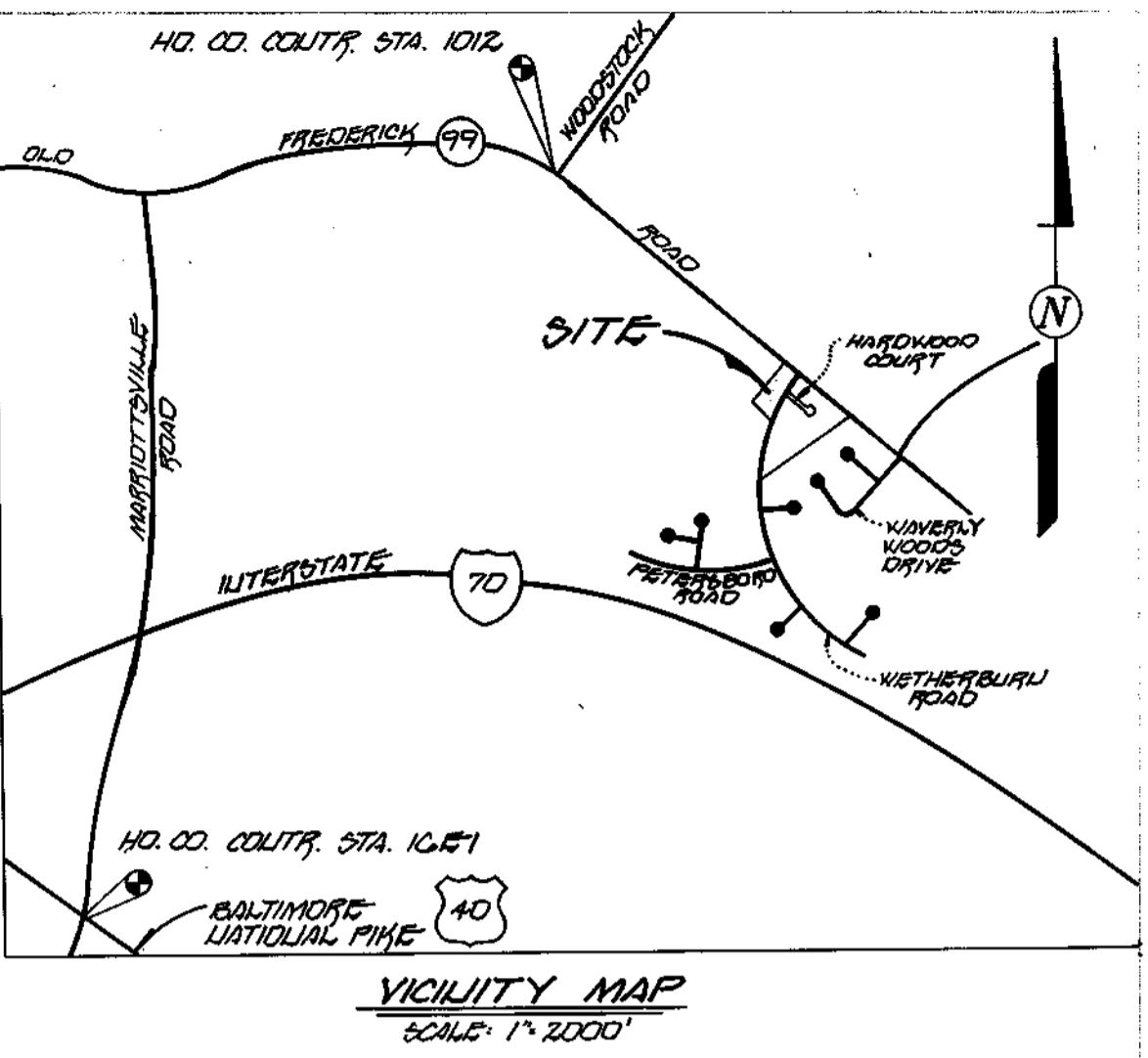


NOTE: All Sidewalk Ramps Shall Be in Accordance With Current A.D.A. Criteria.

MARYLAND

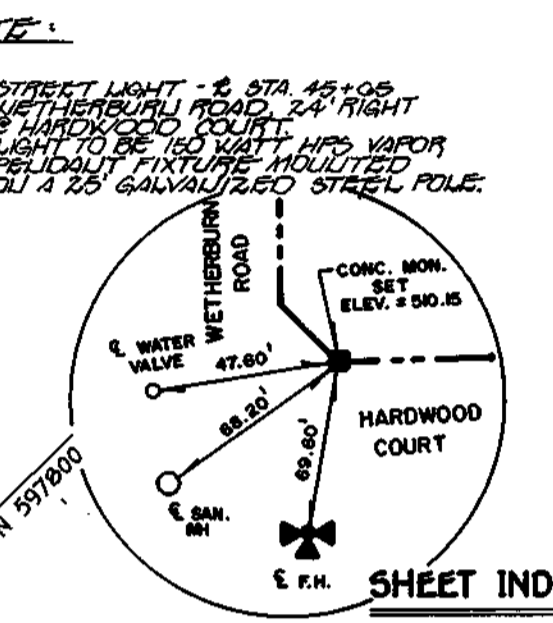
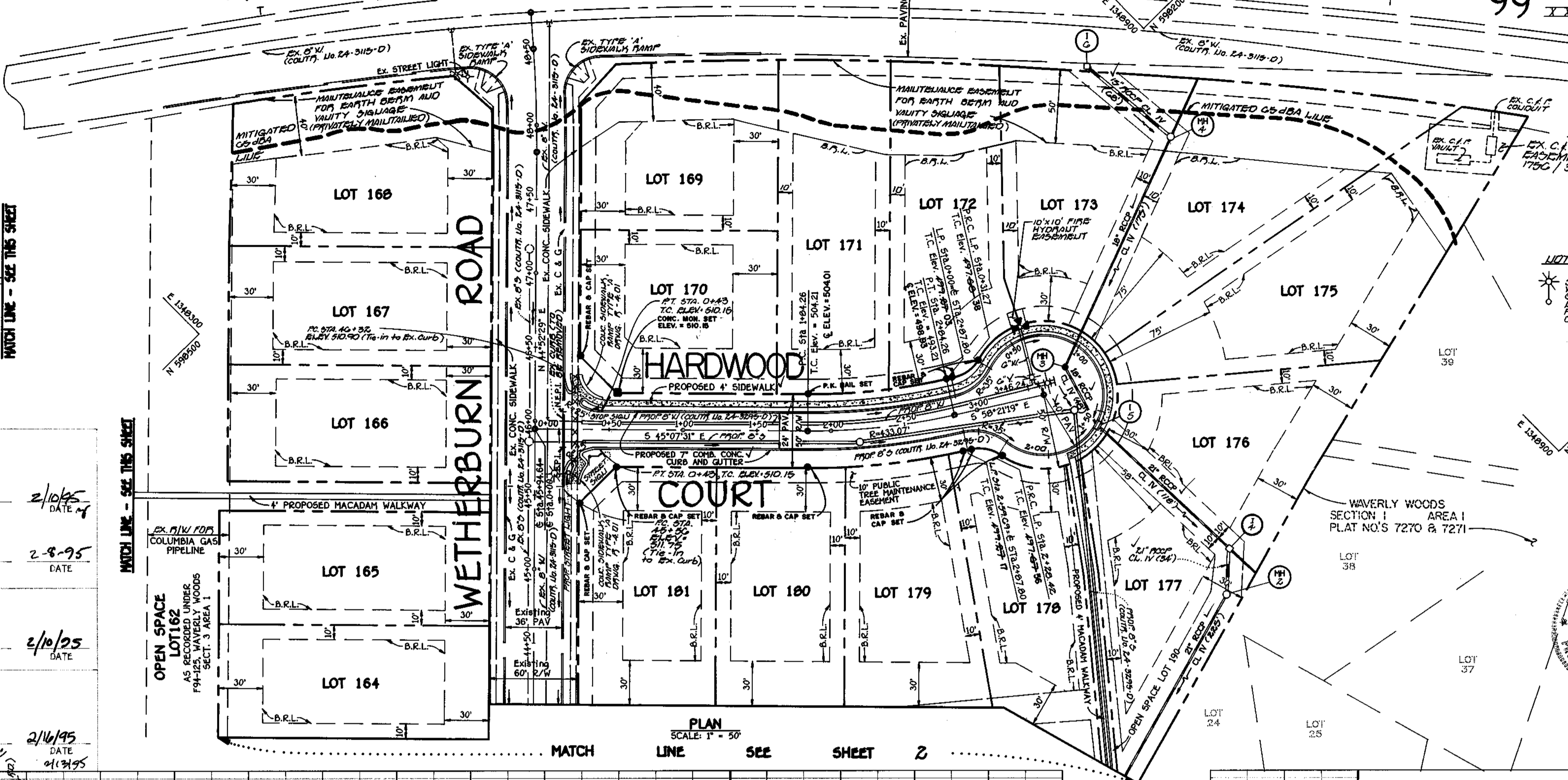
ROUTE 99

LEGEND
 DASHED EX. CURB AND VALVE TO BE REMOVED
 DASHED EX. SIDEWALK TO BE REMOVED



OPEN SPACE LOT 162
 AS RECORDED UNDER F94-25, WAVERLY WOODS SECT. 3 PHASE I
 4' PROPOSED MACADAM WALKWAY
 MATCH LINE - SEE THIS SHEET

APPROVED DEPARTMENT OF PUBLIC WORKS
 2/10/95 DATE
 APPROVED DEPARTMENT OF PUBLIC WORKS
 2-8-95 DATE
 APPROVED DEPARTMENT OF PUBLIC WORKS
 2/10/95 DATE
 APPROVED DEPARTMENT OF PLANNING AND ZONING
 2/14/95 DATE
 01/31/95 DATE



WAVERLY WOODS SECTION 3 AREA 2
 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

HARDWOOD COURT PLAN and PROFILE

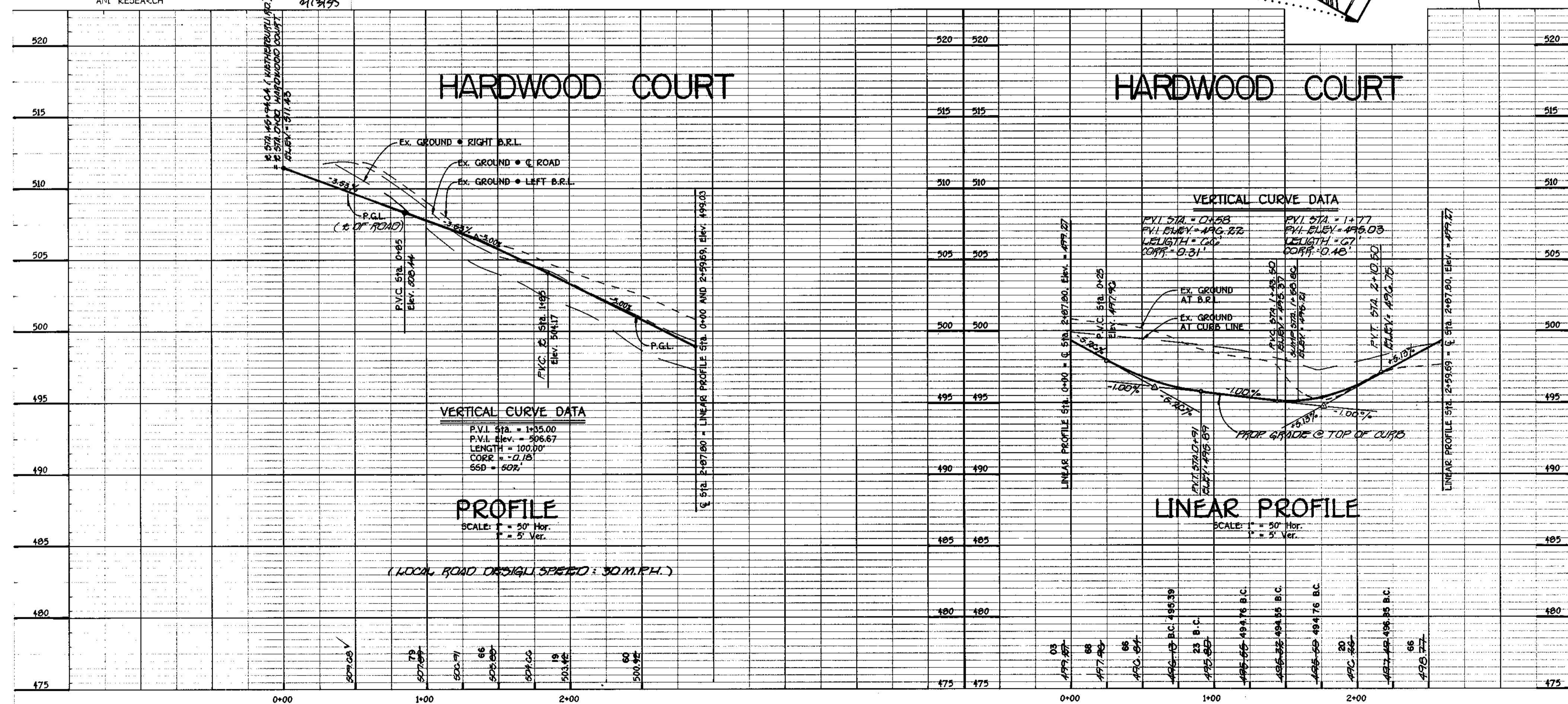
OWNER: KENNARD WARFIELD, JR. 1774 WARFIELD BROTHERS 14663 TRIADLEPHIA ROAD GLENELG, MARYLAND 21737

DEVELOPER: KENNARD WARFIELD, JR. c/o LAND DESIGN AND DEVELOPMENT, INC. 10805 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044

SCALE: As Shown DATE: Sept. 1, 1994 DIV. NO. 1 OF 5

DES. R.123456 DRN. A.56789 CHK. R.123456

FISHER, COLLINS, AND CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS AND LAND SURVEYORS
 3171 BALTIMORE NATIONAL PIKE, SUITE 100
 ELLICOTT CITY, MARYLAND 21142
 TEL: (410) 461-2855 FAX: (410) 750-1794

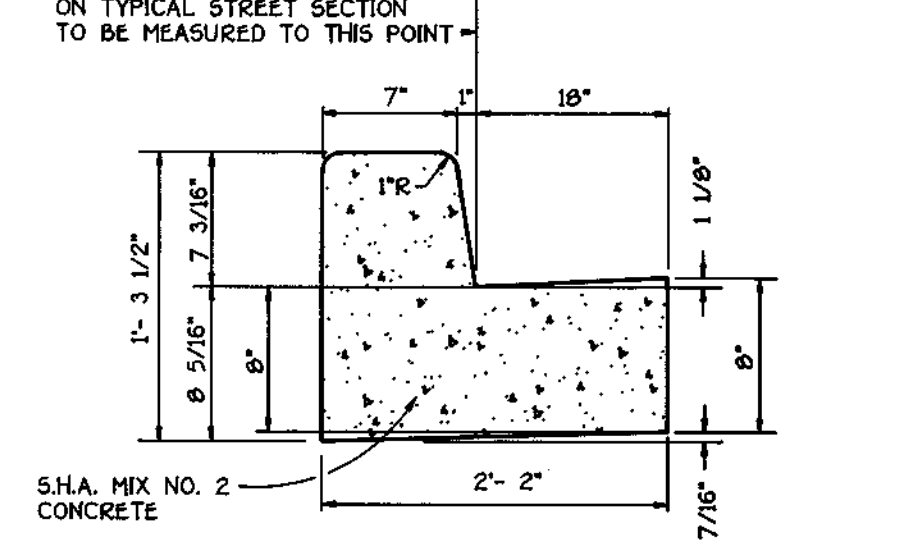
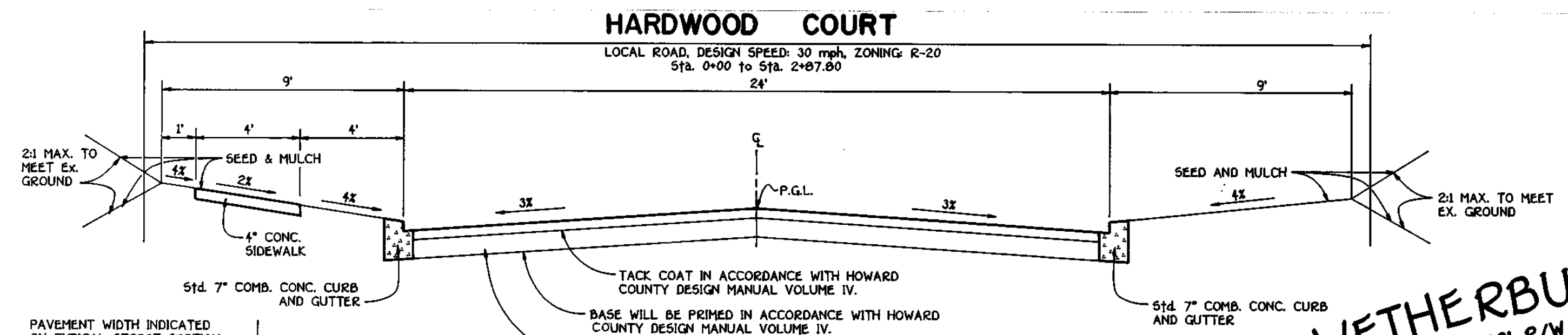


GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF BUILDINGS / CONSTRUCTION INSPECTOR DIVISION AT (410) 307-8800 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY THIS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF WORK.
- PROJECT BACKGROUND: PART OF "WAVERLY" SUBDIVISION.
 - LOCATION: MARYLAND ROUTE 99 AT THE EXISTING WETHERBURN ROAD INTERSECTION.
 - TAX MAP:16 PARCEL NO.21
 - ZONED R-20 AS PER ZONING BOARD CASE 929-M WHICH APPROVED ON MARCH 22, 1993
 - THIS PLAN IS SUBJECT TO ZONING BOARD CASE NO. 929-M WHICH APPROVED ON MARCH 22, 1993. A REQUEST TO REZONE 682.12 ACRES OF RURAL LAND INTO THE MIXED USE AREAS AS SHOWN UNDER 594-07.
 - TOTAL TRACT AREA = 682.12 AC.
 - SECTION AREA TO BE RECORDED WITH THIS SUBDIVISION = 10.644 AC.
 - TOTAL AREA OF ROAD E/W TO BE RECORDED = 0.504 AC.
 - TOTAL NUMBER OF PROPOSED LOTS: 27 BUILDABLE, 1 OPEN SPACE, 28 TOTAL.
 - TOTAL AREA OF OPEN SPACE = 0.072 AC.
 - TOTAL AREA OF BUILDABLE LOTS = 10.068 AC.
 - REFERENCE DATES AND FILE NUMBERS:
 - DATE OF PRELIMINARY PLAN APPROVAL AND FILE NUMBER = 4/13/94 / P94-04.
 - DATE OF SKETCH PLAN APPROVAL AND FILE NUMBER = 11/30/93 / S94-07.
- 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.
- TOPOGRAPHY IS BASED ON A FIELD RUN SURVEY OF THIS PROPERTY BY FISHER, COLLINS AND CARTER, INC. ON OR ABOUT 10/25/93 AND IS SHOWN ON A 2" CONTOUR INTERVAL.
- HORIZONTAL AND VERTICAL CONTROL IS BASED ON THE FOLLOWING GEODETIC CONTROL STATIONS:

1012	NG010601777	ELEV. = 445.58
1E1	1345336758	
NG1	N5932509322	ELEV. = 444.55
1E1	13440119710	
- PUBLIC WATER AND PUBLIC SEWER IS TO BE UTILIZED WITHIN THE TYPE OF FIXTURE AND POLE SCHEDULED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOL. III (1993) AND AS MODIFIED BY GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JULY 1993). THE JULY 1993 POLICY INCLUDES GUIDELINES FOR LATERAL AND INDIVIDUAL PLACEMENT "A MINIMUM SPACING OF 30' SHALL BE MAINTAINED BETWEEN ALL STREET LIGHT AND ALLY TREES.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 10.12A OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. THE DEVELOPER WILL MAINTAIN THE REQUIRED PERIMETER PLANTING. FINANCIAL SURETY FOR THE REQUIRED 600 TREES IN THE AMOUNT OF \$ 0,000 IS PART OF THE DEVELOPER'S AGREEMENT.
- THERE ARE NO WETLANDS LOCATED ON THIS PROPERTY, AS SHOWN UNDER THE STUDY PREPARED BY EXPLORATION RESEARCH, INC. ON APRIL 15, 1993.
- THE TRAFFIC STUDY HAS BEEN PREPARED BY THE TRAFFIC GROUP ON OCTOBER 21, 1993, APPROVED ON MARCH 22, 1993.
- THE NOISE STUDY HAS BEEN COMPLETED BY WILDMAN ENVIRONMENTAL SERVICES ON DECEMBER 10, 1993, APPROVED ON JANUARY 27, 1994.
- GEOTECHNICAL REPORT IS NOT REQUIRED SINCE STORMWATER MANAGEMENT HAS BEEN PROVIDED IN WAVERLY WOODS, SECTION 2, P.90-126.
- EXISTING UTILITIES THAT ARE SHOWN WERE LOCATED BY AS-BUILT UTILITY DRAWINGS.
- TOTAL AREA OF STEEP SLOPES 25% AND GREATER=19,900 SQ.FT.
- STEEP SLOPE AREAS WHICH ARE SHOWN ADJACENT TO WETHERBURN ROAD WERE CREATED DUE TO THE ROAD FILL FOR WETHERBURN ROAD UNDER WAVERLY WOODS, SECTION 2, P.90-126.
- THE FOREST CONSERVATION PROGRAM WAS PREPARED BY ESA, INC. AND WAS APPROVED ON NOVEMBER 19, 1993 UNDER 594-07.
- THIS PLAN IS SUBJECT TO ZONING BOARD CASE NO. 28 929-M WHICH APPROVED ON MARCH 22, 1993. A REQUEST TO REZONE 682.12 ACRES OF RURAL LAND INTO MIXED-USE AREAS AS SHOWN ON 594-07.

1253

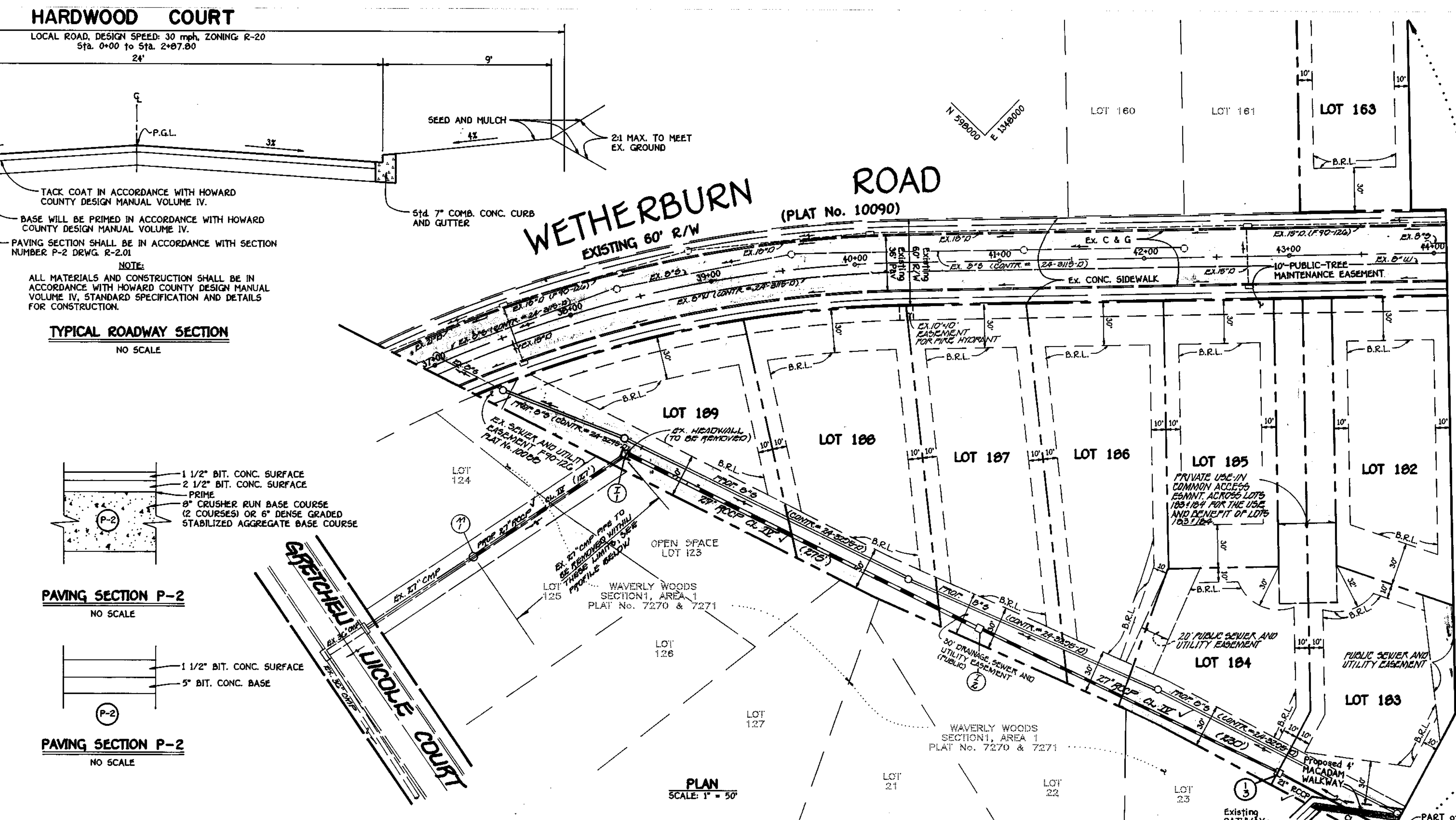


APPROVED
 DEPARTMENT OF PUBLIC WORKS
 DATE: 2/10/95

APPROVED
 DEPARTMENT OF PUBLIC WORKS
 DATE: 2-8-95

APPROVED
 DEPARTMENT OF PUBLIC WORKS
 DATE: 2/10/95

APPROVED
 DEPARTMENT OF PUBLIC WORKS
 DATE: 2/10/95



TYPICAL ROADWAY SECTION
 NO SCALE

PAVING SECTION P-2
 NO SCALE

PAVING SECTION P-2
 NO SCALE

PLAN
 SCALE: 1" = 50'



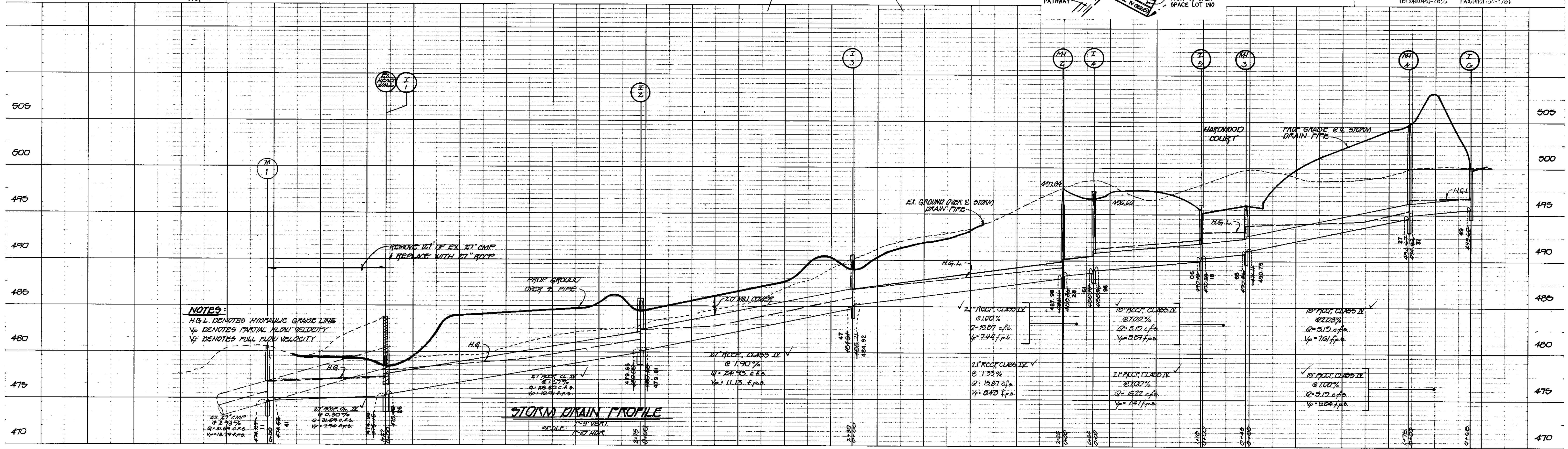
WAVERLY WOODS
 SECTION 3 AREA 2
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

Existing WETHERBURN ROAD AND
 LOTS 182-190 AND 163 - PLAN VIEW

OWNER: KENNARD WARFIELD, JR.
 DEVELOPER: KENNARD WARFIELD, JR.
 14663 TRIADAPHA ROAD
 10805 HICKORY RIDGE ROAD
 GLENELG, MARYLAND 21737 COLUMBIA, MARYLAND 21044

SCALE: As Shown DATE: Sept. 9, 1994 E/VG: H.C. 2 OF 5
 DES: R.Isaacs DFM: A.Saba CM: R.Isaacs

FISHER, COLLINS, AND CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS AND LAND DEVELOPERS
 907 BALTIMORE NATIONAL FIRE, SUITE 100
 BLOOMING CITY, MARYLAND 21114
 TEL: (410) 415-0925 FAX: (410) 501-1041



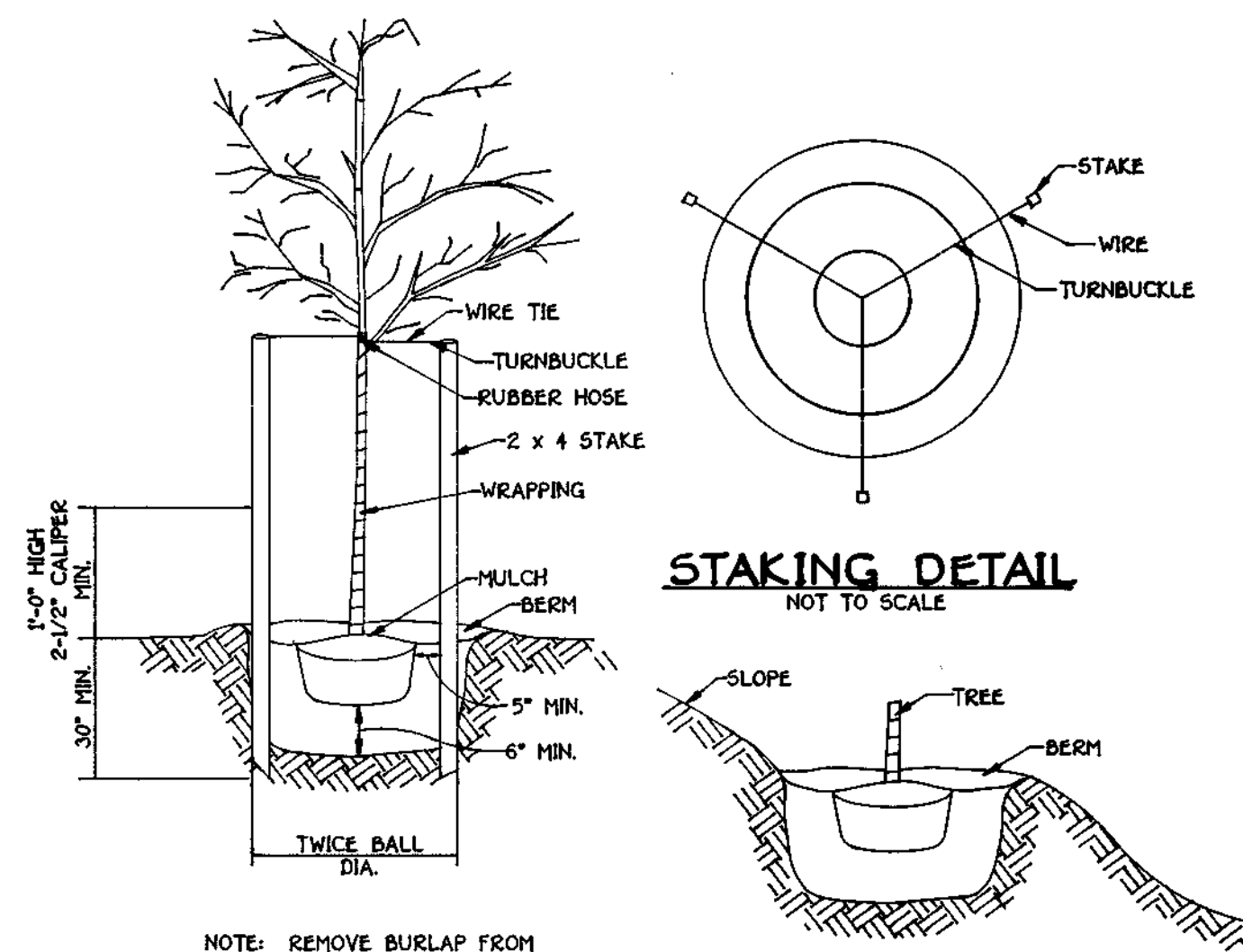
NOTES:
 H.G.L. DENOTES HYDRAULIC GRADE LINE
 Vp DENOTES PARTIAL FLOW VELOCITY
 Vp DENOTES FULL FLOW VELOCITY

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

3521

STREET TREE SCHEDULE			
SYMBOL	BOTANICAL AND COMMON NAME	SIZE AND ROOT	COMMENTS
	ACER RUBRUM OCTOBER GLORY RED MAPLE	MIN. 2 1/2" CALIPER B AND B	40' APART ON PUBLIC R/W

* NOTE: STREET TREE TYPE IS ONLY A RECOMMENDATION THIS MAY BE REVISED TO A COUNTY ACCEPTABLE EQUIPMENT.
STREET TREES: REQUIRED - 40
PROVIDED - 40



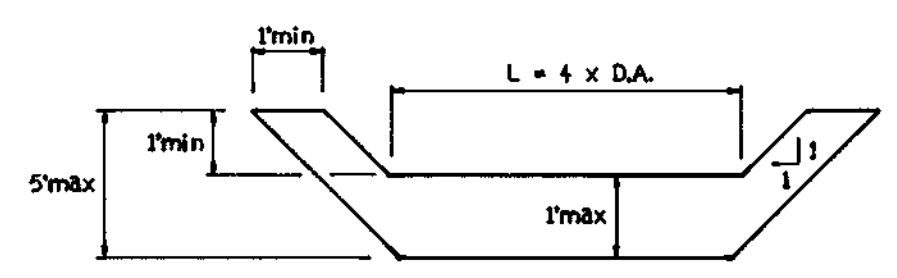
STAKING DETAIL
NOT TO SCALE

TREE PLANTING
NOT TO SCALE

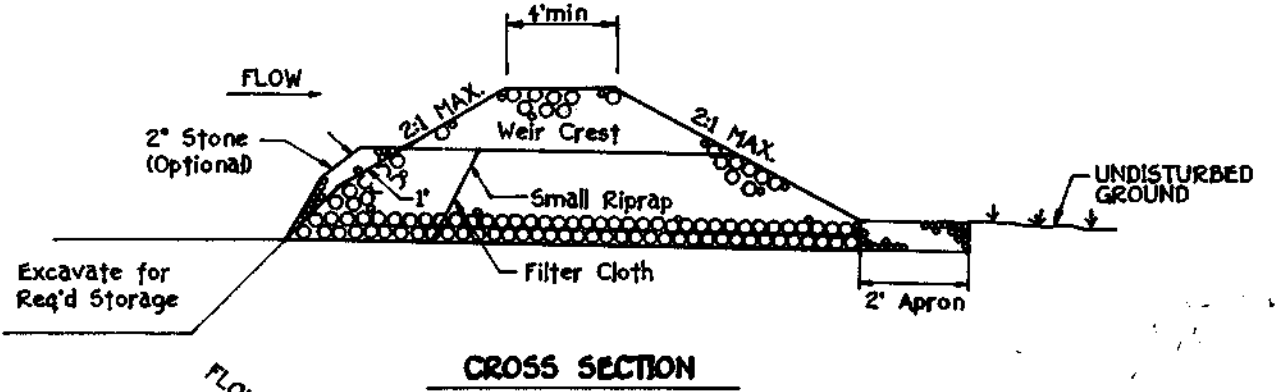
GRADING FOR PLANTING
ON SLOPES
NOT TO SCALE

• DENOTES APPROXIMATE LOCATION OF
ACER RUBRUM (OCTOBER GLORY RED MAPLE)
2-1/2" CALIPER, PLANTED 40' ON CENTER.

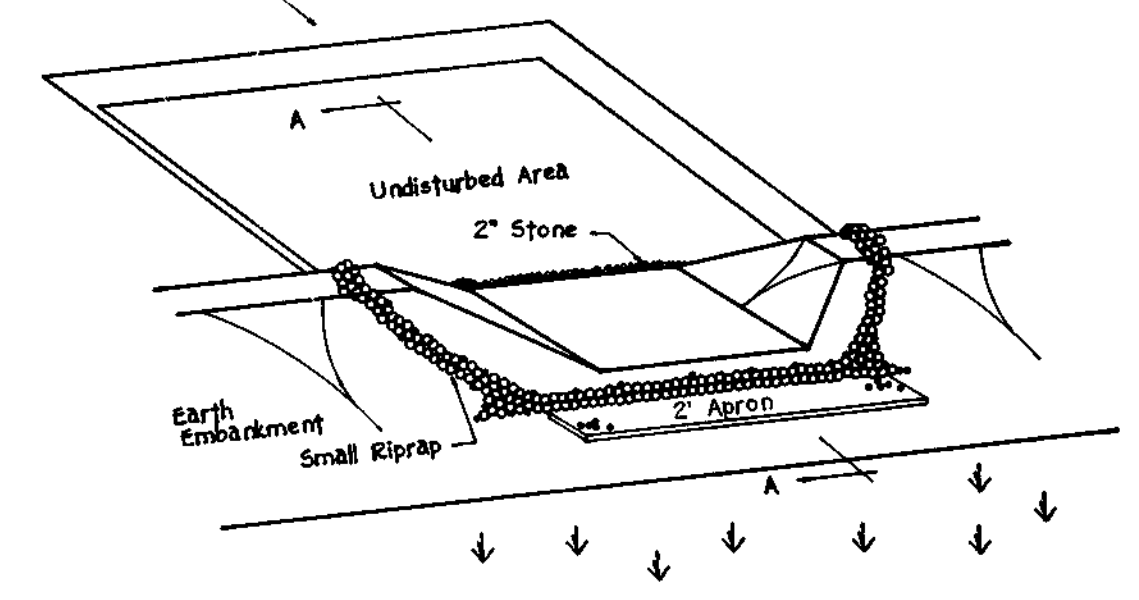
NOTE: 1. TREES TOTAL = 40 IN STREET RIGHT-OF-WAY
2. TREES ARE TO BE INSTALLED ON THE R/W LINE



PROFILE



CROSS SECTION



PERSPECTIVE VIEW

STONE OUTLET SEDIMENT TRAP ST-VI

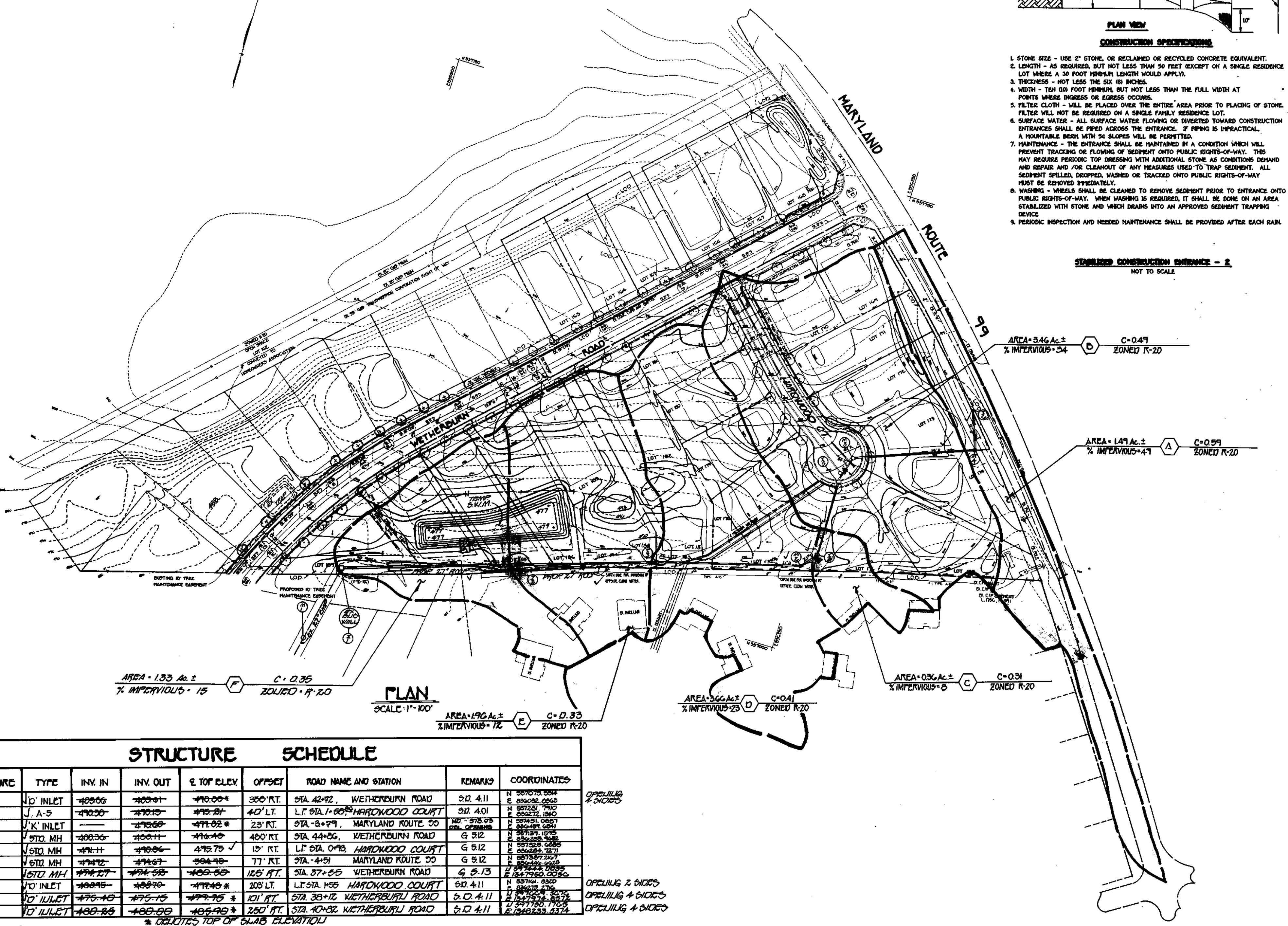
- OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.
1. THE AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
 2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING.
 3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
 4. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-6" ALONG WITH A 1" THICKNESS OF 2" AGGREGATE PLACED ON THE UP-GRADE SIDE ON THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
 5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP.
 6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRED AS NEEDED.
 7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
 8. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

STRUCTURE SCHEDULE

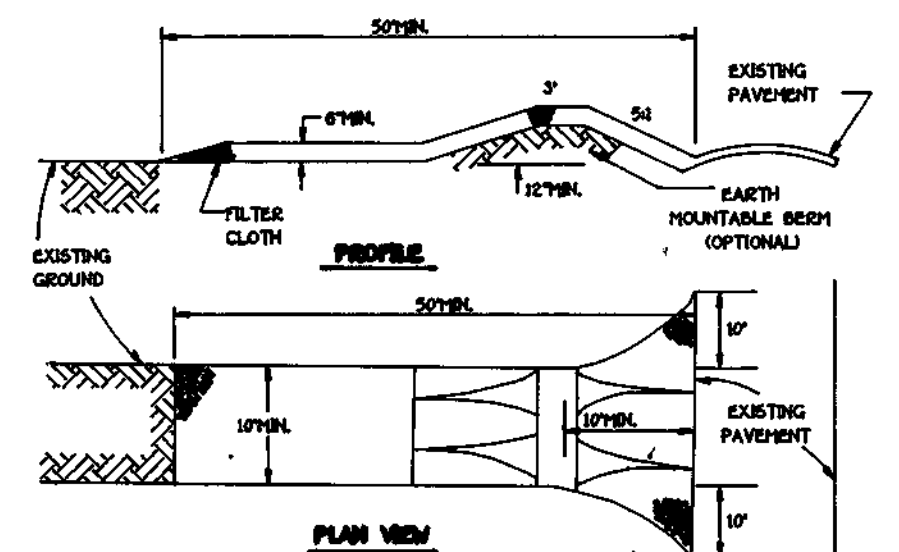
STRUCTURE	TYPE	INV. IN	INV. OUT	E. TOP ELEV	OFFSET	ROAD NAME AND STATION	REMARKS	COORDINATES
I-3	10" INLET	+100.00	+100.01	+110.00*	300' RT.	STA. 42+72 WETHERBURN ROAD	20.4.11	N 389775.5588 E 206040.2058
I-6	J.A-5	+110.00	+110.10	+115.01	40' LT.	L.F. STA. 1+80 HANWOOD COURT	20.4.01	N 88120.7160 E 206112.1840
I-0	J.K INLET	+110.00	+110.00	+111.02*	23' RT.	STA. 3+79 MARYLAND ROUTE 30	19.8.28.05 CON. OPERATIONS	N 88092.0501 E 206099.0501
M-2	STD. MH	+100.00	+100.11	+110.00	480' RT.	STA. 44+06 WETHERBURN ROAD	G 8.12	N 88171.1916 E 206128.3488
M-3	STD. MH	+111.11	+110.06	+119.75	15' RT.	L.F. STA. 0+08 HANWOOD COURT	G 8.12	N 88099.2271 E 206099.2271
M-4	STD. MH	+114.12	+114.07	+124.78	77' RT.	STA. 4+31 MARYLAND ROUTE 30	G 8.12	N 88171.1916 E 206128.3488
M-1	STD. MH	+114.27	+114.08	+125.00	125' RT.	STA. 37+05 WETHERBURN ROAD	G 8.13	N 88171.1916 E 206128.3488
I-4	10" INLET	+100.10	+100.10	+114.00*	208' LT.	L.F. STA. 1+05 HANWOOD COURT	50.4.11	N 88171.1916 E 206128.3488
I-1	10" INLET	+110.10	+110.10	+119.75*	101' RT.	STA. 38+12 WETHERBURN ROAD	50.4.11	N 88171.1916 E 206128.3488
I-2	10" INLET	+100.00	+100.00	+105.00*	250' RT.	STA. 40+36 WETHERBURN ROAD	50.4.11	N 88171.1916 E 206128.3488

* ELEVATIONS TOP OF SLABS ELEVATION

I-3	484.92	484.47	490.25
I-5	490.18	490.06	495.18
I-6	---	495.49	499.60
M-2	488.28	487.98	496.38
M-3	490.75	490.68	498.75
M-4	494.37	494.27	503.57
M-1	474.41	474.11	479.81
I-4	488.96	488.61	496.91
I-1	478.26	474.98	479.28
I-2	479.81	479.65	486.25



PLAN
SCALE: 1" = 100'



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE #1 STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THICKNESS - NOT LESS THAN 6 INCHES.
4. WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PRECIPITATED ACROSS THE ENTRANCE. IF PRECIPITATION IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PROVIDED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND FOR CLEANOUT OF ANY HEADERS USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DECUMULATED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WASHING IS REQUIRED. IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WASH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE - 2
NOT TO SCALE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Anna J. Jurek 2/16/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: DEPARTMENT OF PUBLIC WORKS
Paul S. Szymon 2/10/95
CHIEF, BUREAU OF ENGINEERING

APPROVED: DEPARTMENT OF PUBLIC WORKS
Paul S. Szymon 2/10/95
CHIEF, LAND DEVELOPMENT DIVISION

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.

W. J. [Signature] 9/10/94
SIGNATURE OF ENGINEER DATE

"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 DEEMED NECESSARY."

W. J. [Signature] 1-3-95
SIGNATURE OF DEVELOPER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
Patricia E. [Signature] 2/1/95
U.S. SOIL CONSERVATION DISTRICT DATE

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

APPROVED: DEPARTMENT OF PUBLIC WORKS
W. J. [Signature] 2/1/95
CHIEF, BUREAU OF HIGHWAYS DATE

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

SEEDING PREPARATION
LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.
IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS
APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (4 LBS./1000 SQ. FT.)

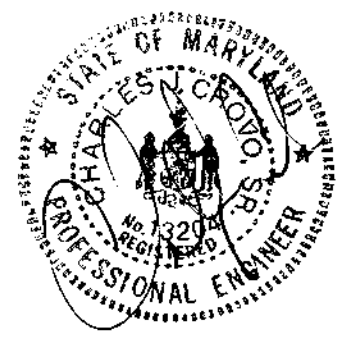
SEEDING
FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 1 1/2 BUSHEL PER ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS./ACRE OF WHEATING LOVEGRASS (0.7 LBS./1000 SQ.FT.) FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 20. PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OR USE 50D.

MULCHING
APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 200 GALLONS PER ACRE (5 GAL./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 300 GALLONS PER ACRE (6 GAL./1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1986 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

1253

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
971 BALTIMORE NATIONAL PIKE, SUITE 100
ELICOTT CITY, MARYLAND 21042
(410) 481-2825



DRAINAGE AREA MAP
WAVERLY WOODS
SECTION 3, AREA 2
ZONING R-20
TAX MAP 16 PARCEL 21
3rd ELECTION DIST. HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: SEPTEMBER 9, 1994
SHEET 3 OF 5

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Aina Summaric 2/16/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
Michael Egan 2/10/95
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
Aina Summaric 2/10/95
 CHIEF, LAND DEVELOPMENT DIVISION DATE

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.

Oliver 9/10/94
 SIGNATURE OF ENGINEER DATE

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 BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

Edward S. J. J. 1-3-95
 SIGNATURE OF DEVELOPER DATE

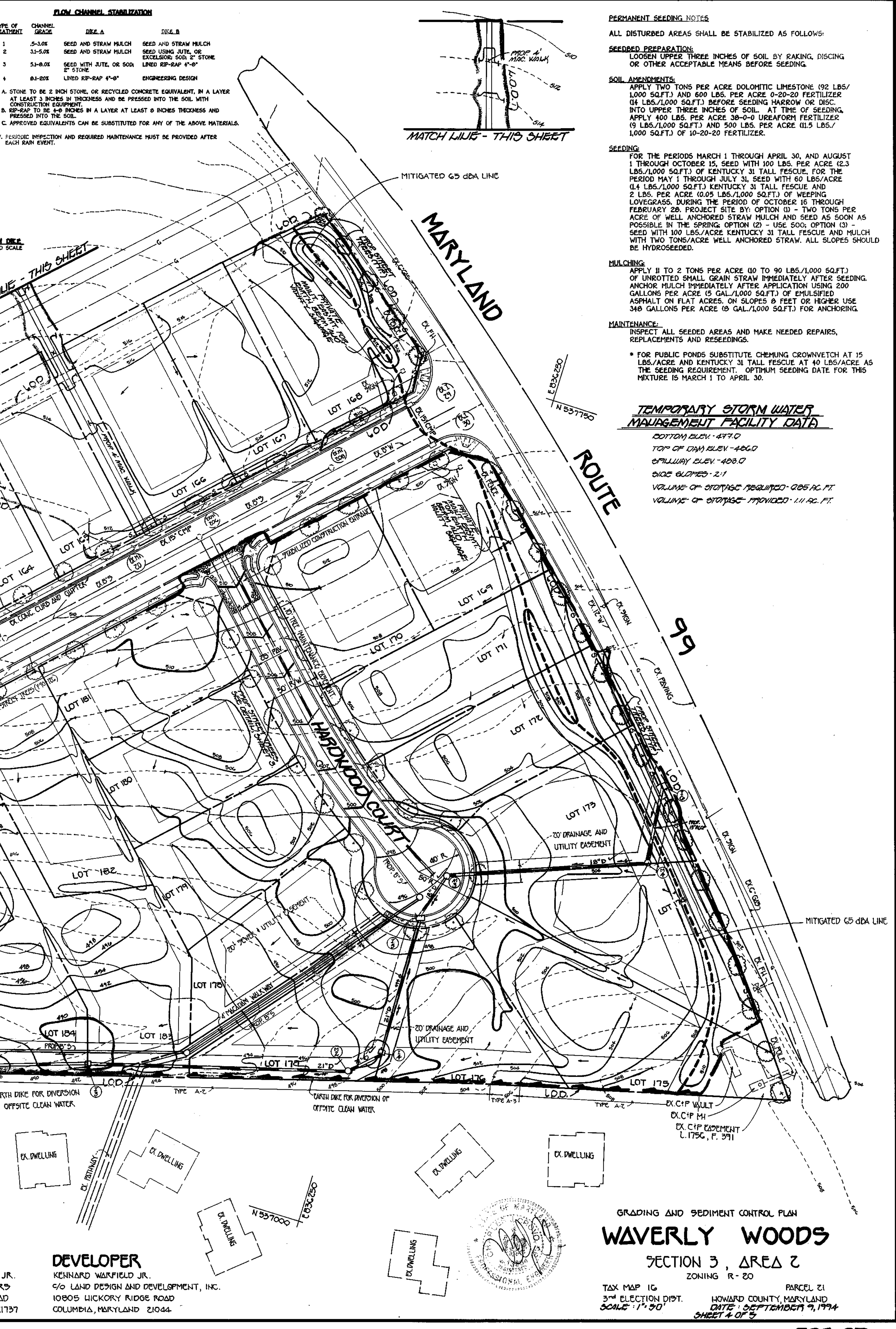
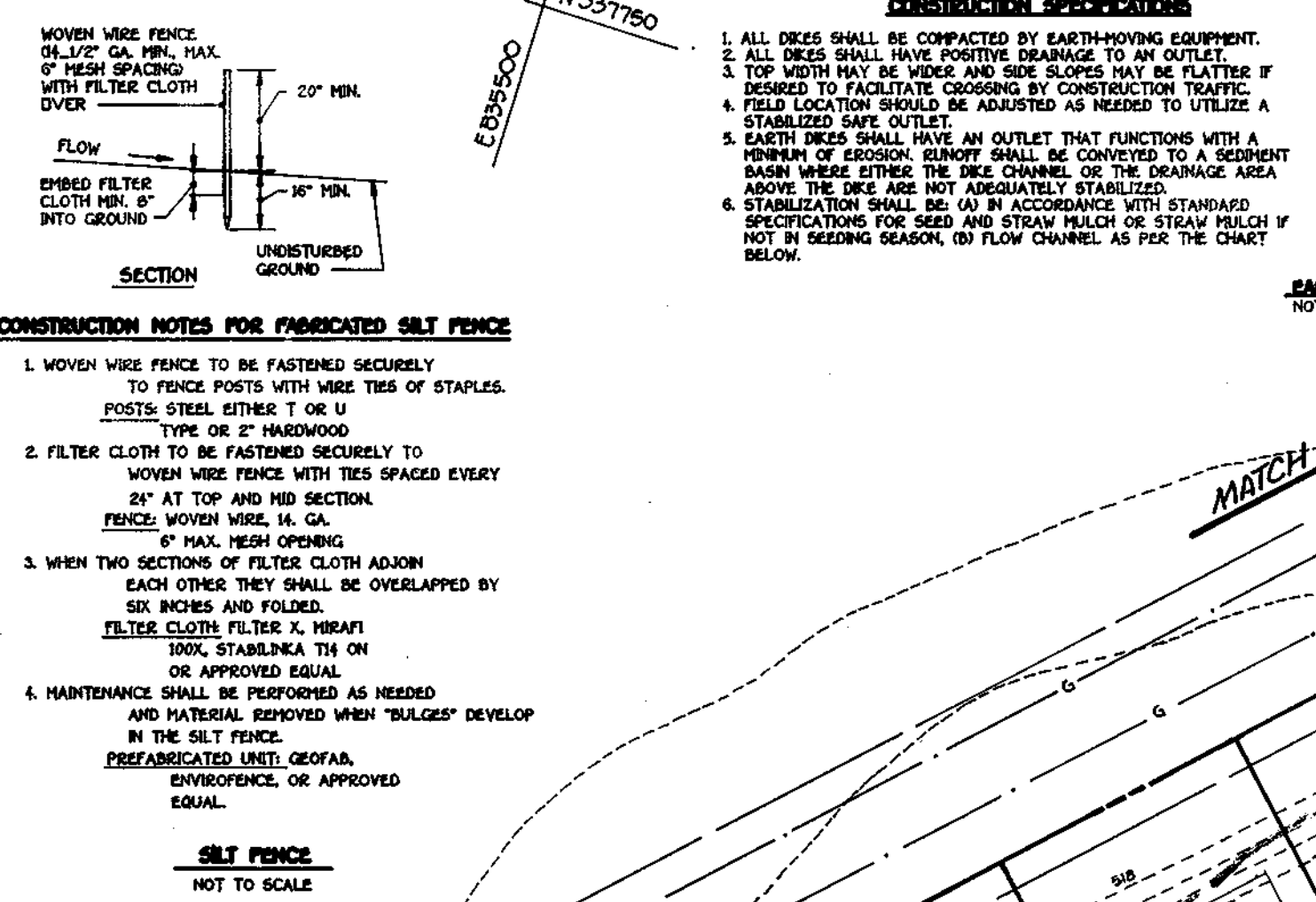
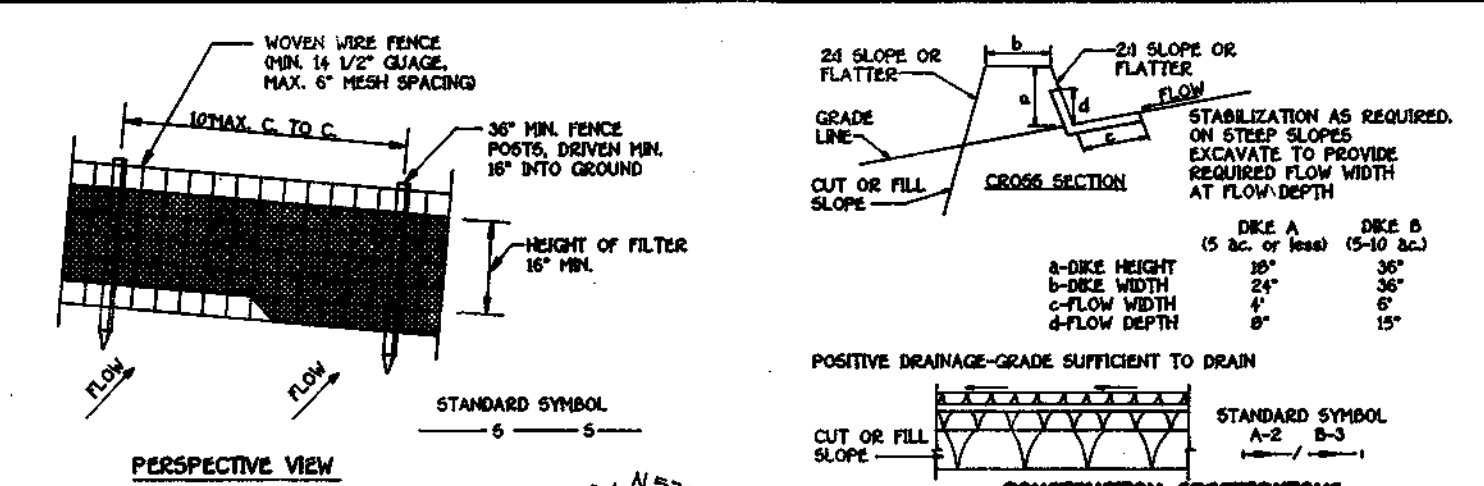
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
Patricia 2/1/95
 U.S. SOIL CONSERVATION DISTRICT DATE

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
John L. Johnson 2/1/95
 DISTRICT HOWARD COUNTY SOIL CONSERVATION DIST. DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
Andrew M. Cavelti 2-8-95
 CHIEF, BUREAU OF HIGHWAYS DATE

- SEQUENCE OF CONSTRUCTION**
1. OBTAIN GRADING PERMIT. (1 DAY)
 2. NOTIFY "HEB UTILITY" 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION DIVISION AT (410) 313-1800, 24 HOURS BEFORE STARTING ANY WORK. (1 DAY)
 3. INSTALL SEDIMENT CONTROL MEASURES, STONE CONSTRUCTION ENTRANCE, SEDIMENT TRAP, EARTH DIKES, CUT FENCE, TEMP STORM WATER MAINTENANCE FACILITY AND STABILIZE
 4. GRADE SITE TO SUBGRADE, STABILIZE AND INSTALL STORM DRAINS FROM I-2 TO I-2. (2 WEEKS), TEMP SWIM F AND DIKES WITH TEMP SEEDING (1 WEEK)
 - *5. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON AFTER EACH RAINFALL AND ON A DAILY BASIS.
 6. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT TRAP ONCE THE CLEAROUT ELEVATIONS HAVE BEEN REACHED. (1 DAY)
 7. INSTALL ROAD BASE COURSE. (4 DAYS)
 8. REMOVE SEDIMENT FROM ROADWAYS AND DRESS STONE CONSTRUCTION ENTRANCE AS REQUIRED AND STABILIZE.
 9. ALL DISTURBED AREAS. (2 DAYS)
 10. FLUSH STREAM DRAIN SYSTEM TO REMOVE ANY TRAPPED SEDIMENT. (2 DAYS)
 11. APPLY TOP COAT TO SUB-BASE AND LAY SURFACE COURSE. (4 DAYS)
 12. REMOVE ALL SEDIMENT CONTROL MEASURES UPON SEDIMENT CONTROL INSPECTOR'S APPROVAL. (2 DAYS)
 13. ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.
- * CONTRACTOR WILL DENATURE THE TEMP SWIM FACILITY BY RUMBLING WHEN REQUIRED.
- 11a. INSTALL STORM DRAINS FROM I-2 TO M-1.

- SEDIMENT CONTROL NOTES**
1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (1992-2437).
 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 30 TO 75 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL GREATER THAN 3:1 IN 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED 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, CHAPTER 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51.50 (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.
 6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 7. SITE ANALYSIS:
 TOTAL AREA OF SITE 106.44 ACRES
 AREA DISTURBED 11.913 ACRES
 AREA TO BE ROOFED OR PAVED 0.32 ACRES
 AREA TO BE VEGETATIVELY STABILIZED 11.003 ACRES
 TOTAL CUT 22,202 CU.YDS.
 TOTAL FILL 22,447 CU.YDS.
 OFFSITE WASTE AREA LOCATION 2.052 CU.YDS.
 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW 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.
 10. 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:

SEEDING 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 600 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 38-0-0 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 15 THROUGH FEBRUARY 28, PREPARE 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 HYDROSEEDED.

MULCHING:
 APPLY 11 TO 2 TONS PER ACRE (10 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 ACRES, ON SLOPES 5 FEET OR HIGHER USE 348 GALLONS PER ACRE (8 GAL./1,000 SQ.FT.) FOR ANCHORING.

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

* FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNVECH 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.

TEMPORARY STORM WATER MANAGEMENT FACILITY DATA

DOTYOM ELEV. 477.0
 TOP OF DAM ELEV. 488.0
 CULLINARY ELEV. 488.0
 SLOPE 6:1
 VOLUME OF STORAGE REQUIRED - 285 AC. FT.
 VOLUME OF STORAGE PROVIDED - 111 AC. FT.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 971 BALTIMORE NATIONAL FIRE, SUITE 100
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2855

OWNER
 KENNARD R. WARFIELD JR.
 7A WARFIELD BROTHERS
 14625 TRIDELPHIA ROAD
 GLENELG, MARYLAND 21157

DEVELOPER
 KENNARD WARFIELD JR.
 S/O LAND DESIGN AND DEVELOPMENT, INC.
 10805 WICKOPHIA RIDGE ROAD
 COLUMBIA, MARYLAND 21044

GRADING AND SEDIMENT CONTROL PLAN
WAVERLY WOODS
 SECTION 3, AREA 2
 ZONING R-20
 TAX MAP 1G
 3RD ELECTION DIST.
 SCALE: 1" = 50'
 SHEET 4 OF 9

PARCEL 21
 HOWARD COUNTY, MARYLAND
 DATE: SEPTEMBER 9, 1994

AS-BUILT 5/18/99 F95-27

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chie Swaminathan 2/16/95 DATE
 CHIEF, BUREAU OF LAND DEVELOPMENT AND RESEARCH

DEPARTMENT OF PUBLIC WORKS
Paul Span 2/10/95 DATE
 CHIEF, BUREAU OF ENGINEERING

DEPARTMENT OF PUBLIC WORKS
Chris Ammer 2/10/95 DATE
 CHIEF, LAND DEVELOPMENT DIVISION

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 DATE

"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 SET FORTH IN THIS PLAN."

James S. Saffell 1-3-95 DATE
 SIGNATURE OF DEVELOPER

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
Tatiana Yef 2/1/95 DATE
 U.S. SOIL CONSERVATION DISTRICT

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Paul R. Roberts 2/1/95 DATE
 DISTRICT HOWARD SOIL CONSERVATION DIST.

APPROVED: DEPARTMENT OF PUBLIC WORKS
Andrew M. G. Smith 2-5-95 DATE
 CHIEF, BUREAU OF HIGHWAYS

SCHEDULE A PERIMETER LANDSCAPE EDGE			
CATEGORY	ADJACENT TO PERIMETER PROPERTIES		
	1	2	3
PERIMETER	1	2	3
LANDSCAPE TYPE	B	A	A
LINEAR FEET OF PERIMETER	790	507	1230
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE IF NEEDED)	NO	NO	NO
NUMBER OF PLANTS REQUIRED			
SHADE TREES	0	0	0
EVERGREEN TREES	0	0	0
SHRUBS	0	0	0
NUMBER OF PLANTS PROVIDED			
SHADE TREES	0	0	0
EVERGREEN TREES	0	0	0
OTHER TREES (W/ SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	0	0	0

SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY
(1)	OCTOBER GLORY RED MAPLE	ACER RUBRUM	2 1/2" - 3" CAL.	40
(2)	LANDSCAPE TREE	GREEN MOUNTAIN SUGAR MAPLE	2 1/2" - 3" CAL.	46
(3)	LANDSCAPE EVERGREEN	EASTERN WHITE PINE	6" - 8" HT.	20

PERMANENT SEEDING: ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

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

SOIL AMENDMENTS: APPLY TWO TONS PER ACRE DOLOMITIC LIME STON (92 LBS./1000 SQ.FT.) AND 500 LBS. PER ACRE 0-20-20 FERTILIZER (4 LBS./1000 SQ.FT.) BEFORE SEEDING HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 38-0-0 UREA-FORM FERTILIZER (9 LBS./1000 SQ.FT.) AND 500 LBS. PER ACRE (4.5 LBS./1000 SQ.FT.) OF 10-20-20 FERTILIZER.

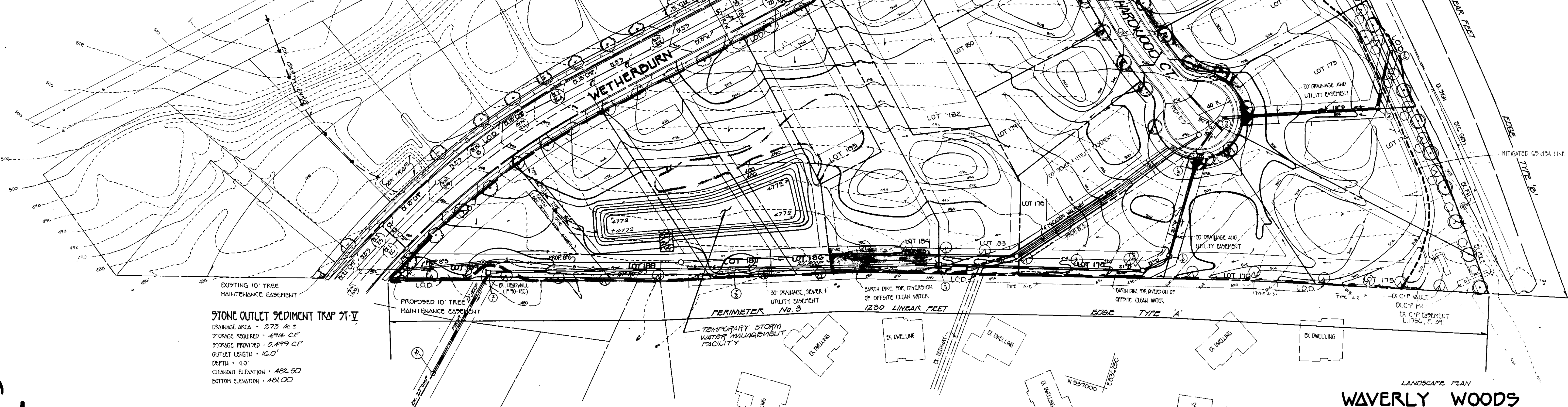
SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS./ACRE (1.4 LBS./1000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 29, 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 SOU. OPTION (3) SEED WITH 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD BE HYDROSEED.

MULCHING: APPLY 11 TO 2 TONS PER ACRE (10 TO 90 LBS./1000 SQ.FT.) OF UNCHIPPED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GAL./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER USE 340 GALLONS PER ACRE (19 GAL./1000 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 10 LBS./ACRE AS THE SEEDING REQUIREMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO APRIL 30.

- SEQUENCE OF CONSTRUCTION
- OBTAIN GRADING PERMIT. (1 DAY)
 - NOTIFY MISS UTILITY: 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION DIVISION AT (410) 343-1800 24 HOURS BEFORE STARTING ANY WORK. (1 DAY)
 - INSTALL SEDIMENT CONTROL MEASURES, STONE CONSTRUCTION ENTRANCE, SEDIMENT TRAPS, EARTH DIKES, SILT FENCE AND STABILIZE TRAPS AND DIKES w/ TEMPORARY SEEDING. (1 WEEK)
 - GRADE SITE TO SURROUND, STABILIZE AND INSTALL STORM DRAINS. (2 WEEKS)
 - THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON AFTER EACH RAINFALL AND ON A DAILY BASIS.
 - SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT TRAPS ONCE THE CLEANOUT ELEVATIONS HAVE BEEN REACHED. (1 DAY)
 - INSTALL ROAD BASE COURSE. (4 DAYS)
 - REMOVE SEDIMENT FROM ROADWAYS AND DRESS STONE CONSTRUCTION ENTRANCE AS REQUIRED AND STABILIZE ALL DISTURBED AREAS. (2 DAYS)
 - FLUSH STREAM DRAIN SYSTEM TO REMOVE ANY TRAPPED SEDIMENT. (2 DAYS)
 - APPLY TACK COAT TO SUB-BASE AND LAY SURFACE COURSE. (4 DAYS)
 - REMOVE ALL SEDIMENT CONTROL MEASURES UPON SEDIMENT CONTROL INSPECTORS APPROVAL. (2 DAYS)
 - ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.



STONE OUTLET SEDIMENT TRAP #1-V
 DRAINAGE AREA - 273 A ±
 STORAGE REQUIRED - 494 C.F.
 STORAGE PROVIDED - 5,499 C.F.
 OUTLET LENGTH - 16.0'
 DEPTH - 4.0'
 CLEANOUT ELEVATION - 482.50
 BOTTOM ELEVATION - 481.00

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 917 BALDORNE NATIONAL PIKE, SUITE 100
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OWNER: KENNARD R. WARFIELD JR. 7/4 WARFIELD BROTHERS 14665 TRIDELPHIA ROAD GLENELG, MARYLAND 21757

DEVELOPER: 5/6 LAND DESIGN AND DEVELOPMENT, INC. 10805 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044

LANDSCAPE PLAN
WAVERLY WOODS
 SECTION 3, AREA 2
 ZONING R-20 SHEET 5 OF 5 PARCEL 21
 TAX MAP 1G HOWARD COUNTY, MARYLAND
 SCALE: 1" = 50' DATE: SEPTEMBER 9, 1994

AS-BUILT 5/18/99 F95-27