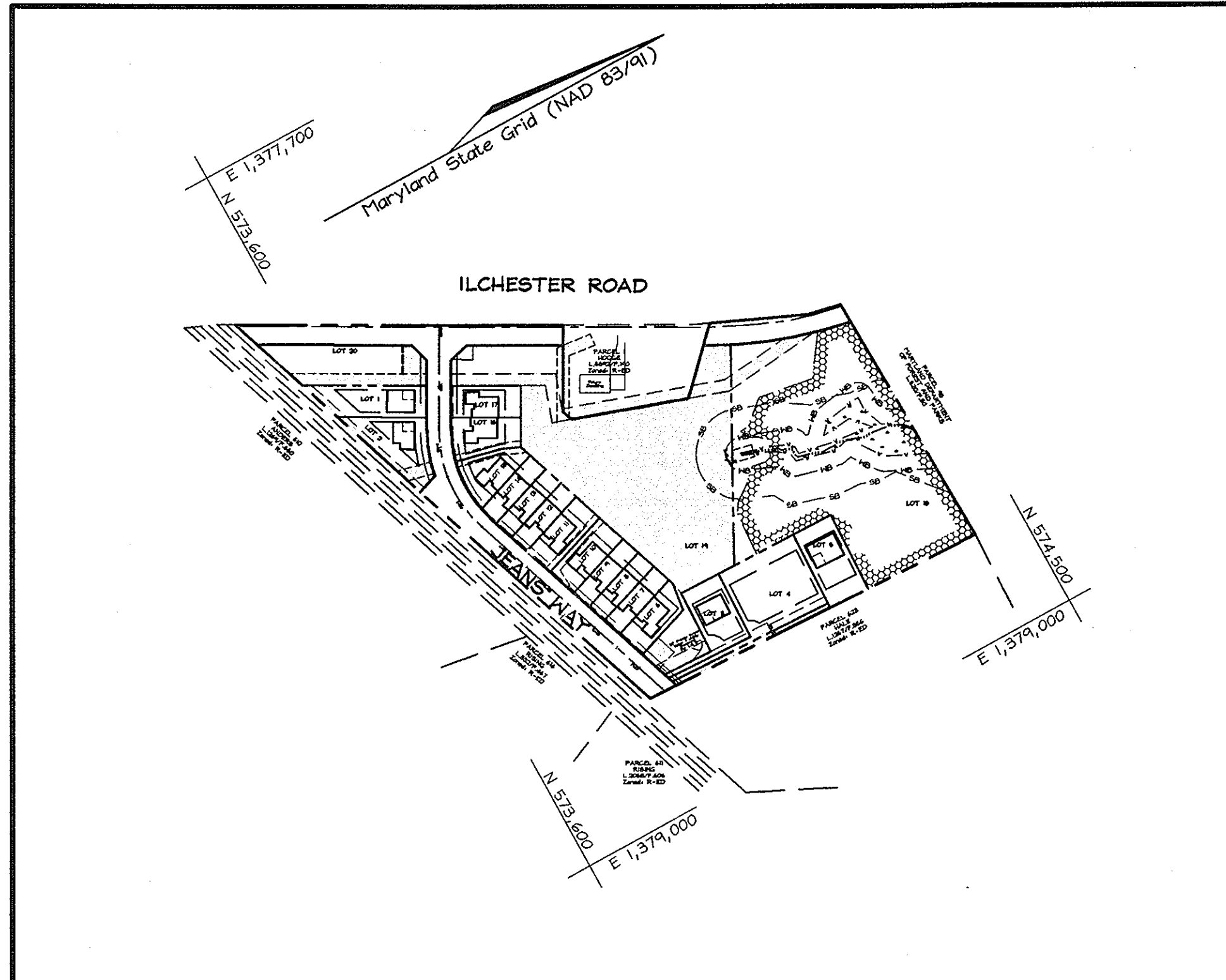


GENERAL NOTES

- Subject property zoned "R-ED" per 9/18/92 Comprehensive Zoning Plan.
- The property is located within the Metropolitan District.
- Public water and Public sewer will be used within this site.
- Soils Map No. 22 & 21.
- Gross Area of Site: 9,320 ac. ± (0.760 ac. Steep Slopes and 8,560 ac. Net).
- Net Area of Site: 8,560 ac. ±
- Density Calculations:
 - Number of Units allowed: 8,57 ac. x 2 = 17 Units
 - Number of Units proposed: 17 Units
- Open Space Requirements:
 - Open space required (25%): 9,320 ac. x 0.25 = 2,330 ac.
 - Credited open space provided: 5,206 ac. (5,228 ac. total area - 0.022 ac. non-credited)
- Area of Proposed Buildable Lots: 2,700 ac. ±
- Area of Proposed Public Right-of-Way: 1,346 ac. ±
- The Contractor shall notify the following utility companies or agencies at least five (5) working days before starting work shown on these plans:

State Highway Administration	410.531.5533
BGE(Contractor Services)	410.850.4620
BGE(Underground Damage Control)	410.787.9068
Miss Utility	1.800.257.7777
Colonial Pipeline Company	410.795.1300
Howard County, Dept. of Public Works, Bureau of Utilities	410.313.4900
Howard County Health Department	410.313.2640
- The contractor shall notify the Department of Public Works/Bureau of Engineering Construction Inspection Division at (410) 313-1880 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 being done.
- The lots shown hereon comply with the minimum ownership, width and lot area as required by the Maryland State Department of the Environment.
- The project is in conformance with the latest Howard County Standards unless waivers have been approved.
- No clearing, grading or construction is permitted within the wetlands, streams or their required buffers, unless approved by Howard County. See General note #27 for WP-02-12.
- Traffic control devices, markings and signs 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.
- All curb and gutter to be Howard County Standard R-3.01 Modified Curb and Gutter unless otherwise noted. Curb at the end of Jeans Way and around the turn-around to be Howard County Standard R-3.03 Standard Bituminous Curb.
- All proposed spot elevations along curb and gutter are to the flow line unless otherwise noted.
- All HDPE pipe specification and installation shall meet AASHTO M-252 Type S, M-294 Type S and ASTM D2321, respectively.
- Soil compaction specifications, requirements, methods and materials are to be in accordance with the recommendations of the project Geotechnical Engineer. Geotechnical Engineer to confirm acceptability of proposed paving section, based on soil test, prior to construction.
- The Geotechnical Report for this project was prepared by Herbel Benson and Associates, dated June, 2002.
- For bearings and distances of Forest Conservation Easements and Wetland Limits see Record Plat recorded in the Land Records of Howard County for this project.
- Topography is based on a field run survey prepared by John C. Mellemo, Sr., Inc. in October, 2000.
- Wetlands Delineation and Forest Stand Delineation prepared by Exploration Research, Inc. on 11/20/01, and P-03-04 approved on 1/10/03.
- Previous Howard County file number S-01-13 approved on 1/23/02, WP-02-12 approved on 11/20/01, and P-03-04 approved on 1/10/03.
- The project is in conformance with the latest Howard County Standards unless waivers have been approved. The following waivers have been approved: a Design Manual Waiver approved on 8/20/01 to allow less than the minimum required intersection sight distance, and Waiver WP-02-12 approved on 11/20/01 to allow grading and removal of vegetation within wetlands and buffer for the purpose of upgrading the existing pond to meet MD-378 for a SWM Facility. Waiver WP-02-12 is subject to the following conditions:
 - Compliance with DED requirements which are: approval of a Federal and State Permit, approval of an acceptable SWM Design, and approval of an adequate Wetland Mitigation Plan.
 - A SWM Design which minimizes buffer intrusion which is acceptable to DED.
 - Obtain all Federal and State Permits.
 - Compliance with Howard Soil Conservation District comment to mitigate the lost/disturbed wetlands at a 1:1 ratio within the pond.
- The Nontidal Wetlands and Waterways Division of the Water Management Administration (WMA) intends to issue a Letter of Authorization (LOA) after it receives two (2) sets of the Final Construction Plans which have the limits of any nontidal wetlands, nontidal wetland buffers, waters of the State (including 100 Year Floodplain), limits of disturbance, best management practices for working in nontidal wetlands, a sequence of construction, and approved Erosion and Sediment Control Plans. MDE Permit Tracking No. 01-NT-0418/200166298. See Pond Planting Note #4 on Sheet 7 of 9 for MDE Mitigation Requirements.
- SWM will be achieved through the use of the proposed Micro-Pool Extended Detention Facility. The Pond will be privately owned with joint maintenance by HOA and Howard County.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based on the Maryland State Plane Coordinate System. Howard County Monument Nos. 31E6 and 31E7 were used for this project.
- There are no floodplains, historical structures or cemeteries on site.
- This plan is subject to compliance with the Fourth Edition of the Howard County Subdivision Regulations and the recently amended Zoning Regulations, Council Bill 60-2001.
- For flag or pipestem lots, refuse collection, snow removal and road maintenance are provided to the junction of the flag or pipestem and road right-of-way line and not to the pipestem lot driveway.
- Property is subject to PB Case 357 approving Sketch plan S-01-13, Ilchester Hills, per section 107.5 of the Zoning regulations for 5 single family detached residential lots and 12 single family attached residential lots and open space lots on 9,320 Acres of land, subject to the following:
 - Providing fencing along the entry road and Landscaper Perimeter 7.
 - Providing additional landscaping along the rear of the townhouse lots.
 - Maximizing the water surface on the future Stormwater Management Pond.
- Tentative allocations for 16 Housing Units were granted on 7/02/02.
- In accordance with the Geotechnical Subsurface Investigation, the existing embankment is constructed of material not suitable to meet current MDE 378 standards. Therefore, the existing embankment shall be removed and reconstructed.
- Financial surety for the required landscaping must be posted as part of the Developer's Agreement in the amount of \$23,030.00 (55 shade trees @ \$300.00 each, 42 evergreen trees @ \$150.00 each, 10 ornamental @ \$150.00 each, and 873 L.F. of fence at \$10.00 per linear foot).
- Financial surety for the Forest conservation, retention, must be posted as part of the Developers agreement in the amount of \$18,237.60 (91,188 sf of retention X \$0.20 per square foot).
- Once adequate water and sewer becomes available in the subdivision, existing well and septic will be properly abandoned in accordance with Health Department Requirements.
- Ilchester Road is a scenic road.
- A minimum spacing of 20' shall be maintained between any street light and any tree in accordance with the latest Howard County Design Manual, Volume III (1993) and as modified by "Guidelines for Street Lights in Residential Developments" (June 1993).

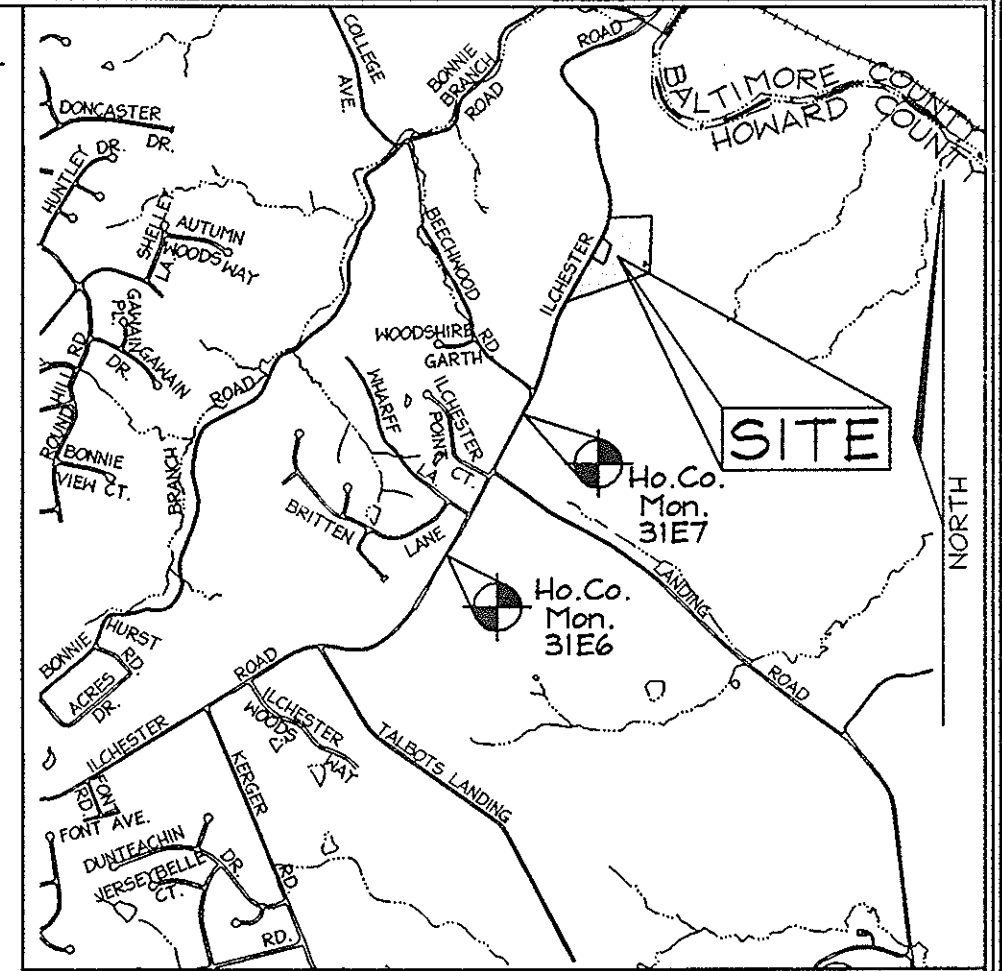
FINAL ROAD CONSTRUCTION PLAN ILCHESTER HILLS LOTS 1 THRU 17 AND OPEN SPACE LOTS 18 THRU 20 HOWARD COUNTY, MD



LOCATION MAP
SCALE: 1"=200'

LEGEND

- Existing Contour
- Proposed Contour
- Direction of Flow
- Existing Spot Elevation
- Proposed Spot Elevation
- Existing Trees to Remain
- 15-24.99% Slopes
- 25-50% Slopes
- Wetlands
- Use-In-Common Access Easement



VICINITY MAP
SCALE: 1:2000'

BENCHMARKS

Sta. 31E6	N 173,996.1454 E 419,619.1591	El.: 147.1455 (meters)
	N 570,852.353 E 1,376,700.524	El.: 482.760 (feet)
	NAL # FLASHER in power pole, 2 trees and fence post 5'-SW of edge of road # 600'-W of Inhart Lane	
Sta. 31E7	N 174,448.1551 E 419,864.0548	El.: 145.8922 (meters)
	N 572,335.322 E 1,377,503.920	El.: 478.640 (feet)
	Or Lady of perpetual help school yard.	
	9'-SE of edge of road # 250'-W of Beechwood Road.	

SHEET INDEX

DESCRIPTION	SHEET No.
Cover Sheet	1 of 9
Road Plan and Profile	2 of 9
Grading, Sediment and Erosion Control Plan	3 of 9
Traffic Control Plan, S.E.C. and Miscellaneous Details	4 of 9
Stormwater Management Plan, Details and Profiles	5 of 9
Storm Drain Drainage Area Map	6 of 9
Storm Drain Profiles and Pond Planting Detail	7 of 9
Landscape Plan	8 of 9
Final Forest Conservation Plan	9 of 9

CENTERLINE ROAD CURVE DATA

CURVE No.	RADIUS	LENGTH	DELTA	CHORD BEARING	CHORD LENGTH
C1	215.00'	179.71'	47°53'29"	N 84°46'37.50" W	174.52'

ROAD CLASSIFICATION

ROAD NAME	CLASSIFICATION	R/W
Jeans Way	Closed Section Public Access Street 0+00 - 7+35.22	40'

* The R/W width changes from 40', to variable, to 45' see plan view for details

STREET LIGHT TABLE

STREET NAME	STATION	OFFSET	FIXTURE
Jeans Way	0+25	28' Right	150-Watt HPS vapor Premier post-top fixture mounted on a 14' black fiberglass pole.
Jeans Way	2+50	15' Right	100-Watt HPS vapor Premier post-top fixture mounted on a 14' black fiberglass pole.
Jeans Way	4+85	15' Left	100-Watt HPS vapor Premier post-top fixture mounted on a 14' black fiberglass pole.
Jeans Way	6+91	25' Left	100-Watt HPS vapor Premier post-top fixture mounted on a 14' black fiberglass pole.

OWNER/DEVELOPER

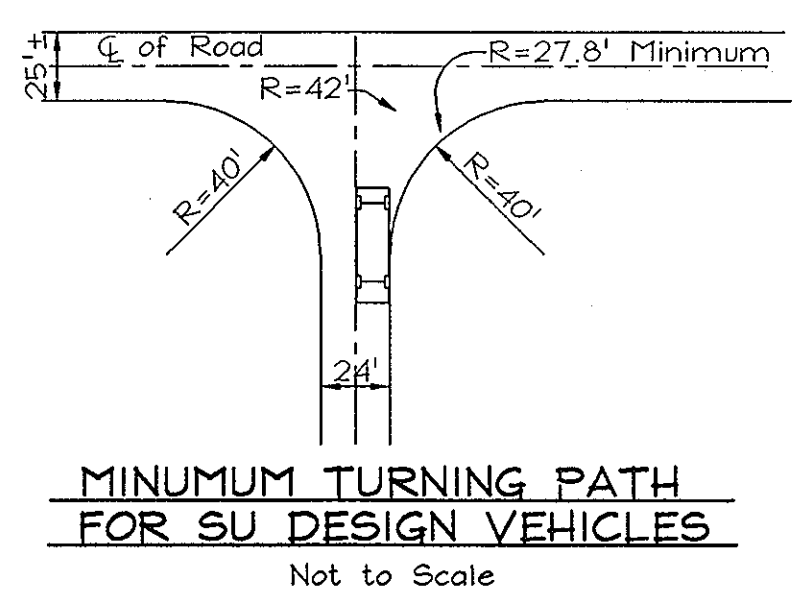
HODGE PROPERTY, LLC
Dennis A. & Jung D. Hodge
4625 Ilchester Road
Ellicott City, MD 21043-6819

COVER SHEET

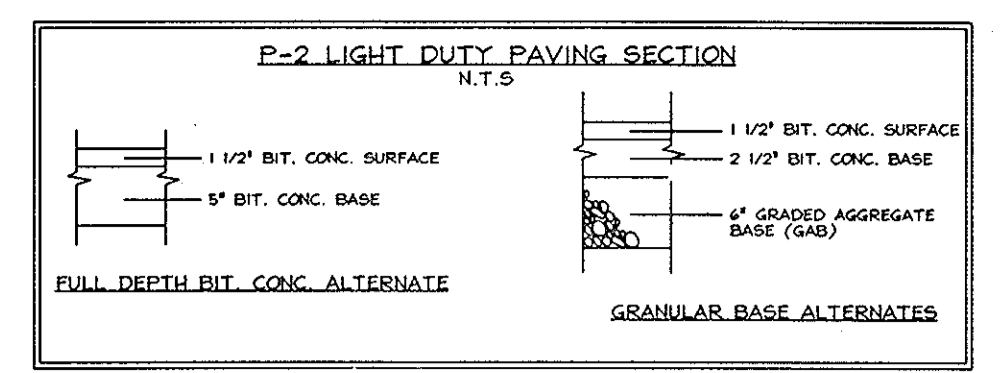
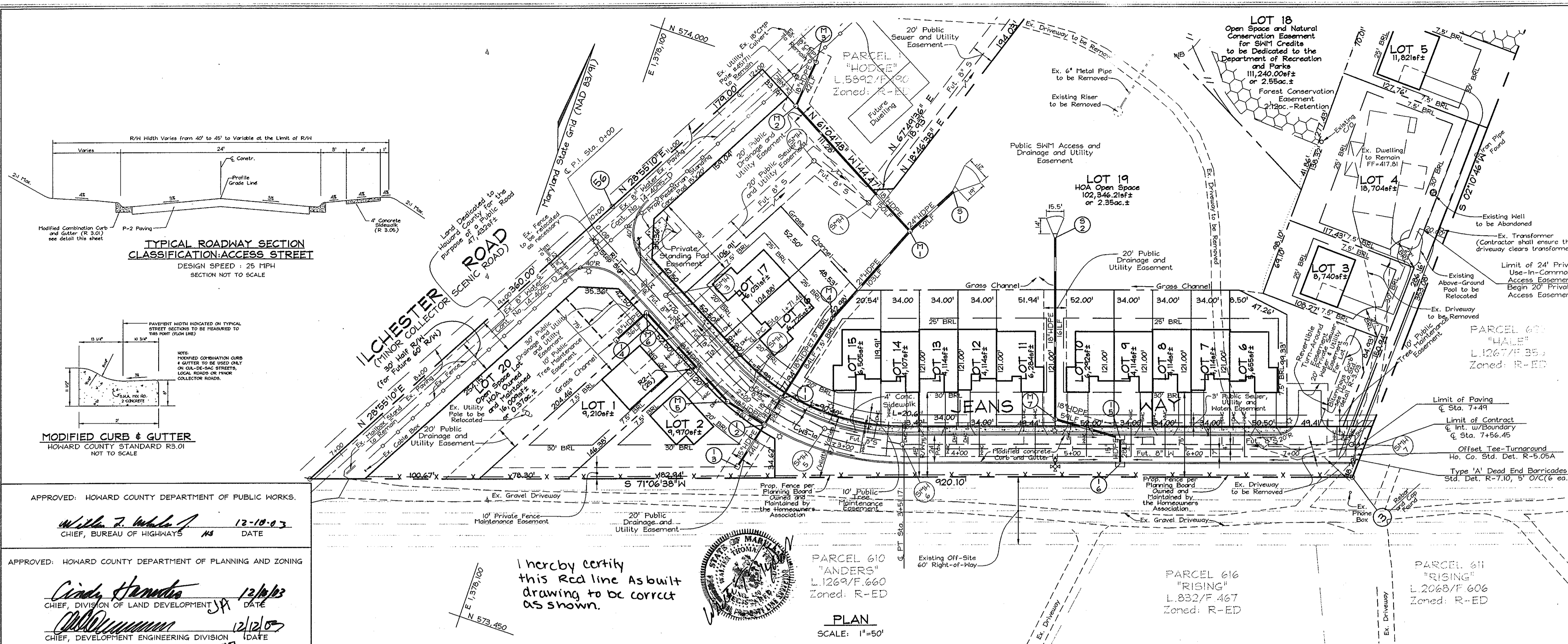
ILCHESTER HILLS
LOTS 1 THRU 17 AND OPEN SPACE LOTS 18 THRU 20
TAX MAP 31 GRID 5 PARCEL 419
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamner 12/16/03
CHIEF, DIVISION OF LAND DEVELOPMENT
Chad Johnson 12/16/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William Z. Winkler 12-10-03
CHIEF, BUREAU OF HIGHWAYS



**MINIMUM TURNING PATH
FOR SU DESIGN VEHICLES**
Not to Scale



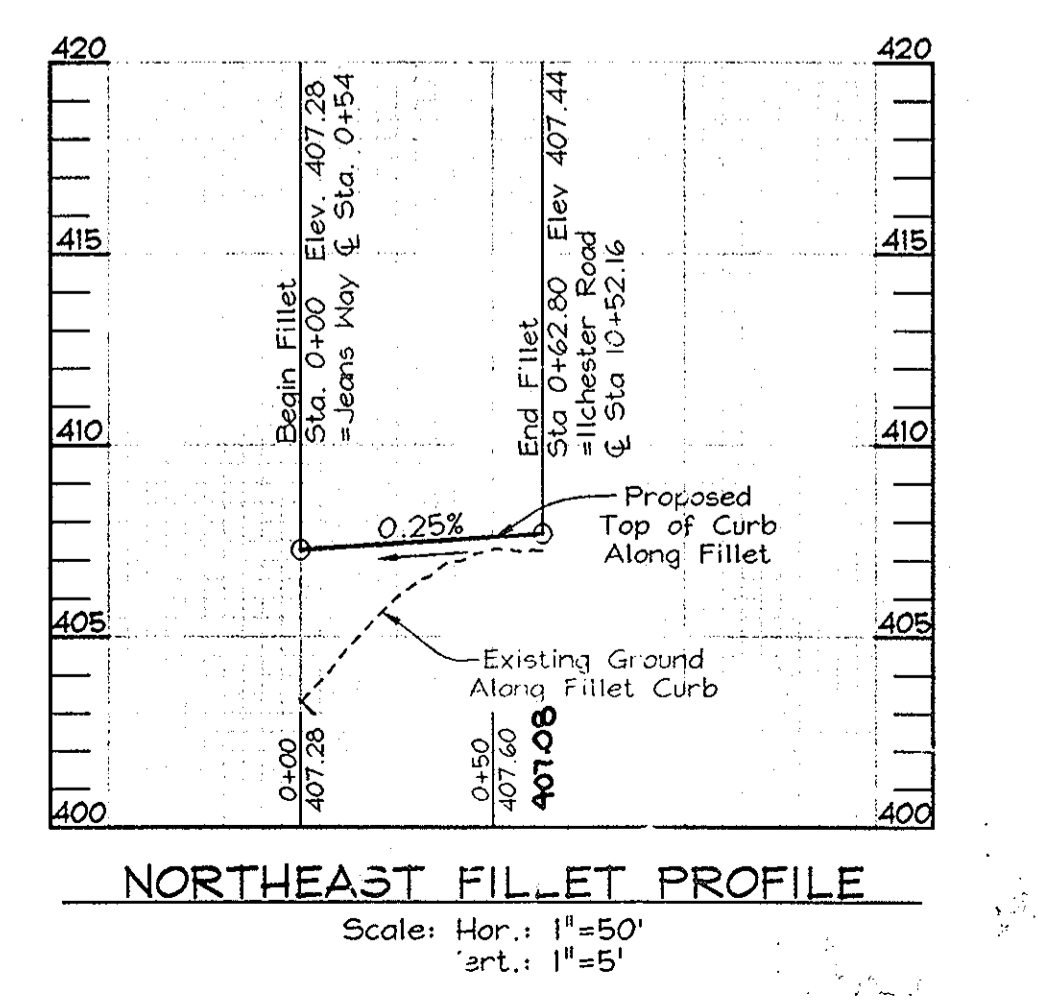
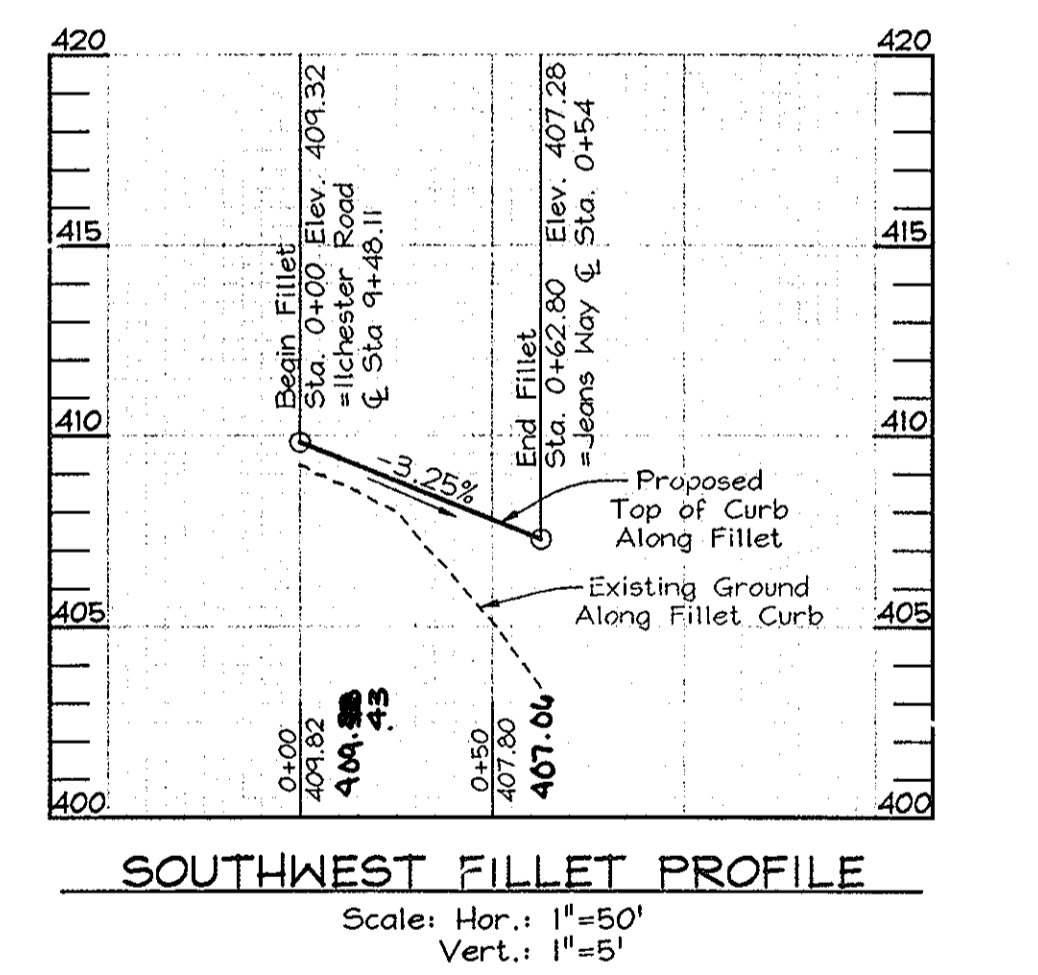
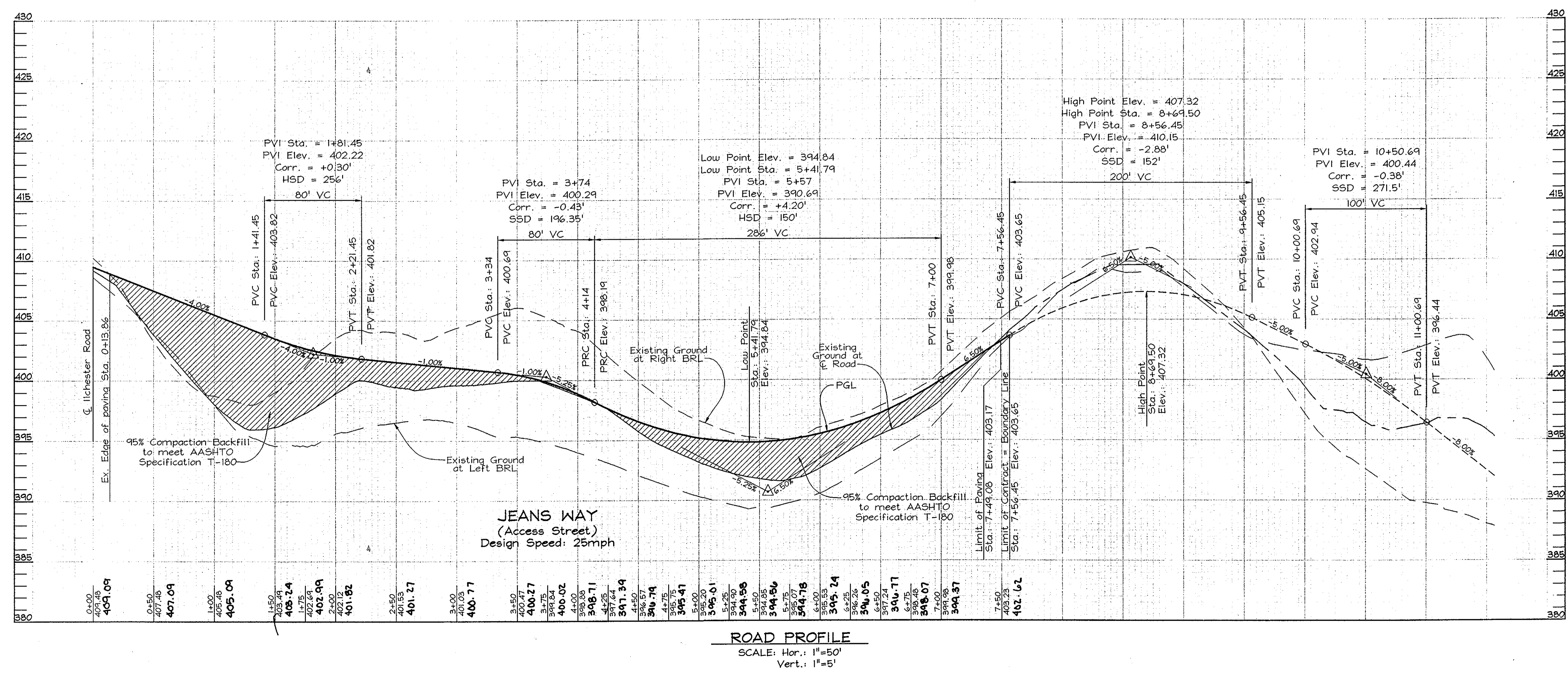
OWNER/DEVELOPER
HODGE PROPERTY, LLC
Dennis A. & Jung D. Hodge
4625 Ilchester Road
Ellicott City, MD 21043-6819

ROAD PLAN AND PROFILE
ILCHESTER HILLS
LOTS 1 THRU 17 AND OPEN SPACE LOTS 18 THRU 20
TAX MAP 31 GRID 5
1ST ELECTION DISTRICT

PARCEL 419
HOWARD COUNTY, MARYLAND

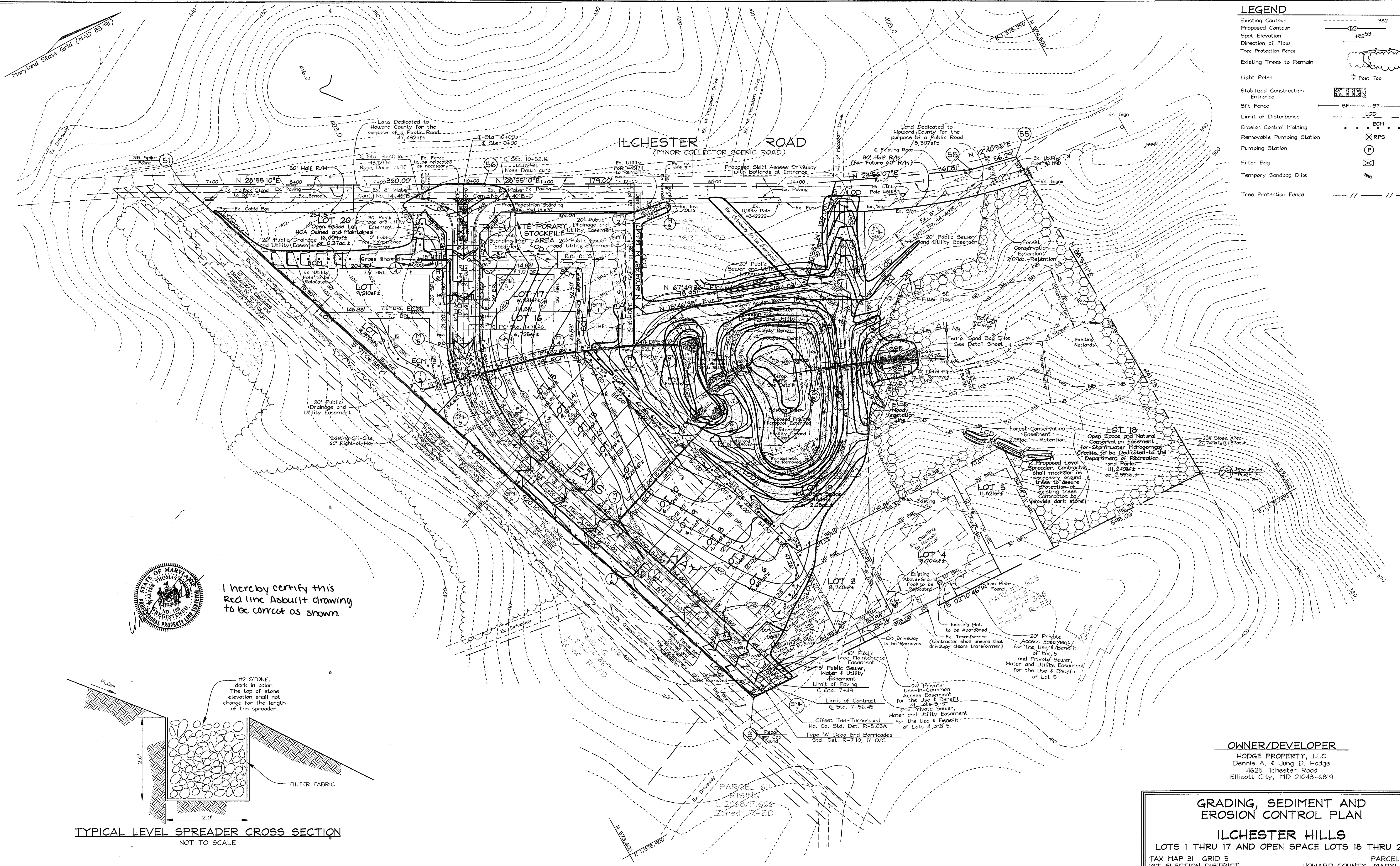
FSH Associates
Engineers Planners Surveyors
8318 Forrest Street, Ellicott City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

DESIGN BY: MLT
DRAWN BY: KO
CHECKED BY: ZYF
SCALE: As Shown
DATE: Nov. 21, 2003
I.C. No.: 3015
SHEET No.: 2 OF 4

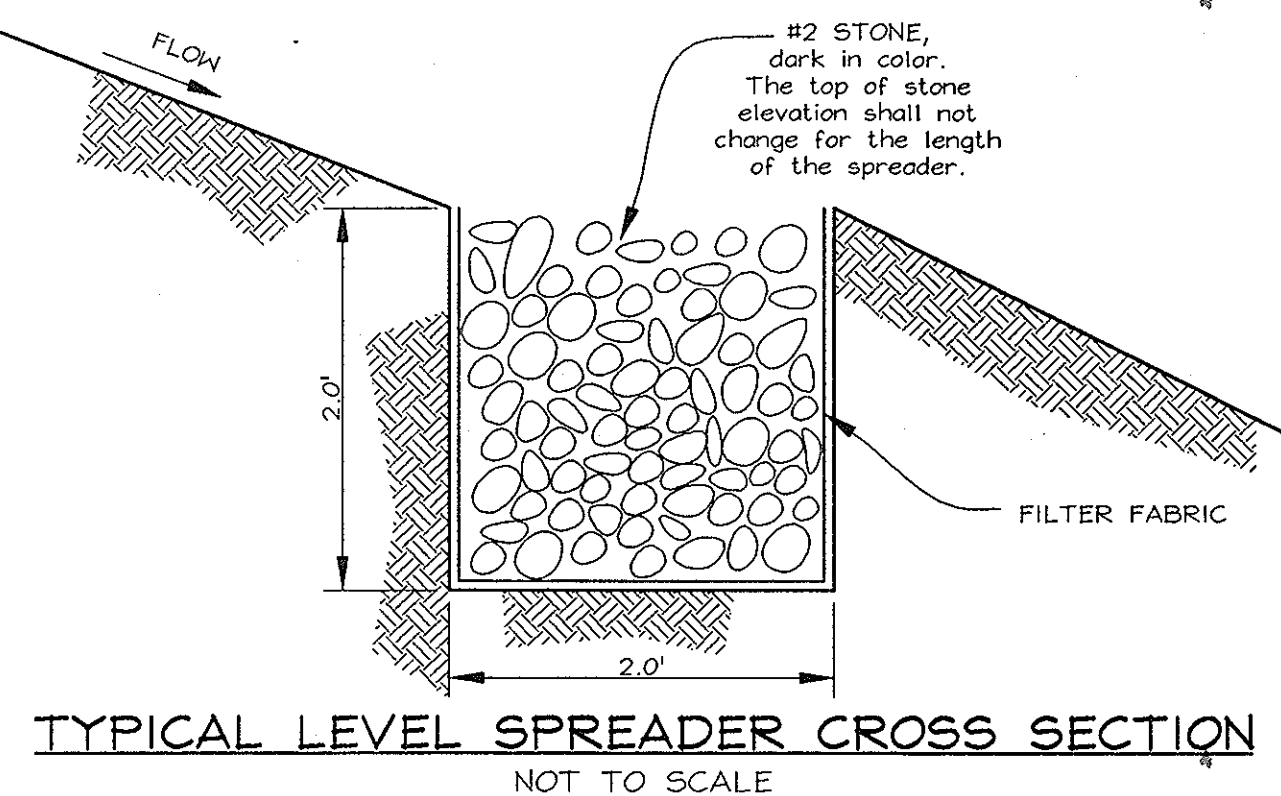


LEGEND

- Existing Contour
- Proposed Contour
- Spot Elevation
- Direction of Flow
- Tree Protection Fence
- Existing Trees to Remain
- Light Poles
- Stabilized Construction Entrance
- Silt Fence
- Limit of Disturbance
- Erosion Control Matting
- Removable Pumping Station
- Pumping Station
- Filter Bag
- Temporary Sandbag Dike
- Tree Protection Fence



I hereby certify this Red line As-built drawing to be correct as shown.



OWNER/DEVELOPER

HODGE PROPERTY, LLC
Dennis A. & Jung D. Hodge
4625 Ilchester Road
Ellicott City, MD 21043-6819

GRADING, SEDIMENT AND EROSION CONTROL PLAN

ILCHESTER HILLS
LOTS 1 THRU 17 AND OPEN SPACE LOTS 18 THRU 20
TAX MAP 31 GRID 5 PARCEL 419
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

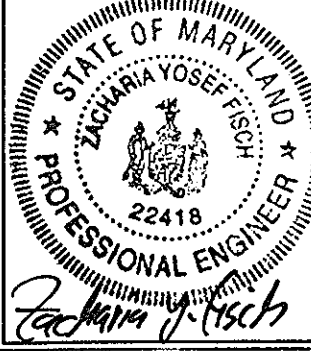
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamrick 12/16/03
CHIEF, DIVISION OF LAND DEVELOPMENT
William J. White 12/16/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William J. White 12-10-03
CHIEF, BUREAU OF HIGHWAYS

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
USDA-NATURAL RESOURCES CONSERVATION SERVICE
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT

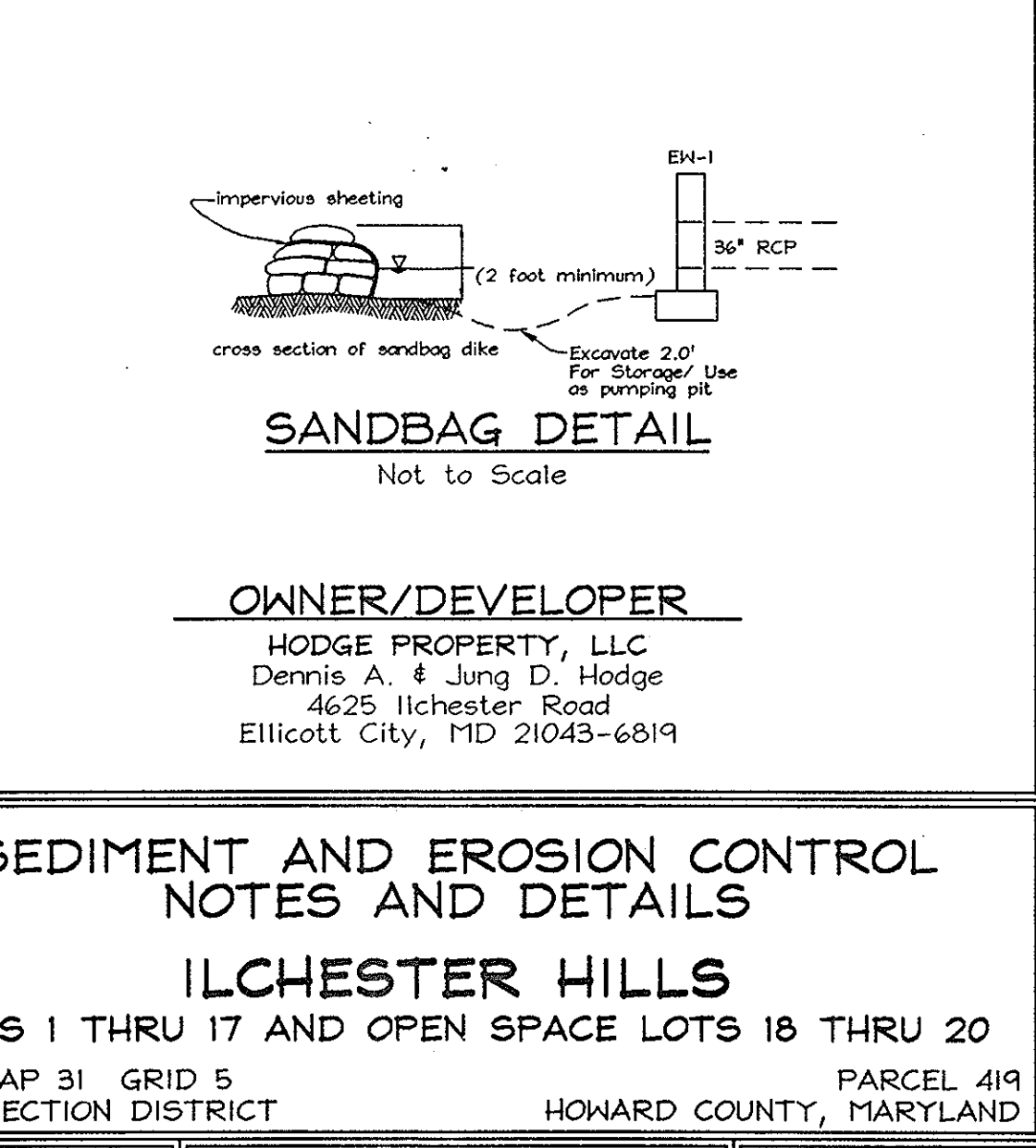
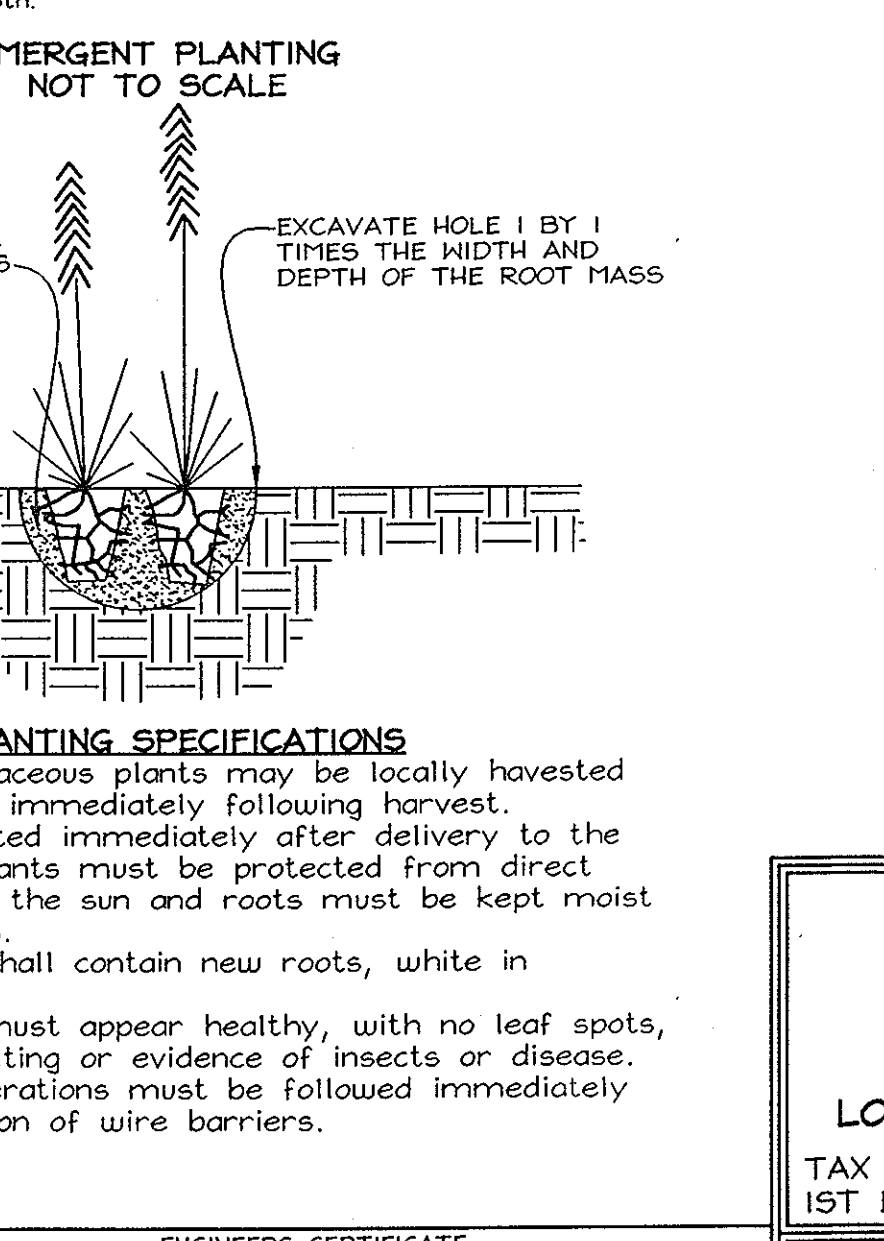
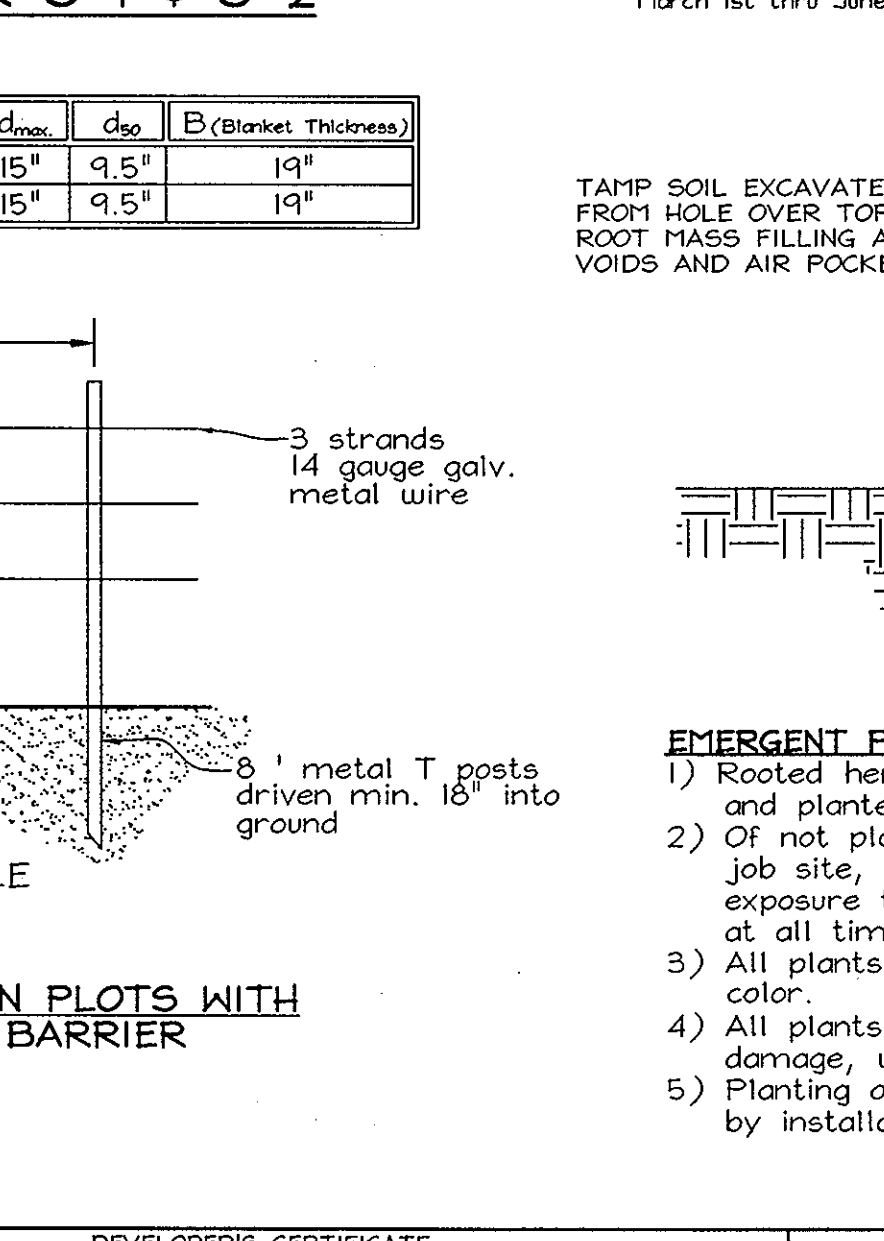
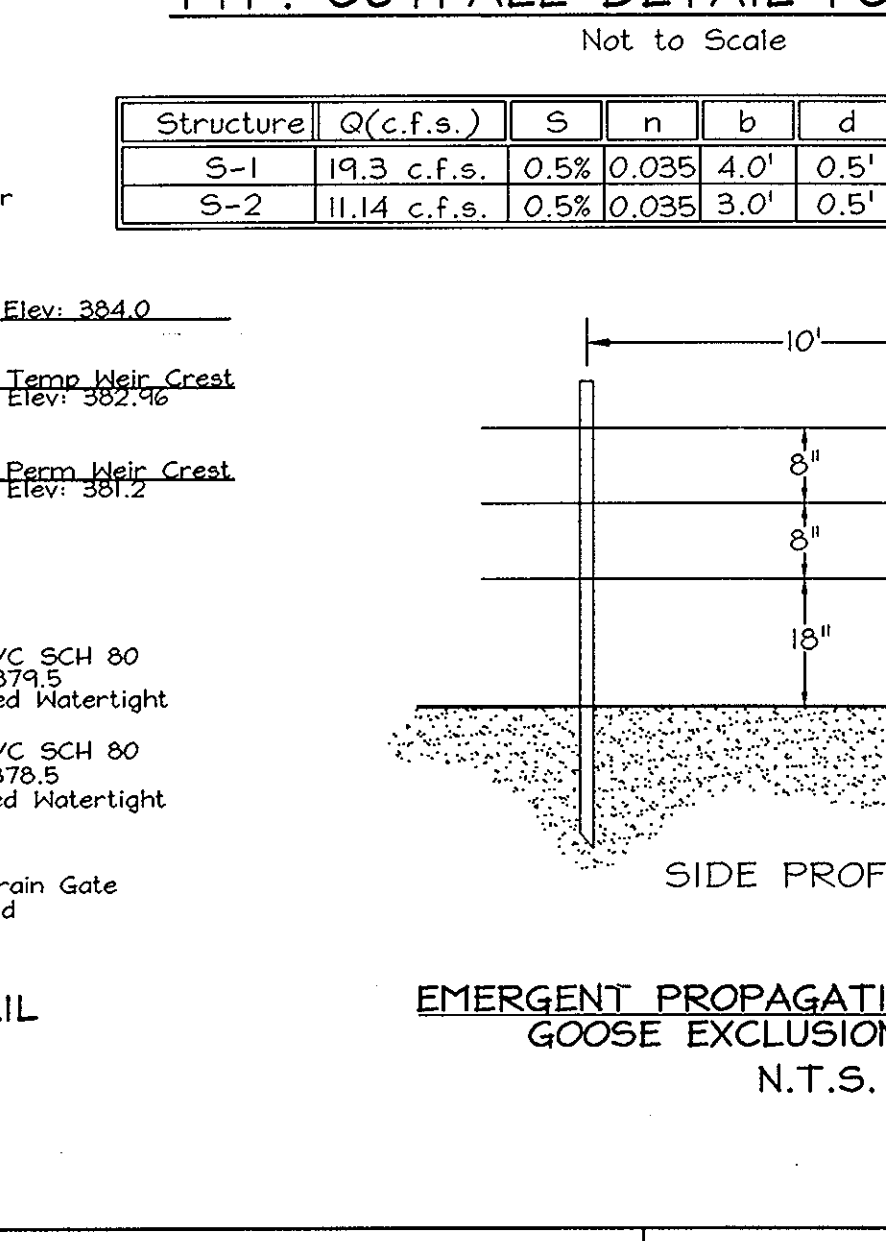
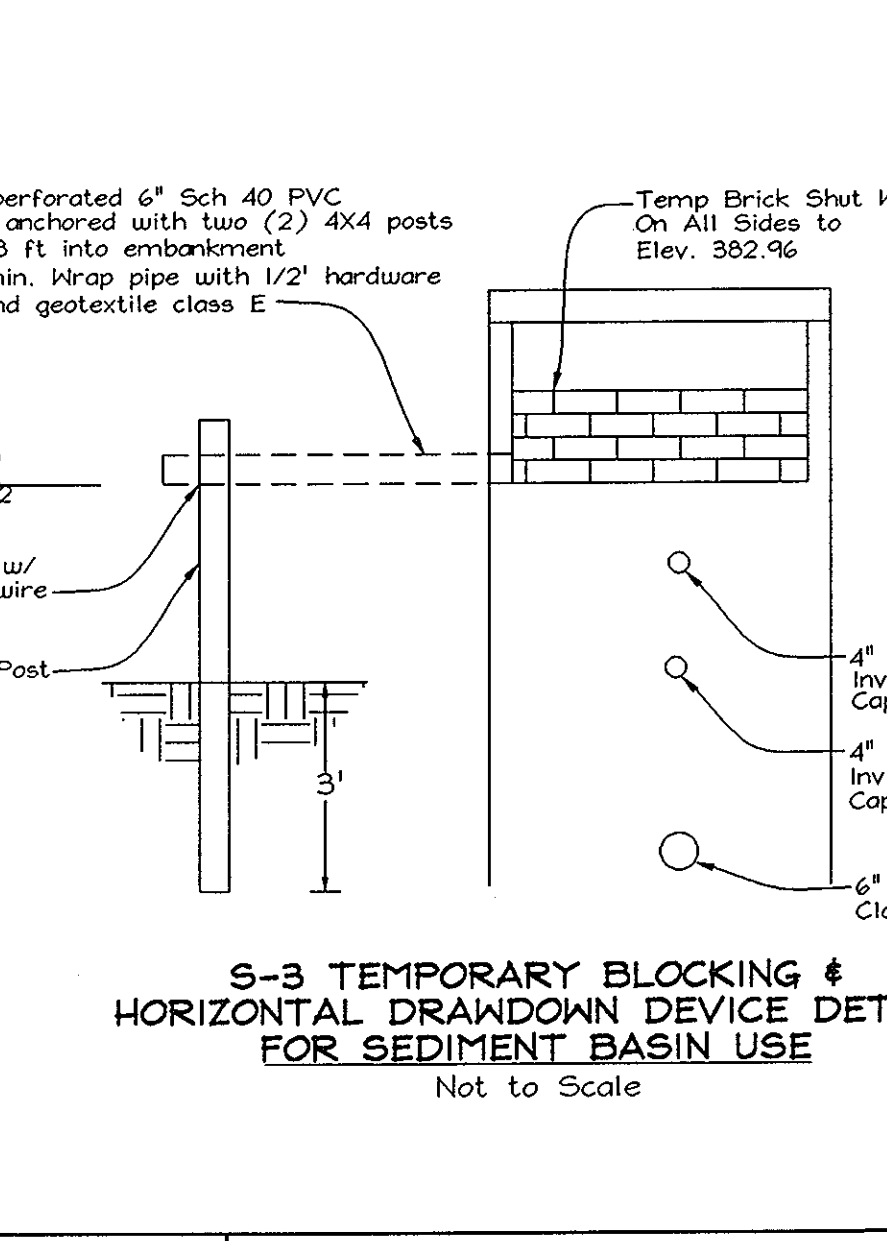
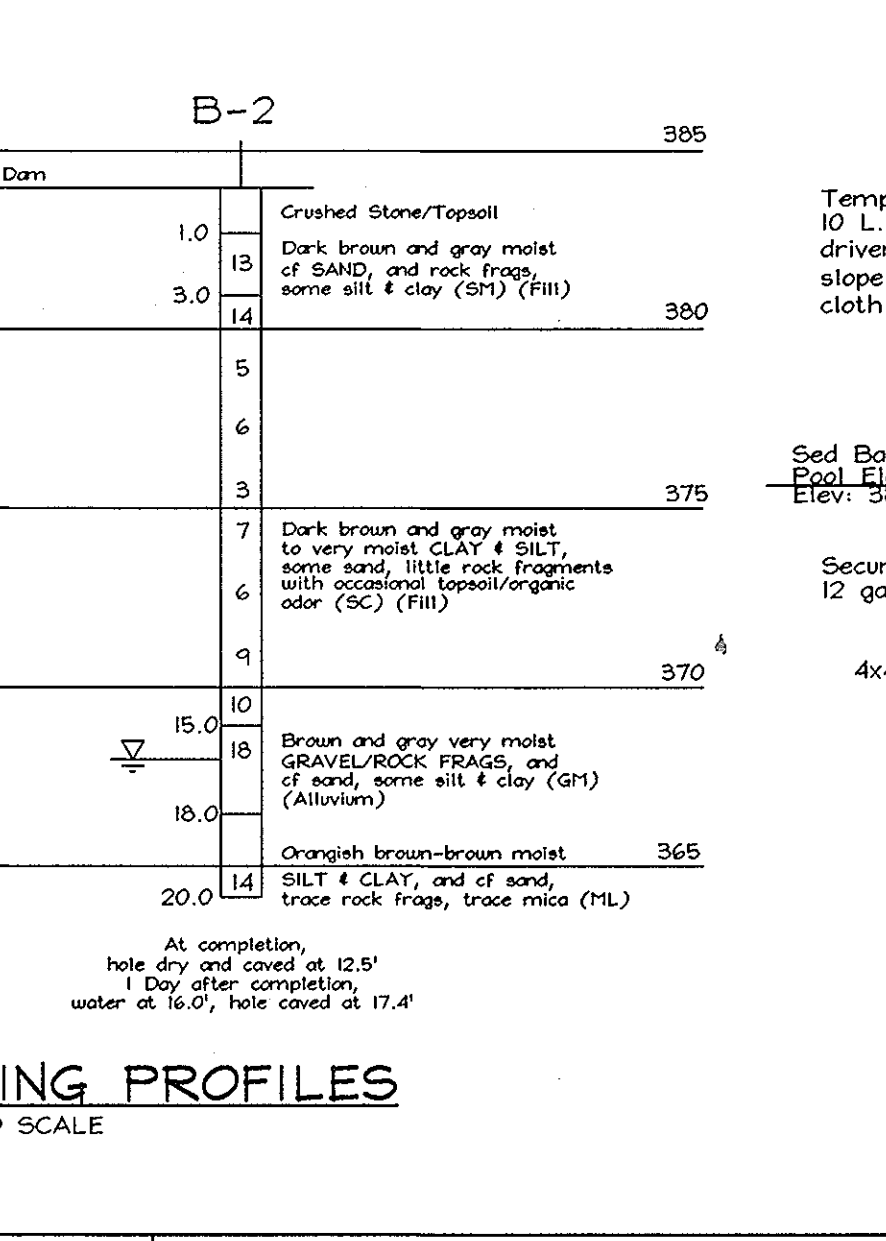
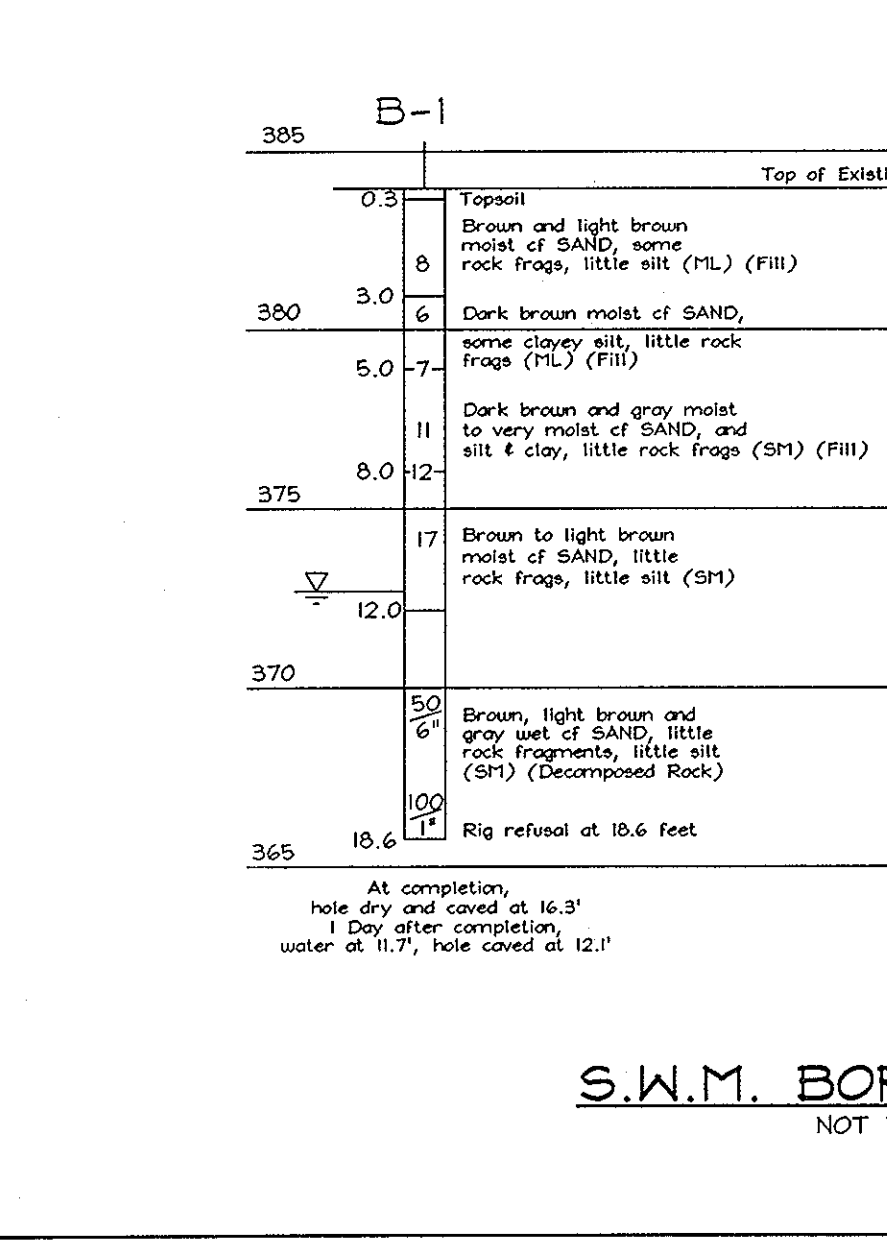
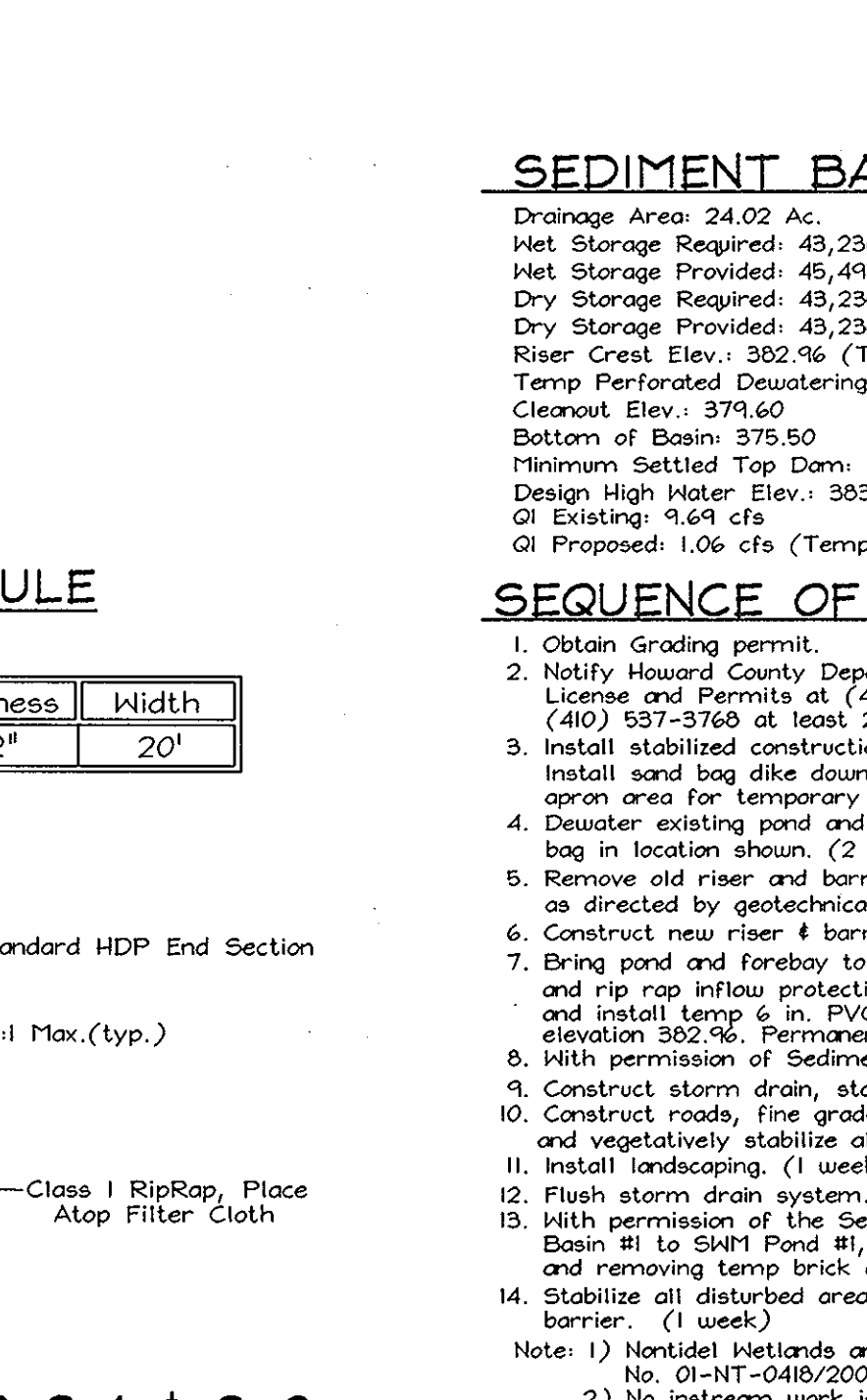
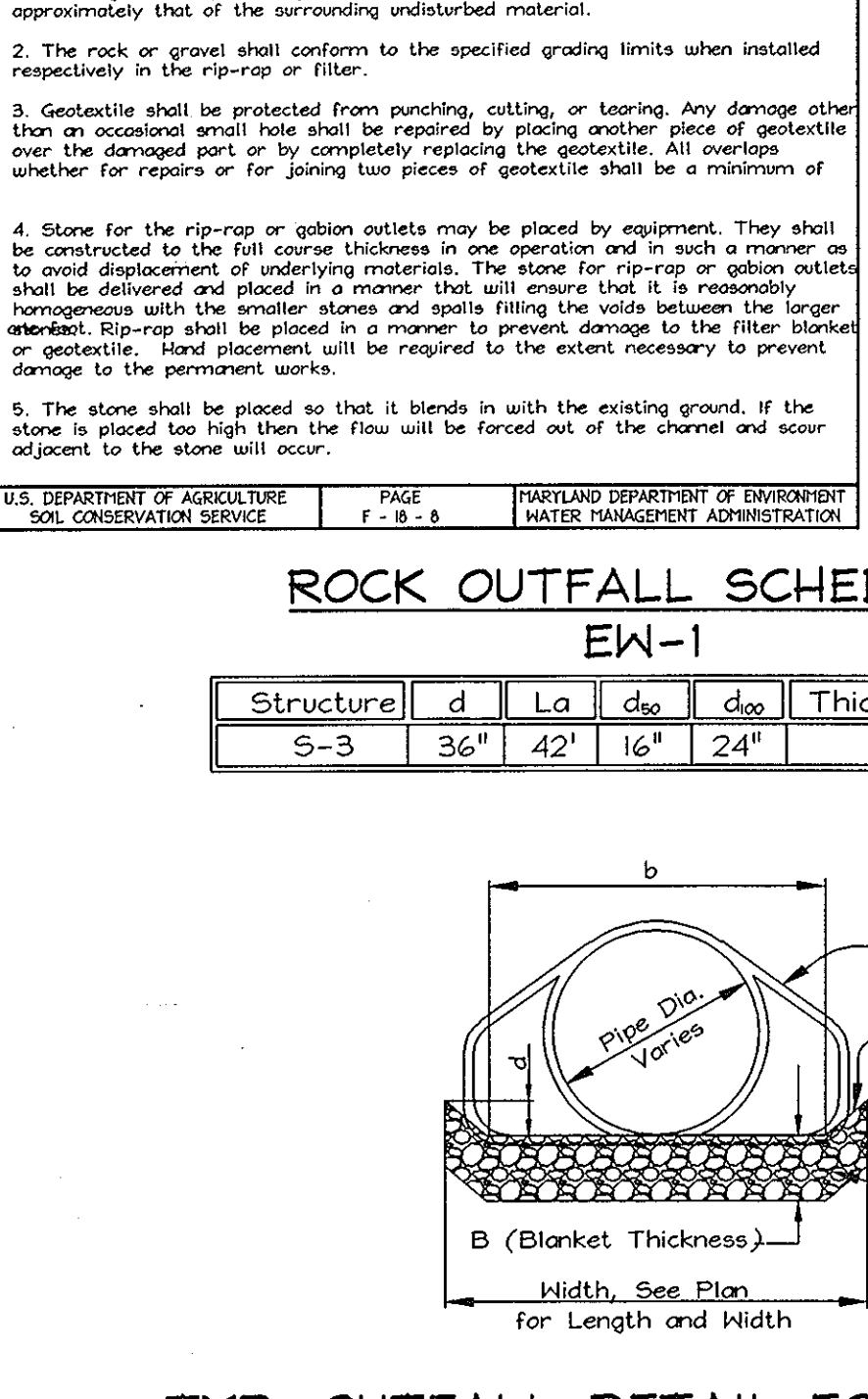
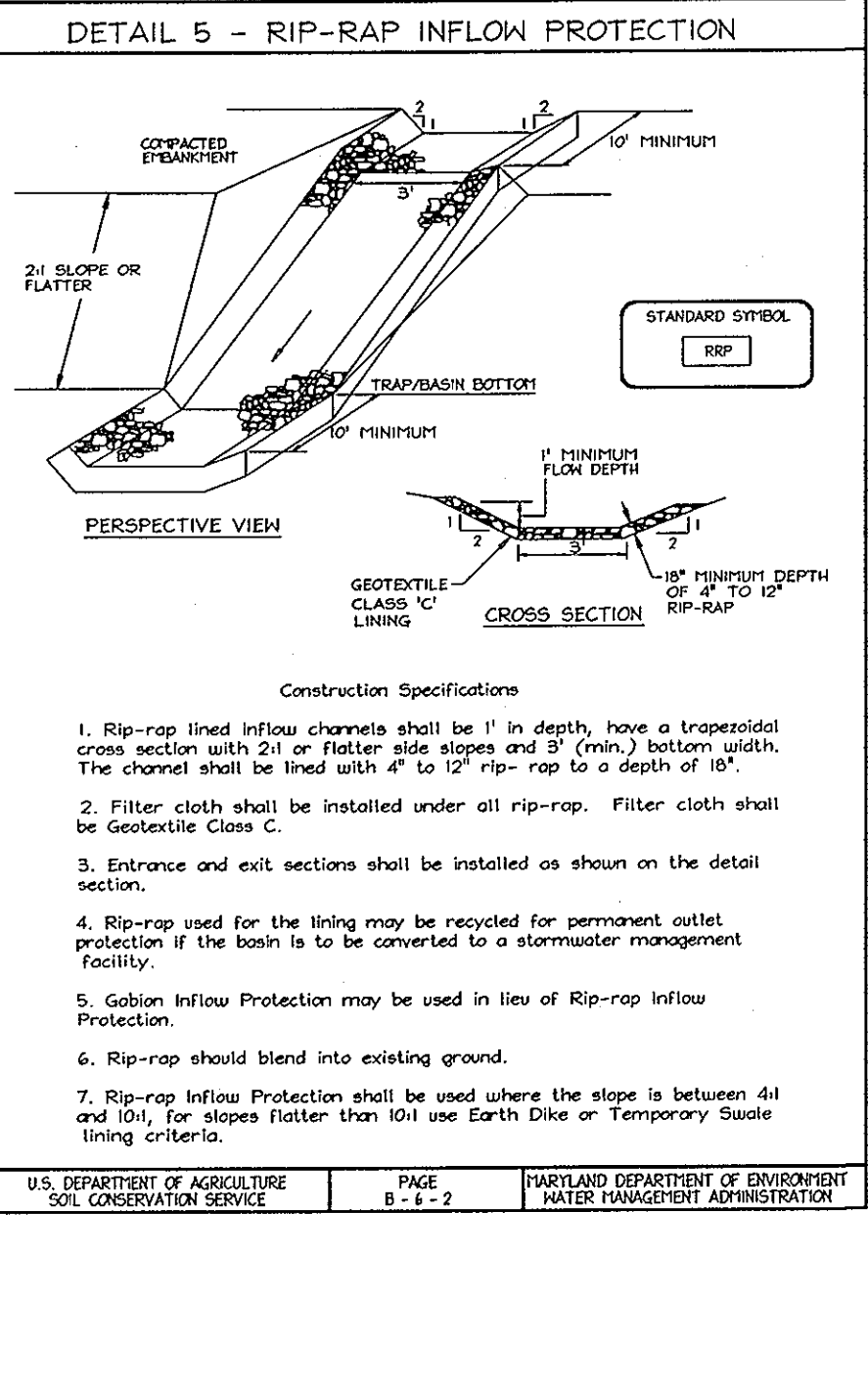
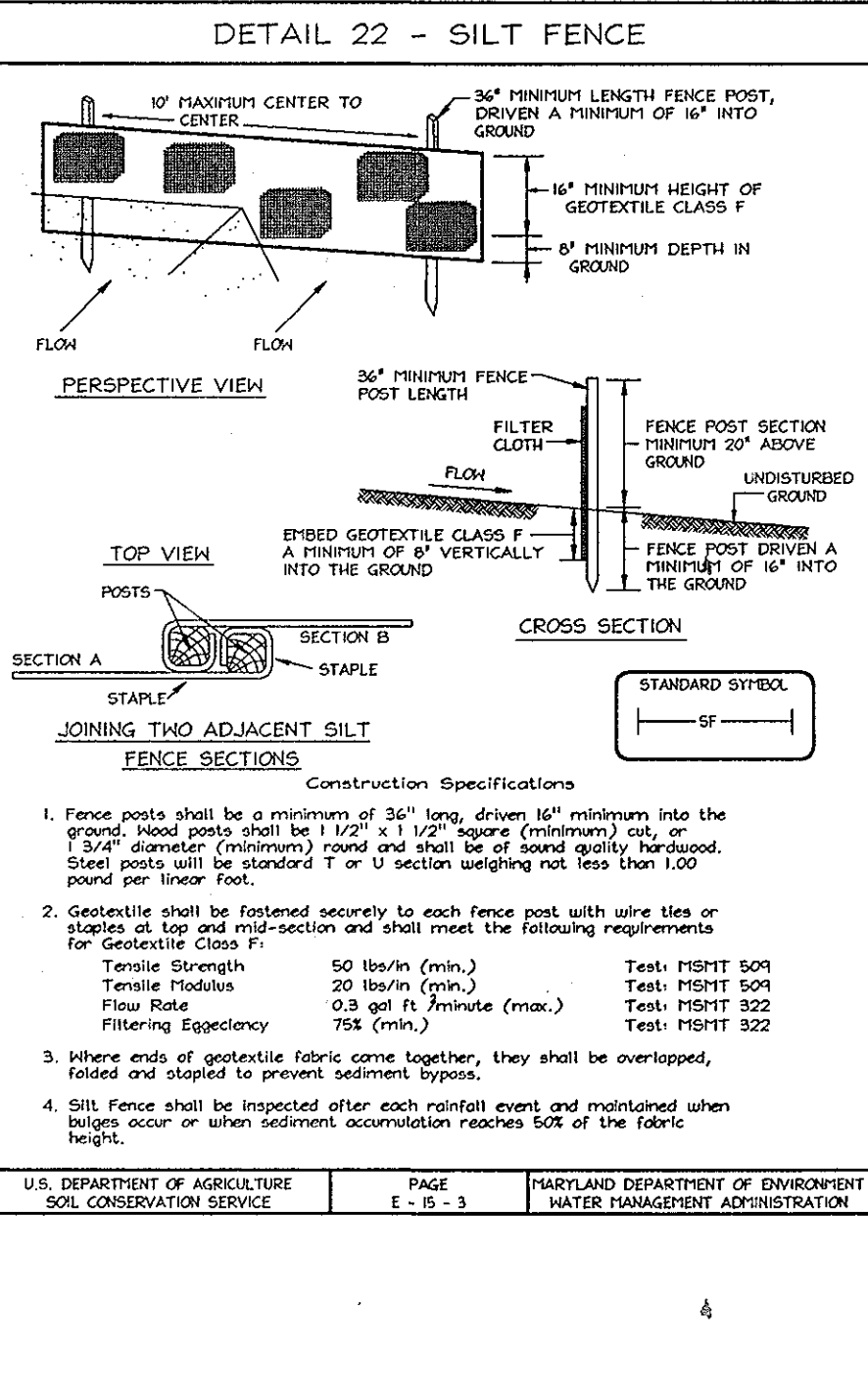
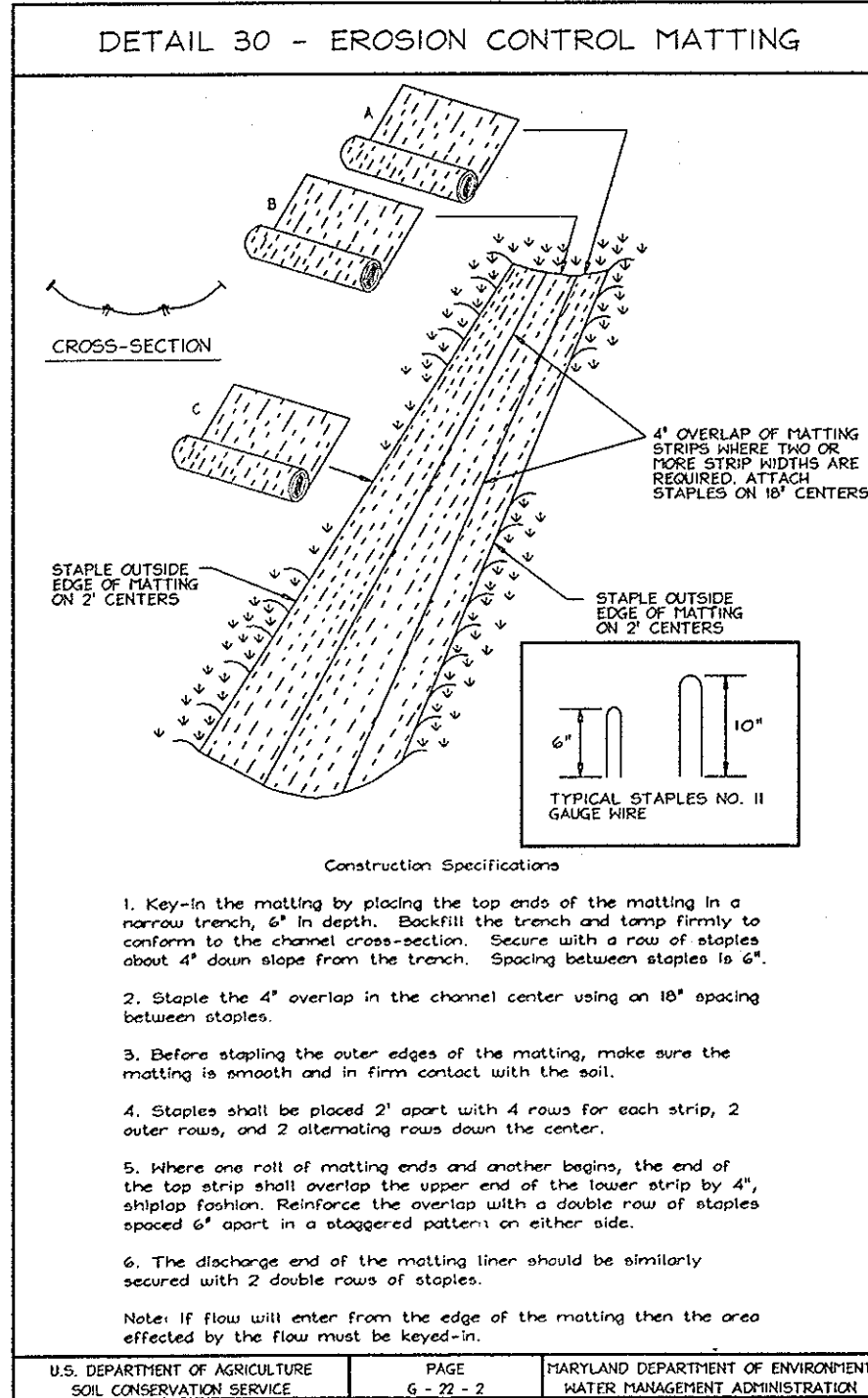
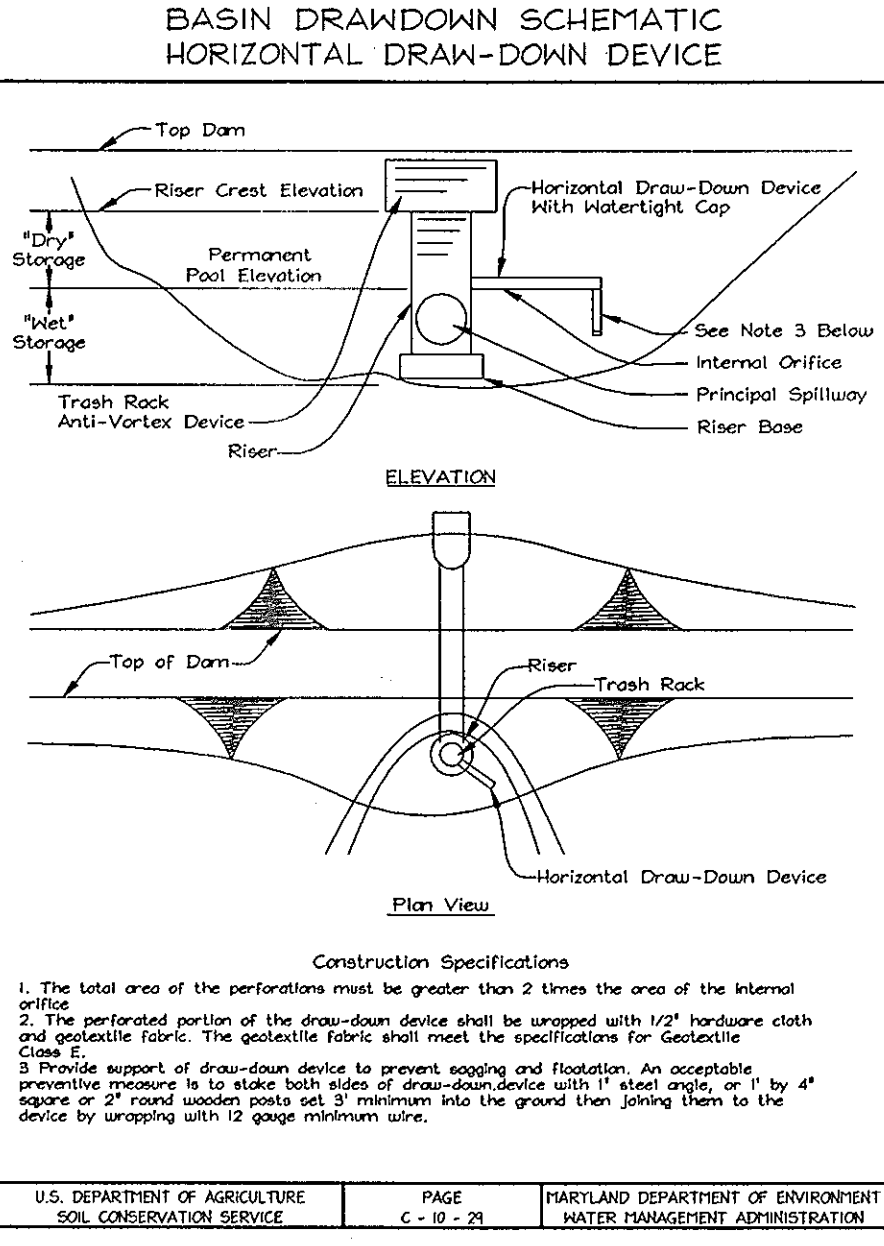
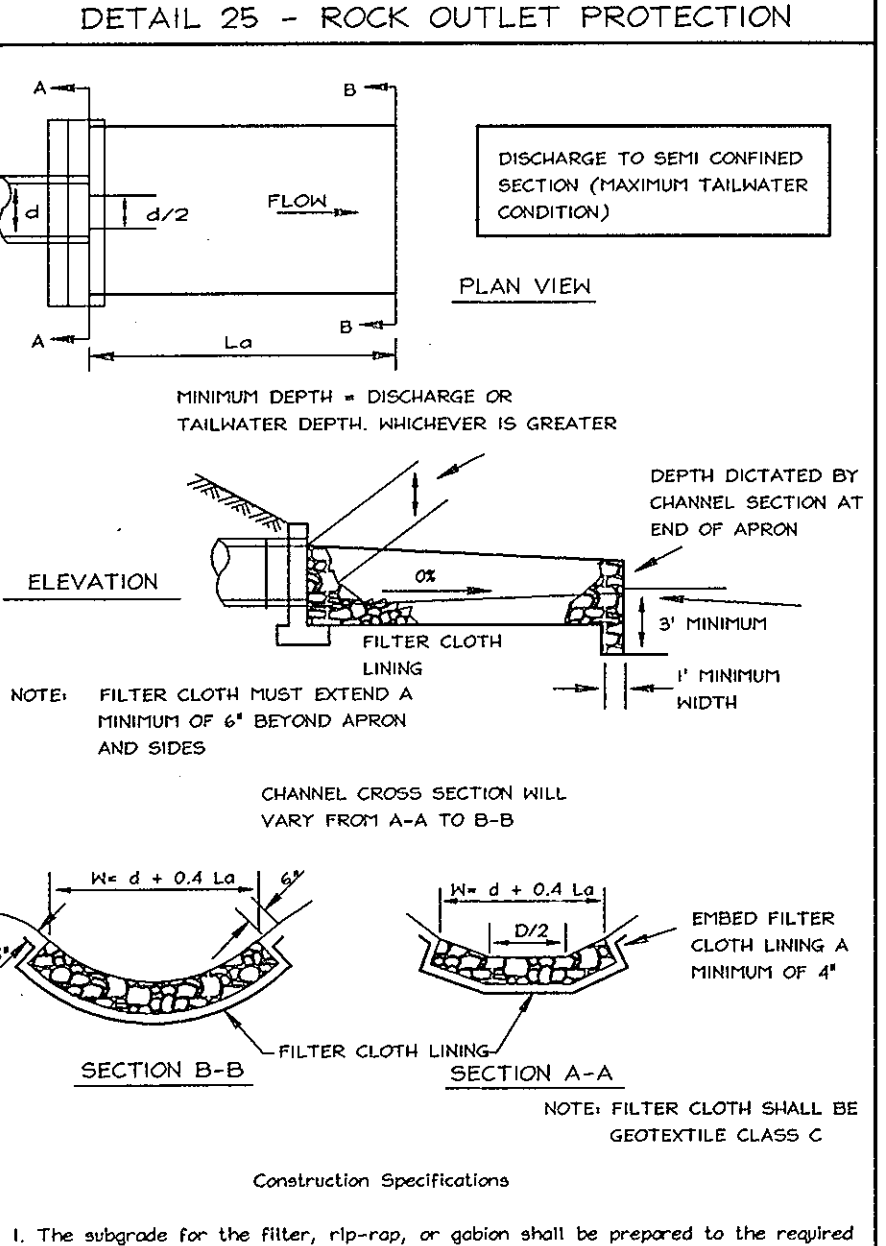
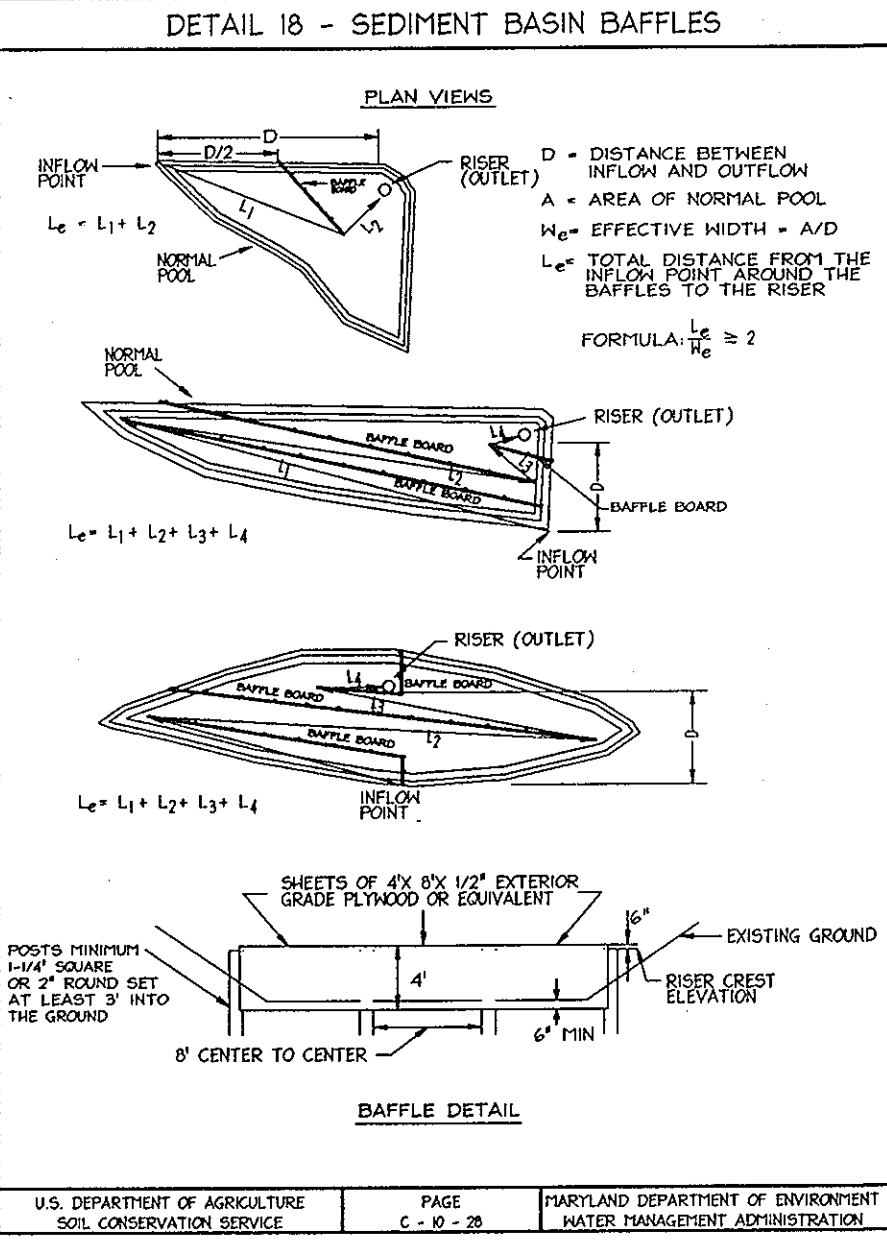
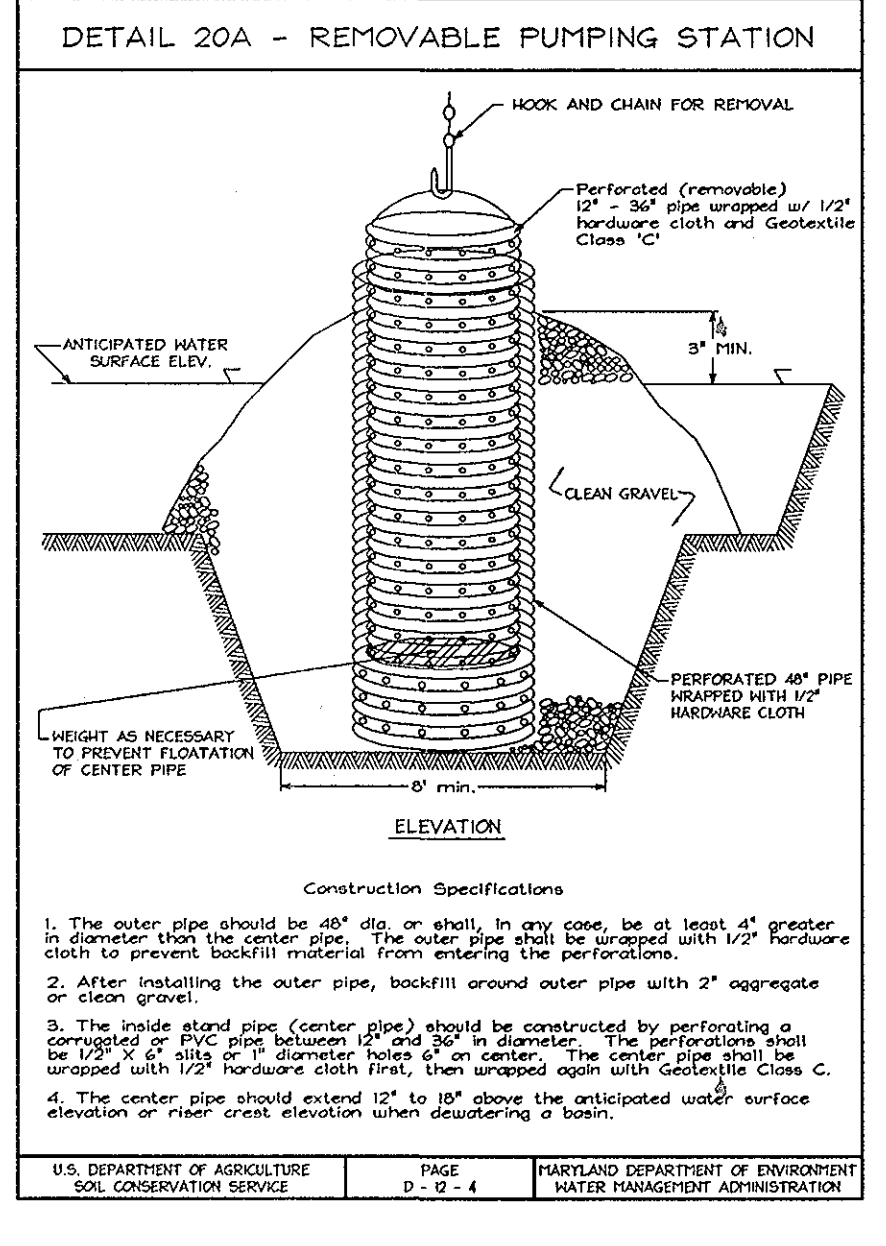
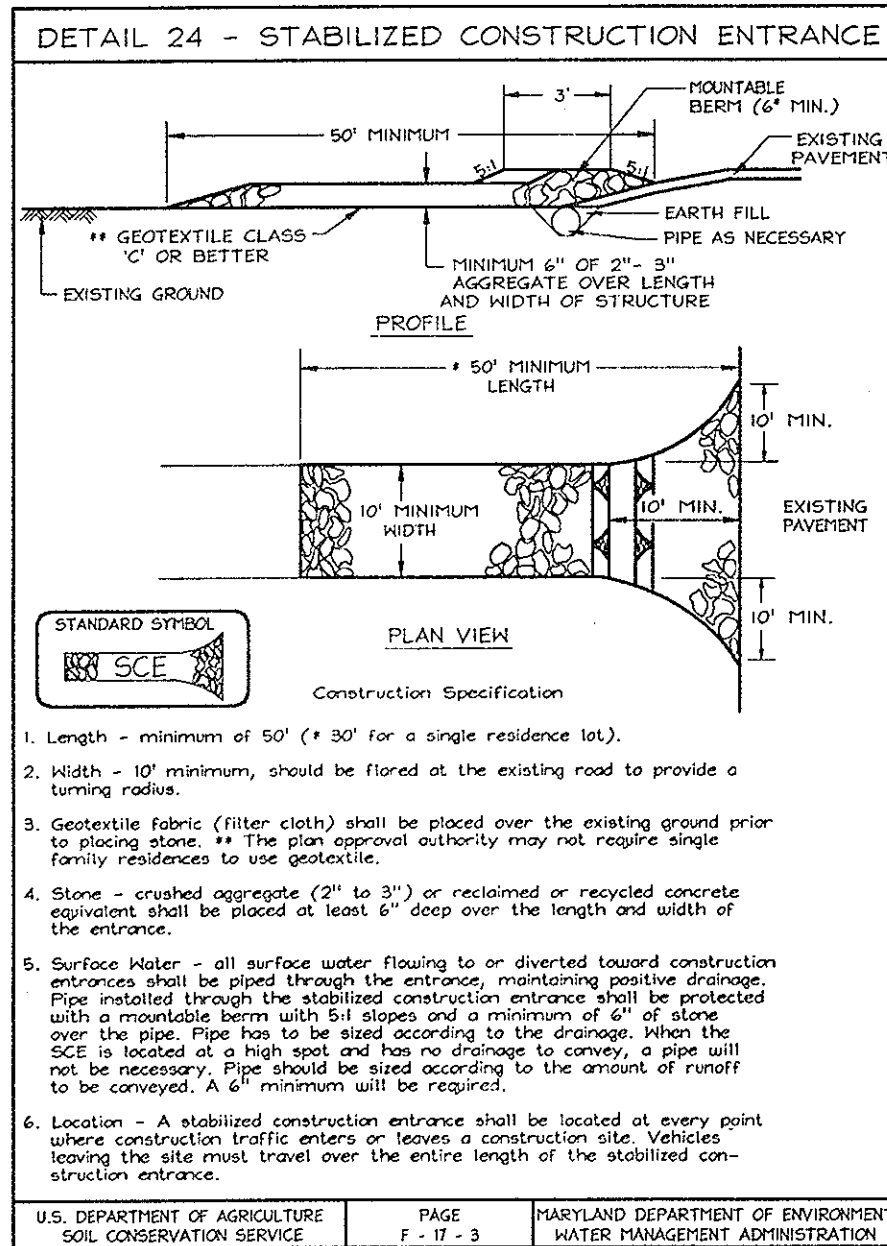
DEVELOPER'S CERTIFICATE
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
Cindy Hamrick 11/20/03
SIGNATURE OF DEVELOPER

ENGINEER'S CERTIFICATE
I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
Zacharia Y. Fisch 11/20/03
SIGNATURE OF ENGINEER



FSH Associates
Engineers Planners Surveyors
8318 Forest Street, Ellicott City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@es.com

DESIGN BY: MLT
DRAWN BY: KO
CHECKED BY: ZYF
SCALE: 1"=50'
DATE: Nov. 21, 2003
W.O. No.: 3015
SHEET No.: 3 OF 9



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Carol Hanata 12/14/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William J. Mahan 12-18-03
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF ENVIRONMENT & WATER MANAGEMENT ADMINISTRATION
 PAGE 11 OF 13

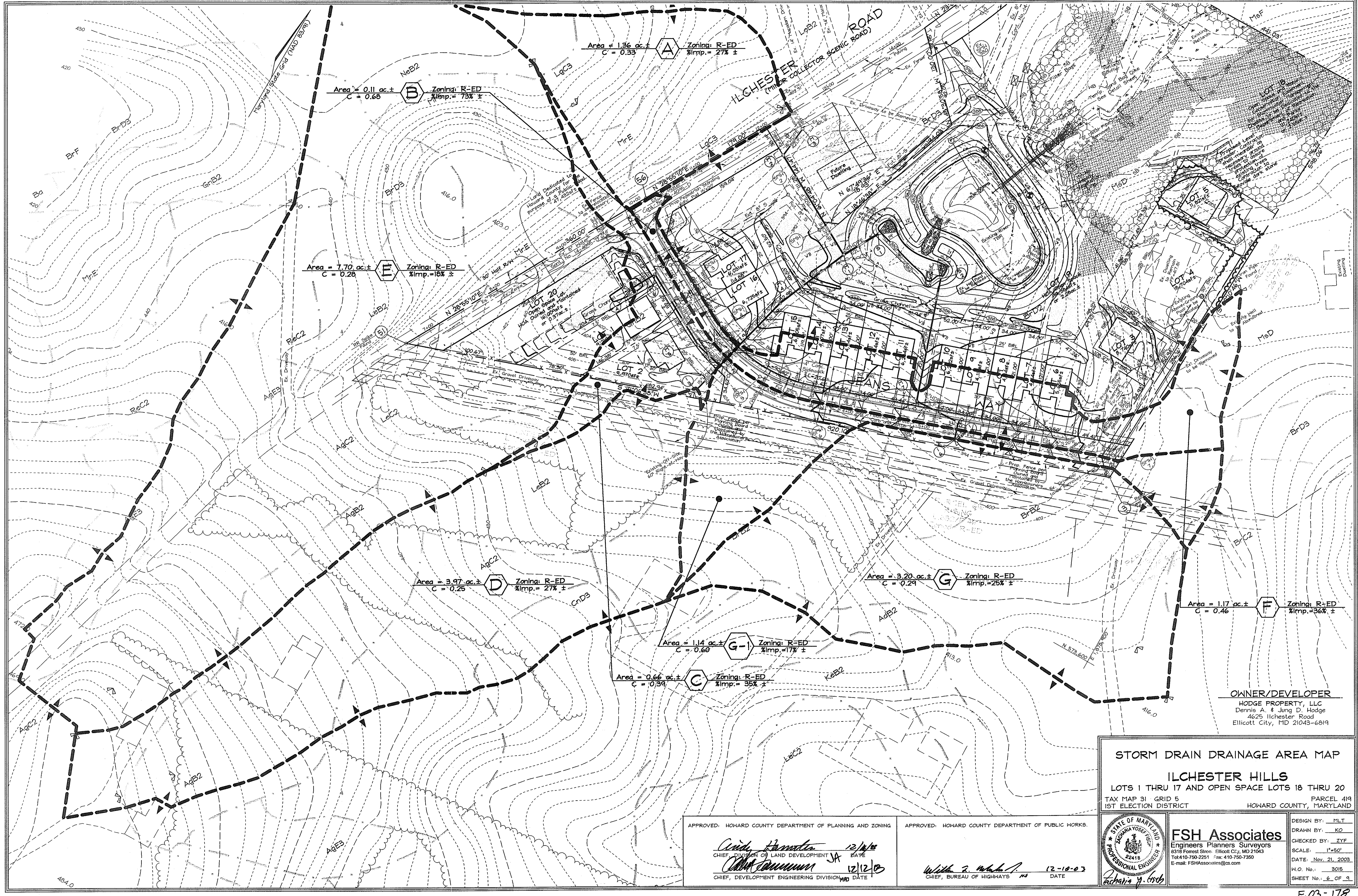
APPROVED: HOWARD COUNTY DEPARTMENT OF ENVIRONMENT & WATER MANAGEMENT ADMINISTRATION
 PAGE 6 OF 28

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE WITH THESE PLANS AND THAT ANY PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE RECEIVED CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POUD CONSTRUCTION AND PROVIDE THE HOWARD COUNTY DEPARTMENT OF ENVIRONMENT & WATER MANAGEMENT WITH A FULLY DETAILED PLAN OF THE POUD WITHIN 30 DAYS OF COMPLETION.
Thomas J. Mahan 12/18/03
 SIGNATURE OF DEVELOPER DATE

ENGINEER'S CERTIFICATE
 I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND FEASIBLE DESIGN FOR THE PROJECT AND THAT I HAVE RECEIVED THE NECESSARY PERMITS FROM THE HOWARD COUNTY DEPARTMENT OF ENVIRONMENT & WATER MANAGEMENT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD COUNTY DEPARTMENT OF ENVIRONMENT & WATER MANAGEMENT WITH A FULLY DETAILED PLAN OF THE POUD WITHIN 30 DAYS OF COMPLETION.
Zacharia J. Fisch 11/20/03
 SIGNATURE OF ENGINEER DATE

DESIGN BY: SLH
 DRAWN BY: DSH
 CHECKED BY: ZYF
 SCALE: AS SHOWN
 DATE: Nov. 21, 2003
 H.O. No.: 3015
 SHEET No.: 4 OF 9

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 22418
 12/18/03



Area = 1.36 ac. ±
C = 0.33
Zoning: R-ED
%Imp. = 27% ±

Area = 0.11 ac. ±
C = 0.68
Zoning: R-ED
%Imp. = 73% ±

Area = 7.70 ac. ±
C = 0.28
Zoning: R-ED
%Imp. = 18% ±

Area = 3.97 ac. ±
C = 0.25
Zoning: R-ED
%Imp. = 27% ±

Area = 3.20 ac. ±
C = 0.29
Zoning: R-ED
%Imp. = 25% ±

Area = 1.17 ac. ±
C = 0.46
Zoning: R-ED
%Imp. = 36% ±

Area = 1.14 ac. ±
C = 0.60
Zoning: R-ED
%Imp. = 17% ±

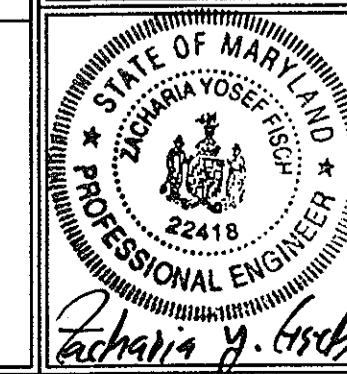
Area = 0.66 ac. ±
C = 0.39
Zoning: R-ED
%Imp. = 35% ±

OWNER/DEVELOPER
HODGE PROPERTY, LLC
Dennis A. & Jung D. Hodge
4625 Ilchester Road
Ellicott City, MD 21043-6819

STORM DRAIN DRAINAGE AREA MAP
ILCHESTER HILLS
LOTS 1 THRU 17 AND OPEN SPACE LOTS 18 THRU 20
TAX MAP 31 GRID 5 PARCEL 419
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

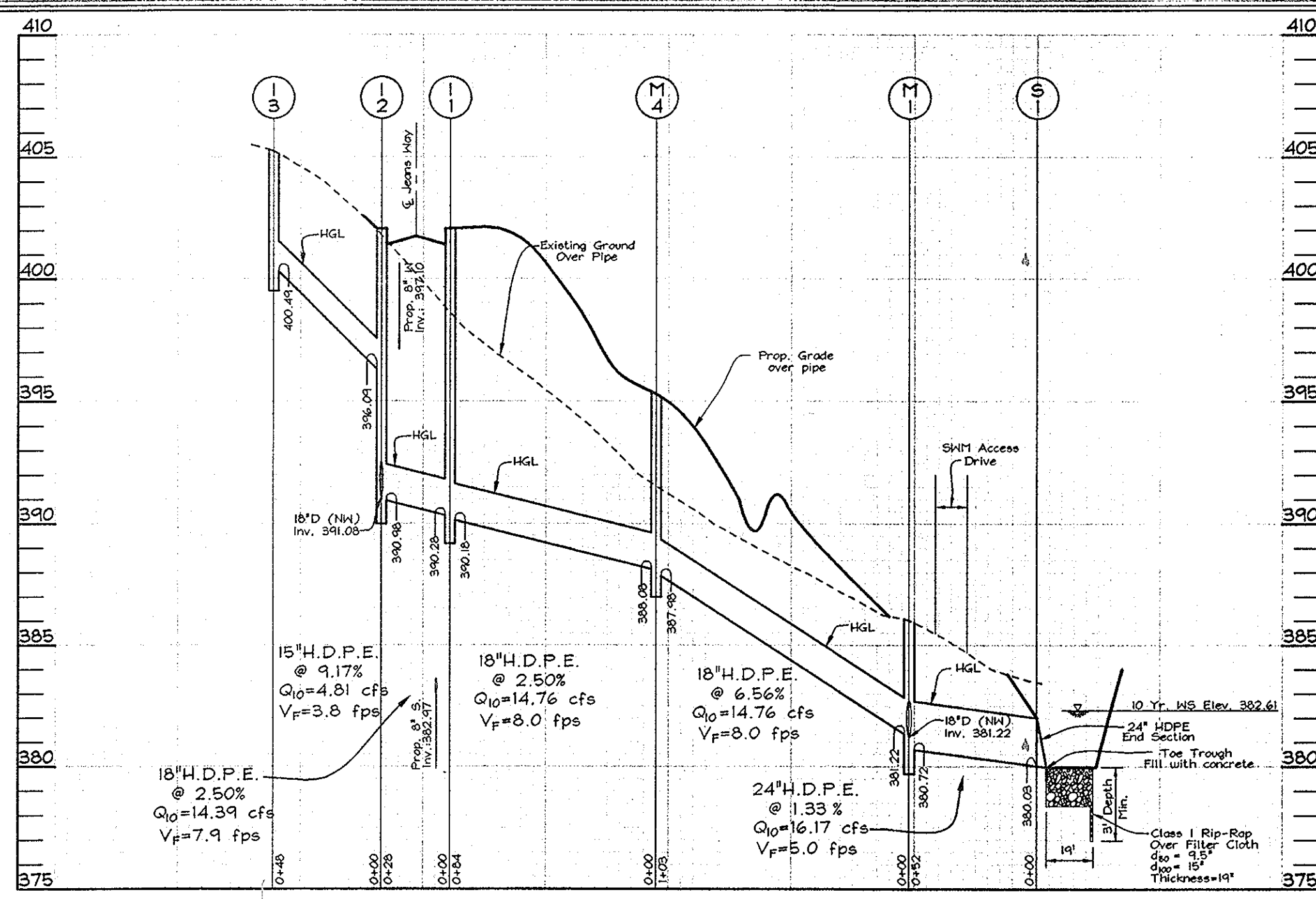
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Wanda Hamstra 12/14/13
CHIEF, DIVISION OF LAND DEVELOPMENT JA DATE
Chad Cameron 12/12/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION MD DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
Willie Z. White 12-10-13
CHIEF, BUREAU OF HIGHWAYS MD DATE



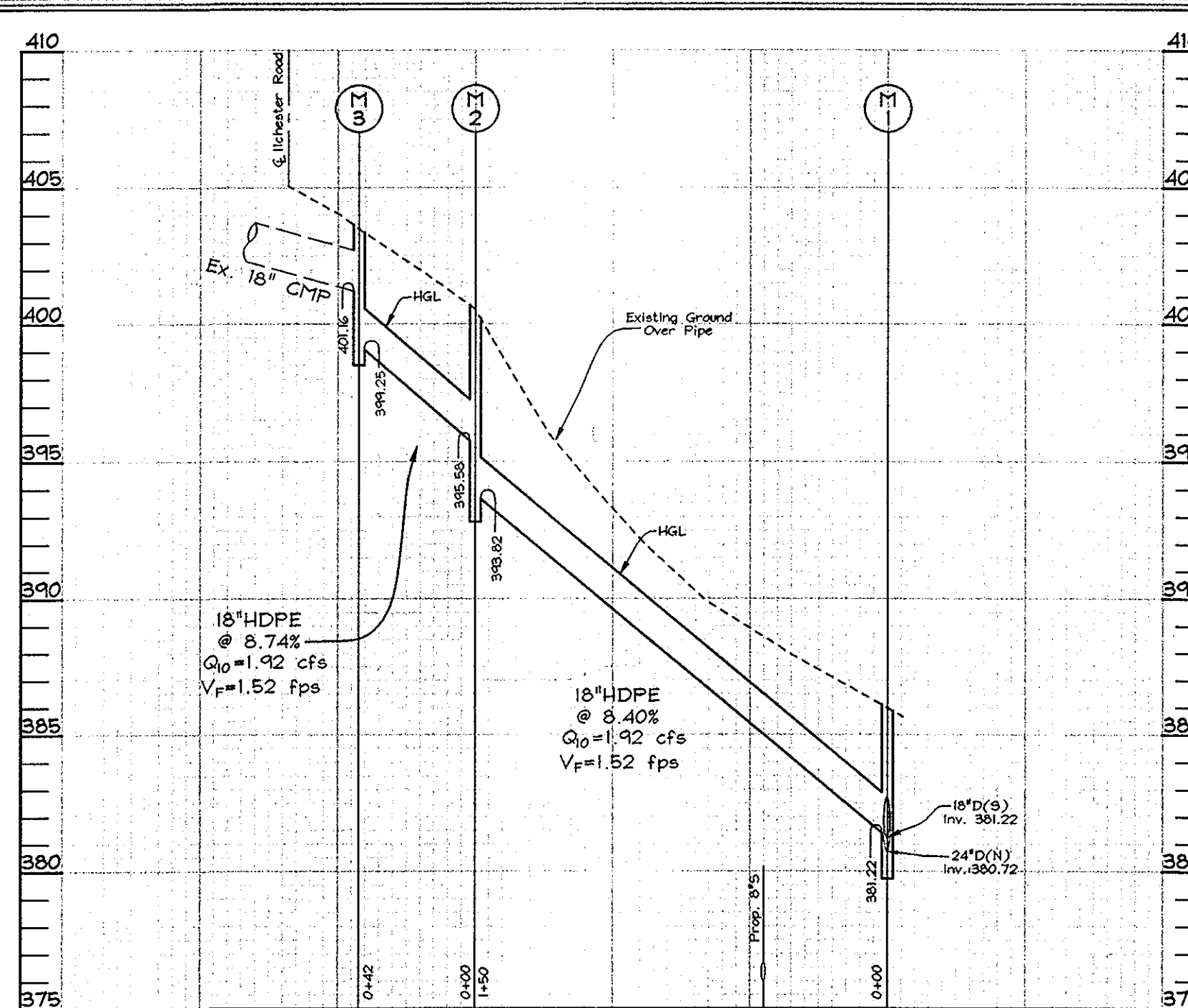
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DATE: Nov. 21, 2003
I.O. No.: 3015
SHEET No.: 6 OF 9



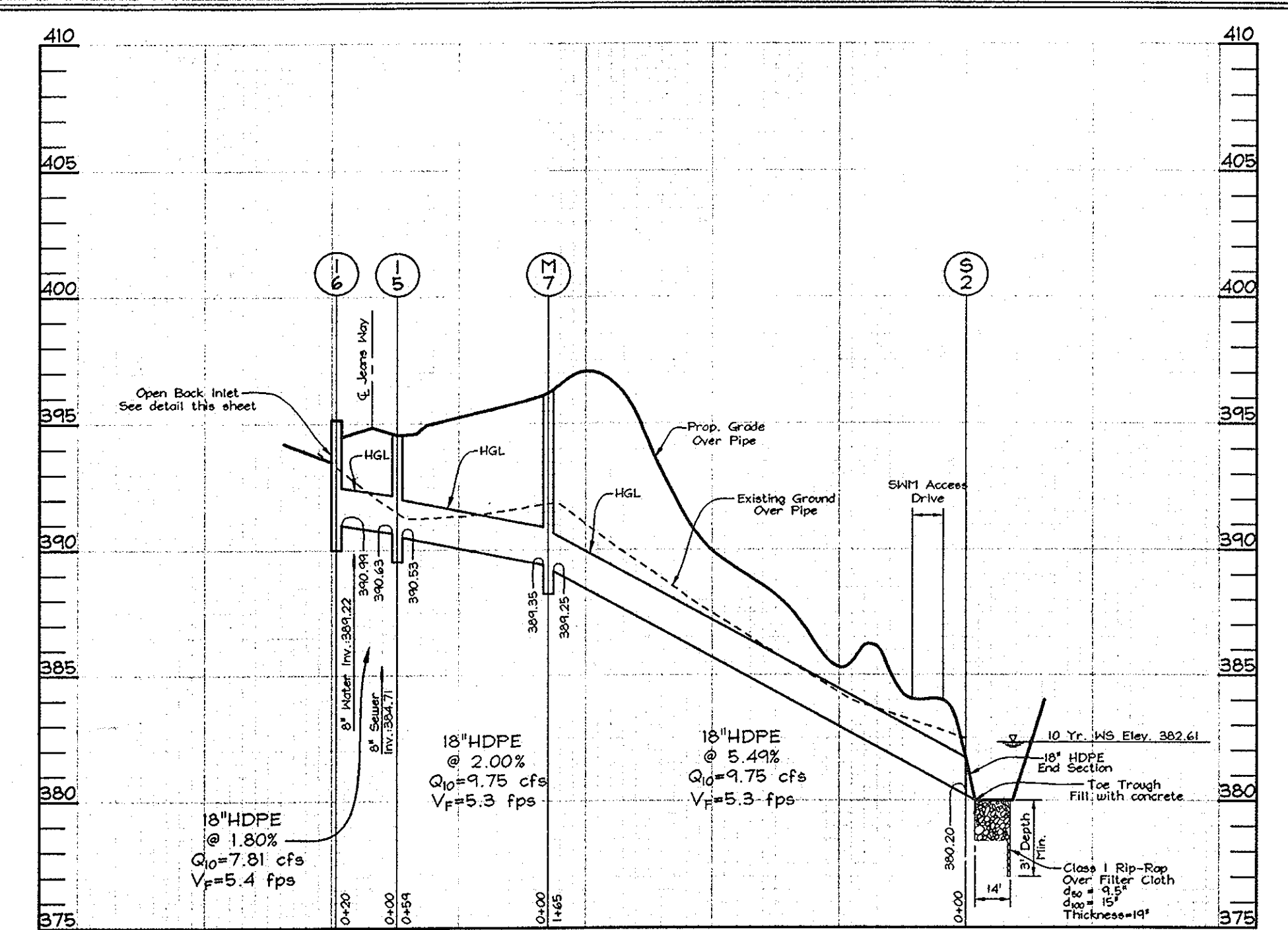
STORM DRAIN PROFILES

Scale: Horizontal- 1"=50'
Vertical- 1"=5'



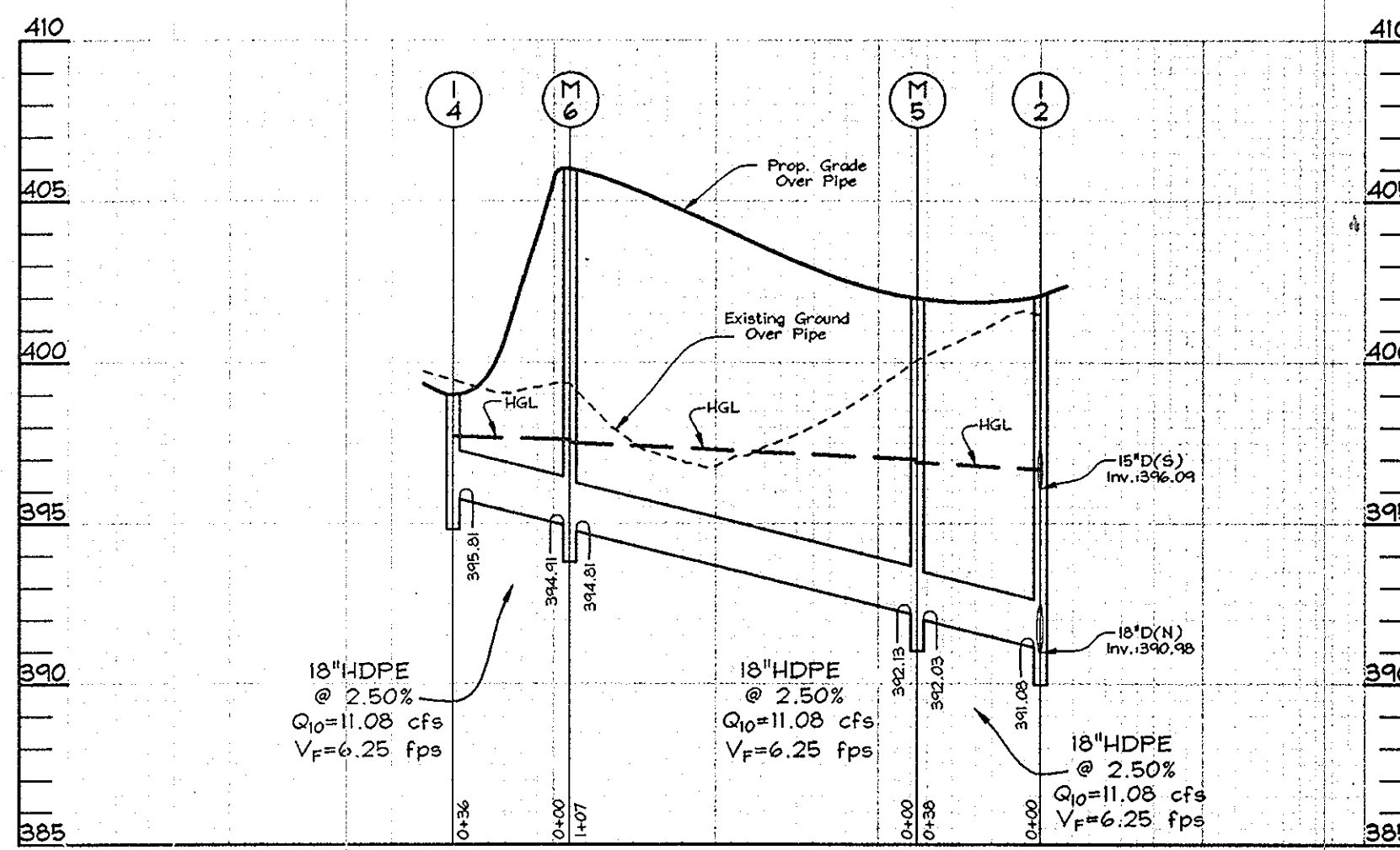
STORM DRAIN PROFILES

Scale: Horizontal- 1"=50'
Vertical- 1"=5'



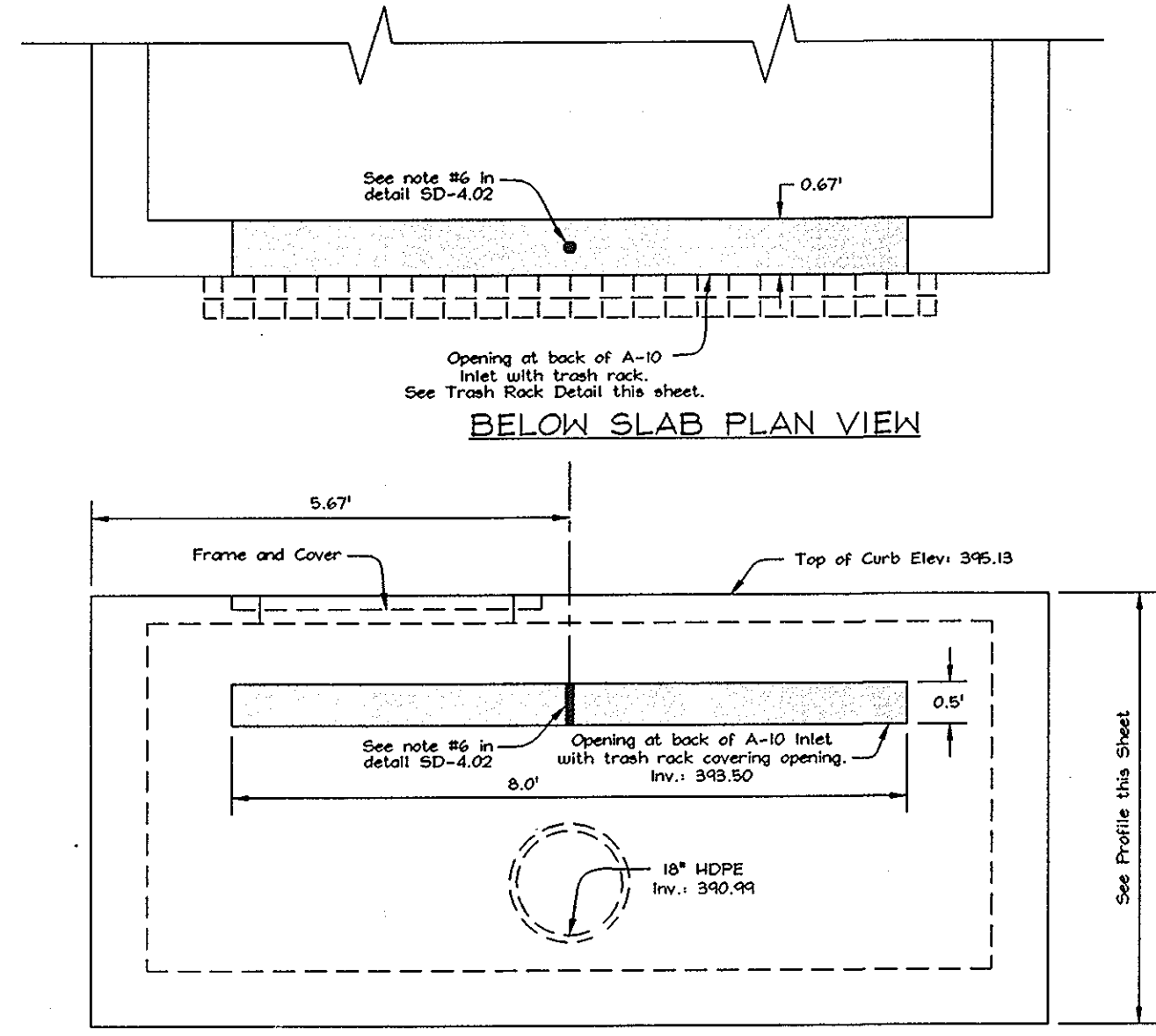
STORM DRAIN PROFILES

Scale: Horizontal- 1"=50'
Vertical- 1"=5'



STORM DRAIN PROFILES

Scale: Horizontal- 1"=50'
Vertical- 1"=5'



BELOW SLAB PLAN VIEW

OPEN BACK VIEW

1-6 MODIFIED A-10 INLET (OPEN BACK)

Not to Scale

STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
I-1	Precast Standard Type A-5 Inlet	☐ Sta. 2+28.75-12' Left	402.04	390.28	390.18	SD 4.01
I-2	Precast Standard Type A-5 Inlet	☐ Sta. 2+28.75-12' Right	402.04	390.28	390.18	SD 4.01
I-3	Type 'S' Inlet	☐ Sta. 2+28.75-58' Right	405.30	-	400.49	SD 4.22
I-4	Type 'S' Inlet	☐ Sta. 0+87.76-52' Right	399.00	-	395.81	SD 4.22
I-5	Type Double 'S' Inlet	☐ Sta. 5+41.79-12' Left	394.48	390.63	390.53	SD 4.23
I-6	Precast Standard Type A-10 Inlet	☐ Sta. 5+41.79-12' Right	395.13	-	390.99	SD 4.02
M-1	Shallow Precast Manhole (4')	N 573,900.47 E 1,378,666.15	386.10	381.22	380.72	G 5.12
M-2	Standard Precast Manhole (4')	N 573,972.99 E 1,378,234.88	400.50	395.58	393.82	G 5.12
M-3	Shallow Precast Manhole (4')	N 574,015.08 E 1,378,239.40	403.50	401.16	399.25	G 5.12
M-4	Shallow Precast Manhole (4')	N 573,805.60 E 1,378,326.55	395.30	388.08	387.98	G 5.12
M-5	Standard Precast Manhole (4')	☐ Sta. 1+93.07-17.17' Right	402.00	392.13	392.03	G 5.12
M-6	Standard Precast Manhole (4')	☐ Sta. 0+87.76-16' Right	406.00	394.91	394.81	G 5.12
M-7	Standard Precast Manhole (4')	☐ Sta. 4+84.53-26' Left	396.20	389.35	389.25	G 5.12
S-1	24" HDPE End Section	N 573,946.04 E 1,378,391.11	-	-	380.03	Hancor or equivalent
S-2	18" HDPE End Section	N 573,936.04 E 1,378,489.43	-	-	380.20	Hancor or equivalent

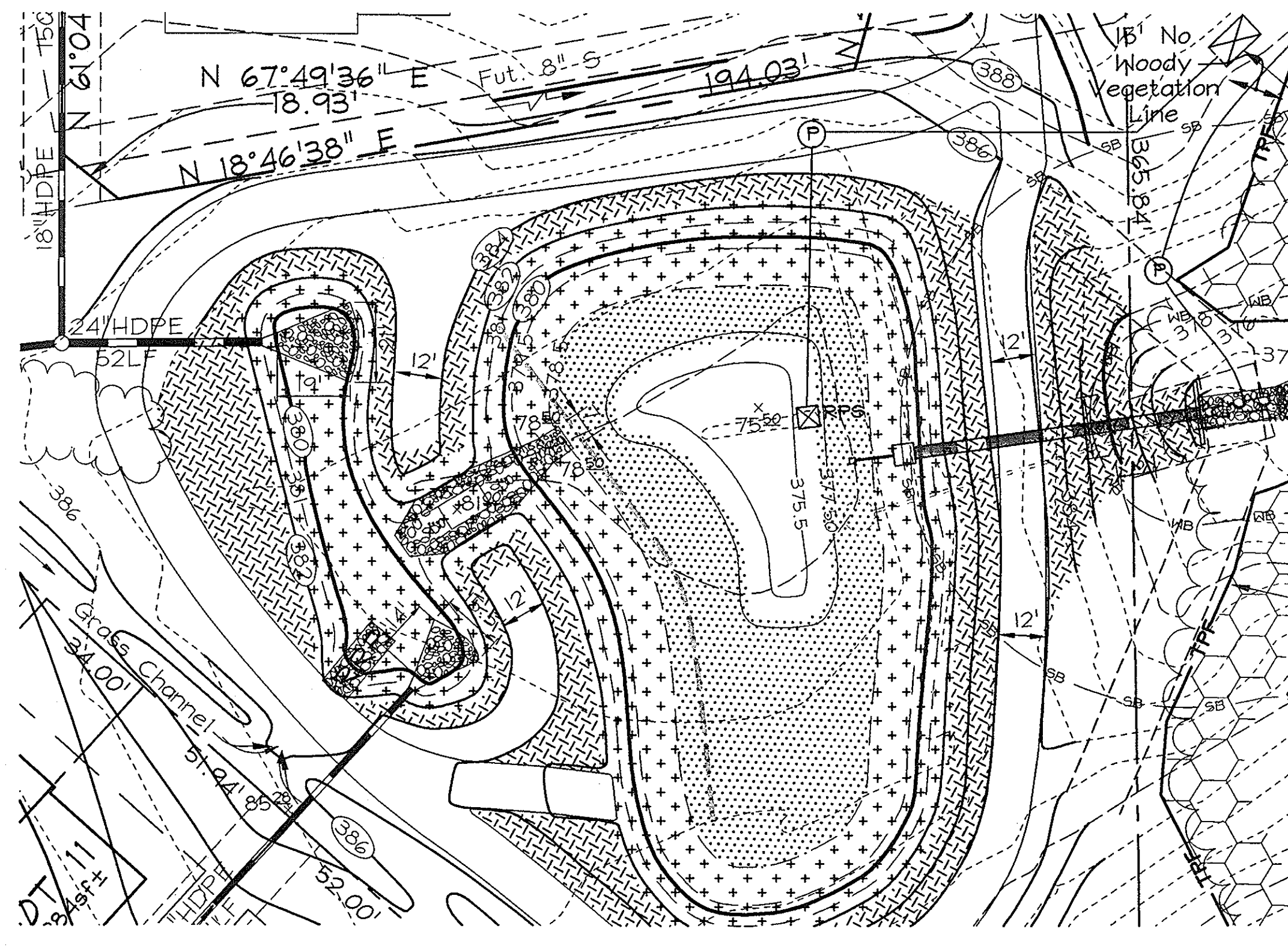
WETLAND IMPACT TABLE	
TYPE	AREA
EXISTING WETLANDS ON SITE	13,147 S.F.
DISTURBED WETLANDS	4,637 S.F.
WETLANDS CREATED	6,600 S.F.

- * NOTES :
- Top elevations for Type 'S' Inlets along curb and gutters are to the center, edge of grate at the flow line. Top elevations for Type 'S' inlets in grass areas are to the center top of grate.
 - Top elevations for Precast Manholes are to the center top of manhole cover.
 - Top elevation for Type A-5 and A-10 inlets are to the center edge of top of slab at flowline.
 - Top slope of structures to conform to slope of paving

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Colleen M. ... 12/10/03
 CHIEF, DIVISION OF LAND DEVELOPMENT

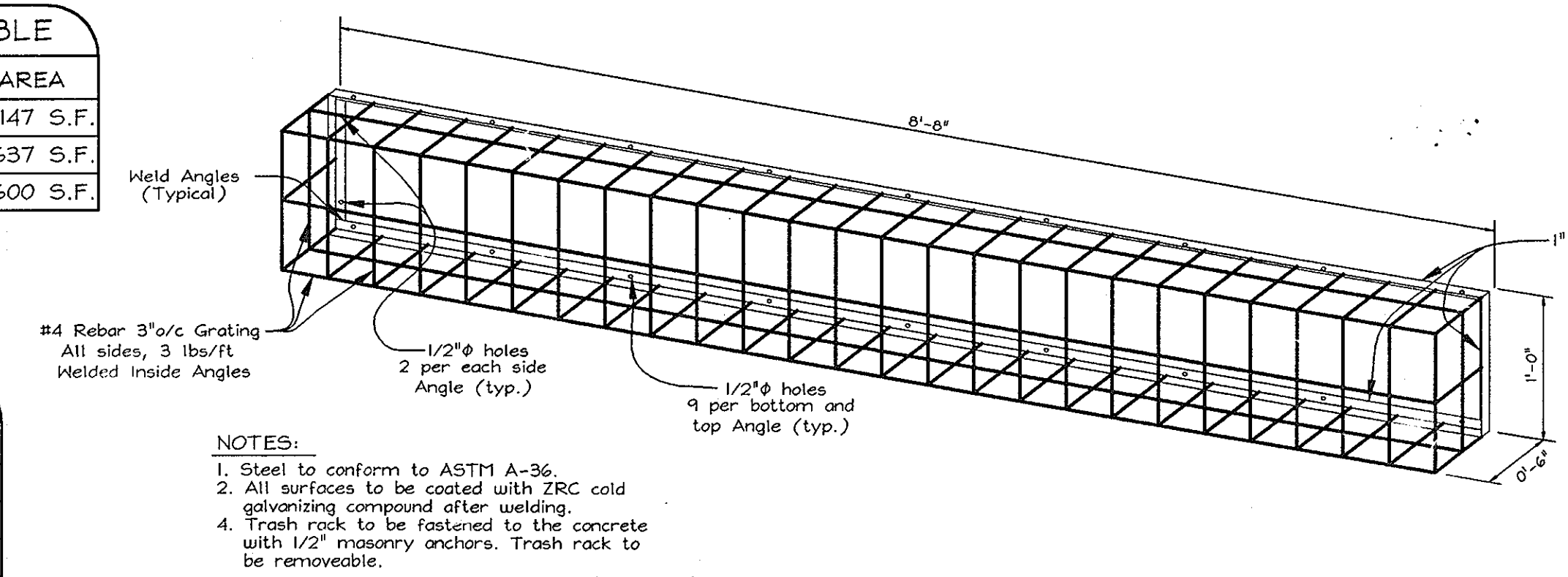
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. ... 12-10-03
 CHIEF, BUREAU OF HIGHWAYS

PIPE SCHEDULE		
SIZE	TYPE	LENGTH
15"	HDPE	45 LF
18"	HDPE	832 LF
24"	HDPE	52 LF



POND PLANTING DETAIL

Scale: 1"=30'



1-6 TRASH RACK DETAIL

- NOTES:
- Steel to conform to ASTM A-36.
 - All surfaces to be coated with ZRC cold galvanizing compound after welding.
 - Trash rack to be fastened to the concrete with 1/2" masonry anchors. Trash rack to be removable.

LEGEND

- Emergent Plantings - 6814 S.F. 0'-18" depth below normal pool elevation Blue Flag Iris, Duck Potato, Soft-stem Bulrush, Softrush
- Wetland Grasses - 14,751 S.F. 0' to 4' elevation above normal pool elevation See Seeding Mix Chart
- Upland Grasses - 9562 S.F. 4' of water surface elevation and above See Seeding Mix Chart

SEEDMIX SPECIFICATIONS

I. WETLAND SEED MIX TO BE APPLIED TO ALL DISTURBED AREAS WITHIN AREA SHOWN (WATERS EDGE TO 10-YEAR WATER SURFACE ELEVATION):

COMMON NAME	SCIENTIFIC NAME	PERCENTAGE
Japanese Millet	Echinochloa crusgalli var. frumentacea	20
Fox Sedge	Carex vulpinoidea	20
Smartweed/Barnyard Mix	Polygonum lapathifolium mix	20
Virginia Wild Rye	Elymus virginicus	20
Nodding Bur Marigold	Bidens cernua	10
Lurid Sedge	Carex lurida	2.5
Cosmos Sedge	Carex comosa	2.5

SEED AT 20 LBS PER ACRE

II. UPLAND SEED MIX TO BE APPLIED TO ALL DISTURBED AREAS WITHIN NON-WETLAND AREAS, AS SHOWN:

COMMON NAME	SCIENTIFIC NAME	PERCENTAGE
Barley	Hordeum vulgare	40
Big Bluestem, Niagara	Andropogon gerardii	26
Little Bluestem, Camper	Andropogon scoparius	14
Indian Grass, Rumeey	Sorghastrum nutans	14
Switch Grass	Panicum virgatum	6

SEED AT 25 LBS PER ACRE

EMERGENT PLANTING LIST

COMMON NAME	SCIENTIFIC NAME	WETLAND INDICATOR	PLANTING STOCK	SPACING	QTY
Blue Flag Iris	Iris versicolor	OBL	bulb	12" c/c	650
Duck Potato	Sagittaria latifolia	OBL	2" plug	24" c/c	300
Pickersweed	Pontederia cordata	OBL	2" plug	24" c/c	800
Softrush	Juncus effusus	FACH+	2" plug	24" c/c	700
Soft-Stem Bulrush	Scirpus validus	OBL	2" plug	24" c/c	700

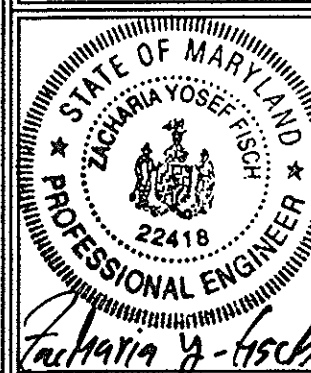
PLANTING NOTES

- See Emergent Planting Detail, Sheet 4 of 9
- Goose protection fence (See Detail Sheet 4 of 9) shall be installed around emergent planting area perimeter. Fence shall be installed within pond at the edge of the planting area.
- Specific planting locations to be determined in field by ERI professional at time of installation
- MDE Permit # 01-NT-0418/200166295, U.S. Army Corps of Engineers requires 6600 s.f. emergent planting within micro-pond as a condition of the permit.

OWNER/DEVELOPER

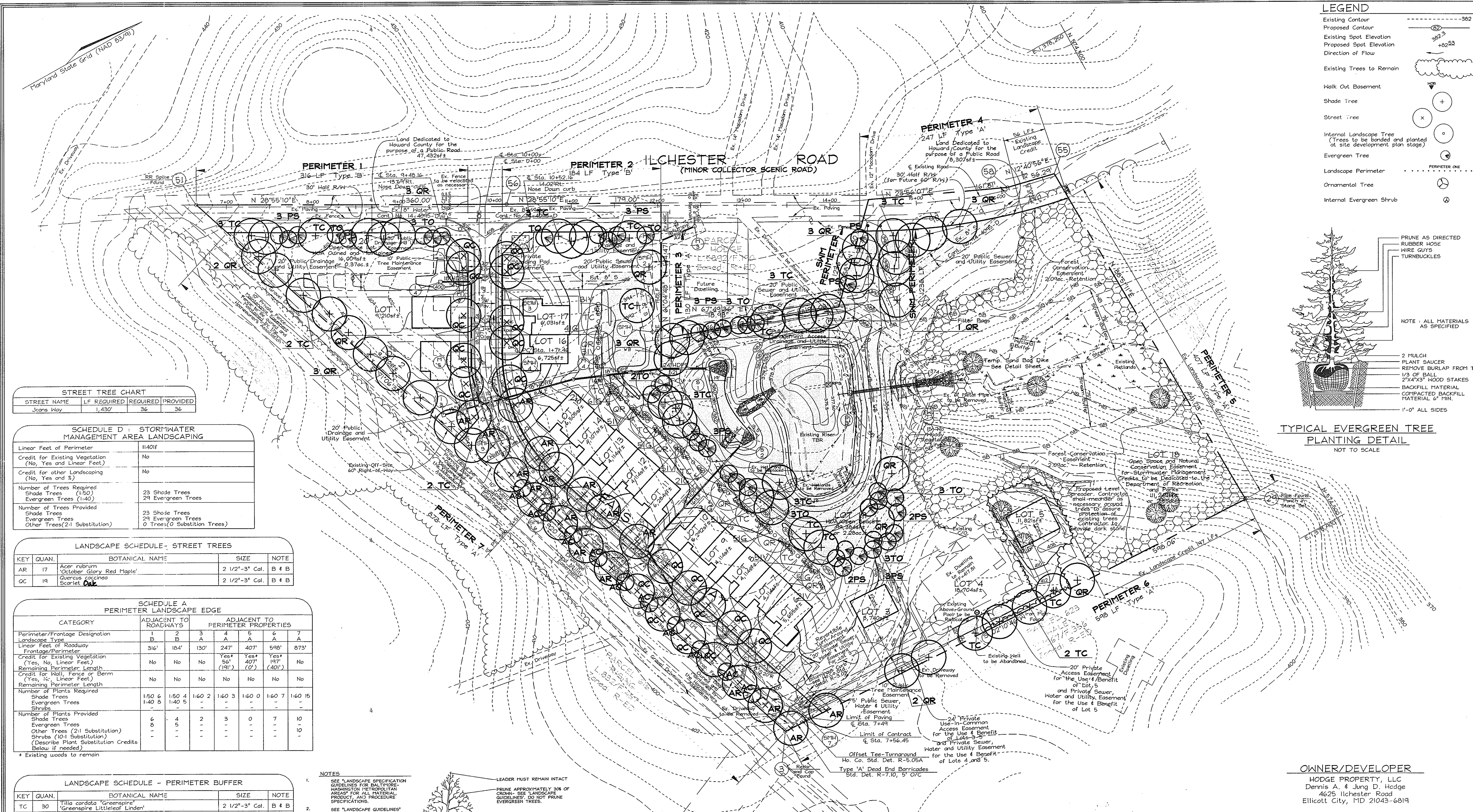
HODGE PROPERTY, LLC
 Dennis A. & Jung D. Hodge
 4625 Ilchester Road
 Ellicott City, MD 21043-6819

STORM DRAIN PROFILES, POND PLANTING DETAIL AND WETLANDS MITIGATION PLAN
ILCHESTER HILLS
 LOTS 1 THRU 17 AND OPEN SPACE LOTS 18 THRU 20
 TAX MAP 31 GRID 5 PARCEL 419
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND



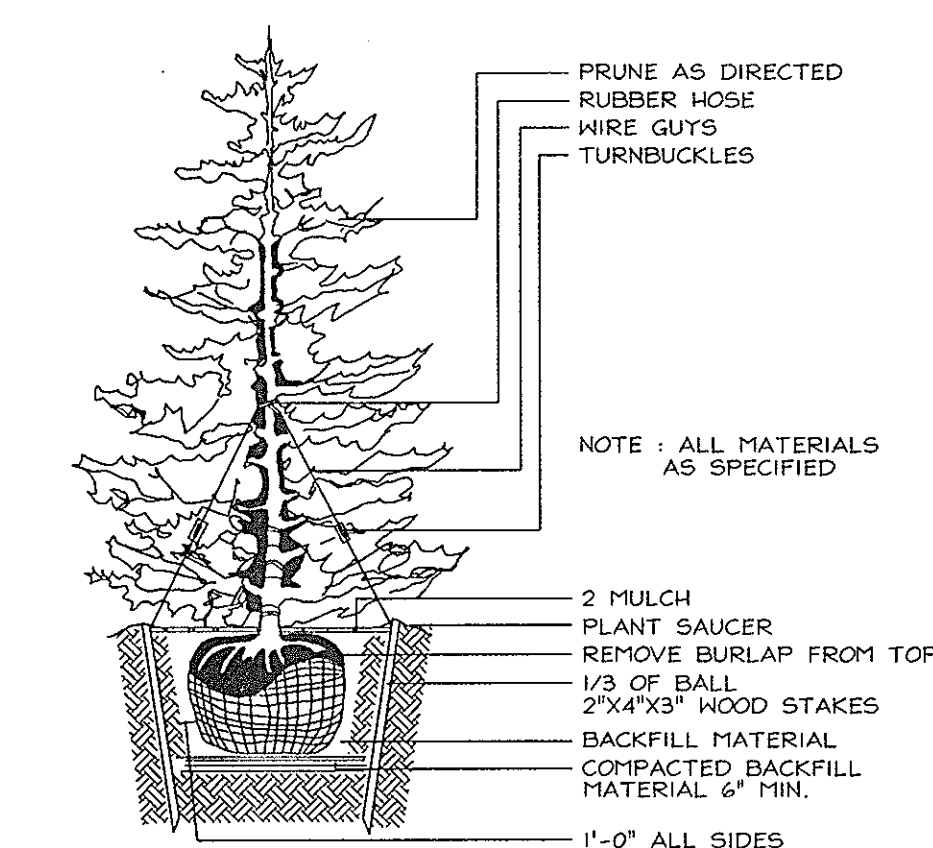
FSH Associates
 Engineers Planners Surveyors
 8318 Forest Street, Ellicott City, MD 21043
 Tel: 410-750-2251 Fax: 410-750-7350
 E-mail: FSHAssociates@cs.com

DESIGN BY: MHL
 DRAWN BY: Slim
 CHECKED BY: ZYF
 SCALE: As Shown
 DATE: Nov. 21, 2003
 W.O. No.: 3015
 SHEET No.: 7 OF 9



LEGEND

- Existing Contour
- Proposed Contour
- Existing Spot Elevation
- Proposed Spot Elevation
- Direction of Flow
- Existing Trees to Remain
- Walk Out Basement
- Shade Tree
- Street Tree
- Internal Landscape Tree (Trees to be bonded and planted at site development plan stage)
- Evergreen Tree
- Landscape Perimeter
- Ornamental Tree
- Internal Evergreen Shrub



STREET TREE CHART

STREET NAME	LF REQUIRED	REQUIRED	PROVIDED
Jeans Way	1,430'	36	36

SCHEDULE D : STORMWATER MANAGEMENT AREA LANDSCAPING

Linear Feet of Perimeter	1140LF
Credit for Existing Vegetation (No, Yes and Linear Feet)	No
Credit for other Landscaping (No, Yes and %)	No
Number of Trees Required	23 Shade Trees (1:50) 29 Evergreen Trees (1:40)
Number of Trees Provided	23 Shade Trees 29 Evergreen Trees 0 Trees(0 Substitution)

LANDSCAPE SCHEDULE - STREET TREES

KEY	QUAN.	BOTANICAL NAME	SIZE	NOTE
AR	17	Acer rubrum 'October Glory Red Maple'	2 1/2"-3" Cal.	B & B
QC	19	Quercus prinus 'Scarlet Oak'	2 1/2"-3" Cal.	B & B

SCHEDULE A PERIMETER LANDSCAPE EDGE

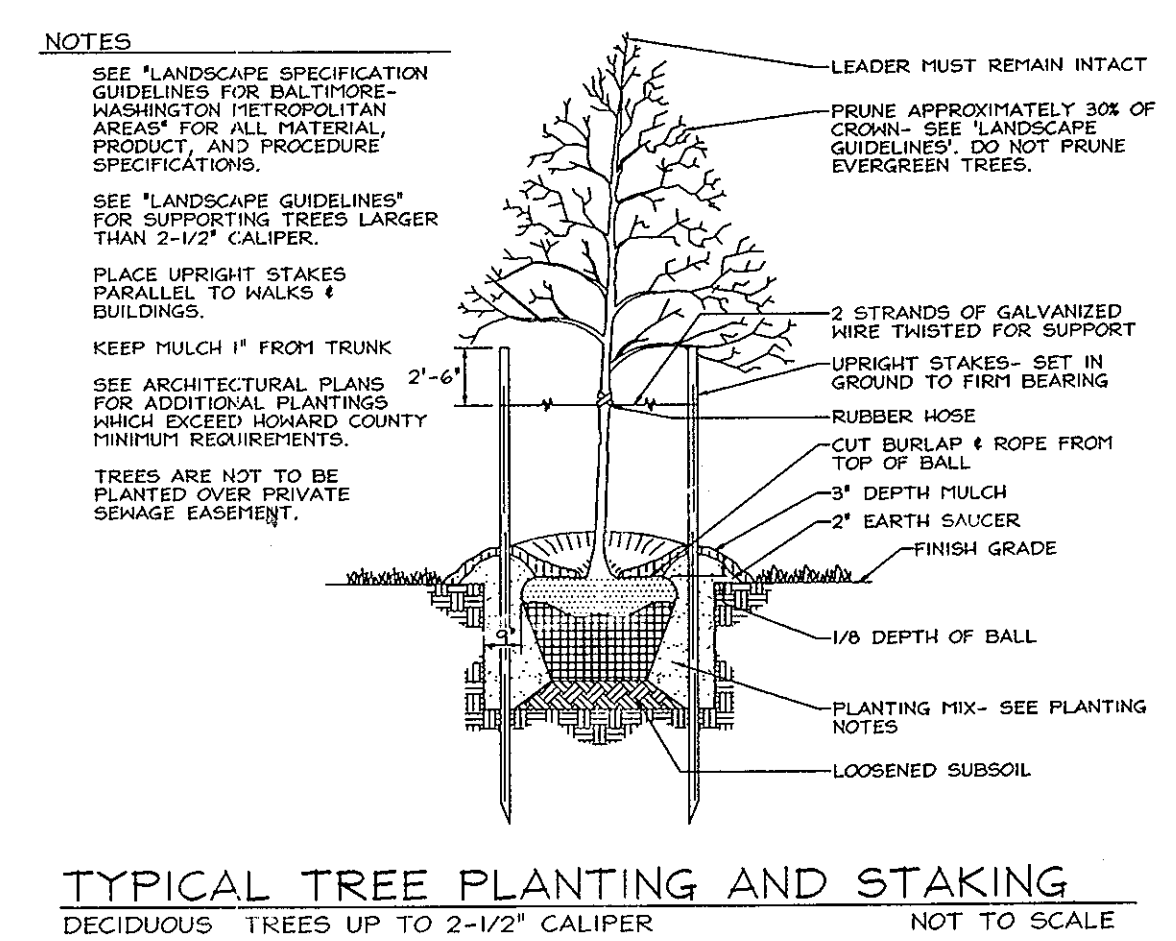
CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES						
	B	2	3	4	5	6	7	8	
Perimeter/Frontage Designation	B	2	3	4	5	6	7	8	
Linear Feet of Roadway Frontage/Perimeter	316'	184'	130'	247'	407'	598'	873'		
Credit for Existing Vegetation (Yes, No, Linear Feet)	No	No	No	Yes*	Yes*	Yes*	No		
Remaining Perimeter Length (Yes, No, Linear Feet)				(191')	(0')	(401')			
Number of Plants Required	1:50 6	1:50 4	1:60 2	1:60 3	1:60 0	1:60 7	1:60 15		
Number of Plants Provided	6	4	2	3	0	7	10		
Evergreen Trees	8	5	-	-	-	-	-		
Other Trees (2:1 Substitution)	-	-	-	-	-	-	-		
Shrubs (10:1 Substitution)	-	-	-	-	-	-	-		
(Describe Plant Substitution Credits Below if needed)									

LANDSCAPE SCHEDULE - PERIMETER BUFFER

KEY	QUAN.	BOTANICAL NAME	SIZE	NOTE
TC	30	Tilia cordata 'Greenspire'	2 1/2"-3" Cal.	B & B
QR	25	Quercus rubra (Shade Trees)	2 1/2"-3" Cal.	B & B
PS	22	Pinus strobus 'Eastern White Pine'	6'-8' Ht.	B & B
TO	20	Thuja occidentalis 'Nigra' 'Dark American Arborvitae'	5'-6' Ht.	B & B
AC	10	Amelanchier canadensis 'Shadblow Serviceberry'	1 1/2"-2" Cal.	B & B

GENERAL NOTES

- At the time of installation, all trees/evergreens/shrubs listed and approved for this site, shall be of the proper height requirements in accordance with the Howard County Landscaping Manual. In addition, no substitutions or relocation of required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviation from this approved Landscape Plan may result in denial or delay in the release of landscape surety until such time as all required materials are planted and/or revisions are made to applicable plans and certificates.
- Financial surety for the required landscaping must be posted as part of the Developer's Agreement in the amount of \$53,030.00 (55 shade trees @ \$900.00 each, 42 evergreen trees @ \$150.00 each, 10 ornamental @ \$150.00 each, and 873 L.F. of fence at \$10.00 per linear foot.)
- Per the Planning Board's requirements fencing is shown along Jeans Way adjacent to existing 60' Right-of-Way (Fence will be bonded with the Developer's Agreement), landscaping is required along the rear of townhouse lots (to be bonded and planted at the 50% stage) and the water surface area within the pond has been maximized.



SCHEDULE C RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING

Number of Dwelling Units	12
Number of Trees Required (1:DU SFA; 1:5 DU Apts.)	12
Number of Trees provided	
Shade Trees	12
Other Trees (2:1 Substitution)	-
Additional Shrubs req'd per PB Case 357 (5 per lot)	60
Additional Shrubs provided	60

Trees and shrubs to be bonded and planted at site development plan stage

NOTES FOR SCHEDULE 'C'

- Planting shown in schedule 'C' is for informational purpose only and to be planted and bonded at Site Development plan stage.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 12/17/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 12/16/03
CHIEF, DIVISION OF LAND DEVELOPMENT JA DATE

LANDSCAPE PLAN, NOTES & DETAILS

LOTS 1 THRU 17 AND OPEN SPACE LOTS 18 THRU 20

TAX MAP 31 GRID 5 PARCEL 419
1ST ELECTION DISTRICT HOWARD COUNTY, MARY AND

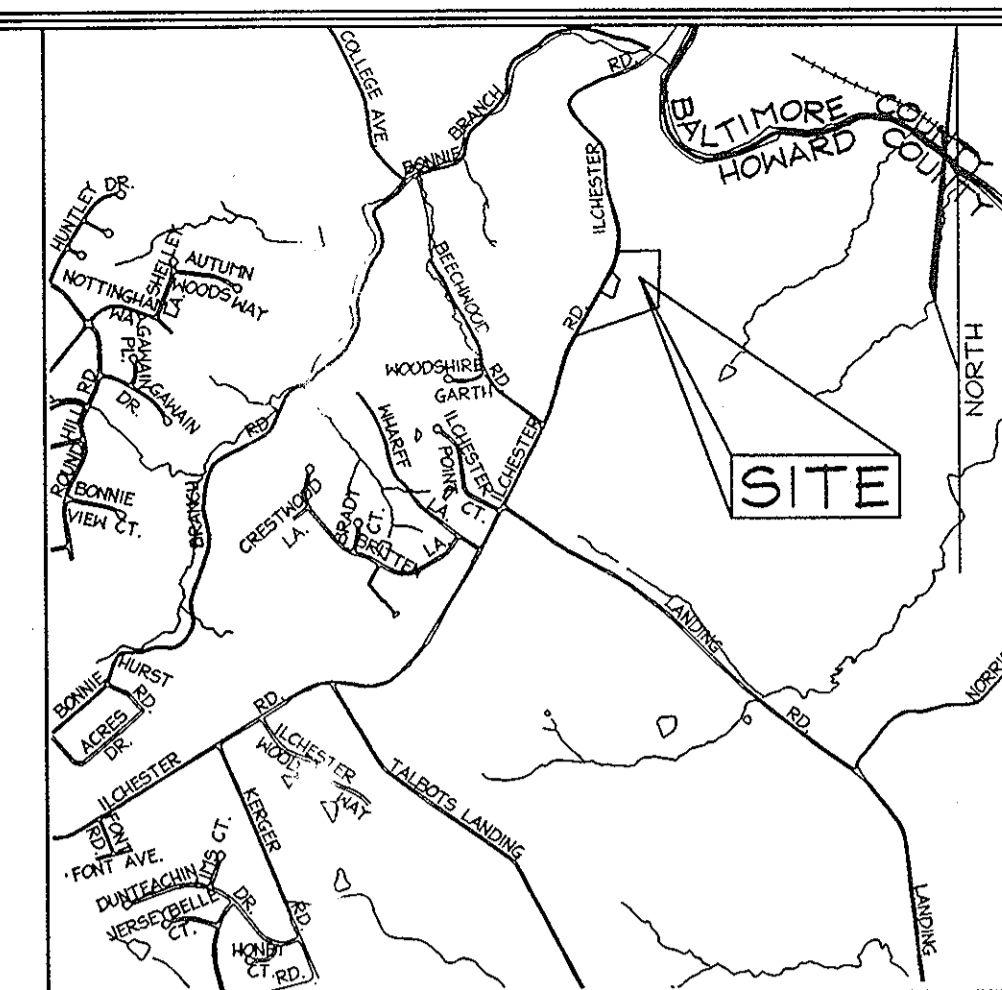
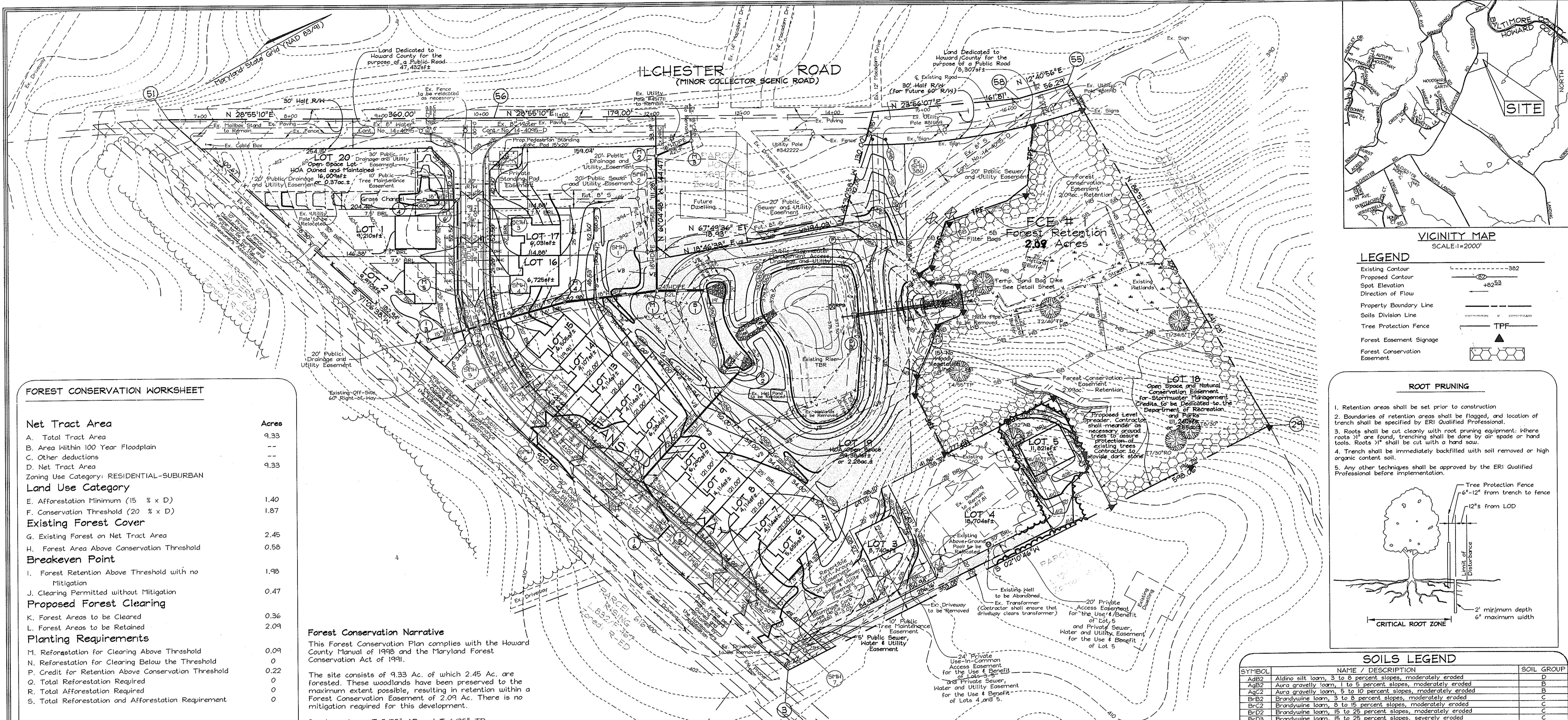
DEVELOPER'S BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(!) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

[Signature] 11/21/03
SIGNATURE OF DEVELOPER DATE

FSH Associates
Engineers Planners Surveyors
8318 Forest Street Elton, MD 21043
Tel: 410-750-2251 Fax: 410-750-7332
E-mail: FSHAssr@comcast.net

DESIGN BY: *[Signature]*
DRAWN BY: *[Signature]*
CHECKED BY: ZYF
SCALE: 1"=50'
DATE: Nov. 21, 2003
W.O. No.: 3015
SHEET No. 8 OF 9



VICINITY MAP
SCALE: 1"=2000'

LEGEND

- Existing Contour: - - - - - 382
- Proposed Contour: - - - - - +82.52
- Spot Elevation: +82.52
- Direction of Flow: - - - - -
- Property Boundary Line: - - - - -
- Soils Division Line: - - - - -
- Tree Protection Fence: TPF
- Forest Easement Signage: ▲
- Forest Conservation Easement: [Symbol]

FOREST CONSERVATION WORKSHEET

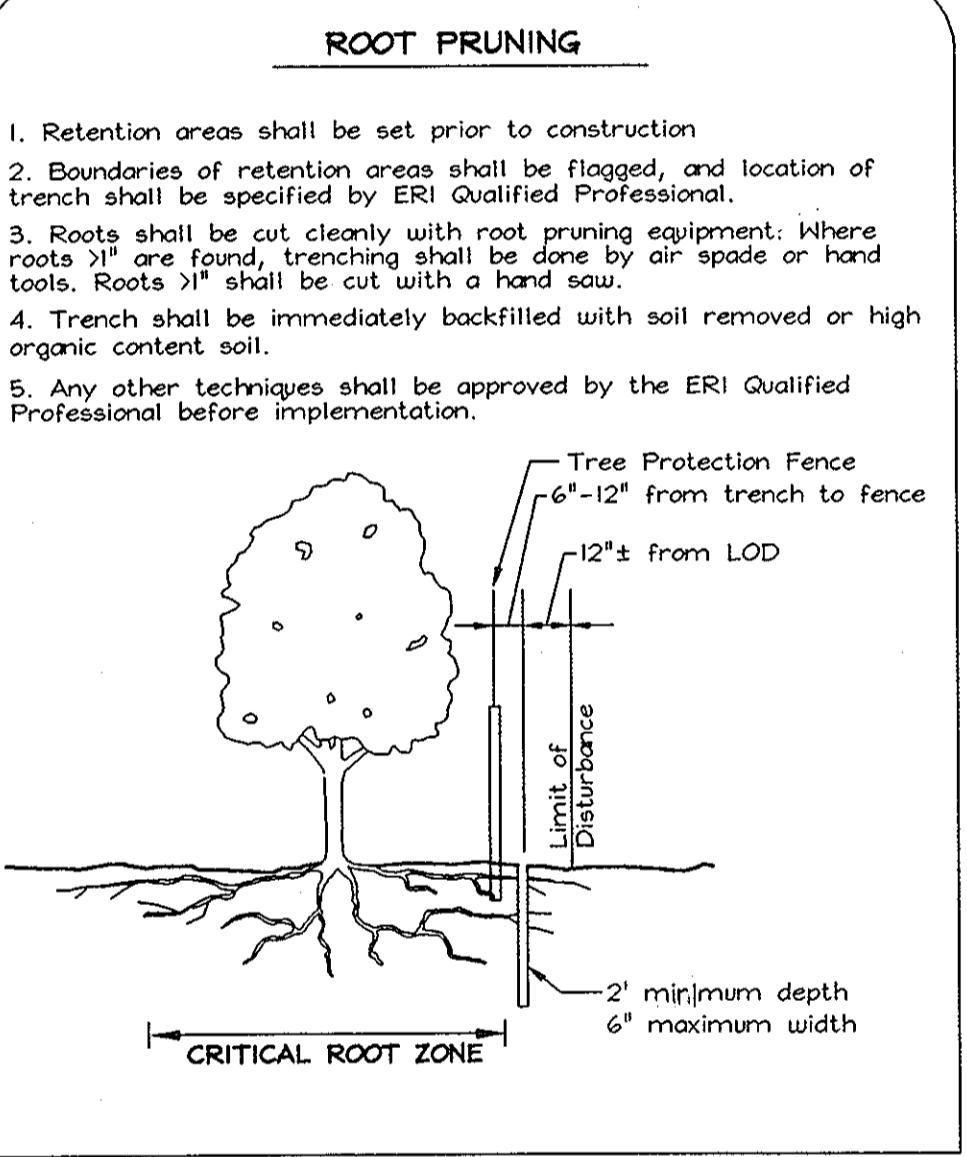
Net Tract Area	Acres
A. Total Tract Area	9.33
B. Area Within 100 Year Floodplain	--
C. Other deductions	--
D. Net Tract Area	9.33
Zoning Use Category: RESIDENTIAL-SUBURBAN	
Land Use Category	
E. Afforestation Minimum (15 % x D)	1.40
F. Conservation Threshold (20 % x D)	1.87
Existing Forest Cover	
G. Existing Forest on Net Tract Area	2.45
H. Forest Area Above Conservation Threshold	0.58
Breakeven Point	
I. Forest Retention Above Threshold with no Mitigation	1.98
J. Clearing Permitted without Mitigation	0.47
Proposed Forest Clearing	
K. Forest Areas to be Cleared	0.36
L. Forest Areas to be Retained	2.09
Planting Requirements	
M. Reforestation for Clearing Above Threshold	0.09
N. Reforestation for Clearing Below the Threshold	0
P. Credit for Retention Above Conservation Threshold	0.22
Q. Total Reforestation Required	0
R. Total Afforestation Required	0
S. Total Reforestation and Afforestation Requirement	0

Forest Conservation Narrative

This Forest Conservation Plan complies with the Howard County Manual of 1998 and the Maryland Forest Conservation Act of 1991.

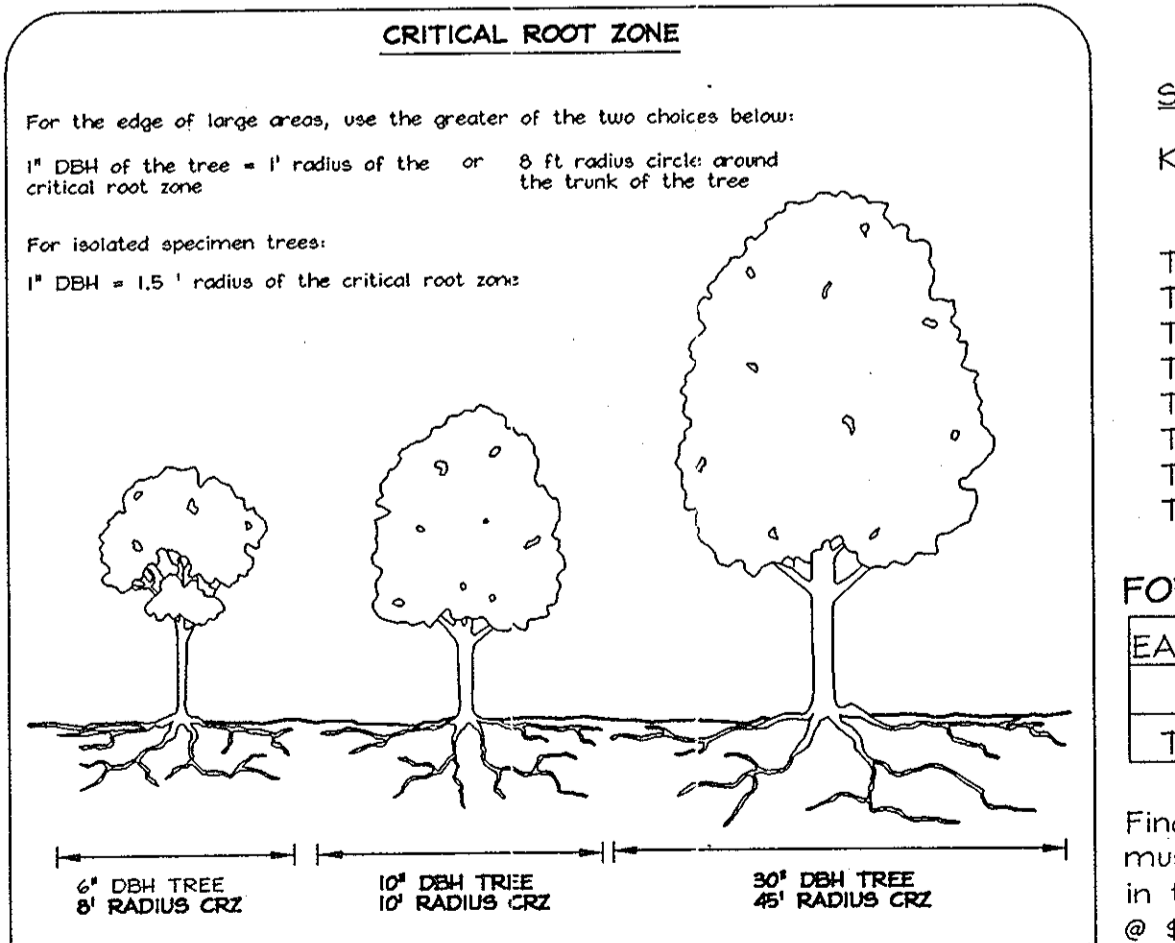
The site consists of 9.33 Ac. of which 2.45 Ac. are forested. These woodlands have been preserved to the maximum extent possible, resulting in retention within a Forest Conservation Easement of 2.09 Ac. There is no mitigation required for this development.

Specimen trees T 5/35" AB and T 6/35" TP located on proposed Lot 5 are to be removed.



SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
AdB2	Aldino silt loam, 3 to 8 percent slopes, moderately eroded	D
AgB2	Aura gravelly loam, 1 to 5 percent slopes, moderately eroded	B
AgC2	Aura gravelly loam, 5 to 10 percent slopes, moderately eroded	C
BrC2	Brandywine loam, 3 to 8 percent slopes, moderately eroded	C
BrD2	Brandywine loam, 8 to 15 percent slopes, moderately eroded	C
BrD3	Brandywine loam, 15 to 25 percent slopes, severely eroded	C
BrF	Brandywine loam, 25 to 60 percent slopes	C
CnD3	Chillum-Fairfax loams, 5 to 15 percent slopes, severely eroded	C
GnB2	Glenville silt loam, 3 to 8 percent slopes, moderately eroded	C
IuB	Iuka loam, local alluvium, 1 to 5 percent slopes	C
KeB2	Kelly silt loam, 3 to 8 percent slopes, moderately eroded	D
LeB2	Legare silt loam, 3 to 8 percent slopes, moderately eroded	C
LeC2	Legare silt loam, 8 to 15 percent slopes, moderately eroded	C
LqC3	Legare silty clay loam, 8 to 15 percent slopes, severely eroded	C
MrE	Montalto and Relay soils, 15 to 45 percent slopes	B
MtD	Montalto and Relay very stony silt loams, 3 to 25 percent slopes	B
MtF	Montalto and Relay very stony silt loams, 25 to 60 percent slopes	B



SPECIMEN TREE LIST

Key	Size (DBH)	Scientific Name	Common Name	Condition	Notes
T-1	34.5"	Liriodendron tulipifera	Tulip Poplar	Good	
T-2	40"	Liriodendron tulipifera	Tulip Poplar	Good	
T-3	34"	Liriodendron tulipifera	Tulip Poplar	Good	
T-4	55"	Liriodendron tulipifera	Tulip Poplar	Good	
T-5	32"	Fagus grandifolia	American Beech	Good	
T-6	35"	Liriodendron tulipifera	Tulip Poplar	Good	To Be Removed
T-7	30"	Quercus rubra	Red Oak	Good	To Be Removed
T-8	30"	Quercus rubra	Red Oak	Good	

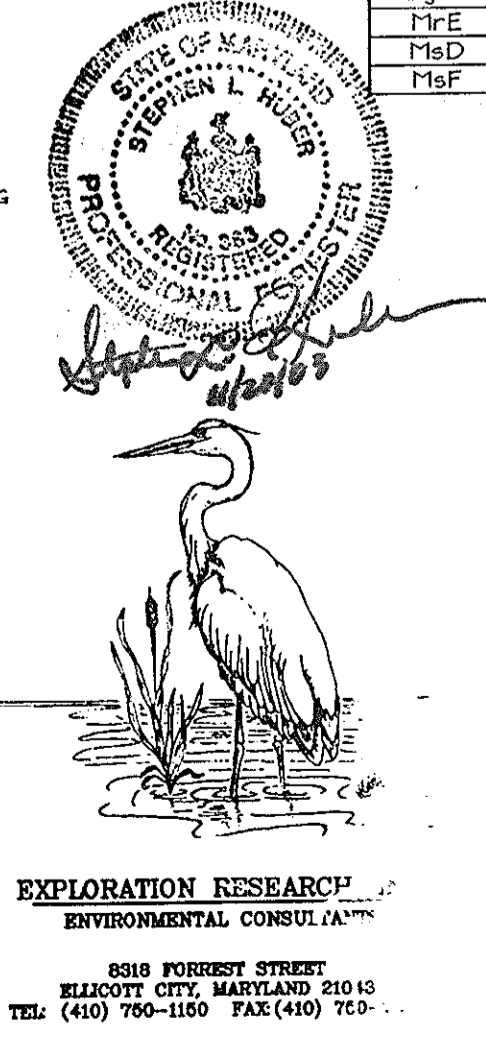
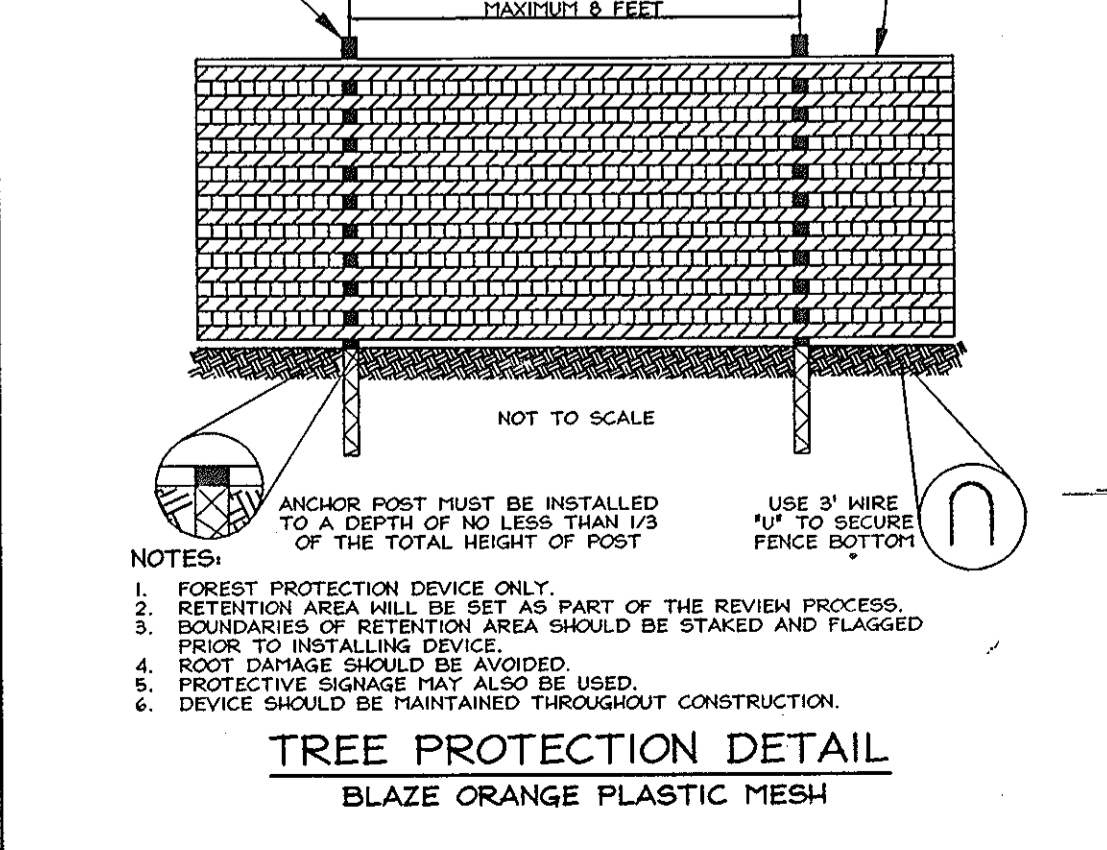
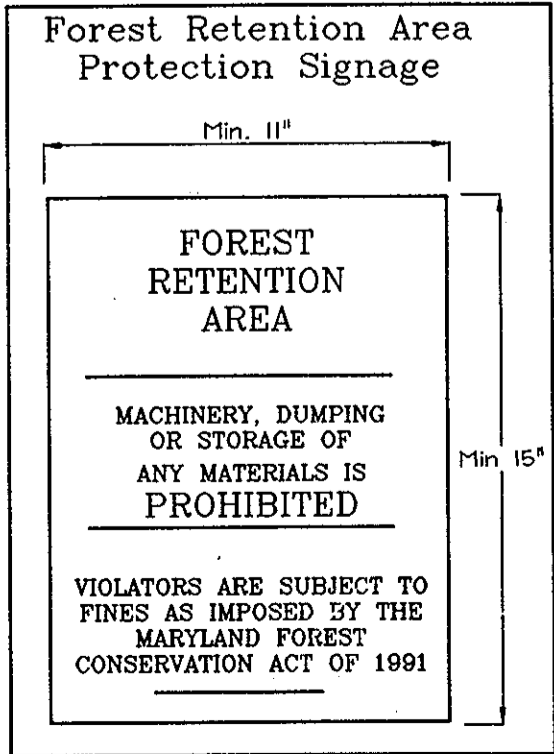
FOREST CONSERVATION EASEMENT TABLE

EASEMENT	TYPE	AREA (ACRES)
I	RETENTION	2.09
TOTAL		2.09

Financial surety for the Forest conservation, retention, must be posted as part of the Developer's agreement in the amount of \$18,237.60 (91,188 sf of retention @ \$0.20 per square foot).

Forest Tree Protection and Management Notes

- Tree protection devices shall be installed prior to any grading or land clearing.
- After the boundaries of the retention areas have been staked and flagged and before any disturbance has taken place a pre-construction meeting with the Howard County Inspector is required.
- Provide maintenance to tree protection devices and signage to maintain their integrity throughout the duration of the project.
- Attachment of signs to tree protection devices to maintain their integrity throughout the duration of the project.
- Any significant changes made to the Forest Conservation Plan shall be made with the prior approval of the Howard County Dept. Of Planning and Zoning.
- No burial of discarded material is permitted within the Forest Conservation and Planting areas.
- No open burning within 100 feet of wooded areas is permitted.
- Post construction phase.
 - Inspect existing trees around the perimeter of the site for signs of root trunk damage and excessive soil compaction.
 - Remove dead or dying trees and evaluate for hazard tree removal.
 - All temporary forest protection devices will be removed after construction.
- Following completion of construction, prior to use, the county inspector shall inspect the entire site for compliance with this Forest Conservation Plan.
- A Licensed Arborist or Forester should be retained for this service as needed.



OWNER/DEVELOPER

HODGE PROPERTY, LLC
Dennis A. & Jung D. Hodge
4625 Ilchester Road
Elliott City, MD 21043-6819

FINAL FOREST CONSERVATION PLAN

ILCHESTER HILLS

LOTS 1 THRU 17 AND OPEN SPACE LOTS 18 THRU 20

TAX MAP 31 GRID 5 PARCEL 419
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FSH Associates
Engineers Planners Surveyors
8318 Forest Street | North City, MD 21043
Tel: 410-750-2251 | Fax: 410-750-7350
E-mail: FSHAssociates@fs.com

DESIGN BY: AB
DRAWN BY: AB
CHECKED BY: ZYF
SCALE: 1"=50'
DATE: Nov. 21, 2003
I.O. No.: 3015
SHEET No.: 9 OF 9