

Species	Top Elev.	Inches	Drainage	W.D. Elev.	Storage	Remarks
1.00	100.00	1.00	100.00	100.00	100.00	2.78.4

TEMPORARY SEEDING NOTES

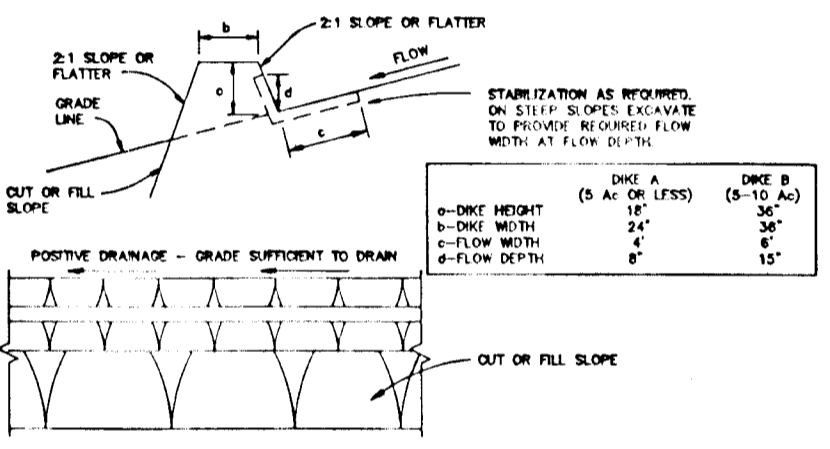
Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.
 Seeding Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.
 Soil Amendments: Apply 500 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq ft).
 Seeding: For the period March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushels per acre of annual ryegrass (3.7 lbs. per 1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs. per acre of seeding clovergrass (0.07 lbs. per 1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well-anchored straw mulch and seed as soon as possible in the spring, or use sod.
 Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2 1/2 gal. per acre (5 gal. per 1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 fl. or higher, use 347 gal. per acre (8 gal. per 1000 sq ft) for anchoring.
 Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent top-layer vegetative cover is needed.
 Seeding Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.
 Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:
 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq ft) and 500 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 100 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs. per 1000 sq ft).
 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq ft) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.
 Seeding: For the period March 1 thru April 30 and from August 15 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq ft) of seeding clovergrass. During the period October 16 thru February 28, protect site by one of the following options:
 1) 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.
 2) Use sod.
 3) Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well-anchored straw.
 Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2 1/2 gal. per acre (5 gal. per 1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 fl. or higher, use 347 gal. per acre (8 gal. per 1000 sq ft) for anchoring.
 Maintenance: Inspect all seeded areas and make needed repairs, restorations and reseedings.

SEDIMENT CONTROL NOTES

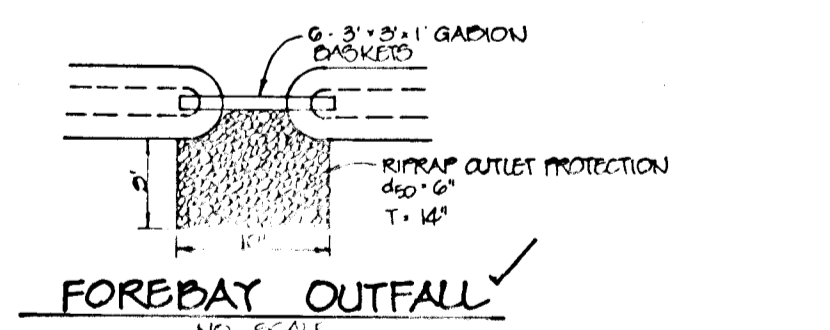
- A minimum of 48 hours notice must be given to the Howard County Dept. of Inspections and Permits prior to the start of any construction (500 sq ft).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in accordance with the MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL, AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL, AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within a 7 calendar days for all perimeter erosion control structures, dikes, perimeter slopes and all slopes greater than (3:1) 14 days as to other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around the perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL for permanent seedings (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 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.
- Site Analysis:
 Total Area of Site: 6.01 acres
 Area Disturbed: 2.78 acres
 Area to be seeded or paved: 2.78 acres
 Total Cut: 2.78 cu. yds.
 Total Fill: 2.78 cu. yds.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- Site grading will begin only after all perimeter sediment control measures have been installed and are in functioning condition.
- Sediment will be removed from traps when its depth reaches clean out elevation shown on the plans.
- Cut and fill quantities from under site analysis do not represent bid quantities. These quantities do not distinguish between topsoil, structural fill or embankment material, nor do they reflect consideration of undercutting or removal of unstable material. The contractor shall familiarize himself with site conditions which may affect the work.
- On all sites with disturbed areas in excess of 500 sq. ft., removal of the topsoil shall be required. The contractor shall be responsible for the identification of perimeter erosion and sediment control, but for the purpose of this plan, any other earth disturbance or grading. Other grading or erosion control measures may be authorized until the initial approval by the inspection agency is made.
- Provision for the construction of utilities is limited to three pipe lengths or that which can be back-filled and stabilized within one working day, whichever is shorter.



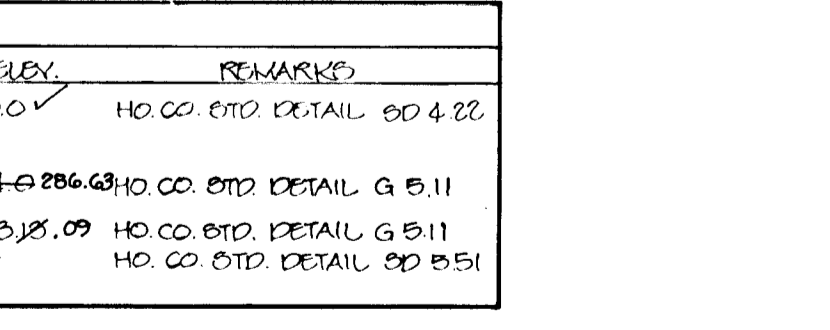
CONSTRUCTION SPECIFICATIONS

- ALL DICES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
- ALL DICES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
- TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DEMONSTRATED TO BE STABLE BY CONSTRUCTION METHODS.
- FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
- EARTH DICES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF SEDIMENT. SEDIMENT SHALL BE CONVEYED TO A STABILIZED RECEIVING AREA SUCH AS A STABILIZED DITCH OR STABILIZED STRIP. THE DITCH OR STRIP SHALL BE GRADED AND ADJUSTED TO THE DITCH AND NOT ADJACENTLY STABILIZED.
- STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SOIL AND EROSION CONTROL; (B) NOT IN EXCESS OF 10% OF THE TOTAL CUT.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

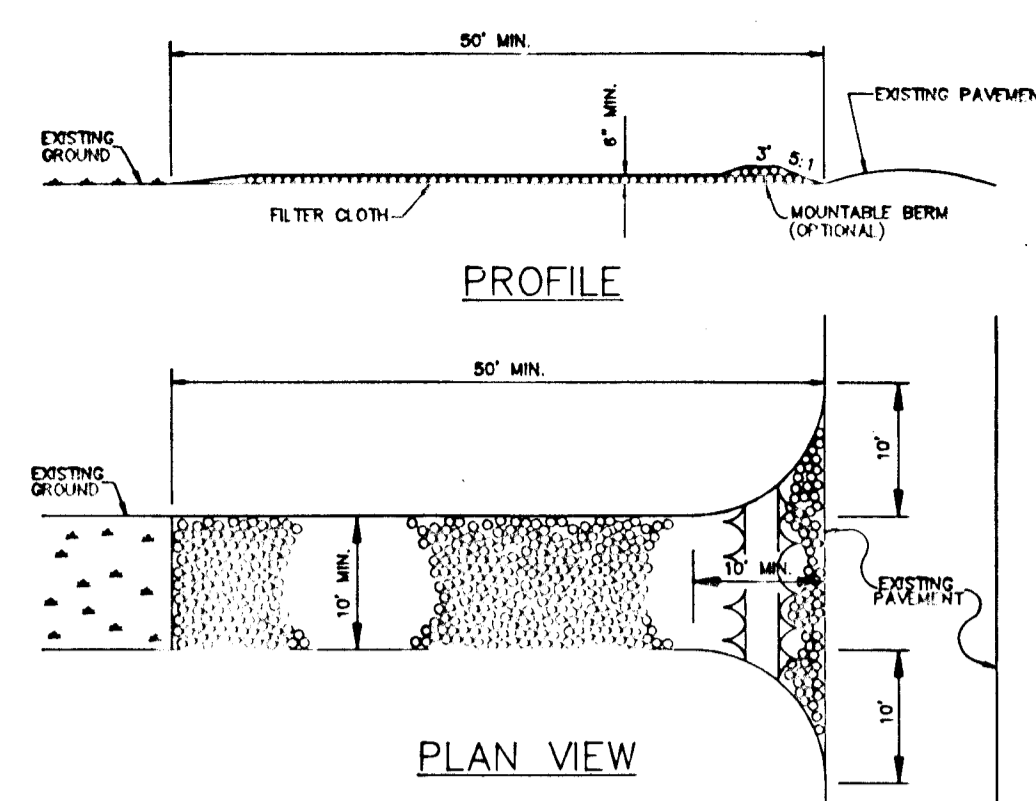
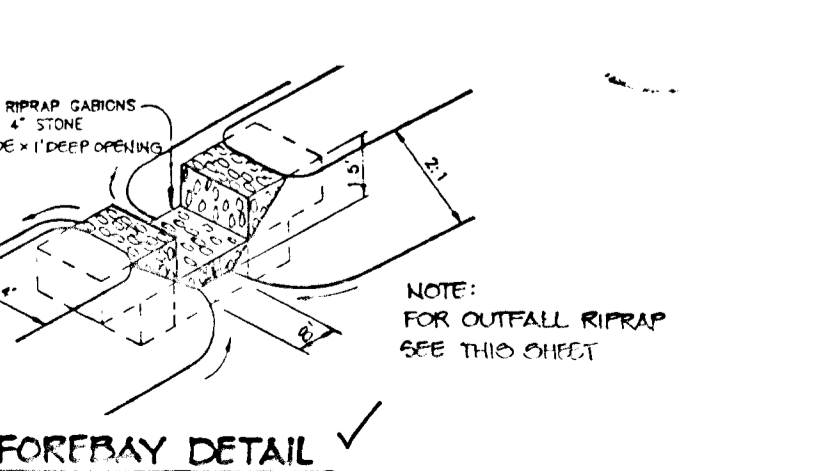
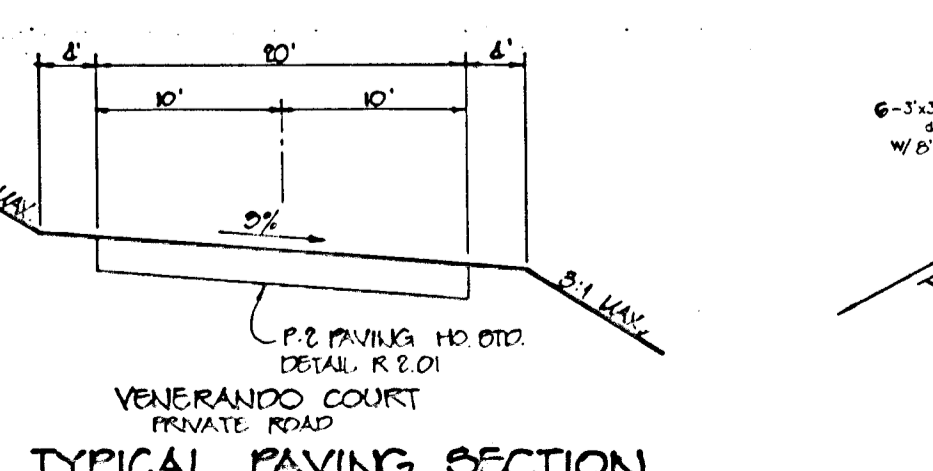
EARTH DIKE



FORBAY OUTFALL



NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	REMARKS
1-1	18" INLET	E. STA. 2+00	270.88	270.78	270.00	HO. CO. STD. DETAIL 6D 4 22
1-2	4" DIA. MANHOLE	E. STA. 0+40	270.77	270.67	264.6	264.6 264.6 HO. CO. STD. DETAIL G 9 11
1-3	4" DIA. MANHOLE	E. STA. 0+82	270.50	270.40	264.6	264.6 264.6 HO. CO. STD. DETAIL G 9 11
1-4	18" CONC. END SECTION	E. STA. 2+75	271.80	271.70	264.6	HO. CO. STD. DETAIL 6D 4 22



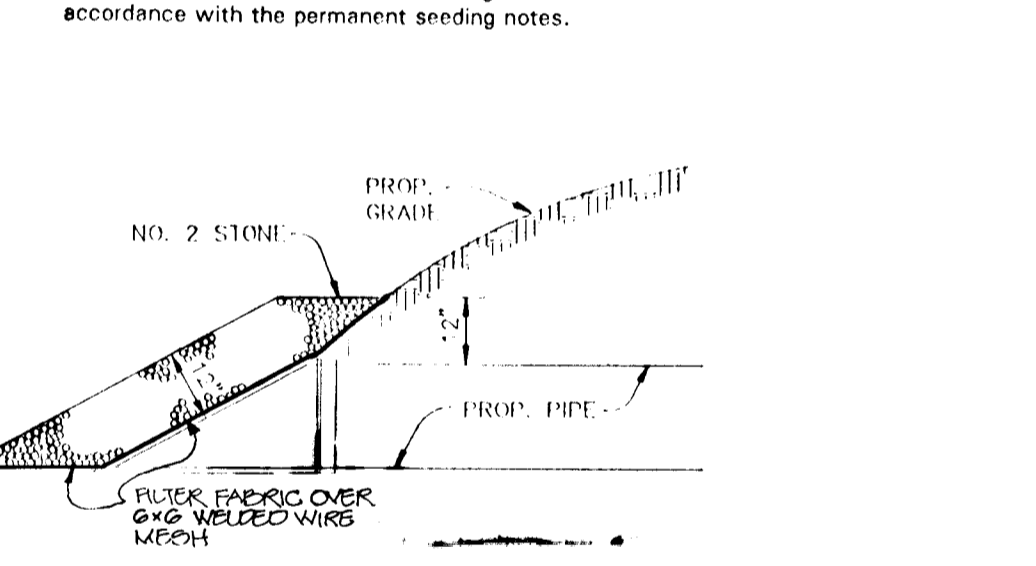
CONSTRUCTION SPECIFICATIONS

- STONE SIZE - USE 2" STONE OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM WOULD APPLY).
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE IMPRESS AND LOGS OCCUR.
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE RESIDENCE LOT.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION OF ENTRANCE SHALL BE FILTERED THROUGH THE ADDITIONAL STONE AS A MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC SHEDDING, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

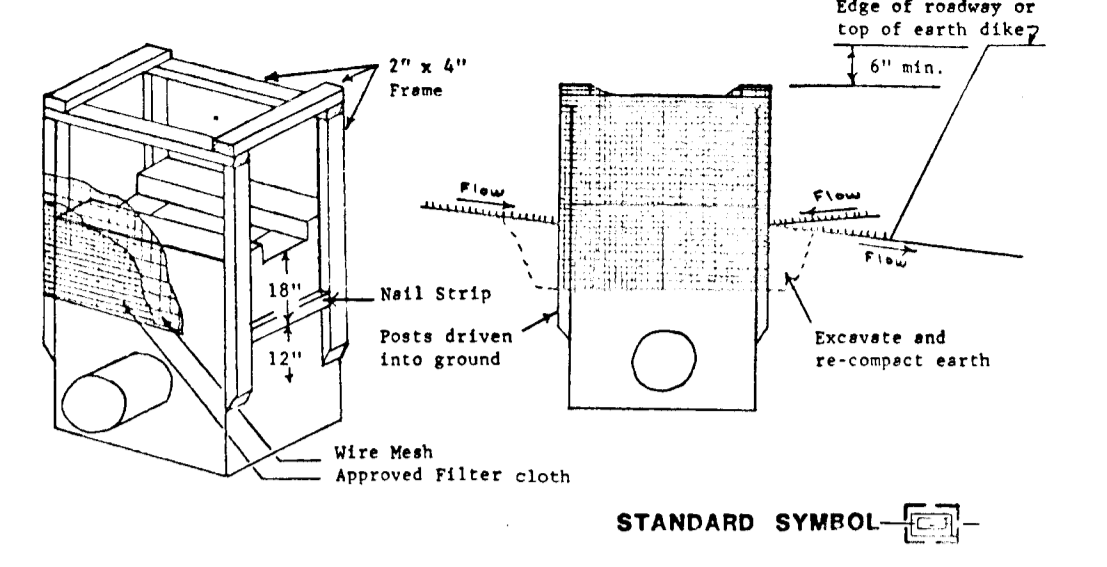
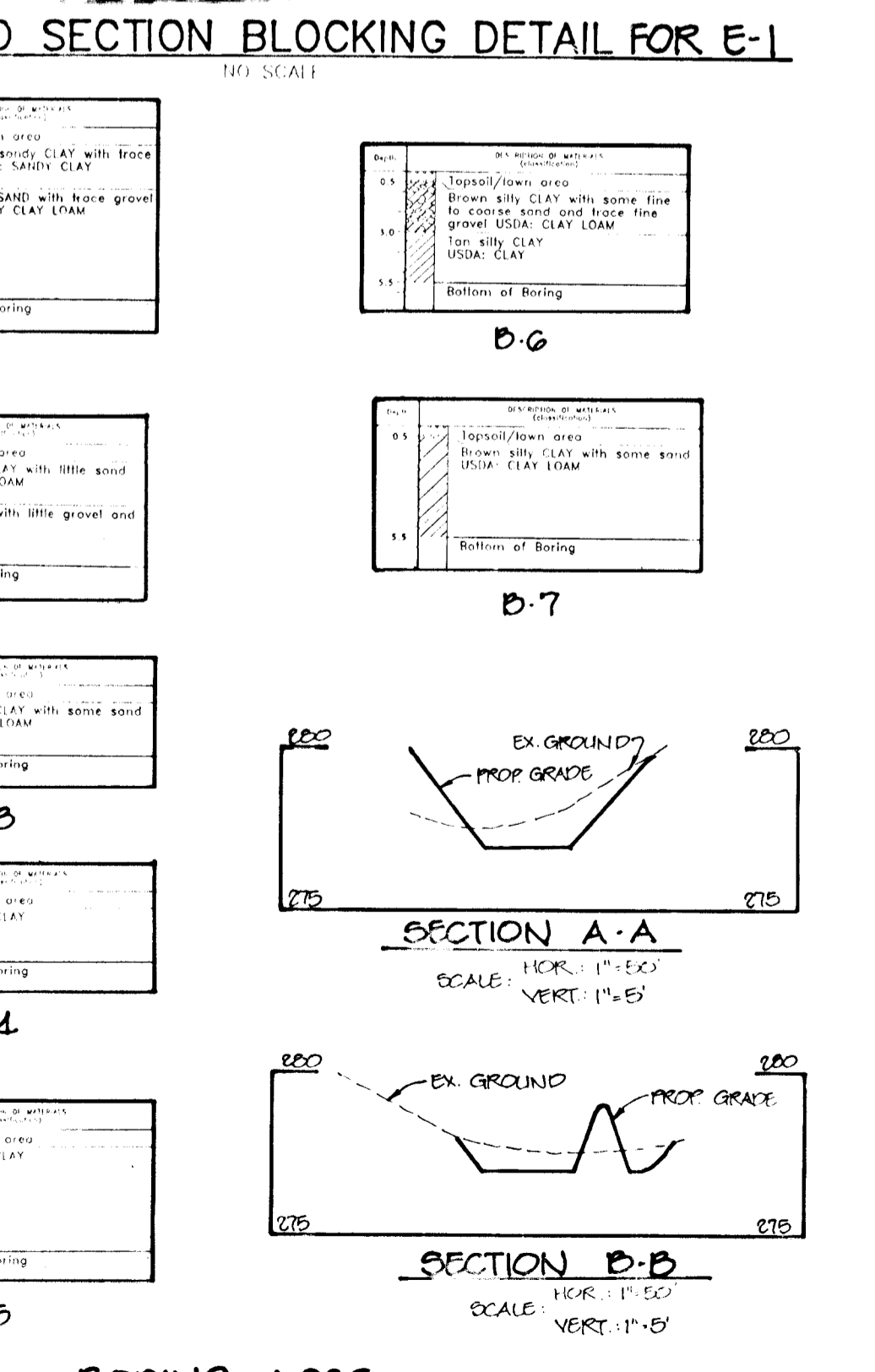
STABILIZED CONSTRUCTION ENTRANCE

Sequence of Construction

- Obtain a grading permit.
- Install SCE, silt fence, earth dike and extend existing 24" pipe to limit of grading to convey clear water through work zone. Do not perform grading for water quality facility (5 days).
- Begin rough grading for driveway and install storm drain from E-1 to EX 1-1. Provide blocking at E-1 per detail. PERIODS ON 547' pipe and provide inlet protection at E-1.
- When subgrade elevations are achieved, install water/sewer. Grade for water quality facility installing gabion wall and riprap.
- Perform curb and gutter at entrance, paving, and stabilize remaining disturbed areas in accordance with the permanent seeding notes. (2 weeks)
- Upon permission of the Howard County Department of Public Works sediment control inspection, remove all remaining sediment control devices and stabilize in accordance with the permanent seeding notes.



END SECTION BLOCKING DETAIL FOR E-1



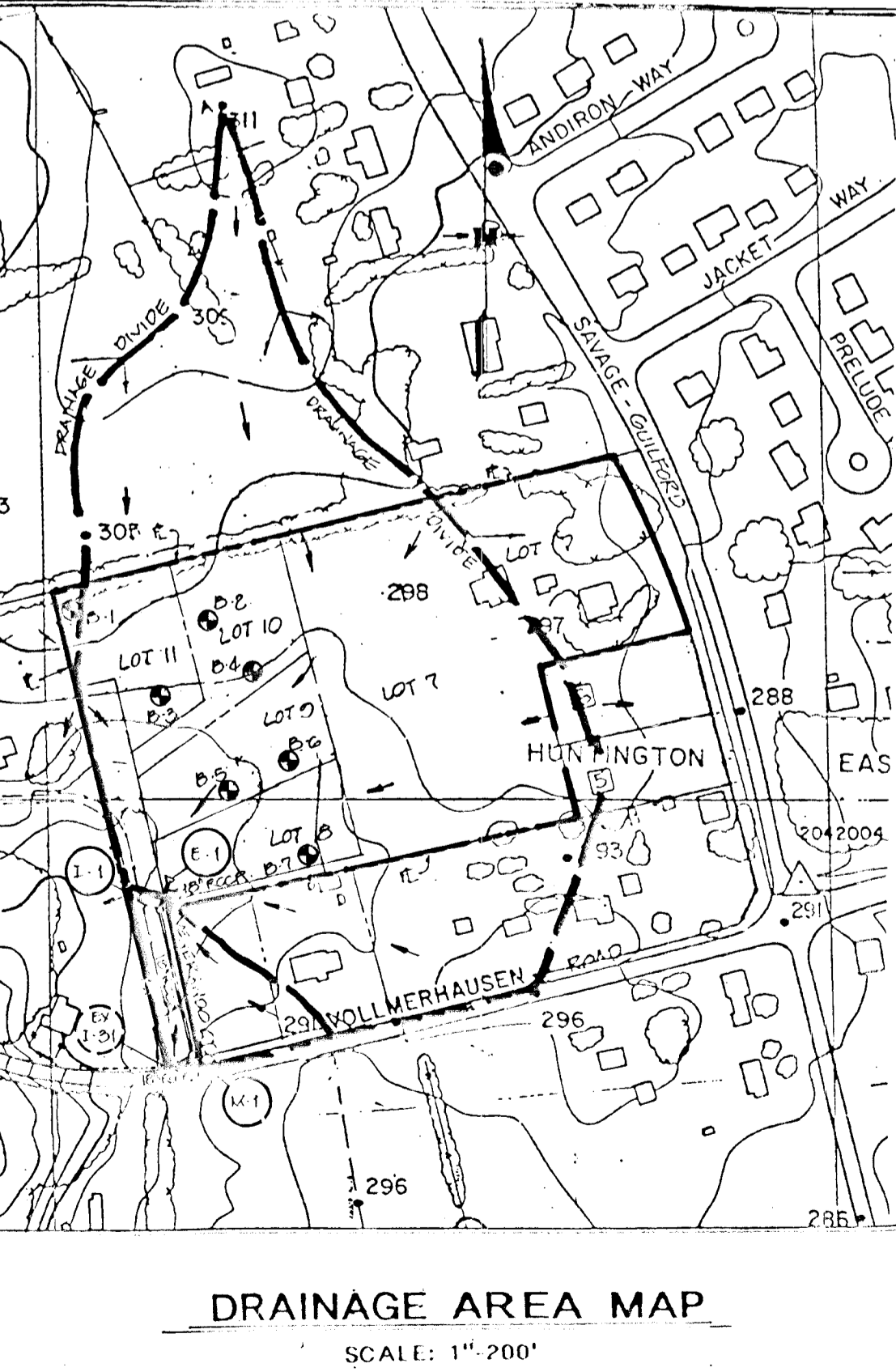
Construction Specifications

- Materials
 - Wooden frame is to be constructed of 2" x 4" construction grade lumber.
 - Wire mesh must be of sufficient strength to support filter fabric, and stone for curb inlets, with water fully impounded against it.
 - Filter cloth must be of a type approved for this purpose; resistant to sunlight with sieve size, E05, 40-85, to allow sufficient passage of water and removal of sediment.
 - Stone is to be 2" in size and clean, since fines would clog the cloth.
 - The assembly shall be placed so that the end spacers are a minimum 1" beyond both ends of the throat opening.
 - Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
 - This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
 - Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.
- Procedure
 - A. A silt fence, ditchline or yard inlet protection.
 - Excavate completely around inlet to a depth of 18" below notch elevation.
 - Drive 2 x 4 post 1' into ground at four corners of inlet. Place nail strips between posts on ends of inlet. Assemble top portion of 2 x 4 frame onto cover just shown. Top of frame (wire) must be 6" below edge of roadway adjacent to inlet.
 - Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
 - Stretch filter cloth tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.
 - Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.
 - If the inlet is not in a low point, construct a compacted earth dike in the ditchline below it. The top of this dike is to be at least 6" higher than the top of frame (wire).
 - This structure must be inspected frequently and the filter fabric replaced when clogged.

STONE FILTER INLET PROTECTION

DRAINAGE DATA

NO.	AREA	C	% IMP.	ZONING
E-1	100 A	0.41	1	R-20
1-1	0.70 A	0.41	16	R-20



BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL 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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Developer: *Dale Martin* 12/2/94

BY THE 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: *J. Farrell* 12.2.94

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
 Reviewer: *Patricia Engle* 1/14/95
 U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Reviewer: *Shirley A. Jones* 1/14/95
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 Reviewer: *Jim Swannam* 1/27/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
 Reviewer: *Chris Dammann* 1/24/95
 CHIEF, LAND DEVELOPMENT DIVISION

APPROVED: BUREAU OF HIGHWAYS.
 Reviewer: *Howard S. Hill* 1/19/95
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: BUREAU OF ENGINEERING.
 Reviewer: *Paul J. Spon* 1/24/95
 CHIEF, BUREAU OF ENGINEERING

OWNER/DEVELOPER:
 ALFIO NICOTRA
 5070 CHAMBER GUILFORD ROAD
 JESUIT, MARYLAND 20726

PROJECT: PROPERTY OF ALFIO NICOTRA
 LOTS 7-12
 AREA: TAX MAP NO. 27
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: GRADING & SEDIMENT CONTROL PLAN, DRAINAGE AREA MAP & DETAIL SHEET
 RIEMER MUEGGEL & ASSOCIATES, INC.
 Planners Engineers Surveyors
 8818 Centre Park Drive, Suite 200 - Columbia, Maryland 21045
 410-997-8000 FAX: 410-997-9282

DATE: 12.2.94
 DESIGNED BY: GJR
 DRAWN BY: WAD
 PROJECT NO: 103200
 DATE: DECEMBER 2, 1994
 SCALE: AS SHOWN
 DRAWING NO. 2 OF 2

AS-BUILT 1-22-94
 F-03-120

1724