

SHEET INDEX	
No.	DESCRIPTION
1	TITLE SHEET
2	THORN BROOK ROAD PLAN GREENHAVEN COURT PLAN AND PROFILE
3	THORN BROOK ROAD PROFILE, GREENHAVEN COURT PROFILE & ROADWAY DETAILS
4	STREET TREE, GRADING, SEDIMENT CONTROL AND LANDSCAPING PLAN
5	SEDIMENT CONTROL NOTES AND DETAILS

FINAL ROAD CONSTRUCTION AND GRADING PLANS FOR MT. HEBRON

SECTION 23 - PHASE 1 LOT 9 - 26

APPROVED: DEPARTMENT OF PUBLIC WORKS
Richard M. Daniels 7-19-96
 CHIEF, BUREAU OF HIGHWAYS DATE

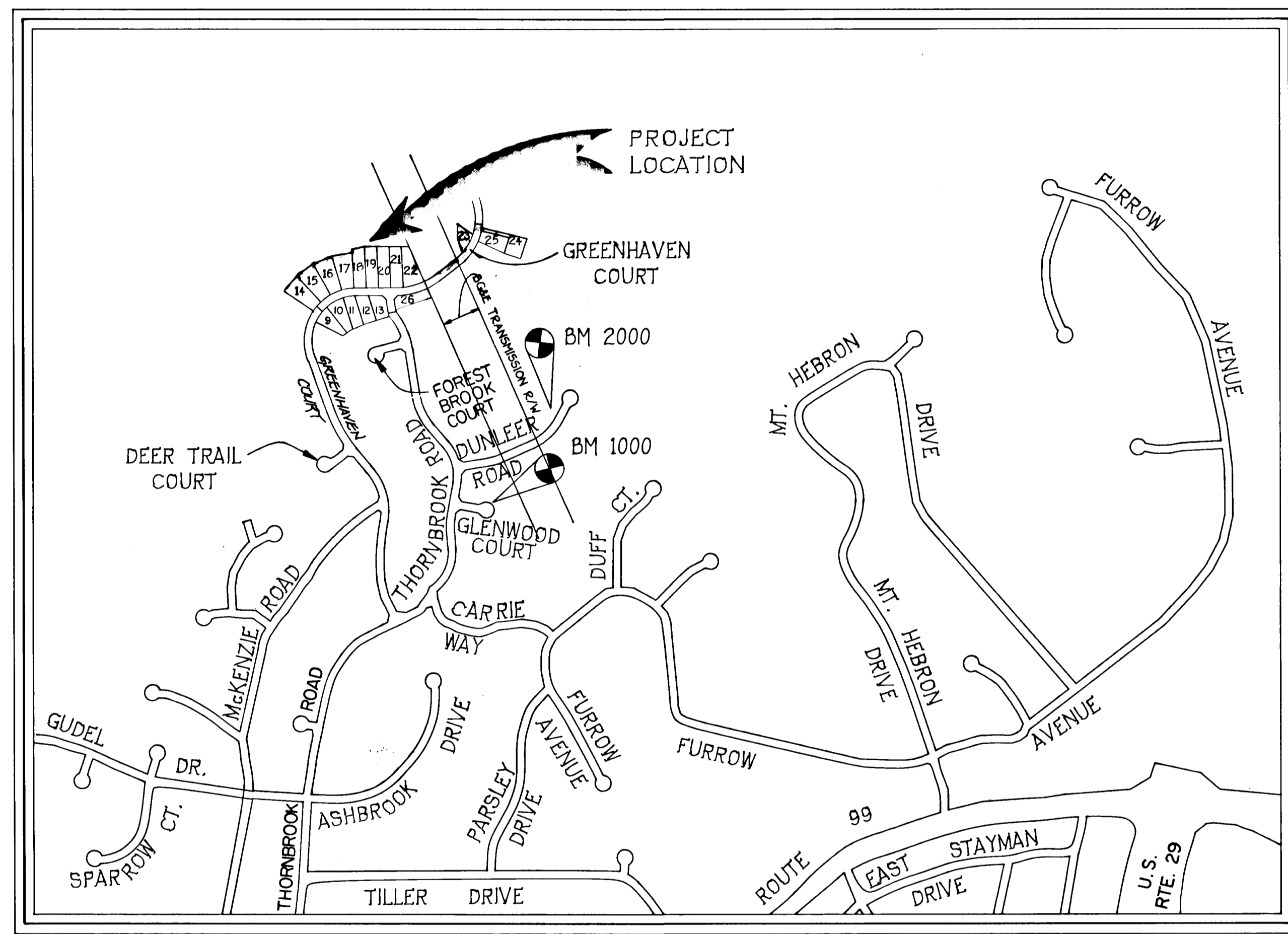
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Anna Swinnerton 7/25/96
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

Chris Sammons 7/25/96
 CHIEF, DEPARTMENT ENGINEERING DIVISION DATE

MINIMUM LOT SIZE CHART						
LOT No.	GROSS AREA	PIPESTEM AREA	REMAINING AREA	100 YEAR FLOODPLAIN	25% SLOPES	MINIMUM LOT SIZE
9	16,010 Sq.ft.	0 Sq.ft.	16,010 Sq.ft.	0.00 Ac	1,310 Sq.ft.	14,700 Sq.ft.
10	15,060 Sq.ft.	0 Sq.ft.	15,060 Sq.ft.	0.00 Ac	1,395 Sq.ft.	14,465 Sq.ft.
11	15,592 Sq.ft.	0 Sq.ft.	15,592 Sq.ft.	0.00 Ac	1,124 Sq.ft.	14,460 Sq.ft.
* 12	15,630 Sq.ft.	0 Sq.ft.	15,630 Sq.ft.	0.00 Ac	0 Sq.ft.	15,630 Sq.ft.
* 13	14,840 Sq.ft.	0 Sq.ft.	14,840 Sq.ft.	0.00 Ac	0 Sq.ft.	14,840 Sq.ft.
* 14	24,056 Sq.ft.	0 Sq.ft.	24,056 Sq.ft.	0.00 Ac	0 Sq.ft.	24,056 Sq.ft.
15	23,979 Sq.ft.	0 Sq.ft.	23,979 Sq.ft.	0.00 Ac	2,713 Sq.ft.	21,266 Sq.ft.
16	23,899 Sq.ft.	0 Sq.ft.	23,899 Sq.ft.	0.00 Ac	6,743 Sq.ft.	17,156 Sq.ft.
17	24,373 Sq.ft.	0 Sq.ft.	24,373 Sq.ft.	0.00 Ac	4,146 Sq.ft.	20,227 Sq.ft.
18	21,206 Sq.ft.	0 Sq.ft.	21,206 Sq.ft.	0.00 Ac	4,005 Sq.ft.	16,401 Sq.ft.
19	21,540 Sq.ft.	0 Sq.ft.	21,540 Sq.ft.	0.00 Ac	3,525 Sq.ft.	18,015 Sq.ft.
20	21,522 Sq.ft.	0 Sq.ft.	21,522 Sq.ft.	0.00 Ac	4,921 Sq.ft.	16,601 Sq.ft.
21	21,502 Sq.ft.	0 Sq.ft.	21,502 Sq.ft.	0.00 Ac	4,224 Sq.ft.	17,278 Sq.ft.
22	24,494 Sq.ft.	0 Sq.ft.	24,494 Sq.ft.	0.00 Ac	2,530 Sq.ft.	21,964 Sq.ft.
* 23	14,043 Sq.ft.	0 Sq.ft.	14,043 Sq.ft.	0.00 Ac	0 Sq.ft.	14,043 Sq.ft.
* 24	10,420 Sq.ft.	3,720 Sq.ft.	14,700 Sq.ft.	0.00 Ac	0 Sq.ft.	14,700 Sq.ft.
* 25	16,073 Sq.ft.	0 Sq.ft.	16,073 Sq.ft.	0.00 Ac	0 Sq.ft.	16,073 Sq.ft.

* DENOTES LOTS WHICH CONTAIN SLOPES WHICH DO NOT QUALIFY AS STEEP SLOPES (25% OR GREATER) BASED ON THE DEFINITION WITHIN THE COUNTY SUBDIVISION REGULATIONS.

TRAFFIC CONTROL SIGNS			
STREET NAME	STATION	POSTED SIGN	SIGN CODE
GREENHAVEN COURT	23+20	SPEED LIMIT 30	R2-1
GREENHAVEN COURT	27+82	SPEED LIMIT 30	R2-1
THORN BROOK ROAD	50+56	STOP	R1-1



VICINITY MAP
SCALE 1" = 600'

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STREET LIGHT CHART			
STREET NAME	STATION	OFF-SET	FIXTURE/POLE TYPE
GREENHAVEN COURT	25+80	22'R	100-WATT "TRADITIONAIRE" HPS VAPOR POST TOP FIXTURE ON 14 FOOT BLACK FIBERGLASS POLE
GREENHAVEN COURT	22+32	17'L	100-WATT "TRADITIONAIRE" HPS VAPOR POST TOP FIXTURE ON 14 FOOT BLACK FIBERGLASS POLE
GREENHAVEN COURT	29+02	17'R	100-WATT "TRADITIONAIRE" HPS VAPOR POST TOP FIXTURE ON 14 FOOT BLACK FIBERGLASS POLE
GREENHAVEN COURT	32+14	17'R	100-WATT "TRADITIONAIRE" HPS VAPOR POST TOP FIXTURE ON 14 FOOT BLACK FIBERGLASS POLE

GENERAL NOTES

- UNLESS OTHERWISE NOTED, ALL CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE FOLLOWING:
 - HOWARD COUNTY STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.
 - MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, AS AMENDED.
 - SOIL CONSERVATION SERVICE 1983 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 - SOIL CONSERVATION SERVICE 1993 MARYLAND STANDARDS AND SPECIFICATION FOR POND CONSTRUCTION (CODE 370).
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS, DIVISION OF CONSTRUCTION INSPECTION AT 410-313-1000 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.
- TOPOGRAPHY SHOWN HEREON IS FROM AERIAL MAPS FLOWN ON 1/27/90, BY PHOTO SCIENCE ON A 2' CONTOUR INTERVAL.
- STORMWATER MANAGEMENT FOR THIS DEVELOPMENT IS APPROVED UNDER SECTION 23, PHASE 1, LOTS 1-8 (F95-167).
- THIS HORIZONTAL AND VERTICAL DATUM SHOWN ARE BASED ON THE FOLLOWING NAD'83 HOWARD COUNTY CONTROL STATIONS:

HOWARD COUNTY MONUMENT 17-EA	N 109994.0413 (METERS)	(NOT WITHIN VICINITY)
	E 413227.0949 (METERS)	MAP LIMITS
HOWARD COUNTY MONUMENT 17-EB	N 101160.5677 (METERS)	(NOT WITHIN VICINITY)
	E 413772.7224 (METERS)	MAP LIMITS
- NOISE STUDY IS NOT APPLICABLE FOR THIS SUBDIVISION.
- FOREST STAND DELINEATION STUDY AND WETLANDS STUDY WAS PREPARED BY M.A. DIRKS AND CO., INC. ON MARCH 1994 AND APPROVED MARCH 30, 1994 BY HOWARD COUNTY. (REFERENCES 594-24)
- THE TRAFFIC STUDY WAS PROVIDED BY STREET TRAFFIC STUDIES, INC. ON JANUARY 31, 1994 AND APPROVED MARCH 30, 1994. (594-24)
- THE SKETCH PLAN 594-24 WAS APPROVED ON 3/30/94. THE PRELIMINARY PLAN P96-12 WAS APPROVED ON 4/21/96.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE, 1993)."
- A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- PUBLIC WATER AND PUBLIC SEWER WILL BE USED WITHIN THIS DEVELOPMENT. CONTRACT No. 24-3441-D AND 14-3181-D. DRAINAGE AREA IS THE PATAPSCO WATERSHED.
- EXISTING UTILITIES ARE BASED ON CONTRACT No. 24-1962-D AND HOWARD COUNTY AS-BUILTS FOR THE REFERENCED CONTRACT.
- VERTICAL DATUM IS BASED ON THE FOLLOWING BENCH MARKS:

BM 1000	ELEVATION 407.01
REBAR SET 27' SOUTHEAST OF LINEAR PROFILE STATION 1+55 GLENWOOD COURT ON LOT 45	
BM 2000	ELEVATION 423.62
REBAR SET 91' NORTH OF CL STATION 2+00 DUNLEER ROAD ON LOT 36	
- HORIZONTAL DATUM IS BASED ON THE MARYLAND STATE GRID SYSTEM AND DERIVED FROM THE FOLLOWING HOWARD COUNTY CONTROL STATIONS:

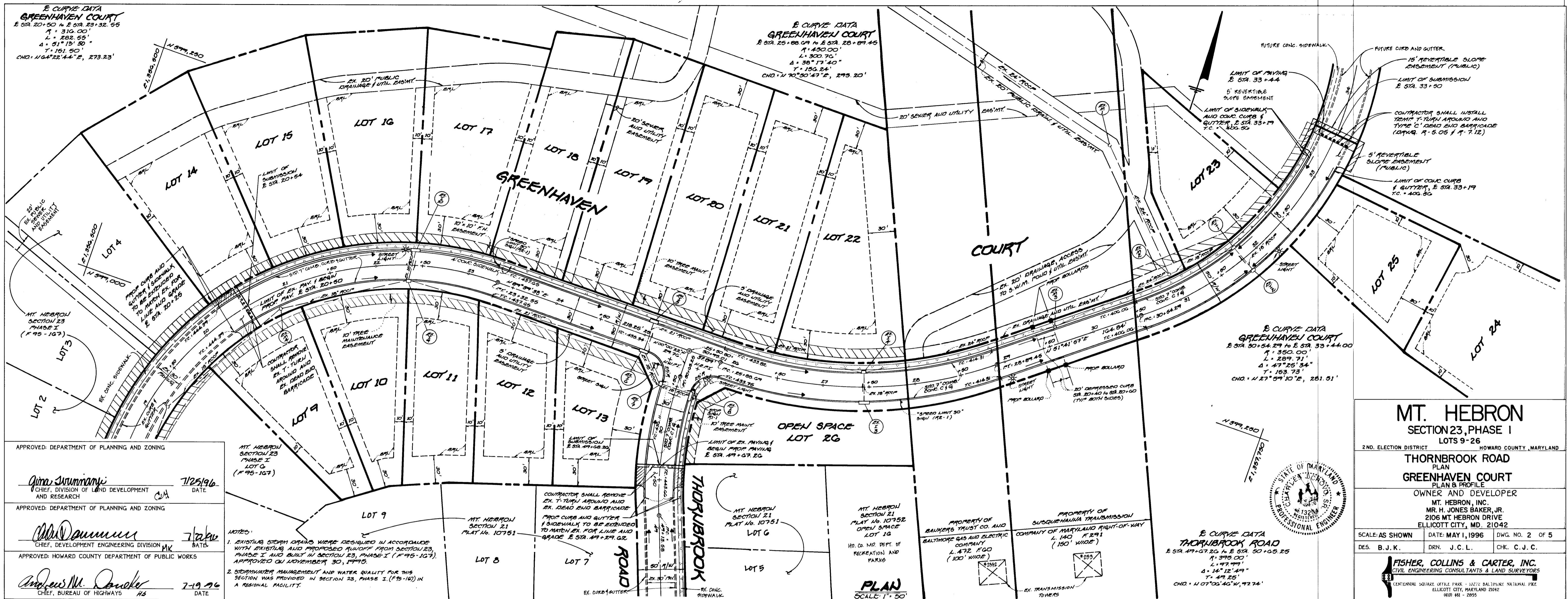
3442011	N 593,013.040	3541004	N 594,357.569
	E 1,355,731.714		E 1,357,519.202
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING OR UTILITIES WILL BE CORRECTED AT THE CONTRACTORS EXPENSE.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE BUILDING - 10275 BALTIMORE NATIONAL PIKE
 BILLCOTT CITY, MARYLAND 21042
 (410) 461-5000

OWNER/DEVELOPER
 MT. HEBRON, INC.
 MR. H. JONES BAKER, JR.
 2106 MT. HEBRON DRIVE
 ELLICOTT CITY, MARYLAND, 21042

STATE OF MARYLAND
 CHARLES & GROVO, SR.
 PROFESSIONAL ENGINEER
 No. 13204
 REGISTERED
 DATE: 5/19/96

MT. HEBRON
 SECTION 23 - PHASE 1
 LOTS 9 - 26
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: MAY 1, 1996



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Jim Swann 7/25/96
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: DEPARTMENT OF PLANNING AND ZONING

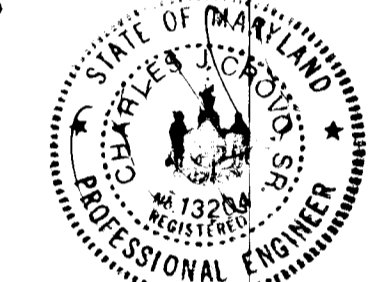
Mike Danner 7/27/96
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Andrew M. Dondk 7-19-96
 CHIEF, BUREAU OF HIGHWAYS

NOTES:

- EXISTING STORM CHAINS WERE DESIGNED IN ACCORDANCE WITH EXISTING AND PROPOSED MAINTENANCE FROM SECTION 23, PHASE I AND BUILT IN SECTION 23, PHASE I (F 95-107). APPROVED ON NOVEMBER 30, 1975.
- STORMWATER MANAGEMENT AND WATER QUALITY FOR THIS SECTION WAS PROVIDED IN SECTION 23, PHASE I (F 95-107) IN A REGIONAL FACILITY.



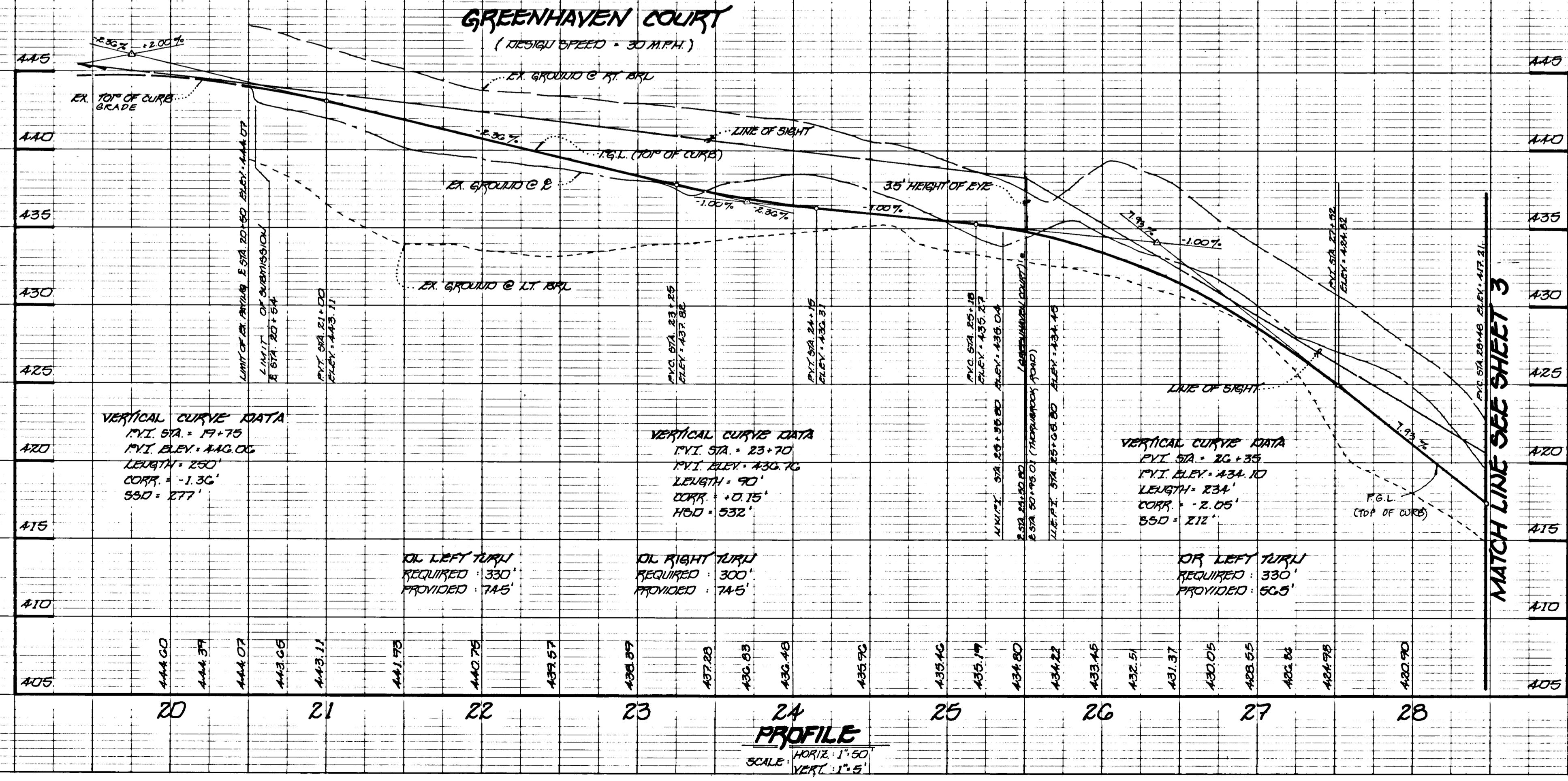
MT. HEBRON
 SECTION 23, PHASE I
 LOTS 9-26
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

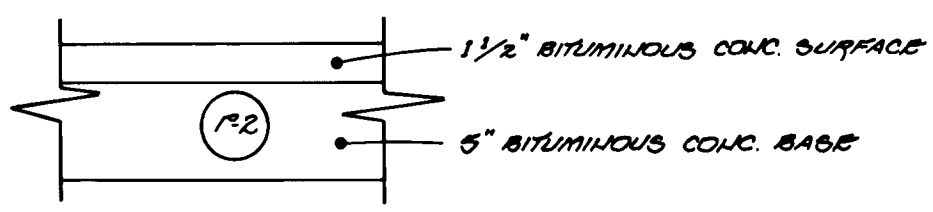
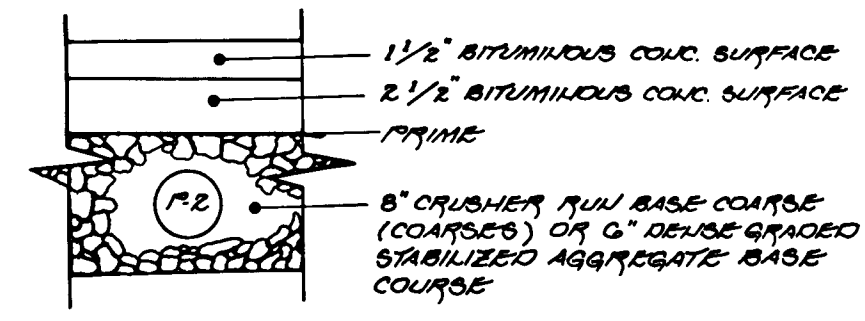
THORNBROOK ROAD
 PLAN
GREENHAVEN COURT
 PLAN & PROFILE

OWNER AND DEVELOPER
 MT. HEBRON, INC.
 MR. H. JAMES BAKER, JR.
 2106 MT. HEBRON DRIVE
 ELLICOTT CITY, MD. 21042

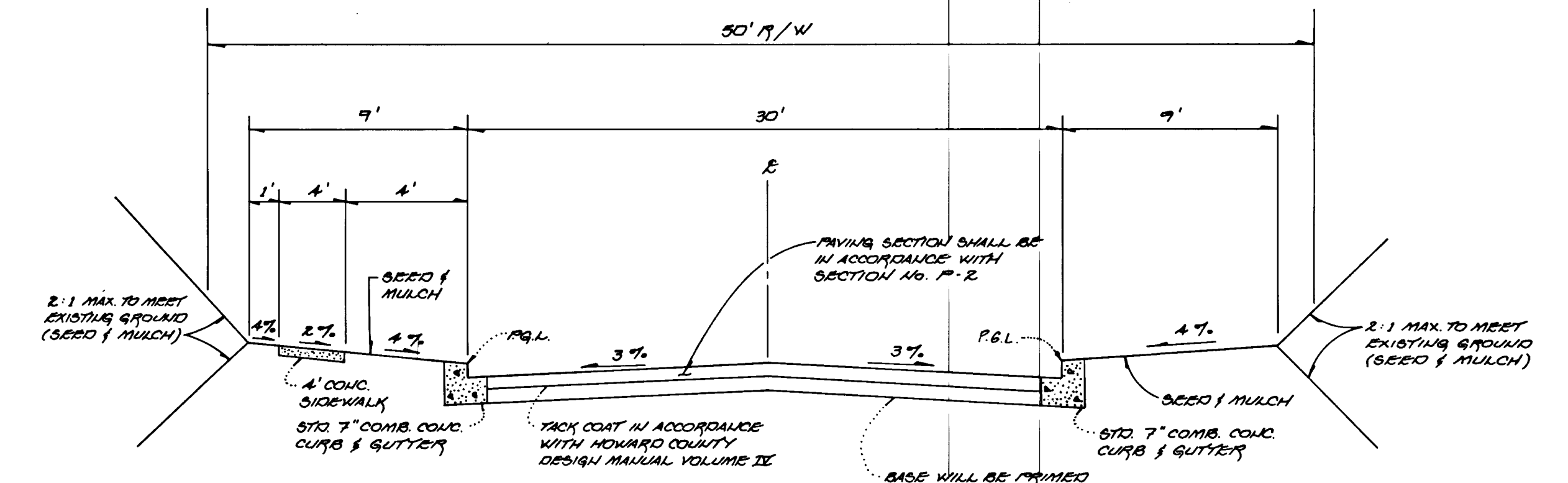
SCALE: AS SHOWN DATE: MAY 1, 1996 DWG. NO. 2 OF 5
 DES. B. J. K. DRN. J. C. L. CHK. C. J. C.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK, SUITE 200 BALTIMORE NATIONAL FIRE
 ELLICOTT CITY, MARYLAND 21042
 4101 481 - 2855





P-2 PAVING SECTIONS
(NO SCALE)



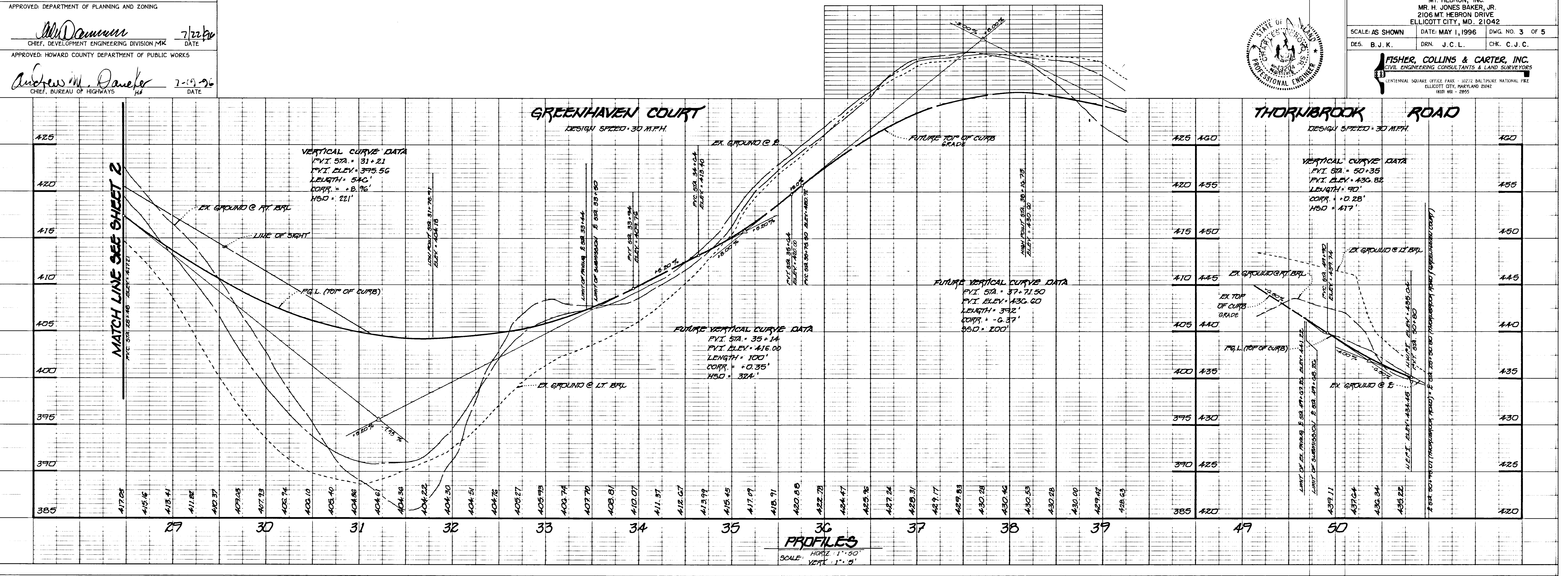
NOTE: ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME II "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION."

TYPICAL ROADWAY SECTION
(NO SCALE)

ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	E STA. LIMITS
THORNBROOK ROAD	LOCAL ROAD	30 M.P.H.	R-20	41+72.26 to 50+95.01
GREENHAVEN COURT	LOCAL ROAD	30 M.P.H.	R-20	20+50 to 33+44

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Gina Surinjaniki 7/29/96
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
Mr. Damann 7/22/96
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MKK
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Daneker 7-19-96
 CHIEF, BUREAU OF HIGHWAYS

MT. HEBRON
 SECTION 23, PHASE I
 LOTS 9-26
 2ND. ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 THORNBROOK ROAD GREENHAVEN COURT
 PROFILE PROFILE
 ROADWAY DETAILS
 OWNER AND DEVELOPER
 MT. HEBRON, INC.
 MR. H. JONES BAKER, JR.
 2106 MT. HEBRON DRIVE
 ELLICOTT CITY, MD. 21042
 SCALE: AS SHOWN DATE: MAY 1, 1996 DWG. NO. 3 OF 5
 DES. B. J. K. DRN. J. C. L. CHK. C. J. C.
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 1000 BALTIMORE NATIONAL FIRE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2855



ENGINEER'S CERTIFICATE

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

SIGNATURE OF ENGINEER: *[Signature]* DATE: 5/16/96

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEFINED NECESSARY.

SIGNATURE OF DEVELOPER: *[Signature]* DATE: 7/19/96

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

[Signature] 7/19/96 DATE: 7/19/96
S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE

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

APPROVED: *[Signature]* 7/19/96 DATE: 7/19/96
DISTRICT HOWARD SOIL CONSERVATION DIST.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 7/25/96 DATE: 7/25/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

[Signature] 7/27/96 DATE: 7/27/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION

PERMITTED DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[Signature] 7-19-96 DATE: 7-19-96
CHIEF, BUREAU OF HIGHWAYS

FOR CONTINUATION OF 30' SEWER AND UTILITY EASEMENT, SEE WATER AND SEWER CONTRACT NO. W-3513-D.

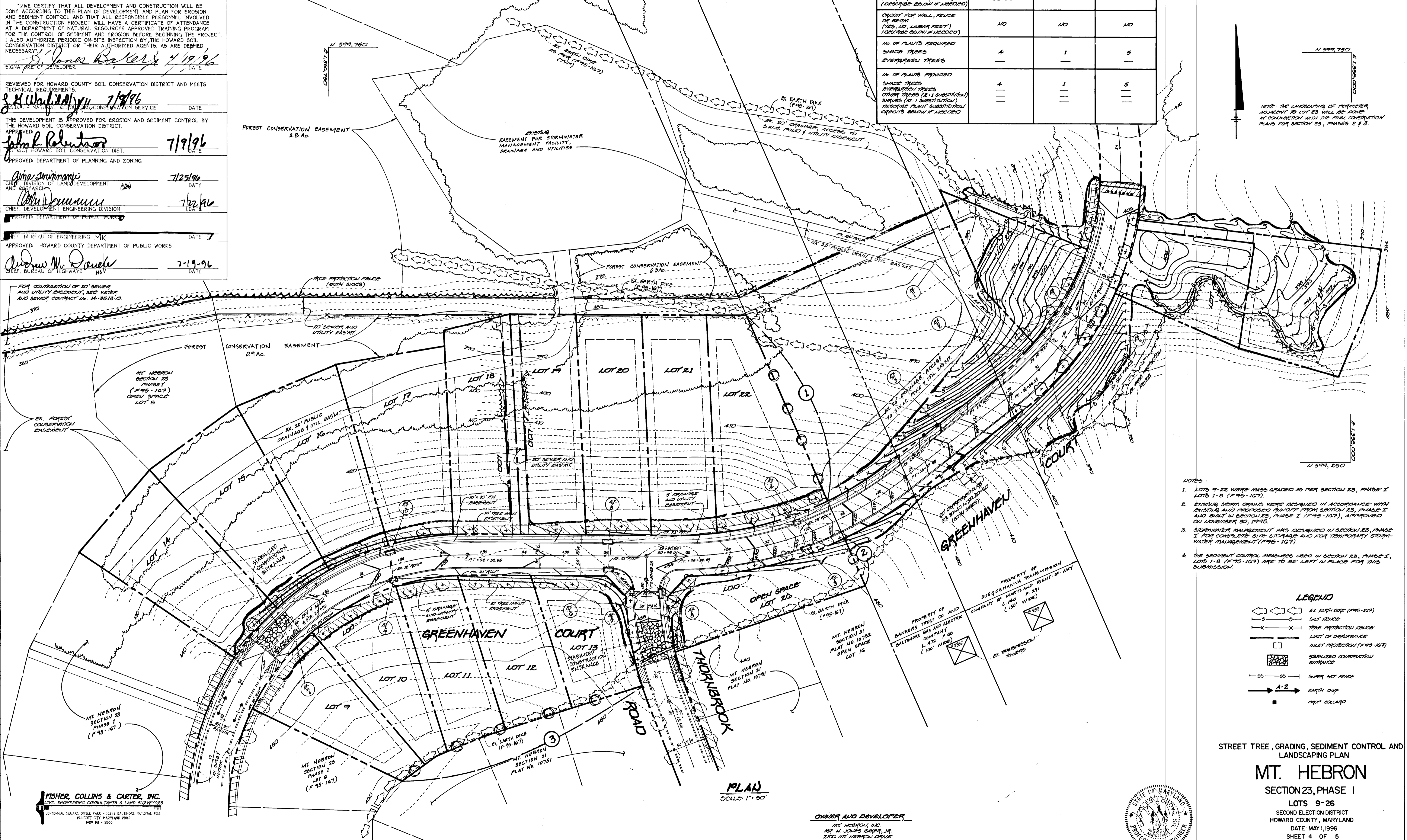
SCHEDULE A: PERIMETER LANDSCAPE EDGE

PERIMETER	1	2	3
CATEGORY	ADJACENT TO RESIDENTIAL PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	A	A	A
LINEAR FEET OF ROADWAY FRONTAGE / PERIMETER	302.95'	64.88'	318.55'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 60.50'	NO	NO
CREDIT FOR WALL, FENCE OR BERTH (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO
NO. OF PLANTS REQUIRED			
SHADE TREES	4	1	5
EVERGREEN TREES	—	—	—
NO. OF PLANTS PROVIDED			
SHADE TREES	4	1	5
EVERGREEN TREES	—	—	—
OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION) (DESCRIBE BELOW IF NEEDED)	—	—	—

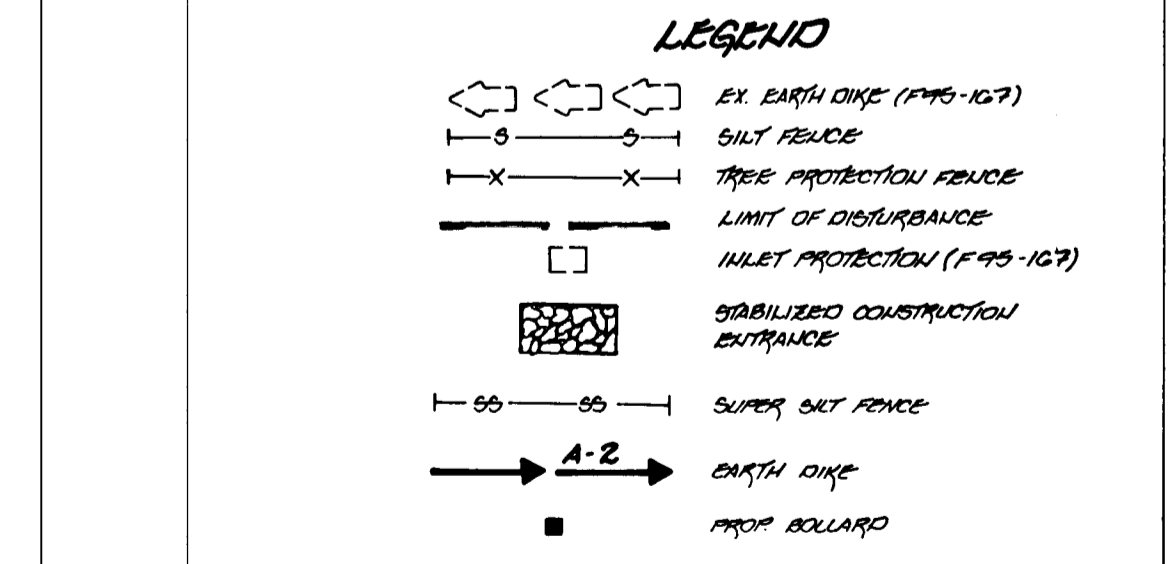
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY
(Symbol)	AUTUMN PLANE	ACER RUBRUM	2 1/2" - 3" CAL.	53
(Symbol)	GREEN MOUNTAIN SWEET MAPLE	ACER SACCHARINUM	2 1/2" - 3" CAL.	10

"THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 10.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL." FINANCIAL SURETY FOR THE 10 REQUIRED LANDSCAPE TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$ 1000.00.

NOTE: THE LANDSCAPING OF PERIMETER ADJACENT TO LOT 23 WILL BE DONE IN CONJUNCTION WITH THE FINAL CONSTRUCTION PLANS FOR SECTION 23, PHASES 2 & 3.



- NOTES:
- LOTS 9-22 WERE MASS GRADED AS PER SECTION 23, PHASE I LOTS 1-8 (F 95-107).
 - EXISTING STORM DRAINS WERE DESIGNED IN ACCORDANCE WITH EXISTING AND PROPOSED RUNOFF FROM SECTION 23, PHASE I AND BUILT IN SECTION 23, PHASE I (F 95-107), APPROVED ON NOVEMBER 30, 1995.
 - STORMWATER MANAGEMENT WAS DESIGNED IN SECTION 23, PHASE I FOR COMPLETE SITE STORAGE AND FOR TEMPORARY STORMWATER MANAGEMENT (F 95-107).
 - THE SEDIMENT CONTROL MEASURES USED IN SECTION 23, PHASE I, LOTS 1-8 (F 95-107) ARE TO BE LEFT IN PLACE FOR THIS SUBMISSION.



STREET TREE, GRADING, SEDIMENT CONTROL AND LANDSCAPING PLAN
MT. HEBRON
 SECTION 23, PHASE I
 LOTS 9-26
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: MAY 1, 1996
 SHEET 4 OF 5

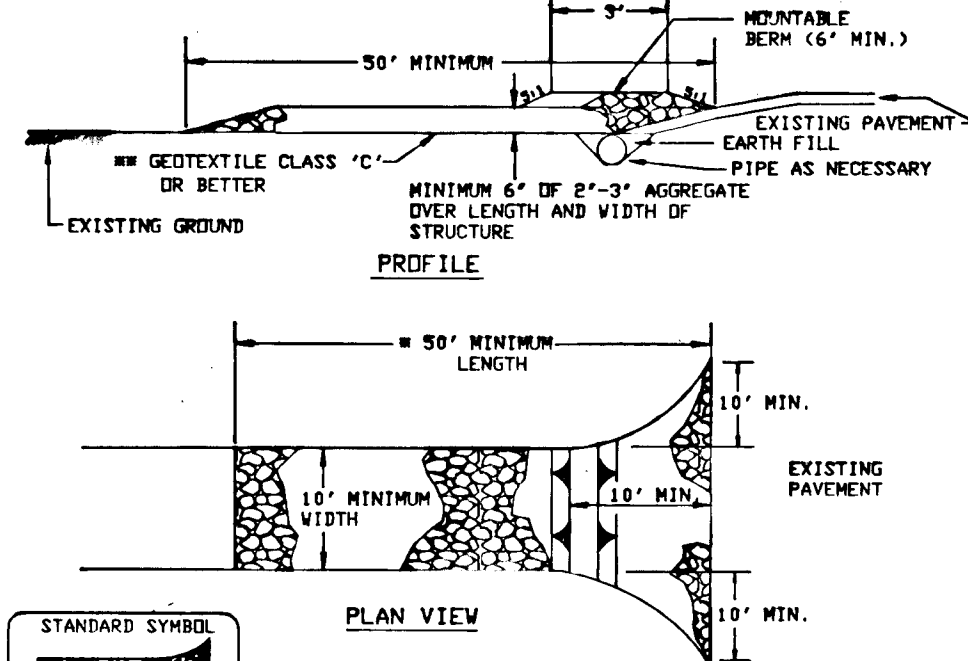
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 1000 WASHINGTON SQUARE, SUITE 1000, BALTIMORE, MARYLAND 21202
 TEL: 410-528-1200 FAX: 410-528-1201

OWNER AND DEVELOPER
 MT. HEBRON, INC.
 MR. H. JAMES BAKER, JR.
 2100 MT. HEBRON DRIVE
 ELICOTT CITY, MD. 21042



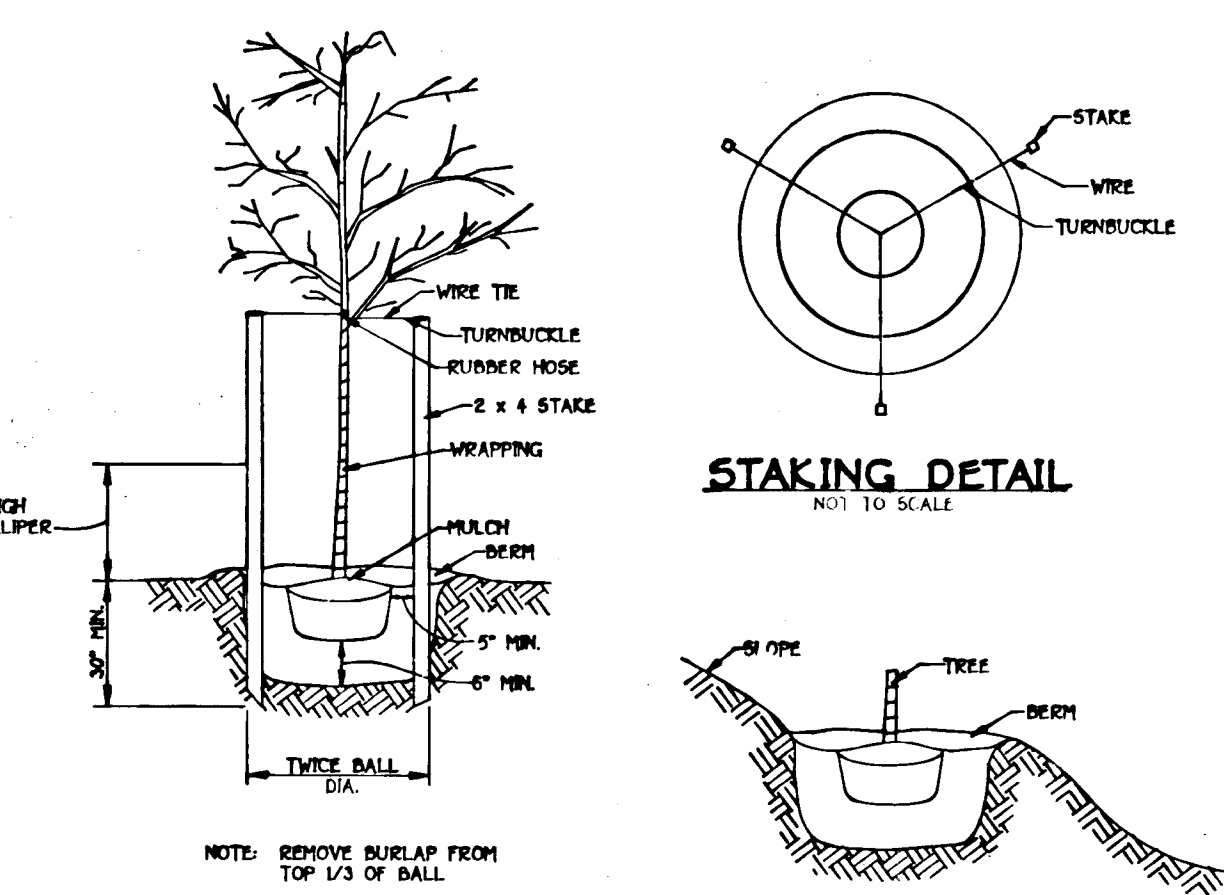
PLAN
 SCALE: 1" = 50'

16



- Construction Specifications**
- Length - minimum of 50' (#30' for single residence lots).
 - Width - 10' minimum, should be flared at the existing road to provide a turning radius.
 - 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.
 - Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
 - 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 nonabrasive berm with 5:1 slopes and a minimum of 4" of stone over the pipe. Pipe shall be sized according to the drainage. When the S.E. 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.
 - 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.

STABILIZED CONSTRUCTION ENTRANCE - 2
NOT TO SCALE



TREE PLANTING
NOT TO SCALE

GRADING FOR PLANTING ON SLOPES
NOT TO SCALE

SEDIMENT CONTROL NOTES

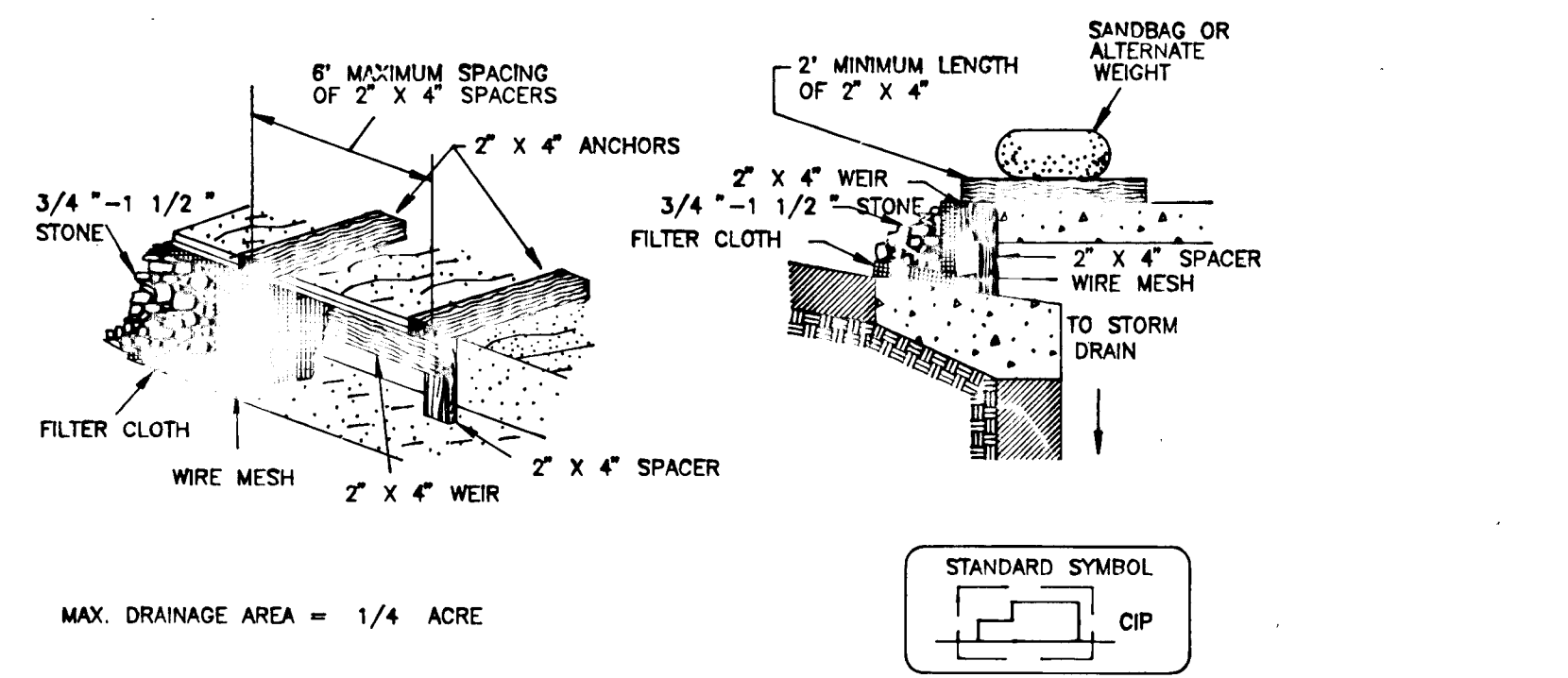
- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (03-25-94).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERE TO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN (a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DICES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, (b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE MAINTAINED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 50), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- 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.
- SITE ANALYSIS:

TOTAL AREA OF SITE	9.588	ACRES
AREA DISTURBED	9.588	ACRES
AREA TO BE ROOFED OR PAVED	0.89	ACRES
AREA TO BE VEGETATIVELY STABILIZED	8.698	ACRES
TOTAL FILL	3500	CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A	
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEMAILED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- OFFSITE BORROW AREA TO BE APPROVED BY S.C.S. BEFORE GRADING OPERATION BEGINS.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALI THORNTON NATIONAL PLACE
ELICOTT CITY, MARYLAND 21042
(410) 461-2855

SEQUENCE OF CONSTRUCTION

- OBTAIN THE REQUIRED GRADING PERMIT.
- NOTIFY MISS UTILITY 48 HOURS BEFORE BEGINNING ANY WORK (0-800-257-7777). NOTIFY HOWARD COUNTY CONSTRUCTION/INSPECTION DIVISION 24 HOURS BEFORE STARTING ANY WORK (410)313-1800.
- INSTALL TREE PROTECTION FENCE (2 DAYS)
- INSTALL SEDIMENT CONTROL MEASURES (ALL EXISTING SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE FROM PREVIOUS SECTION 23, PHASE 1) LOTS 1-8 (795-167) STABILIZED CONSTRUCTION ENTRANCE, INLET PROTECTION, AND SILT FENCE (2 WEEKS)
- CLEAR AND GRUB SITE (2 WEEKS)
- STABILIZE SEDIMENT CONTROL MEASURES WITH PERMANENT SEEDING (1 WEEK)
- GRADE SITE AND STABILIZE WITH PERMANENT SEEDING (2 WEEKS)
- CONSTRUCT ALL UTILITIES WATER AND SEWER LINES (1 WEEK)
- CONSTRUCT CURB AND GUTTER (1 WEEK)
- REMOVE STABILIZED CONSTRUCTION ENTRANCE AND INSTALL BASE COURSE PAVING (3 DAYS)
- CONSTRUCT SIDEWALK AND LANDSCAPING (1 WEEK)
- REMOVE SEDIMENT FROM ROADWAY, APPLY TACK COAT AND INSTALL ROAD SURFACE (1 WEEK)
- AS PERMISSION IS GRANTED BY E/S INSPECTOR, SEDIMENT CONTROL MEASURES ARE TO BE REMOVED. ALL DISTURBED AREAS ARE TO BE GRADED AND STABILIZED WITH PERMANENT SEEDING (2 WEEKS)



- Construction Specifications**
- Attach a continuous piece of wire mesh (30" minimum width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard drawing.
 - Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2" x 4" weir.
 - Securely nail the 2" x 4" weir to a 9" long vertical spacer to be located between the weir and the inlet face (max. 4" apart).
 - Place the assembly against the inlet throat and nail (minimum 2" lengths of 2" x 4" to the top of the weir at spacer locations). These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
 - The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
 - Form the 1/2" x 1/2" wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4" x 1 1/2" stones over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.
 - This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
 - Assure that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

STANDARD CURB INLET PROTECTION
NOT TO SCALE

20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION DEFINITION

Using vegetation as cover for barren soil to protect it from forces that cause erosion. Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources.

EFFECTS ON WATER QUALITY AND VISUAL RESOURCES

CONDITIONS WHERE PRACTICE APPLIES

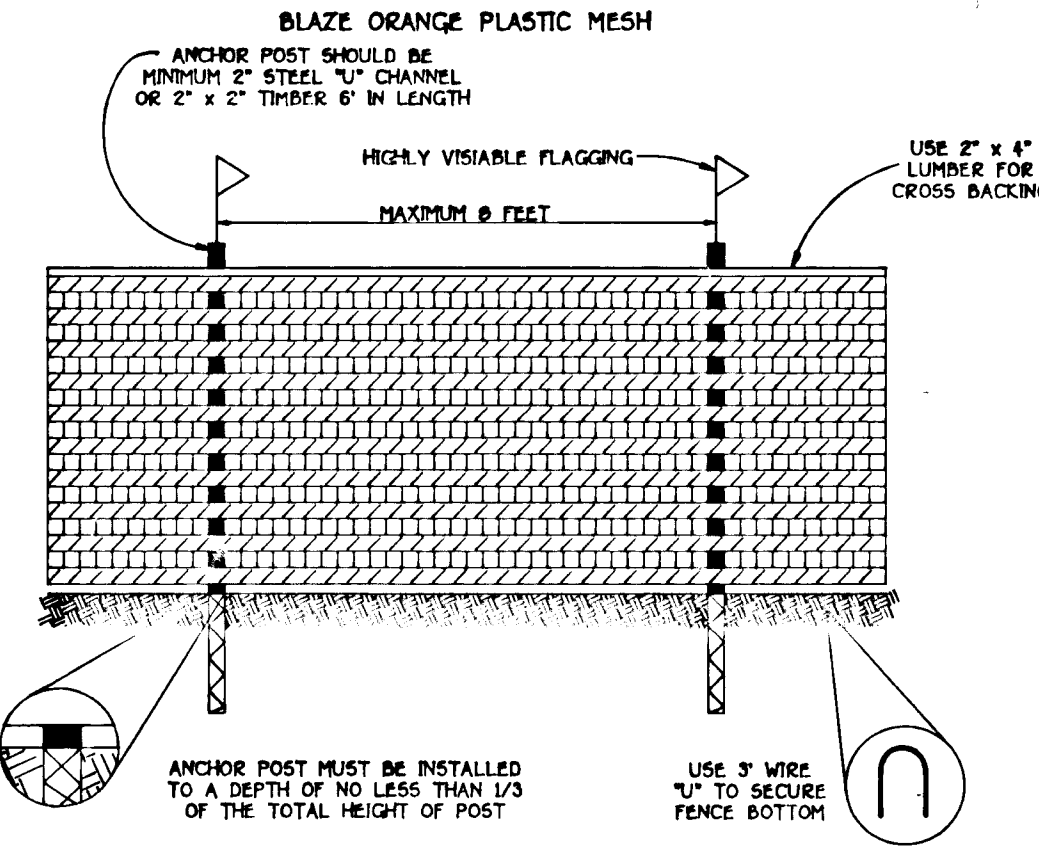
This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is intended for Temporary Seeding, to quickly establish vegetative cover for short duration (up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary soil stockpiles, cleared areas being left side between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Vegetation over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone. Sediment control devices must remain in place during grading, seeded preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

- Site Preparation**
 - Initial erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
 - Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
 - Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.
 - Soil Amendments (Fertilizer and Lime Specifications)
 - Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.
 - Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warranty of the producer.
 - Lime materials shall be ground limestone (hydrated or burnt lime) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 90-100% will pass through a #20 mesh sieve.
 - Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
- Seeded Preparation**
 - Temporary Seeding
 - Seeded preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
 - Permanent Seeding
 - Minimum soil conditions required for permanent vegetative establishment:
 - Soil pH shall be between 6.0 and 7.0.
 - Soluble salts shall be less than 500 parts per million (ppm).
 - The soil shall contain less than 40% clay, but enough fine grained material (0.075 mm or finer) to provide the capacity to hold moderate amount of moisture. An exception is if loess or silt loess is to be planted, then a sandy soil (COX silt plus clay) would be acceptable.
 - Soil shall contain 1.5% minimum organic matter by weight.
 - Soil must contain sufficient pore space to permit adequate root penetration.
 - If these conditions cannot be met by soils on site, adding topsoil is required in accordance with section 21 Standards and Specifications for Topsoil.
 - Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
 - Apply soil amendments as per soil test or as included on the plans.
 - Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seeded preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seeded loosening may not be necessary on newly disturbed areas.

OWNER / DEVELOPER
MT. HEBRON, INC.
MR. H. JONES BAKER, JR.
2106 MT. HEBRON DRIVE
ELICOTT CITY, MARYLAND 21042



TREE PROTECTION DETAIL
NOT TO SCALE

- Fencing shall be 42" in height and constructed in accordance with the latest Maryland highway details for chain link fence. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
- Chain link fence shall be fastened securely to the fence posts with wire ties. The lower fence wire shall not touch the ground, drive anchors and post caps are not required except on the ends of the fence.
- Filter cloth shall be fastened securely to the chain link fence with this spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 6" into the ground.
- When two sections of filter cloth abut each other, they shall be overlapped by 6" and tacked.
- Interference shall be performed as needed and all obstructions removed when "digging" the fence line is being applied at the time of seeding.
- Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 309
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 309
Flow Rate	0.3 gal. ft ² /minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

CONSTRUCTION SPECIFICATIONS

- Forest protection device only.
- Retention area will be set as part of the review process.
- Boundaries of retention area should be staked and flagged prior to installing device.
- Root damage should be avoided.
- Protective signage may also be used.
- Device should be maintained throughout construction.

INCREMENTAL STABILIZATION - CUT SLOPES

- All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
 - Construction sequence (refer to Figure 3 below)
 - Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
 - Perform Phase I excavation, dress, and stabilize.
 - Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as necessary.
 - Perform final phase excavation, dress and stabilize. Overseed previously seeded areas as necessary.
- Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil of required and permanent seed and mulch. Any interruptions in the operation of completing the operation out of the seeding season will necessitate the application of temporary stabilization.
- Incremental Stabilization of Embankments - Fill Slopes**
 - Embankments shall be constructed in lifts as prescribed on the plans.
 - Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15', or when the grading operation ceases as prescribed in the plans.
 - At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.
 - Perform final phase excavation, dress and stabilize. Overseed previously seeded areas as necessary.
- Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.



FLOW CHANNEL STABILIZATION

- ALL DICES SHALL BE CONSTRUCTED BY EARTH-MOVING EQUIPMENT.
- ALL DICES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
- TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
- FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
- ALL DICES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF FRICTION RUNOFF SHALL BE CONVEYED TO A SEDIMENT BASIN WHICH ENTERS THE DRAIN CHANNEL ON THE DRAINAGE AREA.
- STABILIZATION FOR SLOPES AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, OR FLOW CHANNELS, AS PER THE CHART BELOW.

TYPE OF CHANNEL DRAINAGE	DISE A	DISE B
1	5-10% SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	31-50% SEED AND STRAW MULCH	SEED USING AITE OR EXCLUDING 500' E' STONE
3	51-60% SEED AND AITE OR SOD	LINED RIP-RAP 4'-6"
4	61-75% LINED RIP-RAP 4'-6"	ENGINEERING DESIGN

CONSTRUCTION SPECIFICATIONS

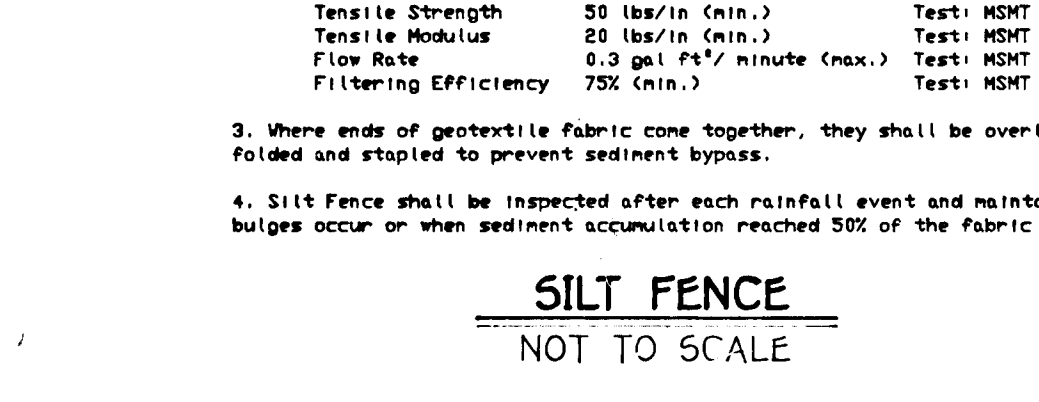
- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum cut, or 1 3/4" diameter (minimum) round and shall be of equal quality hardwood. Steel posts will be standard T or U section weighing not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 309
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 309
Flow Rate	0.3 gal. ft ² /minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

EARTH DIKE
NOT TO SCALE

SEDIMENT CONTROL NOTES AND DETAILS

MT. HEBRON
LOTS 9 - 26
SECTION 23 - PHASE 1
ZONING R - 20
TAX MAP NO. 17 - PARCEL 37
SECOND ELECTION DISTRICT HOWARD COUNTY MARYLAND
DATE: MAY 1, 1996
SHEET 5 OF 5



SILT FENCE
NOT TO SCALE

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND THAT ANY RESPONSIBLE PERSONNEL IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEMAILED NECESSARY."

John R. Baker 4/19/96
SIGNATURE OF DEVELOPER DATE

ENGINEER'S CERTIFICATE

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

John R. Baker 4/19/96
SIGNATURE OF ENGINEER DATE

REVIEW FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
John R. Baker 7/8/96
DATE

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

John R. Baker 7/14/96
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Gina Swinnaway 7/25/96
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

John R. Baker 7/22/96
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Andrew M. Savelle 7-19-96
DATE