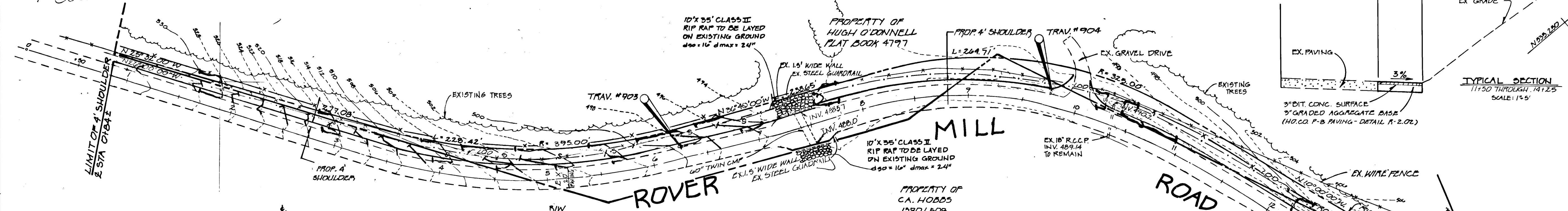
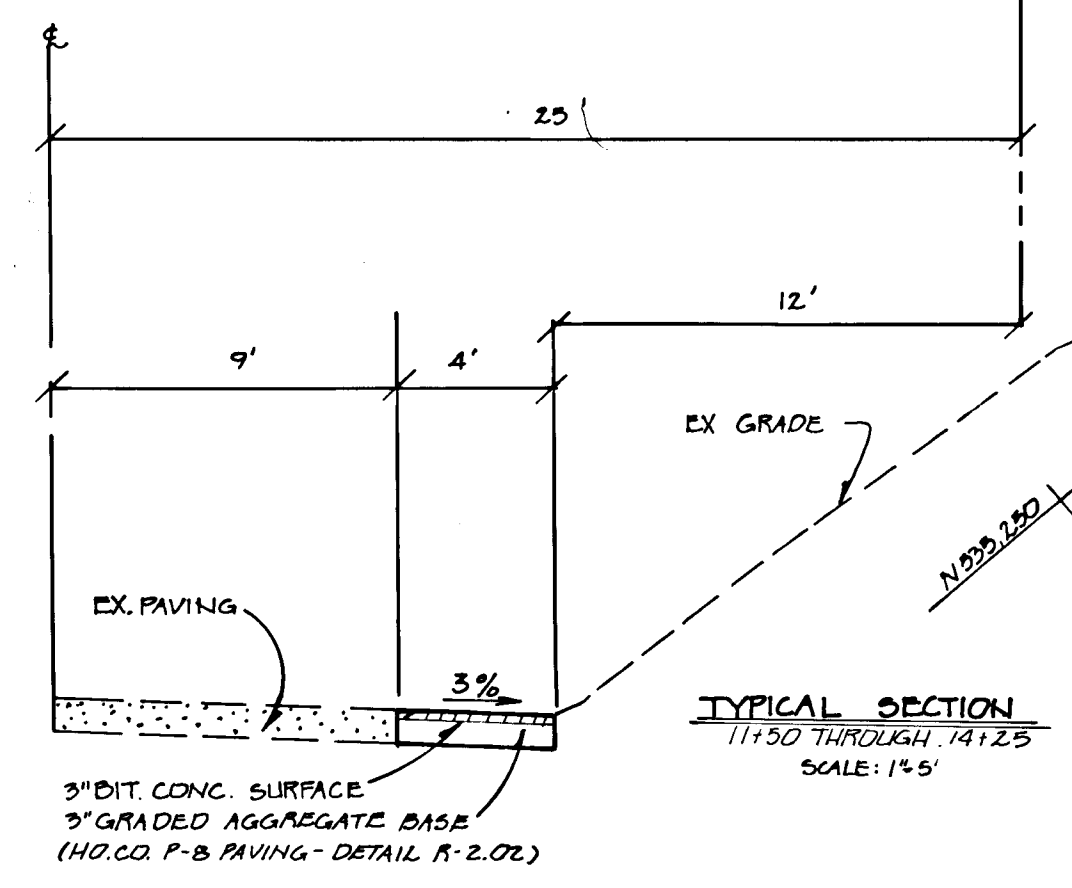
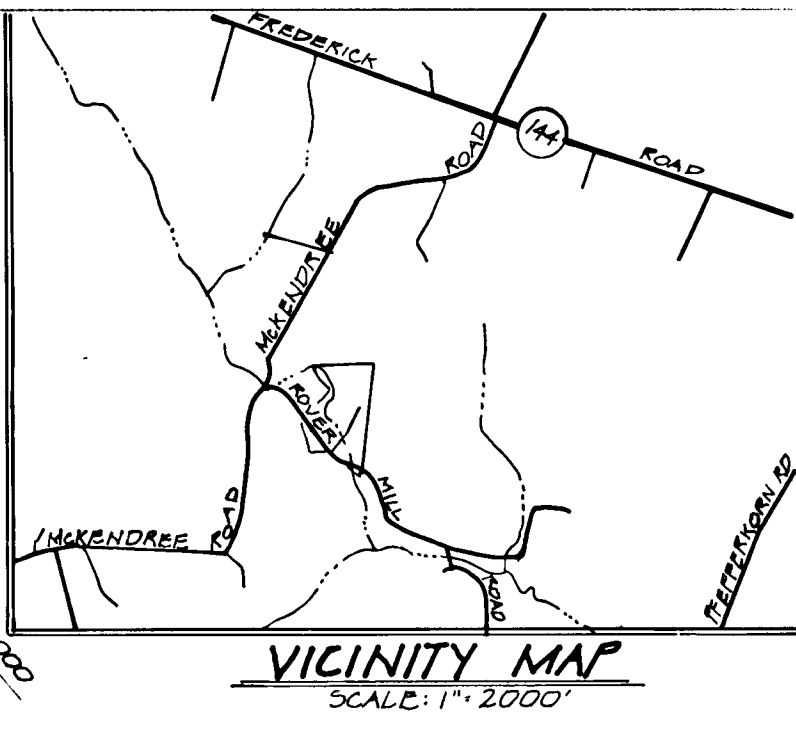


ENGINEER'S CERTIFICATE
 I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL, REVISIONS, A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
 SIGNATURE OF ENGINEER: *[Signature]* DATE: 4/16/96

DEVELOPER'S CERTIFICATE
 I HAVE CERTIFIED THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THE PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL, AND THAT ALL NECESSARY PERMITS REQUIRED BY THE DEPARTMENT OF PUBLIC WORKS AND THE DEPARTMENT OF NATURAL RESOURCES APPLICABLE PLANNING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. I AGREE TO MAINTAIN PERMITS UNDER INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT AND TO MAINTAIN PERMITS AS A CONDITION OF THE PROJECT.
 SIGNATURE OF DEVELOPER: *[Signature]* DATE: 5/1/96

- GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/ BUREAU OF CONSTRUCTION INSPECTION AT 4100 21ST 1070 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
 - TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
 - PRIVATE WATER AND SEWER WILL BE UTILIZED FOR THIS PROJECT.
 - HORIZONTAL AND VERTICAL DATUM IS BASED ON THE FOLLOWING CONTROL POINTS:
 TRAV. #903 - A REBAR AND CAP SET 373' SOUTHWEST OF CENTERLINE INTERSECTION WITH THE EXISTING GRAVEL DRIVE
 CENTERLINE STA. 10400
 ELEVATION 494.50, N 53567.7963 E 799200.5029
 TRAV. #904 - A REBAR AND CAP SET 25' SOUTHWEST OF CENTERLINE INTERSECTION WITH THE EXISTING GRAVEL DRIVE
 CENTERLINE STA. 10400
 ELEVATION 492.29, N 53505.4159 E 799594.8210
 ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING OR UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.



— — — DENOTES SILT FENCE
 - - - - - DENOTES L.O.D.
 x x x DENOTES TREE PROTECTION FENCE.

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENTS
[Signature] DATE: 5/1/96

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
[Signature] DATE: 5/1/96

APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature] DATE: 5/1/96

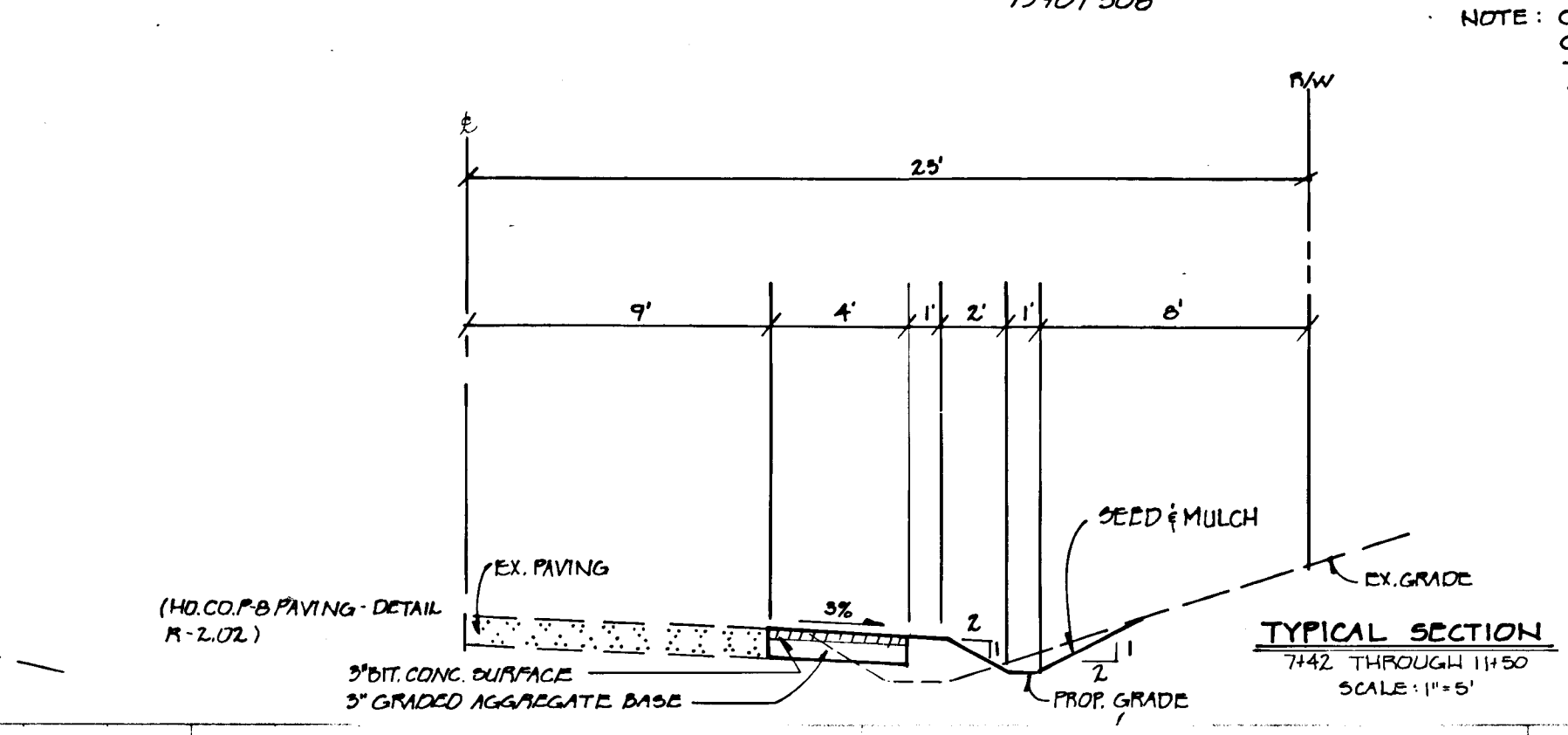
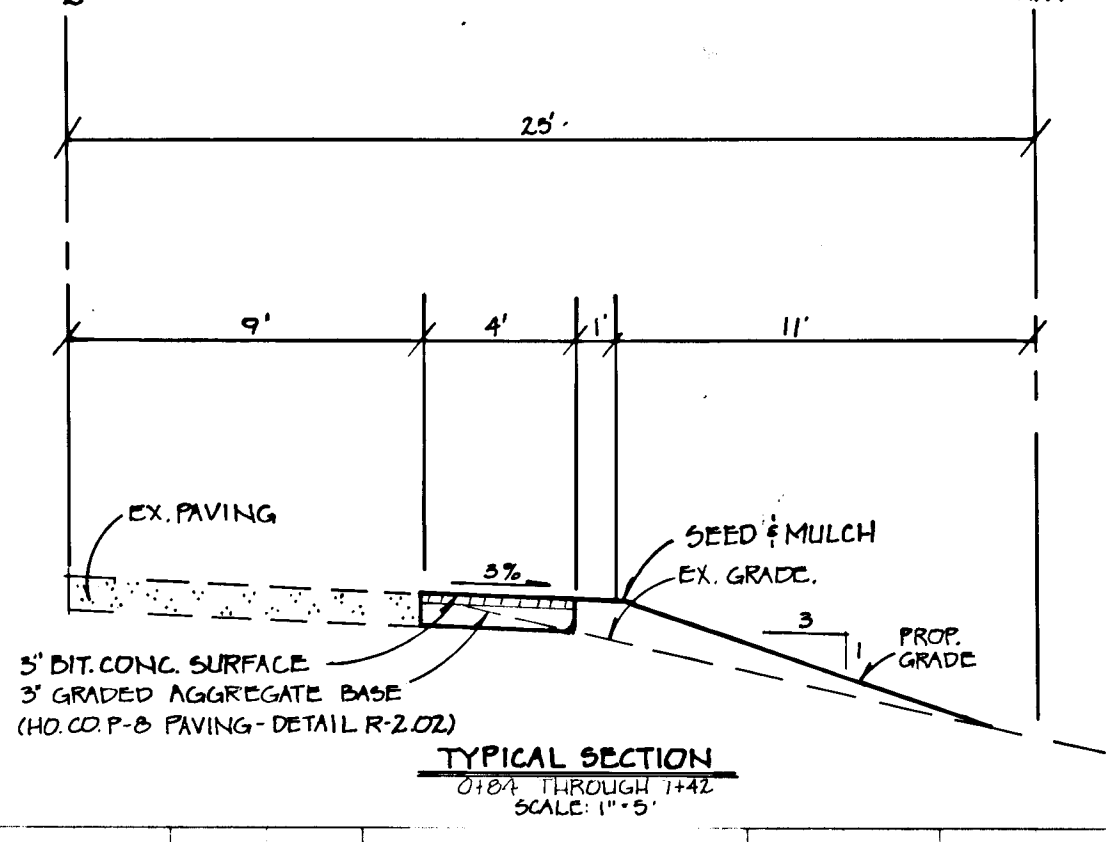
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: DEPARTMENT OF PUBLIC WORKS
[Signature] DATE: 5/1/96

CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] DATE: 5-1-96

CHIEF, BUREAU OF HIGHWAYS



NOTE: CONTRACTOR SHALL CLEAN DEBRIS FROM THE EXISTING CULVERTS TO ALLOW FREE FLOW THROUGH THE CULVERTS.

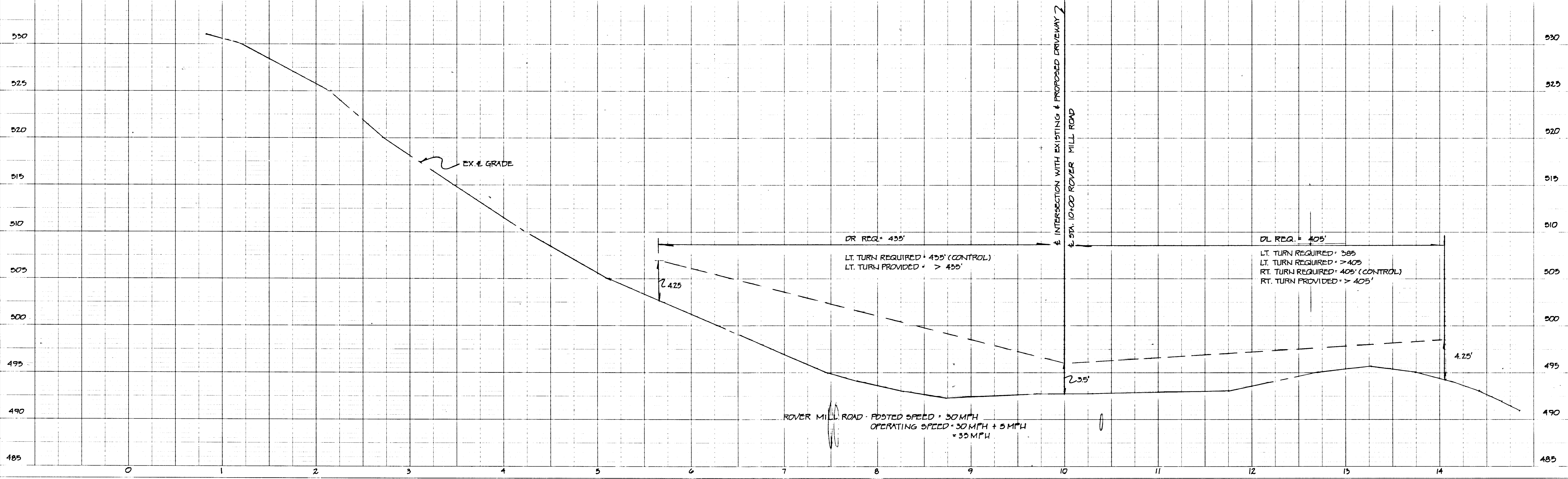
O'DONNELL PROPERTY
 TAX MAP #14 PARCEL #39
 FOURTH ELECTION DISTRICT HOWARD CO, MARYLAND

ROVER MILL ROAD
 PLAN, PROFILE & TYPICAL SECTION
 FOR CONSTRUCTION OF A 4' SHOULDER

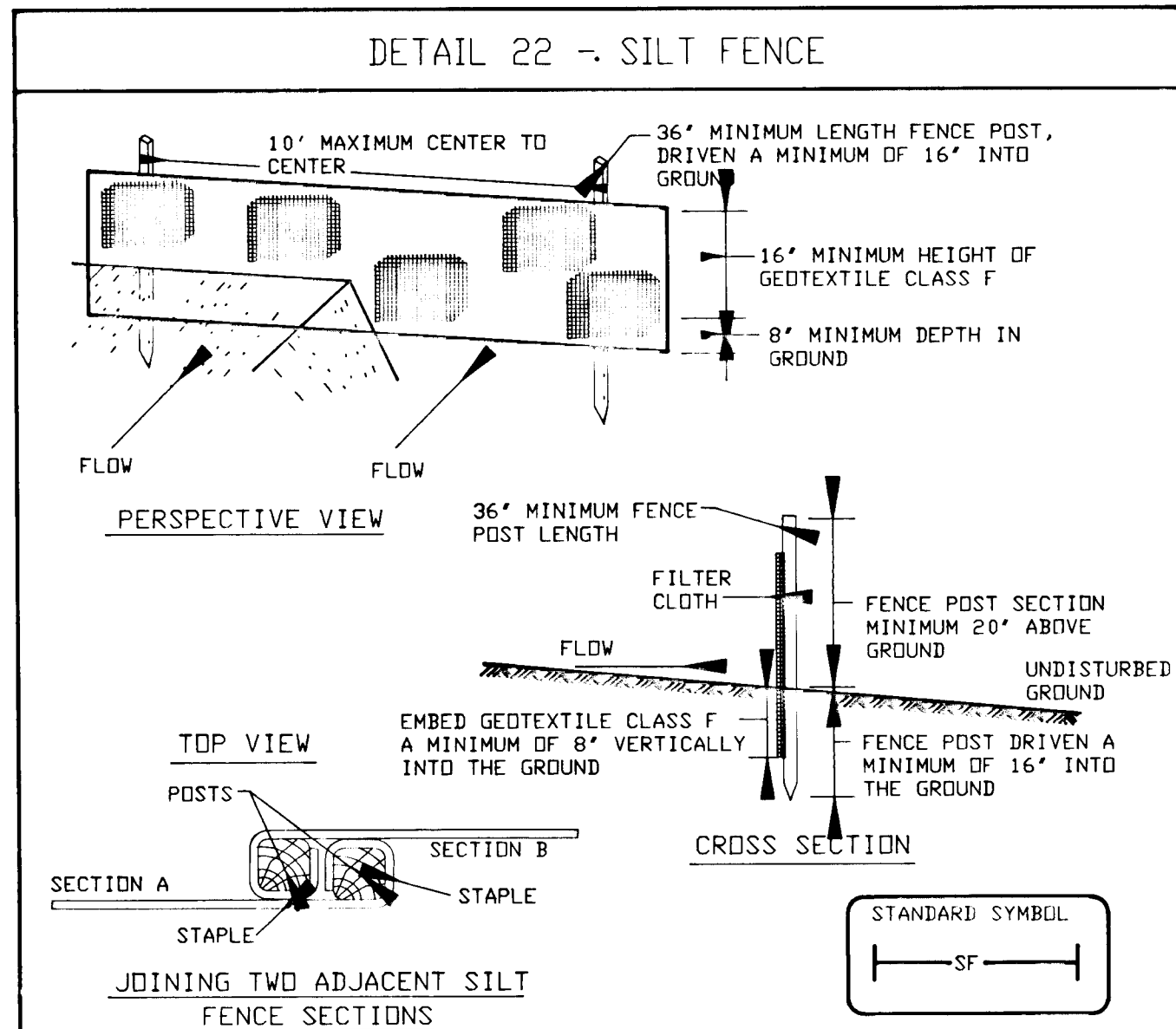
OWNER AND DEVELOPER
 HUGH O'DONNELL
 19200 OLD ROVER MILL ROAD
 WEST FRIENDSHIP, MARYLAND 21794

SCALE AS SHOWN DATE: JULY, 1995 DRG. NO. 1 OF 2
 DES. AWR ITRN R.L.P. CHK. C.J.C.

FISHER COLLINS AND CARTER, INC.
 CIVIL ENGINEER AND LAND SURVEYORS
 9171 BALTIMORE NATIONAL PIKE
 SUITE 102
 ELLIOTT CITY, MARYLAND 21042 PHONE (410) 461-2800



1812



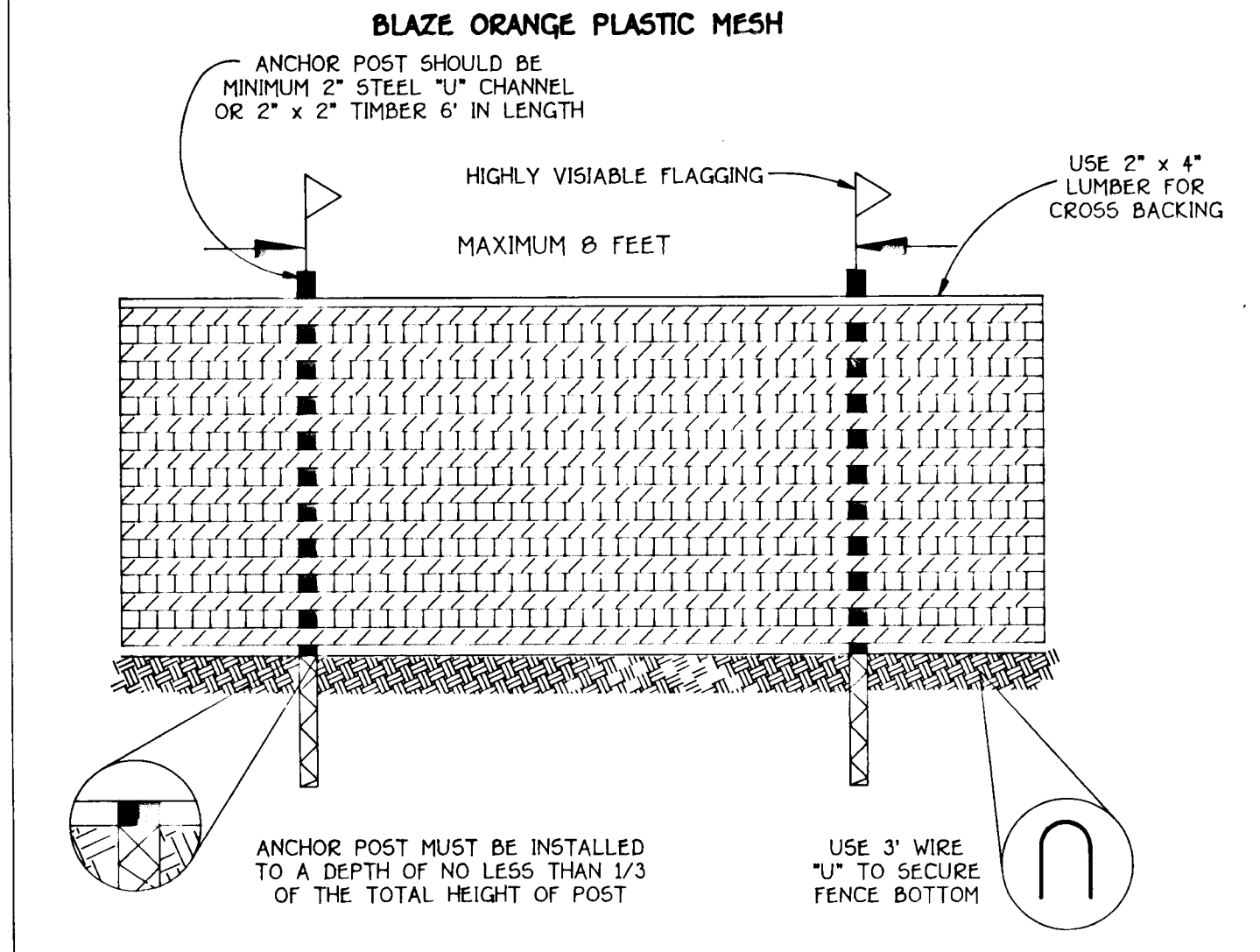
Construction Specifications

- 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 sound quality hardwood. Steel posts will be standard T or U section weighting 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 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft ² /minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

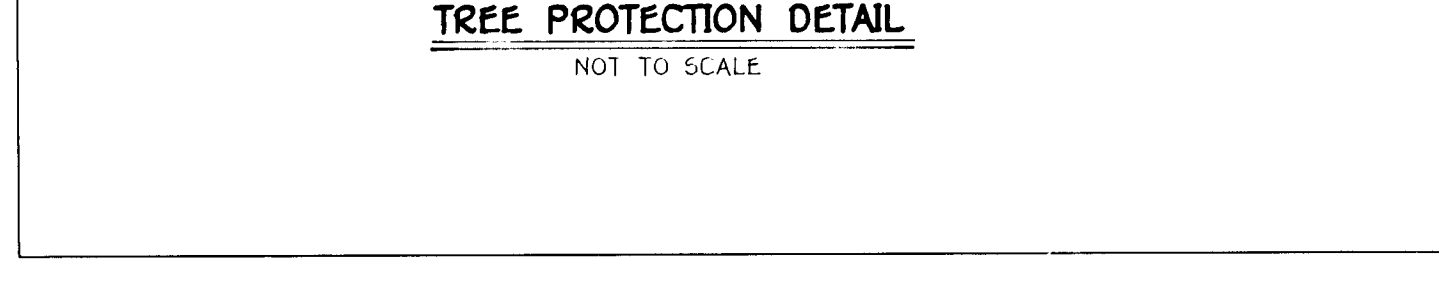
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE | PAGE E-16-3 | MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, WATER MANAGEMENT ADMINISTRATION



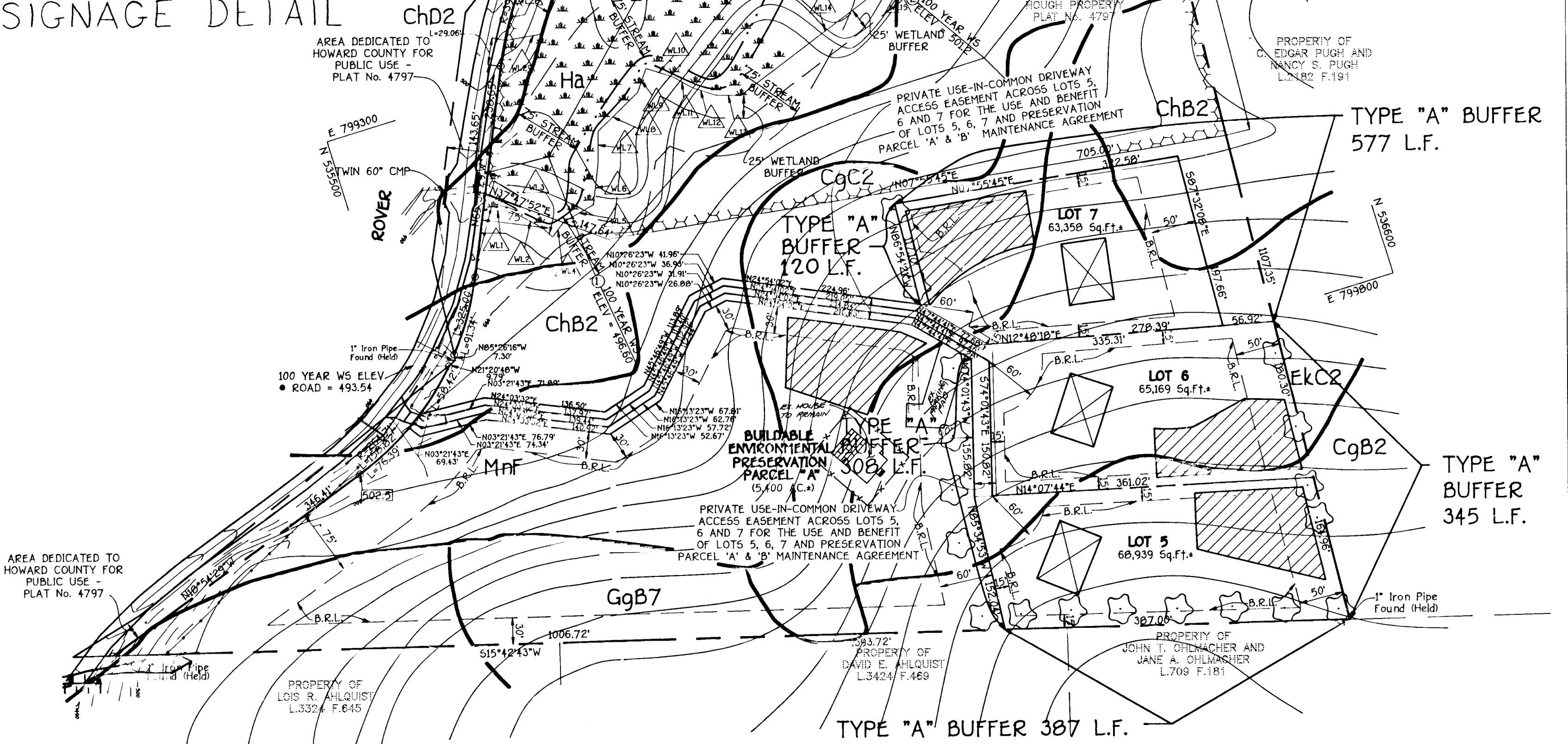
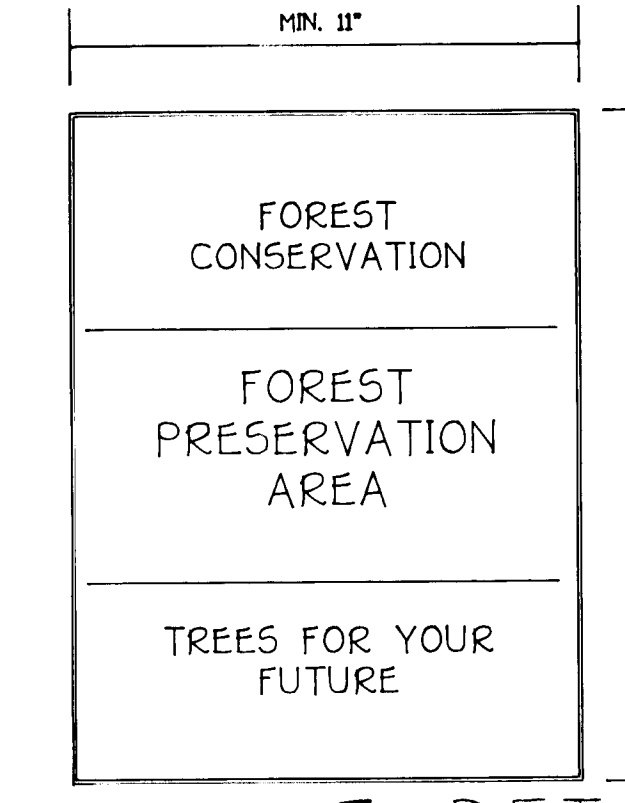
NOTES:

- 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.



SOILS TABLE

SOIL TYPE	CHARACTERISTICS	HSG
CgB2	CHESTER GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
Ch2	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
ChC2	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
ChB2	ELK LAK SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
Gd2	CLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	B
Hs	HATBCK SILT LOAM	B
Mf	MANOR VERY STONEY LOAM, 25 TO 60 PERCENT SLOPES	B



WETLAND TABULATION

SYMBOL	BEARING & DISTANCE	SYMBOL	BEARING & DISTANCE
W1	N89°30'00"W 32.3'	W13	N89°30'00"W 34.2'
W2	N89°30'00"W 40.8'	W14	N89°30'00"W 35.34'
W3	N89°30'00"W 14.94'	W15	N89°30'00"W 24.79'
W4	N89°30'00"W 20.8'	W16	N89°30'00"W 68.2'
W5	N89°30'00"W 38.4'	W17	N89°30'00"W 55.6'
W6	N89°30'00"W 19.67'	W18	N89°30'00"W 38.4'
W7	N89°30'00"W 38.4'	W19	N89°30'00"W 38.4'
W8	N89°30'00"W 82.45'	W20	N89°30'00"W 47.7'
W9	N89°30'00"W 38.4'	W21	N89°30'00"W 17.32'
W10	N89°30'00"W 28.84'	W22	N89°30'00"W 15.62'
W11	N89°30'00"W 28.84'	W23	N89°30'00"W 32.73'
W12	N89°30'00"W 38.4'	W24	N89°30'00"W 14.07'
W13	N89°30'00"W 38.4'	W25	N89°30'00"W 47.7'
W14	N89°30'00"W 38.4'	W26	N89°30'00"W 47.7'

SEEDING 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 (313-1055).
- 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 THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 87 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DICES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1 BY 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- 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) OR 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 DISTURBED SITE	1,490 sq. yds.
AREA TO BE ROOFED OR PAVED	1,490 sq. yds.
AREA TO BE VEGETATIVELY STABILIZED	596 sq. yds.
TOTAL CUT	894 sq. yds.
TOTAL FILL	0
- 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 DEEMED 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.

PERMANENT SEEDING NOTES

ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

SEEDBED PREPARATION:
 LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS:
 APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1,000 SQ.FT.) AND 500 LBS. PER ACRE 0-20-20 FERTILIZER (14 LBS./1,000 SQ.FT.) BEFORE SEEDING HARROW OR DISC INTO UPPER THREE INCHES OF SOIL AT TIME OF SEEDING. APPLY 400 LBS. PER ACRE 39-0-0 UREAFORM FERTILIZER (9 LBS./1,000 SQ.FT.) AND 500 LBS. PER ACRE (11.5 LBS./1,000 SQ.FT.) OF 10-20-20 FERTILIZER.

SEEDING:
 FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3 LBS./1,000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS./ACRE (1.4 LBS./1,000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.05 LBS./1,000 SQ.FT.) OF WEEPING LOVEGRASS, DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28, PROJECT SITE BY: OPTION (1) - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING; OPTION (2) - USE 500; OPTION (3) - SEED WITH 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD BE HYDROSEEDDED.

MULCHING:
 APPLY 1 TO 2 TONS PER ACRE (40 TO 90 LBS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GAL./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER USE 340 GALLONS PER ACRE (8 GAL./1,000 SQ.FT.) FOR ANCHORING.

MAINTENANCE:
 INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

* FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWN VETCH AT 15 LBS./ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBS./ACRE AS THE SEEDING REQUIREMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO APRIL 30.

LANDSCAPING SCHEDULE

SYMBOL	BOTANICAL/COMMON NAME	ROOT
○	ACER RUBRUM 'RED SUNSET'/ RED SUNSET RED MAPLE	B & B

DEVELOPER TO PLANT LANDSCAPE TREES AS NOTED IN THE LANDSCAPING SCHEDULE. FOR SUBSTITUTION OF PLANTING MATERIAL SEE APPENDIX "C" IN THE HOWARD COUNTY LANDSCAPE MANUAL.

SEQUENCE OF CONSTRUCTION

- OBTAIN THE REQUIRED GRADING PERMIT.
- NOTIFY MISS UTILITY 48 HOURS BEFORE BEGINNING ANY WORK (1-800-257-7777). NOTIFY HOWARD COUNTY CONSTRUCTION/INSPECTION DIVISION 24 HOURS BEFORE STARTING ANY WORK (410)313-1070.
- INSTALL THE REQUIRED SEDIMENT AND EROSION CONTROL DEVICES AS INDICATED ON THE PLAN SHEETS.
- THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SEDIMENT AND EROSION CONTROL DEVICES AFTER EACH RAINFALL AND ON A DAILY BASIS.
- THE LENGTH OF THE PROPOSED WIDENING ALONG ROVER HILL ROAD SHALL BE LIMITED TO THAT WHICH WILL BE STABILIZED BY THE END OF EACH WORKING DAY.
- STABILIZE SEED AND MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES SHOWN ON THIS SHEET.
- FOLLOWING SUCCESSFUL STABILIZATION OF ALL DISTURBED AREAS, AND AFTER PERMISSION HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES.

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	Adjacent to Roadways	Adjacent to Perimeter Properties				
		A	A	A	A	A
LANDSCAPE TYPE	B	A	A	A	A	A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	N/A	P1: 120LF	P2: 577LF	P3: 345LF	P4: 387LF	P5: 308LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	N/A	NO	YES 450 LF	NO	NO	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE IF NEEDED)	N/A	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED						
SHADE TREES	N/A	120/60-2	345/60-5	387/60-6	308/60-5	
EVERGREEN TREES						
SHRUBS						
NUMBER OF PLANTS PROVIDED						
SHADE TREES	N/A	2 SHADE TREES	5 SHADE TREES	6 SHADE TREES	5 SHADE TREES	
EVERGREEN TREES						
OTHER TREES (2:1 SUBSTITUTION) SHRUBS (NO:1 SUBSTITUTION)	N/A					

100% CREDIT IS REQUESTED FOR THE EXISTING TREES RETAINED IN A FOREST CONSERVATION EASEMENT ALONG PERIMETER NUMBER 2.

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.24 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED 10% LANDSCAPE TREES, IN THE AMOUNT OF \$1800 IS PART OF THE DEVELOPER'S AGREEMENT.

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 SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

Signature of Developer: *[Signature]* DATE: 4/12/96

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: 4/15/96

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

Signature: *[Signature]* DATE: 4/16/96

FOR NATURAL RESOURCES CONSERVATION SERVICE

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

Signature: *[Signature]* DATE: 4/16/96

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: *[Signature]* DATE: 5/16/96

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED DEPARTMENT OF PLANNING AND ZONING

Signature: *[Signature]* DATE: 5/16/96

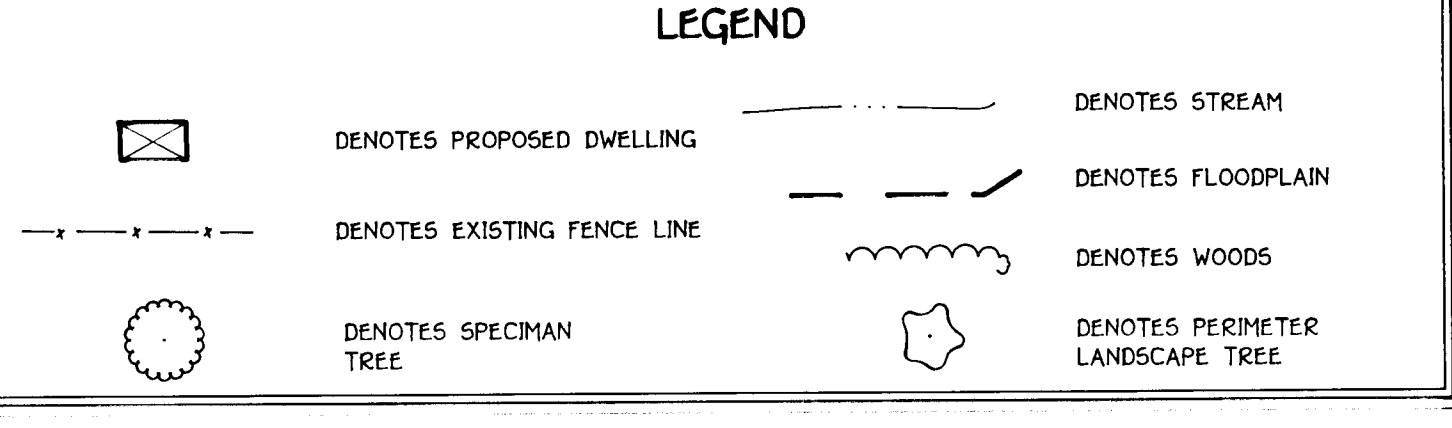
CHIEF, DIVISION OF PLANNING AND ZONING

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Signature: *[Signature]* DATE: 5-1-96

CHIEF, BUREAU OF HIGHWAYS

FISHER, COLLINS & CARTER, INC.
 THE ENGINEERING CONSULTING AND LAND SURVEYORS
 971 BALTIMORE NATIONAL PIKE, SUITE 100
 ELLICOTT CITY, MARYLAND 21114
 (410) 481-2955



O'DONNELL PROPERTY

LOTS 5, 6 AND 7 AND PRESERVATION PARCELS "A" AND "B"
 (A RESUBDIVISION OF HOUGH PROPERTY - LOT NO. 4 PLAT NO. 4797)
 ZONING: RC
 TAX MAP 14, PARCEL 39
 FOURTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

Scale: 1" = 100'
 DATE: JULY 8, 1995
 SHEET 2 OF 2
 F 96-25

FILE # 21812

F96.25