



440 S. Church St. Suite 1000 Charlotte, NC 28202-2075

N.C.B.E.L.S. License Number F-0116

704.338.6700

B 12/31/14 REVISED PER NCDENR COMMENTS **A** 11/2014 ISSUED FOR APPROVAL **PROJECT NUMBER** 453925-237673-018 DESCRIPTION



BRICKHAVEN No. 2 MINE TRACT "A" MINE STRUCTURAL FILL MONCURE, NC

FILENAME 02C-10.dwg

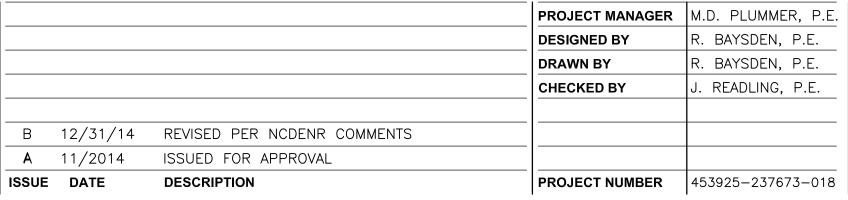
SHEET

02C-10





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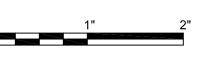






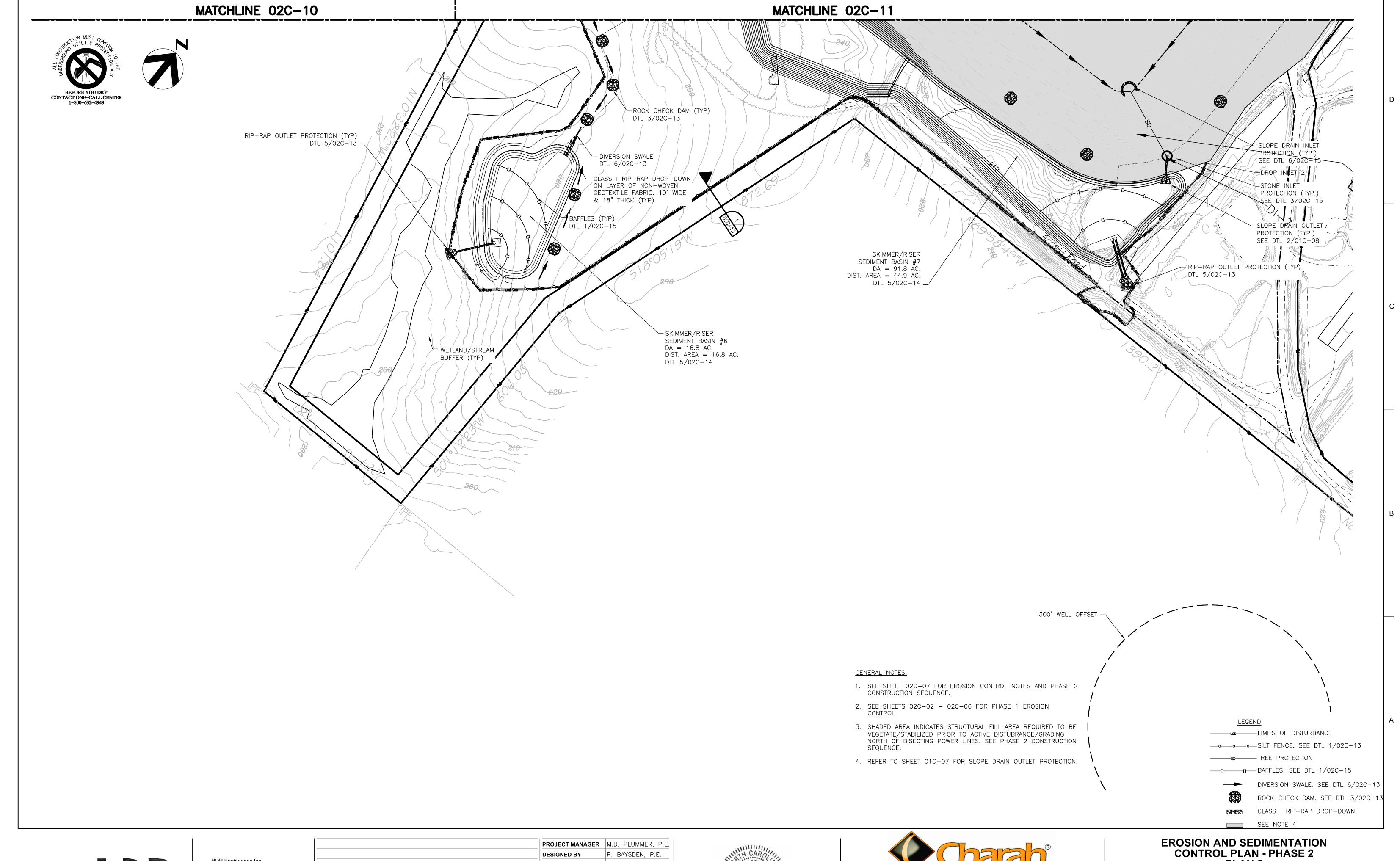
BRICKHAVEN No. 2 MINE TRACT "A" MINE STRUCTURAL FILL MONCURE, NC





FILENAME 02C-11.dwg **SCALE** 1"=100'

SHEET 02C-11





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			CHECKED BY	J. READLING, P.E.
			DRAWN BY	R. BAYSDEN, P.E.
			DESIGNED BY	R. BAYSDEN, P.E.
			PROJECT MANAGER	M.D. PLUMMER, P.E.



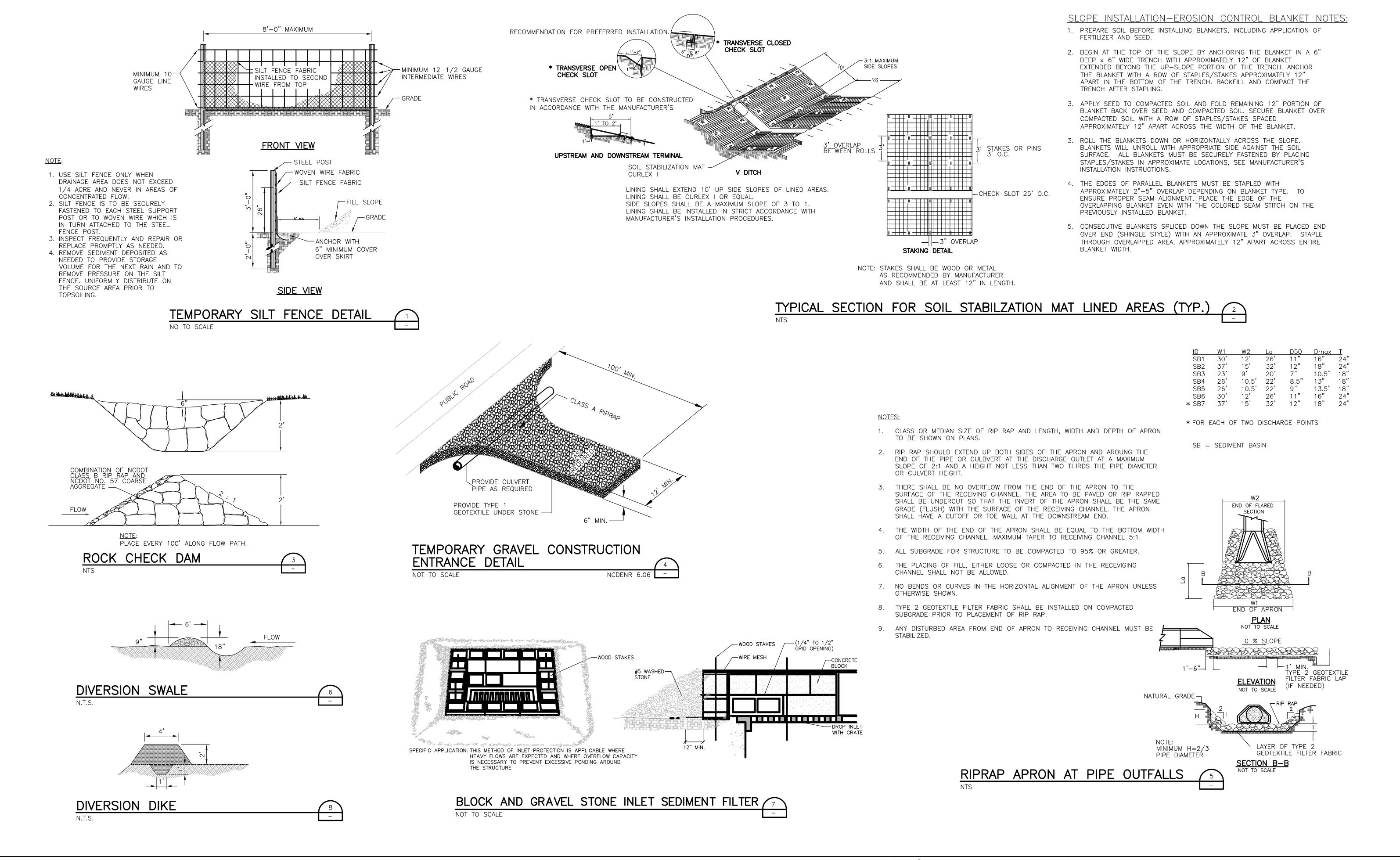


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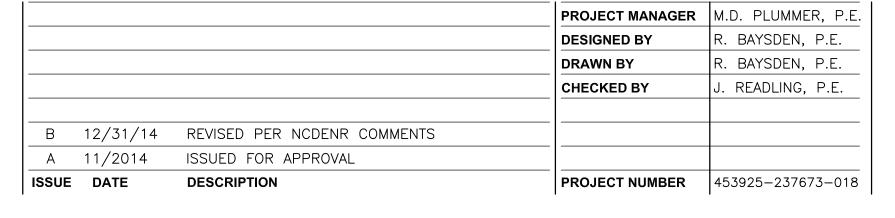


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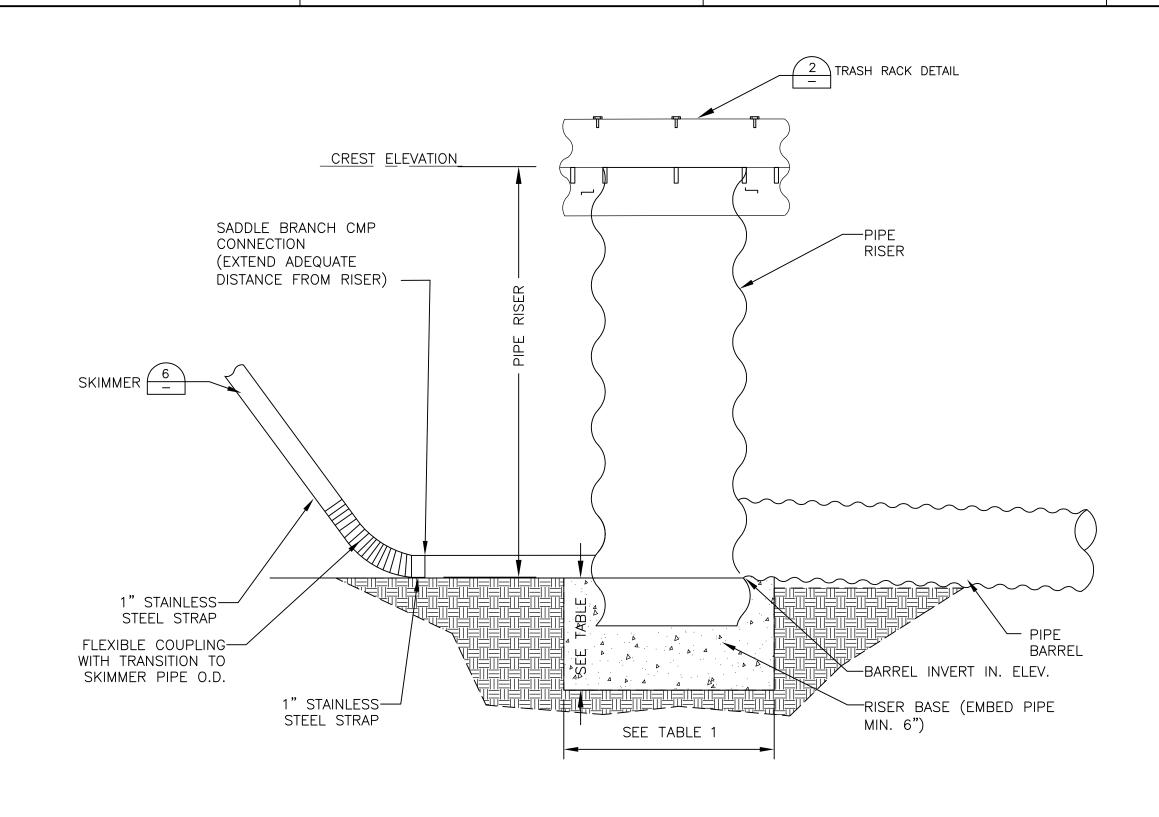


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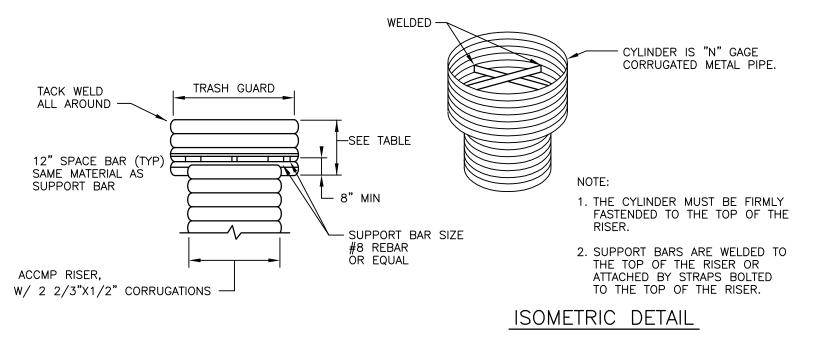
02C-13



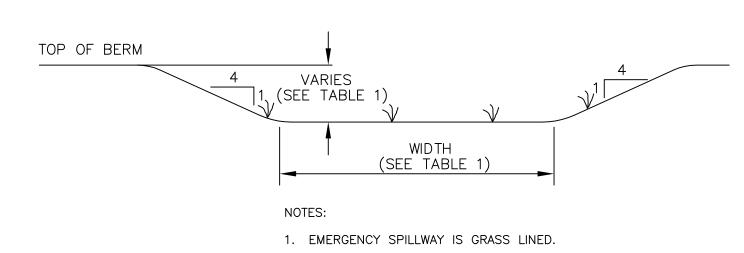
OUTLET STRUCTURE ENLARGEMENT

1

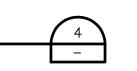
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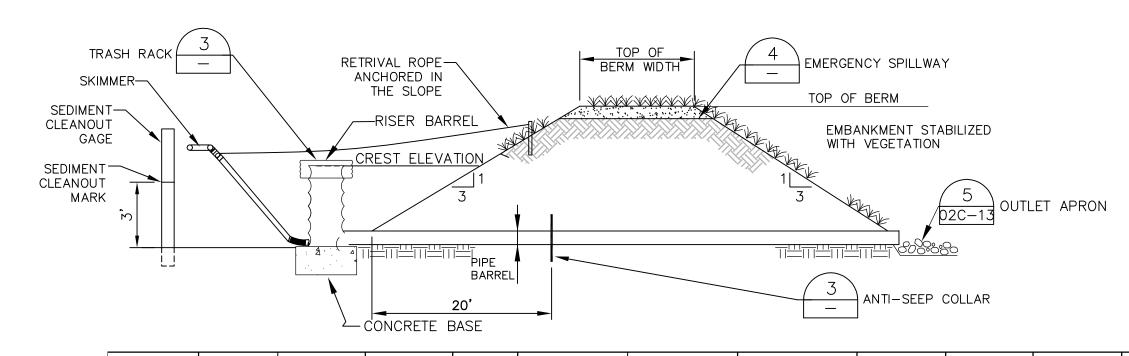


TRASH RACK DETAIL



EMERGENCY SPILLWAY TYPICAL



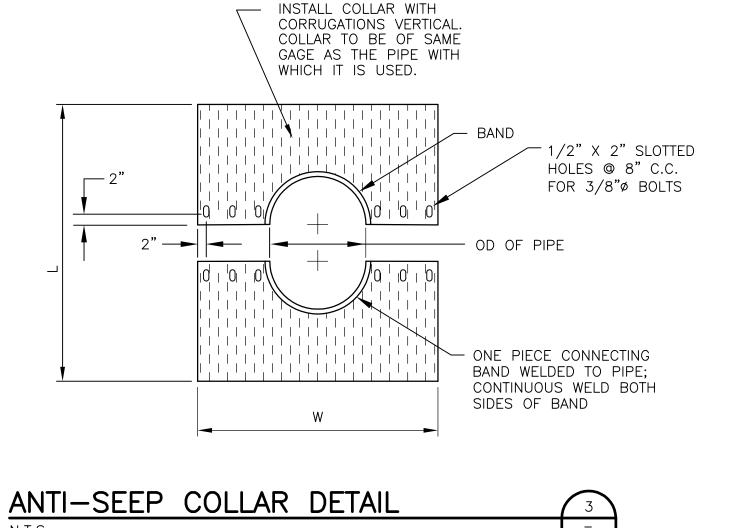


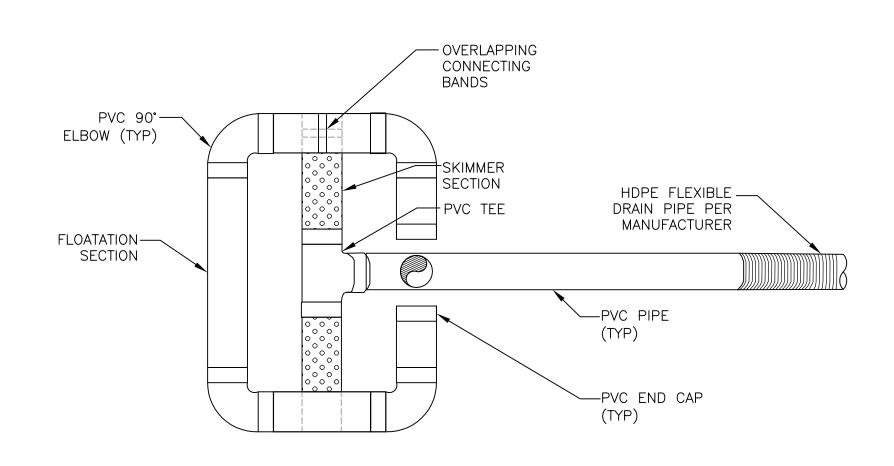
CONSTRUCTION, MAINTENANCE AND INSPECTION NOTES

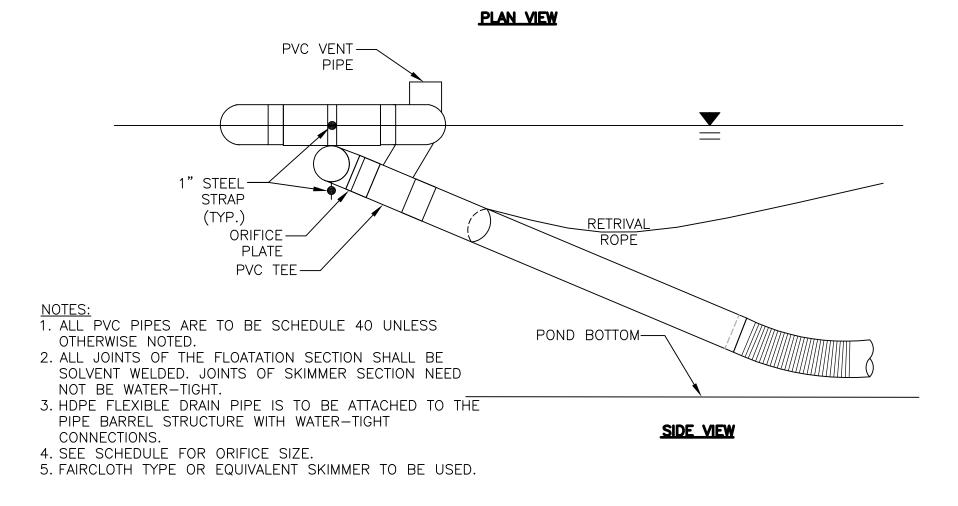
- INSPECT SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY.
- 2. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO ONE—HALF THE DESIGN DEPTH. PLACED REMOVED SEDIMENT IN AN AREA WITH SEDIMENT CONTROLS.
- 3. CHECK EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND
- 4. ALL CMP SHALL BE FULLY ASPHALT COATED, 16 GA. OR HEAVIER.
- 5. POND DIMENSIONS SHOWN ARE FOR THE CONTROLLING PHASE.
- 6. SEDIMENT BASINS 1, 2, 4 AND 7 HAVE MULTIPLE OUTLET STRUCTURES (RISER, BARREL, SKIMMER).
- 7. BASIN #7 UTILIZES THE EXISTING SETTLING POND. BECAUSE OF ITS LARGE DRAINAGE AREA 1/2 OF ITS DRAINAGE AREA MUST BE STABILIZED IN PHASE II TO CONSTRUCT A BASIN.
- 8. MSL = MEAN SEA LEVEL

			Top of	Top of	Emergency	Emergency	Number of		Riser	Trash	Trash	Trash	Concrete		Barrel	Barrel			
	Useful	Bottom	Berm	Berm	Spillway	Spillway	Riser/Barrel/	Riser	Crest	Guard	Guard	Guard	Ballast	Barrel	Invert	Invert	Antiseep	Skimmer	Skimmer
Sedimen	Life	Elevation	Elevation	Width	Elevation	Width	Skimmer	Diameter	Elevation	Diameter	Thickness	Height	Dimensions	Diameter	In	Out	Collar	Size	Orifice
Basin #	(Phase)	(MSL)	(MSL)	(FT)	(MSL)	(FT)	Assemblies	(IN)	(MSL)	(IN)	(Gage)	(IN)	(FT)	(IN)	(MSL)	(MSL)	Size (FT)	(IN)	(IN)
1	1 & 2	213	221	6	220.5	20	2	72	220.1	102	14	36	7x7x3	36	213	211.8	6x6	8	5
2	1 & 2	193	201	6	200	20	2	72	199.4	102	14	36	7x7x3	30	193	190.4	5x5	4	5
3	1 & 2	190	197	6	196.2	10	1	54	195.9	78	16	25	6x6x2	36	190	189.4	6x6	3	2.8
4	1 & 2	219	226	12	224.5	10	2	54	222.6	78	16	25	6x6x2	36	219	218.4	6x6	4	3.2
5	1	229	236.5	9	236	10	1			1	WA			12	229	228.3	2x2	4	3.3
6	1 & 2	211	218.5	9	218	10	1	54	217.5	78	16	25	6x6x2	36	211	209.8	6x6	5	3.9
7	1 & 2	208	218	6	217.5	30	2	72	217.2	102	14	36	7x7x4	36	208	207.6	6x6	8	7.6

SEDIMENT BASIN SCHEDULE DETAIL 5







FAIRCLOTH SKIMMER DETAIL



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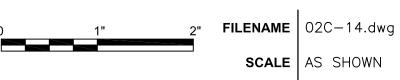
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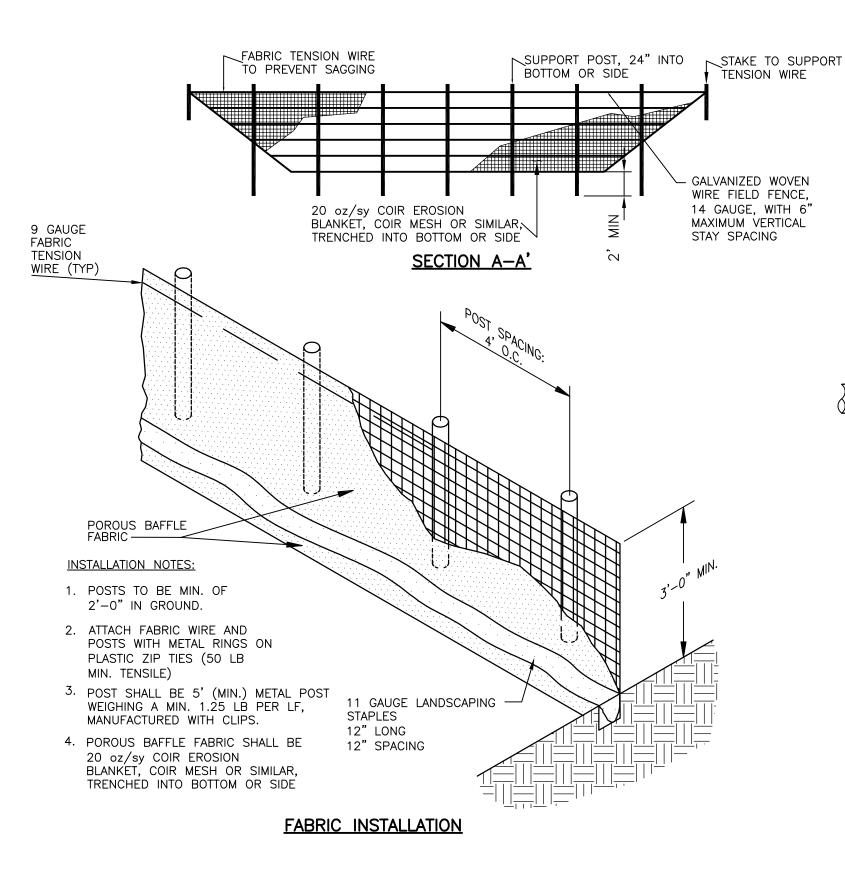




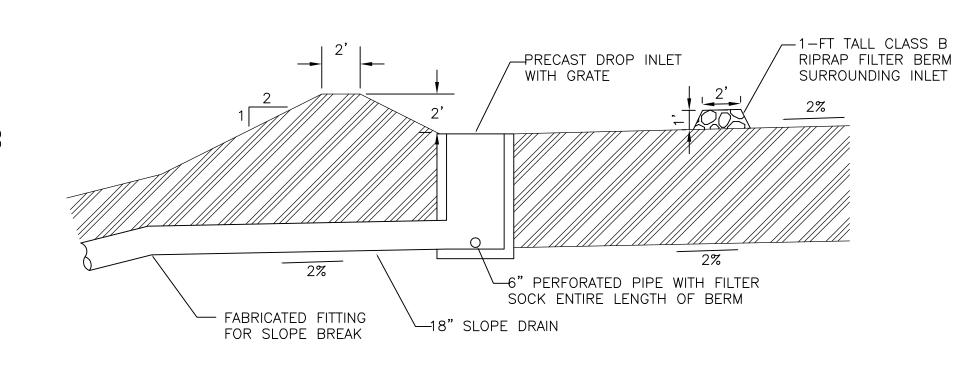
BRICKHAVEN No. 2 MINE TRACT "A" MINE STRUCTURAL FILL MONCURE, NC EROSION AND SEDIMENTATION CONTROL DETAILS (2 OF 3)



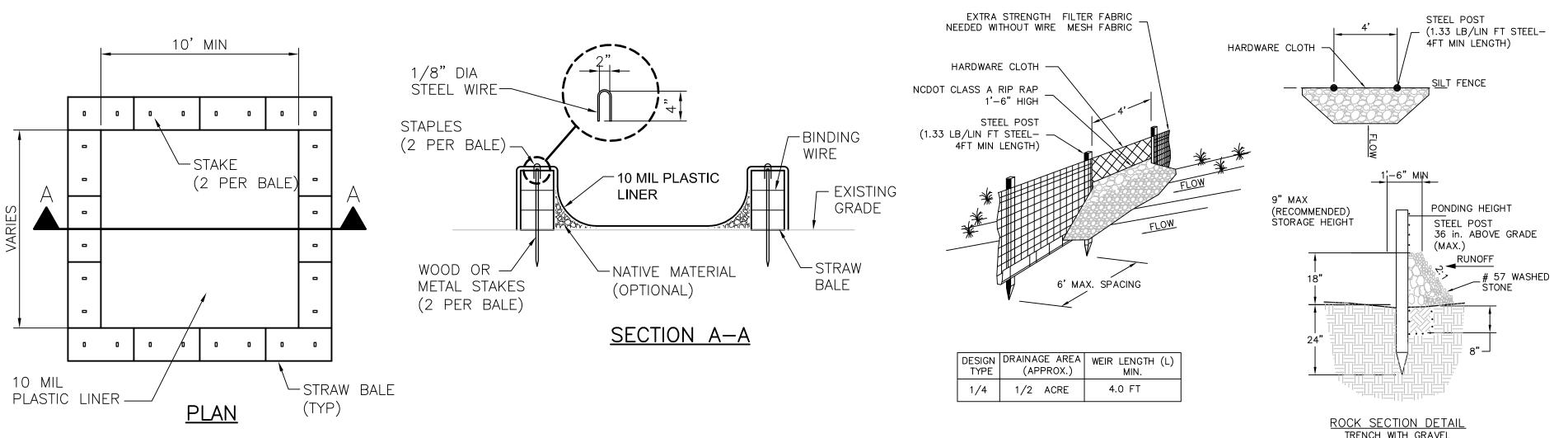
ория (14 март) 1 март



18" SLOPE DRAIN — CORRUGATED PLASTIC PIPE -EROSION CONTROL BLANKET & VEGETATED CCP STRUCTURAL FILL.



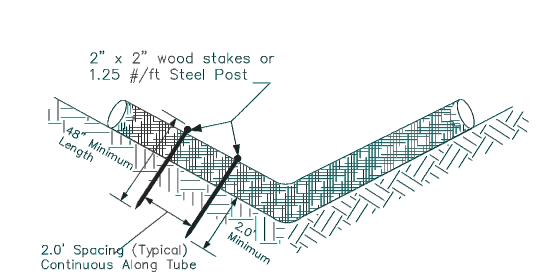
SLOPE DRAIN INLET / OUTLET PROTECTION (6) NOT TO SCALE



CONCRETE WASHOUT AREA DETAIL

SILT FENCE W/ ROCK OUTLET

SEDIMENT TUBE INSTALLATION



SEDIMENT TUBE SPACING

SLOPE

LESS THAN 2%

2%

3%

4%

5%

6%

GREATER THAN 6%

MAX. SEDIMENT TUBE SPACING

150-FEET

100-FEET

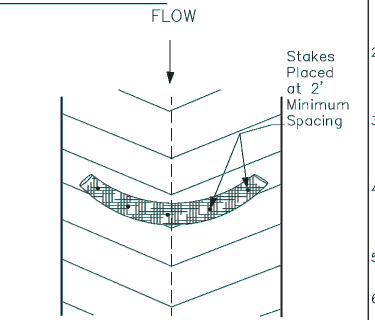
75-FEET

50-FEET

40-FEET

30-FEET

25-FEET



- SEDIMENT TUBES GENERAL NOTES Sediment tubes may be installed along contours, in drainage conveyance channels, and around inlets to help prevent off-site discharge of sediment-laden stormwater runoff.
- Sediment tubes are elongated tubes of compacted geotextiles, curled excelsior wood, natural coconut fiber, or hardwood mulch. Straw, pine needle, and leaf mulch-filled sediment tubes are not permitted.
- The outer netting of the sediment tube should consist of seamless, high—density polyethylene photodegradable materials treated with ultraviolet stabilizers or a seamless, high-density polyethylene non—degradable material.
- Sediment tubes, when used as checks within channels, should range between 18-inches and 24-inches depending on channel dimensions. Diameters outside this range may be
- allowed where necessary when approved. Curled excelsior wood, or natural coconut products that are

rolled up to create a sediment tube are not allowed.

- Sediment tubes should be staked using wooden stakes (2—inch X 2—inch) or steel posts (standard "U" or "T" sections with a minimum weight of 1.25 pounds per foot) at
- a minimum of 48—inches in length placed on 2—foot centers. Install all sediment tubes to ensure that no gaps exist between the soil and the bottom of the tube. Manufacturer's recommendations should always be consulted before
- The ends of adjacent sediment tubes should be overlapped 6—inches to prevent flow and sediment from passing through
- Sediment tubes should not be stacked on top of one
- another, unless recommended by manufacturer. 10. Each sediment tube should be installed in a trench with a
- depth equal to 1/5 the diameter of the sediment tube. 1. Sediment tubes should continue up the side slopes a
- of 1-foot above the design flow depth of the channel. Install stakes at a diagonal facing incoming runoff.

The key to functional sediment tubes is weekly inspections, routine maintenance, and regular sediment removal.

SEDIMENT TUBES - INSPECTION & MAINTENANCE

- 2. Regular inspections of sediment tubes shall be conducted every calendar week and, as recommended, within 24-hours after each rainfall even that produces 1/2-inch or more of
- 3. Attention to sediment accumulations in front of the sediment tube is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
- 4. Remove accumulated sediment when it reaches 1/3 the
- of the sediment tube. 5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed
- sediment after it is relocated. 6. Large debris, trash, and leaves should be removed from in
- front of tubes when found. . If erosion causes the edges to fall to a height equal to or
- below the height of the sediment tube, repairs should be immediately to prevent runoff from bypassing tube.
- 8. Sediment tubes should be removed after the contributing drainage area has been completely stabilized. Permanent vegetation should replace areas from which sediment tubes have been removed.





OTHERWISE, FESCUE MAY BE SHADED OUT.

AUG 15 - NOV 1

MAR 1 - APR 15

APR 15 – JUN 30

NOV 1 - MAR 1

FOR SHOULDERS, SIDE DITCHES, SLOPES (MAX 3:1):

<u>TYPE</u>

TALL FESCUE

1. SURFACE WATER CONTROL MEASURES TO BE INSTALLED ACCORDING TO PLAN.

TALL FESCUE & ABRUZZI RYE 300 LBS/ACRE

HULLED COMMON BERMUDAGRASS 300 LBS/ACRE

TALL FESCUE AND BROWNTOP 300 LBS/ACRE

MILLET OR SORGHUM-SUDAN

TALL FESCUE AND BROWNTOP

MILLET OR SORGHUM-SUDAN

*** TEMPORARY: RESEED ACCORDING TO OPTIMUM SEASON FOR

DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY

COVER TO GROW MORE THAN 12" IN HEIGHT BEFORE MOWING;

SEDIMENT BAFFLE

2. AREAS TO BE SEEDED SHALL BE RIPPED AND SPREAD WITH AVAILABLE TOPSOIL 3" DEEP. TOTAL SEEDBED PREPARED DEPTH SHALL BE 4" TO 6" DEEP.

PLANTING RATE

300 LBS/ACRE

300 LBS/ACRE

DATE

MAR 1 - JUN 1

MAR 1 - APR 15

MAR 1 - JUN 30

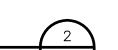
MAR 1 - JUN 30

SEPT 1 - MAR 1

NOV 1 - MAR 1

- 3. LOOSE ROCKS, ROOTS AND OTHER OBSTRUCTIONS SHALL BE REMOVED FROM THE SURFACE SO THAT THEY WILL NOT INTERFERE WITH ESTABLISHMENT AND MAINTENANCE OF VEGETATION. SURFACE FOR FINAL SEEDBED PREPARATION AT FINISHED GRADES SHOWN SHALL BE REASONABLY SMOOTH AND UNIFORM.
- 4. IF NO SOIL TEST IS TAKEN, FERTILIZER AND LIME TO BE ACCORDING TO SEEDING SPECIFICATIONS BELOW. IN ADDITION, PROVIDE 15 LBS/1000 S.F. OF SUPERPHOSPHATE.
- 5. IF SOIL TEST IS TAKEN, PROVIDE LIME AND FERTILIZER ACCORDING TO SOIL TEST REPORT.
- 6. LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY AND MIXED WITH THE SOIL DURING SEEDBED PREPARATION. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DEPENDING ON FIELD CONDITION.
- 7. MULCH TO BE TACKED OR MECHANICALLY TIED DOWN IMMEDIATELY AFTER MULCH IS SPREAD.
- 8. ALL SLOPES GREATER THAN 2.5:1 SHALL BE STABILIZED WITH JUTE MESH.





FOR SHOULDERS, SIDE DITCHES, SLOPES (MAX 3:1 TO 2:1):

ADD TALL FESCUE

BERMUDAGRASS

AND ABRUZZI RYE

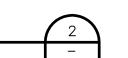
OR ADD WEEPING LOVE GRASS

IF SOIL CONDITIONS ARE NOT KNOWN, APPLY LIME AT A RATE OF 1 TO 1.5 TONS/ACRE ON COARSE TEXTURED SOILS AND 2-3 TONS/ACRE ON FINE-TEXTURED SOILS. APPLY LIMESTONE

UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL. APPLY 10-10-10

FERTILIZER AT 700-1000 LBS/ACRE MIXED INTO THE TOP 4-6 INCHES OF SOIL.

OR ADD HULLED COMMON



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<u>PLANTING RATE</u>

LESPEDEZA);

120 LBS/ACRE

10 LBS/ACRE

25 LBS/ACRE

25 LBS/ACRE

SERICEA LESPEDEZA (UNHULLED 70 LBS/ACRE (SERICEA LESPEDEZA);

UNSCARIFIED) AND TALL FESCUE 120 LBS/ACRE (TALL FESCUE)

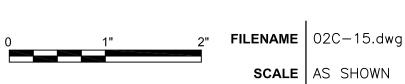
SERICEA LESPEDEZA (SCARIFIED) 50 LBS/ACRE (SERICEA





BRICKHAVEN No. 2 MINE TRACT "A" MINE STRUCTURAL FILL MONCURE, NC





SHEET