

**This electronic collection of documents is provided  
for the convenience of the user  
and is Not a Certified Document –**

**The documents contained herein were originally issued  
and sealed by the individuals whose names and license  
numbers appear on each page, on the dates appearing  
with their signature on that page.**

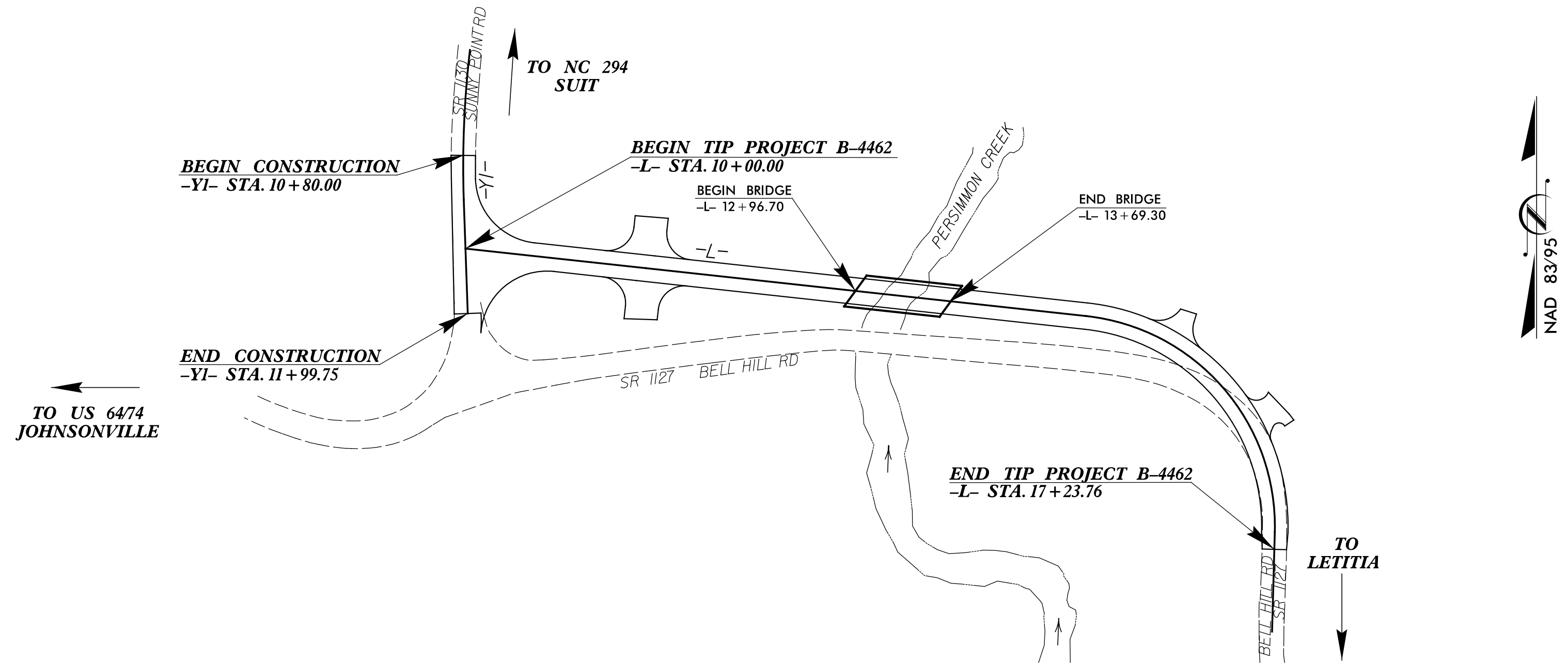
**This file or an individual page  
shall not be considered a certified document.**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4462	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

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

**CHEROKEE COUNTY**

**LOCATION: BRIDGE NO. 148 OVER PERSIMMON CREEK ON  
SR 1127 (BELL HILL RD)  
TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND STRUCTURE**



**EROSION AND SEDIMENT CONTROL MEASURES**

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

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

**TIP PROJECT: B-4462**

**GRAPHIC SCALE**

25 0 50  
PLANS

25 0 50  
PROFILE (HORIZONTAL)

5 0 10  
PROFILE (VERTICAL)

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 1, 2016 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER RESOURCES.

Prepared In the Office of:

**ICA**

ICA Engineering, Inc.  
5121 Kingdom Way,  
Suite 100  
Raleigh, NC 27607  
NC License No: F-0258

Designed by:

**ALEXANDER D. SNIDER, PE**      **3064**

NAME      LEVEL III CERTIFICATION NO.

Reviewed In the Office of:

**ROADSIDE ENVIRONMENTAL UNIT**

1 South Wilmington St.  
Raleigh, NC 27611

**2012 STANDARD SPECIFICATIONS**

Reviewed by:

**JENNIFER PARISH, CPESC, CPSWQ**

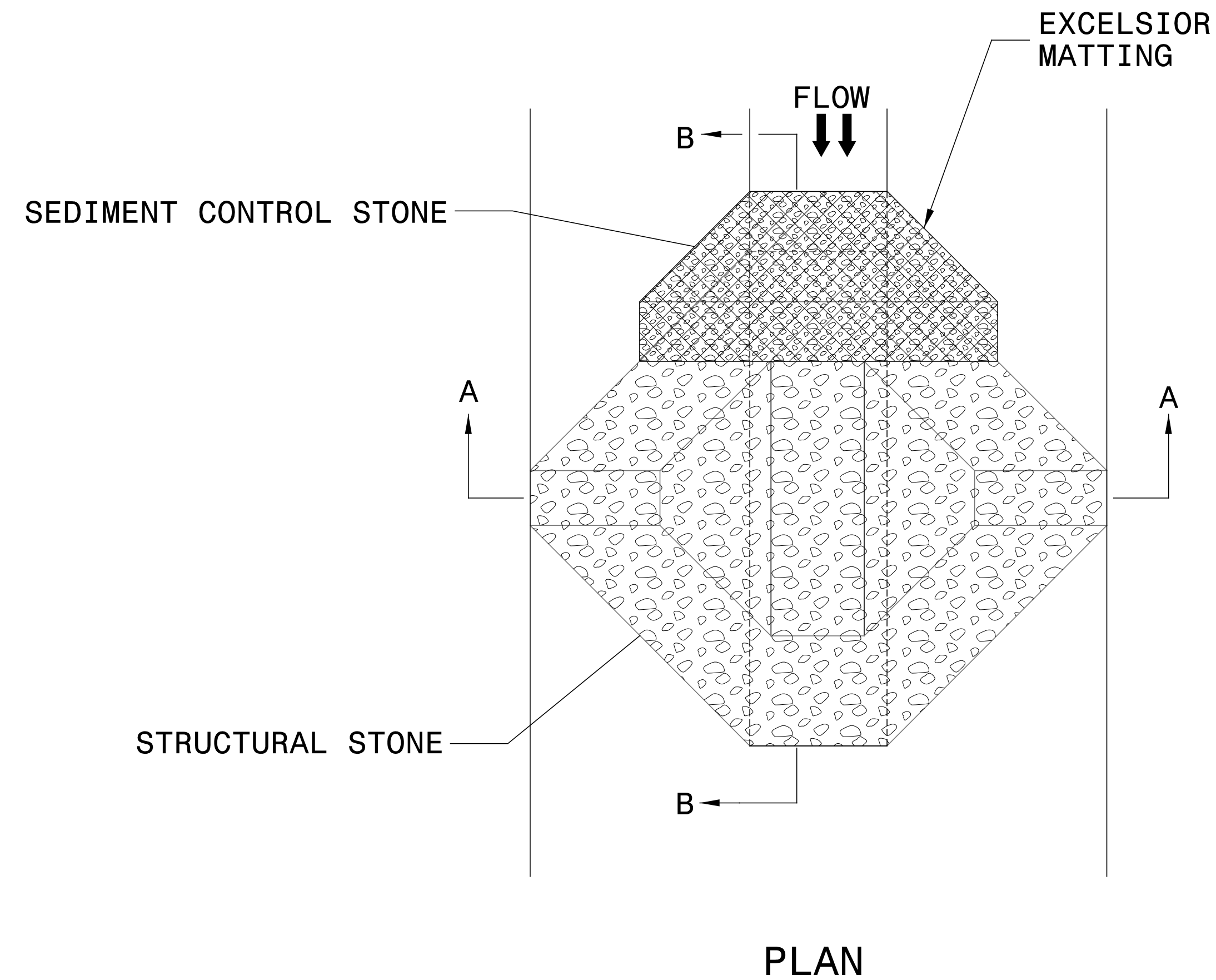
Roadway Standard Drawings

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

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type 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	

9/7/2017 ICA ENGINEERING, INC. session\_title.dgn

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



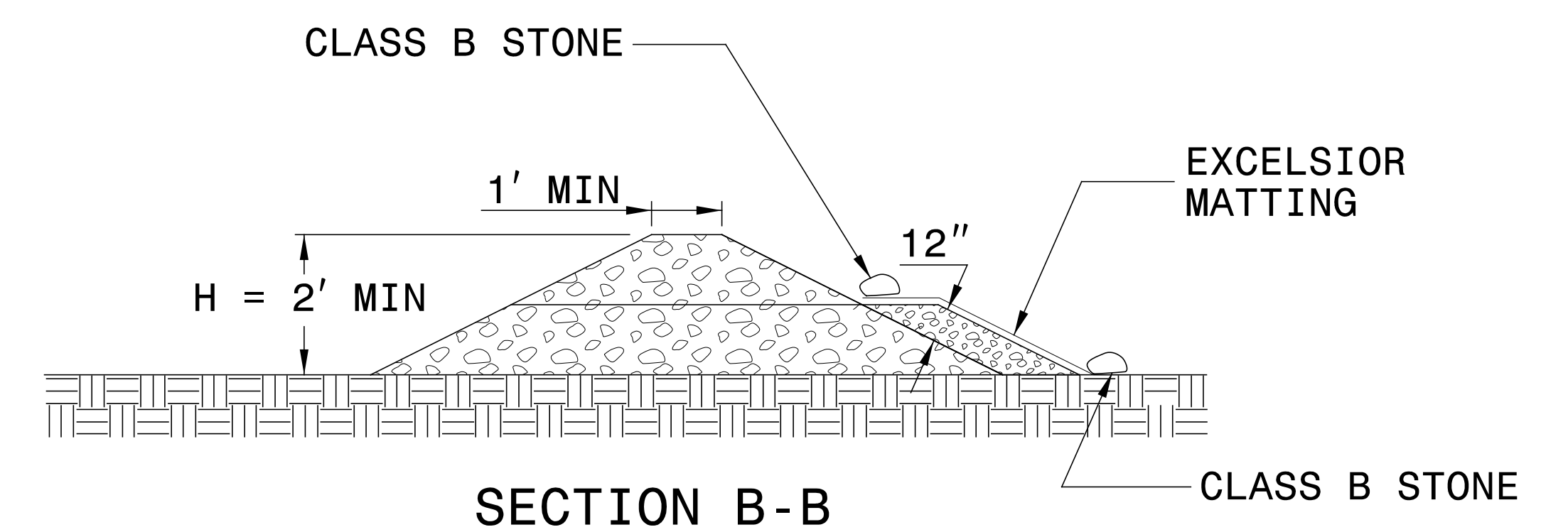
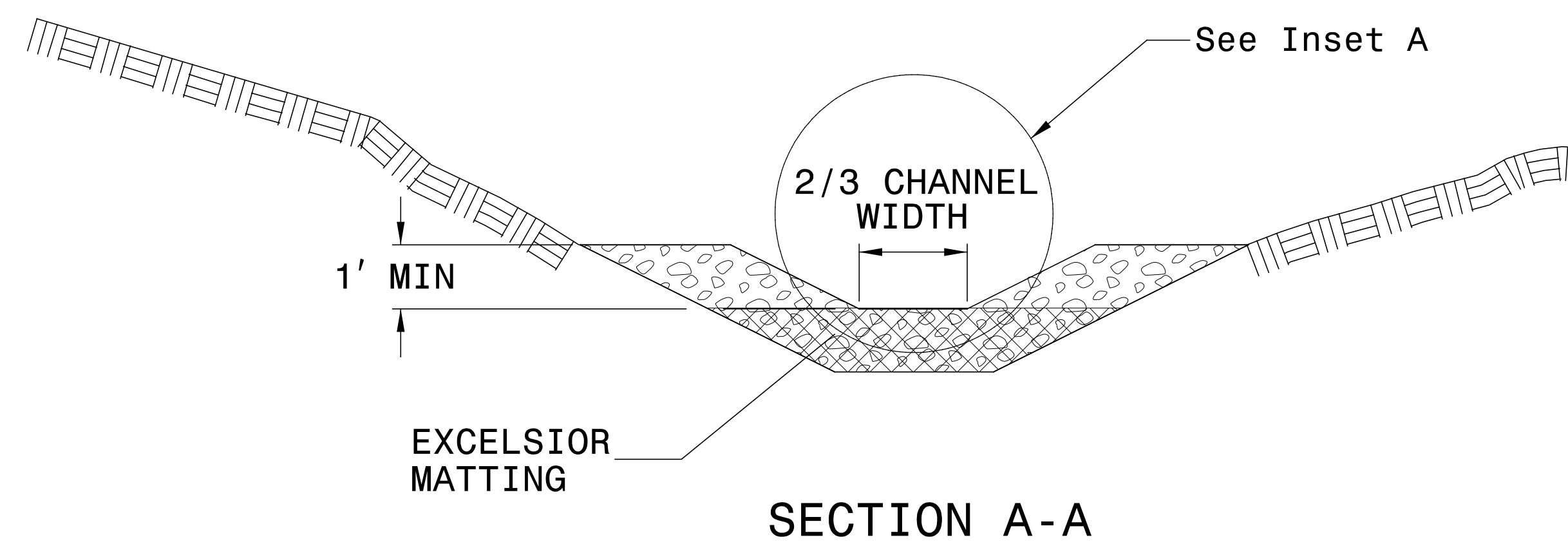
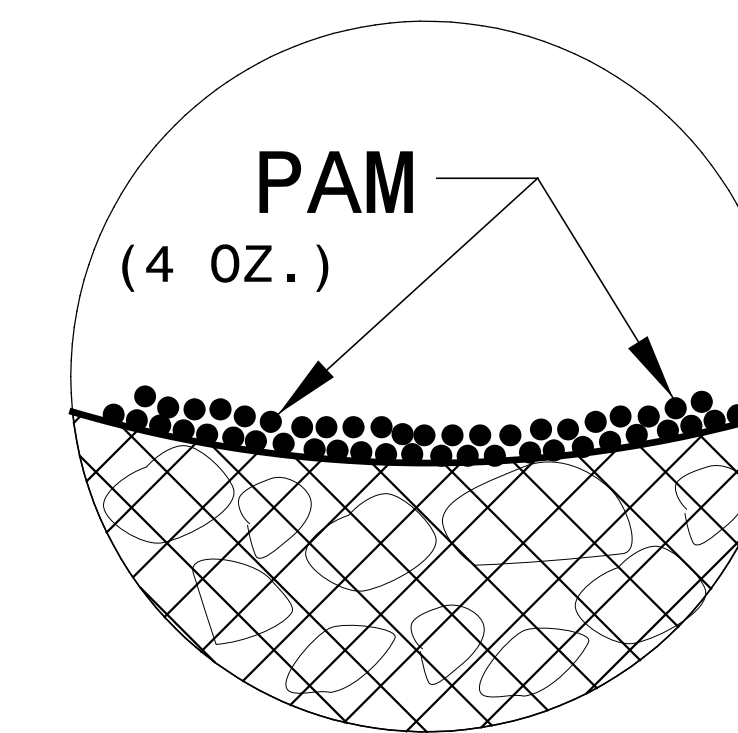
## NOTES:

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.

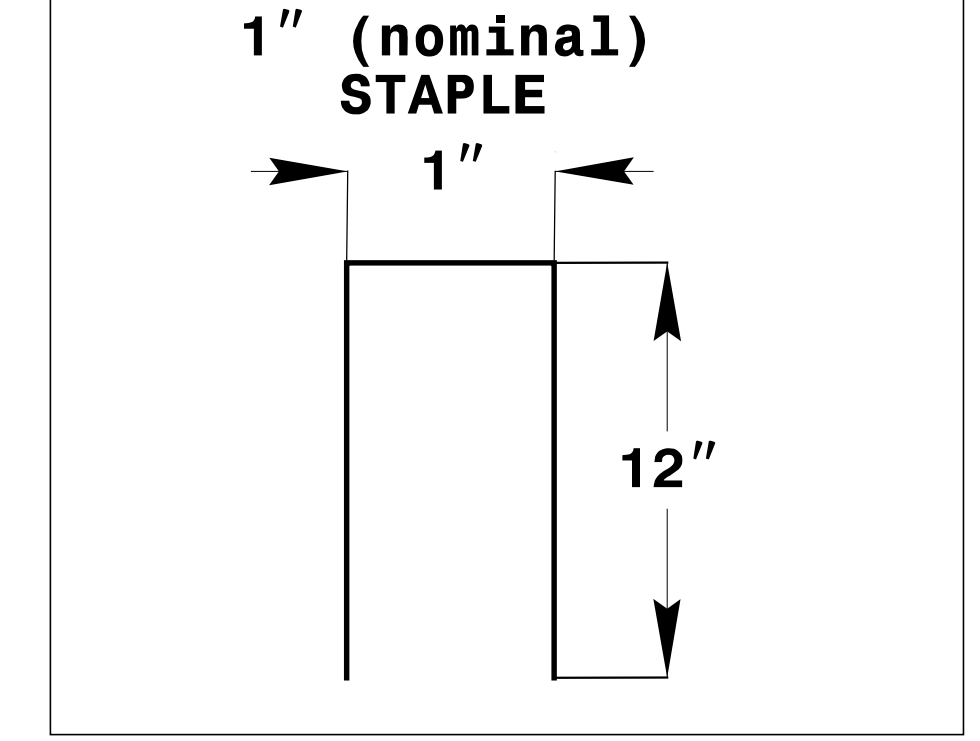
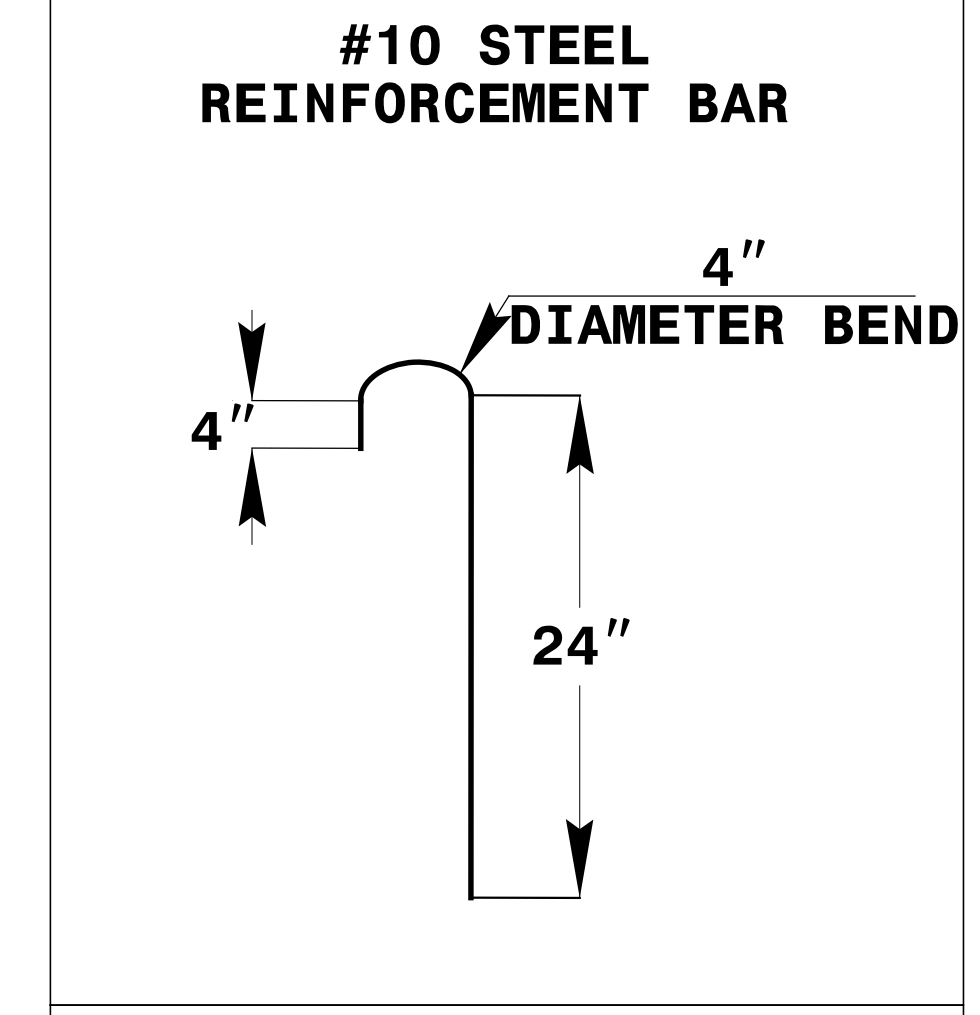
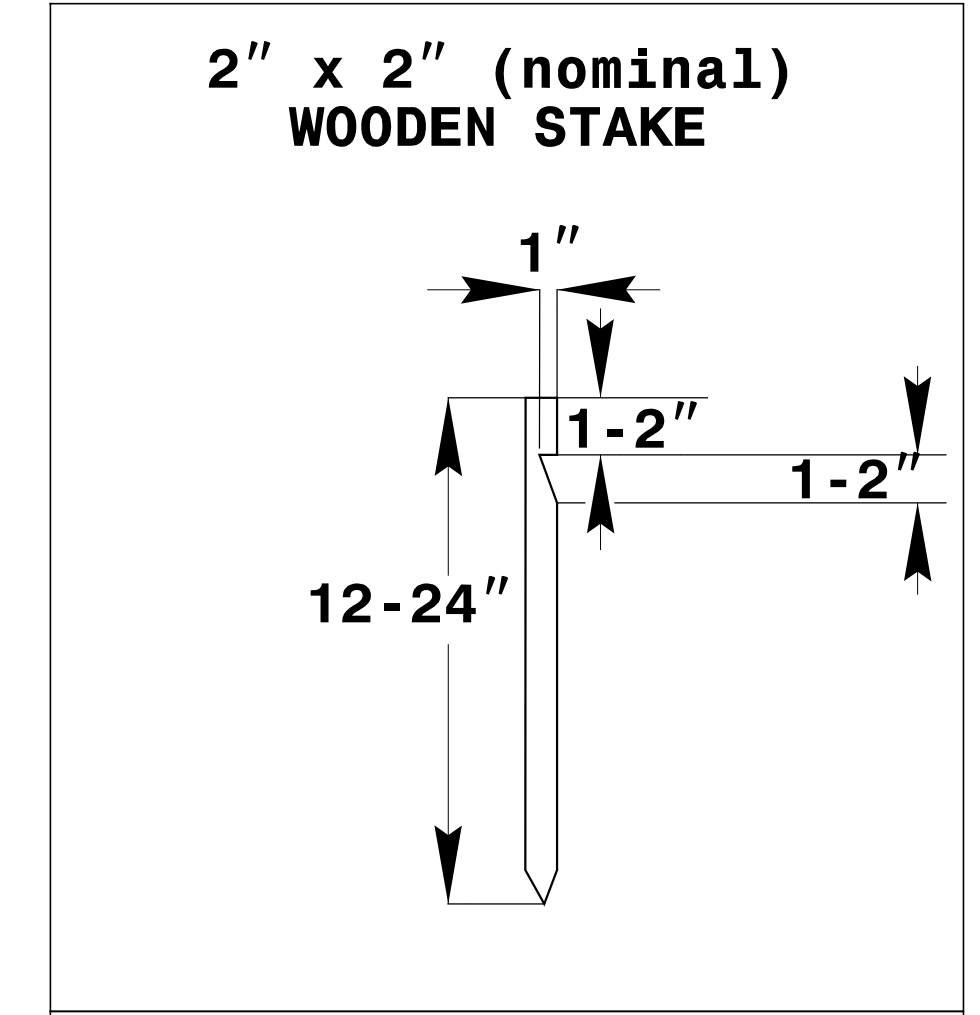
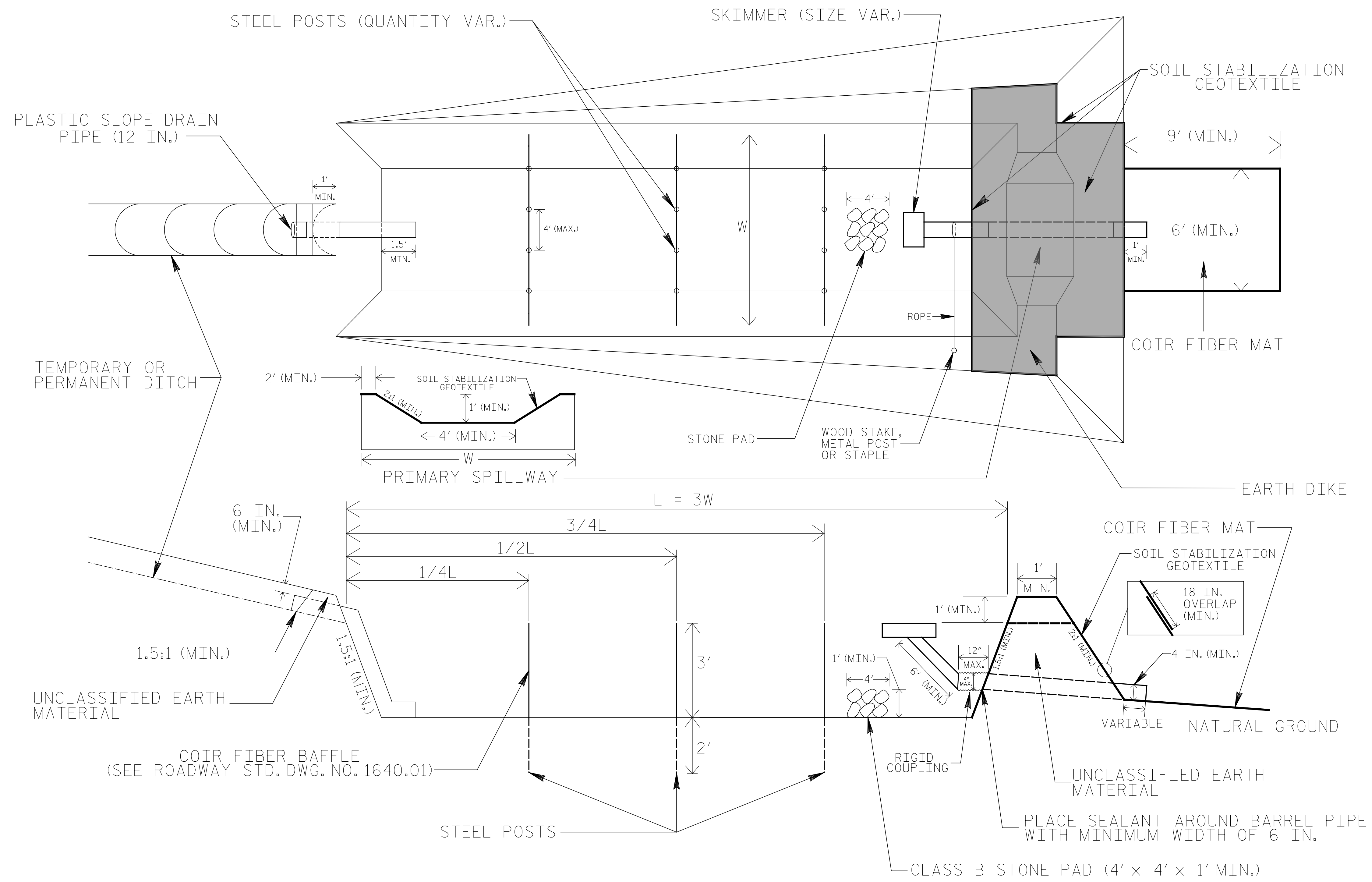
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

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

# SKIMMER BASIN WITH BAFFLES DETAIL



## COIR FIBER MAT ANCHOR OPTIONS

### NOTES

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

NOT TO SCALE

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

---



---

## ***SOIL STABILIZATION TIMEFRAMES***

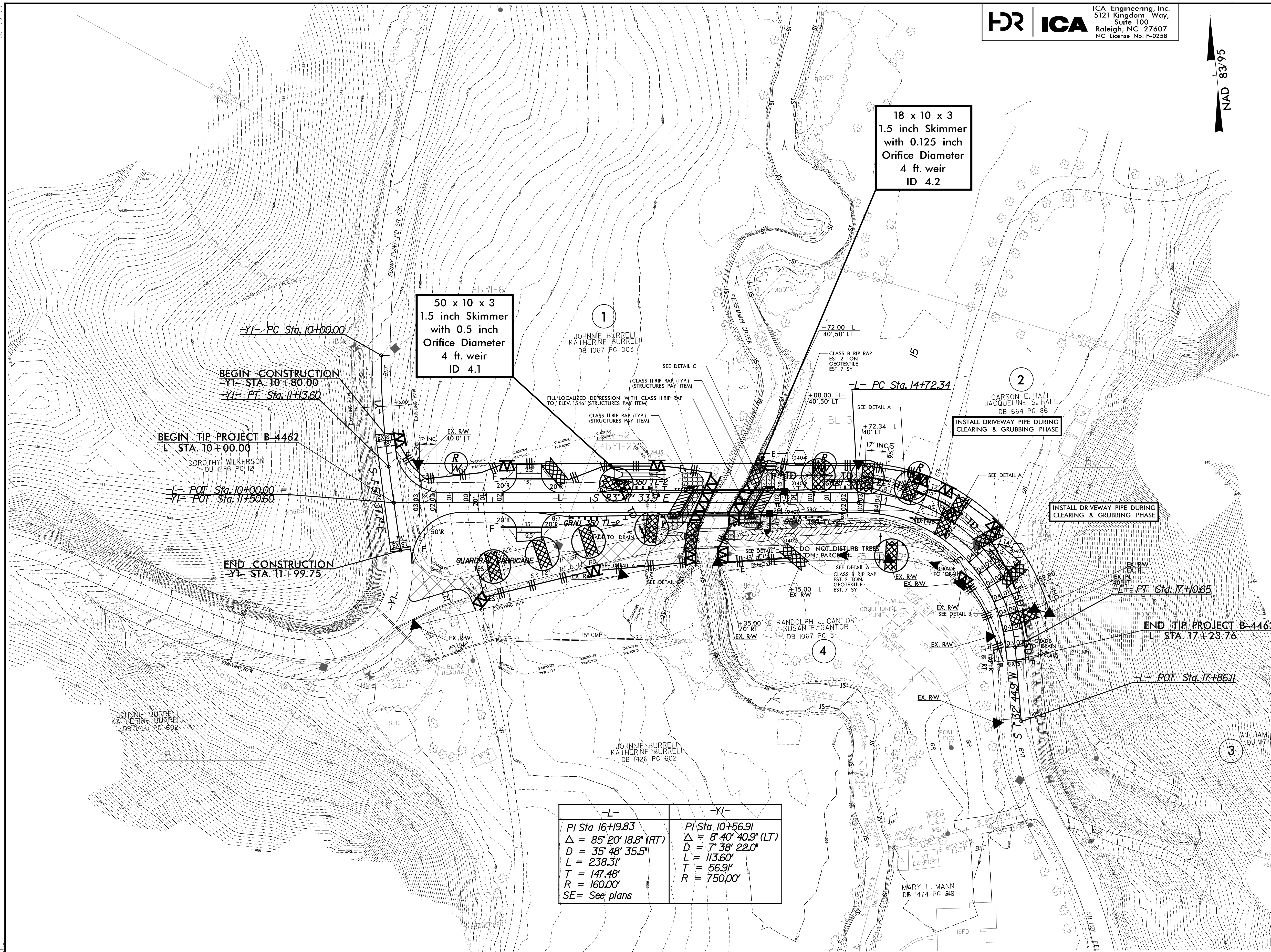
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES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



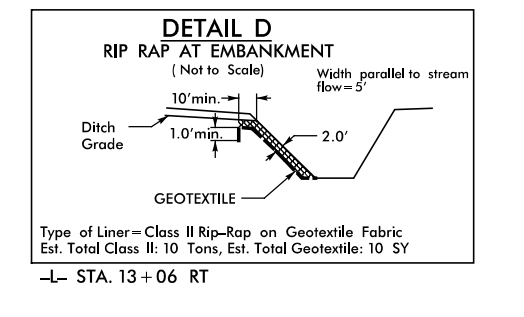
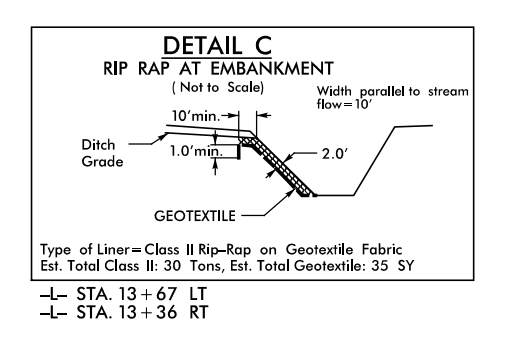
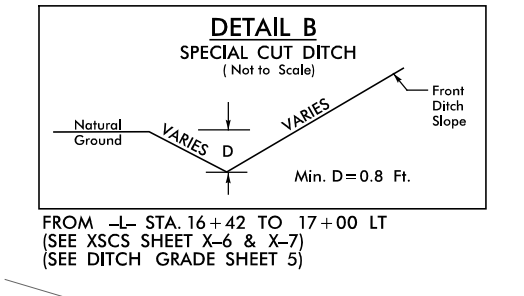
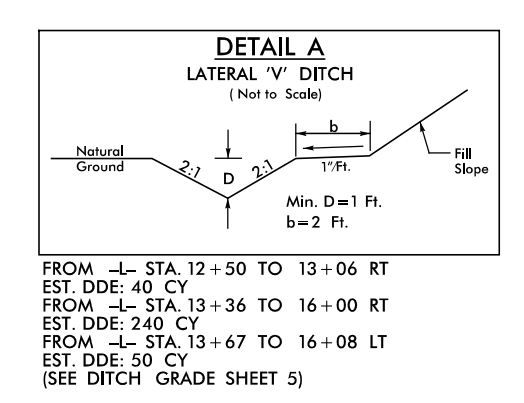


8/17/2017  
 I:\Projects\B-4462\6.0\_CAD\_BIM\6.2\_Work\_In\_Progress\Hydraulics\Erosion\_Control\cadd\B-4462\_erosion\_c&g.dgn  
 ICA ENGINEERING, INC.

NAD 83/95



CLEARING AND GRUBBING  
 EROSION CONTROL FOR  
 CONSTRUCTION SHEET 4



-L-	-YI-
PI Sta 16+19.83	PI Sta 10+56.91
$\Delta = 85' 20'' 18.8'' (RT)$	$\Delta = 8' 40'' 40.9'' (LT)$
$D = 35' 48'' 35.5''$	$D = 7' 38'' 22.0''$
$L = 238.31'$	$L = 113.60'$
$T = 147.48'$	$T = 56.91'$
$R = 160.00'$	$R = 750.00'$
SE= See plans	

NOTE:  
 ALL EROSION CONTROL DEVICES SHOWN ARE LOCATED WITHIN EXISTING/PROPOSED RW OR EASEMENT.

NOTE:  
 PLACE TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

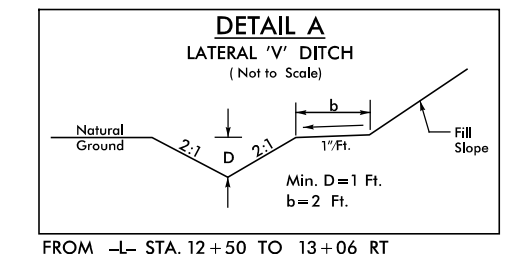
NOTE:  
 FOR PROFILES, SEE SHEET 5.

	PAVEMENT REMOVAL
	APPROACH SLAB

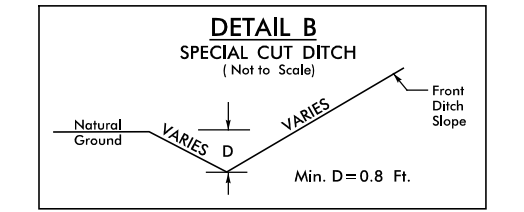


8/17/2017 8:17:59  
 I:\Projects\B-4462\6.0\_CAD\_BIM\6.2\_Work\_In\_Progress\Hydraulics\Erosion\_Control\cadd\B-4462\_04\_erosion\_inal.dgn  
 ICA ENGINEERING, INC.

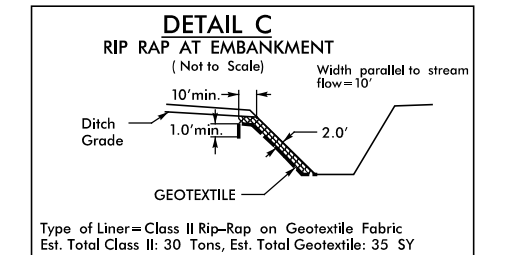
**FINAL EROSION CONTROL FOR CONSTRUCTION SHEET 4**



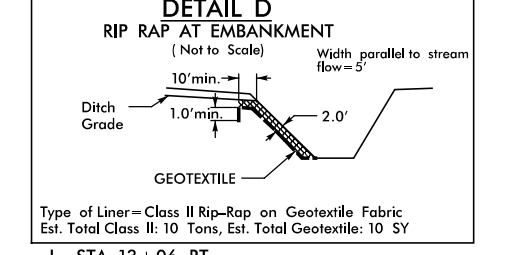
FROM -L- STA. 12+50 TO 13+06 RT  
 EST. DDE: 40 CY  
 FROM -L- STA. 13+36 TO 16+00 RT  
 EST. DDE: 240 CY  
 FROM -L- STA. 13+67 TO 16+08 LT  
 EST. DDE: 50 CY  
 (SEE DITCH GRADE SHEET 5)



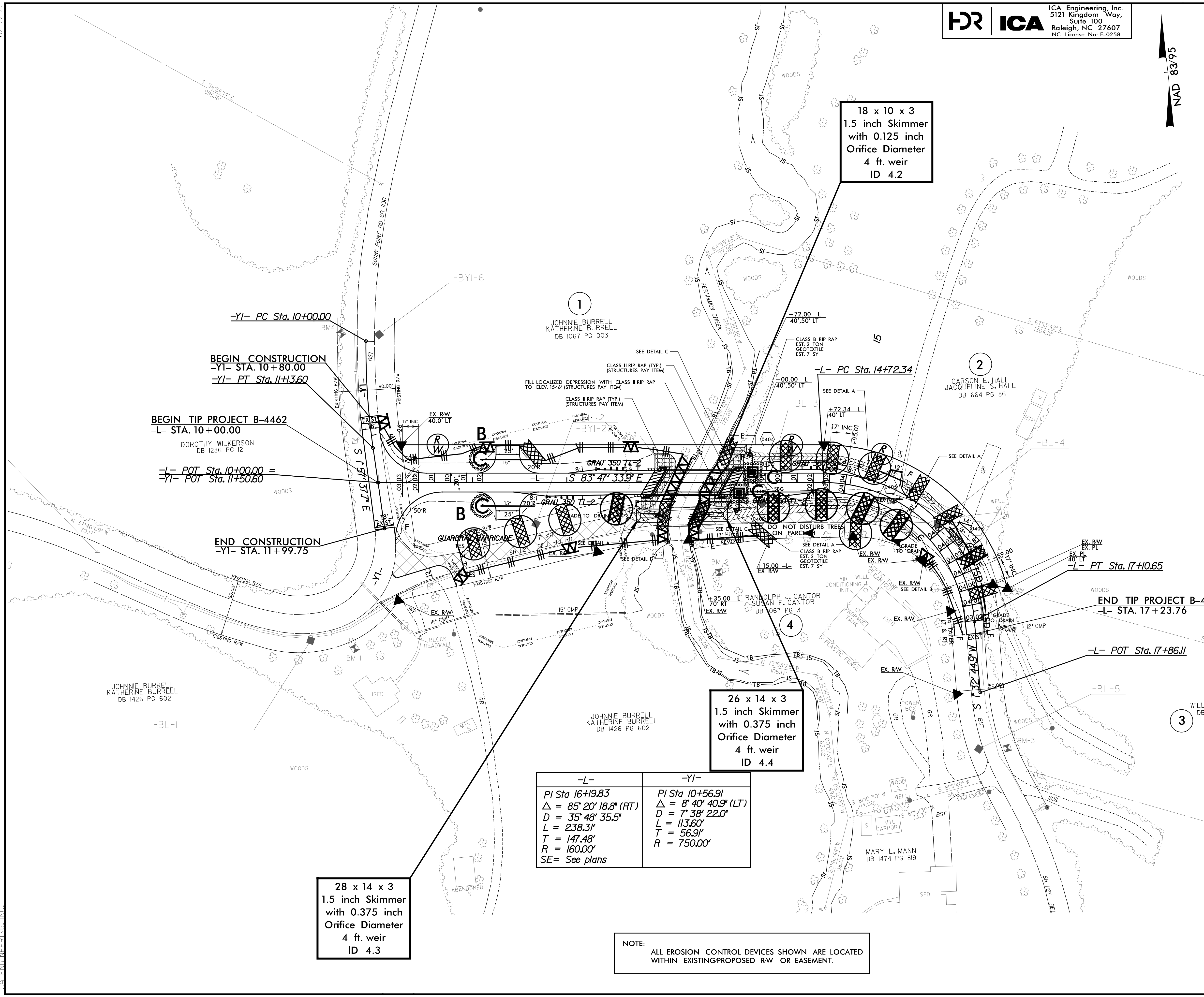
FROM -L- STA. 16+42 TO 17+00 LT  
 (SEE XS'S SHEET 4-4 & 4-7)  
 (SEE DITCH GRADE SHEET 5)



Type of Liner=Class B Rip-Rap on Geotextile Fabric  
 Est. Total Class B Rip-Rap: 30 Tons, Est. Total Geotextile: 30 SY  
 -L- STA. 13+67 LT  
 -L- STA. 13+36 RT



Type of Liner=Class B Rip-Rap on Geotextile Fabric  
 Est. Total Class B Rip-Rap: 10 Tons, Est. Total Geotextile: 10 SY  
 -L- STA. 13+06 RT



-L-	-YI-
PI Sta 16+19.83	PI Sta 10+56.91
$\Delta = 85' 20'' 18.8'' (RT)$	$\Delta = 8' 40'' 40.9'' (LT)$
$D = 35' 48'' 35.5''$	$D = 7' 38'' 22.0''$
$L = 238.31'$	$L = 113.60'$
$T = 147.48'$	$T = 56.91'$
$R = 160.00'$	$R = 750.00'$
SE= See plans	

28 x 14 x 3  
 1.5 inch Skimmer  
 with 0.375 inch  
 Orifice Diameter  
 4 ft. weir  
 ID 4.3

26 x 14 x 3  
 1.5 inch Skimmer  
 with 0.375 inch  
 Orifice Diameter  
 4 ft. weir  
 ID 4.4

18 x 10 x 3  
 1.5 inch Skimmer  
 with 0.125 inch  
 Orifice Diameter  
 4 ft. weir  
 ID 4.2

NOTE:  
 ALL EROSION CONTROL DEVICES SHOWN ARE LOCATED  
 WITHIN EXISTING/PROPOSED RW OR EASEMENT.

NOTE:  
 FOR PROFILES, SEE SHEET 5.

	PAVEMENT REMOVAL
	APPROACH SLAB