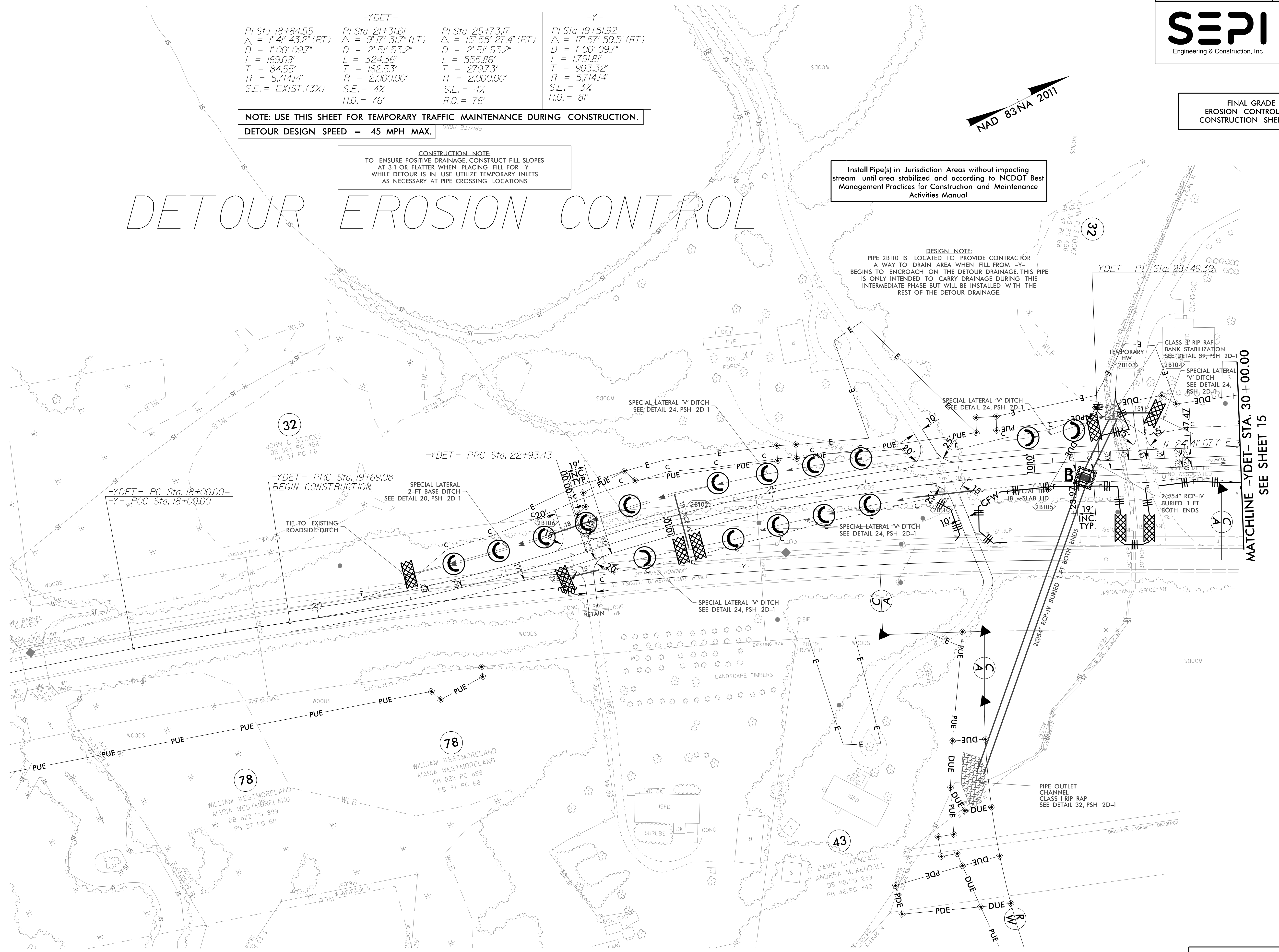
NOTE: USE THIS SHEET FOR TEMPORARY TRAFFIC MAINTENANCE DURING CONSTRUCTION.
DETOUR DESIGN SPEED = 45 MPH MAX.

CONSTRUCTION NOTE:
TO ENSURE POSITIVE DRAINAGE, CONSTRUCT FILL SLOPES AT 3:1 OR FLATTER WHEN PLACING FILL FOR -Y- WHILE DETOUR IS IN USE. UTILIZE TEMPORARY INLETS AS NECESSARY AT PIPE CROSSING LOCATIONS

DETOUR EROSION CONTROL

Install Pipe(s) in Jurisdiction Areas without impacting stream until area stabilized and according to NCDOT Best Management Practices for Construction and Maintenance Activities Manual

DESIGN NOTE:
PIPE 2B110 IS LOCATED TO PROVIDE CONTRACTOR A WAY TO DRAIN AREA WHEN FILL FROM -Y- BEGINS TO ENCR OACH ON THE DETOUR DRAINAGE. THIS PIPE IS ONLY INTENDED TO CARRY DRAINAGE DURING THIS INTERMEDIATE PHASE BUT WILL BE INSTALLED WITH THE REST OF THE DETOUR DRAINAGE.



**MATCHLINE -YDET- STA. 30 + 00.00
SEE SHEET 15**

8.17.799
C:\PROJECTS\256\256_15\256_15_2B-1.DWG

FINAL GRADE
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 2B-2

DETOUR EROSION CONTROL

-YDET-
 PI Sta 39+36.43
 $\Delta = 6' 28' 45.7" (RT)$
 $D = 1' 58' 32.6"$
 $L = 327.95'$
 $T = 164.15'$
 $R = 2,900.00'$
 $S.E. = 3%$
 $R.O. = 57'$

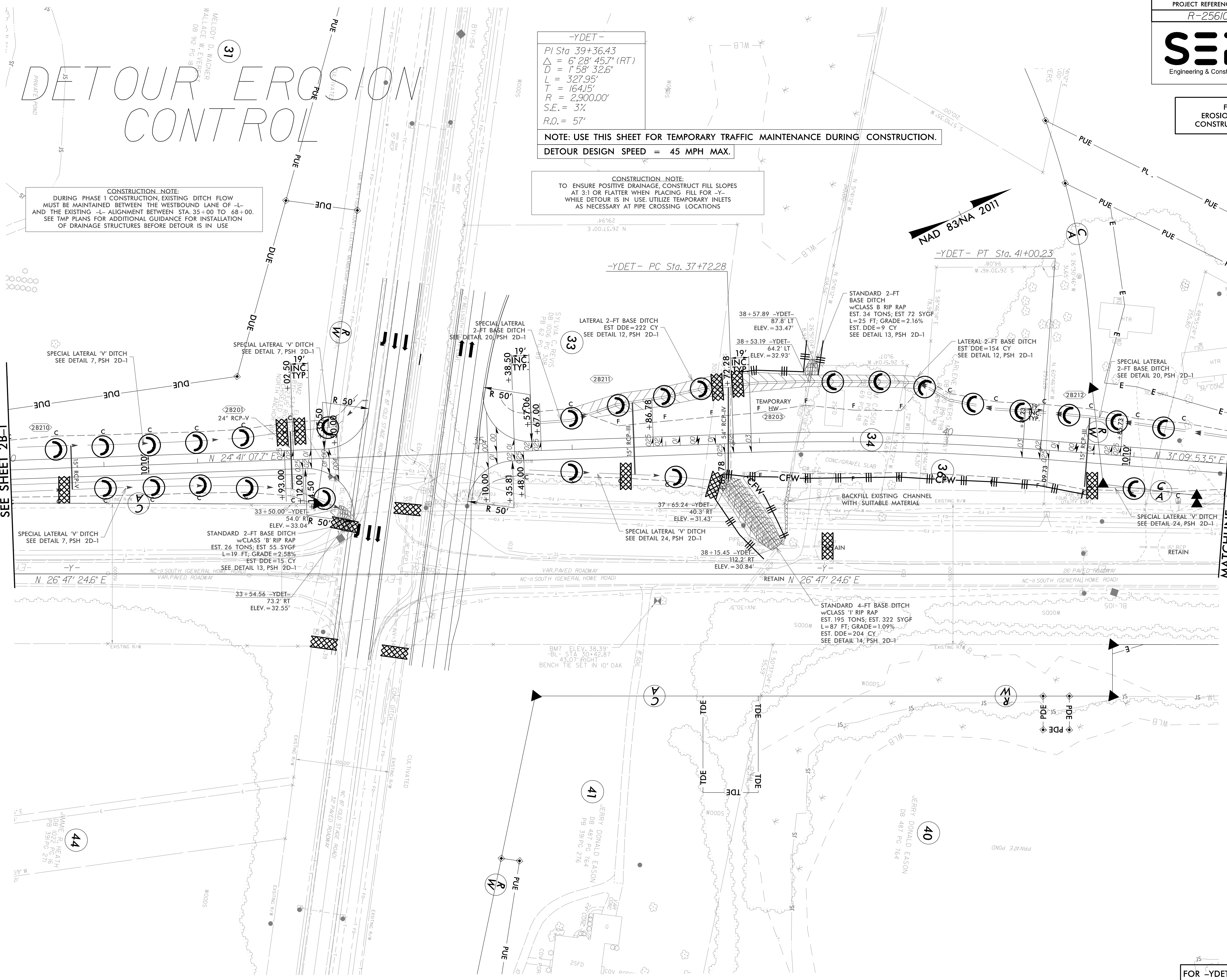
NOTE: USE THIS SHEET FOR TEMPORARY TRAFFIC MAINTENANCE DURING CONSTRUCTION.
DETOUR DESIGN SPEED = 45 MPH MAX.

CONSTRUCTION NOTE:
 DURING PHASE 1 CONSTRUCTION, EXISTING DITCH FLOW MUST BE MAINTAINED BETWEEN THE WESTBOUND LANE OF L- AND THE EXISTING L- ALIGNMENT BETWEEN STA 35+00 TO 68+00. SEE TMP PLANS FOR ADDITIONAL GUIDANCE FOR INSTALLATION OF DRAINAGE STRUCTURES BEFORE DETOUR IS IN USE

CONSTRUCTION NOTE:
 TO ENSURE POSITIVE DRAINAGE, CONSTRUCT FILL SLOPES AT 3:1 OR FLATTER WHEN PLACING FILL FOR -Y- WHILE DETOUR IS IN USE. UTILIZE TEMPORARY INLETS AS NECESSARY AT PIPE CROSSING LOCATIONS

MATCHLINE -YDET- STA. 30+00.00
 SEE SHEET 2B-1

MATCHLINE -YDET- STA. 43+00.00
 SEE SHEET 2B-3





FINAL GRADE EROSION CONTROL FOR CONSTRUCTION SHEET 2B-3

DETOUR EROSION CONTROL

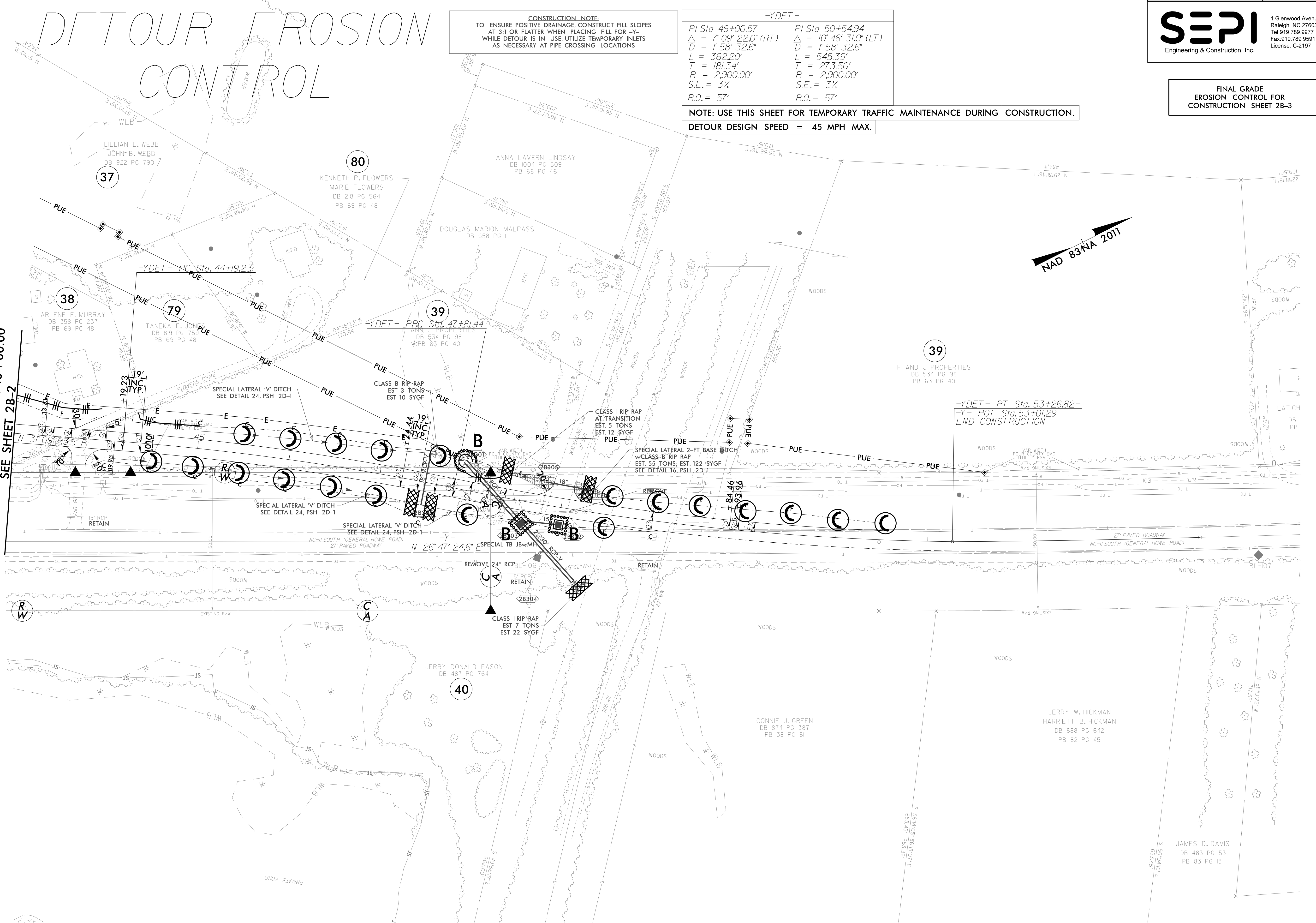
CONSTRUCTION NOTE:
TO ENSURE POSITIVE DRAINAGE, CONSTRUCT FILL SLOPES AT 3:1 OR FLATTER WHEN PLACING FILL FOR -Y- WHILE DETOUR IS IN USE. UTILIZE TEMPORARY INLETS AS NECESSARY AT PIPE CROSSING LOCATIONS

-YDET-

| | |
|-----------------------------------|------------------------------------|
| PI Sta 46+00.57 | PI Sta 50+54.94 |
| $\Delta = 7^{\circ}09'22.0"$ (RT) | $\Delta = 10^{\circ}46'31.0"$ (LT) |
| $D = 1^{\circ}58'32.6"$ | $D = 1^{\circ}58'32.6"$ |
| $L = 362.20'$ | $L = 545.39'$ |
| $T = 181.34'$ | $T = 273.50'$ |
| $R = 2,900.00'$ | $R = 2,900.00'$ |
| $S.E. = 3\%$ | $S.E. = 3\%$ |
| $R.O. = 57'$ | $R.O. = 57'$ |

NOTE: USE THIS SHEET FOR TEMPORARY TRAFFIC MAINTENANCE DURING CONSTRUCTION.
DETOUR DESIGN SPEED = 45 MPH MAX.

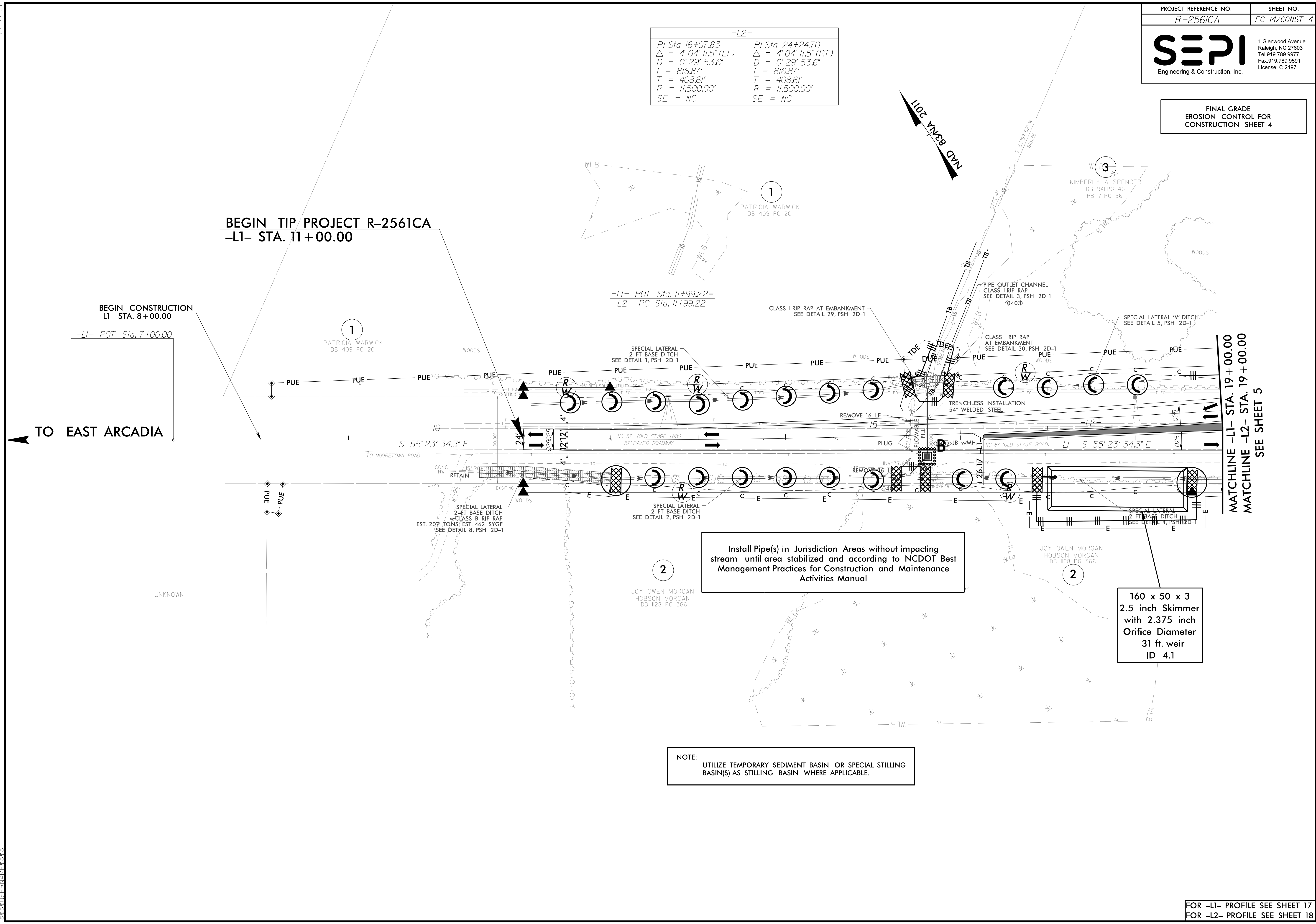
MATCHLINE -YDET- STA. 43+00.00 SEE SHEET 2B-2



8/17/99

FINAL GRADE
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

| -L2- | |
|------------------------------|------------------------------|
| PI Sta 16+07.83 | PI Sta 24+24.70 |
| $\Delta = 4' 04" 11.5" (LT)$ | $\Delta = 4' 04" 11.5" (RT)$ |
| $D = 0' 29' 53.6"$ | $D = 0' 29' 53.6"$ |
| $L = 816.87'$ | $L = 816.87'$ |
| $T = 408.61'$ | $T = 408.61'$ |
| $R = 11,500.00'$ | $R = 11,500.00'$ |
| SE = NC | SE = NC |



Install Pipe(s) in Jurisdiction Areas without impacting stream until area stabilized and according to NCDOT Best Management Practices for Construction and Maintenance Activities Manual

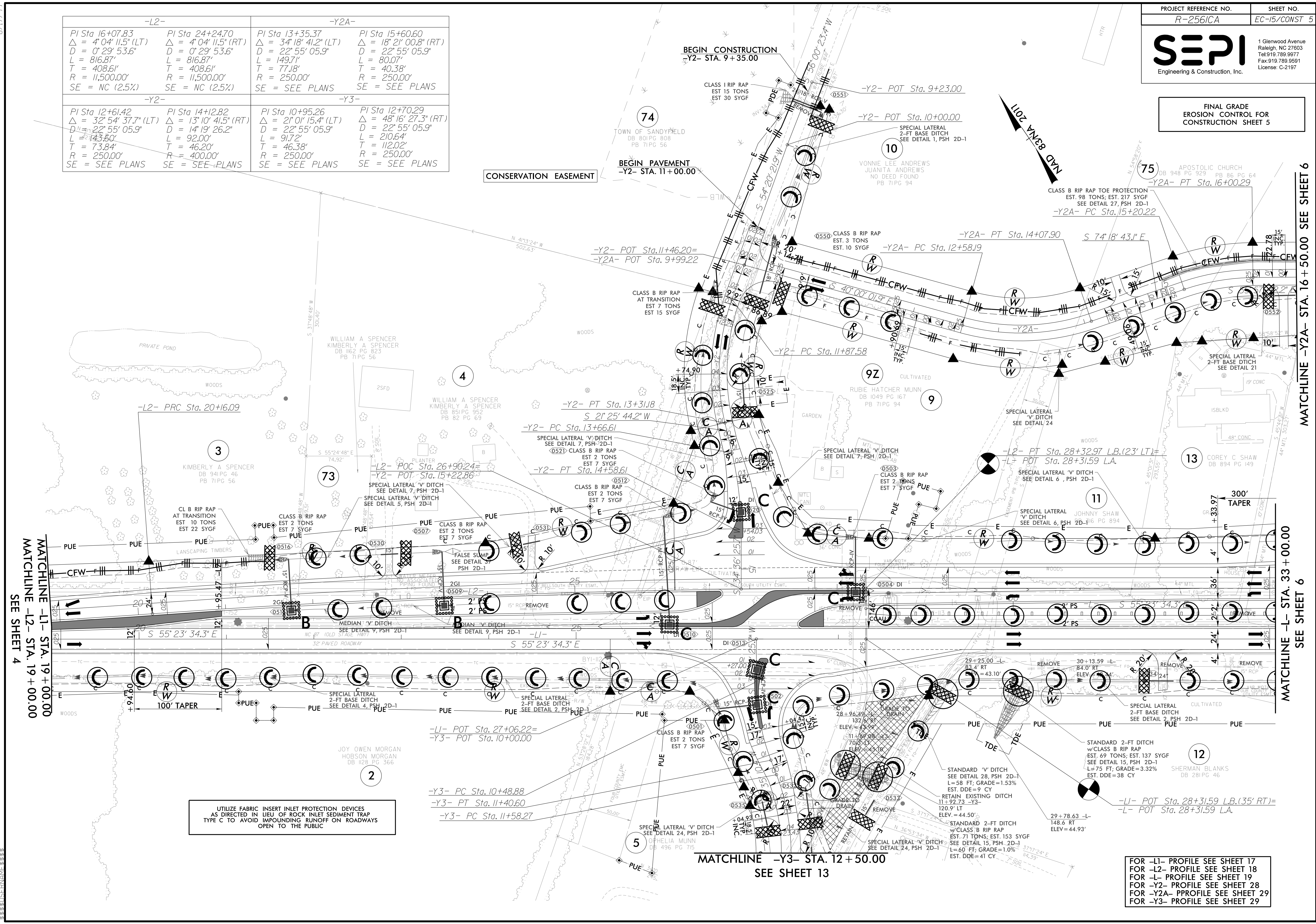
160 x 50 x 3
2.5 inch Skimmer
with 2.375 inch
Orifice Diameter
31 ft. weir
ID 4.1

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.



FINAL GRADE EROSION CONTROL FOR CONSTRUCTION SHEET 5

| -L2- | | -Y2A- | |
|--|--|--|---|
| PI Sta 16+07.83 Δ = 4° 04' 11.5" (LT) D = 0' 29' 53.6" L = 816.87' T = 408.61' R = 11,500.00' SE = NC (2.5%) | PI Sta 24+24.70 Δ = 4° 04' 11.5" (RT) D = 0' 29' 53.6" L = 816.87' T = 408.61' R = 11,500.00' SE = NC (2.5%) | PI Sta 13+35.37 Δ = 34° 18' 41.2" (LT) D = 22° 55' 05.9" L = 149.71' T = 77.18' R = 250.00' SE = SEE PLANS | PI Sta 15+60.60 Δ = 18° 21' 00.8" (RT) D = 22° 55' 05.9" L = 80.07' T = 40.38' R = 250.00' SE = SEE PLANS |
| -Y2- | | -Y3- | |
| PI Sta 12+61.42 Δ = 32° 54' 37.7" (LT) D = 22° 55' 05.9" L = 143.60' T = 73.84' R = 250.00' SE = SEE PLANS | PI Sta 14+12.82 Δ = 13° 10' 41.5" (RT) D = 14° 19' 26.2" L = 92.00' T = 46.20' R = 400.00' SE = SEE PLANS | PI Sta 10+95.26 Δ = 21° 01' 15.4" (LT) D = 22° 55' 05.9" L = 91.72' T = 46.38' R = 250.00' SE = SEE PLANS | PI Sta 12+70.29 Δ = 48° 16' 27.3" (RT) D = 22° 55' 05.9" L = 210.64' T = 112.02' R = 250.00' SE = SEE PLANS |



MATCHLINE -L1- STA. 19+00.00
MATCHLINE -L2- STA. 19+00.00
SEE SHEET 4

MATCHLINE -L- STA. 33+00.00
SEE SHEET 6

MATCHLINE -Y2A- STA. 16+50.00
SEE SHEET 6

UTILIZE FABRIC INSERT INLET PROTECTION DEVICES AS DIRECTED IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C TO AVOID IMPOUNDING RUNOFF ON ROADWAYS OPEN TO THE PUBLIC

FOR -L1- PROFILE SEE SHEET 17
FOR -L2- PROFILE SEE SHEET 18
FOR -L- PROFILE SEE SHEET 19
FOR -Y2- PROFILE SEE SHEET 28
FOR -Y3- PROFILE SEE SHEET 29

8.17.799

**FINAL GRADE
EROSION CONTROL FOR
CONSTRUCTION SHEET 6**

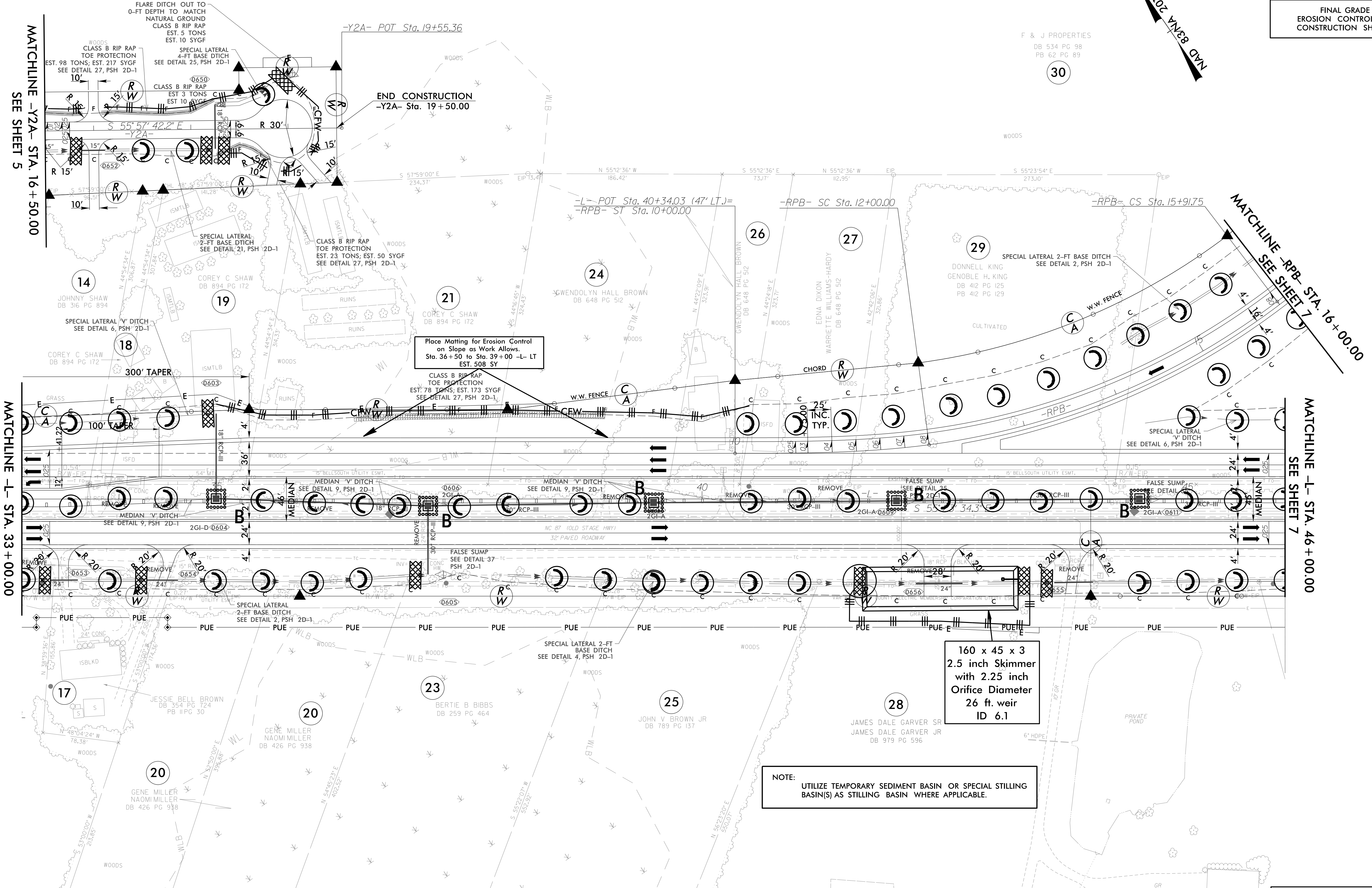
8.17/99

MATCHLINE -Y2A- STA. 16+50.00
SEE SHEET 5

MATCHLINE -L- STA. 33+00.00
SEE SHEET 5

MATCHLINE -L- STA. 46+00.00
SEE SHEET 7

MATCHLINE -RPB- STA. 16+00.00
SEE SHEET 7



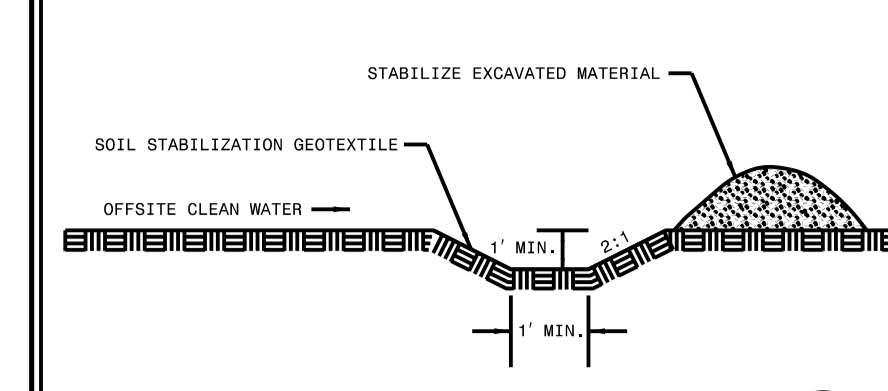
Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 36+50 to Sta. 39+00 -L- LT
EST. 508 SY

160 x 45 x 3
2.5 inch Skimmer
with 2.25 inch
Orifice Diameter
26 ft. weir
ID 6.1

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING
BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

FOR -L- PROFILE SEE SHEET 19 & 20
FOR -Y2A- PROFILE SEE SHEET 29
FOR -RPB- PROFILE SEE SHEET 24

CLEAN WATER DIVERSION
CWD - CWD - CWD
(NOT TO SCALE)



95 x 45 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
14 ft. weir
ID 7.6

120 x 35 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
16 ft. weir
ID 7.1

75 x 25 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
14 ft. weir
ID 7.2

75 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
7 ft. weir
ID 7.3

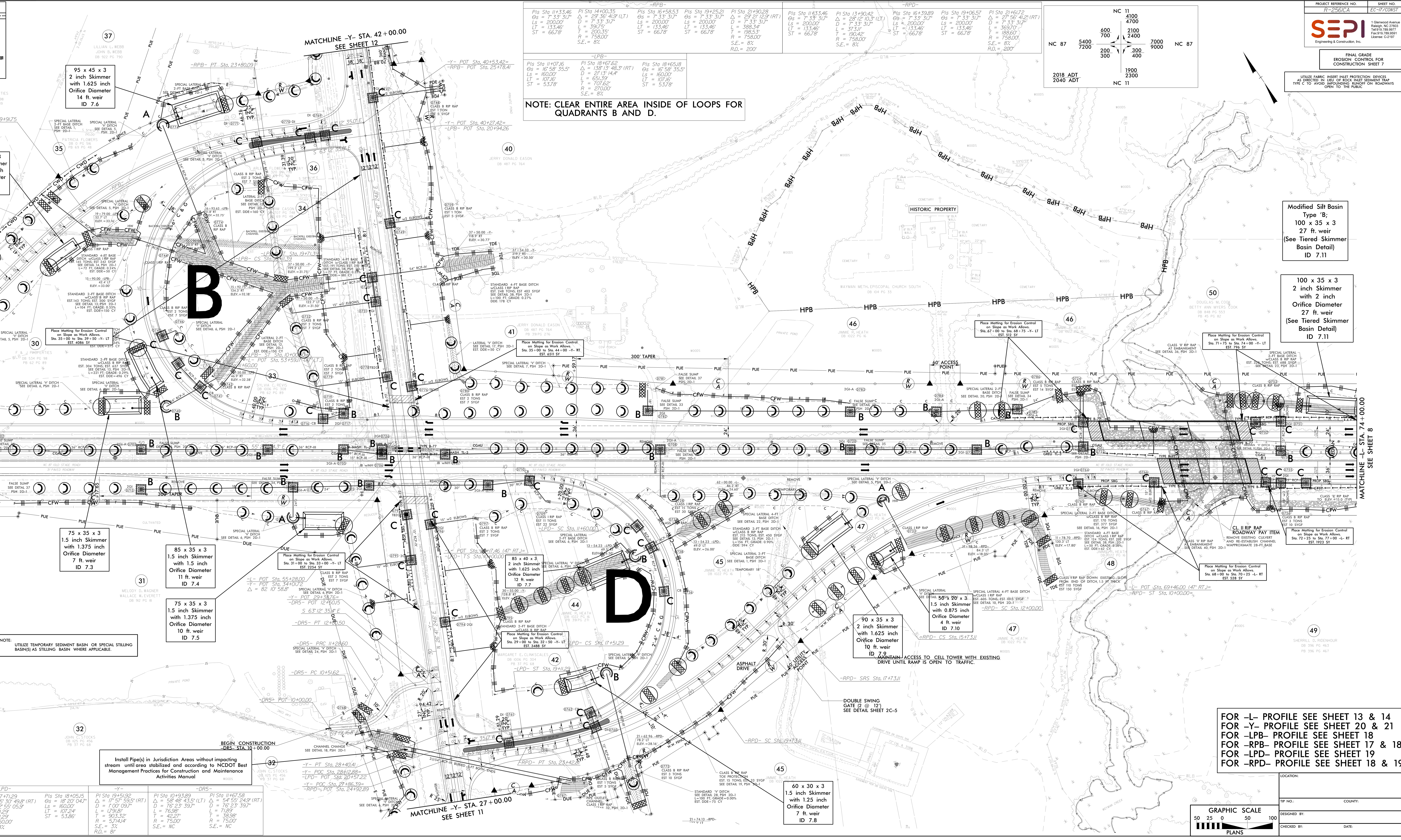
85 x 35 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
11 ft. weir
ID 7.4

75 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
10 ft. weir
ID 7.5

85 x 40 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
12 ft. weir
ID 7.7

90 x 35 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
10 ft. weir
ID 7.8

60 x 30 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
7 ft. weir
ID 7.8



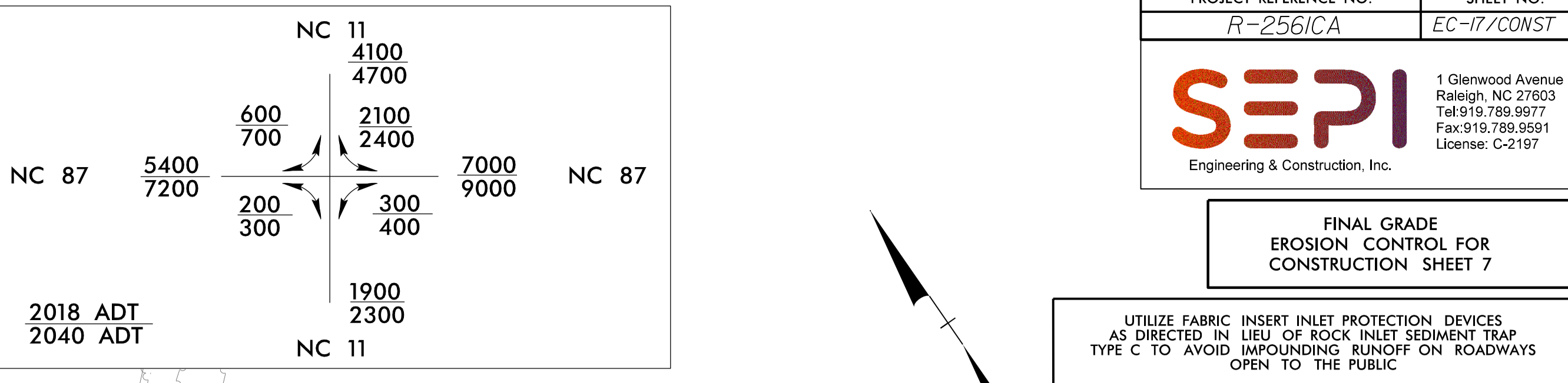
NOTE: CLEAR ENTIRE AREA INSIDE OF LOOPS FOR QUADRANTS B AND D.

NOTE: UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

Install Pipes in Jurisdiction Areas without impacting stream until area stabilized and according to NCDOT Best Management Practices for Construction and Maintenance Activities Manual

| | | | | | |
|--|--|---|--|---|---|
| <p>Pls Sta 11+07.24 Os = 18' 20" 04.7" Ls = 160.00' Lt = 107.24' St = 53.86'</p> | <p>Pls Sta 17+41.29 Os = 135' 30" 43.8" (RT) Ls = 22' 55" 05.3" Lt = 59.29' T = 61.29' R = 250.00' S.E. = 8%</p> | <p>Pls Sta 18+04.515 Os = 18' 20" 04.7" Ls = 160.00' Lt = 107.24' St = 53.86'</p> | <p>Pls Sta 19+51.92 Os = 17' 57" 59.5" (RT) Ls = 160.00' Lt = 107.24' T = 42.27' R = 750.00' S.E. = 3%</p> | <p>Pls Sta 19+93.89 Os = 58' 48" 43.5" (LT) Ls = 76' 23" 39.7" Lt = 76.98' T = 42.27' R = 750.00' S.E. = NC</p> | <p>Pls Sta 11+67.58 Os = 54' 55" 24.9" (RT) Ls = 76' 23" 39.7" Lt = 71.89' T = 36.96' R = 750.00' S.E. = NC</p> |
|--|--|---|--|---|---|

| | | | | | | | | | |
|---|---|---|---|---|---|--|---|---|---|
| <p>Pls Sta 11+33.46 Os = 7' 33' 31.7" Ls = 200.00' Lt = 133.46' St = 66.78'</p> | <p>Pls Sta 14+00.35 Os = 29' 36" 41.9" (LT) Ls = 133' 31.7" Lt = 39.75' T = 200.35' R = 750.00' S.E. = 8%</p> | <p>Pls Sta 16+58.53 Os = 7' 33' 31.7" Ls = 200.00' Lt = 133.46' St = 66.78'</p> | <p>Pls Sta 19+25.21 Os = 7' 33' 31.7" Ls = 200.00' Lt = 133.46' St = 66.78'</p> | <p>Pls Sta 21+90.28 Os = 29' 36" 41.9" (RT) Ls = 133' 31.7" Lt = 39.75' T = 200.35' R = 750.00' S.E. = 8%</p> | <p>Pls Sta 11+33.46 Os = 7' 33' 31.7" Ls = 200.00' Lt = 133.46' St = 66.78'</p> | <p>Pls Sta 13+90.42 Os = 28' 12" 0.3" (LT) Ls = 7' 33' 31.7" Lt = 37.31' T = 133.46' R = 750.00' S.E. = 8%</p> | <p>Pls Sta 16+39.89 Os = 7' 33' 31.7" Ls = 200.00' Lt = 133.46' St = 66.78'</p> | <p>Pls Sta 19+06.57 Os = 7' 33' 31.7" Ls = 200.00' Lt = 133.46' St = 66.78'</p> | <p>Pls Sta 21+61.72 Os = 27' 56" 41.2" (RT) Ls = 7' 33' 31.7" Lt = 37.31' T = 133.46' R = 750.00' S.E. = 8%</p> |
|---|---|---|---|---|---|--|---|---|---|



PROJECT REFERENCE NO: R-2561CA
SHEET NO: EC-17/CONST 7

SEPI
Engineering & Construction, Inc.

1 Glenwood Avenue
Raleigh, NC 27603
919.780.9877
Fax: 919.780.9871
License: C-1917

FINAL DESIGN
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

UTILIZE FABRIC INSERT INLET PROTECTION DEVICES AS DIRECTED IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C TO AVOID IMPROVING RIBSHP ON ROADWAYS OPEN TO THE PUBLIC

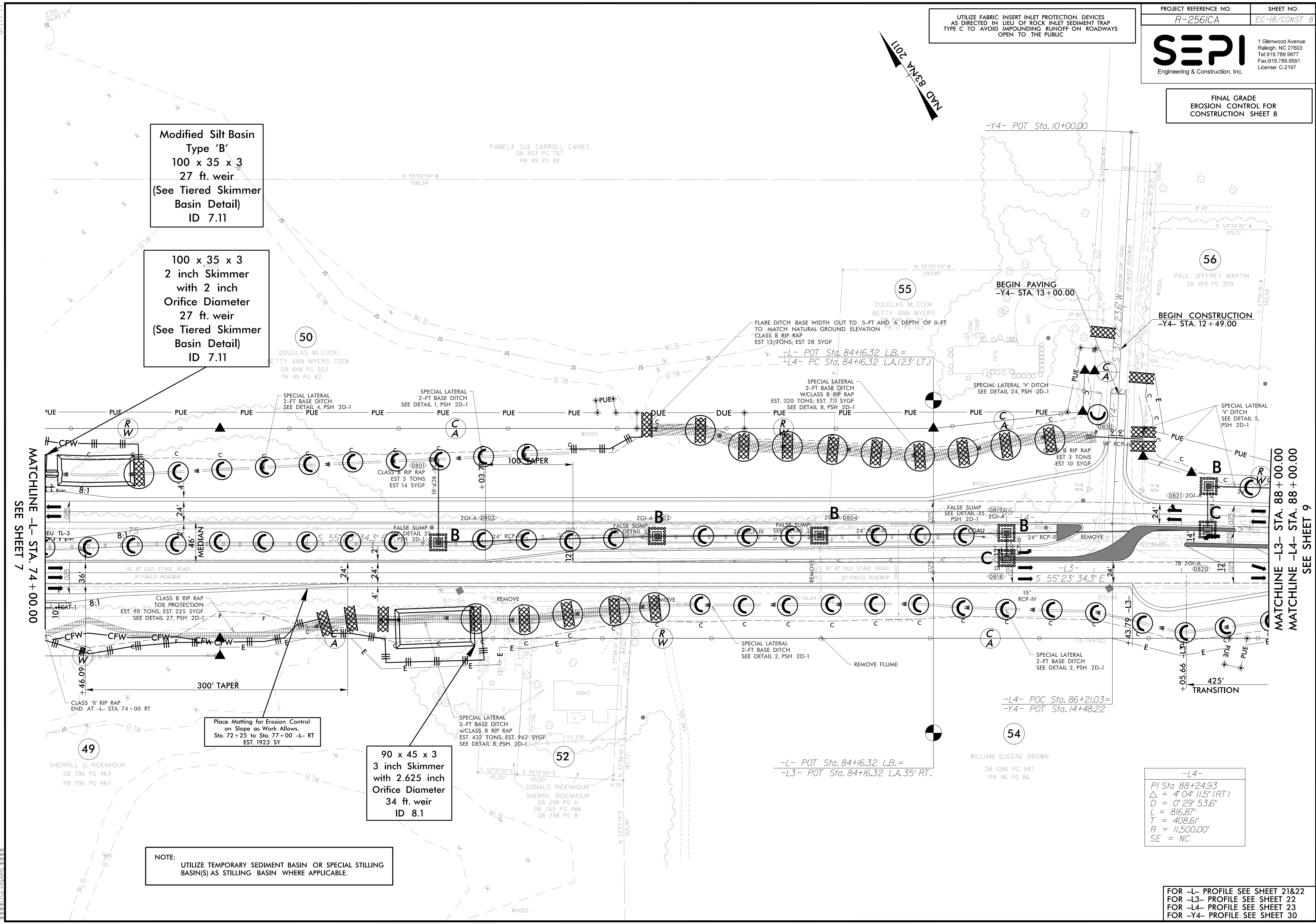
FOR -L- PROFILE SEE SHEET 13 & 14
FOR -Y- PROFILE SEE SHEET 20 & 21
FOR -LPB- PROFILE SEE SHEET 17
FOR -RPB- PROFILE SEE SHEET 18 & 19
FOR -LPD- PROFILE SEE SHEET 19
FOR -RPD- PROFILE SEE SHEET 18 & 19

GRAPHIC SCALE
50 25 0 50 100

DESIGNED BY: _____
CHECKED BY: _____
DATE: _____

UTILIZE FABRIC INSERT INLET PROTECTION DEVICES
AS DIRECTED IN LIEU OF ROCK INLET SEDIMENT TRAP
TYPE C TO AVOID IMPOUNDING RUNOFF ON ROADWAYS
OPEN TO THE PUBLIC

MAD 8/24/2017



Modified Silt Basin
Type 'B'
100 x 35 x 3
27 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.11

100 x 35 x 3
2 inch Skimmer
with 2 inch
Orifice Diameter
27 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.11

90 x 45 x 3
3 inch Skimmer
with 2.625 inch
Orifice Diameter
34 ft. weir
ID 8.1

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 72+25 to Sta. 77+00 -L- RT
EST. 1923 SY

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING
BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

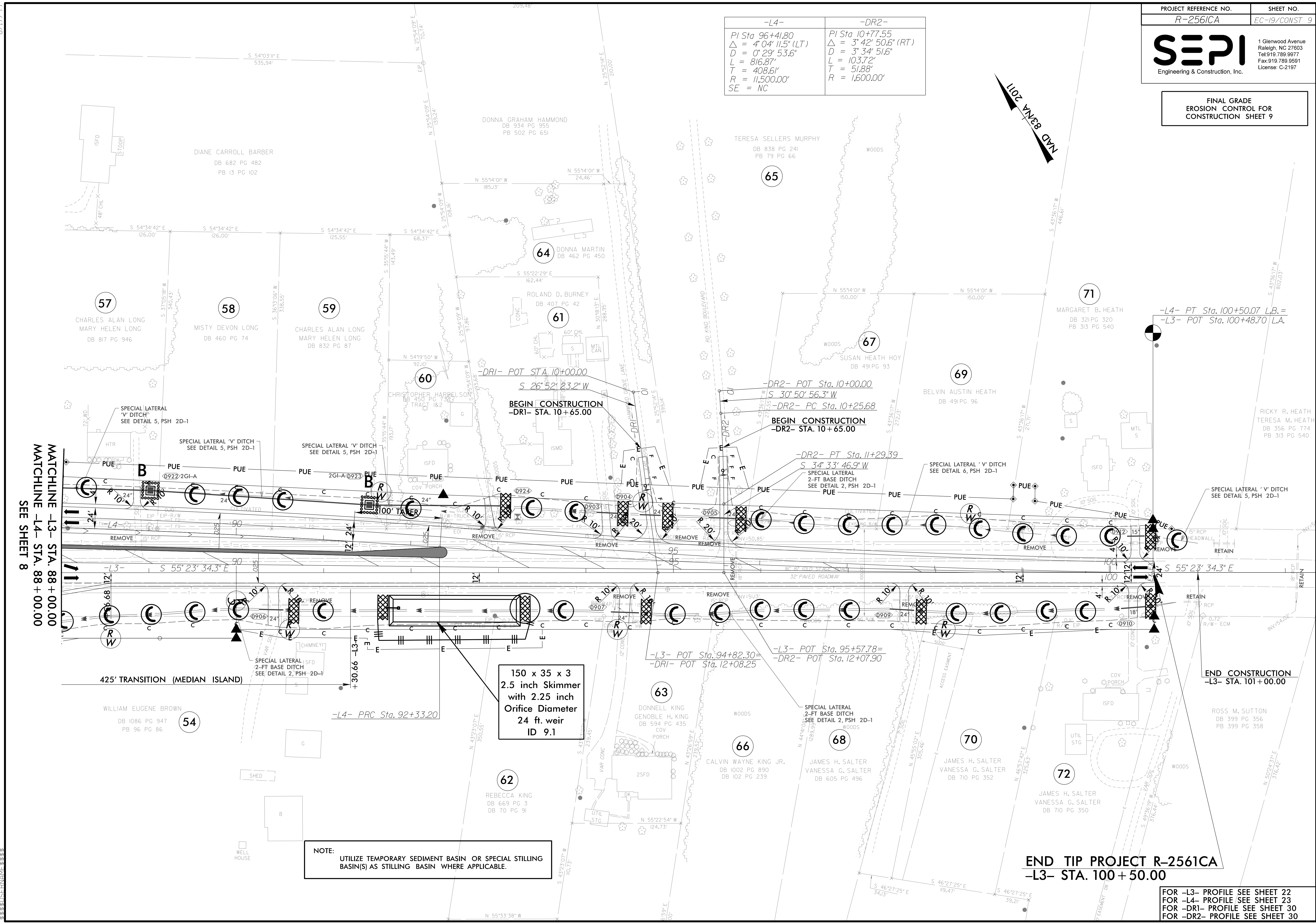
-L4-
PI Sta 88+24.93
Δ = 4' 04" 11.5" (RT)
D = 0' 29" 53.6"
L = 816.87'
T = 408.61'
R = 11,500.00'
SE = NC

FOR -L- PROFILE SEE SHEET 21&22
FOR -L3- PROFILE SEE SHEET 22
FOR -L4- PROFILE SEE SHEET 23
FOR -Y4- PROFILE SEE SHEET 30



FINAL GRADE
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

| -L4- | -DR2- |
|------------------------------|------------------------------|
| PI Sta 96+41.80 | PI Sta 10+77.55 |
| $\Delta = 4' 04" 11.5" (LT)$ | $\Delta = 3' 42" 50.6" (RT)$ |
| $D = 0' 29' 53.6"$ | $D = 3' 34' 51.6"$ |
| $L = 816.87'$ | $L = 103.72'$ |
| $T = 408.61'$ | $T = 51.88'$ |
| $R = 11,500.00'$ | $R = 1,600.00'$ |
| SE = NC | |



MATCHLINE -L3- STA. 88+00.00
MATCHLINE -L4- STA. 88+00.00
SEE SHEET 8

-L4- PT Sta. 100+50.07 L.B. =
-L3- POT Sta. 100+48.70 L.A.

150 x 35 x 3
2.5 inch Skimmer
with 2.25 inch
Orifice Diameter
24 ft. weir
ID 9.1

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING
BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

END TIP PROJECT R-2561CA
-L3- STA. 100 + 50.00

FOR -L3- PROFILE SEE SHEET 22
FOR -L4- PROFILE SEE SHEET 23
FOR -DR1- PROFILE SEE SHEET 30
FOR -DR2- PROFILE SEE SHEET 30

8.17/99
\$\$\$\$\$\$

**FINAL GRADE
EROSION CONTROL FOR
CONSTRUCTION SHEET 10**

-Y-
PI Sta 19+51.92
 $\Delta = 17^{\circ} 57' 59.5" (RT)$
 $D = 1' 00' 09.7"$
 $L = 1,791.81'$
 $T = 903.32'$
 $R = 5,714.14'$
 $S.E. = 3\%$
 $R.O. = 81'$

NAD 83 NA 2011

DWAYNE WILLIAMS
CONSTANCE W. WILLIAMS
DB 0 PG 123

DWAYNE WILLIAMS
CONSTANCE W. WILLIAMS
DB 0 PG 123

DWAYNE L. WILLIAMS
BETTY L. WILLIAMS
DB 500 PG 845
PB 500 PG 847

DWAYNE WILLIAMS
CONSTANCE W. WILLIAMS
DB 0 PG 123

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 11+50 to Sta. 13+50 -Y- LT
EST. 394 SY

CLASS 5 B' RIP RAP
TOE PROTECTION
EST. 16 TONS; EST. 35 SYGF
SEE DETAIL 27

MATCHLINE -Y- STA. 14+00.00
SEE SHEET 11

BEGIN CONSTRUCTION
-Y- STA. 11+00.00

76
CONSTANCE HALL
DB 1146 PG 709
PB 416 PG 971

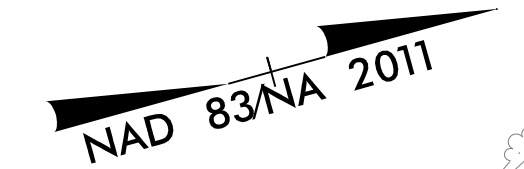
77
SHERRILL D. RIDENHOUR
DB 396 PG 463
PB 396 PG 467

SHERWOOD E. BROWN
ELLA MAE BROWN
DB 623 PG 56

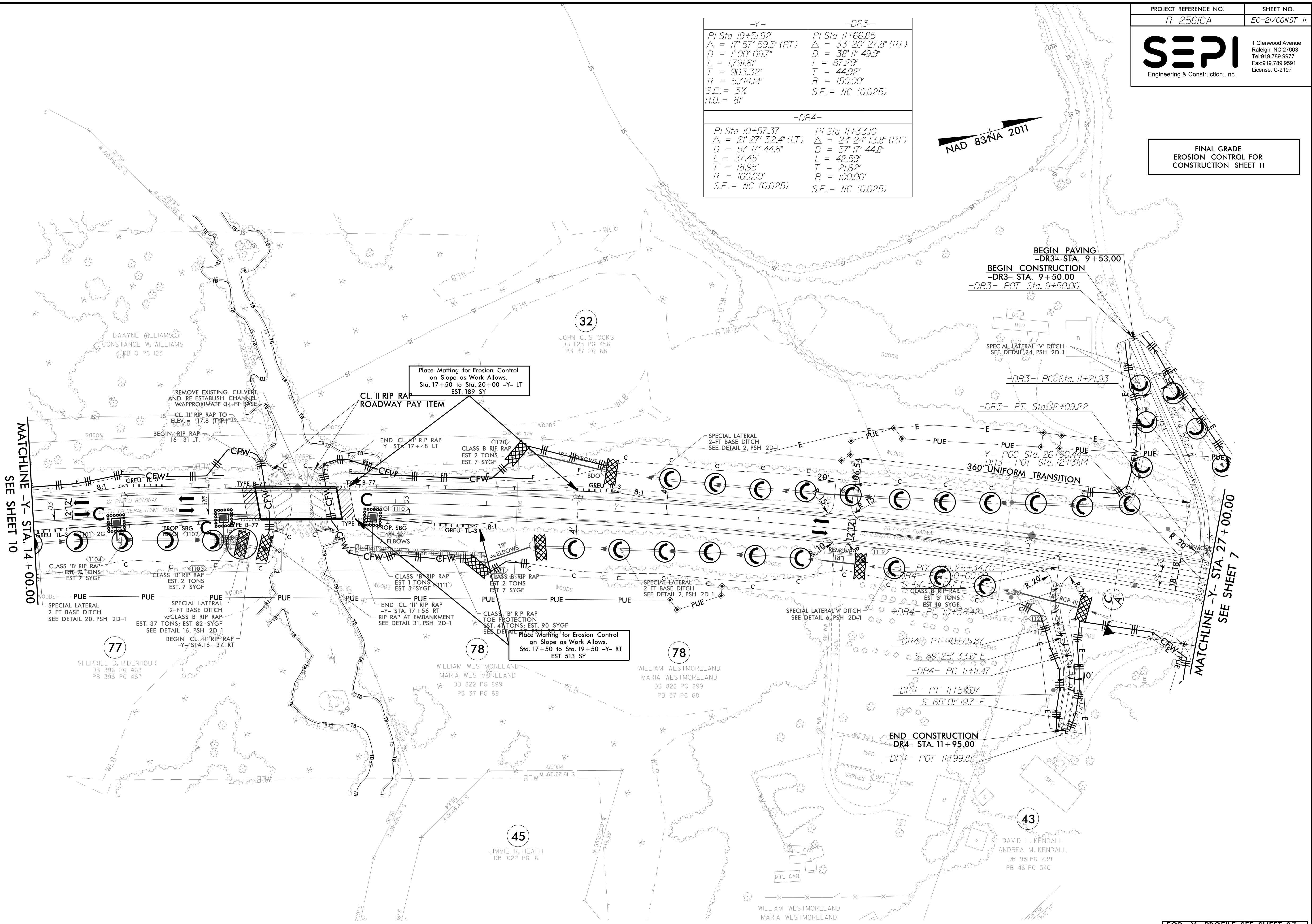
8/17/99



| | | | |
|-------------------|---------------------------------------|-------------------|---------------------------------------|
| -Y- | | -DR3- | |
| PI Sta 19+51.92 | $\Delta = 17^{\circ} 57' 59.5''$ (RT) | PI Sta 11+66.85 | $\Delta = 33^{\circ} 20' 27.8''$ (RT) |
| D = 1'00' 09.7" | L = 1,791.81' | D = 38' 11' 49.9" | L = 87.29' |
| T = 903.32' | R = 5,714.14' | T = 44.92' | R = 150.00' |
| S.E. = 3% | R.O. = 81' | S.E. = NC (0.025) | R.O. = NC (0.025) |
| -DR4- | | -DR3- | |
| PI Sta 10+57.37 | $\Delta = 21^{\circ} 27' 32.4''$ (LT) | PI Sta 11+33.10 | $\Delta = 24^{\circ} 24' 13.8''$ (RT) |
| D = 57' 17' 44.8" | L = 37.45' | D = 57' 17' 44.8" | L = 42.59' |
| T = 18.95' | R = 100.00' | T = 21.62' | R = 100.00' |
| S.E. = NC (0.025) | | S.E. = NC (0.025) | |



FINAL GRADE
EROSION CONTROL FOR
CONSTRUCTION SHEET 11



MATCHLINE -Y- STA. 14+00.00
SEE SHEET 10

MATCHLINE -Y- STA. 27+00.00
SEE SHEET 7

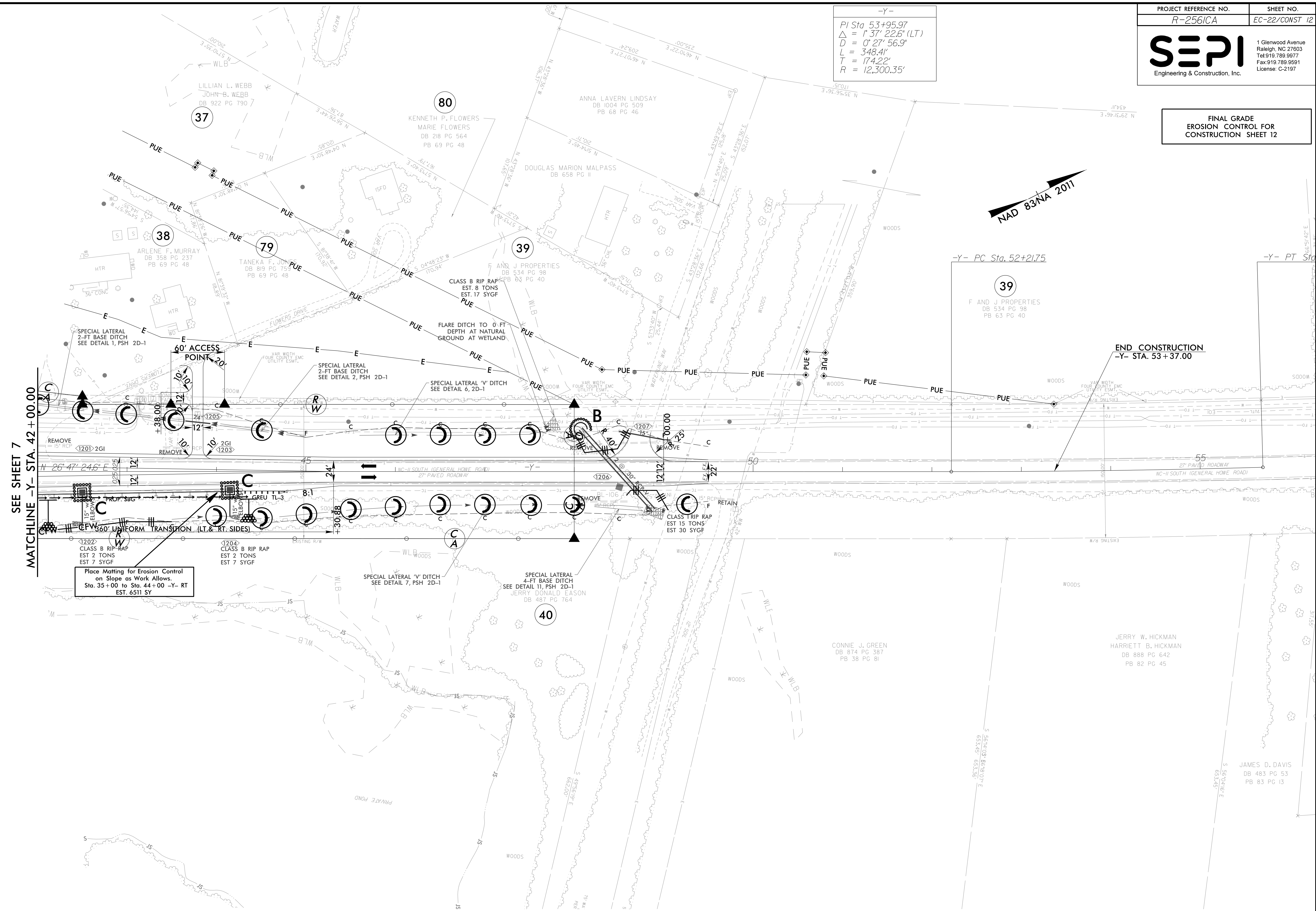
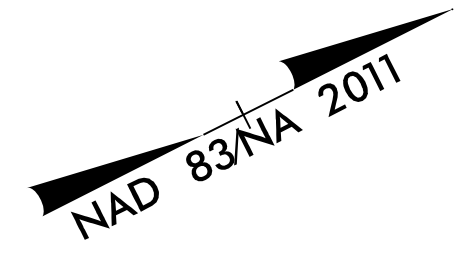
FOR -Y- PROFILE SEE SHEET 27
FOR -DR3- PROFILE SEE SHEET 30
FOR -DR4- PROFILE SEE SHEET 31

8.17/99
C:\PROJECTS\256\CA\EC-21\CONST 11.DWG
DATE: 11/11/10 10:58 AM
BY: JAC
CHECKED: JAC
SCALE: AS SHOWN
PLOT SCALE: 1/8" = 1'-0"

8.17/99
C:\PROJECTS\2011\20110817\20110817.DWG

**FINAL GRADE
EROSION CONTROL FOR
CONSTRUCTION SHEET 12**

-Y-
PI Sta 53+95.97
 $\Delta = 1' 37" 22.6" (LT)$
 $D = 0' 27" 56.9"$
 $L = 348.4'$
 $T = 174.22'$
 $R = 12,300.35'$



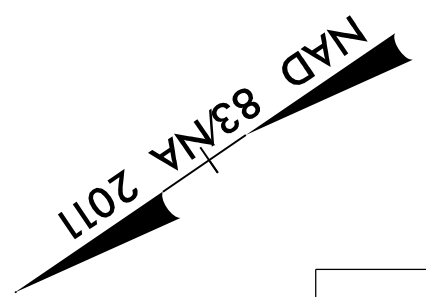
SEE SHEET 7
MATCHLINE -Y- STA. 42+00.00

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 35+00 to Sta. 44+00 -Y- RT
EST. 6511 SY

FOR -Y- PROFILE SEE SHEET 28

**FINAL GRADE
EROSION CONTROL FOR
CONSTRUCTION SHEET 13**

8/17/99
UNDESIGNED FOR CONSTRUCTION



-Y3-

| | |
|------------------------|------------------------|
| PI Sta 10+95.26 | PI Sta 12+70.29 |
| Δ = 21° 01' 15.4" (LT) | Δ = 48° 16' 27.3" (RT) |
| D = 22° 55' 05.9" | D = 22° 55' 05.9" |
| L = 91.72' | L = 210.64' |
| T = 46.38' | T = 112.02' |
| R = 250.00' | R = 250.00' |
| SE = SEE PLANS | SE = SEE PLANS |