

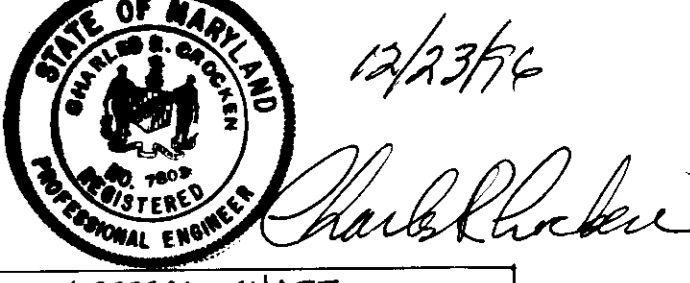
VICINITY MAP
SCALE: 1" = 600'

GENERAL NOTES (PROP. RETAIL BLDG.)

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY AND MD. SHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE WORKING DAYS PRIOR TO THE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
4. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
5. ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
6. TOPOGRAPHY SHOWN IS BASED ON FIELD RUN TOPOGRAPHY BY: CHARLES R. CROCKEN AND ASSOCIATES, INC. NOVEMBER 11, 1995.
7. HORIZONTAL AND VERTICAL DATUMS BASED ON ABOVE FIELD RUN SURVEY.
8. BENCHMARKS:
 - WMRA BN # L.201 PLATE BOLT X-MARKED SOUTHWEST CORNER OF BGE TOWER #29 ELEVATION 346.51
 - WMRA BN # L.202 LARGE COMMON NAIL IN BASE OF BGE POLE #457196 ELEVATION 331.29
9. WATER AND SEWER IS PUBLIC.
 - WATER CONTRACT # C-2616-D WAS SEWER CONTRACT # C-2616-B WAS
10. THERE IS NO FLOODPLAIN ON SITE.
11. STORMWATER MANAGEMENT IS A REGIONAL POND AND WAS CONSTRUCTED UNDER PROJECT F-52-96.
12. THERE ARE NO WETLANDS ON SITE.
13. EXISTING UTILITIES WERE LOCATED ON COUNTY CONTRACT DRAWINGS.
14. ALL EXTERIOR LIGHTING WILL BE DIRECTED / REFLECTED AWAY FROM ALL ADJACENT PUBLIC ROADS AND RESIDENTIAL ZONED DISTRICTS.
15. ZONING IS, NEW TOWN / ENPLT. CENTER COMMERCIAL
16. PLAT REFERENCE: PLAT No. 10110, RECORDED 10/26/91, F-92-02
17. PREVIOUSLY APPROVED FDP PHASE 118-A-111, PART II, RECORDED AS PLATS 3045A, 716 THRU 1246.

SITE TABULATION: PROP. RETAIL BUILDING.

AREA OF PARCEL	= 2.044 ACRES	
FLOOR SPACE:	EXISTING	VACANT LOT
	= N/A	RETAIL SPACE
	PROPOSED = 14720 SQ. FT.	
	TOTAL = 14720 SQ. FT.	
PARKING TABULATION:		
PARKING USE:	RETAIL SPACE	
FLOOR SPACE =	14720 SQ. FT.	
14720 X 5 / 1000 @ 85% =	65 SPACES REQUIRED	
80% OF GROSS FLOOR AREA	82 SPACES PROVIDED	
BUILDING COVERAGE:		
BUILDING AREA =	14720 SQ. FT. (0.34 ACRES)	
BUILDING COVERAGE RATIO:	(BUILDING COVERAGE) 0.34 ACRES ± / 2.044 ACRES ± = 16.63%	



ADDRESS CHART
LOT No. 34
STREET ADDRESS
PARCELS 34
100 MINDTREL WAY

CHARLES R. CROCKEN AND ASSOCIATES, INC.
CIVIL ENGINEERING - LAND PLANNING
P.O. BOX 301
MONTICELLO, MARYLAND 21097
TEL. (410) 594-7700

PAVING SYMBOLS

P.1 PAVING GRANULAR BASE

P.2 PAVING GRANULAR BASE

LEGEND:

EXISTING CONTOURS

PROPOSED CONTOURS

PROPERTY LINE

EASEMENTS

EX. STORM DRAIN

PROP. STORM DRAIN

EX. WATER LINE

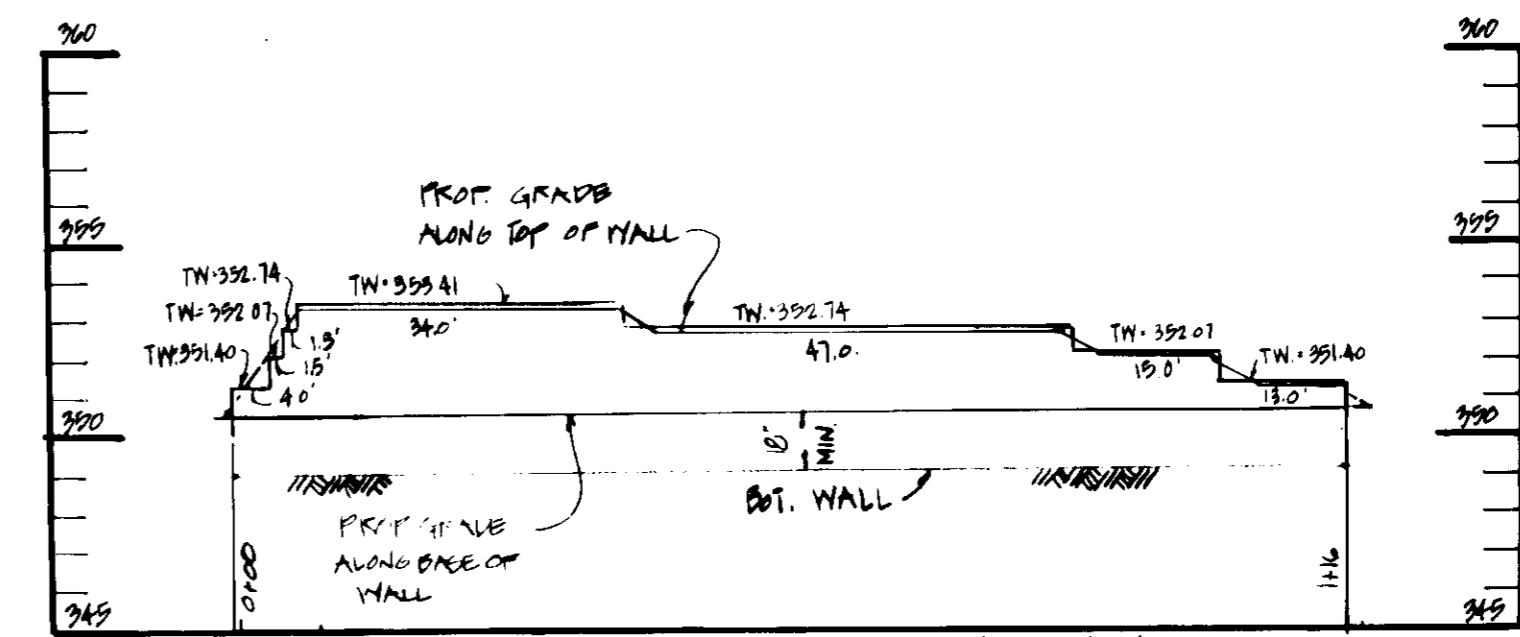
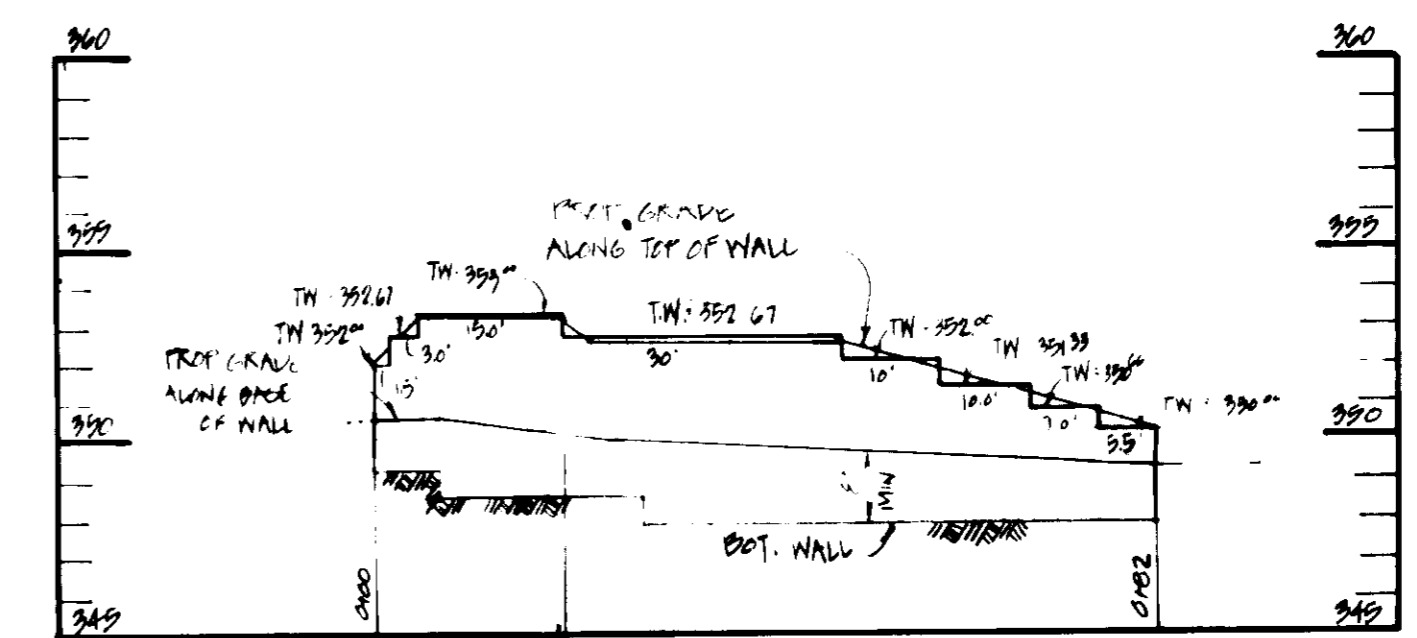
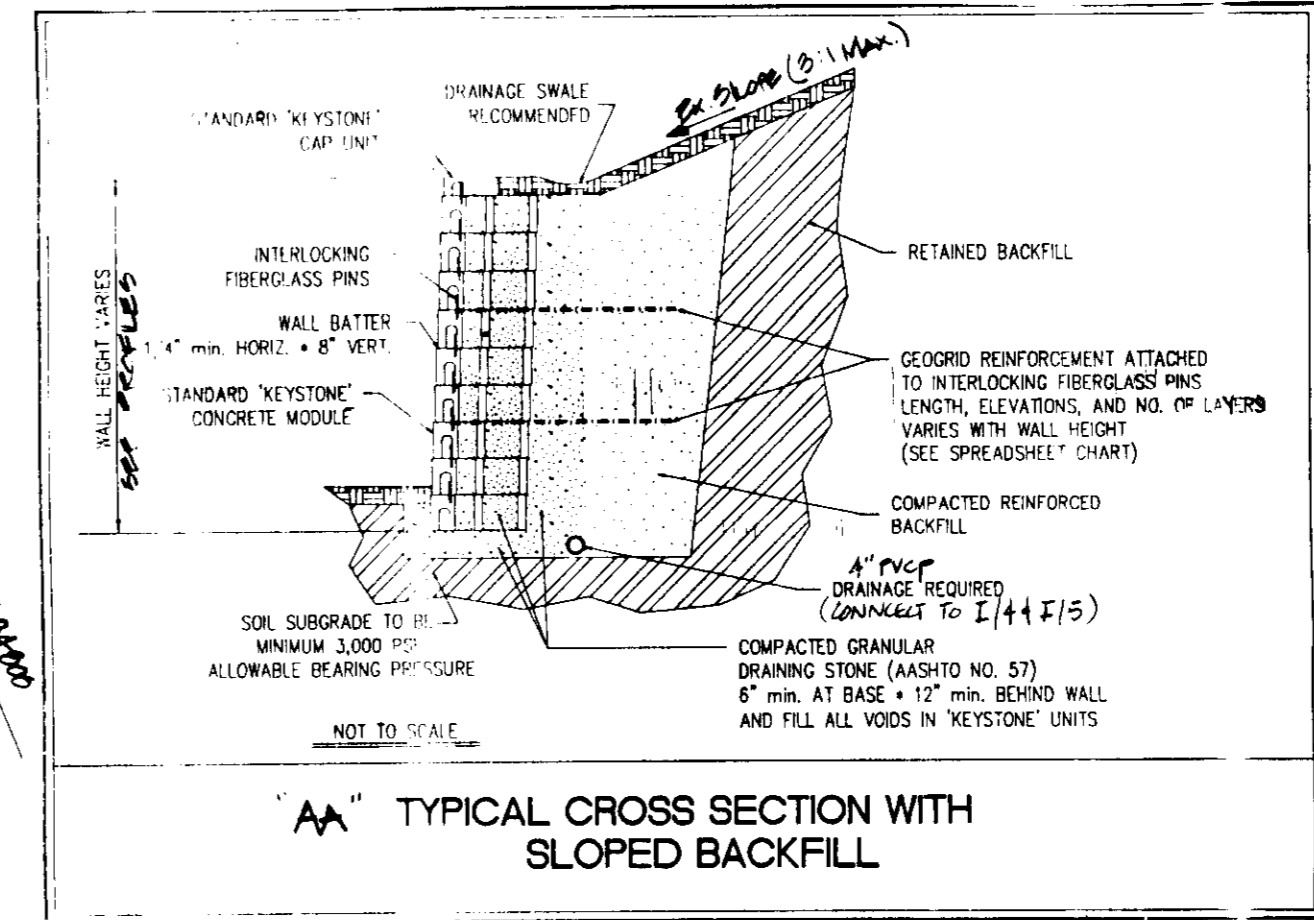
PROP. WATER LINE

EX. SAN. SEWER

PROP. SAN. SEWER

EX. GAS LINE

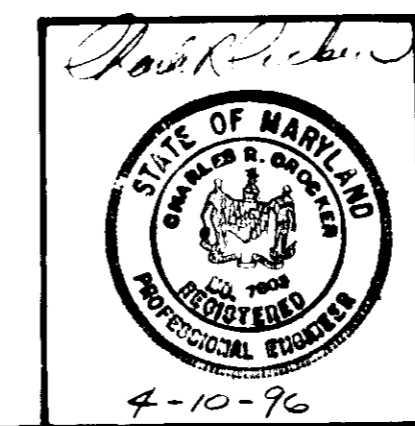
EX. GAS



OWNER:
THE HOWARD RESEARCH & DEVELOPMENT CORP.
THE HOUSE BUILDING
1270 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
(410) 992-0000
066D REFERENCE 1999/103

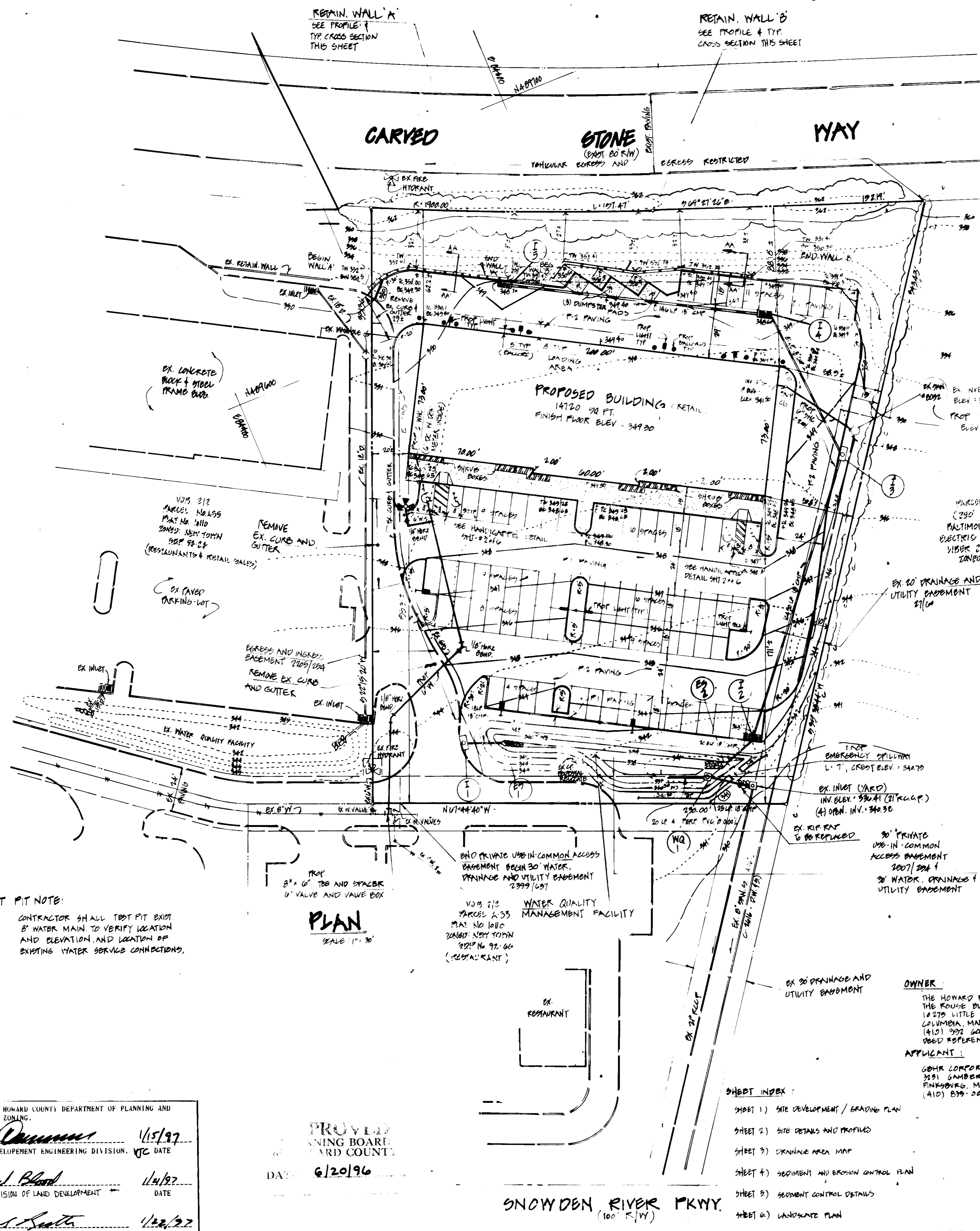
APPLICANT:
GDHR CORPORATION
3181 GAMBER ROAD
PINKBOYNE, MARYLAND 21040
(410) 839-0097

- SHEET INDEX:**
- SHEET 1) SITE DEVELOPMENT / GRADING PLAN
 - SHEET 2) SITE DETAILS AND PROFILES
 - SHEET 3) DRAINAGE AREA MAP
 - SHEET 4) SEDIMENT AND EROSION CONTROL PLAN
 - SHEET 5) SEDIMENT CONTROL DETAILS
 - SHEET 6) LANDSCAPE PLAN



ADDITIONAL NAME	SECTION/AREA	PARCEL No.
COLUMBIA VILLAGES OF OWEN BROWN	2/3	A-34
PLAT No.	DATE	ELECT. DIST.
10110	9/15/91	0TH
WATER CODE	SEWER	CONTRACT
8-12	COMM.	0067102
	OWNER CODE:	0272200

TITLE	SITE DEVELOPMENT / GRADING PLAN		
PROJECT	V.O.D. SECTION 2, AREA 2, PARCEL A-34		
LOCATION	0TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TAX MAP	42	PARCEL	A-34
SCALE	AS SHOWN	DATE	4-96
DESIGNED BY	CHK	DRAWN BY	CHK
CHECKED BY	CR	DATE	4-96
DRAWING No.	SHT 1AFC		



PLAN
SCALE: 1" = 30'

TEST PIT NOTE:
CONTRACTOR SHALL TEST PIT EXIST 8" WATER MAIN TO VERIFY LOCATION AND ELEVATION AND LOCATION OF EXISTING WATER SERVICE CONNECTIONS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Chief Development Engineering Division, JTC DATE 4/15/97

Chief Division of Land Development, DATE 1/4/97

Director, DATE 1/22/97

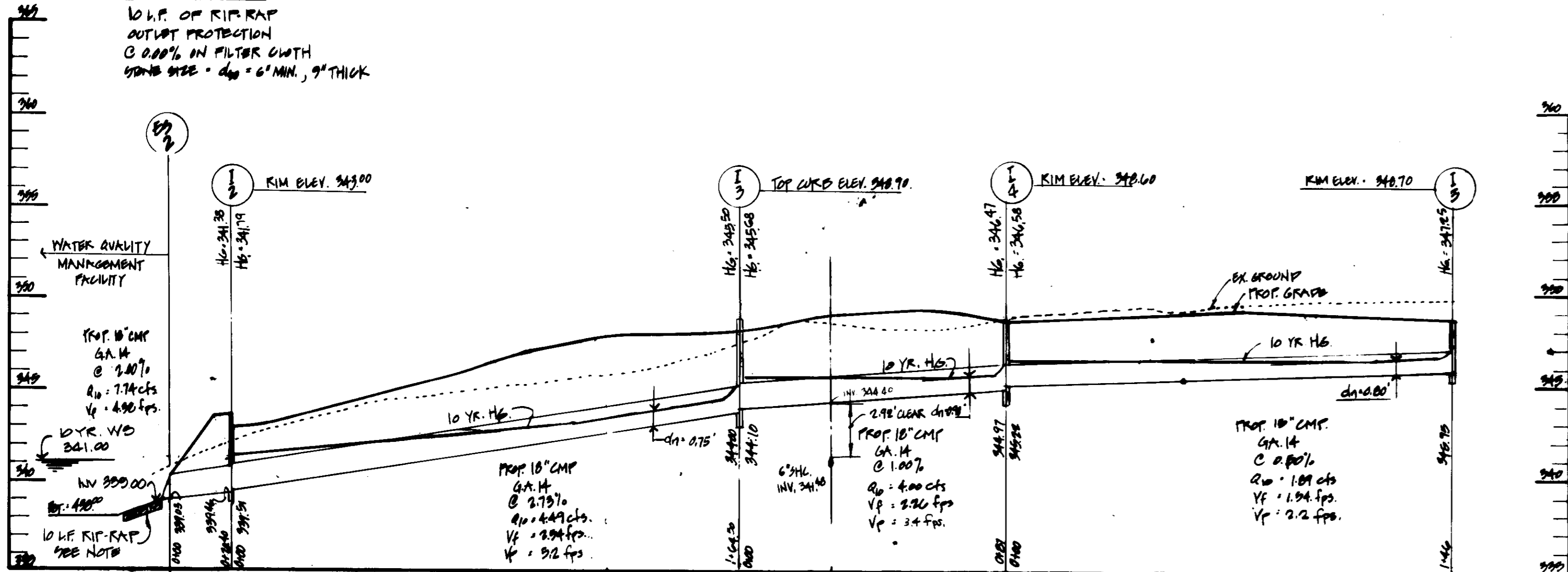
PROVIDED
PLANNING BOARD
BOARD COUNTY

DATE: 6/20/96

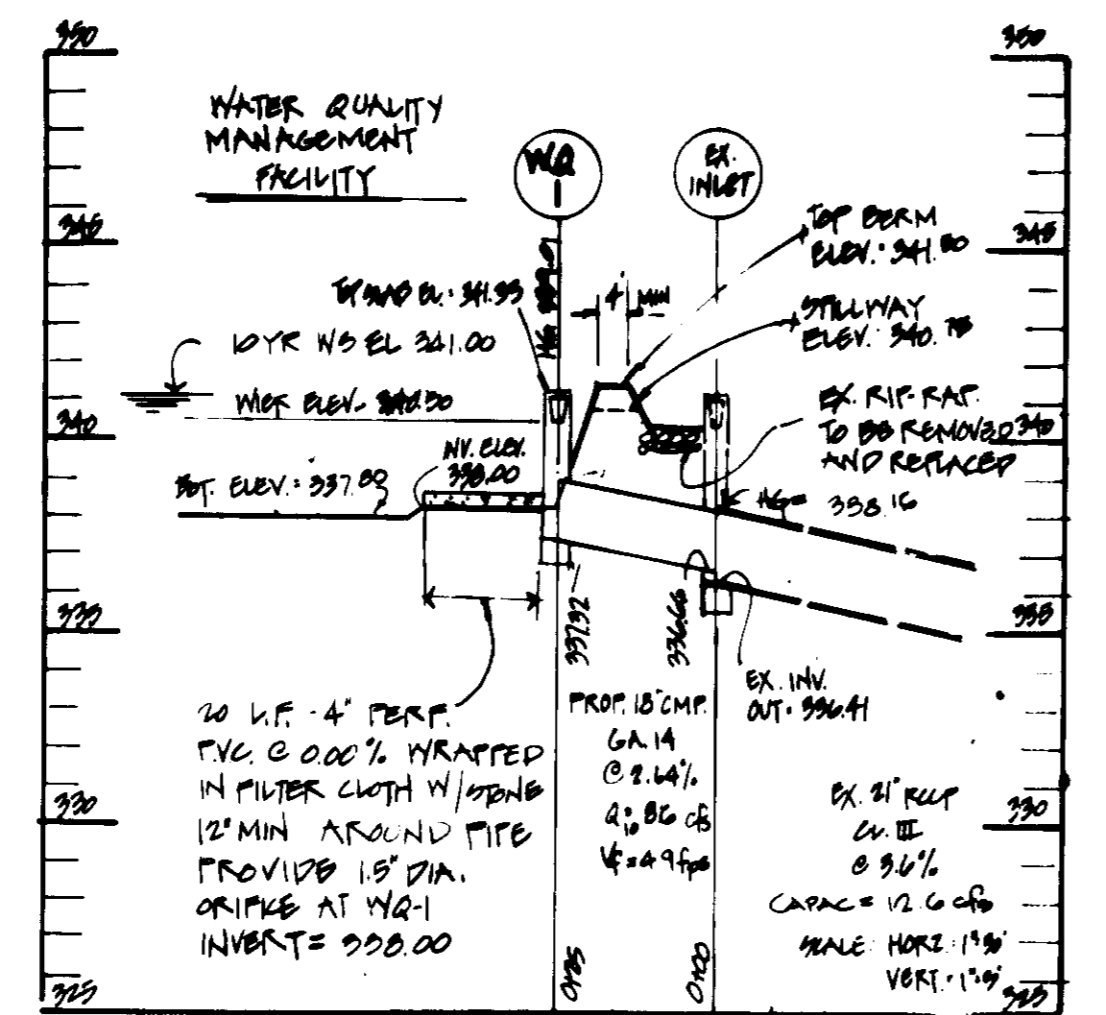
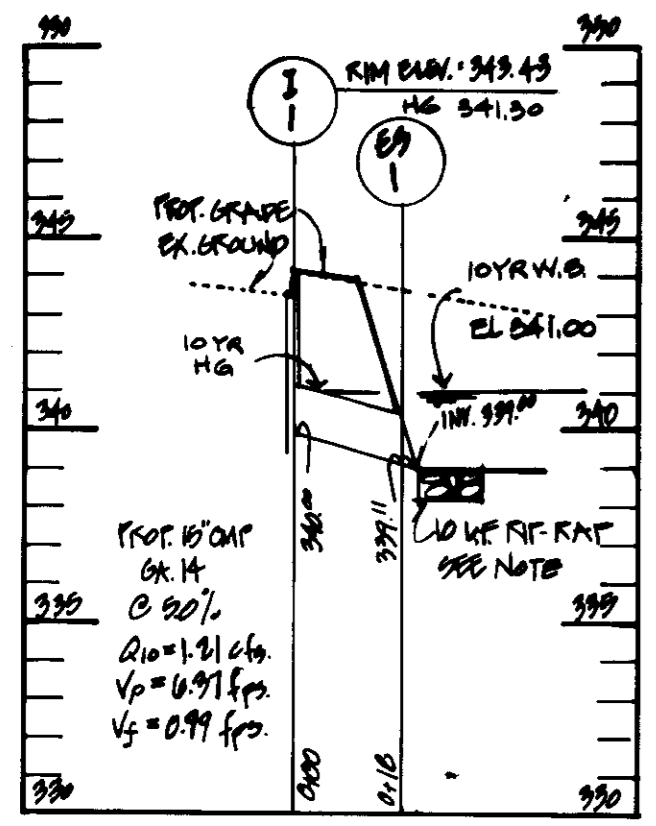
SNOWDEN RIVER PKWY.
(100' R/W)

KIP-KAT NOTE:

10 W.P. OF KIP-KAT
 OUTPUT PROTECTION
 0.000% IN FILTER CLOTH
 SPAN SIZE - $d_{50} = 6'$ MIN, 9" THICK

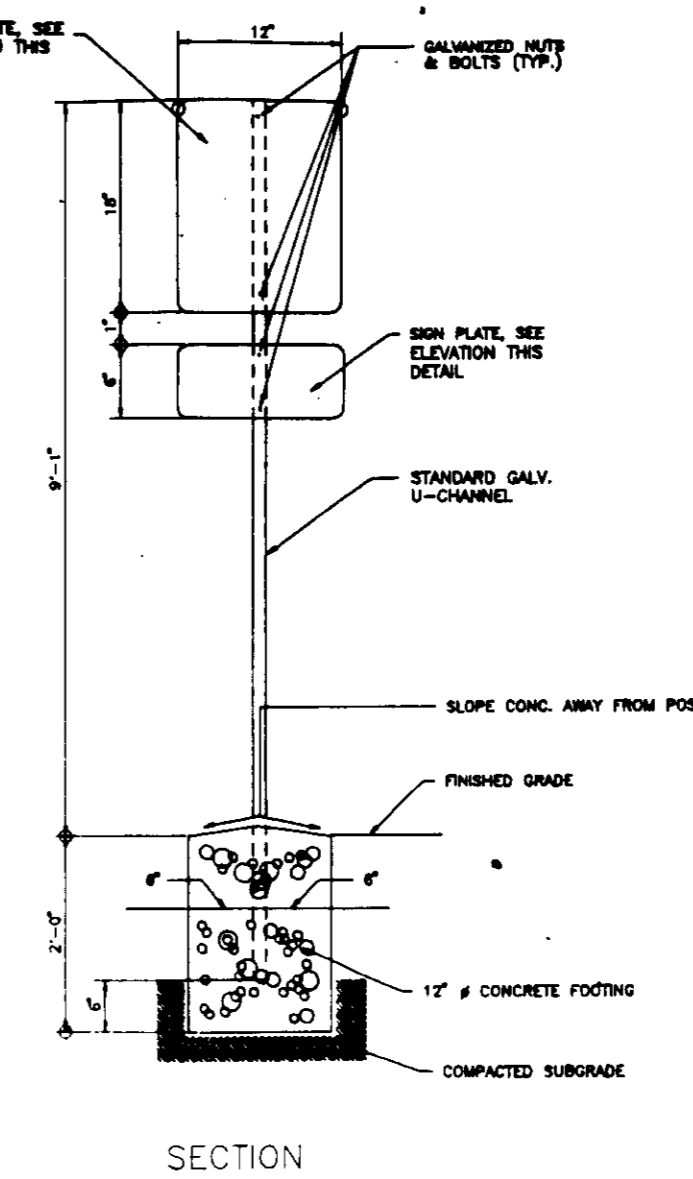
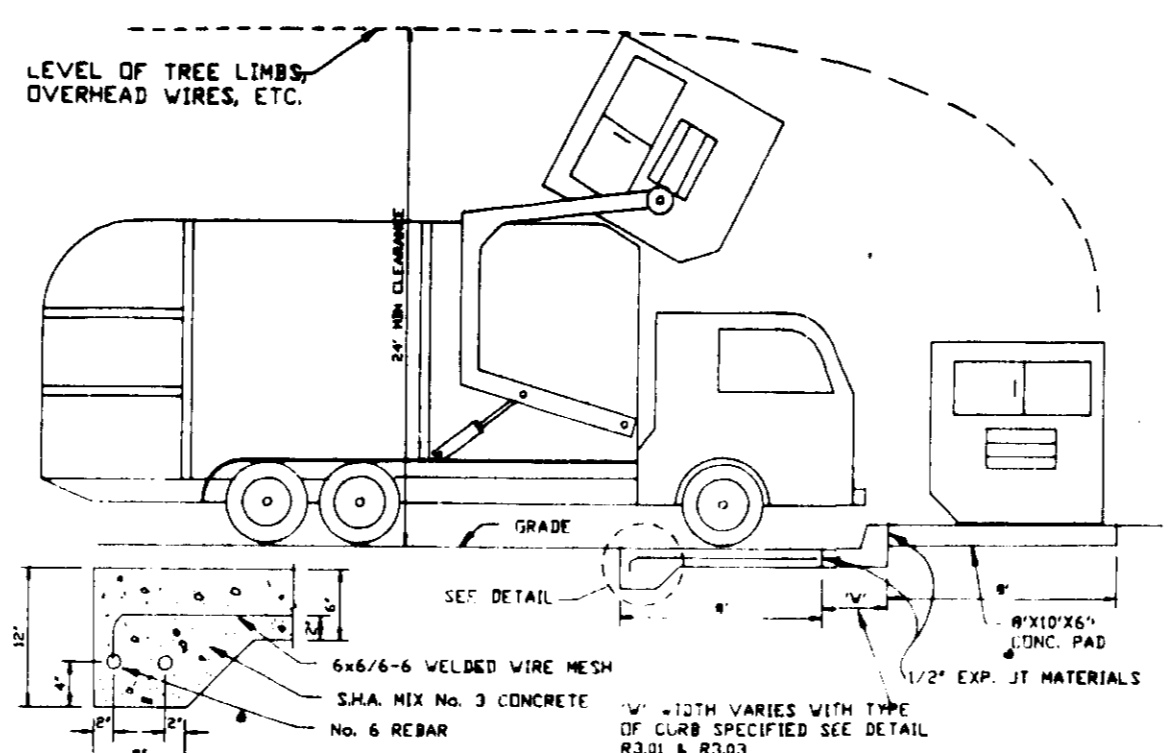
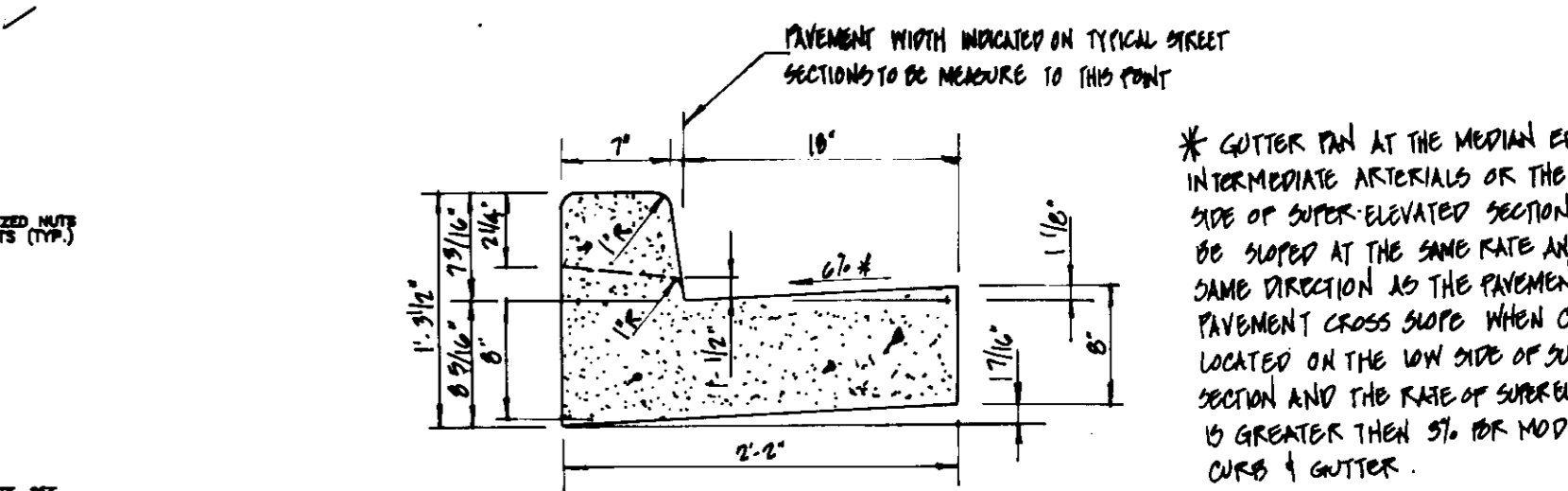
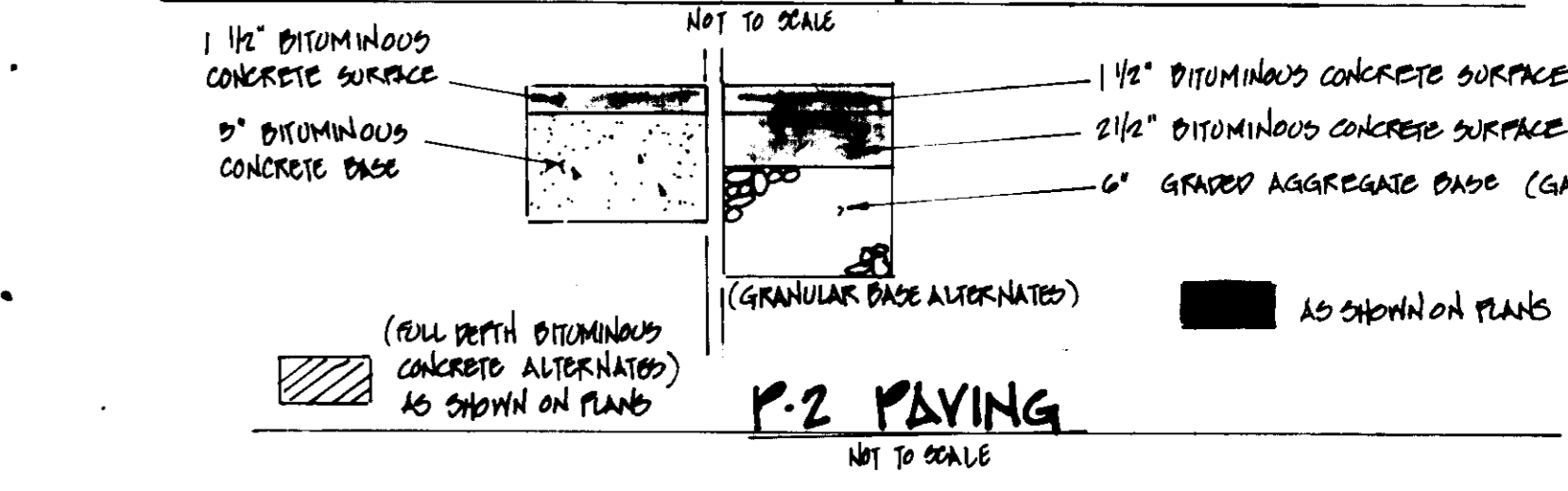
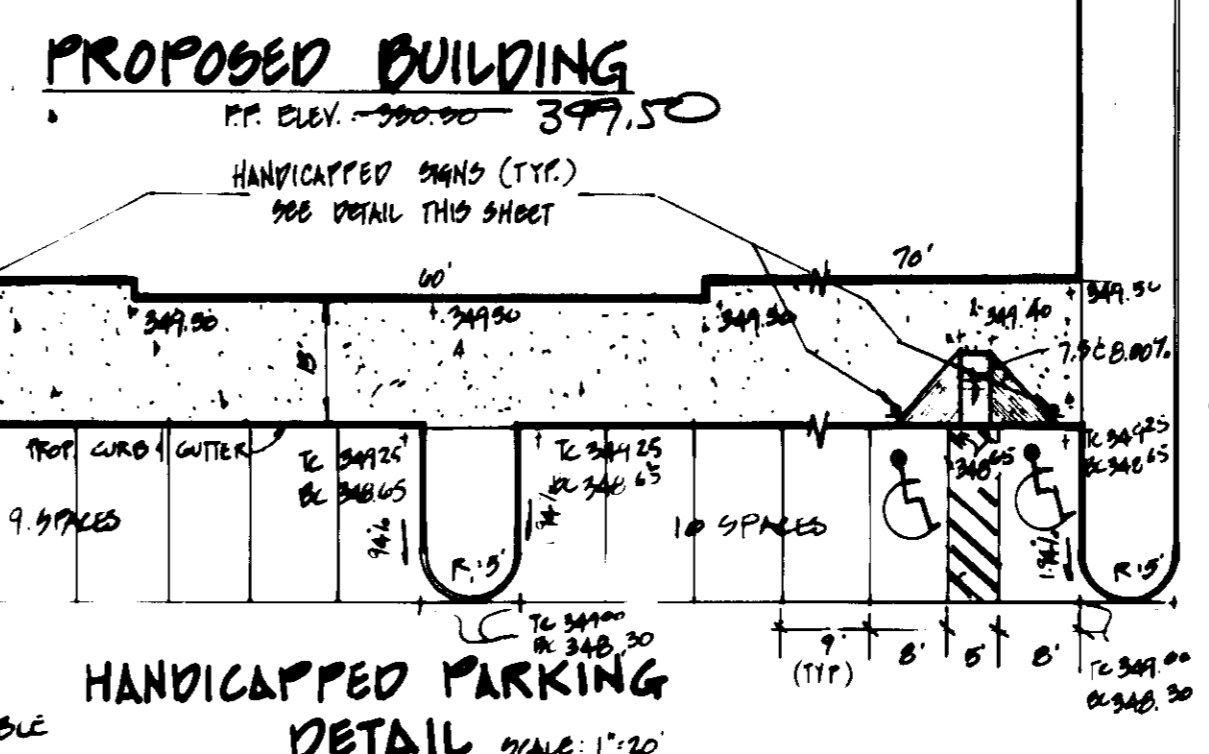
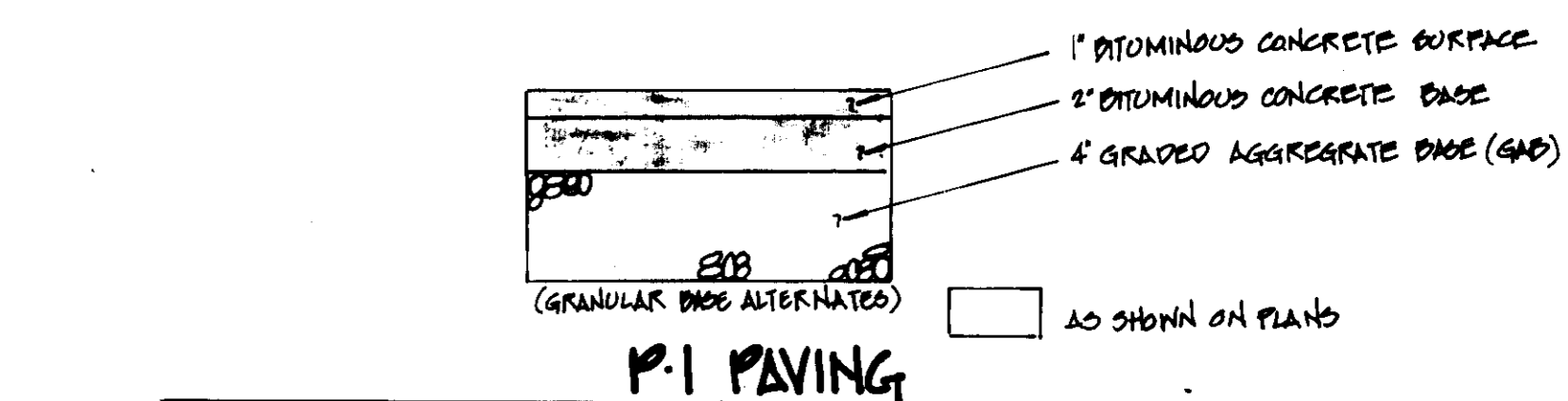
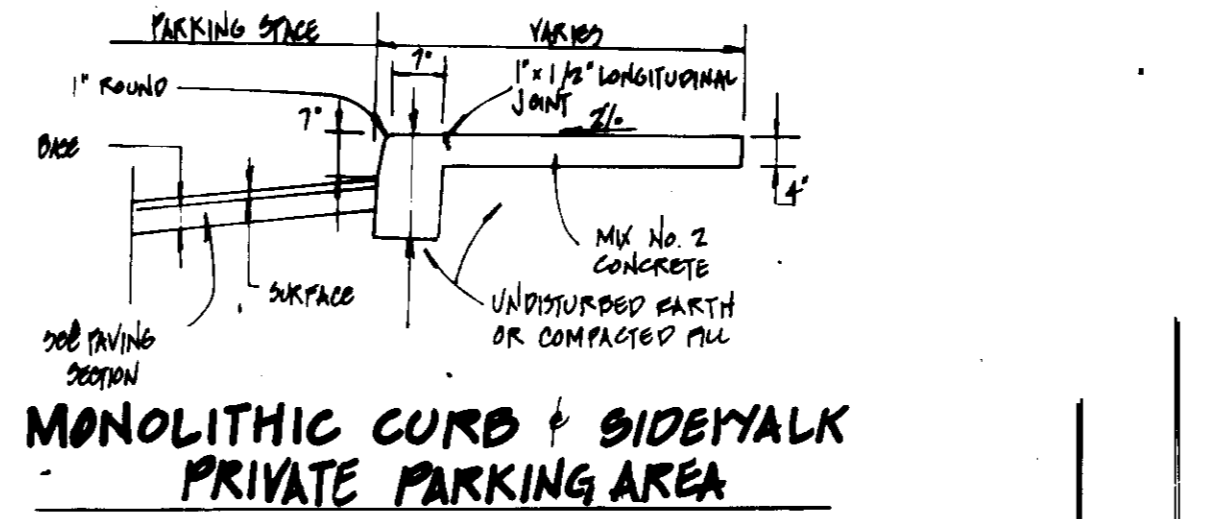
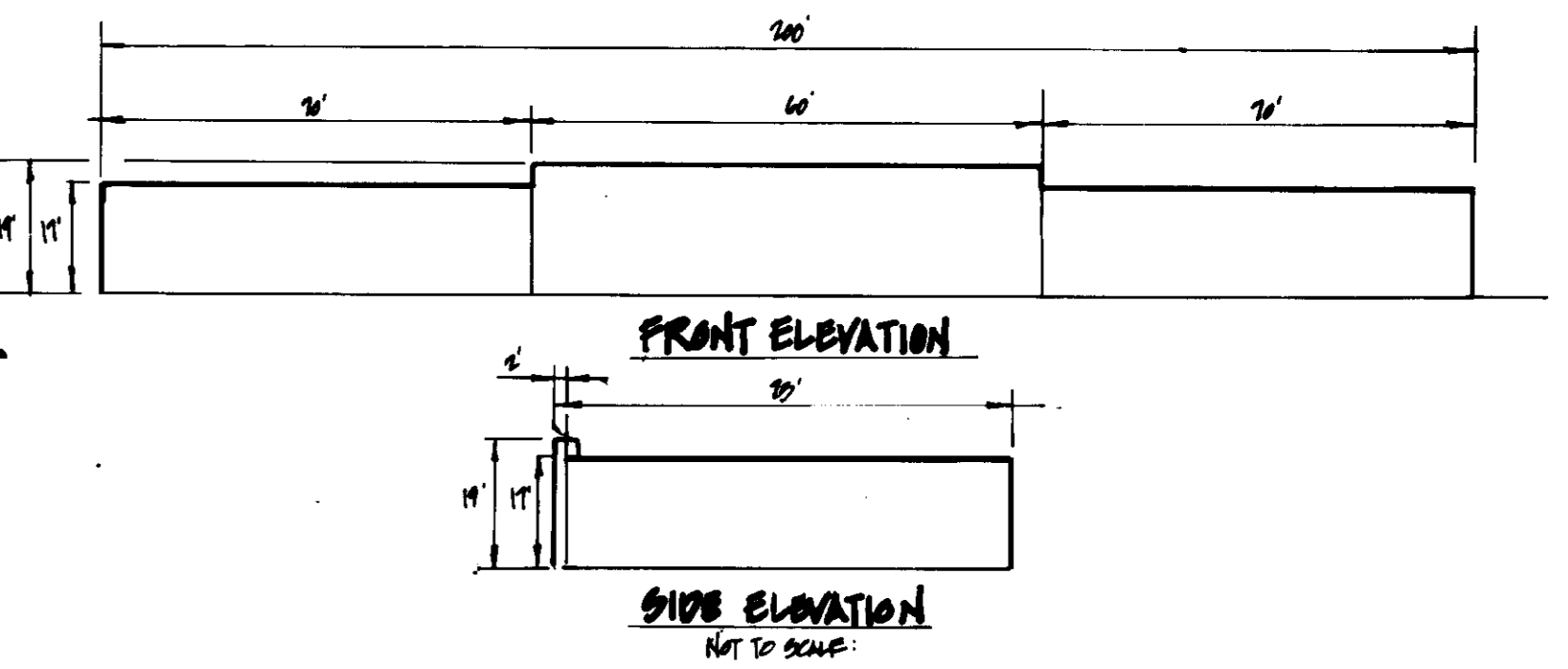
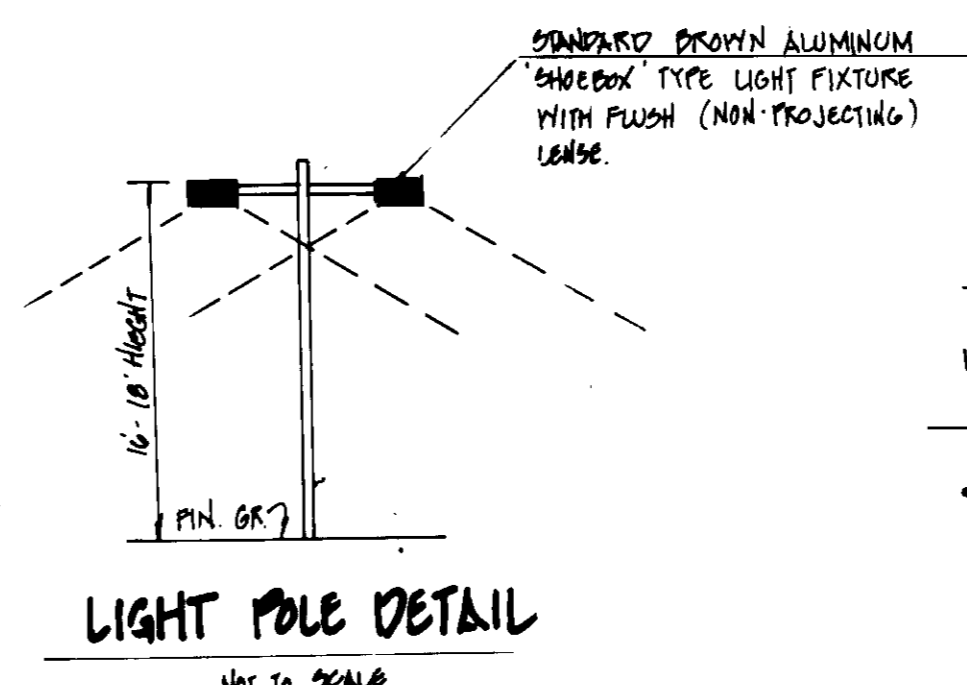


STORM DRAIN PROFILES SCALE: HORIZ. 1"=20' VERT. 1"=2'



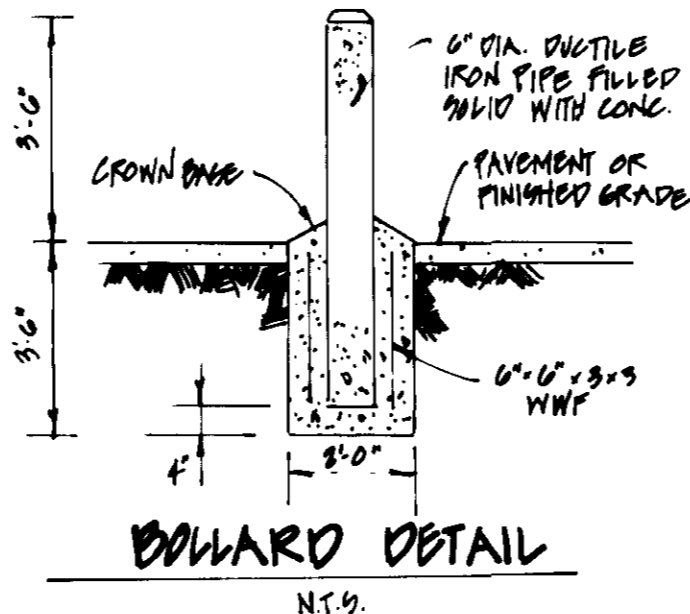
STRUCTURE SCHEDULE							LOCATION ***	
No.	Type	INV. IN	INV. OUT	TOP ELEV.	HOW CO. STR. DET.	REMARKS	NORTH	EAST
I-1	'A-B'	-	340.00	344.00	97-A-01		489902.2940	844443.0015
I-2	VEN. 5' CONCRETE	339.40	339.90	343.07	97-A-24		489917.3101	844578.0115
I-3	'A-B'	344.03	343.93	348.70	97-A-01		489946.0012	844699.3106
I-4	VEN. 5'	342.22	341.77	345.00	97-A-32		489933.2317	844671.1331
I-5	VEN. 5' CONCRETE	-	343.89	349.97	97-A-34		489906.3011	844624.0733
021	METAL END SECTION	339.11	339.00	-	97-B-01		489977.4402	844461.2329
023	METAL END SECTION	339.09	339.00	-	97-B-01		489919.6044	844677.9438
021	TYPE 'D' VENT INLET	-	337.32	340.90	97-A-11	* OPENING ON S-SIDE N.E. (V)	481318.4745	844557.9438

* TOP OF CURB ELEVATION.
 ** INVERT ELEVATION OF OPENINGS * TOT OF CURB 341.33
 *** LOCATION OF STRUCTURES ARE TO E AND TO FACE OF CURB WHERE APPLICABLE

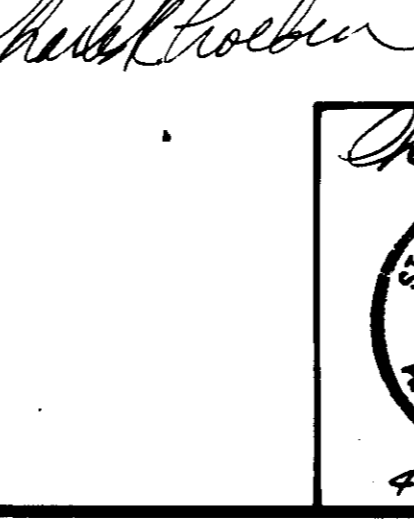
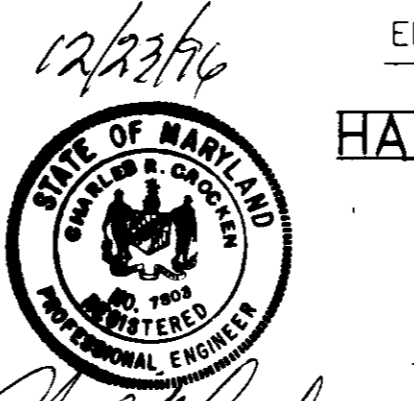


SOLID WASTE SERVICE PAD
 NOT TO SCALE

HANDICAPPED SIGN AND POST
 NOT TO SCALE



DOWNWARD DETAIL
 NOT TO SCALE

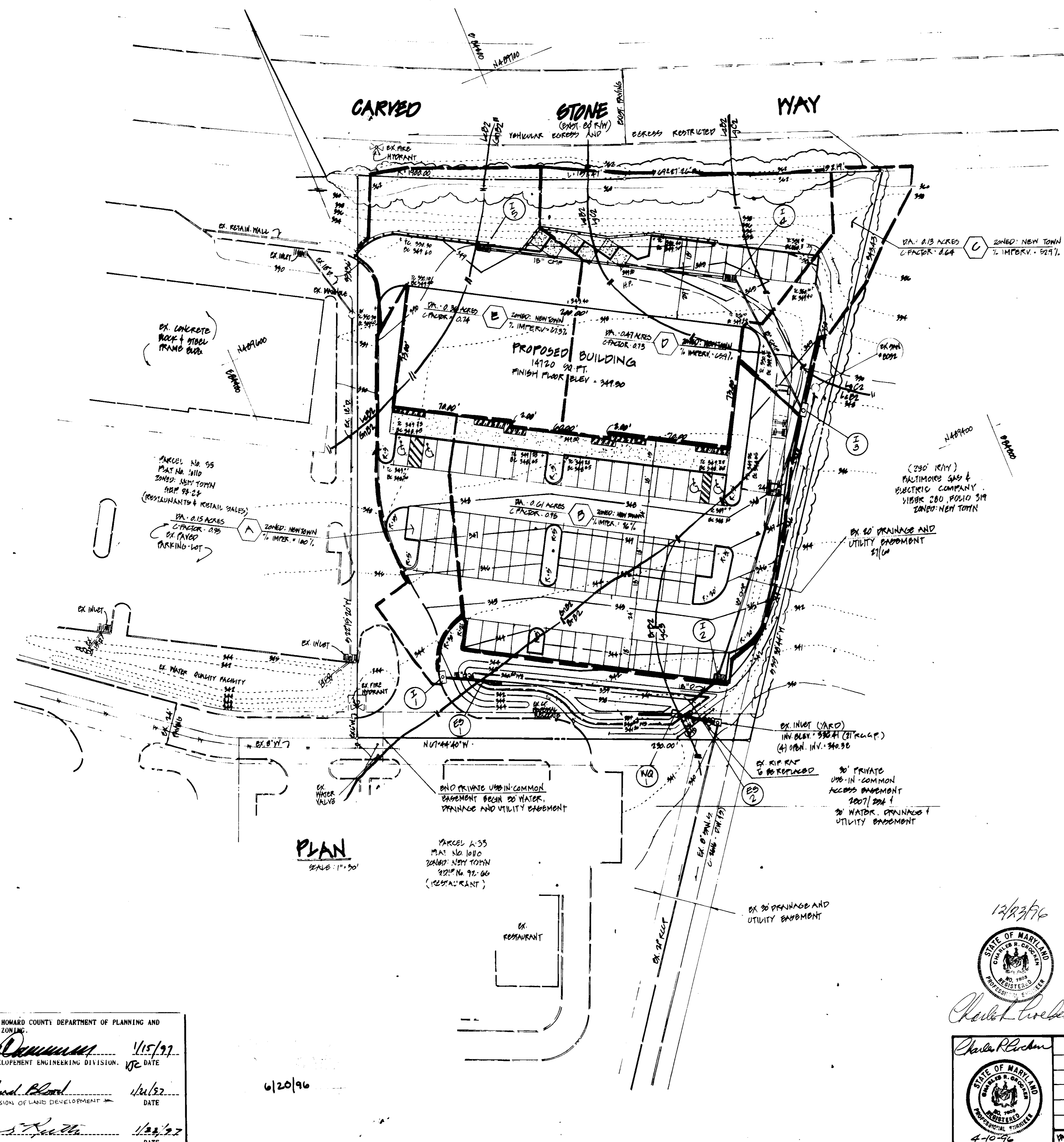


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 Chief Development Engineering Division, 1/15/97
 Chief Division of Land Development, 1/21/97
 Director, 1/24/97

APPROVED: PLANNING BOARD OF HOWARD COUNTY
 DATE: 6/20/96

TITLE: SITE DETAILS & PROFILES			
PROJECT: V.O.B. SECTION 2, AREA 2, PARCEL A-34			
LOCATION: 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND			
TAX MAP: A2	PARCEL: A-34	BLOCK: 3	
SCALE: AS SHOWN	DESIGNED BY: PRATT BY: CHC	CHECKED BY: CHC	DATE: 4-96
			DRAWING NO.: 91T. 2016

CHARLES R. CROCKEN AND ASSOCIATES, INC.
 CIVIL ENGINEERING/LAND PLANNING
 P.O. BOX 307
 WESTMINSTER, MARYLAND 21157
 TEL. (410) 539-2708



- SOIL TYPES:**
- 1. L602 - L600RE - TYPE 'C'
 - 2. G602 - G600RE - TYPE 'C'
 - 3. L603 - L600RE - TYPE 'C'
 - 4. B602 - BRADYMINE - TYPE 'C'

OPERATING AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY EXTENDED DETENTION POND

- ROUTINE MAINTENANCE:**
- FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.
 - TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES, THE BOTTOM OF THE POND, AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.
 - DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
- NON-ROUTINE MAINTENANCE**
- STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER AND THE PIPES SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.
 - SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCE THE DESIGN STORAGE. WHEN IT INTERFERES WITH THE FUNCTION OF THE RISER, WHEN DEEMED NECESSARY AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY THE HOWARD COUNTY'S DEPARTMENT OF PUBLIC WORKS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Richard Blood 1/15/97
CHIEF DEVELOPMENT ENGINEERING DIVISION. DATE

Richard Blood 1/21/97
CHIEF DIVISION OF LAND DEVELOPMENT DATE

James R. ... 1/23/97
DIRECTOR DATE

6/20/96

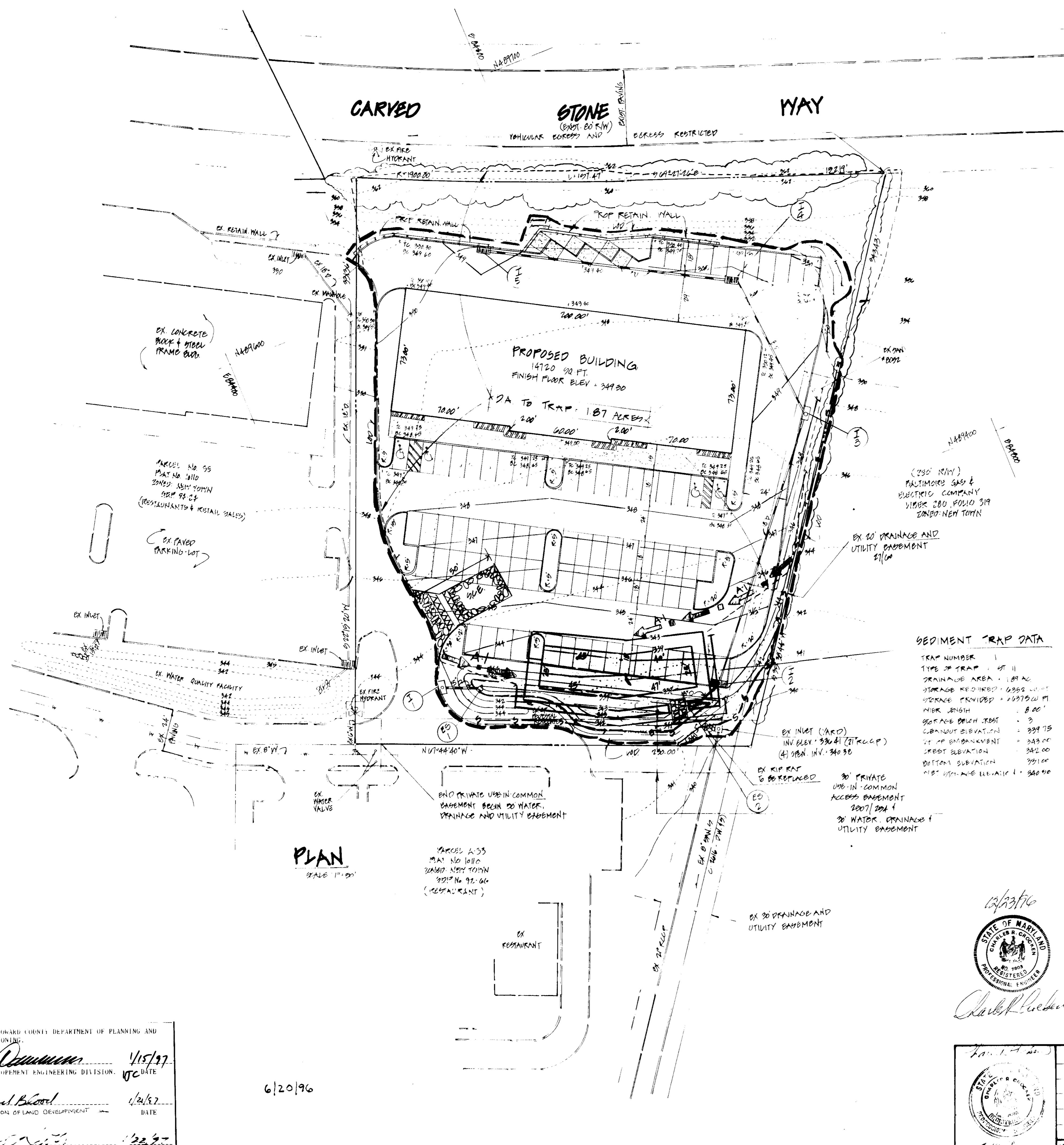
12/27/96

Charles R. Crocker

TITLE: DRAINAGE AREA MAP			
PROJECT: V.O.B. SECTION 2, AREA 2, PARCEL A 35			
LOCATION: 6TH DISTRICT DISTRICT HOWARD COUNTY, MARYLAND			
TAX MAP 42	PARCEL A 34	BLK 9	
SCALE AS SHOWN	DRAWN BY CHC	CHECKED BY: DATE CRC 4-96	
DATE	BY	DATE	BY
		DATE	BY

CHARLES R. CROCKER AND ASSOCIATES, INC.

CIVIL ENGINEERING - LAND PLANNING
P.O. BOX 307
WORTHINGTON, MARYLAND 20797
TEL. (410) 599-7705



- REQUIRED SEQUENCE OF CONSTRUCTION:
1. OBTAIN GRADING PERMIT
 2. INSTALL BLAZE ORANGE PLASTIC MESH FENCE FOR TREE PROTECTION
 3. CLEAR & GRUB FOR INSTALLATION OF SEDIMENT CONTROL MEASURES ONLY
 4. INSTALL ALL SEDIMENT CONTROL MEASURES (WALL, I.E., EARTH DIKES, SILT FENCE, SEDIMENT TRAP & S.C.F.)
 5. CLEAR AND GRUB SITE, BARGE GRADE BUILDING AND PARKING LOT
 6. BEGIN BUILDING CONSTRUCTION
 7. INSTALL STORM DRAINS EXCEPT FOR FILL TO EXISTING STREET E.L.
 8. INSTALL WATER AND SEWER CONNECTIONS, GAS AND ELECTRICAL SERVICES
 9. INSTALL CURB & GUTTER AND SIDEWALKS
 10. FINE GRADE AND LAKE SITE, STABILIZE RESTORED AREAS WITH SEED AND MULCH
 11. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, COVER THE SEDIMENT TRAP TO WATER QUALITY CONTROL SYSTEM STRUCTURE AND CONSTRUCT STORM DRAINS FROM STREET TO EXISTING STREET
 12. UPON APPROVAL OF THE SEDIMENT CONTROL ENGINEER REMOVE ALL SEDIMENT CONTROL MEASURES AND STABILIZE ALL RESTORED AREAS

Reviewed for _____ S.C.D.
and county Technical Requirements
USDA, NATURAL RESOURCES CONSERVATION SERVICE

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

Approved _____ Date _____
Howard B. C. P.

Charles R. Crocken
STATE OF MARYLAND
CHARLES R. CROCKEN
REGISTERED PROFESSIONAL ENGINEER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

William J. ... 4/15/97
CHIEF DEVELOPMENT ENGINEERING DIVISION. DATE

Richard Blood 4/24/97
CHIEF DIVISION OF LAND DEVELOPMENT DATE

... 4/22/97
DIRECTOR DATE

6/20/96

TITLE: SEDIMENT & EROSION CONTROL PLAN		PROJECT: V.O.B. SECTION 2 AREA 2 PARCEL A-25		LOCATION: 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TAX MAP: 4C	PARCEL: A-24	BLK: 5	DATE: 4-16	DRAWING NO: 9174+G	
SCALE: AS SHOWN	DESIGNED BY: CHC	DRAWN BY: CHC	CHECKED BY: CHC	DATE: 4-16	
DATE: 4-10-96	BY: [Signature]	REVISION:	BY:		

CHARLES R. CROCKEN AND ASSOCIATES, INC.
CIVIL ENGINEERING, LAND PLANNING
P.O. BOX 397
WESMINSTER, MARYLAND 21097
TEL. (410) 249-7705

PERMANENT SEEDING NOTES

APPLY PERMANENT SEEDING TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEED BED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING OR DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING IF SOIL HAS NOT BEEN PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING METHODS:

- 1) PREFERRED METHOD: APPLY 2 TONS/ACRE OF DOLOMITIC LIMESTONE (92 LBS/1000 S.F.) BEFORE SEEDING, HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS/ACRE OF 30-0-0 UREAFORM FERTILIZER. (9 LBS/1000 S.F.).
- 2) ACCEPTABLE METHOD: APPLY 2 TONS/ACRE OF DOLOMITIC LIMESTONE (92 LBS/1000 S.F.) BEFORE SEEDING, HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 S.F.) OF KENTUCKY 31 TALL FESCUE AND 2 LBS PER ACRE (0.05 LBS/1000 S.F.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 25, PROTECT THE 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 PER ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 14 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 S.F.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR THE MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 215 GALS PER ACRE (5 GALS/1000 S.F.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 5 FEET OR HIGHER, USE 345 GALS PER ACRE (5 GALS/1000 S.F.) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS. RESEEDING AND REPLACEMENTS.

TEMPORARY SEDIMENT CONTROL MEASURES

APPLY TEMPORARY SEEDING TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEED BED PREPARATION: LOOSEN THE UPPER THREE INCHES OF SOIL BY RAKING OR DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF SOIL HAS NOT BEEN PREVIOUSLY LOOSENED.

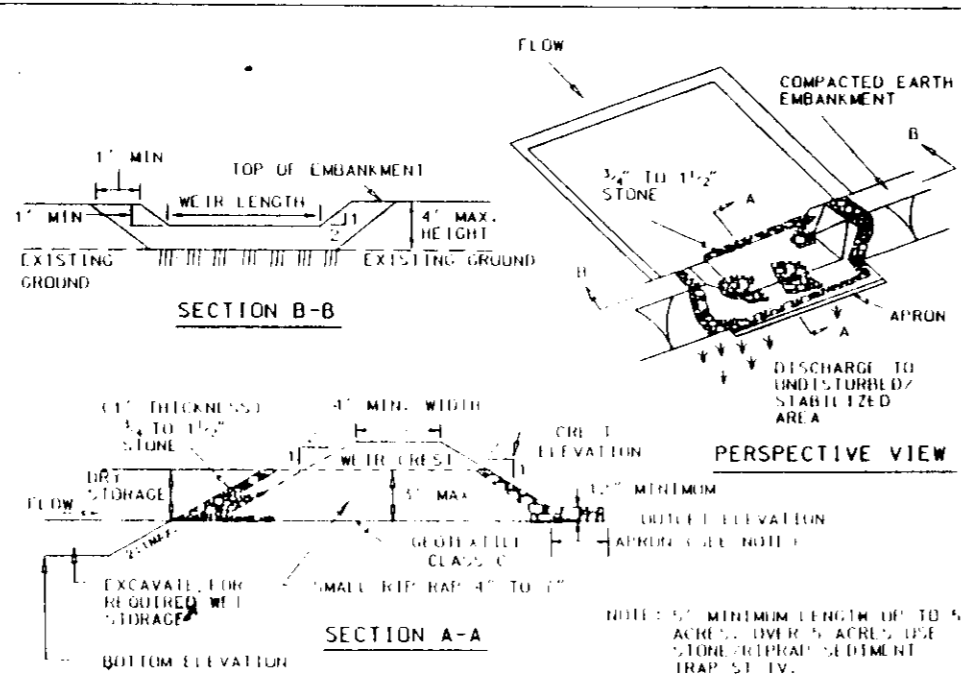
SOIL AMENDMENTS: APPLY 60 LBS./ACRE 10-10-10 FERTILIZER EQUIVALENT TO (4 LBS/1000 SQ. FT.)

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 24 BUSHEL/ACRE OF ANNUAL RYE. 3.2 LBS/1000 S.F. FOR THE PERIOD MAY 1 THRU AUGUST 14. SEED WITH 3 LBS/ACRE OF WEEPING LOVEGRASS. 0.7 LBS/1000 S.F. FOR THE PERIOD NOVEMBER 15 THRU FEBRUARY 25. PROTECT SITE BY APPLYING 2 TONS OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 14 TO 2 TONS/ACRE, 70 TO 90 LBS/1000 S.F. OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 215 GAL/PER ACRE, 5 GAL PER 1000 S.F. OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 5 FT. OR HIGHER, USE 345 GAL/ACRE, 5 GAL PER 1000 S.F. FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATES AND METHODS NOT COVERED HEREIN.

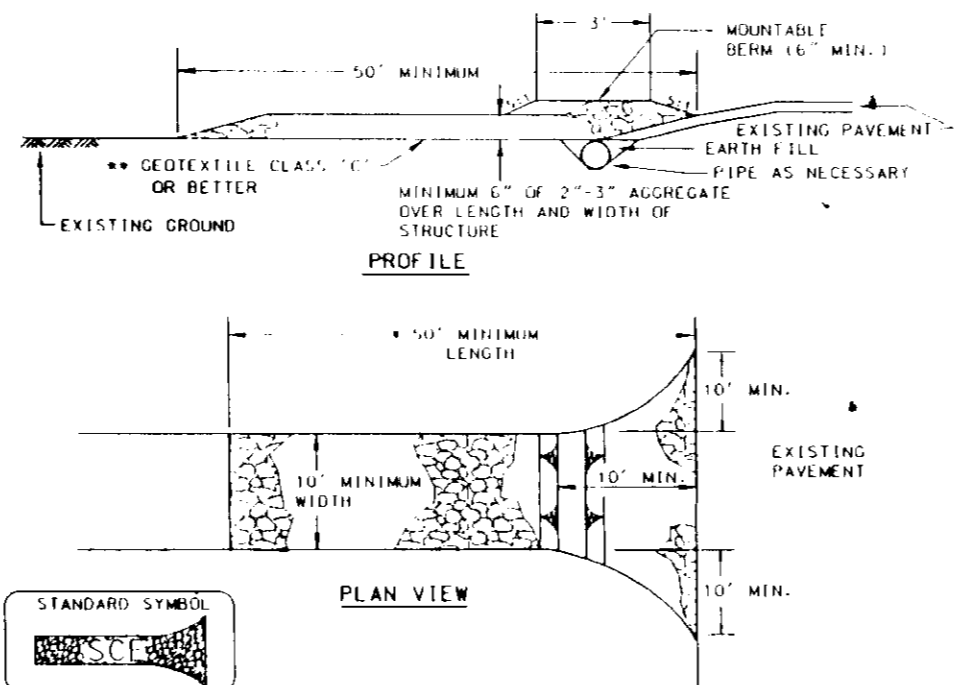
DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II



- Construction Specifications:
1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The soil 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 tamping 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 24" in size with a 1" thick layer of 1/2" to 3/4" washed aggregate placed on the stream face of the outlet. Stone facing shall be as necessary to prevent clogging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet.
 5. Sediment shall be removed and trip fractured to its original condition when the sediment has accumulated to one-half of the wet storage depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.

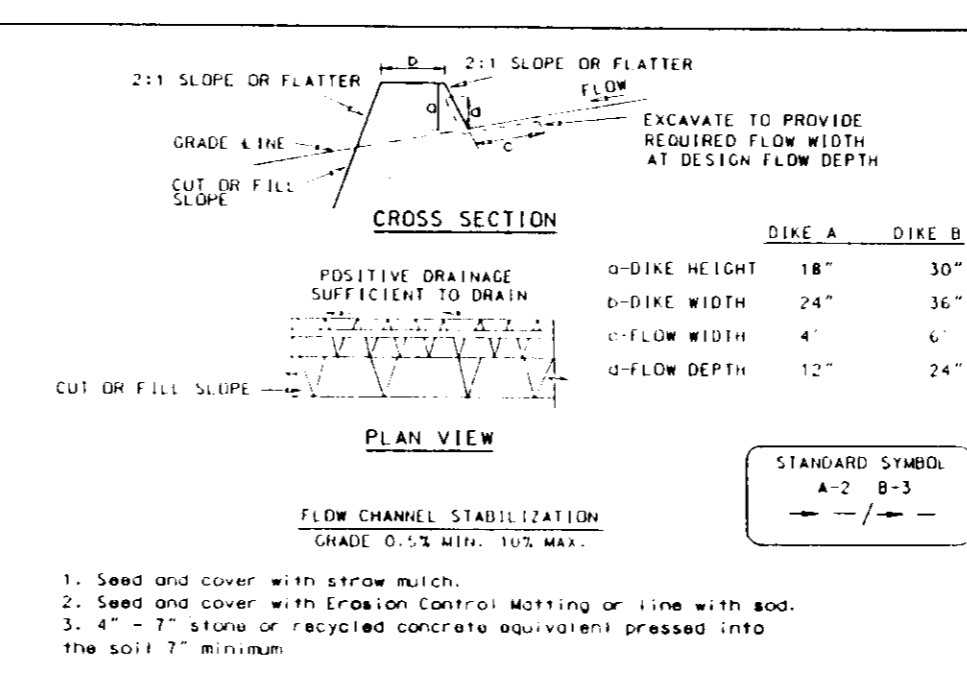
6. The structure shall be inspected periodically and after each rain and repairs made as needed.
7. Construction of traps shall be carried out in such a manner that sediment pollution is avoided. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentration of runoff shall be protected in accordance with Grade Stabilization Structure criteria. The number of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and avoided redisturbed erosion free during the life of the trap.
8. The structure shall be dewatered by approved methods, followed and the area stabilized when the drainage area has been fully stabilized.
9. Refer to Section 9 for specifications concerning trap dewatering.
10. Minimum trap depth shall be measured from the weir elevation.
11. The elevation of the top of any dike directing water into the trap must equal or exceed the elevation of the trap embankment.
12. Geotextile Class C shall be placed over the bottom and sides of the outlet channel prior to the placement of stone. Sections of filter cloth must overlap at least 12" with the portion nearest the entrance placed on top. The filter cloth shall be embedded at least 6" into existing ground at the entrance of the outlet channel.
13. Outlet - An outlet shall be provided, including a means of conveying the discharge in an erosion free manner to an existing stable channel.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



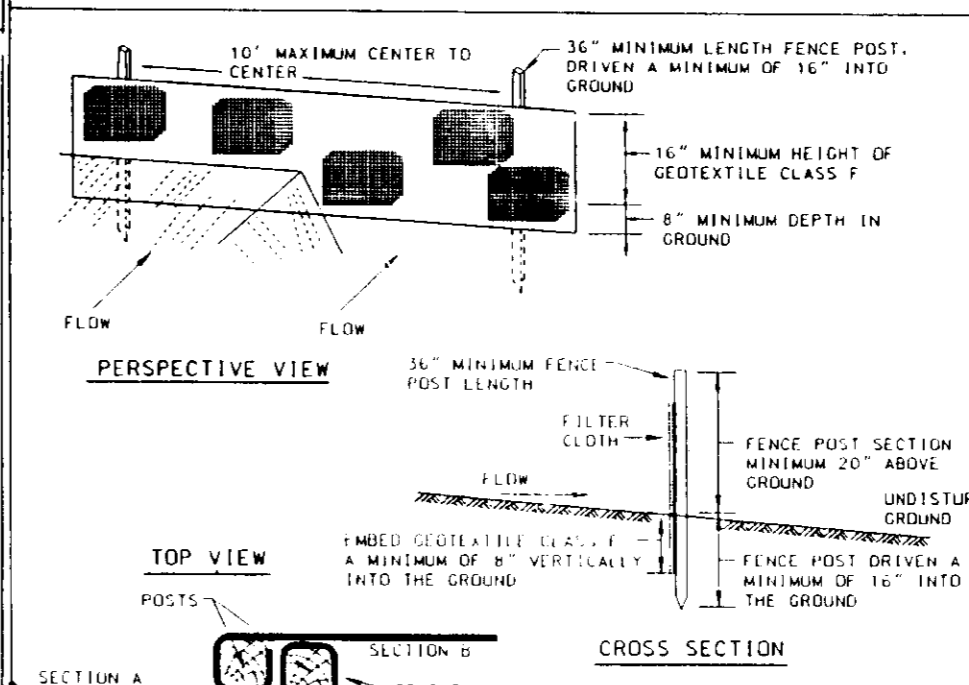
- Construction Specifications:
1. Length - minimum of 50' x 30' for single residence lots.
 2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
 3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
 4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 4" deep over the length and width of the entrance.
 5. Surface water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SEE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
 6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

DETAIL 1 - EARTH DIKE



- Construction Specifications:
1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1:1.
 2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
 3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
 4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
 5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
 6. Fill shall be compacted by earth moving equipment.
 7. All earth removed and used for construction shall be placed so that it will not interfere with the functioning of the dike.
 8. Inspection and maintenance must be provided periodically and after each rain event.

DETAIL 22 - SILT FENCE



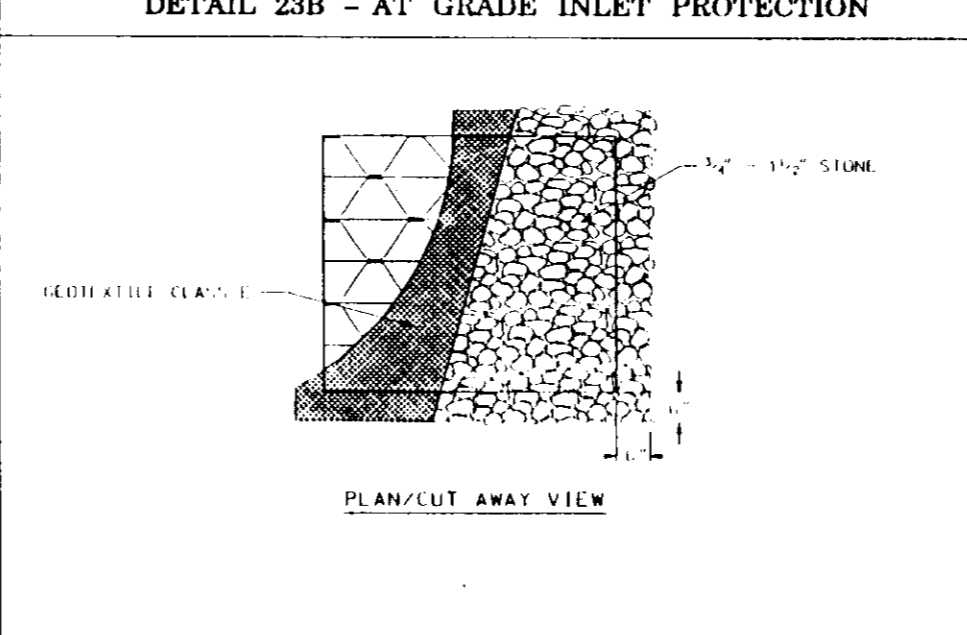
- Construction Specifications:
1. Fence posts shall be a minimum of 30" long or 18" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square minimum cut or 1 1/2" diameter minimum round and shall be of sound quality hardwood. Steel posts will be standard 1" or 1 1/4" section weighing not less than 1.00 pound per linear foot.
 2. Geotextile shall be fastened securely to each fence post with wire ties or staples on top and mid-section and shall meet the following requirements for Geotextile Class F:
 - Tensile Strength: 50 lb/in (min.) Test: MSMT 509
 - Tensile Modulus: 20 lb/in (min.) Test: MSMT 509
 - Flow Rate: 0.3 gal/477 minute (max.) Test: MSMT 522
 - Filtering Efficiency: 75% (min.) Test: MSMT 522 3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
 4. Silt fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reaches 50% of the fabric height.

- GENERAL NOTES FOR SEDIMENT CONTROL
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 TEL: (410) 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN A 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES INCLUDING DIKES PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1. B) 14 DAYS AS TO ALL OTHER DISTURBED 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, CHAP. 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. SECTION G - VEGETATIVE PRACTICES FOR METHODS AND MATERIALS SECTION I, TEMPORARY SEEDINGS SECTION II, PERMANENT SEEDINGS SECTION III, SOD SECTION IV (TEMPORARY) STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN THE 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. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY CONSTRUCTION OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 8. ADDITIONAL SEDIMENT CONTROL MEASURES MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 9. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2.0 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, AND 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.

10. SITE ANALYSIS:

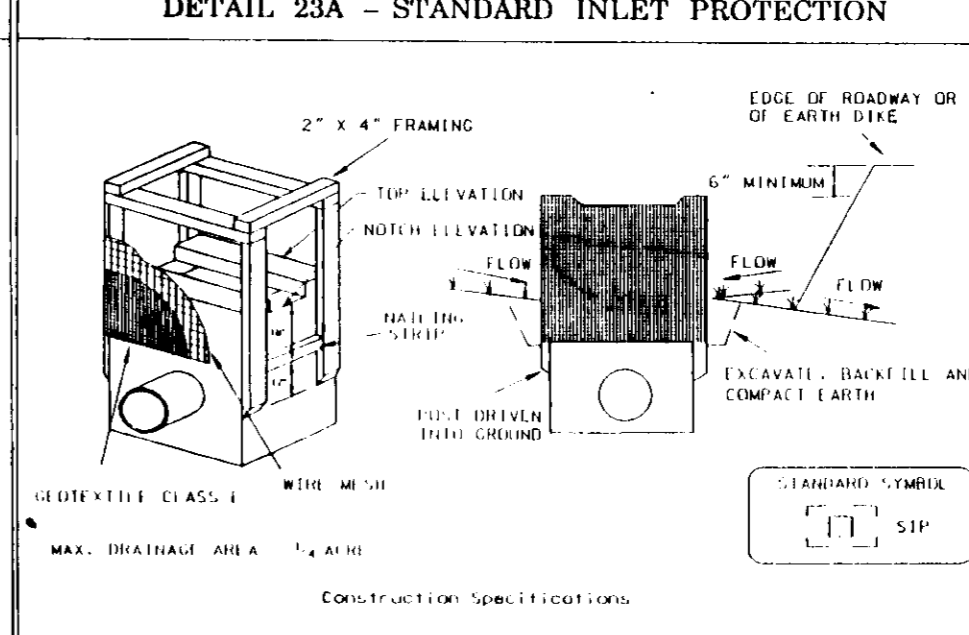
TOTAL AREA OF SITE	= 2,044 ACRES
AREA DISTURBED	= 170 ACRES
AREA TO BE RUFFED OR PAVED	= 100 ACRES
AREA TO BE VEGETATIVELY STABILIZED	= 215 ACRES
TOTAL VOLUME OF CUT	= 4,000 CU YD
TOTAL VOLUME OF FILL	= N/A
OFFSITE WASTE/BORROW AREA LOCATION	= N/A

DETAIL 23B - AT GRADE INLET PROTECTION



- Construction Specifications:
1. Set grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
 2. Place 1/2" to 3/4" stone, 4" to 6" thick on the grate to secure the fabric and provide additional filtration.

DETAIL 23A - STANDARD INLET PROTECTION



- Construction Specifications:
1. Excavate completely around the inlet to a depth of 18" below the inlet elevation.
 2. Install the 2" x 4" structural grade lumber posts 1" into the ground and secure all the posts. Place steel chairs between the posts on the web of the inlet. Align the top edge of the 2" x 4" frame using the top lip joint shown on Detail 23A. The top of the frame must be 6" below adjacent roadways where flooding and safety issues may arise.
 3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a post.
 4. Stretch the Geotextile Class E tightly over the wire mesh with the geotextile extending from the top of the frame to 18" below the inlet match elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded, then fastened down.
 5. Backfill around the inlet in compacted 6" layers until the layer of earth is level with the notch elevation on the ends and trap elevations on the sides.
 6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike shall be at least 6" higher than the top of the frame.
 7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged.

6/20/96

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 [Signature] 1/15/97
 CHIEF DEVELOPMENT ENGINEERING DIVISION, DATE

[Signature] 1/21/97
 CHIEF DIVISION OF PLANNING DEVELOPMENT, DATE

[Signature] 1/22/97
 DIRECTOR, DATE

REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS THE TECHNICAL REQUIREMENTS.
 [Signature] 1/15/97
 U.S. SOIL CONSERVATION SERVICE, DATE

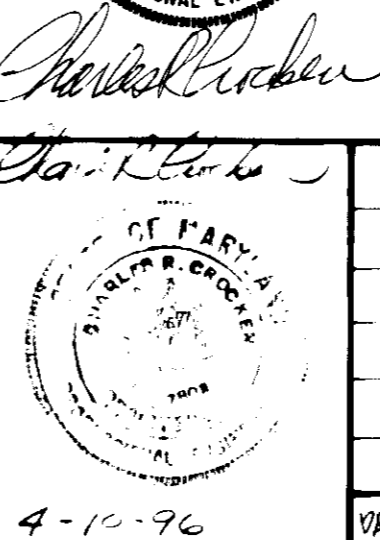
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature] 1/22/97
 HOWARD S.C.D., DATE

DEVELOPER'S CERTIFICATION:
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL 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 EROSION AND SEDIMENT BEFORE BEGINNING WORK ON THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

[Signature] 12/23/96
 GARNET S. BEAN, PRES. GBK, INC., DATE

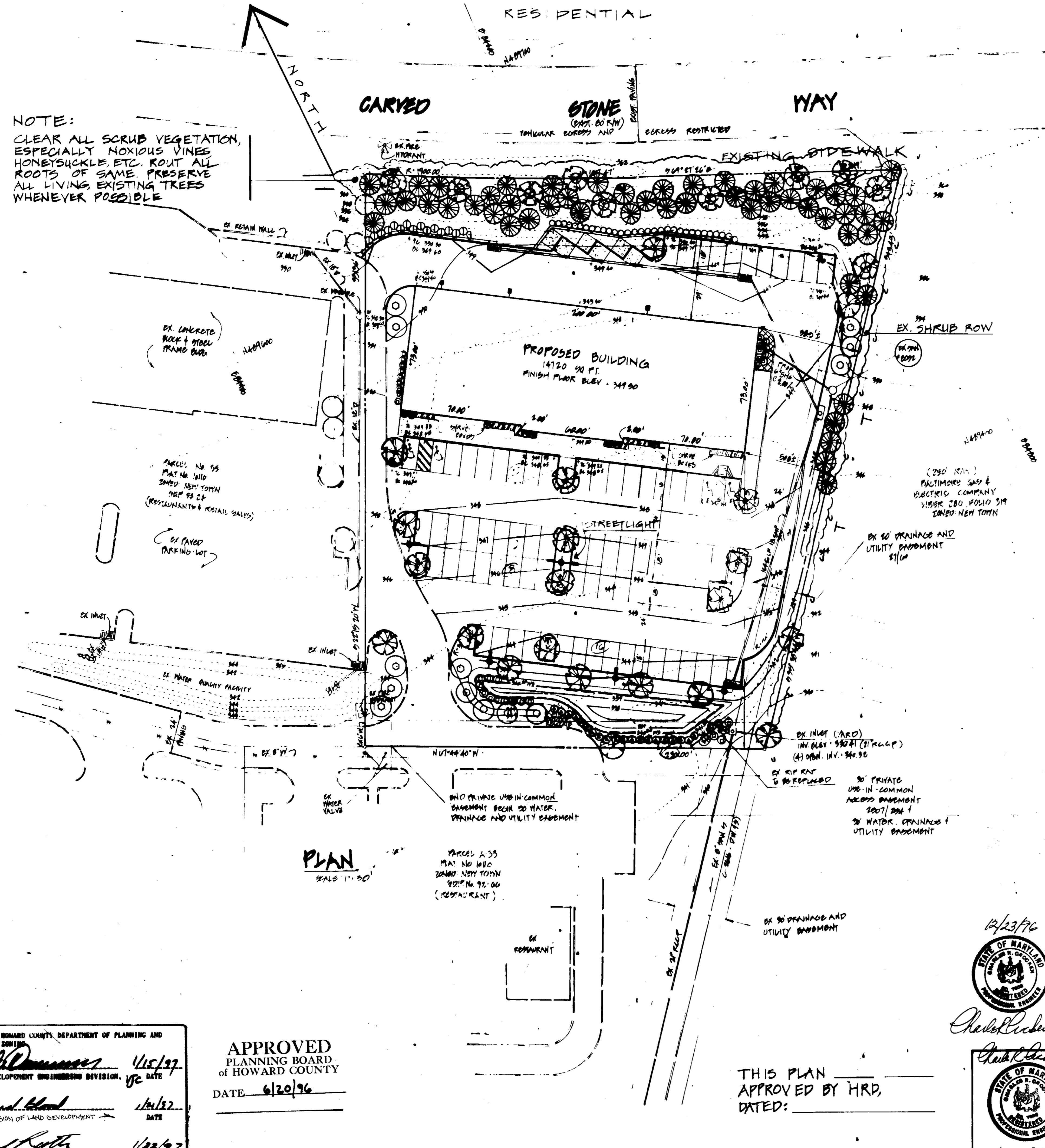
ENGINEER'S CERTIFICATION:
 I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED UPON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 12/23/96
 CHARLES R. CROCKEN PE MD REG. NO. DATE



TITLE	SEDIMENT CONTROL DETAILS
PROJECT	V.O.B. SECTION 2, AREA 2, PARCEL A-34
LOCATION	6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TAX MAP	42 PARCEL: A-34 BLOCK: 5
SCALE	AS SHOWN
DESIGNED BY	CRC
DRAWN BY	CRC
CHECKED BY	CRC
DATE	4-96
DRAWING NO.	SH 3016

CHARLES R. CROCKEN AND ASSOCIATES, INC.
 CIVIL ENGINEERING - LAND PLANNING
 P.O. BOX 301
 WESTMINSTER, MARYLAND 21157
 TEL: (410) 549-2700



NOTE:
 CLEAR ALL SCRUB VEGETATION, ESPECIALLY NOXIOUS VINES, HONEYSUCKLE, ETC. ROUT ALL ROOTS OF SAME. PRESERVE ALL LIVING EXISTING TREES WHENEVER POSSIBLE.

PLAN
 SCALE 1"=30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief Development Engineering Division
 DATE 1/15/97

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief Division of Land Development
 DATE 1/15/97

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Director
 DATE 1/29/97

APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE 6/20/96

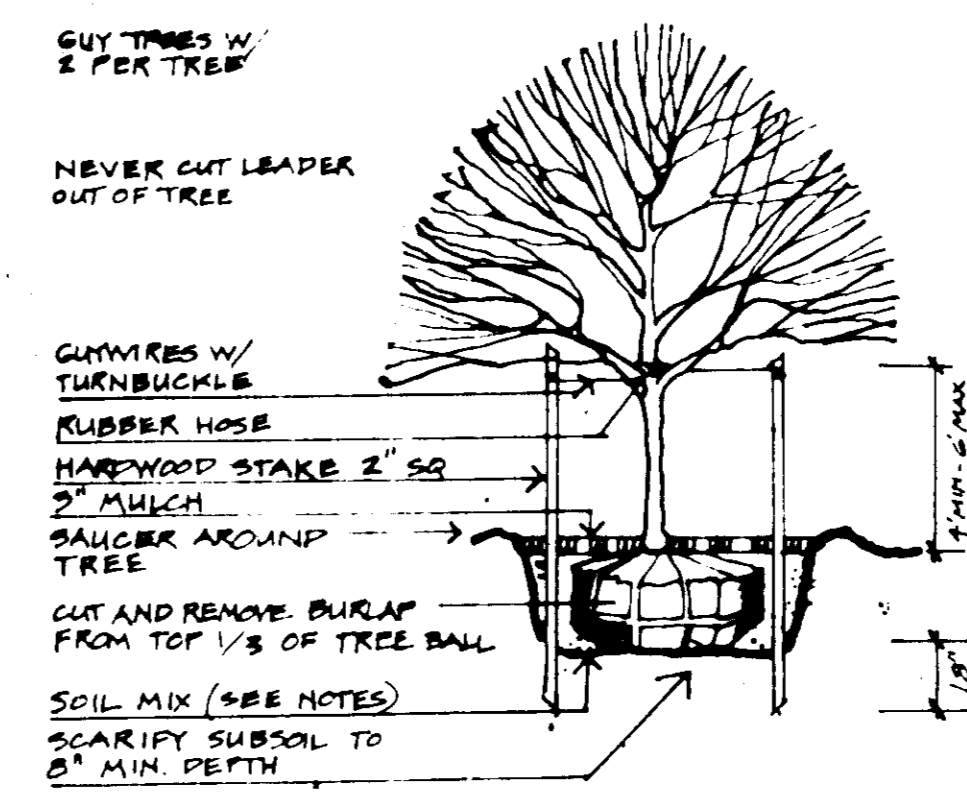
THIS PLAN APPROVED BY HRD, DATED: 6/20/96

PLANT LIST

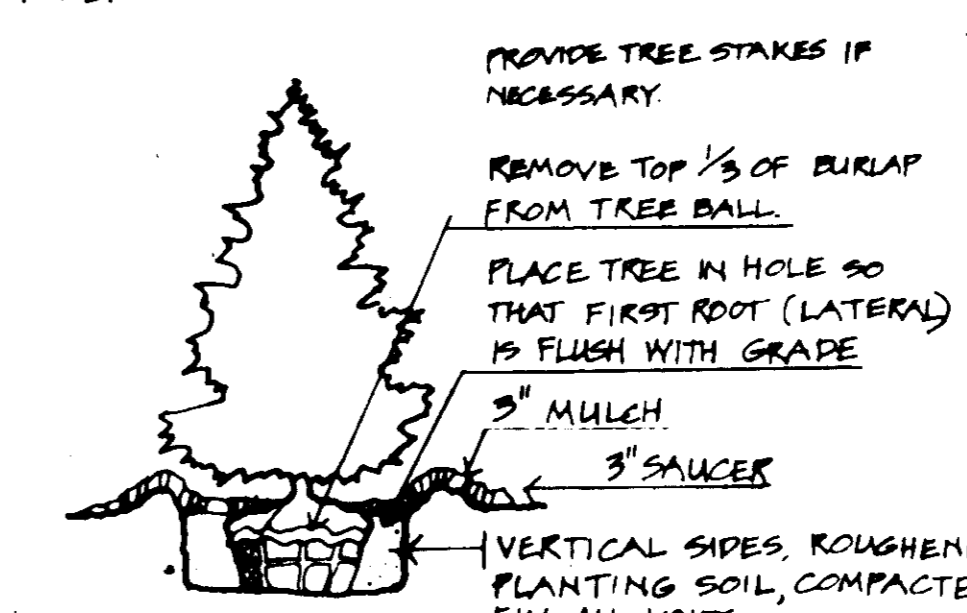
This list includes landscape material for Perimeter Landscape Edge and Parking Lot

NO	KEY	QUAN	PLANT NAME	SIZE	COND	RE MARKS
1	22		Gleditsia triacanthos var. inermis 'Imperial'	2 1/2' x 3'	B&B Full	12-14' Ht
2	52		Pinus strobus Eastern White Pine	2 1/2' x 2'	B&B Full	10-15' O.C.
3	2		Prunus yedoensis Yoshino Cherry	2 1/2' x 1'	B&B Full	8-10' Height
4	10		Quercus palustris 'Sovereign'	2 1/2' x 3'	B&B Full	12-14' Ht
5	34		Cornus alba 'Sibirica'	2 1/2' x 3'	B&B Full	36" O.C.
6	31		Cornus alternifolia 'Repens'	18-24" Spread	B&B Full	30" O.C.
7	NA		Fraxinus velutina 'Compacta'	2 1/2' x 3'	B&B Full	36" O.C.
8	16		For. this suspensaria 'Sobolus'	2 1/2' x 2'	B&B Full	3' x 4' O.C.
9	26		Jumpers chinensis sargentii 'Vindis'	18-24" Spread	B&B Full	30" O.C.
10	10		Taxus media 'Hicksii'	2 1/2' x 3'	B&B Full	As Shown
11	20		Viburnum trilobum American Cranberry Viburnum	2 1/2' x 3'	B&B Full	4' O.C.

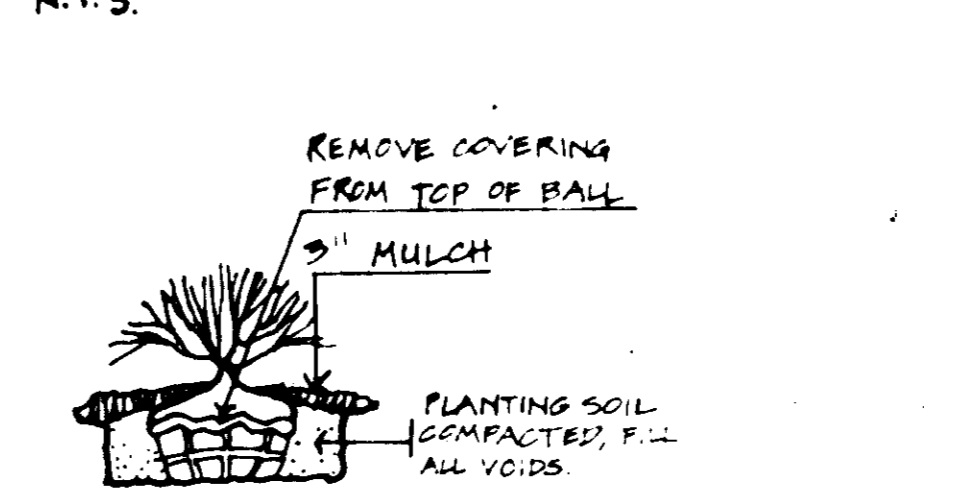
Note: Plants should be located in the field by Landscape Architect or Owner's Representative prior to planting.



DECIDUOUS TREE PLANTING DETAIL N.T.S.



EVERGREEN TREE PLANTING DETAIL N.T.S.



SHRUB PLANTING DETAIL N.T.S.

SCHEDULE A PERIMETER LANDSCAPE EDGE

Category	Adapted to Roadways	Adapted to Perimeter Properties
Landscape Type	E	P
Linear Feet of Roadway	280	2347
Linear Feet of Perimeter	280	2347
Cost for Existing Vegetation (Yes, No, Linear Feet)	NO	NO
Cost for Wall, Fence or Berm (Yes, No, Linear Feet)	NO	NO
Number of Plants Required	2	3
Shade Trees	0	5
Evergreen Trees	2	0
Number of Plants Provided	2	5
Shade Trees	0	4
Evergreen Trees	2	0
Other Trees (10:1 substitution)	0	0
Shrubs (10:1 substitution)	0	0

Comments: Hedgerow exists on eastern edge of property.

SCHEDULE B PARKING LOT INT. LANDSCAPE

NUMBER OF SPACES	82
NUMBER OF TREES REQUIRED	4
NUMBER OF SHADE TREES PROVIDED	11
ISLANDS REQUIRED	6
ISLANDS PROVIDED EQUIVALENT 200 sq/ft/Is.	6

NOTE: ISLANDS SHALL BE A MIN. OF 12' IN WIDTH, (CURB FACE TO CURB FACE).

- PLANTING NOTES**
- GENERAL**
- Notify "Miss Utility" 72 hours prior to the installation of all plant material.
 - Plant installation must conform to the minimum standards cited in the latest edition of Landscape Specifications, Guide Line, published by the Landscape Contractors Association.
 - Plants to be located in the field by the owner or the owner's representative. Notify owner 72 hrs. in advance of planting.
 - A Certificate of Landscape Installation is required as per the Howard County Landscape Ordinance.
 - Contact Landscape Architect regarding the substitution of plant material.
 - The number, size and location of plants shall not be changed. Substitutions must be labeled on the recommended plant list as per Howard County Landscape Ordinance.
- PLANTING**
- Balled and burlapped plant material shall not be accepted if ball is cracked or broken before or during planting. Protect all plants from drying by other sun or wind.
 - Tree pits shall be backfilled with 50% topsoil, 25% peat and 25% sand with one pound of 10-10-10 fertilizer per pit.
 - Topsoil shall be sandy loam soil, free from noxious weeds or grasses, roots, clay lumps, stones, rocks, etc. Peat moss shall be commercial with pH 4.5 to 5.5, free of noxious material or harmful minerals.
 - All plants shall be watered at planting with weekly watering thereafter for the first 90 days. Watering shall continue bi-monthly or as necessary to maintain plants in a healthy condition. Fertilizer shall be applied with watering to insure a healthy plant.
 - Maintain the site in an orderly manner. Stakes and sidewalks shall be kept clear. All rejected or dead material shall be immediately removed from the site.
 - MAINTENANCE AND GUARANTEES:**
 - Plant material to be alive and healthy at the time of the guarantee period specified as per the Howard County Landscape Ordinance.
 - Maintenance shall begin immediately after planting and continue to the end of the guarantee period.
 - Maintenance consists of pruning, watering, weeding, re-mulching, re-planting plants in proper grades as needed and repairing guys and stakes as needed.

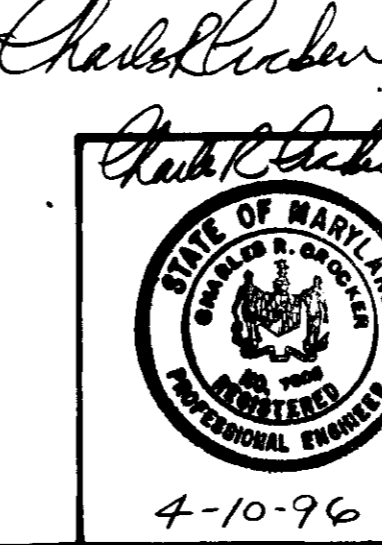
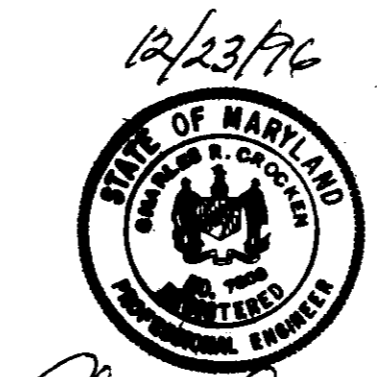
THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 10.124 OF HOWARD CO. CODE, THE LANDSCAPE MANUAL & REQUIREMENTS ESTABLISHED BY HRD, COLUMBIA, MD.

A FINANCIAL SURETY FOR REQUIRED LANDSCAPE TREES IN THE AMOUNT OF \$3,100.00 (\$100/TREE) AS PART OF THE DEVELOPER'S AGREEMENT. DPW

THIS PLAN HAS BEEN PREPARED WITH THE N.T. ALTERNATIVE COMPLIANCE PROVISIONS OF SEC. 10.124 OF THE HOWARD CO. CODE & THE LANDSCAPE MANUAL.

C.L. Williams, Landscape Architect
 9592 Farwell Road
 Columbia, MD 21045
 410-730-0780

PREPARED BY: Charles R. Crocker
 RLA-557



NO	KEY	QUAN	PLANT NAME	SIZE	COND	RE MARKS
4/10			PER HO. CO. COMMENTS			

DATE: 4-10-96

PROJECT: V.O.B. SECTION 2, AREA 2, PARCEL A-34
 LOCATION: 6th ELECTION DISTRICT HLG, MD
 TAX MAP: 412 PARCEL: BLOCK 3
 SCALE: 1"=30' DRAWN BY: CLW CHECKED BY: DATE: 4/11/96
 PLANNED BY: DATE: 4/11/96