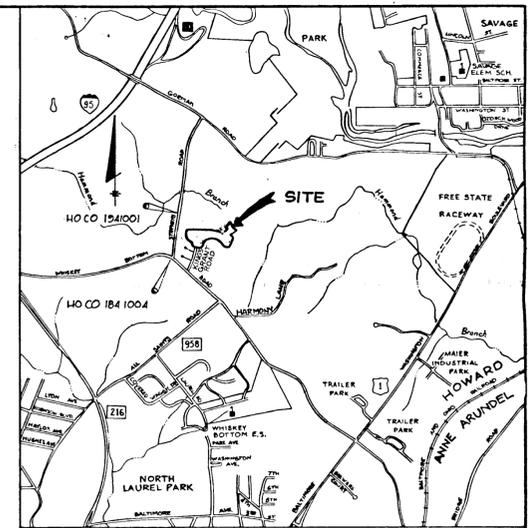


CENTERLINE CURVE DATA						
STA.	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
7485.45 TO 10461.11	300.00'	271.49'	149.84'	262.32'	S 52°24'29" W	51°51'02"
10461.11 TO 14414.13	300.00'	295.46'	160.96'	283.86'	N 73°27'08" W	56°25'45"
14414.13 TO 17435.76	350.00'	145.65'	73.89'	144.60'	S 57°09'33" E	23°50'36"
17435.76 TO 19435.76	125.00'	73.75'	37.98'	72.68'	N 64°30'46" W	33°48'11"
19435.76 TO 21435.76	109.62'	69.01'	35.69'	67.88'	S 79°03'15" W	36°04'15"

CENTERLINE CONTROL DATA			
ROAD	DESCRIPTION	NORTH	EAST
KINGS GRANT ROAD	C STA. 6+22.54	471300.6365	844324.8668
	P.C. C STA. 7+89.62	471250.1819	844393.3715
	P.T. C STA. 10+61.11	471210.2050	844607.2285
	P.C. C STA. 11+18.67	471221.8453	844663.6005
	P.T. C STA. 14+14.13	471241.0531	844935.5182
KINGSWOOD COURT	P.C. C STA. 15+65.99	471234.1196	845043.3405
	C STA. 17+11.64	471255.7012	845164.8322
	C STA. 0+00	471218.6507	844446.3161
BARONESS COURT	P.C. C STA. 0+34.57	471541.9590	844420.7803
	P.T. C STA. 1+08.32	471573.2349	844355.1717
	P.T. C STA. 1+77.33	471560.3463	844286.5286
BARONESS COURT	C STA. 1+85.53	471556.2037	844281.4497
	C STA. 0+00	471593.6310	844863.7759
BARONESS COURT	C STA. 0+54.05	471641.4826	844898.9118

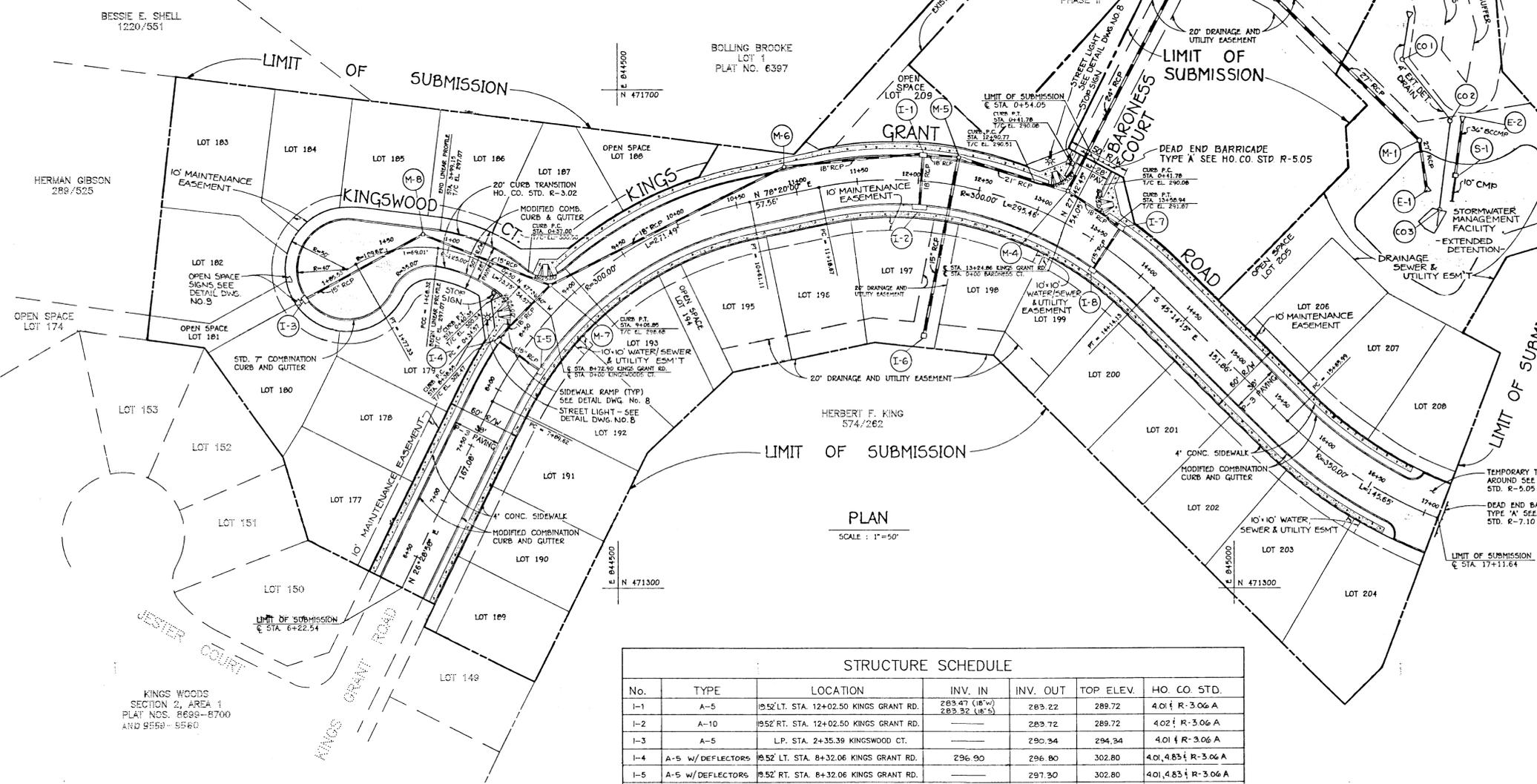
**BENCH MARKS**  
 Ho. Co. # 1841004 ELEV. 295.324  
 REBAR 6" SOUTH OF SOUTH EDGE OF WHISKEY BOTTOM ROAD NEAR THE INTERSECTION OF STEPHENS ROAD.  
 N 471079.018 E 843657.878  
 Ho. Co. # 1941001 ELEV. 277.873  
 REBAR 4" WEST EDGE OF STEPHENS ROAD IN FRONT OF HOUSE NO. 8820 0.3' BELOW SURFACE.  
 N 472223.119 E 843797.549



VICINITY MAP  
 SCALE: 1"=200'

**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 383-3649  
 LONG DISTANCE CABLE DIVISION 393-3553 OR 3554  
 BALTIMORE GAS AND ELECTRIC 538-ROOD EXT. 691  
 HOWARD CO. BUREAU OF UTILITIES 319-2366  
 HOWARD CO. CONSTRUCTION INSPECTION SURVEY DIVISION 313-2417 OR 2418
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL STREET CURB RETURNS SHALL HAVE 25.0' RADI 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 1988 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 O&A-DE-SACS DESIGNED FOR 25 MPH, ALL LOCAL STREETS DESIGNED FOR 30 MPH, ALL MINOR COLLECTORS DESIGNED FOR 35 MPH, ALL MAJOR COLLECTORS FOR 40 MPH.
- 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 FROCTER.
- 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 R/2/85 COMPREHENSIVE ZONING PLAN.
- TOPO TAKEN FROM FIELD RUN SURVEY BY TRACY, SCHULTE & ASSOC. DATED 1/23/89



PLAN  
 SCALE: 1"=50'

STRUCTURE SCHEDULE						
No.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	HO. CO. STD.
I-1	A-5	952' LT. STA. 12+02.50 KINGS GRANT RD.	283.47 (18'5")	283.22	289.72	4.01' R-3.06' A
I-2	A-10	952' RT. STA. 12+02.50 KINGS GRANT RD.	---	283.72	289.72	4.02' R-3.06' A
I-3	A-5	L.P. STA. 2+35.39 KINGSWOOD CT.	---	290.34	294.34	4.01' R-3.06' A
I-4	A-5 W/DEFLECTORS	952' LT. STA. 8+32.06 KINGS GRANT RD.	296.90	296.80	302.80	4.01, 4.83' R-3.06' A
I-5	A-5 W/DEFLECTORS	952' RT. STA. 8+32.06 KINGS GRANT RD.	---	297.30	302.80	4.01, 4.83' R-3.06' A
I-6	K	N 471503.11 E 844748.80	---	291.50	294.50	4.12' 4.13
I-7	A-5 W/DEFLECTORS	952' LT. STA. 13+64.44 KINGS GRANT RD.	286.08	285.98	291.98	4.01, 4.83' R-3.06' A
I-8	A-5 W/DEFLECTORS	952' RT. STA. 13+64.44 KINGS GRANT RD.	---	286.48	291.98	4.01, 4.83' R-3.06' A
M-1	MANHOLE	N 471655.88 E 845153.46	275.26	275.16	283.50	5.13
M-2	MANHOLE	N 471773.56 E 845034.80	276.46	276.36	284.00	5.13
M-3	MANHOLE	N 471809.71 E 844965.98	277.10	277.00	284.00	5.13
M-4	MANHOLE	23.81' LT. STA. 13+15.59 KINGS GRANT RD.	282.23 (21")	281.98	290.52	5.13
M-5	MANHOLE	22.5' LT. STA. 12+29.20 KINGS GRANT RD.	282.48 (18")	282.69	289.85	5.13
M-6	MANHOLE	22.5' LT. STA. 10+94.14 KINGS GRANT RD.	283.15 (15")	284.98	290.98	5.13
M-7	MANHOLE	17.57' LT. STA. 8+89.90 KINGS GRANT RD.	289.15 (15" W)	289.05	299.12	5.13
M-8	MANHOLE	4.29' RT. L.P. STA. 3+85.43 KINGSWOOD CT.	289.80	289.70	296.33	5.13
E-1	27" CONC. END SECTION	N 471620.88 E 845153.60	---	275.00	---	5.51
E-2	36" METAL END SECTION	N 471670.19 E 845187.41	---	---	---	5.61
S-1	SWM CONTROL STRUCTURE	N 471596.63 E 845173.46	---	---	---	---

NOTE: 1) ALL STORM DRAIN BEDDING SHALL CLASS C.  
 2) ALL STORM DRAIN PIPE SHALL BE CLASS III REINFORCED CONCRETE PIPE, UNLESS OTHERWISE NOTED.

SHEET INDEX	
No.	DESCRIPTION
1	ROAD PLAN
2	ROAD PROFILES
3	DRAINAGE AREA MAP
4	STORM DRAIN PROFILES
5	GRADING, SEDIMENT & EROSION CONTROL
6	STORMWATER MANAGEMENT DETAILS
7	STORMWATER MANAGEMENT DETAILS
8	DETAILS
9	PLANTING PLAN & DETAILS

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Chelsa Damm*  
 CHIEF, LAND DEVELOPMENT DIVISION  
 DATE: 6/16/91  
*Francis W. Wehner*  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 6/16/91  
*Winifred A. Kaler*  
 CHIEF, BUREAU OF ENGINEERING  
 DATE: 6/18/91

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Mark L. Gray*  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT  
 DATE: 6/23/91

NO.	DATE	REVISION
1	9-24-92	REMOVE SIDEWALK ON KINGSWOOD COURT

TRACY, SCHULTE & ASSOCIATES INC.  
 planning - architecture - engineering  
 8480 Baltimore National Pike • Elliott City, Maryland 21043 • (301)465-6105

OWNER: SECURITY DEVELOPMENT CORP.  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21043  
 (301) 465-4244

PROJECT: KING'S WOODS SECTION 2, AREA 2 - PHASE I LOTS 177-209

DEVELOPER: SECURITY DEVELOPMENT CORP.  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21043  
 (301) 465-4244

DATE: OCTOBER 24, 1990  
 5/24/91

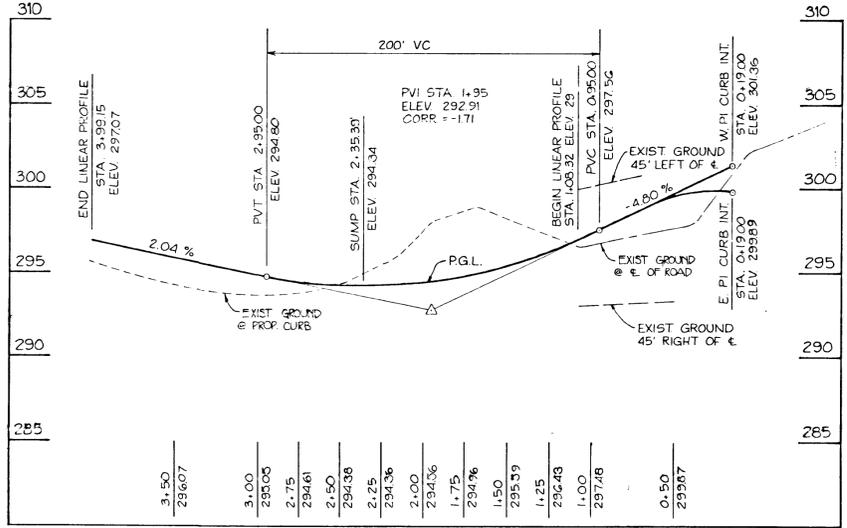
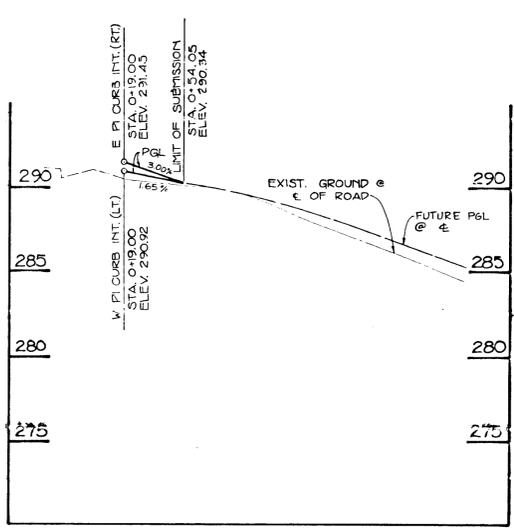
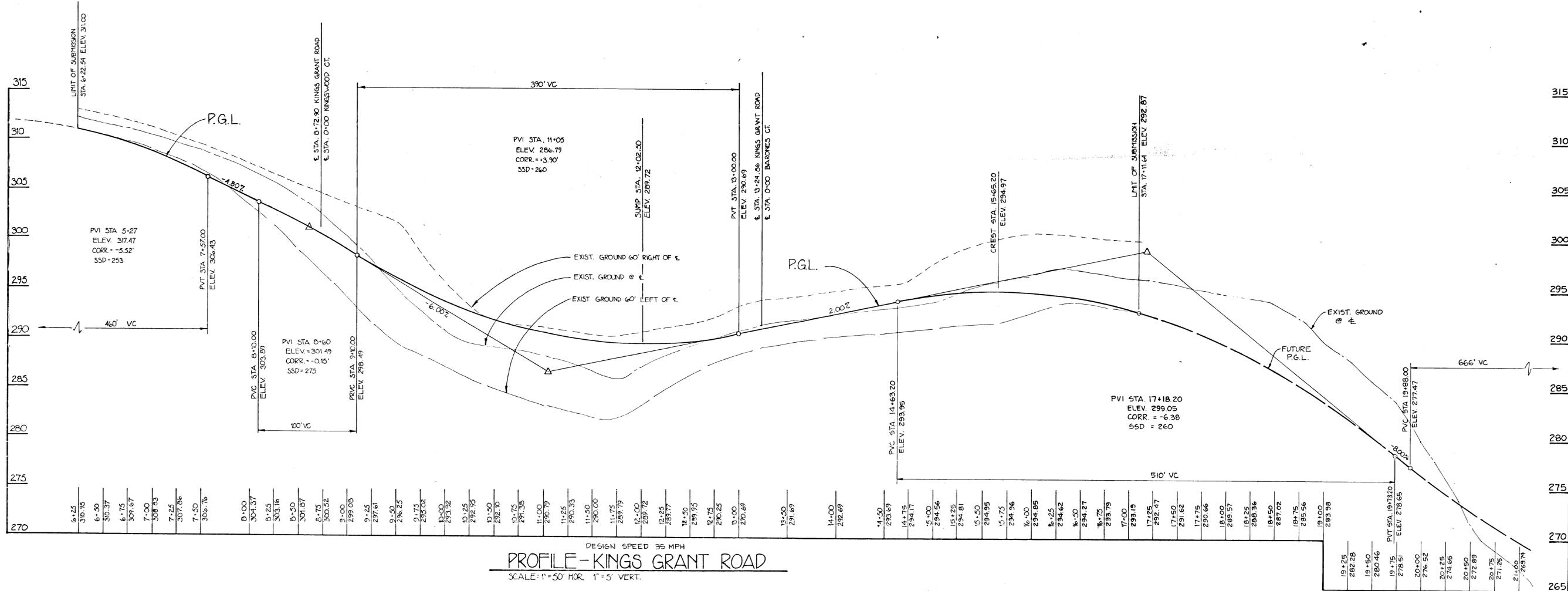
PROJECT NO. 0084

DRAWING 1 OF 9

NOTE:  
 OPEN SPACE LOTS 181, 188, AND 194 ARE TO BE DEEDED TO THE HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS  
 OPEN SPACE LOTS 205 AND 209 ARE TO BE DEEDED TO THE HOME OWNERS ASSOCIATION.

\* ALL STREET LIGHT FIXTURES TO BE 150 WATT HP SODIUM VAPOR MOUNTED ON 25' GALVANIZED STEEL POLE.

188



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Land Development Division  
 Approved: *Stanley W. Weiland*  
 Chief, Bureau of Highways  
 Approved: *Mark J. Langley*  
 Chief, Division of Community Planning and Land Development

6/10/91 DATE  
 6/6/91 DATE  
 6/29/91 DATE

NO.	DATE	REVISION

TRACY, SCHULTE & ASSOCIATES INC.  
 planning • architecture • engineering  
 8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-6105

OWNER: SECURITY DEVELOPMENT CORP. 8480 BALTIMORE NATIONAL PIKE SUITE 415 ELLICOTT CITY MARYLAND 21043

PROJECT: KINGS WOODS SECTION 2 AREA 2 - PHASE I LOTS 171-205

LOCATION: TAX MAP NO 47 PARCEL 138 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

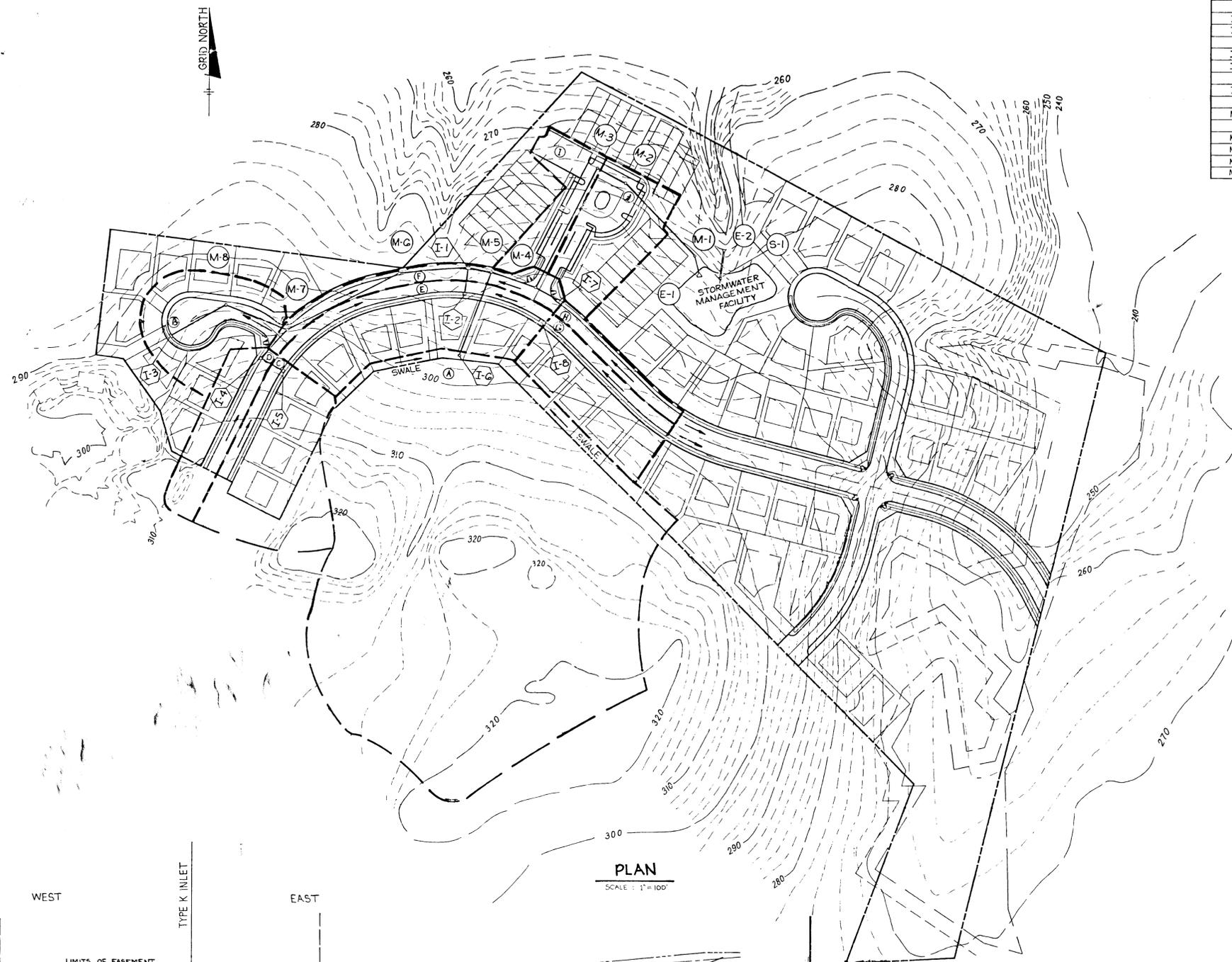
TITLE: ROAD PROFILES S89-29 PB247 P 90-13

DATE: OCTOBER 24, 1990 PROJECT NO: ODBA  
 5/24/91

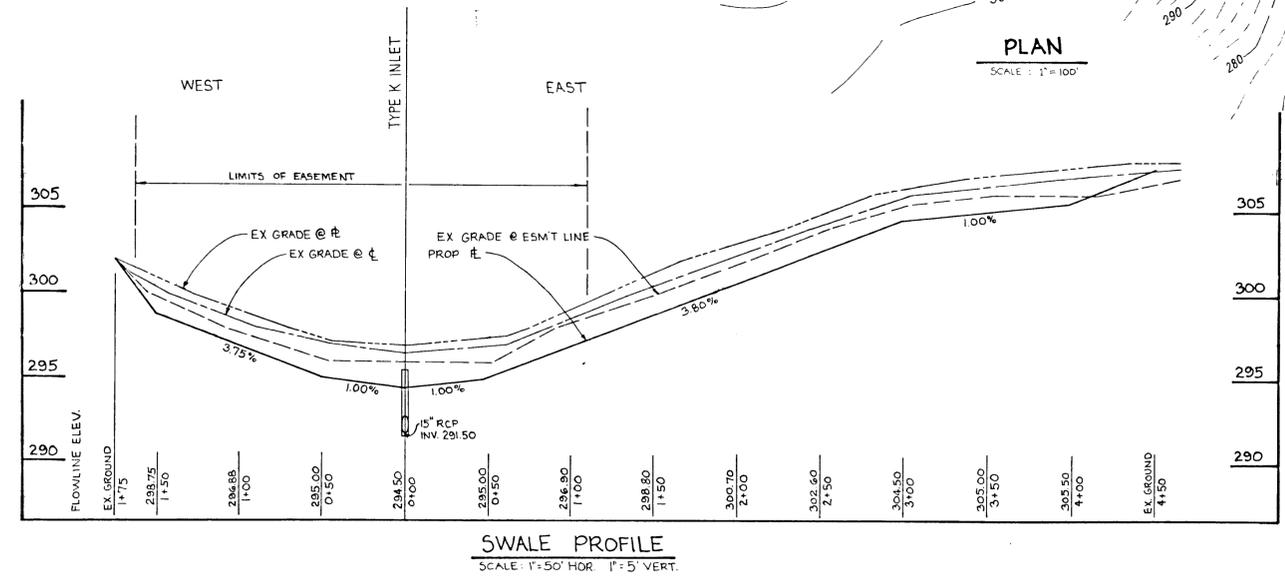
DES: DRK DRN: JEL SCALE: AS SHOWN DRAWING: 2 OF 9

987

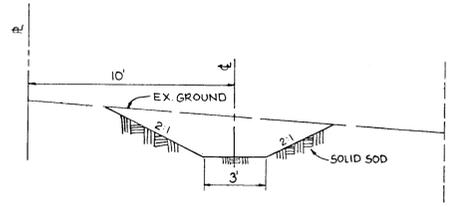
POST-DEVELOPMENT RUNOFF									
DRAIN		POINT	AREA (Ac.)	CUMULATIVE AREA (Ac.)	C	T <sub>c</sub> (MIN)	I (IN/HR)	Q CFS	STORM FREQ (YR)
FROM	TO								
I-6	M-5	A	7.61	7.61	0.22	23	4.3	7.20	10
I-3	M-8	B	0.81	0.81	0.44	6	7.2	2.57	10
I-5	I-4	C	1.16	1.16	0.38	14	5.6	2.47	10
		D	0.52	0.52	0.38	11	6.3	1.24	10
I-4	M-7			1.68	0.38	14	5.6	3.58	10
I-2	I-1	E	1.13	1.13	0.44	15	5.4	2.68	10
		F	0.34	0.34	0.78	5	8.5	2.25	10
I-1	M-5			3.96	0.44	15	5.4	9.41	10
I-8	I-7	G	0.71	0.71	0.38	12	6.1	1.65	10
		H	0.16	0.16	0.78	5	8.5	1.06	10
I-7	M-5			0.87	0.45	12	6.1	2.39	10
		I	0.48	0.48	0.66	11	6.3	2.00	10
M-3	M-2	J	0.72	12.92	0.32	24	4.2	17.36	10
				0.72	0.59	13	5.9	2.51	10
M-2	M-1			13.64	0.33	24	4.2	18.91	10
M-7	M-6			2.49	0.40	14	5.6	5.58	10
M-5	M-4			11.57	0.30	23	4.3	14.93	10
M-4	M-3			12.44	0.31	23	4.3	16.58	10



PLAN  
SCALE: 1"=100'



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



TYPICAL SECTION  
SCALE: 1"=4'

Q=3.60 CFS  
V=3.01 FPS  
d=0.33  
S=3.80%  
n=0.04

Q=3.60 CFS  
V=1.81 FPS  
d=0.48  
S=1.00%  
n=0.04

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Charles D. ...*  
 CHIEF, LAND DEVELOPMENT DIVISION  
 DATE: 6/16/91

*Francis W. ...*  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 6/16/91

*...*  
 CHIEF, BUREAU OF ENGINEERING  
 DATE: 6/16/91

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*...*  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT  
 DATE: 6/16/91

NO.	DATE	REVISION

TRACY, SCHULTE & ASSOCIATES INC.  
 planning • architecture • engineering  
 8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301)465-6105

OWNER: SECURITY DEVELOPMENT CORP.  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21043  
 (301) 465-4244

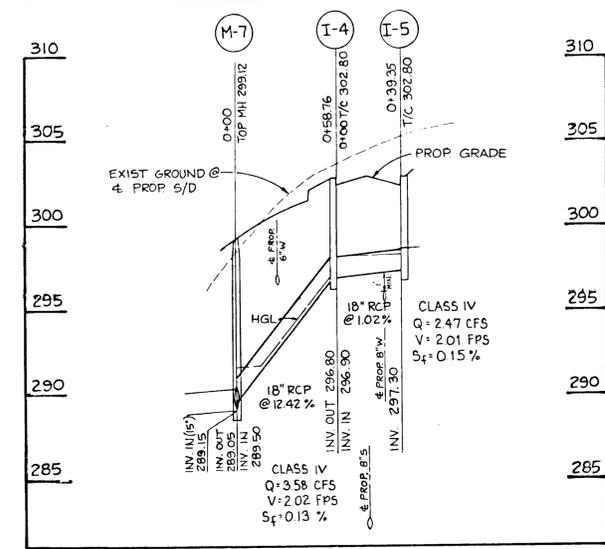
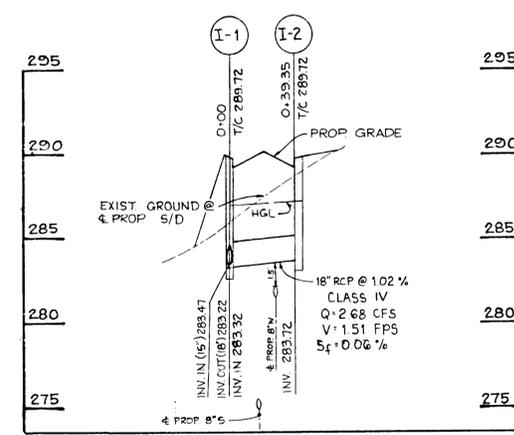
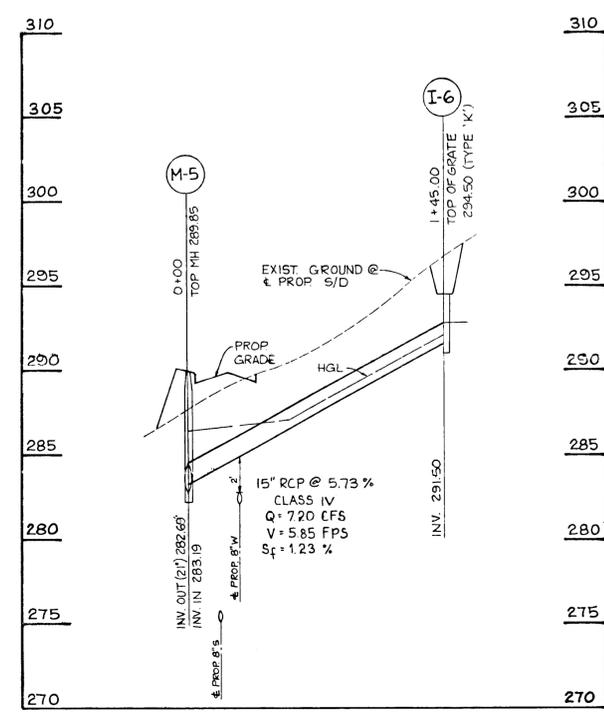
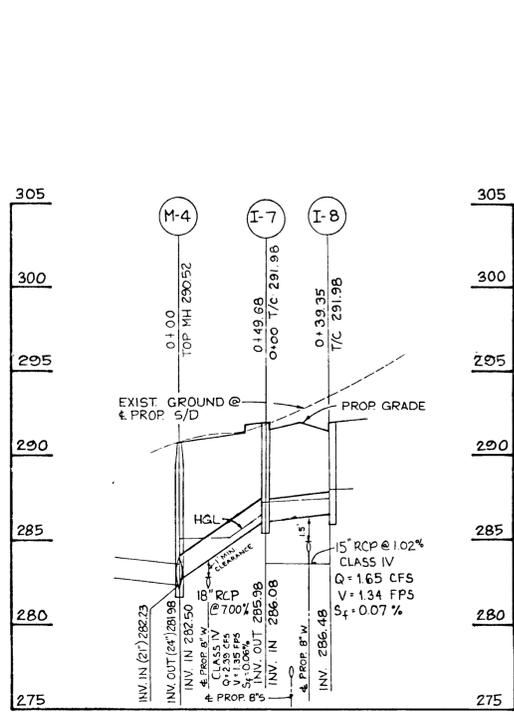
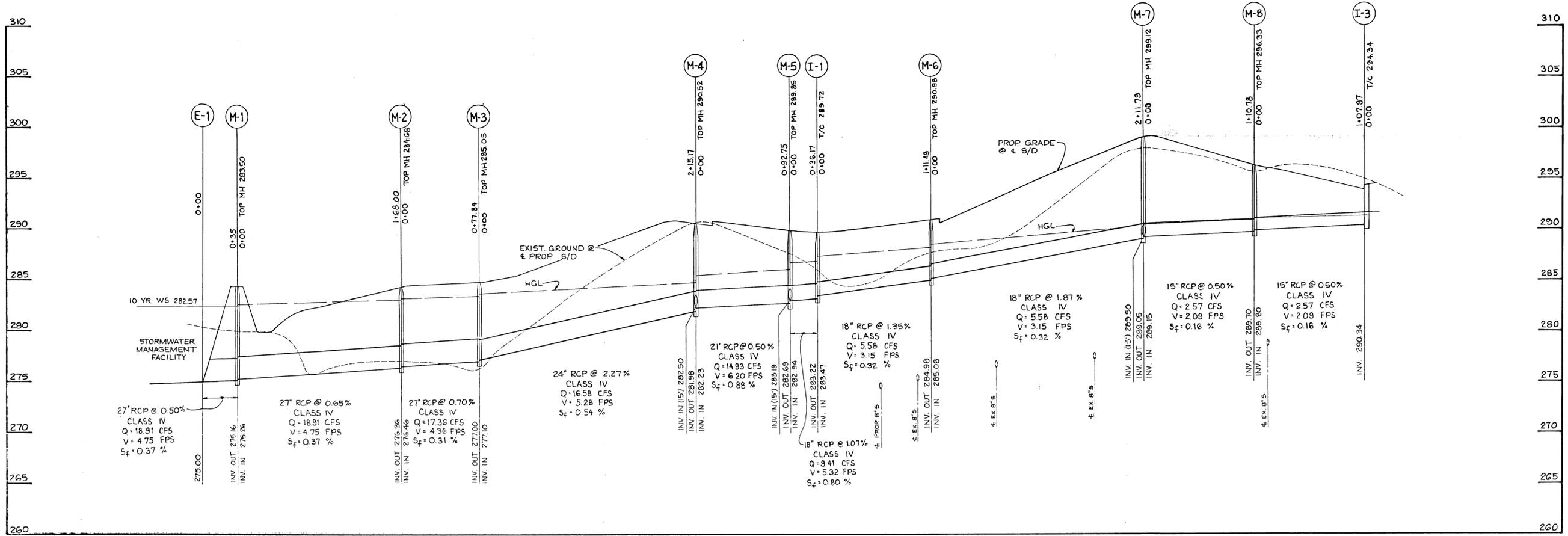
PROJECT: KING'S WOODS  
 SECTION 2, AREA 2 - PHASE I  
 LOTS 177-209

DEVELOPER: SECURITY DEVELOPMENT CORP.  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21043  
 (301) 465-4244

DATE: OCTOBER 24, 1990  
 PROJECT NO. C-084

DES: JME DRN: DRK SCALE: AS SHOWN DRAWING 3 OF 9

957



NOTE: ALL STORM DRAIN PIPE ARE TO BE REINFORCED CONCRETE, CLASS IV UNLESS OTHERWISE NOTED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Chad Damann*  
 CHIEF, LAND DEVELOPMENT DIVISION  
 DATE: 6/16/91

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Harold S. Dwyer*  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT  
 DATE: 6/24/91

NO	DATE	REVISION

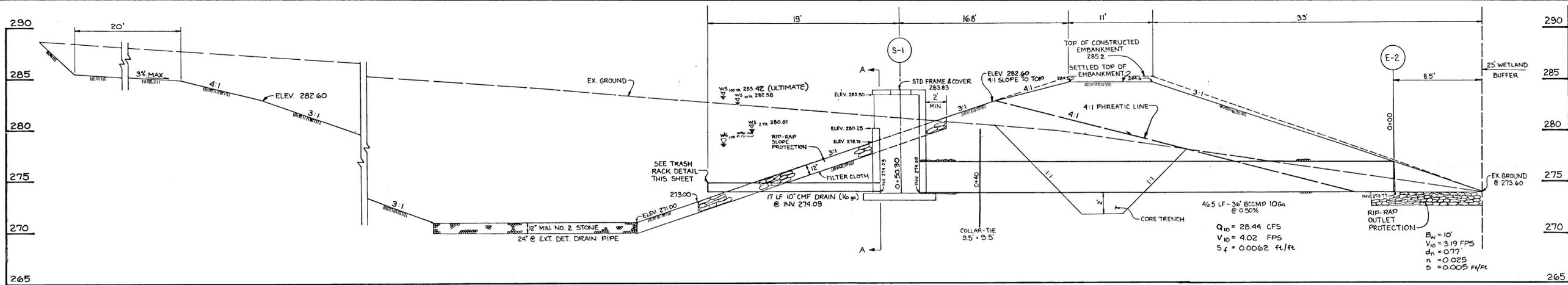
**TRACY, SCHULTE & ASSOCIATES INC.**  
 planning • architecture • engineering

8480 Baltimore National Pk • Ellicott City, Maryland 21043 • (301) 465-6105

OWNER SECURITY DEVELOPMENT CORP. PO BOX 417 ELLCOTT CITY, MARYLAND 21043 (301) 465-4244	PROJECT <b>KINGS WOODS</b> SECTION 2, AREA 2 - PHASE I LOTS 171-209
DEVELOPER SECURITY DEVELOPMENT CORP. PO BOX 417 ELLCOTT CITY, MARYLAND 21043 (301) 465-4244	LOCATION TAX MAP 41, PARCELS 138, 139, 140, AND 857 6TH ELECTION DISTRICT HOWARD COUNTY MARYLAND
DES: JME	DRN: EJS, DRK
DATE: OCTOBER 24, 1990	PROJECT NO: 0084
SCALE: 1" = 50' HORIZ. 1" = 5' VERT.	DRAWING: 4 OF 9

98.7

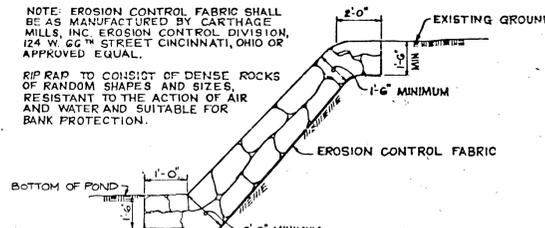
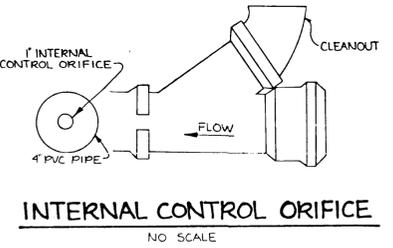
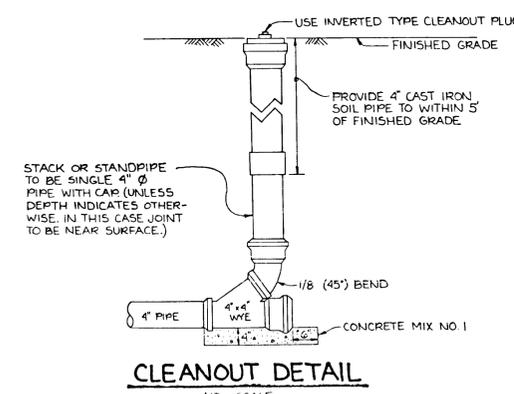
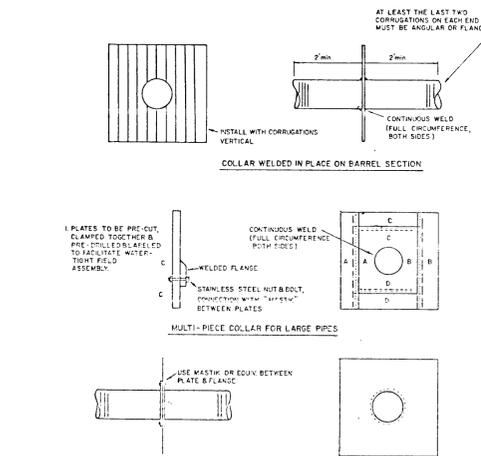




**PRINCIPAL SPILLWAY PROFILE**  
SCALE 1"=5'

- NOTES:
1. MATERIAL FOR EMBANKMENT CONSTRUCTION IS TO BE USCS SM OR BETTER.
  2. ALL SLOPES AROUND POND ARE TO BE 3:1 MAX.
  3. ONLY ML, CL, CH, MH, OR SC SOILS ARE TO BE ALLOWED FOR CORE TRENCH CONSTRUCTION.
  4. SHOULD WATER BE ENCOUNTERED DURING CONSTRUCTION OF CORE TRENCH IT IS TO BE REMOVED BY PUMPING.

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."  
 ENGINEER: *John E. Long* DATE: 10/23/90



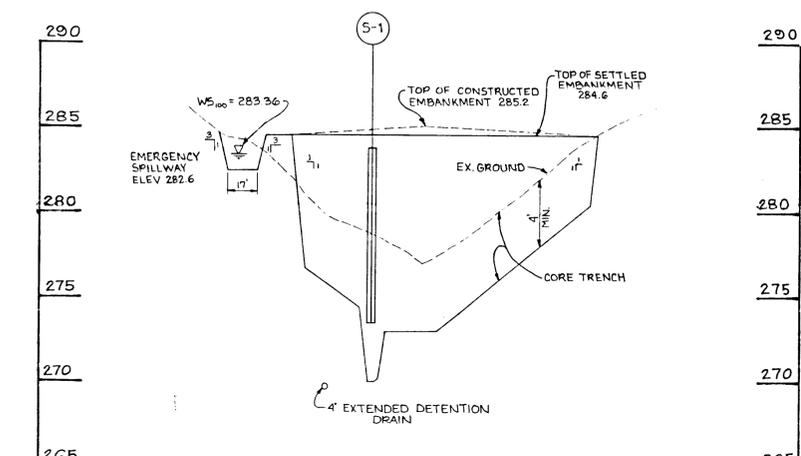
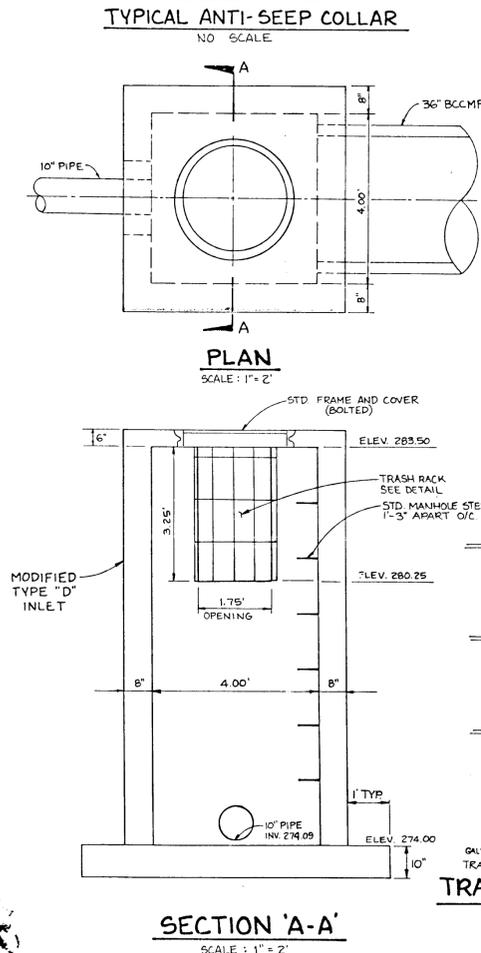
BY THE DEVELOPER:  
 "I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPT. OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL 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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."  
 DEVELOPER: *James R. Murphy Jr.* DATE: 10-24-90

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. Helm* DATE: 6/3/91  
 U.S. SOIL CONSERVATION SERVICE

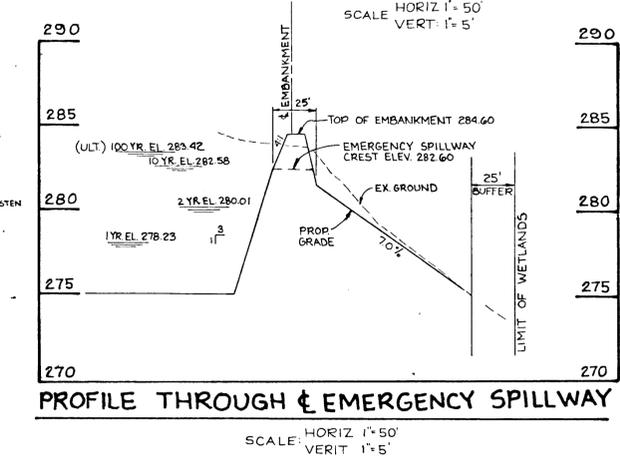
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 APPROVED: *Robert W. Zielman* DATE: 6/3/91  
 HOWARD S.C.D.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*David L. Day* DATE: 6/24/91  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

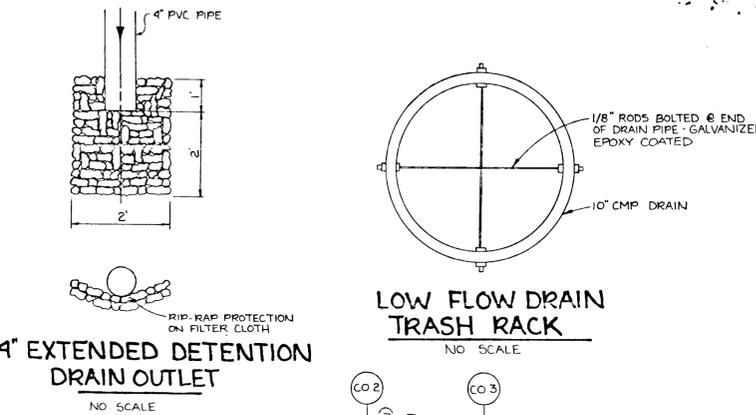
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Charles J. Jamieson* DATE: 6/10/91  
 CHIEF, LAND DEVELOPMENT DIVISION  
*Shawnee W. Cheek* DATE: 6/6/91  
 CHIEF, BUREAU OF HIGHWAYS  
*John W. ...* DATE: ...  
 CHIEF, BUREAU OF ENGINEERING



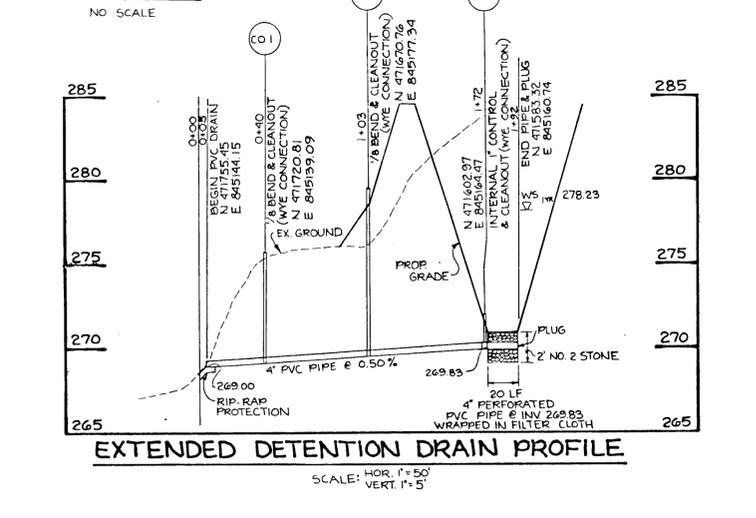
**PROFILE THROUGH & EMBANKMENT**  
SCALE HORIZ 1"=50' VERT 1"=5'



**PROFILE THROUGH & EMERGENCY SPILLWAY**  
SCALE HORIZ 1"=50' VERT 1"=5'



**4\"/>**



**EXTENDED DETENTION DRAIN PROFILE**  
SCALE: HOR. 1"=50' VERT. 1"=5'

NO.	DATE	REVISION

TRACY, SCHULTE & ASSOCIATES INC.  
 planning • architecture • engineering  
 8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-6105

OWNER SECURITY DEVELOPMENT CORP. PO BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244	PROJECT <b>KINGS WOODS</b> SECTION 2 AREA 2 - PHASE I LOTS 177 - 209	LOCATION TAX MAP 47, PARCELS 138, 139, 140 AND 857 G TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	TITLE <b>STORMWATER MANAGEMENT DETAILS</b>
DEVELOPER SECURITY DEVELOPMENT CORP. PO BOX 417 ELLICOTT CITY MARYLAND 21043 (301) 465-4244	DATE OCTOBER 24, 1990 9/24/91	PROJECT NO 0084	SCALE AS SHOWN
DES DAM	DRN EJS	SCALE AS SHOWN	DRAWING G OF 9

**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 areas. It shall be free of roots, stumps, wood, rubbish, ever-size 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 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 cutoff 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 compaction 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 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 5-1 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 operations. 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**

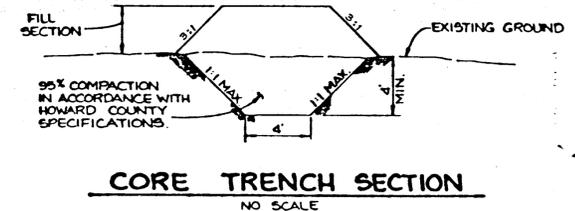
All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching (if required) in accordance with the vegetative treatment 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.

**BORING LOG No. 1**

ELEV.	MATERIAL DESCRIPTION	DEPTH (FEET)	SCALE	SAMPLE NO.	BLDG/7'	TYPE	REC.	NOTES
2762	Yellow-brown, moist, medium stiff, clayey SILT (M.C.)	0-2.8	1	1	3-5	DE	18	Topsoil: 3.0'
2742	Yellow-brown, moist, very stiff, SILTY CLAY (CL)	2.8-5.0	2	2	7-8	DE	8	Water on rods: 11.0'
				3	12			Completion: 14.0'
				4	14-20	DE	18	Cave-ins: 16.5'
				5	32			Commented Sand Layer: 2.75'
				6	34			24 hours: 7.4'
				7	35			Cave-ins: 8.4'
2657	Light gray, wet, medium stiff, SILTY CLAY (CL)	10.5-18.0	3	3	9-11	DE	18	Sample 1: op = 1.25 TBF
				4	3-4	DE	12	Sample 2: op = 1.25 TBF
				5	3-4	DE	12	Sample 3: op = 2.0 TBF
2607	Yellow, wet, medium stiff, SILTY CLAY (CL)	15.5-15.5	4	4	4-7	DE	12	Sample 4: op = 2.0 TBF
				5	3-5	DE	8	
				6	3-5	DE	8	
2562	Yellow, wet, medium stiff, SILTY CLAY (CL)	20.0-20.0	5	5	4-4	DE	14	



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."  
 ENGINEER: *John S. ...* DATE: 10-24-90

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 MARYLAND DEPT. OF ENVIRONMENT 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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."  
 DEVELOPER: *James R. ...* DATE: 10-24-90

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 R. ...* 6/3/91  
 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.

APPROVED: *Robert W. Ziehm* 6/3/91  
 HOWARD S.C.D. DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING  
*Mark J. ...* 6/24/91  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Chad ...* 6/18/91  
 CHIEF, LAND DEVELOPMENT DIVISION DATE

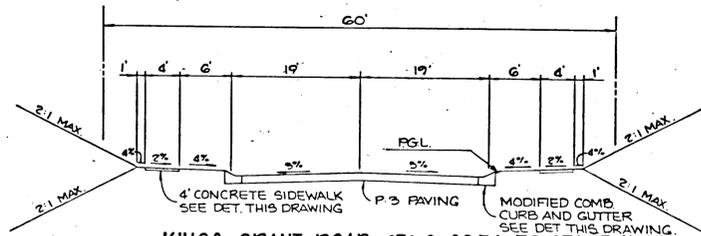
*David ...* 6/6/91  
 CHIEF, BUREAU OF HIGHWAYS DATE

NO	DATE	REVISION

TRACY, SCHULTE & ASSOCIATES INC.  
 planning • architecture • engineering  
 8480 Baltimore National Pike • Suite #18 • Ellicott City, Maryland 21043 • (301) 465-6105

OWNER SECURITY DEVELOPMENT CORP P.O. BOX 417 ELLCOTT CITY, MARYLAND 21043 (301) 465-4244	PROJECT <b>KINGS WOODS</b> SECTION 2 AREA 2 - PHASE I LOTS 177 - 209
DEVELOPER SECURITY DEVELOPMENT CORP P.O. BOX 417 ELLCOTT CITY, MARYLAND 21043 (301) 465-4244	LOCATION TAX MAP 47, PARCELS 138, 139, 140 AND 857 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DES: JKT	DRN: EJS
DATE: OCTOBER 24, 1990	PROJECT NO: 0084
SCALE: AS SHOWN	DRAWING: 7 OF 9

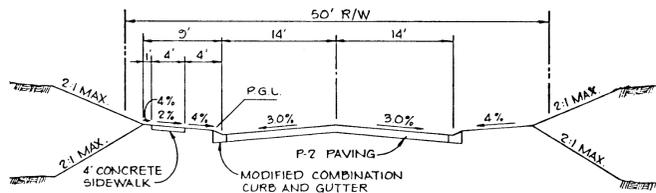
98A



**KINGS GRANT ROAD STA 6+22.54 TO STA 17+1.64**

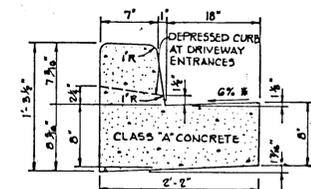
CLASSIFICATION: MINOR COLLECTOR  
 DESIGN SPEED: 35 MPH  
 ZONING: RSC

**TYPICAL SECTION**  
NO SCALE



**KINGSWOOD COURT  
 BARONESS COURT**  
 CLASSIFICATION: CUL-DE-SAC  
 DESIGN SPEED 25 MPH  
 ZONING: RSC

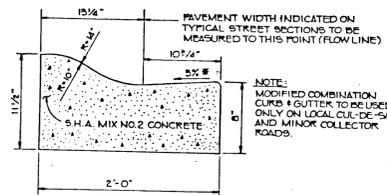
**TYPICAL SECTION**  
NO SCALE



HOWARD COUNTY DESIGN MANUAL VOLUME IV  
 STANDARD SPECIFICATIONS AND DETAILS FOR  
 CONSTRUCTION (DRAWING R-3.01)

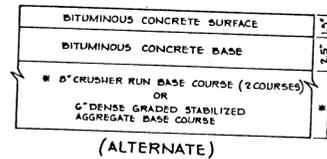
**STANDARD 7" COMBINATION  
 CURB AND GUTTER**  
NO SCALE

NOTE: TO BE USED FOR ALL BUILDING ENTRANCES  
 EXCEPT THOSE THAT ARE EXCLUSIVELY FIRE EXITS.



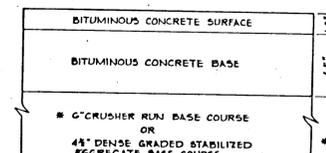
\* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS  
 OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE  
 SLOPED AT THE SAME RATE AND IN THE SAME DIRECTION AS  
 THE PAVEMENT. MATCH PAVEMENT CROSS SLOPE WHEN CURB  
 IS LOCATED ON LOW SIDE OF SUPERELEVATED SECTION AND  
 THE RATE OF SUPERELEVATION IS GREATER THAN 5% FOR  
 MODIFIED CURB AND GUTTER.

**MODIFIED COMBINATION  
 CURB AND GUTTER**  
NO SCALE



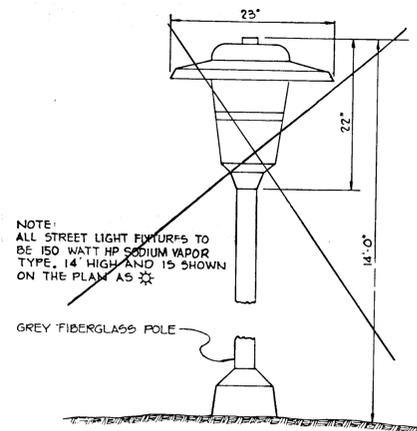
(ALTERNATE)  
 HOWARD COUNTY DESIGN MANUAL VOLUME IV  
 STANDARD SPECIFICATIONS AND DETAILS FOR  
 CONSTRUCTION (DRAWING R-2.01)

**6 1/2" PAVING, P-2**



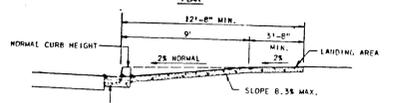
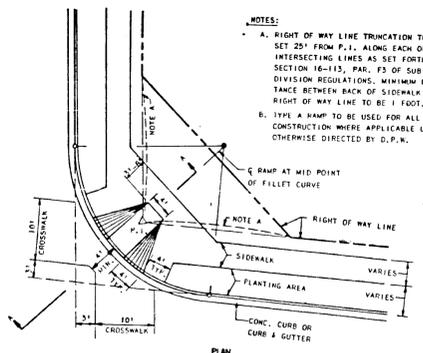
(ALTERNATE)  
 HOWARD COUNTY DESIGN MANUAL VOLUME IV  
 STANDARD SPECIFICATIONS AND DETAILS FOR  
 CONSTRUCTION (DRAWING R-2.01)

**8" PAVING, P-3**



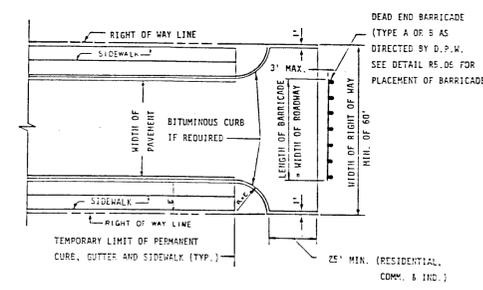
NOTE:  
 ALL STREET LIGHT FIXTURES TO  
 BE 150 WATT HP SODIUM VAPOR  
 TYPE, 14' HIGH AND 15 SHOWN  
 ON THE PLAN AS \*\*

**DETAIL - LIGHTING FIXTURE**  
NO SCALE



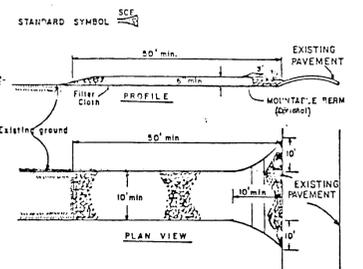
NOTE:  
 A. RIGHT OF WAY LINE TRUNCATION TO BE  
 SET 25' FROM P.L. ALONG EACH OF THE  
 INTERSECTING LINES AS SET FORTH IN  
 SECTION 16-115, PAR. 13 OF SUB-  
 DIVISION REGULATIONS. MINIMUM DIS-  
 TANCE BETWEEN BACK OF SIDEWALK AND  
 RIGHT OF WAY LINE TO BE 1 FOOT.  
 B. TYPE A RAMP TO BE USED FOR ALL NEW  
 CONSTRUCTION, WHERE APPLICABLE UNLESS  
 OTHERWISE DIRECTED BY D.P.W.

**SIDEWALK RAMP DETAIL**  
NO SCALE



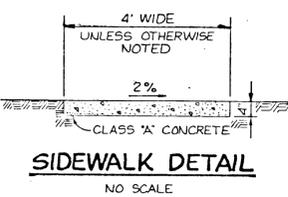
NOTE:  
 1. A TEE TURN-AROUND SHALL BE USED IN LIEU OF A CUL-DE-SAC ONLY IF THE  
 STREET IS TO BE EXTENDED IN THE FUTURE.  
 2. BITUMINOUS CURB SHALL EXTEND AROUND THE TEE TURN-AROUND IF AND AS  
 REQUIRED TO CONTROL CURB DRAINAGE FROM THE ROADWAY SECTION.  
 3. REFER TO STANDARD R-5.06 FOR TYPICAL ROADWAY PROFILE OF TEMPORARY  
 LIMIT OF PAVING.  
 \* FOR LOCAL ROADS, PROVIDE 5' REVERTIBLE EASEMENT EACH END OF THE TEE.  
 4. PROVIDE EASEMENTS AS REQUIRED FOR PLACEMENT OF BARRICADE AND ANY  
 NECESSARY GRADING (SEE DETAIL R5.06)

**TEE TURN - AROUND**  
NO SCALE

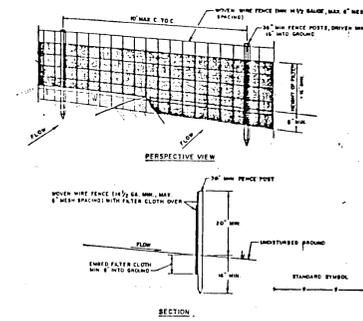


- CONSTRUCTION SPECIFICATIONS**
1. Stone Size - Use 2" stone, or recycled or recycled concrete equivalent.
  2. Length - As required, but not less than 50 feet (except on a single resi-  
 dence lot where a 20 foot minimum length would apply).
  3. Thickness - Not less than six (6) inches.
  4. Width - Ten (10) foot minimum, but not less than the full width at  
 Fillet Cloth - will be placed over the entire width prior to placing of stone.  
 Fillet will not be required on a single family residence lot.
  5. Surface Water - All surface water flowing or diverted toward construction  
 a mountainous area with 5% slopes will be permitted.
  6. Maintenance - The entrance shall be maintained in a condition which will  
 prevent tracking or flowing of sediment onto public rights-of-way. This may  
 require periodic top dressing with additional stone on sections beyond  
 and/or cleaned of any sediment used to trap sediment. All  
 removed sediment shall be tracked or tracked onto public rights-of-way must  
 be removed immediately.
  7. Mapping - Wheels shall be cleaned to remove sediment prior to entrance onto  
 public rights-of-way. When washing is required, it shall be done on an area  
 stabilized with stone and which drains into an approved section of trapping  
 device.
  8. Periodic inspection and needed maintenance shall be provided after each rain.

**STABILIZED CONSTRUCTION ENTRANCE**  
NO SCALE

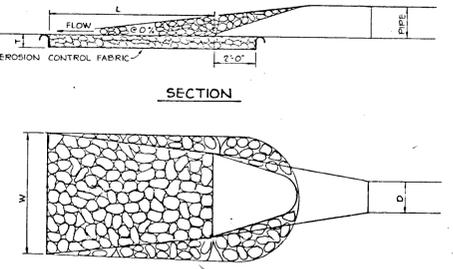


**SIDEWALK DETAIL**  
NO SCALE



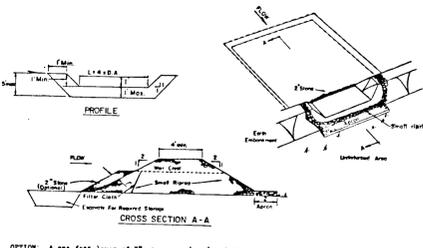
- CONSTRUCTION SPECIFICATIONS FOR ST-7**
1. All dikes shall be constructed by earthmoving equipment.
  2. All dikes shall have positive drainage to an outlet, if desired to facilitate  
 crossing by construction heavy.
  3. Filter cloth shall be installed as needed to stabilize a stabilized safe outlet.  
 EARTH DIKES SHALL BE SOLELY THAT FUNCTIONS WITHIN A PERIOD OF PROTECTION. PROTECT  
 SHALL BE LOCATED TO A SEDIMENT TRAPPING DEVICE, SUCH AS A SEDIMENT TRAP OR SEDIMENT  
 BASIN, WHICH IS AT LEAST 50 FEET DOWN DRILL OR SHOWN AREA ABOVE THE DIKE AND NOT  
 EXCESSIVELY STABILIZED.
  4. Stabilization shall be (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SED  
 AND STAY PILES OR STAY PILES IF NOT IN SECTION 16.06, PAR. 13 OF SUB-DIVISION  
 REGULATIONS.

**SILT FENCE**  
NO SCALE



**OUTLET PROTECTION DETAIL**  
NO SCALE

STRUCTURE	d - 50	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-1	0.50'	8.5'	10'	113'
E-2	0.50'	6.5'	10'	113'



- CONSTRUCTION SPECIFICATIONS FOR ST-7**
1. Area under embankment shall be cleared, graded and stripped of any vegetation and root  
 mat. The soil area shall be cleared.
  2. The fill material for the embankment shall be free of roots and other woody vegetation as  
 well as oversized stones, rocks, organic material or other objectionable material. The  
 embankment shall be compacted by traversing with equipment while it is being constructed.
  3. All cut and fill slopes shall be 2:1 or flatter.
  4. The stone used in the outlet shall be small riprap 4" to 6" with a 1" thickness of 2"  
 aggregate placed on the upstream side on the small riprap 2" embedded filter cloth in the  
 riprap.
  5. Sediment shall be removed and trap restored to its original dimensions when the sediment  
 has accumulated to the design depth of the trap.
  6. The structure shall be inspected after each rain and repairs made as needed.
  7. Construction operations shall be carried out in such a manner that erosion and water  
 pollution is minimized.
  8. The structure shall be removed and the area stabilized when the drainage area has been  
 properly stabilized.

**STONE OUTLET SEDIMENT TRAP**  
NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Charles J. Williams* 6/10/91  
 CHIEF, LAND DEVELOPMENT DIVISION  
*William W. Weiland* 6/6/91  
 CHIEF, BUREAU OF HIGHWAYS  
*William W. Weiland* 6/10/91  
 CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Charles J. Williams* 6/21/91  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

NO DATE REVISION

**TRACY, SCHULTE & ASSOCIATES INC.**  
 planning • architecture • engineering  
 8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-6105

OWNER: SECURITY DEVELOPMENT CORP.  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21043  
 (301) 465-4244

PROJECT: **KING'S WOODS**  
 SECTION 2 AREA 2 - PHASE I  
 LOTS 177-209

LOCATION: TAX MAP No 47  
 PARCEL 188, 139, 140, 857  
 6TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE: **DETAILS**

S 89-29 PB 247 P 90-13  
 DATE: OCT 24 1990 PROJECT NO 0084  
 5/24/91

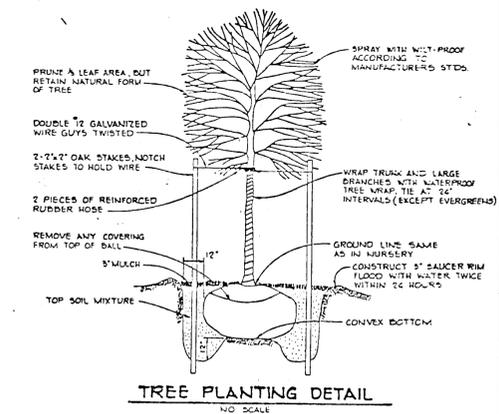
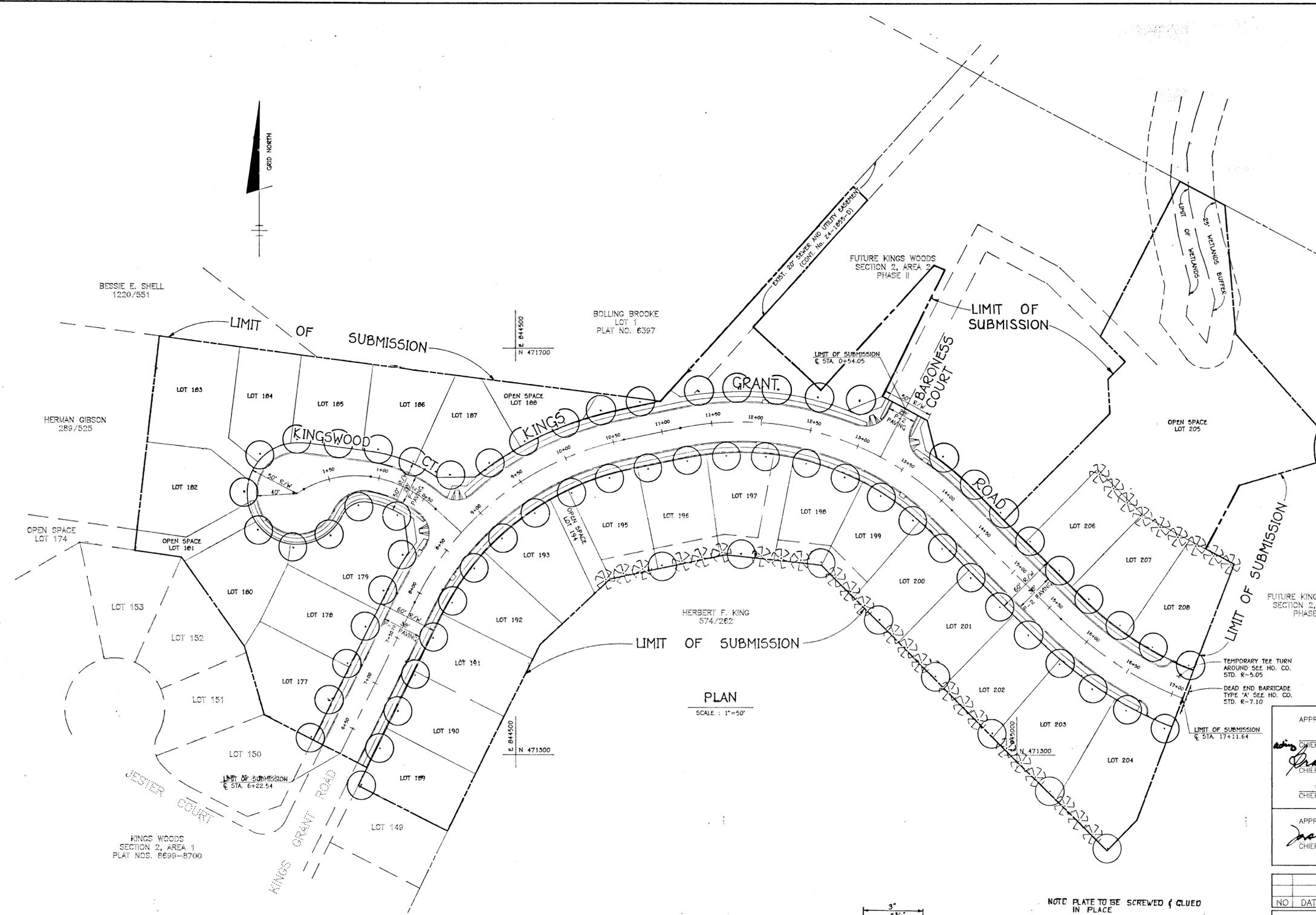
DES: DRN EJS SCALE AS SHOWN DRAWING 8 OF 9

STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 1989

987

**PLANT LIST**

SYMBOL	QUANTITY	NAME	RE-MARKS
	33	PINUS STROBUS White Pine	5'-6' UNSHEARED
	72	QUERCUS BOREALIS Red Oak	2 1/2 MIN CAL. B & B FULL HEAD
TOTAL	105		



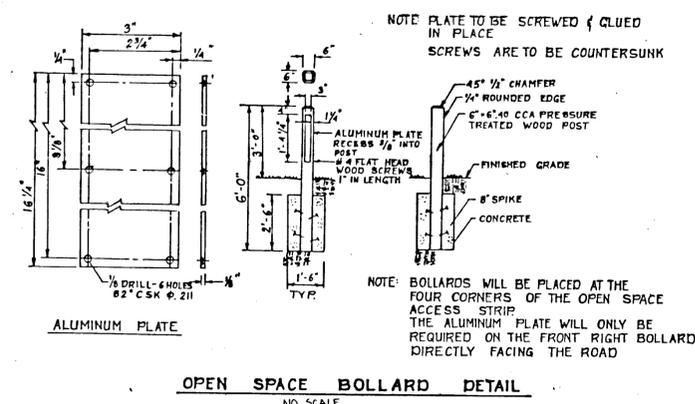
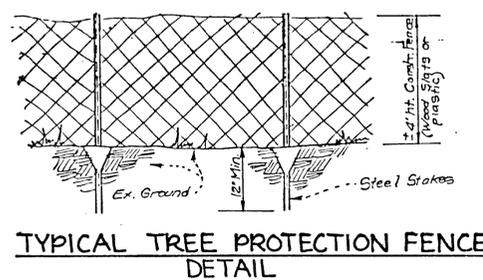
**PLAN**  
SCALE: 1"=50'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Charles Dammus* 6/15/91  
 CHIEF, LAND DEVELOPMENT DIVISION  
*Dravon W. Weiland* 6/16/91  
 CHIEF, BUREAU OF HIGHWAYS  
*Michael J. ...* 6/18/91  
 CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*...* 6/27/91  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

NO	DATE	REVISION

TRACY, SCHULTE & ASSOCIATES INC.  
 planning • architecture • engineering  
 8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301)465-6100



OWNER: SECURITY DEVELOPMENT CORP.  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21043  
 (301) 465-4244

DEVELOPER: SECURITY DEVELOPMENT CORP.  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21043  
 (301) 465-4244

PROJECT: **KING'S WOODS**  
 SECTION 2, AREA 2 - PHASE I  
 LOTS 177-209

LOCATION: TAX MAP 47-PARCELS 138,139,140 AND 857  
 6th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE: **PLANTING PLAN AND DETAILS**  
 5-89-29 PB-247 P-90-13

DATE: **OCTOBER 24, 1990**  
 5/24/91

PROJECT NO. 0084

DES: JHE DRN: DRK SCALE: 1" = 50' DRAWING 9 OF 9

901