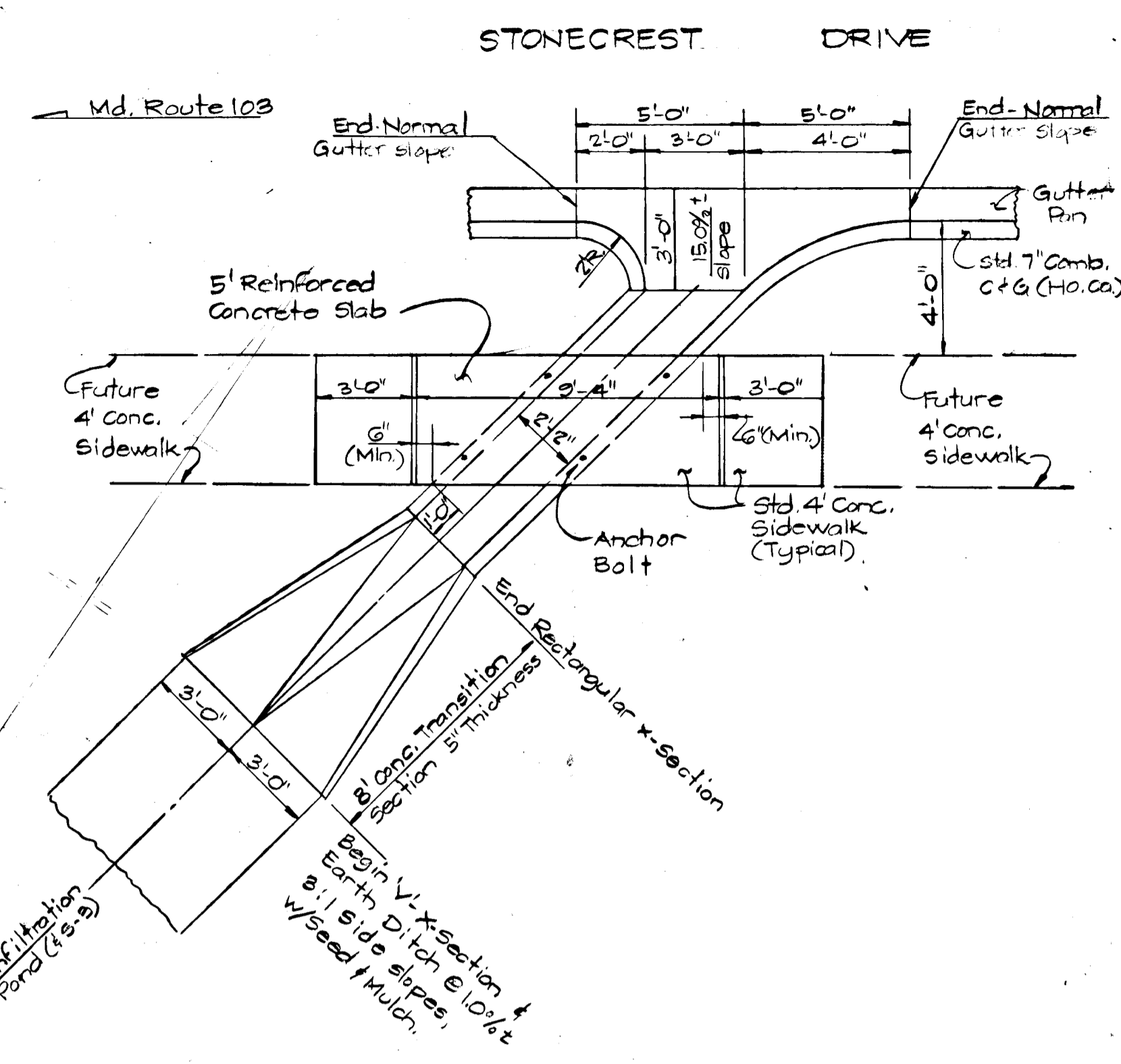
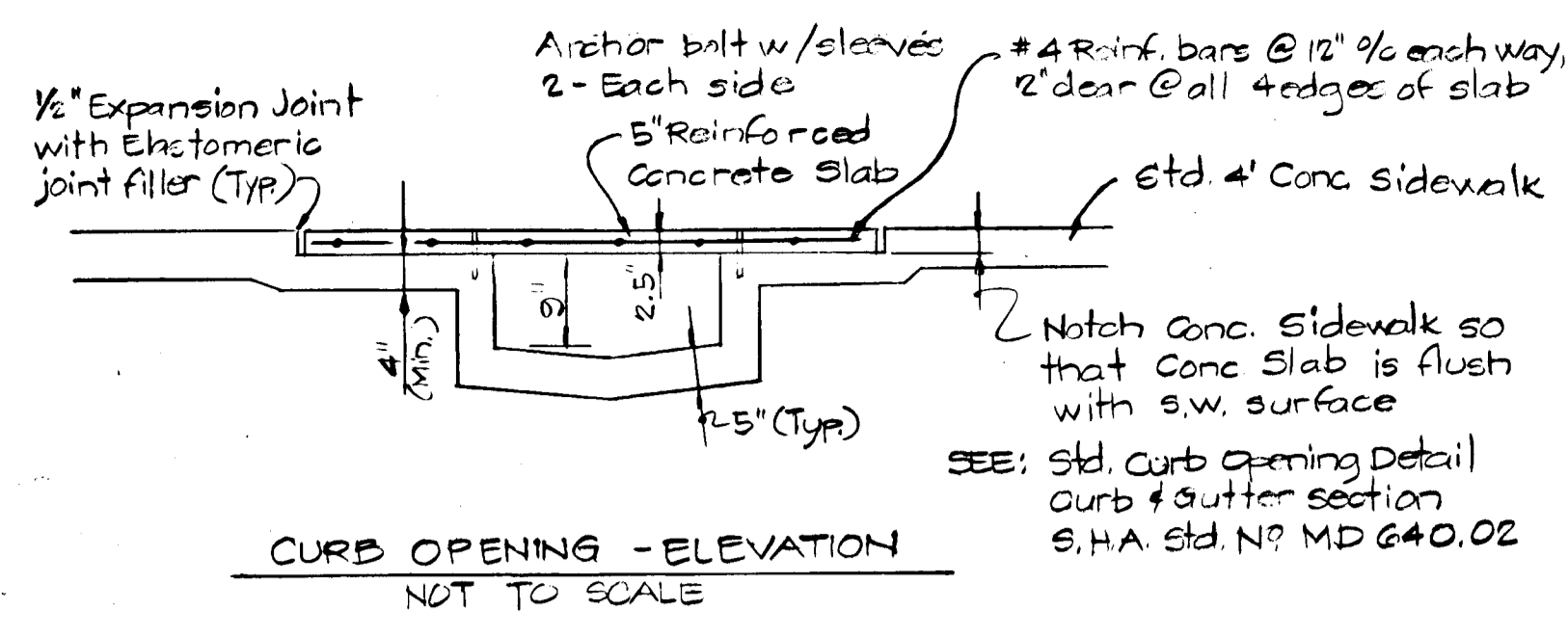


1225



PROPOSED CURB OPENING IN LIEU OF 1-STD DOUBLE-S COMB. INLET (1-5)
SCALE: 1/2"=1'-0"

NOTE:

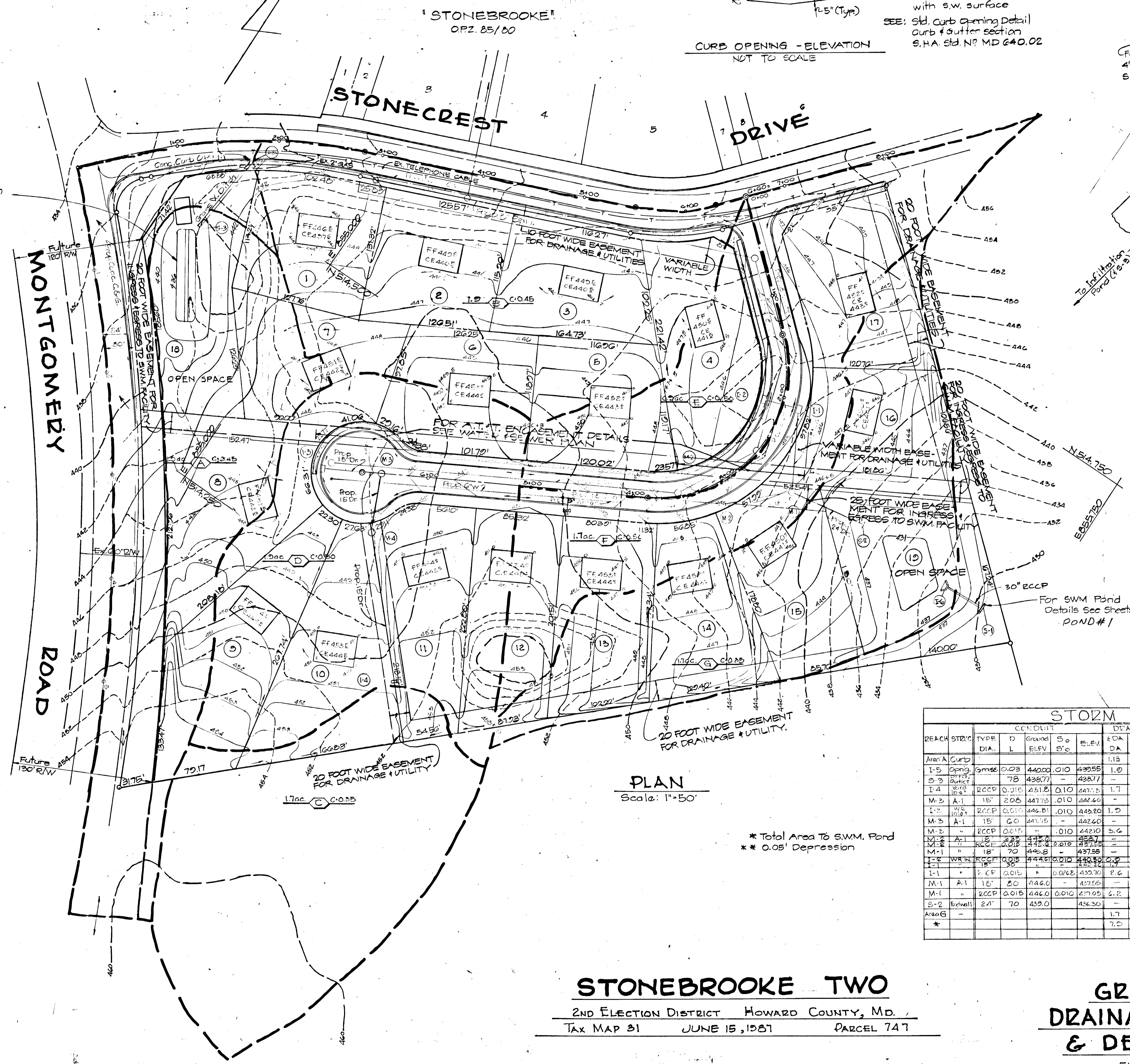
FOR LOCATION MAP, PLAN & PROFILE - SEE SHEET 2 OF 2

REVISION - Added Curb Opening - Plan & Detail 5/6/89

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

William S. Rice 7-10-87
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Arthur Louis F. Dunn 7-7-87
CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING ADMIN. DATE



PLAN
Scale: 1"=50'

* Total Area To SWM Pond
** 0.05' Depression

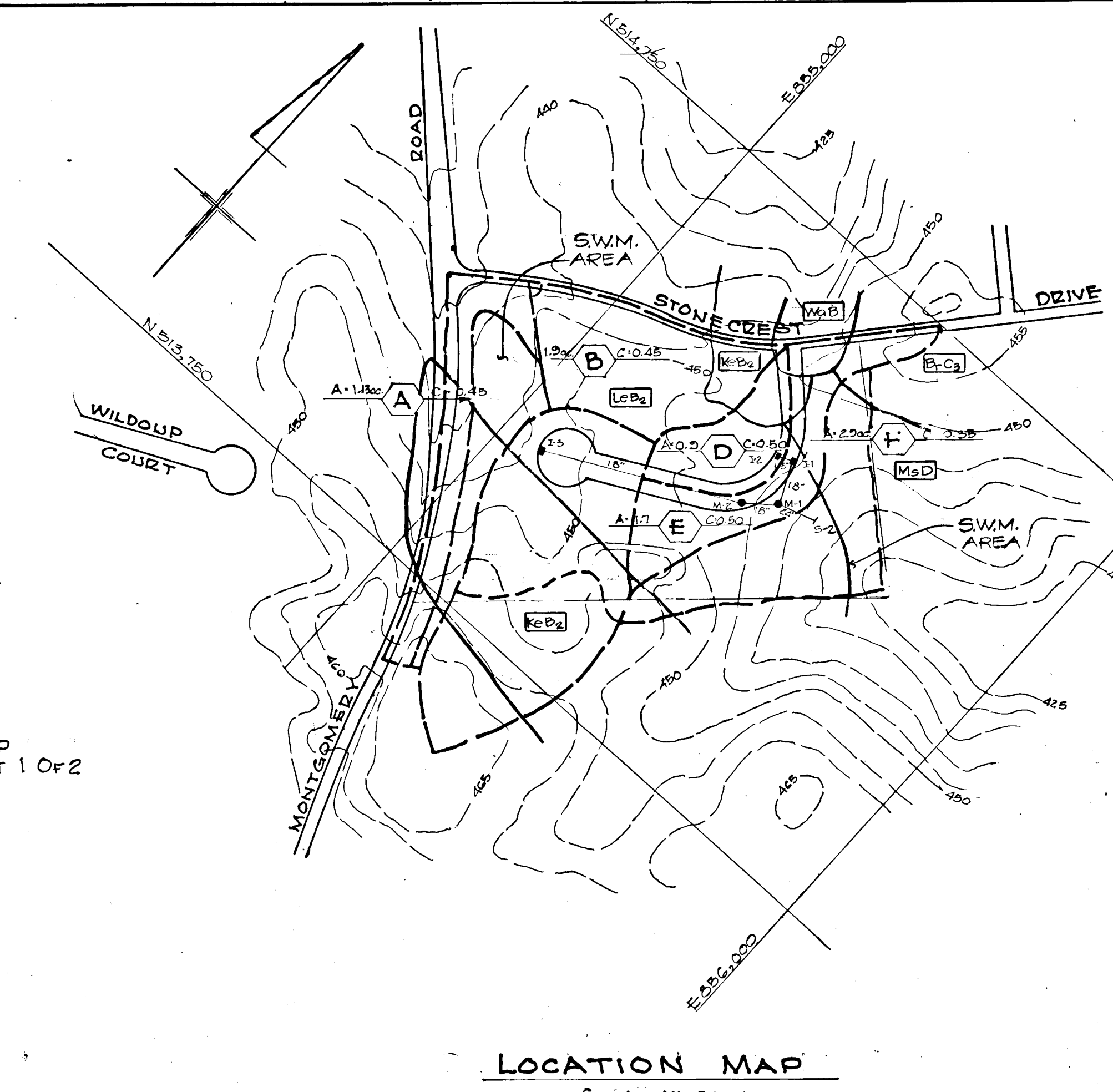
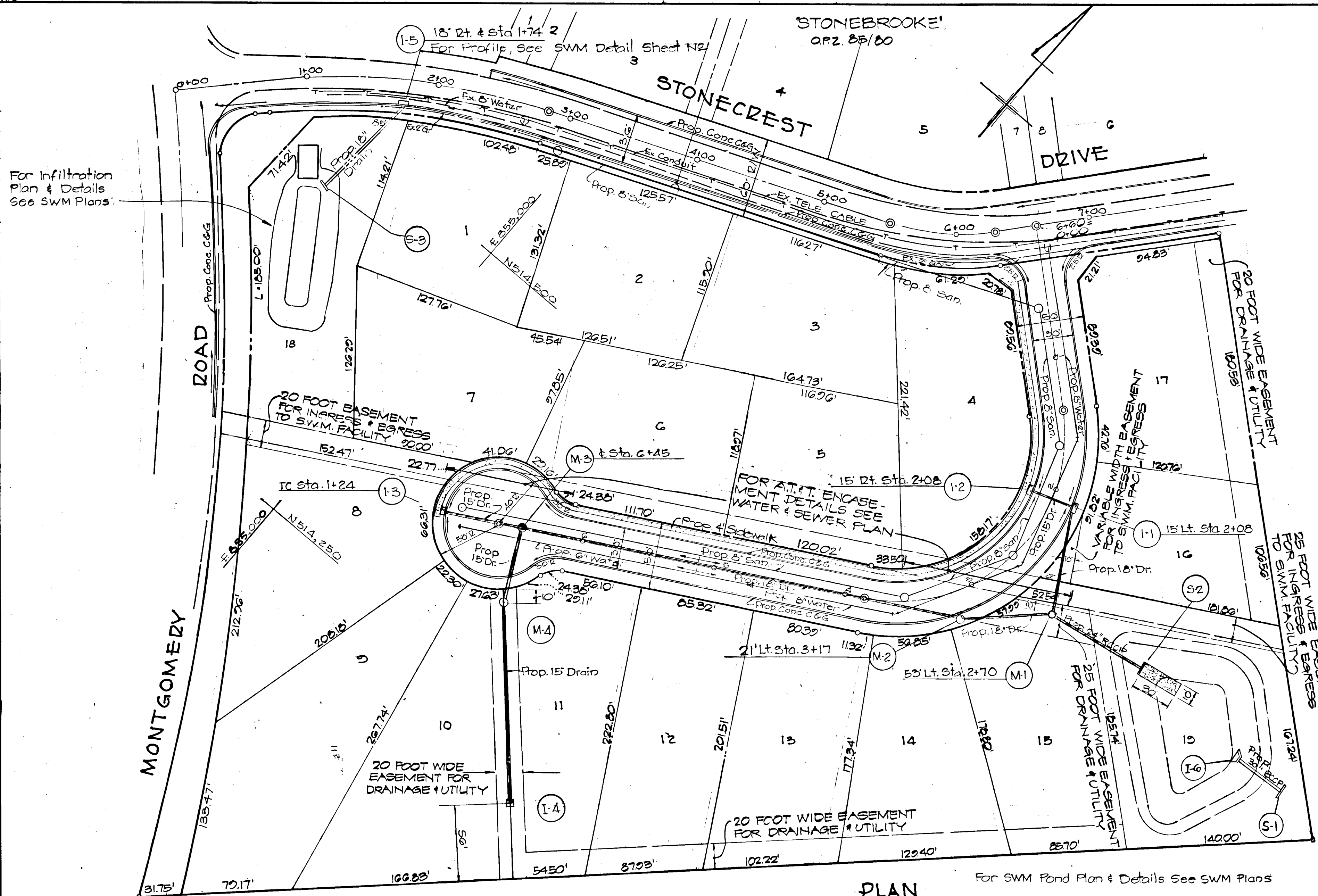
STORM DRAIN DESIGN DATA

REACH	STRUCT	TYPE	D DIA.	CONDUIT		DRAINAGE AREA & RUNOFF						Drop	FULL				REMARKS
				Ground ELEV.	So. ELEV.	SDA DA	C CA	CA Atc	I G	Q Qs	A V		V V/2g	Sz Hf	H Allow		
Area A	Curb					1.13	0.45			10	6.6		1.228	2.7	0.025	4.84	Flow along Mont. Rd.
I-5	Open	Grass	0.03	44000	0.10	43055	1.0	0.45	0.86	11	6.3	5.4		0.20	0.20	430.5	Grass V-Ditch 3:1 Slope
S-3	Storm	Box	78	42877		42877											
I-4	Open	Grass	0.15	44128	0.10	44128	1.7	0.55	0.60	10	6.6	4.0		1.227	5.8	0.031	
M-3	A-1	15'	205	44719	0.10	44719							0.50	55.96	0.17	0.55	450.5
I-2	Open	Grass	0.05	44281	0.10	44280	1.5	0.50	0.55	10	6.6	6.3		1.227	5.1	0.027	
M-3	A-1	15'	20	44715		44715							0.50	55.96	0.40	0.76	445.71
M-2	A-1	20'	205	44715		44715							0.50	55.96	0.40	0.76	445.71
M-2	A-1	20'	205	44715		44715							0.50	55.96	0.40	0.76	445.71
M-1	A-1	15'	205	44719		44719							0.50	55.96	0.17	0.55	450.5
I-2	Open	Grass	0.05	44281	0.10	44280	1.5	0.50	0.55	10	6.6	6.3		1.227	5.1	0.027	
I-1	A-1	15'	20	44715		44715							0.50	55.96	0.40	0.76	445.71
M-1	A-1	15'	20	44715		44715							0.50	55.96	0.40	0.76	445.71
M-1	A-1	15'	20	44715		44715							0.50	55.96	0.40	0.76	445.71
S-2	Storm	Box	24"	4350		4350							0.50	0.436	0.50	445.50	
Area G							1.7	0.25	0.60	10	6.6	4.0					
*							7.0		3.45	13.8	5.8	20.0					

STONEBROOKE TWO
2ND ELECTION DISTRICT HOWARD COUNTY, MD.
TAX MAP 31 JUNE 15, 1987 PARCEL 747

**GRADING PLAN
DRAINAGE AREA MAP
& DESIGN DATA**
FILE N° F87-140





NOTE
FOR DRAINAGE AREA MAP & DESIGN DATA SEE SHEET 1 OF 2

STRUCTURE SCHEDULE

ID	TYPE	INV. IN.	INV. OUT.	UPPER	LOWER	REMARKS	LOCATION
I-1	WR	440.2	439.70	444.6	-	SHA STD. 374.04	SEE PLAN
I-2	WR	-	440.50	444.61	-	SHA STD. 374.04	"
I-3	WR	-	443.20	443.20	-	SHA STD. 374.04	"
I-4	YARD INLET	-	447.43	451.6	-	HQ. STD. 50.4.14	"
I-5	DRLE'S COMB.	-	439.50	439.75	-	SHA STD. MD. 378.04	"
I-6	SPECIAL STRUT	430.50	428.83	436.02	-	SWM CONTROL STRUCT.	SWM PLAN
MH-1	A-1	437.55	437.05	440.0	-	HQ. STD. 9. 5.12	SEE PLAN
MH-2	A-1	438.75	438.25	445.0	-	HQ. STD. 9. 5.12	"
MH-3	A-1	442.60	442.10	447.75	-	HQ. STD. 9. 5.12	"
MH-4	A-1	443.68	443.18	448.2	-	HQ. STD. 9. 5.12	"
S-1	C' ENDWALL	-	432.00	433.00	-	HQ. STD. SD. 5.11	SWM PLAN
S-2	A' HEADWALL	-	432.00	435.0	-	HQ. STD. SD. 5.11	SEE PLAN
S-3	C' ENDWALL	-	436.00	438.6	-	SHA STD. MD. 380.01	SEE PLAN

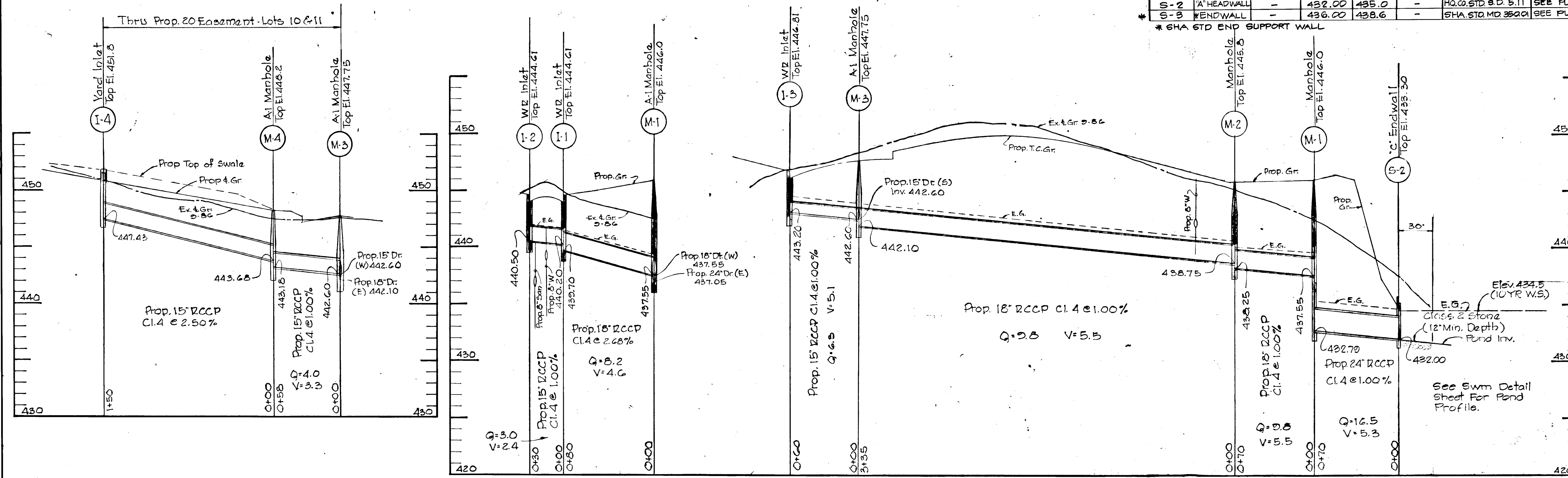
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

J. C. ... 7-16-87
CHIEF, BUREAU OF ENGINEERING DATE

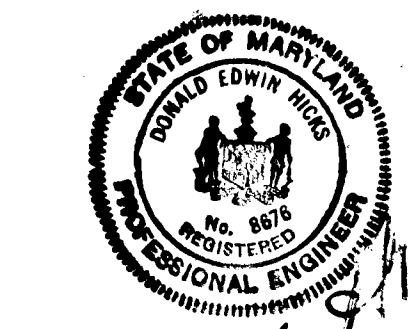
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Jonis F. ... 7-7-87
CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING ADMIN. DATE

PLAN
SCALE: 1"=50'



PROFILE
SCALE: Hor. 1"=50' Vert. 1"=5'



STORM DRAINS
PLAN & PROFILE
FOR
STONEBROOKE TWO

2ND ELECTION DISTRICT
TAX MAP 31
SCALE: AS SHOWN
DRAWN BY:
FILE NO. F-87-140

HOWARD COUNTY, MD
PARCEL 747
DATE: JUNE 15, 1987
CHECKED BY: DEH.
SHEET 4 OF 9

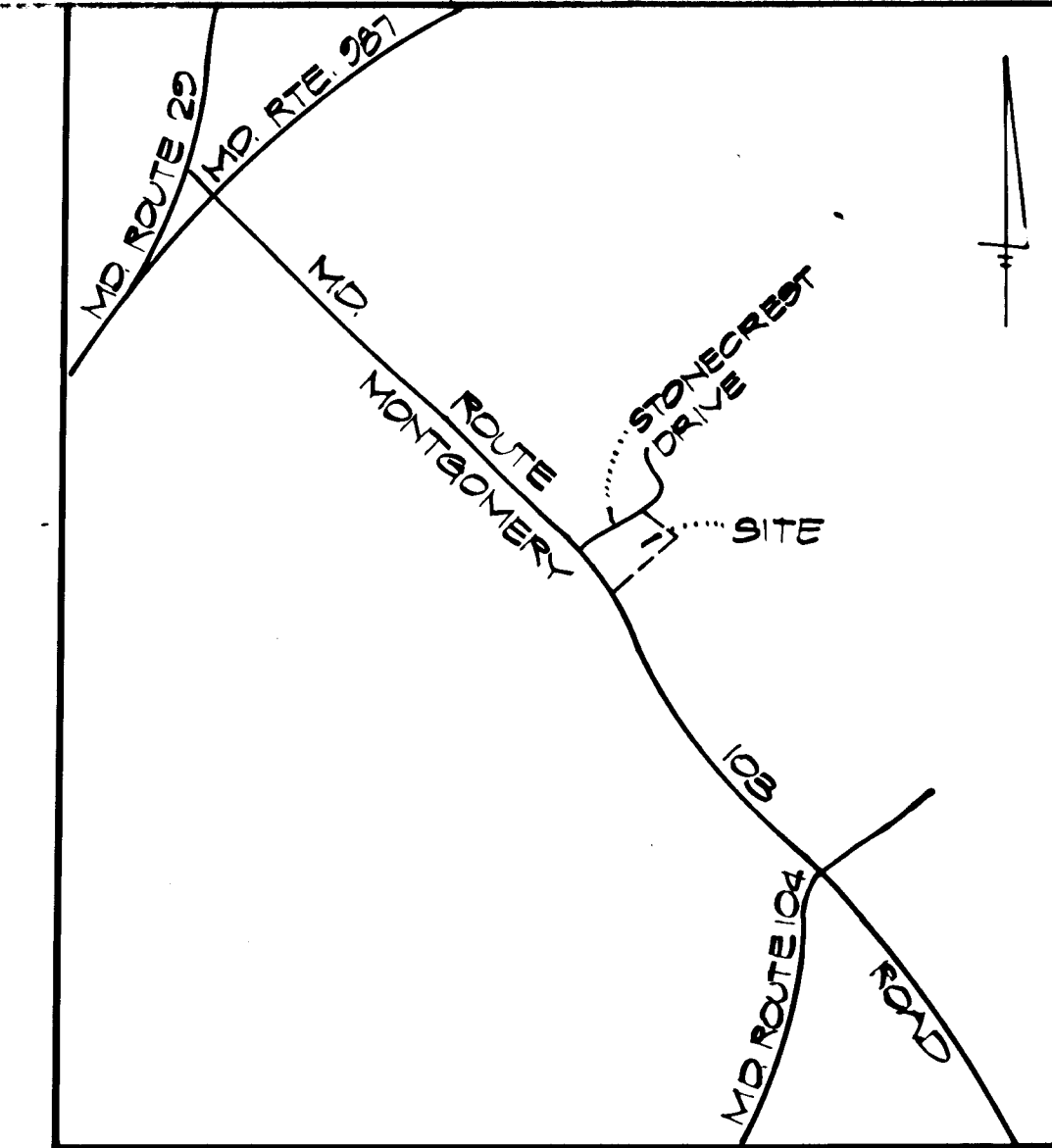
F-87-140

P-87-17

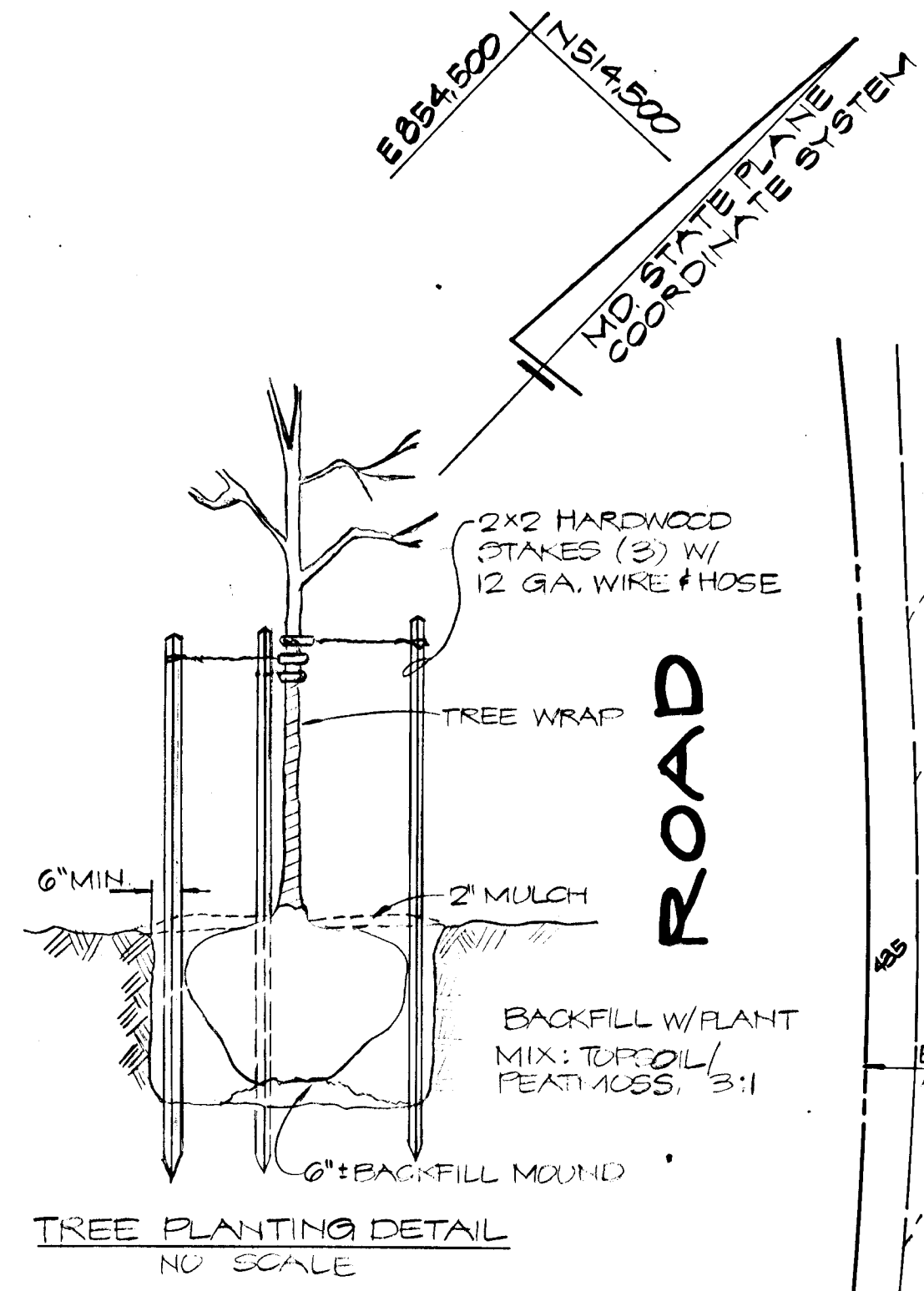
5225

NOTES

1. TURF ESTABLISHMENT & COVER DESCRIBED & SPECIFIED ON SEDIMENT CONTROL PLAN.
2. PLANTING PROVIDED IN ACCORDANCE WITH HOWARD COUNTY ZONING & SUBDIVISION REGULATIONS. ALL NURSERY STOCK TO CONFORM TO & BE PLANTED IN ACCORDANCE WITH "AMERICAN STANDARDS FOR NURSERY STOCK" A&A INC.



VICINITY MAP
SCALE: 1"=2000'

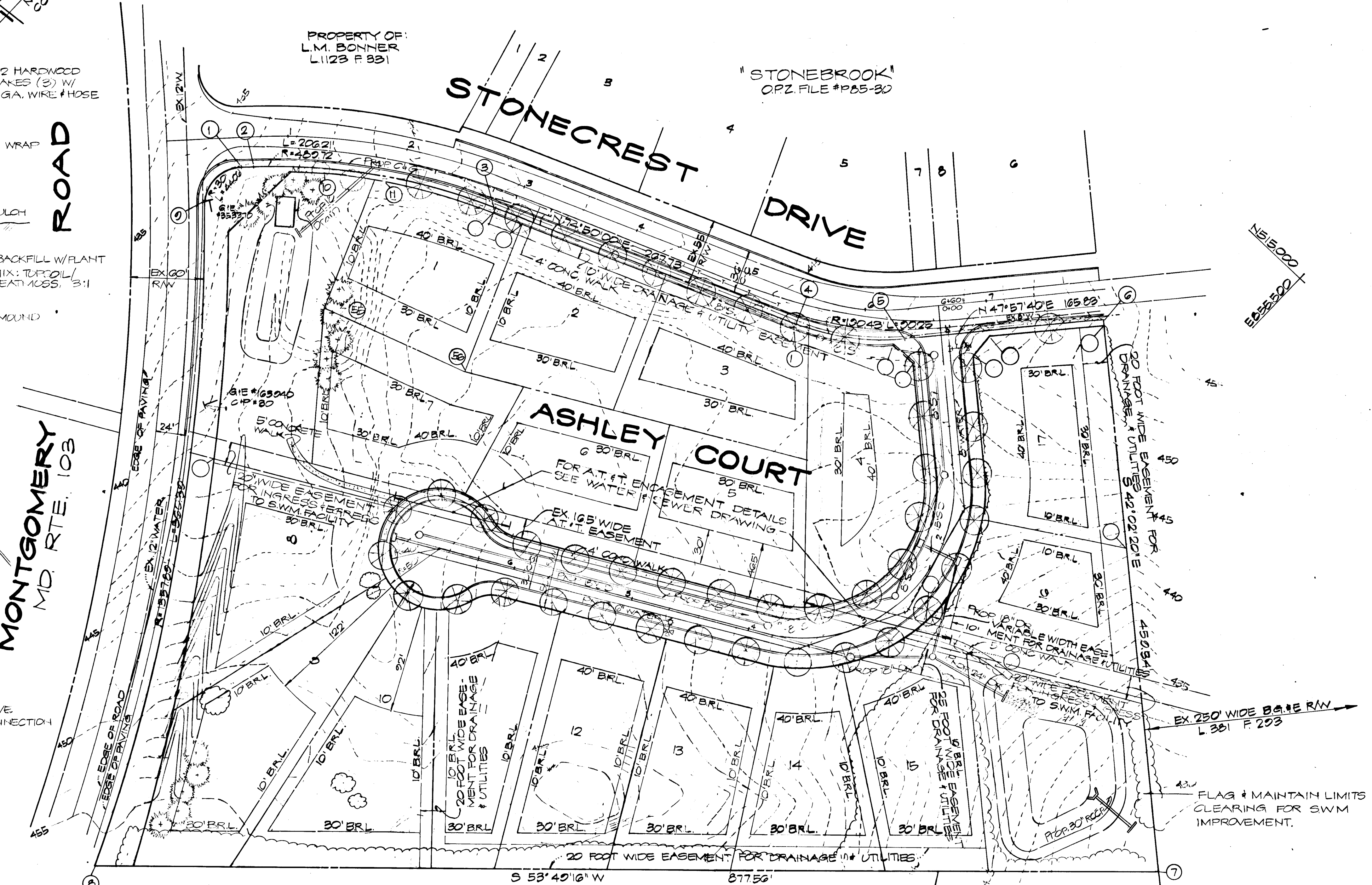


TREE PLANTING DETAIL
NO SCALE



ADJUST STREET TREE PLANTING TO AVOID DRIVE ENTRANCES & HOUSE CONNECTION UTILITIES.

OLD MONTGOMERY MD RTE. 103



PLANT :	SIZE :	NO :	REMARKS :
TILIA CORDATA LITTLE LEAF LINDEN	2 1/2" CAL.	46	B & B
PINUS NIGRA AUSTRALIAN PINE	4'-5'	15	B & B

OWNER/DEVELOPER
ELMER DONALD JOHNSON
4442 STONECREST DRIVE
ELLIOTT CITY, MD 21043
PHONE: (301) 465-5024

PROPERTY OF:
H.S. CELGIN
L 724, F 300

PROPERTY OF:
WILLIAM O. FILBERT
L 270, F. 502

LEGEND :

- MAJ. STREET TREE
- EVERGREEN BUFFER TREE
- EXISTING VEGETATION TO BE PRESERVED

ADDRESS CHART		SUBDIVISION NAME		SECT. / ARE. A	LOT / PARCEL NO.
LOT NO.	STREET ADDRESS	STONEBROOKE TWO			747
		PLAT No. OR L/F	BLOCK No.	ZONE	TAX / ZONE MAP / ELECT. DIST. / CENSUS TR.
		1087/432		31	2
		WATER CODE		SEWER CODE	
		F 16		1400520	

Signature
DATE: June 17, 1987

HICKS ENGINEERING COMPANY, INC.
CIVIL ENGINEERS - SURVEYORS - PLANNERS
200 EAST JOPPA ROAD - SUITE 402
TOWSON, MARYLAND 21204
(301) 494-0001

ENGINEER'S CERTIFICATE
I HEREBY 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.
Donald E. Hicks
DONALD E. HICKS, P.E. DATE

DEVELOPER'S CERTIFICATE
I / WE 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 THE SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
Elmer D. Johnson
SIGNATURE OF DEVELOPER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
Jan M. H. [Signature] 7/6/87
U.S. SOIL CONSERVATION SERVICE DATE
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
APPROVED:
Ronald W. Ziemer 7/6/87
DISTRICT MANAGER DATE
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William O. Filbert 7-10-87
CHIEF, BUREAU OF ENGINEERING DATE
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
William O. Filbert 7-7-87
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

STREET TREE PLAN
STONEBROOKE TWO
(FORMERLY ELMER D. JOHNSON PROPERTY)
2ND ELECTION DISTRICT
HOWARD COUNTY, MD.
TAX MAP #31
SCALE: 1"=50'
DRAWN: LAW.
FILE No. F 87-140

PARCEL #747
DATE: JUNE 15, 1987
CHECKED: DEH
SHEET NO. 5 OF 9

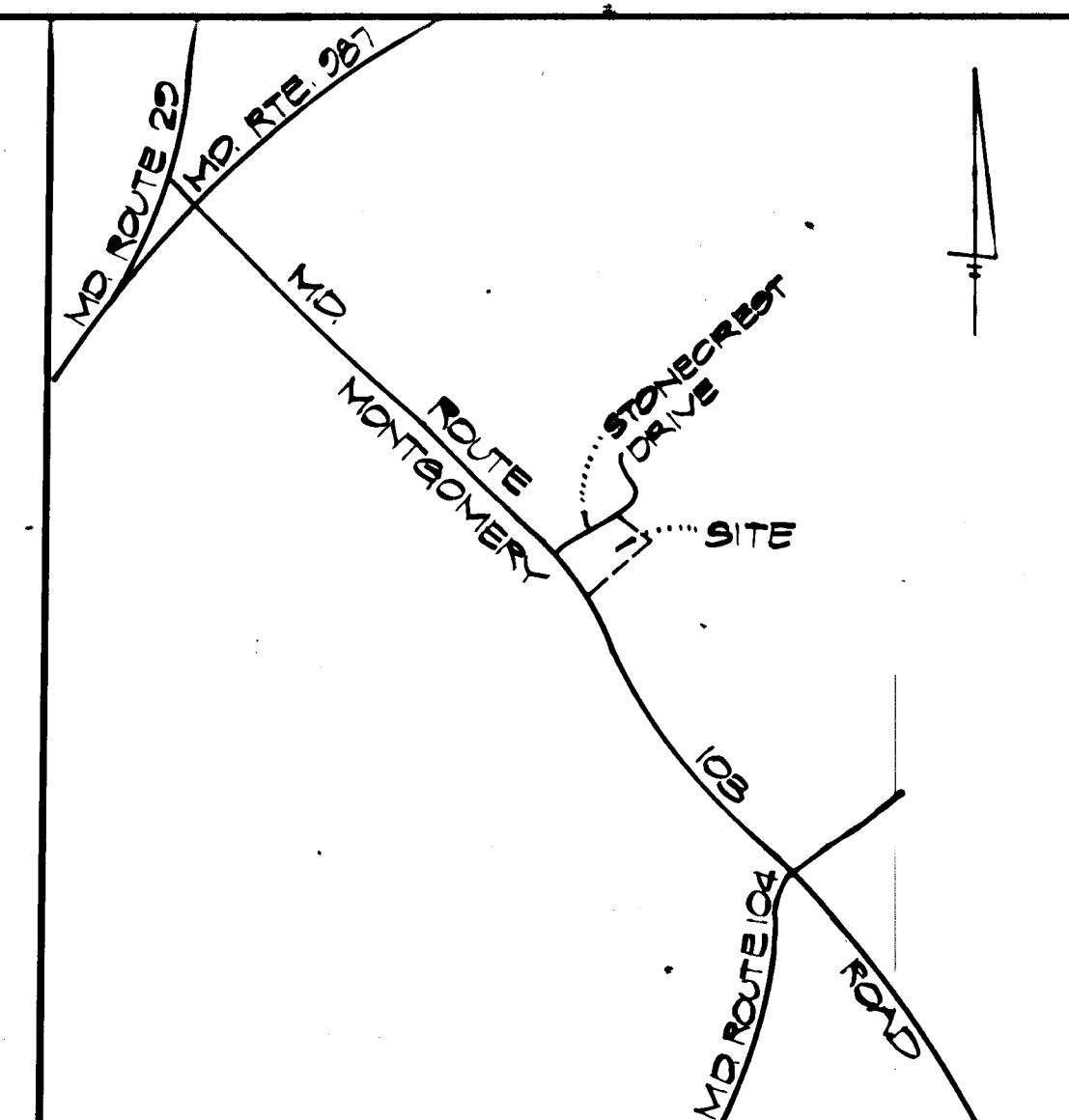
**STONE OUTLET
SEDIMENT TRAP (TRAP NO. I)**

	NO. I	NO. II
DRAINAGE AREA	3.5 AC.±	7.9 AC.±
STORAGE REQUIRED	235 Cu.Yd.	530 Cu.Yd.
STORAGE PROVIDED	294 Cu.Yd.	540 Cu.Yd.
DEPTH	2.5'	3.5'
BOTTOM ELEV.	436.0	431.0
CLEAN OUT ELEV.	437.2	432.75'
BOTTOM DIMENSIONS	18' x 90'	41' x 65'
OUTLET ELEV.	433.90	434.50 - Top of Temporary Weir - 2' x 2' Board
OUTLET SIZE	15"	70" x 225" Weir opening, 130" R.C.P.
TOP OF EMBANKMENT	440.0	437.0

SEQUENCE OF CONSTRUCTION

- 1) OBTAIN THE REQUIRED GRADING PERMIT ----- 1 DAY
 - 2) NOTIFY HOWARD COUNTY BUREAU OF LICENSE, INSPECTIONS AND PERMITS THREE (3) WORKING DAYS PRIOR TO GRADING OPERATION ----- 3 DAYS
 - 3) CLEAR AND GRUB ONLY FOR THE INSTALLATION OF SEDIMENT CONTROL DEVICES ----- 3 DAYS
 - 4) CONSTRUCT ALL SEDIMENT CONTROL DEVICES INCLUDING BASIN NO. 1
 - 5) CLEAR AND GRUB AND BEGIN GRADING FOR SITE AFTER ALL SEDIMENT CONTROLS ARE COMPLETED,
 - 6) VEGETATIVELY STABILIZE ALL APPROPRIATE AREAS ----- 2 DAYS
- * AFTER APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR REMOVE ALL REMAINING SEDIMENT CONTROL MEASURES (INCLUDING FILLING OF STONE OUTLET WINDOW) AND STABILIZE AREAS, AS REQUIRED ----- 3 DAYS
- *7) POND WILL REMAIN FOR USE DURING SITE DEVELOPMENT PLAN STAGE.

STABILIZED CONSTRUCTION ENTRANCE



VICINITY MAP
SCALE: 1" = 2000'

- SEDIMENT CONTROL NOTES**
- 1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
 - 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 - 3) Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1; b) 14 days as to all other disturbed or graded areas 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 12, 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51) and 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.
 - 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	2.6 Acres
Area Disturbed	2.6 Acres
Area to be seeded or sod	2.6 Acres
Area to be vegetatively stabilized	2.6 Acres
Total Cut	3000 Cu. Yds.
Total Fill	3500 Cu. Yds.
Offsite waste/borrow area location	To be determined
 - 8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
 - 9) Additional sediment controls must be provided, if deemed necessary by the Howard County SWM 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.

LEGEND

- EARTH DIKE
- SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- PERIMETER DIKE/SWALE
- INLET PROTECTION
- LIMITS OF DISTURBANCE

SEDIMENT TRAP NO. I
(CONVERT TO INFILTRATION BASIN AFTER AREA STABILIZED)

MONTGOMERY MD. RTE. 103

OLD ROAD

LIMIT OF DISTURBANCE

PROPERTY OF:
L.M. BONNER
L1123 F 931

"STONEBROOK"
OPZ FILE #P85-30

STONECREST DRIVE

ASHLEY COURT

URB INLET PROTECTION

CURB INLET PROTECTION

SILT FENCE

EARTH DIKE

LIMIT OF DISTURBANCE

12" PERFORATED DRAIN WRAPPED WITH FILTER CLOTH. SEAL END AT RISER WITH BITUMINOUS MATERIAL

SEDIMENT TRAP NO. II
(CONSTRUCT PERMANENT SWM POND INITIALLY)

OWNER/DEVELOPER
ELMER DONALD JOHNSON
4442 STONECREST DRIVE
ELLIOTT CITY, MD 21043
PHONE: (301) 495-6024

PROPERTY OF:
H.S. CELGIN
L 724, F 300

PROPERTY OF:
WILLIAM O. FILBERT
L 270, F 502

ADDRESS CHART		SUBDIVISION NAME		SECT. / AREA	LOT/PARCEL NO.
LOT NO.	STREET ADDRESS	STONEBROOKE TWO			747
		PLAT No. OR L/F	BLOCK No.	ZONE	TAX / ZONE MAP
		1087 / 432			31 / 2
		WATER CODE		SEWER CODE	
		F 16		1400520	

SEDIMENT CONTROL PLAN

STONEBROOKE TWO
2ND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP # 31 PARCEL # 727
SCALE: 1" = 50' DATE: JUNE 15, 1987
DRN. BY: T.A.W. CHECKED BY: D.E.H.
F87-140 SHEET 6 OF 9

F-87-140 P-87-17

HICKS ENGINEERING COMPANY, INC.
CIVIL ENGINEERS-SURVEYORS PLANNERS

200 EAST JOPPA ROAD - SUITE 402
TOWSON, MARYLAND 21204
(301) 494-0001

ENGINEER'S CERTIFICATE
"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."
Donald E. Hicks, P.E. 6/17/87
DONALD E. HICKS, P.E. DATE

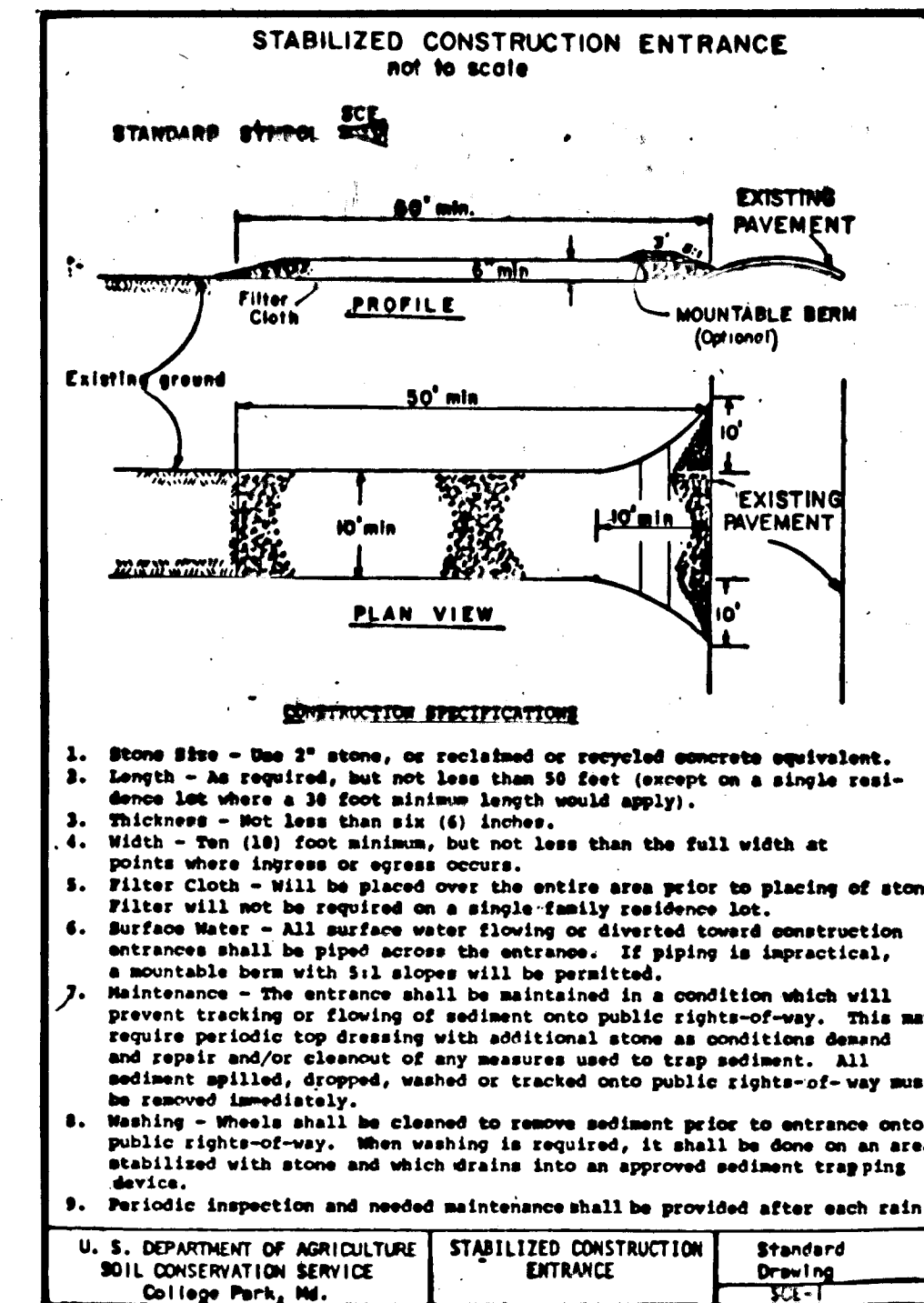
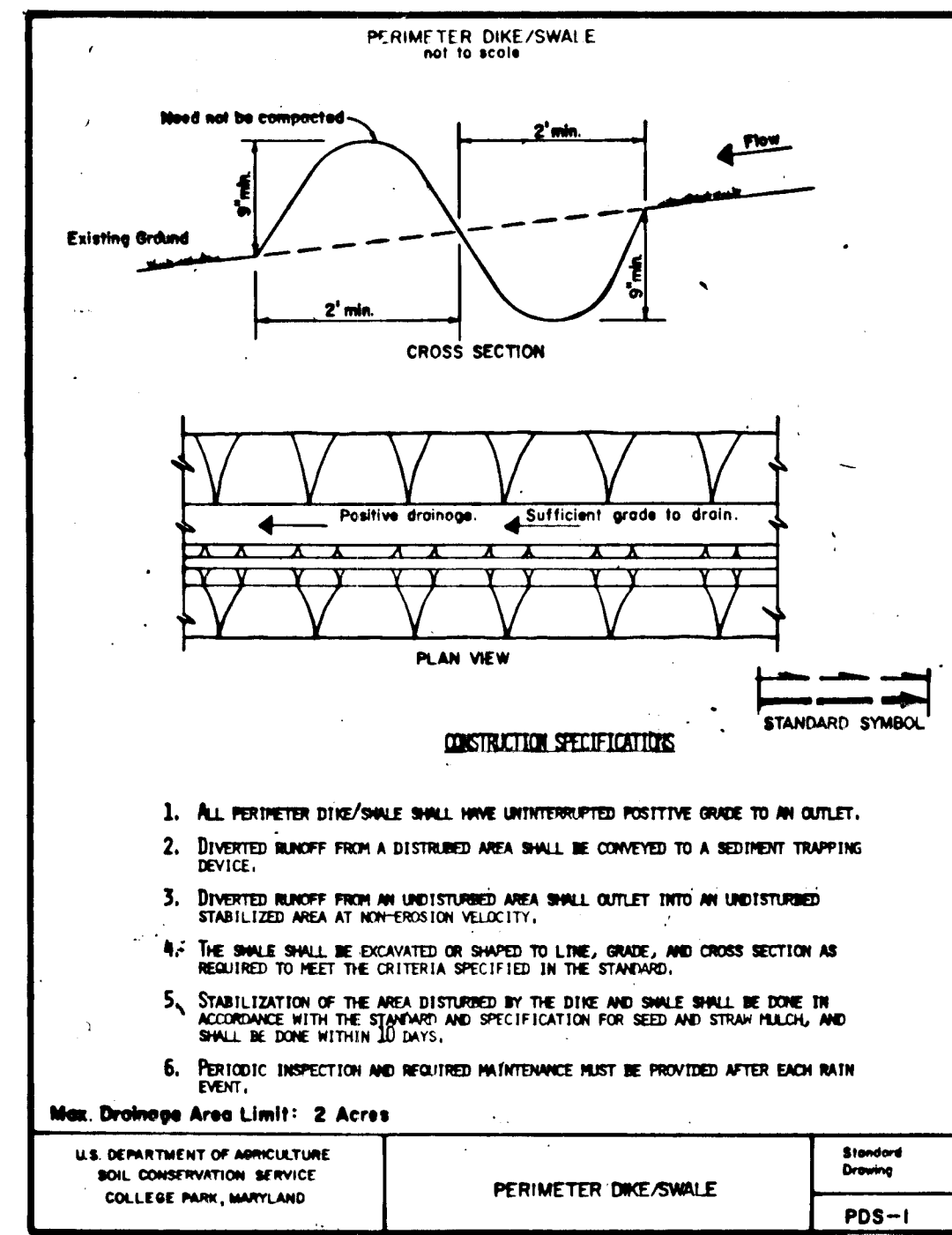
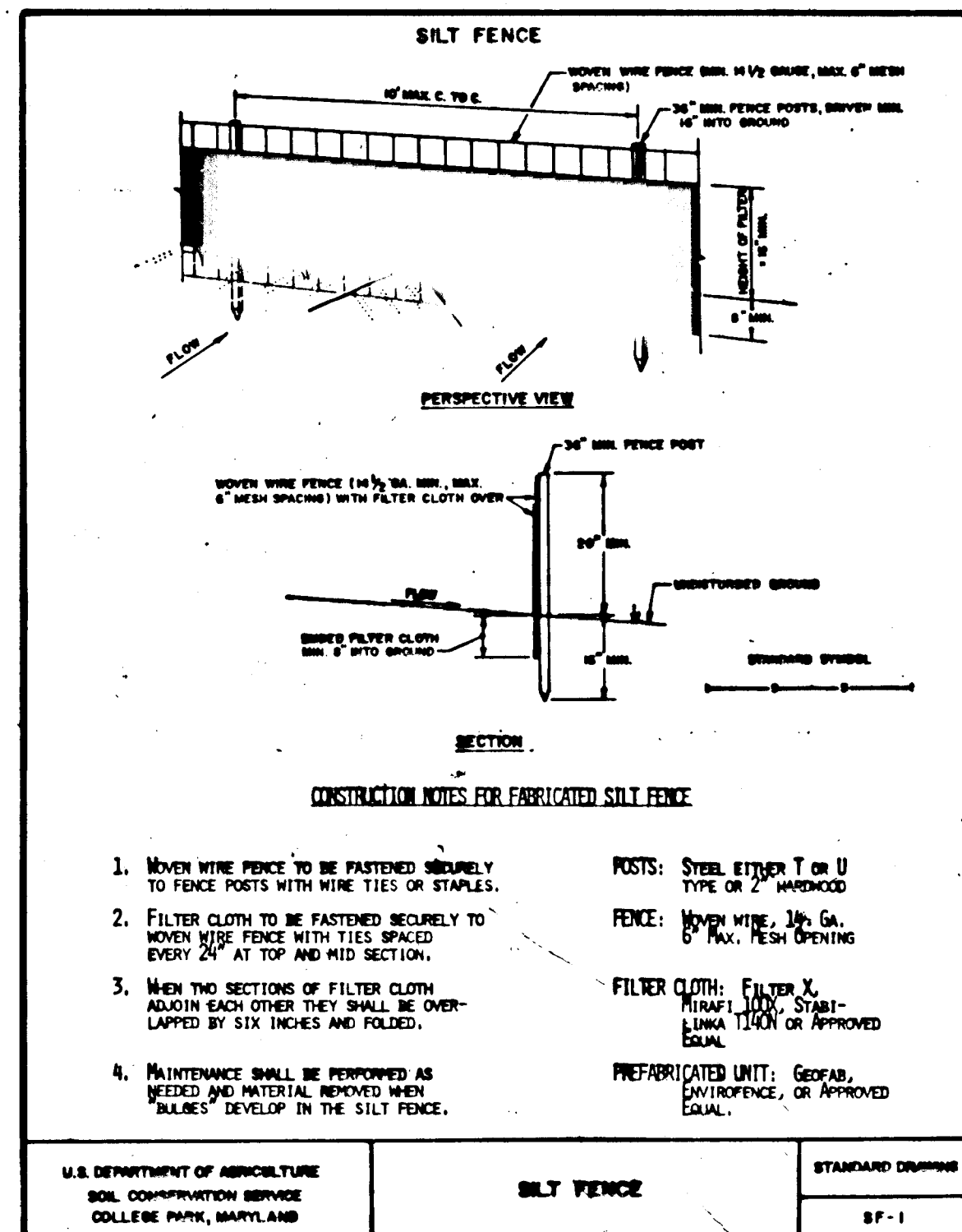
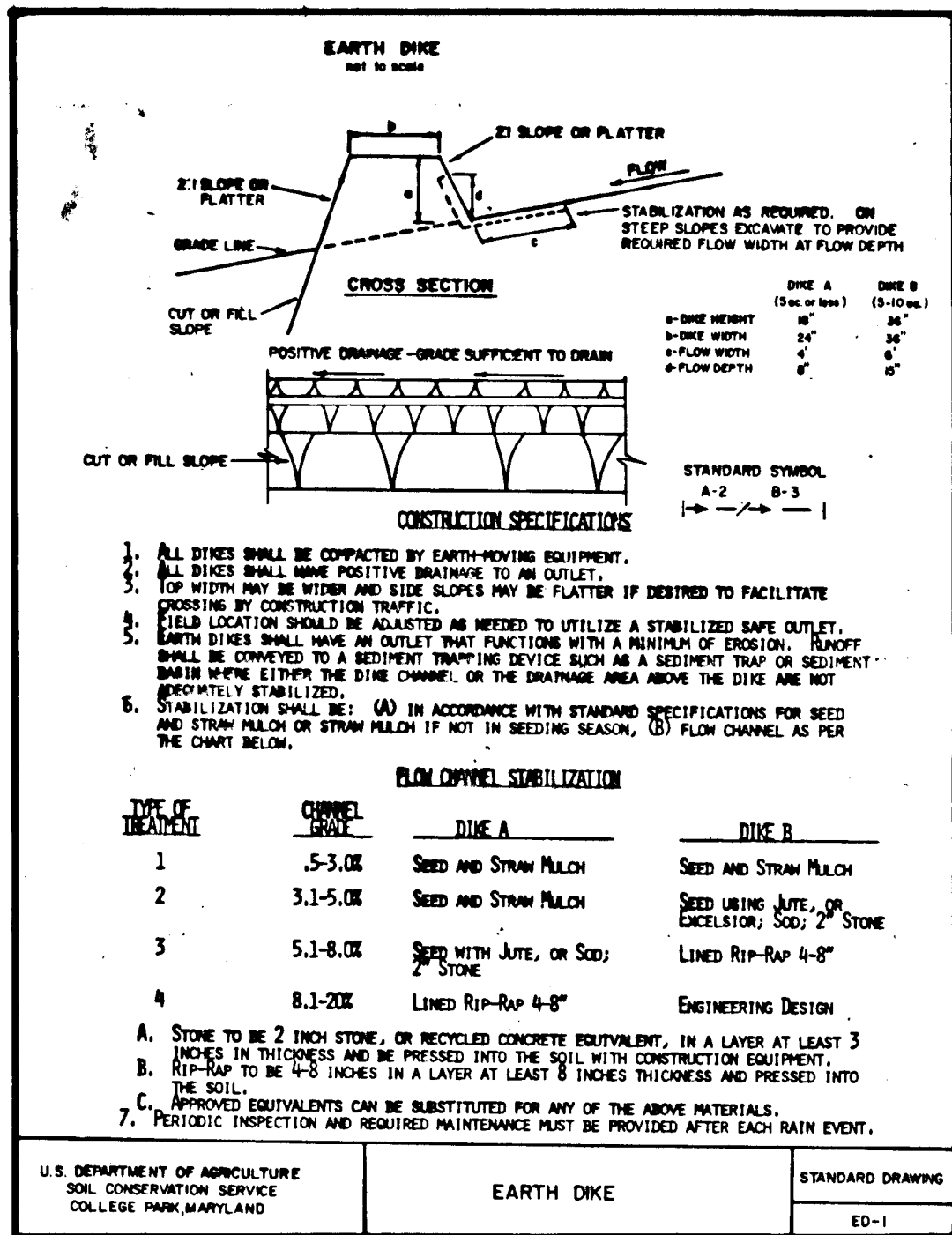
DEVELOPER'S CERTIFICATE
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF THE SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
H.S. Celgin 6/15/87
SIGNATURE OF DEVELOPER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
James M. Helm 7-6-87
U.S. SOIL CONSERVATION SERVICE DATE
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Robert W. Zielhuis 7-6-87
DISTRICT MANAGER DATE
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William O. Filbert 7-10-87
CHIEF, BUREAU OF ENGINEERING DATE
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
James P. Dineen 7-7-87
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

STATE OF MARYLAND
DONALD E. HICKS
No. 866
PROFESSIONAL ENGINEER
Donald E. Hicks
SIGNATURE
June 17, 1987
DATE

1225



PERMANENT SEEDING NOTES

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

Seeding 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 dolomitic limestone (92 lbs/1000 sq ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Narrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Narrow 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 60 lbs per acre (1.4 lbs/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 (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching - Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

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

TEMPORARY SEEDING NOTES

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

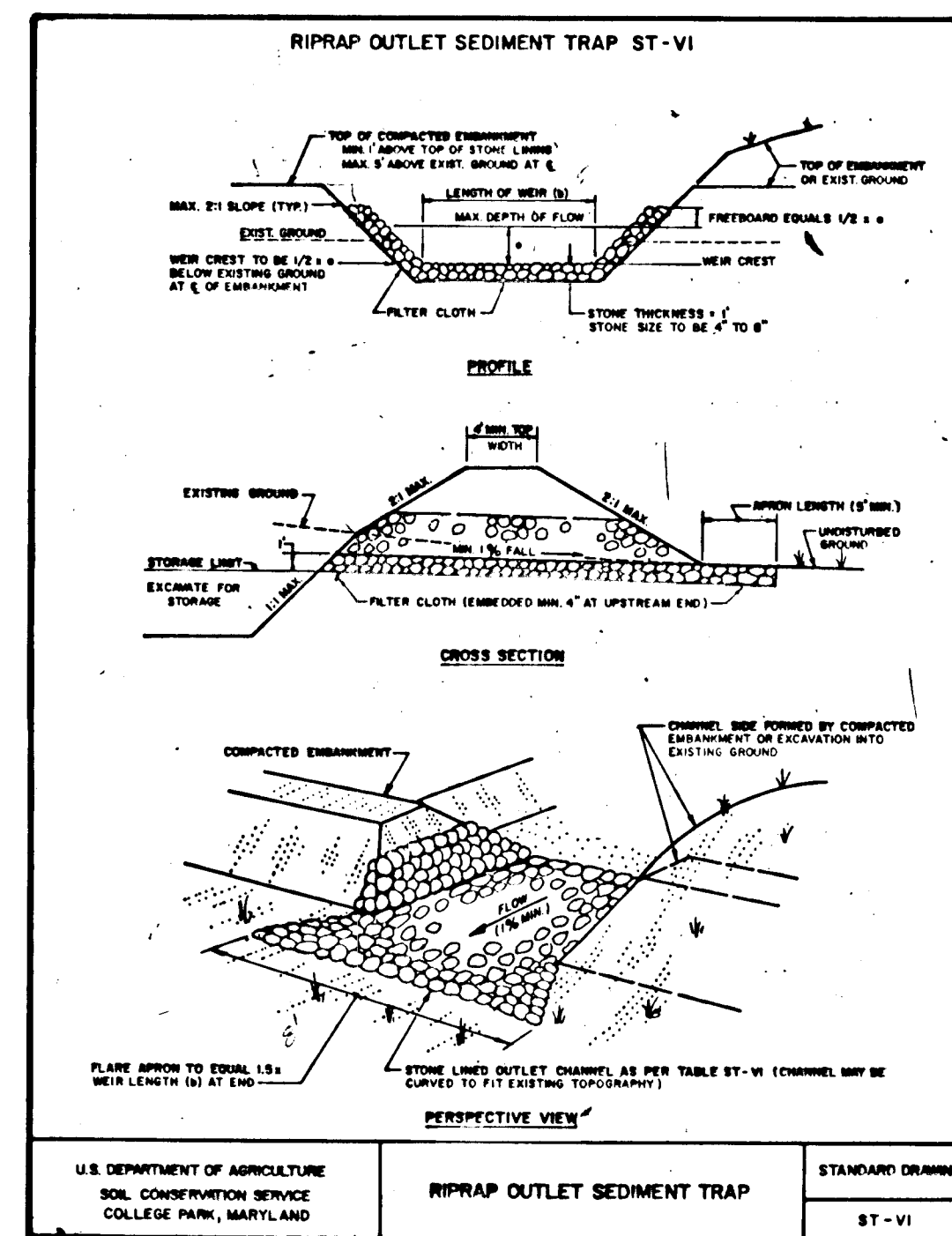
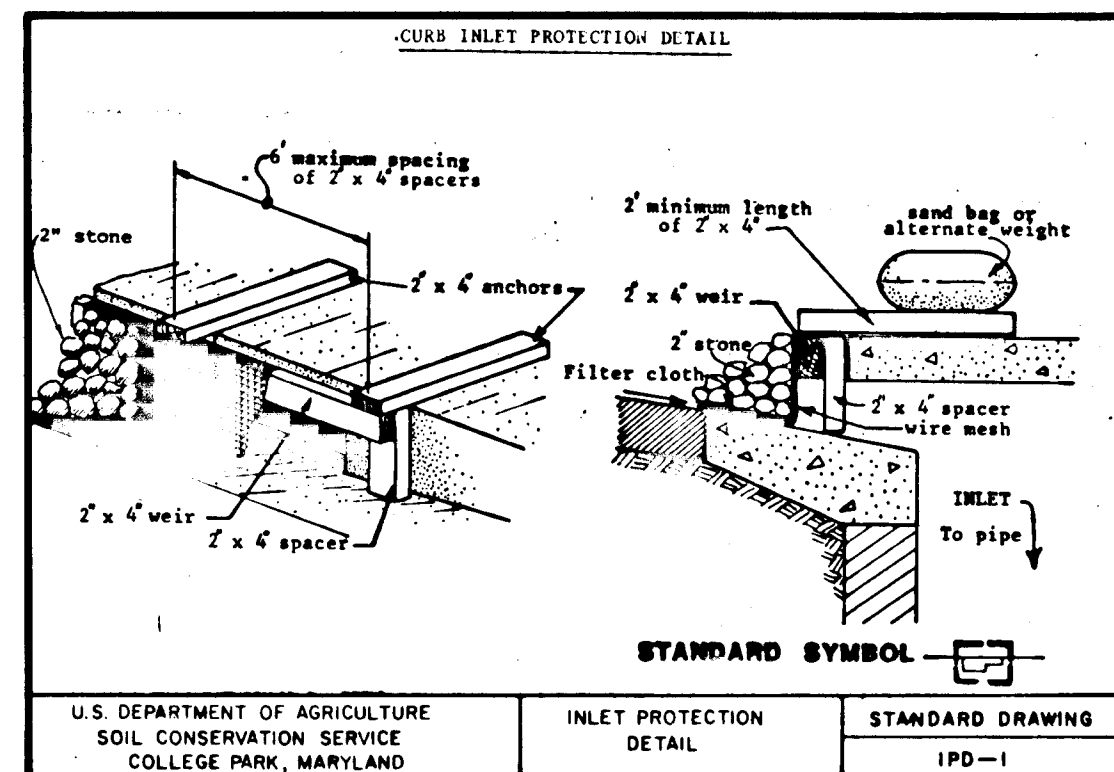
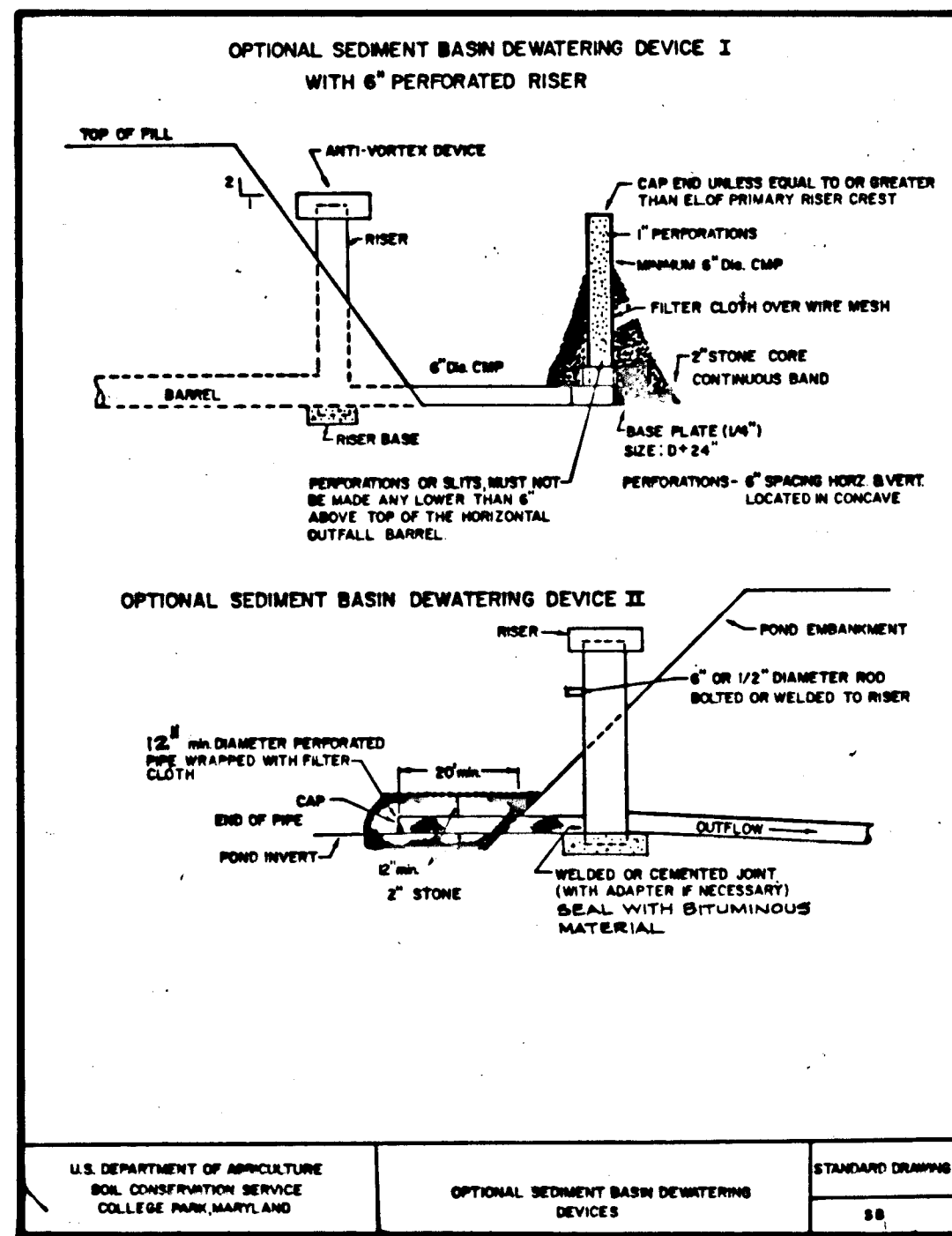
Seeding Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

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 August 1 thru November 15, seed with 25 bushel per acre of annual rye (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/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/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/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.



ADDRESS CHART		SUBDIVISION NAME		SECT./AREA	LOT/PARCEL NO.
LOT NO.	STREET ADDRESS	STONEBROOKE TWO			747
		PLAT No. OR L/F	BLOCK No.	ZONE	TAX/ZONE MAP ELECT. DIST. CENSUS TR.
		1007/432			31 2
		WATER CODE		SEWER CODE	
		F 16		1400520	

Professional Engineer
Signature: *Donald E. Hicks*
Date: June 13, 1987

HICKS ENGINEERING COMPANY, INC.
CIVIL ENGINEERS-SURVEYORS PLANNERS

200 EAST JOPPA ROAD - SUITE 402
TOWSON, MARYLAND 21204
(301) 494-0001

ENGINEER'S CERTIFICATE

"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."

Donald E. Hicks, P.E.
DONALD E. HICKS, P.E.
DATE: 6/13/87

DEVELOPER'S CERTIFICATE

"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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF THE SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Phillip J. Dorsey
SIGNATURE OF DEVELOPER
DATE: 6/19/87

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

James M. Helm
U.S. SOIL CONSERVATION SERVICE
DATE: 7-6-87

APPROVED:
Robert W. Ziehm
DISTRICT MANAGER
HOWARD SOIL CONSERVATION DISTRICT
DATE: 7-6-87

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

William E. Rios
CHIEF, BUREAU OF ENGINEERING
DATE: 7-10-87

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED:
Robert W. Ziehm
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
DATE: 7-7-87

SEDIMENT CONTROL DETAILS

STONEBROOKE TWO

2ND ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

TAX MAP # 31 PARCEL # 727

SCALE: NONE DATE: JUNE 15, 1987

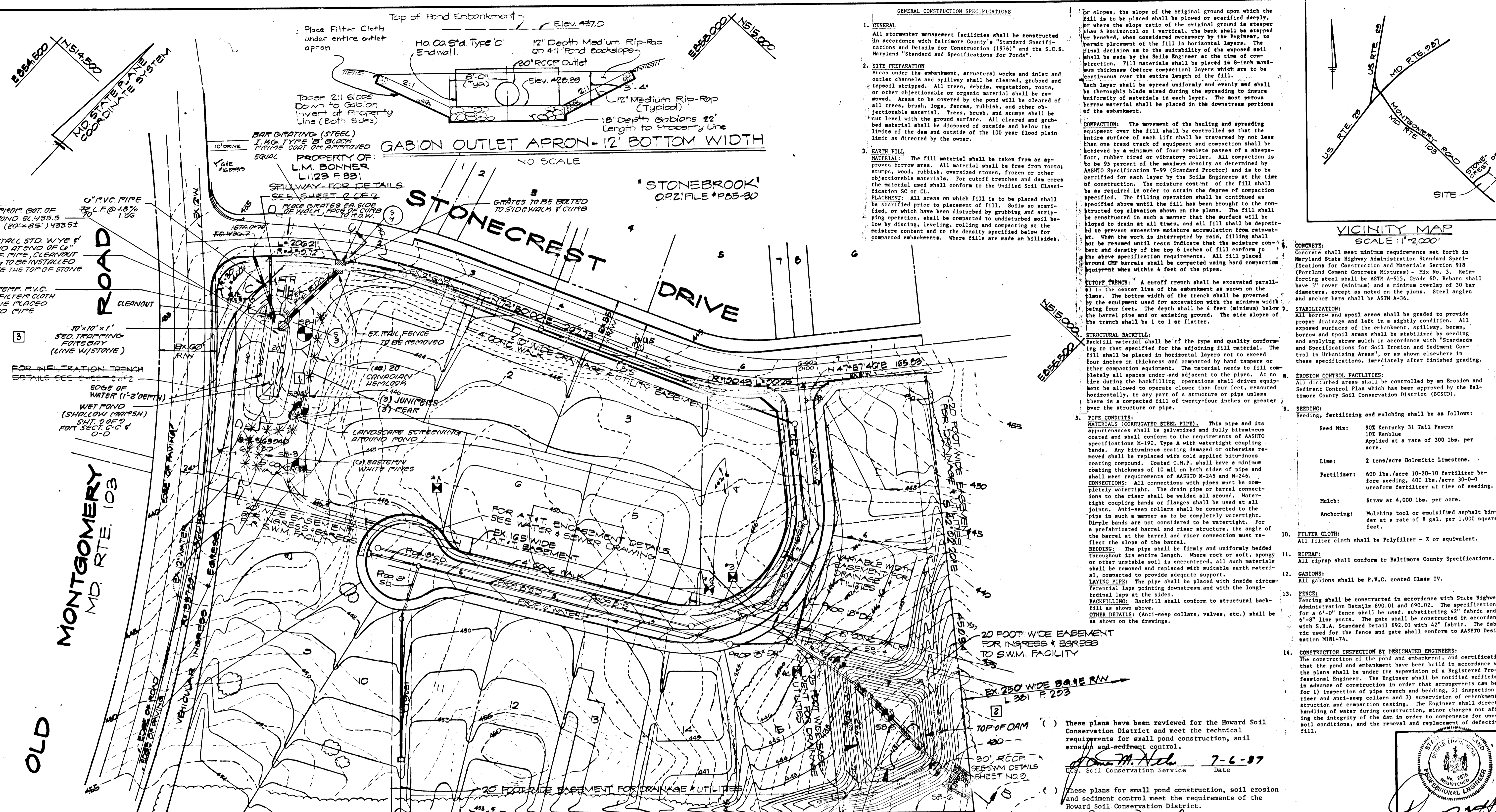
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F 87-140 SHEET 7 OF 9

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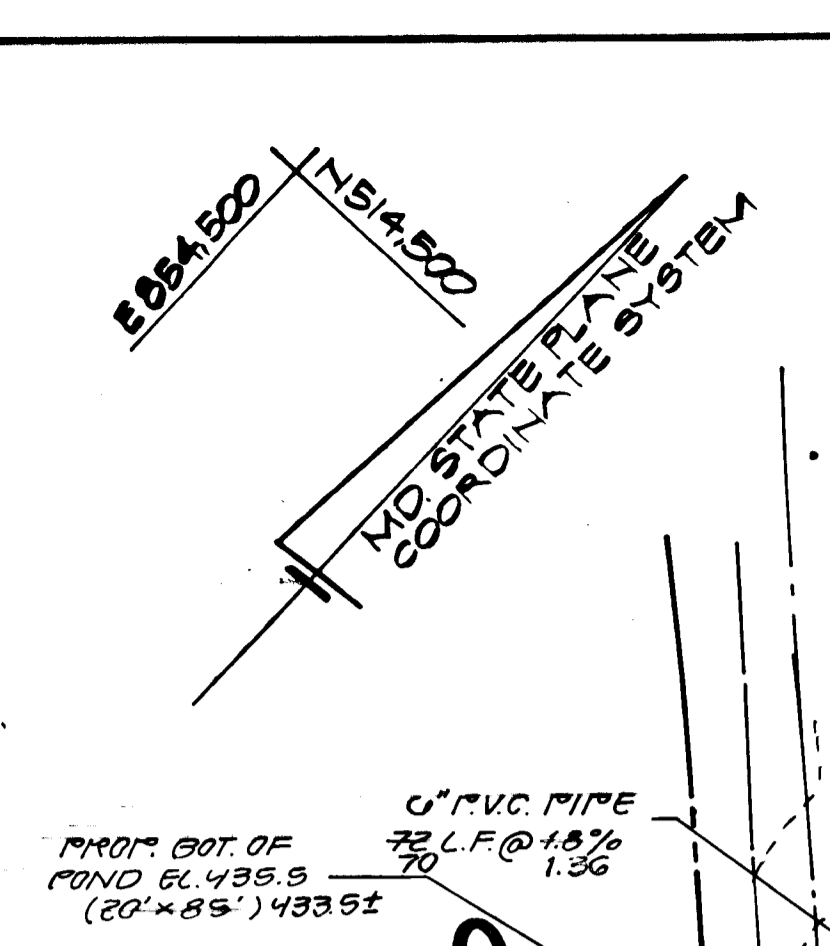
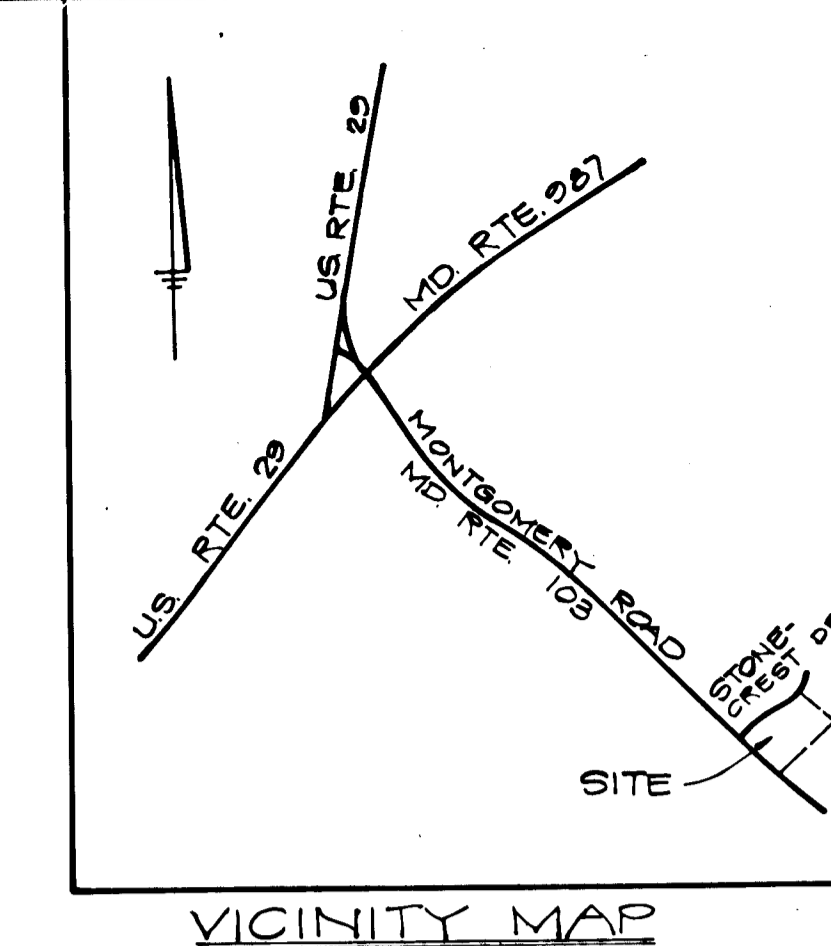
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1225



GENERAL CONSTRUCTION SPECIFICATIONS

- GENERAL**
All stormwater management facilities shall be constructed in accordance with Baltimore County's "Standard Specifications and Details for Construction (1978)" and the S.C.S. Maryland "Standard and Specifications for Ponds".
- SITE PREPARATION**
Areas under the embankment, structural works and inlet and outlet channels and spillway shall be cleared, grubbed and topsoil stripped. All trees, debris, vegetation, roots, or other objectionable or organic material shall be removed. Areas to be covered by the pond will be cleared of all trees, brush, logs, fences, rubbish, and other objectionable material. Trees, brush, and stumps shall be cut level with the ground surface. All cleared and grubbed material shall be disposed of outside and below the limits of the dam and outside of the 100 year flood plain limit as directed by the owner.
- EARTH FILL**
MATERIAL: The fill material shall be free from roots, stumps, wood, rubbish, oversized stones, frozen or other objectionable materials. For cutoff trenches and dam cores the material used shall conform to the Unified Soil Classification SC or CL.
PLACEMENT: All areas on which fill is to be placed shall be scarified prior to placement of fill. Soils so scarified, or which have been disturbed by grubbing and stripping operation, shall be compacted to undisturbed soil below by discing, leveling, rolling and compacting at the secure content and to the density specified below for compacted embankments. Where fills are made on hillsides, for slopes, the slope of the original ground upon which the fill is to be placed shall be plowed or scarified deeply, or where the slope ratio of the original ground is steeper than 5 horizontal on 1 vertical, the bank shall be stepped or benched, when considered necessary by the Engineer, to permit placement of the fill in horizontal layers. The final decision as to the suitability of the exposed soil shall be made by the Soil Engineer at the time of construction. Fill materials shall be placed in 8-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill.
Each layer shall be spread uniformly and evenly and shall be thoroughly blade mixed during the spreading to insure uniformity of materials in each layer. The most porous borrow material shall be placed in the downstream portions of 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 traversed by not less than one track of equipment and compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. All compaction is to be 95 percent of the maximum density as determined by AASHTO Specification T-99 (Standard Proctor) and is to be certified for each layer by the Soils Engineers at the time of construction. The moisture content of the fill shall be as required in order to attain the degree of compaction specified. The filling operation shall be continued as specified until the fill has been brought to the constructed top elevation shown on the plans. The fill shall be constructed in such a manner that the surface will be sloped to drain at all times, and all fill shall be deposited to prevent accumulation of moisture from rainwater. When the work is interrupted by rain, filling shall not be resumed until tests indicate that the moisture content and density of the top 6 inches of fill conform to the above specification requirements. All fill placed around CMP barrels shall be compacted using hand compaction equipment within 4 feet of the pipes.
CUTOFF TRENCH: A cutoff trench shall be excavated parallel to the center line 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 4 feet (minimum) below the barrel pipe and or existing ground. The side slopes of the trench shall be 1 to 1 or flatter.
STRUCTURAL BACKFILL: Backfill material 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 compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operations shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure or pipe unless there is a compacted fill of twenty-four inches or greater over the structure or pipe.
PIPE CONDUITS:
MATERIALS (CORRUGATED STEEL PIPE): This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO specifications M-190. Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Coated C.M.P. shall have a minimum coating thickness of 10 mil on both sides of pipe and shall meet requirements of AASHTO M-245 and M-246.
CONNECTIONS: All connections with pipes must be completely watertight. The drain pipe or barrel connections to the riser shall be welded all around. Watertight coupling bands or flanges shall be used at all joints. Anti-sweep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight. For a prefabricated barrel and riser connection, the angle of the barrel at the barrel and riser connection must reflect the slope of the barrel.
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 materials shall be removed and replaced with suitable earth material, compacted to provide adequate support.
LAYING PIPE: The pipe shall be placed with inside circumferential laps pointing downstream and with longitudinal laps at the side.
BACKFILLING: Backfill shall conform to structural backfill as shown above.
OTHER DETAILS: (Anti-sweep collars, valves, etc.) shall be as shown on the drawings.



Place Filter Cloth under entire outlet apron

Top of Pond Embankment Elev. 437.0

12" Depth Medium Rip-Rap on 4:1 Pond backslope

20' RCP Outlet

18" Depth Gabions 22' Length to Property Line

12" Medium Rip-Rap (Typical)

12" Depth Medium Rip-Rap on 4:1 Pond backslope

20' RCP Outlet

18" Depth Gabions 22' Length to Property Line

12" Medium Rip-Rap (Typical)

12" Depth Medium Rip-Rap on 4:1 Pond backslope

20' RCP Outlet

18" Depth Gabions 22' Length to Property Line

12" Medium Rip-Rap (Typical)

INSTALL STD. WYE & BEND AT END OF 4" P.V.C. PIPE. CLEANOUT PLUG TO BE INSTALLED ABOVE THE TOP OF STONE

10' L.F. P.V.C. PIPE, FILTER CLOTH W/STONE PLACED AROUND PIPE

10'x10'x1' SED. TRAPPING FOREBAY (LINE W/STONE)

FOR INFILTRATION TRENCH DETAILS SEE SHEET NO. 2

EDGE OF WATER (1'-2" DEPTH)

WET POND (SHALLOW POND) SHIT 3'0" x 2'0" FOR SECT. 100 & 0-0

PROPERTY OF: L.M. BONNER L1123 F 931

SPILLWAY - FOR DETAILS SEE SHEET NO. 2 OF 2

MAKE GRATES FOR SIDE WALKS TO BE BOLTED TO SIDEWALK & CURB

STONECREST DRIVE

STONEBROOK OPZ FILE #P85-30

NO SCALE

GRATES TO BE BOLTED TO SIDEWALK & CURB

5'x10'x1' SED. TRAPPING FOREBAY (LINE W/STONE)

FOR INFILTRATION TRENCH DETAILS SEE SHEET NO. 2 OF 2

EDGE OF WATER (1'-2" DEPTH)

WET POND (SHALLOW POND) SHIT 3'0" x 2'0" FOR SECT. 100 & 0-0

LANDSCAPE SCREENING AROUND POND

(3) JUNIPERS (3) BEAR

(10) EASTERN WHITE PINES

FOR A TIT ENGAGEMENT DETAILS SEE SWM DETAIL SHEET NO. 2

EX 105 WIDE AT TIT EASEMENT

20 FOOT WIDE EASEMENT FOR INGRESS & EGRESS TO SWM FACILITY

EX 250 WIDE BASE RUN L 301 F 203

TOP OF FORM

30' RCP PER SWM DETAILS SHEET NO. 2

NOTE: FILTER CLOTH & STONE SEE SWM DETAIL SHEET (2) FOR CONTROL STRUCTURE DETAILS AND POND PROFILES.

PROPERTY OF: WILLIAM Q. FILBERT L 219, F. 302

By the Developer:

"I/We certify that all development and/or construction will be done according to these plans, and that any 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 will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Signature of Developer: *Elmer Donald Johnson* Date: 6/15/87

OWNER/DEVELOPER
ELMER DONALD JOHNSON
4442 STONECREST DRIVE
ELLIOTT CITY, MD 21043
PHONE: (301) 405-5024

1 AS BUILT 5-10-92
2 AS BUILT 7-10-92
1 CHANGED INFILTRATION BASIN TO WET POND PER HOWARD COUNTY (3-19-92)

PROPERTY OF: H.S. CELGIN L 724, F. 300

By the Engineer:

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

Signature of Engineer: *James M. Nech* Date: 7-6-87

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

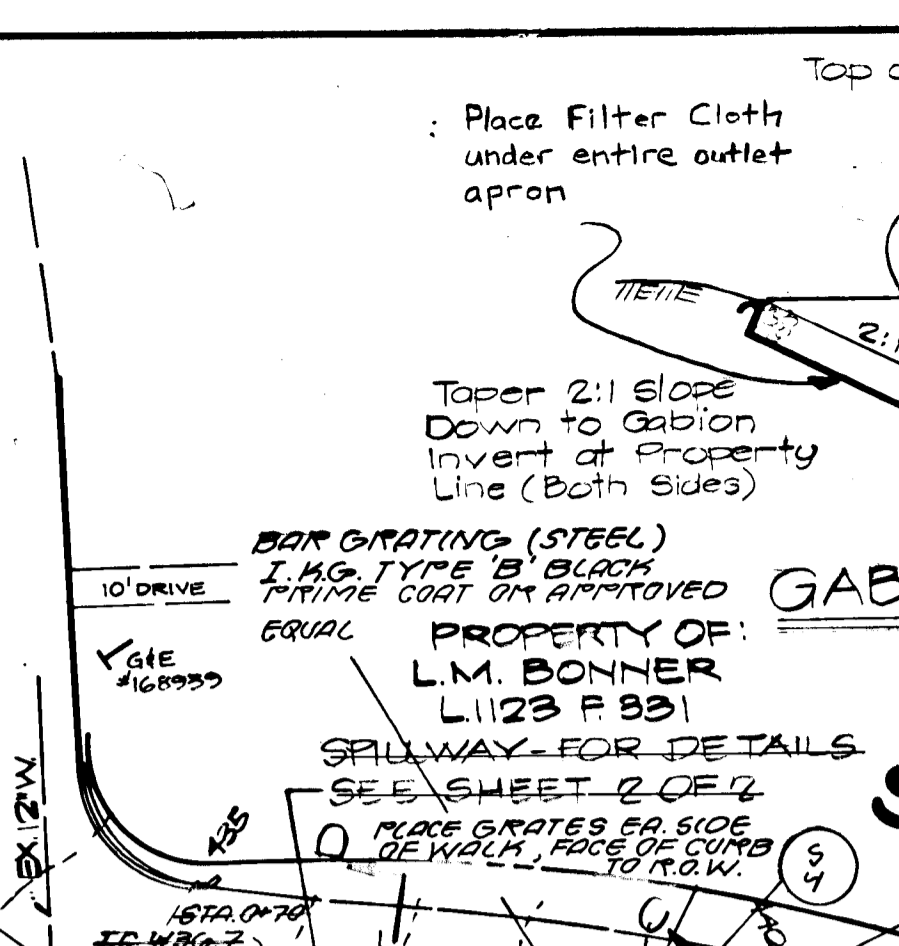
Signature of Chief: *James M. Nech* Date: 7-6-87

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Signature of Chief: *Robert J. Ziehm* Date: 7-6-87

APPROVED: THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of District Manager: *Robert J. Ziehm* Date: 7-6-87



VICINITY MAP
SCALE: 1"=2000'

US RTE 28

MONTGOMERY ROAD

MD RTE 267

US RTE 103

SITE

CONCRETE:
Concrete shall meet minimum requirements set forth in Maryland State Highway Administration Standard Specifications for Construction and Materials Section 918 (Portland Cement Concrete Mixtures) - Mix No. 3. Reinforcing steel shall be ASTM A-615, Grade 60. Rebars shall have 3" cover (minimum) and a minimum overlap of 30 bar diameters, except as noted on the plans. Steel angles and anchor bars shall be ASTM A-36.

STABILIZATION:
All borrow and spoil areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, berm, borrow and spoil areas shall be stabilized by seeding and applying straw mulch in accordance with "Standards and Specifications for Soil Erosion and Sediment Control in Urbanizing Areas", or as shown elsewhere in these specifications, immediately after finished grading.

EROSION CONTROL FACILITIES:
All disturbed areas shall be controlled by an Erosion and Sediment Control Plan which has been approved by the Baltimore County Soil Conservation District (BCSCD).

SEEDING:
Seeding, fertilizing and mulching shall be as follows:

Seed Mix: 90% Kentucky 31 Tall Fescue
10% Kenblue
Applied at a rate of 300 lbs. per acre.

Lime: 2 tons/acre Dolomitic Limestone.

Fertilizer: 400 lbs./acre 10-20-10 fertilizer before seeding. 400 lbs./acre 30-0-0 urea-form fertilizer at time of seeding.

Mulch: Straw at 4,000 lbs. per acre.

Anchoring: Mulching tool or emulsified asphalt binder at a rate of 8 gal. per 1,000 square feet.

10. FILTER CLOTH:
All filter cloth shall be Polyfilter - X or equivalent.

11. RIPRAP:
All riprap shall conform to Baltimore County Specifications.

12. GABIIONS:
All gabions shall be P.V.C. coated Class IV.

13. FENCE:
Fencing shall be constructed in accordance with State Highway Administration Details 690.01 and 690.02. The specifications for a 6'-0" fence shall be used, substituting 42" fabric and 4'-0" line posts. The gate shall be constructed in accordance with S.H.A. Standard Detail 692.01 with 42" fabric. The fabric used for the fence and gate shall conform to AASHTO Designation M181-74.

14. CONSTRUCTION INSPECTION BY DESIGNATED ENGINEERS:
The construction of the pond and embankment, and certification of the plans shall be under the supervision of a Registered Professional Engineer. The Engineer shall be notified sufficiently in advance of construction in order that arrangements can be made for 1) inspection of pipe trench and bedding, 2) inspection of riser and anti-sweep collars and 3) supervision of embankment construction and compaction testing. The Engineer shall direct the handling of water during construction, minor changes not affecting the integrity of the dam in order to compensate for unusual soil conditions, and the removal and replacement of defective fill.

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Signature of Engineer: *James M. Nech* Date: 7-6-87

U.S. Soil Conservation Service

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

Signature of District Manager: *Robert J. Ziehm* Date: 7/6/87

Howard Soil Conservation District

ADDRESS CHART

LOT NO.	STREET ADDRESS

SUBDIVISION NAME

SECT./AREA LOT/PARCEL NO.

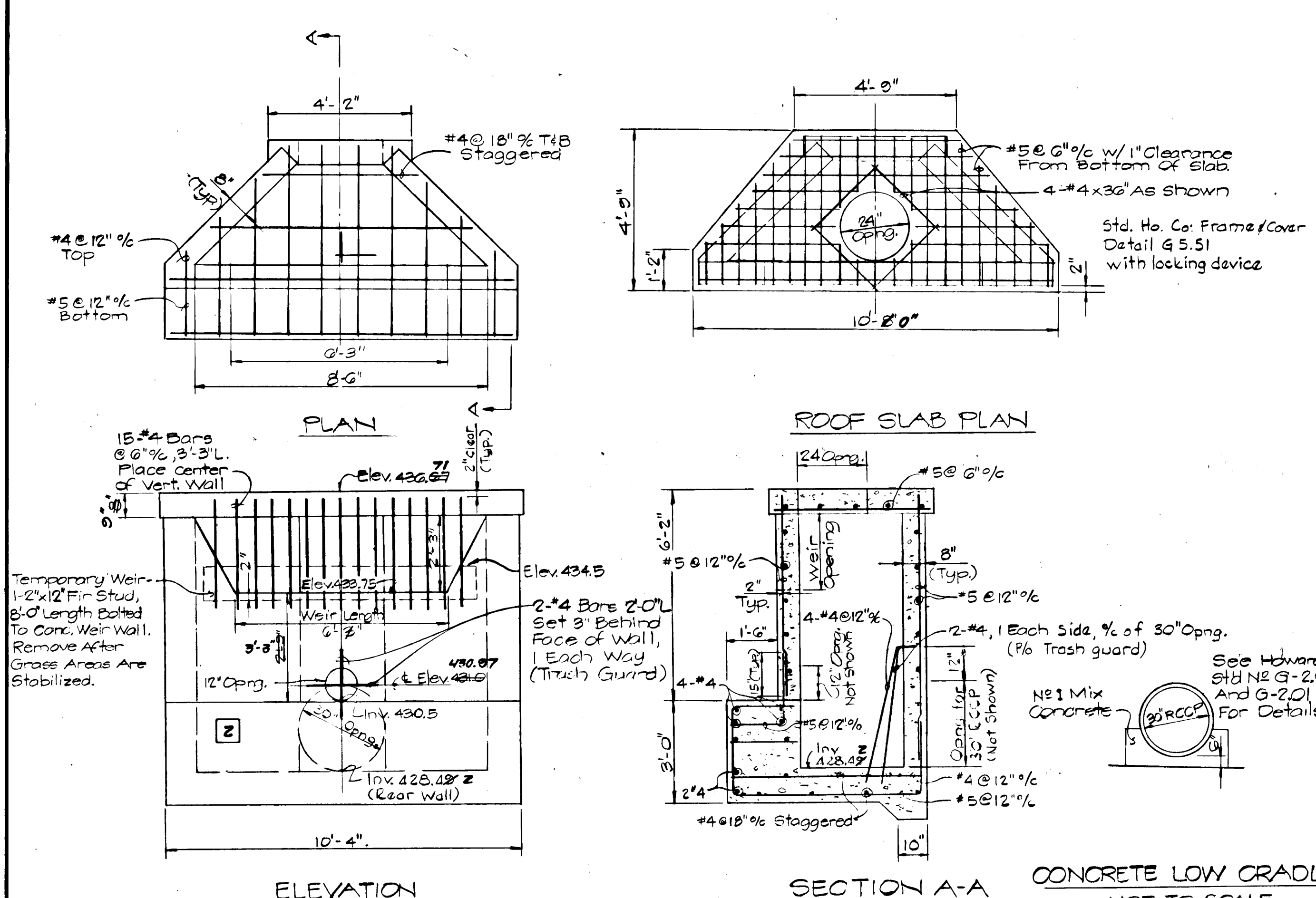
PLAT NO. OR L/F	BLOCK NO.	ZONE	TAX/ZONEMAP	ELECT. DIST.	CENSUS TR.

WATER CODE

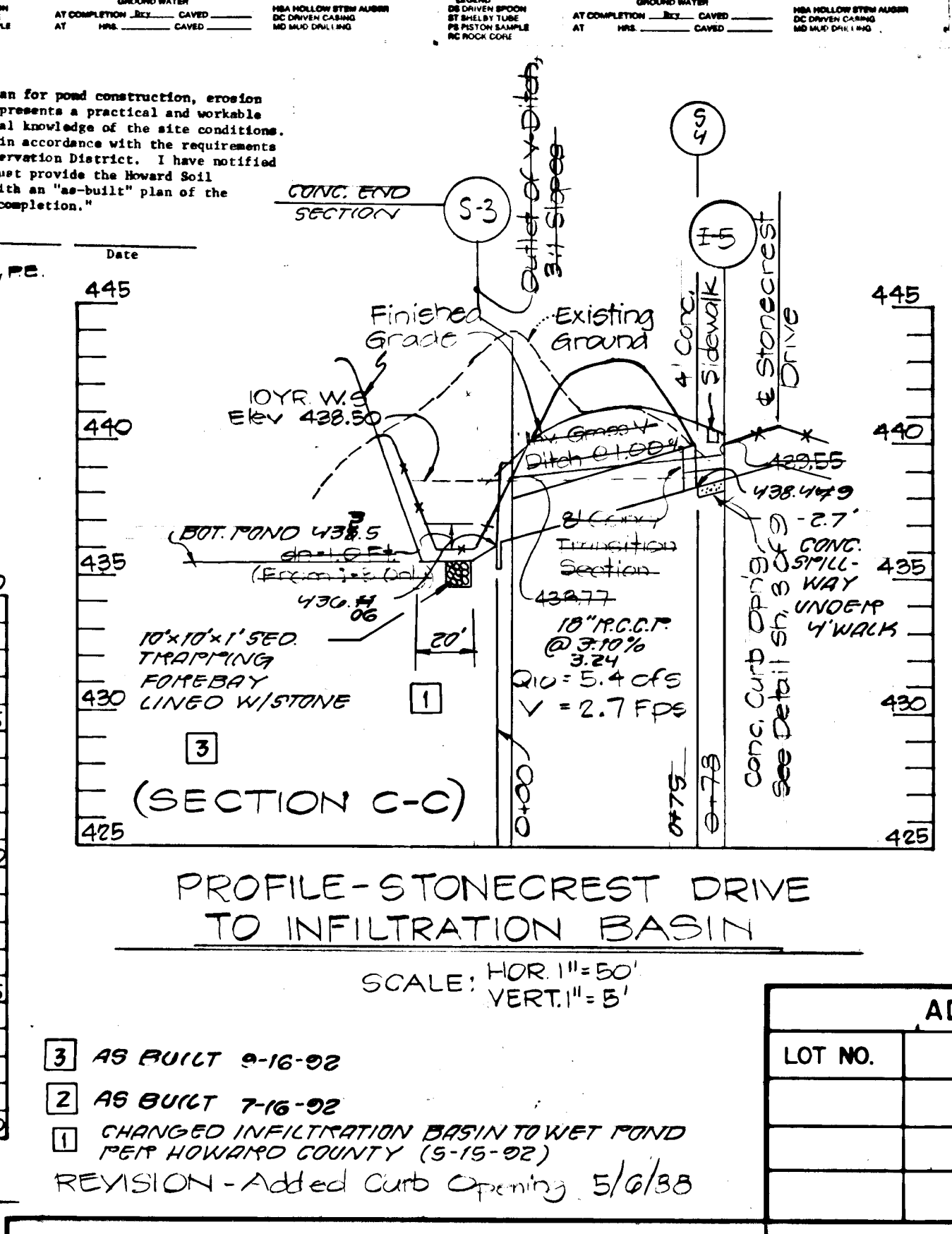
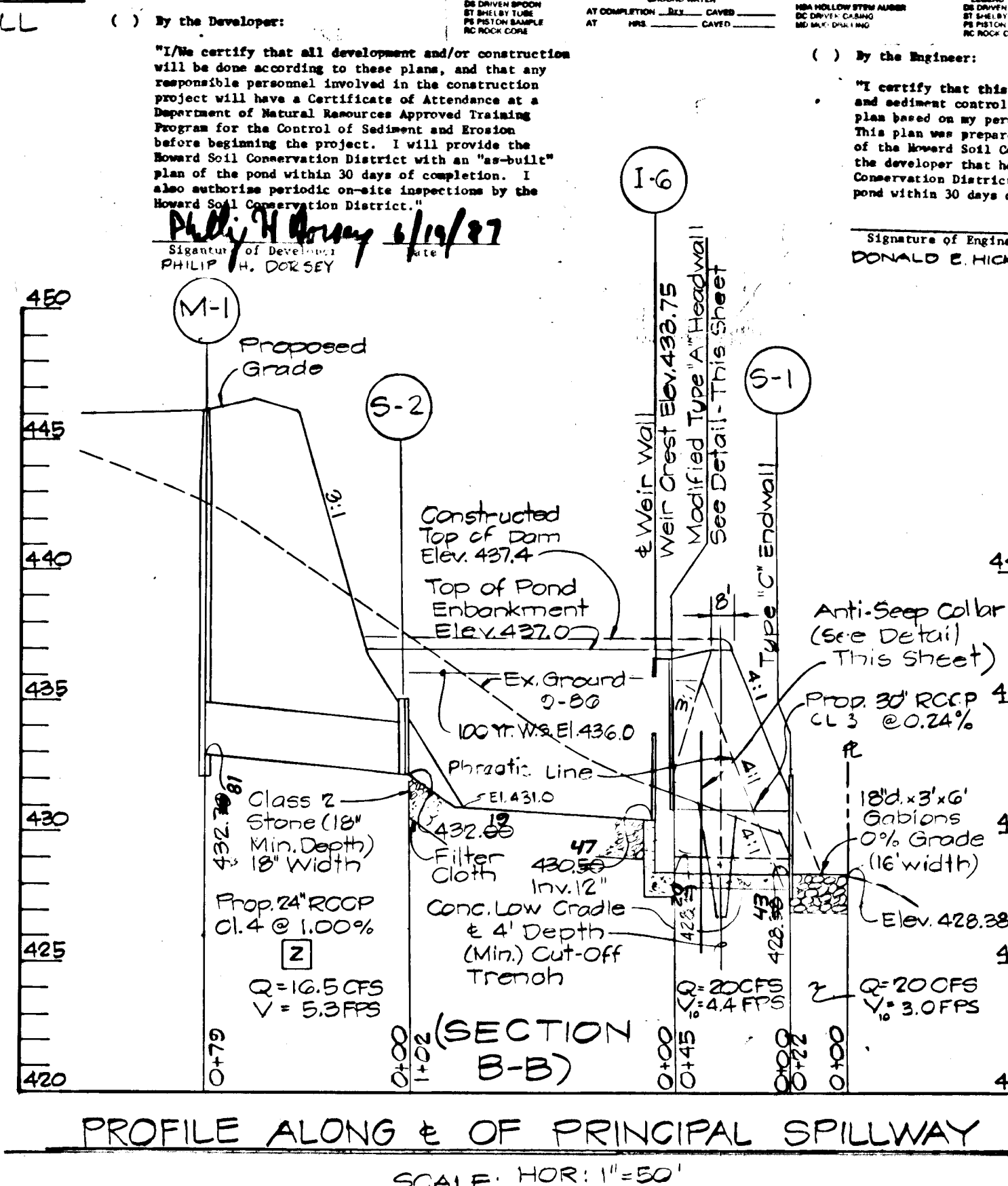
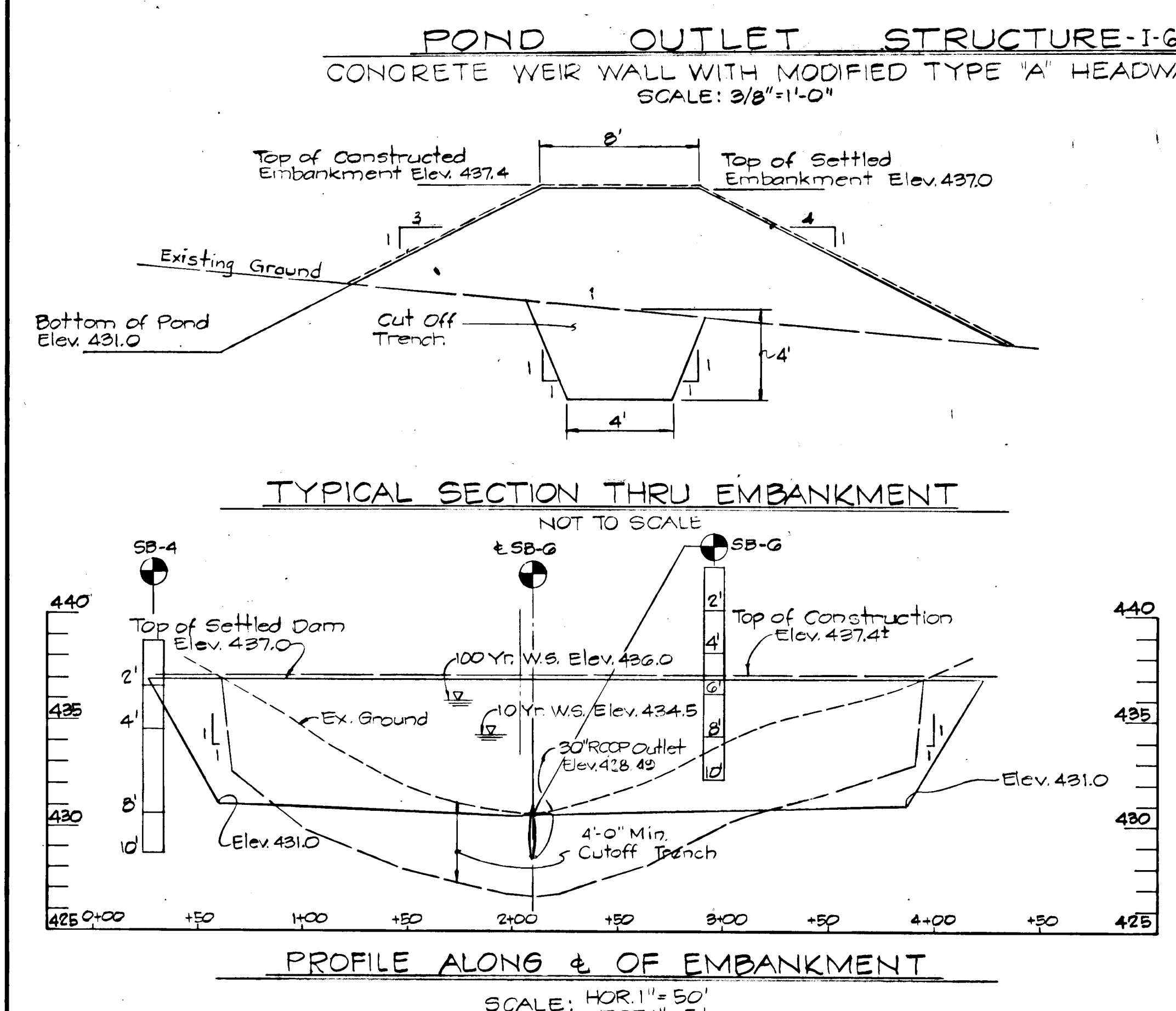
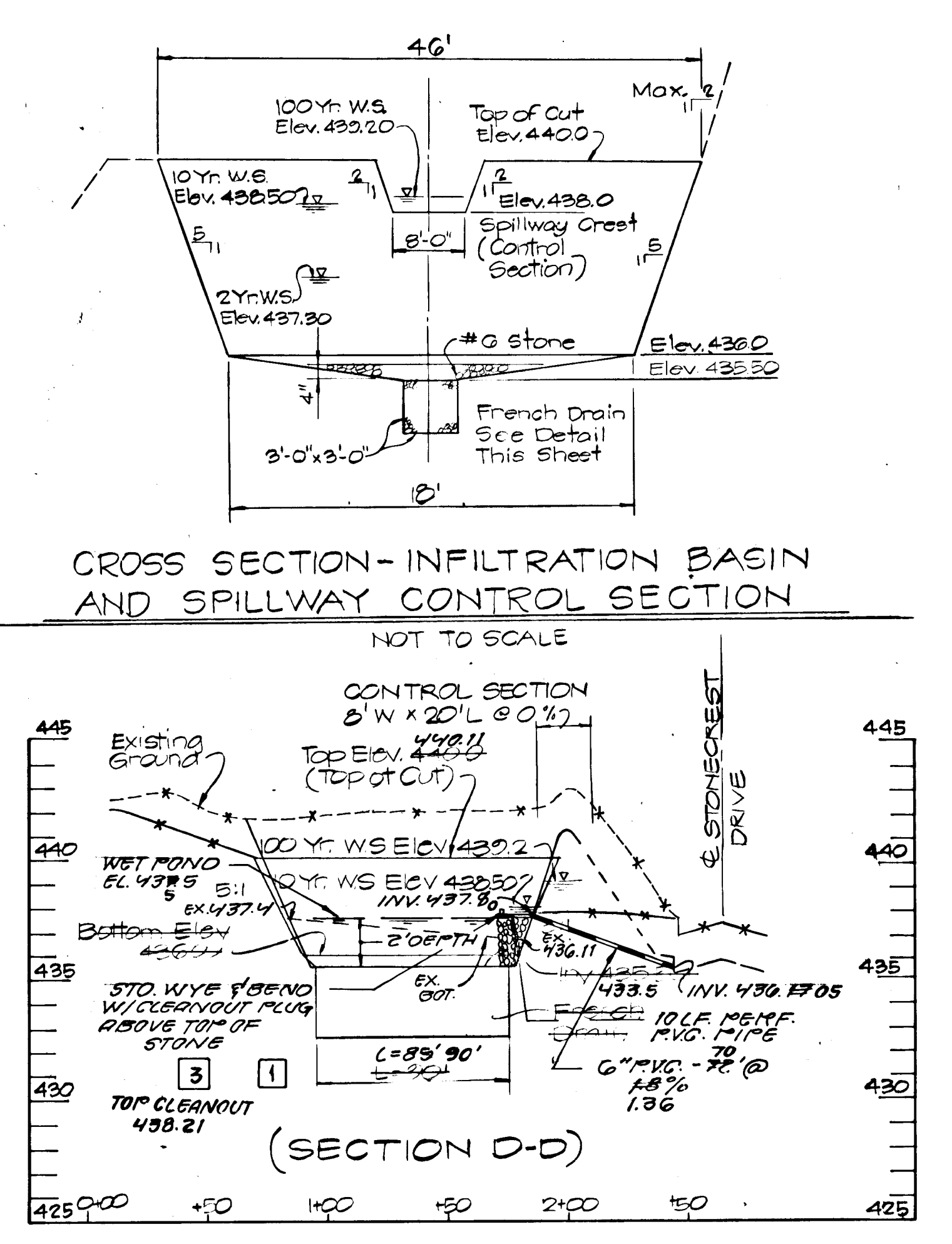
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STORM WATER MANAGEMENT PLAN
STONEBROOKE TWO
2ND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP # 31 PARCEL # 727
SCALE: 1"=50' DATE: JUNE 15, 1987
DRN. BY: L.A.W. CHECKED BY: D.E.H.
F87-140 SHEET 8 OF 9

1225



NO.	DESCRIPTION	DEPTH	SLOPE	NO.	TYPE	REMARKS
1	Top of settled embankment	437.0	0%	1	1.0	Topsoil - 1"
2	Top of constructed embankment	437.4	0%	2	1.0	Topsoil - 1"
3	Top of pond embankment	427.0	0%	3	1.0	Topsoil - 1"
4	Top of pond embankment	427.0	0%	4	1.0	Topsoil - 1"
5	Top of pond embankment	427.0	0%	5	1.0	Topsoil - 1"
6	Top of pond embankment	427.0	0%	6	1.0	Topsoil - 1"
7	Top of pond embankment	427.0	0%	7	1.0	Topsoil - 1"
8	Top of pond embankment	427.0	0%	8	1.0	Topsoil - 1"
9	Top of pond embankment	427.0	0%	9	1.0	Topsoil - 1"
10	Top of pond embankment	427.0	0%	10	1.0	Topsoil - 1"



HICKS ENGINEERING COMPANY, INC.
 CIVIL ENGINEERS-SURVEYORS PLANNERS
 200 EAST JOPPA ROAD - SUITE 402
 TOWSON, MARYLAND 21204
 (301) 494-0001

ENGINEER'S CERTIFICATE
 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.
 Signature: Donald E. Hicks, P.E.
 DATE: 6/17/87

DEVELOPER'S CERTIFICATE
 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF THE SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: Phillip M. Dorsey
 DATE: 6/17/87

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 Signature: Robert W. Ziehm
 DATE: 7/6/87
 DISTRICT MANAGER
 HOWARD SOIL CONSERVATION DISTRICT

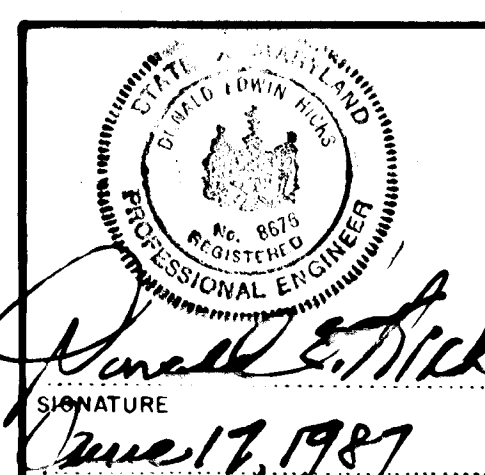
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Signature: William E. Rees
 DATE: 7-18-87
 CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: Pauline J. Finner
 DATE: 7-7-87
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
 Signature: Phillip M. Dorsey
 DATE: 7/6/87
 U.S. SOIL CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: Robert W. Ziehm
 DATE: 7/6/87
 HOWARD SOIL CONSERVATION DISTRICT

STORM WATER MANAGEMENT DETAILS
 STONEBROOKE TWO
 2ND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP # 31 PARCEL # 727
 SCALE: AS SHOWN DATE: JUNE 15, 1987
 DRN. BY: G.J.J. CHECKED BY: D.E.H.
 F 87-140 SHEET 9 OF 9



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