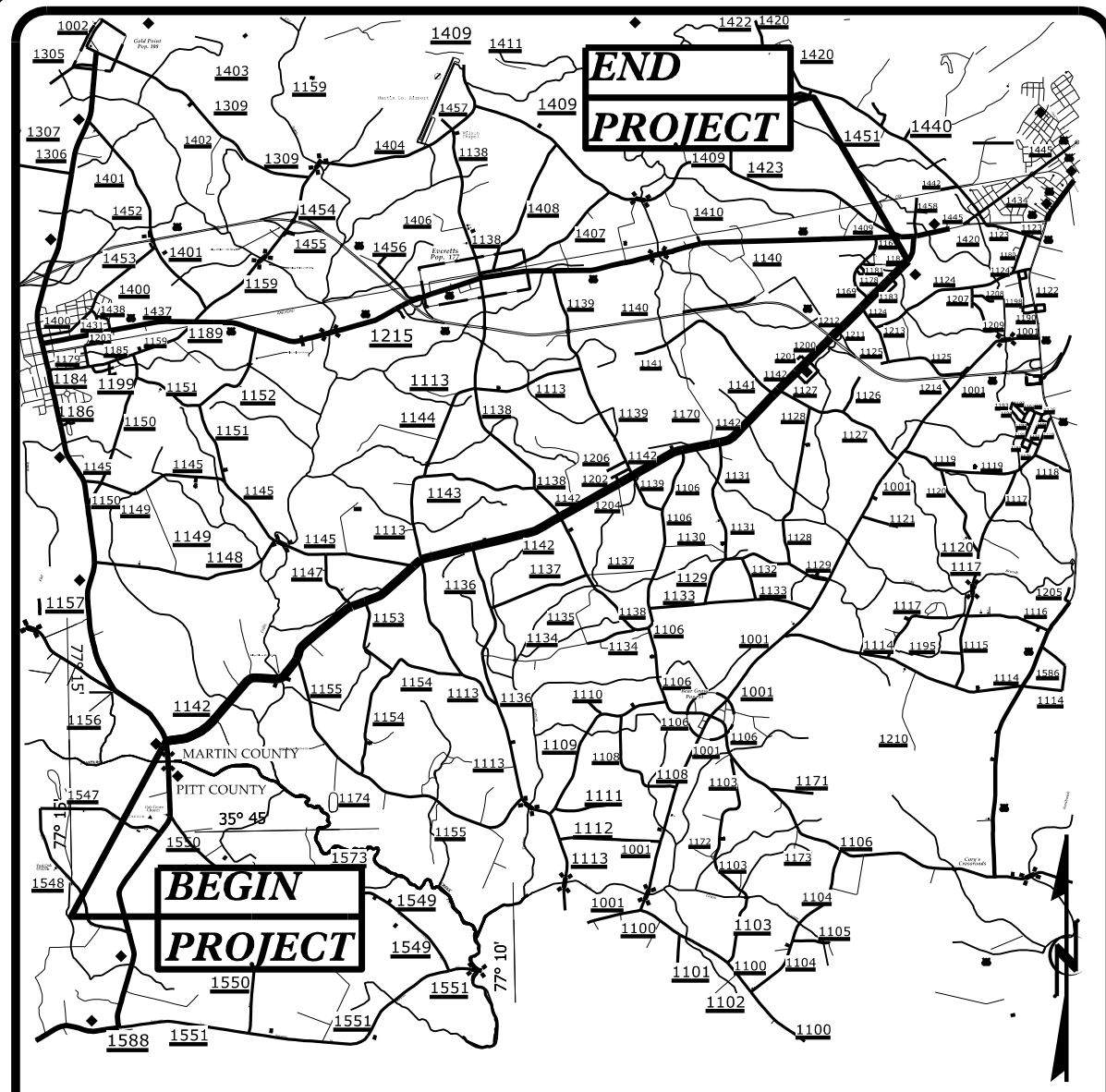


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**TIP PROJECT: R-4705**



VICINITY MAP

RIGHT OF WAY PLANS

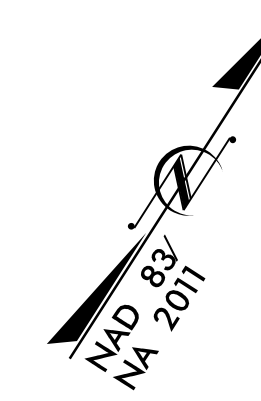
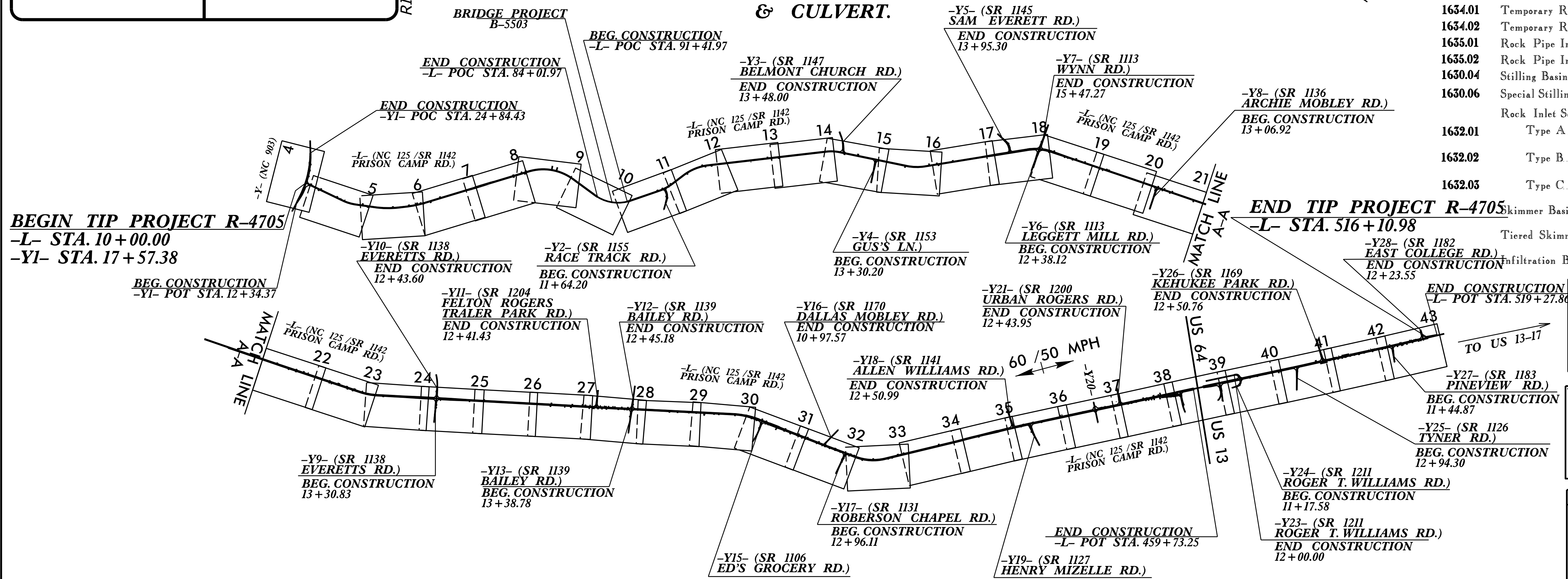
# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

## PLAN FOR PROPOSED HIGHWAY EROSION CONTROL

### MARTIN COUNTY

**LOCATION: NC 125/SR 1142 (PRISON CAMP RD.)  
FROM NC 903 TO SR 1182 (EAST COLLEGE RD.)**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING, WIDENING  
& CULVERT.**



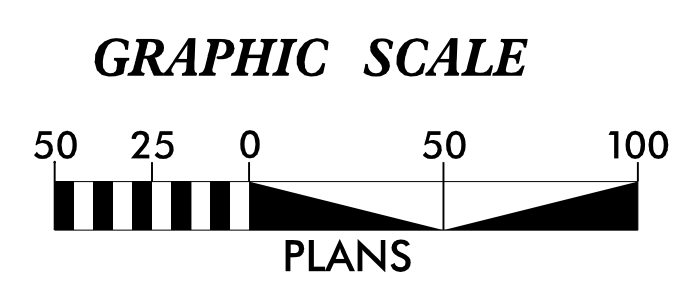
#### EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	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	
1650.02	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	
1655.01	Rock Pipe Inlet Sediment Trap Type-A	
1655.02	Rock Pipe Inlet Sediment Trap Type-B	
1650.04	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	

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

**THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.**

**ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT**  
Refer To E. C. Special Provisions for Special Considerations.



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.



Prepared in the Office of:  
**WETHERILL ENGINEERING INC.**  
1223 JONES FRANKLIN ROAD  
RALEIGH, NC

Designed by:  
**MATTHEW HARVEY, PE** 3487  
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

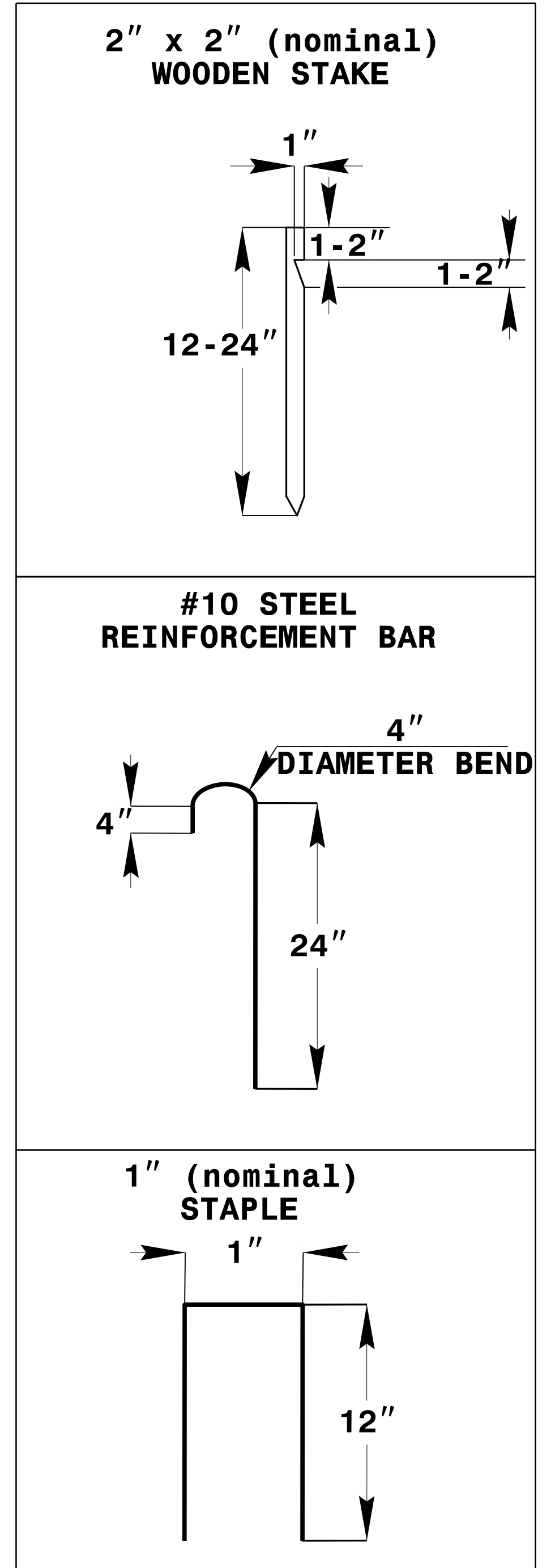
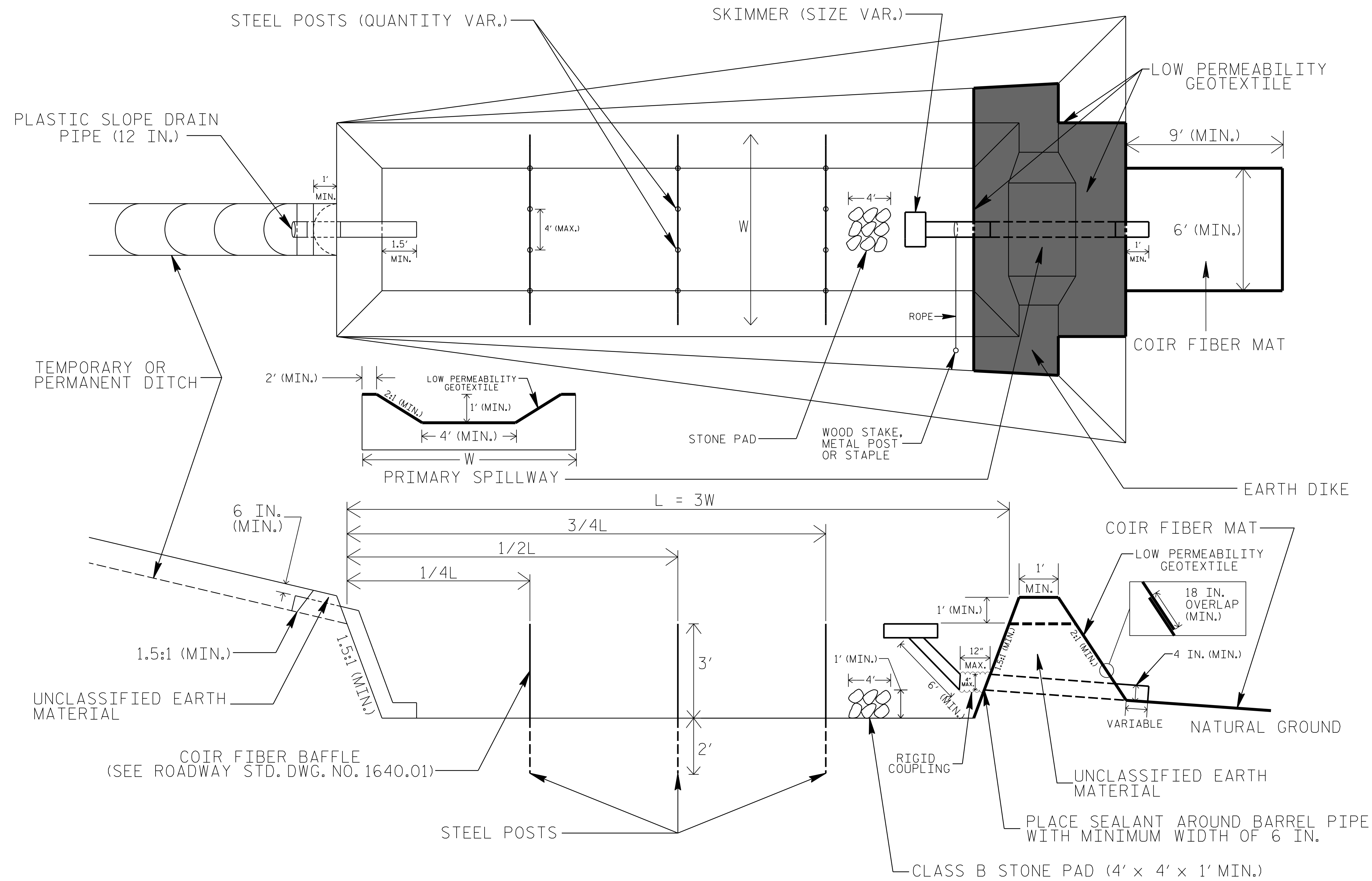
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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 Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

3/7/2019 14:05 EC\_TSH.dgn USER:MHARVEY

PROJECT REFERENCE NO. R-4705	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# SKIMMER BASIN WITH BAFFLES DETAIL (EAST)



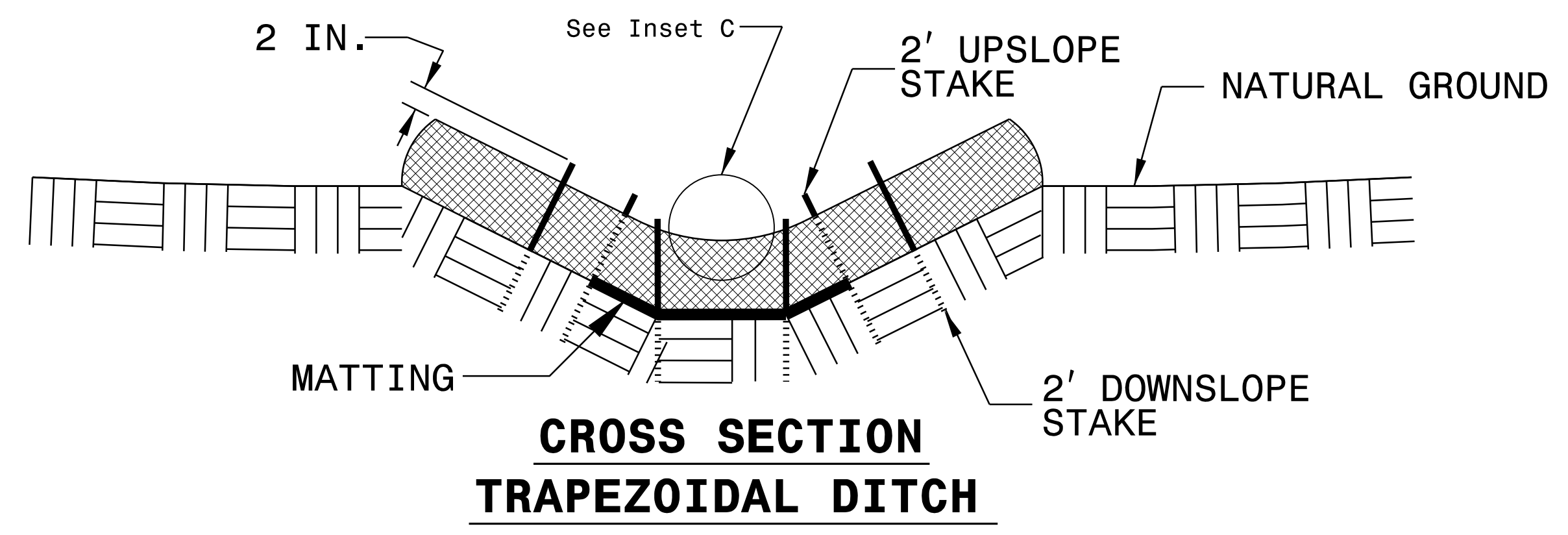
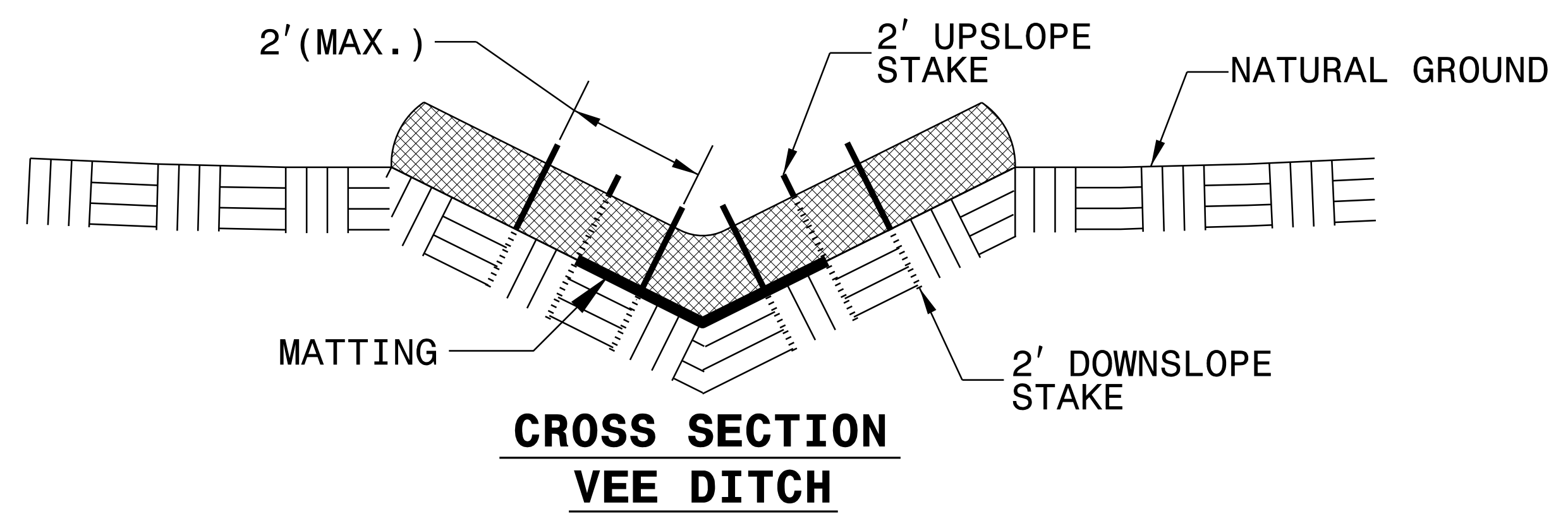
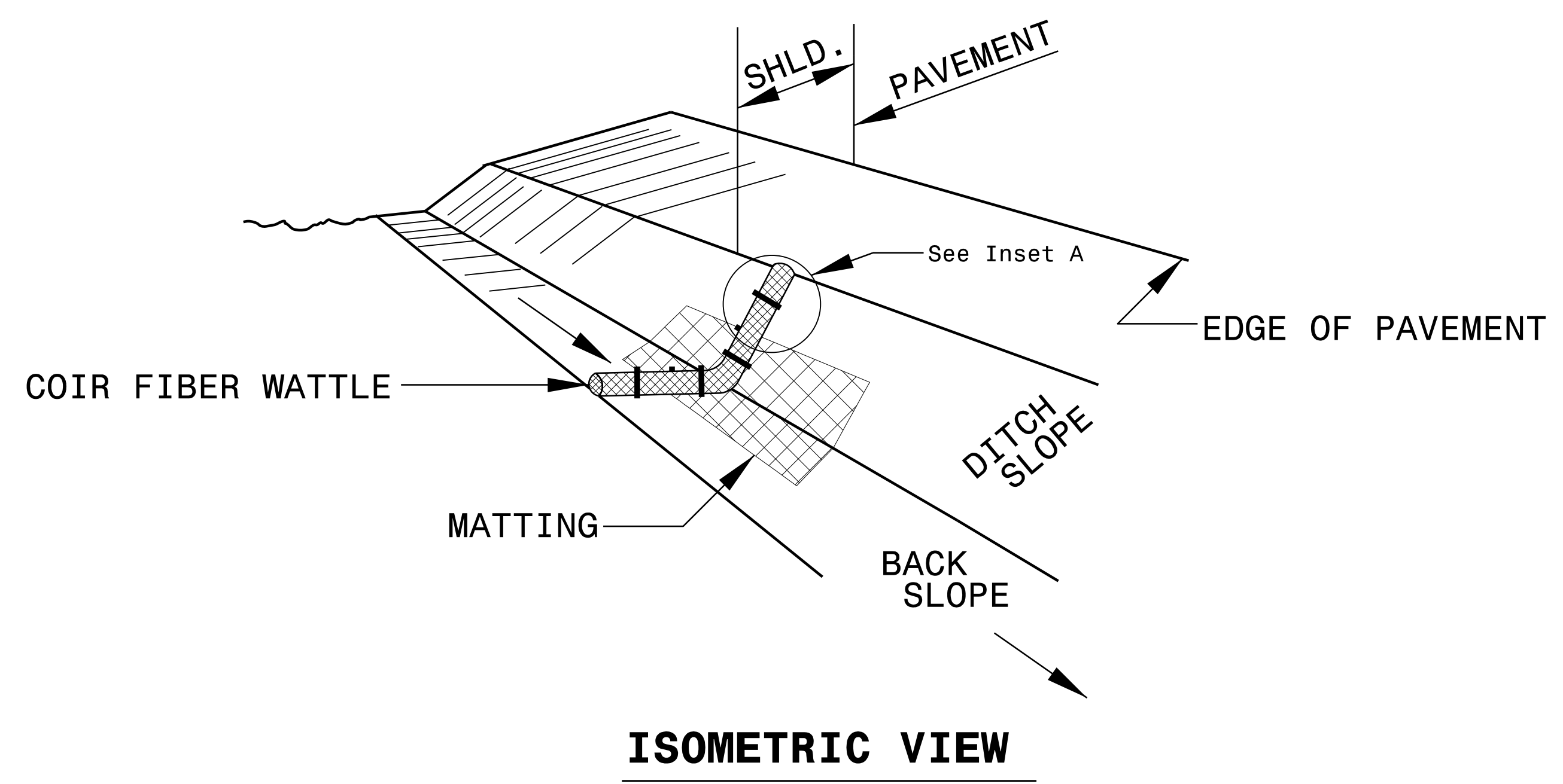
## NOTES

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

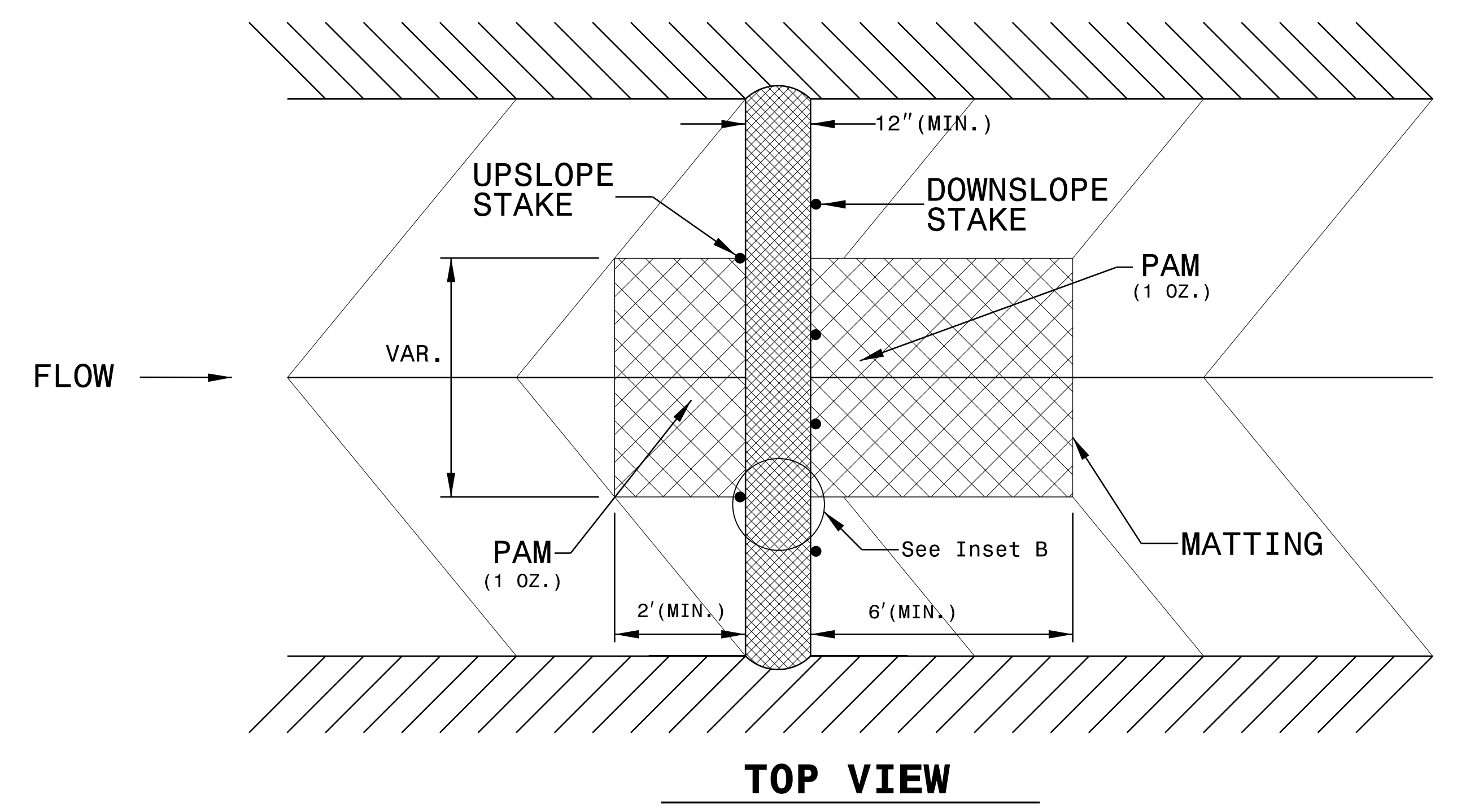
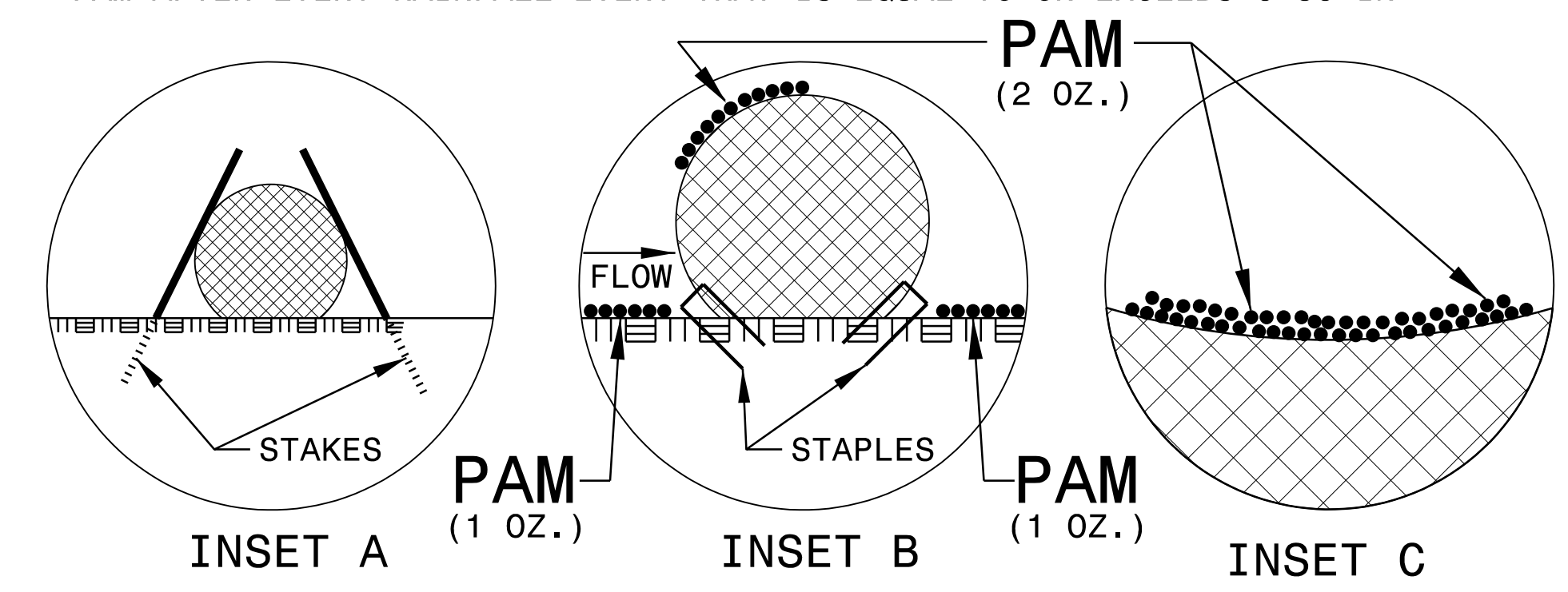
NOT TO SCALE

PROJECT REFERENCE NO. R-4705	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

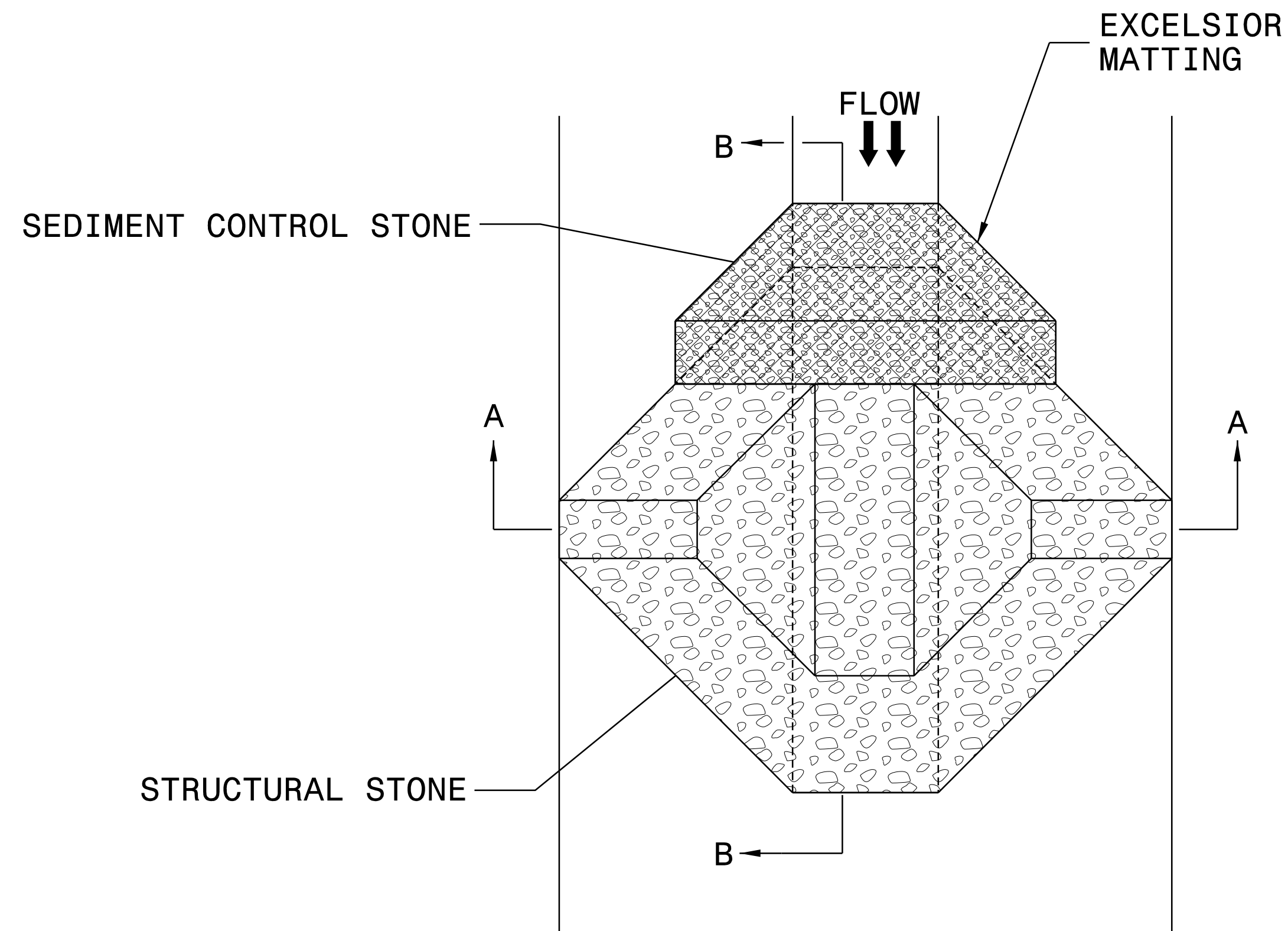


- NOTES:**
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
  - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
  - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
  - INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
  - PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
  - INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
  - INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.
  - PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
  - INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



PROJECT REFERENCE NO. R-4705	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN

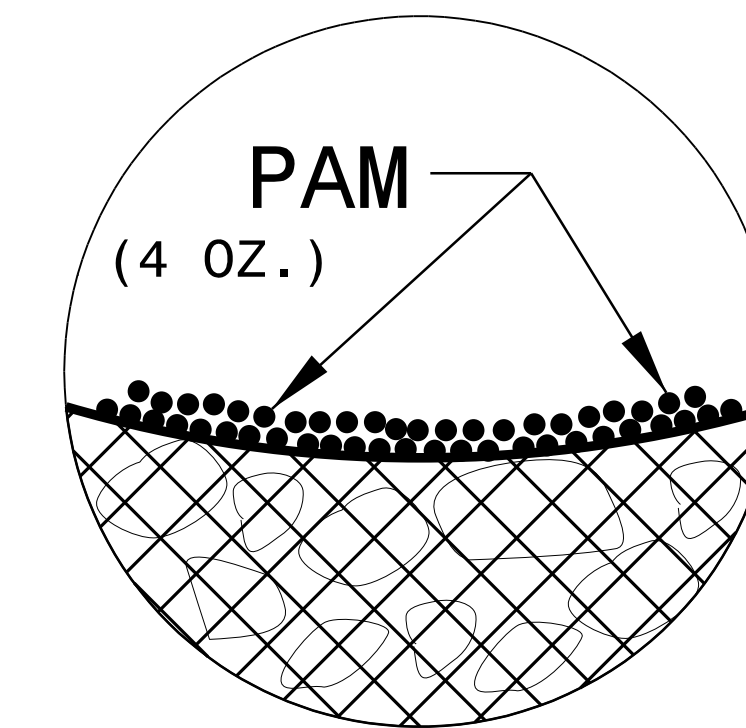
NOTES:

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

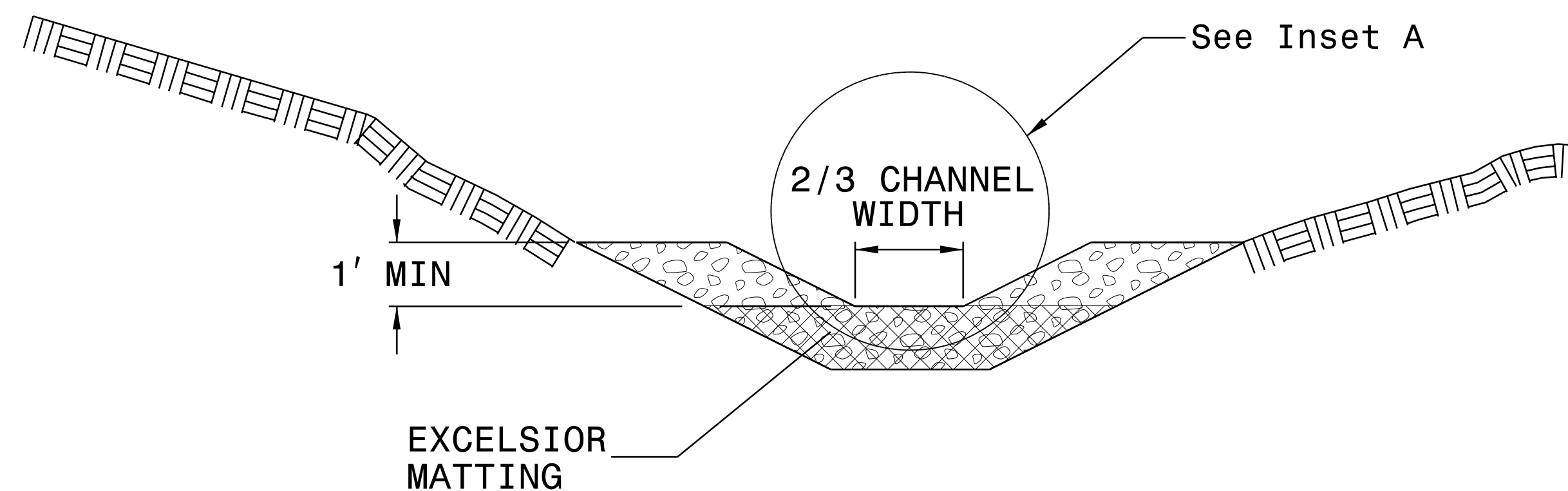
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

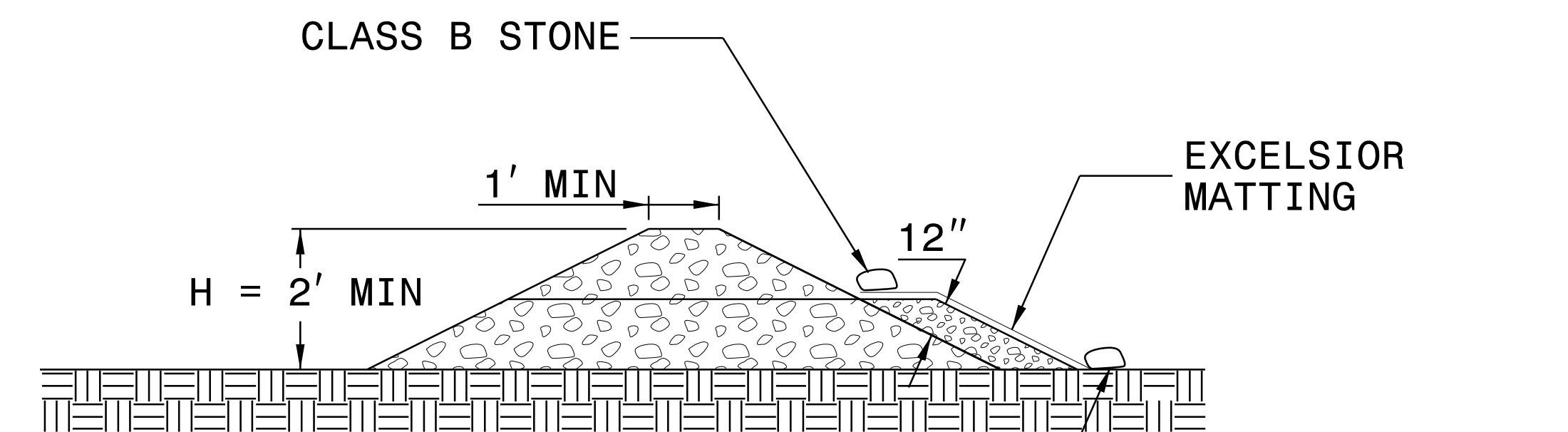
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A

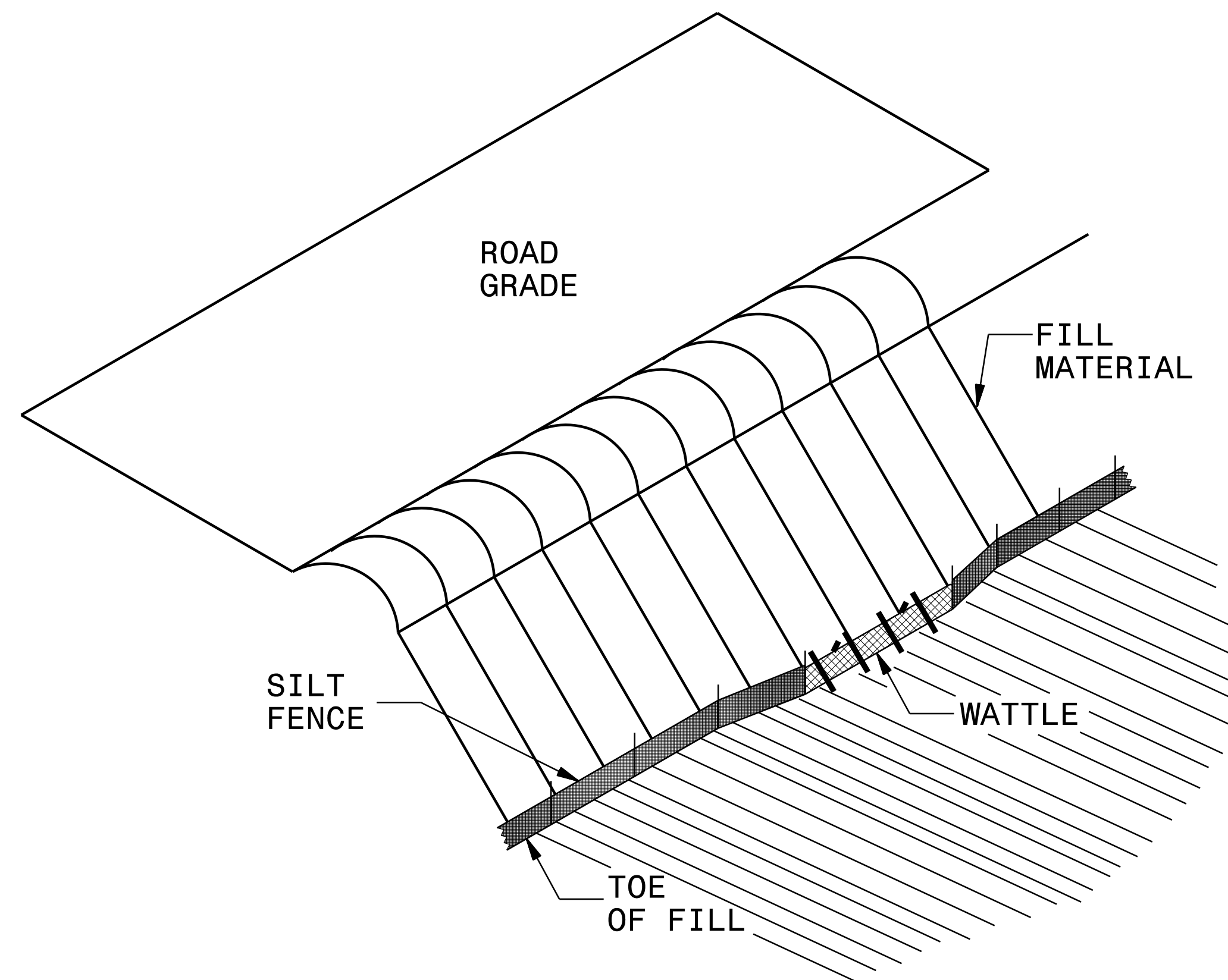


SECTION B-B

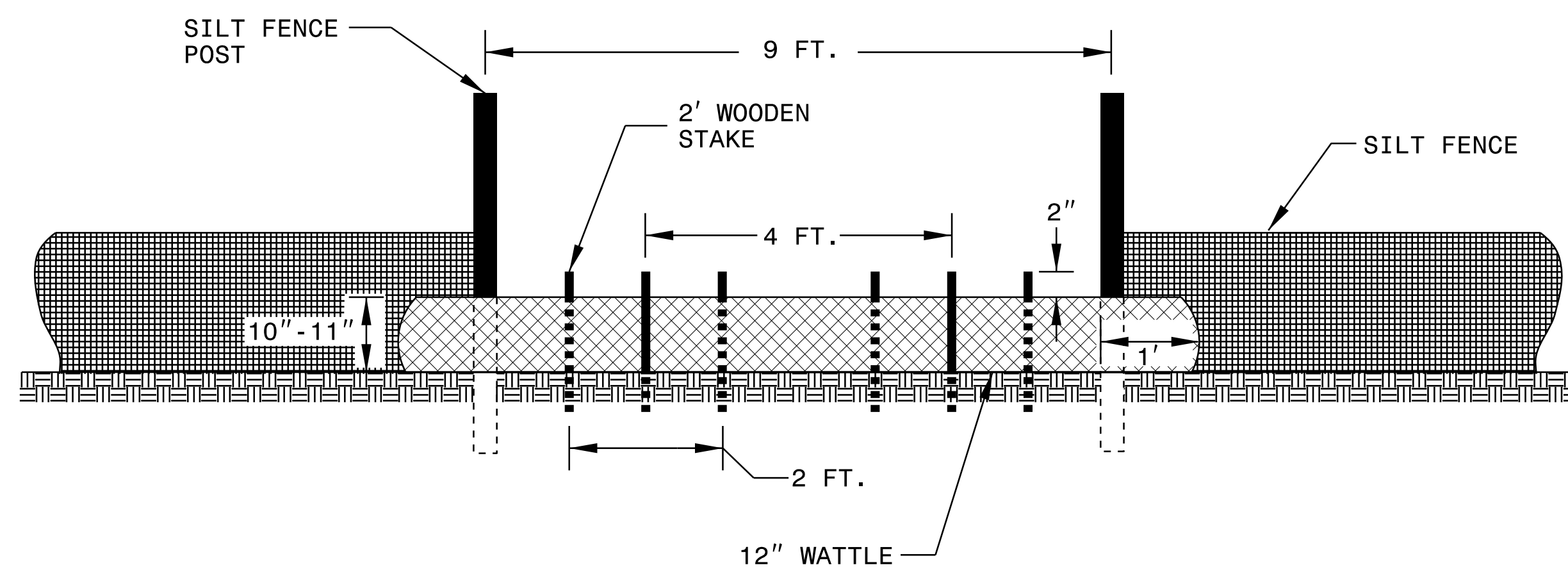
NOT TO SCALE

# SILT FENCE COIR FIBER WATTLE BREAK DETAIL

PROJECT REFERENCE NO. <i>R-4705</i>	SHEET NO. <i>EC-2C</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



**ISOMETRIC VIEW**

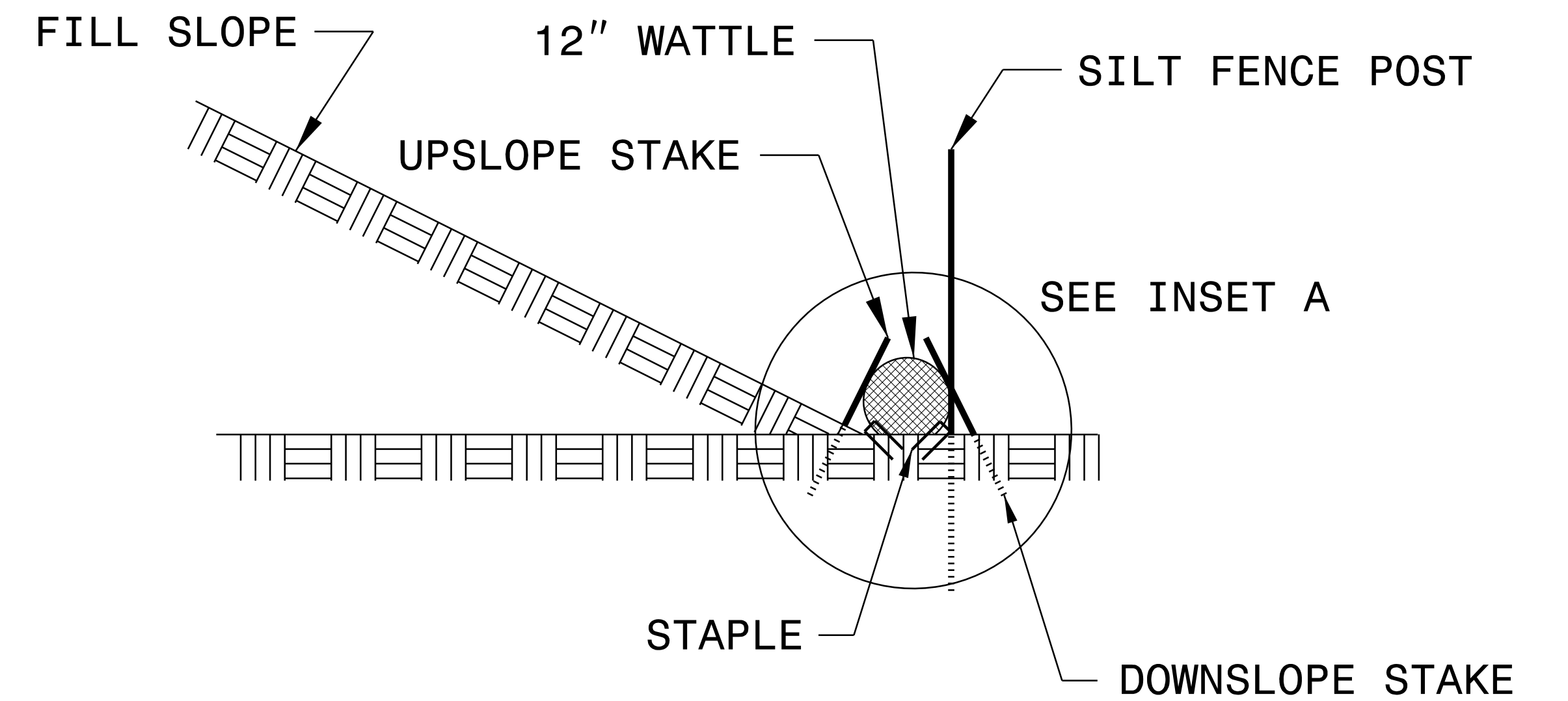
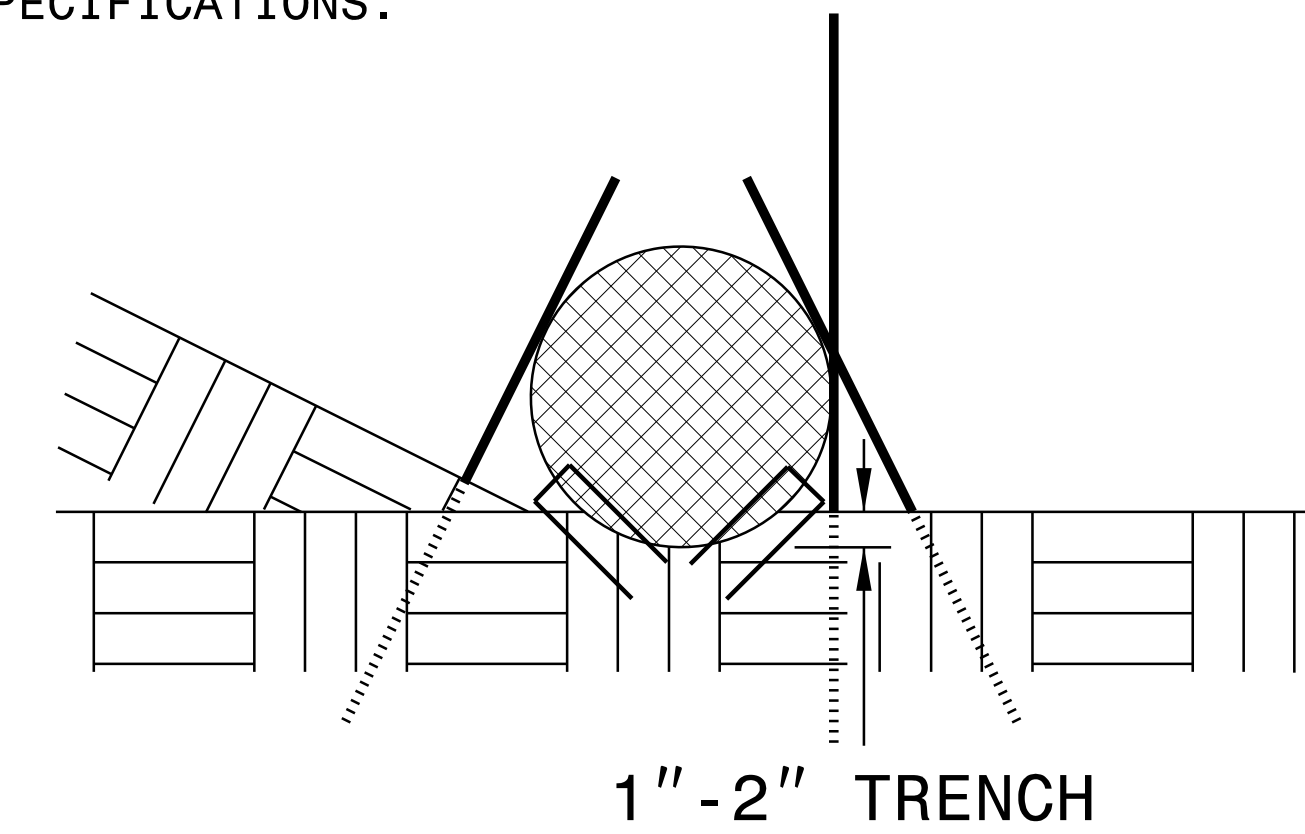


**VIEW FROM SLOPE**

**NOTES:**

- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.
- EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.
- DO NOT PLACE WATTLE ON TOE OF SLOPE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.
- INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

**INSET A**



**SIDE VIEW**









1223 Jones Franklin Rd.  
 Raleigh, N.C. 27606  
 License No. F-0377  
 Bus: 919 851 8077  
 Fax: 919 851 8107



TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
 CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-05/CONST.05</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING  
 EROSION CONTROL FOR  
 CONSTRUCTION SHEET 5

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

 ENVIRONMENTALLY SENSITIVE AREA  
 SEE PROJECT SPECIAL PROVISIONS

55 x 20 x 3  
 ID 5.1

39 x 19 x 3  
 ID 5.2

60 x 30 x 3  
 1.5 inch Skimmer  
 with 1.25 inch  
 Orifice Diameter  
 22 ft. weir  
 ID 5.5

150 x 32 x 3  
 2 inch Skimmer  
 with 1.875 inch  
 Orifice Diameter  
 24 ft. weir  
 ID 5.3

52 x 25 x 3  
 1.5 inch Skimmer  
 with 1 inch  
 Orifice Diameter  
 17 ft. weir  
 ID 5.4



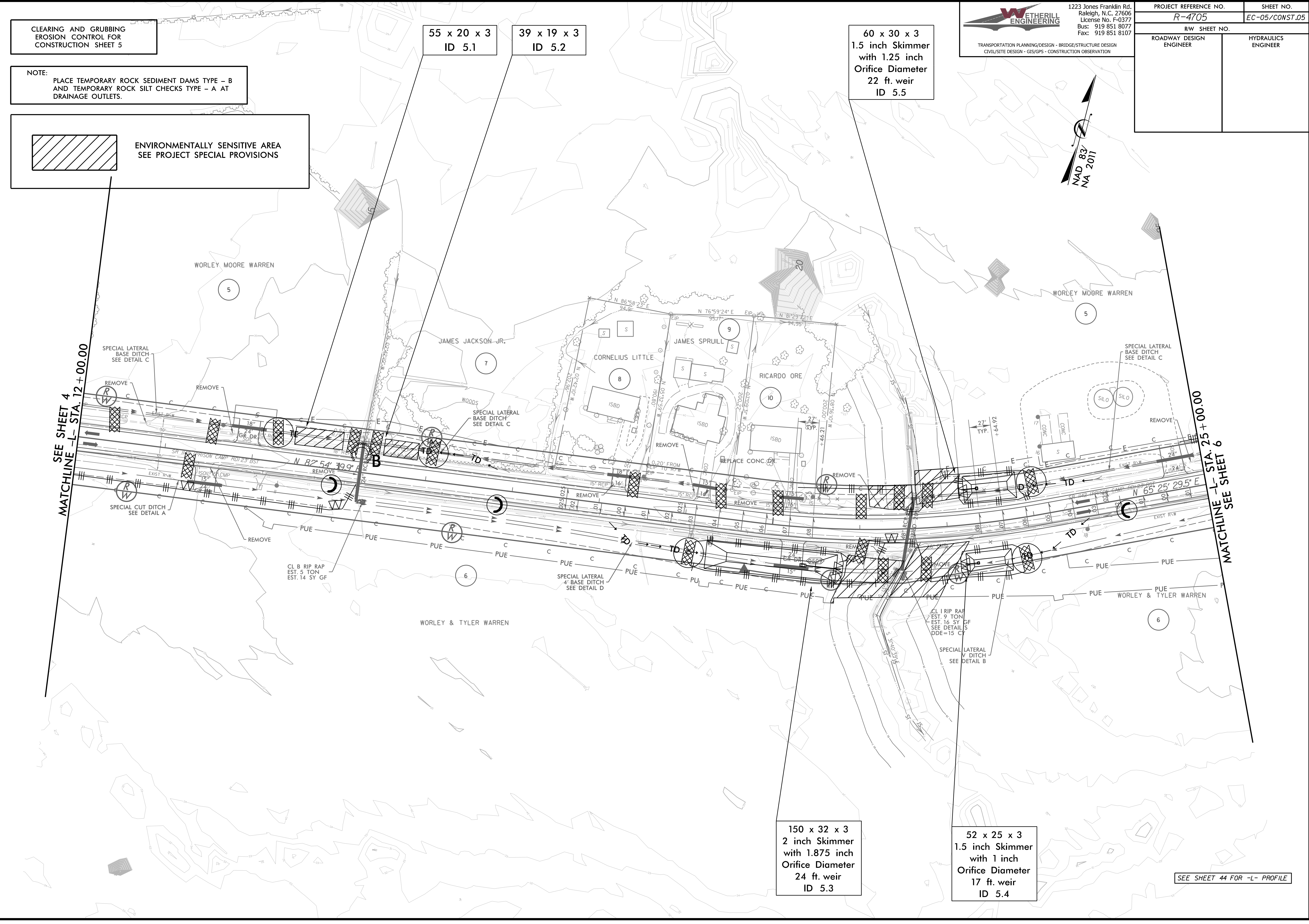
REVISIONS

SEE SHEET 4  
 MATCHLINE -L- STA. 12+00.00

MATCHLINE -L- STA. 25+00.00  
 SEE SHEET 6

3/7/2002 EC\_EC\_psh\_05.dgn  
 USER: msh

SEE SHEET 44 FOR -L- PROFILE



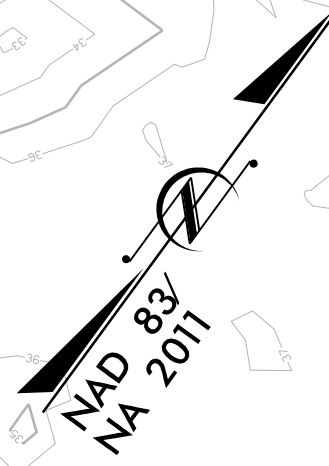
CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 6

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

59 x 22 x 3  
ID 6.1

**WETHERILL  
ENGINEERING**  
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Raleigh, N.C. 27606  
License No. F-0377  
Bus: 919 851 8077  
Fax: 919 851 8107  
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

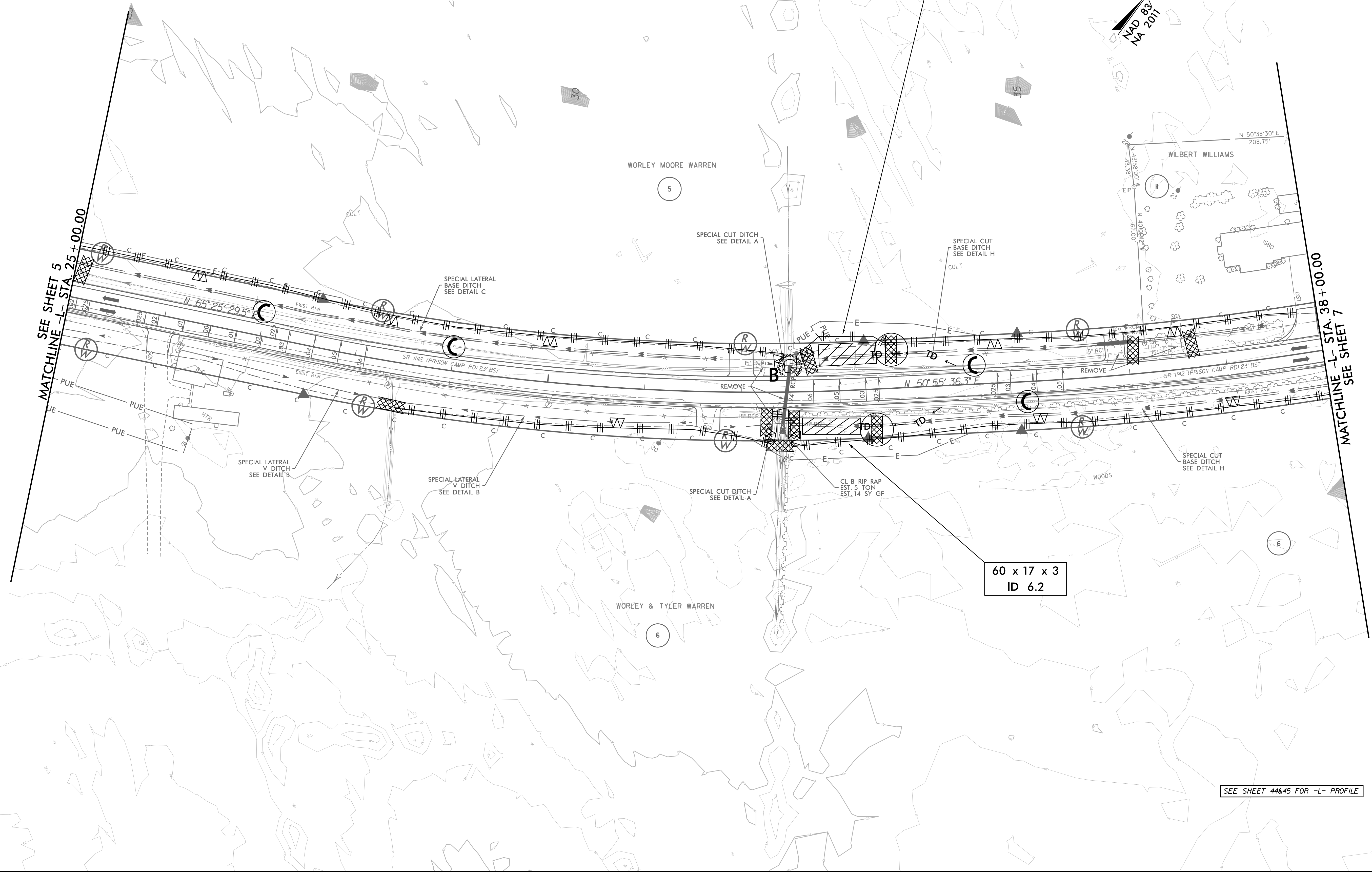
PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-06/CONST.06</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

SEE SHEET 5  
MATCHLINE -L- STA. 25+00.00

STA. 38+00.00  
MATCHLINE -L- SEE SHEET 7



60 x 17 x 3  
ID 6.2

SEE SHEET 44&45 FOR -L- PROFILE

8/17/99

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 7

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

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Raleigh, N.C. 27606  
License No. F-0377  
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Fax: 919 851 8107  
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-07/CONST.07</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

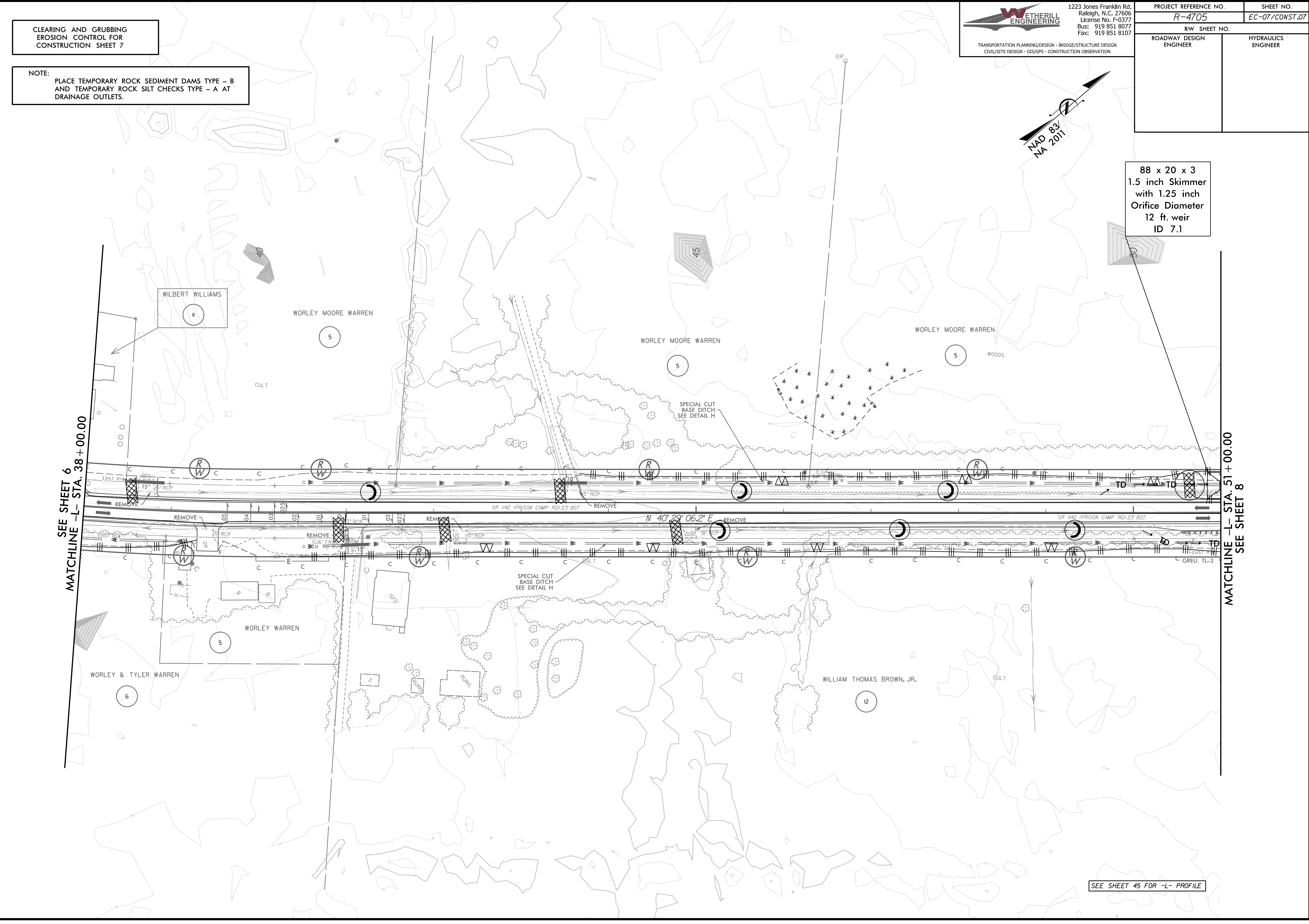


88 x 20 x 3  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
12 ft. weir  
ID 7.1

REVISIONS

SEE SHEET 6  
MATCHLINE -L- STA. 38+00.00

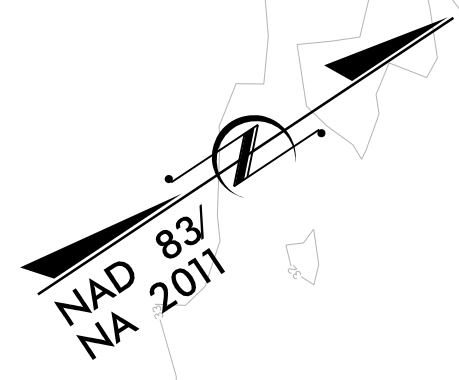
MATCHLINE -L- STA. 51+00.00  
SEE SHEET 8



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USER: M...  
PLOT: 11/11/2002 10:00 AM

SEE SHEET 45 FOR -L- PROFILE

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-08/CONST.08</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CLEARING AND GRUBBING  
 EROSION CONTROL FOR  
 CONSTRUCTION SHEET 8

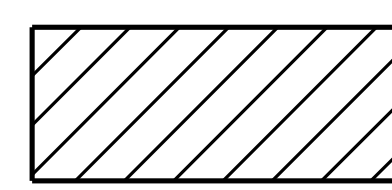
NOTE:  
 PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
 AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
 DRAINAGE OUTLETS.

88 x 20 x 3  
 1.5 inch Skimmer  
 with 1.25 inch  
 Orifice Diameter  
 12 ft. weir  
 ID 7.1

48 x 16 x 3  
 1.5 inch Skimmer  
 with 0.75 inch  
 Orifice Diameter  
 8 ft. weir  
 ID 8.2

70 x 20 x 3  
 1.5 inch Skimmer  
 with 1.00 inch  
 Orifice Diameter  
 12 ft. weir  
 ID 8.1

49 x 20 x 3  
 ID 8.3



ENVIRONMENTALLY SENSITIVE AREA  
 SEE PROJECT SPECIAL PROVISIONS

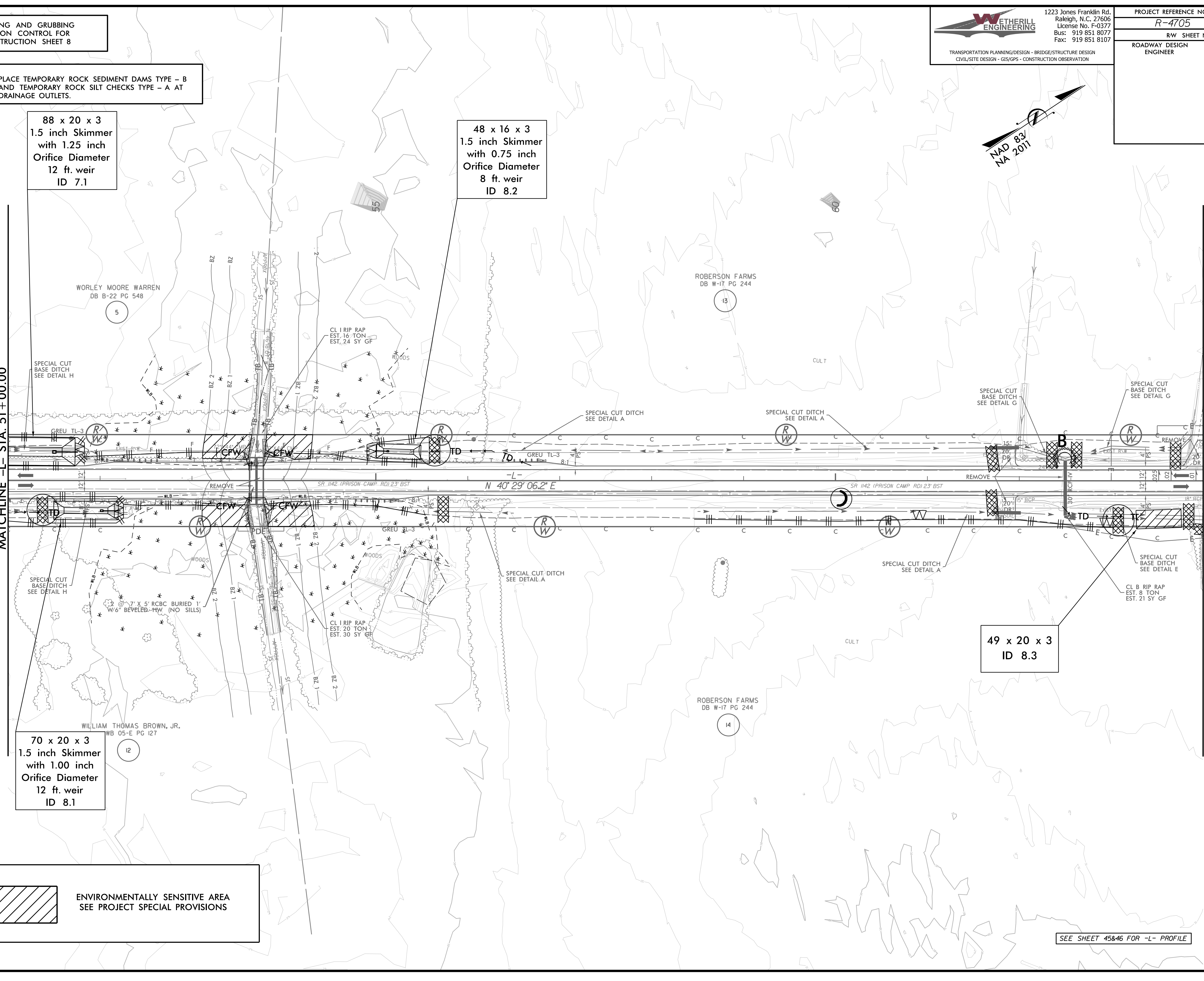
SEE SHEET 7  
 MATCHLINE -L- STA. 51 + 00.00

MATCHLINE -L- STA. 64 + 00.00  
 SEE SHEET 9

REVISIONS

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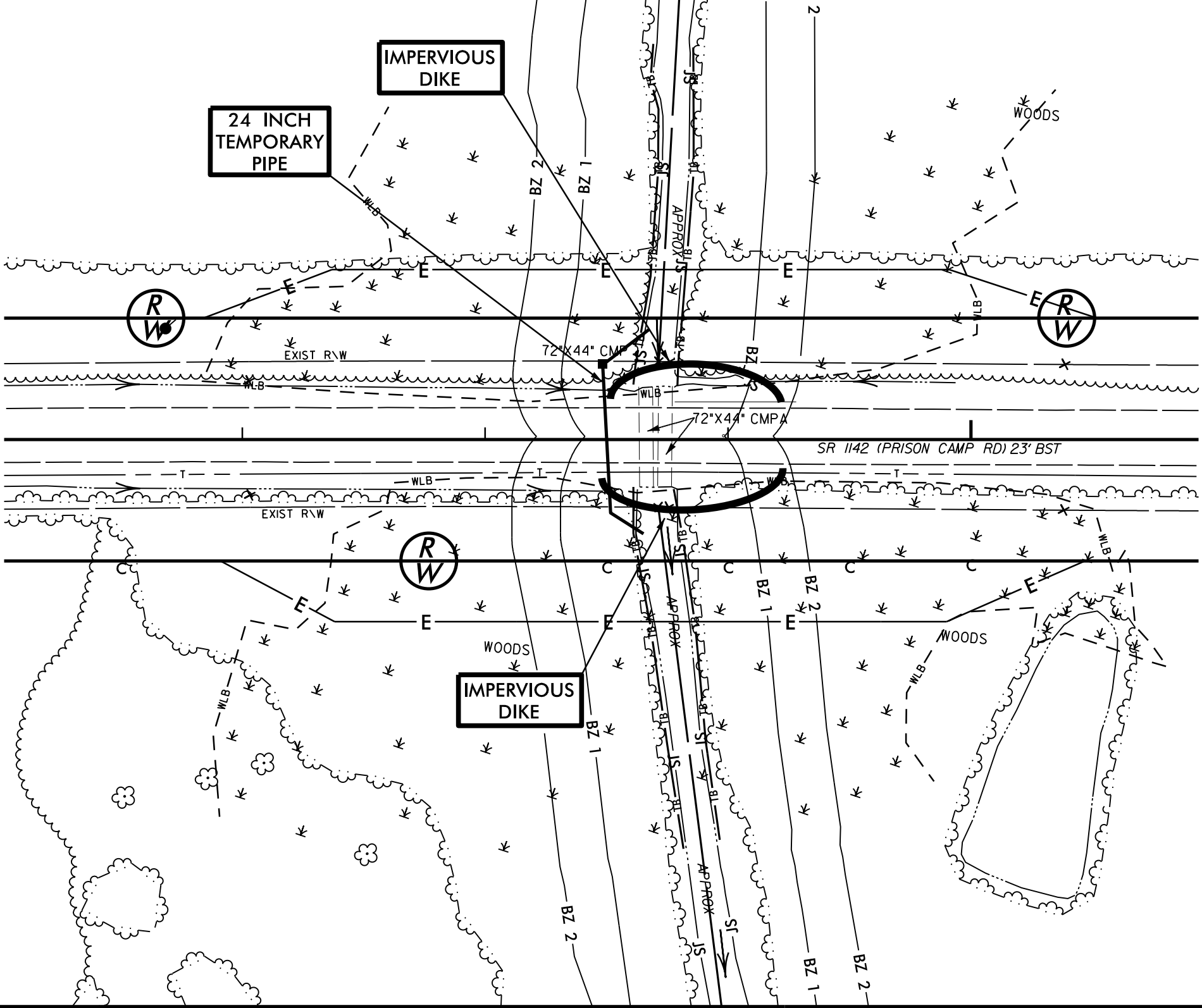
SEE SHEET 45&46 FOR -L- PROFILE



PROJECT REFERENCE NO.	SHEET NO.
R-4705	EC-08A/CONST.08
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# CULVERT CONSTRUCTION SEQUENCE STA. 53+70 -L-

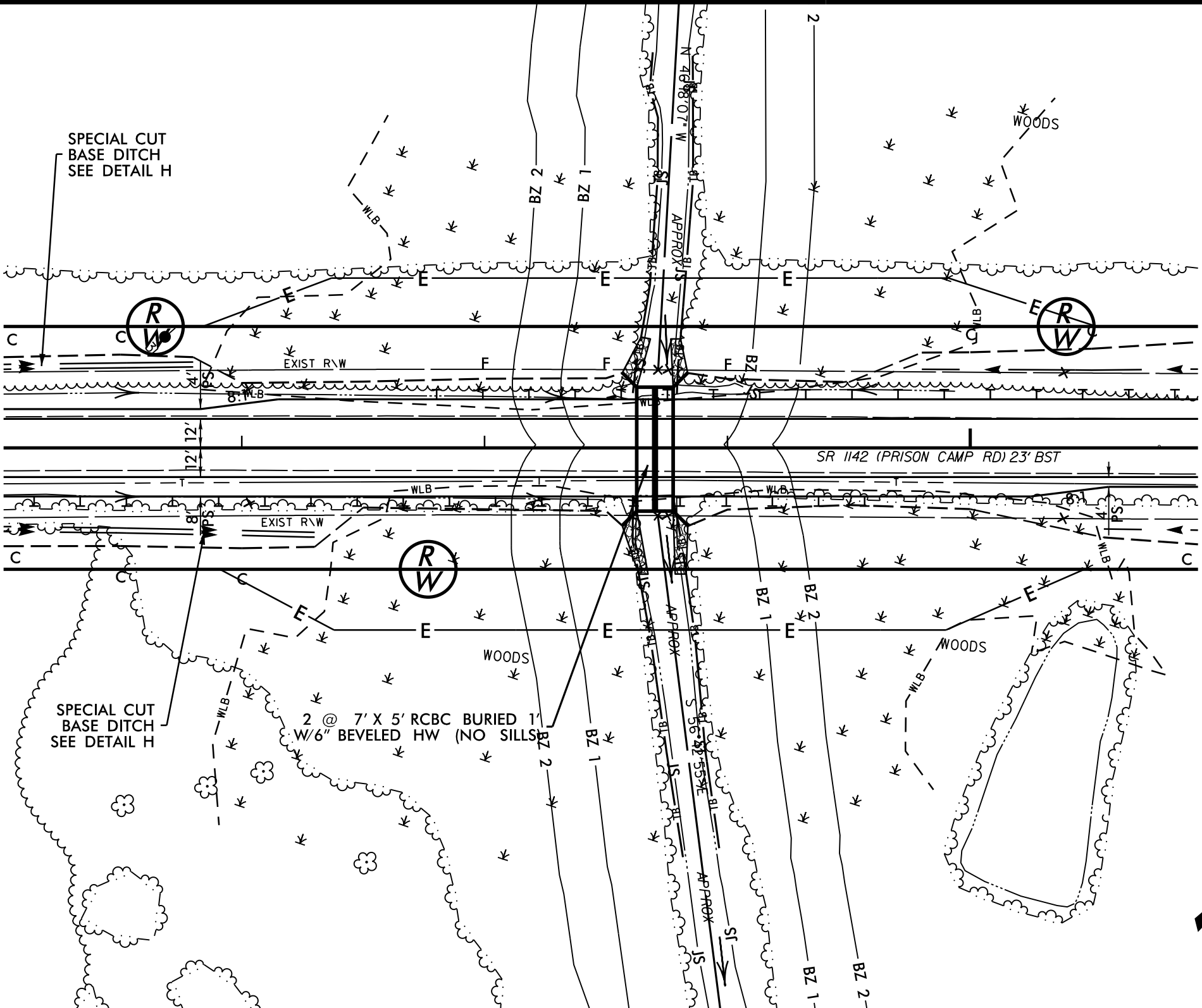
## PHASE I



INSTALL EROSION CONTROL C&G PHASE MEASURES FOR THIS SITE PRIOR TO COMMENCING CULVERT WORK. (NOT SHOWN FOR CLARITY).

1. INSTALL IMPERVIOUS DIKES (STEEL SHORING) TO PREVENT FLOW THROUGH THE CULVERT BARRELS. UTILIZE SPECIAL STILLING BASINS AS NEEDED FOR TREATMENT OF WATER PRIOR TO ENTERING THE BYPASS PUMPS.
2. INSTALL PUMP AND BYPASS PIPES AS TEMPORARY FLOW DIVERSION.
3. INSTALL CULVERT BARRELS, RIP RAP AND WING WALLS.

## PHASE II



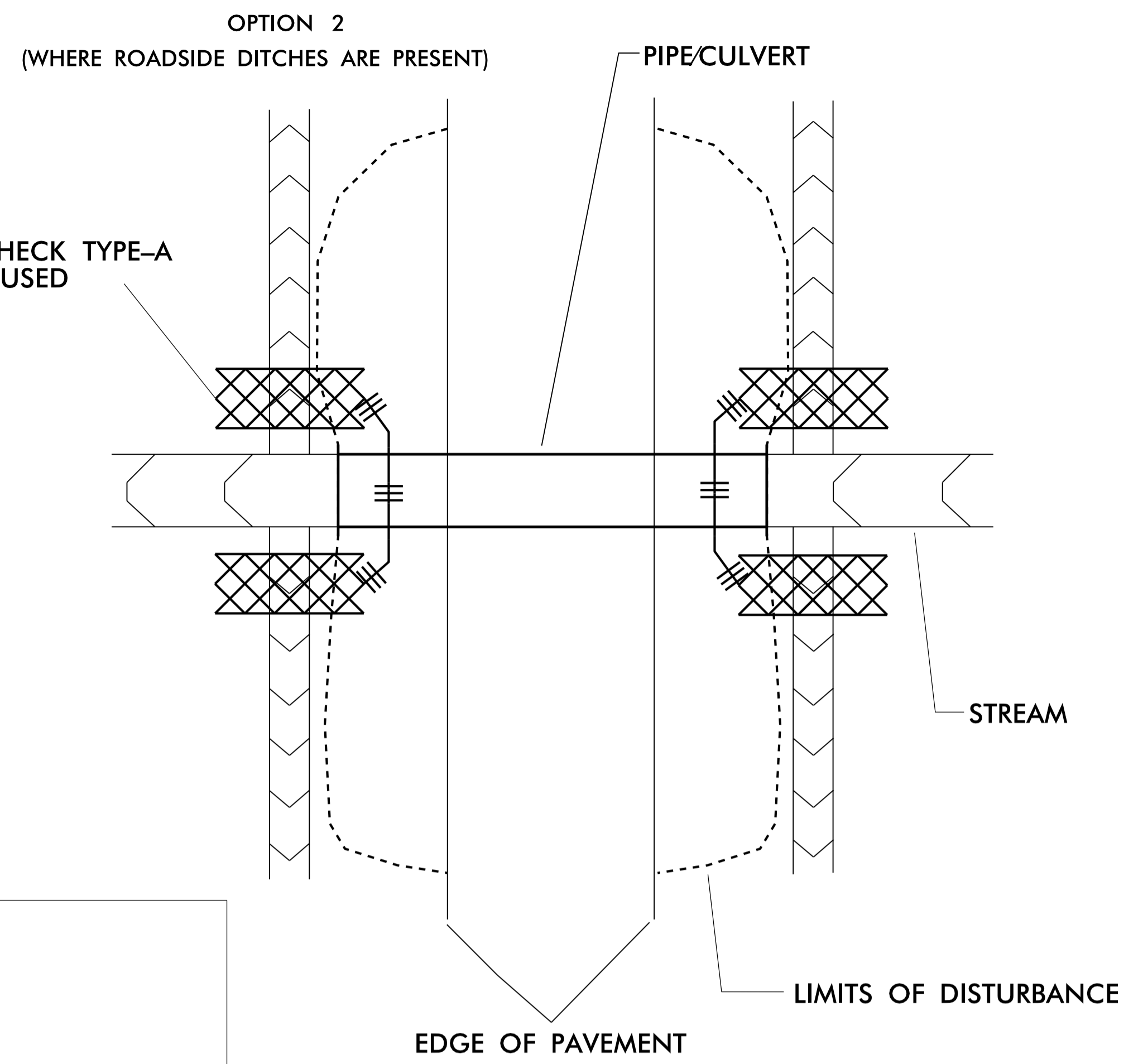
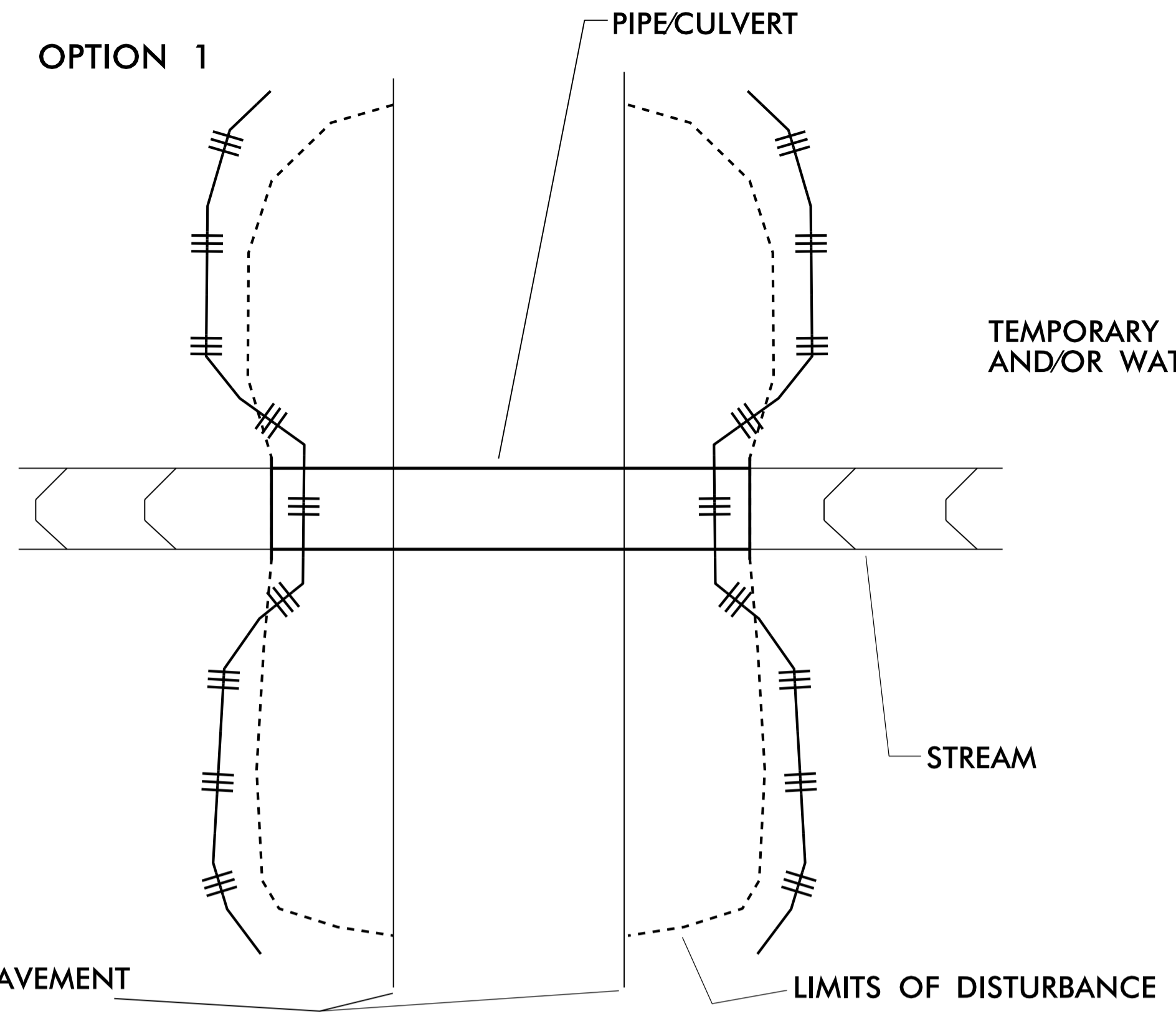
1. REMOVE THE IMPERVIOUS DIKES UPSTREAM AND DOWNSTREAM OF THE CULVERT IN ORDER TO ALLOW FLOW IN BOTH RCBC BARRELS.
2. REMOVE BYPASS PIPES.

PROJECT REFERENCE NO. R-4705	SHEET NO. EC-08B/CONST-08
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ROADSIDE ENVIRONMENTAL UNIT  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.  
2018 STANDARD SPECIFICATIONS  
DRAWINGS NOT DRAWN TO SCALE

LEGEND:

	IMPERVIOUS DIKE
	PUMP
	SPECIAL STILLING BASIN
	STABILIZED DISCHARGE PAD (GEOTEXTILE)
	EOP
	ETF
	TEMPORARY ROCK SILT CHECK TYPE-A AND/OR WATTLE
	TEMPORARY SILT FENCE



**SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA:**

1. INSTALL SPECIAL STILLING BASIN.
2. INSTALL UPSTREAM PUMP, TEMPORARY FLEXIBLE HOSE, AND STABILIZED DISCHARGE PAD.
3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION DISCHARGING ONTO STABILIZED OUTLET PAD.
4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER WORK ZONE. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE DAY'S WORK.
5. INSTALL PIPE(S), STREAM BED STABILIZATION, AND SLOPE STABILIZATION AS DIRECTED.
6. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. REMOVE IMPERVIOUS DIKES, PUMPS, TEMPORARY FLEXIBLE HOSE, AND STABILIZED DISCHARGE PAD. (DOWNSTREAM IMPERVIOUS DIKES FIRST).
7. REMOVE SPECIAL STILLING BASIN AND RESTORE AREA TO ORIGINAL CONDITIONS.
8. STABILIZE ALL DISTURBED AREAS THROUGHOUT PROJECT WITH SEED AND MATTING FOR EROSION CONTROL.

**NOTES:**

INSTALL EROSION CONTROL MEASURES PRIOR TO ANY EARTH DISTURBING ACTIVITIES. INSTALL SPECIAL SEDIMENT CONTROL FENCE BREAKS OR TEMPORARY ROCK SILT CHECKS TYPE-A AT LOW POINTS IN SILT FENCE.

FOR OPTION 1 INSTALL SILT FENCE SUCH THAT ALL EARTH DISTURBANCE IS CONTAINED. FOR CULVERT CONSTRUCTION SEQUENCING SEE THE PUMP AROUND DETAIL OR CONSULT "BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES".

ALL EXCAVATION IN JURISDICTIONAL STREAMS SHALL BE PERFORMED IN ONLY DRY OR ISOLATED SECTIONS OF THE WORK ZONE.

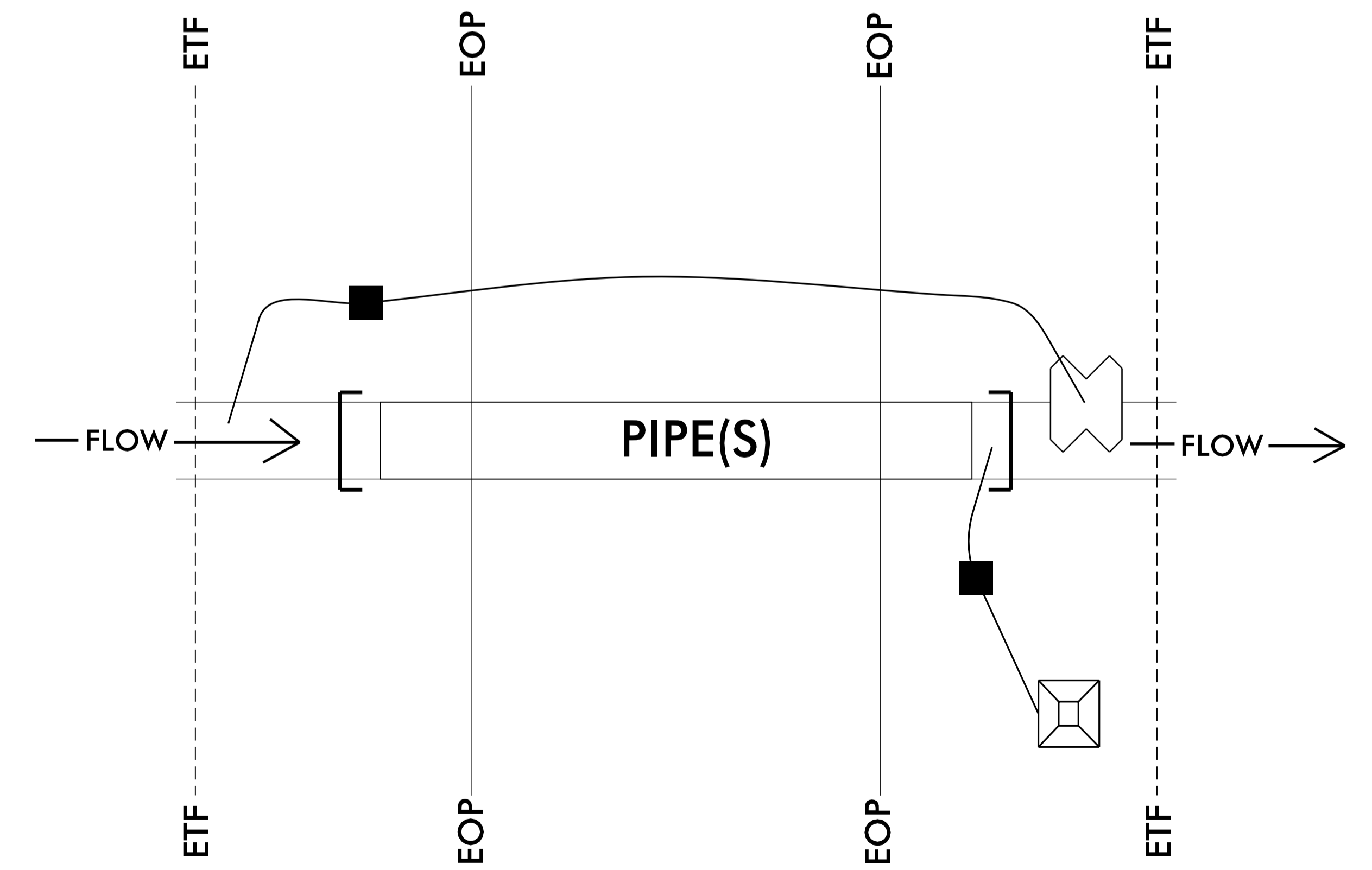
IMPERVIOUS DIKES ARE TO BE USED TO ISOLATE WORK FROM STREAM FLOW WHEN NECESSARY. MAINTENANCE OF STREAM FLOW OPERATIONS SHALL BE INCIDENTAL TO THE WORK. THIS INCLUDES THE DISCHARGE PAD, DIVERSION PIPES, PUMPS, AND HOSES.

PUMPS AND HOSES SHALL BE OF SUFFICIENT SIZE TO MAINTAIN STREAM FLOW AND TO DEWATER THE WORK AREA.

INSTALL SPECIAL STILLING BASIN IN VEGETATED AREA WITHIN RIGHT OF WAY. DISCHARGE SHOULD BE DIRECTED THROUGH VEGETATED BUFFER AWAY FROM WORK SITE.

INSTALL SILT FENCE AS DIRECTED TO CONTAIN DISTURBED AREAS AND/OR EXCAVATED STOCKPILES. BORROW MATERIAL FROM OR DISPOSAL OF MATERIAL TO ANY UNPERMITTED SITE WILL REQUIRE A RECLAMATION PLAN.

INSTALL PIPE(S) IN JURISDICTIONAL AREAS IN ACCORDANCE WITH NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.



**PUMP-AROUND OPERATION FOR PIPE REPLACEMENT IN JURISDICTIONAL STREAMS EROSION CONTROL DETAIL**

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 9

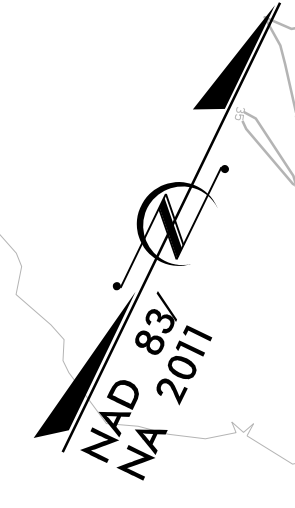
NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
DRAINAGE OUTLETS.



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Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-09/CONST.09</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

MATCHLINE - L- STA. 94 + 00.00  
SEE SHEET 8

MATCHLINE - L- STA. 77 + 00.00  
SEE SHEET 10

**60 x 17 x 3**  
**1.5 inch Skimmer**  
**with 0.875 inch**  
**Orifice Diameter**  
**9 ft. weir**  
**ID 9.1**

SPECIAL CUT DITCH  
SEE DETAIL A  
CL 1 RIP RAP  
EST. 26 TON  
EST. 50 SY GF

SPECIAL LATERAL  
BASE DITCH  
SEE DETAIL G

SPECIAL LATERAL  
V DITCH  
SEE DETAIL B

TOE PROTECTION  
SEE DETAIL F  
EST CL B 70 TONS  
GEO - 240 SY

TOE PROTECTION  
SEE DETAIL F  
EST CL B 230 TONS  
GEO 775 SY

CL B RIP RAP  
EST. 8 TON  
EST. 21 SY GF

8/17/09

3/14/2002 EC\_EC\_psh\_09.dgn  
USER: M... ..

SEE SHEET 46 FOR -L- PROFILE



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.



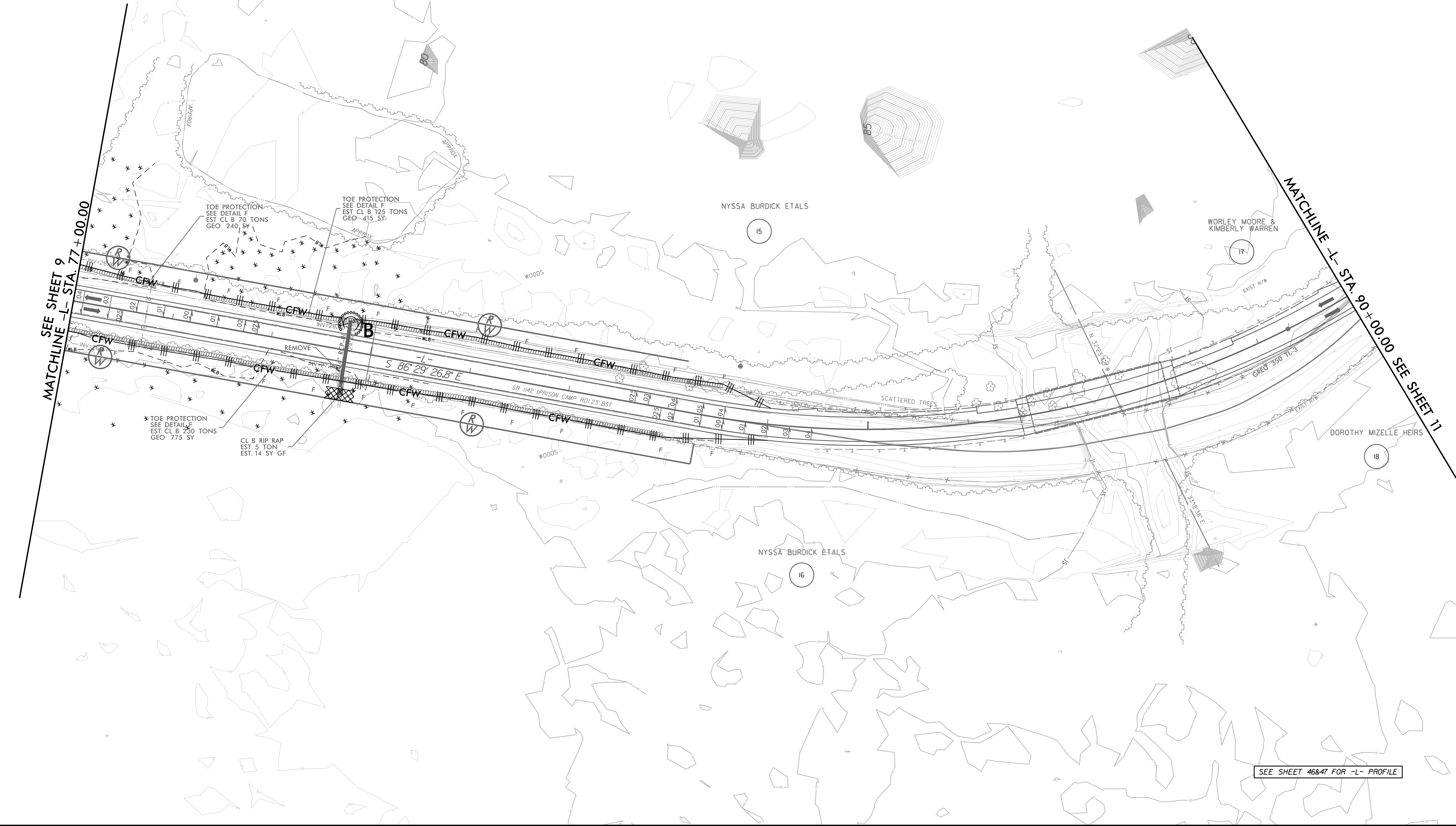
1223 Jones Franklin Rd.  
Raleigh, N.C. 27606  
License No. F-0377  
Bus: 919 851 8077  
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-10/CONST.10</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS



SEE SHEET 46&47 FOR -L- PROFILE

3/7/2002 EC\_EC\_psh\_10.dgn  
USER: m...  
3/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-4705	EC-II/CONST.II
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

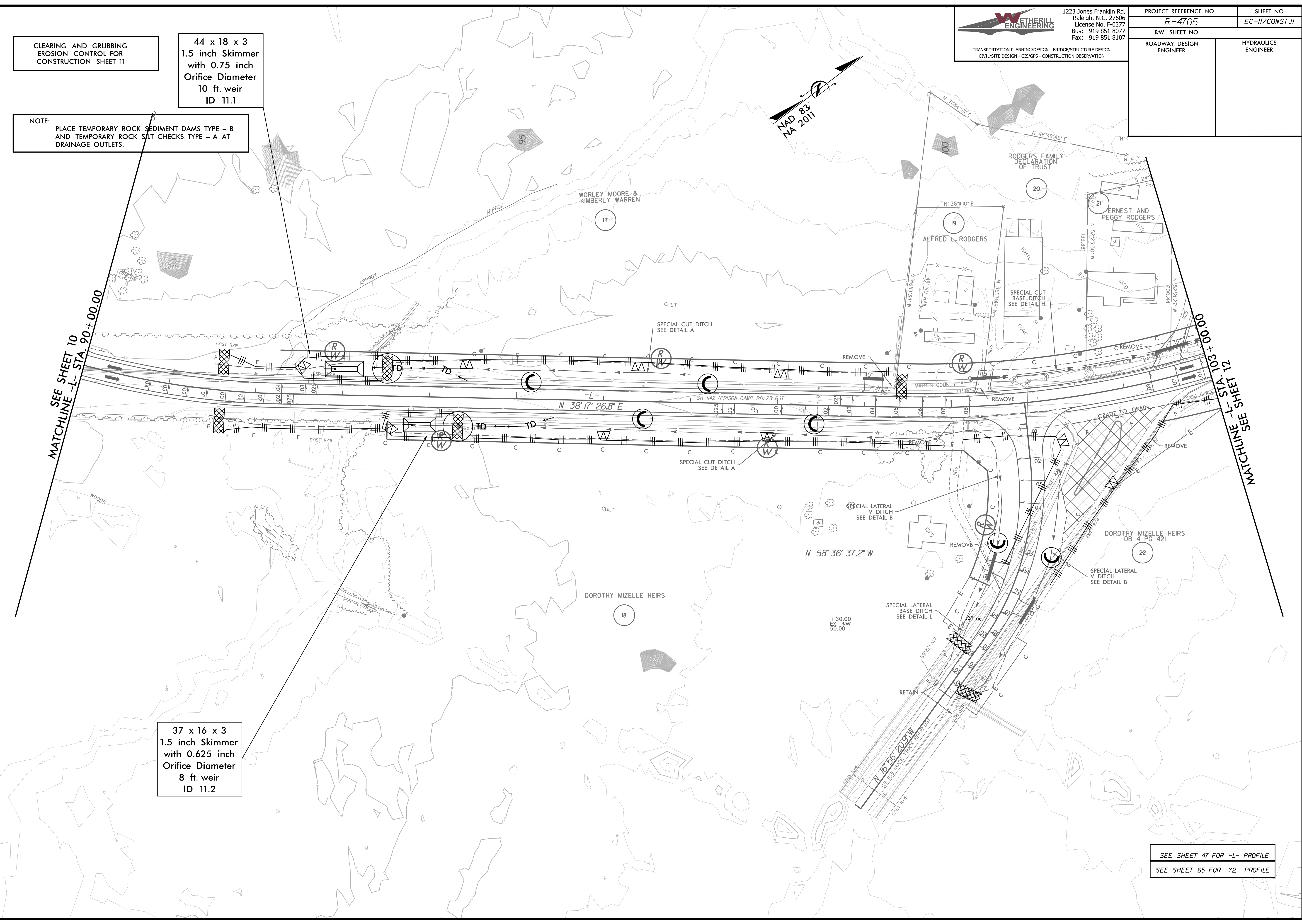
CLEARING AND GRUBBING  
 EROSION CONTROL FOR  
 CONSTRUCTION SHEET 11

44 x 18 x 3  
 1.5 inch Skimmer  
 with 0.75 inch  
 Orifice Diameter  
 10 ft. weir  
 ID 11.1

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

37 x 16 x 3  
 1.5 inch Skimmer  
 with 0.625 inch  
 Orifice Diameter  
 8 ft. weir  
 ID 11.2

REVISIONS  
 8/17/99  
 3/7/2022  
 USER:RWHarvey  
 I:\R4705\_EC.CG\_psh\_11.dgn



SEE SHEET 47 FOR -L- PROFILE  
 SEE SHEET 65 FOR -Y2- PROFILE

8/17/99

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 12

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

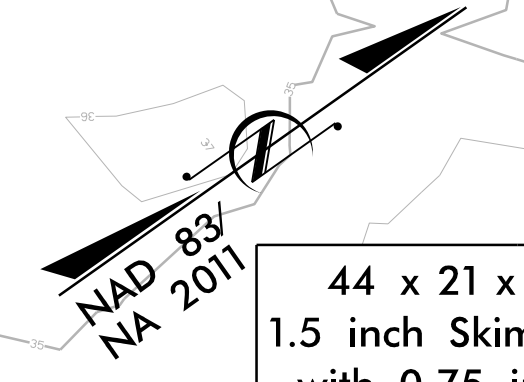
60 x 23 x 3  
ID 12.1

47 x 23 x 3  
1.5 inch Skimmer  
with .875 inch  
Orifice Diameter  
15 ft. weir  
ID 12.3

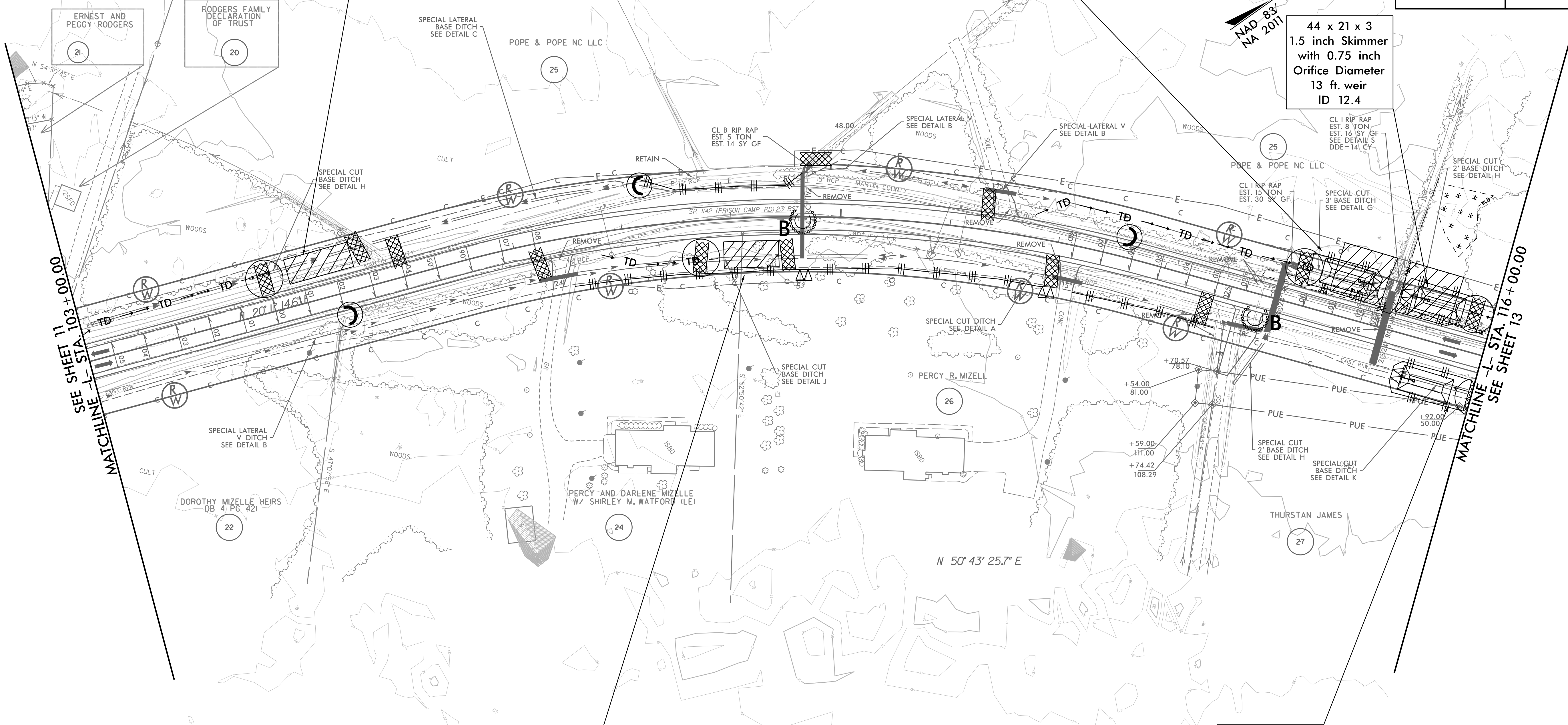
**WETHERILL ENGINEERING**  
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Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-12/CONST.12</b>
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



44 x 21 x 3  
1.5 inch Skimmer  
with 0.75 inch  
Orifice Diameter  
13 ft. weir  
ID 12.4



50 x 24 x 3  
ID 12.2

47 x 23 x 3  
1.5 inch Skimmer  
with .875 inch  
Orifice Diameter  
15 ft. weir  
ID 12.5

 ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS

PI Sta 109+74.78  
 $\Delta = 30' 32'' 11.1'' (RT)$   
 $D = 4' 46'' 28.7''$   
 $L = 639.55'$   
 $T = 327.57'$   
 $R = 1,200.00'$

SEE SHEET 47&48 FOR -L- PROFILE

REVISIONS

3/14/2002 EC\_EC\_psh\_12.dgn  
JES:MR:VPH

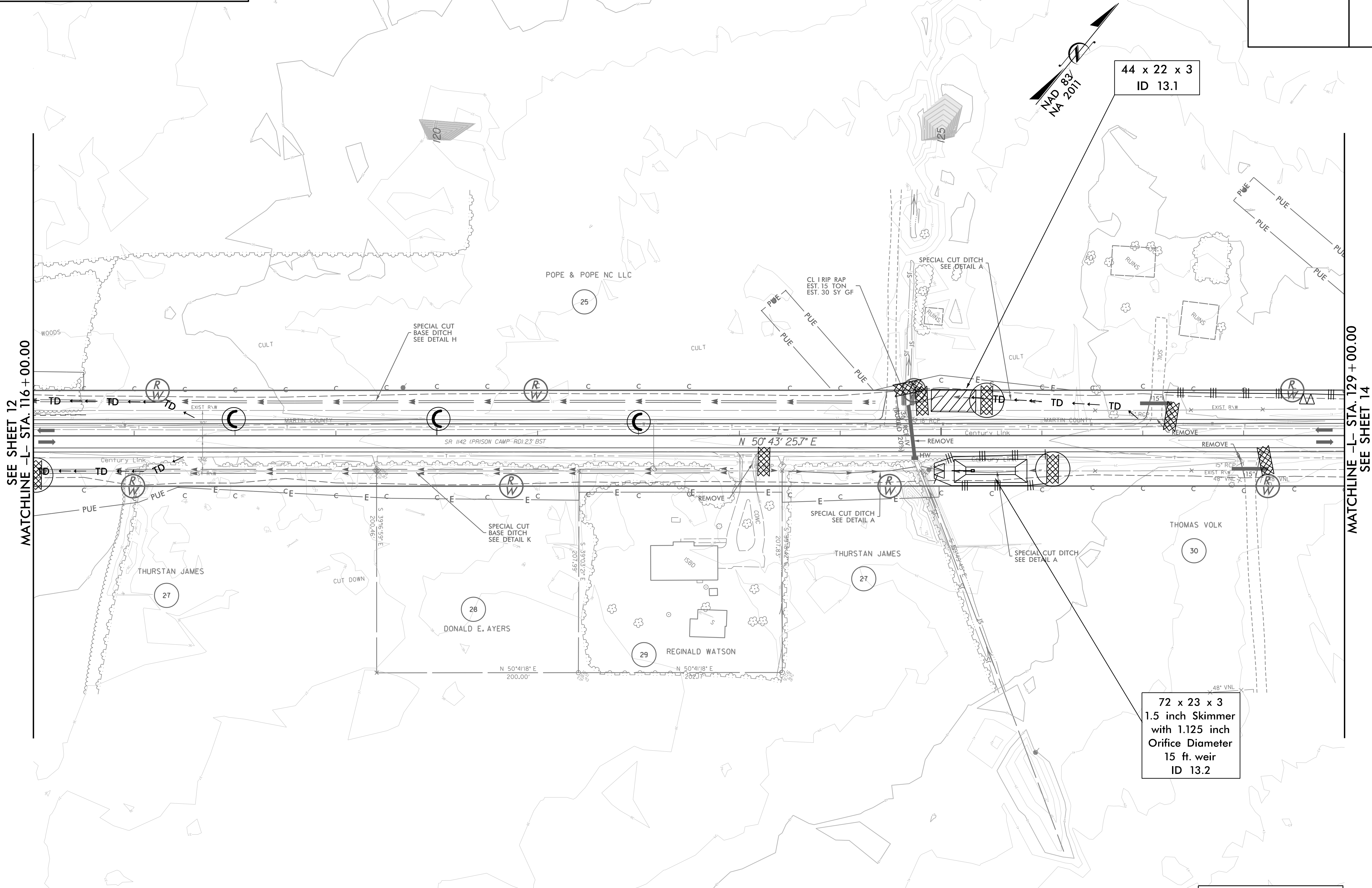
CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 13

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

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-13/CONST.13</b>
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99  
 8/17/99  
 REVISIONS  
 REVISIONS  
 3/14/2002 EC\_EC\_psh\_13.dgn  
 JTSER:ML:veh



72 x 23 x 3  
1.5 inch Skimmer  
with 1.125 inch  
Orifice Diameter  
15 ft. weir  
ID 13.2

SEE SHEET 48 FOR -L- PROFILE

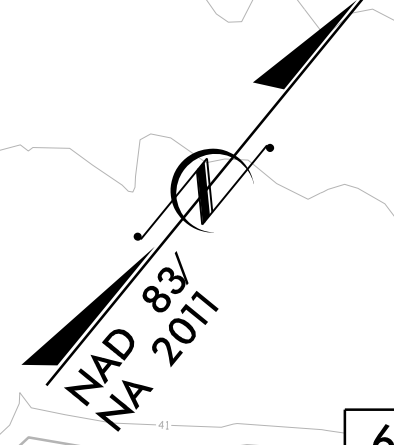
**CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 14**

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

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-14/CONST.14</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

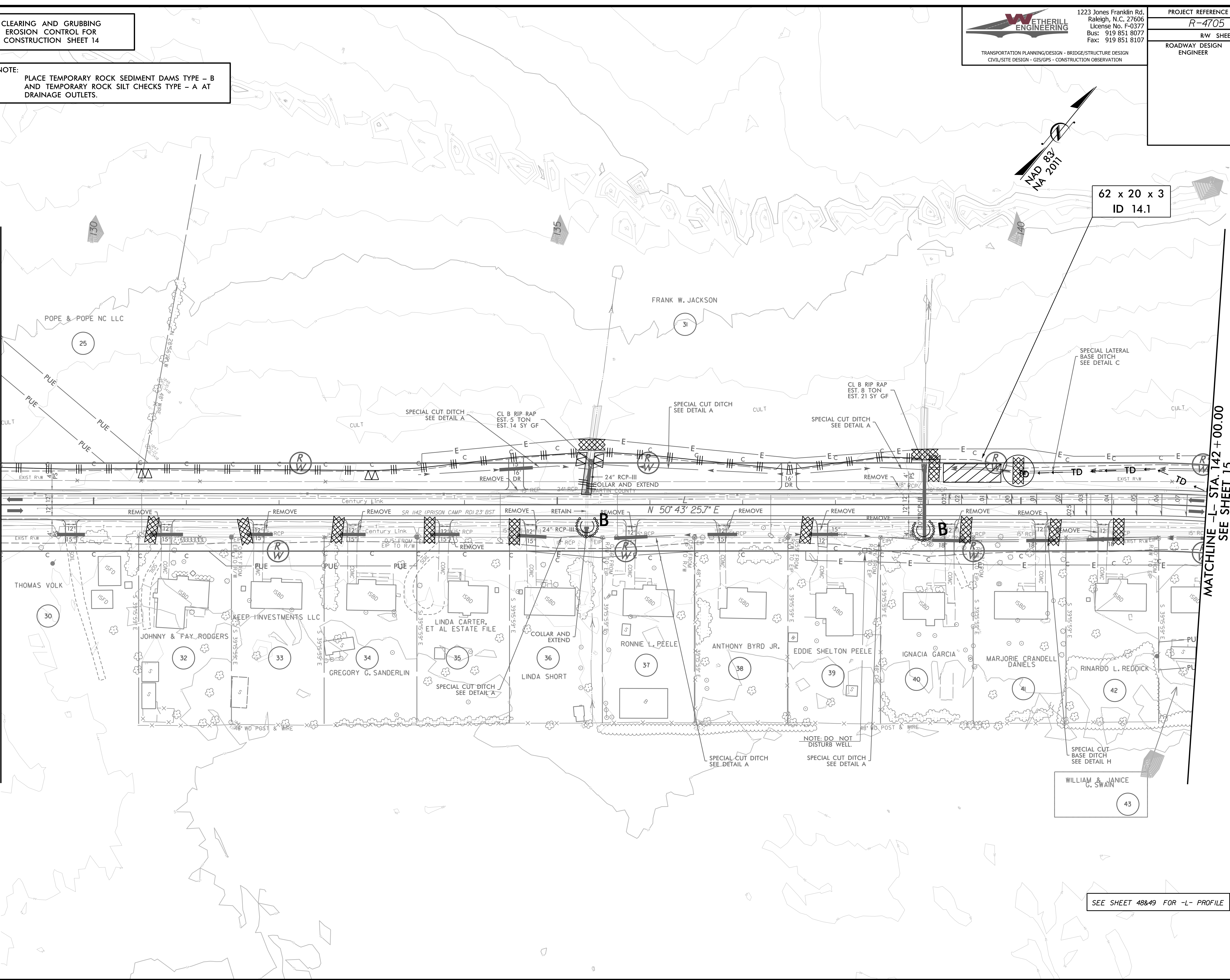


**62 x 20 x 3  
ID 14.1**

REVISIONS

SEE SHEET 13  
MATCHLINE -L- STA. 129+00.00

MATCHLINE -L- STA. 142+00.00  
SEE SHEET 15



NOTE: DO NOT  
DISTURB WELL

WILLIAM & JANICE  
G. SWAIN

SEE SHEET 48&49 FOR -L- PROFILE

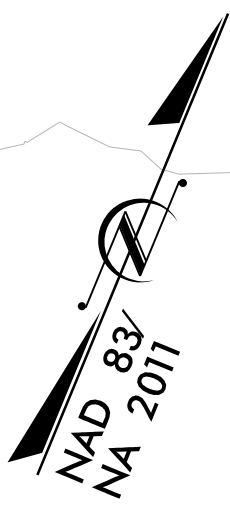
CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 15

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

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-15/CONST.15</b>
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

127 x 27 x 3  
2 inch Skimmer  
with 1.625 inch  
Orifice Diameter  
19 ft. weir  
ID 15.1



REVISIONS

SEE SHEET 14  
-L- STA. 142 + 00.00  
MATCHLINE

MATCHLINE -L- STA. 155 + 00.00  
SEE SHEET 16

 ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS

150 x 30 x 3  
2 inch Skimmer  
with 1.75 inch  
Orifice Diameter  
22 ft. weir  
ID 15.2

SEE SHEET 49 FOR -L- PROFILE  
SEE SHEET 65 FOR -Y3- PROFILE  
SEE SHEET 65 FOR -Y4- PROFILE

3/7/2022 EC.CG.pah.15.dgn  
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CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 16

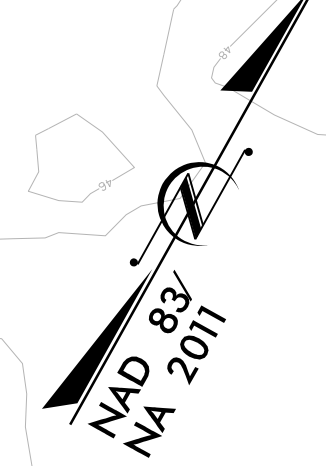
NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
DRAINAGE OUTLETS.

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TRANSPORTATION DESIGN/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-16/CONST.16</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

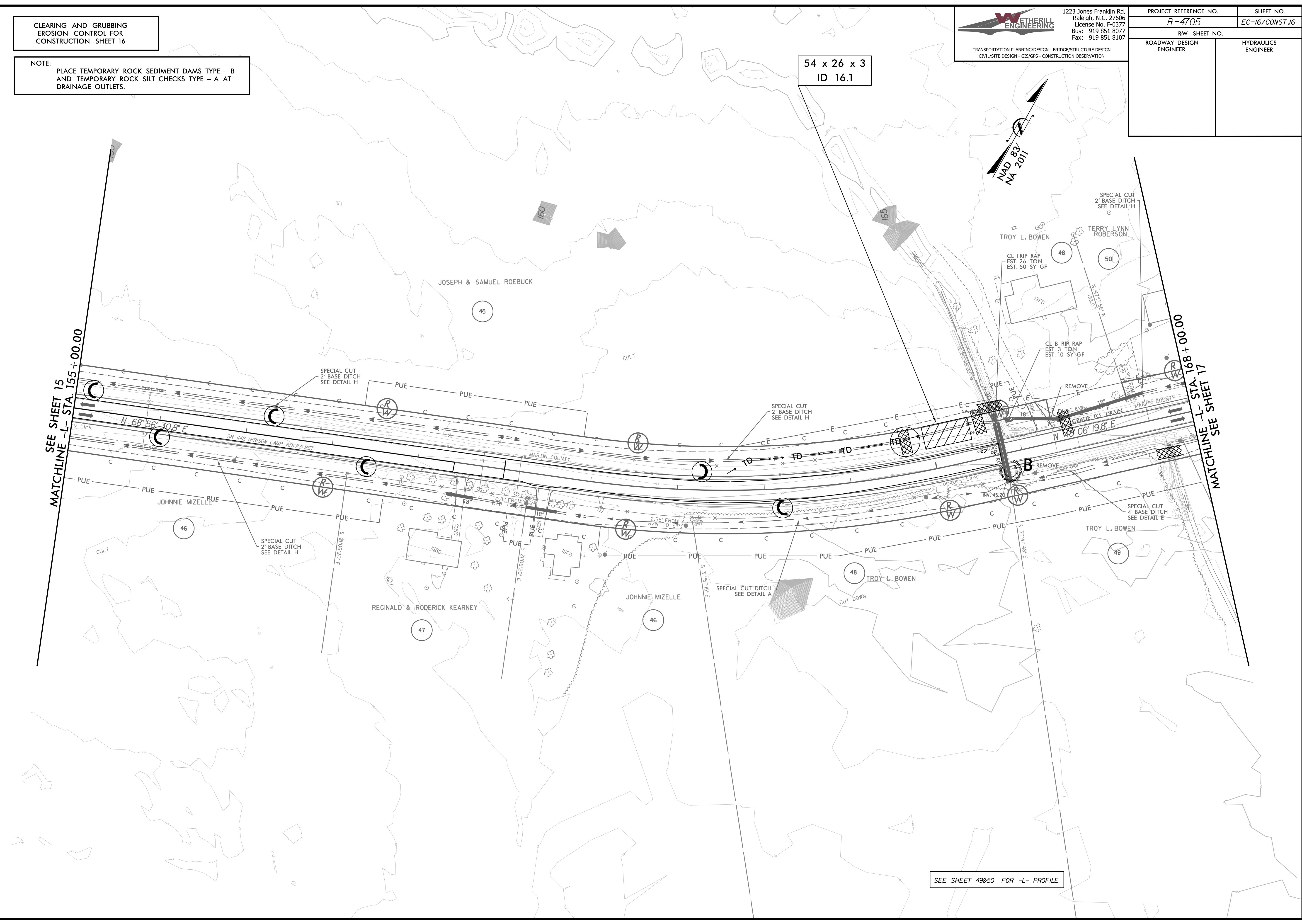
54 x 26 x 3  
ID 16.1



REVISIONS

SEE SHEET 15  
MATCHLINE -L- STA. 155+00.00

MATCHLINE -L- STA. 168+00.00  
SEE SHEET 17



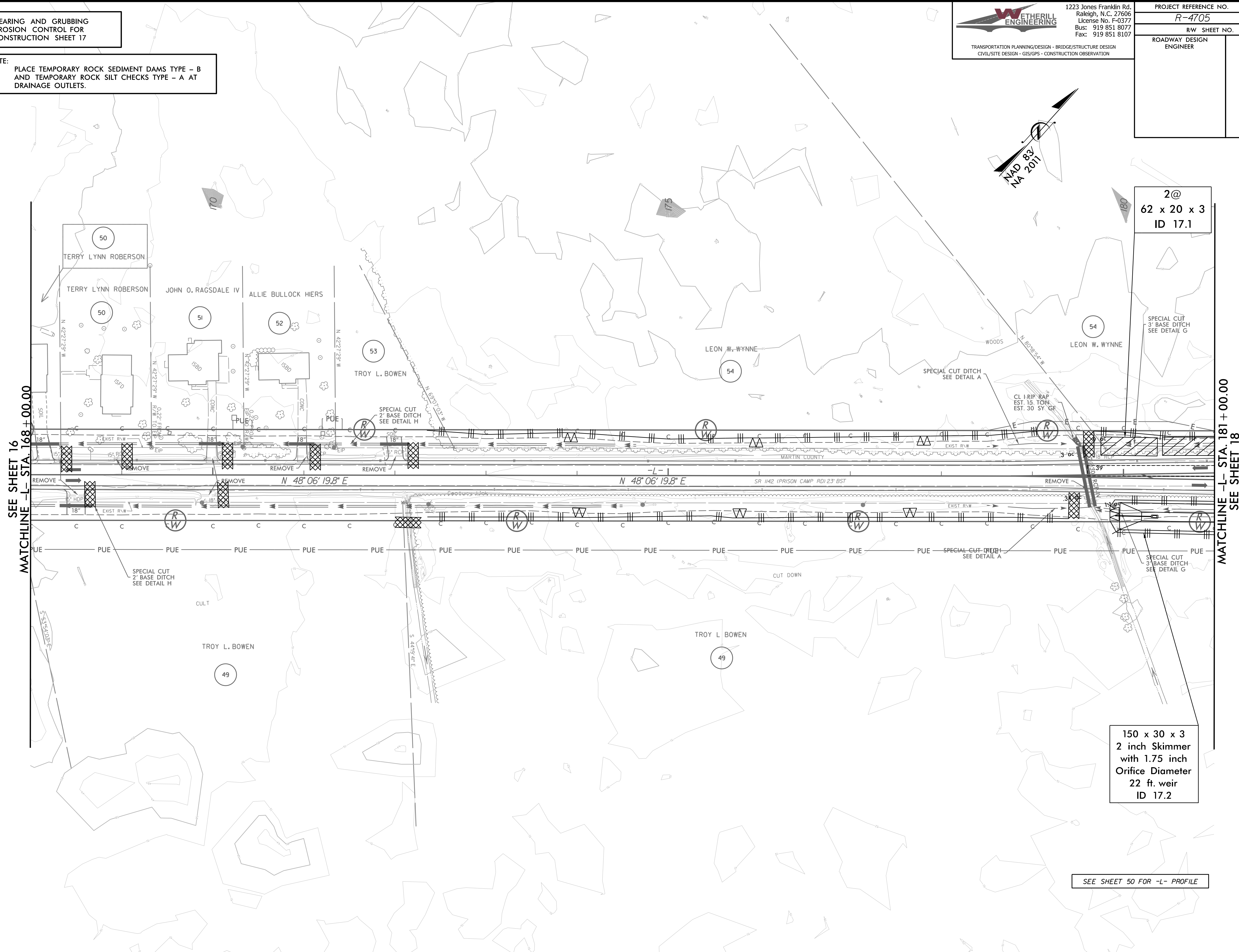
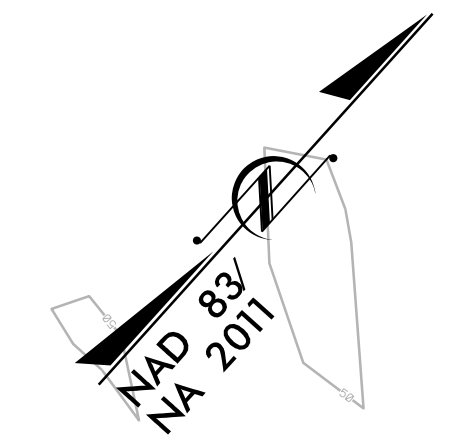
SEE SHEET 49&50 FOR -L- PROFILE

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 17

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

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Fax: 919 851 8107  
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-17/CONST.17</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



2@  
62 x 20 x 3  
ID 17.1

150 x 30 x 3  
2 inch Skimmer  
with 1.75 inch  
Orifice Diameter  
22 ft. weir  
ID 17.2

SEE SHEET 50 FOR -L- PROFILE

REVISIONS

8/17/99

3/14/2002 EC\_EC\_psh\_17.dgn  
USER:MLC



**CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 18**

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

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Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-18/CONST.18</b>
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

REVISIONS

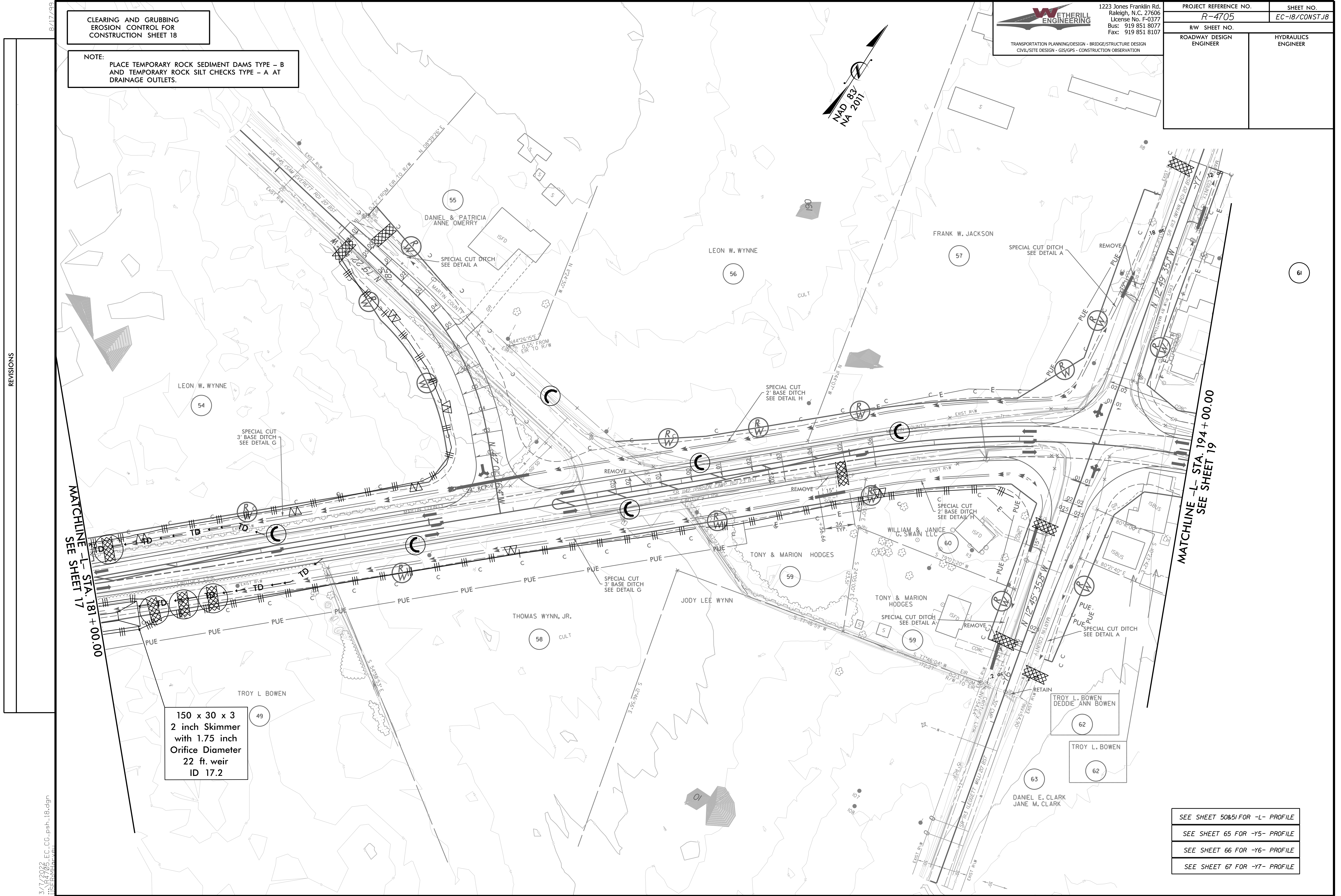
MATCHLINE -L- STA. 181+00.00  
SEE SHEET 17

MATCHLINE -L- STA. 194+00.00  
SEE SHEET 19

**150 x 30 x 3  
2 inch Skimmer  
with 1.75 inch  
Orifice Diameter  
22 ft. weir  
ID 17.2**

- SEE SHEET 50&51 FOR -L- PROFILE
- SEE SHEET 65 FOR -Y5- PROFILE
- SEE SHEET 66 FOR -Y6- PROFILE
- SEE SHEET 67 FOR -Y7- PROFILE

3/7/2022 EC\_EC\_psh\_18.dgn  
11:58:10 AM



CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 19

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

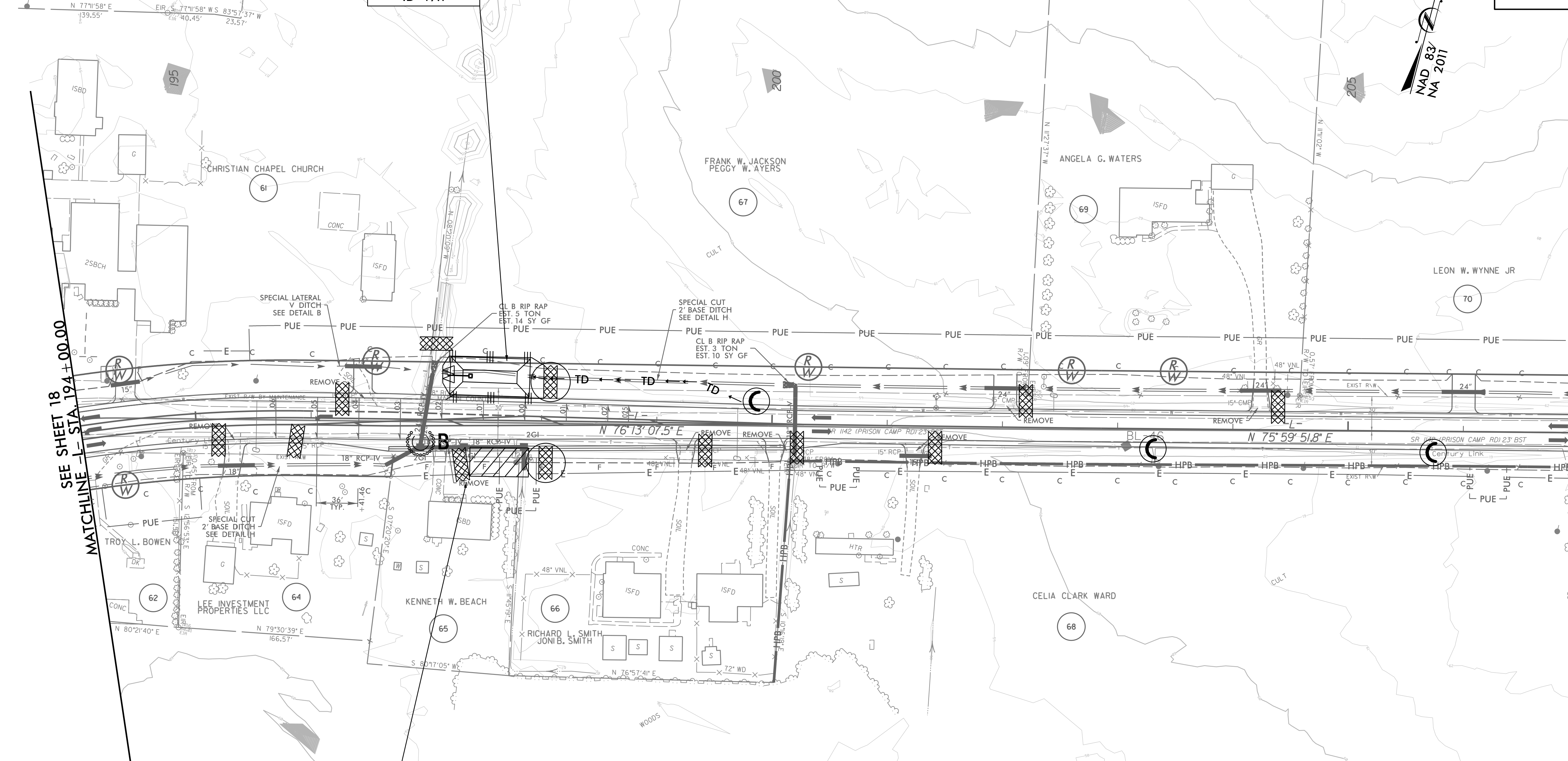
69 x 33 x 3  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
25 ft. weir  
ID 19.1

51 x 25 x 3  
ID 19.2

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-19/CONST.19</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

SEE SHEET 18  
MATCHLINE -L- STA. 194 + 00.00

MATCHLINE -L- STA. 207 + 00.00  
SEE SHEET 20

SEE SHEET 51 FOR -L- PROFILE

3/14/2002 EC\_EC\_psh\_19.dgn



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

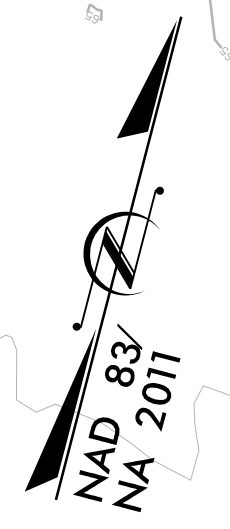
PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-20/CONST.20</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 20

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

126 x 31 x 3  
2 inch Skimmer  
with 1.625 inch  
Orifice Diameter  
23 ft. weir  
ID 20.1

33 x 16 x 3  
1.5 inch Skimmer  
with 0.5 inch  
Orifice Diameter  
8 ft. weir  
ID 20.2



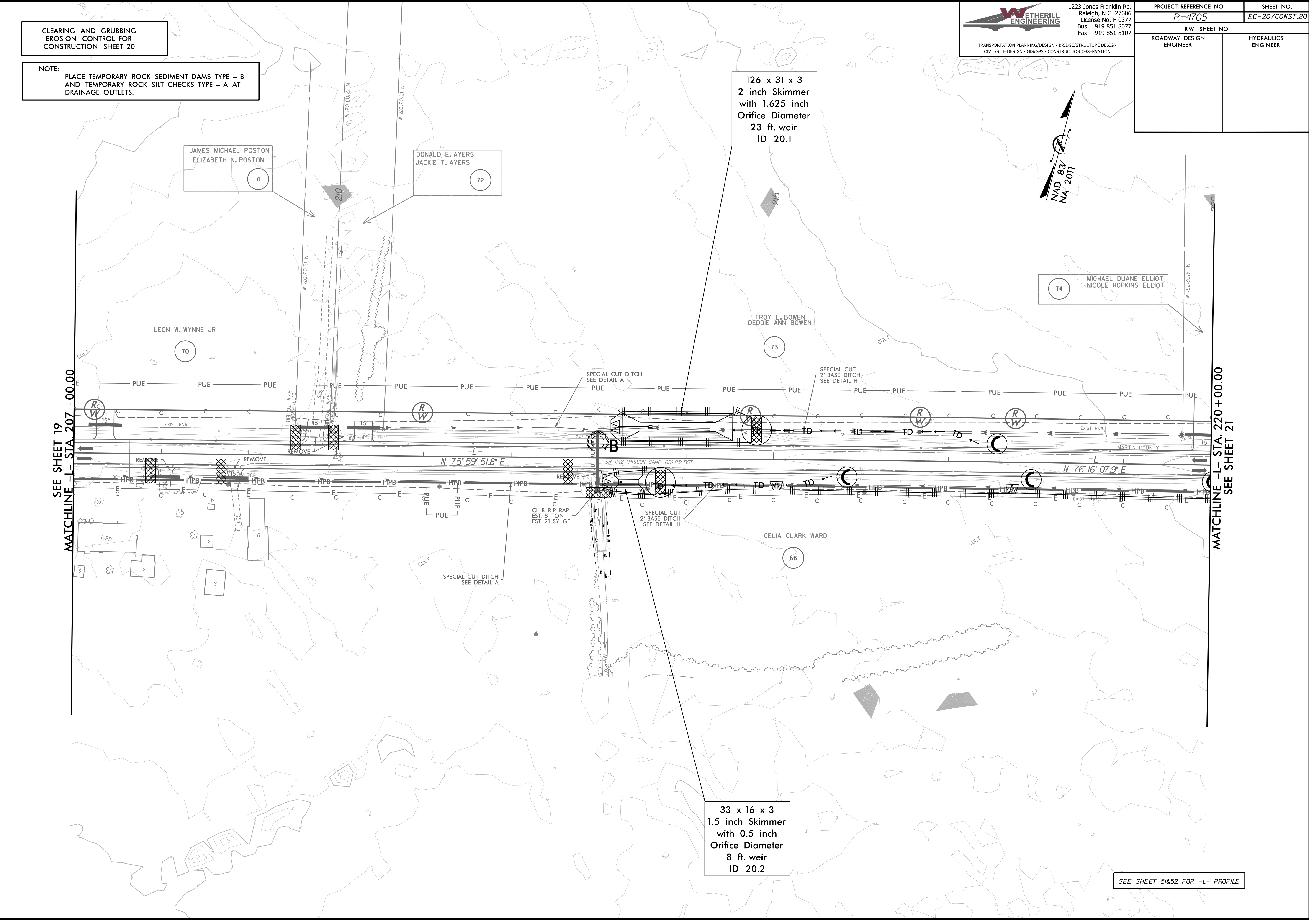
SEE SHEET 19  
MATCHLINE -L- STA. 207 + 00.00

MATCHLINE -L- STA. 220 + 00.00  
SEE SHEET 21

REVISIONS

3/7/2022 EC\_EC\_psh\_20.dgn  
USER: msh

SEE SHEET 51&52 FOR -L- PROFILE

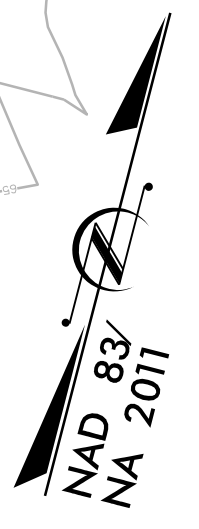


CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 21

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

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-21/CONST.21</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



60 x 20 x 3  
ID 21.1

62 x 31 x 3  
ID 21.2

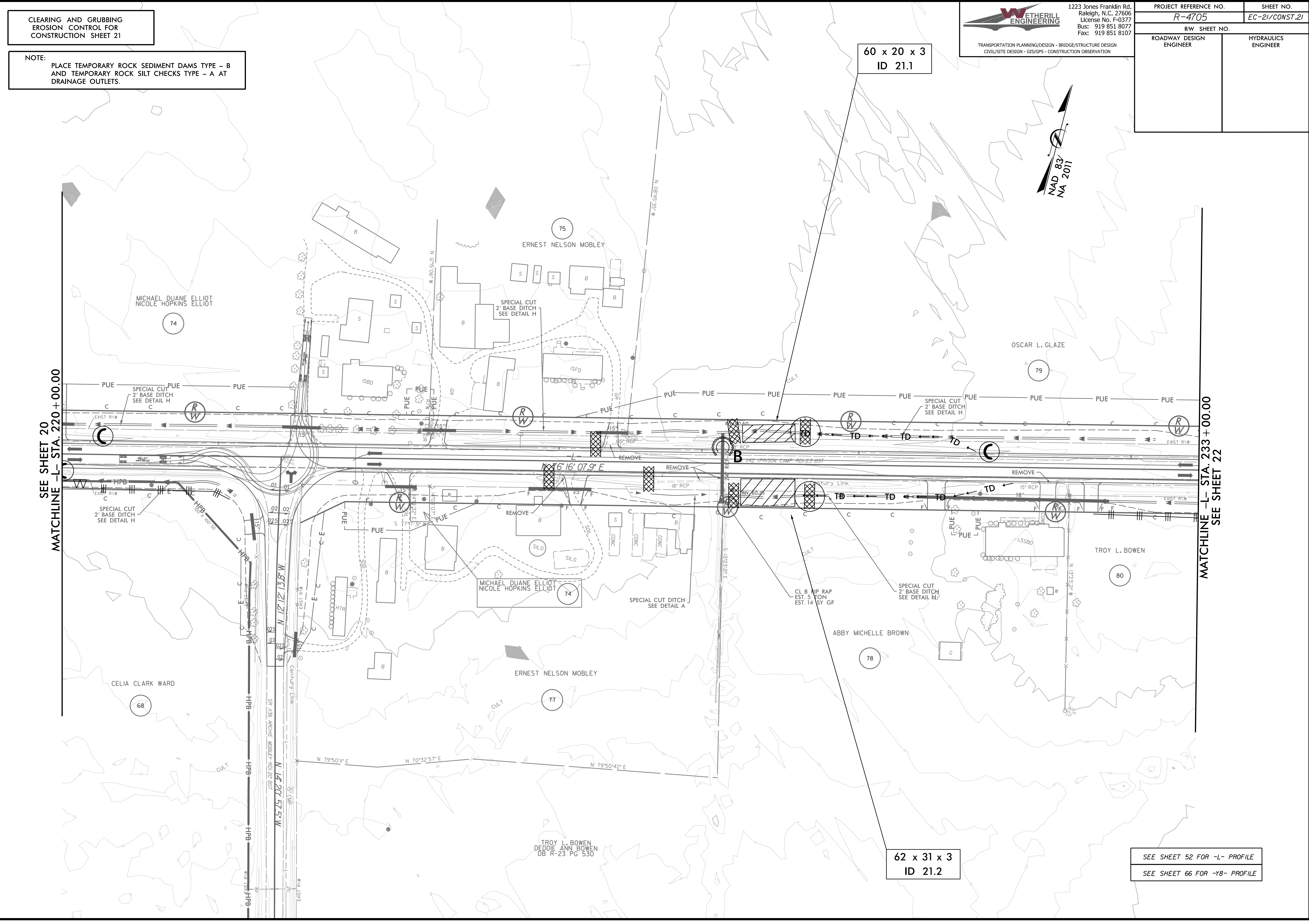
SEE SHEET 52 FOR -L- PROFILE  
SEE SHEET 66 FOR -Y8- PROFILE

SEE SHEET 20  
MATCHLINE -L- STA. 220 + 00.00

MATCHLINE -L- STA. 233 + 00.00  
SEE SHEET 22

REVISIONS

3/17/2002 EC\_EC\_psh\_21.dgn  
USER:MLC



**CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 22**

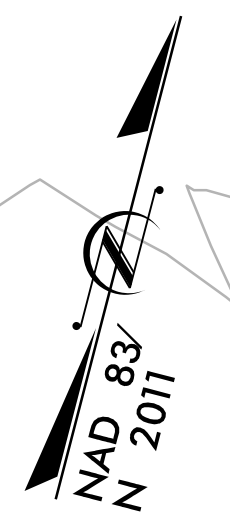
**NOTE:**  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
DRAINAGE OUTLETS.



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PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-22/CONST.22</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

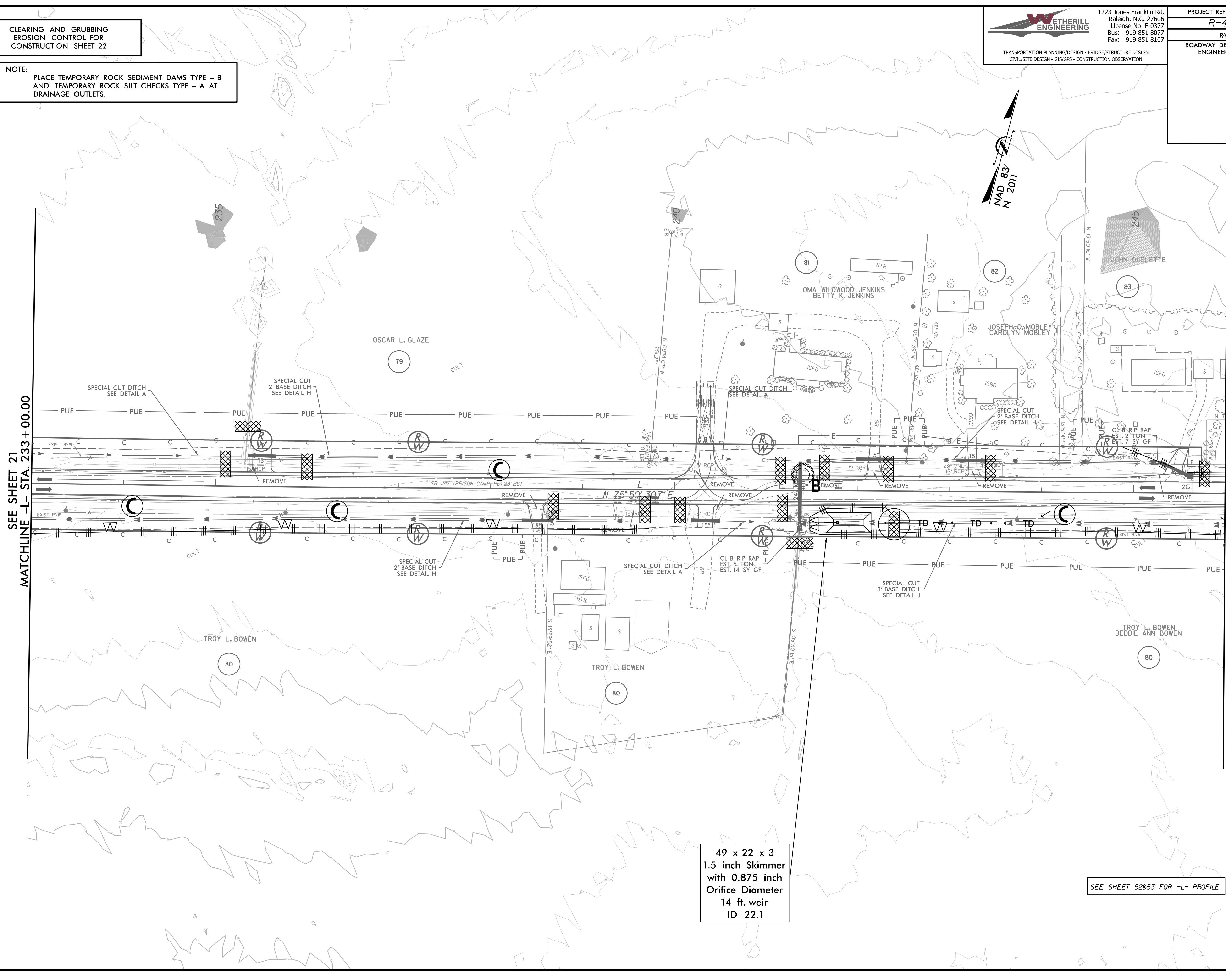
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION



REVISIONS

SEE SHEET 21  
MATCHLINE -L- STA. 233 + 00.00

MATCHLINE -L- STA. 246 + 00.00  
SEE SHEET 23



49 x 22 x 3  
1.5 inch Skimmer  
with 0.875 inch  
Orifice Diameter  
14 ft. weir  
ID 22.1

SEE SHEET 52&53 FOR -L- PROFILE

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 23

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



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Fax: 919 851 8107

TRANSPORTATION DESIGN/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-23/CONST.23</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



112 x 30 x 3  
2 inch Skimmer  
with 1.625 inch  
Orifice Diameter  
22 ft. weir  
ID 23.2

40 x 20 x 3  
ID 23.1

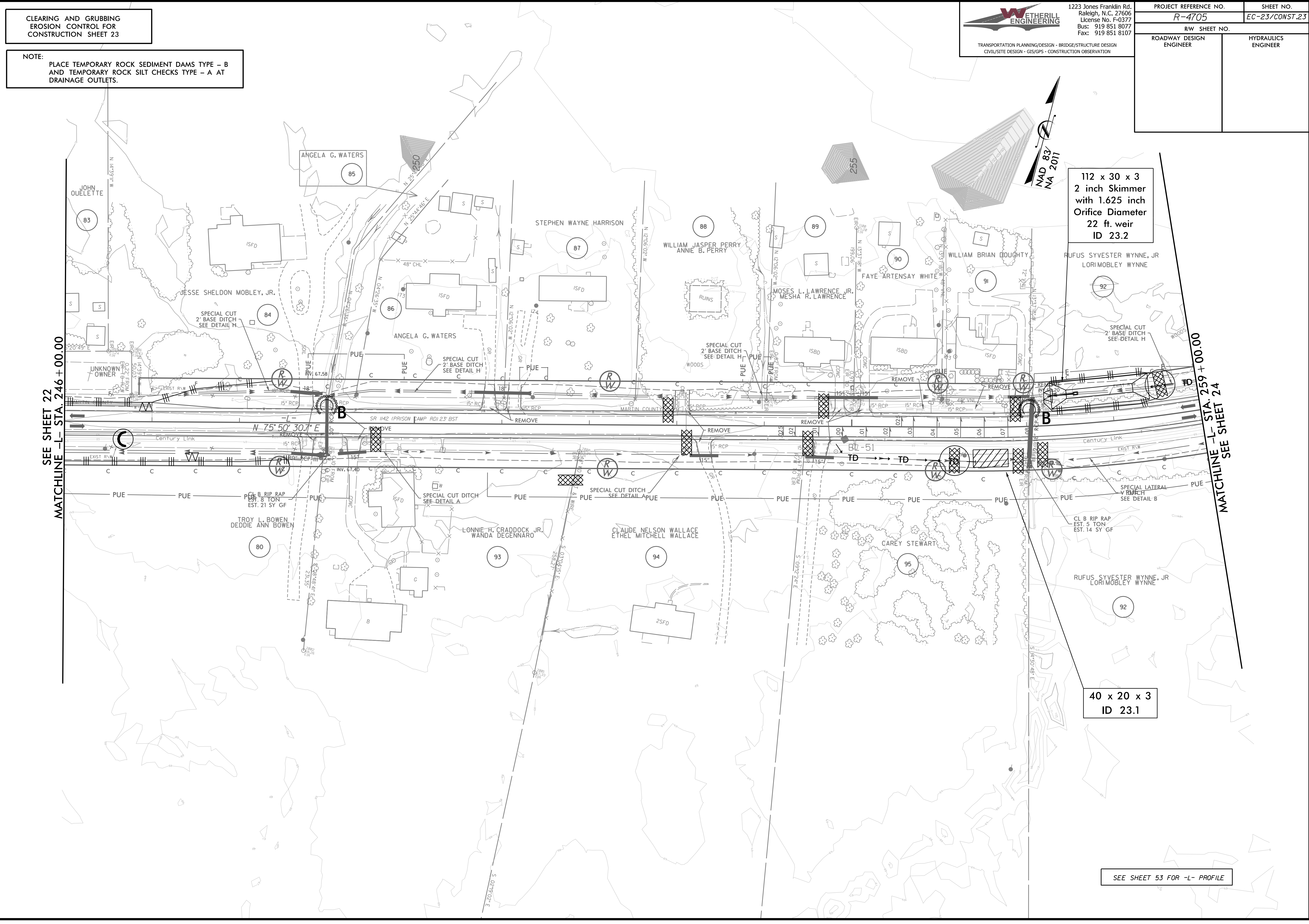
SEE SHEET 53 FOR -L- PROFILE

REVISIONS

SEE SHEET 22  
MATCHLINE -L- STA. 246 + 00.00

MATCHLINE -L- STA. 259 + 00.00  
SEE SHEET 24

3/14/2002 EC\_EC\_psh\_23.dgn  
USER:mlc



**CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 24**

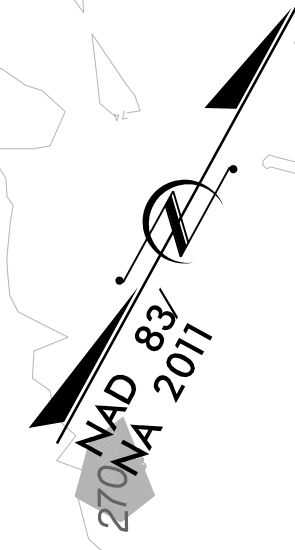
NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
DRAINAGE OUTLETS.



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Fax: 919 851 8107

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-24/CONST.24</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION



117 x 30 x 3  
2 inch Skimmer  
with 1.625 inch  
Orifice Diameter  
22 ft. weir  
ID 24.1

91 x 30 x 3  
1.5 inch Skimmer  
with 1.5 inch  
Orifice Diameter  
22 ft. weir  
ID 24.2

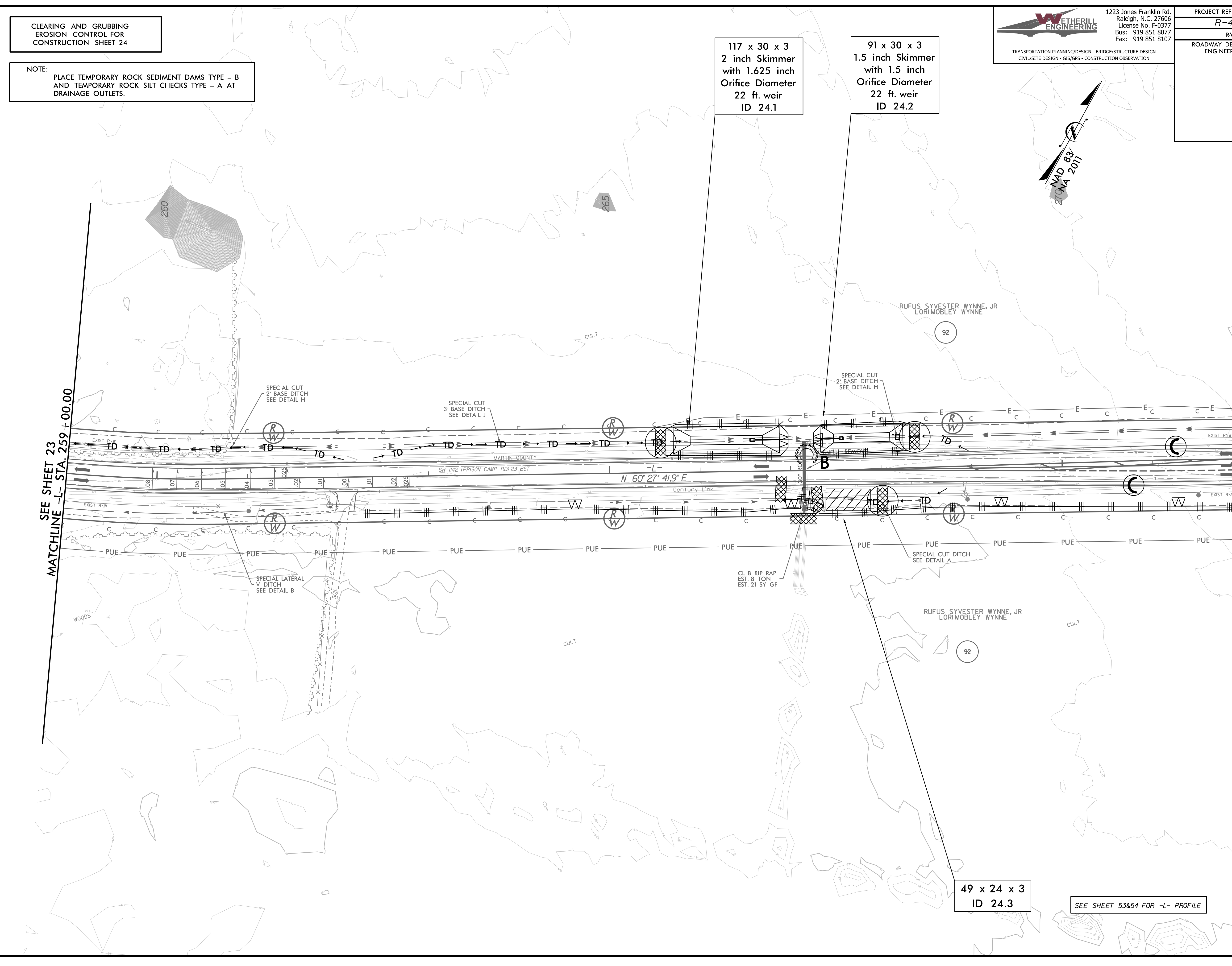
49 x 24 x 3  
ID 24.3

SEE SHEET 53&54 FOR -L- PROFILE

REVISIONS

SEE SHEET 23  
MATCHLINE -L- STA. 259 + 00.00

MATCHLINE -L- STA. 272 + 00.00  
SEE SHEET 25



3/7/2002 EC\_EC\_psh\_24.dgn  
USER: mlovey

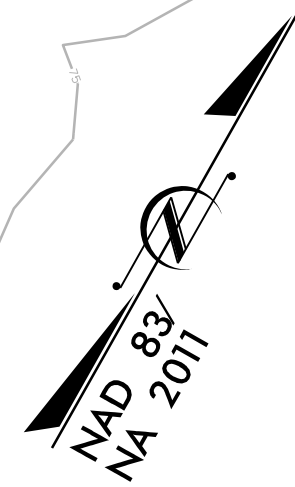
**CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 25**

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

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-25/CONST.25</b>
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



**58 x 20 x 3  
ID 25.1**

**60 x 23 x 3  
ID 25.2**

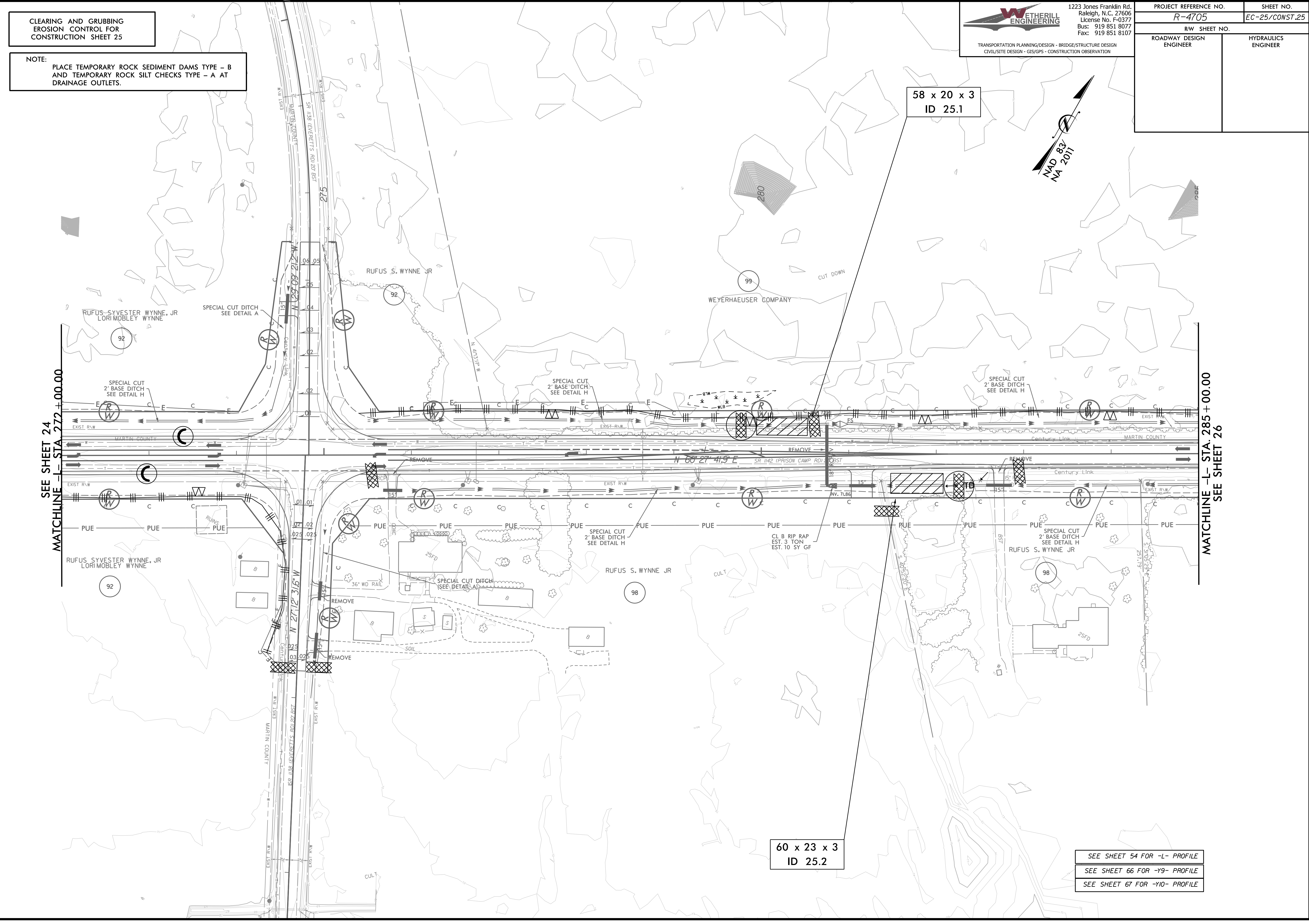
SEE SHEET 54 FOR -L- PROFILE  
SEE SHEET 66 FOR -Y9- PROFILE  
SEE SHEET 67 FOR -Y10- PROFILE

REVISIONS

SEE SHEET 24  
MATCHLINE -L- STA 272+00.00

MATCHLINE -L- STA 285+00.00  
SEE SHEET 26

3/7/2002 EC\_EC\_psh\_25.dgn  
USER:MLC





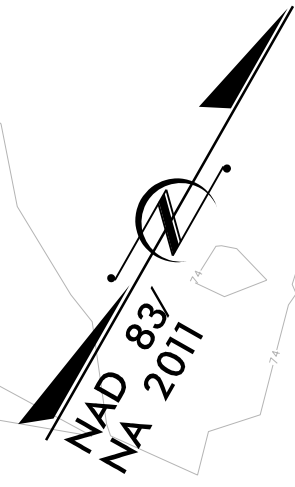
8/17/99

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 26

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

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

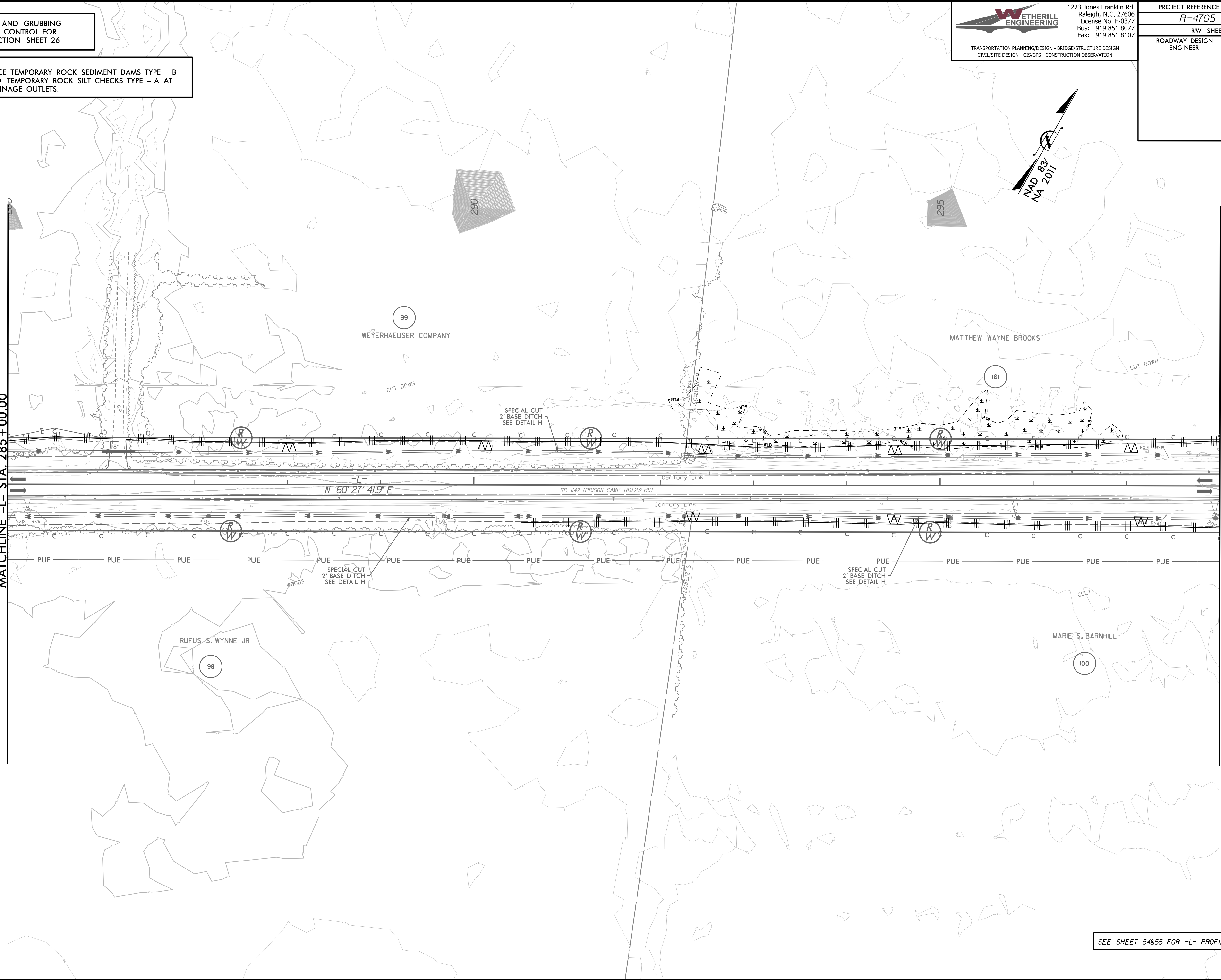
PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-26/CONST.26</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

SEE SHEET 25  
MATCHLINE -L- STA. 285 + 00.00

MATCHLINE -L- STA. 298 + 00.00  
SEE SHEET 27



SEE SHEET 54&55 FOR -L- PROFILE

3/14/2002 EC\_EC\_psh\_26.dgn  
USER:mlawyer

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Fax: 919 851 8107



TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-27/CONST.27</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 27

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

2@  
65 x 30 x 3  
ID 27.1

85 x 24 x 3  
1.5 inch Skimmer  
with 1.375 inch  
Orifice Diameter  
16 ft. weir  
ID 27.2

70 x 23 x 3  
1.5 inch Skimmer  
with 1.125 inch  
Orifice Diameter  
15 ft. weir  
ID 27.3

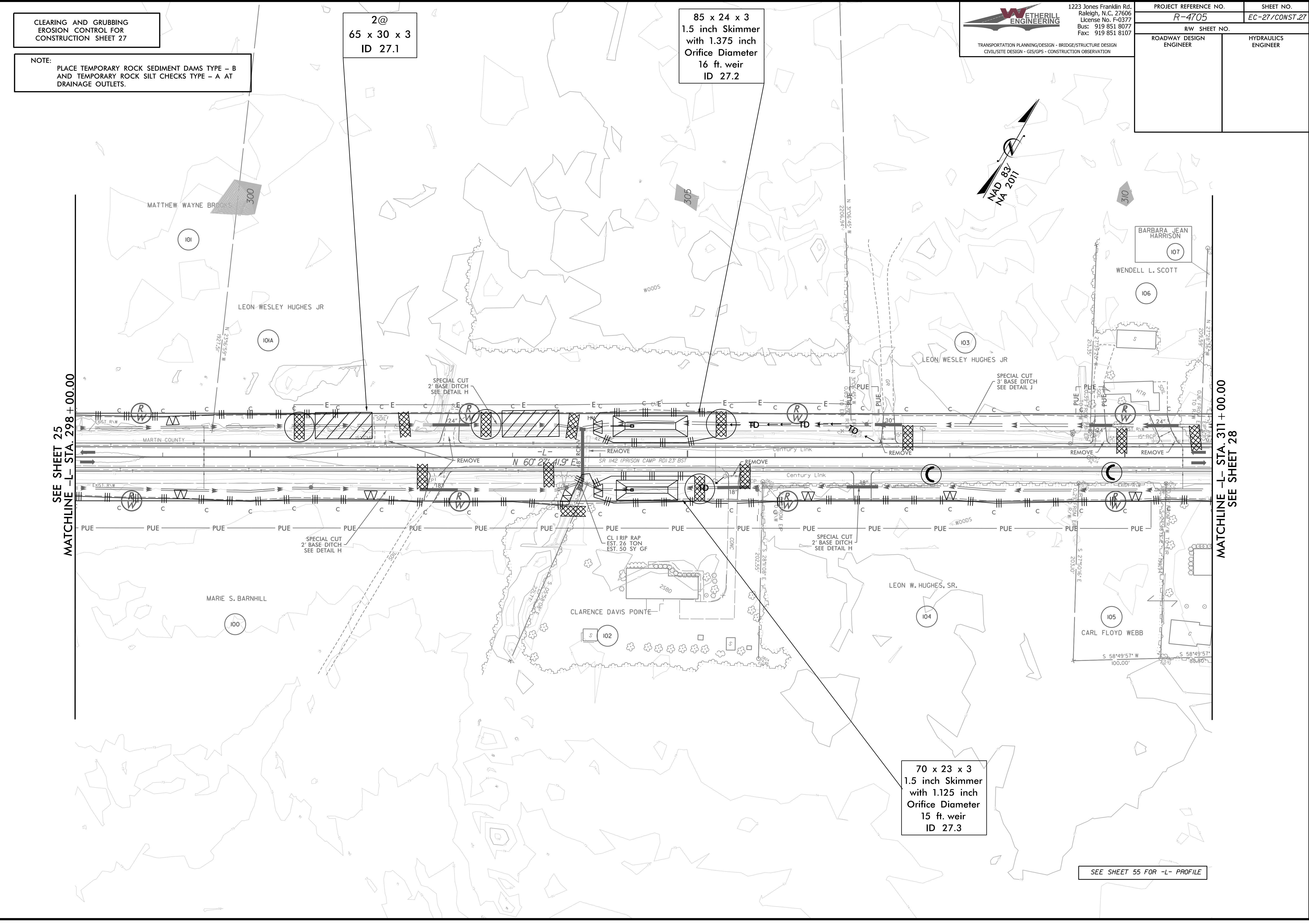
SEE SHEET 55 FOR -L- PROFILE

REVISIONS

SEE SHEET 25  
MATCHLINE -L- STA. 298 +00.00

MATCHLINE -L- STA. 311 +00.00  
SEE SHEET 28

3/17/2002 EC\_EC\_psh\_27.dgn  
USER:MLC



8/17/99

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 28



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Fax: 919 851 8107

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-28/CONST.28</b>
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

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



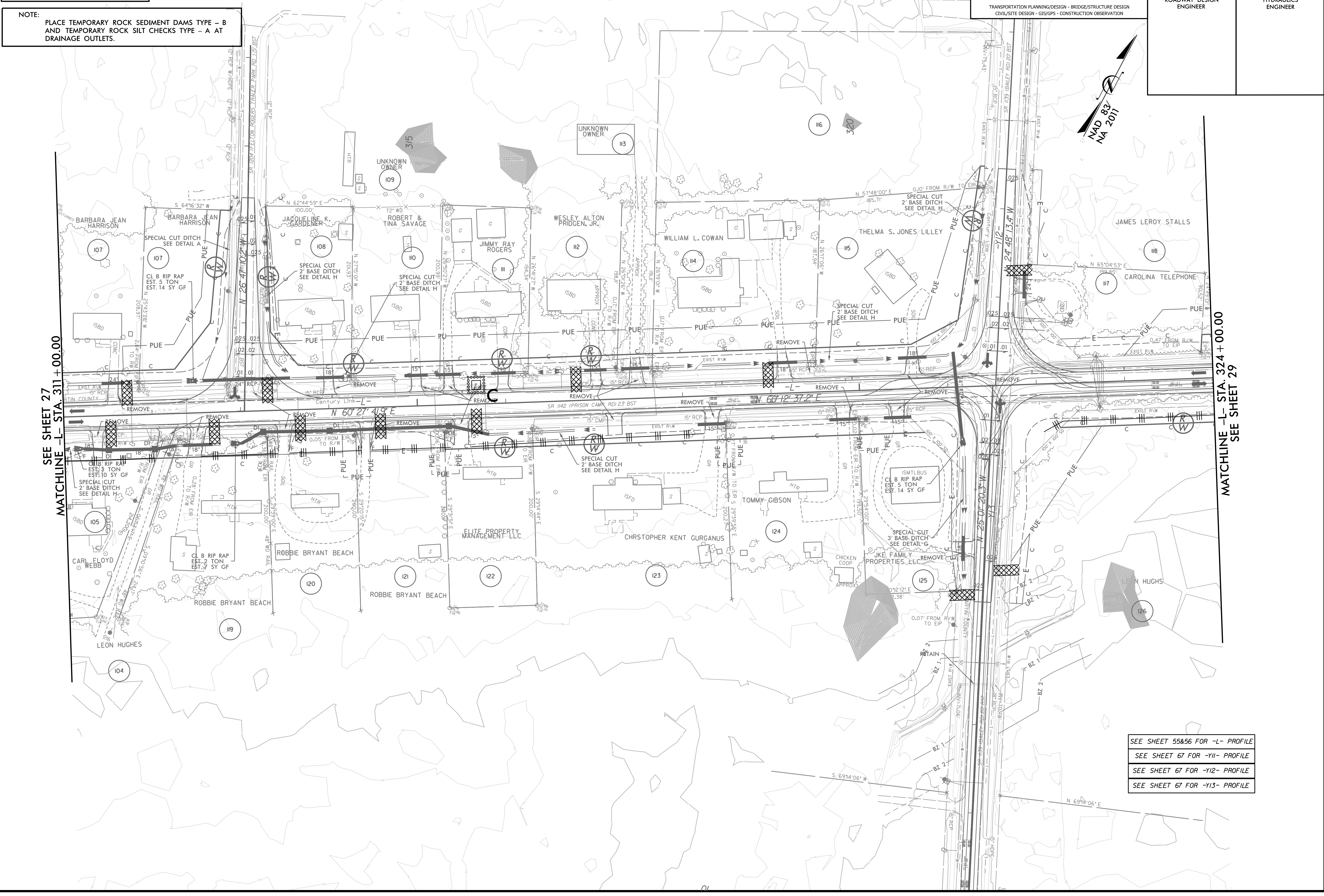
REVISIONS

SEE SHEET 27  
MATCHLINE -L- STA 311 + 00.00

MATCHLINE -L- STA 324 + 00.00  
SEE SHEET 29

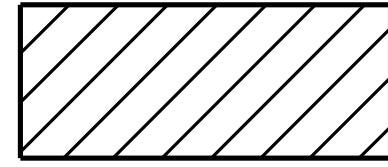
3/14/2002 EC\_EC\_psh\_28.dgn  
USER:MLC

SEE SHEET 55&56 FOR -L- PROFILE  
SEE SHEET 67 FOR -Y11- PROFILE  
SEE SHEET 67 FOR -Y12- PROFILE  
SEE SHEET 67 FOR -Y13- PROFILE



CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 29

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



ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS

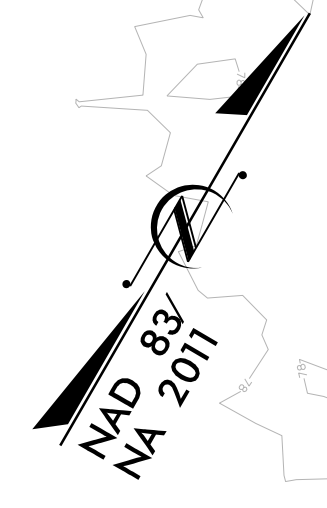
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-29/CONST.29</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

72 x 20 x 3  
1.5 inch Skimmer  
with 1.00 inch  
Orifice Diameter  
22 ft. weir  
ID 29.1

65 x 22 x 3  
1.5 inch Skimmer  
with 1.00 inch  
Orifice Diameter  
13 ft. weir  
ID 29.2



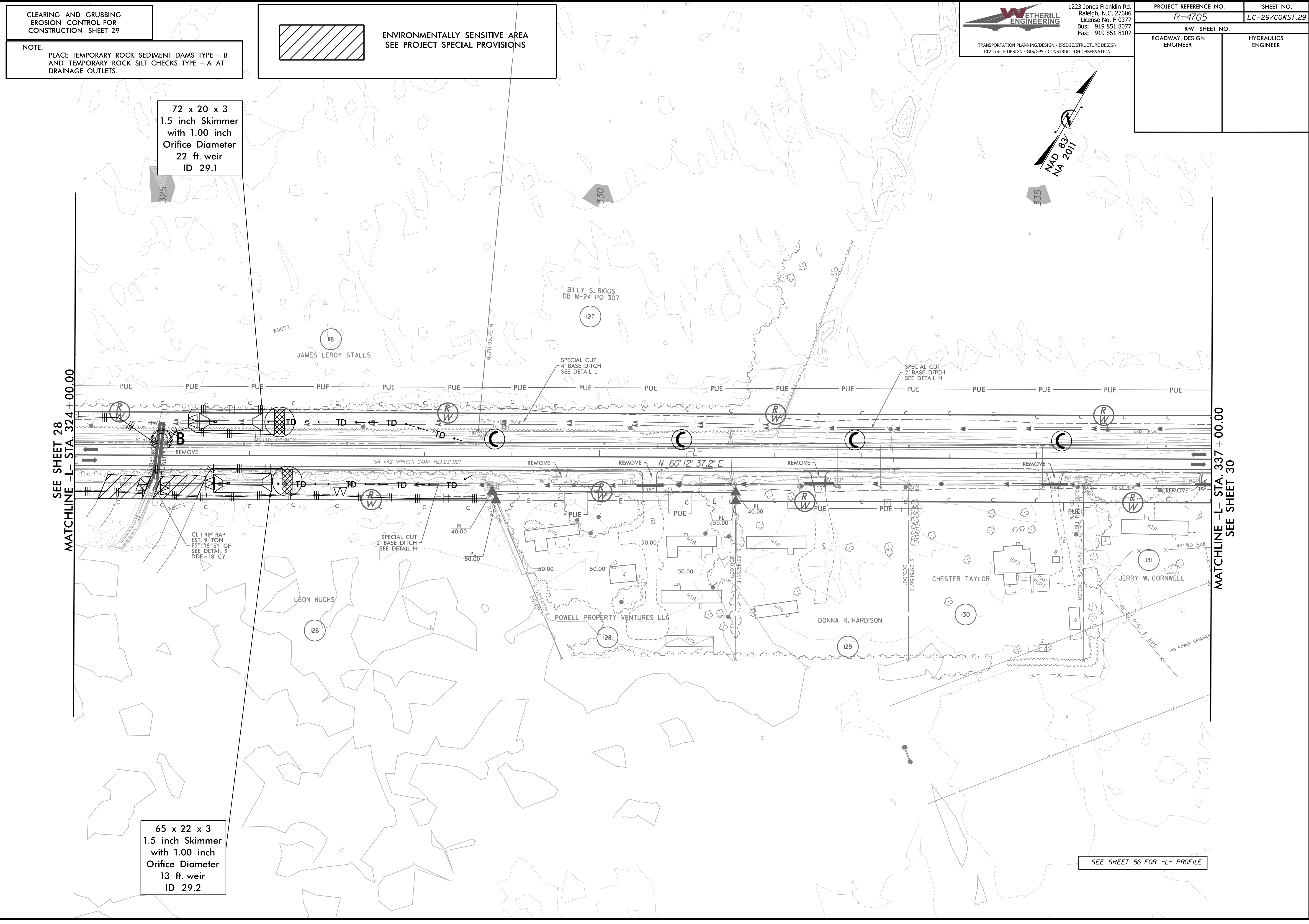
REVISIONS

SEE SHEET 28  
MATCHLINE -L- STA. 324 + 00.00

MATCHLINE -L- STA. 337 + 00.00  
SEE SHEET 30

SEE SHEET 56 FOR -L- PROFILE

3/14/2022 EC\_EC\_psh\_29.dgn  
JTSER:MLA:ven



CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 30

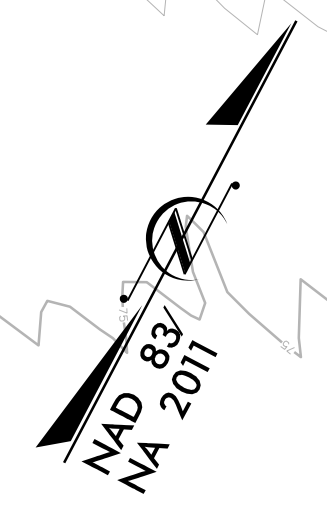
NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
DRAINAGE OUTLETS.



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

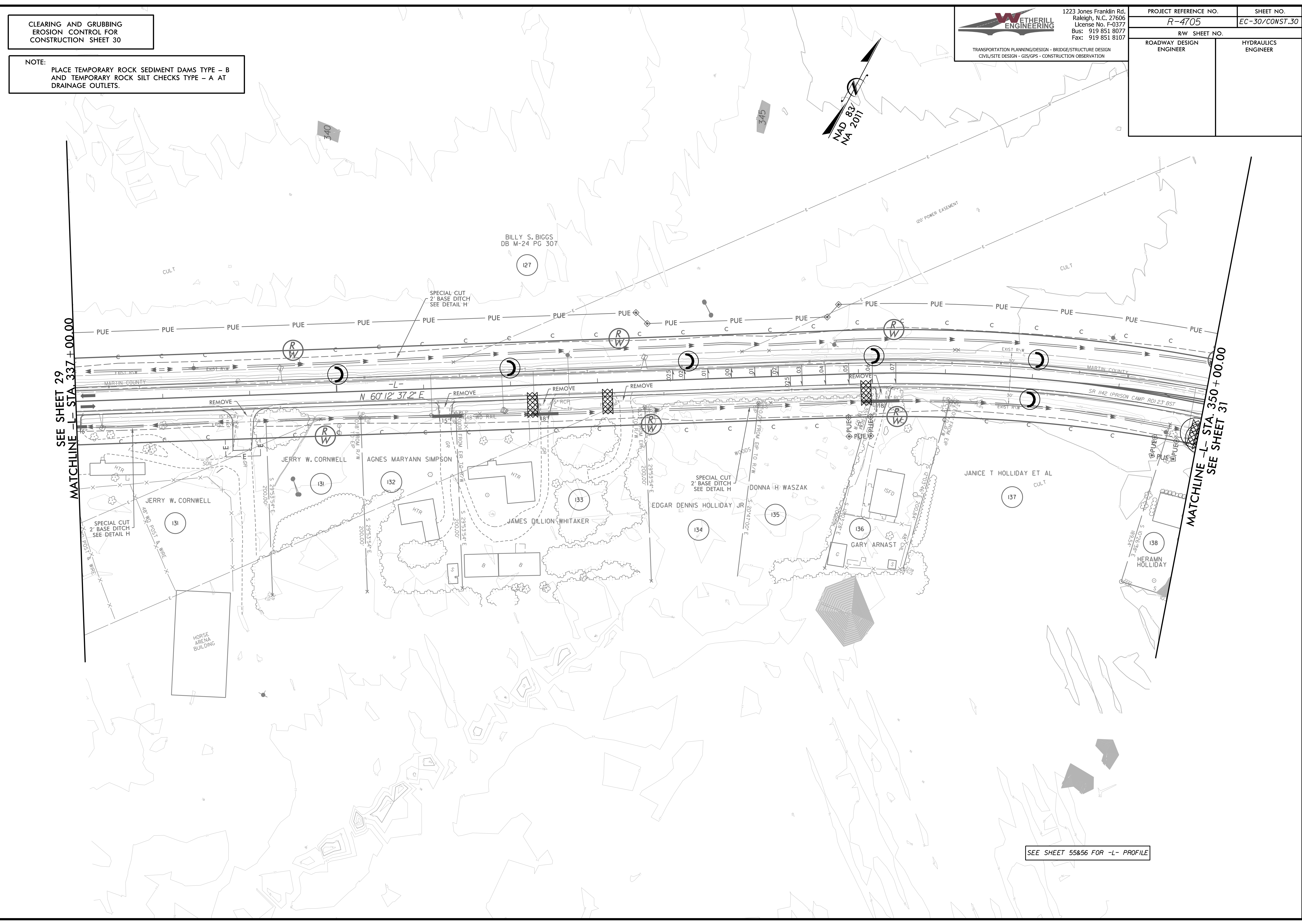
PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-30/CONST.30</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

SEE SHEET 29  
MATCHLINE -L- STA. 337 + 00.00

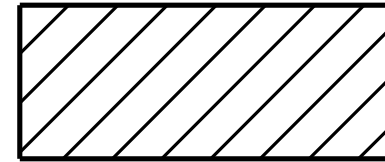
MATCHLINE -L- STA. 350 + 00.00  
SEE SHEET 31



SEE SHEET 55&56 FOR -L- PROFILE

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 31

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



ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS



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PROJECT REFERENCE NO.	SHEET NO.
R-4705	EC-31/CONST.31
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

117 x 30 x 3  
2 inch Skimmer  
with 1.625 inch  
Orifice Diameter  
22 ft. weir  
ID 31.3



72 x 30 x 3  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
22 ft. weir  
ID 31.1

80 x 26 x 3  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
18 ft. weir  
ID 31.4

60 x 29 x 3  
2 inch Skimmer  
with 1.625 inch  
Orifice Diameter  
22 ft. weir  
ID 31.2

SEE SHEET 30  
MATCHLINE -L- STA. 350 + 00.00

MATCHLINE -L- STA. 363 + 00.00  
SEE SHEET 32

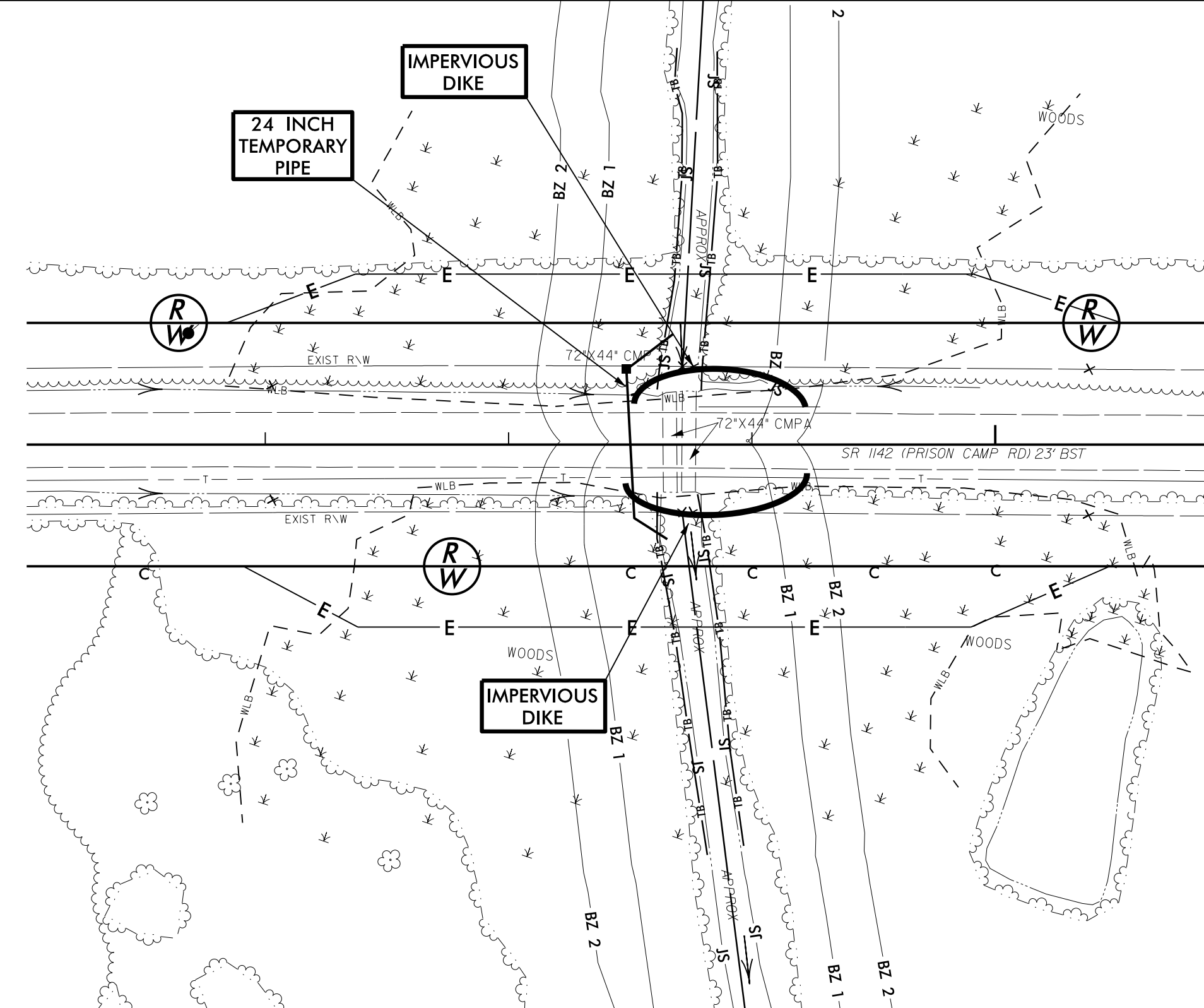
REVISIONS

3/14/2022 EC\_EC-ps-h. 31.dgn  
USER:MLD

# CULVERT CONSTRUCTION SEQUENCE STA. 53+70 -L-

PROJECT REFERENCE NO. <i>R-4705</i>	SHEET NO. <i>EC-08A/CONST.08</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

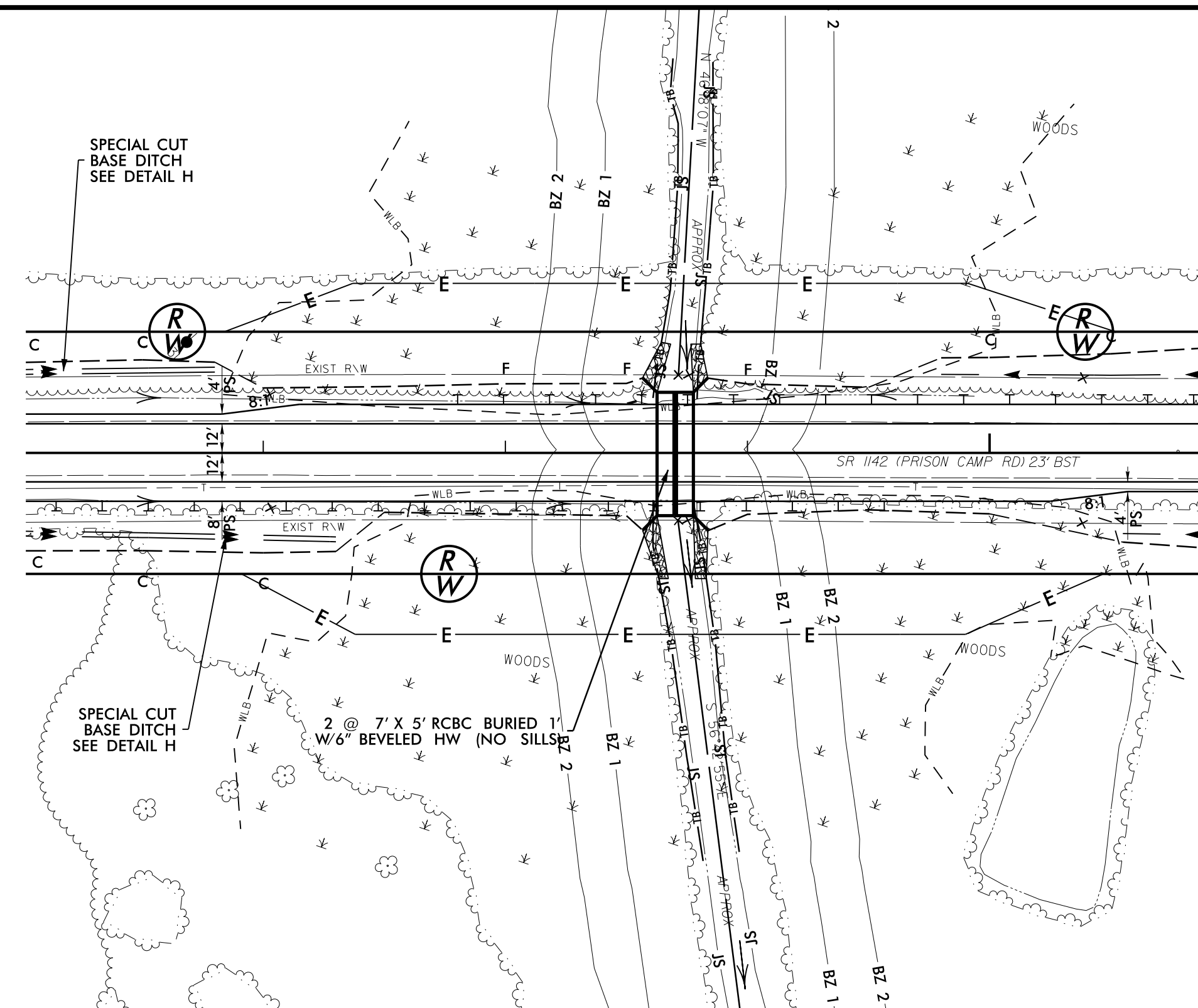
## PHASE I



INSTALL EROSION CONTROL C&G PHASE MEASURES FOR THIS SITE PRIOR TO COMMENCING CULVERT WORK. (NOT SHOWN FOR CLARITY).

1. INSTALL IMPERVIOUS DIKES (STEEL SHORING) TO PREVENT FLOW THROUGH THE CULVERT BARRELS. UTILIZE SPECIAL STILLING BASINS AS NEEDED FOR TREATMENT OF WATER PRIOR TO ENTERING THE BYPASS PUMPS.
2. INSTALL PUMP AND BYPASS PIPES AS TEMPORARY FLOW DIVERSION.
3. INSTALL CULVERT BARRELS, RIP RAP AND WING WALLS.

## PHASE II



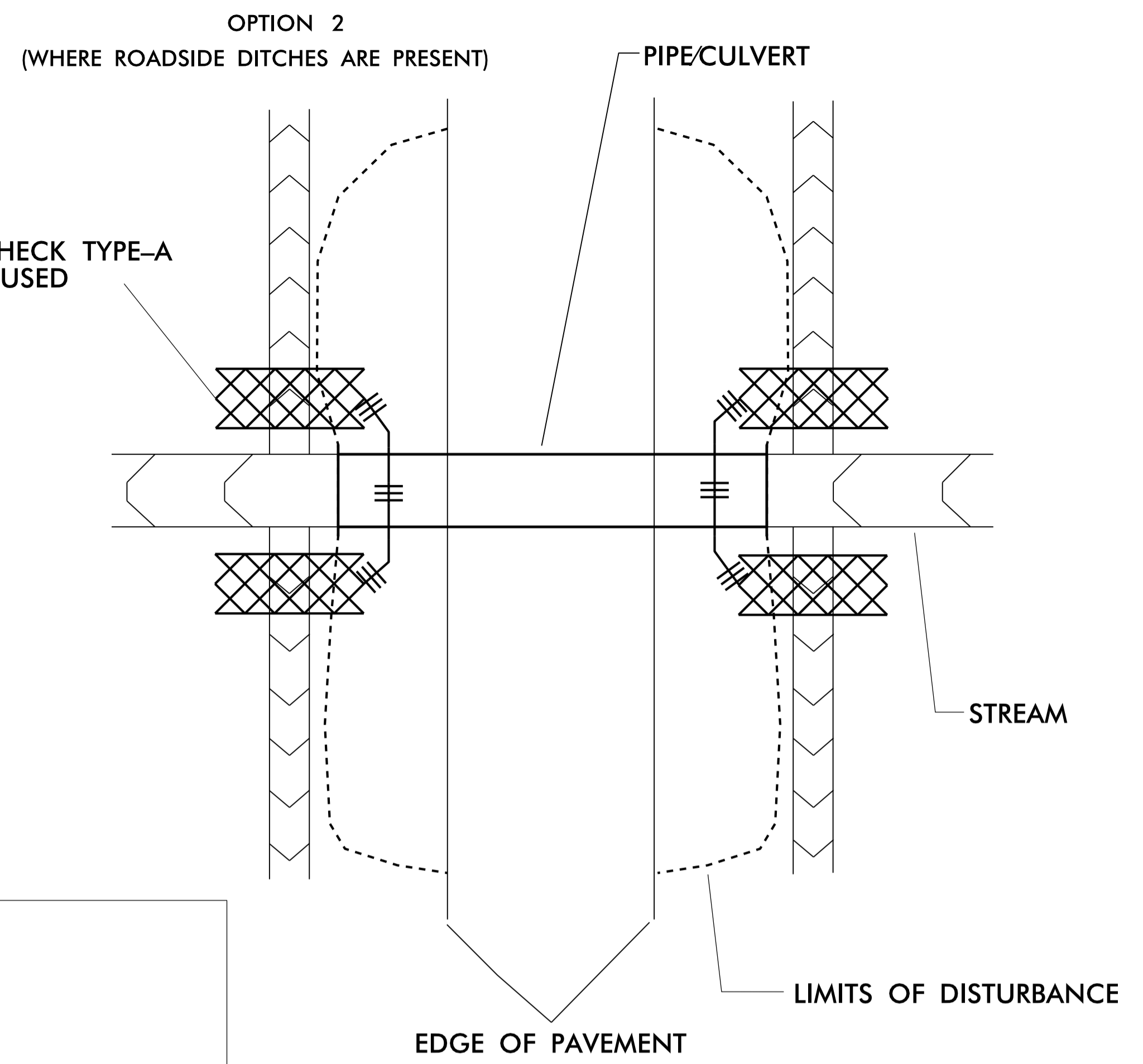
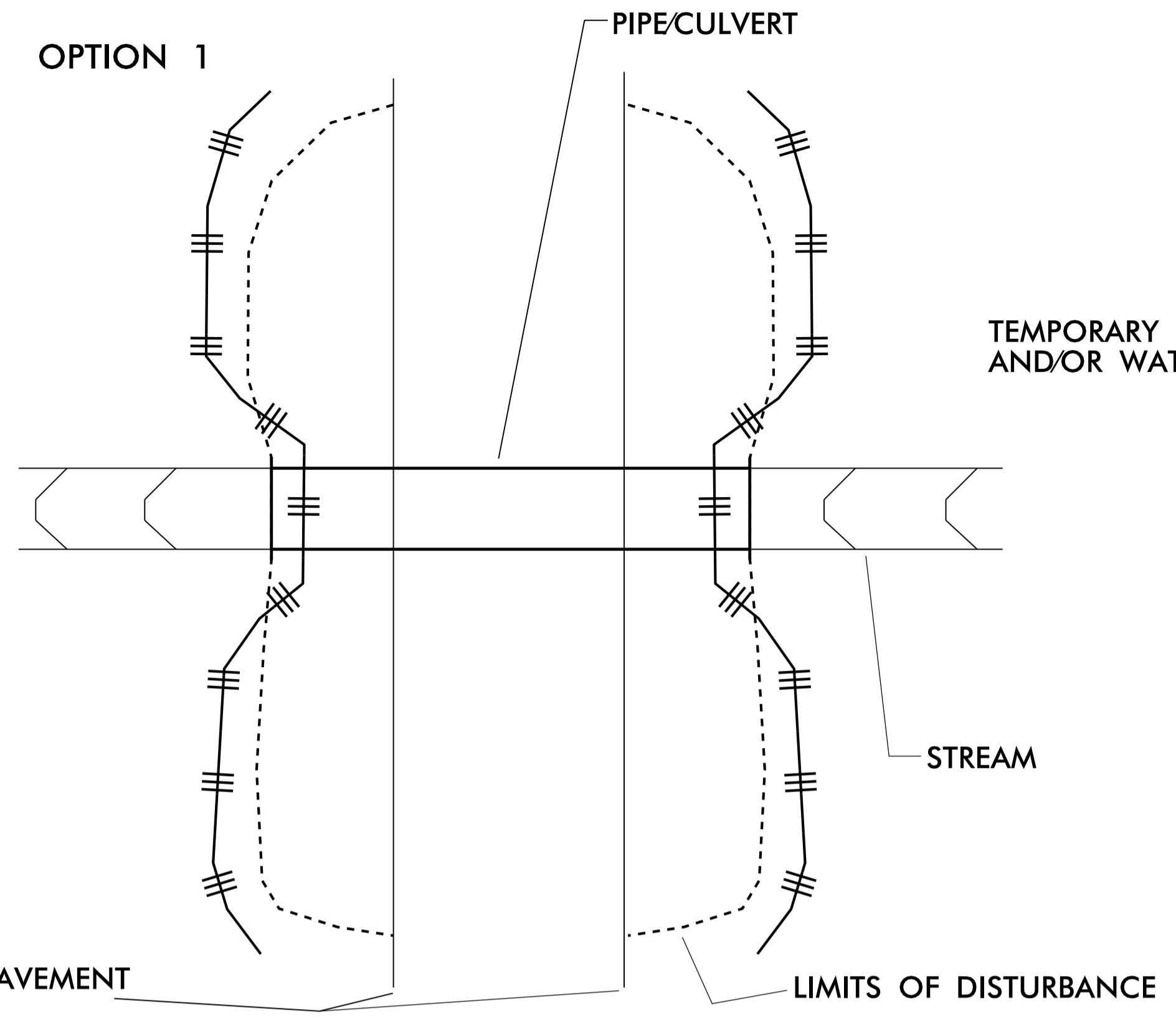
1. REMOVE THE IMPERVIOUS DIKES UPSTREAM AND DOWNSTREAM OF THE CULVERT IN ORDER TO ALLOW FLOW IN BOTH RCBC BARRELS.
2. REMOVE BYPASS PIPES.

PROJECT REFERENCE NO. R-4705	SHEET NO. EC-31B/CONST-31
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ROADSIDE ENVIRONMENTAL UNIT  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.  
2018 STANDARD SPECIFICATIONS  
DRAWINGS NOT DRAWN TO SCALE

LEGEND:

	IMPERVIOUS DIKE
	PUMP
	SPECIAL STILLING BASIN
	STABILIZED DISCHARGE PAD (GEOTEXTILE)
	EDGE OF PAVEMENT
	EXISTING TRANSPORTATION FACILITY (ROW)
	TEMPORARY ROCK SILT CHECK TYPE-A AND/OR WATTLE
	TEMPORARY SILT FENCE



SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA:

1. INSTALL SPECIAL STILLING BASIN.
2. INSTALL UPSTREAM PUMP, TEMPORARY FLEXIBLE HOSE, AND STABILIZED DISCHARGE PAD.
3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION DISCHARGING ONTO STABILIZED OUTLET PAD.
4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER WORK ZONE. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE DAY'S WORK.
5. INSTALL PIPE(S), STREAM BED STABILIZATION, AND SLOPE STABILIZATION AS DIRECTED.
6. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. REMOVE IMPERVIOUS DIKES, PUMPS, TEMPORARY FLEXIBLE HOSE, AND STABILIZED DISCHARGE PAD. (DOWNSTREAM IMPERVIOUS DIKES FIRST).
7. REMOVE SPECIAL STILLING BASIN AND RESTORE AREA TO ORIGINAL CONDITIONS.
8. STABILIZE ALL DISTURBED AREAS THROUGHOUT PROJECT WITH SEED AND MATTING FOR EROSION CONTROL.

NOTES:

INSTALL EROSION CONTROL MEASURES PRIOR TO ANY EARTH DISTURBING ACTIVITIES. INSTALL SPECIAL SEDIMENT CONTROL FENCE BREAKS OR TEMPORARY ROCK SILT CHECKS TYPE-A AT LOW POINTS IN SILT FENCE.

FOR OPTION 1 INSTALL SILT FENCE SUCH THAT ALL EARTH DISTURBANCE IS CONTAINED. FOR CULVERT CONSTRUCTION SEQUENCING SEE THE PUMP AROUND DETAIL OR CONSULT "BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES".

ALL EXCAVATION IN JURISDICTIONAL STREAMS SHALL BE PERFORMED IN ONLY DRY OR ISOLATED SECTIONS OF THE WORK ZONE.

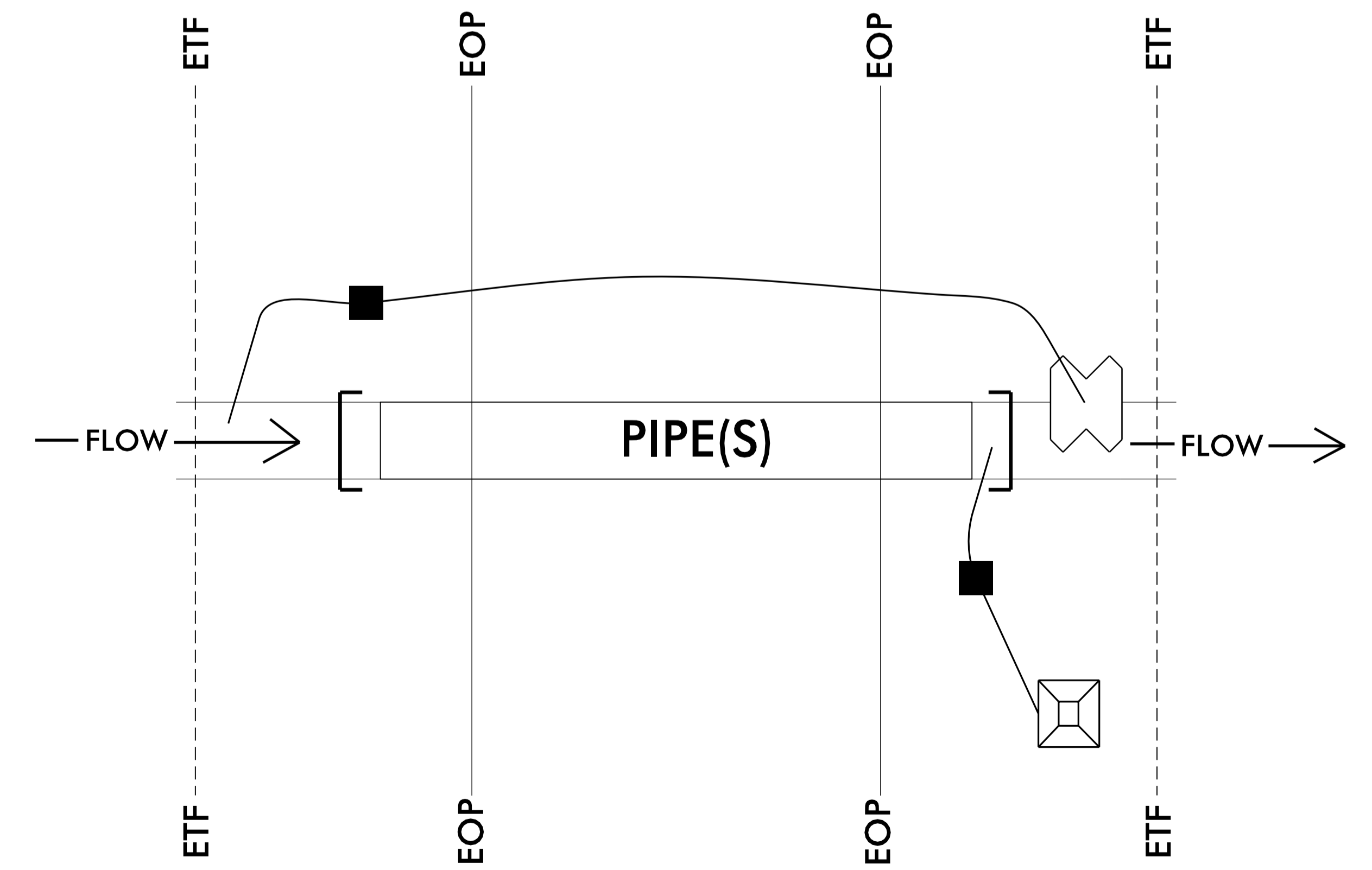
IMPERVIOUS DIKES ARE TO BE USED TO ISOLATE WORK FROM STREAM FLOW WHEN NECESSARY. MAINTENANCE OF STREAM FLOW OPERATIONS SHALL BE INCIDENTAL TO THE WORK. THIS INCLUDES THE DISCHARGE PAD, DIVERSION PIPES, PUMPS, AND HOSES.

PUMPS AND HOSES SHALL BE OF SUFFICIENT SIZE TO MAINTAIN STREAM FLOW AND TO DEWATER THE WORK AREA.

INSTALL SPECIAL STILLING BASIN IN VEGETATED AREA WITHIN RIGHT OF WAY. DISCHARGE SHOULD BE DIRECTED THROUGH VEGETATED BUFFER AWAY FROM WORK SITE.

INSTALL SILT FENCE AS DIRECTED TO CONTAIN DISTURBED AREAS AND/OR EXCAVATED STOCKPILES. BORROW MATERIAL FROM OR DISPOSAL OF MATERIAL TO ANY UNPERMITTED SITE WILL REQUIRE A RECLAMATION PLAN.

INSTALL PIPE(S) IN JURISDICTIONAL AREAS IN ACCORDANCE WITH NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.



PUMP-AROUND OPERATION FOR PIPE REPLACEMENT IN JURISDICTIONAL STREAMS EROSION CONTROL DETAIL



8/17/09

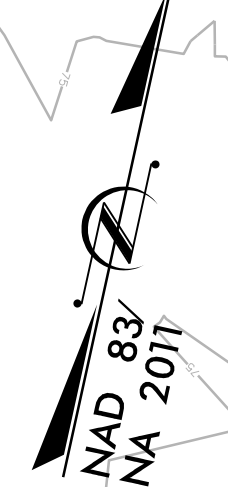
CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 32

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

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
 CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-32/CONST.32</b>
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



REVISIONS

SEE SHEET 31  
MATCHLINE -L- STA. 363 + 00.00

MATCHLINE -L- STA. 376 + 00.00  
SEE SHEET 33

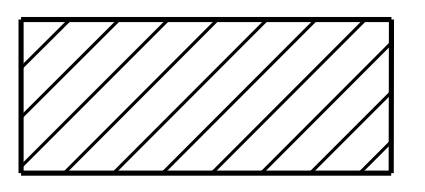


SEE SHEET 57&58 FOR -L- PROFILE  
 SEE SHEET 68 FOR -Y16- PROFILE  
 SEE SHEET 68 FOR -Y17- PROFILE

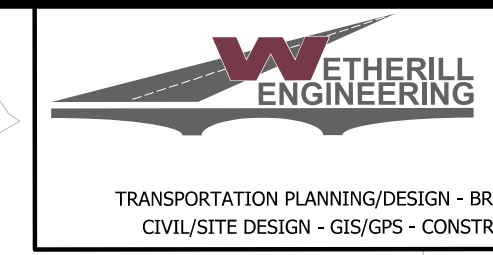
3/14/2009 EC\_EC\_psh\_32.dgn

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 33

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

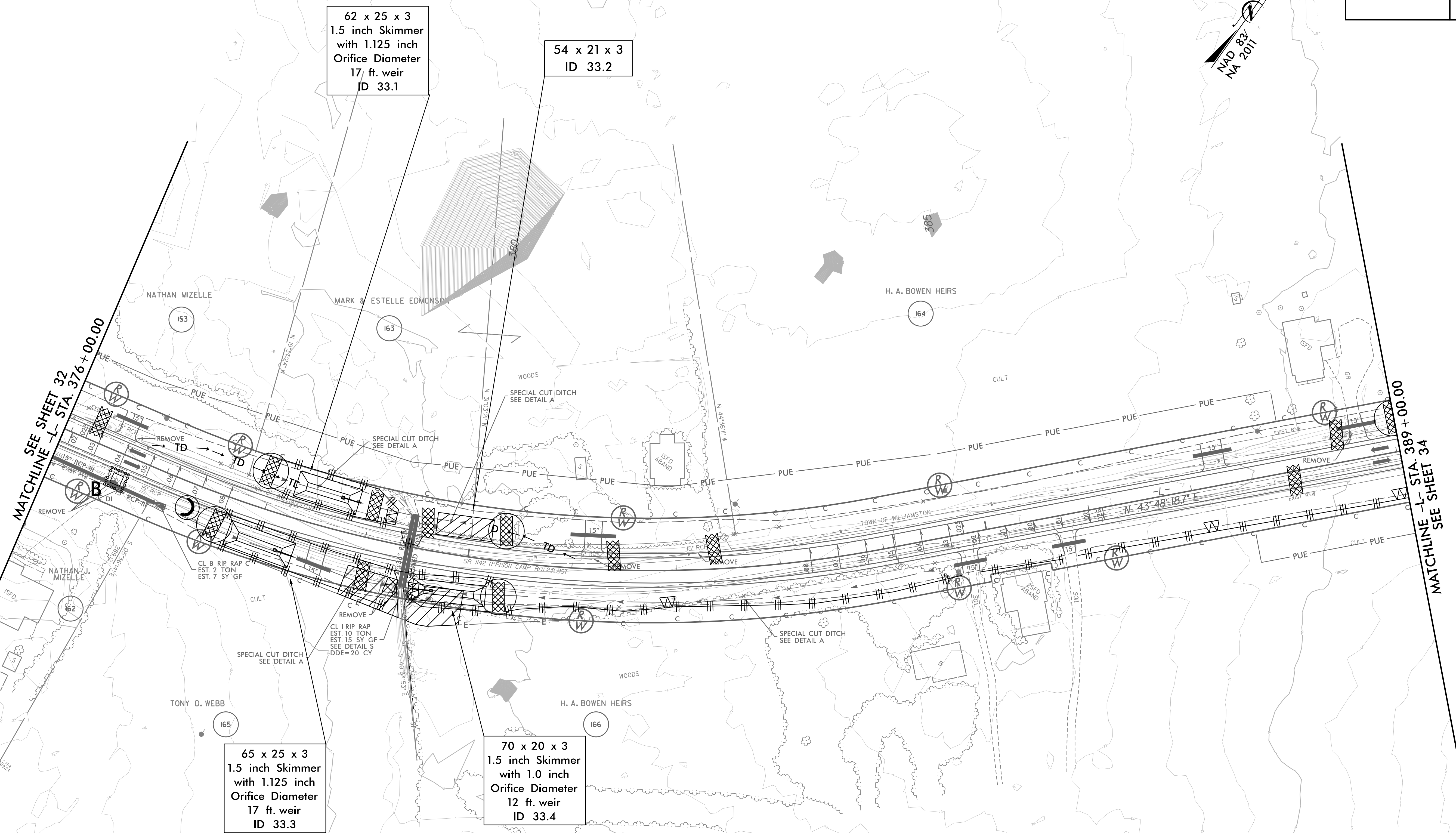
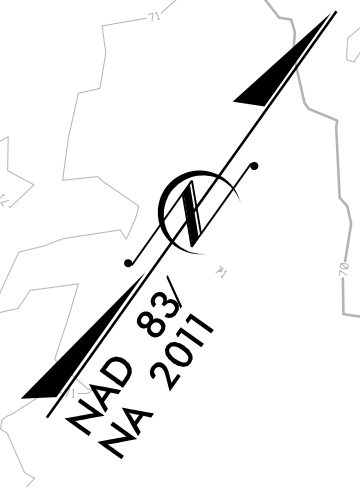


ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS



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PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-33/CONST.33</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



SEE SHEET 58 FOR -L- PROFILE

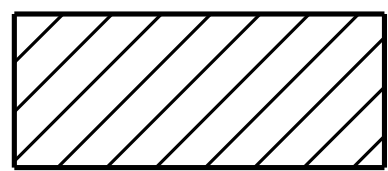
REVISIONS

3/14/2002 EC\_EC\_psh\_33.dgn  
JES:MLV

8/17/99

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 34

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



ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-34/CONST.34</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

62 x 16 x 3  
1.5 inch Skimmer  
with 0.875 inch  
Orifice Diameter  
8 ft. weir  
ID 34.1

117 x 26 x 3  
1.5 inch Skimmer  
with 1.5 inch  
Orifice Diameter  
18 ft. weir  
ID 34.2

49 x 22 x 3  
1.5 inch Skimmer  
with 0.875 inch  
Orifice Diameter  
14 ft. weir  
ID 34.4

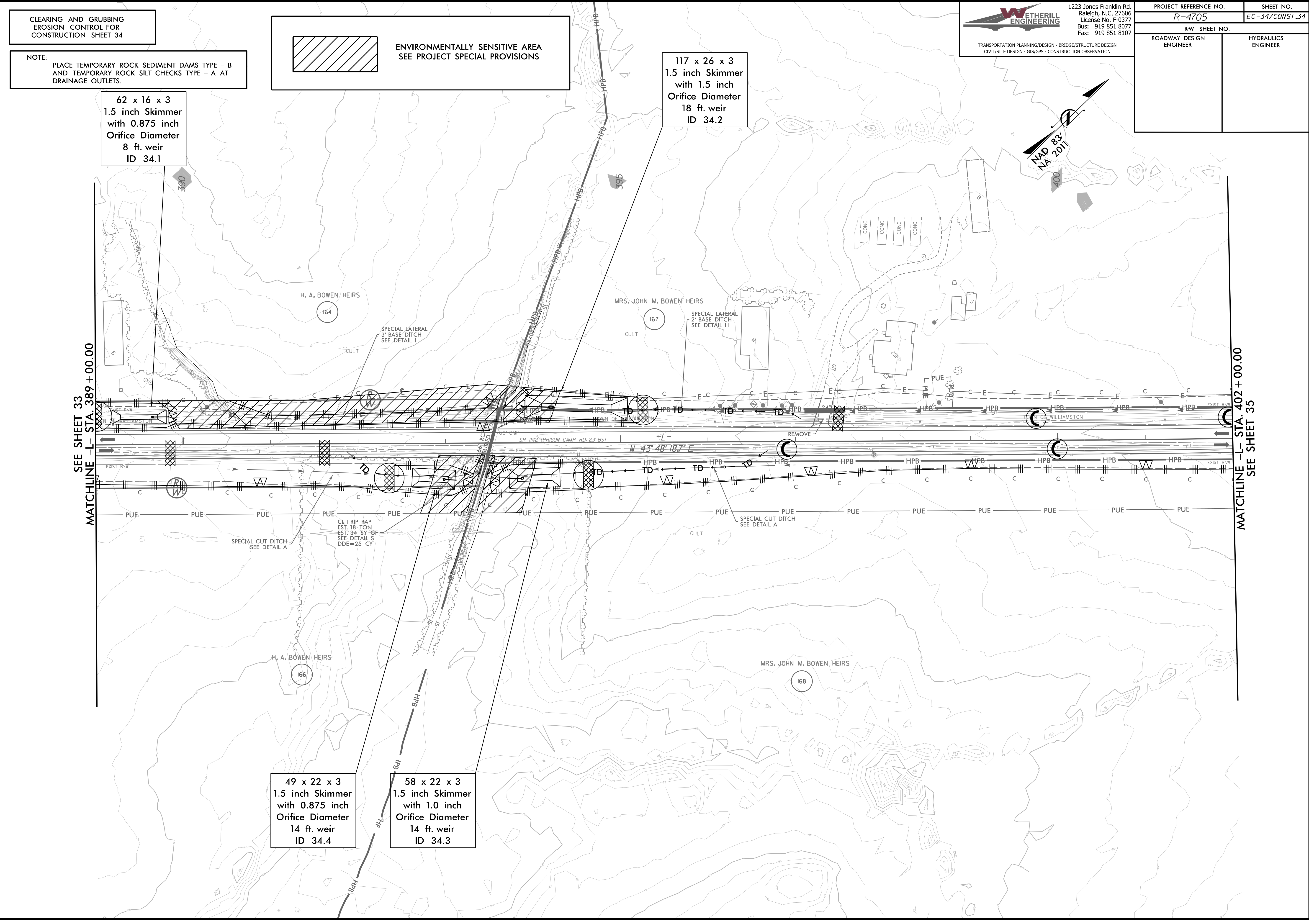
58 x 22 x 3  
1.5 inch Skimmer  
with 1.0 inch  
Orifice Diameter  
14 ft. weir  
ID 34.3

REVISIONS

SEE SHEET 33  
MATCHLINE - STA. 389+00.00

MATCHLINE - STA. 402+00.00  
SEE SHEET 35

3/14/2002 EC\_EC\_psh\_34.dgn  
USER: MBOVEN



CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 35

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

77 x 21 x 3  
ID 35.1

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Fax: 919 851 8107  
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-35/CONST.35</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



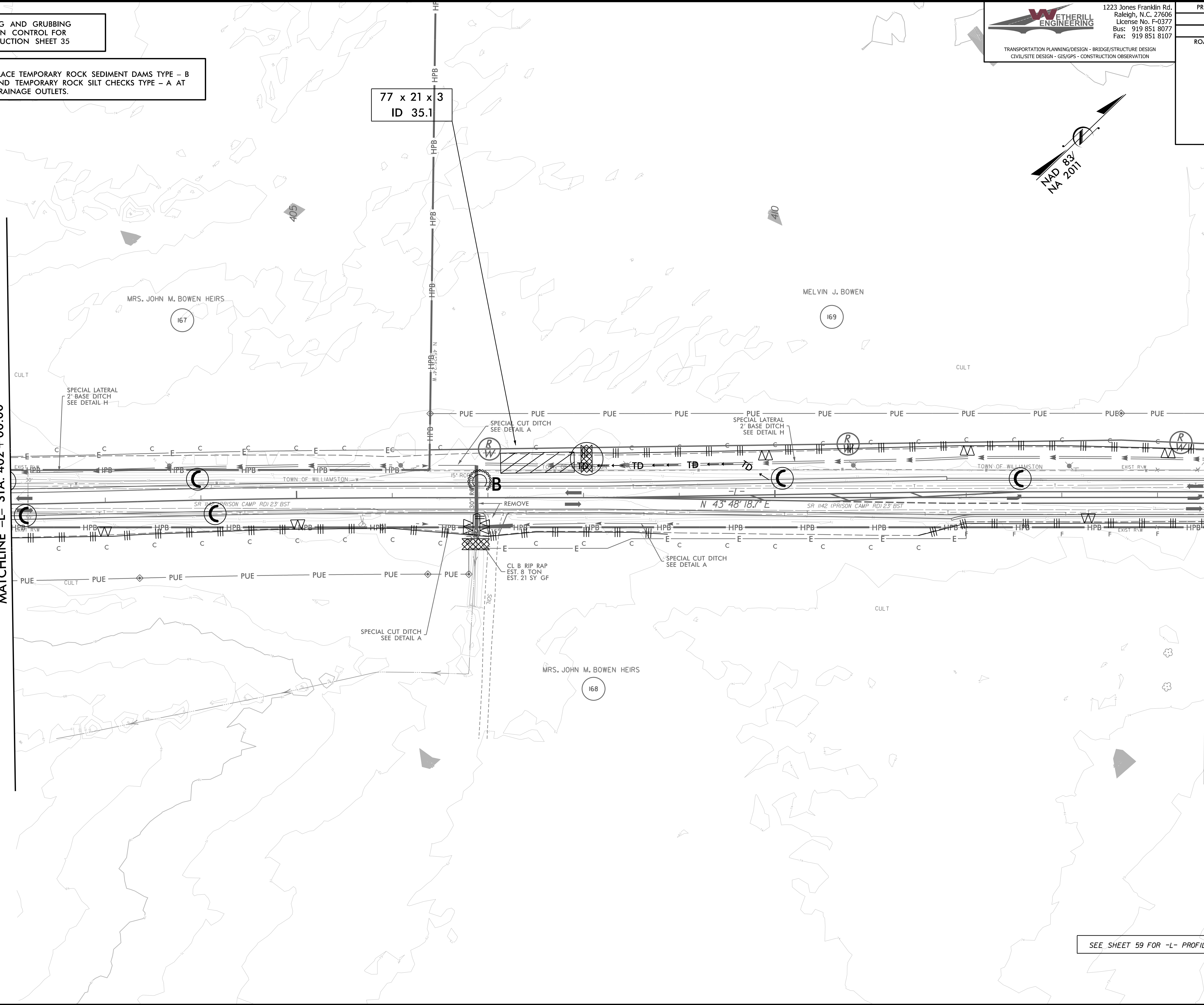
REVISIONS

SEE SHEET 34  
MATCHLINE -L- STA. 402 + 00.00

MATCHLINE -L- STA. 414 + 50.00  
SEE SHEET 36

SEE SHEET 59 FOR -L- PROFILE

3/7/2002 EC\_EC\_psh\_35.dgn  
USER: M. J. BOWEN



CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 36

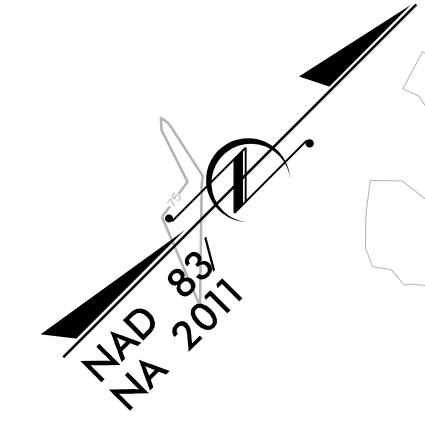
NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
DRAINAGE OUTLETS.



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>RO-4705</b>	SHEET NO. <b>EC-36/CONST.36</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



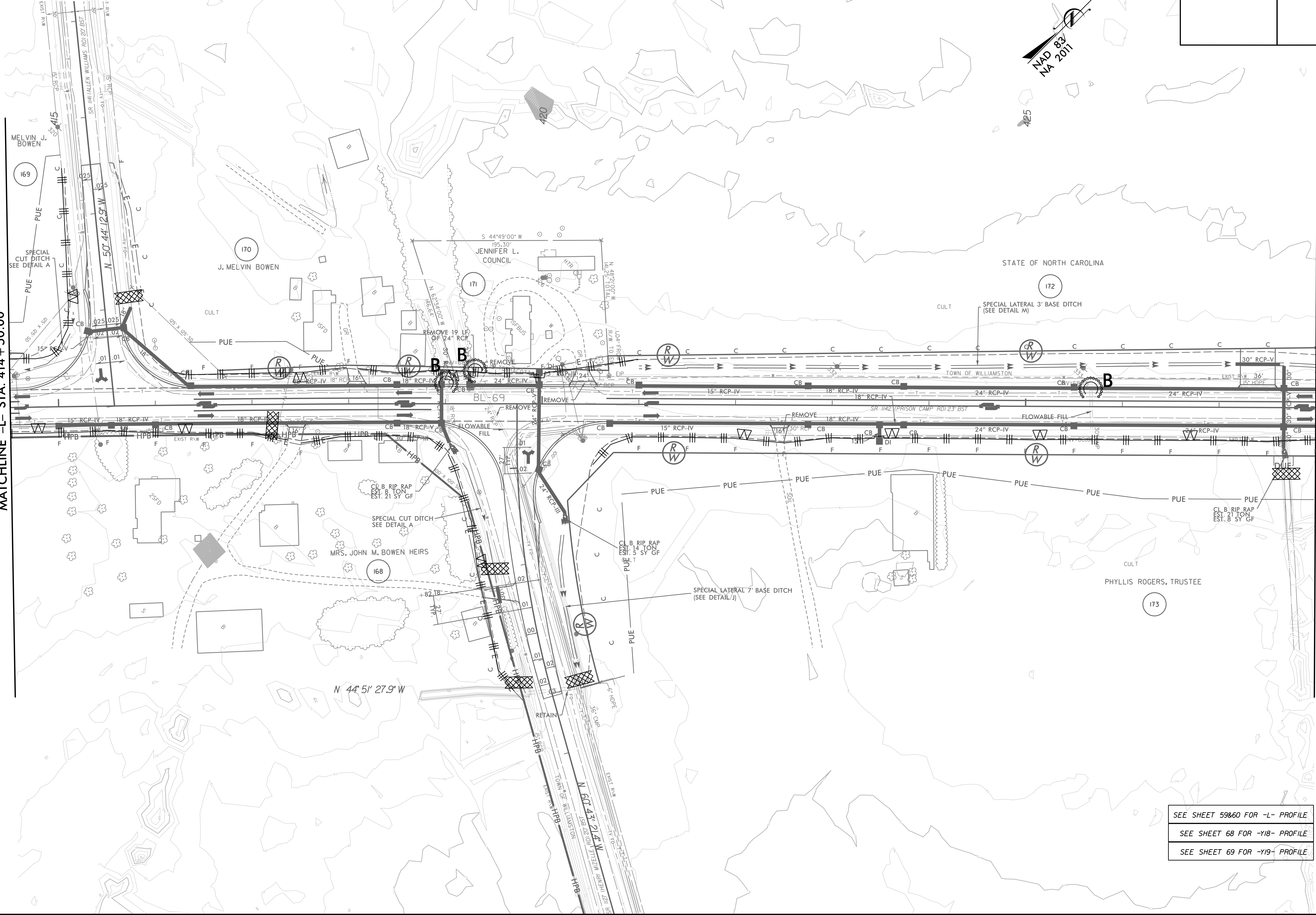
REVISIONS

SEE SHEET 35  
MATCHLINE -L- STA. 414 + 50.00

MATCHLINE -L- STA. 428 + 00.00  
SEE SHEET 37

3/14/2002 EC\_EC\_psh\_36.dgn  
USER:MLB

SEE SHEET 59&60 FOR -L- PROFILE  
SEE SHEET 68 FOR -Y18- PROFILE  
SEE SHEET 69 FOR -Y19- PROFILE



CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 37

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

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Fax: 919 851 8107

TRANSPORTATION ENGINEERING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

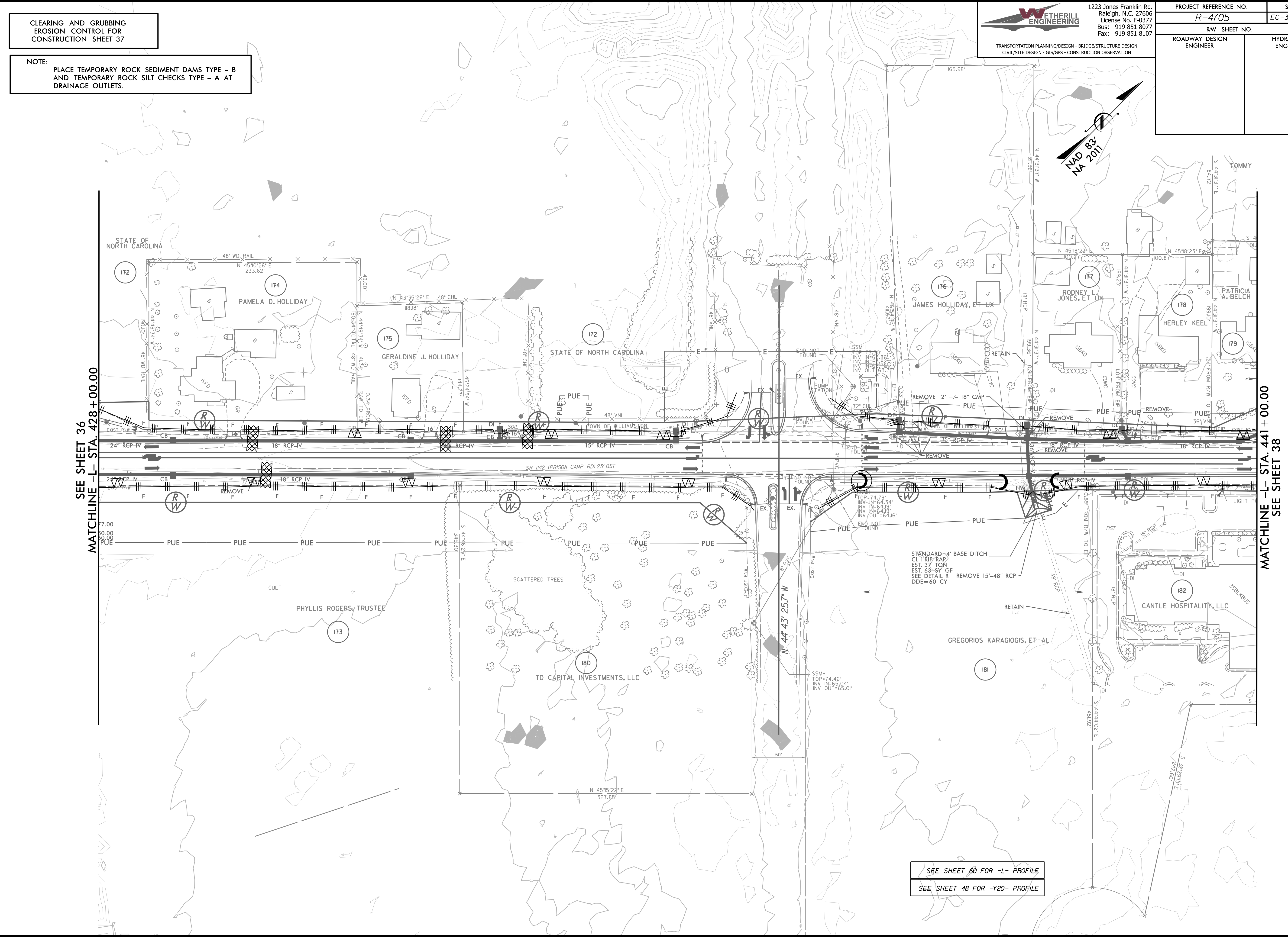
PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-37/CONST.37</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

SEE SHEET 36  
MATCHLINE -L- STA. 428+00.00

MATCHLINE -L- STA. 441+00.00  
SEE SHEET 38



SEE SHEET 60 FOR -L- PROFILE  
SEE SHEET 48 FOR -Y20- PROFILE

**CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 38**

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



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TRANSPORTATION DESIGN/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-38/CONST.38</b>
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



SEE SHEET 37  
MATCHLINE -L- STA. 441+00.00

MATCHLINE -L- STA. 454+00.00  
SEE SHEET 39

SEE SHEET 60&61 FOR -L- PROFILE  
SEE SHEET 69 FOR -Y2- PROFILE

REVISIONS

8/17/09

3/14/2009 EC\_EC\_psh\_38.dgn  
USER:MLV

8/17/99

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 39

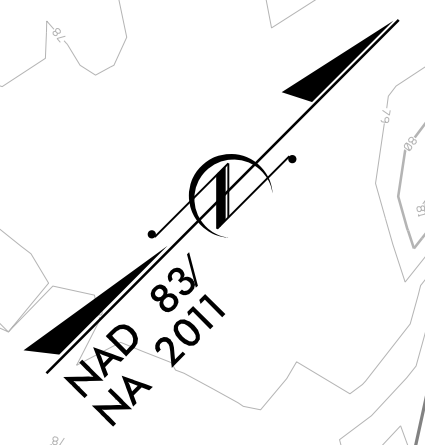
NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
DRAINAGE OUTLETS.



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

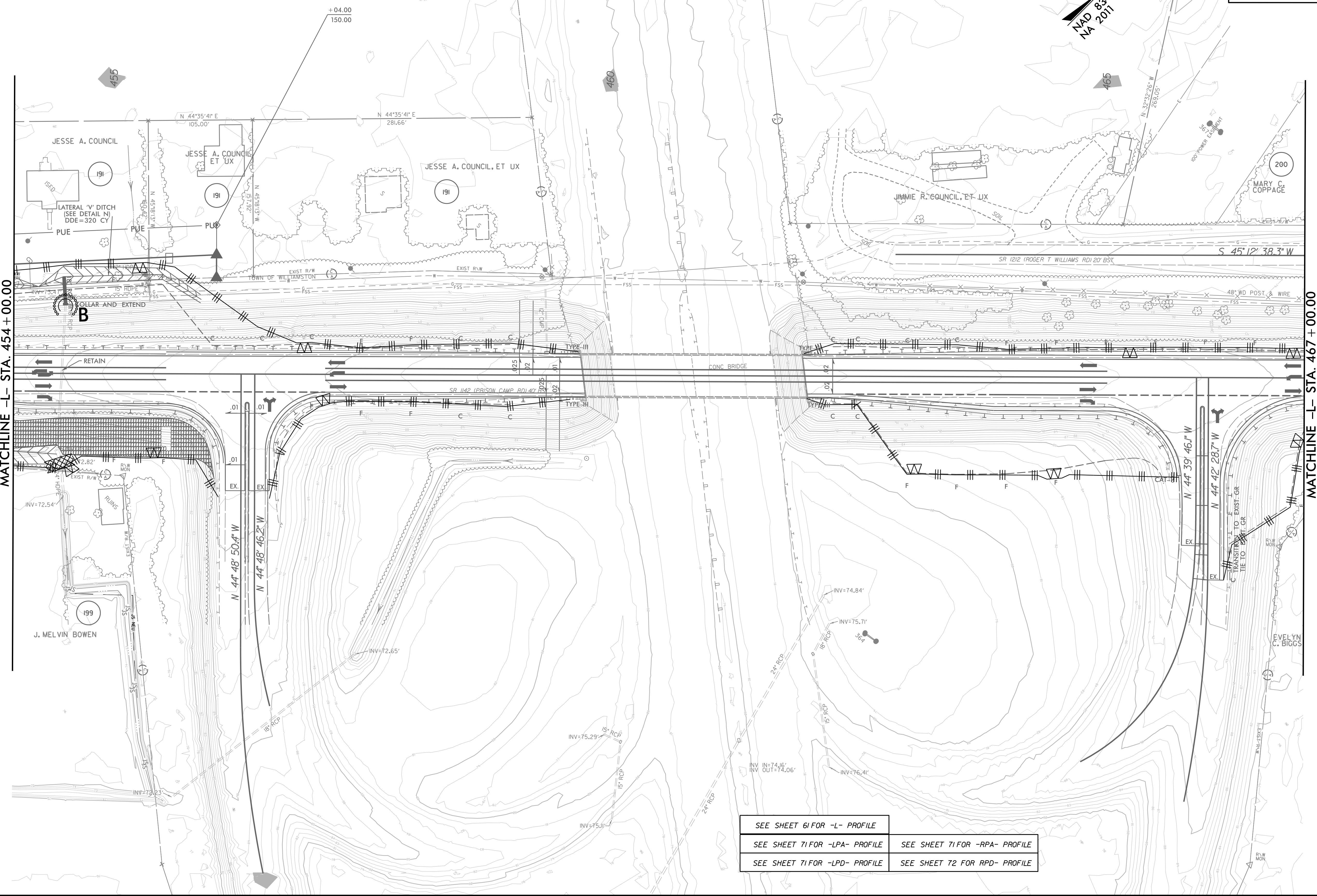
PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-39/CONST.39</b>
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

SEE SHEET 38  
MATCHLINE -L- STA. 454+00.00

MATCHLINE -L- STA. 467+00.00  
SEE SHEET 40



SEE SHEET 61 FOR -L- PROFILE	
SEE SHEET 71 FOR -LPA- PROFILE	SEE SHEET 71 FOR -RPA- PROFILE
SEE SHEET 71 FOR -LPD- PROFILE	SEE SHEET 72 FOR RPD- PROFILE

3/7/2002 EC\_EC\_psh\_39.dgn  
USER:MLC



CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 40

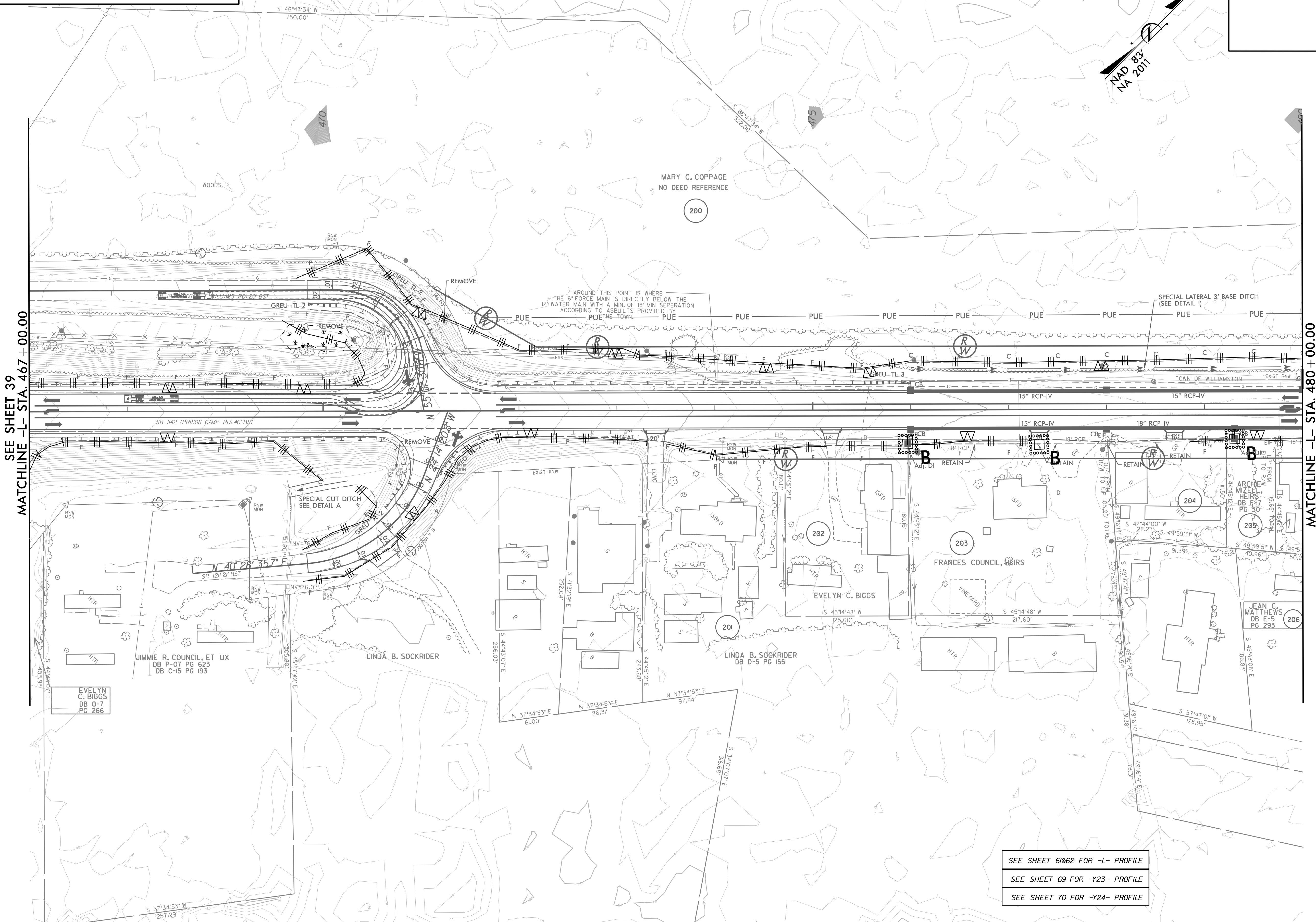
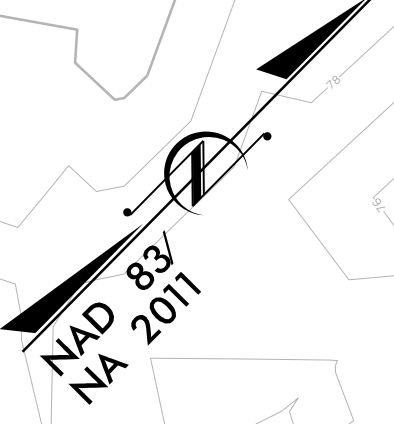
NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
DRAINAGE OUTLETS.



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-40/CONST.40</b>
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



SEE SHEET 39  
MATCHLINE -L- STA. 467 +00.00

MATCHLINE -L- STA. 480 +00.00  
SEE SHEET 41

SEE SHEET 61&62 FOR -L- PROFILE  
SEE SHEET 69 FOR -Y23- PROFILE  
SEE SHEET 70 FOR -Y24- PROFILE

REVISIONS

B/17/99

3/7/2002 EC\_EC\_psh\_40.dgn  
USER:MLC

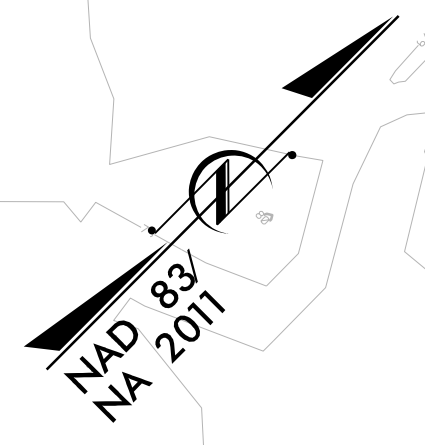
CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 41

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

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

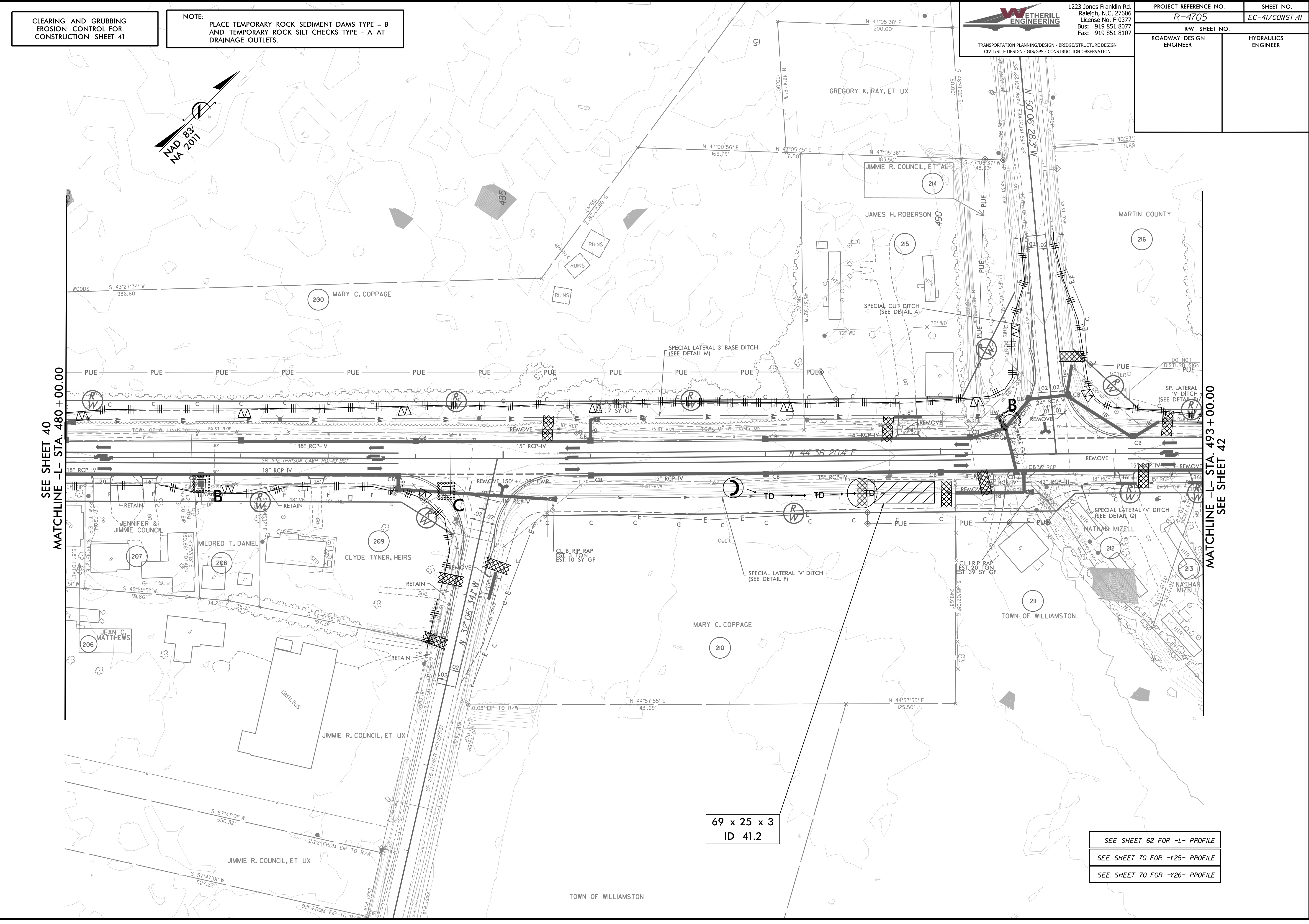
PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-41/CONST.41</b>
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



SEE SHEET 40  
MATCHLINE -L- STA. 480 + 00.00

MATCHLINE -L- STA. 493 + 00.00  
SEE SHEET 42

REVISIONS



69 x 25 x 3  
ID 41.2

SEE SHEET 62 FOR -L- PROFILE  
SEE SHEET 70 FOR -Y25- PROFILE  
SEE SHEET 70 FOR -Y26- PROFILE

3/7/2022 EC-CC-psh-41.dgn  
USER:MLC

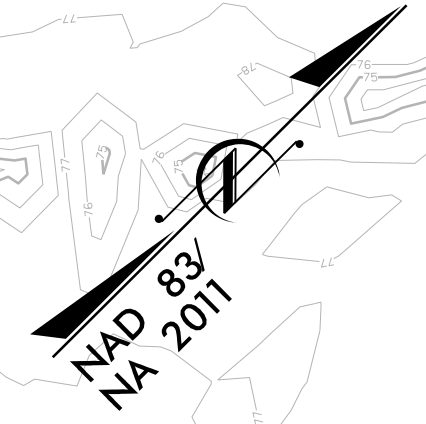
CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 42

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

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-42/CONST.42</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



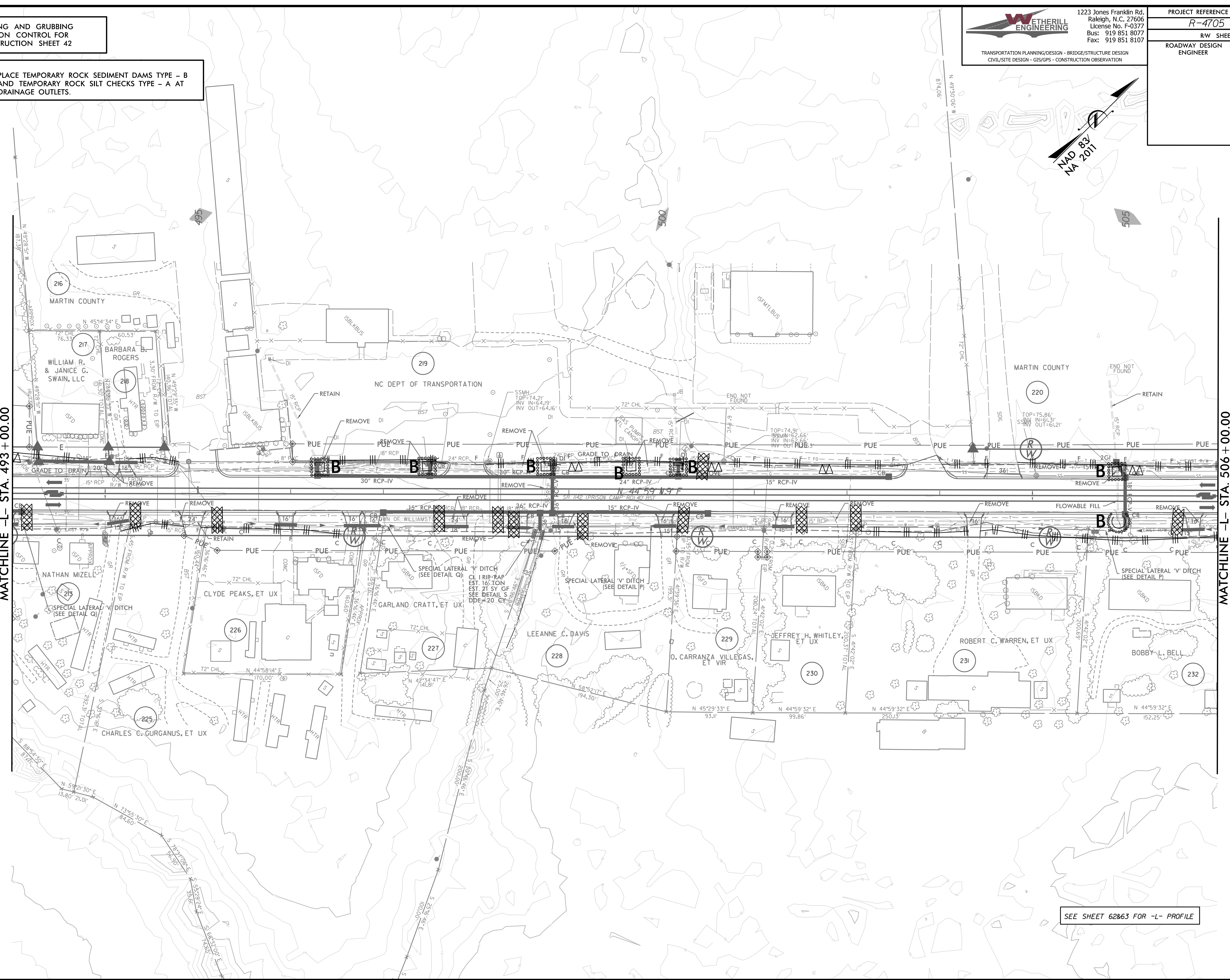
REVISIONS

SEE SHEET 41  
MATCHLINE -L- STA. 493 + 00.00

MATCHLINE -L- STA. 506 + 00.00  
SEE SHEET 43

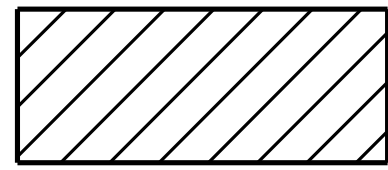
3/14/2022 EC\_EC\_psh\_42.dgn  
USER:mlve

SEE SHEET 62&63 FOR -L- PROFILE

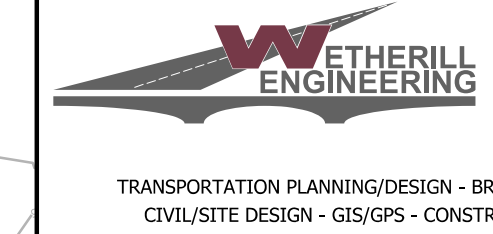


CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 43

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



ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-43/CONST.43</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

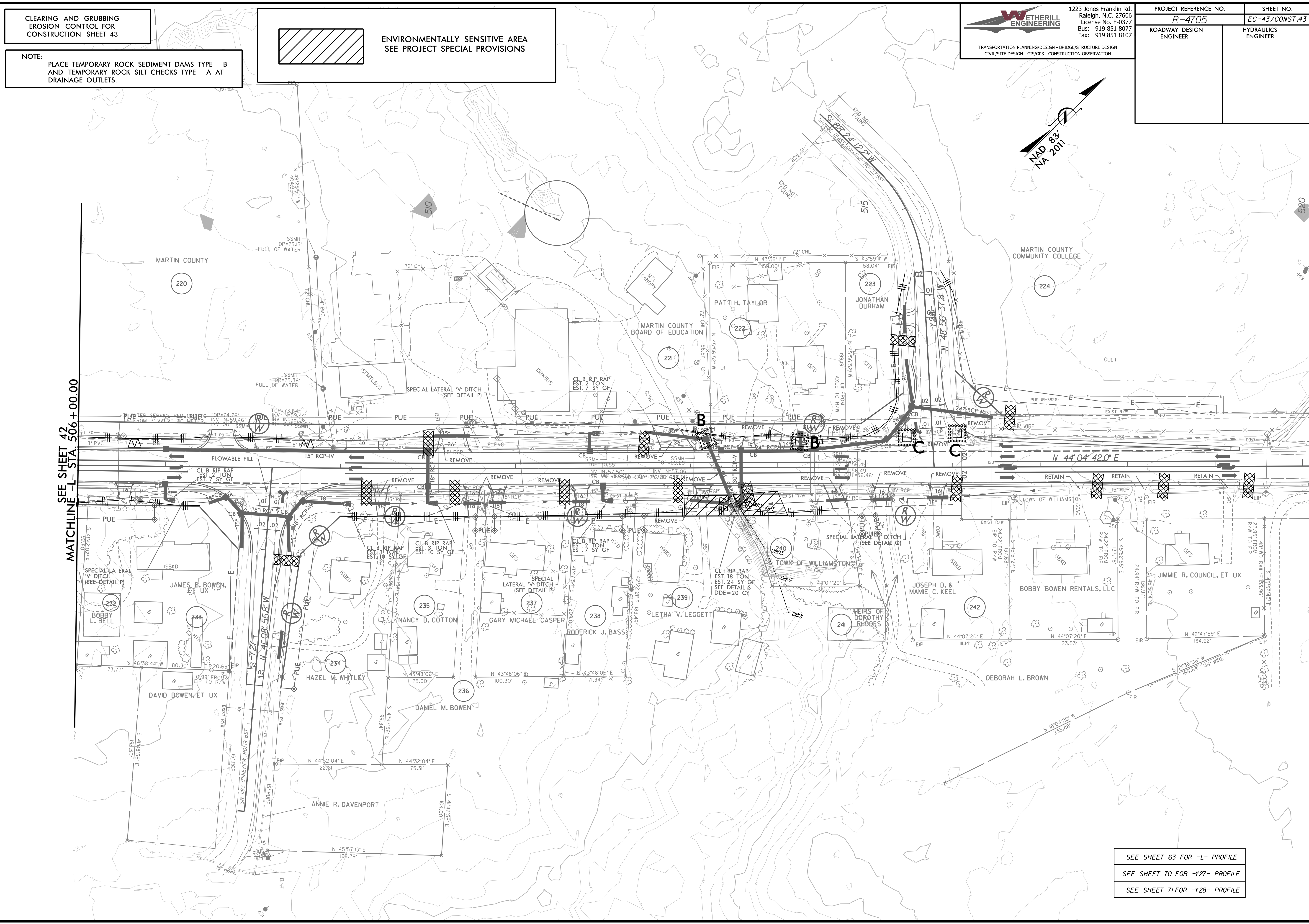


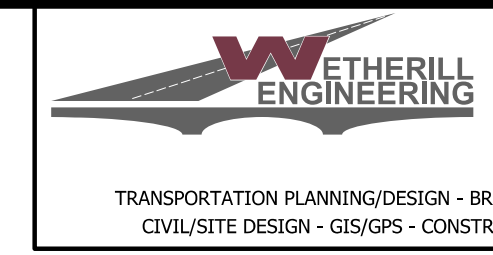
REVISIONS

SEE SHEET 42  
MATCHLINE -L- STA. 506+00.00

SEE SHEET 63 FOR -L- PROFILE  
SEE SHEET 70 FOR -Y27- PROFILE  
SEE SHEET 71 FOR -Y28- PROFILE

3/16/2022 EC-CC-psh-43.dgn

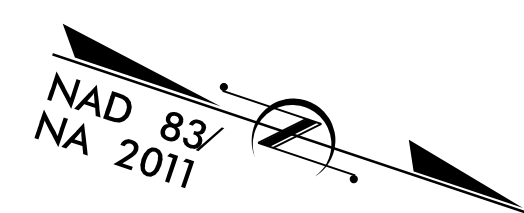




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PROJECT REFERENCE NO.	SHEET NO.
R-4705	EC-44/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION



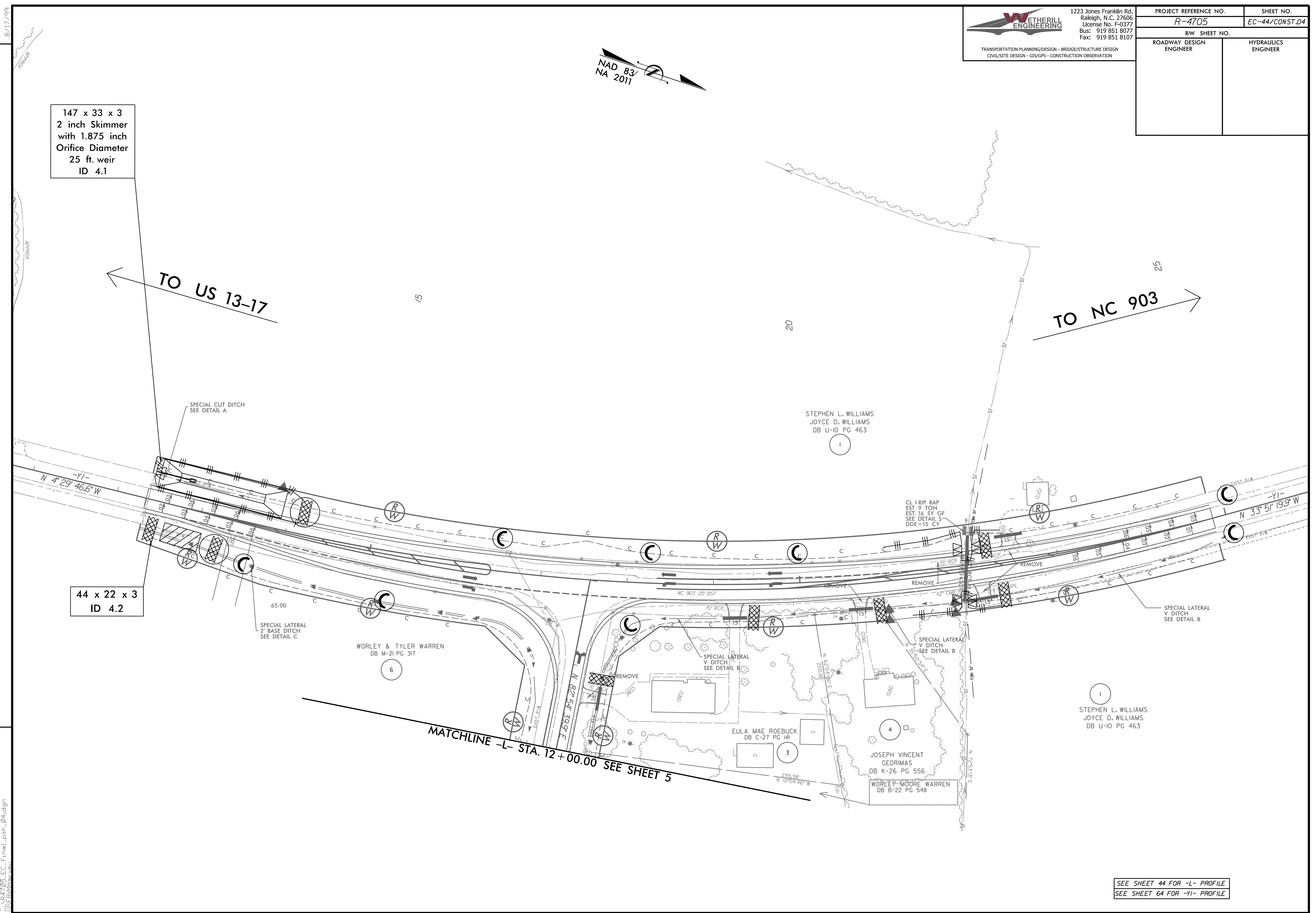
147 x 33 x 3  
2 inch Skimmer  
with 1.875 inch  
Orifice Diameter  
25 ft. weir  
ID 4.1

44 x 22 x 3  
ID 4.2

TO US 13-17

TO NC 903

REVISIONS



3/14/2002 EC\_fm01\_psh\_04.dgn  
USER:MLC

SEE SHEET 44 FOR -L- PROFILE  
SEE SHEET 64 FOR -YI- PROFILE

8/17/99



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PROJECT REFERENCE NO.	SHEET NO.
R-4705	EC-45/CONST.05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION



55 x 20 x 3  
ID 5.1

39 x 19 x 3  
ID 5.2

60 x 30 x 3  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
22 ft. weir  
ID 5.5

150 x 32 x 3  
2 inch Skimmer  
with 1.875 inch  
Orifice Diameter  
24 ft. weir  
ID 5.3

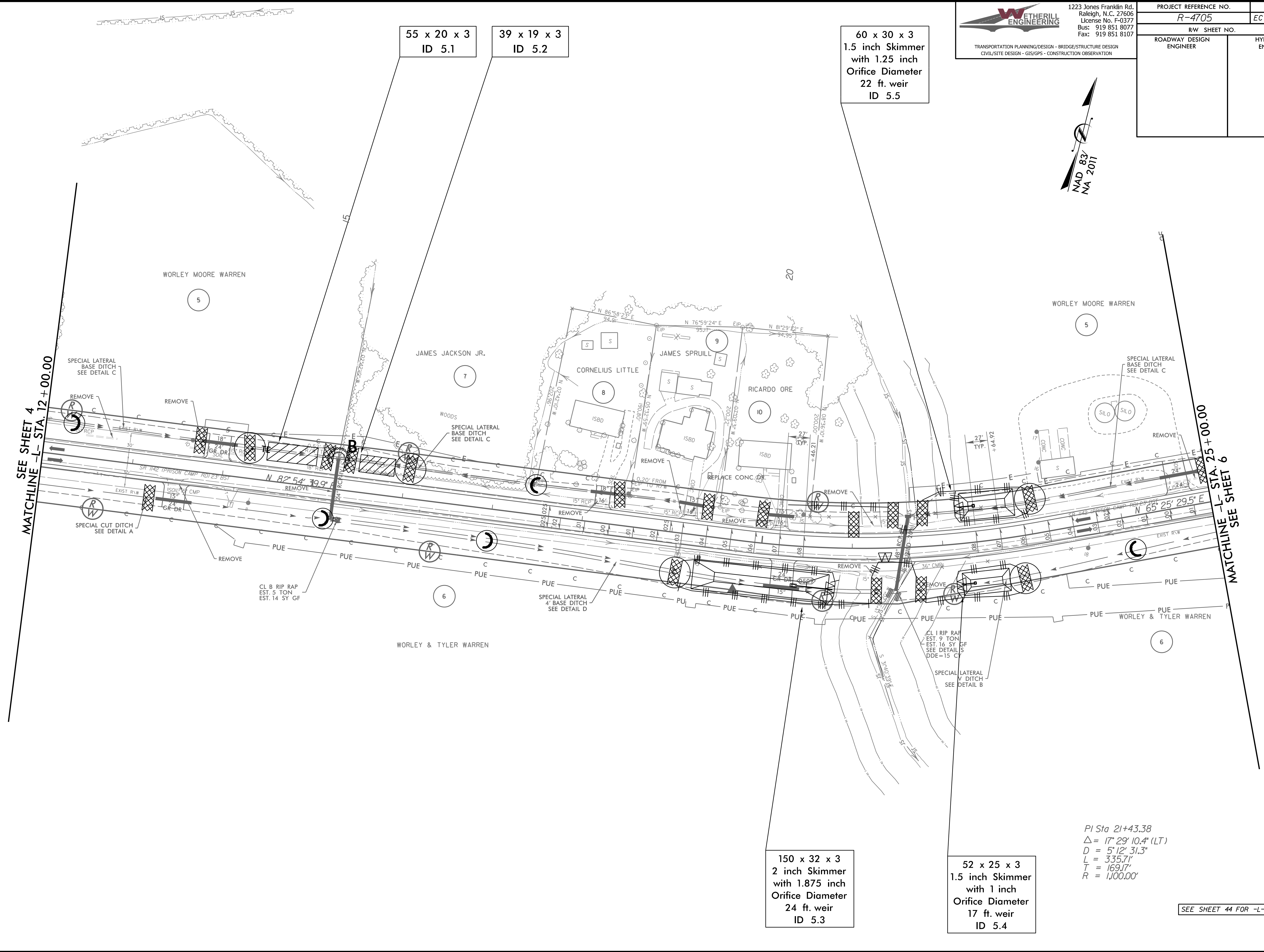
52 x 25 x 3  
1.5 inch Skimmer  
with 1 inch  
Orifice Diameter  
17 ft. weir  
ID 5.4

PI Sta 21+43.38  
 $\Delta = 17' 29' 10.4''$  (LT)  
 $D = 5' 12' 31.3''$   
 $L = 335.71'$   
 $T = 169.17'$   
 $R = 1,100.00'$

SEE SHEET 44 FOR -L- PROFILE

REVISIONS

3/14/2002 EC\_fm01\_psh\_05.dgn  
USER:MLW



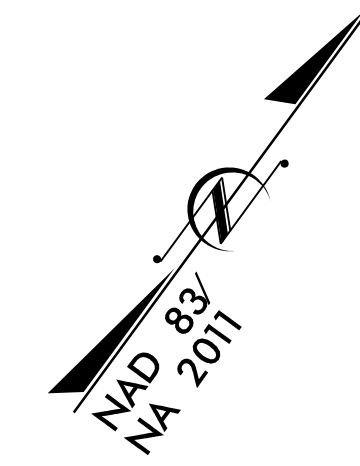
8/17/99

59 x 22 x 3  
ID 6.1

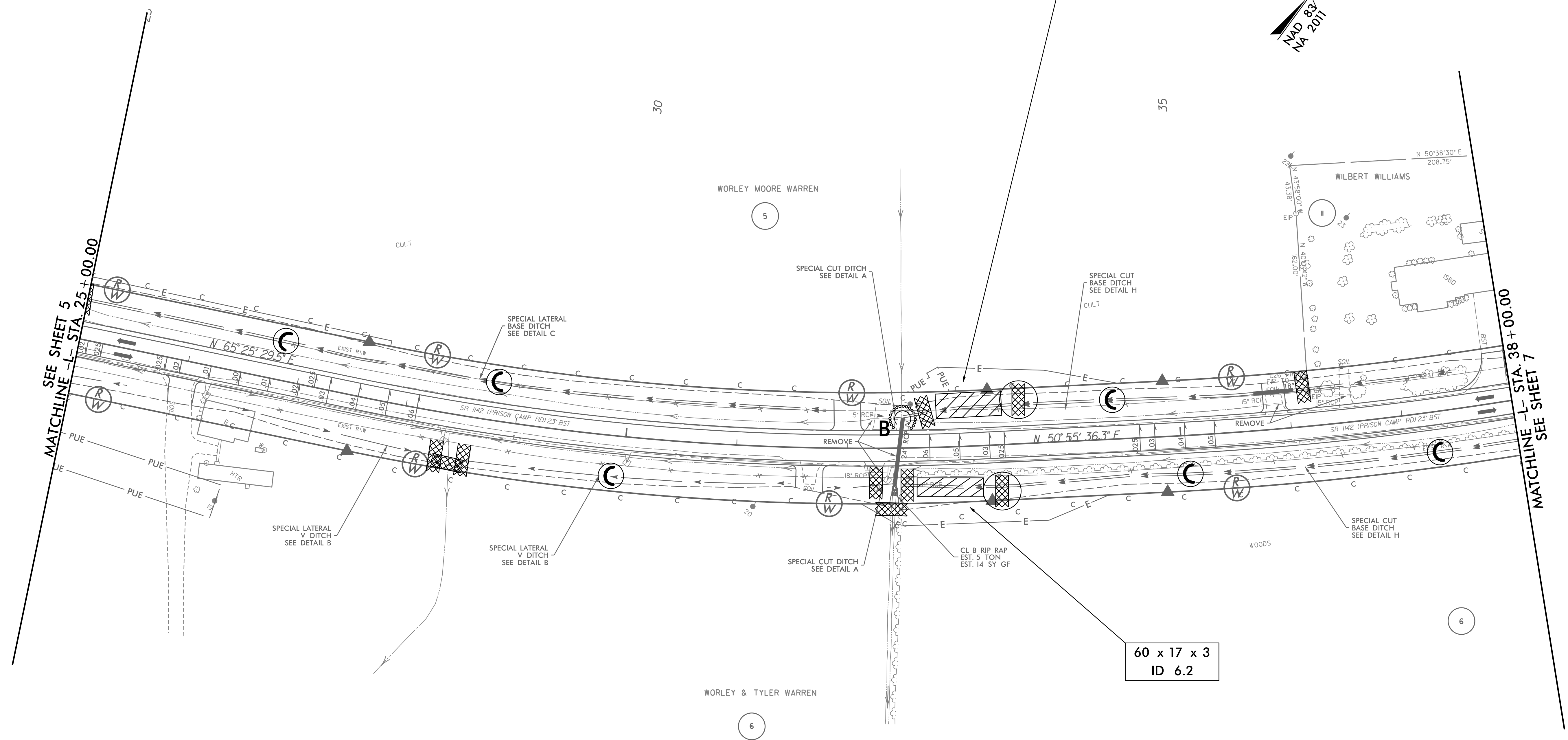


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PROJECT REFERENCE NO. <i>R-4705</i>	SHEET NO. <i>EC-46/CONST.06</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS



60 x 17 x 3  
ID 6.2

SEE SHEET 44&45 FOR -L- PROFILE

3/14/2002 EC\_fm01\_psh\_06.dgn  
USER: M...VER

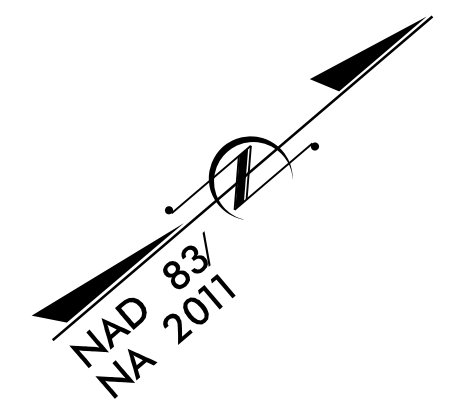
8/17/99



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Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-47/CONST.07</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

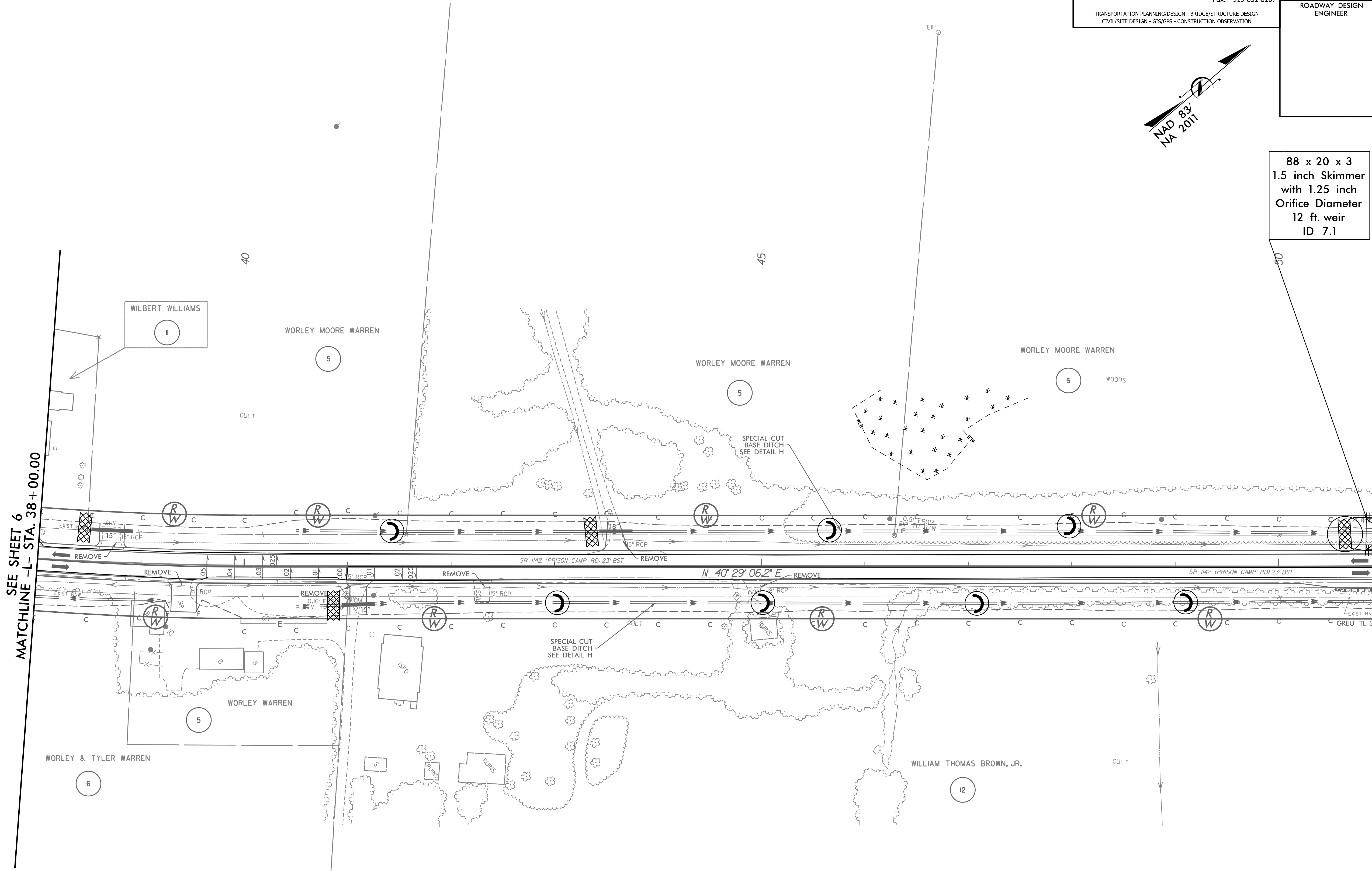


88 x 20 x 3  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
12 ft. weir  
ID 7.1

REVISIONS

SEE SHEET 6  
MATCHLINE -L- STA. 38+00.00

MATCHLINE -L- STA. 51+00.00  
SEE SHEET 8



SEE SHEET 45 FOR -L- PROFILE

3/14/2002 EC\_fm01\_psh\_07.dgn  
USER: M...VER



PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-48/CONST.08</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



88 x 20 x 3  
 1.5 inch Skimmer  
 with 1.25 inch  
 Orifice Diameter  
 12 ft. weir  
 ID 7.1

48 x 16 x 3  
 1.5 inch Skimmer  
 with 0.75 inch  
 Orifice Diameter  
 8 ft. weir  
 ID 8.2

70 x 20 x 3  
 1.5 inch Skimmer  
 with 1.00 inch  
 Orifice Diameter  
 12 ft. weir  
 ID 8.1

49 x 20 x 3  
 ID 8.3

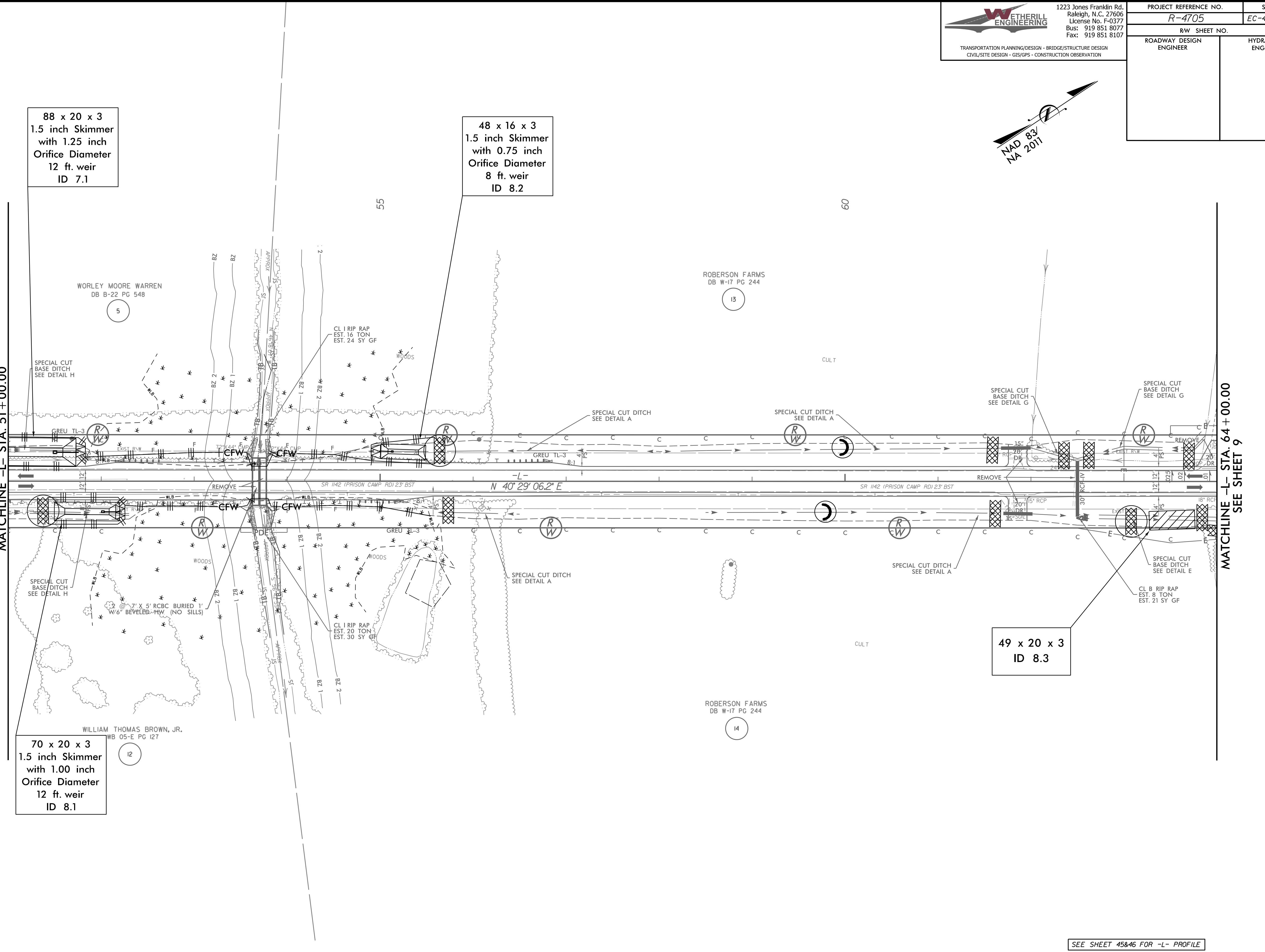
SEE SHEET 7  
 MATCHLINE -L- STA. 51+00.00

MATCHLINE -L- STA. 64+00.00  
 SEE SHEET 9

REVISIONS

3/14/2002 EC\_fm01\_psh\_08.dgn  
 USER: MHOOPER

SEE SHEET 45&46 FOR -L- PROFILE



8/17/09

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

1.5 inch Skimmer with 0.625 inch Orifice Diameter  
8 ft. weir with 2 ft. weir height  
ID 9.2  
(See Earthen Dam with Skimmer Detail)

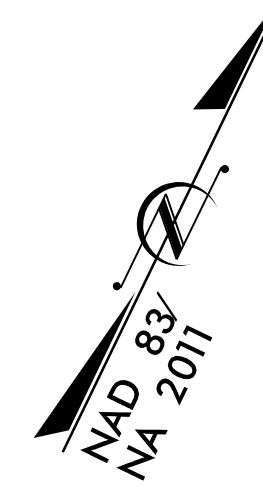
60 x 17 x 3  
1.5 inch Skimmer with 0.875 inch Orifice Diameter  
9 ft. weir  
ID 9.1



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-4705	EC-49/CONST.09
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

MATCHLINE - L- STA. 94 + 00.00  
SEE SHEET 8

MATCHLINE - L- STA. 77 + 00.00  
SEE SHEET 10

3/14/2009 EC\_fm01\_psh\_09.dgn  
USER: M...VER

SEE SHEET 46 FOR -L- PROFILE

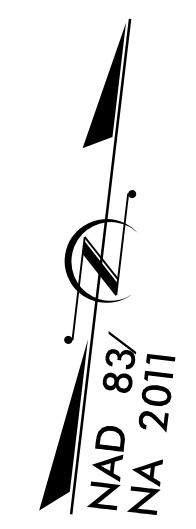
8/17/99



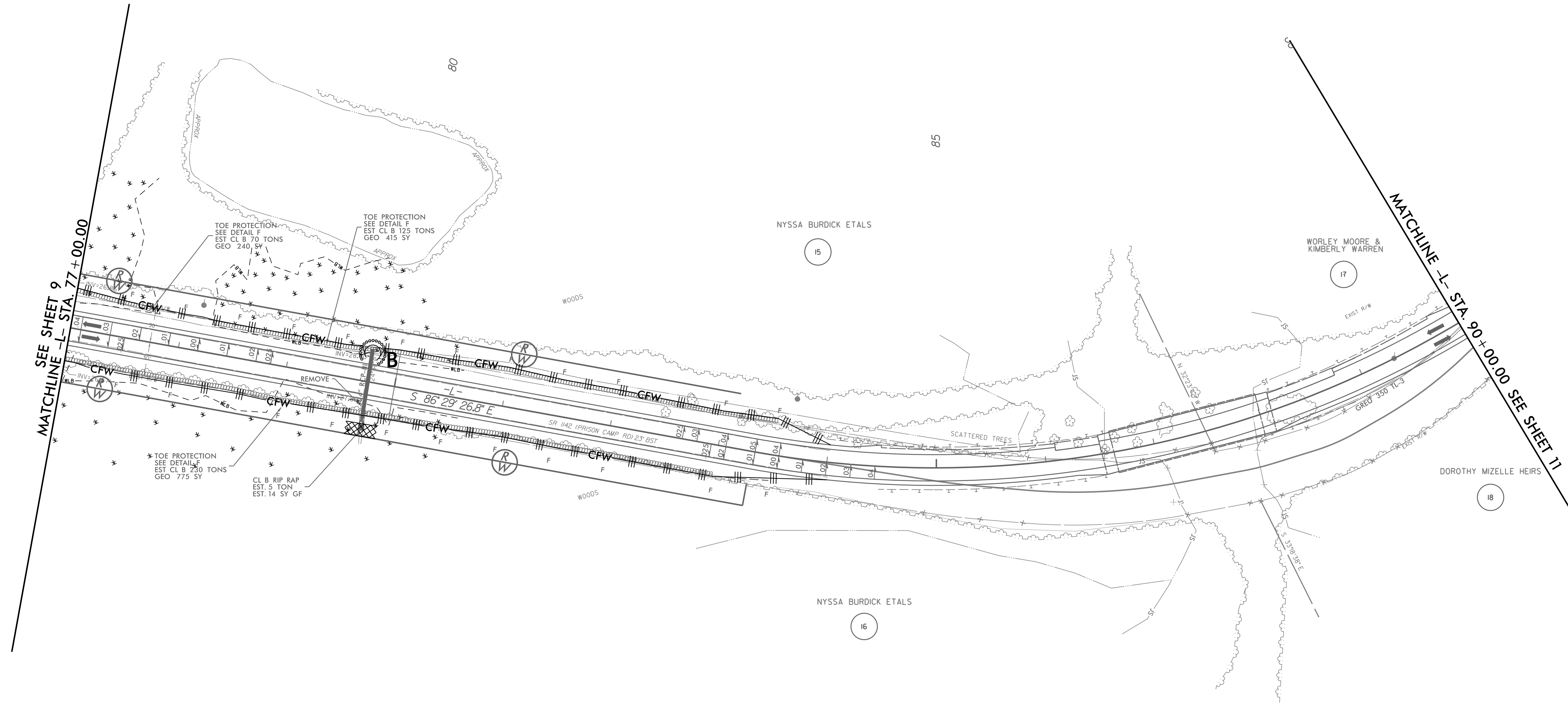
1223 Jones Franklin Rd.  
Raleigh, N.C. 27606  
License No. F-0377  
Bus: 919 851 8077  
Fax: 919 851 8107

PROJECT REFERENCE NO. <i>R-4705</i>	SHEET NO. <i>EC-50/CONST.10</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION



REVISIONS



SEE SHEET 9  
MATCHLINE -L- STA. 77+00.00

MATCHLINE -L- STA. 90+00.00 SEE SHEET 11

PI Sta 88+17.79  
 $\Delta = 55^{\circ}13'06.4"$  (LT)  
 $D = 6^{\circ}09'39.0"$   
 $L = 896.28'$   
 $T = 486.38'$   
 $R = 930.00'$

SEE SHEET 46&47 FOR -L- PROFILE

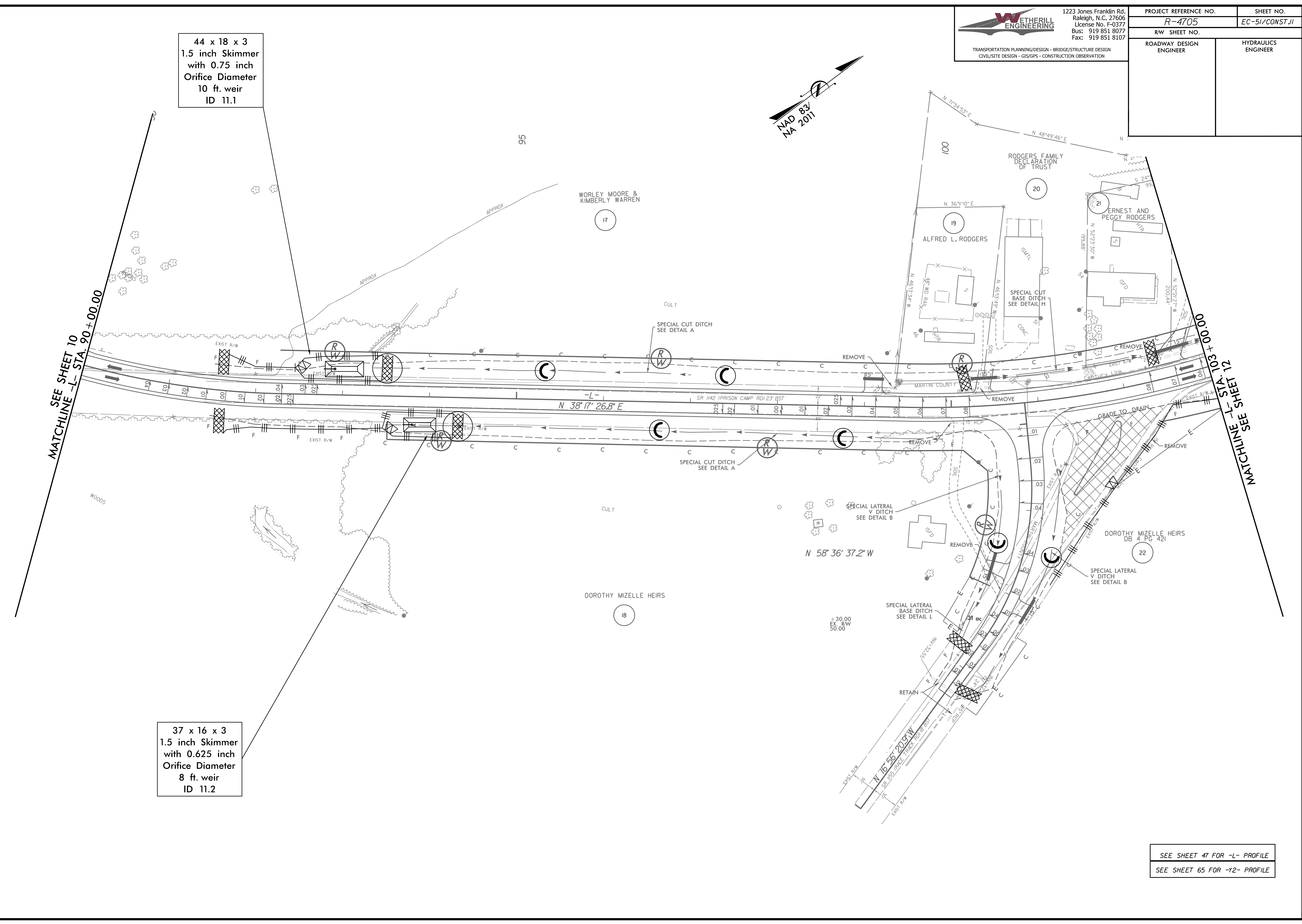
3/14/2002 EC\_fm01\_psh\_10.dgn  
USER:MMOYER

PROJECT REFERENCE NO.	SHEET NO.
R-4705	EC-51/CONST.II
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



44 x 18 x 3  
 1.5 inch Skimmer  
 with 0.75 inch  
 Orifice Diameter  
 10 ft. weir  
 ID 11.1

37 x 16 x 3  
 1.5 inch Skimmer  
 with 0.625 inch  
 Orifice Diameter  
 8 ft. weir  
 ID 11.2



SEE SHEET 10  
 MATCHLINE -L- STA. 90+00.00

STA. 103+00.00  
 MATCHLINE -L- SEE SHEET 12

REVISIONS

8/17/99

3/7/2022  
 ttt:R4705\_EC\_final\_psh\_11.dgn  
 USER:RWHarvey

SEE SHEET 47 FOR -L- PROFILE  
 SEE SHEET 65 FOR -Y2- PROFILE

8/17/99

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 Bus: 919 851 8077  
 Fax: 919 851 8107

TRANSPORTATION DESIGN/DESIGN - BRIDGE/STRUCTURE DESIGN  
 CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-52/CONST.12</b>
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**47 x 23 x 3**  
**1.5 inch Skimmer**  
**with .875 inch**  
**Orifice Diameter**  
**15 ft. weir**  
**ID 12.3**

**60 x 23 x 3**  
**ID 12.1**

**44 x 21 x 3**  
**1.5 inch Skimmer**  
**with 0.75 inch**  
**Orifice Diameter**  
**13 ft. weir**  
**ID 12.4**

**50 x 24 x 3**  
**ID 12.2**

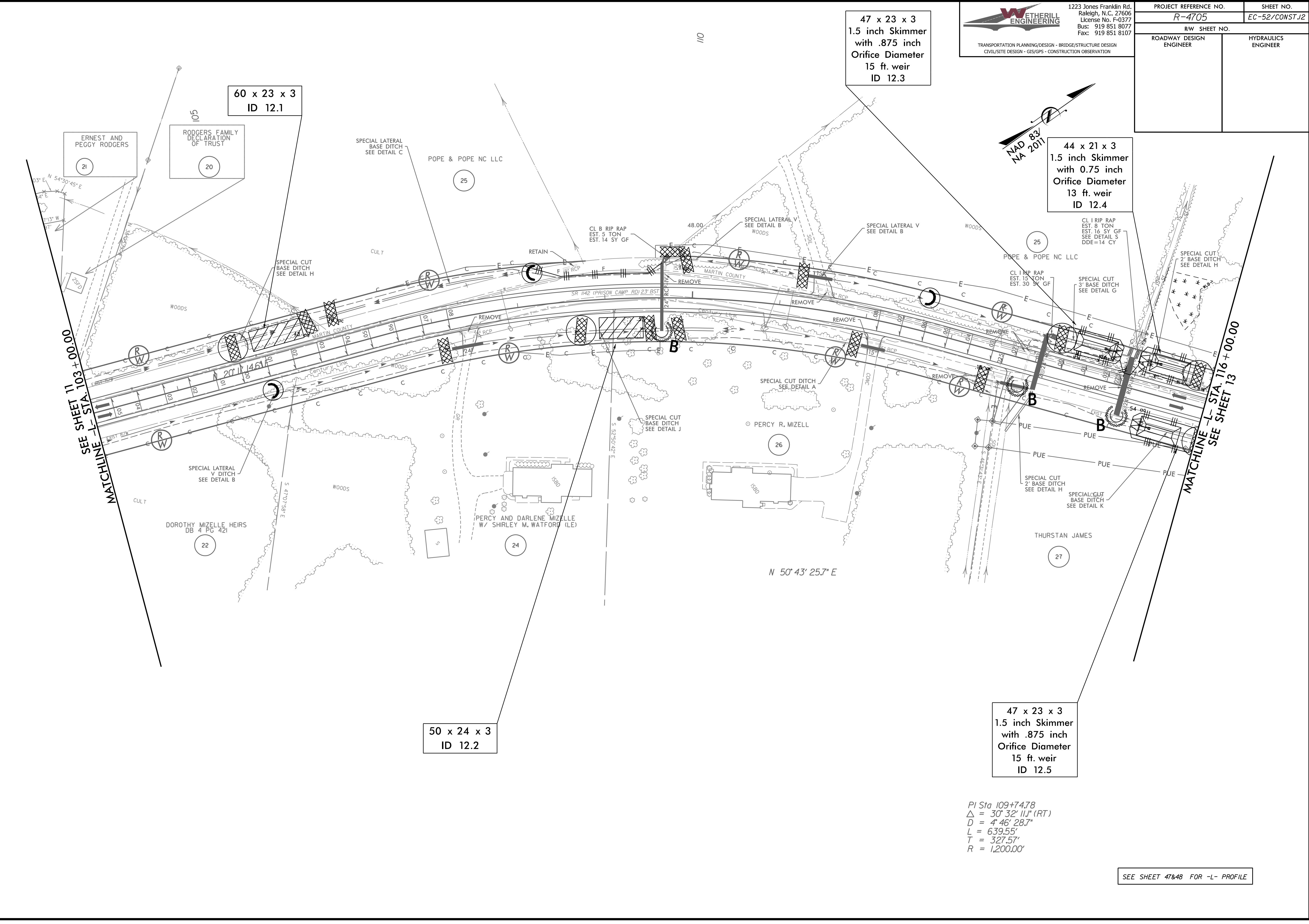
**47 x 23 x 3**  
**1.5 inch Skimmer**  
**with .875 inch**  
**Orifice Diameter**  
**15 ft. weir**  
**ID 12.5**

PI Sta 109+74.78  
 $\Delta = 30^{\circ} 32' 11.1''$  (RT)  
 $D = 4^{\circ} 46' 28.7''$   
 $L = 639.55'$   
 $T = 327.57'$   
 $R = 1,200.00'$

SEE SHEET 47&48 FOR -L- PROFILE

REVISIONS

3/14/2002 EC\_fm01\_psh\_12.dgn  
 USER: M...VER



SEE SHEET 11  
 MATCHLINE -L- STA. 103+00.00

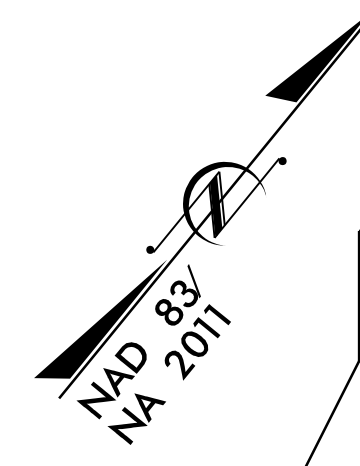
MATCHLINE -L- STA. 116+00.00  
 SEE SHEET 13



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-53/CONST.13</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



44 x 22 x 3  
ID 13.1

72 x 23 x 3  
1.5 inch Skimmer  
with 1.125 inch  
Orifice Diameter  
15 ft. weir  
ID 13.2

SEE SHEET 48 FOR -L- PROFILE

REVISIONS

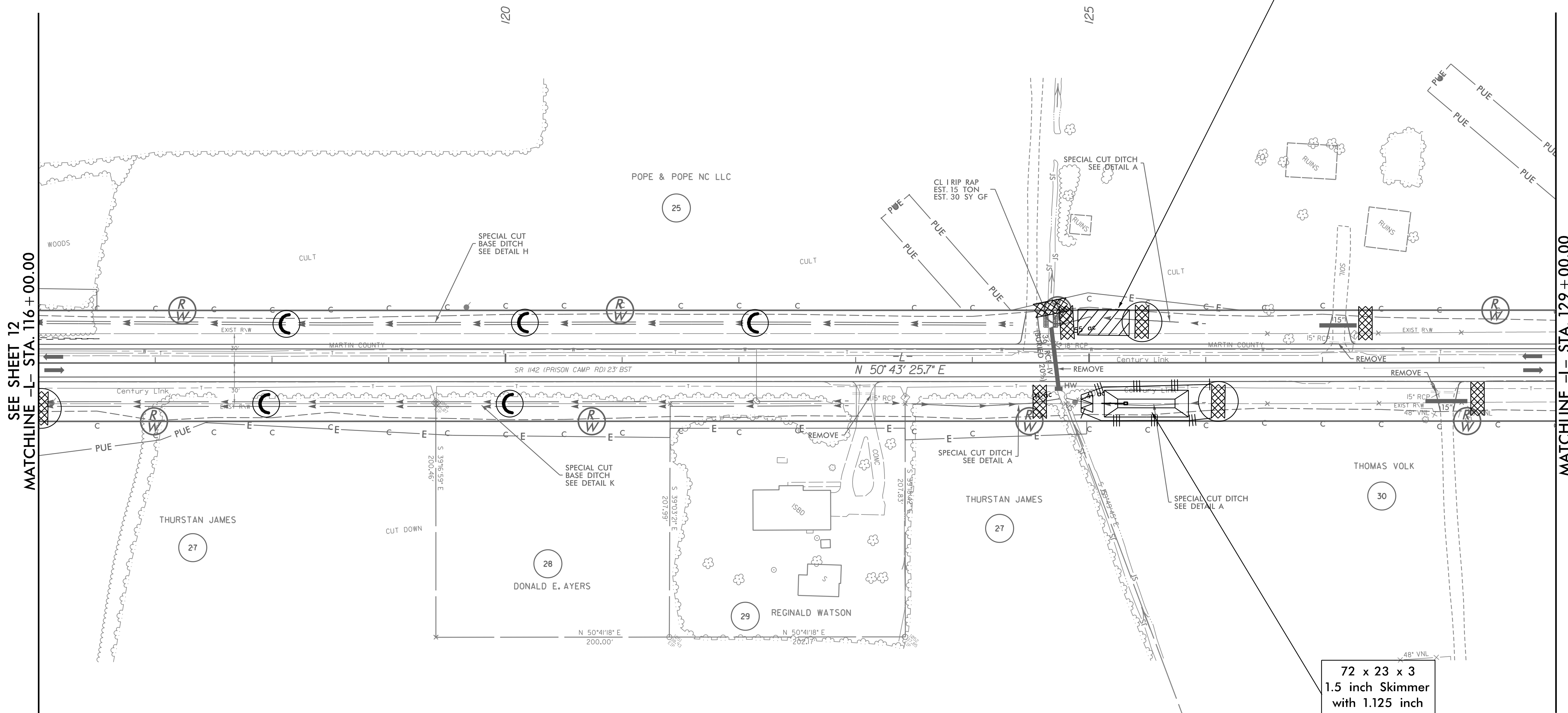
8/17/99

8/17/99

3/14/2002 EC\_fm01\_psh\_13.dgn  
USER: MHOOPER

SEE SHEET 12  
MATCHLINE -L- STA. 116+00.00

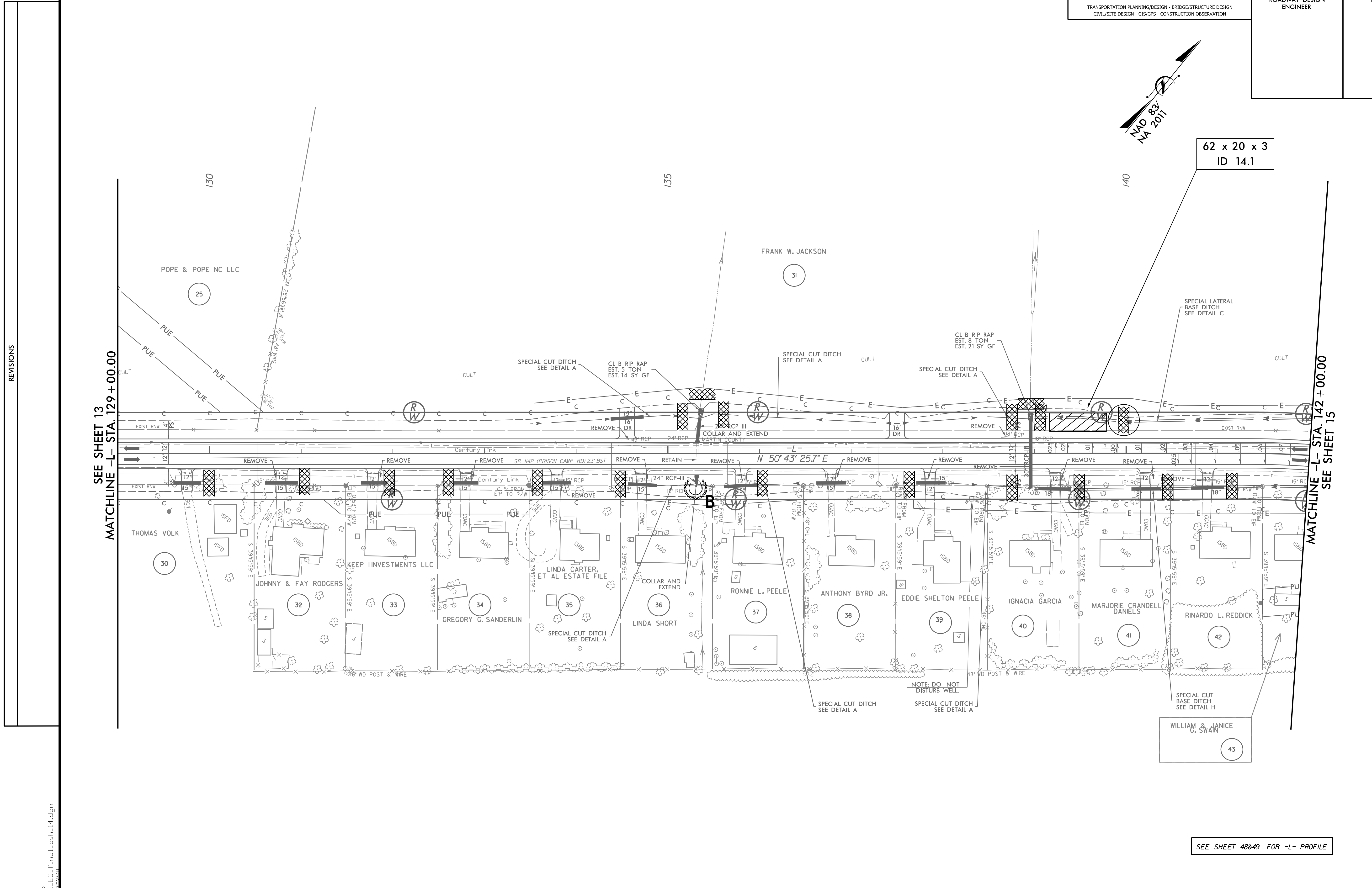
MATCHLINE -L- STA. 129+00.00  
SEE SHEET 14



PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-54/CONST.14</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



62 x 20 x 3  
 ID 14.1



REVISIONS

SEE SHEET 13  
 MATCHLINE -L- STA. 129 + 00.00

MATCHLINE -L- STA. 142 + 00.00  
 SEE SHEET 15

NOTE: DO NOT  
 DISTURB WELL

WILLIAM & JANICE  
 G. SWAIN

SEE SHEET 48&49 FOR -L- PROFILE

B/17/99

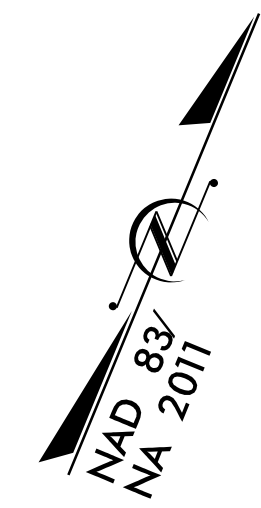
3/14/2002 EC\_fm01\_psh\_14.dgn  
 USER: M...VER



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-55/CONST.15</b>
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

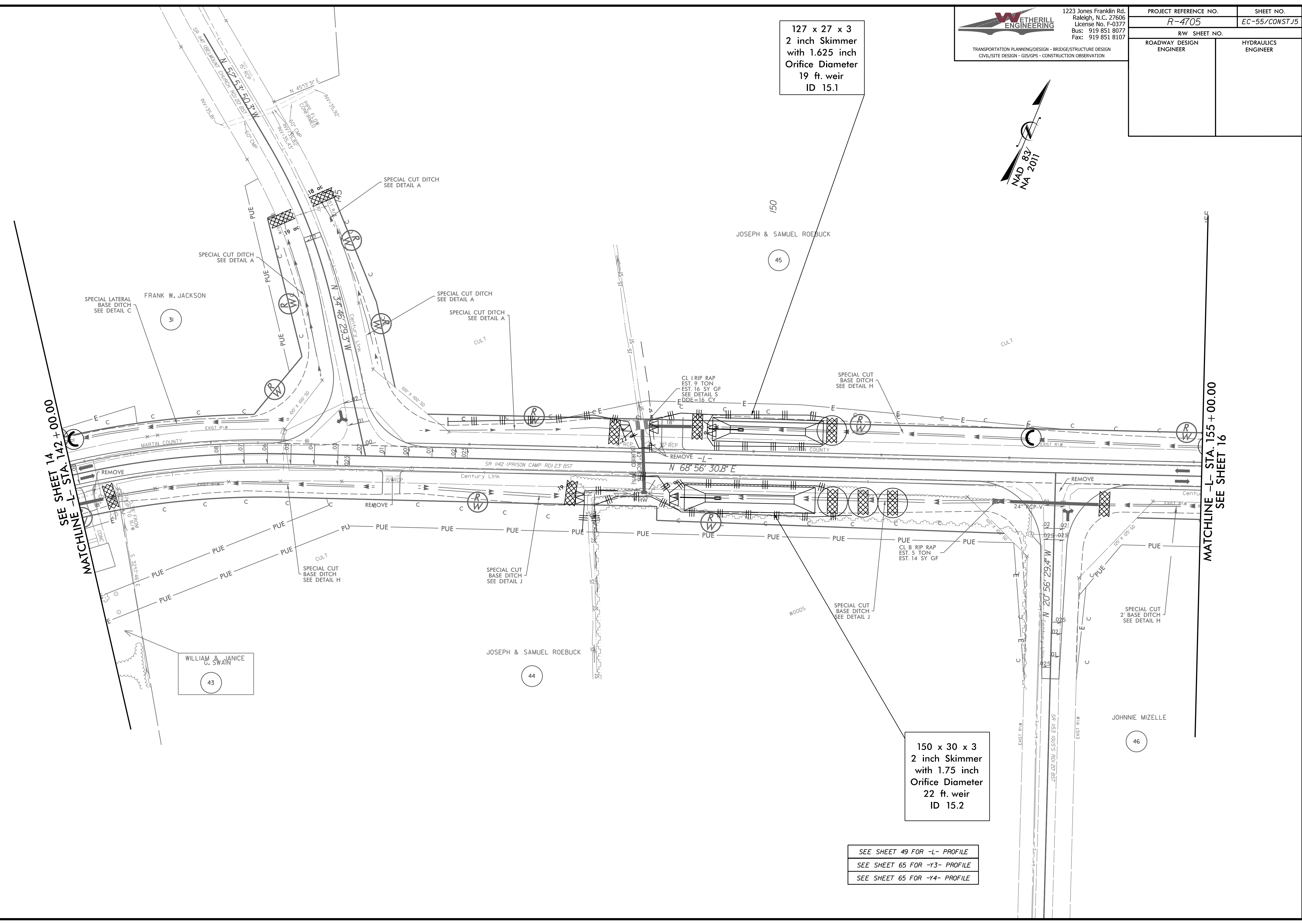


**127 x 27 x 3  
2 inch Skimmer  
with 1.625 inch  
Orifice Diameter  
19 ft. weir  
ID 15.1**

**150 x 30 x 3  
2 inch Skimmer  
with 1.75 inch  
Orifice Diameter  
22 ft. weir  
ID 15.2**

SEE SHEET 49 FOR -L- PROFILE  
SEE SHEET 65 FOR -Y3- PROFILE  
SEE SHEET 65 FOR -Y4- PROFILE

8/17/99  
 REVISIONS  
 3/7/2022 EC\_Final\_psh\_15.dgn  
 3/4/2022 EC\_Final\_psh\_15.dgn  
 11/28/2021 EC\_Final\_psh\_15.dgn



SEE SHEET 14  
MATCHLINE -L- STA. 142 + 00.00

MATCHLINE -L- STA. 155 + 00.00  
SEE SHEET 16

WILLIAM & JANICE  
G. SWAIN  
43

JOSEPH & SAMUEL ROEBUCK  
44

JOSEPH & SAMUEL ROEBUCK  
45

JOHNNIE MIZELLE  
46

FRANK W. JACKSON  
31

SR 142 (PRISON CAMP RD) 23' BST  
N 52° 53' 50.3" W  
60' CMP  
INV=35.80'  
SR 142 (PRISON CAMP RD) 23' BST  
N 45° 13' 31" E  
60' CMP  
INV=35.92'  
SR 142 (PRISON CAMP RD) 23' BST  
N 34° 46' 29.3" W  
60' CMP  
INV=35.93'

CL 1 RIP RAP  
EST. 9 TON  
EST. 16 SY GF  
SEE DETAIL S  
DDE=16 CY

CL B RIP RAP  
EST. 5 TON  
EST. 14 SY GF

REMOVE

REMOVE

REMOVE -L-

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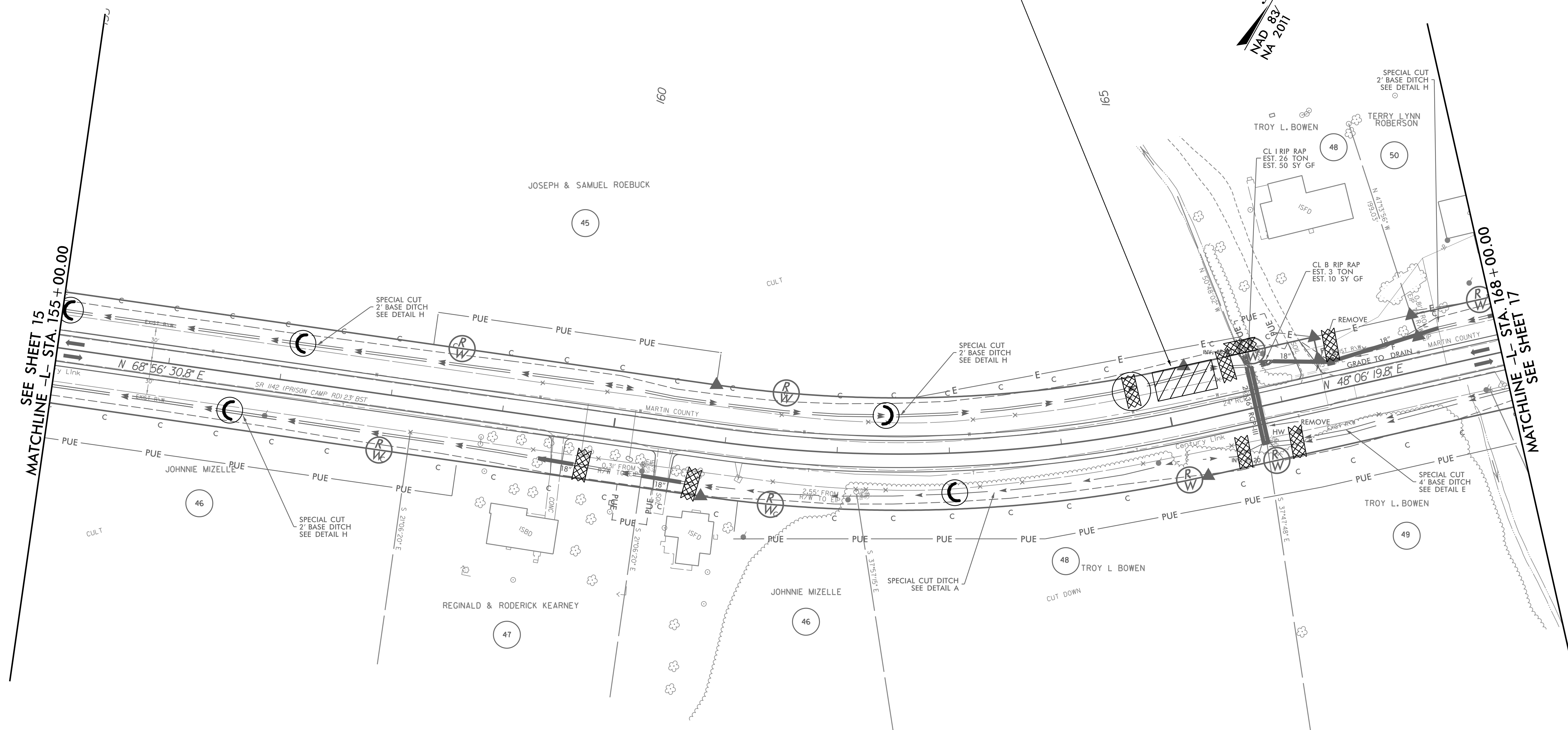
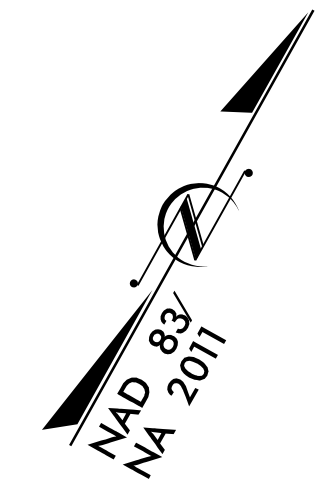
REMOVE

REMOVE



PROJECT REFERENCE NO.	SHEET NO.
R-4705	EC-56/CONST.16
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

54 x 26 x 3  
 ID 16.1



REVISIONS

SEE SHEET 15  
 MATCHLINE -L- STA. 155+00.00

MATCHLINE -L- STA. 168+00.00  
 SEE SHEET 17

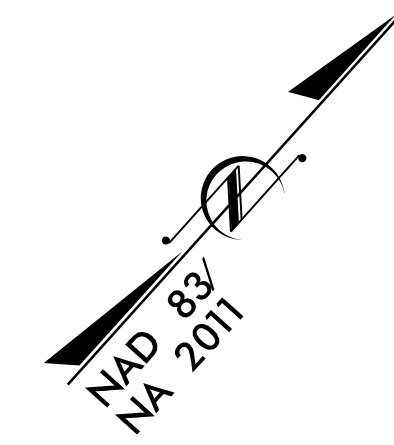
PI Sta 163+05.73  
 $\Delta = 20^\circ 50' 11.0\" (LT)$   
 $D = 4^\circ 46' 28.7\"$   
 $L = 436.40'$   
 $T = 220.64'$   
 $R = 1,200.00'$

SEE SHEET 49&50 FOR -L- PROFILE

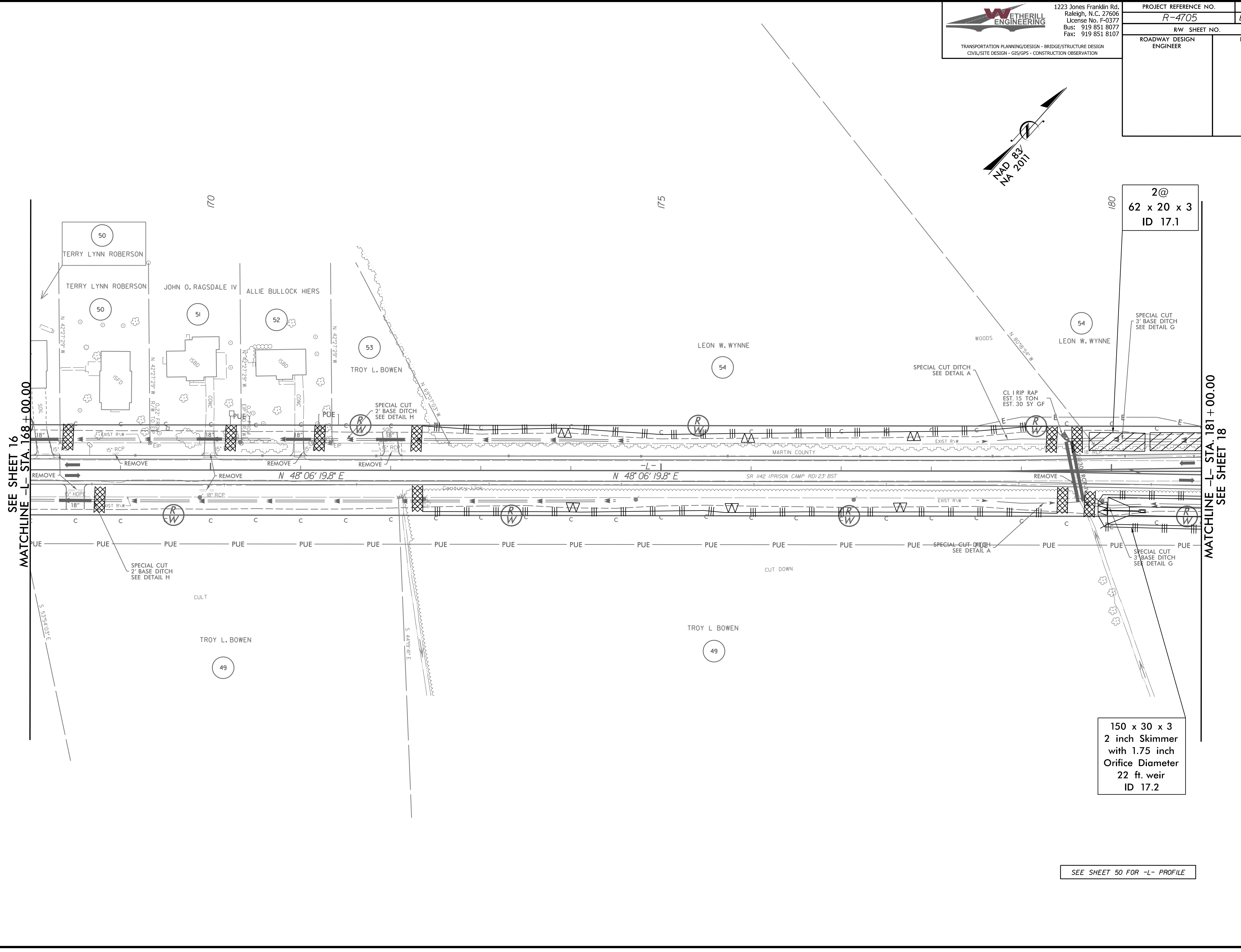
8/17/99

3/14/2002 EC\_fm01\_psh\_16.dgn  
 USER: mlowen

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-57/CONST.17</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

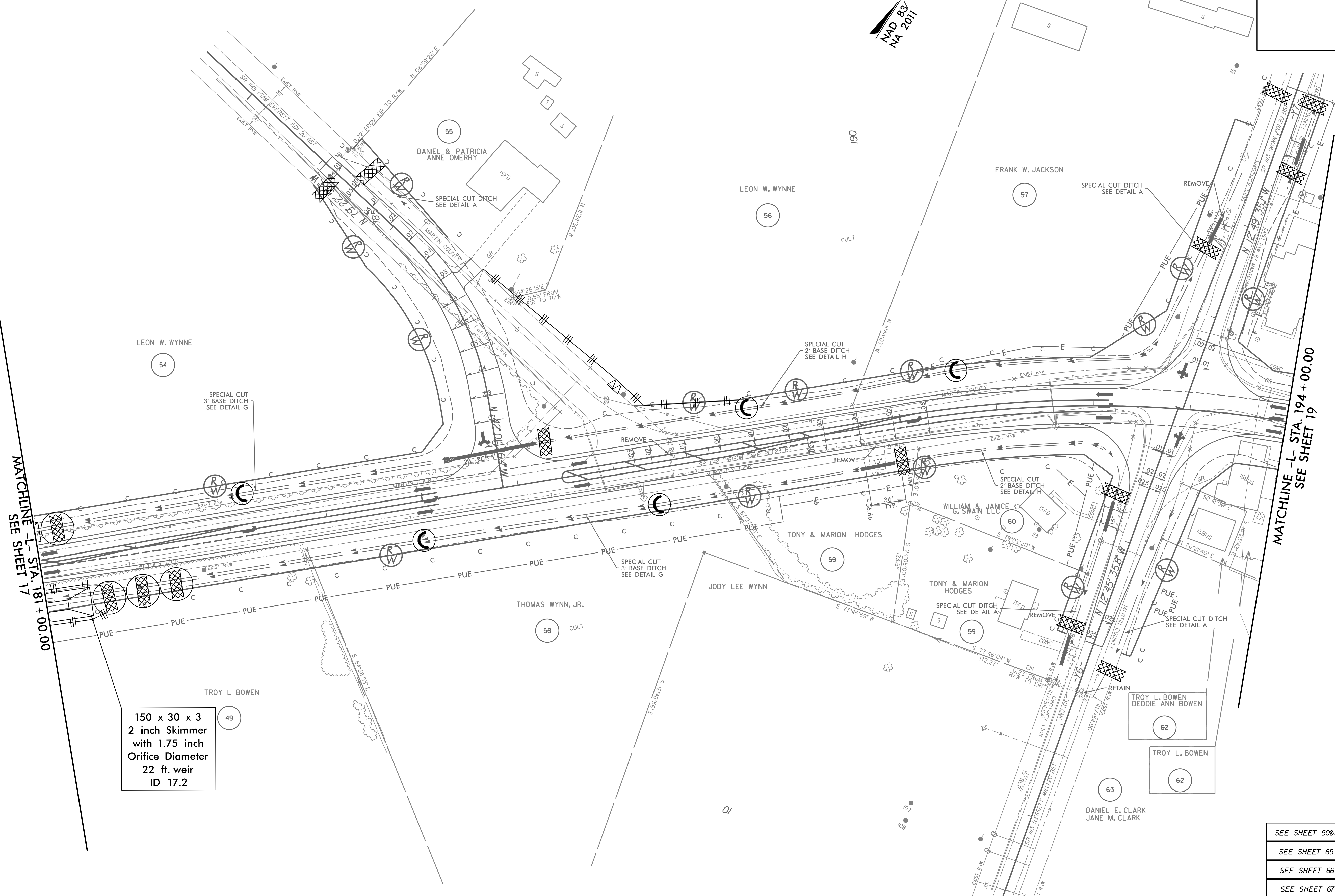
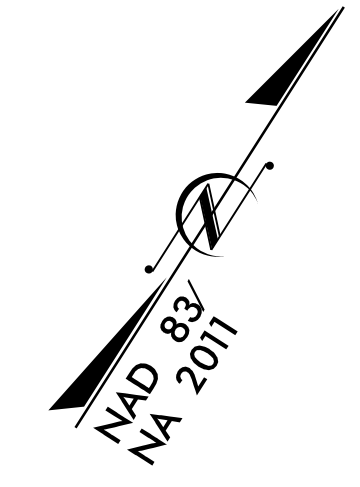


REVISIONS



SEE SHEET 50 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-4705	EC-58/CONST.18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE -L- STA. 181+00.00  
 SEE SHEET 17

MATCHLINE -L- STA. 194+00.00  
 SEE SHEET 19

150 x 30 x 3  
 2 inch Skimmer  
 with 1.75 inch  
 Orifice Diameter  
 22 ft. weir  
 ID 17.2

SEE SHEET 50&51 FOR -L- PROFILE  
 SEE SHEET 65 FOR -Y5- PROFILE  
 SEE SHEET 66 FOR -Y6- PROFILE  
 SEE SHEET 67 FOR -Y7- PROFILE

REVISIONS

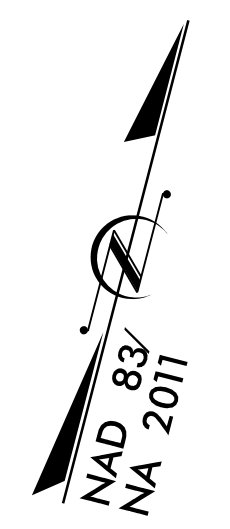
8/17/09  
 3/7/2022 EC\_fmnl\_psh\_18.dgn  
 USER: mlowen



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-59/CONST.19</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



69 x 33 x 3  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
25 ft. weir  
ID 19.1

51 x 25 x 3  
ID 19.2

SEE SHEET 18  
MATCHLINE -L- STA. 194 + 00.00

MATCHLINE -L- STA. 207 + 00.00  
SEE SHEET 20

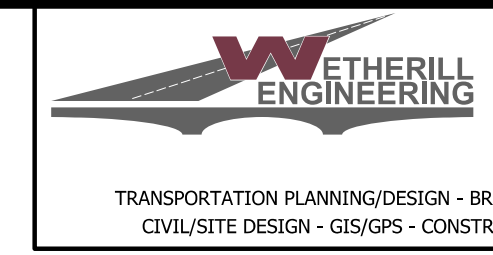
REVISIONS

PI Sta 202+41.40  
 $\Delta = 0' 13' 15.7" (LT)$   
 $D = 0' 14' 56.8"$   
 $L = 88.73'$   
 $T = 44.36'$   
 $R = 23,000.00'$

SEE SHEET 51 FOR -L- PROFILE

3/14/2002 EC\_fm1\_psh\_19.dgn

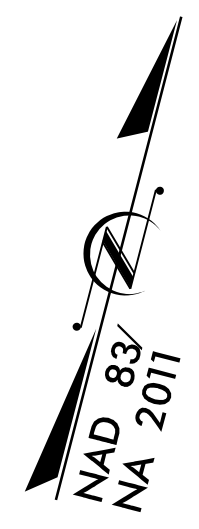
8/17/99



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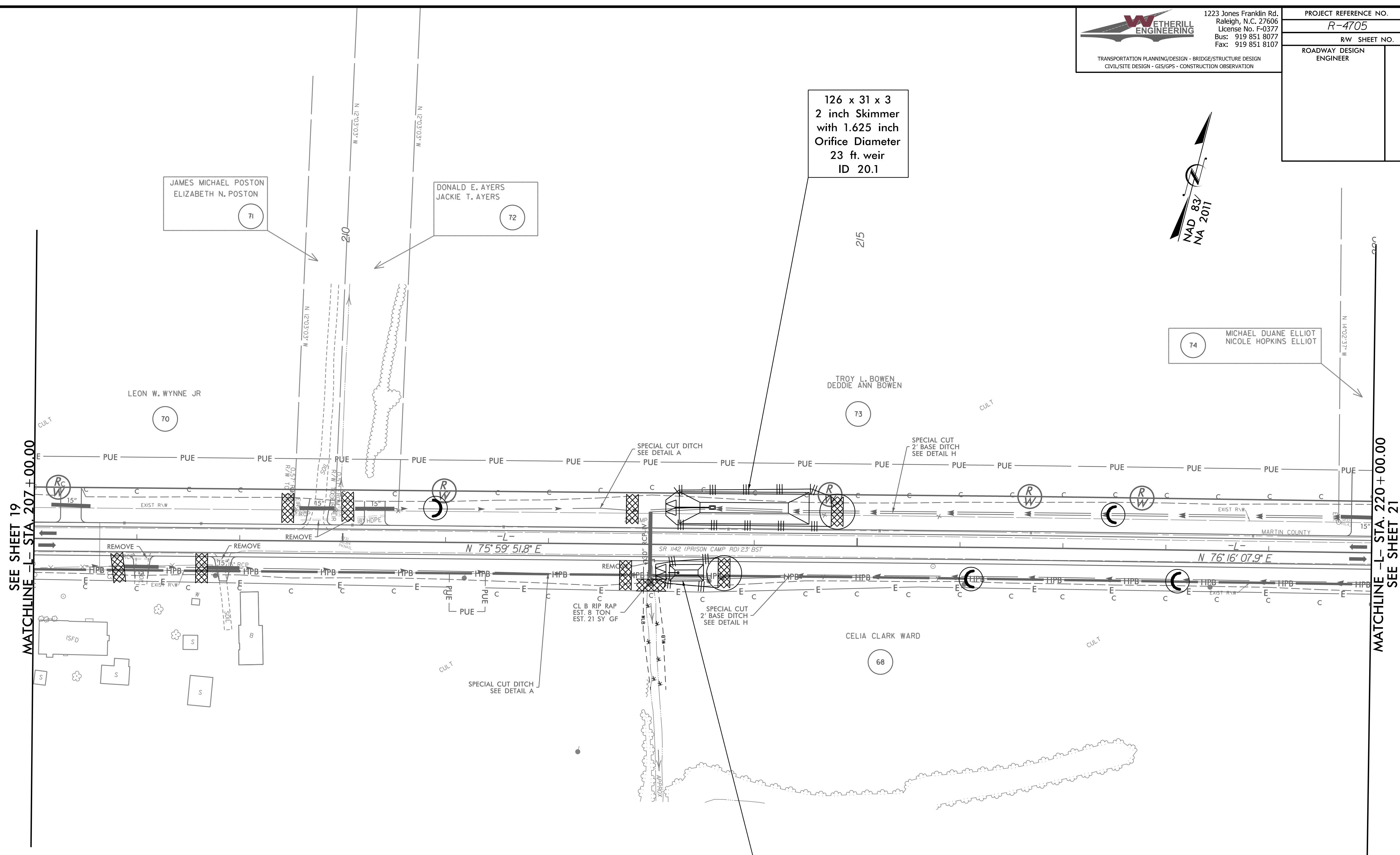
PROJECT REFERENCE NO.	SHEET NO.
R-4705	EC-60/CONST.20
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION



126 x 31 x 3  
2 inch Skimmer  
with 1.625 inch  
Orifice Diameter  
23 ft. weir  
ID 20.1

33 x 16 x 3  
1.5 inch Skimmer  
with 0.5 inch  
Orifice Diameter  
8 ft. weir  
ID 20.2



REVISIONS

SEE SHEET 19  
MATCHLINE -L- STA. 207 + 00.00

MATCHLINE -L- STA. 220 + 00.00  
SEE SHEET 21

SEE SHEET 51&52 FOR -L- PROFILE

8/17/99

3/14/2002 EC\_fm01\_psh\_20.dgn  
USER:MEGHEV

8/17/99



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PROJECT REFERENCE NO.	SHEET NO.
R-4705	EC-61/CONST.21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION



60 x 20 x 3  
ID 21.1

62 x 31 x 3  
ID 21.2

SEE SHEET 52 FOR -L- PROFILE  
SEE SHEET 66 FOR -Y8- PROFILE

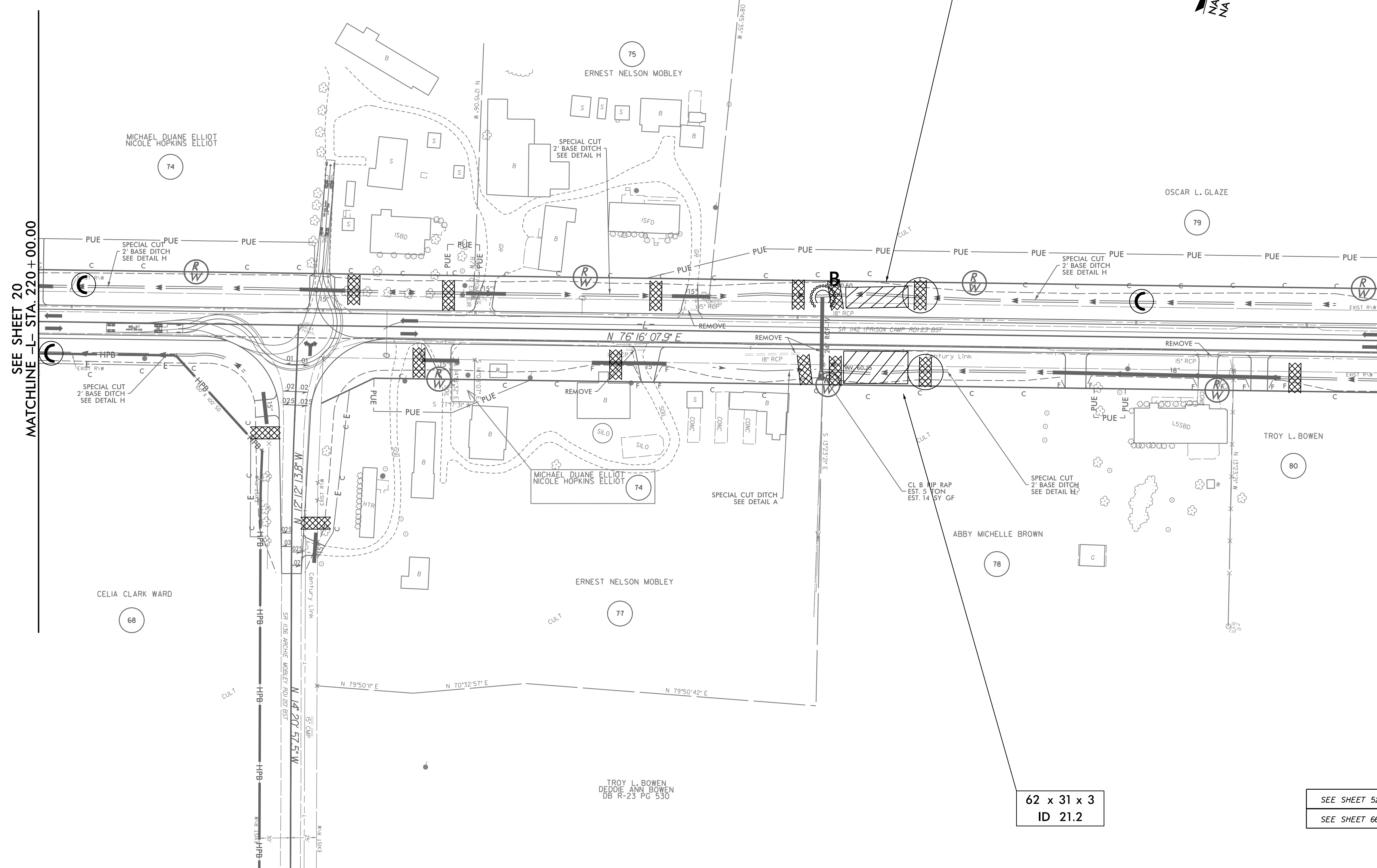
REVISIONS

REVISIONS

SEE SHEET 20  
MATCHLINE -L- STA. 220 + 00.00

MATCHLINE -L- STA. 233 + 00.00  
SEE SHEET 22

3/17/2002 EC\_fm01\_psh\_21.dgn  
USER:MICHAEL



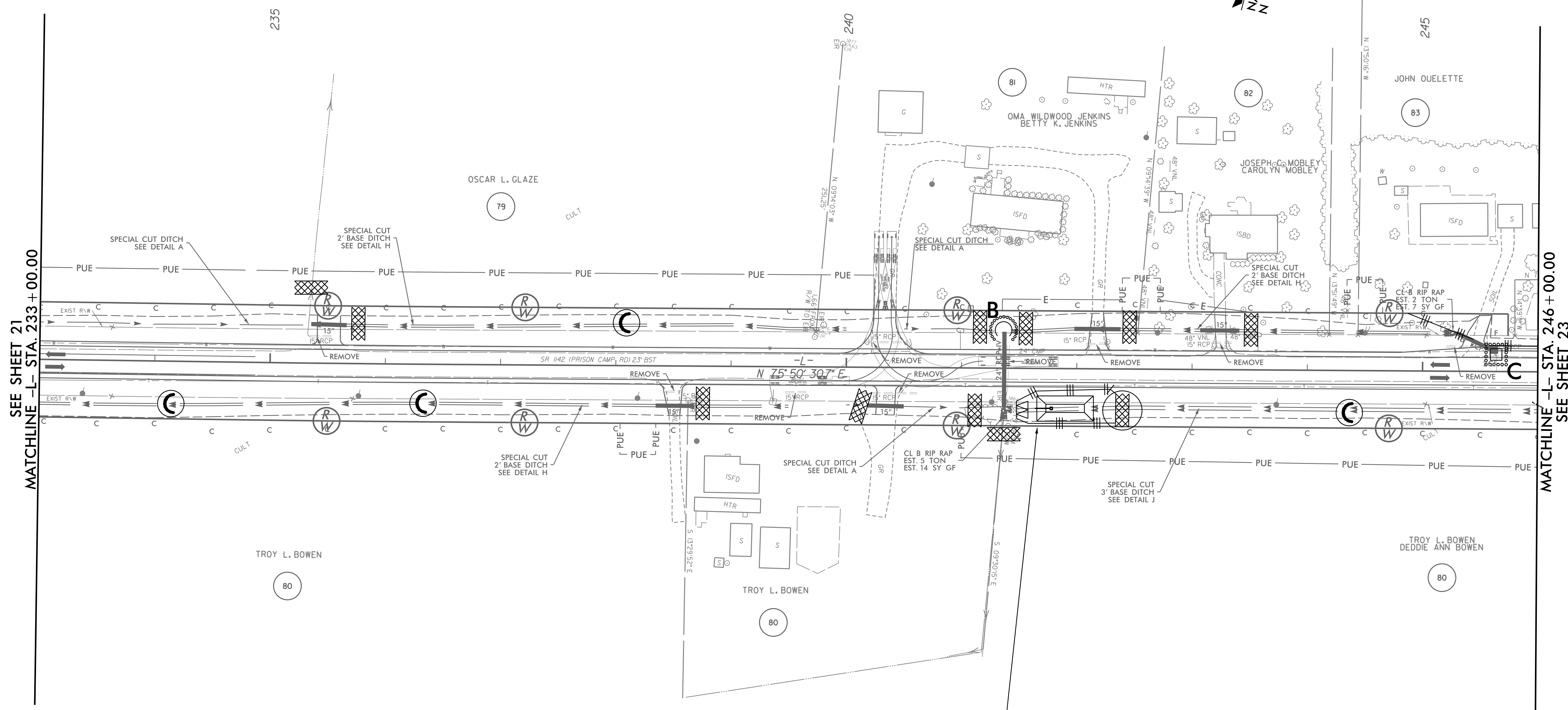
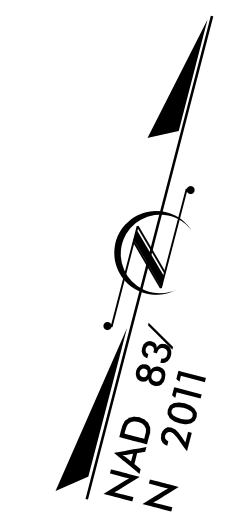
TROY L. BOWEN  
DEDDIE ANN BOWEN  
DB R-23 PG 530



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-62/CONST.22</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



SEE SHEET 21  
MATCHLINE -L- STA. 233 + 00.00

MATCHLINE -L- STA. 246 + 00.00  
SEE SHEET 23

REVISIONS

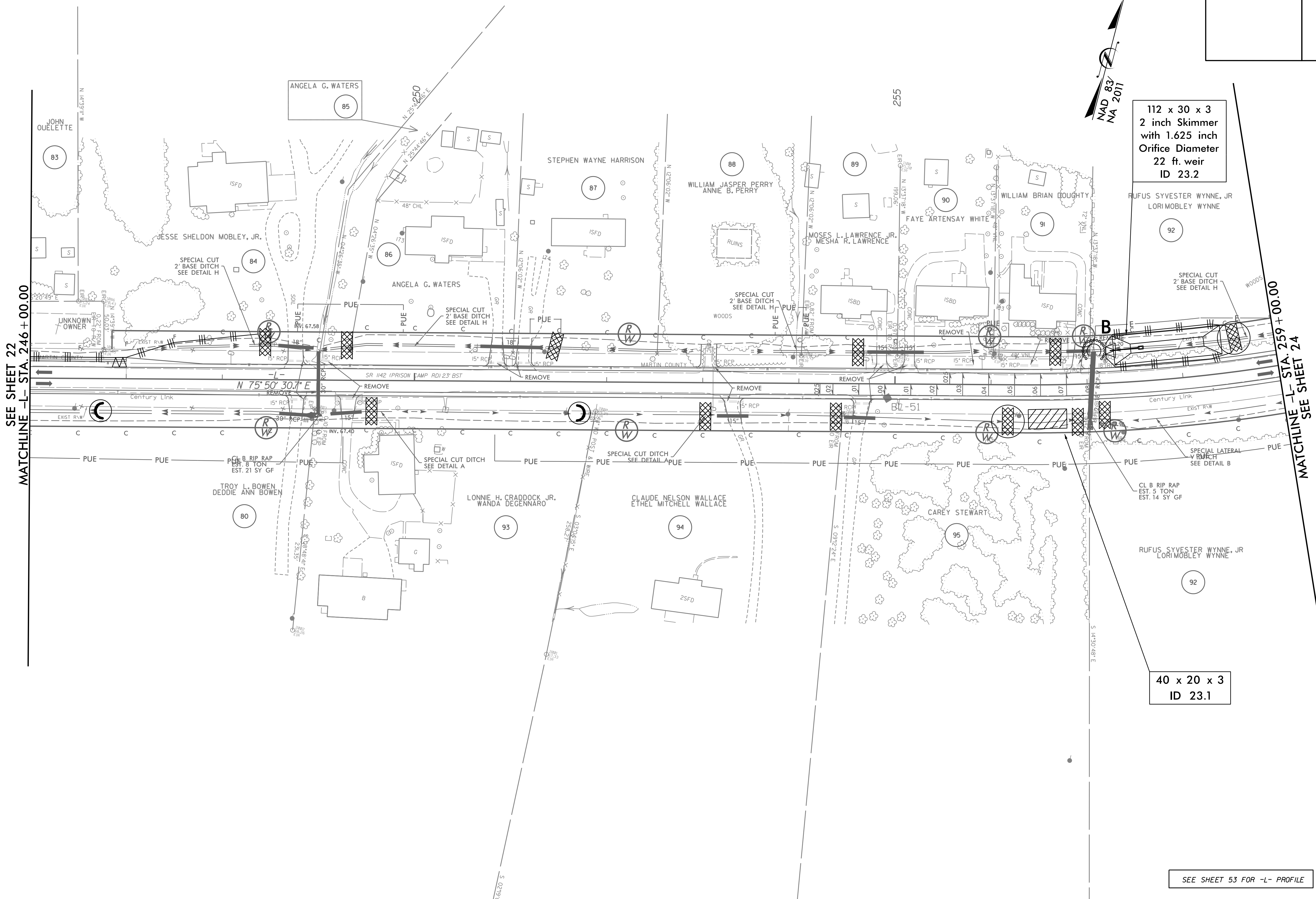
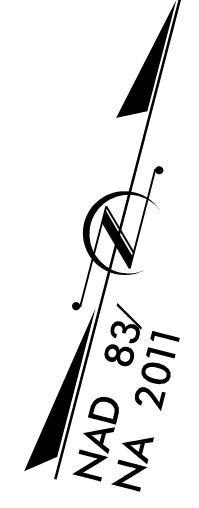
49 x 22 x 3  
1.5 inch Skimmer  
with 0.875 inch  
Orifice Diameter  
14 ft. weir  
ID 22.1

SEE SHEET 52&53 FOR -L- PROFILE

8/17/99

3/14/2002 EC\_fm01\_psh\_22.dgn  
USER:MLB

PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-63/CONST.23</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



112 x 30 x 3  
 2 inch Skimmer  
 with 1.625 inch  
 Orifice Diameter  
 22 ft. weir  
 ID 23.2

40 x 20 x 3  
 ID 23.1

SEE SHEET 53 FOR -L- PROFILE

SEE SHEET 22  
 MATCHLINE -L- STA. 246 + 00.00

MATCHLINE -L- STA. 259 + 00.00  
 SEE SHEET 24

REVISIONS

8/17/99

3/14/2002 EC\_fm01\_psh\_23.dgn  
 USER: m01

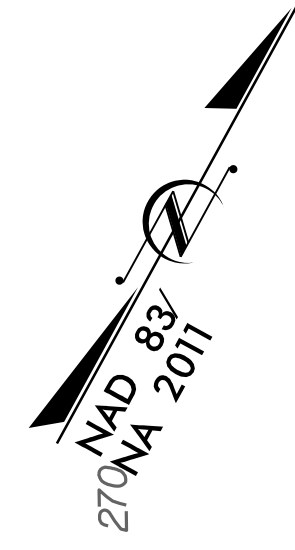


8/17/99



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Fax: 919 851 8107

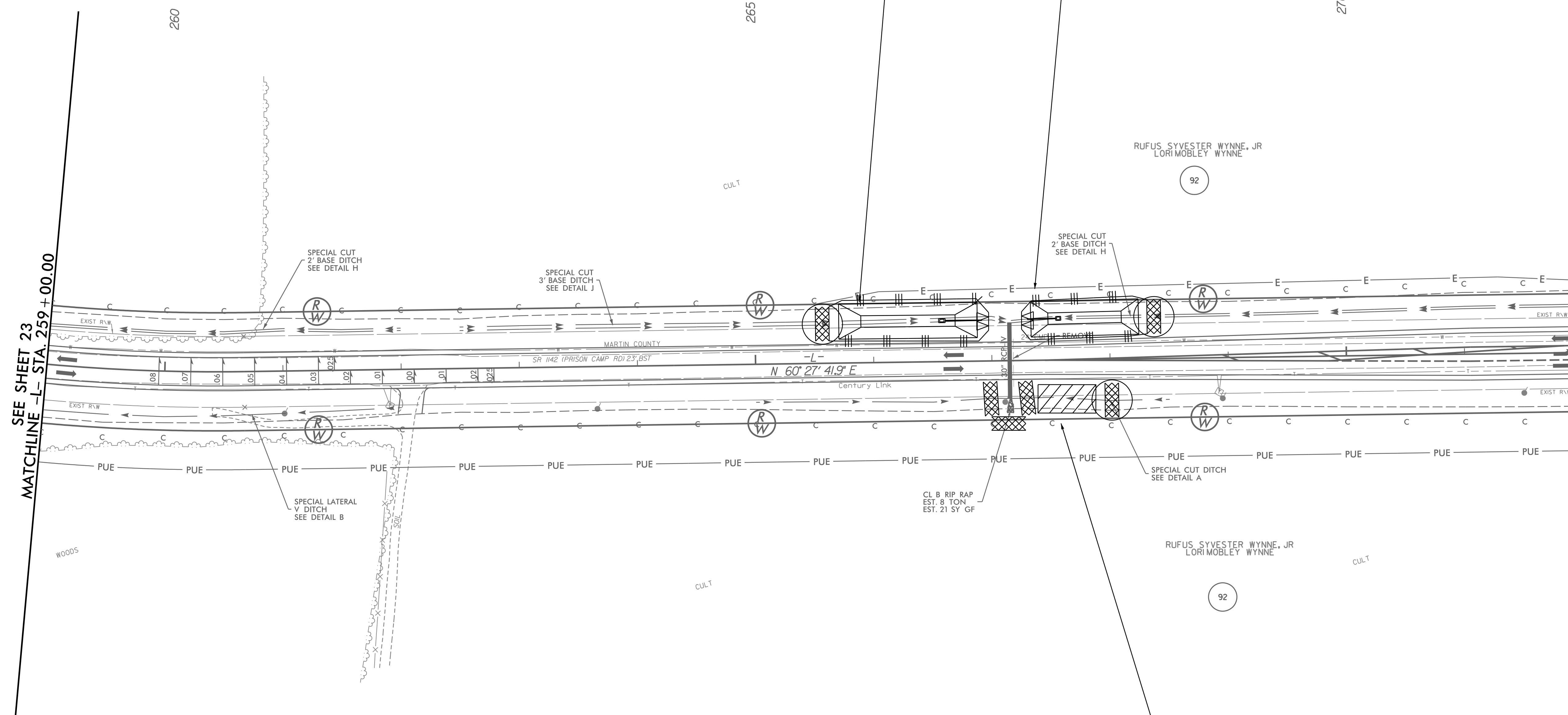
PROJECT REFERENCE NO. <b>R-4705</b>	SHEET NO. <b>EC-64/CONST.24</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

SEE SHEET 23  
MATCHLINE -L- STA. 259 + 00.00

MATCHLINE -L- STA. 272 + 00.00  
SEE SHEET 25



117 x 30 x 3  
2 inch Skimmer  
with 1.625 inch  
Orifice Diameter  
22 ft. weir  
ID 24.1

91 x 30 x 3  
1.5 inch Skimmer  
with 1.5 inch  
Orifice Diameter  
22 ft. weir  
ID 24.2

49 x 24 x 3  
ID 24.3

SEE SHEET 53&54 FOR -L- PROFILE

3/17/2002 EC\_fm01\_psh\_24.dgn  
USER:MLW



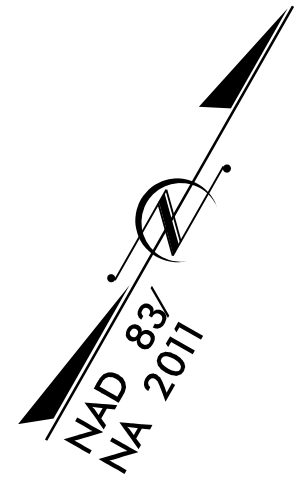
8/17/99

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

**WETHERILL ENGINEERING**  
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
 CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

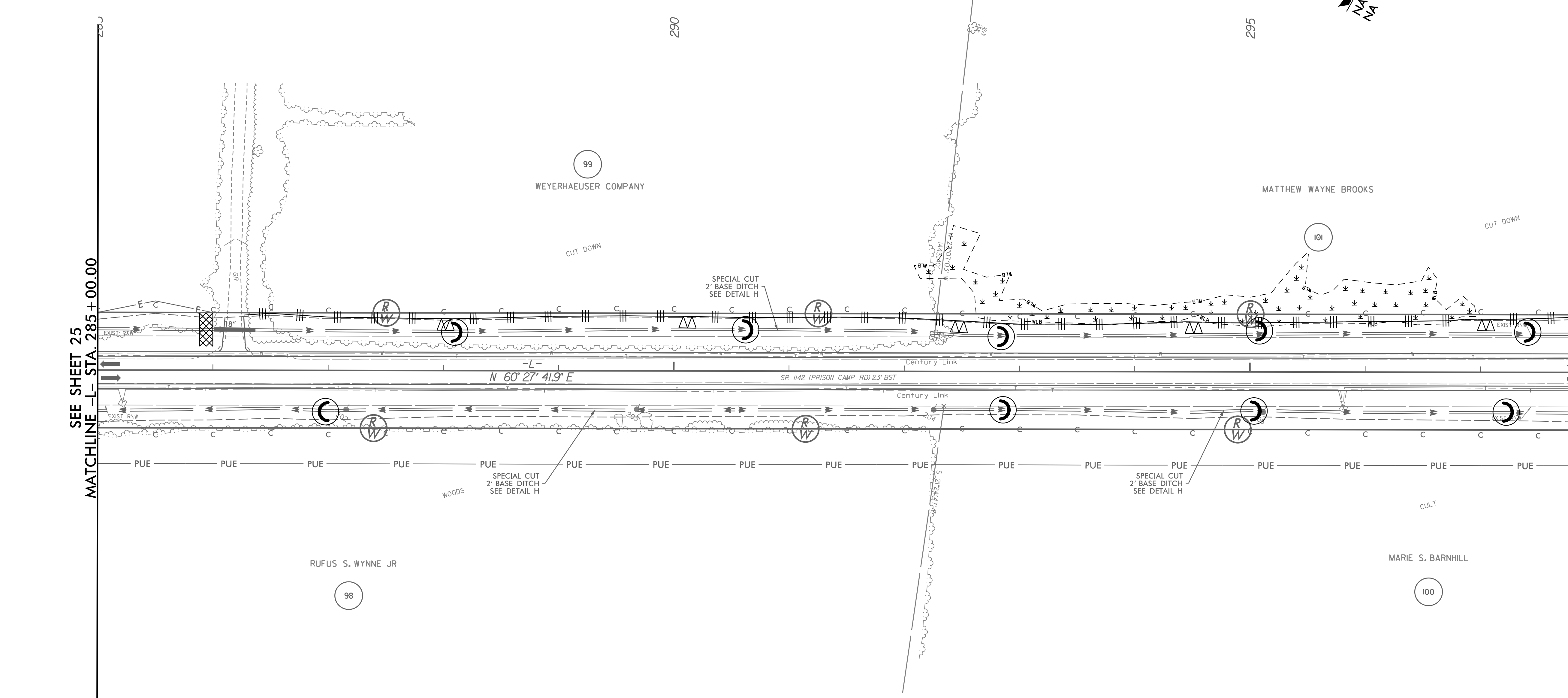
PROJECT REFERENCE NO.	SHEET NO.
R-4705	EC-66/CONST.26
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

SEE SHEET 25  
MATCHLINE -L- STA. 285 + 00.00

MATCHLINE -L- STA. 298 + 00.00  
SEE SHEET 27



SEE SHEET 54&55 FOR -L- PROFILE

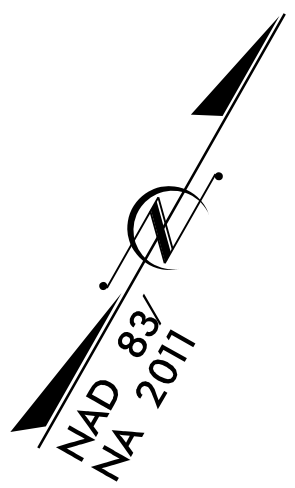
3/14/2002 EC\_fm01\_psh\_26.dgn  
USER:HWYEN

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 Fax: 919 851 8107



TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
 CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-4705	EC-67/CONST.27
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



2@  
 65 x 30 x 3  
 ID 27.1

85 x 24 x 3  
 1.5 inch Skimmer  
 with 1.375 inch  
 Orifice Diameter  
 16 ft. weir  
 ID 27.2

70 x 23 x 3  
 1.5 inch Skimmer  
 with 1.125 inch  
 Orifice Diameter  
 15 ft. weir  
 ID 27.3

SEE SHEET 55 FOR -L- PROFILE

REVISIONS

SEE SHEET 25  
 MATCHLINE -L- STA. 298 + 00.00

MATCHLINE -L- STA. 311 + 00.00  
 SEE SHEET 28

8/17/99

3/14/2002 EC\_fm01\_psh\_27.dgn  
 USER: mlovey

