

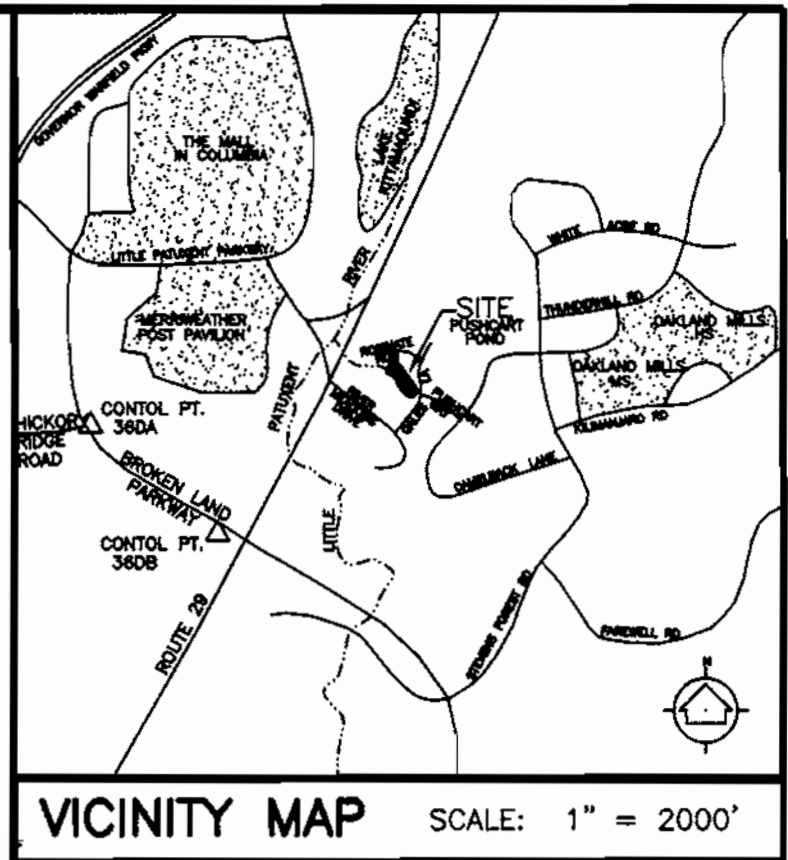
BENCHMARK INFORMATION:
 STEEL PIN FOUND NEAR EMERGENCY SPILLWAY
 ELEVATION = 322.00

Horizontal Control shown hereon is based upon NAD '27, Maryland
 Coordinate System as projected by Howard County Geodetic Control Stations
 No. 36DA AND 36DB.

Vertical Control shown hereon is based upon NGVD88, Maryland
 Coordinate System as projected by Howard County Geodetic Control Stations
 No. 36DA AND 36DB.

CONTROL POINT 36DA N500100.50 E837619.20
 CONTROL POINT 36DB N499192.00 E838527.30

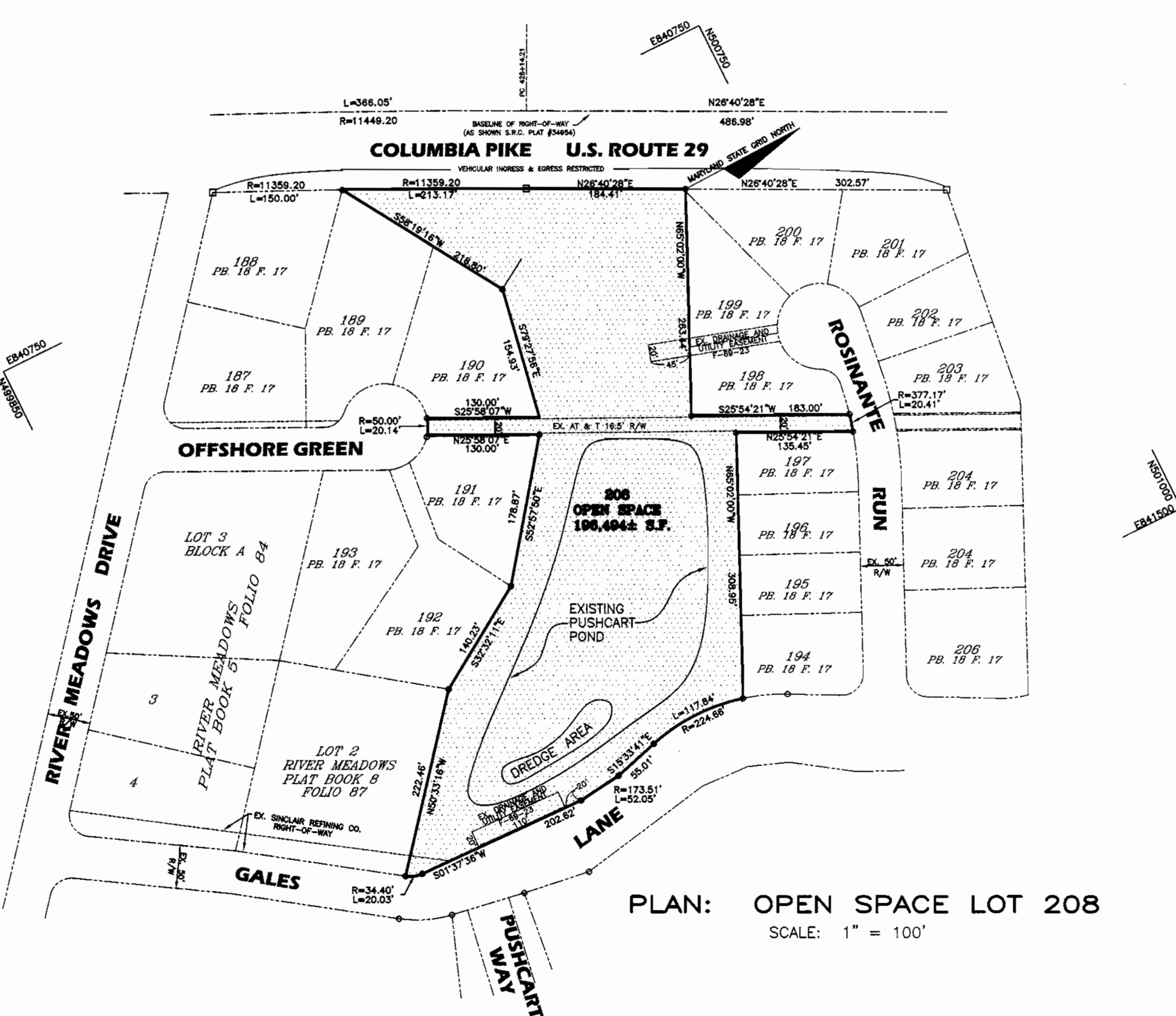
DAM RECONSTRUCTION AND DREDGING FOR PUSHCART POND COLUMBIA, MARYLAND SDP-00-62



- SITE ANALYSIS DATA CHART:
- TOTAL AREA LOT 208: 4.5109± ACRES OR 196494.8 S.F. AS SHOWN ON PLAT P-8.17 & 74 #14290 (F-00-77)
 - TOTAL PROPOSED AREA TO BE DISTURBED = 2.0 AC ±
 - PRESENT ZONING: NT, FDP 65-A, OPEN SPACE-CREDITED LAND USE
 - CURRENT USE: OPEN SPACE (POND)
 - TOTAL AREA TO BE STRUCTURALLY STABILIZED = 0.1 AC ±
 - TOTAL PROPOSED AREA TO BE VEGETATIVELY STABILIZED = 2.0 AC ±
 - TOTAL PROPOSED OPEN SPACE OR GREEN SPACE = 4.5109 AC ±
 - NO PARKING SPACES REQUIRED OR PROVIDED

CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST 48 HOURS PRIOR TO STARTING ANY OF THE WORK SHOWN HEREON.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTE THAT IN CASE OF DISCREPANCY BETWEEN ANY SCALED DIMENSIONS AND THE FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
- CONTRACTOR SHALL MEET ALL EXISTING IMPROVEMENTS SMOOTHLY FOR LINE, GRADE, AND FINISH.
- ALL WORK SHOWN ON THESE PLANS SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND OF THE MARYLAND STATE HIGHWAY ADMINISTRATION AND THE HOWARD COUNTY PLUMBING CODE, UNLESS OTHERWISE NOTED.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM SUCH WORK. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE BASE BID.
- THE CONTRACTOR SHALL INSPECT THE SITE TO DETERMINE IF ANY TREES, PAVING, ETC. ARE TO BE REMOVED PRIOR TO PLACING A BID ON SUCH ITEMS.
- THE LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE LOCATIONS ARE TAKEN FROM EXISTING RECORDS AND DO NOT REPRESENT FIELD-VERIFIED LOCATIONS. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 A MINIMUM OF 5 WORKING DAYS PRIOR TO DIGGING. THE CONTRACTOR SHALL CONFIRM TO HIS OWN SATISFACTION THE LOCATION OF ALL UTILITIES PRIOR TO ANY EXCAVATION OR PLACEMENT OF MATERIALS. IF ANY CONFLICT IS FOUND BETWEEN UNDERGROUND UTILITIES AND THE PROPOSED LOCATION OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT MARYLAND LAND DESIGN, INC. AND THE OWNER OF THE UTILITY IMMEDIATELY. ANY DAMAGE OR DISRUPTION OF SERVICE SHALL BE AT THE EXPENSE OF THE CONTRACTOR. RELOCATION OF ANY EXISTING UTILITIES, SHALL BE AT THE EXPENSE OF THE OWNER. THE CONTRACTOR SHALL COORDINATE RELOCATION OF THESE FACILITIES, IF NECESSARY.
- CONTRACTOR SHALL PROTECT ALL EXISTING TREES OUTSIDE THE LIMIT OF DISTURBANCE AT ALL TIMES DURING CONSTRUCTION.
- CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS NOT SCHEDULED FOR REMOVAL OR DEMOLITION. COST OF REPAIR TO EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE BASE BID. ALL EXISTING SITE FEATURES NOT BEING RETAINED SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED LOCATION. ANY DAMAGE TO OFFSITE ROADS, RIGHT OF WAY, OR ADJACENT PROPERTY SHALL BE REPAIRED IMMEDIATELY AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL CLEAR THE PROJECT SITE OF ALL TREES, PAVING, STRUCTURES, ETC. WITHIN THE CONSTRUCTION AREA UNLESS OTHERWISE NOTED ON THE PLAN.
- ONLY SUITABLE MATERIAL SHALL BE USED AS FILL, AND ALL FILL SHALL BE PLACED AND COMPACTED AS SPECIFIED IN THE SOILS REPORT PREPARED FOR THIS SITE OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. ALL 2:1 SLOPES SHOWN HEREON, EXCEPTING THOSE ASSOCIATED WITH LANDSCAPE BERMING, ALL GRADING UNDER PROPOSED PAVING, AND ALL FILL AND COMPACTION SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER.
- CONTRACTOR SHALL PROVIDE MINIMUM 4 FOOT BENCH AT EDGE OF PAVING IN FILL AREAS. MAXIMUM SLOPE OF BENCH SHALL BE 4% (1/4 IN. PER FOOT).
- MAXIMUM SLOPE SHALL BE 2 HORIZONTALLY TO 1 VERTICALLY.
- CONTRACTOR SHALL PLACE 4" MINIMUM TOPSOIL IN LANDSCAPE AREAS. TOPSOIL SHALL BE APPROVED BY LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL PLACE A WITNESS POST AT THE TERMINUS OF ALL UTILITY STUBS.
- ALL UTILITIES INSTALLED SHALL RECEIVE FULL TRENCH COMPACTING.
- CONTRACTOR SHALL PROVIDE A MINIMUM OF 1 FOOT OF PROTECTIVE FILL OVER STORMDRAIN PIPES DURING CONSTRUCTION.
- ALL AREAS NOT BEING PAVED OR RECEIVING BUILDING COVERAGE SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.
- TOPOGRAPHY SHOWN HEREON WAS FIELD RUN BY RTF, INC. AUGUST 1999.
- CONTRACTOR WILL NEED TO ESTABLISH A NEW BENCHMARK DURING CONSTRUCTION FROM THE ONE THAT IS SHOWN ON PLANS.
- ANY DAMAGE TO THE EXISTING SIDEWALK AND CURB ALONG GALES LANE BY THIS PROJECT SHALL BE REPAIRED PER COUNTY STANDARDS BY THE COLUMBIA ASSOCIATION, INC.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANUAL OF UNIFORM CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 36DA AND 36DB WERE USED FOR THIS PROJECT.
- THERE IS NO FLOODPLAIN ON THIS SITE.
- THE WETLAND DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY CAMBELL & NOLAN ASSOCIATES, INC., DATED 10 SEPTEMBER 1999, AND WAS APPROVED ON 5 OCTOBER 1999.
- NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.
- EXISTING UTILITIES ARE BASED ON FIELD RUN SURVEY.



SHEET INDEX

- | | |
|---------|---|
| SHEET 1 | TITLE SHEET |
| SHEET 2 | EXISTING CONDITIONS PLAN |
| SHEET 3 | SITE PLAN |
| SHEET 4 | GRADING AND SEDIMENT CONTROL PLAN |
| SHEET 5 | EROSION AND SEDIMENT CONTROL DETAILS |
| SHEET 6 | POND CROSS-SECTIONS AND SPECIFICATIONS |
| SHEET 7 | POND DETAILS |
| SHEET 8 | DETAIL - OUTFALL STRUCTURE & TRASH RACK |
| SHEET 9 | DETAIL - OUTFLOW AND STILLING BASIN |

These plans for soil erosion and sediment control meet the requirements of Howard Soil Conservation District

APPROVED: *[Signature]* HOWARD SOIL CONSERVATION DISTRICT
 PLAN NUMBER: SDP-00-62 DATE: 5/18/00

Reviewed for the Howard Conservation District and meets technical requirements
[Signature] NATURAL RESOURCES CONSERVATION SERVICE DATE: 5/18/00

APPROVED: *[Signature]* HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 5/24/00
[Signature] CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 6/29/00

DIRECTOR: *[Signature]* DATE: 6/29/00

ADDRESS CHART
 PARCEL NO. STREET ADDRESS
 O.S. LOT 208 5940 GALES LANE

SUBDIVISION NAME SECTION NAME PARCEL #
 VOM 5/2 OPEN SPACE LOT 208

PLAT #14290 BLOCK # ZONE TAX MAP ELECT. DIST. CENSUS TRACT
 P-8.17 & 74 # 8 NT-0.S. 36 6TH 6066.03

WATER CODE: N/A SEWER CODE: N/A

NOTE:
 MDE NO. 98-PO-0073
 MDSPGP AND WQ NO. 96-WQ-0001R2



3600 CRONDALL LANE, SUITE 110
 BALTIMORE, MD 21117
 410-356-4875



REVISIONS		
NO.	DATE	DESCRIPTION

OWNER/DEVELOPER:
 COLUMBIA ASSOCIATION, INC.
 10221 WINCOPIN CIRCLE SUITE 100
 COLUMBIA, MARYLAND 21044-3410

PLAN PREPARATION	
DRAWN BY: DAB	DATE: 27 AUGUST 1999
DESIGNED BY: DAB	FILE NO. 99036
CHECKED BY: KDB	DRAWING NO.

TITLE SHEET
**PUSHCART POND
 DAM RECONSTRUCTION & DREDGING**
 COLUMBIA, HOWARD COUNTY, MARYLAND

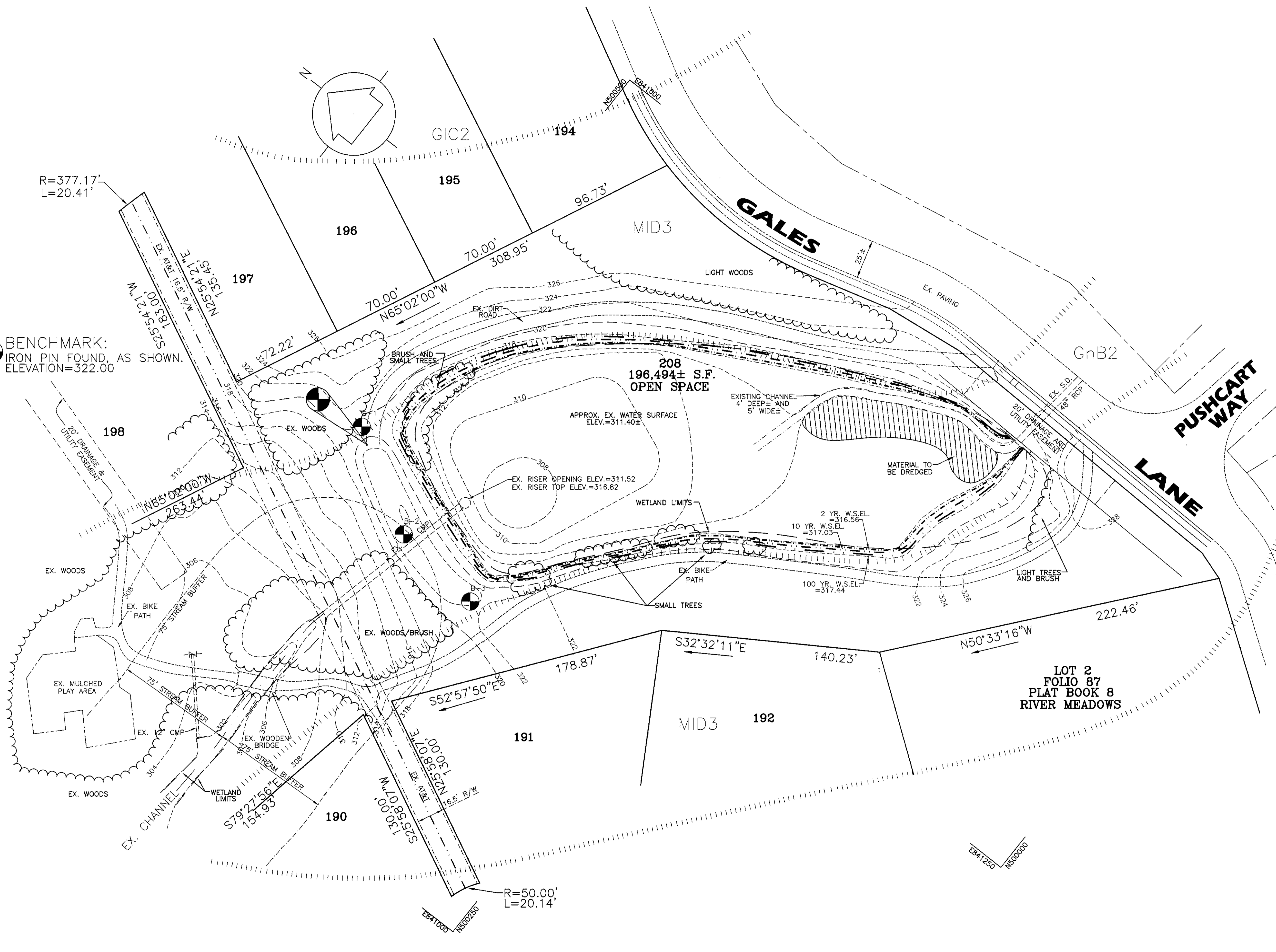
SCALE
 AS NOTED
 SHEET NO.
 1 OF 9

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LEGEND

- - - - - EXISTING GRADE
- — — — — PROPOSED GRADE
- ==== PROPOSED PIPE
- - - - - EXISTING PIPE
- - - - - AT&T CABLE
- (|||||) MATERIAL TO BE DREDGED
- PROPERTY LINE
- - - - - STREAM BUFFER
- SOILS
- — — — — LINE STREAM
- ~~~~ TREE LINE
- - - - - 100-YR WATER SURFACE ELEVATION

BENCHMARK:
IRON PIN FOUND, AS SHOWN.
ELEVATION=322.00



These plans for soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
 PLAN NUMBER _____ DATE _____

Reviewed for the Howard Conservation District and meets technical requirements.

NATURAL RESOURCES CONSERVATION SERVICE _____ DATE 5/24/00

APPROVED: Howard County Department of Planning and Zoning

[Signature] _____ DATE 5/24/00
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] _____ DATE 6/29/00
 CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] _____ DATE 6/29/00
 DIRECTOR

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
O.S. LOT 208	5940 GALES LANE

SUBDIVISION NAME	SECTION NAME	PARCEL #
VOM	5/2	OPEN SPACE LOT 208
PLAT # 14290	BLOCK # 8	TAX/ZONE MAP 36
PB 78 F. 72	ZONE NT-O.S.	ELECT. DIST. 6TH
WATER CODE: N/A		CENSUS TRACT 6066.03
	SEWER CODE: N/A	

BROOK

3600 CRONDALL LANE, SUITE 110
BALTIMORE, MD 21117
410-356-4875



REVISIONS		
NO.	DATE	DESCRIPTION

OWNER/DEVELOPER:
COLUMBIA ASSOCIATION, INC.
10221 WINCOPIN CIRCLE SUITE 100
COLUMBIA, MARYLAND 21044-3410

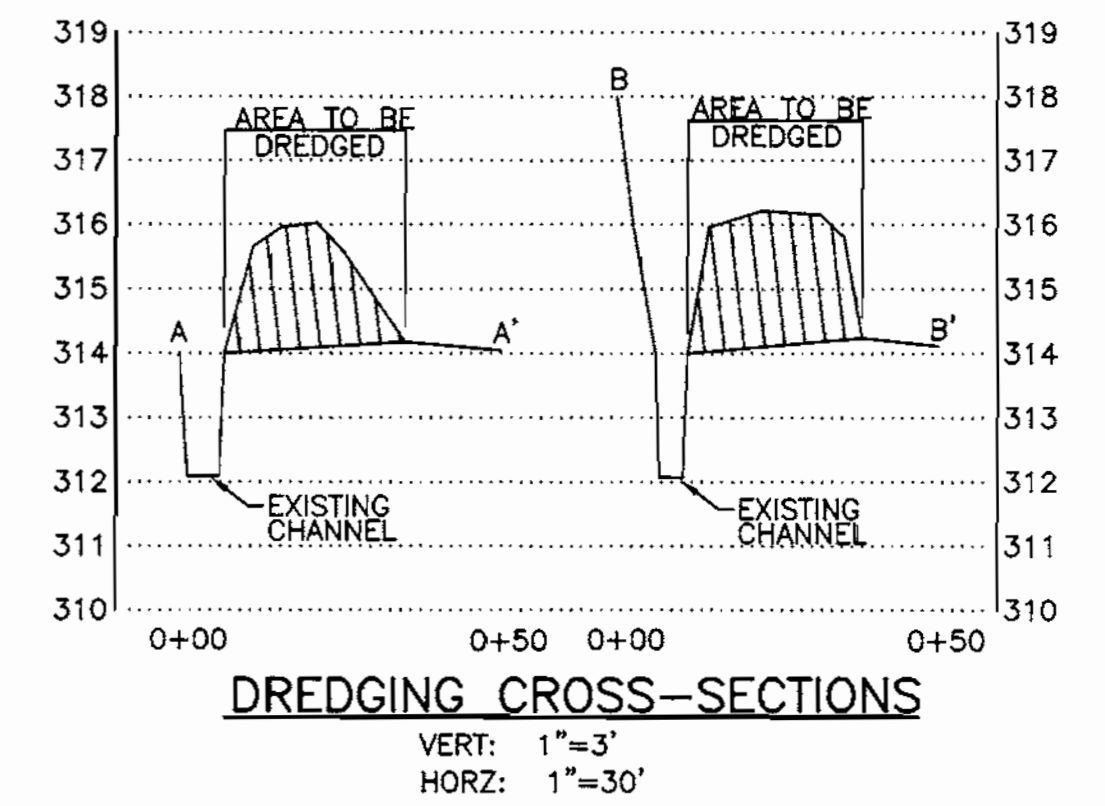
PLAN PREPARATION	
DRAWN BY: DAB	DATE: 27 AUGUST 1999
DESIGNED BY: DAB	FILE NO. 99036
CHECKED BY: KDB	DRAWING NO.

EXISTING CONDITIONS PLAN
PUSHCART POND
DAM RECONSTRUCTION
& DREDGING
COLUMBIA, HOWARD COUNTY, MARYLAND

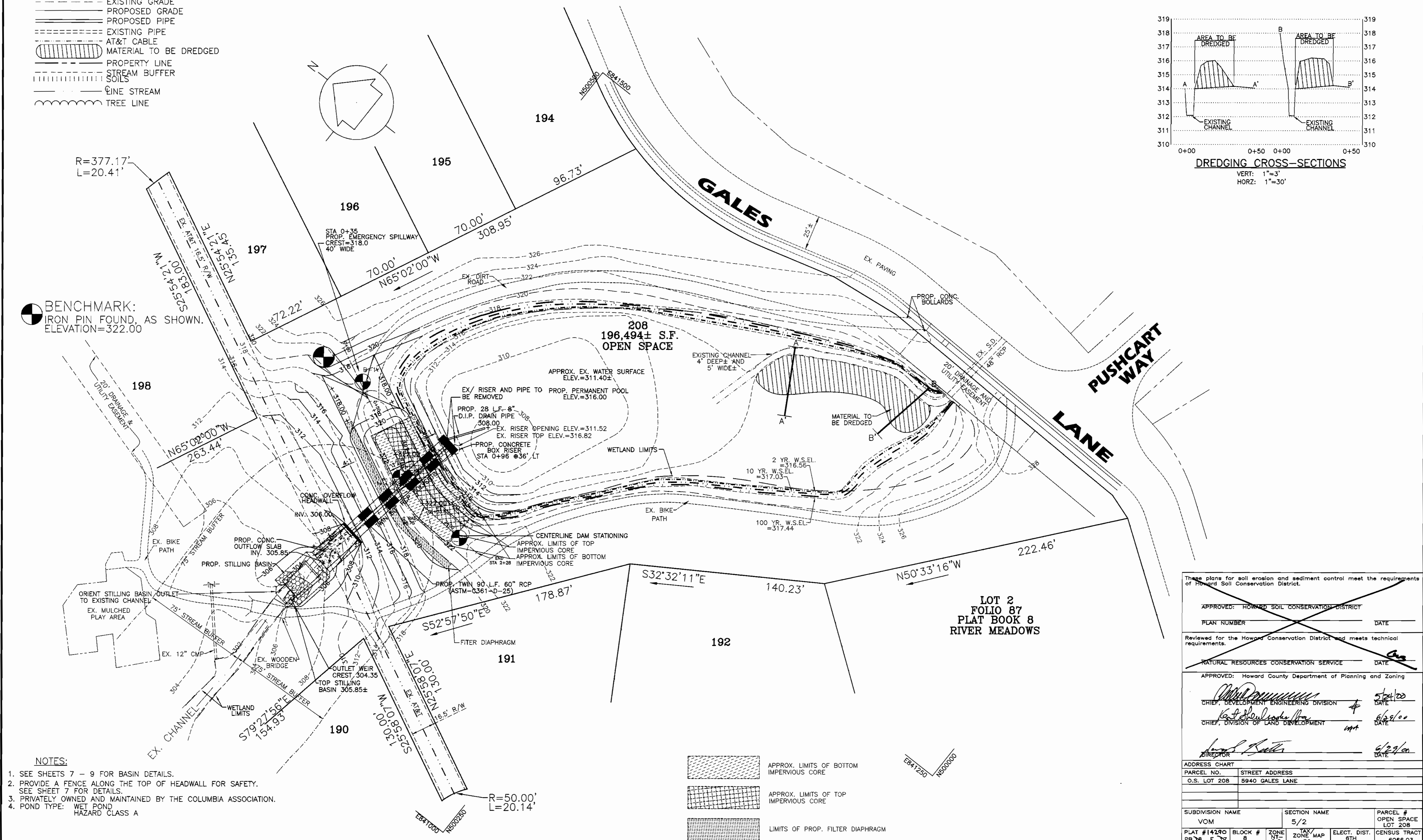
SCALE
1" = 30'
SHEET NO.
2 OF 9

LEGEND

- EXISTING GRADE
- PROPOSED GRADE
- PROPOSED PIPE
- EXISTING PIPE
- AT&T CABLE
- MATERIAL TO BE DREDGED
- PROPERTY LINE
- STREAM BUFFER
- SOILS
- LINE STREAM
- TREE LINE



BENCHMARK:
 IRON PIN FOUND, AS SHOWN.
 ELEVATION=322.00



- NOTES:**
- SEE SHEETS 7 - 9 FOR BASIN DETAILS.
 - PROVIDE A FENCE ALONG THE TOP OF HEADWALL FOR SAFETY. SEE SHEET 7 FOR DETAILS.
 - PRIVATELY OWNED AND MAINTAINED BY THE COLUMBIA ASSOCIATION.
 - POND TYPE: WET POND HAZARD CLASS A

These plans for soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
 PLAN NUMBER _____ DATE _____

Reviewed for the Howard Conservation District and meets technical requirements.

NATURAL RESOURCES CONSERVATION SERVICE DATE _____

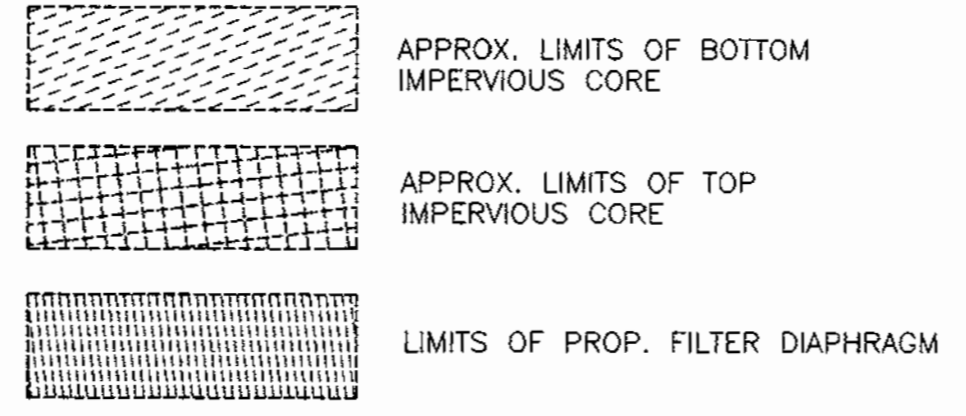
APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 5/24/00

CHIEF, DIVISION OF LAND DEVELOPMENT DATE 6/29/00

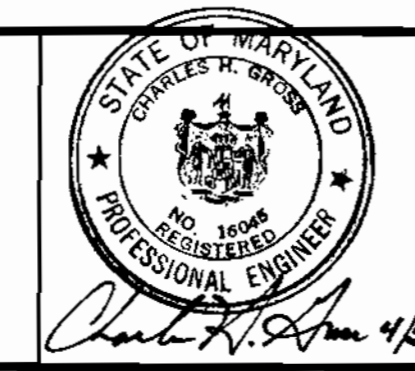
DIRECTOR DATE 6/29/00

ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
O.S. LOT 208	5940 GALES LANE
SUBDIVISION NAME	
VOM	SECTION NAME 5/2
PARCEL #	OPEN SPACE LOT 208
PLAT #14290	BLOCK # 8
PB. F. 7X	ZONE 36
TAX/ZONE MAP	ELECT. DIST. 6TH
CENSUS TRACT 6066.03	SEWER CODE: N/A
WATER CODE: N/A	



BROOK
 ENVIRONMENTAL & ENGINEERING CORP.
 COMMITTED TO EXCELLENCE

3600 CRONDALL LANE, SUITE 110
 BALTIMORE, MD 21117
 410-356-4875



NO.	DATE	DESCRIPTION

OWNER/DEVELOPER:
 COLUMBIA ASSOCIATION, INC.
 10221 WINCOPIN CIRCLE SUITE 100
 COLUMBIA, MARYLAND 21044-3410

PLAN PREPARATION

DRAWN BY: DAB	DATE: 27 AUGUST 1999
DESIGNED BY: DAB	FILE NO. 99036
CHECKED BY: KDB	DRAWING NO.

SITE PLAN

PUSHCART POND
 DAM RECONSTRUCTION
 & DREDGING
 COLUMBIA, HOWARD COUNTY, MARYLAND

SCALE
 1" = 30'

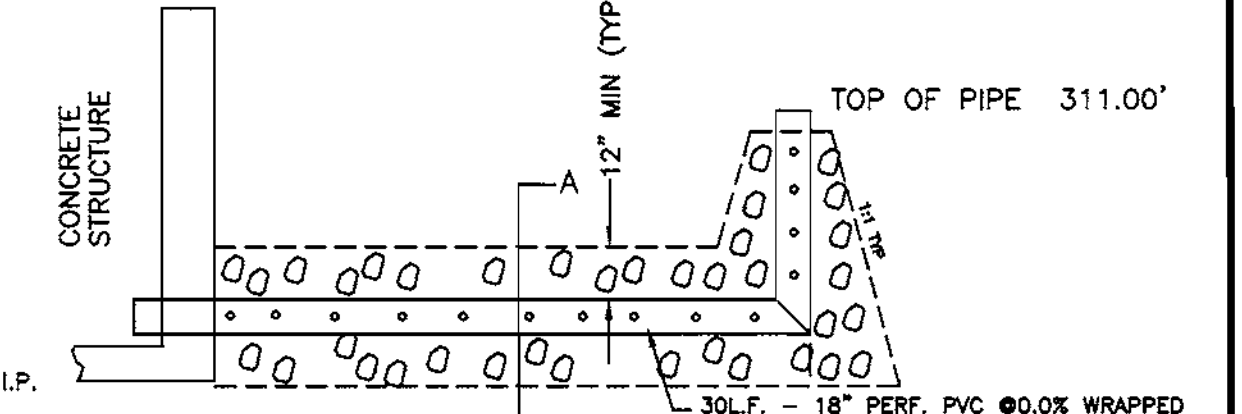
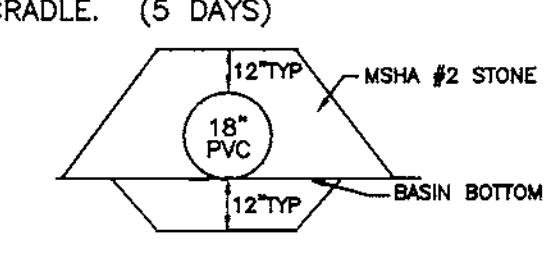
SHEET NO.
 3 OF 9

LEGEND

- EXISTING GRADE
- PROPOSED GRADE
- PROPOSED PIPE
- EXISTING PIPE
- AT&T CABLE
- MATERIAL TO BE DREDGED
- PROPERTY LINE
- STREAM BUFFER
- LIMITS OF DISTURBANCE
- LIMITS OF STOCKPILE AREA
- SUMP PIT
- SUPER SILT FENCE
- SILT FENCE
- STREAM BUFFER
- TEMPORARY DIVERSION DIKE/SWALE
- STREAM BUFFER
- EARTH DIKE

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT
2. NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS AND LICENSES 48 HOURS BEFORE BEGINNING WORK. (1 DAY)
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE. (1 DAY)
4. CLEAR AND GRUB FOR THE INSTALLATION OF SUPER SILT FENCE. INSTALL SUPER SILT FENCE. (1 DAY)
5. CONSTRUCT TEMPORARY ACCESS DRIVE TO BASIN. (1 DAY)
6. INSTALL REMOVABLE PUMPING STATION AND BEGIN DEWATERING OF BASIN. (2 DAYS)
7. BEGIN REMOVAL OF THE EXISTING EMBANKMENT AND STOCKPILE OR REMOVE IF NOT SUITABLE FOR THE NEW EMBANKMENT. INSTALL SILT FENCE ALONG DOWNSTREAM SIDE OF STOCKPILE. CONTRACTOR SHALL UTILIZE MUD MATS AS NEEDED. (5 DAYS)
8. WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB REMAINING AREAS OF SITE AND BEGIN GRADING OPERATIONS. (5 DAYS)
9. ONCE EXISTING EMBANKMENT IS REMOVED, INSTALL TEMPORARY 48" DIVERSION PIPE TO AN UPSTREAM INVERT ELEVATION OF 315.00. (3 DAYS)
10. INSTALL DIVERSION CHANNEL FROM EXISTING 48" STORMDRAIN TO TEMPORARY 48" DIVERSION PIPE, TO ALLOW STREAM/BASEFLOW TO BYPASS WORK AREA. (2 DAYS)
11. CONSTRUCT EMERGENCY SPILLWAY AND PERMANENTLY STABILIZE. (2 DAYS)
12. REMOVE RISER AND INSTALL SANDBAG BULKHEAD TO A DEPTH HALFWAY UP THE BULKHEAD OF BARREL WILL FORCE ALL SEDIMENT LADEN WATER TO BE PUMPED THROUGH THE RPS UNTIL NEW RISER AND DEWATERING DEVICE ARE IN PLACE. (4 DAYS)
13. WITH THE PERMISSION OF THE INSPECTOR, REMOVE EXISTING BARREL. (1 DAY)
14. BEGIN CONSTRUCTION OF LOWER PORTION OF CUTOFF TRENCH. INSTALL SUMP PIT IN BOTTOM OF CUTOFF TRENCH TO DEWATER AS NEEDED. INSTALL LOWER PORTION OF CUTOFF TRENCH AND FILTER DIAPHRAGM BELOW CONCRETE CRADLE. (5 DAYS)
15. INSTALL PROPOSED TWIN 60" RCP'S AND CONCRETE CRADLE. CONSTRUCT HEADWALL, CONCRETE OUTFLOW SLAB AND STILLING BASIN. (15 DAYS)
16. CONSTRUCT CONCRETE STRUCTURE. INSTALL TEMPORARY 18" PVC DEWATERING DEVICE IN PLACE OF 8" DIP DRAIN PIPE. DO NOT INSTALL SLUICE GATE AT THIS TIME. INSTALL TRASH RACK. INSTALL SUMP PIT TO PUMP RUNOFF AROUND WORK AREA DURING CONSTRUCTION. (10 DAYS)
17. ONCE THE CONTROL STRUCTURE IS IN PLACE, CONSTRUCT DAM (I.E. IMPERVIOUS CORE, AND FILTER DIAPHRAGM, ETC.) INSTALL IMPERVIOUS CORE AT 4" INCREMENTS ACROSS ENTIRE EMBANKMENT AS SHOWN IN DETAILS. REMOVE TEMPORARY DIVERSION PIPE THRU DAM AND DIRECT DIVERSION CHANNEL TO TEMPORARY 18" DEWATERING DEVICE. (10 DAYS)
18. REMOVE DREDGED MATERIAL AND STOCKPILE AREA FROM POND BOTTOM. (3 DAYS) NOTE: PERMISSION MUST BE OBTAINED BY THE SEDIMENT CONTROL INSPECTOR BEFORE ANY AND ALL SEDIMENT CONTROLS ARE REMOVED.
19. REGRADE AND INSTALL TOPSOIL IN ALL DISTURBED AREAS. PERMANENTLY STABILIZE ALL DISTURBED AREAS. (4 DAYS)
20. REMOVE TEMPORARY DIVERSION CHANNEL. (1 DAY)
21. PERMANENTLY STABILIZE REMAINING DISTURBED AREAS. (1 DAY)
22. WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES. PERMANENTLY STABILIZE REMAINING DISTURBED AREAS. (2 DAYS)



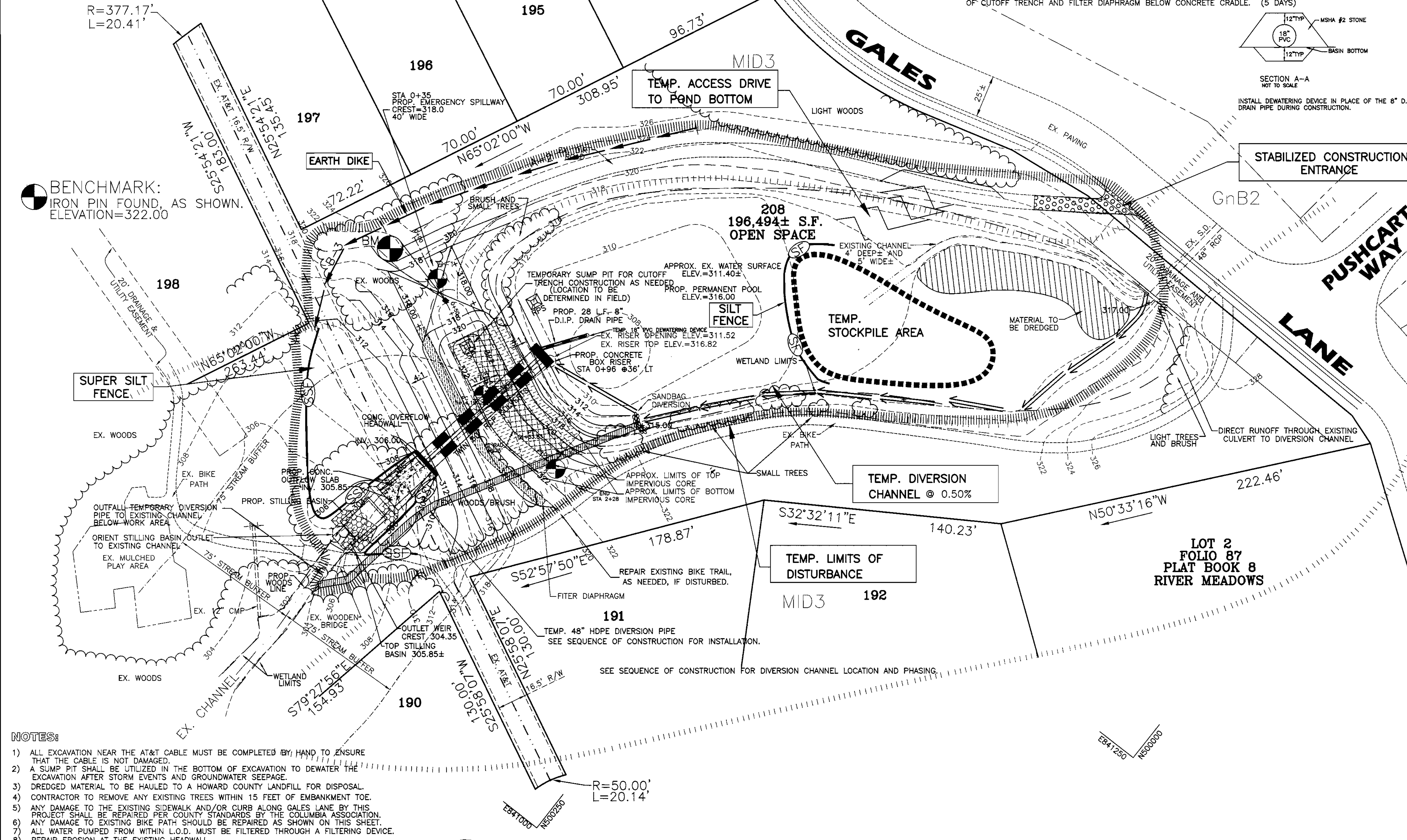
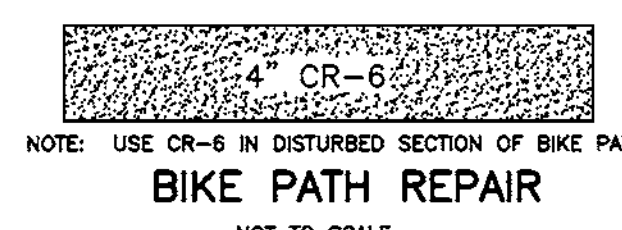
GEOTEXTILE FABRICS

CLASS	APPEARANT OPENING SIZE (MM)	GRAB TENSILE STRENGTH (LB. MIN.)	BURST STRENGTH (PSI. MIN.)
E	0.30	90	145

THE PROPERTIES SHALL BE DETERMINED IN ACCORDANCE WITH THE FOLLOWING PROCEDURES:
 -APPEARANT OPENING SIZE MSMT 323
 -GRAB TENSILE STRENGTH ASTM D 1682: 4X8" SPECIMEN, 1X2" CLAMPS, 12"/MIN. STRAIN RATE IN BOTH PRINCIPAL DIRECTIONS OF GEOTEXTILE FABRIC.
 -BURST STRENGTH ASTM D 3786

THE FABRIC SHALL BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS, AND WILL BE ROT AND MILDEW RESISTANT. IT SHALL BE MANUFACTURED FROM FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS, AND COMPOSED OF A MINIMUM OF 80% BY WEIGHT OF POLYPROPYLENE, POLYESTERS, OR POLYAMIDES. THE GEOTEXTILE FABRIC SHALL RESIST DEGRADATION FROM ULTRAVIOLET EXPOSURE.

IN ADDITION, CLASSES A THROUGH E SHALL HAVE A 0.01 CM/SEC. MINIMUM PERMEABILITY WHEN TESTED IN ACCORDANCE WITH MSMT 557, AND AN APPEARANT MINIMUM ELONGATION OF 20 PERCENT (20%) WHEN TESTED IN ACCORDANCE WITH THE GRAB TENSILE STRENGTH REQUIREMENTS LISTED ABOVE.



- NOTES:**
- 1) ALL EXCAVATION NEAR THE AT&T CABLE MUST BE COMPLETED BY HAND TO ENSURE THAT THE CABLE IS NOT DAMAGED.
 - 2) A SUMP PIT SHALL BE UTILIZED IN THE BOTTOM OF EXCAVATION TO DEWATER THE EXCAVATION AFTER STORM EVENTS AND GROUNDWATER SEEPAGE.
 - 3) DREDGED MATERIAL TO BE HAULED TO A HOWARD COUNTY LANDFILL FOR DISPOSAL.
 - 4) CONTRACTOR TO REMOVE ANY EXISTING TREES WITHIN 15 FEET OF EMBANKMENT TOE.
 - 5) ANY DAMAGE TO THE EXISTING SIDEWALK AND/OR CURB ALONG GALES LANE BY THIS PROJECT SHALL BE REPAIRED PER COUNTY STANDARDS BY THE COLUMBIA ASSOCIATION.
 - 6) ANY DAMAGE TO EXISTING BIKE PATH SHOULD BE REPAIRED AS SHOWN ON THIS SHEET.
 - 7) ALL WATER PUMPED FROM WITHIN L.O.D. MUST BE FILTERED THROUGH A FILTERING DEVICE.
 - 8) REPAIR EROSION AT THE EXISTING HEADWALL.

These plans for soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: *[Signature]* HOWARD SOIL CONSERVATION DISTRICT
 PLAN NUMBER: _____ DATE: 6/12/00

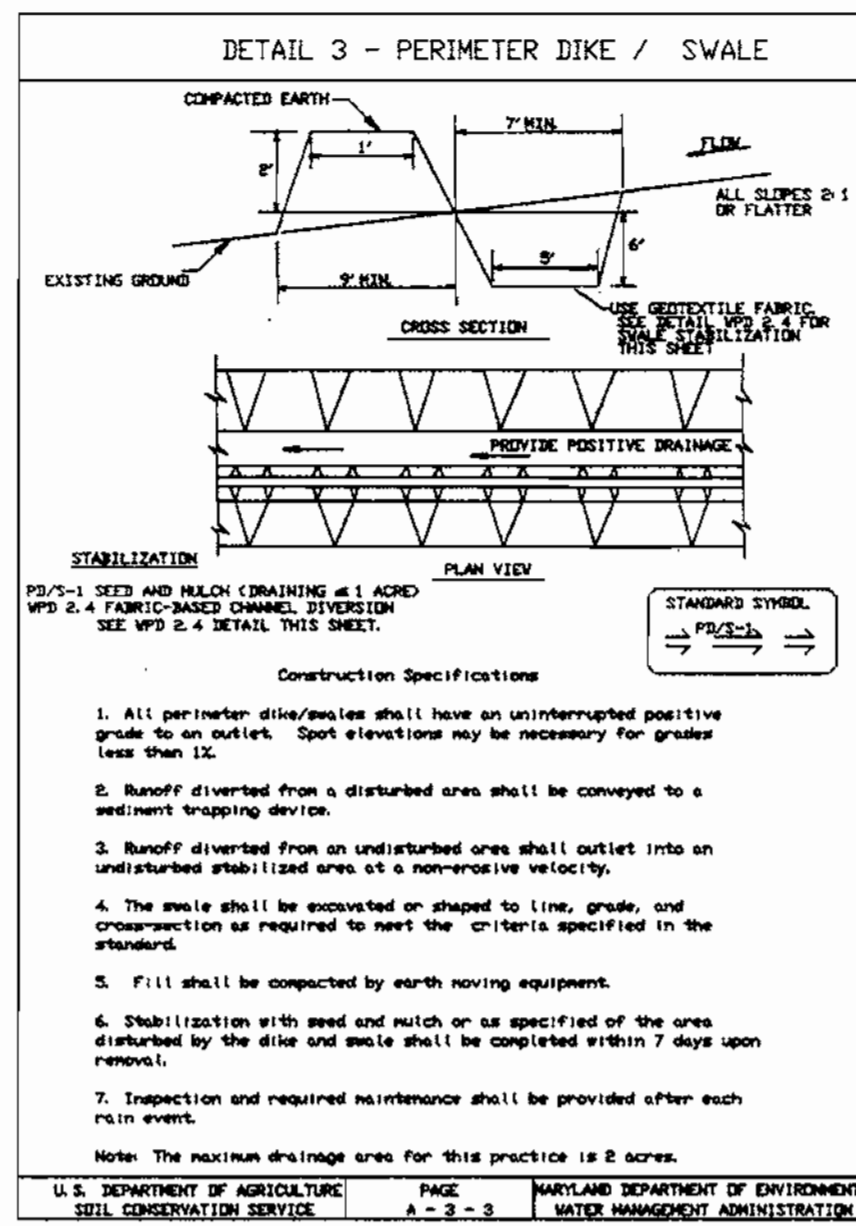
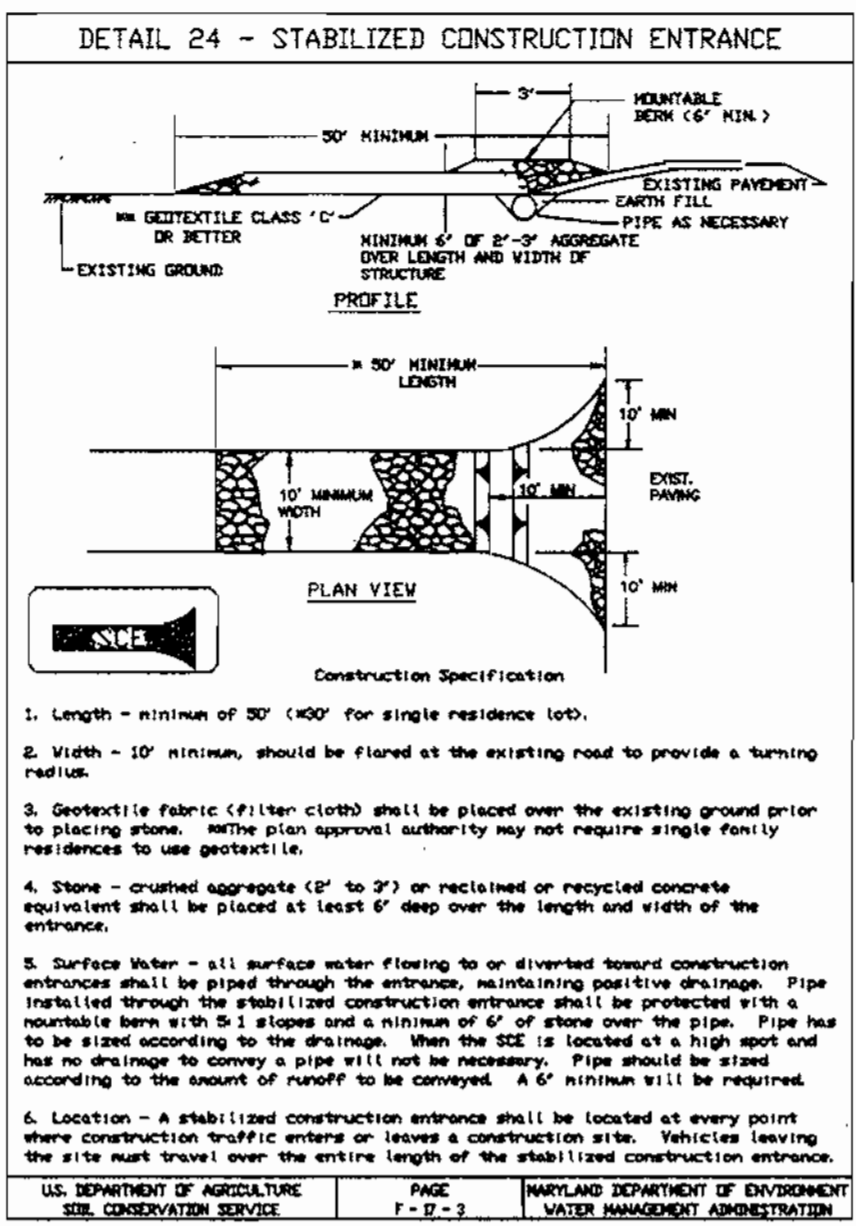
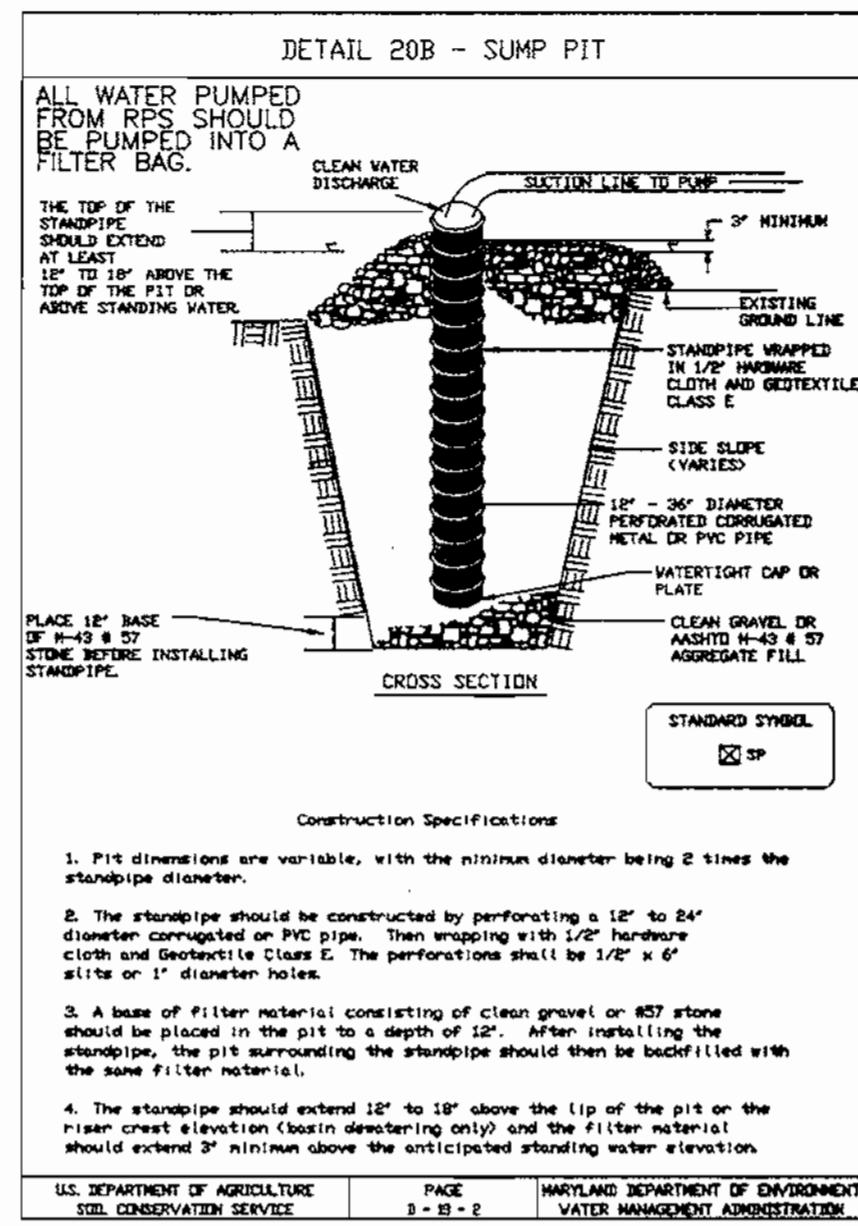
Reviewed for the Howard Conservation District and meets technical requirements:
[Signature] NATURAL RESOURCES CONSERVATION SERVICE DATE: 6/12/00

APPROVED: Howard County Department of Planning and Zoning
[Signature] CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 5/24/00
[Signature] CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 6/29/00
[Signature] DIRECTOR DATE: 6/29/00

ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
O.S. LOT 208	5940 GALES LANE

SUBDIVISION NAME		SECTION NAME	PARCEL #
VOM		5/2	OPEN SPACE LOT 208
PLAT # 14290	BLOCK # 8	ZONE N/A	ELECT. DIST. 6TH
FB. TA. F. TR.	36	ZONE MAP	CENSUS TRACT 6066.03
WATER CODE: N/A	SEWER CODE: N/A		

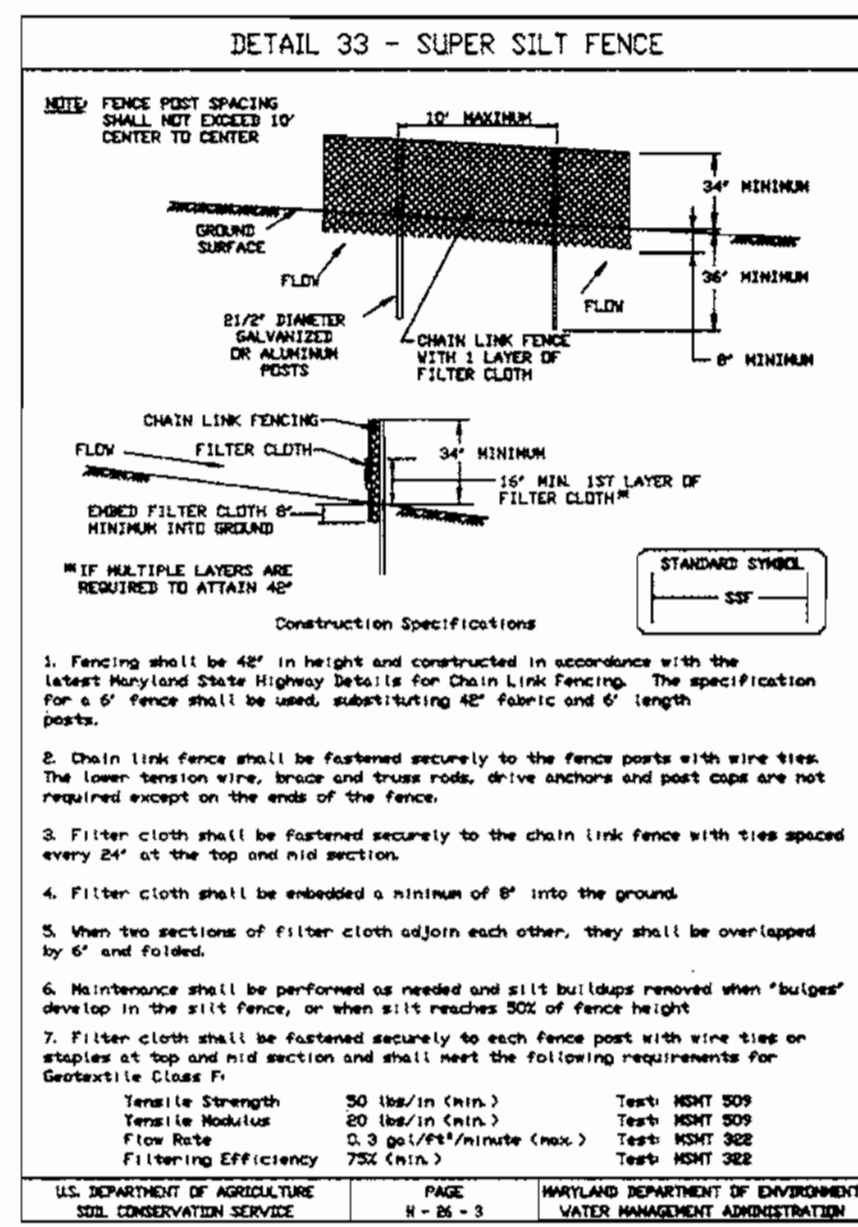
<p>BROOK ENVIRONMENTAL & ENGINEERING CORP. COMMITTED TO EXCELLENCE</p>	<p>3600 CRONDALL LANE, SUITE 110 BALTIMORE, MD 21117 410-356-4875</p>		<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION				<p>OWNER/DEVELOPER: COLUMBIA ASSOCIATION, INC. 10221 WINCOPIN CIRCLE SUITE 100 COLUMBIA, MARYLAND 21044-3410</p>	<p>PLAN PREPARATION</p> <table border="1"> <tr> <td>DRAWN BY: DAB</td> <td>DATE: 27 AUGUST 1999</td> </tr> <tr> <td>DESIGNED BY: DAB</td> <td>FILE NO. 99036</td> </tr> <tr> <td>CHECKED BY: KDB</td> <td>DRAWING NO.</td> </tr> </table>	DRAWN BY: DAB	DATE: 27 AUGUST 1999	DESIGNED BY: DAB	FILE NO. 99036	CHECKED BY: KDB	DRAWING NO.	<p>GRADING & SEDIMENT CONTROL PLAN</p> <p>PUSHCART POND DAM RECONSTRUCTION & DREDGING COLUMBIA, HOWARD COUNTY, MARYLAND</p>	<p>SCALE 1" = 30'</p> <p>SHEET NO. 4 OF 9</p>
			NO.	DATE	DESCRIPTION														
DRAWN BY: DAB	DATE: 27 AUGUST 1999																		
DESIGNED BY: DAB	FILE NO. 99036																		
CHECKED BY: KDB	DRAWING NO.																		



PERMANENT SEEDING NOTES
 SCOPE: Planting permanent, long lived vegetative cover on graded and/or cleared areas and areas that have been in temporary vegetation for more than 1 year.
 STANDARDS: The following notes shall conform to the "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" published jointly by the Maryland Department of Environment - Water Management Administration, the Natural Resource Conservation Service, and the State Soil Conservation Committee.
 The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See G-20, Sec. 1-1-C.
 For sites over 5 ac, soil tests will be performed to determine the exact mixture and application rates for both lime and fertilizer. Soil tests will be prepared by the University of Maryland or a recognized commercial laboratory. If the existing soil does not meet the minimum conditions as stated in G-20, sec. 1-1-C, then topsoil will need to be obtained that meets these conditions and applied so as to meet the requirements in G-21.
 For sites of 5 ac. or less of disturbance, the following fertilizer and lime rates shall apply.
 Fertilizer shall consist of a mixture of 10-20-20 and be applied at the following rates: N=90 lb. per acre (2 lb. per 1000 sq. ft.) P2O5 = 175 lb. per acre (4 lb. per 1000 sq. ft.) K2O = 175 lb. per acre (4 lb. per 1000 sq. ft.). Fertilizer shall meet the requirements in G-20, sec. 1-B.
 Lime shall be applied at a rate of 2 tons per acre (100 lb. per 1000 sq. ft.) and shall meet the requirements in G-20, sec. 1-B.
 Seed tags shall be made available to the inspector to verify the type and rate of seed used. The seed must meet the requirements in G-20, sec. 1-C.
 Mulching will be applied immediately after seeding and will need to meet the requirements in G-20, sec. 1-F, G, & H.
 Refer to G-20, sec. 1-E for methods of seeding specifications.
 Refer to G-20, sec. 4 for sod specifications.
 Refer to G-20, sec. 5 for turf grass establishment specifications.
 Seeding mixtures shall be selected from or will be equal to those on Table 25.
TEMPORARY SEEDING NOTES
 SCOPE: Planting short term (no more than 1 year) vegetation to temporarily stabilize any areas where soil disturbance has occurred, until the area can be permanently stabilized with vegetative or non-vegetative practices.
 STANDARDS: The following notes shall conform to the "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" published jointly by the Maryland Department of Environment - Water Management Administration, the Natural Resource Conservation Service, and the State Soil Conservation Committee.
 The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See G-20, Sec. 1-C.
 Fertilizer shall consist of a mixture of 10-10-10 and be applied at a rate of 600 lb. per acre (15 lb. per 1000 sq. ft.) and will meet the requirements in G-20, sec. 1-C.
 Lime shall be applied at a rate of 2 tons per acre (100 lb. per 1000 sq. ft.) and shall meet the requirements in G-20, sec. 1-B.
 Seed tags shall be made available to the inspector to verify the type and rate of seed used. The seed must meet the requirements in G-20, sec. 1-C.
 Mulching will be applied immediately after seeding and will need to meet the requirements in G-20, sec. 1-F, G, & H.
 Seeding mixtures shall be selected from or will be equal to those on Table 26.
STANDARD SEDIMENT CONTROL NOTES
 1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and permits, sediment control Division prior to the start of any construction (313-1805).
 2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
 3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for soil disturbance or re-disturbance on slopes, dikes, perimeter slopes and all slopes exceeding 3:1, b) 14 days for soil disturbance or re-disturbance on flat areas or on the project site.
 4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1 Chapter 7 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
 5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
 6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
 7. SITE ANALYSIS:
 Total Area of Site = 4.04± Acres
 Area to be roofed or paved = 2.0± Acres
 Area to be vegetatively stabilized = 2.0± Acres
 Total Cut = 5800 Cu. Yds.
 Total Fill = 5800 Cu. Yds.
 Offsite waste/borrow area location: Howard Co. Landfill
 8. Any sediment control practice that is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
 9. Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
 10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls; but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
 11. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.

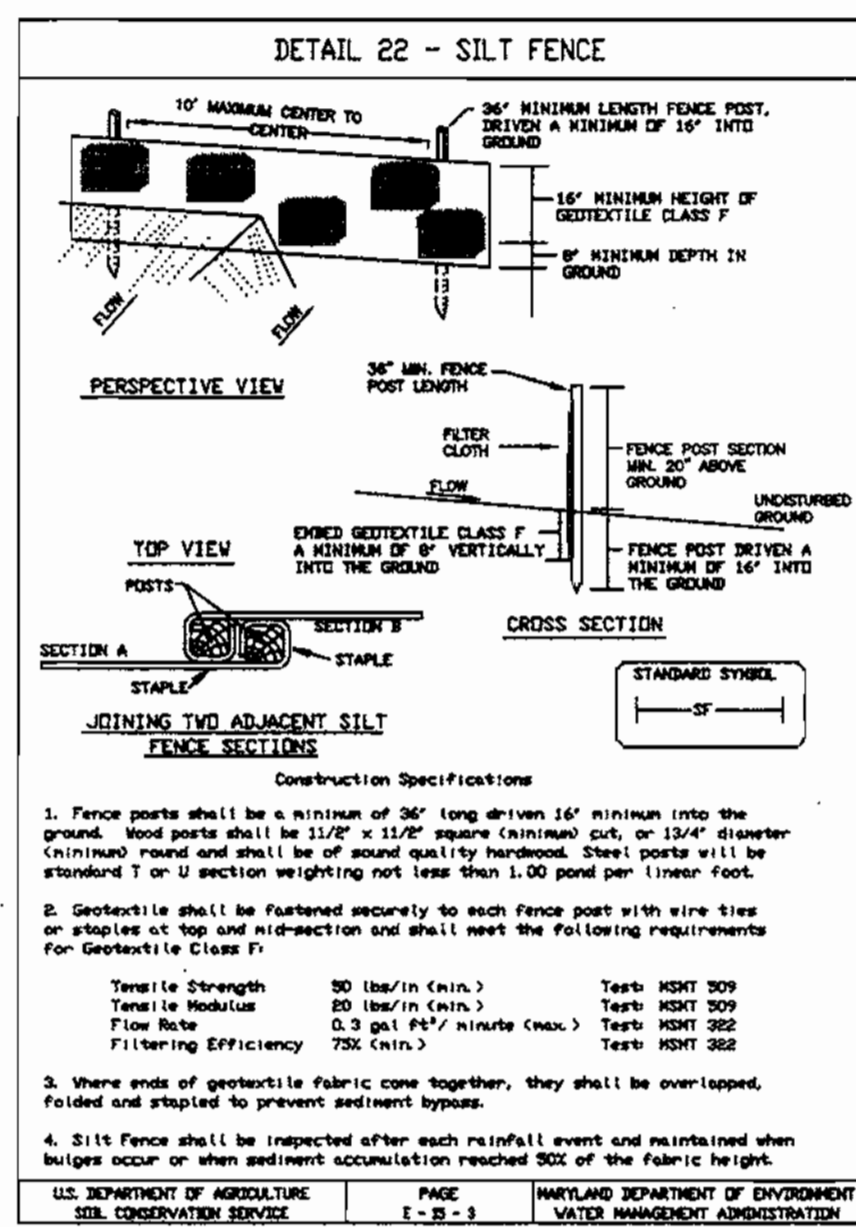
STANDARD AND SPECIFICATIONS FOR TOPSOIL
DEFINITION
 Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.
PURPOSE
 To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
CONDITIONS WHERE PRACTICE APPLIES
 I. This practice is limited to areas having 2:1 or flatter slopes where:
 a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 c. The original soil to be vegetated contains material toxic to plant growth.
 d. The soil is so acidic that treatment with limestone is not feasible.
 II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.
CONSTRUCTION AND MATERIAL SPECIFICATIONS
 I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in conformation with Maryland Agricultural Experimental Station.
 II. Topsoil Specifications - Soil to be used as topsoil must meet the following:
 i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other textures, peat, muck, or materials highly acidic or composed of heavy clays, glacial limestone shall not be used.
 ii. The subsoil either highly acidic or composed of heavy clays, glacial limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in accordance with tillage operations as described in the following procedures.
 III. For sites having disturbed areas under 5 acres:
 i. Place topsoil (if required) and apply soil amendments as specified in 20.0 VEGETATIVE STABILIZATION - Section 1 - Vegetative Stabilization Methods and Materials.
 ii. Sites having disturbed areas over 5 acres:
 I. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 b. Organic content of topsoil shall be not less than 1.5 percent by weight.
 c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
 Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
 ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 VEGETATIVE STABILIZATION - Section 1 - Vegetative Stabilization Methods and Materials.
 V. Topsoil Application
 i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
 ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 6" higher in elevation.
 iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or tillage operations shall be corrected in order to prevent the formation of depressions or water pockets.
 iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when used for weed control wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.
 VI. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
 i. Composted Sludge material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas over 5 acres shall conform to the following requirements:
 a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.05.
 b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
 c. Compost sludge shall be applied at a rate of 4b/1,000 square feet.
 iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4b/1,000 square feet, and 1/3 the normal lime application rate.
 References: Guideline Specifications, Soil Preparation and Sodding. MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

SOIL CONSERVATION SERVICE
 Reviewed For: HOWARD COUNTY SOIL CONSERVATION DISTRICT
 and meets Technical Requirements
 USDA NATURAL RESOURCES CONSERVATION SERVICE DATE: 5/18/00
SOIL CONSERVATION DISTRICT
 This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
 Approved: Howard S.C.D. DATE: 5/18/00
DEVELOPER
 I/We certify that oil development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.
 Owner/Developer: Charles H. Gross DATE: 5/18/00
 Print name below signature: Charles H. Gross
ENGINEER
 I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
 Engineer: Charles H. Gross DATE: 4/26/00
 Print name below signature: Charles H. Gross

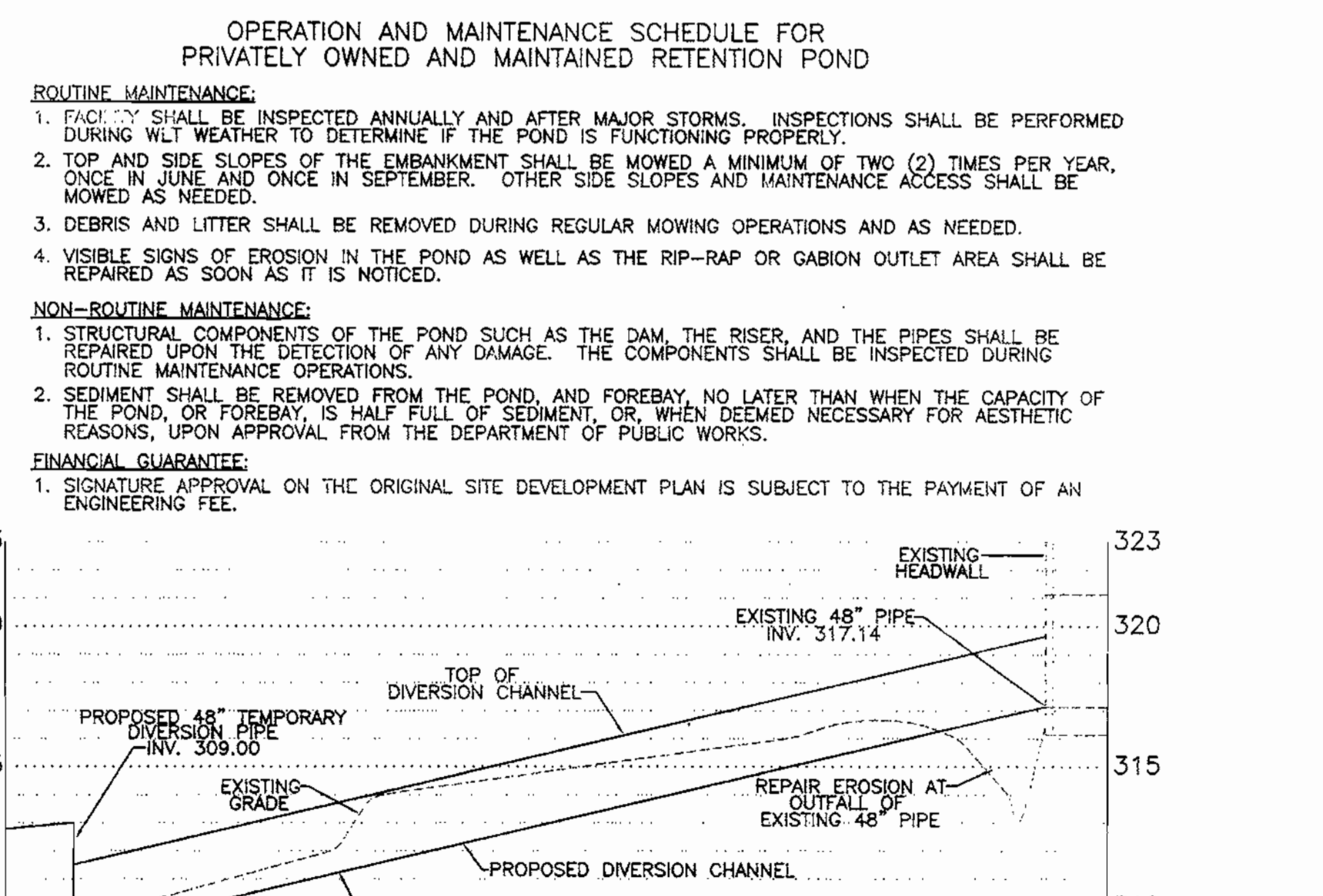
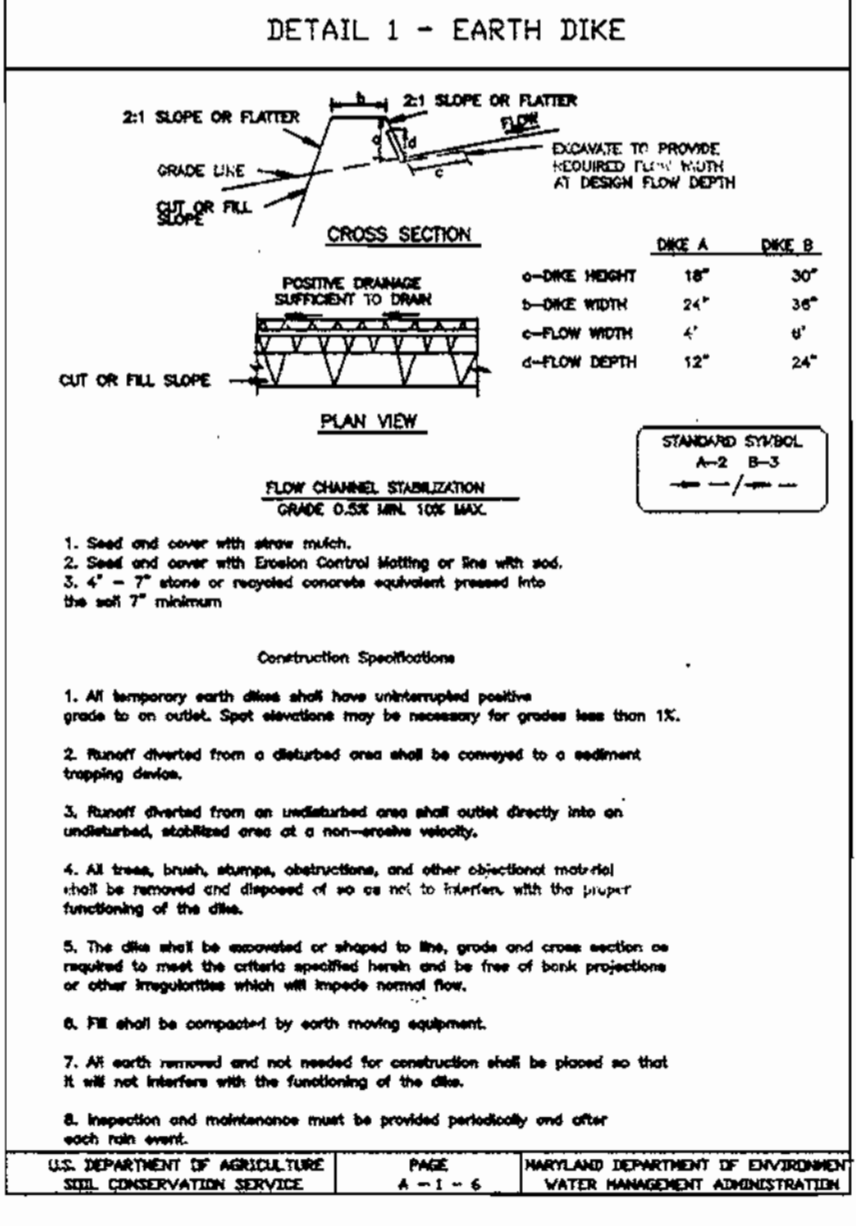
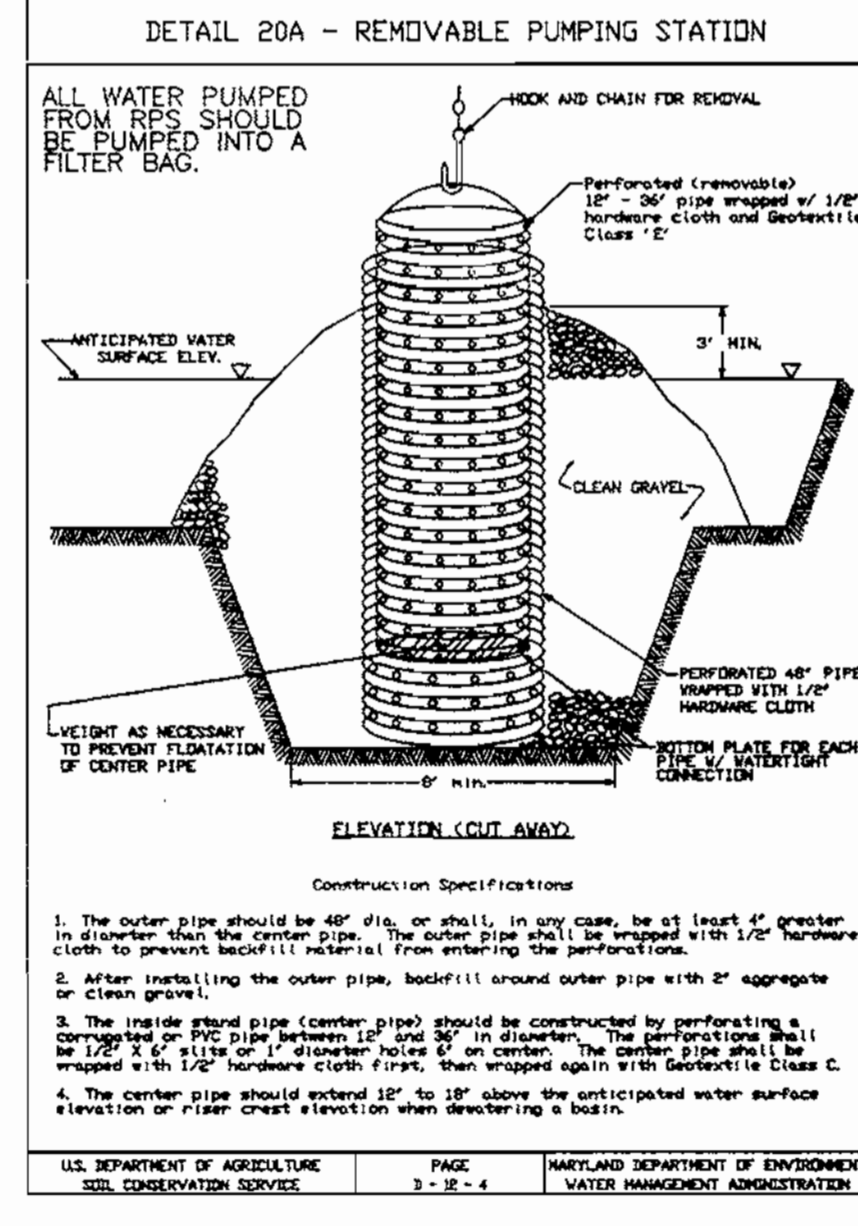


SUPER SILT FENCE

Slope	Slope Steepness	Silt Fence Length (Maximum)	Silt Fence Length (Minimum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 30%	10:1 - 3:1	800 Feet	1,500 Feet
30 - 50%	3:1 - 2:1	100 Feet	1,000 Feet
50 - 90%	2:1 - 1:1	100 Feet	500 Feet
90% +	1:1 +	50 Feet	250 Feet



OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED RETENTION POND
ROUTINE MAINTENANCE:
 1. FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.
 2. TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES PER YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES AND MAINTENANCE ACCESS SHALL BE MOWED AS NEEDED.
 3. DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
 4. VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS THE RIP-RAP OR GABION OUTLET AREA SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
NON-ROUTINE MAINTENANCE:
 1. STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER, AND THE PIPES SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE. THE COMPONENTS SHALL BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.
 2. SEDIMENT SHALL BE REMOVED FROM THE POND, AND FOREBAY, NO LATER THAN WHEN THE CAPACITY OF THE POND, OR FOREBAY, IS HALF FULL OF SEDIMENT, OR, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, UPON APPROVAL FROM THE DEPARTMENT OF PUBLIC WORKS.
FINANCIAL GUARANTEE:
 1. SIGNATURE APPROVAL ON THE ORIGINAL SITE DEVELOPMENT PLAN IS SUBJECT TO THE PAYMENT OF AN ENGINEERING FEE.
 REVISIONS
 NO. DATE DESCRIPTION
 OWNER/DEVELOPER: COLUMBIA ASSOCIATION, INC. 10221 WINCOPIN CIRCLE SUITE 100 COLUMBIA, MARYLAND 21044-3410
 PLAN PREPARATION
 DRAWN BY: DAB DATE: 27 AUGUST 1999
 DESIGNED BY: DAB FILE NO. 99036
 CHECKED BY: KDB DRAWING NO.
EROSION AND SEDIMENT CONTROL DETAILS
 SUBDIVISION NAME: VILLAGE OF OAKLAND MILLS SECTION NAME: STEVENS FOREST SECTION 5, AREA 3, PARCEL # 315
 PLAT # 14280 BLOCK # 8 ZONE NT ZONE MAP 36 ELEC. 6TH DIST. CENSUS TRACT PB79, F-34 PARCEL # 315
 WATER CODE: N/A SEWER CODE: N/A
 SCALE: NO SCALE SHEET NO. 5 OF 9
 SDP-00-02



WATER RESOURCES ADMINISTRATION
 Fabric-Based Channel Diversion
 Approved By: [Signature] DATE: 5/18/00
 Chief, Waterway Permits
Waterway Construction: Open Channel Stream Diversions
 Inspection of Construction
 1. All erosion and sediment control devices shall be installed as the first order of business.
 2. All disturbance resulting from construction of the channel shall be controlled by appropriate sediment control measures.
 3. Erosion of the channel shall be controlled by appropriate sediment control measures. All eroded materials shall be stabilized outside of the channel and immediately stabilized to prevent secondary soil loss from the channel.
 4. The process of excavation and stabilization with fabric shall be completed as quickly as possible. The fabric shall be secured to the channel surface by appropriate means. The fabric shall be secured to the channel surface by appropriate means. The fabric shall be secured to the channel surface by appropriate means.
 5. All debris (sticks, stumps, etc.) shall be removed and the channel surface smoothed so that the fabric will rest flush with the channel floor.
 6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
 7. SITE ANALYSIS:
 Total Area of Site = 4.04± Acres
 Area to be roofed or paved = 2.0± Acres
 Area to be vegetatively stabilized = 2.0± Acres
 Total Cut = 5800 Cu. Yds.
 Total Fill = 5800 Cu. Yds.
 Offsite waste/borrow area location: Howard Co. Landfill
 8. Any sediment control practice that is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
 9. Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
 10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls; but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
 11. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.

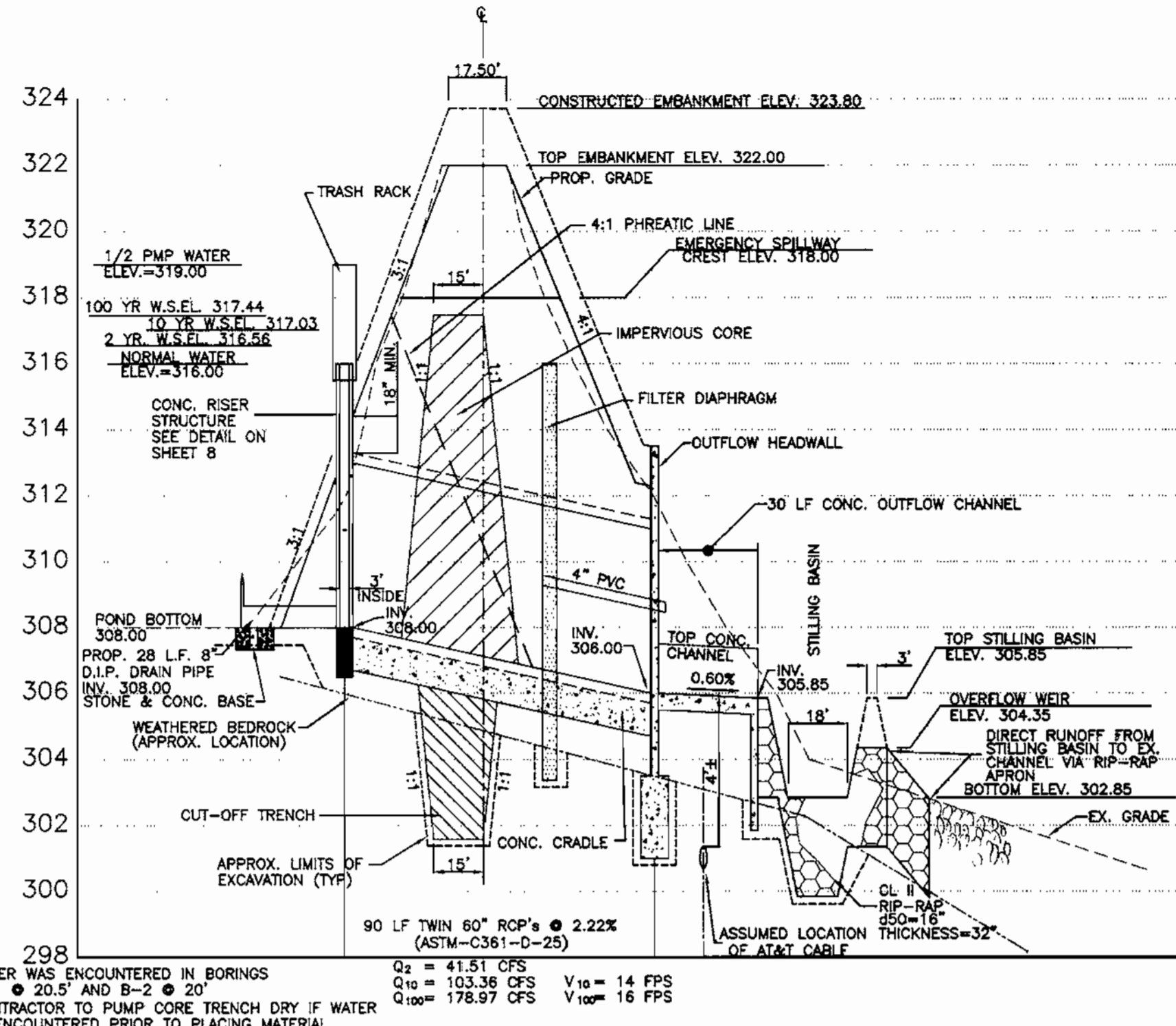
APPROVED: [Signature] DATE: 5/18/00
 Chief, Development Engineering Division
APPROVED: [Signature] DATE: 5/18/00
 Chief, Division of Land Development
APPROVED: [Signature] DATE: 5/18/00
 Director
ADDRESS CHART
 PARCEL NO. 315 STREET ADDRESS N/A
SUBDIVISION NAME: VILLAGE OF OAKLAND MILLS
SECTION NAME: STEVENS FOREST SECTION 5, AREA 3
PARCEL #: 315
PLAT #: 14280 **BLOCK #:** 8 **ZONE:** NT **ZONE MAP:** 36 **ELEC. 6TH DIST.:** CENSUS TRACT PB79, F-34 **PARCEL #:** 315
WATER CODE: N/A **SEWER CODE:** N/A

BROOK
 ENVIRONMENTAL & ENGINEERING CORP.
 COMMITTED TO EXCELLENCE
 3600 CRONDALL LANE, SUITE 110
 BALTIMORE, MD 21117
 410-356-4875

REVISIONS
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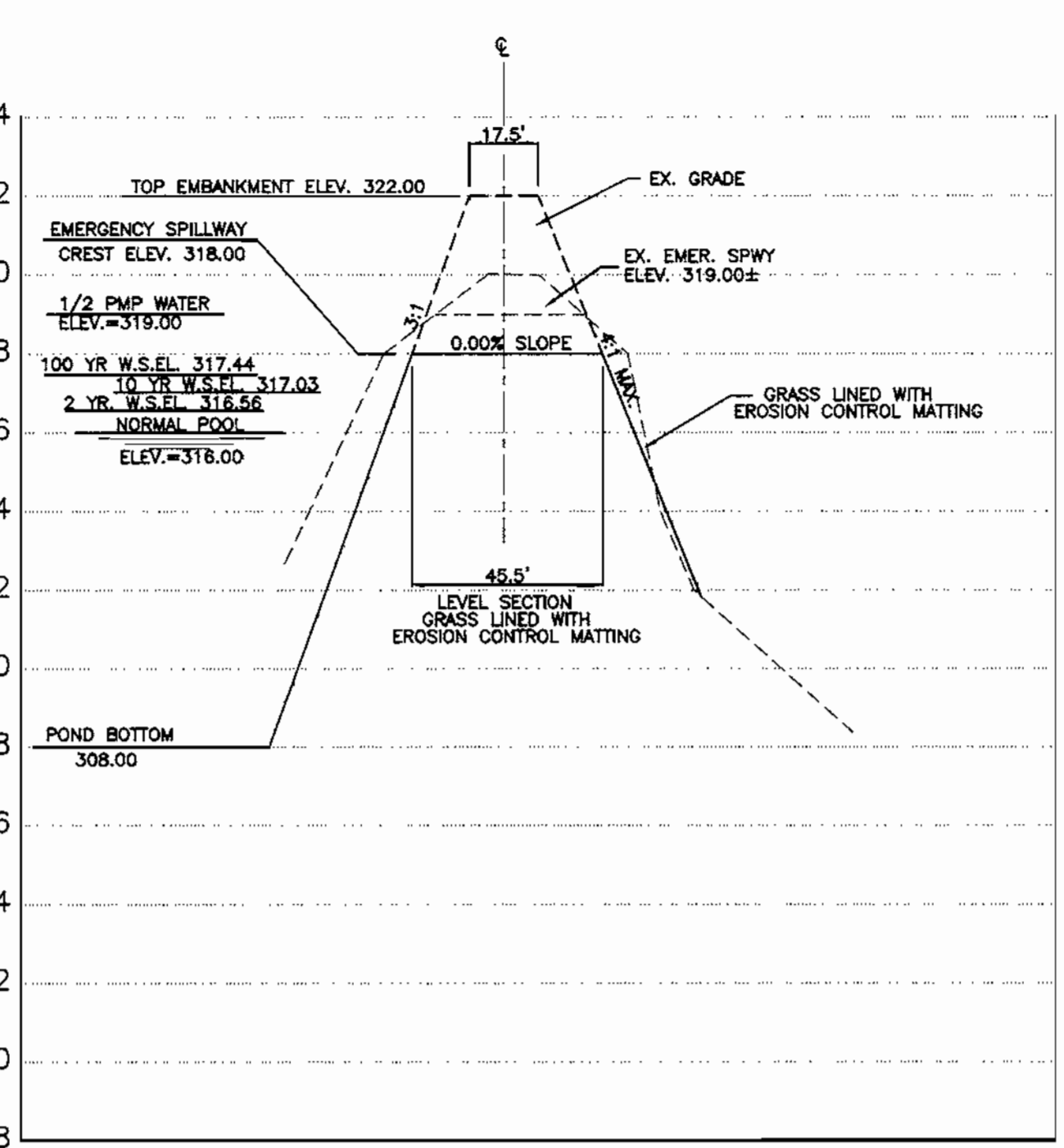
PLAN PREPARATION
 DRAWN BY: DAB DATE: 27 AUGUST 1999
 DESIGNED BY: DAB FILE NO. 99036
 CHECKED BY: KDB DRAWING NO.
EROSION AND SEDIMENT CONTROL DETAILS
PUSHCART POND
 DAM RECONSTRUCTION & DREDGING
 COLUMBIA, HOWARD COUNTY, MARYLAND
 SCALE: NO SCALE SHEET NO. 5 OF 9
 SDP-00-02

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PROFILE THRU PRINCIPLE SPILLWAY

SCALE: 1"=40' HORIZ.
1"=4' VERT.



TOKEN EMERGENCY SPILLWAY CROSS-SECTION

SCALE: 1"=40' HORIZ.
1"=4' VERT.

STORMWATER MANAGEMENT BASIN SPECIFICATIONS
These specifications are appropriate to all ponds within the scope of the Standard for practice, MD-37B. All references to ASTM and AASHTO specifications apply to the most recent version.

SITE PREPARATION
Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

All cleared or grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

EARTH FILL
MATERIAL: The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 2", frozen or other objectionable materials. Fill material for the center of the embankment and cutoff trench shall conform to Unified Soil Classification GC, SC, CH, or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

PLACEMENT: Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 4 inch thick (before compaction) layers which are to be continuous over the entire length of fill. The most permeable borrow material shall be placed on the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

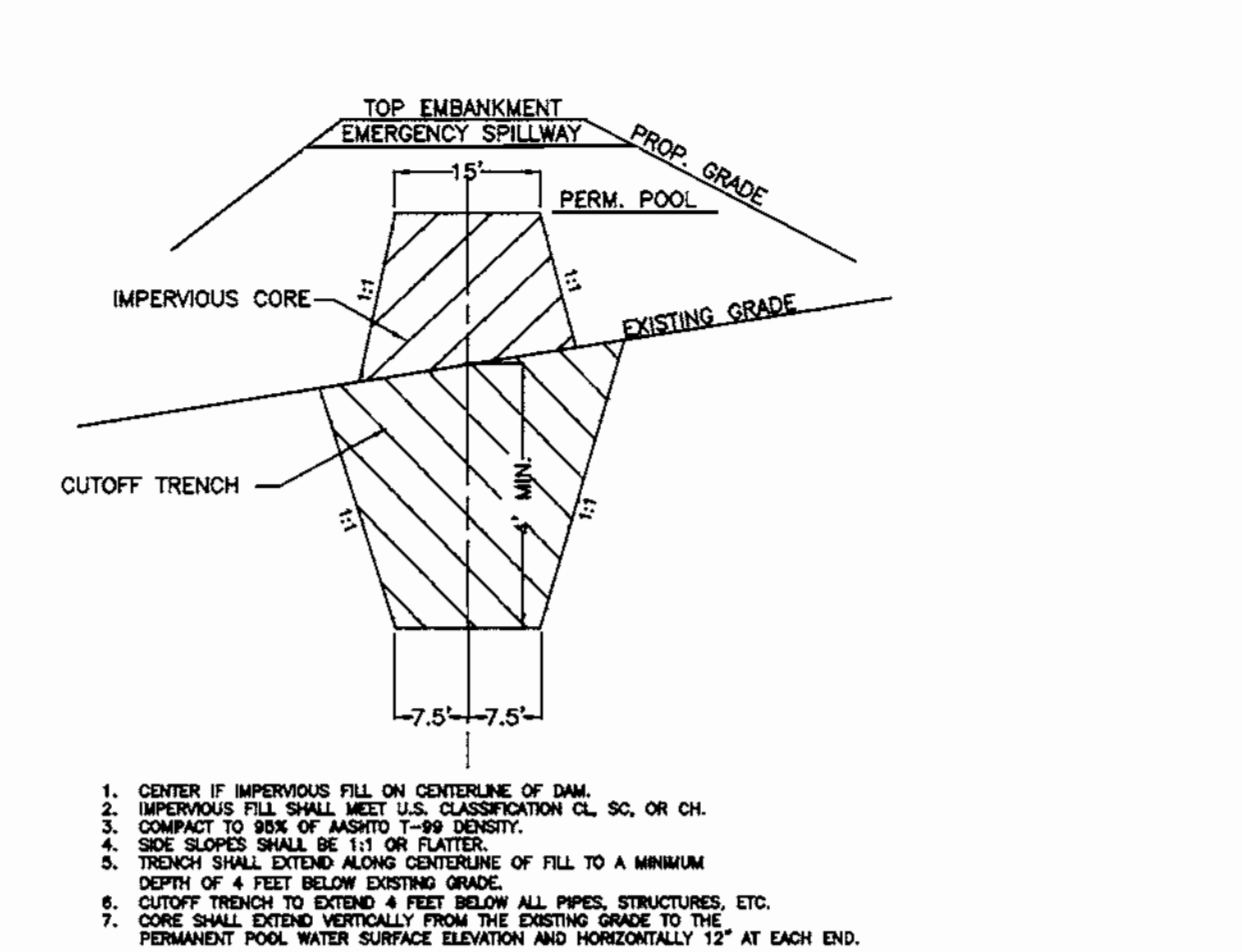
COMPACTION: The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tire or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO method T-99.

CUTOFF TRENCH: The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1:1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

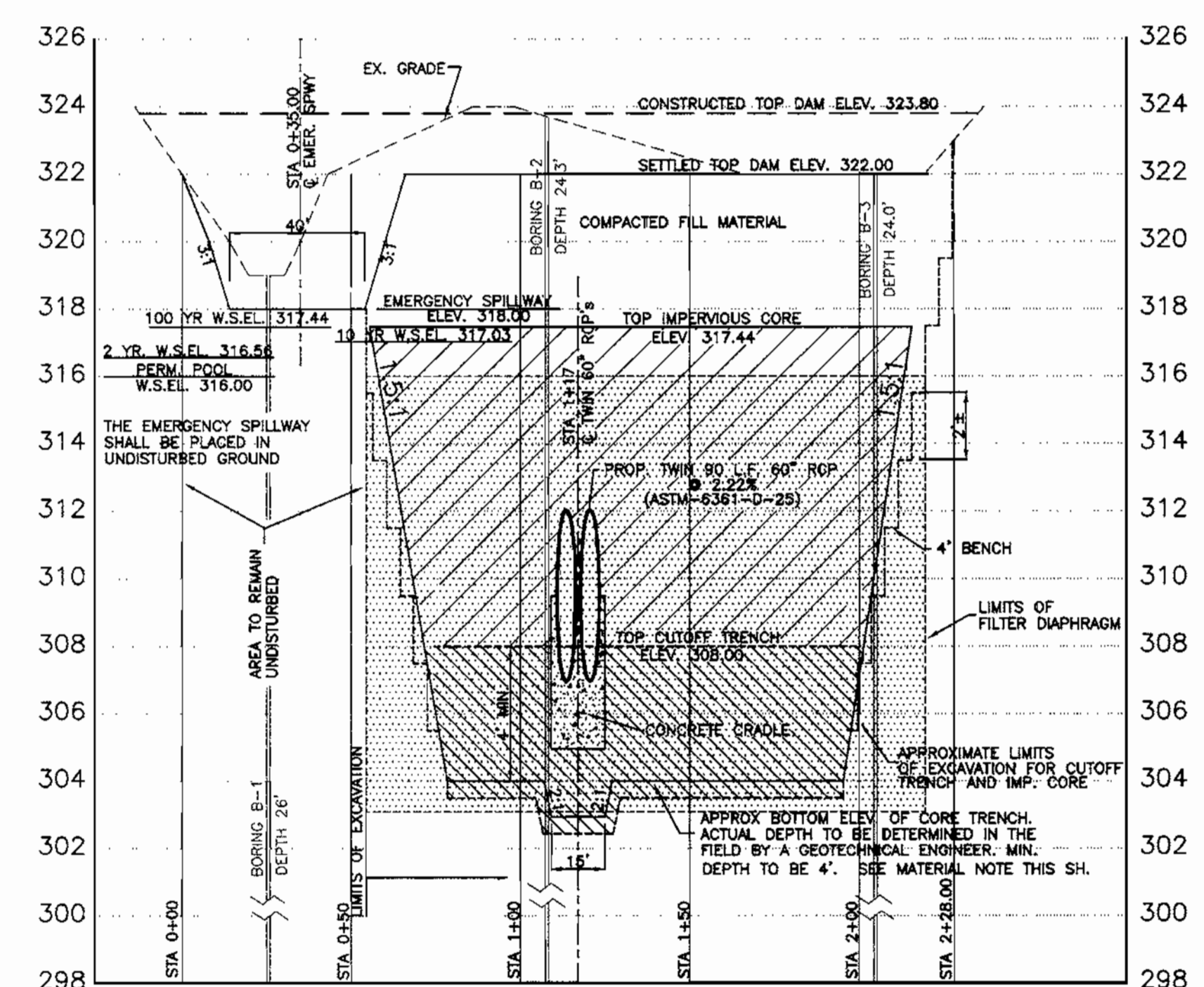
STRUCTURE BACKFILL
Backfill adjacent to pipes shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to be completely compacted under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

PIPE CONDUITS
All pipes shall be circular in cross section.



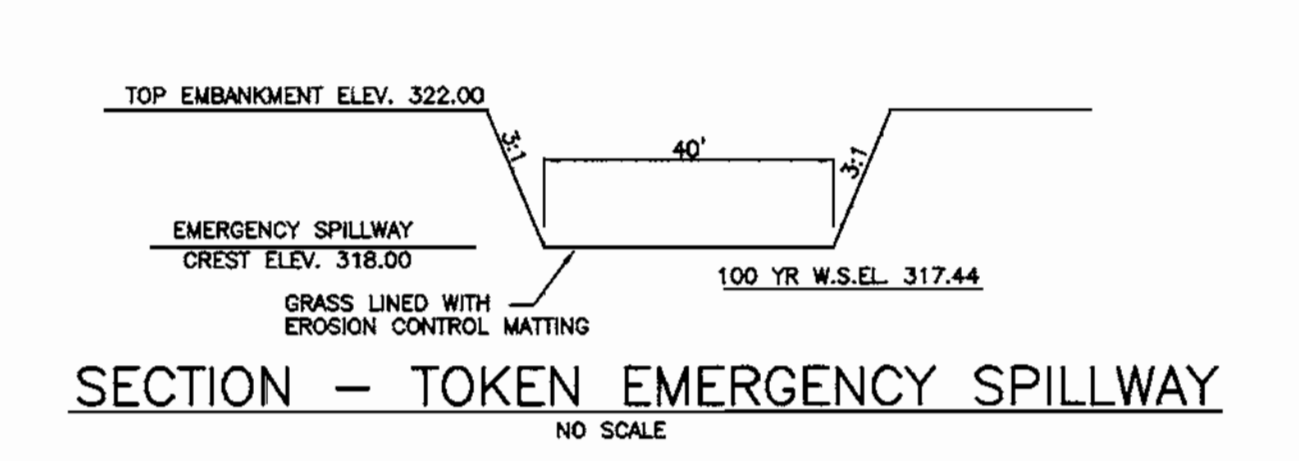
CUTOFF TRENCH DETAIL

NOT TO SCALE



DAM CROSS-SECTION

SCALE: 1"=40' HORIZ.
1"=4' VERT.



SECTION - TOKEN EMERGENCY SPILLWAY

NO SCALE

REINFORCED CONCRETE PIPE - All of the following criteria shall apply to reinforced concrete pipe:
1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM designation C-361.
2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for the entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3", or as shown on the drawings.
3. Laying Pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2' from the riser.
4. Backfilling shall conform to "STRUCTURE BACKFILL".
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

POLYVINYL CHLORIDE (PVC) PIPE - All of the following criteria shall apply for Polyvinyl chloride (PVC) pipe:
1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.
2. Joints and connections to anti-seep collars shall be completely watertight.
3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. Backfilling shall conform to "STRUCTURE BACKFILL".
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

CONCRETE
Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

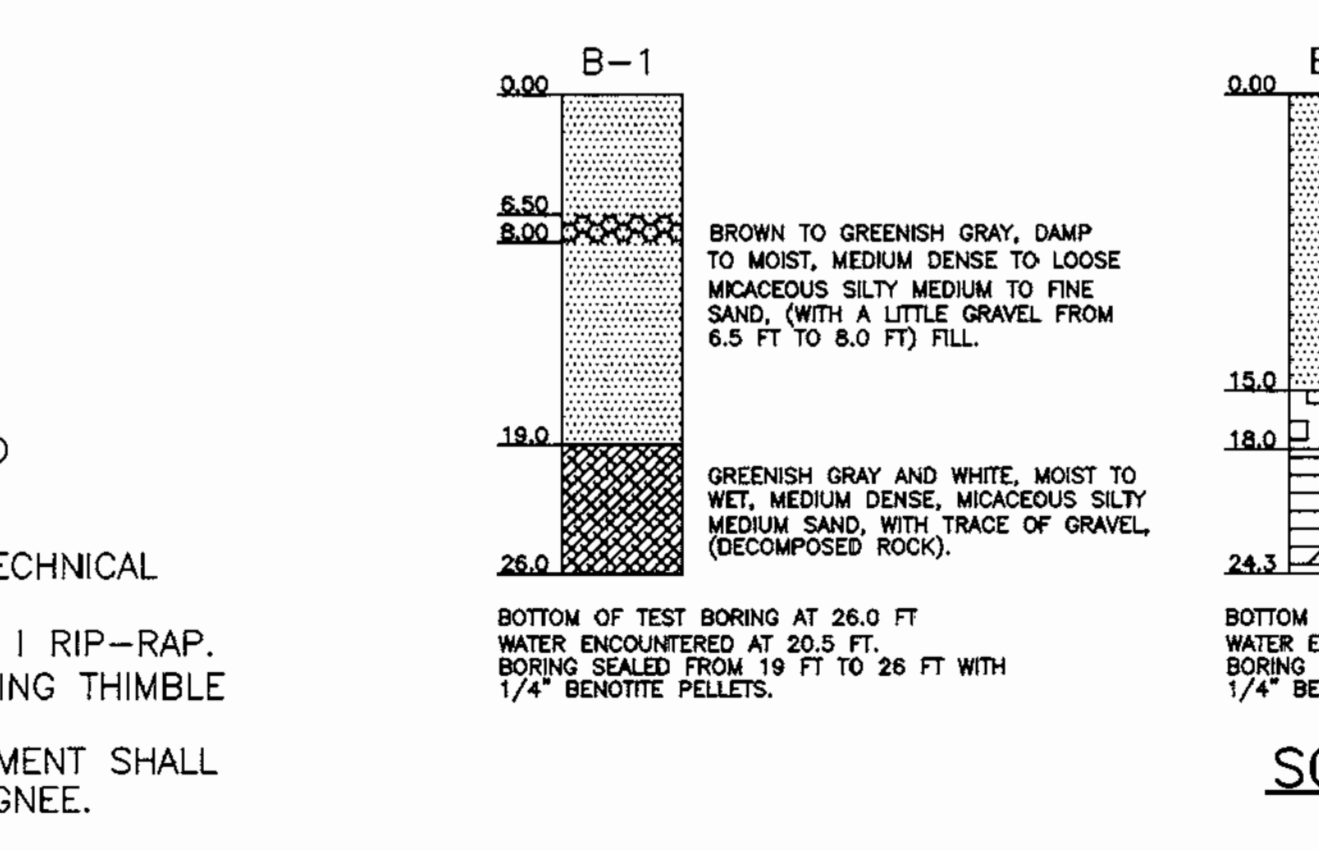
ROCK RIP-RAP
Rock Rip-Rap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.
The rip-rap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure that rip-rap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all rip-rap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specification for construction and materials, Section 919.12.

CARE OF WATER DURING CONSTRUCTION
All work on permanent structures shall be carried out in areas free from water. The contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to pumps from which the water shall be pumped.

STABILIZATION
All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specification for Critical Area Planning (MD-342) or as shown on the accompanying drawings.

EROSION AND SEDIMENT CONTROL
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

CUTOFF AND CORE TRENCH MATERIAL NOTE:
ACCORDING TO THE GEOTECHNICAL REPORT, SUITABLE MATERIAL FOR THE EMBANKMENT AND CUTOFF TRENCH CONFORMING TO UNIFIED SOIL CLASSIFICATION GC, SC, CH, OR CL WAS NOT IDENTIFIED ON SITE. CONTRACTOR'S MATERIAL FOR THE CUTOFF TRENCH SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER. CUTOFF AND CORE MATERIAL FOR THIS PROJECT CUTOFF AND CORE MATERIAL SHALL BE OBTAINED OFFSITE.



SOIL BORING LOG

NOT TO SCALE

- NOTES:**
- 60" RCP'S SHALL HAVE STEEL JOINT RINGS.
 - MINIMUM THICKNESS OF FILTER DIAPHRAGM IS 4.5 FEET.
 - FILTER DIAPHRAGM IS TO BE CONSTRUCTED DOWNSTREAM OF THE IMPERVIOUS CORE.
 - INSPECTION AND TESTING OF MATERIAL USED IN CONSTRUCTION SHALL BE CONDUCTED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER ON-SITE AT THE TIME OF CONSTRUCTION.
 - THE GRADATION SIZE FOR THE FILTER DIAPHRAGM MAY BE DETERMINED BY THE GEOTECHNICAL ENGINEER ON-SITE WHEN A BORROW SOURCE IS DETERMINED.
 - UNLESS OTHERWISE SPECIFIED, ALL RIP-RAP USED IN CONSTRUCTION WILL BE CLASS I RIP-RAP.
 - AN ARTICULATED JOINT IS REQUIRED A MINIMUM OF 2' FROM THE RISER. A STEEL RING THIMBLE MAY BE USED TO PROVIDE THE ARTICULATED JOINT. SEE DETAIL ON SHEET 8.
 - INSPECTION AND TESTING OF MATERIAL USED IN CONSTRUCTION OF THE DAM EMBANKMENT SHALL BE CONDUCTED UNDER THE SUPERVISION OF THE ENGINEER IN CHARGE OR HIS DESIGNEE.

These plans for ~~soil erosion and sediment control~~ shall meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT

PLAN NUMBER _____ DATE _____

Reviewed for the Howard Conservation District and meets technical requirements.

NATURAL RESOURCES CONSERVATION SERVICE DATE _____

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/24/00 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 6/29/00 DATE

DIRECTOR 6/29/00 DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
315	N/A

SUBDIVISION NAME	SECTION NAME	PARCEL #
VILLAGE OF OAKLAND MILLS	STEVENS FOREST	315
PLAT # 14290	BLOCK # 8	ZONE NT
PB 18 F. 74	TAX MAP 36	ELECT. DIST. 6TH
WATER CODE: N/A	SEWER CODE: N/A	CENSUS TRACT N/A

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ENVIRONMENTAL & ENGINEERING CORP.
COMMITTED TO EXCELLENCE

3600 CRONDALL LANE, SUITE 110
BALTIMORE, MD 21117
410-356-4875



REVISIONS		
NO.	DATE	DESCRIPTION

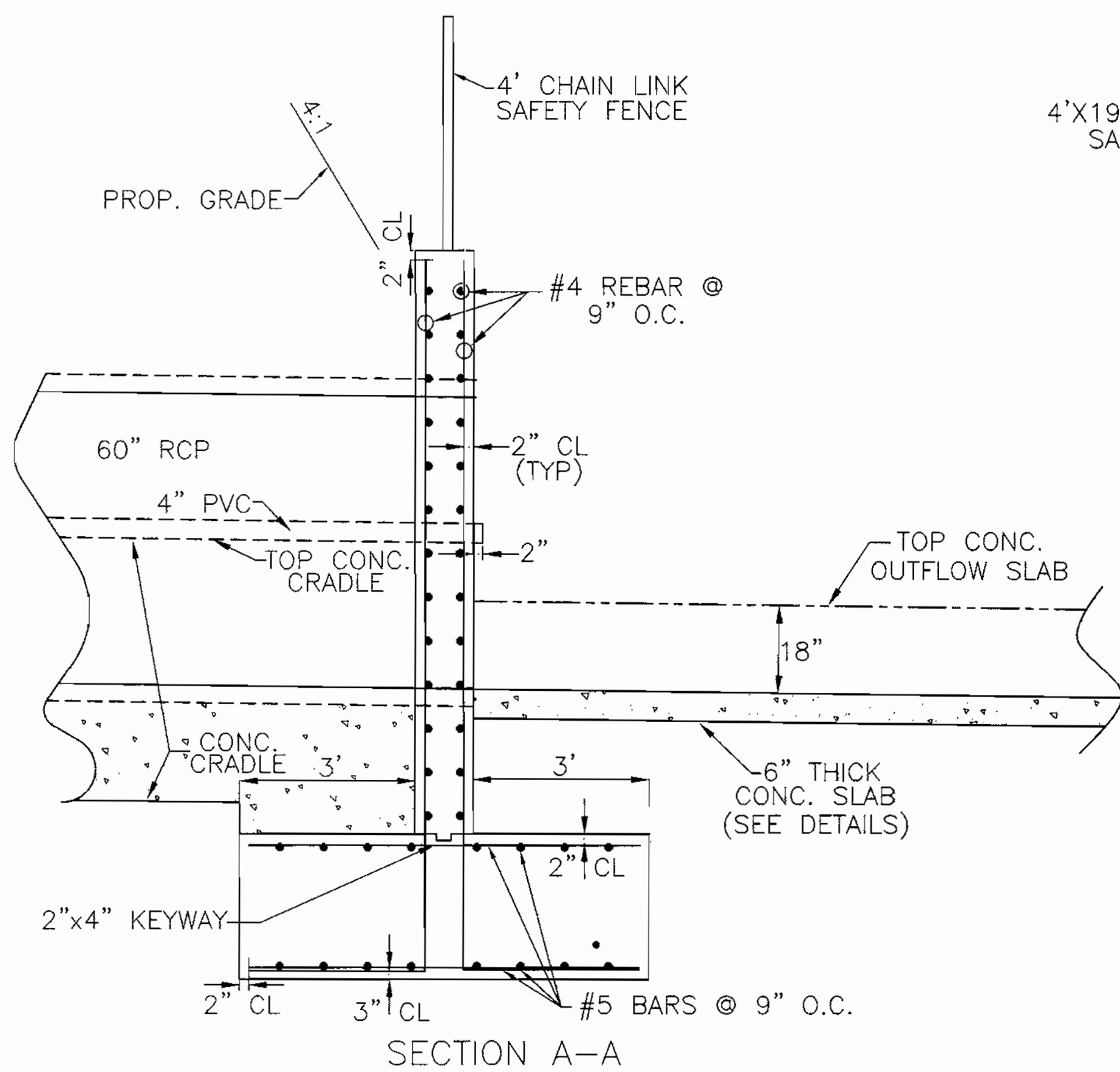
OWNER/DEVELOPER:
COLUMBIA ASSOCIATION, INC.
10221 WINCOPIN CIRCLE, SUITE 100
COLUMBIA, MARYLAND 21044-3410

PLAN PREPARATION
DRAWN BY: DAB DATE: 29 JULY 1999
DESIGNED BY: DAB FILE NO. 99036
CHECKED BY: KDB DRAWING NO.

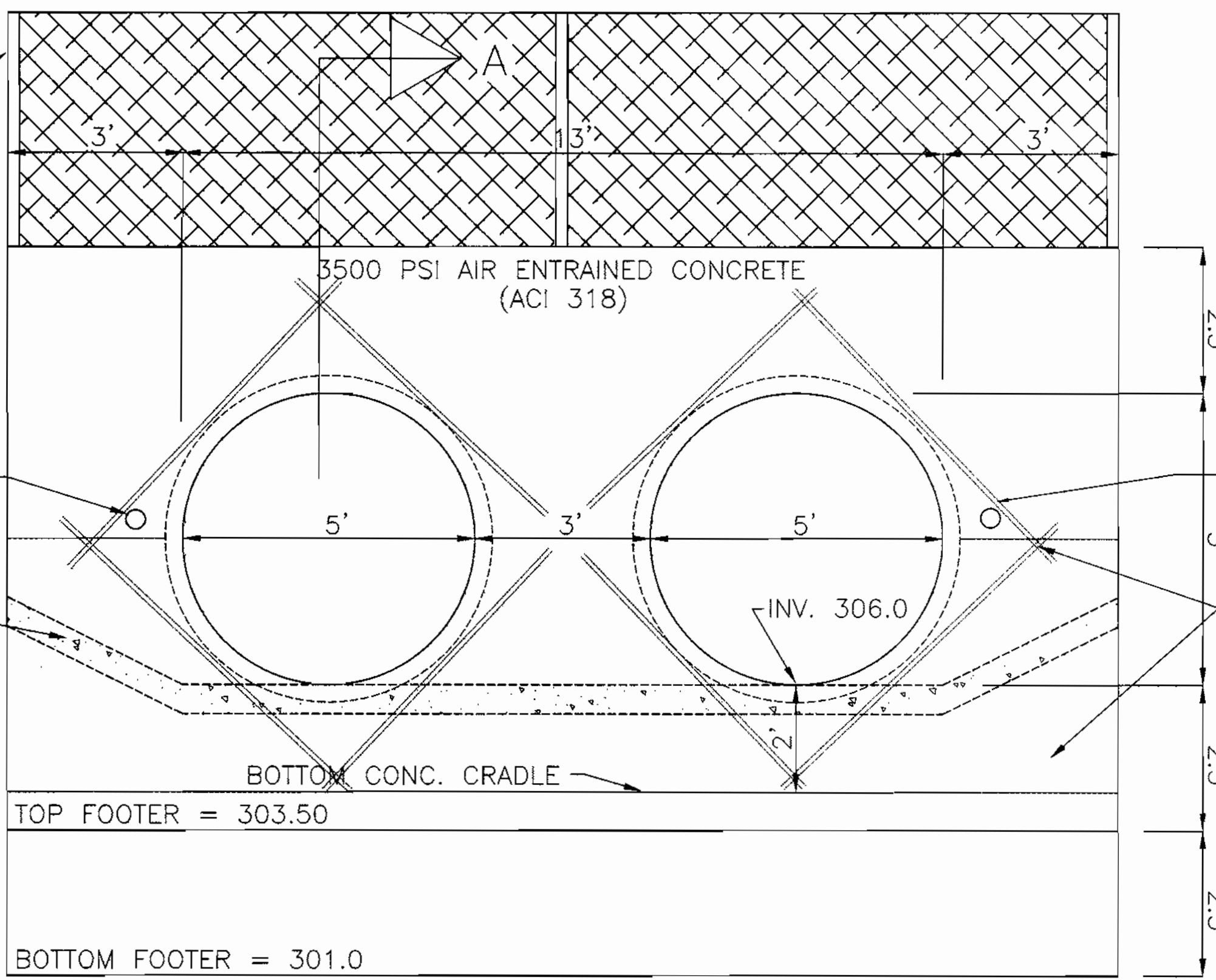
SCALE
AS NOTED
SHEET NO.
6 OF 9

POND CROSS-SECTION & SPECIFICATIONS
PUSHCART POND
DAM RECONSTRUCTION
& DREDGING
COLUMBIA, HOWARD COUNTY, MARYLAND

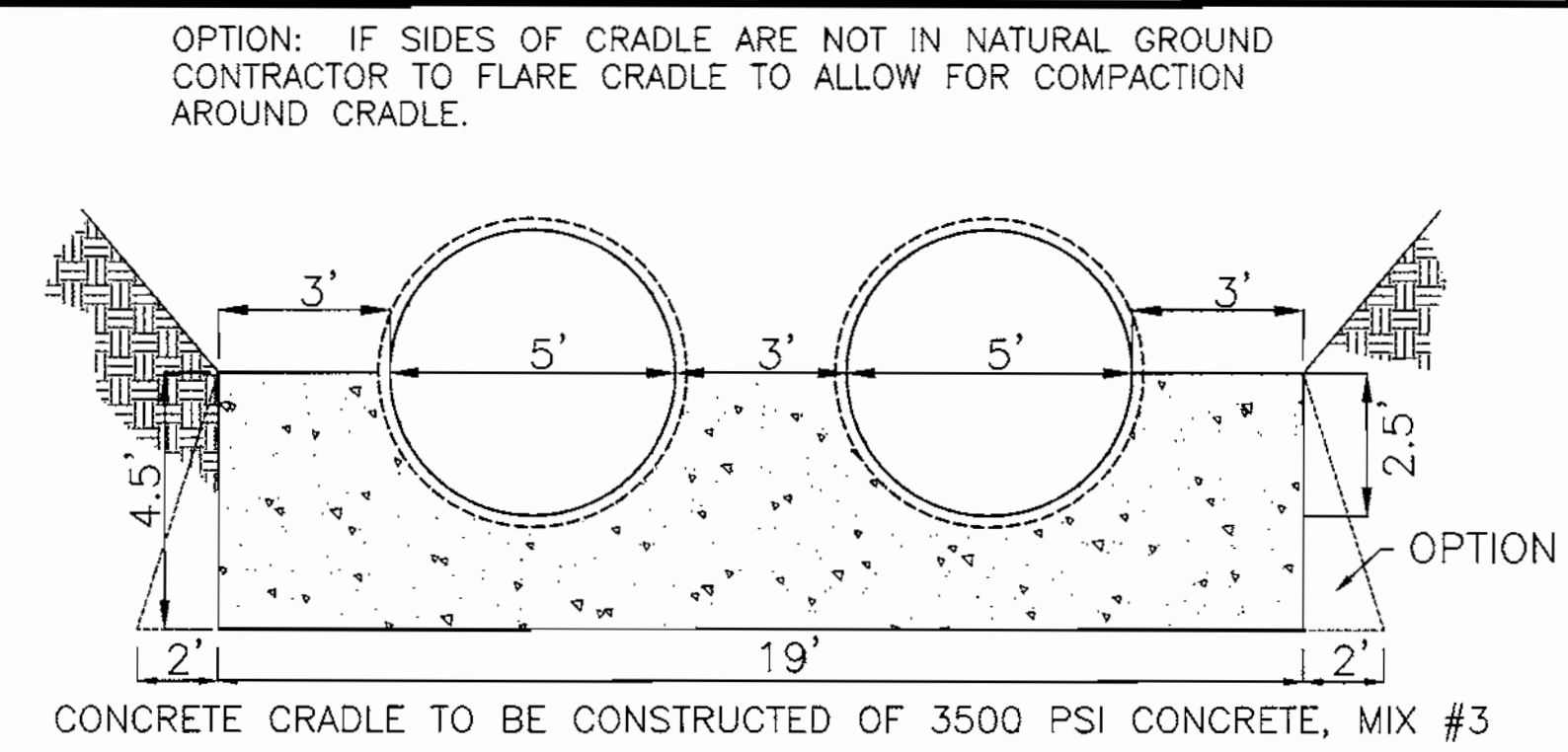
SDP-00-62



SECTION A-A
OUTFLOW HEADWALL DETAIL
SCALE: 1"=2'

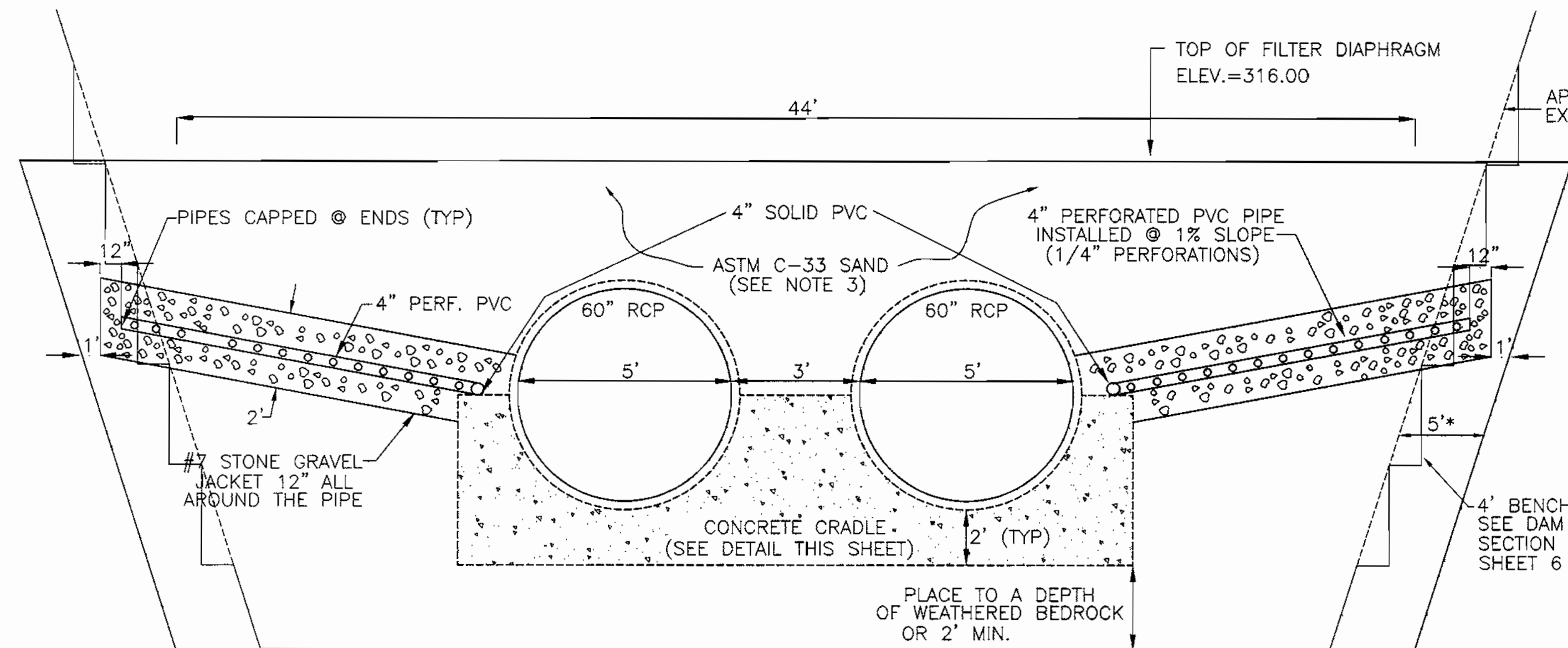


ELEVATION



CONCRETE CRADLE
NOT TO SCALE

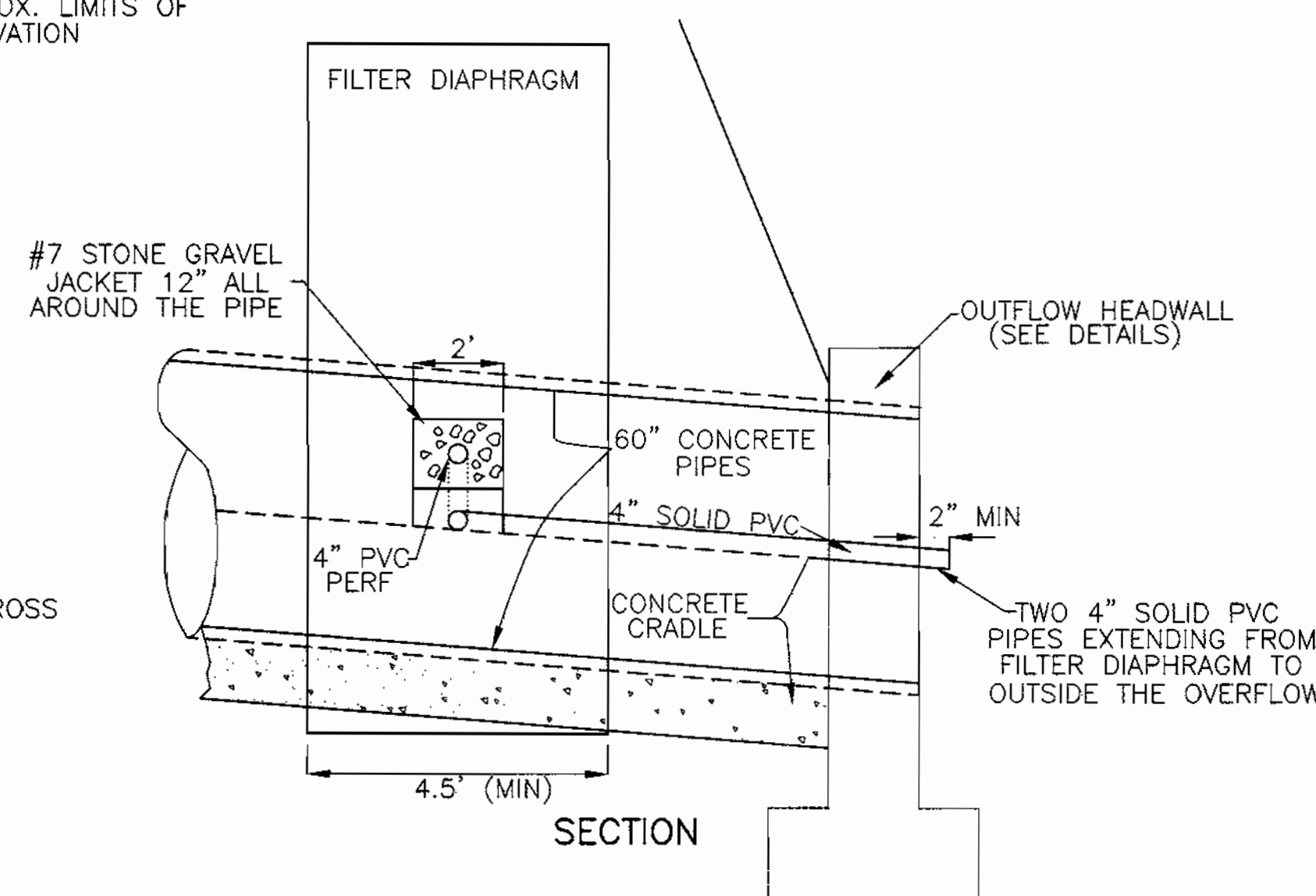
- NOTES:
- FILTER DIAPHRAGM SHALL BE BUILT ALONG EMBANKMENT TO LIMITS SHOWN ON PLAN AND PROFILE. COMPACTION OF FILTER MATERIAL SHALL BE ACCOMPLISHED BY SPRAYING EACH LIFT WITH WATER. LIFTS TO BE 12" MAXIMUM. DO NOT COVER PERFORATED SECTION OF PVC PIPE WITH CONCRETE.
 - PIPE TO BE PERFORATED ONLY WITHIN FILTER MATERIAL. PERFORATIONS TO BE 1/2" DIA., 8" C.C. AT 4 AND 8 O'CLOCK.
 - FILTER DIAPHRAGM SAND TO BE ASTM C-33 SAND OR AS DETERMINED BY GEOTECHNICAL FIELD ENGINEER.



ELEVATION

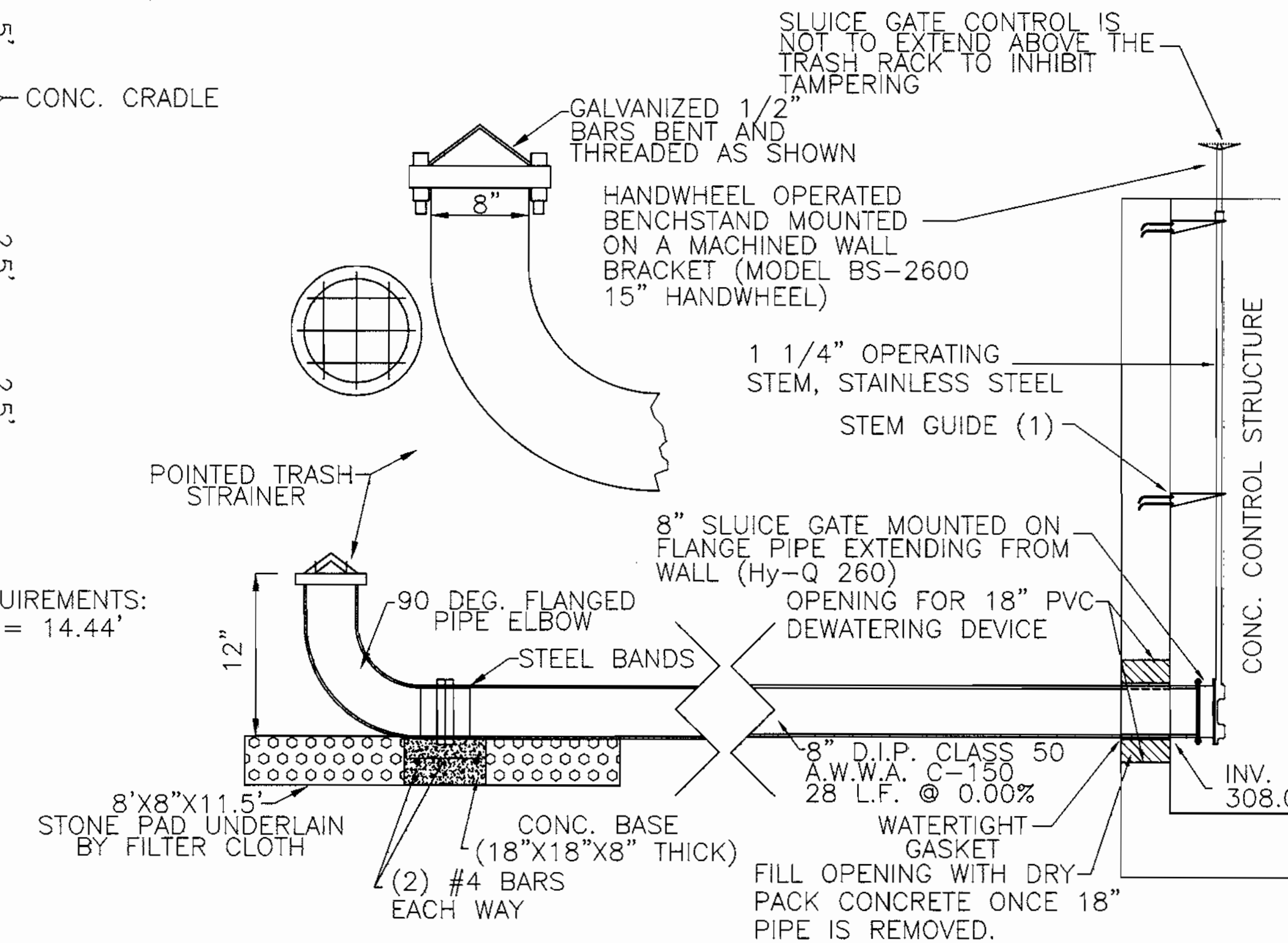
- * FILTER DIAPHRAGM MUST EXTEND 5' BEYOND THE EDGE OF THE SIDE SLOPE OF THE EXCAVATED TRENCH.
- * ALL PVC PIPE TO BE SCH. 40.

FILTER DIAPHRAGM DETAILS
NOT TO SCALE



SECTION

SLUICE GATE DESIGN REQUIREMENTS:
DESIGN OPERATING HEAD = 14.44'
SIZE = 8" Hy-Q 260



POND DRAIN DETAILS
NOT TO SCALE

SLUICE GATE, OPERATING STEM, HANDWHEEL, ETC. SHALL BE FURNISHED BY RODNEY HUNT COMPANY (978)544-2511.

FILTER DIAPHRAGM GRADATION		
SIEVE SIZE	MM	% PASSING
3/8 IN.	9.50	100
NO. 4	4.75	90 - 100
NO. 10	2.00	70 - 100
NO. 20	0.85	50 - 85
NO. 50	0.30	25 - 50
NO. 100	0.15	8 - 30
NO. 140	0.106	0 - 15
NO. 200	NO. 200	0 - 5

These plans for soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
PLAN NUMBER _____ DATE _____

Reviewed for the Howard Conservation District and meets technical requirements.

NATURAL RESOURCES CONSERVATION SERVICE
APPROVED: Howard County Department of Planning and Zoning
DATE: 5/24/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 6/29/00

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 6/29/00

DIRECTOR
DATE: 6/29/00

ADDRESS CHART
PARCEL NO. _____ STREET ADDRESS _____
O.S. LOT 208 5940 GALES LANE

SUBDIVISION NAME _____ SECTION NAME _____ PARCEL # _____
VOM _____ LOT 208

PLAT # 14290 BLOCK # _____ ZONE _____ TAX/ _____ ELECT. DIST. _____
PB: 76 F. 72 8 38 6TH 6086.03

WATER CODE: N/A SEWER CODE: N/A

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BALTIMORE, MD 21117
410-356-4875



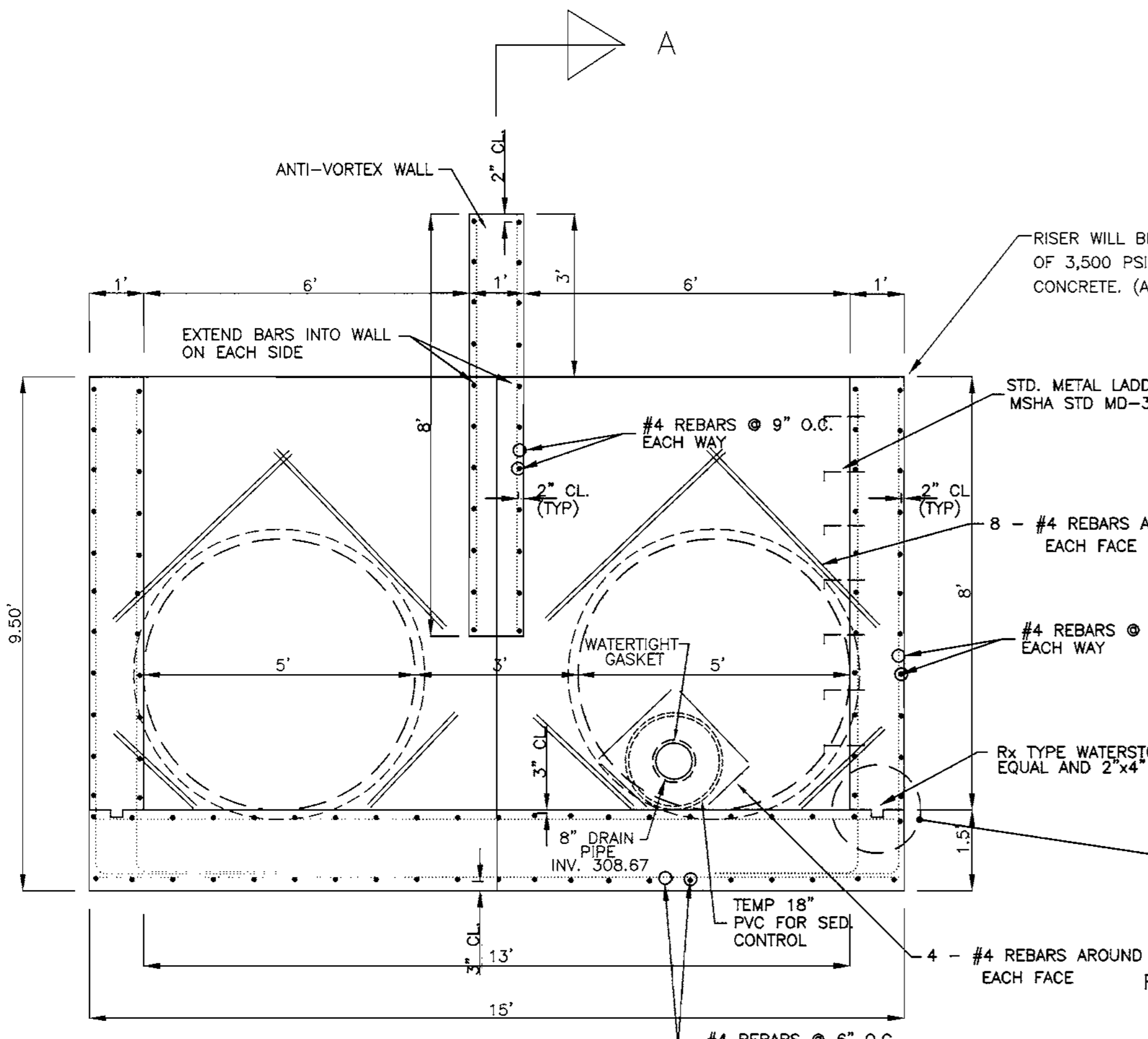
REVISIONS		
NO.	DATE	DESCRIPTION

OWNER/DEVELOPER:
COLUMBIA ASSOCIATION, INC.
10221 WINCOPIN CIRCLE SUITE 100
COLUMBIA, MARYLAND 21044-3410

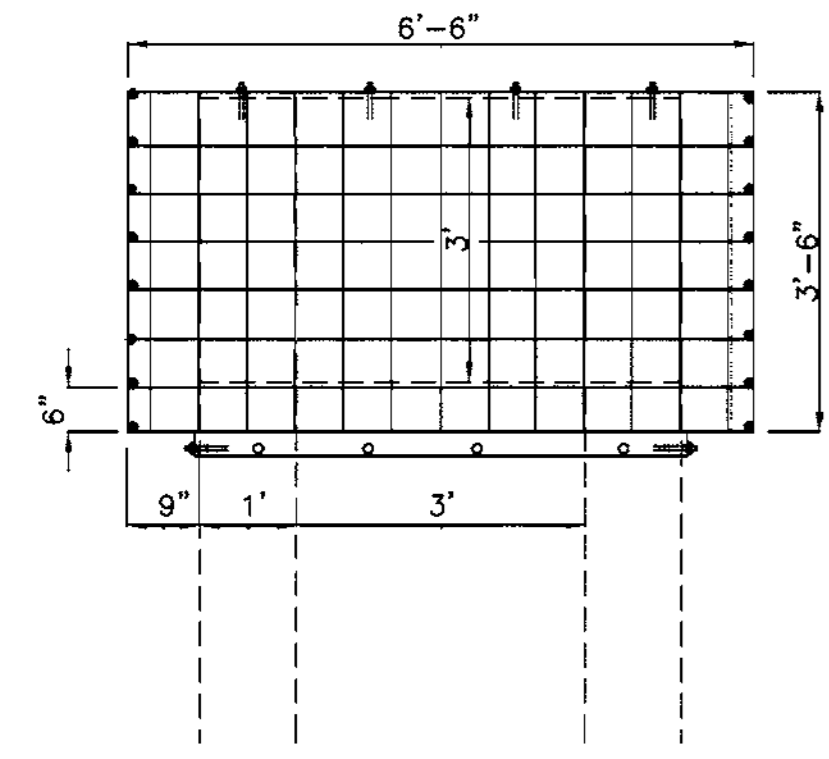
PLAN PREPARATION	
DRAWN BY: DAB	DATE: 27 AUGUST 1999
DESIGNED BY: DAB	FILE NO. 99036
CHECKED BY: KDB	DRAWING NO.

POND DETAILS
PUSHCART POND
DAM RECONSTRUCTION
& DREDGING
COLUMBIA, HOWARD COUNTY, MARYLAND

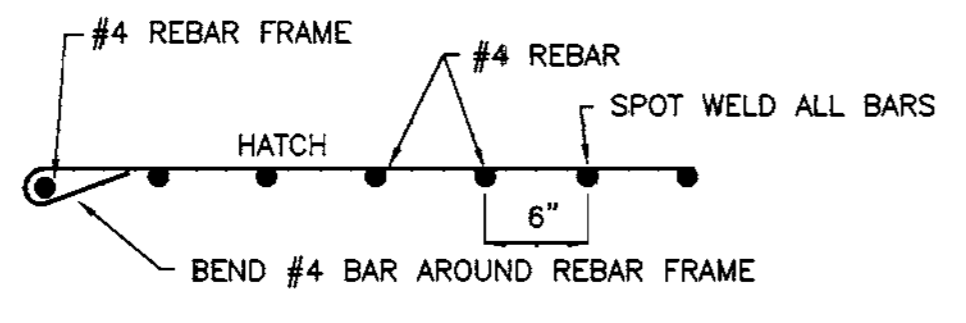
SCALE
AS NOTED
SHEET NO.
7 OF 9



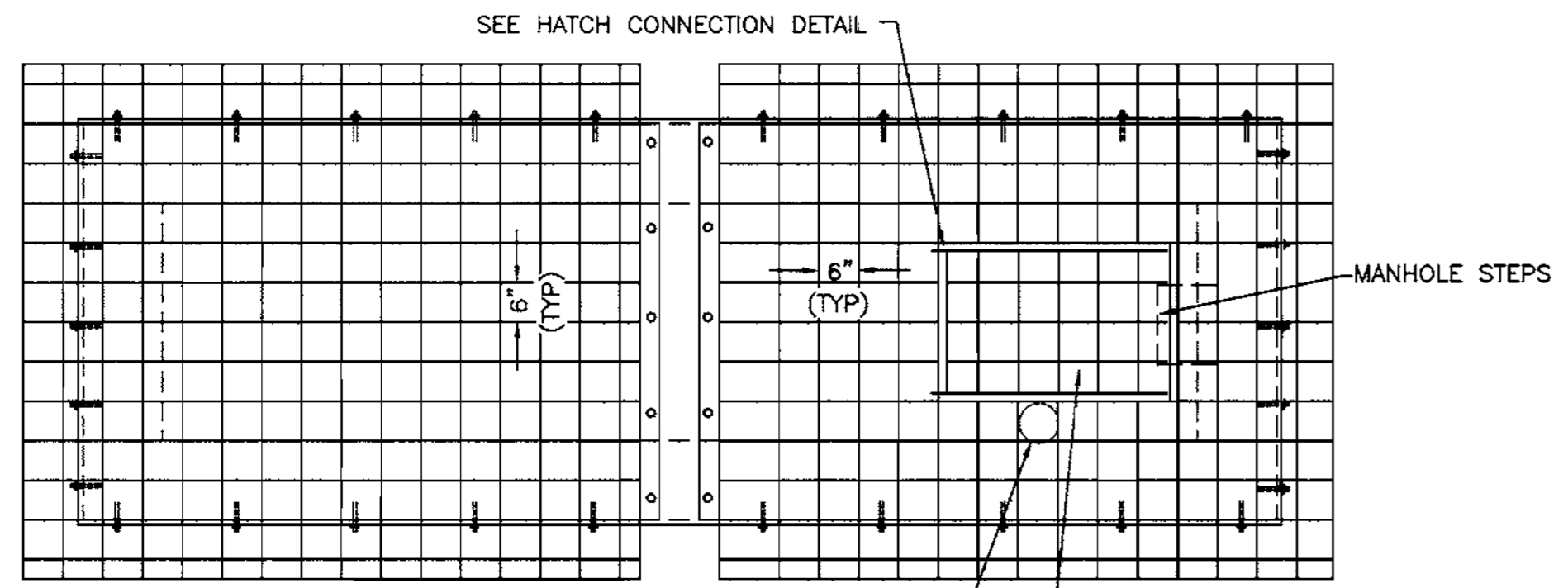
FRONT VIEW



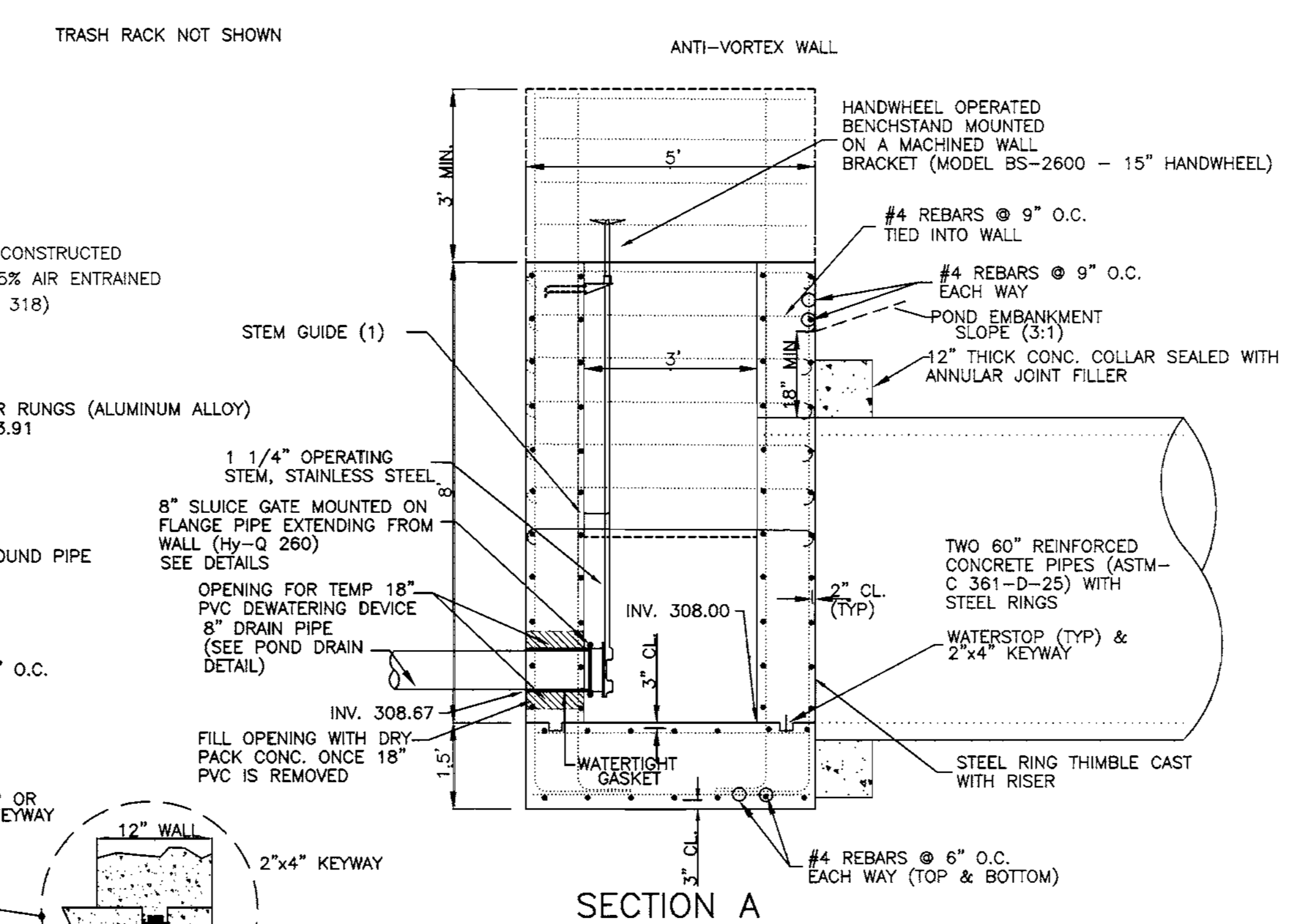
SIDE VIEW



HATCH DETAIL



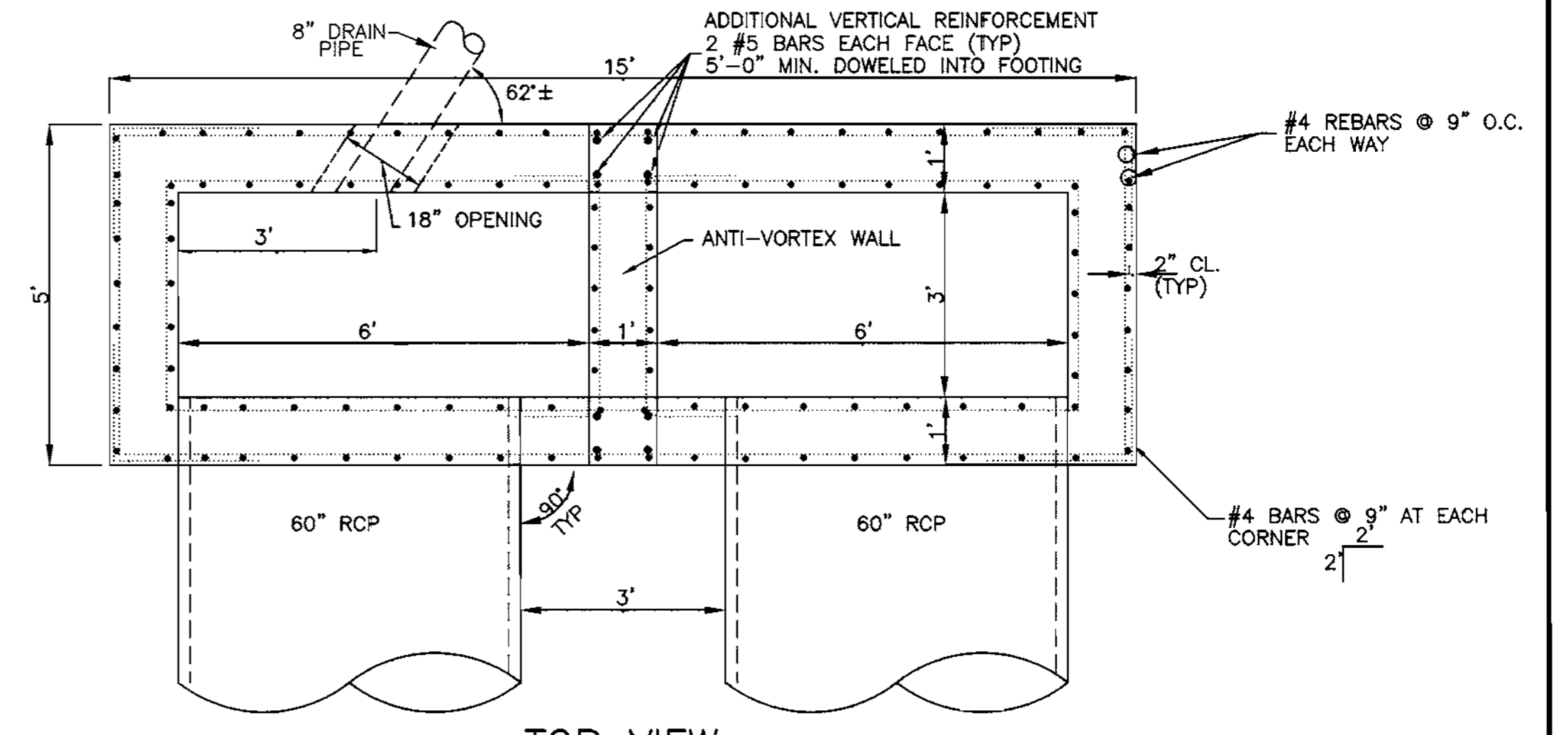
TOP VIEW



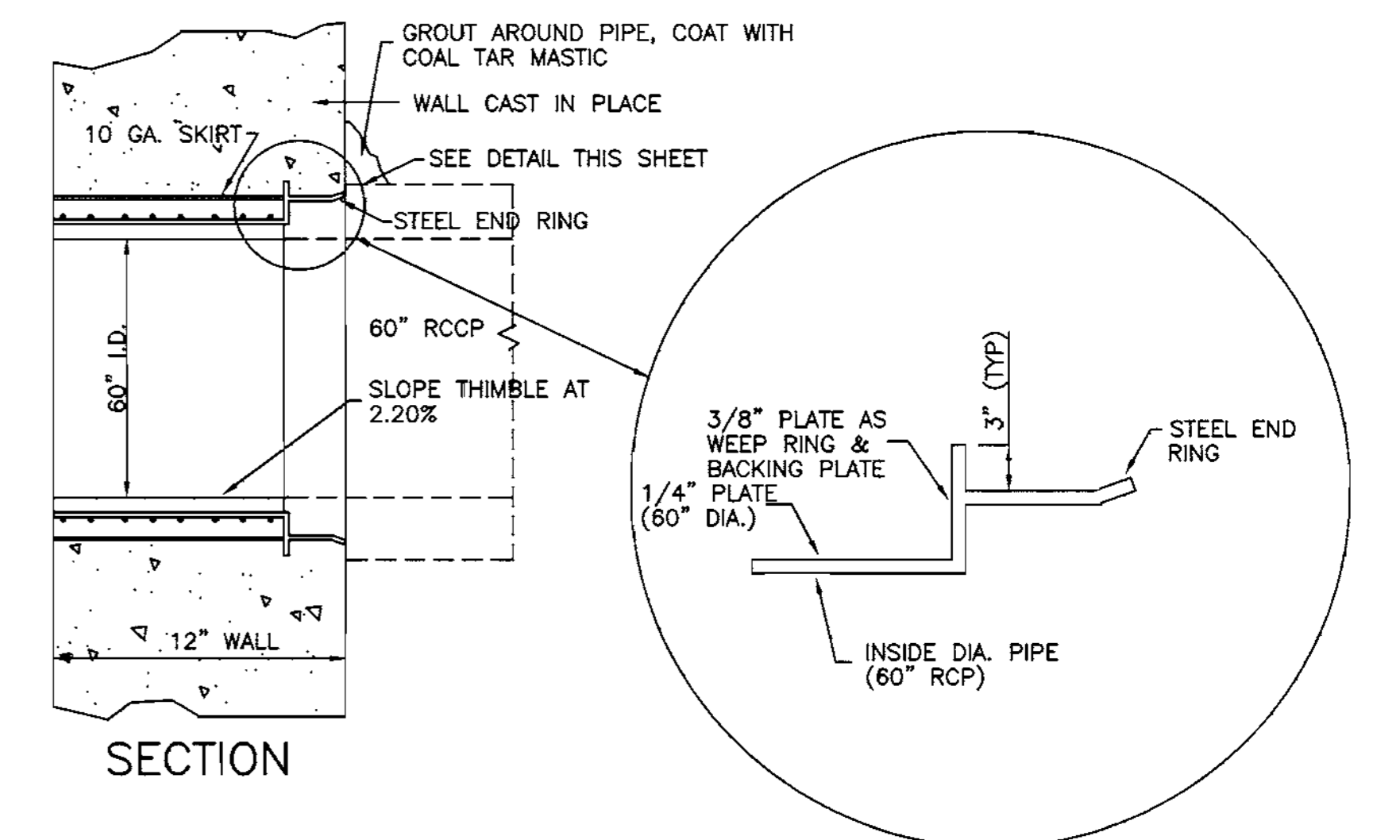
SECTION A

RISER ASSEMBLY DETAILS

SCALE: 1"=2'



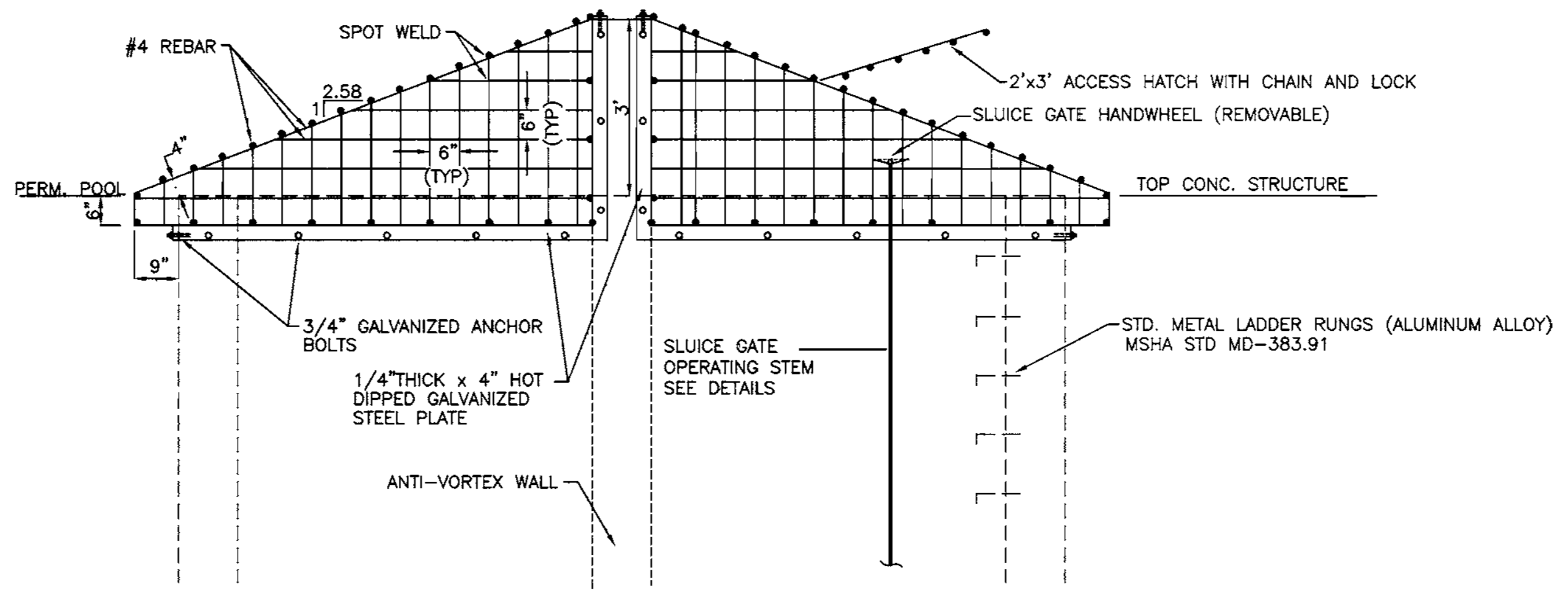
TOP VIEW



SECTION

STEEL RING THIMBLE DETAIL

NO SCALE CONTACT HANSON CONCRETE PRODUCTS
JESSUP, MD
410-799-2600



FRONT VIEW

TRASH RACK WILL BE CONSTRUCTED OF #4 BAR (6\"/>

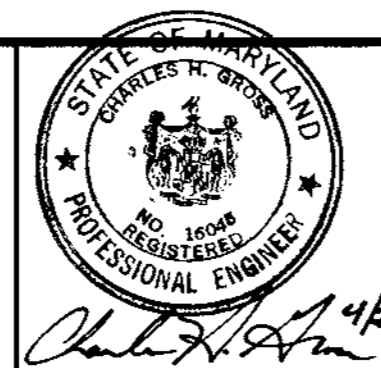
TRASH RACK DETAIL

SCALE: 1"=2'

These plans for earth retention soil erosion and sediment control meet the requirements of Howard Soil Conservation District.			
APPROVED: HOWARD SOIL CONSERVATION DISTRICT			
PLAN NUMBER	DATE		
Reviewed for the Howard Conservation District and meet technical requirements.			
NATURAL RESOURCES CONSERVATION SERVICE			
APPROVED: Howard County Department of Planning and Zoning			
CHIEF, DEVELOPMENT ENGINEERING DIVISION	5/24/00	DATE	
CHIEF, DIVISION OF LAND DEVELOPMENT	6/29/00	DATE	
DIRECTOR	6/29/00	DATE	
ADDRESS CHART			
PARCEL NO.	STREET ADDRESS		
315	N/A		
SUBDIVISION NAME		SECTION NAME	PARCEL #
VILLAGE OF OAKLAND MILLS		STEVENS FOREST	315
STEVENS FOREST		SECTION 5, AREA 2	LOT 208
PLAT #142301	BLOCK #	ZONE	TAX/ MAP
8	NT	36	9TH
PERM F. #	8TH	ELECT. DIST.	CENSUS TRAC
N/A	36	5TH	N/A
WATER CODE:	SEWER CODE:		N/A

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ENVIRONMENTAL & ENGINEERING CORP.
COMMITTED TO EXCELLENCE

3600 CRONDALL LANE, SUITE 110
BALTIMORE, MD 21117
410-356-4875



REVISIONS		
NO.	DATE	DESCRIPTION
1	9-30-99	PER. MDE REVIEW COMMENTS
2	12-22-99	PER. MDE REVIEW COMMENTS

OWNER/DEVELOPER:
COLUMBIA ASSOCIATION, INC.
10221 WINCOPIN CIRCLE SUITE 100
COLUMBIA, MARYLAND 21044-3410

PLAN PREPARATION	
DRAWN BY: DAB	DATE: 27 AUGUST 1999
DESIGNED BY: DAB	FILE NO. 99036
CHECKED BY: KDB	DRAWING NO.

DETAILS - OUTFALL STRUCTURE AND TRASH RACK
PUSHCART POND
DAM RECONSTRUCTION
& DREDGING
COLUMBIA, HOWARD COUNTY, MARYLAND

SCALE
AS NOTED
SHEET NO.
8 OF 9

SDP-00-62

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STRUCTURAL NOTES

DESIGN

1. ALL CONSTRUCTION SHALL CONFORM TO THE 1993 BOCA BASIC BUILDING CODE AND ALL APPLICABLE OSHA STANDARDS.

CONCRETE

1. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301-72 (REVISED 1975) SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.

TWENTY-EIGHT (28) DAY COMPRESSIVE STRENGTH SHALL BE 3,500 PSI REINFORCING STEEL SHALL BE GRADE 60 ASTM WITH FY=60,000 PSI.

ALL BAR LAPS SHALL BE LAPPED 24" OR 30 BAR DIAMETERS MINIMUM, UNLESS OTHERWISE NOTED.

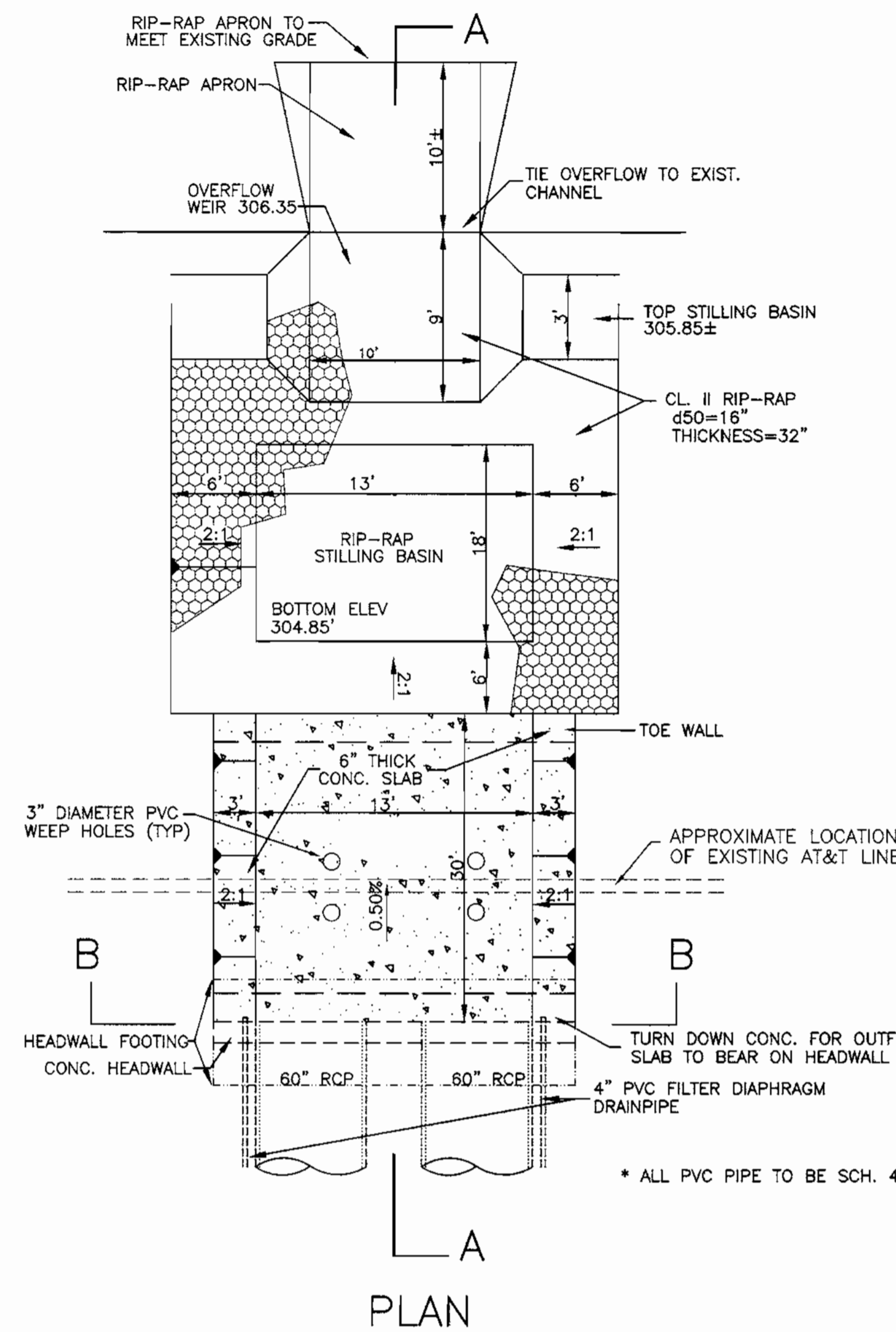
CONCRETE TO BE 5% AIR ENTRAINED.

2. ALL PIPE SLEEVES, CONDUITS, FRAMES, ETC. SHALL BE PLACED BEFORE CONCRETE IS POURED.

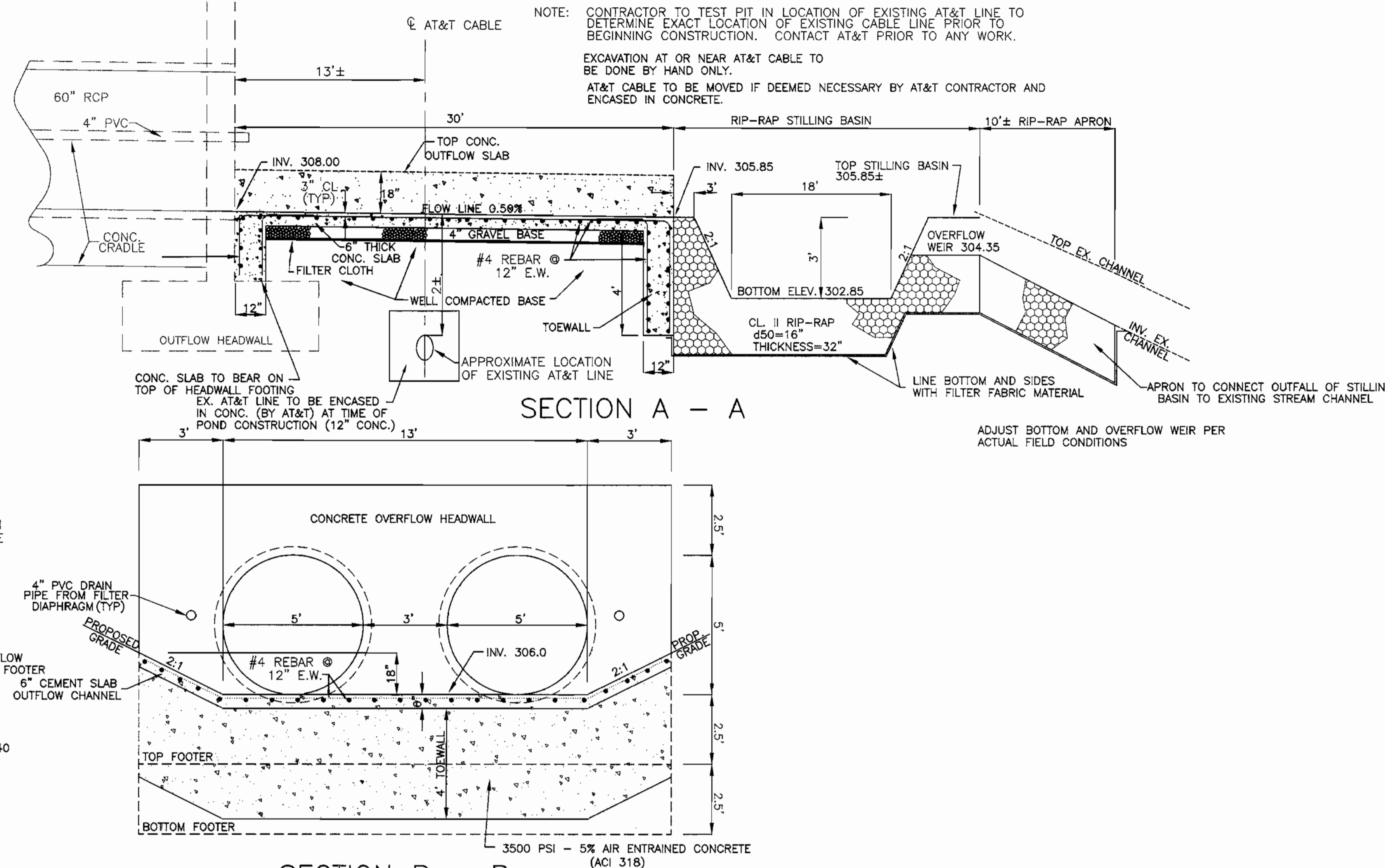
GEOTECHNICAL

1. FOOTINGS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARINGS CAPACITY OF 1.0 KSF. VALUE TO BE VERIFIED IN FIELD BY GEOTECHNICAL ENGINEER.

2. ALL STRUCTURAL FILL SHALL BE PLACED WITH A MAXIMUM LOOSE LIFT THICKNESS OF 4" AND COMPACTED TO A MINIMUM OF 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY AASHTO T-180-C PROCEDURES.



OUTFLOW SLAB AND STILLING BASIN DETAIL
NO SCALE



SECTION A - A

SECTION B - B

NOTE: CONTRACTOR TO TEST PIT IN LOCATION OF EXISTING AT&T LINE TO DETERMINE EXACT LOCATION OF EXISTING CABLE LINE PRIOR TO BEGINNING CONSTRUCTION. CONTACT AT&T PRIOR TO ANY WORK. EXCAVATION AT OR NEAR AT&T CABLE TO BE DONE BY HAND ONLY. AT&T CABLE TO BE MOVED IF DEEMED NECESSARY BY AT&T CONTRACTOR AND ENCASED IN CONCRETE.

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAIN

- 1) NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN THE WETLANDS OR BUFFER.
- 2) PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF THE NONTIDAL WETLAND.
- 3) DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL OR ANY OTHER DELETERIOUS SUBSTANCE. IF ADDITIONAL BACKFILL IS REQUIRED, USE CLEAN MATERIAL FREE OF WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL OR ANY OTHER DELETERIOUS SUBSTANCE.
- 4) PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO THE NONTIDAL WETLANDS OR BUFFER.
- 5) REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS IN EXCESS OF NONTIDAL WETLANDS LOST UNDER THE ORIGINAL STRUCTURE OR FILL.
- 6) RECTIFY ANY NONTIDAL WETLANDS TEMPORARILY IMPACTED BY ANY CONSTRUCTION.
- 7) ALL STABILIZATION IN THE WETLAND AND BUFFER SHALL BE OF THE FOLLOWING RECOMMENDED SPECIES: ANNUAL RYEGRASS (*Lolium multiflorum*), MILLET (*Setaria italica*), BARLEY (*Hordeum sp.*), OATS (*Avena sp.*), AND/OR RYE (*Secale cereale*). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE, BUT MUST BE APPROVED BY THE DIVISION. KENTUCKY 31 FESCUE SHALL NOT BE UTILIZED IN THE WETLAND OR BUFFER AREAS. THE AREA SHOULD BE SEEDED AND MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
- 8) AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST CONSTRUCTION GRADES AND ELEVATIONS OF NONTIDAL WETLANDS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS.
- 9) TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM.
USE 1 WATERWAY IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE, DURING ANY YEAR.
- 10) STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY.
- 11) CULVERTS SHALL BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.

These plans for **SWM** construction soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: *[Signature]* HOWARD SOIL CONSERVATION DISTRICT
DATE: 5/18/00
PLAN NUMBER: SDP-00-62

Reviewed for the Howard Conservation District and meets technical requirements:
[Signature] NATURAL RESOURCES CONSERVATION SERVICE
DATE: 5/18/00

APPROVED: Howard County Department of Planning and Zoning
CHIEF, DEVELOPER ENGINEERING DIVISION: *[Signature]* DATE: 5/24/00
CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 6/24/00
[Signature] DATE: 6/29/00

ADDRESS CHART
PARCEL NO. 315 STREET ADDRESS N/A

SUBDIVISION NAME: VILLAGE OF OAKLAND MILLS SECTION 8, AREA 2 PARCEL # 315 LOT 209
PLAT # 14290 BLOCK # 8 ZONE NT TAX MAP 36 ELECT. DIST. 36 CENSUS TRACT 7842 7-44
WATER CODE: N/A SEWER CODE: N/A

BROOK
ENVIRONMENTAL & ENGINEERING CORP.
COMMITTED TO EXCELLENCE
3600 CRONDALL LANE, SUITE 110
BALTIMORE, MD 21117
410-356-4875



REVISIONS		
NO.	DATE	DESCRIPTION
1	9-30-99	PER MOE REVIEW COMMENTS
2	12-22-99	PER MOE REVIEW COMMENTS

OWNER/DEVELOPER:
COLUMBIA ASSOCIATION, INC.
10221 WINCOPIN CIRCLE SUITE 100
COLUMBIA, MARYLAND 21044-3410

PLAN PREPARATION	
DRAWN BY: DAB	DATE: 27 AUGUST 1999
DESIGNED BY: DAB	FILE NO. 99036
CHECKED BY: KDB	DRAWING NO.

DETAIL - OUTFLOW AND STILLING BASIN
PUSHCART POND
DAM RECONSTRUCTION
& DREDGING
COLUMBIA, HOWARD COUNTY, MARYLAND

SCALE
AS NOTED
SHEET NO.
9 OF 9