

DEVELOPER'S CERTIFICATE

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

DEVELOPER: Howard E. Resnick DATE: 7/21/85

ENGINEER'S CERTIFICATE

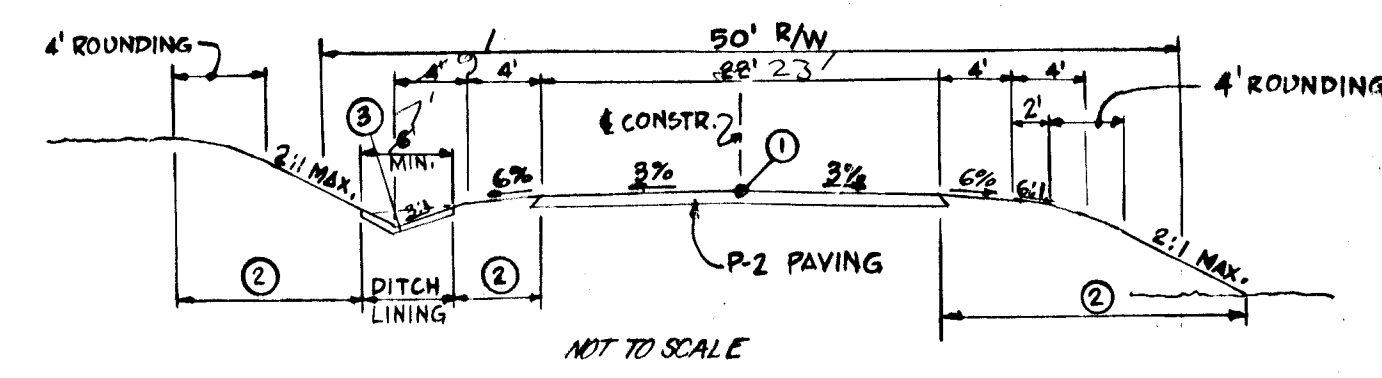
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

ENGINEER: Walter P. Frank DATE: 11-22-85



GENERAL NOTES

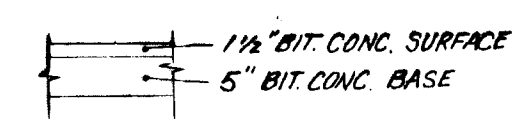
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD CO. DESIGN MANUAL, VOL. IV, STD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL TEST FIT EX. UTILITIES AT LEAST 5 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES AT LEAST 5 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:
 - MISS UTILITY 559-0100
 - BELL TELEPHONE SYSTEM 393-3649
 - LONG DISTANCE CABLE DIVISION 393-3553 or 3554
 - BALTO. GAS & ELECTRIC CO. 539-8000, EXT. 691
 - HOWARD CO. BUREAU OF UTILITIES 992-2366
 - HOWARD CO. CONSTRUCTION/INSPECTION SURVEY DIVISION 732-7272
- 24 HRS NOTICE PRIOR TO COMMENCEMENT OF WORK.
- ALL STREETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD CO. STANDARDS.
- ALL STREET CURB RETURNS SHALL HAVE 30' RADIUS UNLESS OTHERWISE NOTED.
- STORM DRAIN TRENCHES WITHIN ROAD R/W SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD CO. DESIGN MANUAL, VOL. IV, I.E., STD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 1978 EDITION.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- DESIGN TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS. ALL 50' R/W = 30 M.P.H.
- ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- SUBJECT PROPERTY ZONED R PER 10-3-TT COMPREHENSIVE ZONING PLAN.
- TOPO TAKEN FROM FIELD RUN SURVEY.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'B' AS SHOWN IN FIG. 11.4, VOL. I. OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL PROVIDE 3"-45° BEVEL AROUND PIPE OPENING ON UPSTREAM HEADWALLS.



TYPICAL ROAD SECTION

ERICOLE COURT

- NOTES:**
- PROFILE GRADE LINE
 - INDICATES 2" TOPSOIL, SEED & MULCH
 - STONE LINED DITCH
 - DESIGN SPEED 30MPH
 - ZONING: R



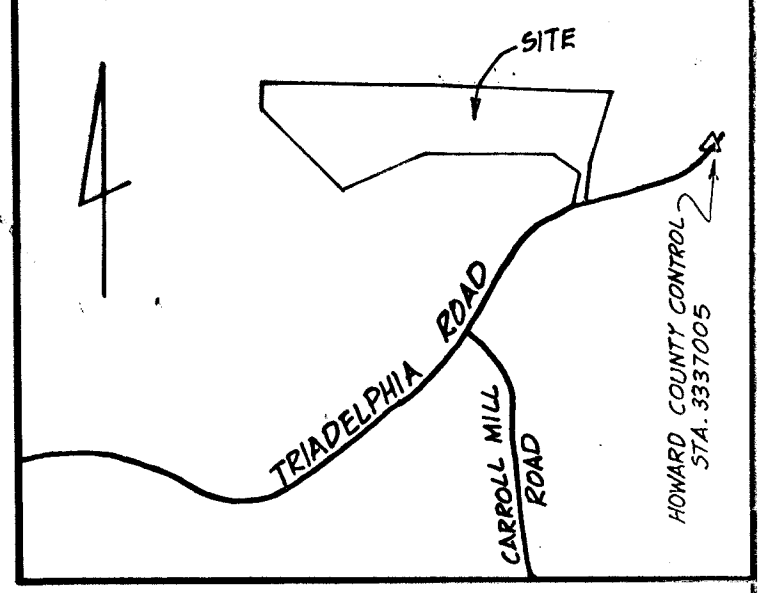
PAVING SECTION

- NOTES:**
- NOT TO SCALE
 - HOWARD COUNTY Dwg. R-201

PAVING SECTION

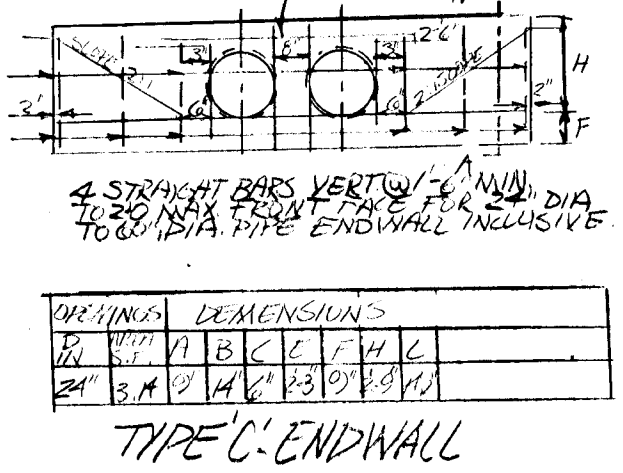


CORRECTION CHART



VICINITY MAP

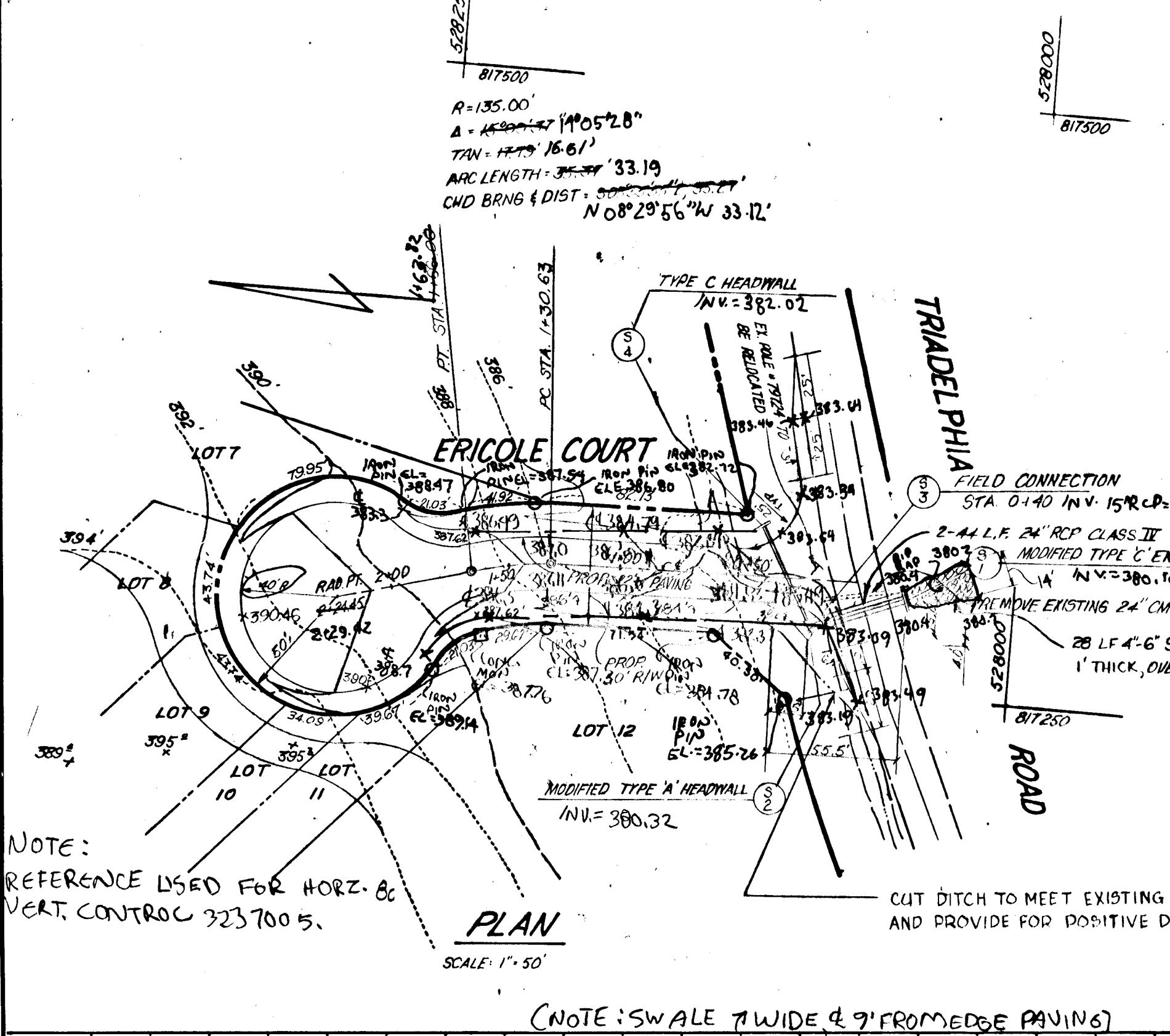
SCALE: 1"=200'



OWNER & DEVELOPER

HOWARD RESNICK
4645 NEW CUT ROAD
ELLCOTT CITY, MD. 21043

ROAD CONSTRUCTION PLAN
PROJECT: **TRIADDELPHIA WOODS** A RESUBDIVISION OF PARCELS 112
LOCATION: 3RD ELECT. DISTRICT, TAX MAPS 15/22, PARCEL 528 HOWARD COUNTY, M.D.
DATE: JAN 10, 85 DESIGN BY: RDM DRAWN BY: JTM CHECKED BY:
SCALE: AS NOTED JOB NO.: 04180 DRAWING NO.: 10F 2
boender associates engineers/surveyors/planners
BALTIMORE 301-465-7777 SALISBURY 301-749-1286



NOTE: REFERENCE USED FOR HORIZ. & VERT. CONTROL 3237005.

PLAN

SCALE: 1"=50'

D	E	F	G	H	J	K	L	N	R
24'	6'-4"	10'-0"	3'-0"	3'-6"	2'-0"	8'	8'	8'	5'-6 1/2"

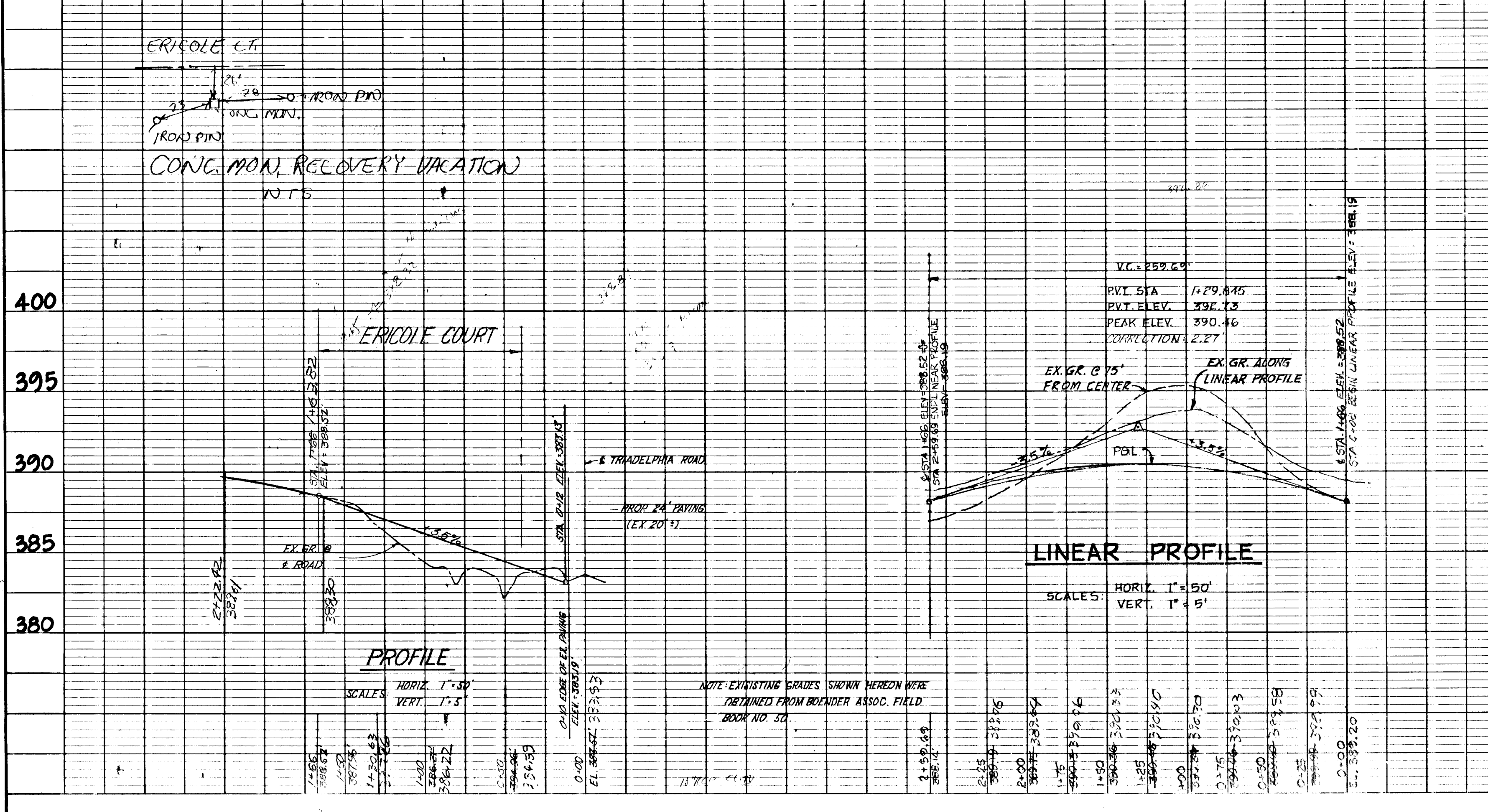
REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

APPROVED DEPARTMENT OF PUBLIC WORKS

APPROVED OFFICE OF PLANNING AND ZONING

CHIEF BUREAU OF ENGINEERING

CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION



LINEAR PROFILE

SCALE: HORIZ. 1"=50' VERT. 1"=5'

CONC. MON. RECOVERY VARIATION

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate surface disturbance where a permanent long-lived vegetative cover is needed.

Soil Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- Preferred - Apply 2 tons per acre domestic limestone (97 lbs/1000 sq ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 200 lbs per acre 30-0-0 ureaform fertilizer (6 lbs/1000 sq ft).
- Acceptable - Apply 2 tons per acre domestic limestone (97 lbs/1000 sq ft) and 200 lbs per acre 10-10-10 fertilizer (21 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

Seeding - For the periods March 1 thru April 30, and August 1 thru October 15, seed with 2 lbs per acre (1.2 lbs/1000 sq ft) of Kentucky 31 Tall Ryegrass. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Ryegrass per acre at 2 lbs per acre (0.05 lbs/1000 sq ft) of ureaform fertilizer. During the period of October 16 thru February 28, protect area by Option (1) 2 tons per acre of well decomposed straw mulch and seed as soon as possible in the spring. Option (2) the seed. Option (3) seed with 60 lbs/acre Kentucky 31 Tall Ryegrass and mulch with 2 inches straw with mulch.

Mulching - Apply 1 1/2 to 2 tons per acre (30 to 60 lbs/1000 sq ft) of untreated mulch and straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gal/acre (5 gal/1000 sq ft) of mulch/straw applied to flat areas. On slopes 8 feet or higher, use 300 gal/acre (6 gal/1000 sq ft) for anchoring.

Maintenance - Inspect all seeded areas and make needed repairs, replacements and cleanings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

Soil Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

Seeding: For periods March 1 thru April 30 and from August 1 thru November 15, seed with 2 lbs/acre of annual ryegrass (1.2 lbs/1000 sq ft). For the period May 1 thru August 31, seed with 1 lb per acre of perennating ryegrass (0.5 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well decomposed straw mulch and seed as soon as possible in the spring, or use seed.

Mulching: Apply 1 1/2 to 2 tons per acre (30 to 60 lbs/1000 sq ft) of untreated mulch and straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gal/acre (5 gal/1000 sq ft) of mulch/straw applied to flat areas. On slopes, 8 feet or higher, use 300 gal/acre (6 gal/1000 sq ft) for anchoring.

In fact to the 1983 NATIONAL STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rates and methods not covered.

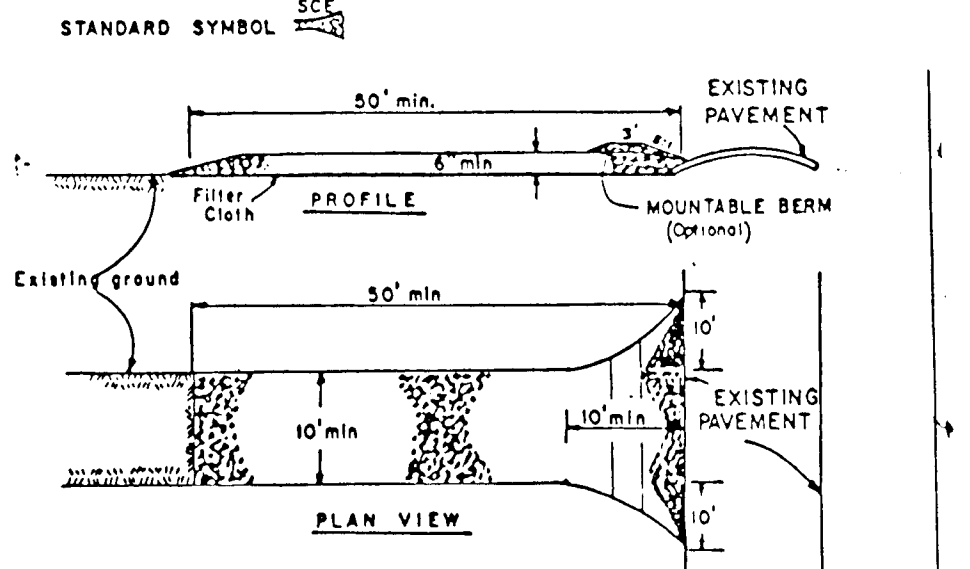
#1139

STRUCTURE		SCHEDULE			
NO.	TYPE	INV. IN	INV. OUT	TOP ELEV.	REMARKS
5-1	MODIFIED TYPE C ENDWALL	380.24'	380.00'	382.55'	387'-10"
5-2	MODIFIED TYPE A HEADWALL	380.24'	380.00'	383.74'	387'-8"
5-3	FIELD CONNECTION	380.57'	381.82'	381.15'	381'-5"
5-4	TYPE C HEADWALL	382.02'	381.75'	383.74'	384'-7"

SEDIMENT TRAP SCHEDULE						
TRAP	D.A.	STORAGE REQUIRED	STORAGE PROVIDED	BOTTOM ELEVATION	BOTTOM SIZE	CLEAN OUT ELEV.
1	0.3 AC	540 cu	592 cu	380'	4'-38"	382.0'
2	0.9 AC	1620 cu	1634 cu	380'	5'-98"	382.0'

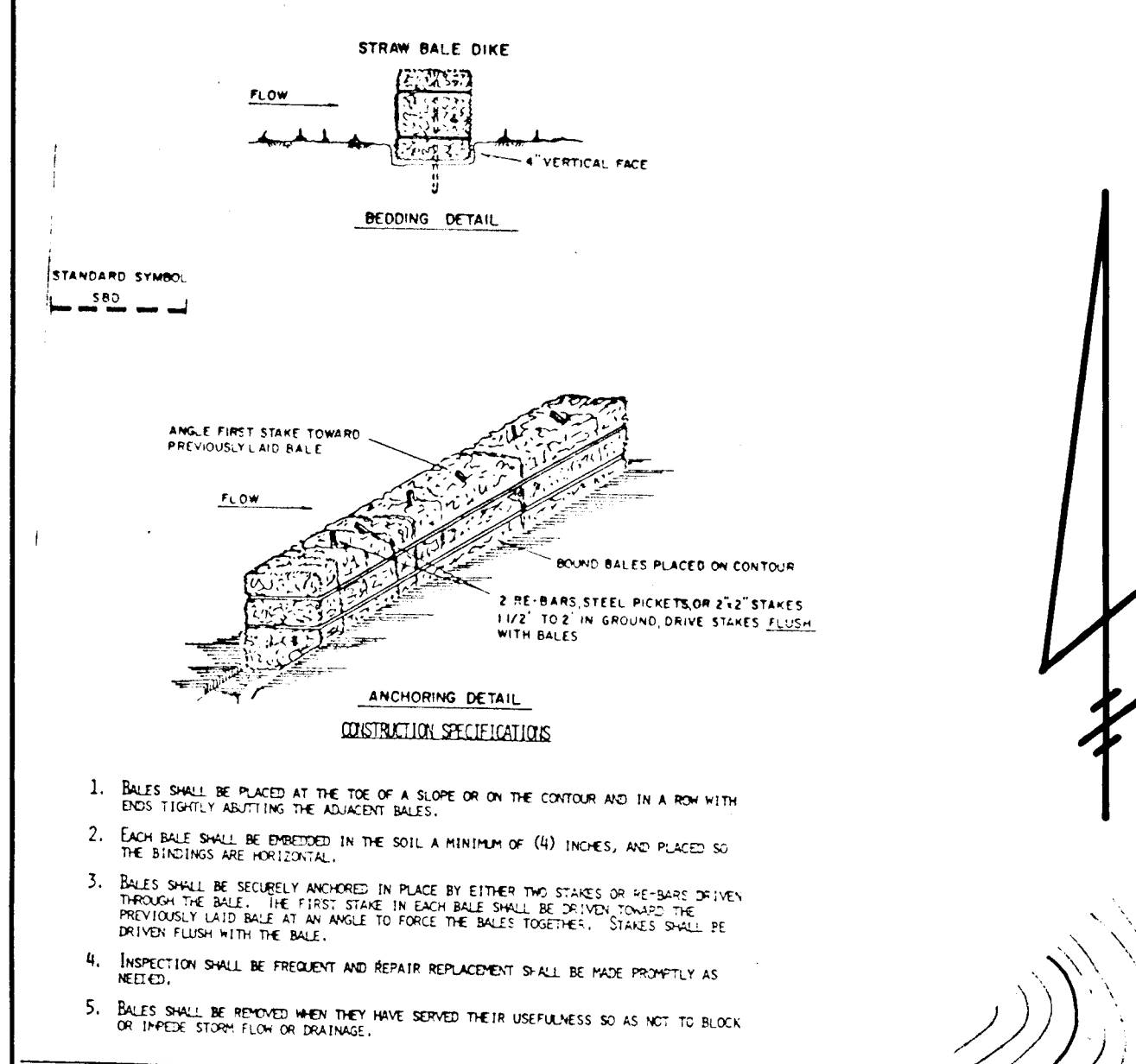
SEEDING CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Bureau of License, Inspections and Permits prior to the start of any construction (92-2377).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all permanent sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1; b) 16 days on all other disturbed or graded areas on the project site.
- All sediment traps/basins shall be fenced and warning signs posted around their 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 52.2) and temporary seedings (Sec. 52.3). Temporary stabilization with straw does 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 the stormwater runoff has been eliminated from the Howard County Sediment Control Inspector.
- Site Analysis:
 - Total Area of Site: 0.6 Acres
 - Area Disturbed: 0.2 Acres
 - Area to be seeded or paved: 0.2 Acres
 - Area to be vegetatively stabilized: 0.2 Acres
 - Total Cui: 422 Cu. Yds.
 - Total Silt: 322 Cu. Yds.
 - Off-site waste/borrow area location: _____
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance, 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.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be required upon completion of stabilization of permanent erosion and sediment control, 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.



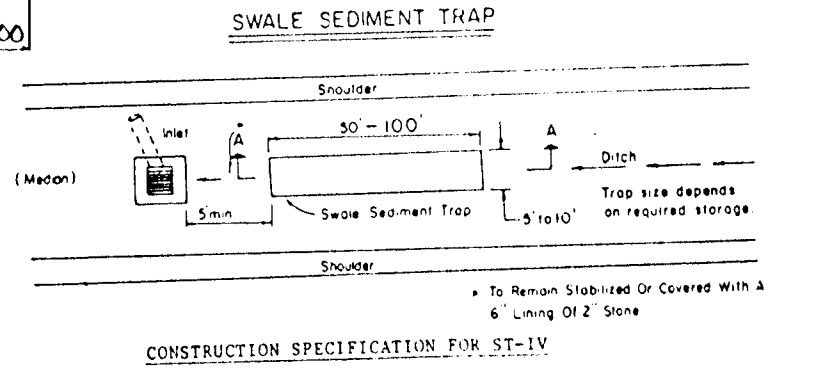
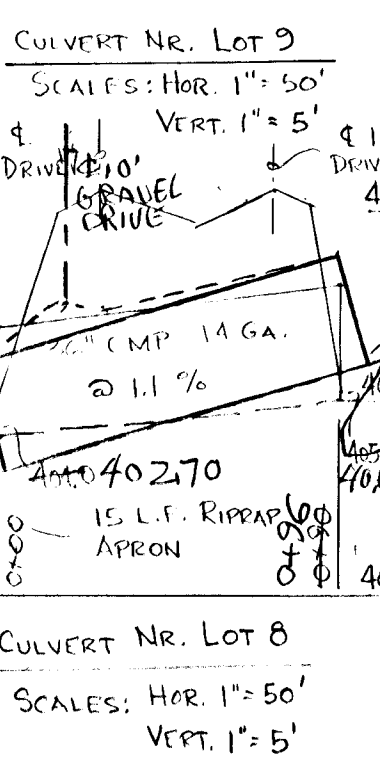
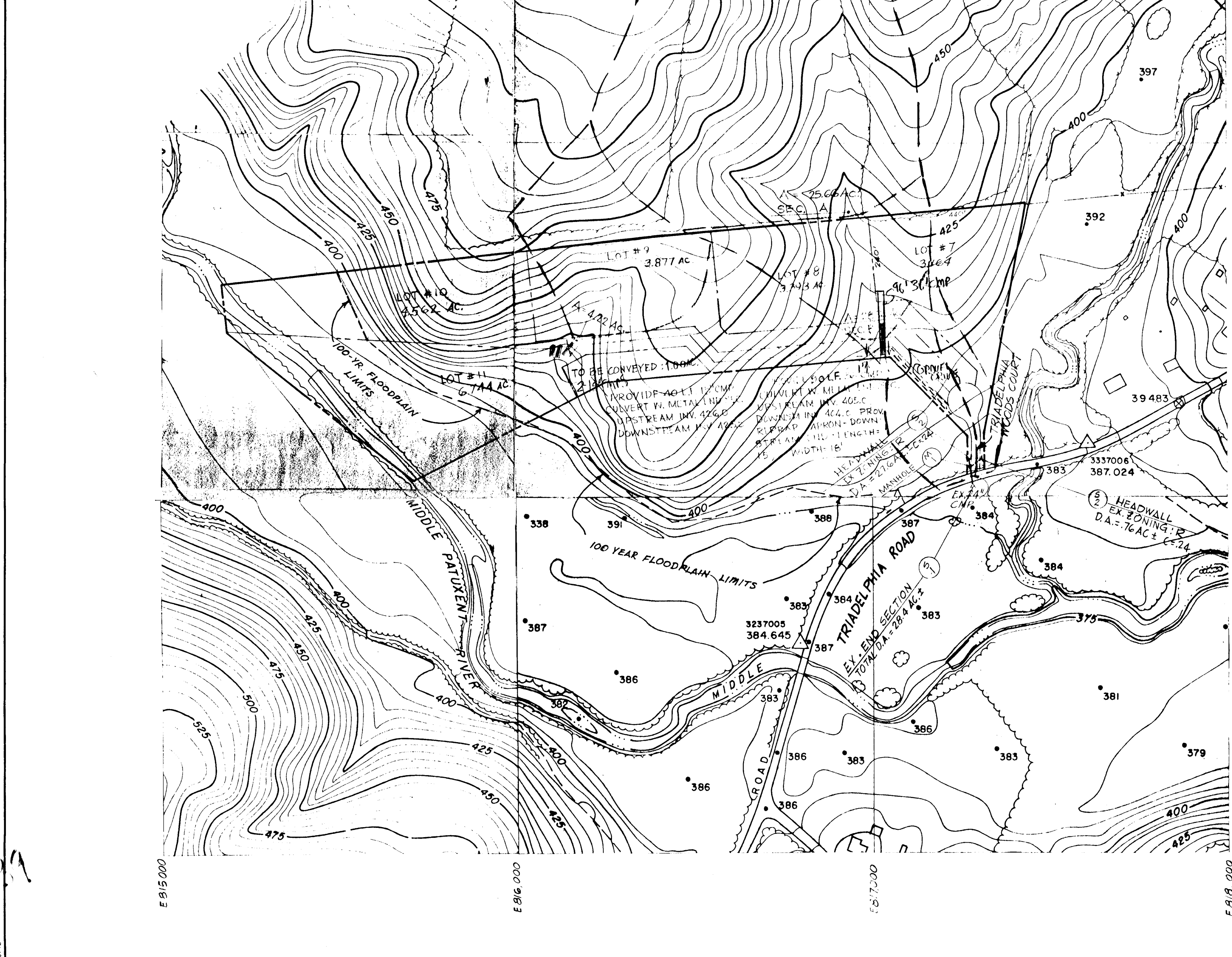
- CONSTRUCTION SPECIFICATIONS**
- Stone Rip - Use 2" stone, or reclaimed or recycled concrete equivalent.
 - Length - As required, but not less than 50 feet (except on a single existing lot where a 10 foot minimum length would apply).
 - Thickness - Not less than six (6) inches.
 - Width - Ten (10) foot minimum, but not less than the full width at points where ingress of water occurs.
 - Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
 - Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 3:1 slopes will be provided.
 - Maintenance - The entrance shall be maintained in a condition which will prevent tracking of flowing sediment onto public right-of-way. This may require tracking of flowing sediment onto public right-of-way. When washing is required, it shall be done on an area established with stone and which drains into an approved sediment trapping device.
 - Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area established with stone and which drains into an approved sediment trapping device.
 - Periodic inspection and needed maintenance shall be provided after each rain.

APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF ENGINEERING
 APPROVED: OFFICE OF PLANNING AND ZONING
 CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
 DATE: 1-7-86



- Bales shall be placed at the toe of a slope or on the contour and in a row with ends tightly abutting the adjacent bales.
- Each bale shall be embedded in the soil a minimum of (4) inches, and placed so the bindings are horizontal.
- Bales shall be securely anchored in place by either two stakes or re-bar driven through the bales. The first stake in each bale shall be driven toward the previously laid bale at an angle to force the bales together. Stakes shall be driven flush with the bales.
- Inspection shall be frequent and repair/replacement shall be made promptly as needed.
- Bales shall be removed when they have served their usefulness so as not to block or impede storm flow or drainage.

U.S. DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE
 COLLEGE PARK, MARYLAND



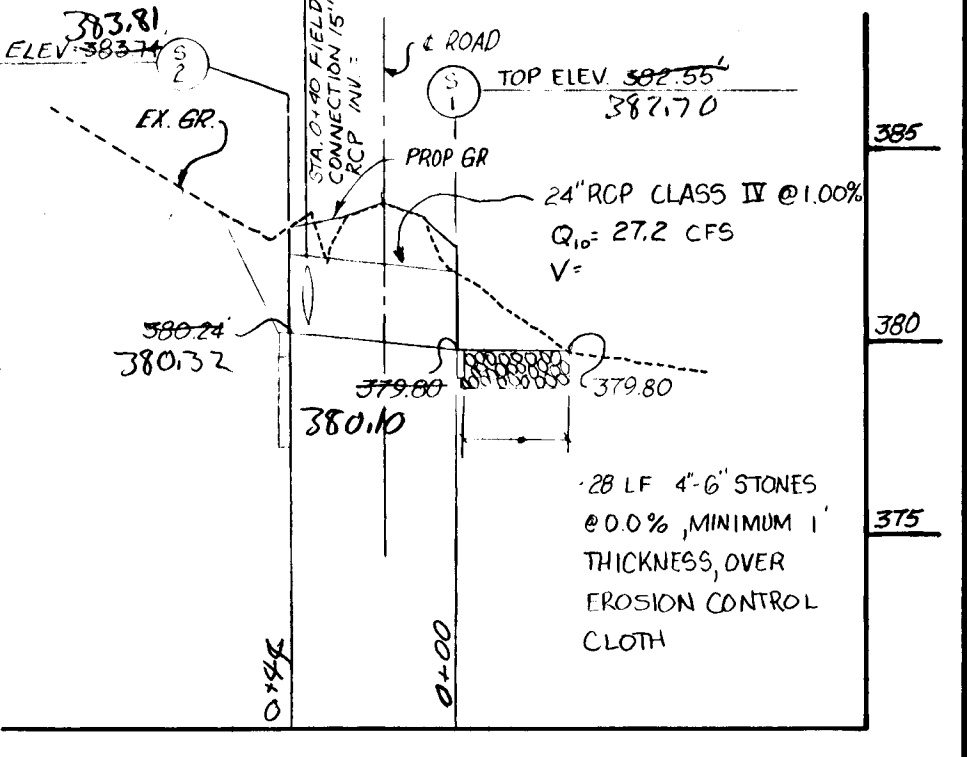
- The swale sediment trap shall be constructed in accordance with the dimensions provided on the design drawings or sized to provide the minimum storage necessary 1800 cubic feet of storage for each acre of drainage area.
- Sediment shall be removed and trap returned to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- The structure shall be inspected after each rain and repairs made as needed.
- Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
- The sediment trap shall be removed and area stabilized when the minimum storage necessary 1800 cubic feet of storage for each acre of drainage area has been provided.
- The swale sediment trap will be properly backfilled and the swale or ditch reconstructed.

U.S. DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE
 COLLEGE PARK, MARYLAND

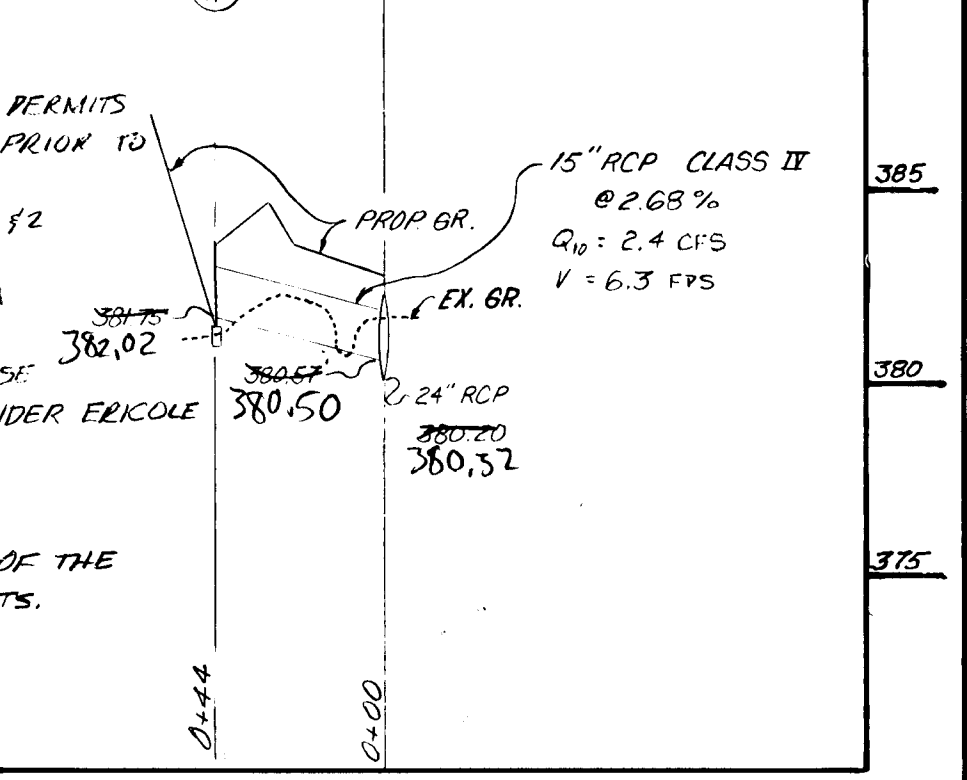
CONSTRUCTION SEQUENCE

- OBTAIN A GRADING PERMIT.
- NOTIFY THE HOWARD COUNTY BUREAU OF LICENSE, INSPECTIONS AND PERMITS AND THE INSPECTION DIVISION AT 792-7272 AT LEAST 24 HOURS PRIOR TO BEGINNING GRADING OPERATIONS.
- INSTALL TEMPORARY SEDIMENT CONTROL MEASURES (I.E., S.C.E., TRAYS 1'S 2' AND SBD) 1 DAY.
- REMOVE EX. 24" CMP AND INSTALL PROPOSED DRAINS UNDER TRIADDELPHIA ROAD. 2 DAYS
- ROUGH GRADE FOR ERICOLE COURT STABILIZE ROAD WITH BASE COURSE AND APPLY TEMPORARY STABILIZATION MEASURES. INSTALL DRAIN UNDER ERICOLE COURT. 2 DAYS
- PAVE ROAD 1 DAY
- FINE GRADE APPLY PERMANENT STABILIZATION MEASURES. 1 DAY
- REMOVE TEMPORARY SEDIMENT CONTROL MEASURES WITH APPROVAL OF THE HOWARD COUNTY BUREAU OF LICENSE, INSPECTIONS AND PERMITS.

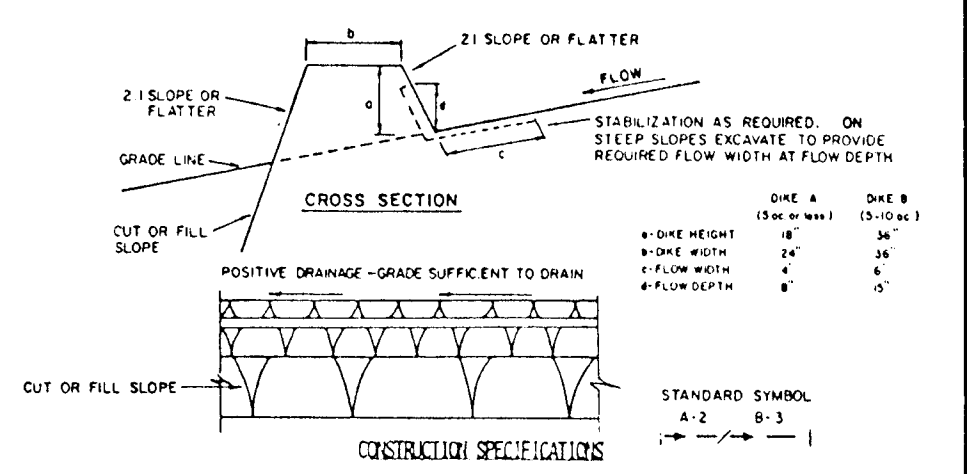
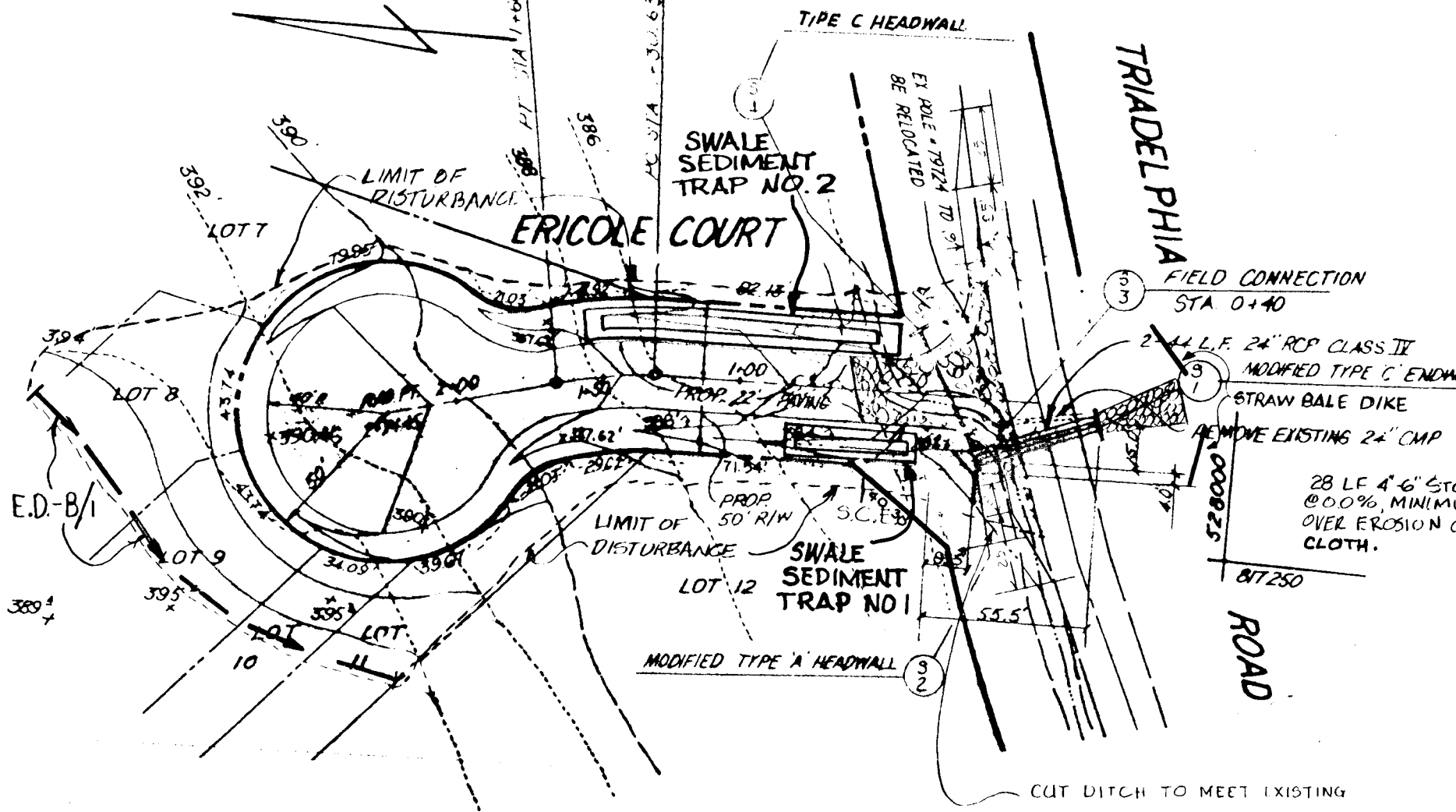
REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.
 U.S. SOIL CONSERVATION SERVICE
 THIS DEVELOPMENT IS APPROVED SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 U.S. DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE
 COLLEGE PARK, MARYLAND



PROFILE: SCALES: VERT. 1"=5'
 HOR. 1"=50'



PROFILE SCALE: VERT. 1"=5'
 HOR. 1"=50'



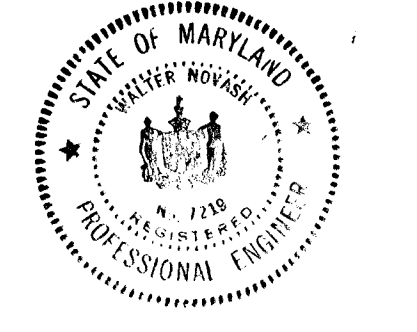
- All dikes shall be constructed by earthmoving equipment.
- All dikes shall have positive drainage to an outlet.
- Top width may be wider and side slopes may be flatter if desired to facilitate crossing by construction traffic.
- FIELD LOCATION SHALL BE ACQUIRED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. PLAN OF DRAINAGE SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT PERMANENTLY STABILIZED.
- STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MIXES OR STRAW BALE DIKES IF NOT IN SEEDING SEASON; (B) FLOW CHANNELS AS PER THE CHART BELOW.

U.S. DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE
 COLLEGE PARK, MARYLAND

DEVELOPER'S CERTIFICATE
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 DEVELOPER: Howard Resneck
 DATE: 7/31/85

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 ENGINEER: Walter Downes
 DATE: 11-22-85

NOTE: SEE SHEET 2 OF 4 FOR SLEDDING NOTES



OWNER & DEVELOPER
 HOWARD RESNECK
 4645 NEW CUT ROAD
 ELLICOTT CITY, MD 21043

TITLE	DRAINAGE AREA MAP				
PROJECT	TRIADDELPHIA WOODS - PARCEL I - RESUB.				
LOCATION	3RD ELECT. DISTRICT, TAX MAP 22, PARCEL 528 (SEE T.M. 15), HOWARD COUNTY, M.D.				
DATE	JAN. 85	SCALE	1"=200'	DESIGN BY	RDM
				DRAWN BY	RDM
				CHECKED BY	RDM
				DRAWING NO.	20F2
				JOB NO.	84180
boender associates			engineers surveyors planners		
3565 - A COURT SQUARE ELLICOTT CITY, MARYLAND 21043 301-465-7777					

7-16-88 AS-BUILT

F-86-21