

SHEET INDEX

NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE-MAYFIELD AVE. AND GREEN TREE COURT
3	DRAINAGE AREA MAP
4	GRADING, SEDIMENT CONTROL PLAN, NOTES AND DETAILS
5	DETAILS AND STORM DRAIN PROFILES
6	SWM NOTES, DETAILS AND SPECIFICATIONS
7	STREET TREE PLAN

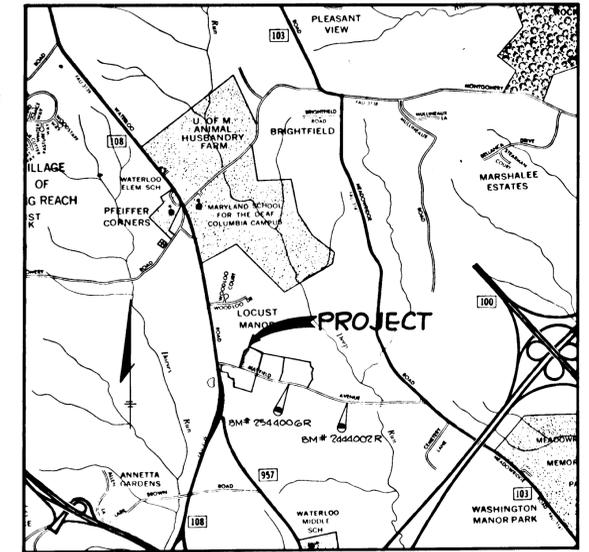
ROADWAY , STORM DRAIN & STORM WATER MANAGEMENT

THOMPSONS PURCHASE

SECTION 4, AREA 1

1ST ELECTION DISTRICT

HOWARD COUNTY , MARYLAND



VICINITY MAP
SCALE: 1"=2000'

BENCH MARKS

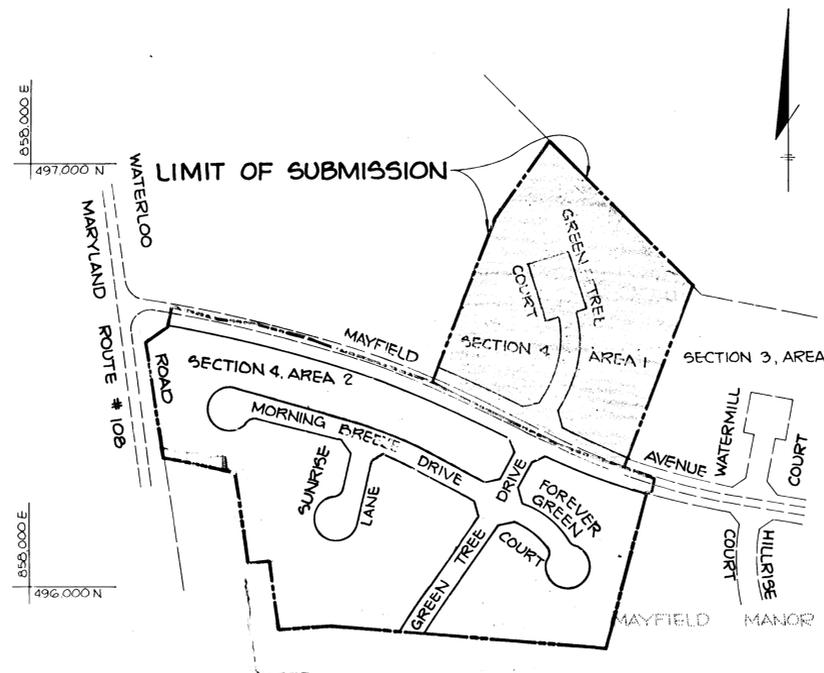
HC BM # 2444002 R ELEV 783.474
R B 03' BELOW SURFACE

HC BM # 2544006 R ELEV 303.923
R B 02' BELOW SURFACE

GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR ROAD 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 INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES, WHERE DIRECTED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES AT LEAST THREE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.

BELL TELEPHONE SYSTEM	393-3649
LONG DISTANCE CABLE DIVISION	393-3553 OR 3554
BALTIMORE GAS AND ELECTRIC	539-8000 EXT. 691
HOWARD COUNTY BUREAU OF UTILITIES	992-2366
HOWARD COUNTY CONSTRUCTION INSPECTION SURVEY DIVISION	992-2417/2418
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL STREET CURB RETURNS SHALL HAVE 20.0' RADII UNLESS OTHERWISE NOTED.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1971 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.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:
ALL CUL-DE-SAC DESIGNED FOR 30 M.P.H., ALL LOCAL STREETS DESIGNED FOR 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 95% OF MAXIMUM OBTAINABLE DENSITY DETERMINED BY MARSHALL PROCTOR.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- SUBJECT PROPERTY ZONED R-SC PER 10-3-77 COMPREHENSIVE ZONING PLAN.



PLAN
SCALE: 1"=200'

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING		5-16-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION		DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS		5-8-85
CHIEF, BUREAU OF ENGINEERING		DATE
NO.	DATE	REVISION
TRACY, SCHULTE & ASSOCIATES INC. planning • architecture • engineering 8450 Baltimore National Pike • Suite 34 • Ellicott City, Maryland 21043 • (301) 465-6105		
OWNER		PROJECT
SECURITY DEVELOPMENT CORP 8450 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21043		THOMPSONS PURCHASE SECTION 4, AREA 1 - LOTS 75 THRU 107 LOCATION TAX MAP 37 PARCELS 151, 152, # 453 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DEVELOPER		TITLE
SECURITY DEVELOPMENT CORP 8450 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21043		TITLE SHEET
DATE NOV. 5, 1984	PROJECT NO 0683 RSD	
DES RJW	DRN KAM	SCALE 1"=200' DRAWING 1 OF 6

883

SEEDING CONTROL NOTES

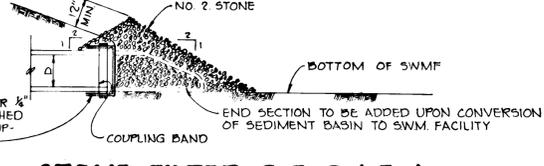
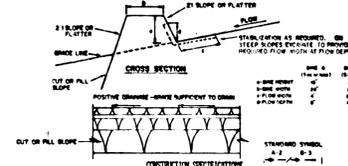
- 1) A NOTICE OF WORKING NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (192-2437).
- 2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, FERTILIZER OR FERTILIZER SEPARATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DICES, PERIMETER STOPS 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 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.
- 5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (Sec. 12.3 and Sec. 12.4), TEMPORARY SEEDING (Sec. 12.5) AND MULCHING (Sec. 12.6). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING SITES DO NOT ALLOW FOR PROPER CONSTRUCTION AND ESTABLISHMENT OF GRASSES.
- 6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 7) SITE ANALYSIS: TOTAL AREA OF SITE: 6.22 ACRES; AREA TO BE SEEDING OR PAVED: 4.70 ACRES; AREA TO BE VEGETATIVELY STABILIZED: 1.52 ACRES; TOTAL CUT: 15,700 CU YDS; TOTAL FILL: 12,250 CU YDS; SPECIFIC GRAB/BORROW AREA LOCATION: N/A.
- 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 CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 10) ALL SEDIMENT TRAPS 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.

PERMANENT SEEDING NOTES

- SEEDING PREPARATION:** LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.
- SOIL AMENDMENTS:** IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEMES:
- 1) PREPARED - APPLY 2 TONS PER ACRE CALCINIC LIME (92 lbs/1000 sq ft) AND 400 LBS PER ACRE 10-10-10 FERTILIZER (16 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 UREA/AMMONIUM FERTILIZER (9 lbs/1000 sq ft).
 - 2) ACCEPTABLE - APPLY 2 TONS PER ACRE CALCINIC LIME (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 50 LBS PER ACRE (1.4 lbs/1000 sq ft) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIODS MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (0.5 lbs/1000 sq ft) OF HYPERION GRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROJECT SITE BY OPTION (1) 2 TONS PER ACRE OF WELLS ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE 500L OPIUM (1) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELLS ANCHORED STRAW. MULCHING - APPLY 1 1/2 TO 2 TONS PER ACRE (30 TO 40 lbs/1000 sq ft) OF UNMILLED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 2 1/2 GALLONS PER ACRE (5 gal/1000 sq ft) OF FOSFILLI ASPHALT OR PEAT ANCHOR. ON SLOPES 8 FT OR HIGHER, USE 1/2 GAL PER ACRE (0.5 gal/1000 sq ft) FOR ANCHORING.
- MAINTENANCE:** INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.
- MULCH:** UTILIZE EROSION MATTING IN SWALES AND SEED AND MULCH WITH K-31 IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS.

TEMPORARY SEEDING NOTES

- APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED UNDER A SHORT-TERM VEGETATION COVER IS SEEDING.
- SEEDING PREPARATION:** LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.
- SOIL AMENDMENTS:** APPLY 400 LBS PER ACRE 10-10-10 FERTILIZER (16 lbs/1000 sq ft).
- SEEDING:** FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 25 BURNS PER ACRE OF ANNUAL RYE (1.2 lbs/1000 sq ft). FOR THE PERIOD MAY 1 THRU AUGUST 15, SEED WITH 100 LBS PER ACRE OF HYPERION GRASS (1.0 lbs/1000 sq ft). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROJECT SITE BY APPLYING 2 TONS PER ACRE OF WELLS ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE MULCH.
- MULCHING:** APPLY 1 1/2 TO 2 TONS PER ACRE (30 TO 40 lbs/1000 sq ft) OF UNMILLED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 2 1/2 GALLONS PER ACRE (5 gal/1000 sq ft) OF FOSFILLI ASPHALT OR PEAT ANCHOR. ON SLOPES 8 FT OR HIGHER, USE 1/2 GAL PER ACRE (0.5 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.



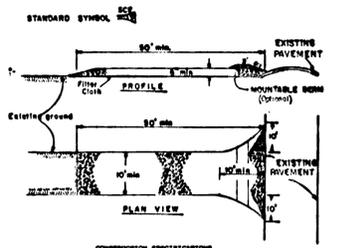
PLAN CHANNEL STABILIZATION

LINE #	CHANNEL SIZE	DISE A	DISE B
1	5'-3" CH	SEED AND STORM MULCH	SEED AND STORM MULCH
2	3'-1" CH	SEED AND STORM MULCH	SEED AND STORM MULCH
3	5'-1" CH	SEED WITH MULCH OR SEED	LINED 18" R-40 4" R
4	8'-3" CH	LINED 18" R-40 4" R	ENGINEERING DESIGN

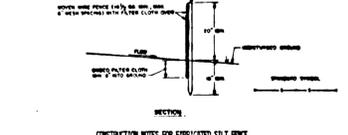
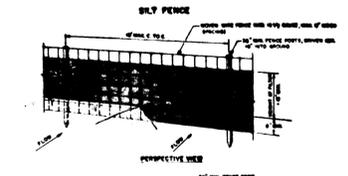
1. STORM TO BE 2" STONE OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3" THICK TO BE 3" INCHES IN A LAYER AT LEAST 8" INCHES THICKNESS AND PAVED INTO THE SOIL.

2. APPROVED CONTOURS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

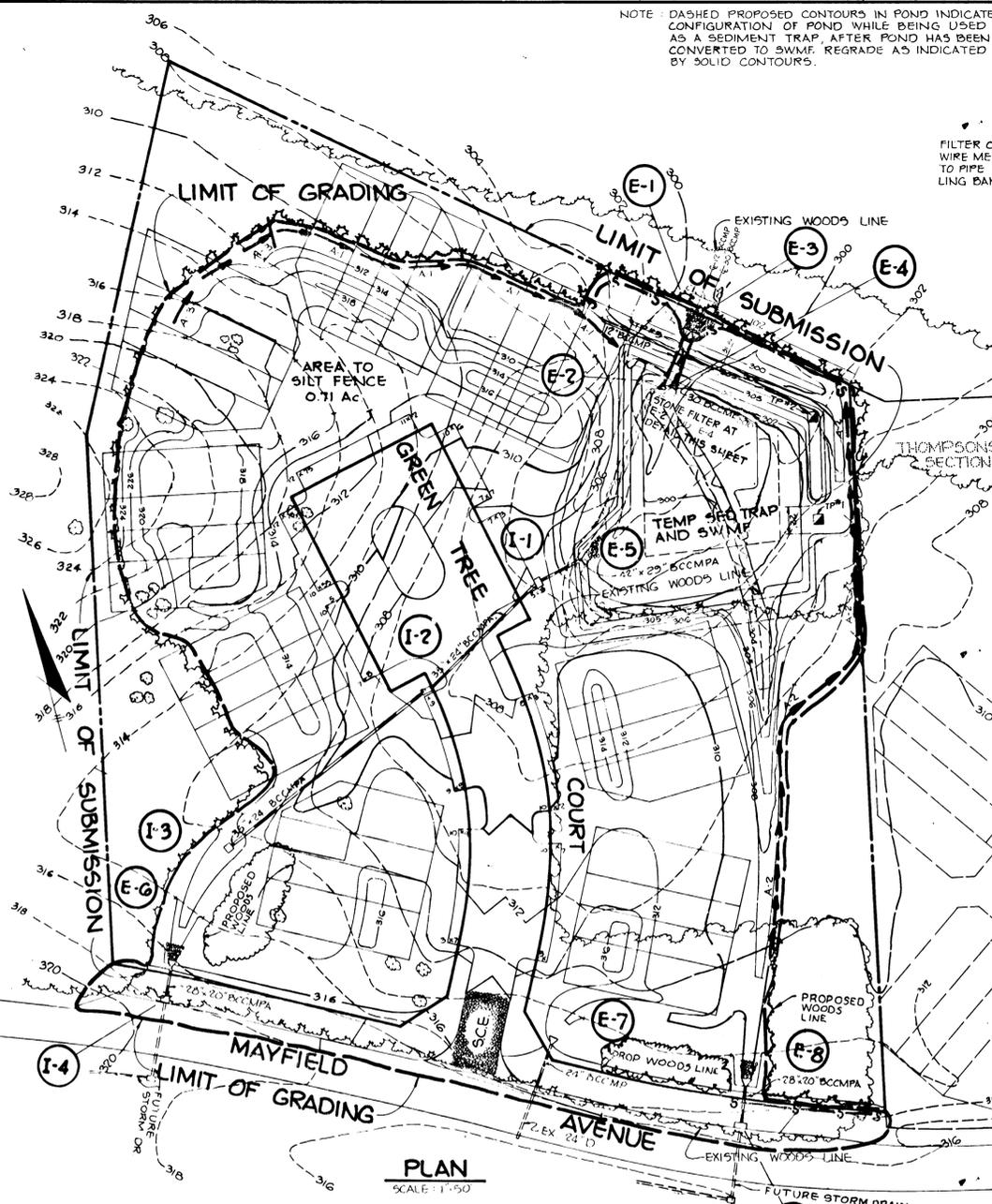
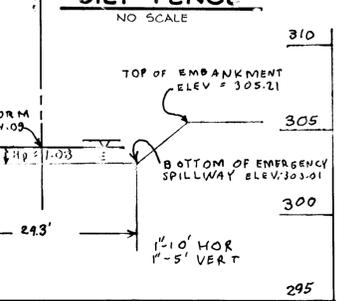
3. PERIODIC INSPECTION AND MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.



- CONSTRUCTION SPECIFICATIONS**
1. Stone filter - use 1" stone, as retained or crushed concrete equivalent.
 2. Length - as required, but not less than 50 feet (except on a slope seed-down less than a 2:1 foot vertical length would apply).
 3. Thickness - not less than 24" (6 inches).
 4. Width - Two (2) foot minimum, but not less than the full width at points where increase of slope occurs.
 5. Filter Cloth - will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residential site.
 6. Surface Water - All surface water flowing or directed toward construction entrance shall be piped across the entrance. If piping is impractical, a non-sloped berm with 3:1 slopes will be provided.
 7. Maintenance - The entire dike shall be maintained in a condition which will prevent tracking of flowing sediment onto public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleaning of any measure used to trap sediment. All sediment applied, dropped, washed or tracked onto public right-of-way must be removed immediately.
 8. Warning - Whole shall be staked to ensure sediment piles do not encroach onto public right-of-way. When warning is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
 9. Periodic inspection and needed maintenance shall be provided after each rain.



- SEQUENCE OF CONSTRUCTION**
1. OBTAIN A GRADING PERMIT
 2. CLEAR AND GRUB AREA FOR AND INSTALL STABILIZED CONSTRUCTION ENTRANCE (SCE)
 3. CLEAR AND GRUB REMAINING AREAS FOR SEDIMENT CONTROL DEVICE INSTALLATION
 4. INSTALL SEDIMENT TRAP/STORM WATER MANAGEMENT FACILITY AND STABILIZE IN ACCORDANCE WITH TEMPORARY SEEDING NOTES
 5. INSTALL REMAINDER OF SEDIMENT CONTROL DEVICES AND STABILIZE IN ACCORDANCE WITH TEMPORARY SEEDING NOTES
 6. CLEAR AND GRUB REMAINDER OF SITE
 7. GRADE SITE
 8. INSTALL UTILITIES (WATER, SEWER & STORM DRAINS)
 9. STABILIZE ALL SLOPES BEYOND BUILDING PADS IN ACCORDANCE WITH PERMANENT SEEDING NOTES
 10. COMPLETE ALL ROADWAY CONSTRUCTION AND STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES
 11. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES AND CONVERT SEDIMENT TRAP TO A PERMANENT STORM WATER MANAGEMENT FACILITY AS FOLLOWS:
 - A. PUMP OUT IMPOUNDED WATER
 - B. REMOVE SILT AND STONE FILTER AND RESTORE POND TO ITS ORIGINAL DIMENSIONS; STABILIZE IN ACCORDANCE WITH PERMANENT SEEDING NOTES
 - C. REMOVED SILT SHALL BE SPREAD ACROSS OPEN SPACE LOT #107 IN THE REAR OF LOTS 77 THRU 80 AND SEED IN ACCORDANCE WITH PERMANENT SEEDING NOTES



SEDIMENT TRAP DATA

DRAINAGE AREA	24.96 Ac
DISTURBED AREA	4.74 Ac
STORAGE VOLUME REQUIRED	1,664 CY
PROVIDED	1,710 CY
CREST ELEVATION	302.84
BOTTOM ELEVATION	298.3
CLEANOUT ELEV.	300.51
TRAP DIMENSIONS	130' x 150'

* SEE SWM COMPS SHEET NO. 26 OF 26

I/WE CERTIFY THAT THE AS-BUILT IS ACCURATE AND COMPLETE AND THAT THE POND AS CONSTRUCTED MEETS THE REQUIREMENTS OF THE STANDARDS AND SPECIFICATIONS FOR PONDS.

AS BUILT SURVEY CERTIFIED BY AS BUILT
 JAMES K. TRACY
 REG. P.E.
 # 9566
 7-16-87

TEST PIT LOG NO SCALE

DEPTH	SOIL TYPE	DEPTH	SOIL TYPE	DEPTH	SOIL TYPE
0	TOPSOIL	0	TOPSOIL	0	TOPSOIL
1	SW SANDY GRAVEL	1	SW SANDY GRAVEL	1	SW SANDY GRAVEL
2	SC SANDY CLAY	2	SW SANDY GRAVEL	2	SW SANDY GRAVEL
3	SC SANDY CLAY	3	SW SANDY GRAVEL	3	SW SANDY GRAVEL
4	CL CLAY	4	CL CLAY	4	CL CLAY
5		5		5	
6		6		6	
7		7		7	
8		8		8	

TEST PIT LOG NO SCALE

BY THE DEVELOPER:
 "I 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."
 James R. Moxley, Jr. 11-5-84
 DEVELOPER: JAMES R. MOXLEY, JR. DATE

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."
 James K. Tracy 11-5-84
 ENGINEER: JAMES K. TRACY, P.E. # 9566 DATE

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.
 U. S. SOIL CONSERVATION SERVICE 5-6-85
 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: Robert W. Smith, Jr. 5-6-85
 HOWARD S.C.D. DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF ENGINEERING 5-2-85
 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION 5-6-85
 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF ENGINEERING 5-2-85
 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION 5-6-85
 DATE

TRACY, SCHULTE & ASSOCIATES INC.
 planning • architecture • engineering
 8450 Baltimore National Pike • Suite 34 • Ellicott City, Maryland 21043 • (301) 465-6105

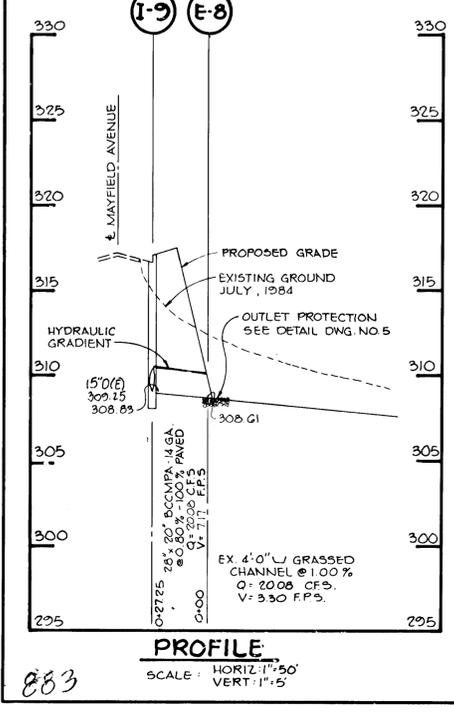
OWNER: SECURITY DEVELOPMENT CORP
 8450 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MD 21210

PROJECT: THOMPSONS PURCHASE
 SECTION 4, AREA 1
 LOTS 75 THRU 107

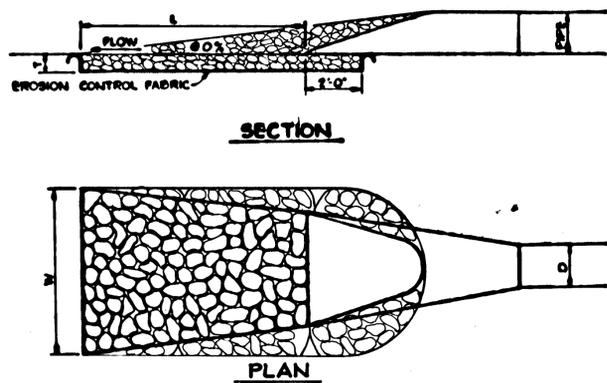
LOCATION: TAX MAP 37
 PARCELS 151, 152 & 153
 12 ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

DEVELOPER: SECURITY DEVELOPMENT CORP
 8450 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MD 21210

TITLE: GRADING, SEDIMENT CONTROL PLAN, NOTES AND DETAILS
 DATE NOV. 5, 1984 PROJECT NO 0683 RSD
 DES: RJW DRN: KAM SCALE: 1"=50' DRAWING 3 OF 6
 F-85-69 APRIL 30/1985

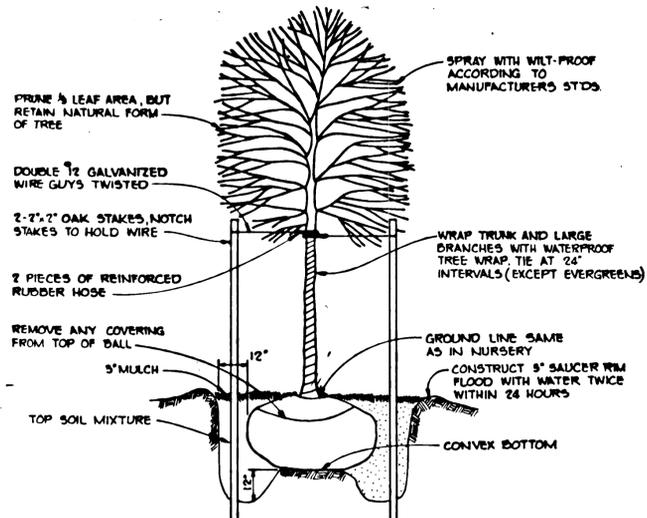


CROSS SECTION THROUGH EMERGENCY SPILLWAY AS-BUILT

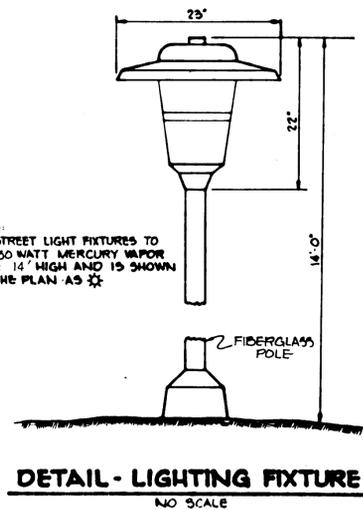


STRUCTURE	MEDIUM STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-1	6"	12.8'	13.8'	9"
E-3	5"	11.9'	14.4'	7.5"
E-5	5.5"	12.0'	14.25'	9"
E-6	5"	10.0'	12.0'	7.5"
E-7	7"	10.0'	12.0'	11"
E-8	5"	11.0'	13.0'	7.5"

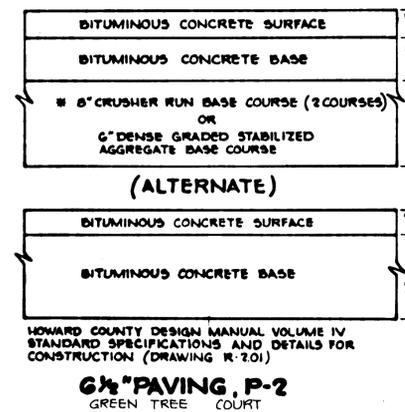
OUTLET PROTECTION DETAIL
NO SCALE



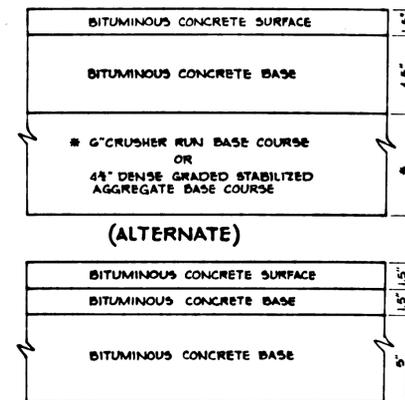
TREE PLANTING DETAIL
NO SCALE



DETAIL - LIGHTING FIXTURE
NO SCALE

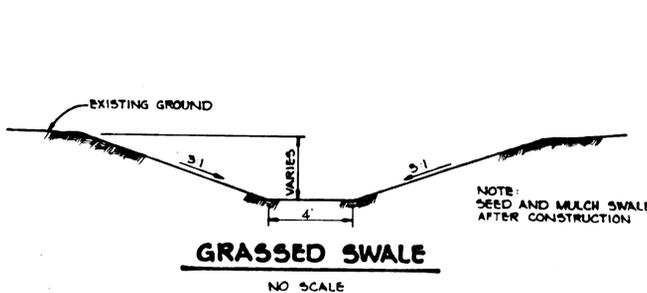
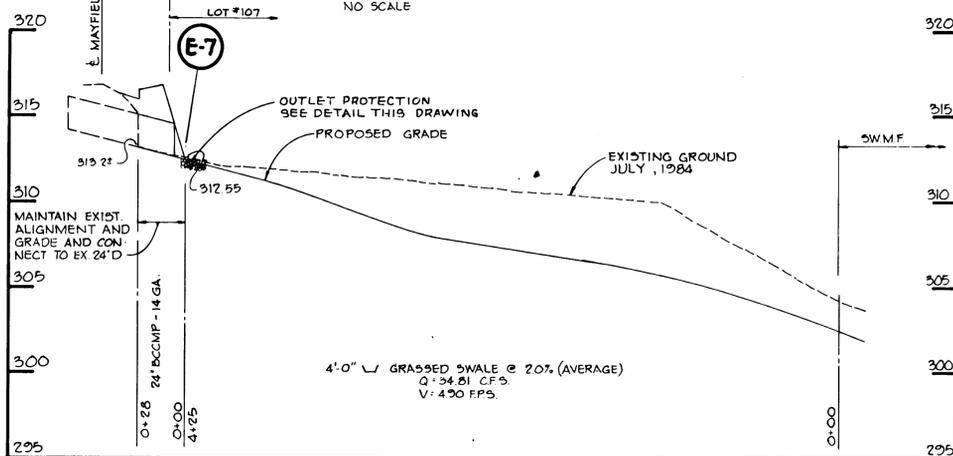


6 1/2" PAVING, P-2
GREEN TREE COURT

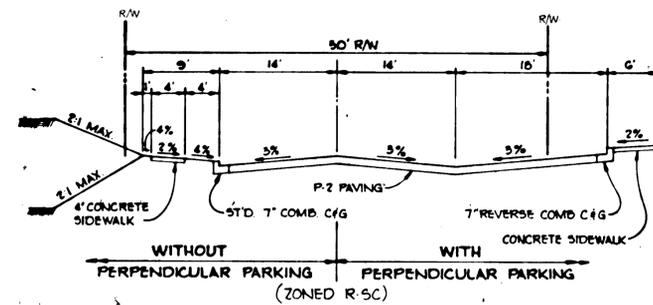


8" PAVING, P-3
MAYFIELD AVENUE

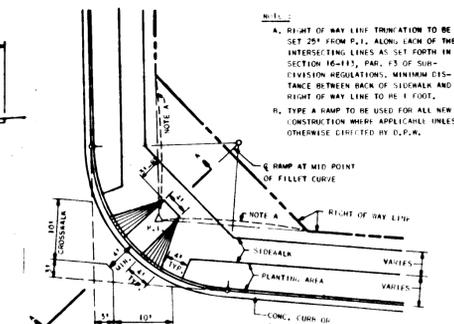
TYPICAL PAVING SECTIONS
NO SCALE



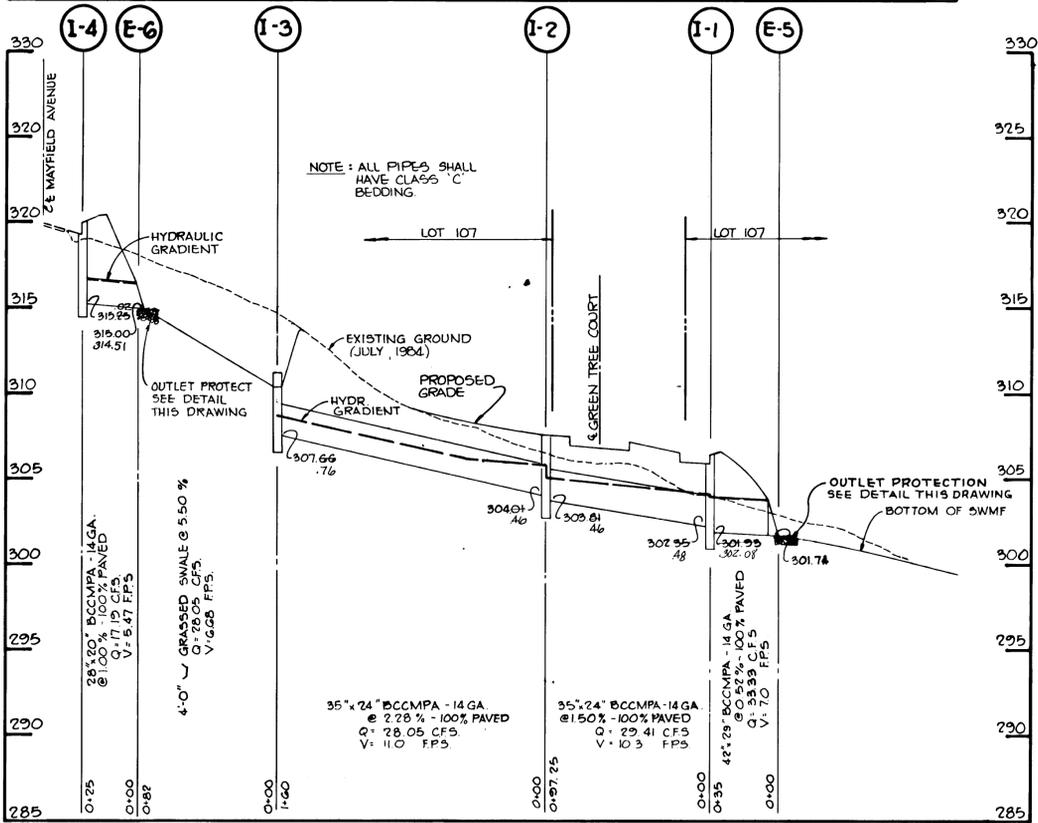
GRASSED SWALE
NO SCALE



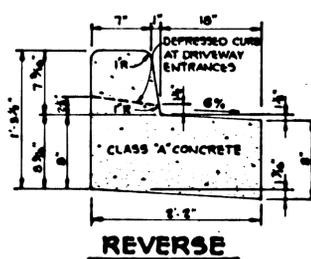
TYPICAL SECTION
NO SCALE



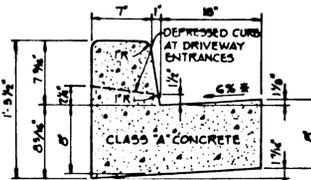
TYPICAL HALF SECTION
NO SCALE



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



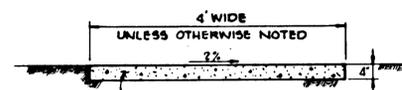
REVERSE



SIDEWALK DETAIL
NO SCALE

HOWARD COUNTY DESIGN MANUAL VOLUME III - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-201)
* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT.

STANDARD 7" COMBINATION CURB AND GUTTER
NO SCALE



SIDEWALK DETAIL
NO SCALE

STANDARD BARRIER CURB
NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>[Signature]</i>	5-8-85
CHIEF, BUREAU OF ENGINEERING	DATE
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING	
<i>[Signature]</i>	5-6-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION	DATE
1 7-18-85 REVISED OUTLET PROTECTION SCHEDULE	
NO DATE	REVISION

TRACY, SCHULTE & ASSOCIATES INC.
planning • architecture • engineering
8450 Baltimore National Pike • Suite 34 • Ellicott City, Maryland 21043 • (301) 465-6105



OWNER SECURITY DEVELOPMENT CORP 8450 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21043	PROJECT THOMPSON'S PURCHASE SECTION 4, AREA 1 - LOTS 75 THRU 107 LOCATION TAX MAP 37 PARCELS 151, 152, 1459 197 ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DEVELOPER SECURITY DEVELOPMENT CORP 8450 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21043	TITLE DETAILS AND STORM DRAIN PROFILES
DES. R.J.W.	DRN. K.A.M.
DATE NOV. 5, 1984	PROJECT NO 0685 R5D
SCALE AS SHOWN	DRAWING 4 OF 6

I. 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 pond or 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.

All cleared and 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.

II. EARTH FILL

The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, oversize stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The fill height all along the length of the embankment shall be increased above the design elevation (including freeboard) as shown on the plans.

Placement

Areas on which fill to be placed shall be scarified prior to placement of fill. 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. 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 tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used.

Where a minimum required density is specified, each layer of fill shall be compacted as necessary to obtain that density and is to be certified by the Engineer.

Cutoff Trench

Where specified, a cutoff trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be as shown on the drawings, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill material for the cutoff trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability.

III. 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 compacting equipment. The material needs to fill 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 twenty-four inches or greater over the structure or pipe.

IV. PIPE CONDUITS

All pipes shall be circular in cross section.

A. Corrugated Metal Pipe

1. Materials - (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.

Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings are commercially available: Nexon, Plasti-Cote, Blac-Klad, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

Materials - (Aluminized Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274-791 with watertight coupling bands or flanges.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be less than 9 and greater than 4.

2. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Watertight coupling bands or flanges shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to the completely watertight. Dimple bands are not considered to be 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. Laying pipe - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.

5. Backfilling shall conform to structural backfill as shown above.

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

B. Reinforced Concrete Pipe

1. Materials - Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-361. An approved equivalent is AWWA Specification C-301.

2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their 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 for 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.

4. Backfilling shall conform to structural backfill as shown above.

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

C. For pipes of other materials, specific specifications shall be shown on the drawings.

V. CONCRETE

1. Materials

a. Cement - Normal Portland cement shall conform to the latest ASTM Specification C-150.

b. Water - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.

c. Sand - The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Limestone sand shall not be used.

d. Coarse Aggregate - The coarse aggregate shall be clean, hard, strong and durable, and free from clay or dirt. It shall be well graded with a maximum size of one and one-half (1-1/2) inches.

e. Reinforcing Steel - The reinforcing steel shall be deformed bars of intermediate grade billet steel conforming to ASTM Specification A-615.

2. Design Mix - The concrete shall be mixed in the following proportions, measured by weight. The water-cement ratio shall be 5/8 to 6 U.S. Gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2:3-1/2. The combination of aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.

3. Mixing - The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicted on proper control of the speed of rotation of the mixer and of the introduction of the materials, including water, into the mixer. Water shall be added prior to, during, and following the mixer-charging operation. Excessive overmixing requiring the addition of water to preserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specifications given here.

4. Forms - The forms shall have sufficient strength and rigidity to hold the concrete and to withstand the necessary pressure, tamping, and vibration without deflection from the prescribed lines. They shall be mortar-tight and constructed so that they can be removed without hammering or prying against the concrete.

The inside of forms shall be oiled with a non-staining mineral oil or thoroughly wetted before concrete is placed.

Forms may be removed 24 hours after the placement of concrete. All wire ties and other devices used shall be recessed from the surface of the concrete.

5. Reinforcing Steel - All reinforcing material shall be free of dirt, rust, scale, oil, paint or any other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.

6. Consolidating - Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be supplemented by spading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and around embedded items.

7. Finishing - Defective concrete, honeycombed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water on the finished structure, shall be repaired immediately after the removal of forms. All voids shall be reamed and completely filled with dry-patching mortar.

8. Protection and Curing - Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first three (3) days. All concrete shall be kept continuously moist for at least ten (10) days after being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may also be used.

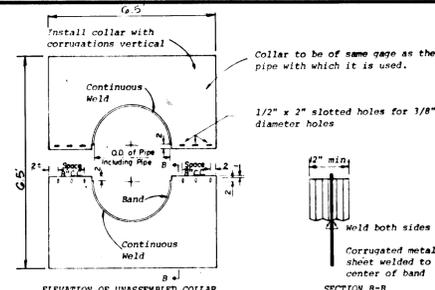
9. Placing Temperature - Concrete may not be placed at temperatures below 37°F with the temperature falling, or 34° with the temperature rising.

VI. 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 (if required) in accordance with the vegetative treatment specifications or as shown on the accompanying drawings.

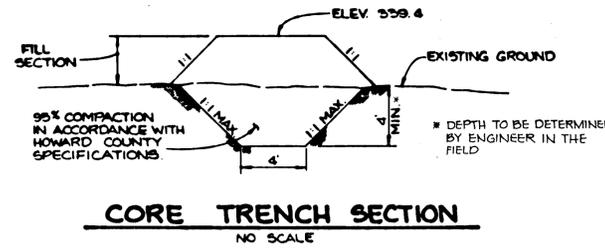
VII. EROSION AND SEDIMENT CONTROL

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.

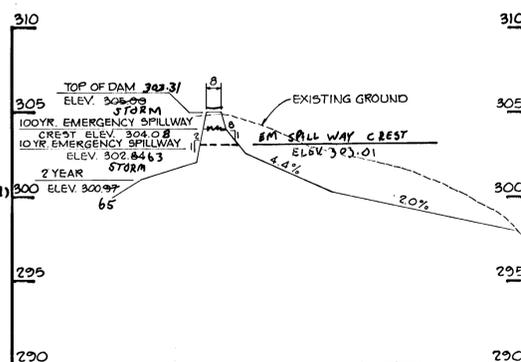


- NOTES FOR COLLARS:
- All materials to be in accordance with construction and construction material specifications.
 - When specified on the plans, coating of collars shall be in accordance with construction and construction material specifications.
 - Unassembled collars shall be marked by painting or tagging to identify matching pairs.
 - The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at time of installation.
 - Each collar shall be furnished with two 1/2" diameter rods with standard tank lugs for connecting collars to pipe.

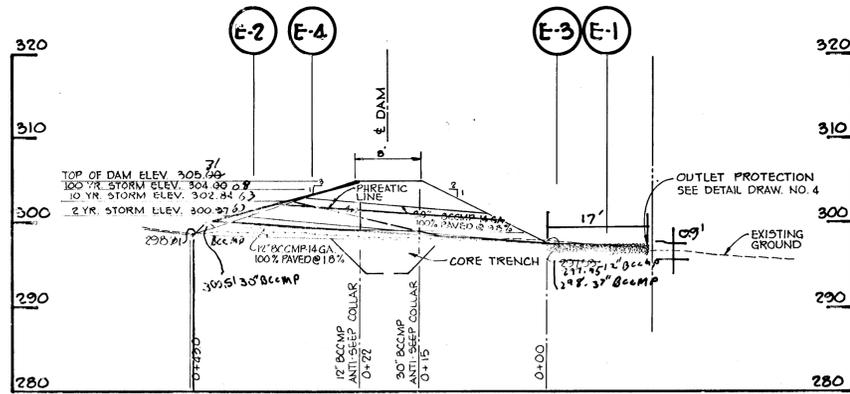
ANTI-SEEP COLLAR
NO SCALE



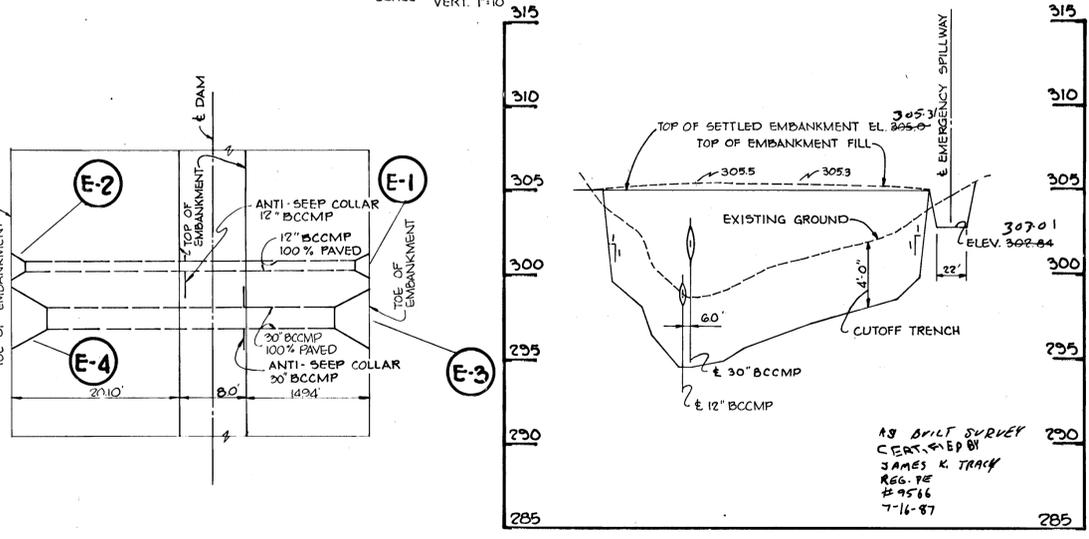
CORE TRENCH SECTION
NO SCALE



EMERGENCY SPILLWAY PROFILE
SCALE: HORIZ. 1"=50' VERT. 1"=5'



PROFILE
SCALE: HORIZ. 1"=10' VERT. 1"=10'



PLAN - OUTLET STRUCTURE
SCALE: 1"=50'

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

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."
James K. Tracey 11-5-84
ENGINEER: JAMES K. TRACEY PE #9566 DATE

BY THE DEVELOPER:
"I 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."
James R. Moxley Jr. 11-5-84
DEVELOPER: JAMES R. MOXLEY, JR. DATE

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.
James M. Schuler 5-6-85
U.S. SOIL CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Robert W. Ziehl 5-6-85
HOWARD S.C.D. DATE

APPROVED: *John W. Muckman* 5-6-85
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED: *William S. Reilly* 5-8-85
CHIEF, BUREAU OF ENGINEERING DATE

NO	DATE	REVISION
1	7-10-85	REVISED PROFILE & OUTLET STRUCTURE PLAN

TRACY, SCHULTE & ASSOCIATES INC.
planning • architecture • engineering
8450 Baltimore National Pike • Suite 34 • Ellicott City, Maryland 21043 • (301) 465-6105
James K. Tracey
REGISTERED PROFESSIONAL ENGINEER

OWNER SECURITY DEVELOPMENT CORP 8450 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21043	PROJECT THOMPSONS PURCHASE SECTION 4, AREA 1, LOTS 75 THRU 107
DEVELOPER SECURITY DEVELOPMENT CORP 8450 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21043	LOCATION TAX MAP NO. 37 PARCELS 151, 152 & 453 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE S.W.M. NOTES, DETAILS AND SPECIFICATIONS	DATE NOV. 5, 1984 PROJECT NO 0683 R5D
DES. J.K.T.	DRN. K.A.M.
SCALE AS SHOWN	DRAWING 5 OF 6

2883

PLANT LIST			
SYMBOL	TYPE	SIZE	QUANTITY
	ACER RUBRUM Red Maple	2'-3' Cal. B&B 12'-14' Hgt.	6
	QUERCUS BOREALIS Red Oak	2'-3' Cal. B&B 12'-14' Hgt.	7
	PINUS PARVIFLORA Japanese White Pine	5'-6' B&B	6
	ZELKOVA SERRATA Japanese Zelkova	2'-3' Cal. B&B 12'-14' Hgt.	1

TOTAL = 20

STREET TREE TABULATION
 PROPOSED ROAD RIGHT OF WAY: 787 LF @
 ONE TREE PER 40' FRONTAGE, TREES REQUIRED: 77
 LINEAR PROFILE LENGTH 407 LF @
 ONE TREE PER 80' FRONTAGE, TREES REQUIRED: 51
 MAYFIELD AVE RIGHT OF WAY 500 LF @
 ONE TREE PER 80' FRONTAGE, TREES REQUIRED: 63
 TOTAL REQUIRED 19
 TOTAL PROVIDED 20

SUPPLEMENTAL PLANTING SHALL BE PROVIDED IN THE SITE DEVELOPMENT PLAN SDP-85



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William B. Ray 5-8-85
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
John W. Muschman 5-6-85
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

NO	DATE	REVISION

TRACY, SCHULTE & ASSOCIATES INC.
 planning • architecture • engineering
 8450 Baltimore National Pike • Suite 34 • Ellicott City, Maryland 21043 • (301) 465 6105

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
James K. Tracy

OWNER: SECURITY DEVELOPMENT CORP
 8450 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MD 21043

PROJECT: THOMPSONS PURCHASE
 SECTION 4, AREA 1 - LOTS 75 THRU 107
 LOCATION: TAX MAP 37
 PARCELS 151, 152 & 455
 1ST ELECTION DISTRICT
 HOWARD COUNTY MARYLAND

DEVELOPER: SECURITY DEVELOPMENT CORP
 8450 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MD 21043

TITLE: STREET TREE PLAN

DATE NOV. 5, 1984 PROJECT NO. 0683 RSD
 DES. R.J.W. DRN. J.L.T. SCALE 1" = 30' DRAWING 6 OF 6

833