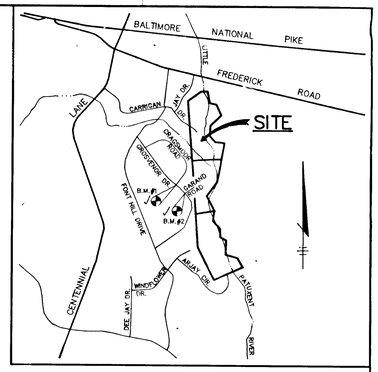
INDEX OF SHEETS	
NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE OF CARRIGAN DRIVE
3	GRADING, SEDIMENT CONTROL PLAN & NOTES AND DETAILS
4	GRADING, SEDIMENT CONTROL PLAN & PROFILES

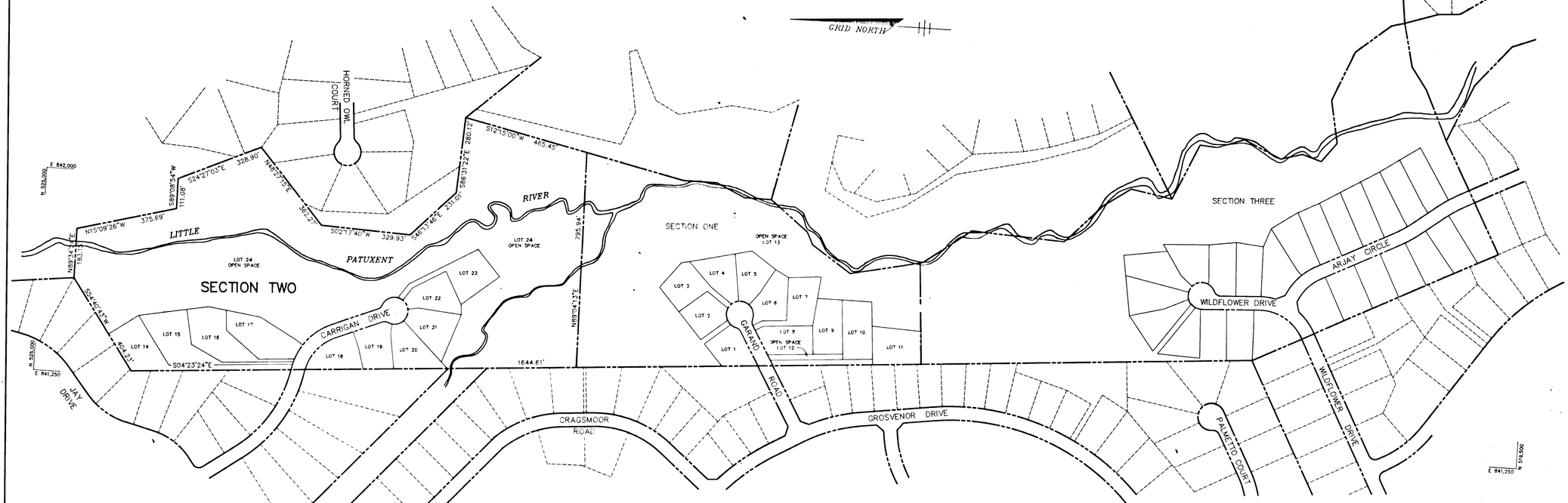
AS-BUILT FOR

LITTLE PATUXENT RIDGE

ROADS AND STORM DRAINAGE
SECTION TWO LOTS 14-24
2nd ELECTION DISTRICT
HOWARD COUNTY , MARYLAND



VICINITY MAP
SCALE: 1"=2000'



PLAN
SCALE: 1"=200'

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMMENDMENTS
2. APPROXIMATE LOCATION EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
3. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
4. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK ON THESE DRAWINGS:

MISS UTILITY	1-800-257-777
BELL TELEPHONE SYSTEM	393-3649
LONG DISTANCE CABLE DIVISION	393-3553 or 3554
BALTIMORE GAS AND ELECTRIC CO.	539-8000
HOWARD COUNTY BUREAU OF UTILITIES	992-2366
HOWARD COUNTY CONSTRUCTION/ INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK)	313-1880
COLONIAL PIPELINE	795-1390

5. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
6. ALL STREET CURB RETURNS SHALL HAVE 25' RADII UNLESS OTHERWISE NOTES.
7. STORM DRAIN TRENCHES WITHIN ROAD RIGHT-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNT DESIGN MANUAL, VOLUME IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMMENDMENTS.
8. INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION
9. PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
10. DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:

ALL 50' RIGHT-OF WAYS	30 M.P.H.

11. ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEAL LEVEL DATUM, 1929.
12. ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION.
13. ALL PIPE ELEVATIONS SHOWN ARE INVERT ⌀ ELEVATIONS.
14. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
15. SUBJECT PROPERTY ZONED R-20 PER 8-2-85 COMPREHENSIVE ZONING PLAN.
16. TOPO TAKEN FROM FIELD RUN SURVEY DATED JANUARY 1988, BY T & T SURVEYING, INC.
17. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAS BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
18. ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS "C" AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
19. SEE OFFICE OF PLANNING AND ZONING FILE NO's. S-88-48, P-90-34, F-92-18, WP-91-51, WP-92-107.
20. LIGHT POLES AND FIXTURES FOR STREET LIGHTS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME III - ROAD AND BRIDGES, PAGE 4A-26.
21. LIMIT OF WETLANDS INDICATED WAS DETERMINED BY ENVIRONMENTAL SYSTEMS ANALYSIS, INC. DATED MARCH 1990.
22. THE PAVEMENT DETAILS SHOWN ON THESE PLANS REFLECT THE HOWARD COUNTY MINIMUM STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC CONDITIONS. PRIOR TO PAVING, THE FINAL PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITU TESTING OF THE FINISHED SUBGRADE. ANY PAVEMENT SECTIONS DETERMINED BY THE GEOTECHNICAL ENGINEER THAT IS LESS THAN THE HOWARD COUNTY MINIMUM STANDARD, SHALL FIRST BE APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. THE TESTING AND GEOTECHNICAL ENGINEER SHALL BE FURNISHED BY THE OWNER.
23. FLOODPLAIN WAS DETERMINED USING A STUDY PERFORMED BY CENTURY ENGINEERING, INC. FOR HOWARD COUNTY, AND APPROVED UNDER P-90-34.
24. BENCH MARKS # 1 & 2 WERE BASED ON NAD 27', MARYLAND STATE PLAN GRID AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 3241001 & 324006.
25. STORMWATER MANAGEMENT FOR THIS SITE IS PROVIDED UNDER F-92-18.
26. WP-92-107 WAS A REQUEST FOR EXTENSION OF ROAD DRAWING APPROVAL IN ACCORDANCE WITH SECTION 16.121(a)(4) OF HOWARD COUNTY SUBDIVISION AND LAND REGULATIONS. APPROVED BY LETTER DATED JANUARY 23, 1992.
27. WP-91-51 WAS A WAIVER REQUEST TO WAIVE SECTION 16.120(1) OF THE HOWARD COUNTY SUBDIVISION REGULATIONS REQUIRING SIDEWALKS, WHICH BY LETTER DATED DECEMBER 17, 1990 WAS APPROVED.
28. ON FEB. 1, 1991 DPW GRANTED A WAIVER FROM SECTION 2.3.2.4.G OF DESIGN MANUAL VOLUME III TO ELIMINATE THE REQUIREMENT FOR A 100 FOOT TANGENT FOR A REVERSE HORIZONTAL CURVE.

BENCH MARKS

√B.M.#1 -- ELEV. 381.02
TOP STEM OF FIRE HYDRANT AT INTERSECTION OF GROSVENOR DRIVE AND CRAGSMOOR ROAD.

√B.M.#2 ELEV. 379.67
TOP STEM OF FIRE HYDRANT AT INTERSECTION OF GROSVENOR DRIVE AND GARAND ROAD.

AS BUILT CERTIFICATE

J. Parekh 9.3.97
JAYKANT D. PAREKH #19148 DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Gina Irwinanji 10/26/93
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE
CRG.

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, LAND DEVELOPMENT DIVISION 10/20/93 DATE

CHIEF, BUREAU OF HIGHWAYS 10-18-93 DATE

CHIEF, BUREAU OF ENGINEERING 10/22/93 DATE

DATE	NO.	REVISION

OWNER / DEVELOPER

MR. PAUL MILLER
P.O. BOX 307
9058 CHEVROLET DRIVE
ELLICOTT CITY , MARYLAND

PROJECT LITTLE PATUXENT RIDGE
SECTION TWO LOTS 14-24

AREA TAX MAP 24 PARCEL 228
2nd ELECTION DISTRICT
HOWARD COUNTY , MARYLAND

TITLE TITLE SHEET

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045
410-997-8900 FAX : 410-997-9282

9.29.93
DATE

J. Parekh
JAYKANT D. PAREKH #19148

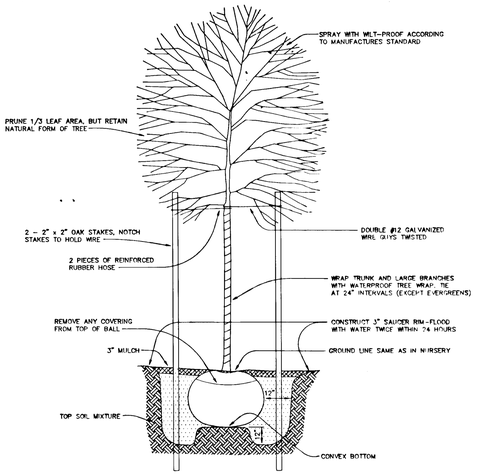
S-88-48, F-90-34, F-92-18, WP-91-51, WP-92-107

DESIGNED BY : DBS	
DRAWN BY: DBS	
PROJECT NO : 67304	
DATE : JULY 15, 1993	
SCALE : AS SHOWN	
DRAWING NO. 1 OF 4	

1643

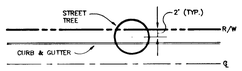
AS-BUILT 9-3-97

F 94-01



TREE PLANTING DETAIL

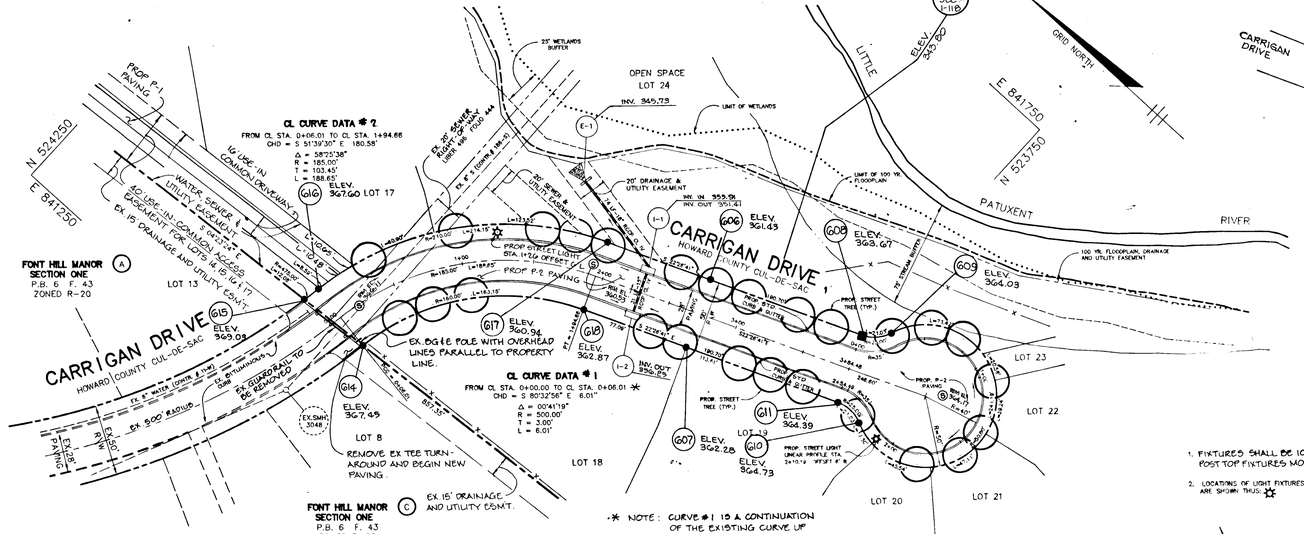
NO SCALE



TREE LOCATION DETAIL

NO SCALE

NOTE: THE MINIMUM SPACING BETWEEN LIGHT POLES AND STREET TREES SHOULD BE 20'.



PLAN

SCALE: 1"=50'

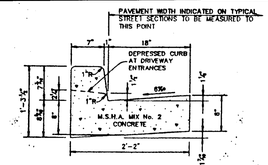
* NOTE: CURVE #1 IS A CONTINUATION OF THE EXISTING CURVE UP TO THE PCC AT STA. 0+06.01

■ - DENOTES 4"x4"x36" CONCRETE MONUMENT SET

● - DENOTES 5/8"ø IRON PIN & CAP SET

REFERENCE MONUMENT # 608

NO SCALE

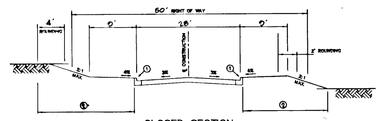


HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-3.01)

- GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT.

STANDARD 7" COMBINATION CURB AND GUTTER

NO SCALE



CLOSED SECTION

① PROFILE GRADE LINE (PGL), SEE DESIGN MANUAL.

② INDICATES 3" TOPSOIL, SEED AND MULCH.

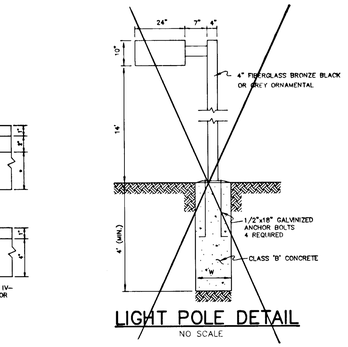
TYPICAL SECTION LOCAL ROAD

NO SCALE

CARRIGAN DRIVE

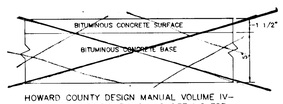
FROM STA. 0+00 TO STA. 3+84.48
DESIGN SPEED 30 MPH

1. FIXTURES SHALL BE 100 WATT HPS VAPOR TRADITIONAIRE POST TOP FIXTURES MOUNTED ON A 14' BLOCK FIBERGLASS POLES.
2. LOCATIONS OF LIGHT FIXTURES ARE ON THE PLAN AND ARE SHOWN THUS: ☼



LIGHT POLE DETAIL

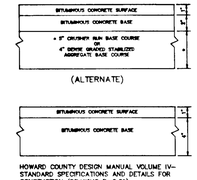
NO SCALE



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

P-2 PAVING

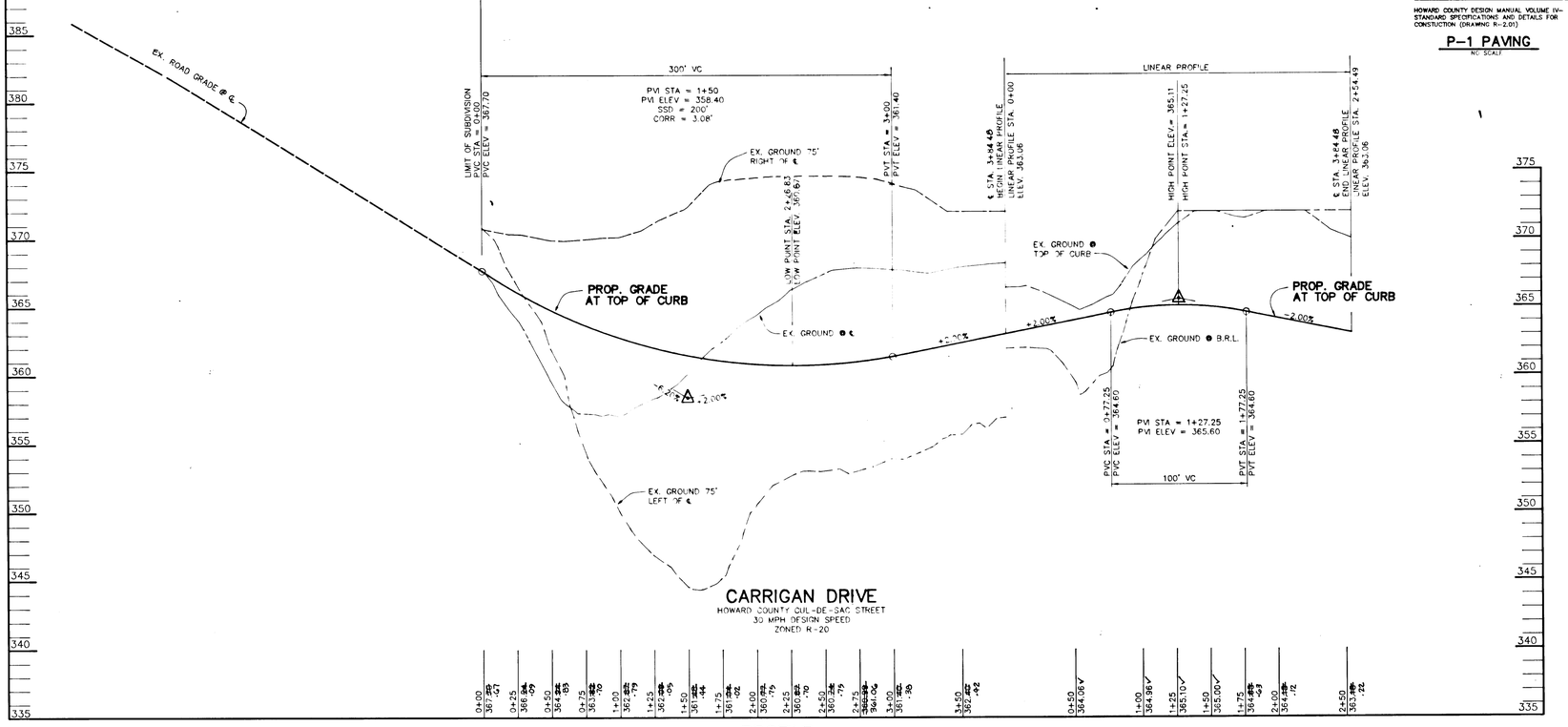
NO SCALE



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

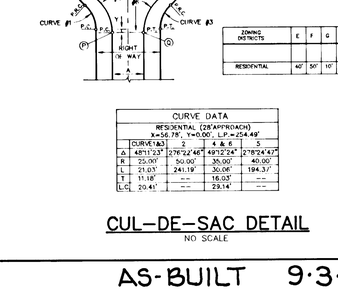
P-1 PAVING

NO SCALE



PROFILE

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



ZONING DISTRICTS	E	F	G	R/W	A
RESIDENTIAL	40'	50'	10'	50'	28'

CURVE DATA RESIDENTIAL (28' APPROACH) X=56.78', Y=0.00', LF=254.49'				
CURVE # & R	1 & 3	2 & 4	5	6
Δ	48°17'33"	276°24'46"	48°12'24"	278°24'47"
R	25.00'	50.00'	35.00'	40.00'
L	21.03'	241.19'	30.06'	194.37'
T	11.18'	---	16.03'	---
LC	20.41'	---	29.14'	---

CUL-DE-SAC DETAIL

NO SCALE

AS BUILT CERTIFICATE

I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS CORRECT AS BUILT INFORMATION.

JAYKANT D. PAREKH #19148 — 9.3.97 DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — 10/26/93 DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, LAND DEVELOPMENT DIVISION — 10/20/93 DATE

CHIEF, BUREAU OF HIGHWAYS — 10-18-93 DATE

CHIEF, BUREAU OF ENGINEERING — 10/22/93 DATE

DATE	NO.	REVISION

OWNER / DEVELOPER

PAUL L. MILLER
P.O. BOX 307
9058 CHEVROLET DRIVE
ELLICOTT CITY, MARYLAND

PROJECT: LITTLE PATUXENT RIDGE
SECTION TWO LOTS 14-24

AREA: TAX MAP 24 PARCEL 228
2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: PLAN AND PROFILE
CARRIGAN DRIVE
FROM CL STA. 0+00 TO CL STA. 3+84.48

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045
410-997-8900 FAX : 410-997-9282

9.29.93 DATE

J. Parekh — JAYKANT D. PAREKH #19148

5-88-48, P-00-24, F-02-18, WP-91-51, WP-92-107

DESIGNED BY : DBS
DRAWN BY : DBS
PROJECT NO : 67304
DATE : JULY 15, 1993
SCALE : AS SHOWN
DRAWING NO. 2 OF 4

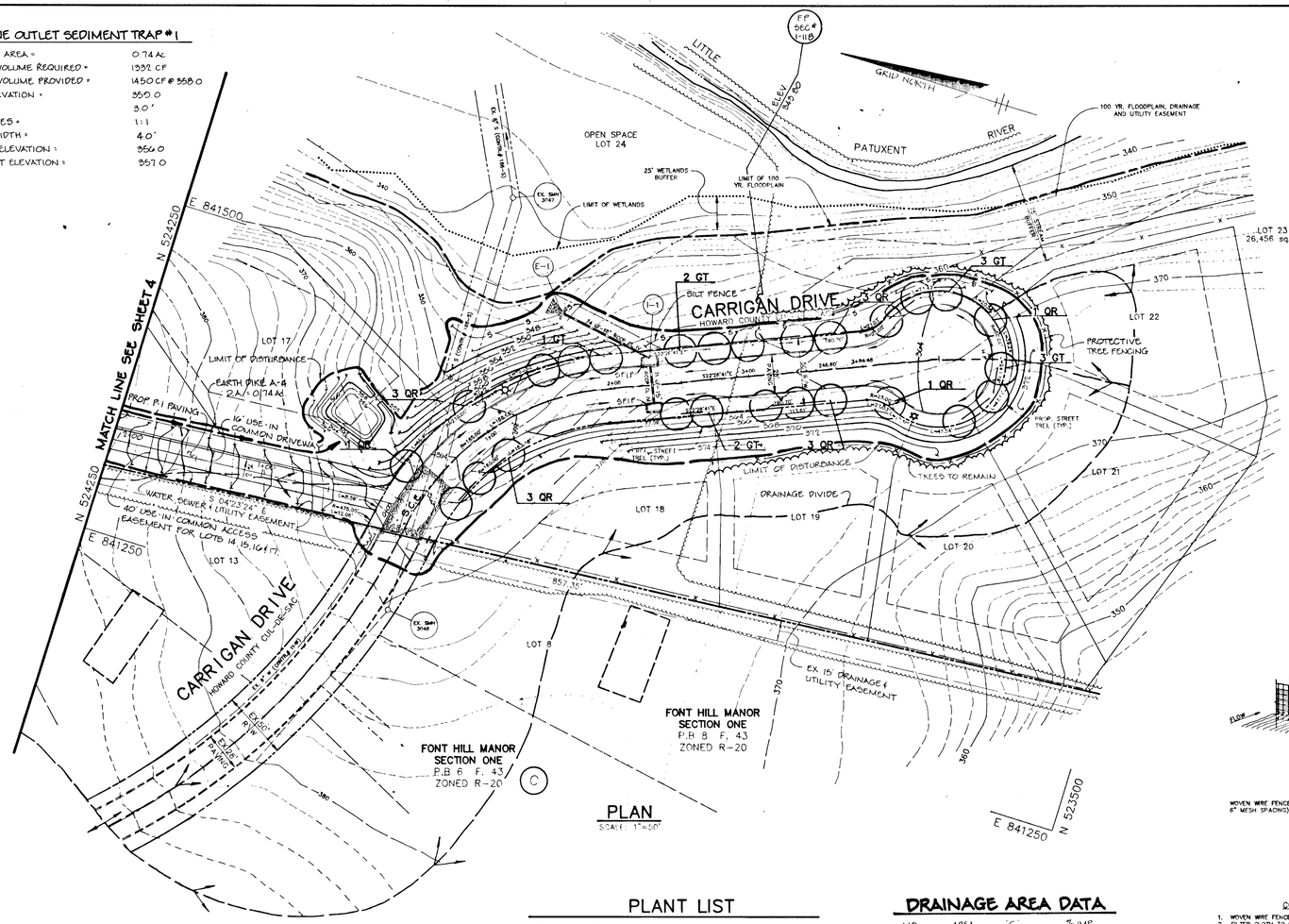
1643

AS-BUILT 9.3.97

F 94-01

STONE OUTLET SEDIMENT TRAP #1

DRAINAGE AREA =	0.74 Ac.
STORAGE VOLUME REQUIRED =	1393 CF
STORAGE VOLUME PROVIDED =	1450 CF @ 358.0
CREST ELEVATION =	360.0
DEPTH =	3.0'
SIDE SLOPES =	1:1
OUTLET WIDTH =	4.0'
BOTTOM ELEVATION =	356.0
CLEANOUT ELEVATION =	357.0



PLAN

SCALE: 1"=50'

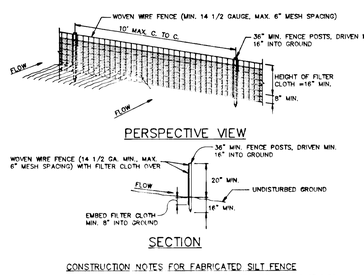
LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- LIMIT OF DISTURBANCE
- EXISTING STREET TREE
- PROPOSED STREET TREE
- SILT FENCE
- STONE FILTER INLET PROTECTION
- DIRECTION OF DRAINAGE FLOW
- PROTECTIVE TREE FENCING
- STABILIZED CONSTRUCTION ENTRANCE
- TREES TO REMAIN
- DRAINAGE DIVIDE

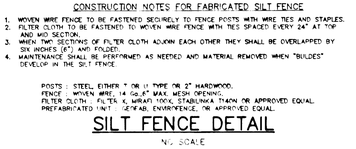
SEQUENCE OF CONSTRUCTION

1. OBTAIN A GRADING PERMIT.
2. INSTALL ALL SEDIMENT CONTROL DEVICES.*
3. REMOVE EXISTING TEE TURN-AROUND.
4. BEGIN GRADING. INSTALL UTILITIES AS SUB-GRADE ELEVATION IS REACHED.
5. INSTALL CURB AND GUTTER. PERFORM GRADING.
6. STABILIZE REMAINING DISTURBED AREAS IN ACCORDANCE WITH THE PERNAMENT SEEDING NOTES.
7. UPON APPROVAL OF HOWARD COUNTY SEDIMENT CONTROL INSPECTOR REMOVE SEDIMENT CONTROLS AND STABILIZE AS NEEDED AS PER THE PERNAMENT SEEDING NOTES.

* INSTALL S.F.I.F. AFTER STORM DRAIN IS INSTALLED.



PERSPECTIVE VIEW



SECTION

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES AND STAPLES.
2. FILTER CLOTH TO BE FASTENED TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES (6") AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULDES" DEVELOP IN THE SILT FENCE.

POSTS : STEEL EITHER T OR U TYPE OR 2" HARDWOOD.
FENCE : WOVEN WIRE, 14 GAUGE MAX MESH OPENING.
FILTER CLOTH : FILTER X, MIRAFI 100X, STABUNKA T140N OR APPROVED EQUAL.
PREFABRITATED UNIT : GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE DETAIL

NO SCALE

NOTE : GRADING INDICATED WITHIN THE BUILDING LOTS IS TEMPORARY FOR THE PURPOSE OF ROAD CONSTRUCTION AND INSTALLATION OF SEDIMENT CONTROL MEASURES. THE FINAL SITE GRADING FOR THE BUILDING LOTS WILL BE IN COMPLIANCE WITH THE MINIMUM LOT SIZE REQUIREMENTS ON THE SITE DEVELOPMENT PLAN.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seedbed 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 (14 lbs. per 1000 sq.ft.).

Seeding : For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching : Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed Preparation : Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

Soil Amendments : In lieu of soil test recommendations, use one of the following schedules :

1) Preferred – Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs. per 1000 sq.ft.).

2) Acceptable – Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

Seeding : For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following options :

1) 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.

2) Use sod.

3) Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.

Mulching : Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

Maintenance : Inspect all seeded areas and make needed repairs, replacements and reseedings.

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 (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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL.
3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within : a) 7 calendar days for all perimeter sediment controls structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around the 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 AND EROSION CONTROL for permanent seedings (Sec. 51), and (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 germigation 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. Site Analysis :

Total Area of Site	28.29 acres
Area Disturbed	1.17 acres
Area to be roofed or paved	0.56 acres
Area to be vegetatively stabilized	1.51 acres
Total Cut	6,622 cu.yds.
Total Fill	5,050 cu.yds.

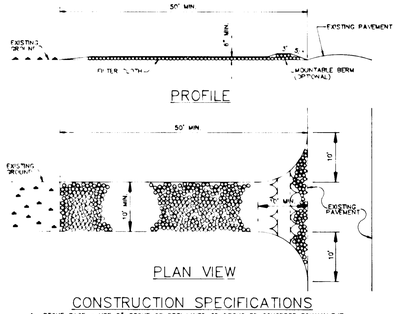
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment controls must be provided, if deemed necessary by the Howard County Department of Public Works Sediment Control Inspector.
10. Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
11. Sediment will be removed from traps when its depth reaches clean out elevation shown on the plans.
12. Cut and fill quantities provided under site analysis do not represent bid quantities. These quantities do not distinguish between topsoil, structural fill or embankment material, nor do they reflect consideration of undercutting or removal of unsuitable material. The contractor shall familiarize himself with site conditions which may effect the work.

PLANT LIST

QTY.	KEY	NAME	SIZE
11	GT	GLEDITSIA TRIACANTHOS 'SHADEMASTER' SHADEMASTER HONEYLOCUST	2 1/2"– 3" CAL. 12'–14' HT.
15	QR	QUERCUS RUBRA 'RED OAK'	2 1/2"– 3" CAL. 12'–14' HT.

DRAINAGE AREA DATA

NO.	AREA	'C'	% IMP.
I-1	2.10	.28	17
I-2	1.05	0.36	20

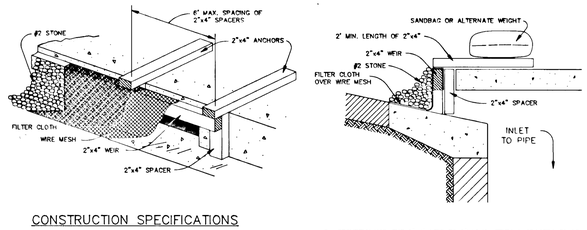


CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – USE 2" 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 WOULD APPLY).
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCURS.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE RESIDENCE LOT.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM 5:1 SLOPES WILL BE PERMITTED.
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/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, 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. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE

NO SCALE



CONSTRUCTION SPECIFICATIONS

I. MATERIALS

A. WOODEN FRAME IS TO BE CONSTRUCTED OF 2"x4" CONSTRUCTION GRADE LUMBER.

B. WIRE MESH MUST BE OF SUFFICIENT STRENGTH TO SUPPORT FILTER FABRIC, AND STONE, WITH WATER FULLY IMPOUNDED AGAINST IT.

C. FILTER CLOTH MUST BE OF A TYPE APPROVED FOR THIS PURPOSE; RESISTANT TO SUNLIGHT WITH A SIEVE SIZE, EOS 40–85, TO ALLOW SUFFICIENT PASSAGE OF WATER AND REMOVAL OF SEDIMENT.

D. STONE IS TO BE 2" IN SIZE AND CLEAN, SINCE FINES WOULD CLOG THE CLOTH.

II. PROCEDURE (FOR CURB INLET PROTECTION)

A. ATTACH A CONTINUOUS PIECE OF WIRE MESH (30" MIN. WIDTH BY THROAT LENGTH PLUS 4') TO THE 2"x4" WEIR (MEASURING THROAT LENGTH PLUS 2') AS SHOWN ON THE STANDARD DRAWING.

B. PLACE A PIECE OF APPROVED FILTER CLOTH (40–85 SIEVE) OF THE SAME DIMENSIONS AS THE WIRE MESH OVER THE WIRE MESH AND SECURELY ATTACH TO THE 2"x4" WEIR.

C. SECURELY NAIL THE 2"x4" WEIR TO 8" LONG VERTICAL SPACERS TO BE LOCATED BETWEEN THE WEIR AND INLET FACE (MAX. 6' APART).

D. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL (MINIMUM 2" LENGTHS) OF 2"x4" TO THE TOP OF THE WEIR AT SPACER LOCATIONS. THESE 2"x4" ANCHORS SHALL EXTEND ACROSS THE INLET TOP AND BE HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHT.

E. THE ASSEMBLY SHALL BE PLACED SO THAT THE END SPACERS ARE A MINIMUM 1" BEYOND BOTH ENDS OF THE THROAT OPENING.

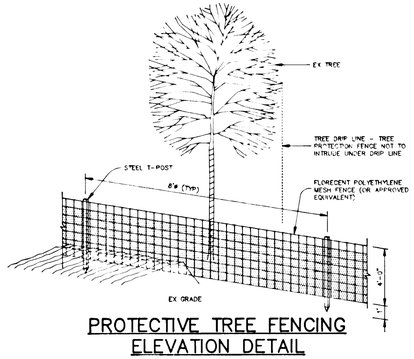
F. FORM THE WIRE MESH AND FILTER CLOTH TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN 2" STONE OVER THE WIRE MESH AND FILTER FABRIC IN SUCH A MANNER AS TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE FILTER CLOTH.

G. THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE FILTER CLOTH AND STONE REPLACED WHEN CLOGGED WITH SEDIMENT.

H. ASSURE THAT STORM FLOW DOES NOT BYPASS INLET BY INSTALLING TEMPORARY EARTH OR ASPHALT DIKES DIRECTING FLOW INTO INLET.

STONE FILTER INLET PROTECTION

NO SCALE



PROTECTIVE TREE FENCING ELEVATION DETAIL

NO SCALE

TREE PRESERVATION PROCEDURES

1. THE EDGE OF WOODS TO BE PROTECTED WILL BE MARKED IN THE FIELD PER THE APPROVED SITE DEVELOPMENT PLAN PRIOR TO THE START OF CONSTRUCTION ACTIVITY.
2. PROTECTIVE FENCING SHALL BE INSTALLED AT THE DRIP LINE OF THE EDGE OF WOODS. ALL AREAS WITHIN PROTECTIVE FENCES ARE TO BE CONSIDERED OFF LIMITS FOR ANY CONSTRUCTION ACTIVITY.
3. PROTECTIVE FENCING WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR WILL AFFIX SIGNS TO THE FENCING INDICATING THAT THESE AREAS ARE TREE PRESERVATION AREAS. THE GENERAL CONTRACTOR SHALL TAKE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING THE CONSTRUCTION CYCLE. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE, AND DRAINAGE OF SOLUTIONS CONTAINING MATERIALS HAZARDOUS TO TREE ROOTS.
4. REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED. THE GENERAL CONTRACTOR SHALL BE PROHIBITED FROM PARKING ANY CONSTRUCTION EQUIPMENT, OR FROM STORING ANY BUILDING SUPPLIES OR EARTH STOCKPILES WITHIN THE TREE PRESERVATION AREAS.
5. FOOT TRAFFIC, AS WELL AS VEHICULAR TRAFFIC, IN THE TREE PRESERVATION AREAS SHALL BE KEPT TO A MINIMUM. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TREE DAMAGED OR DESTROYED WITHIN THE TREE PRESERVATION AREAS, WHETHER CAUSED BY THE CONTRACTOR, HIS AGENTS, EMPLOYEES, SUB-CONTRACTORS, OR LICENSES.
6. CONSTRUCTION ACTIVITIES EXPRESSLY RESTRICTED WITHIN THE TREE PRESERVATION AREAS: PLACING BACKFILL IN PROTECTED AREAS, FELLING TREES INTO PROTECTED AREAS, DRIVING CONSTRUCTION EQUIPMENT INTO OR THROUGH PROTECTED AREAS, BURNING IN OR IN CLOSE PROXIMITY TO PROTECTED AREAS, STACKING OR STORING SUPPLIES IN PROTECTED AREAS, CONDUCTING TRENCHING OPERATIONS IN PROTECTED AREAS, GRADING BEYOND THE LIMITS OF DISTURBANCE.
7. THE GENERAL CONTRACTOR SHALL PROVIDE A WASH OUT AREA FOR CONCRETE TRUCKS ON SITE, WHICH WILL NOT DRAIN TOWARDS A PROTECTED AREA .
8. ALL TREES WHICH ARE NOT TO BE PRESERVED WITHIN FIFTY FEET OF ANY TREE PRESERVATION AREAS ARE TO BE REMOVED IN A MANNER THAT WILL NOT DAMAGE THOSE TREES THAT ARE DESIGNATED FOR PRESERVATION. IT IS HIGHLY RECOMMENDED THAT TREE STUMPS WITHIN THIS FIFTY FOOT AREA BE GROUND OUT WITH A STUMP GRINDING MACHINE TO MINIMIZE DAMAGE.

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 — DATE

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Paul L. Miller — 9/23/93
DEVELOPER — DATE

BY THE ENGINEER :

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS 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 SOIL CONSERVATION DISTRICT.

J. Parekh — 9.29.93
ENGINEER JAYKANT D. PAREKH — DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

J. A. Warfield — 10/5/93
U.S. SOIL CONSERVATION SERVICE — DATE

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

John P. Robertson — 10/5/93
HOWARD SOIL CONSERVATION DISTRICT — DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Gina Fiumara — 10/26/93
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, LAND DEVELOPMENT DIVISION — DATE
CHIEF, BUREAU OF HIGHWAYS — 10-18-93 DATE
CHIEF, BUREAU OF ENGINEERING — 10/22/93 DATE

DATE	NO.	REVISION

OWNER / DEVELOPER

PAUL L. MILLER
P.O. BOX 307
9058 CHEVROLET DRIVE
ELLICOTT CITY, MARYLAND

PROJECT
LITTLE PATUXENT RIDGE
SECTION TWO LOTS 14–24

AREA
TAX MAP 24 PARCEL 228
2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
GRADING AND SEDIMENT CONTROL PLAN & NOTES AND DETAILS

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045
410-997-8900 FAX : 410-997-9282

9.29.'93 DATE

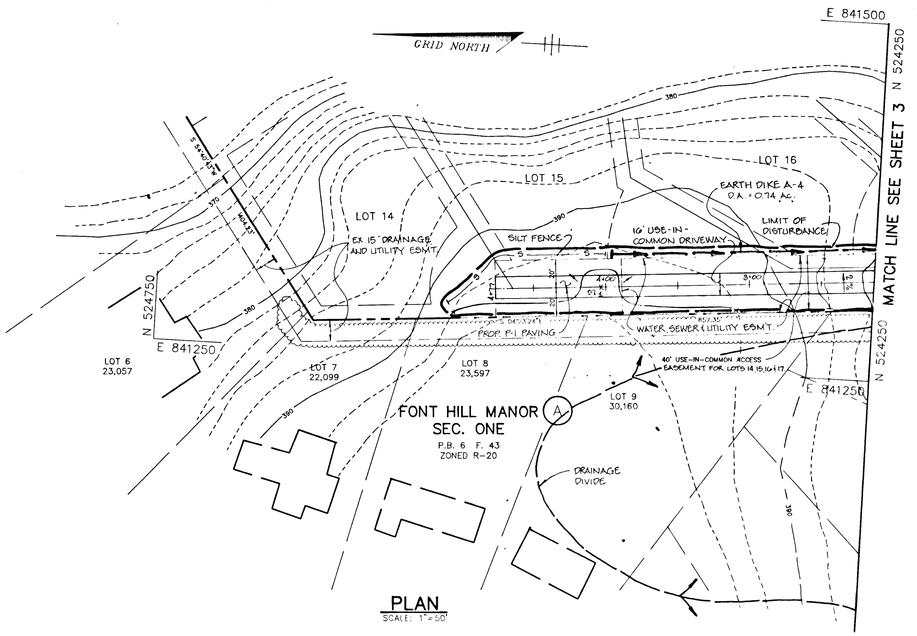
J. Parekh
JAYKANT D. PAREKH #19148

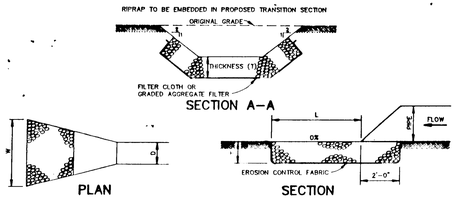
5-88-48, P-90-36, F-92-18, WP-91-51, WP-92-107

DESIGNED BY :	DBS
DRAWN BY :	DBS
PROJECT NO :	67304
DATE :	JULY 15, 1993
SCALE :	AS SHOWN
DRAWING NO.	3 OF 4

1643

4





STRUCTURE	MEDIUM STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-1	4"	10'	11.5'	9"

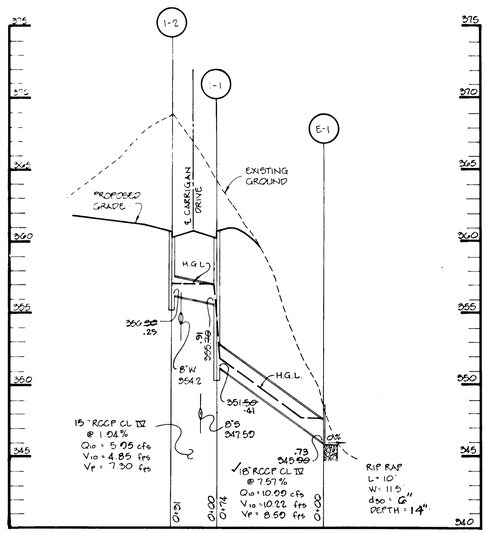
RIPRAP OUTLET PROTECTION DETAIL

NO SCALE

STRUCTURE SCHEDULE

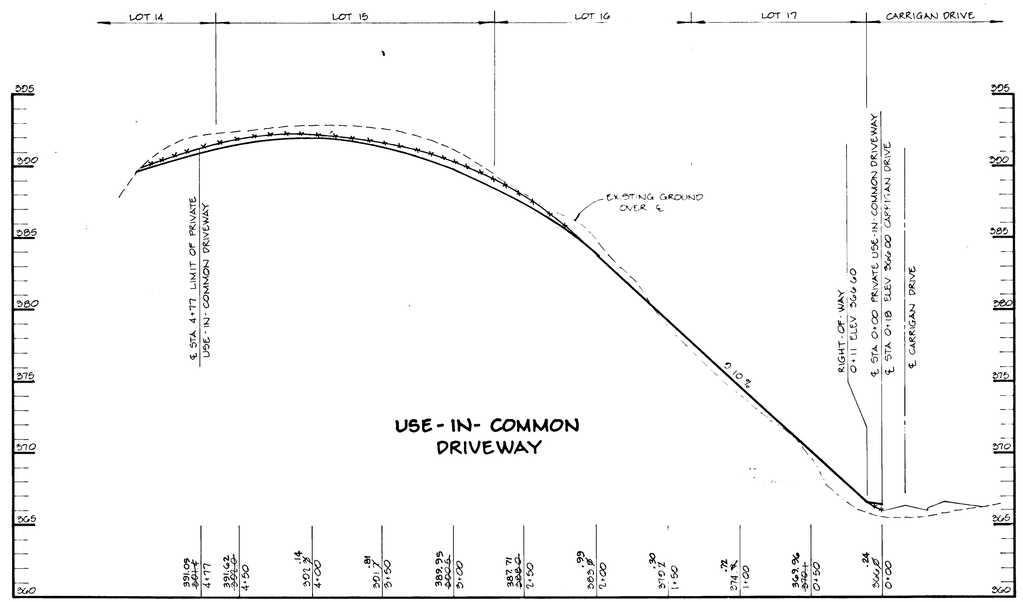
NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEVATION	REMARKS
I-1	A-5	2+28.41 16.5' L	355.38 .91	351.88 .41	360.69* .66	SEE HO CO STD DETAIL SD 4.01
I-2	A-5	2+28.41 16.5' L	356.50	356.38 .25	360.69*	SEE HO CO STD DETAIL SD 4.01
E-1	TYPE 'C' ENDWALL	N 525061.05 E 841508.52	–	345.27 .73	–	SEE HO CO STD DETAIL SD 5.21

* DENOTES TOP OF CURB ELEVATION.



STORM DRAIN PROFILE

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



USE-IN-COMMON DRIVEWAY

PROFILE

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

AS BUILT CERTIFICATE

J. Parekh 9.3.'97

JAYKANT D. PAREKH #19148 DATE

BY THE DEVELOPER :

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HOWARD SOIL CONSERVATION DISTRICT DATE

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Gina Swimmer 10/26/93

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S-88-48, F-00-34 F-92-16, WP-91-91, WP-92-107

DESIGNED BY : DBS

DRAWN BY : DBS

PROJECT NO : 67304

DATE : JULY 15, 1993

SCALE : AS SHOWN

DRAWING NO. 4 OF 4

1643

AS-BUILT 9·3·97

F94-01