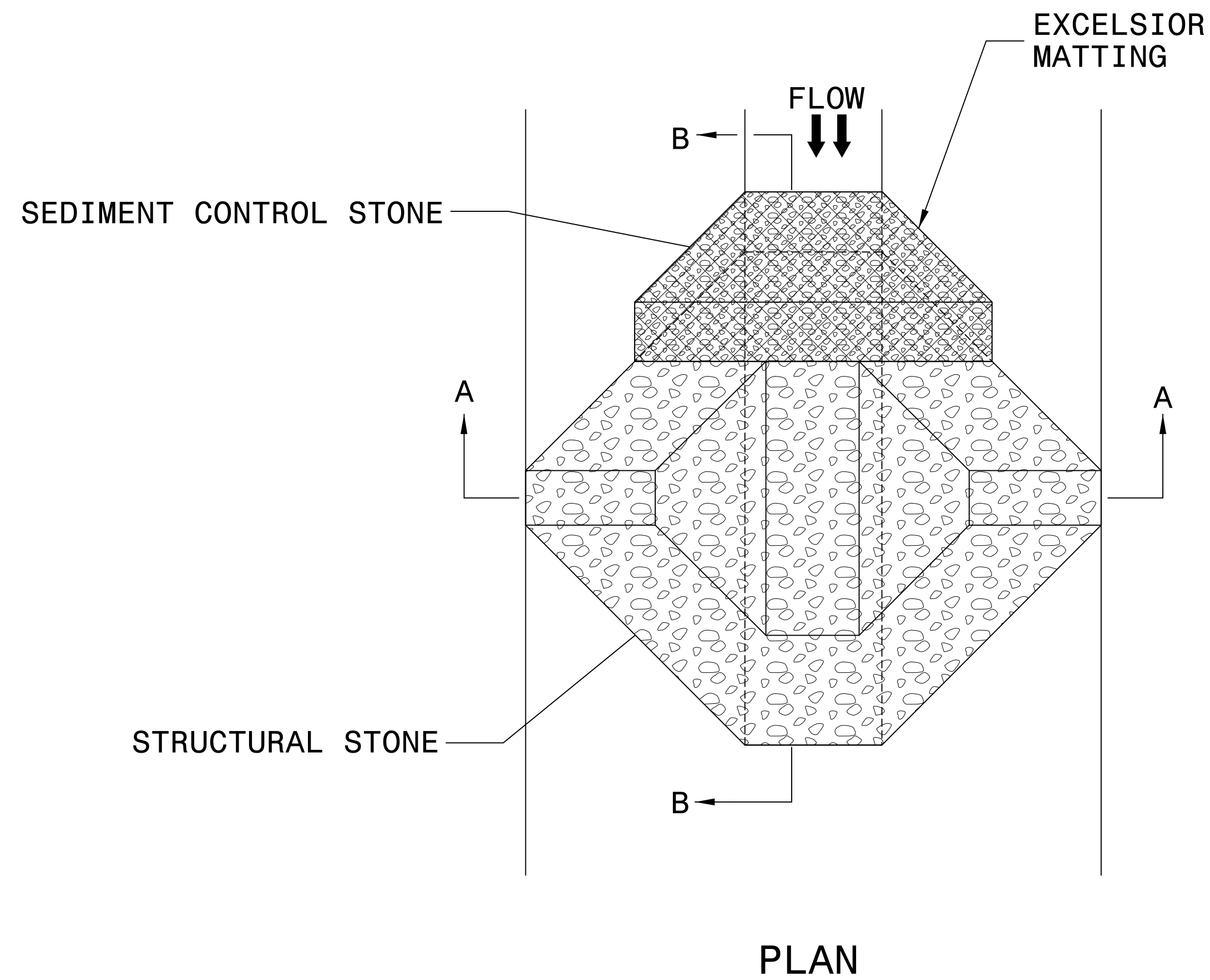


TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



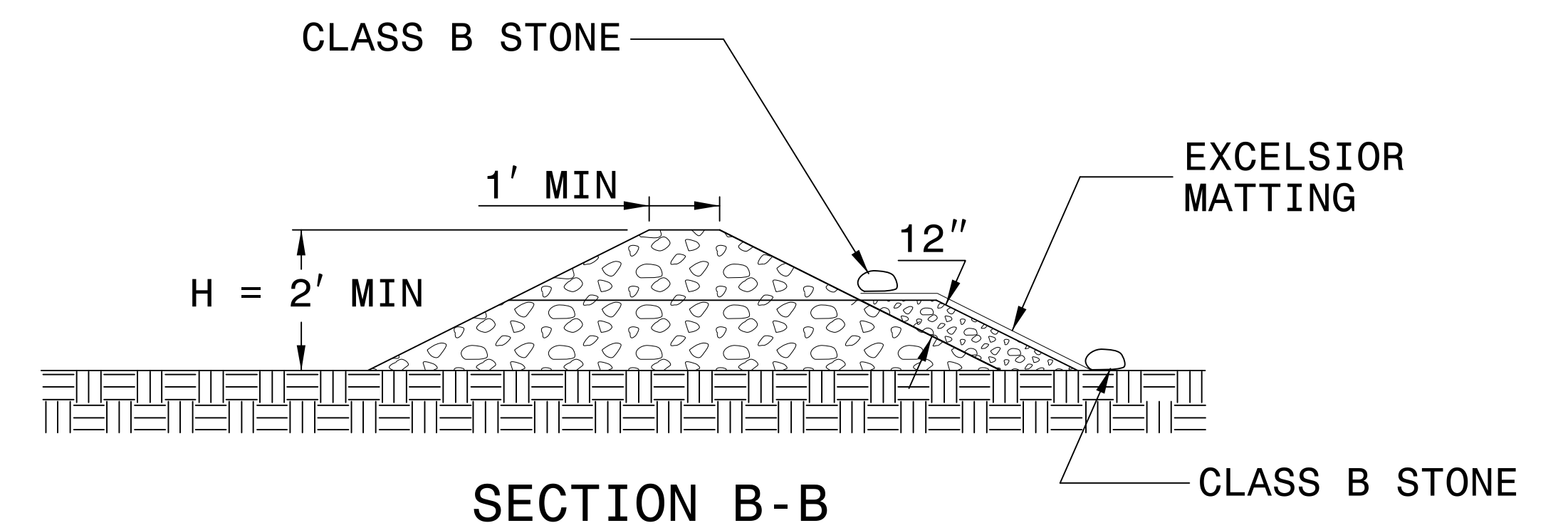
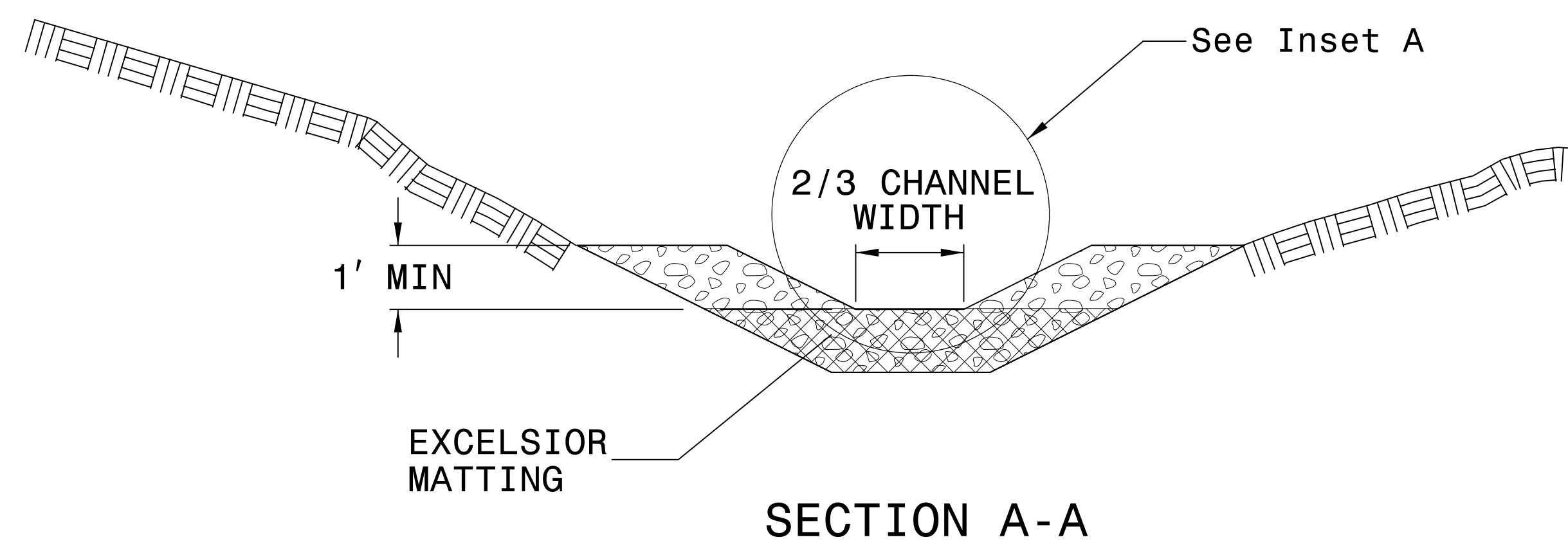
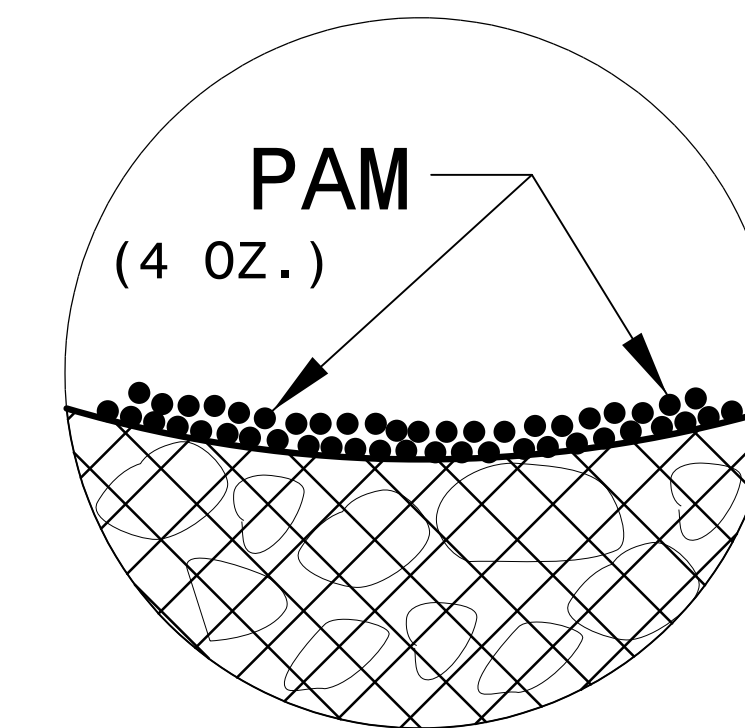
NOTES:

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.

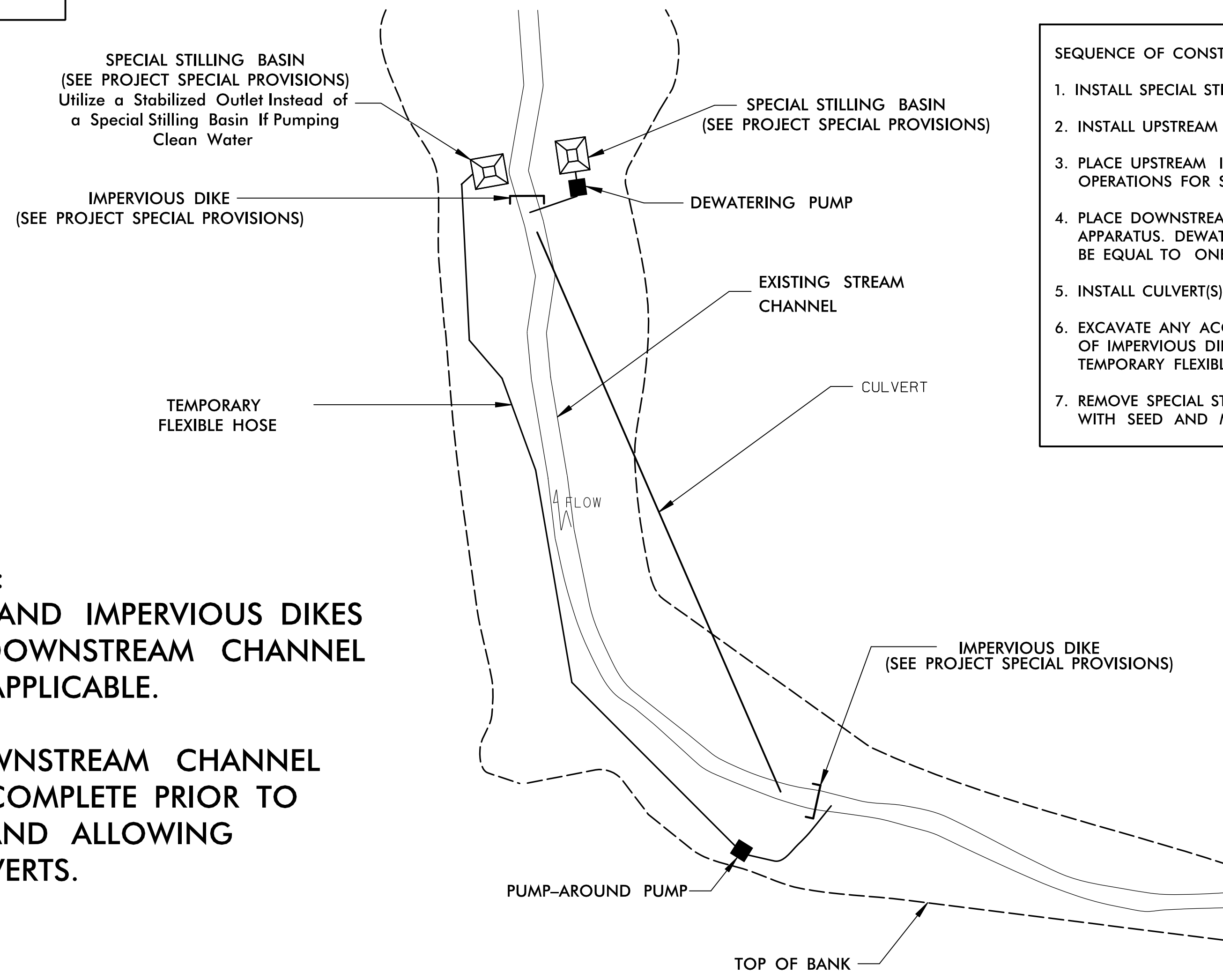


NOT TO SCALE

PROJECT REFERENCE NO. <i>BR-0125</i>	SHEET NO. <i>EC-2B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PUMP-AROUND OPERATION DETAIL

NOTES:
 1) All excavation shall be performed in only dry or isolated areas of the work zone.
 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
 3) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
 4) 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. INSTALL CULVERT(S) 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. REMOVE SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

****ADDITIONAL PROJECT-SPECIFIC NOTES:**

- 1) USE PUMP-AROUND OPERATION AND IMPERVIOUS DIKES TO COMPLETE UPSTREAM AND DOWNSTREAM CHANNEL IMPROVEMENTS/PROTECTIONS AS APPLICABLE.
- 2) ENSURE ALL UPSTREAM AND DOWNSTREAM CHANNEL IMPROVEMENT/PROTECTIONS ARE COMPLETE PRIOR TO REMOVAL OF IMPERVIOUS DIKES AND ALLOWING STREAM FLOW INTO NEW CULVERTS.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

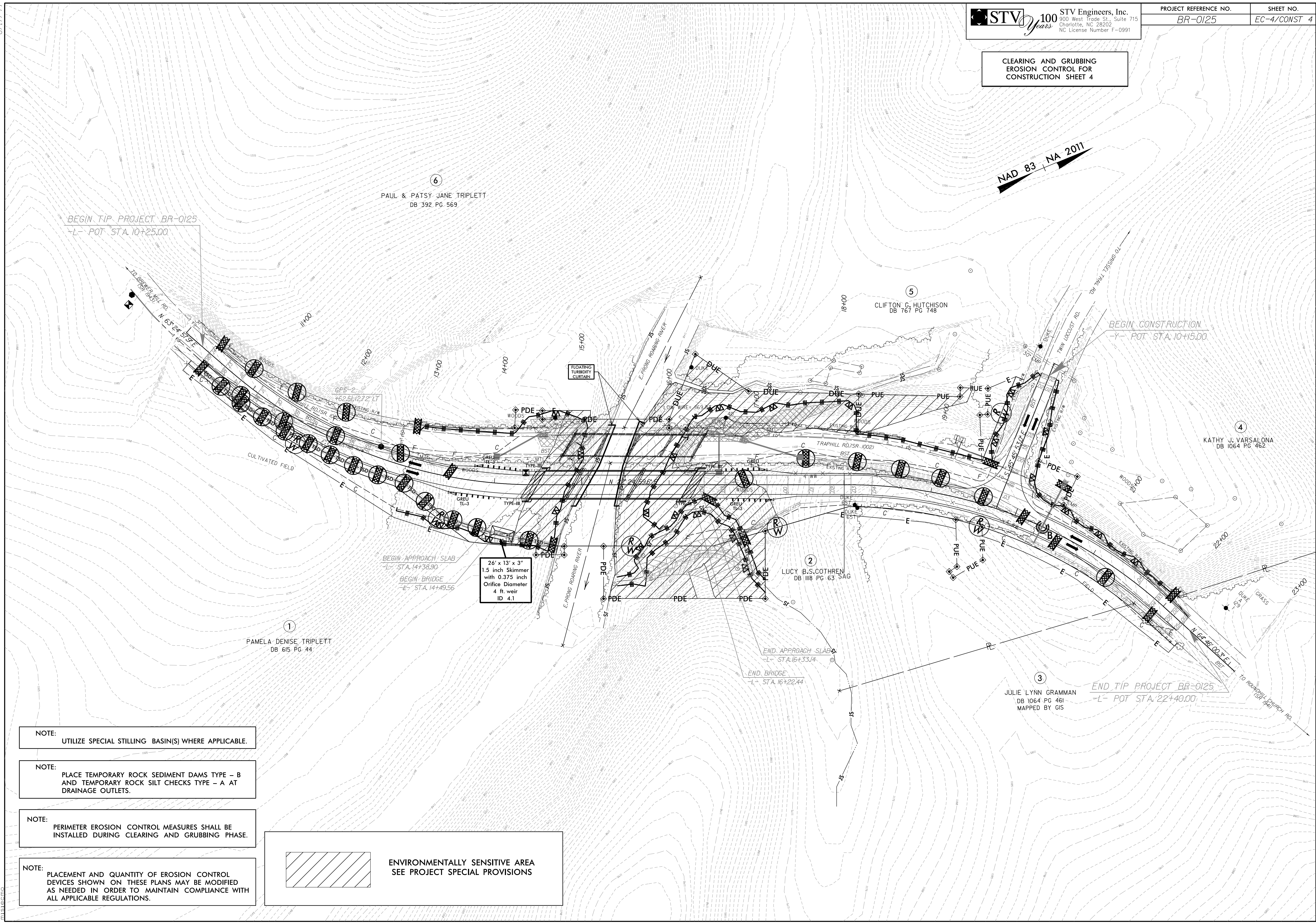
SOIL STABILIZATION TIMEFRAMES

<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.

8/17/99

**CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 4**

NAD 83 NA 2011



NOTE:
 UTILIZE SPECIAL STILLING BASIN(S) WHERE APPLICABLE.

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

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

NOTE:
 PLACEMENT AND QUANTITY OF EROSION CONTROL
 DEVICES SHOWN ON THESE PLANS MAY BE MODIFIED
 AS NEEDED IN ORDER TO MAINTAIN COMPLIANCE WITH
 ALL APPLICABLE REGULATIONS.

ENVIRONMENTALLY SENSITIVE AREA
 SEE PROJECT SPECIAL PROVISIONS

26" x 13" x 3"
 1.5 inch Skimmer
 with 0.375 inch
 Orifice Diameter
 4 ft. weir
 ID 4.1

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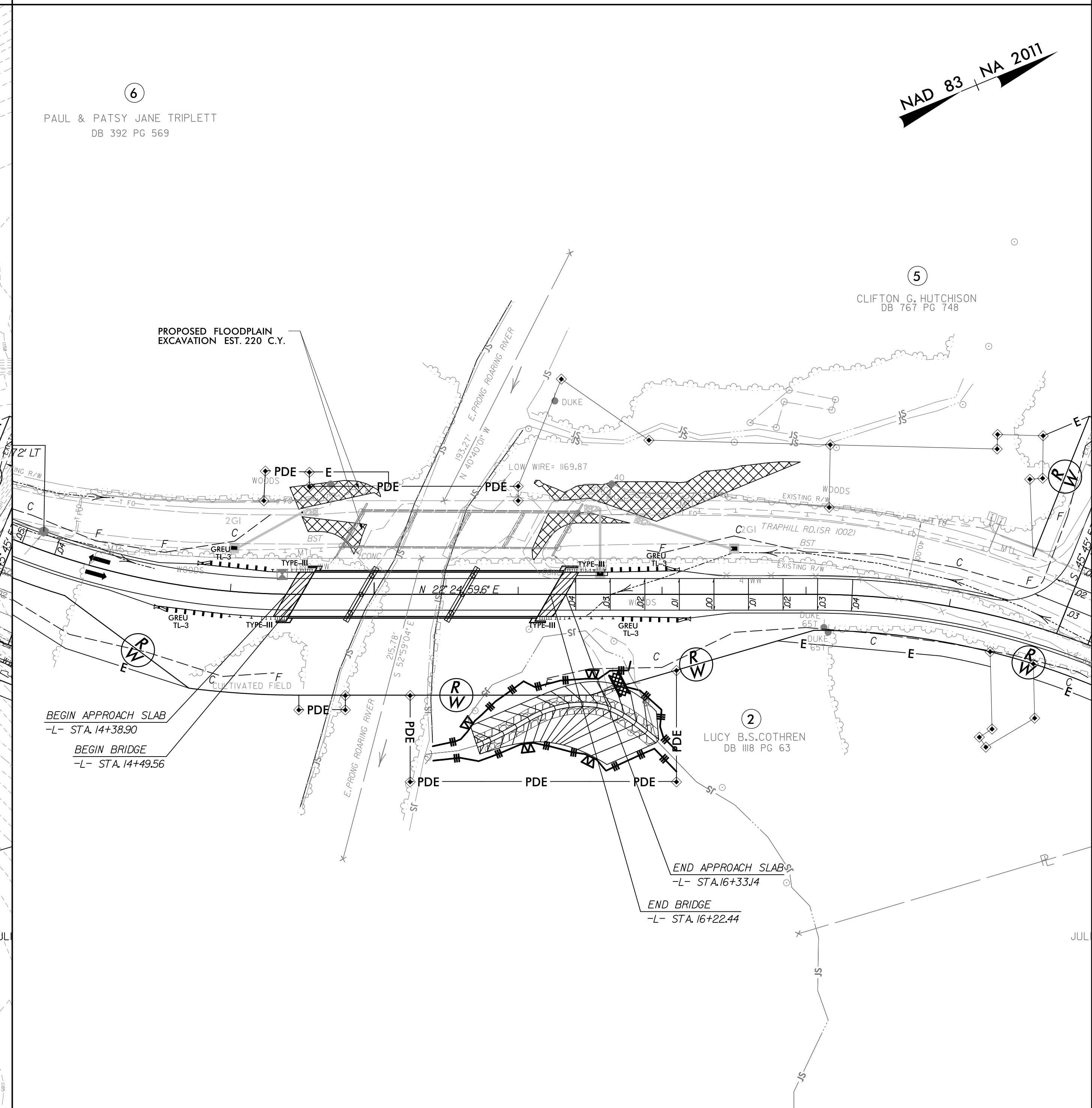
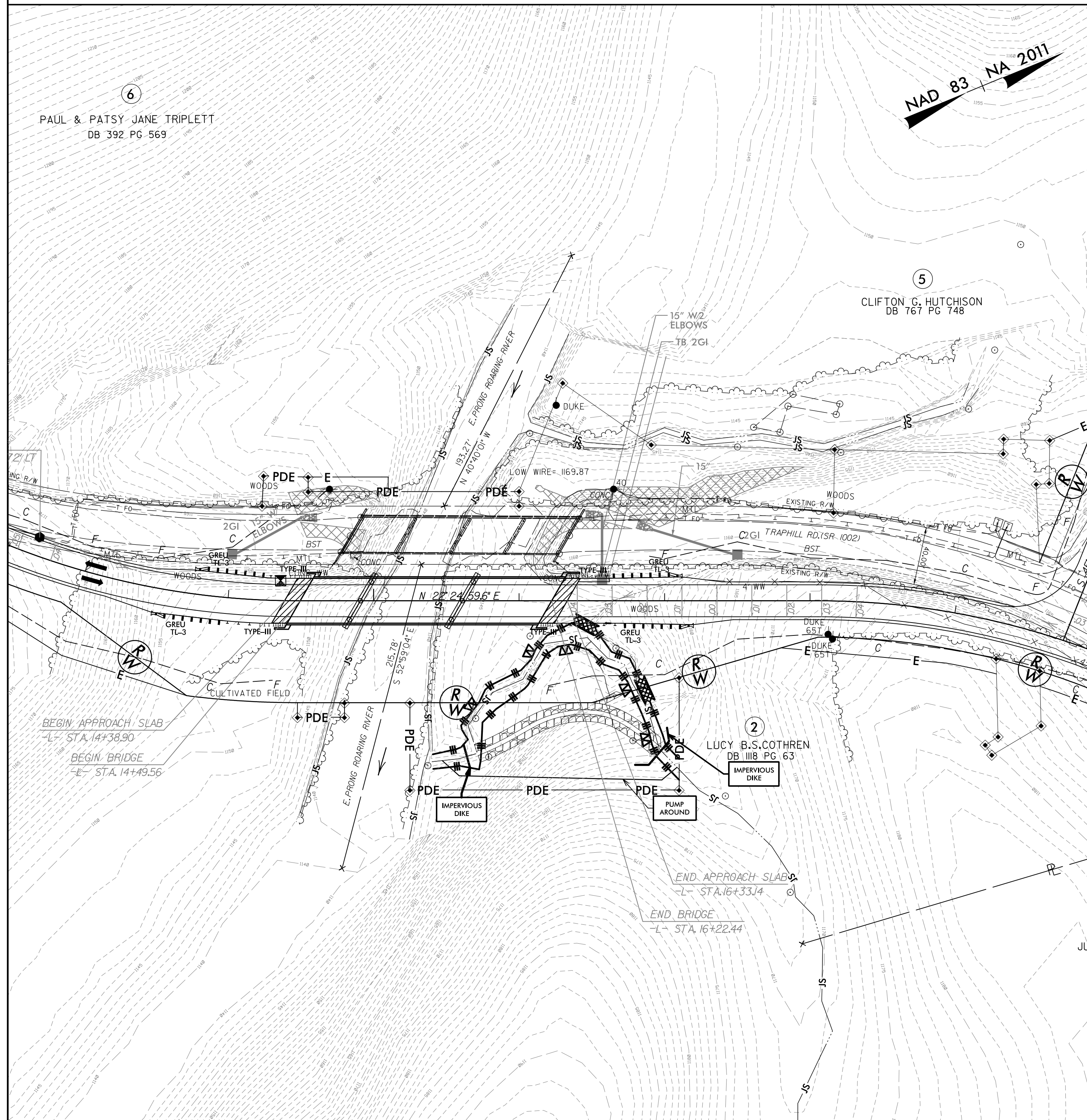
CHANNEL CHANGE CONSTRUCTION SEQUENCE STA. 15+36 -L-

PHASE I

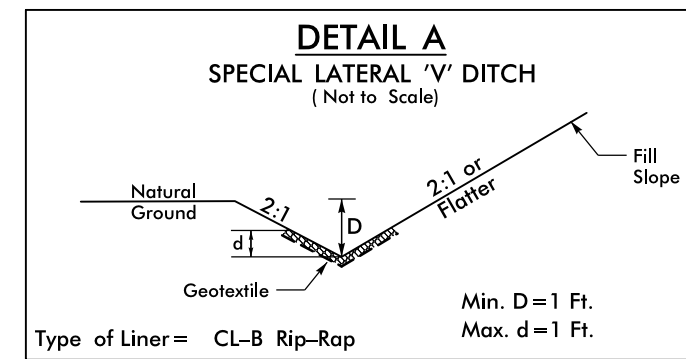
1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT STREAM RELOCATION.
2. INSTALL IMPERVIOUS DIKE AND PUMP AROUND OPERATION.
3. DEWATER PROPOSED CHANNEL CHANGE CONSTRUCTION AREA AS NEEDED.
4. STABILIZE EXCAVATED AREA ACCORDING TO CHANNEL CHANGE DESIGN PLANS AND DETAILS.

PHASE II

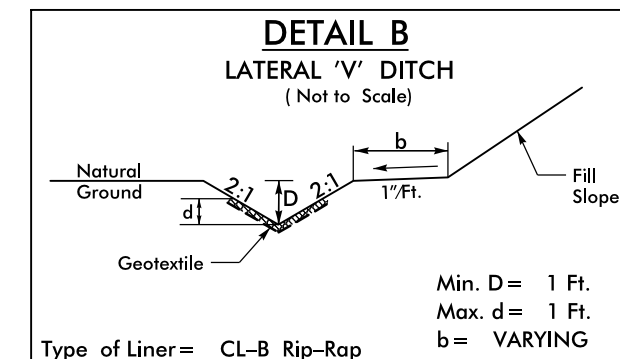
5. FILL IN EXISTING CHANNEL WITH CHANNEL CHANGE EXCAVATION MATERIAL.
6. REMOVE IMPERVIOUS DIKES AND PUMP AROUND OPERATION ALLOWING NORMAL FLOW THROUGH PROPOSED CHANNEL.
7. ALL INACTIVE WORK AREAS IMPACTED BY CHANNEL CHANGE CONSTRUCTION SHALL BE STABILIZED SEED AND MULCH TEMPORARILY.



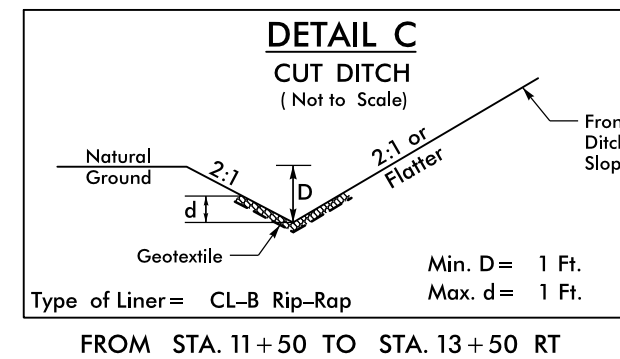
**FINAL PHASE
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 4**



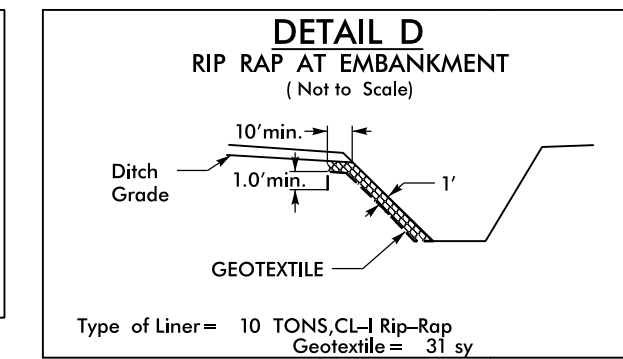
FROM STA. 10+35 RT TO STA. 11+50 RT
 FROM STA. 13+50 RT TO STA. 14+00 RT
 FROM STA. 20+33 RT TO STA. 22+30 RT



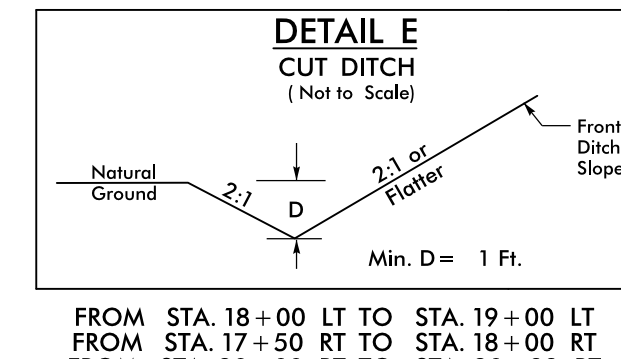
FROM STA. 14+50 RT TO STA. 15+15 LT
 FROM STA. 14+00 RT TO STA. 14+61 RT
 FROM STA. 16+71 RT TO STA. 17+11 RT
 FROM STA. 15+76 LT TO STA. 16+92 LT



FROM STA. 11+50 TO STA. 13+50 RT
 FROM STA. 17+11 TO STA. 17+50 RT

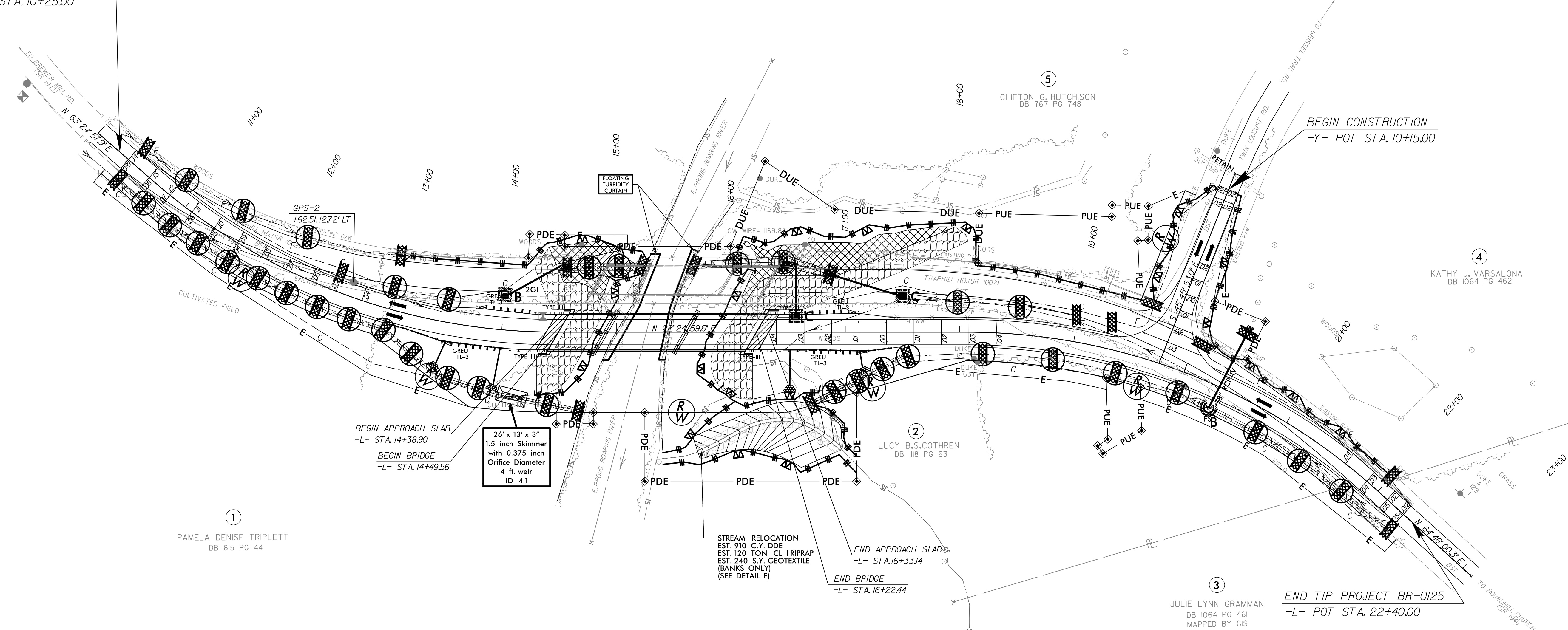


FROM STA. 15+15 LT TO STA. 15+30 LT
 FROM STA. 15+60 LT TO STA. 15+76 LT
 FROM STA. 14+61 RT TO STA. 14+73 RT



FROM STA. 18+00 LT TO STA. 19+00 LT
 FROM STA. 17+50 RT TO STA. 18+00 RT
 FROM STA. 20+00 RT TO STA. 20+33 RT

BEGIN TIP PROJECT BR-0125
 -L- POT STA. 10+25.00



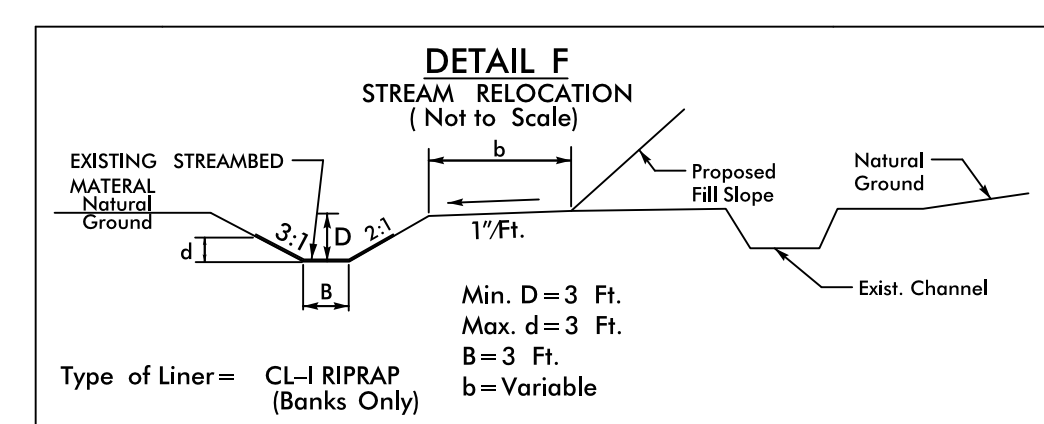
NOTE:
 UTILIZE SPECIAL STILLING BASIN(S) WHERE APPLICABLE.

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

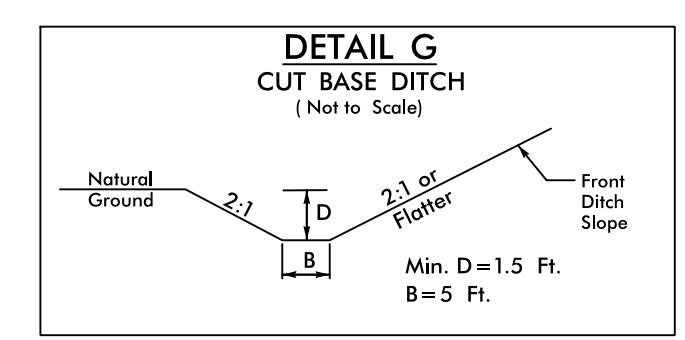
NOTE:
 PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

NOTE:
 PLACEMENT AND QUANTITY OF EROSION CONTROL DEVICES SHOWN ON THESE PLANS MAY BE MODIFIED AS NEEDED IN ORDER TO MAINTAIN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.

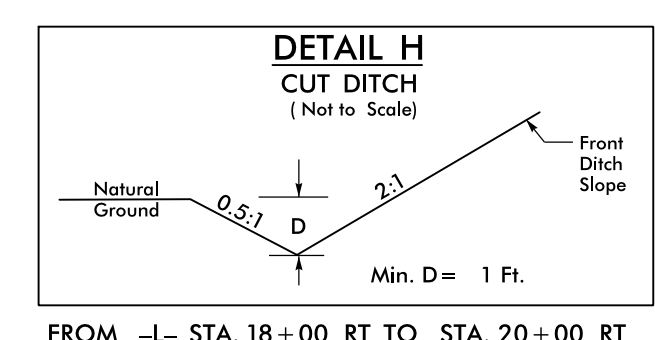
Place Matting for Erosion Control on Slope as Work Allows.
 -L- Sta. 13+00 RT to Sta. 14+30 RT
 -L- Sta. 16+20 RT to Sta. 17+50 RT



FROM -L- STA. 15+36 RT TO STA. 17+00 RT



FROM -L- STA. 17+50 LT TO STA. 18+00 LT

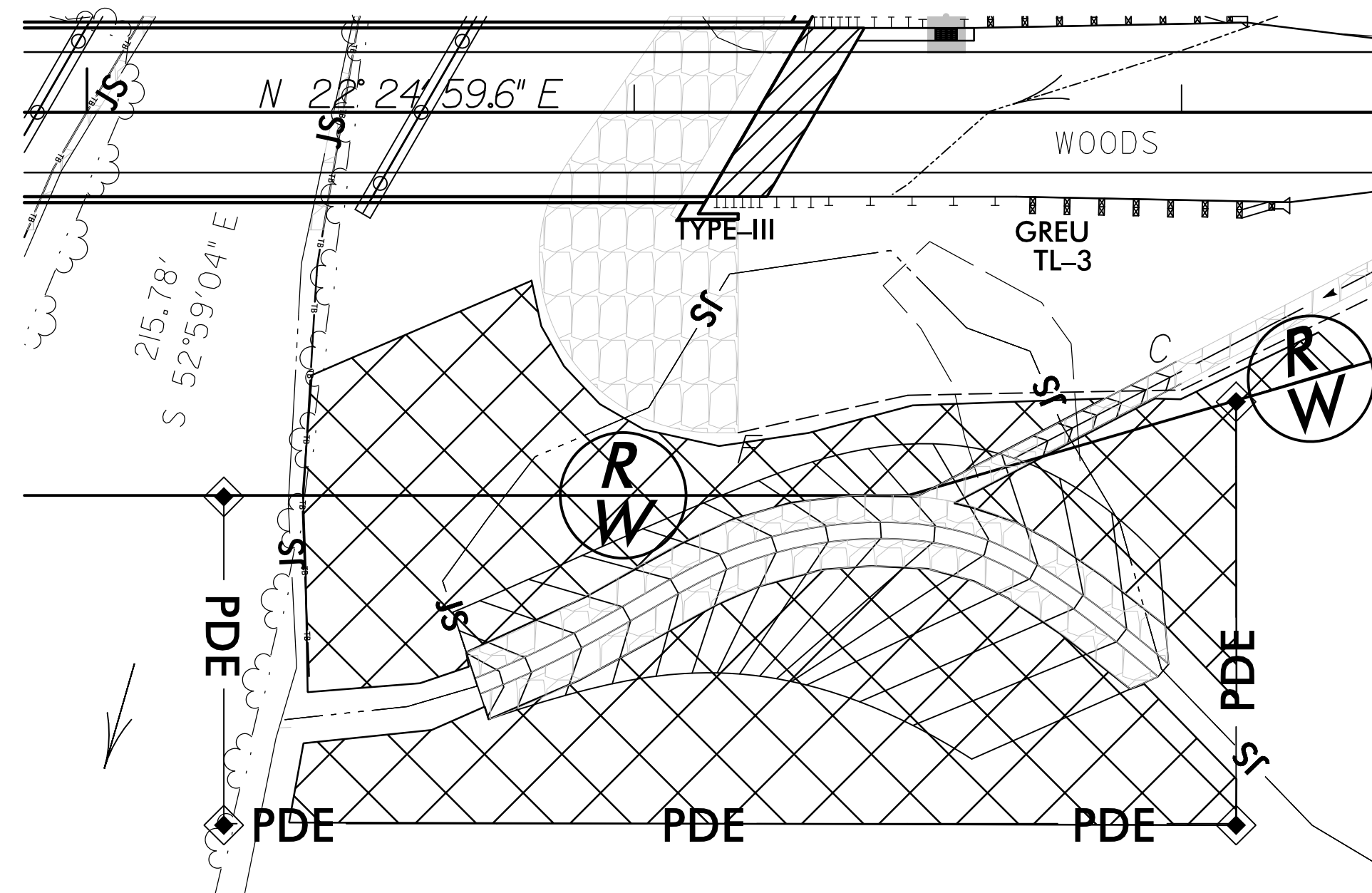


FROM -L- STA. 18+00 RT TO STA. 20+00 RT

8/17/99
 3/16/2020
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 mslacmo

0.26 ACRE STREAMBANK REFORESTATION

PROJECT REFERENCE NO.	SHEET NO.
BR-0125	EC-6/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS