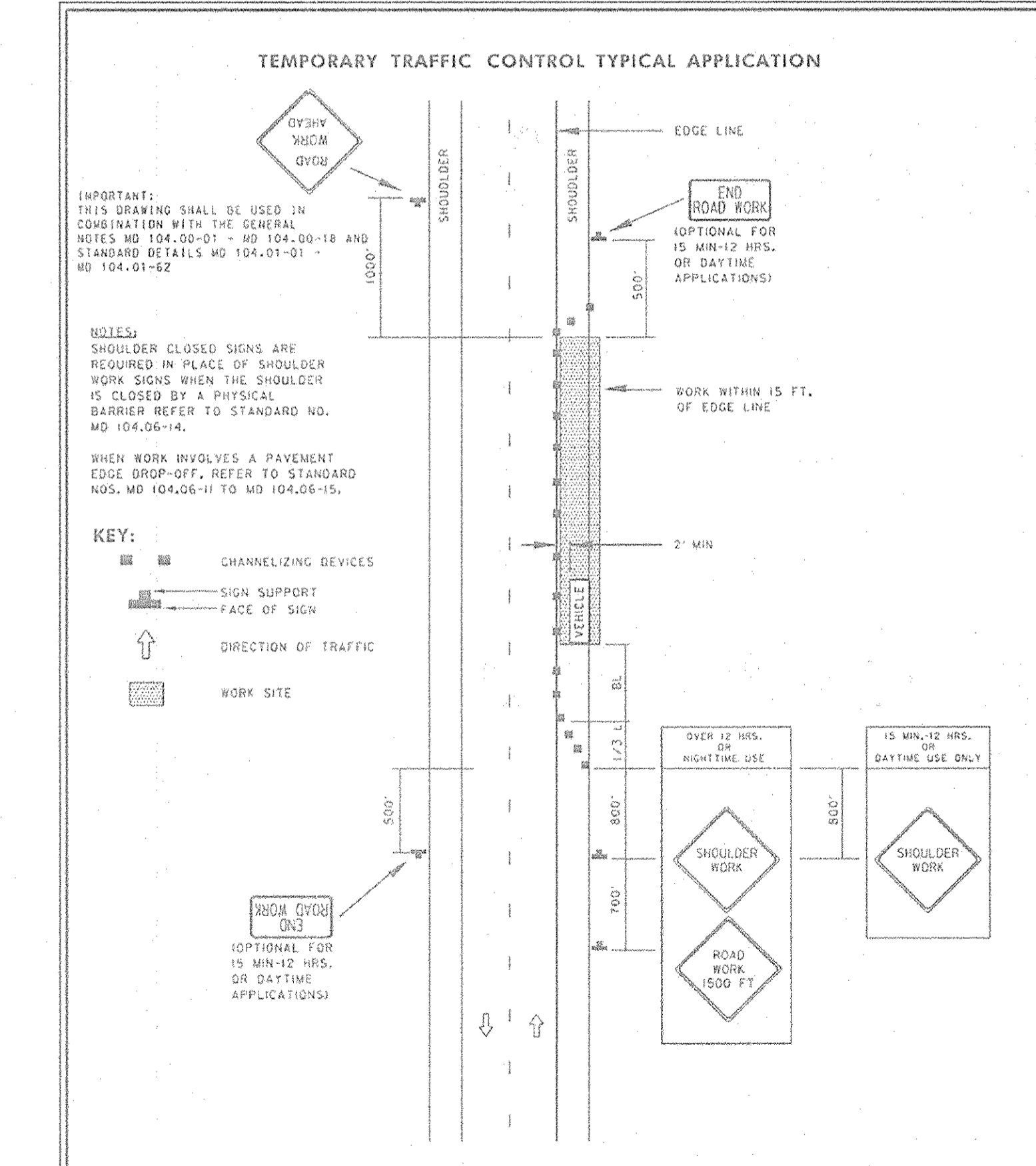


GENERAL NOTES

- Subject property zoned RC-DEO per 02/02/04 Comprehensive Zoning Plan, and the Comp Lite Zoning Amendments adopted 1/28/06.
- Private water and sewer will be used within this site. Lots 1 thru 6 and 15 thru 19 will utilize a shared septic system.
- Total area of property: 42,8652 ac.±
- Area of proposed public R/W: 2,006.9 ac.±
- Number of proposed buildable lots: 19
- Area of proposed buildable lots: 19,2290 ac.±
- Number of proposed non-buildable preservation parcels: 4
- Area of proposed non-buildable preservation parcels: 21,6493 ac.±
- Density calculations:
 - Total area of property = 42,8652 Ac.±
 - Area of buildable lots = 19,2290 Ac.±
 - Net Area of property = 40,8253 Ac.±
 - Total number of Units based on own density: 42,8652 Ac./4.25 Ac.per unit=10.1 units therefore 10 units.
 - Maximum number of units allowed utilizing the DEO option: 40,8253 Ac. / 2 Acres per Unit = 20 Units
 - Number of DEO Units required = 19-10 = 9 DEO Units
- The lots shown herein comply with the minimum ownership, width and lot area as required by the Maryland State Department of the Environment.
- This area designates a private sewage easement of at least 10,000 square feet (or 10,000 square feet per lot for shared drain fields associated with a shared sewage disposal facility) as required by the Maryland State Department of the Environment for individual sewage disposal (COMAR 26.04.03). Improvements of any nature in this area are restricted until public sewerage is available. These easements shall become null and void upon connection to a public sewerage system. The County Health Officer shall have the authority to grant adjustments to the private sewage easement.
- All wells and septic fields within 100' of property's boundary have been shown.
- The septic fields are located on soil types BrC2, BrC3, MIB2, MIC2, MIC3, MID2 and MgC2 as per the soil survey of Howard County, Soils Map #3.
- On-site topography based on a Field Run Topographic Survey prepared by FSH Associates dated 1/12/04. Off-site and non-critical topography based on Howard County 1998 Aerial Topographic Surveys with five foot contours.
- All wells to be drilled prior to submittal of final plat for signature. It is the developer's responsibility to schedule the well drilling prior to final plat submission. It will not be considered "government delay" if the well drilling holds up the Health Department signature of the record plat.
- Grasdictator appropriations permit # H02056007(0)
- A.P.F.O. traffic study prepared by Street Traffic Studies on September 24, 2004 and approved under SP-05-08.
- Wetlands Analysis prepared by Exploration Research Inc. and approved under SP-05-08.
- The project is not within the metropolitan district.
- The project is in conformance with the latest Howard County Standards unless waivers have been approved.
- The coordinates shown herein are based upon the Howard County Geodetic Control which is based on the Maryland State Plane Coordinate system. Howard County monument numbers 0019 and 0040 were used for this project.
- Storm Water Management for cpv and way is provided in a Micro Pool Extended Detention facility grass channels and rooftop and non rooftop disconnects. Rev will be provided in grass swales. The facility will be privately owned with joint maintenance by the H.O.A. and Howard County.
- No clearing, grading or construction is permitted within wetlands, streams or their required buffers. Breaching the existing dam is considered a necessary disturbance.
- The geotechnical report for this project was prepared by Herbst, Benson and Associates dated August, 2004.
- Flag of 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.
- Forest Conservation for this project is met partially by retention of 11.51 Ac of existing forest on Preservation Parcel 'A' and 'C', and 0.85 Ac of planting on Parcel 'C'. Surety in the amount of \$18,786.20 will be posted with the Developers Agreement.
- Preservation parcels 'A' & 'C' shall be privately owned and maintained with Howard County and Homeowners Association, as Easement Holders. Preservation parcels 'B' & 'D' shall be Homeowners Association owned and maintained with Howard County as easement holder.
- All existing structures on site shall be removed prior to record plat signature and recordation.
- All wells to be field located after being drilled by a licensed surveyor prior to building permit issuance.

General Notes to be Continued



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, DIVISION OF LAND DEVELOPMENT

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 3/12/07

DATE: 3/14/07

DATE: 3-6-07

DATE: 3-6-07

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, DIVISION OF LAND DEVELOPMENT

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 3/12/07

DATE: 3/14/07

DATE: 3-6-07

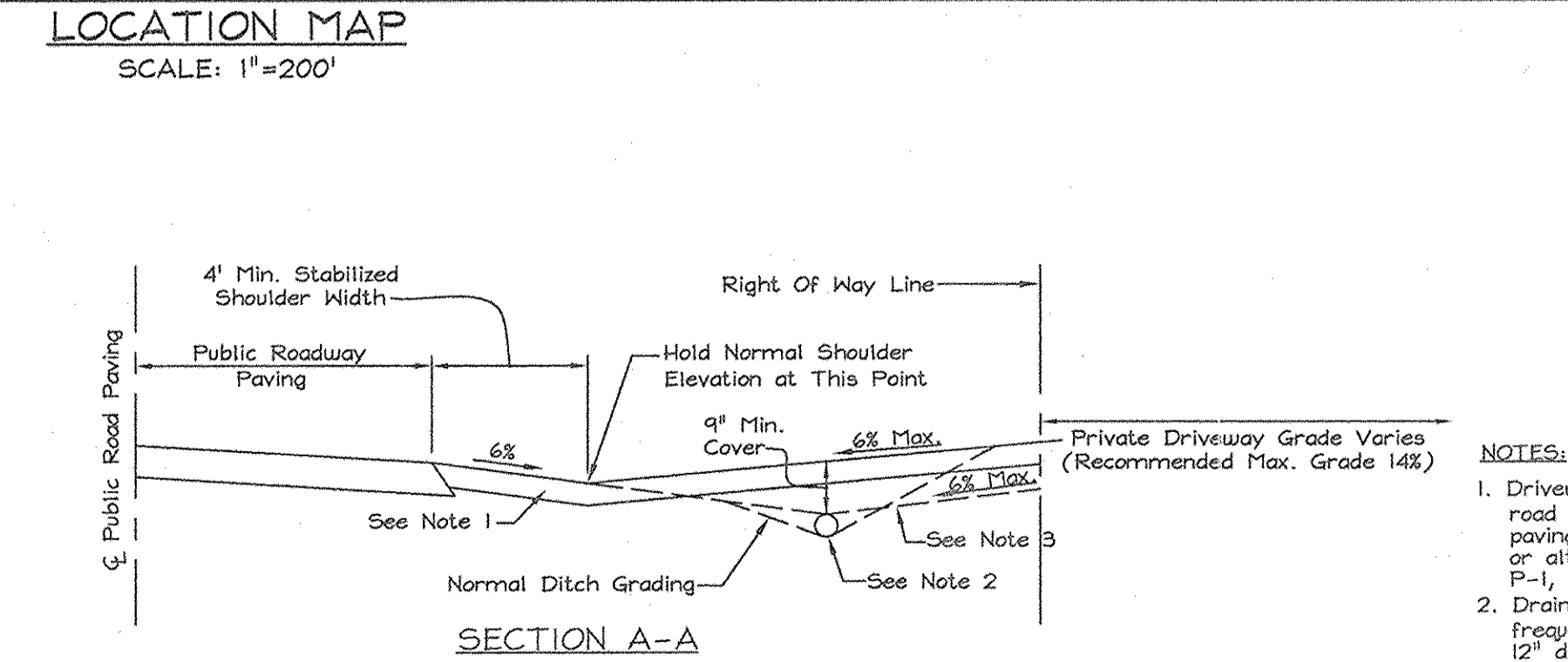
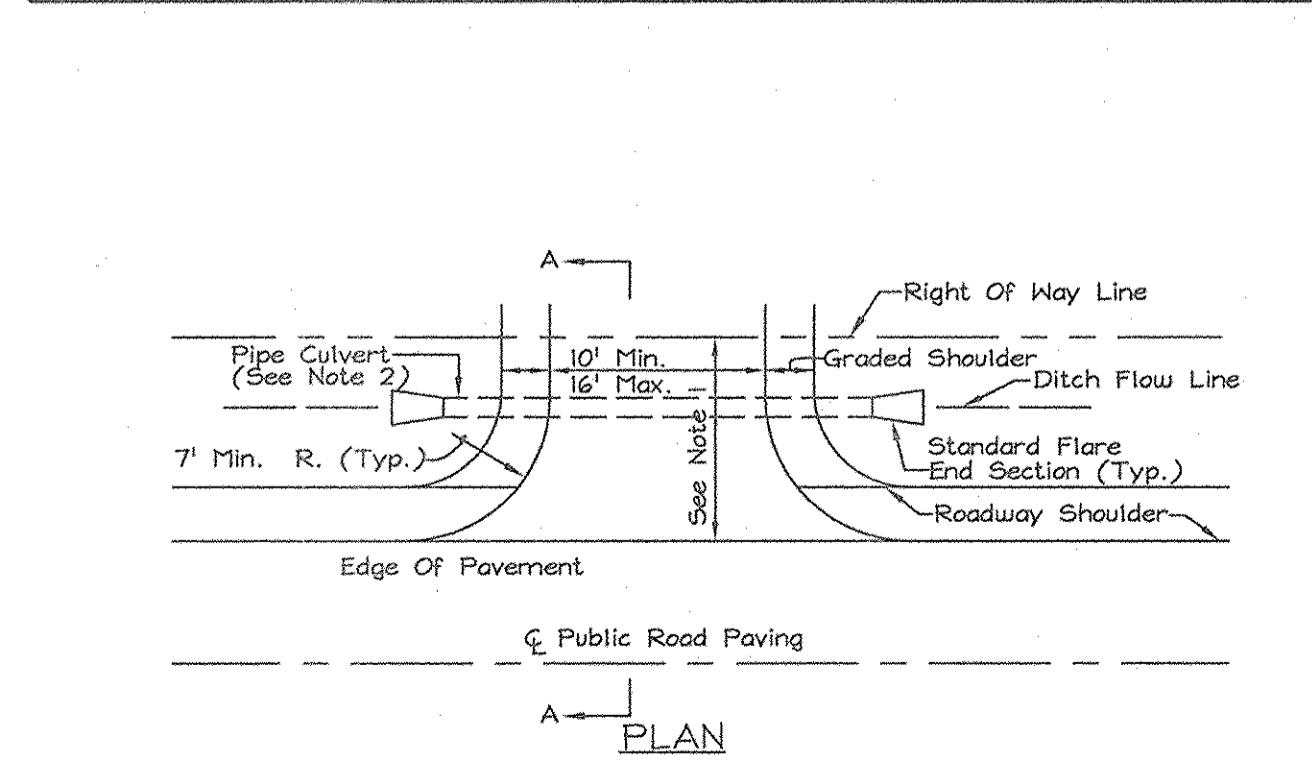
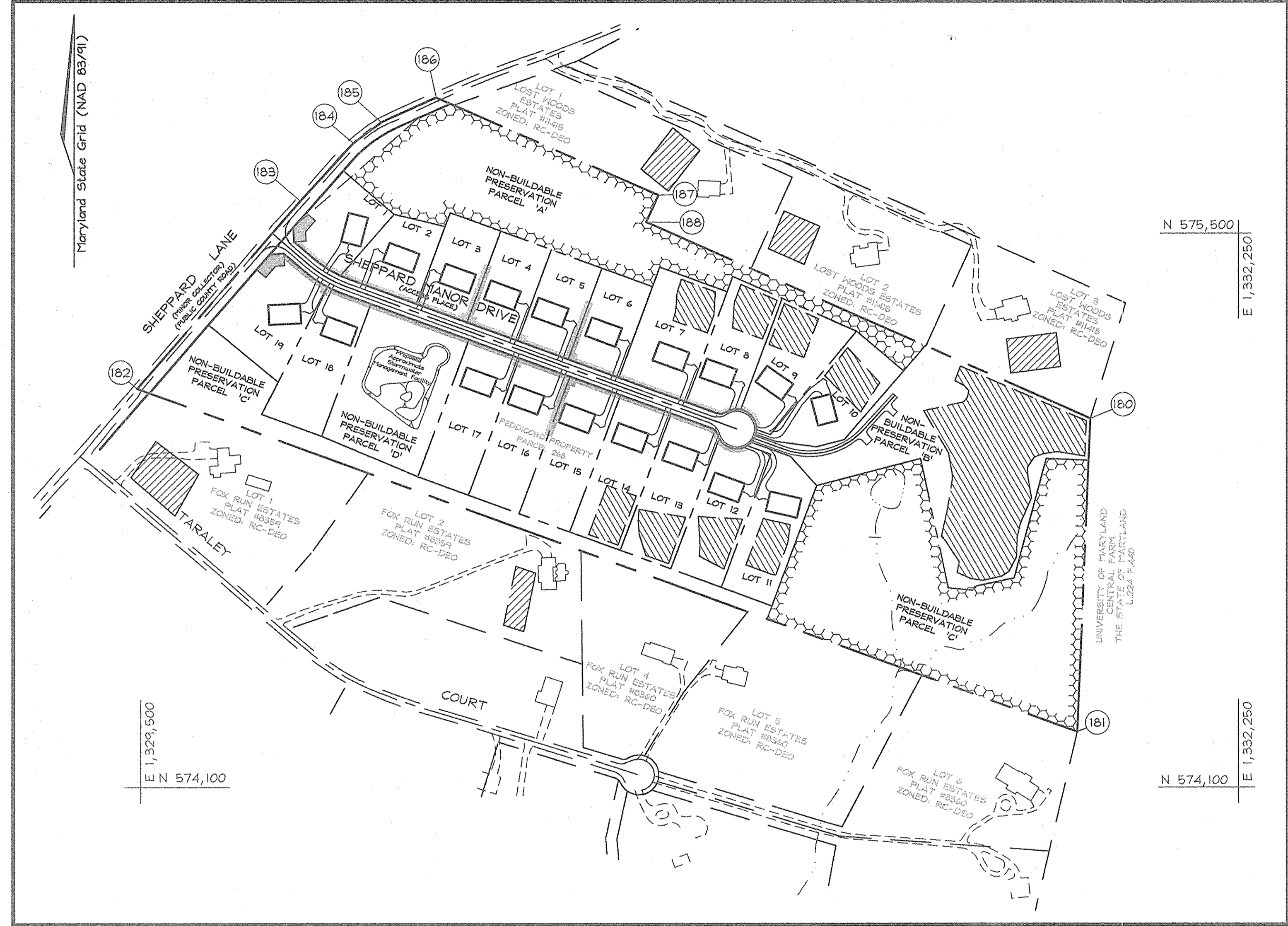
DATE: 3-6-07

FINAL ROAD CONSTRUCTION PLANS

SHEPPARD MANOR

LOTS 1 THRU 19 AND NON-BUILDABLE PRESERVATION PARCELS 'A', 'B', 'C' & 'D'

HOWARD COUNTY, MARYLAND

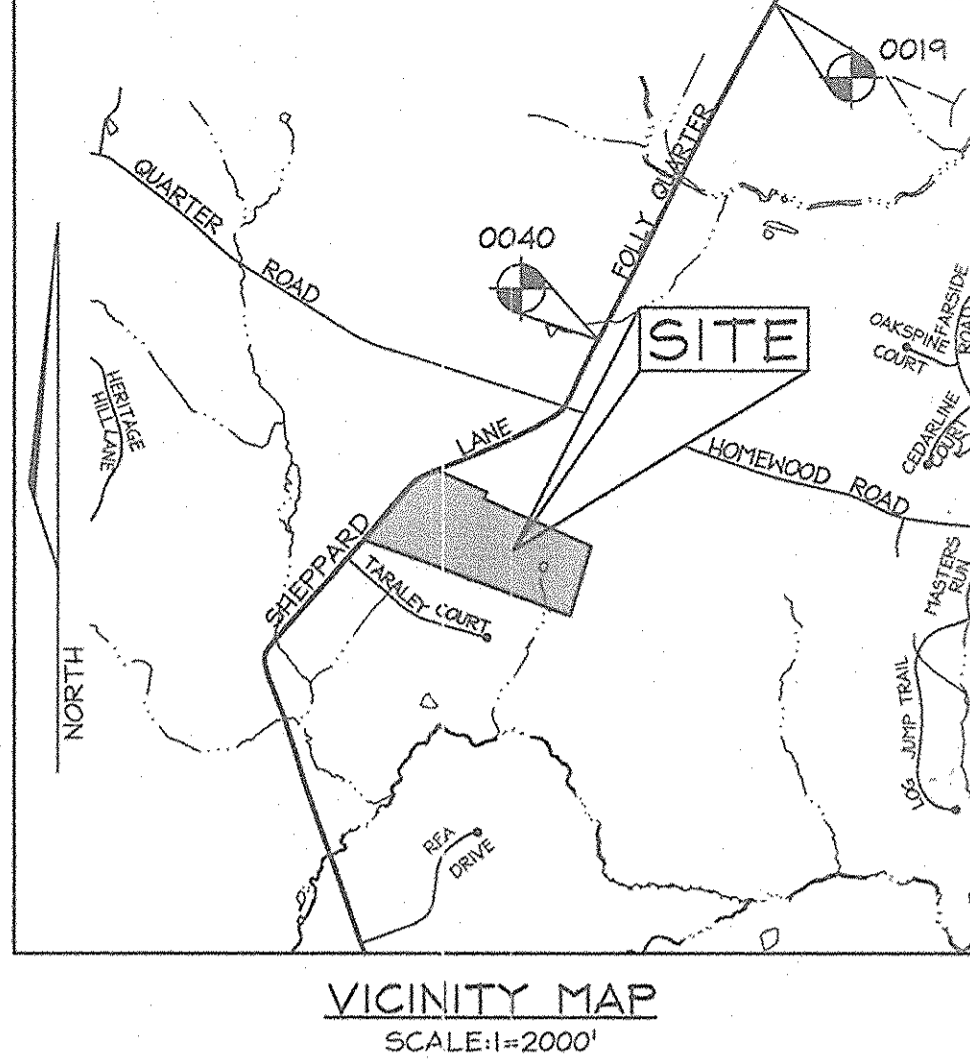


LEGEND

- Existing Contour: --- 382
- Proposed Contour: --- 444
- Direction of Flow: --->
- Existing Spot Elevation: +82.52
- Proposed Spot Elevation: +82.52
- Existing Trees: [Symbol]
- Proposed Septic Easement: [Symbol]
- Existing Septic Easement: [Symbol]
- 15-24.94% Slopes: [Symbol]
- 25-50% Slopes: [Symbol]
- Wetlands: [Symbol]
- Use-in-Common Access Easement: [Symbol]
- Forest Conservation Easement: [Symbol]

ROAD CLASSIFICATION

ROAD NAME	CLASSIFICATION	R/W
Sheppard Manor Drive	Public Access Place	40'



BENCHMARKS

Sta.	N	E	El.
0019	176,927.0394	406,505.1110	117.6061 (meters)
	580,466.126	1,333,675.516	385.846 (feet)
0040	175,952.4260	405,985.1970	111.3465 (meters)
	577,270.584	1,332,022.575	365.309 (feet)

SHEET INDEX

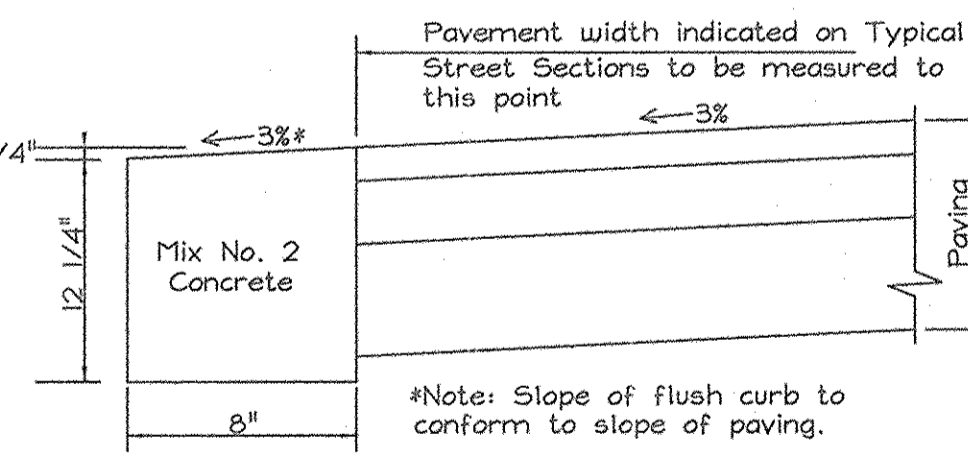
DESCRIPTION	SHEET No.
Cover Sheet	1 of 17
Road Plan and Profile Sheppard Lane	2 of 17
Sediment & Erosion Control and Grading Plan	3 of 17
Sediment & Erosion Control and Grading Plan	4 of 17
Sediment & Erosion Control and Grading Plan	5 of 17
Sediment & Erosion Control and Miscellaneous Notes and Details	6 of 17
Storm Drain Drainage Area Map	7 of 17
Storm Drain Profiles	8 of 17
Stormwater Management Plan	9 of 17
Stormwater Management Profile and Details	10 of 17
Landscape Plan, Notes and Details	11 of 17
Landscape Plan, Notes and Details	12 of 17
Landscape Plan, Notes and Details	13 of 17
Forest Conservation Plan	14 of 17
Forest Conservation Plan	15 of 17
Forest Conservation Plan	16 of 17
Forest Conservation Notes and Details	17 of 17

CENTERLINE ROAD CURVE DATA

CURVE No.	RADIUS	LENGTH	DELTA	TANGENT	CHORD BEARING
CI	300.00	106.33	20°41'23"	54.76	N59°25'20"W 107.74

Continuation of General Notes

- 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): 410.787.9269
 - Miss Utility: 1.800.957.7777
 - Colonial Pipeline Company: 410.795.1390
 - Howard County, Dept. of Public Works, Bureau of Utilities: 410.313.4900
 - Howard County Health Department: 410.313.2640
- Financial surety for the required landscaping will be posted as part of the Developer's Agreement in the amount of \$28,950.00 (66 shade trees @ \$300.00 each, and 61 Evergreen Trees @ \$150.00 each).
- This Final Plan is subject to the Amended Fifth Edition of the Subdivision and Land Development Regulations per Council Bill No. 45-2003 and the Amended Zoning Regulations per Council Bill No. 75-2003. Development or construction on this property must comply with setback and buffer regulations in effect at the time of submission of the site development plan, waiver petition application or building/grading permit applications.
- The scenic road exhibit for this project was approved under SP-05-08.
- All sign posts used for traffic control signs installed in the County Right-of-Way shall be mounted on a 2" galvanized steel, perforated, square tube post (14 gauge) inserted into a 2-1/2" galvanized steel, perforated, square tube sleeve (12 gauge) - 3' long. A galvanized steel pole cap shall be mounted on top of each post.
- A permit was filed with the Maryland Department of the Environment for removal of the existing pond on Preservation Parcel 'C', under Authorization # 200664433/05-NT-3205.



OWNER/DEVELOPER

WILLIAMSBURG GROUP LLC

5405 Harpers Farm Road #200

Columbia, Maryland 21044-3834

Telephone: (410) 997-8800

Fax: (410) 997-4558

COVER SHEET

LOTS 1 THRU 19 AND NON-BUILDABLE PRESERVATION PARCELS 'A', 'B', 'C' & 'D'

SHEPPARD MANOR

TAX MAP 29 GRID 01

5TH ELECTION DISTRICT

PARCEL 268

HOWARD COUNTY, MARYLAND

DESIGN BY: ZYF

DRAWN BY: KSB

CHECKED BY: ZYF

SCALE: As Shown

DATE: Feb 23, 2007

N.O. No.: 3160

SHEET No. 1 of 17

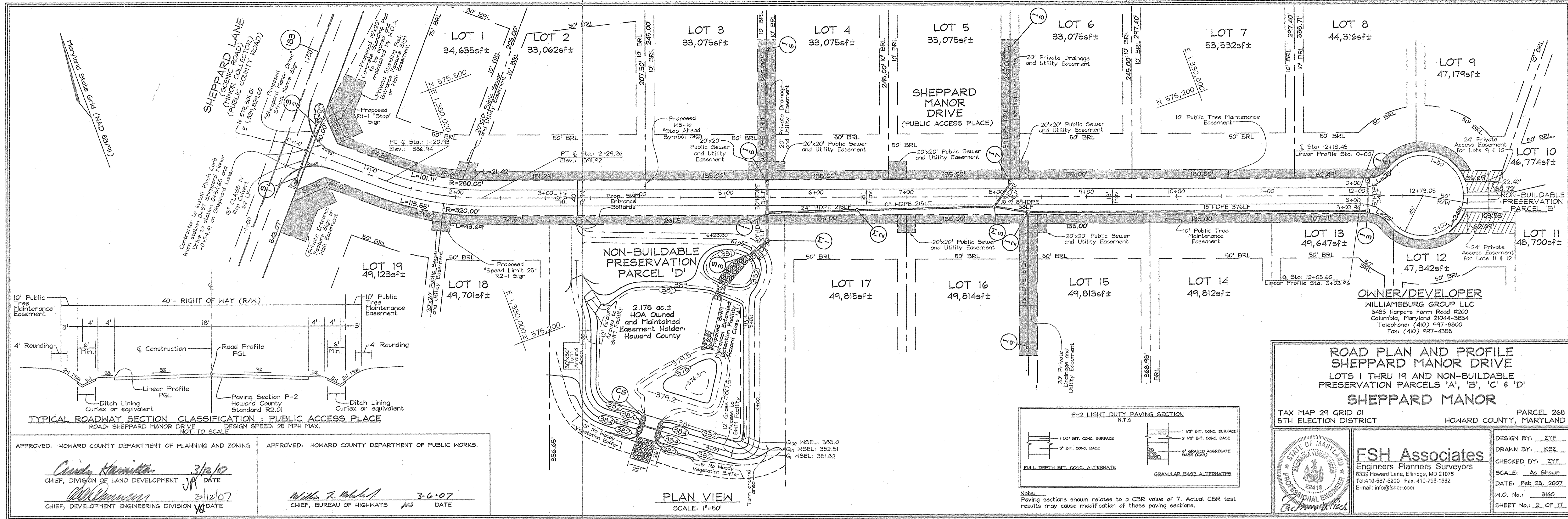
FSH Associates

Engineers Planners Surveyors

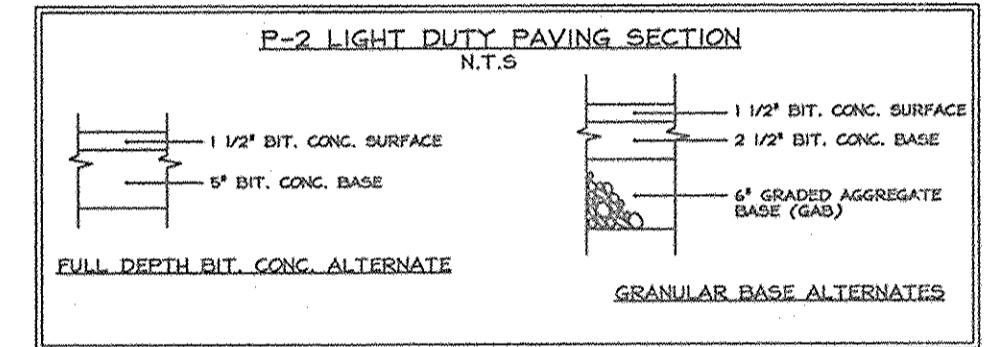
6339 Howard Lane, Elkridge, MD 21075

Tel: 410-567-5200 Fax: 410-798-1552

E-mail: info@fsht.com

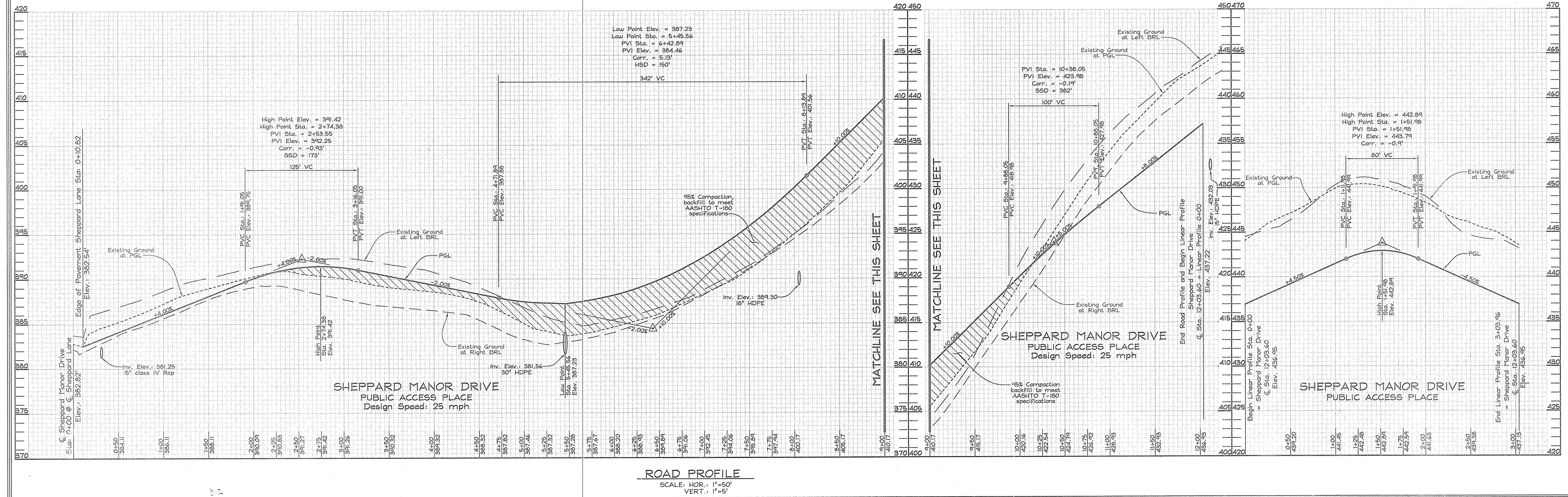


ROAD PLAN AND PROFILE
SHEPPARD MANOR DRIVE
 LOTS 1 THRU 19 AND NON-BUILDABLE
 PRESERVATION PARCELS 'A', 'B', 'C' & 'D'
SHEPPARD MANOR
 TAX MAP 29 GRID 01 PARCEL 268
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



FSH Associates
 Engineers Planners Surveyors
 8339 Howard Lane, Elkridge, MD 21075
 Tel: 410-567-5200 Fax: 410-796-1552
 E-mail: info@fshri.com

DESIGN BY: ZYF
 DRAWN BY: KSZ
 CHECKED BY: ZYF
 SCALE: As Shown
 DATE: Feb 28, 2007
 W.O. No.: 3160
 SHEET No.: 2 OF 17





LEGEND

Existing Contour	---	382
Proposed Contour	---	+8253
Spot Elevation	○	
Direction of Flow	→	
Tree Protection Fence	⊞	
Existing Trees to Remain	⊞	
Stabilized Construction Entrance	▨	
Silt Fence	—SF—SF—	
Super Silt Fence	—SSF—SSF—	
Earth Dike	—ED—ED—	
Limit of Disturbance	—LOD—LOD—	
Erosion Control Matting	—ECM—ECM—	
Soil Boundary	—S—S—	
Rip-Rap Inflow Protection	—RRP—RRP—	
Removable Pumping Station	—RPS—RPS—	
Standard Inlet Protection	—SIP—SIP—	

OWNER/DEVELOPER
 WILLIAMSBURG GROUP LLC
 5485 Harpers Farm Road #200
 Columbia, Maryland 21044-3834
 Telephone: (410) 997-8800
 Fax: (410) 997-4558

SEDIMENT & EROSION CONTROL AND GRADING PLAN
 LOTS 1 THRU 19 AND NON-BUILDABLE PRESERVATION PARCELS 'A', 'B', 'C' & 'D'
SHEPPARD MANOR
 TAX MAP 29 GRID 01 5TH ELECTION DISTRICT PARCEL 268
 HOWARD COUNTY, MARYLAND

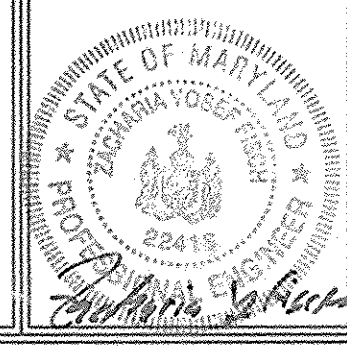
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Ainda Hamilton 3/12/07
 CHIEF, DIVISION OF LAND DEVELOPMENT
Michael J. ... 3/12/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. ... 3-6-07
 CHIEF, BUREAU OF HIGHWAYS

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL 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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 2-23-07
 SIGNATURE OF DEVELOPER DATE

ENGINEERS CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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.
Zacharia Y. Fisch 2/23/07
 SIGNATURE OF ENGINEER DATE
 ZACHARIA Y. FISCH

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
[Signature] 3/1/07
 USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE
 THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 3/1/07
 HOWARD SOIL CONSERVATION DISTRICT DATE



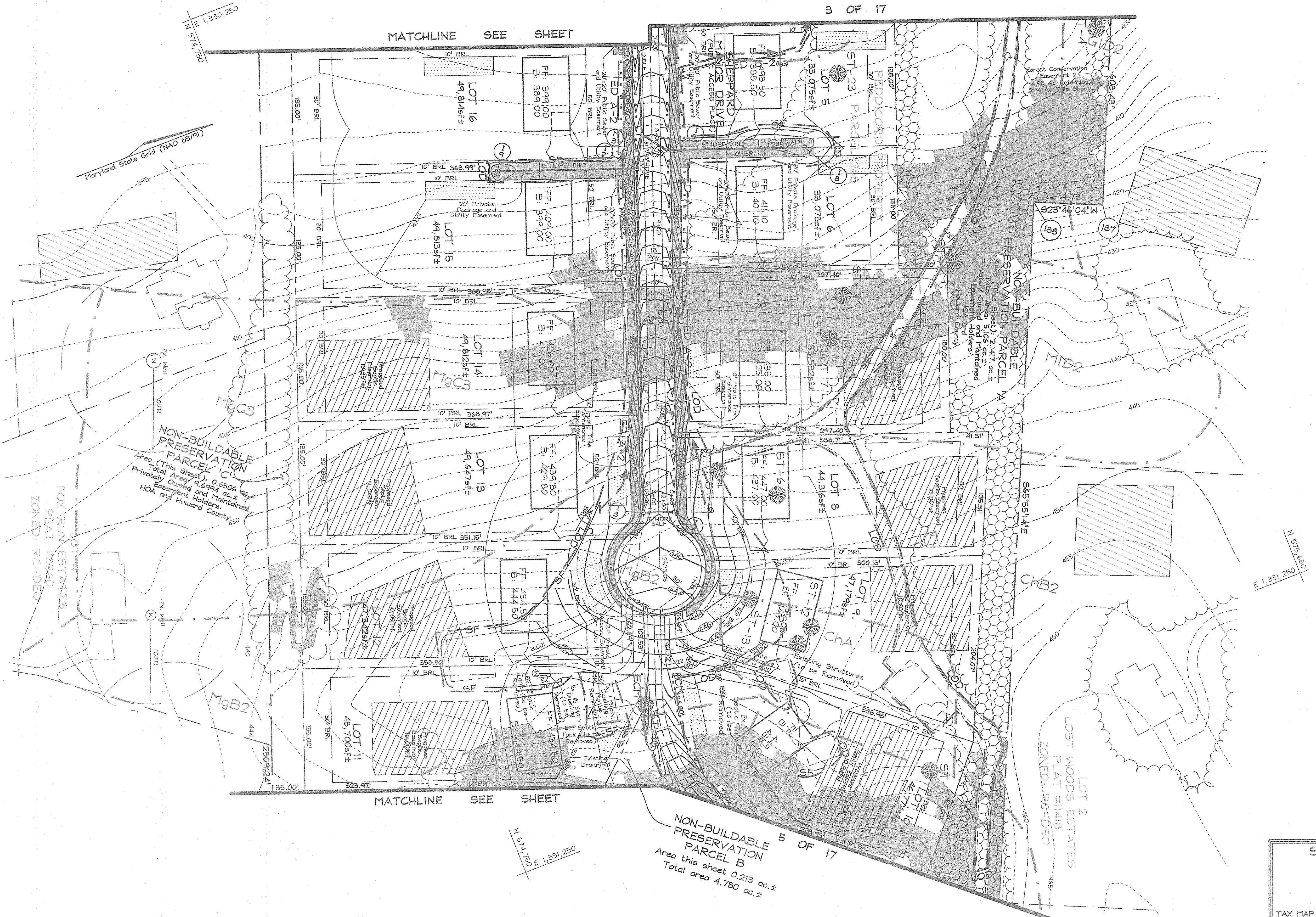
FSH Associates
 Engineers Planners Surveyors
 6339 Howard Lane, Elkridge, MD 21075
 Tel: 410-567-5200 Fax: 410-798-1552
 E-mail: info@fshert.com

DESIGN BY: ZYF
 DRAWN BY: K9Z
 CHECKED BY: ZYF
 SCALE: 1"=50'
 DATE: Feb 23, 2007
 I.C. No.: 3160
 SHEET No.: 3 OF 17

MATCHLINE SEE SHEET

LEGEND

- Existing Contour: - - - - -
- Proposed Contour: - - - - -
- Spot Elevation: +82.53
- Direction of Flow: ————>
- Tree Protection Fence: [Symbol]
- Existing Trees to Remain: [Symbol]
- Stabilized Construction Entrance: [Symbol]
- Silt Fence: SF ———— SF
- Super Silt Fence: SSF ———— SSF
- Earth Dike: ED ———— ED
- Limit of Disturbance: LOD ———— LOD
- Erosion Control Matting: ECM [Symbol]
- Soil Boundary: [Symbol]



MATCHLINE SEE SHEET

NON-BUILDABLE PRESERVATION PARCEL B
 Area this sheet 0.213 ac.±
 Total area 4.780 ac.±

OWNER/DEVELOPER
 WILLIAMSBURG GROUP LLC
 5495 Harpers Farm Road #200
 Columbia, Maryland 21044-3634
 Telephone: (410) 997-8800
 Fax: (410) 997-4558

SEDIMENT & EROSION CONTROL AND GRADING PLAN
 LOTS 1 THRU 19 AND NON-BUILDABLE PRESERVATION PARCELS 'A', 'B', 'C' & 'D'
SHEPPARD MANOR
 TAX MAP 29 GRID 01 5TH ELECTION DISTRICT PARCEL 268
 HOWARD COUNTY, MARYLAND

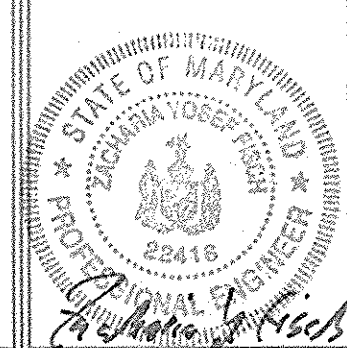
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cynthia K... 3/12/07
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. ... 3-6-07
 CHIEF, BUREAU OF HIGHWAYS DATE

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL 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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF DEVELOPER: *[Signature]* DATE: 2-23-07

ENGINEERS CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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.
 SIGNATURE OF ENGINEER: *[Signature]* DATE: 2/23/07
 ZACHARIA Y. FISCH

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
 USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE: 3/1/07
 THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 HOWARD SOIL CONSERVATION DISTRICT DATE: 3/1/07



FSH Associates
 Engineers Planners Surveyors
 6339 Howard Lane, Elkridge, MD 21075
 Tel: 410-567-5200 Fax: 410-796-1562
 E-mail: info@fsh.net

DESIGN BY: ZYF
 DRAWN BY: KSZ
 CHECKED BY: ZYF
 SCALE: 1"=50'
 DATE: Feb 23, 2007
 P.L. No.: 3160
 SHEET No.: 4 OF 17

E 1,330,900
N 574,200



N 575,450
E 1,331,950

OWNER/DEVELOPER
WILLIAMSBURG GROUP LLC
5485 Harpers Farm Road #200
Columbia, Maryland 21044-3634
Telephone: (410) 997-8800
Fax: (410) 997-4558

SEDIMENT & EROSION CONTROL AND GRADING PLAN
LOTS 1 THRU 19 AND NON-BUILDABLE PRESERVATION PARCELS 'A', 'B', 'C' & 'D'
SHEPPARD MANOR
TAX MAP 29 GRID 01 PARCEL 268
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamilton 3/14/07
CHIEF, DIVISION OF LAND DEVELOPMENT JK DATE

Chad Deane 3/12/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION YQ DATE

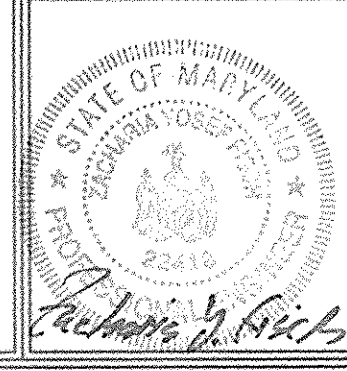
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. Umholtz 2-6-07
CHIEF, BUREAU OF HIGHWAYS MS DATE

DEVELOPER'S CERTIFICATE
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL 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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
[Signature] 2-23-07
SIGNATURE OF DEVELOPER DATE

ENGINEER'S CERTIFICATE
"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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."
Zacharia Y. Fisch 2/23/07
SIGNATURE OF ENGINEER DATE
ZACHARIA Y. FISCH

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
[Signature] 3/1/07
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 3/1/07
HOWARD SOIL CONSERVATION DISTRICT DATE



FSH Associates
Engineers Planners Surveyors
6339 Howard Lane, Elkridge, MD 21075
Tel: 410-567-5200 Fax: 410-796-1552
E-mail: info@fshnet.com

DESIGN BY: ZYF
DRAWN BY: K9Z
CHECKED BY: ZYF
SCALE: 1"=50'
DATE: Feb 23, 2007
N.O. No.: 3160
SHEET No.: 5 OF 17

1. Validity: Authorization is valid for use by Authorized Person. Authorization may be transferred only with prior written approval of the Administration. In the event of transfer, transferee agrees to comply with all terms and conditions of Authorization.

2. Modifications and Extension of Term: Authorized Person may submit written requests to the Administration for modification of Authorization, including the Approval Plan or, not later than 45 days prior to Expiration Date, an extension of the term. Requests for modifications shall be in accordance with applicable regulations and shall state reasons for change, and shall indicate the impacts on nontidal wetlands, streams, and the floodplain, as applicable. The Administration may extend the Expiration Date at its sole discretion.

3. Responsibility and Compliance: Authorized Person is fully responsible for all work performed and activities authorized by this Authorization shall be performed in compliance with this Authorization and Approval Plan. Authorized Person agrees that a copy of the Authorization and Approval Plan shall be kept at the construction site and provided to its employees, agents and contractors. A person (including Authorized Person, its employees, agents or contractors) who violates or fails to comply with the terms and conditions of this Authorization, Approval Plan or an administrative order may be subject to penalties in accordance with §5-514 and §5-511, Environment Article, Annotated Code of Maryland (1996 Replacement Volume).

4. Failure to Comply: If Authorized Person, its employees, agents or contractors fail to comply with this Authorization or Approval Plan, the Administration may, in its discretion, issue an administrative order requiring Authorized Person, its employees, agents and contractors to cease and desist any activities which violate this Authorization, or the Administration may take any other enforcement action available to it by law, including filing civil or criminal charges.

5. Suspension or Revocation: Authorization may be suspended or revoked by the Administration, after notice of opportunity for a hearing, if Authorized Person: (a) submits false or inaccurate information in Permit application or subsequent required reports; (b) deviates from the approved Plan, specification, terms and conditions; (c) violates, or is about to violate terms and conditions of this Authorization; (d) violates, or is about to violate, any regulation promulgated pursuant to Title 5, Environment Article, Annotated Code of Maryland as amended; (e) fails to allow authorized representatives of the Administration to enter the site of authorized activities at any reasonable time to conduct inspections and evaluations; (f) fails to comply with the requirement of the administrative action or order issued by the Administration; or (g) does not have vested rights under this Authorization and new information, changed circumstances, or amended regulatory requirements necessitate revocation or suspension.

6. Other Approvals: Authorization does not authorize any injury to private property, any invasion of rights or any infringement of federal, State or local laws or regulations, nor does it constitute any authorization or approval from any other State, Federal or local agencies as required by law.

7. Federally Mandated State Authorizations: (a) Water Quality Certification: Water Quality Certification is granted for this project provided that all work is performed in accordance with the authorized project description and associated conditions.

(b) Coastal Zone Consistency: This authorization constitutes official notification that authorized activities are consistent with the Maryland Coastal Zone Management Program, as required by Section 507 of the Federal Coastal Zone Management Act of 1972, as amended. Activities within the following counties are not subject to this requirement: Allegany, Carroll, Frederick, Garrett, Howard, Montgomery and Washington.

8. Site Access: Authorized Person shall allow authorized representatives of the Administration access to the site of authorized activities during normal business hours to conduct inspections and evaluations necessary to assure compliance with this Authorization. Authorized Person shall provide necessary assistance to effectively and safely conduct such inspections and evaluations.

9. Inspection Notification: Authorized Person shall notify the Administration's inspection and Compliance Program at least five (5) days before starting authorization activities and five (5) days after completion. Carroll, Frederick, and Washington County, Authorized Person shall call the Hagerstown office at (301) 665-2850. Allegany and Garrett Counties, Authorized Person shall call (301) 689-8494.

10. Sediment Control: Authorized Person shall obtain approval from the County Soil Conservation District for a grading and sediment control plan specifying all erosion control measures. The approved grading and sediment control plan shall be included in the Approved Plan, and shall be available at the construction site.

11. Best Management Practices During Construction: Authorized Person, its employees, agents and contractors shall conduct authorized activities in a manner consistent with the Best Management Practices specified by the Administration.

12. Disposal of Excess: Unless otherwise shown on the Approval Plan, all excess fill, spoil material, debris, and construction material shall be disposed of outside of nontidal wetlands, streams, and the 100-year floodplain, and in a location and manner which does not adversely impact surface or subsurface water flow into or out of nontidal wetlands.

13. Temporary Staging Areas: Temporary construction trailer or structures, staging areas and stockpiles shall not be located within nontidal wetlands, nontidal water buffers, or the 100-year floodplain unless specifically included on the Approval Plan.

14. Temporary Stream Access Crossings: Temporary stream access crossing shall not be constructed or utilized unless shown on the Approval Plan. If temporary stream access crossing are determined necessary prior to construction, or required during construction, Authorized Person, its employees, agents or contractors shall submit a written request to the Administration and secure the necessary permits or approvals for such crossings before installation of the crossings. Temporary stream crossings shall be removed and the disturbance stabilized activities or within one (1) year of installation.

15. Discharge: Runoff or accumulated water containing sediment or other suspended materials shall not be discharged into waters of the State unless treated by an approved sediment control structure.

16. Instream Construction Prohibition: To protect important aquatic species, activities within stream channels are prohibited as determined by the classification of the stream (COMAR 26.08.02.08). Patuxent River Tributary is a Use I... waterway; in-stream work may not be conducted from March 1 through June 15, inclusive, of any year.

17. Disturbance of Stream Channels: Motor driven construction equipment shall not be allowed within the stream channel unless shown on Approval Plan or specially authorized in writing by the Administration.

18. Instream Blasting: Authorized Person shall obtain prior written approval from the Administration before blasting or using explosives in the stream channel.

19. Minimum Disturbance: Any disturbance of stream banks, channel bottom, wetlands, and wetland buffer authorized by Letter of Authorization or Approval Plan shall be the minimum necessary to conduct authorized activities, shall be corrected by Authorized person as directed by the Administration.

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS AND WATERWAYS OF THE U.S.

1. Conduct the activity so as not to restrict or impede the movement of wildlife indigenous to the nontidal wetland or adjacent waterway.

2. Remove excess fill or construction material or debris to an upland disposal area.

3. Place material in a location and manner which does not adversely impact surface or subsurface water flow into or out of the nontidal wetland or water of the U.S.

4. If backfill is obtained from sources other than the originally excavated material, utilize clean fill, free from waste metal products, unsightly debris, toxic material, or any other deleterious substance.

5. Place heavy equipment on mats or suitably design the equipment to prevent damage to the nontidal wetland or waters of the U.S.

6. Rectify any nontidal wetlands or waters of the U.S. temporarily impacted by any proposed activity.

7. After installation has been completed, make post-construction grades and elevation in temporarily impacted areas.

8. All stabilization in the wetland and buffer shall be of the following recommended species: Annual Ryegrass (*Lolium multicaule*), millet (*Setaria italica*), Barley (*Hordeum spp.*), Oats (*Avena spp.*), and Rye (*Secale cereale*). These species will allow for the stabilization of the site as well as allow voluntary revegetation of natural wetland species. Other non-persistent vegetation may be acceptable, but must be approved by the Division. Kentucky 31 Fescue and Birdfoot Trefoil shall not be utilized in the wetland or wetland buffer areas. The area should be seeded and mulched to reduce erosion after construction activities have been completed.

9. Adhere to time of year restrictions as required by the Department under COMAR 26.06.02.

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition:
Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose:
To provide a suitable soil medium for vegetation growth. Soils of concern have low moisture content, low nutrient levels, low pH, moderate toxic to plants, and/or undesirable soil characteristics.

Conditions Where Practice Applies:
1. This practice is limited to areas having 21 or flatter slopes where:
a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
b. The soil material is so shallow that the rooting area is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
c. The original soil to be vegetated contains material toxic to plant growth.
d. The soil is so acidic that treatment with lime/astens is not feasible.

2. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas with slopes steeper than 2:1 shall have the appropriate stabilization shown on the plan.

Construction and Material Specifications:
1. Topsoil salvaged from the existing site may be used provided that it meets the standards set forth in these specifications. Typically, the depth of topsoil to be salvaged shall be determined by a soil profile section in the soil survey or by a soil test. Topsoil shall be salvaged from the representative soil profile section in the soil survey provided that it is of the same soil type as the soil to be replaced. Topsoil shall be a mixture of contrasting textures, colors, and sizes, and shall be free of rocks, sticks, clumps, stones, soil, coarse fragments, gravel, sticks, twigs, or other materials larger than 1/4" in diameter.
2. Topsoil must be free of roots or plant parts such as twigs, stumps, branches, leaves, stems, petioles, thistles, or others as specified.
3. Where the subsoil is either highly acidic or composed of heavy clays, special lime/astens shall be applied at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the subsoil to a depth of 6" below the surface of the topsoil.
4. For sites having disturbed areas over 5 acres:
a. On soil meeting topsoil specifications, obtain test results for a site to determine the amount of lime to be applied to bring the soil into compliance with the following:
i. Topsoil pH shall be between 6.0 and 7.0. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
ii. Organic content of topsoil shall be not less than 1.0 percent by weight.
iii. Cation exchange capacity shall not be greater than 500 pounds per million shall not be used.
iv. No soil shall be placed on site which has been used for any other purpose.
v. Topsoil shall be free of any toxic materials.
v. Topsoil shall be free of any toxic materials.
NOTE: Topsoil stabilization amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
5. Place topsoil (if required) and apply soil amendments as specified in 5.02 Vegetative Stabilization Methods and Materials.
6. Topsoil Application:
i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, stabilization structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
ii. Grades on the area to be topsoiled, which have been previously established, shall be maintained, about 4" higher than existing.
iii. Topsoil shall be uniformly distributed in a 4" - 6" layer and lightly compacted to a minimum thickness of 4".
iv. Topsoiling shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil amendments. Any irregularities in the velocity resulting from topsoiling or other operations shall be corrected to prevent the formation of depressions or water pockets.
7. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

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, disking or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: In lieu of soil test recommendations, use the following schedule: Apply 2 tons per acre dolomitic limestone (92 lbs/1000 s.f.) And 900 lbs. / acre (20.7 lbs./1000s.f.) of 10-20-20 before seeding. Harrow or disc into upper 3 in. of soil.
SEEDING: Apply the Maryland State Highway approved seed mixture of Kentucky 31 Fescue and Birdfoot Trefoil in accordance with rates shown in the Permanent Seeding Summary shown on this sheet. For stabilization outside of the seeding dates, apply straw mulch at rates and methods specified below and apply permanent seeding when within proper seeding dates.
MULCHING: Immediately following seeding, apply a uniform 1-2 in. deep layer of un-rotted small grain straw at a rate of 750 lbs. / acre mixed at a ratio of 50 lbs. Of wood fiber/ 100 gal. of water. Synthetic liquid binders such as Terra Tex II, Acrylic DLR (Agra-Tack), DCA-70, Petrosol and other approved equals may be used at rates recommended by the manufacturers.

Permanent Seeding Summary

Seed Mixture (Hardiness Zone 7a and 6b) From Table 25		Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depths	
10	Tall Fescue (80%) Hard Fescue (20%)	30	3/1-5/15 8/15-11/15	0.5 in. (2.0lb/1000sf) (4lb/1000sf)	2tons/acre (100lb/1000sf)

TEMPORARY SEEDING NOTES
SEEDBED PREPARATION: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: In lieu of soil test recommendations, use the following schedule: Apply 2 tons per acre dolomitic limestone (92 lbs/1000 s.f.) And 600 lbs. / acre (15 lbs./1000s.f.) of 10-10-10 before seeding. Harrow or disc into upper 3 in. of soil.
SEEDING: Apply the Maryland State Highway approved seed mixture of Kentucky 31 Fescue and Birdfoot Trefoil in accordance with rates shown in the Temporary Seeding Summary shown on this sheet. For stabilization outside of the seeding dates, apply straw mulch at rates and methods specified below.
MULCHING: Immediately following seeding, apply a uniform 1-2 in. deep layer of un-rotted small grain straw at a rate of 2 tons/acre. (Apply 2.5 tons/acre if a mulch anchoring tool is used). Straw may be anchored with wood cellulose fiber at a rate of 750 lbs. / acre mixed at a ratio of 50 lbs. Of wood fiber/ 100 gal. of water. Synthetic liquid binders such as Terra Tex II, Acrylic DLR (Agra-Tack), DCA-70, Petrosol and other approved equals may be used at rates recommended by the manufacturers.

Temporary Seeding Summary

Seed Mixture (Hardiness Zone 6a and 7a) From Table 26		Fertilizer Rate (10-10-10)			Lime Rate
No.	Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depths	
2	Barley or Rye plus Foxtail Millet	150 lbs (3.5lbs/1000sqf)	2/1-11/30 (7a) 3/15-10/31 (6a)	1/4 in. 1/2 in.	600 lb/acre (15lb/1000sf) 2 tons/acre (100lb/1000sf)

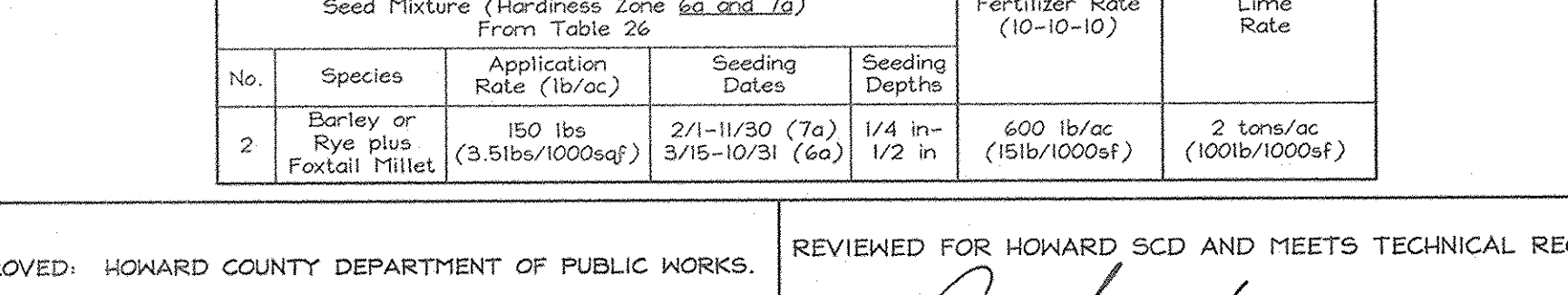
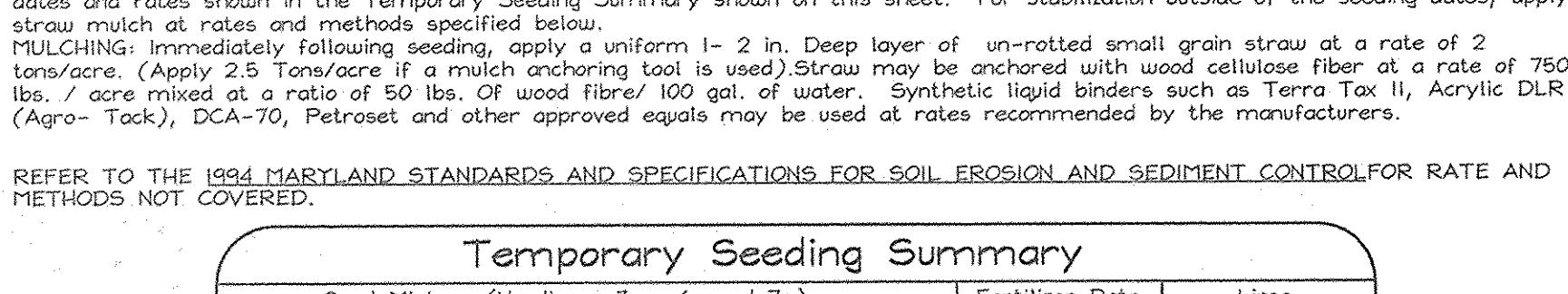
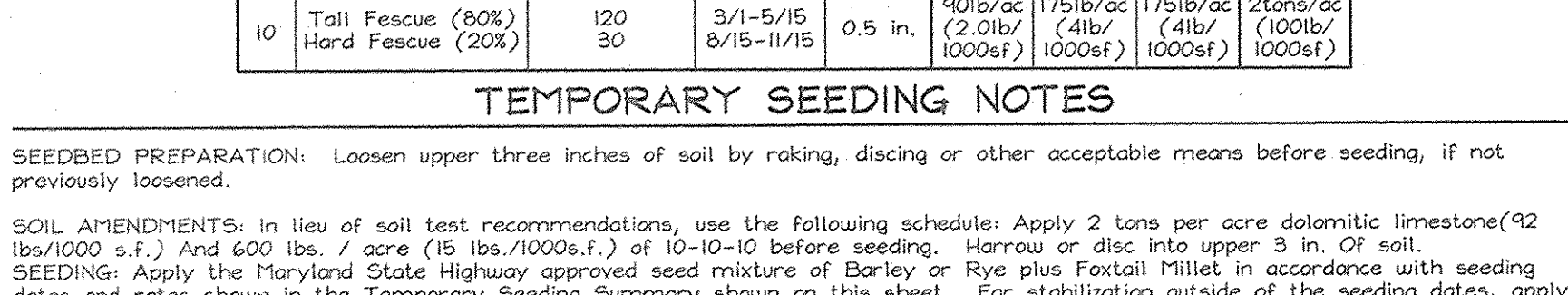
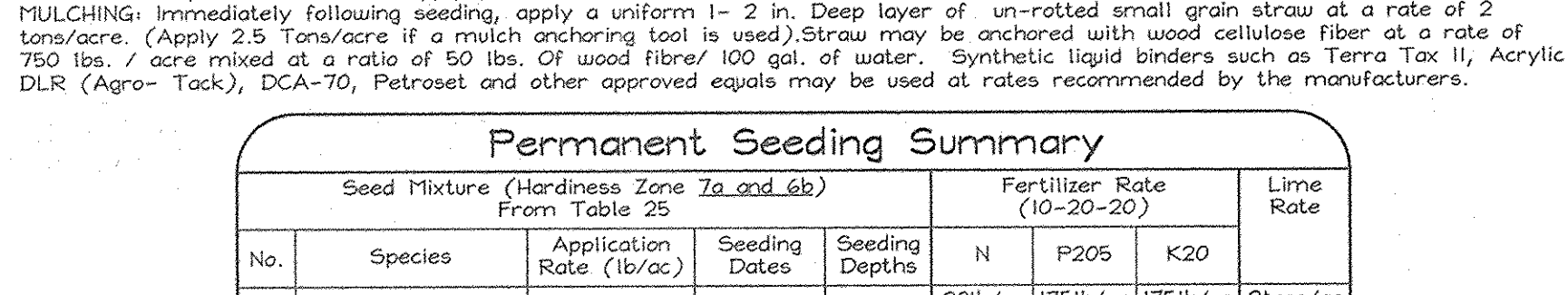
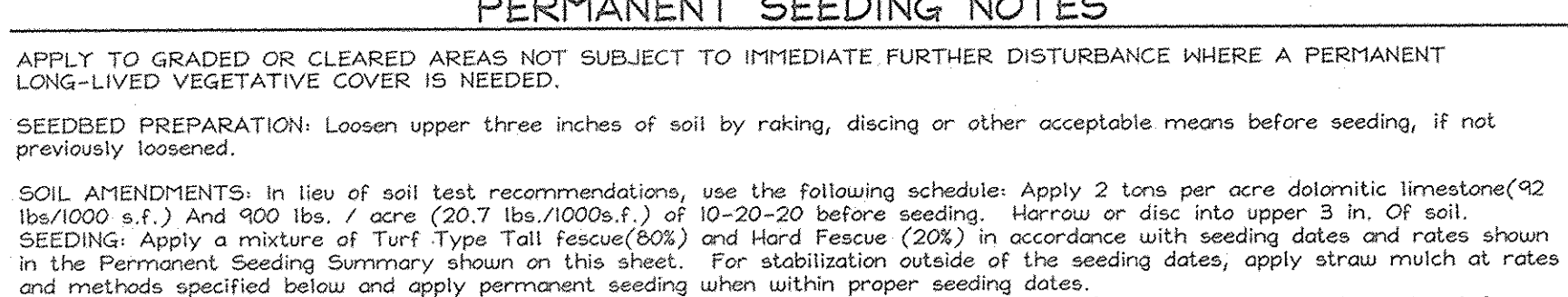
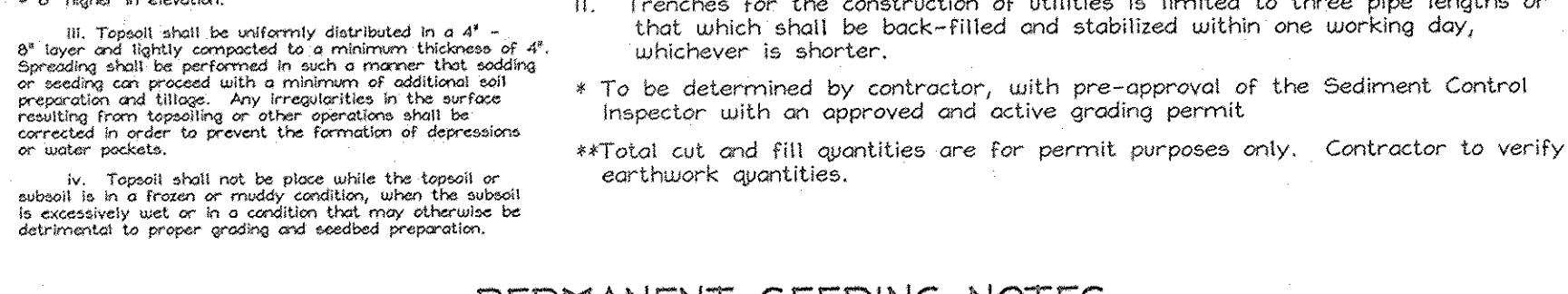
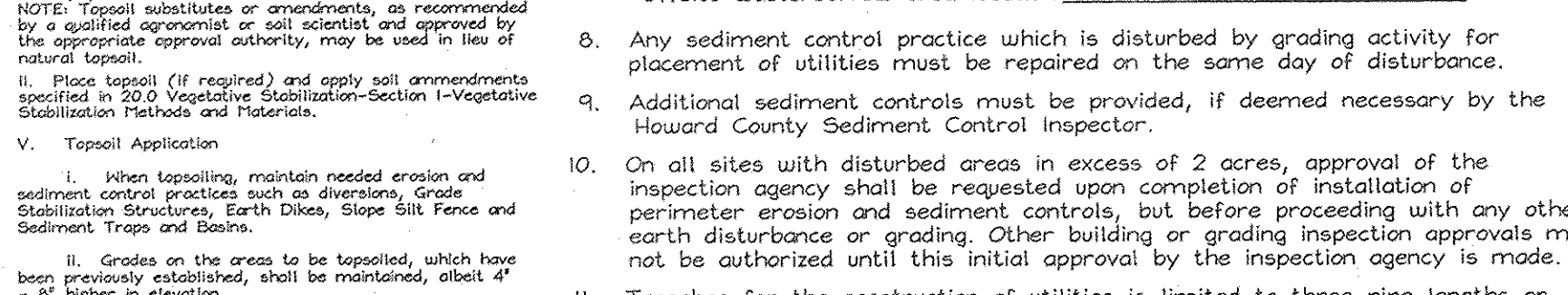
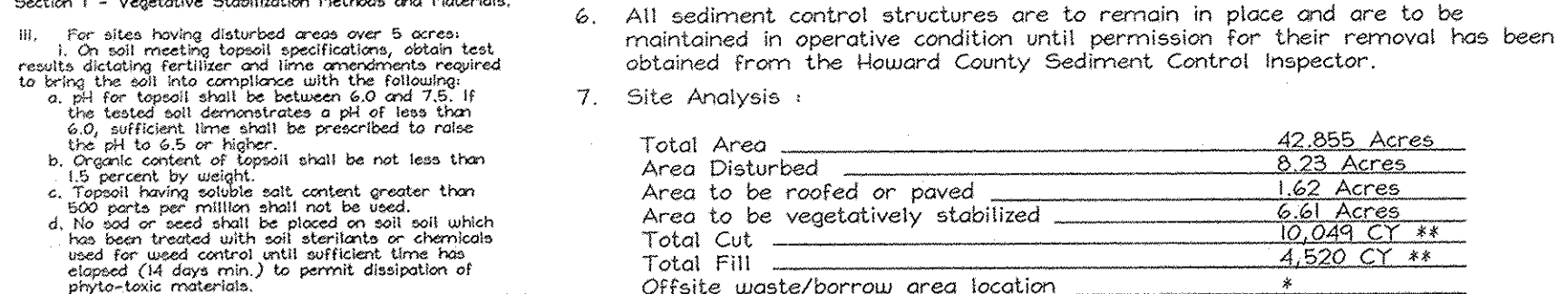
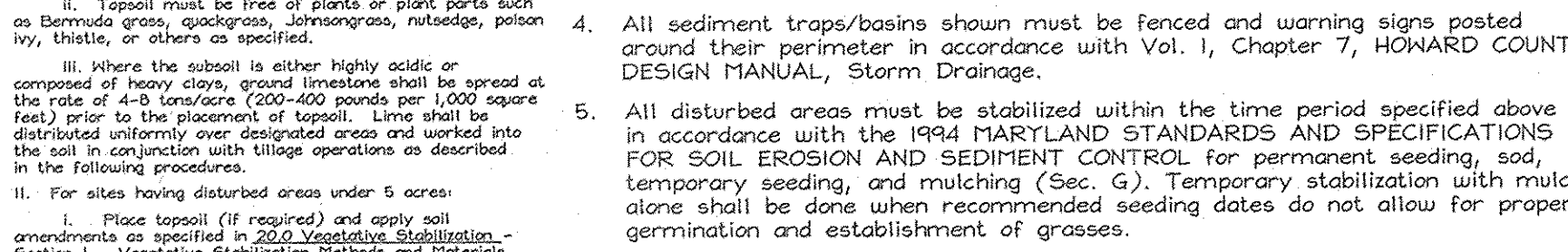
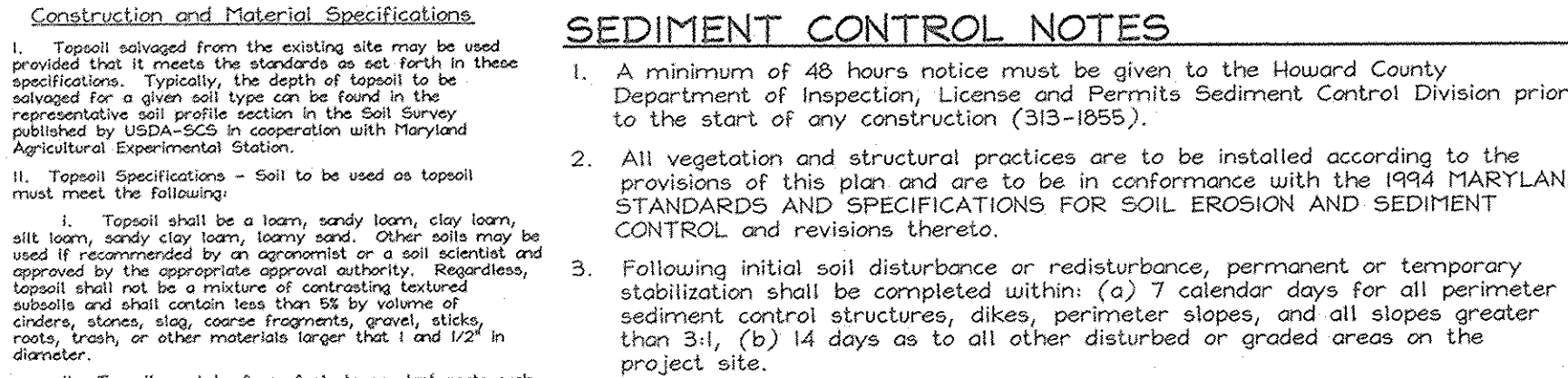
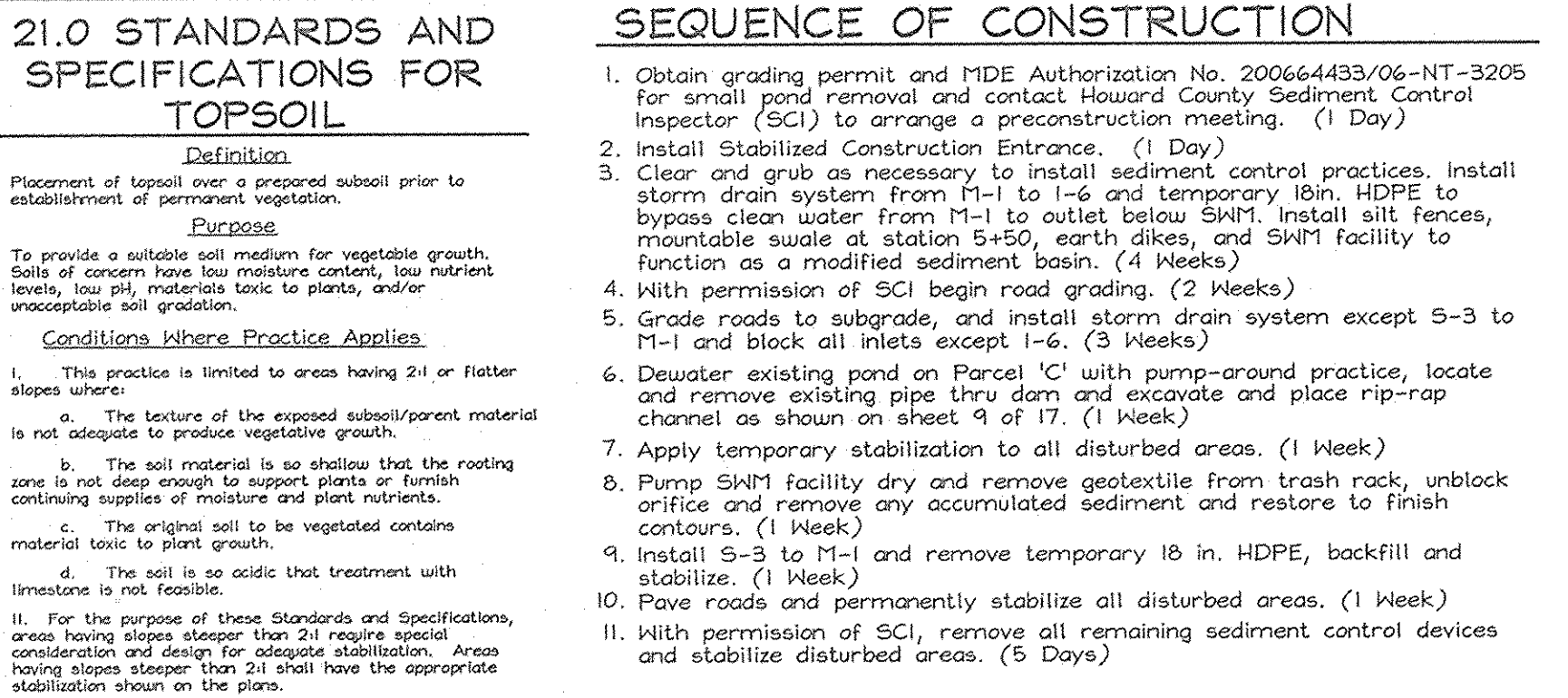
REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Carole Hamilton 3/10/07
 CHIEF, DIVISION OF LAND DEVELOPMENT
William J. McNeill 3/10/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William J. McNeill 3-6-07
 CHIEF, BUREAU OF HIGHWAYS

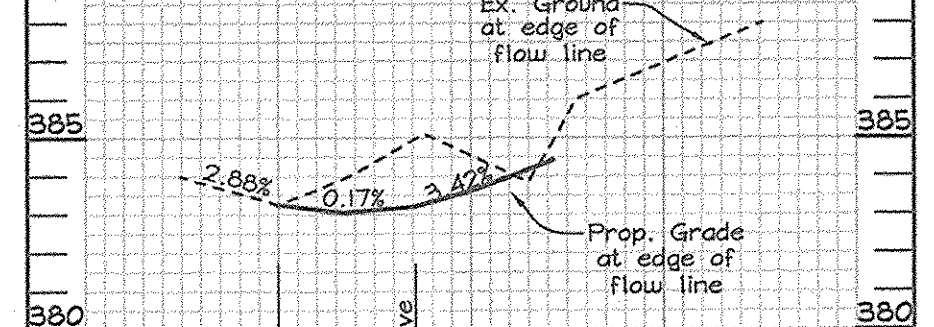
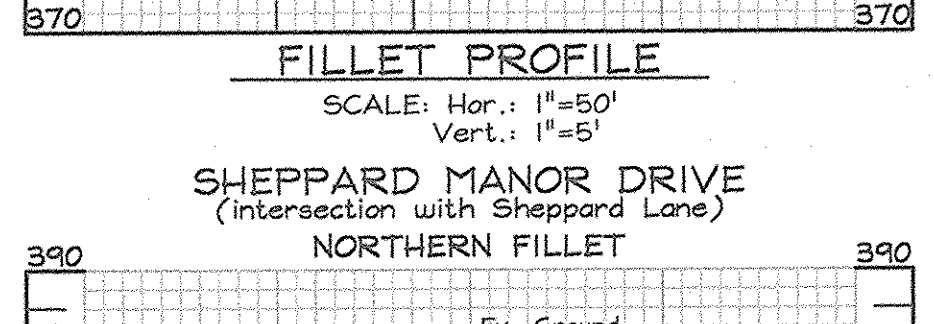
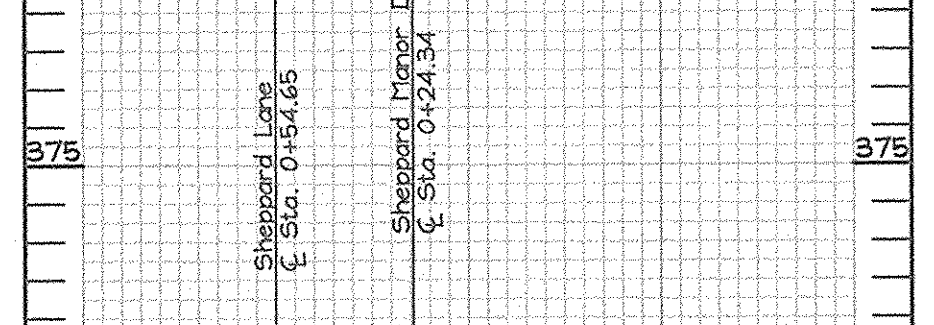
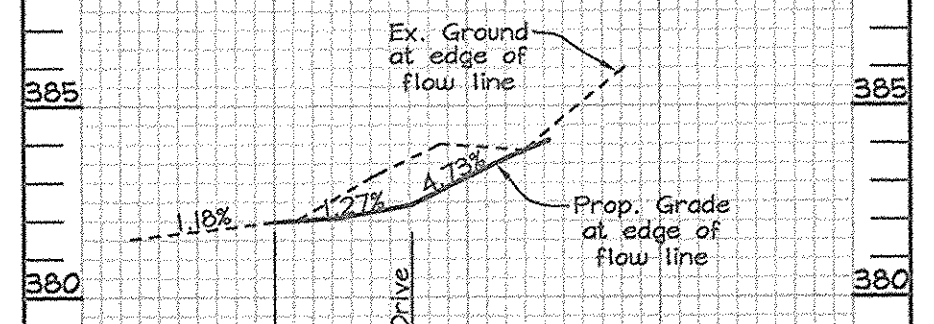
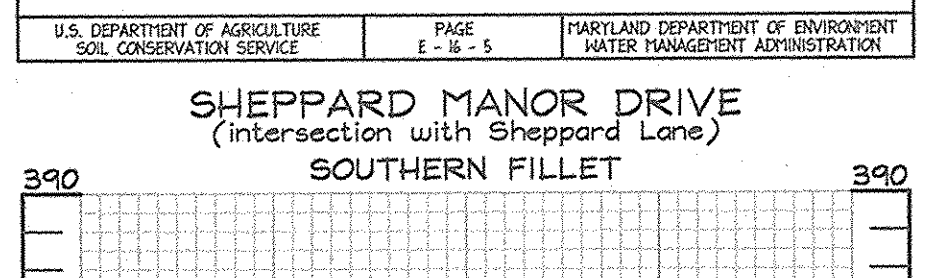
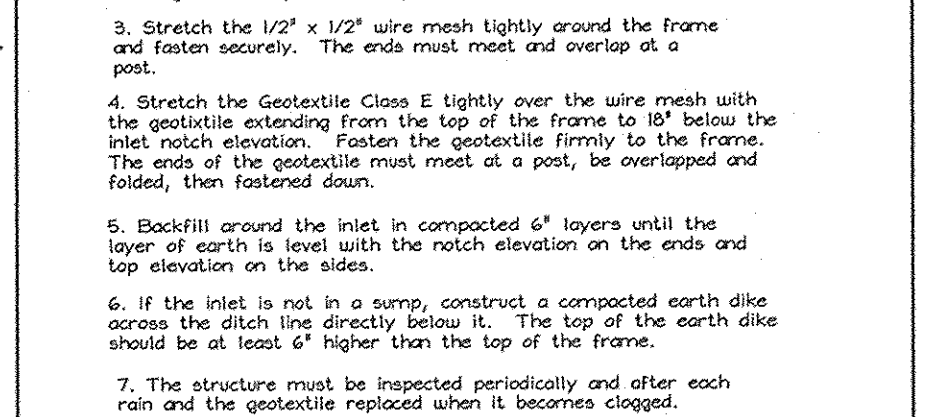
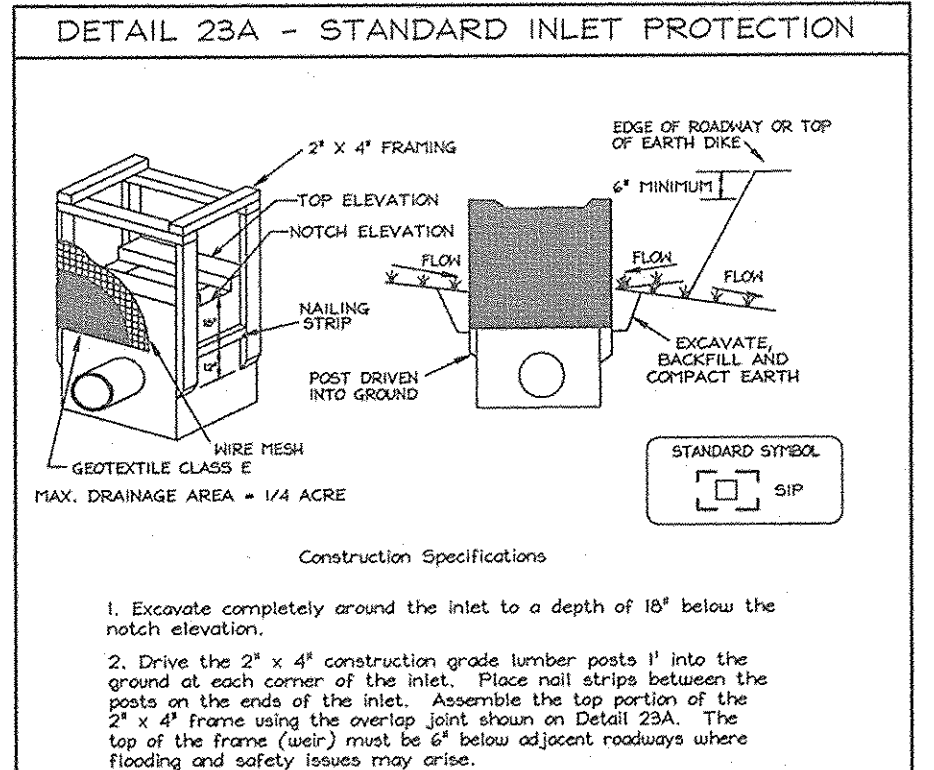
REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
Chia Myra Lee 3/1/07
 USDA-NATURAL RESOURCES CONSERVATION SERVICE

DESIGN BY: ZYF
DRAWN BY: CH
CHECKED BY: ZYF
SCALE: As Shown
DATE: Feb 23, 2007
N.O. No.: 3160
SHEET No.: 6 OF 17



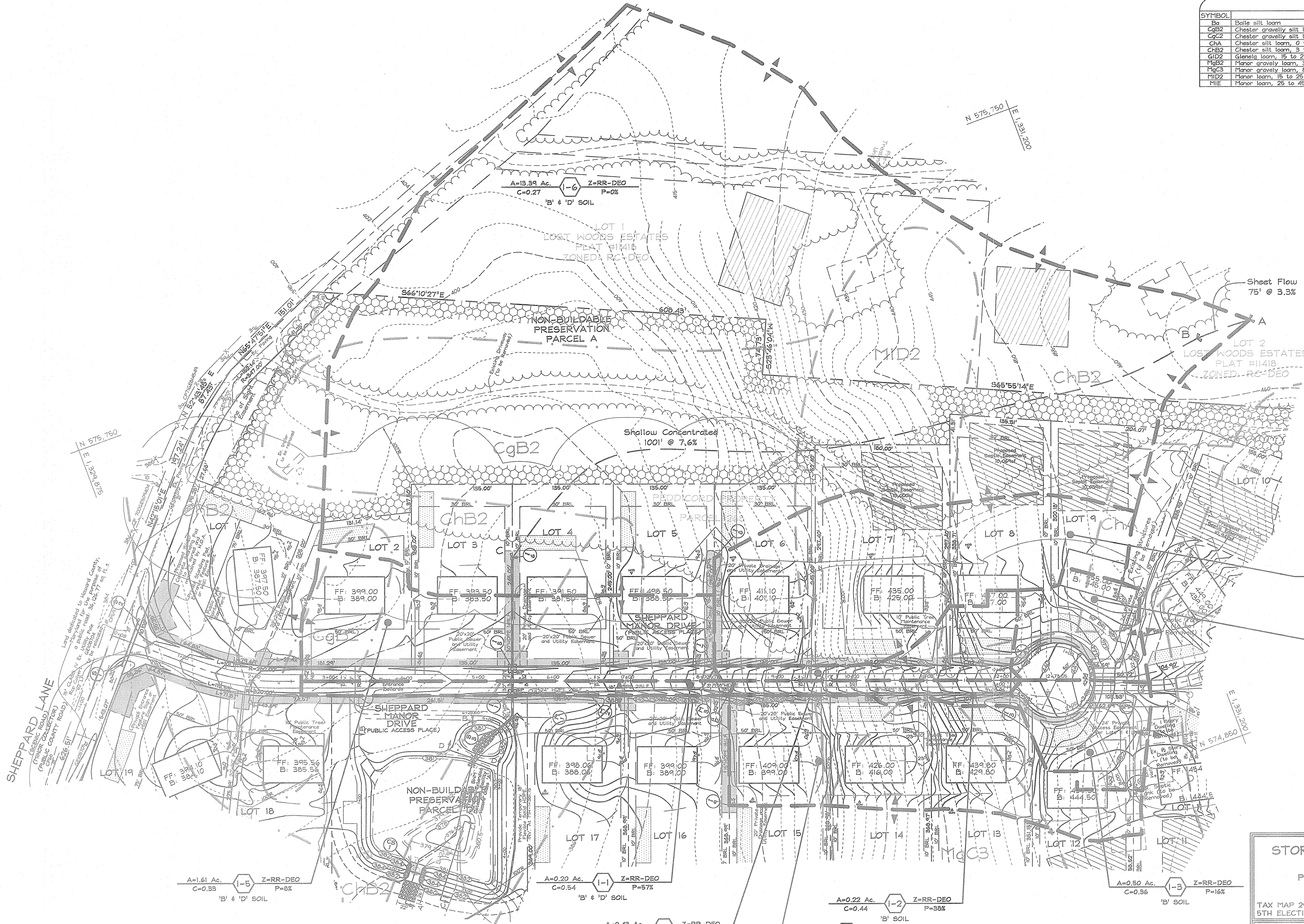
ENGINEERS CERTIFICATE
 I, *Zacharia Y. Fisch*, CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF ENGINEER: *Zacharia Y. Fisch*
 DATE: 2/23/07

DEVELOPER'S CERTIFICATE
 I, *Zacharia Y. Fisch*, CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE MANDATORY ENVIRONMENTAL 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.
 SIGNATURE OF DEVELOPER: *Zacharia Y. Fisch*
 DATE: 2-23-07



SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	SOIL GROUP
Ba	Baile silt loam	D
CgB2	Chester gravelly silt loam, 3 to 8 percent slopes, moderately eroded	B
CcC2	Chester gravelly silt loam, 8 to 15 percent slopes, moderately eroded	B
ChA	Chester silt loam, 0 to 3 percent slopes	B
ChB2	Chester silt loam, 3 to 8 percent slopes, moderately eroded	B
GlD2	Glendale loam, 15 to 25 percent slopes, moderately eroded	B
MgB2	Manor gravelly loam, 3 to 8 percent slopes, moderately eroded	B
MgC3	Manor gravelly loam, 8 to 15 percent slopes, severely eroded	B
MID2	Manor loam, 15 to 25 percent slopes, moderately eroded	B
MIE	Manor loam, 25 to 45 percent slopes	B

LEGEND	
Existing Contour	---382---
Proposed Contour	---382---
Direction of Flow	→
Existing Spot Elevation	382.3
Proposed Spot Elevation	+82.53
Existing Trees	(Cloud-like symbols)
Proposed Septic Easement	(Hatched box)
Existing Septic Easement	(Hatched box)
Drainage Divide	---▲---
Soils Boundary	---●---



OWNER/DEVELOPER
 WILLIAMSBURG GROUP LLC
 5495 Harpers Farm Road #200
 Columbia, Maryland 21044-3634
 Telephone: (410) 997-8800
 Fax: (410) 997-4558

STORM DRAIN DRAINAGE AREA MAP
 LOTS 1 THRU 19 AND NON-BUILDABLE
 PRESERVATION PARCELS 'A', 'B', 'C' & 'D'
SHEPPARD MANOR

TAX MAP 29 GRID 01 PARCEL 268
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

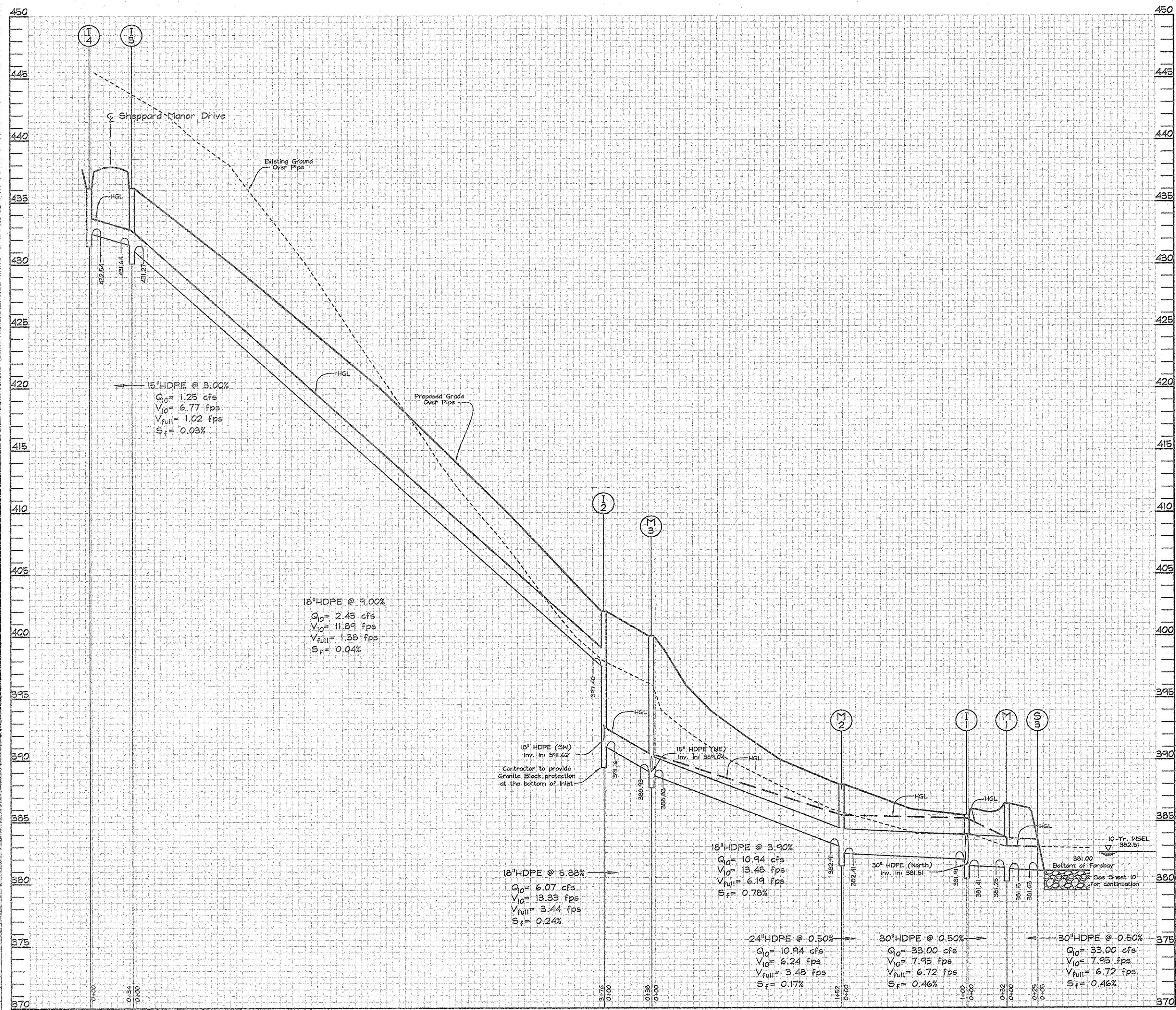
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Andy K... 3/12/07
 CHIEF, DIVISION OF LAND DEVELOPMENT JA DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W... 3-6-07
 CHIEF, BUREAU OF HIGHWAYS MS DATE



FSH Associates
 Engineers Planners Surveyors
 6339 Howard Lane, Elkridge, MD 21075
 Tel: 410-567-5200 Fax: 410-796-1562
 E-mail: info@fshet.com

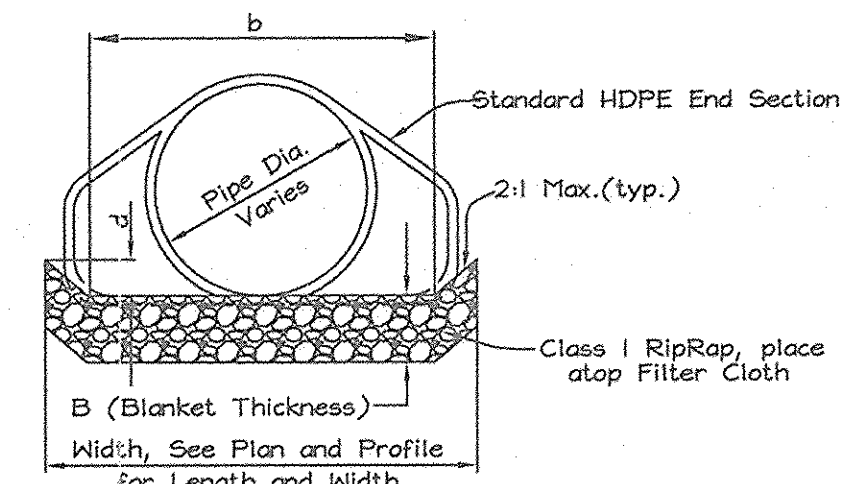
DESIGN BY: ZYF
 DRAWN BY: CH
 CHECKED BY: ZYF
 SCALE: 1"=60'
 DATE: Feb 23, 2007
 N.O. No.: 3160
 SHEET No.: 7 OF 17



STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	TOP ELEV.	INV. IN.	INV. OUT.	REMARKS
I-1	Precast Open End Grate	℄ Sta. 5+45.56 17' right	385.51	381.51	381.41	SD 4.36
I-2	Precast Open End Grate	℄ Sta. 8+35.34 17' right	402.00	397.40	391.16	SD 4.36
I-3	Precast Open End Grate	℄ Sta. 12+11.70 17' right	436.14	431.64	431.27	SD 4.36
I-4	Precast Open End Grate	℄ Sta. 12+11.70 17' left	436.14	-	432.54	SD 4.36
I-5	Precast Open End Grate	℄ Sta. 5+45.56 17' left	385.51	381.78	381.68	SD 4.36
I-6	Precast Open End Grate	N575, 412.66 El, 330, 367.66	386.75	-	382.52	SD 4.36
I-7	Precast Open End Grate	℄ Sta. 8+15.46 17' left	400.00	389.78	389.53	SD 4.36
I-8	Single Type "S" Inlet	N575, 319.29 El, 330, 621.01	394.50	-	391.27	SD 4.22
I-9	Single Type "S" Inlet	N574, 999.81 El, 330, 524.34	395.50	-	393.14	SD 4.22
M-1	Precast Manhole (4') (shallow)	N575, 212.23 El, 330, 293.79	386.44	391.25	381.15	G 5.12
M-2	Precast Manhole (4') (shallow)	℄ Sta. 6+45.53 14.65' right	387.60	382.91	382.41	G 5.12
M-3	Precast Manhole (4') (standard)	℄ Sta. 7+97.75 11' right	400.00	388.83	388.83	G 5.12
S-1	15" RCP End Section	N575, 459.88 El, 329, 829.69	381.45	380.20	380.17	SD 5.51
S-2	15" RCP End Section	N575, 507.11 El, 329, 869.86	382.70	380.85	380.82	SD 5.51
S-3	30" HDPE End Section	N575, 203.48 El, 330, 270.71	383.53	381.03	381.00	Honor of Equipment

NOTES: 1. 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.
 2. Top elevations for Precast Manholes are to the center top of manhole cover.
 3. Top slope of structures to conform to slope of paving.
 4. Top Elevation for Precast Open End Inlet in to ℄ of Throat Opening (Not Grate Elevation)



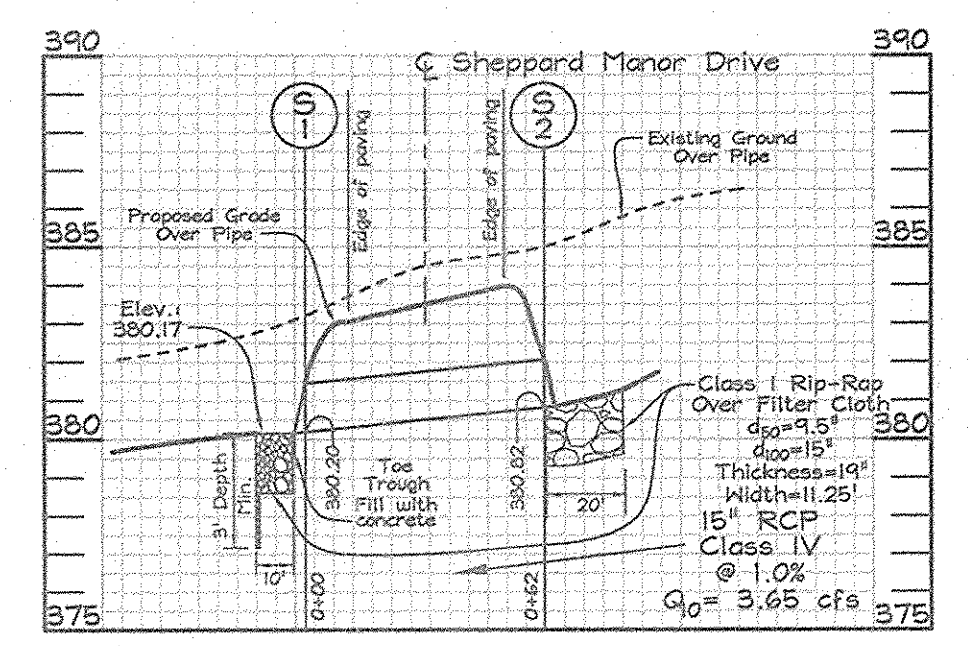
TYP. OUTFALL DETAIL FOR S-1 & S-3
Not to Scale

Structure	Q(c.f.s.)	S	n	b	d	d _{gross}	d _{net}	B (Blanket Thickness)
S-1	3.65 cfs	0.0%	0.06	3.42'	1.0'	15"	9.5"	19"
S-3	33.90 cfs	0.0%	0.06	17.33'	1.0'	15"	9.5"	19"

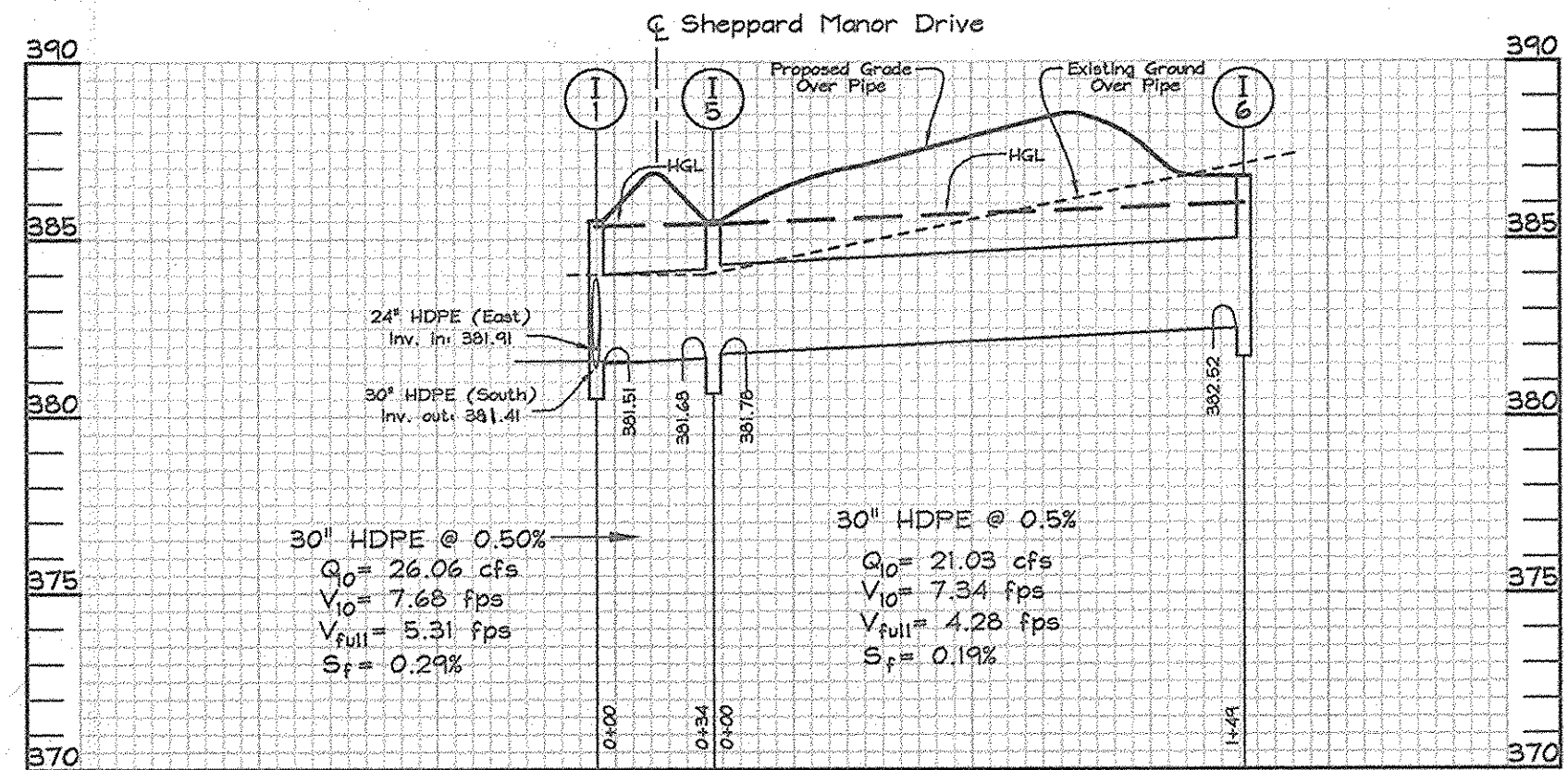
PIPE SCHEDULE

SIZE	TYPE	LENGTH
15"	HDPE	335 LF
18"	HDPE	598 LF
24"	HDPE	100 LF
30"	HDPE	240 LF
15"	RCP Class IV	62 LF

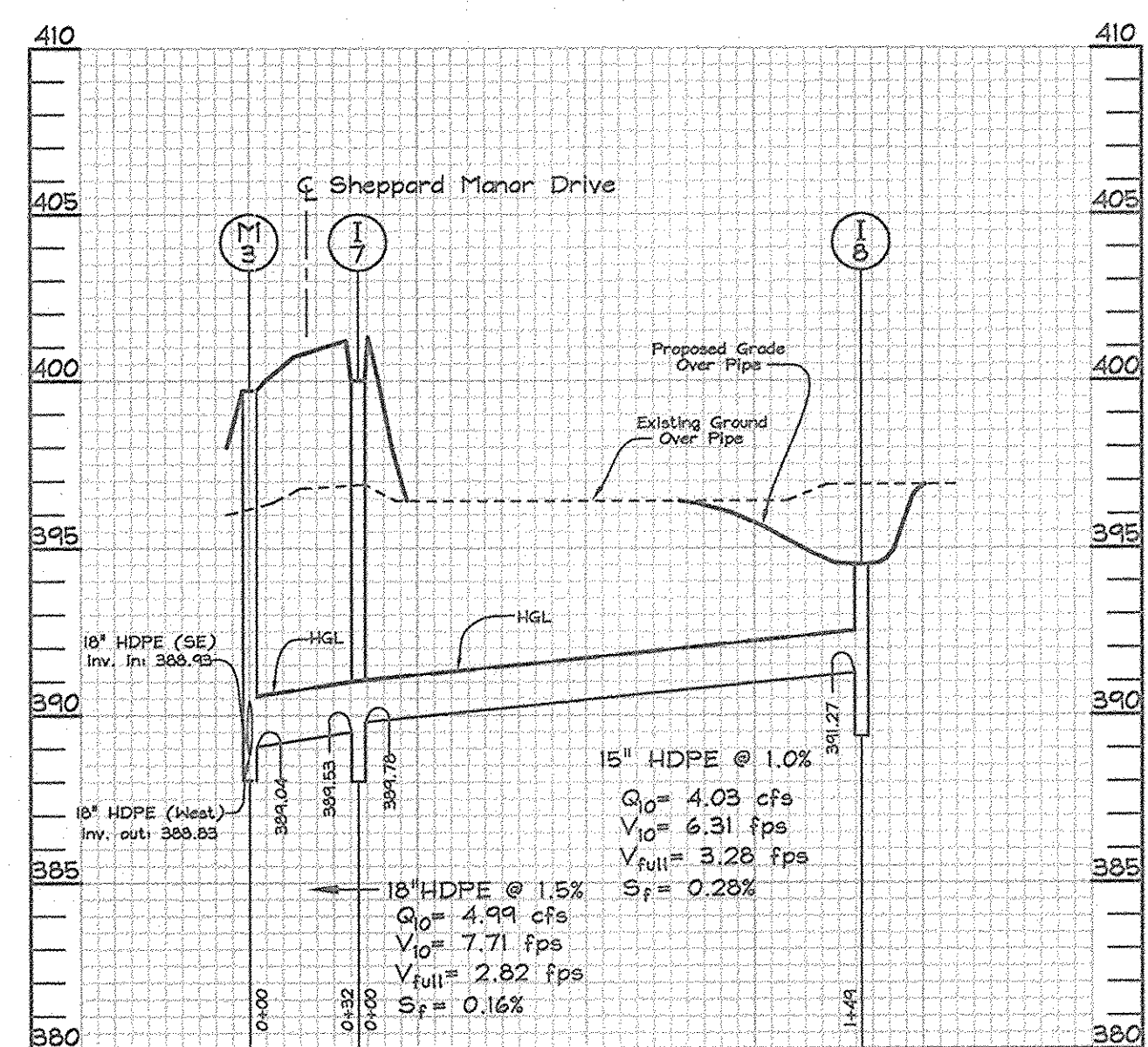
STORM DRAIN PROFILES
Scale: Horizontal-1"=50'
Vertical-1"=5'



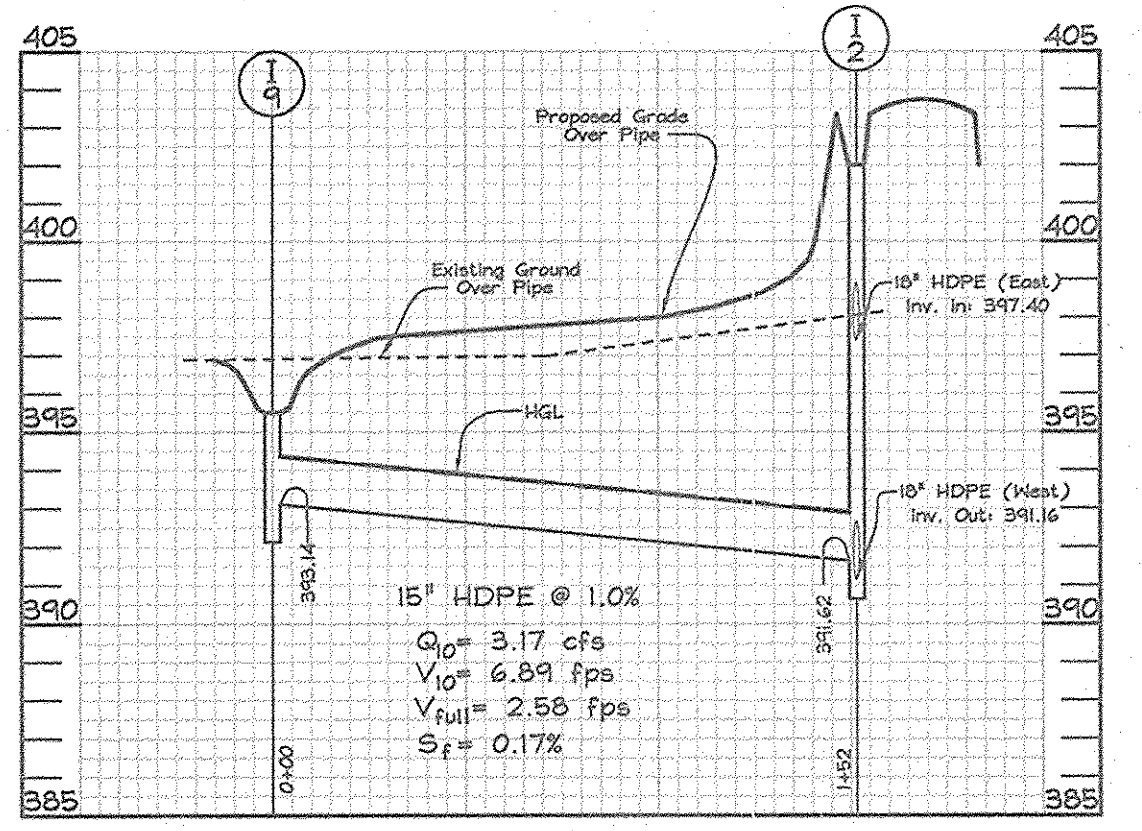
STORM DRAIN PROFILES
Scale: Horizontal-1"=50'
Vertical-1"=5'



STORM DRAIN PROFILES
Scale: Horizontal-1"=50'
Vertical-1"=5'



STORM DRAIN PROFILES
Scale: Horizontal-1"=50'
Vertical-1"=5'



STORM DRAIN PROFILES
Scale: Horizontal-1"=50'
Vertical-1"=5'

OWNER/DEVELOPER
WILLIAMSBURG GROUP LLC
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Columbia, Maryland 21044-3834
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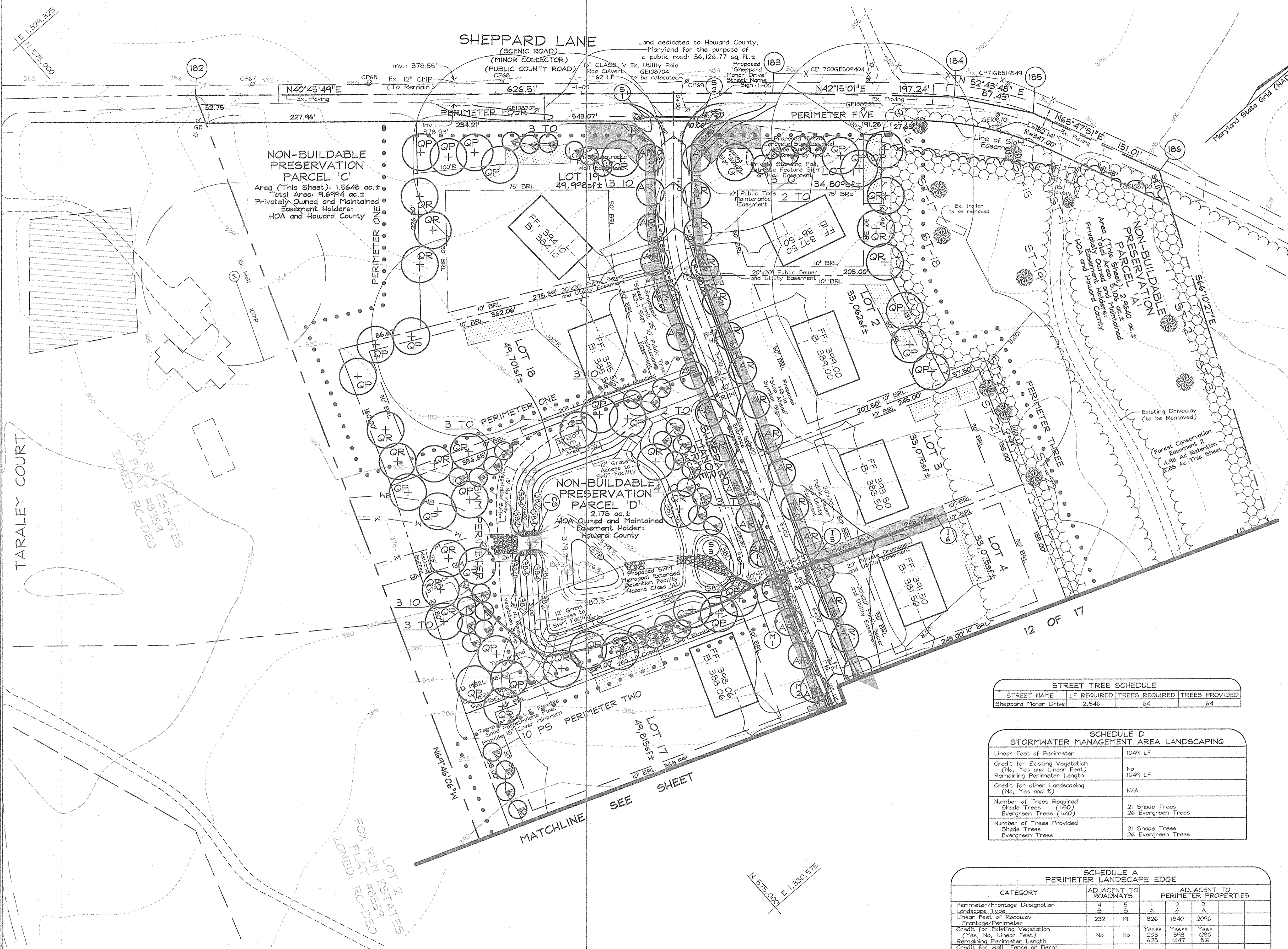
STORM DRAIN PROFILES
LOTS 1 THRU 19 AND NON-BUILDABLE
PRESERVATION PARCELS 'A', 'B', 'C' & 'D'
SHEPPARD MANOR
TAX MAP 29 GRID 01 PARCEL 268
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Candy Hamilton 3/12/07
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. ... 3-6-07
CHIEF, BUREAU OF HIGHWAYS DATE

DESIGN BY: ZYF
DRAWN BY: CH
CHECKED BY: ZYF
SCALE: As Shown
DATE: Feb 23, 2007
H.O. No.: 3160
SHEET No.: 8 OF 17

FSH Associates
Engineers Planners Surveyors
6339 Howard Lane, Elkridge, MD 21075
Tel: 410-587-5200 Fax: 410-798-1562
E-mail: info@fsh.com



LEGEND

- Existing Contour: ---382
- Proposed Contour: ---382
- Existing Spot Elevation: 382.3
- Proposed Spot Elevation: +82.53
- Direction of Flow: --->
- Existing Trees to Remain: (Symbol)
- Light Poles: * (Symbol)
- Street Tree: (Symbol)
- Evergreen Tree: (Symbol)
- Shade Tree: (Symbol)
- Landscape Perimeter: PERIMETER ONE (Symbol)

LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	NOTE
QR	29	Quercus rubra Red Oak	2 1/2"-3" Cal.	B & B
AR	64	Acer Rubrum October Glory Red Maple	2 1/2"-3" Cal.	B & B
QP	37	Quercus Phellos Willow Oak	2 1/2"-3" Cal.	B & B
TO	20	Tilia occidentalis 'Techny' 'Techny' Arborvitae	5'-6" Ht.	B & B
IO	17	Ilex Opaca American Holly	5'-6" Ht.	B & B
PS	24	Pinus strobus Eastern White Pine	5'-6" Ht.	B & B

- LANDSCAPE NOTES**
- At the time of installation, all shrubs and other plantings herewith 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.
 - The owner, tenant, and/or their agents shall be responsible for maintenance of the required landscaping, including both plant materials and berms, fences and walls. All plant materials shall be maintained in good growing condition, and when necessary, replaced with new materials to ensure continued compliance with applicable regulations. All other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.
 - Financial surety for the required landscaping will be posted as part of the Developer's Agreement in the amount of \$28,950.00 (66 shade trees @ \$300.00 each, and 61 Evergreen Trees @ \$150.00 each) at Grading Plan Stage.
 - Trees with mature heights greater than 25' shall not be planted within 20' of overhead lines. Trees with mature heights greater than 40' shall not be planted within 45' of overhead lines.

STREET TREE SCHEDULE

STREET NAME	LF REQUIRED	TREES REQUIRED	TREES PROVIDED
Sheppard Manor Drive	2,546	64	64

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING

Linear Feet of Perimeter	1049 LF
Credit for Existing Vegetation (No, Yes and Linear Feet)	No
Remaining Perimeter Length	1049 LF
Credit for other Landscaping (No, Yes and %)	N/A
Number of Trees Required	21 Shade Trees 26 Evergreen Trees
Number of Trees Provided	21 Shade Trees 26 Evergreen Trees

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES		
	4	5	1	2	3
Perimeter/Frontage Designation	B	B	A	A	A
Linear Feet of Roadway Frontage/Perimeter	232	191	826	1840	2096
Credit for Existing Vegetation (Yes, No, Linear Feet)	No	No	Yes** 275	Yes** 343	Yes** 1280
Remaining Perimeter Length	623	623	1447	816	816
Credit for Wall, Fence or Berm (Yes, No, Linear Feet)	No	No	No	No	No
Remaining Perimeter Length					
Number of Plants Required					
Shade Trees	1:50 5	1:50 4	1:60 10	1:60 24	1:60 14
Evergreen Trees	1:40 6	1:40 5	-	-	-
Shrubs	-	-	-	-	-
Number of Plants Provided					
Shade Trees	5	4	10	12	14
Evergreen Trees	6	5	-	24	-
Shrubs	-	-	-	-	-

* Existing woods to remain
** Credit taken for SHM perimeter.

OWNER/DEVELOPER
 WILLIAMSBURG GROUP LLC
 5485 Harpers Farm Road #200
 Columbia, Maryland 21044-3834
 Telephone: (410) 997-8800
 Fax: (410) 997-4588

LANDSCAPE PLAN, NOTES AND DETAILS
 LOTS 1 THRU 19 AND NON-BUILDABLE PRESERVATION PARCELS 'A', 'B', 'C' & 'D'
SHEPPARD MANOR
 TAX MAP 24 GRID 01 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 PARCEL 268

FSH Associates
 Engineers Planners Surveyors
 6339 Howard Lane, Elkridge, MD 21075
 Tel: 410-567-5200 Fax: 410-795-1152
 E-mail: info@fshet.com

DESIGN BY: ZYF
 DRAWN BY: CH
 CHECKED BY: ZYF
 SCALE: 1"=50'
 DATE: Feb 23, 2007
 P.C. No.: 3160
 SHEET No.: 11 OF 17

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 2/16/07
 CHIEF, DIVISION OF LAND DEVELOPMENT JR DATE

[Signature] 2/12/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
 [Signature] 3-6-07
 CHIEF, BUREAU OF HIGHWAYS DATE

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(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

[Signature] 2-23-07
 SIGNATURE OF DEVELOPER DATE

E 1,330,200
N 574,150

Maryland State Grid (NAD 83/91)

11 OF 17

FOX RUN ESTATES
PLAT #8359
ZONED: RC-DEO

FOX RUN ESTATES
PLAT #8340
ZONED: RC-DEO

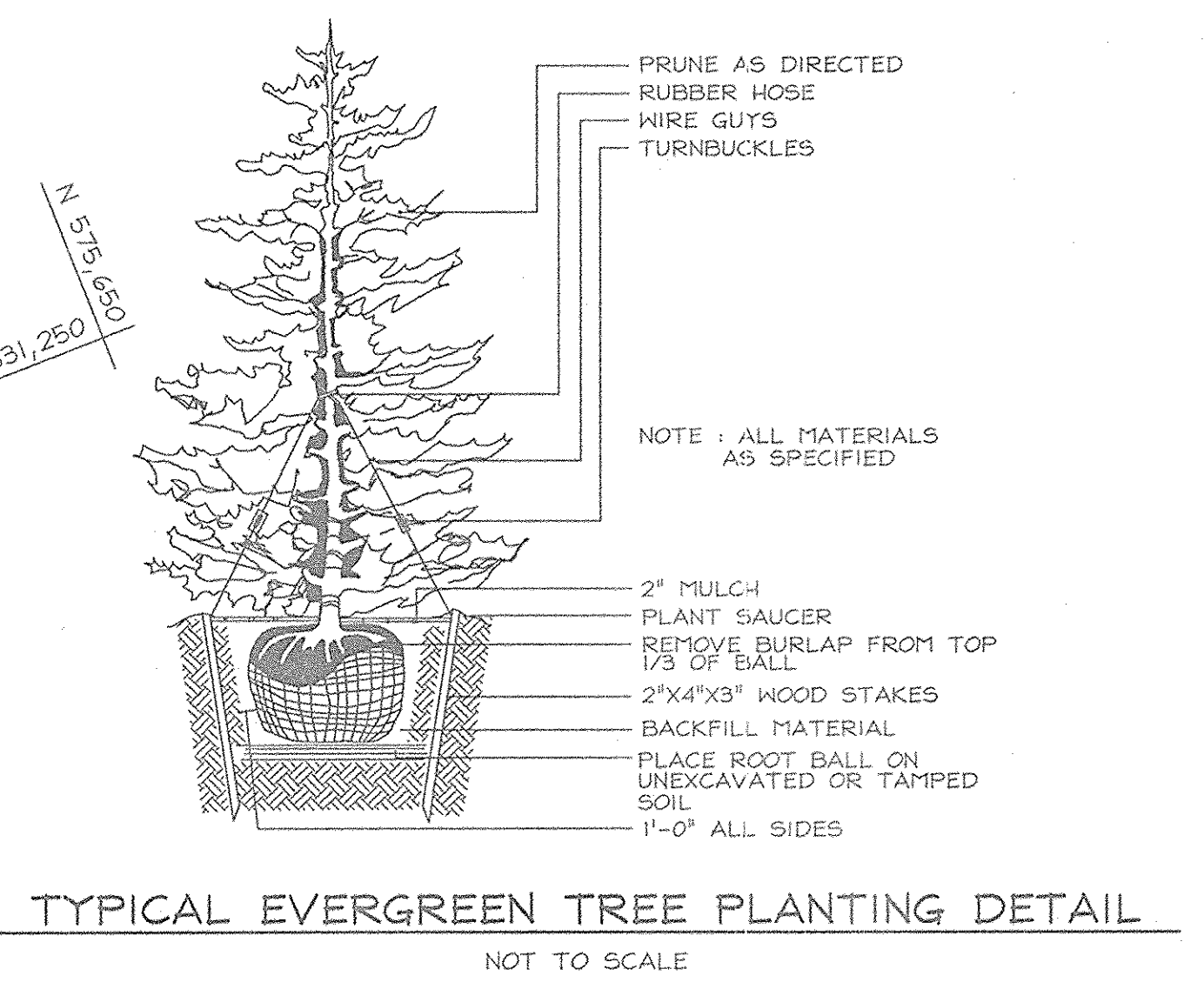
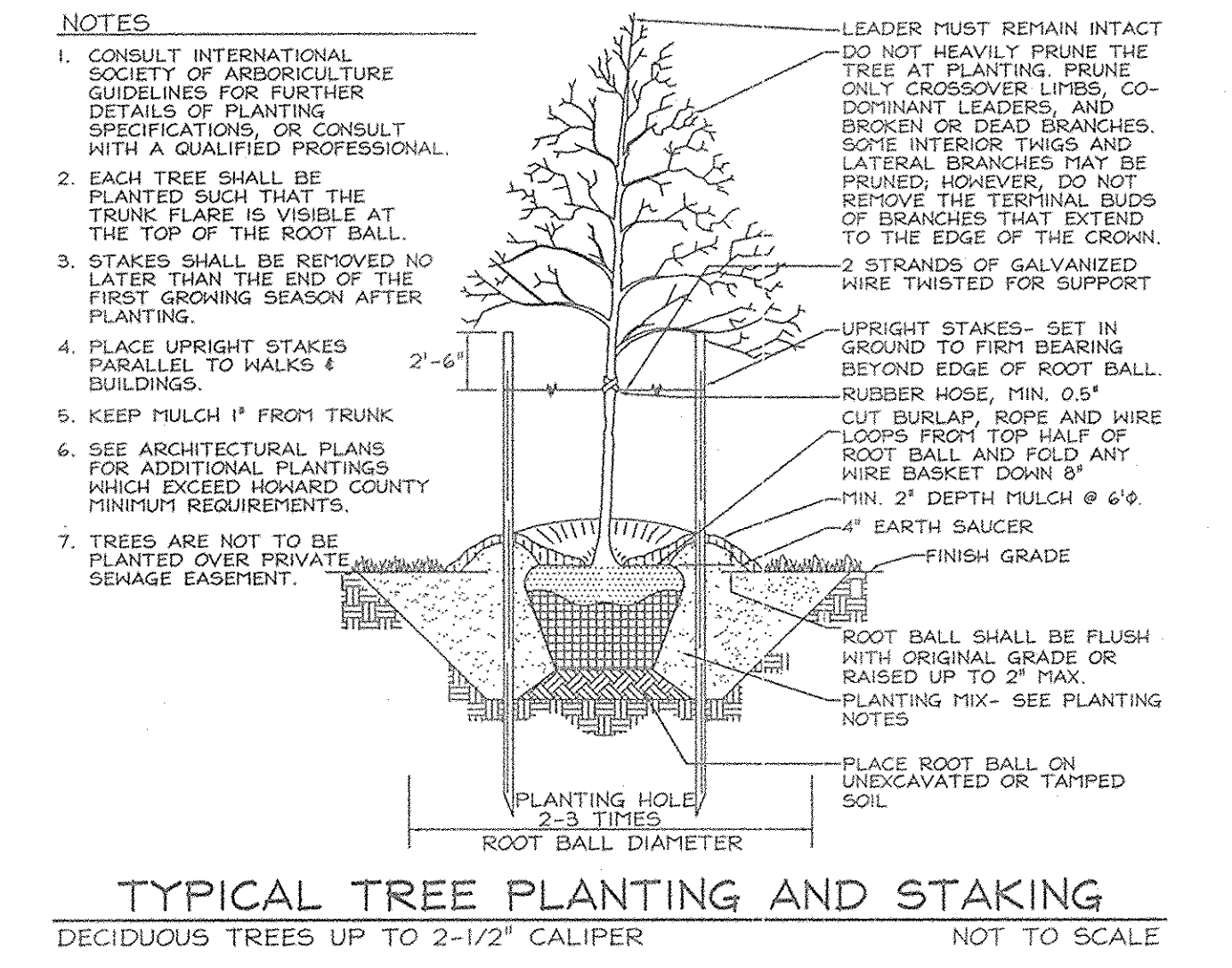
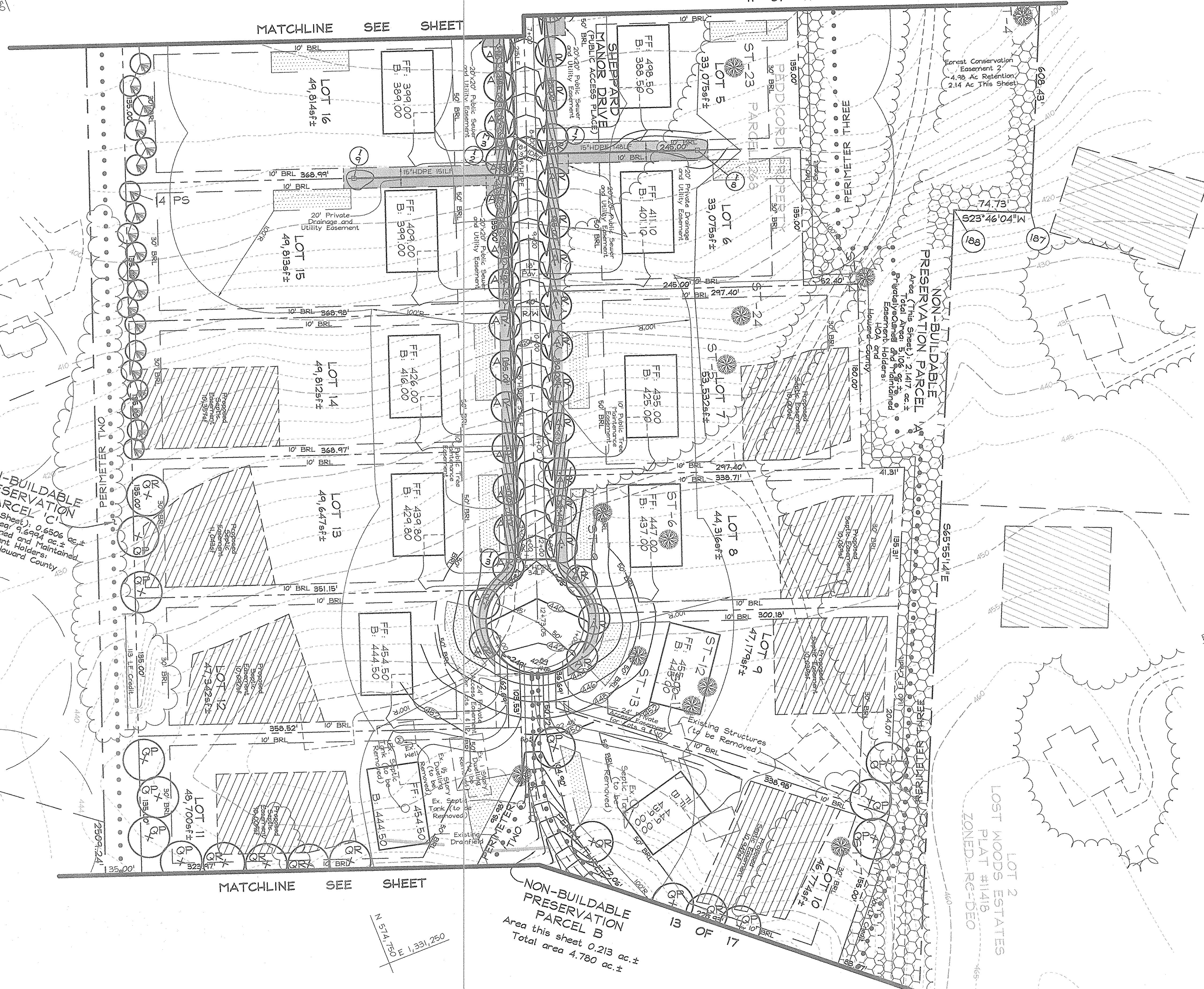
NON-BUILDABLE PRESERVATION PARCEL 'C'
Area (This Sheet): 0.6506 ac.±
Total Area: 9.6994 ac.±
Privately Owned and Maintained.
Easement Holders:
HOA and Howard County

NON-BUILDABLE PRESERVATION PARCEL B
Area this sheet 0.213 ac.±
Total area 4.780 ac.±

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cathy Harris 3/12/07
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

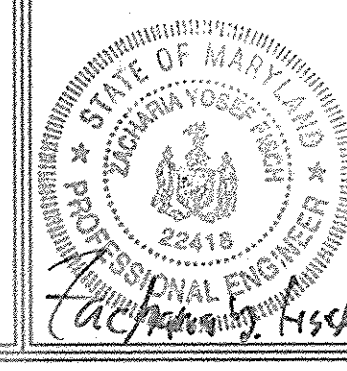
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William Z. ... 3-6-07
CHIEF, BUREAU OF HIGHWAYS DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
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[Signature] 2-23-07
SIGNATURE OF DEVELOPER DATE



OWNER/DEVELOPER
WILLIAMSBURG GROUP LLC
5485 Harpers Farm Road #200
Columbia, Maryland 21044-3834
Telephone: (410) 997-8800
Fax: (410) 997-4558

LANDSCAPE PLAN,
NOTES AND DETAILS
LOTS 1 THRU 10 AND NON-BUILDABLE
PRESERVATION PARCELS 'A', 'B', 'C' & 'D'
SHEPPARD MANOR
TAX MAP 29 GRID 01 PARCEL 268
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



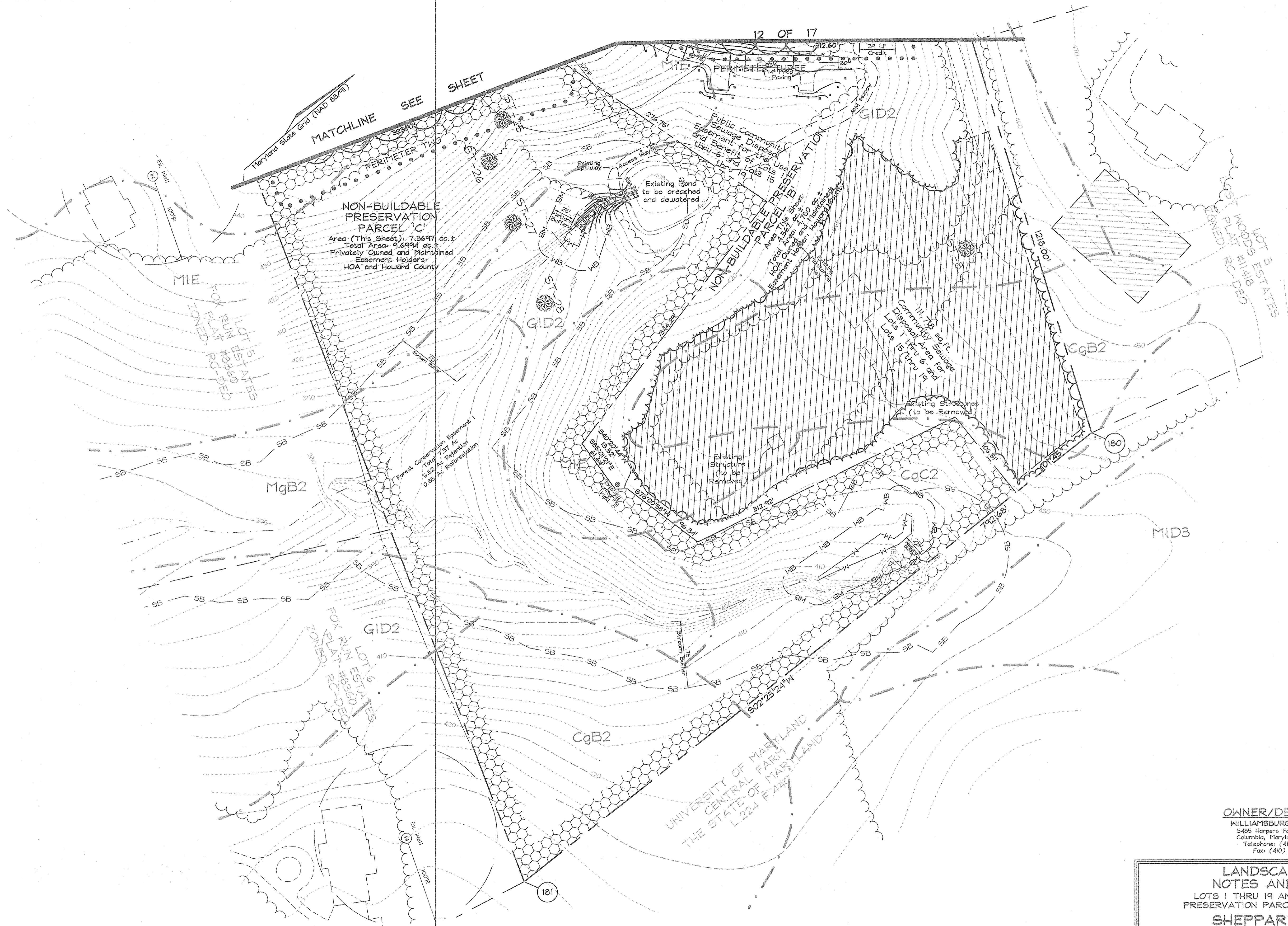
FSH Associates
Engineers Planners Surveyors
6338 Howard Lane, Elkridge, MD 21075
Tel: 410-567-5200 Fax: 410-795-1502
E-mail: info@fsher.com

DESIGN BY: ZYF
DRAWN BY: CH
CHECKED BY: ZYF
SCALE: 1"=50'
DATE: Feb 23, 2007
H.O. No.: 3160
SHEET No.: 12 OF 17

MATCHLINE SEE SHEET

NON-BUILDABLE PRESERVATION PARCEL 'C'
Area (This Sheet): 7.3647 ac.±
Total Area: 9.6994 ac.±
Privately Owned and Maintained
Easement Holders:
HOA and Howard County

NON-BUILDABLE PRESERVATION PARCEL 'B'
Area (This Sheet): 7.3647 ac.±
Total Area: 9.6994 ac.±
Privately Owned and Maintained
Easement Holders:
HOA and Howard County



OWNER/DEVELOPER
WILLIAMSBURG GROUP LLC
5485 Harpers Farm Road #200
Columbia, Maryland 21044-3834
Telephone: (410) 997-8800
Fax: (410) 997-4558

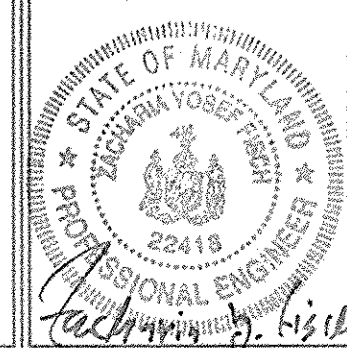
LANDSCAPE PLAN,
NOTES AND DETAILS
LOTS 1 THRU 19 AND NON-BUILDABLE
PRESERVATION PARCELS 'A', 'B', 'C' & 'D'
SHEPPARD MANOR

TAX MAP 29 GRID 01 PARCEL 268
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hammett 3/12/07
CHIEF, DIVISION OF LAND DEVELOPMENT JA DATE

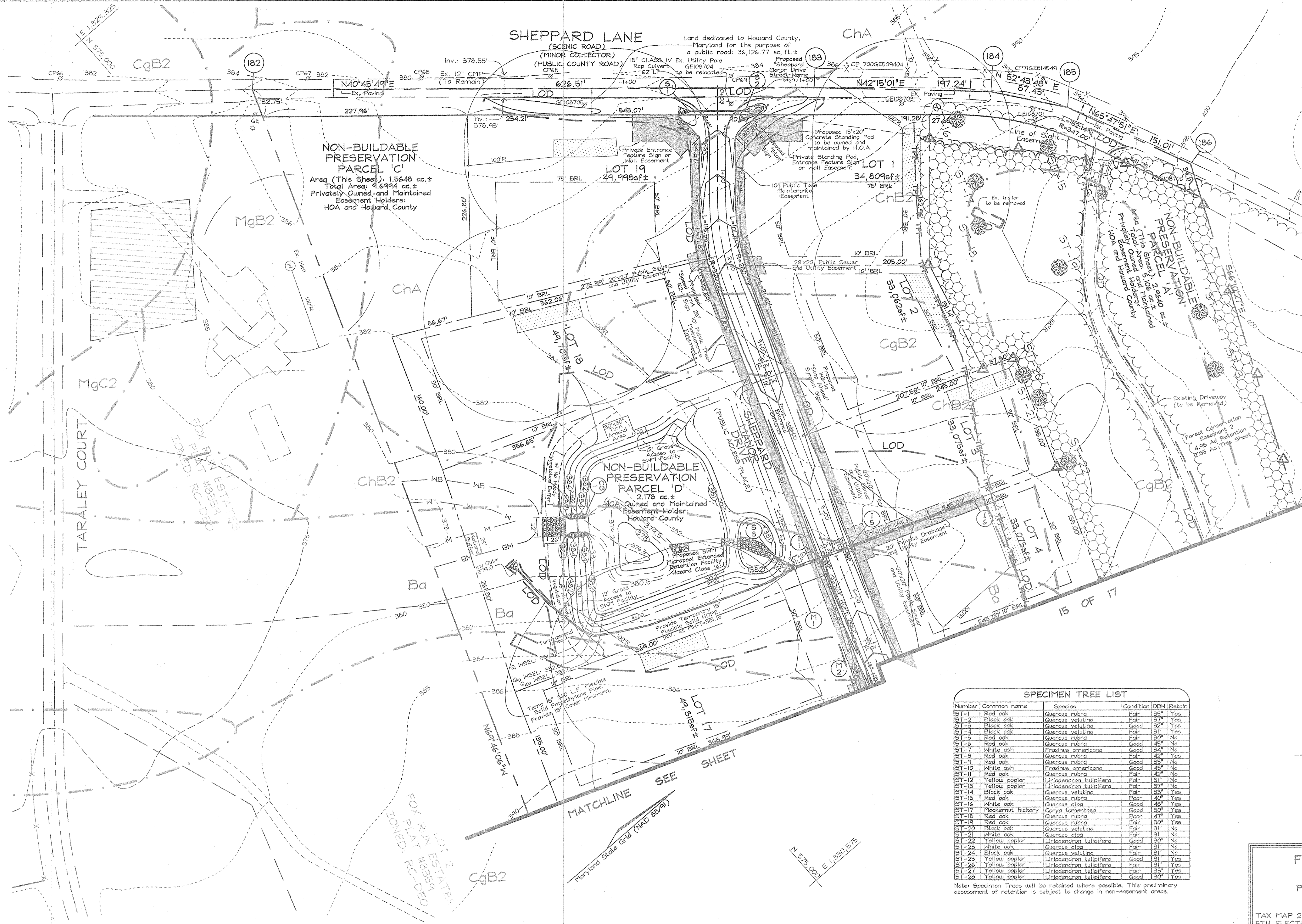
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. White 3-6-07
CHIEF, BUREAU OF HIGHWAYS PJS DATE

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
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I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF
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YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE
DEPARTMENT OF PLANNING AND ZONING.
[Signature] 2-23-07
SIGNATURE OF DEVELOPER DATE



FSH Associates
Engineers Planners Surveyors
6339 Howard Lane, Elkridge, MD 21075
Tel: 410-587-5200 Fax: 410-796-1562
E-mail: info@fsh.net

DESIGN BY: ZYF
DRAWN BY: CH
CHECKED BY: ZYF
SCALE: 1"=50'
DATE: Feb 23, 2007
P.O. No.: 3160
SHEET No.: 13 OF 17



LEGEND

- Forest Conservation Easement Retention Area
- Forest Conservation Easement Reforestation Area
- FCE Signage
- TPF Tree Protection Fence

SPECIMEN TREE LIST

Number	Common name	Species	Condition	DBH	Retain
ST-1	Red oak	Quercus rubra	Fair	35"	Yes
ST-2	Black oak	Quercus velutina	Fair	37"	Yes
ST-3	Black oak	Quercus velutina	Good	32"	Yes
ST-4	Black oak	Quercus velutina	Fair	31"	Yes
ST-5	Red oak	Quercus rubra	Fair	30"	No
ST-6	Red oak	Quercus rubra	Good	45"	No
ST-7	White ash	Fraxinus americana	Good	34"	No
ST-8	Red oak	Quercus rubra	Fair	42"	Yes
ST-9	Red oak	Quercus rubra	Good	35"	No
ST-10	White ash	Fraxinus americana	Good	45"	No
ST-11	Red oak	Quercus rubra	Fair	42"	No
ST-12	Yellow poplar	Liriodendron tulipifera	Fair	31"	No
ST-13	Yellow poplar	Liriodendron tulipifera	Fair	37"	No
ST-14	Black oak	Quercus velutina	Fair	33"	Yes
ST-15	Red oak	Quercus rubra	Poor	40"	Yes
ST-16	White oak	Quercus alba	Good	48"	Yes
ST-17	Pickernut hickory	Carya tomentosa	Good	30"	Yes
ST-18	Red oak	Quercus rubra	Poor	47"	Yes
ST-19	Red oak	Quercus rubra	Fair	30"	Yes
ST-20	Black oak	Quercus velutina	Fair	31"	No
ST-21	White oak	Quercus alba	Fair	31"	No
ST-22	Yellow poplar	Liriodendron tulipifera	Good	30"	Yes
ST-23	White oak	Quercus alba	Fair	31"	No
ST-24	Black oak	Quercus velutina	Fair	31"	No
ST-25	Yellow poplar	Liriodendron tulipifera	Good	31"	Yes
ST-26	Yellow poplar	Liriodendron tulipifera	Fair	31"	Yes
ST-27	Yellow poplar	Liriodendron tulipifera	Fair	33"	Yes
ST-28	Yellow poplar	Liriodendron tulipifera	Good	30"	Yes

Note: Specimen Trees will be retained where possible. This preliminary assessment of retention is subject to change in non-easement areas.

EXPLORATION RESEARCH, INC.
 ENVIRONMENTAL CONSULTANTS
 LANDSCAPE ARCHITECTS
 6839 HOWARD LANE
 PISCATAWAY, MARYLAND 21076
 TEL: (410) 697-5210 FAX: (410) 708-1668

OWNER/DEVELOPER
 WILLIAMSBURG GROUP LLC
 5495 Harpers Farm Road #200
 Columbia, Maryland 21044-3634
 Telephone: (410) 997-8800
 Fax: (410) 997-4558

FOREST CONSERVATION PLAN

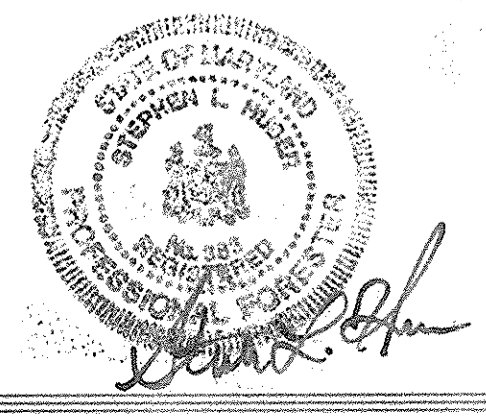
LOTS 1 THRU 19 AND NON-BUILDABLE PRESERVATION PARCELS 'A', 'B', 'C' & 'D'
SHEPPARD MANOR

TAX MAP 29 GRID 01 PARCEL 268
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Craig Hamaker 3/12/07
 CHIEF, DIVISION OF LAND DEVELOPMENT JA DATE

William J. Hamaker 3/12/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION JA DATE



FSH Associates
 Engineers Planners Surveyors
 6339 Howard Lane, Elkridge, MD 21075
 Tel: 410-567-2200 Fax: 410-796-1562
 E-mail: info@fshe.com

DESIGN BY: ZYF/AB
 DRAWN BY: AB
 CHECKED BY: ZYF
 SCALE: 1"=50'
 DATE: Feb 23, 2007
 P.O. No.: 3162
 SHEET No.: 14 OF 17

E 1,330,200
N 574,750

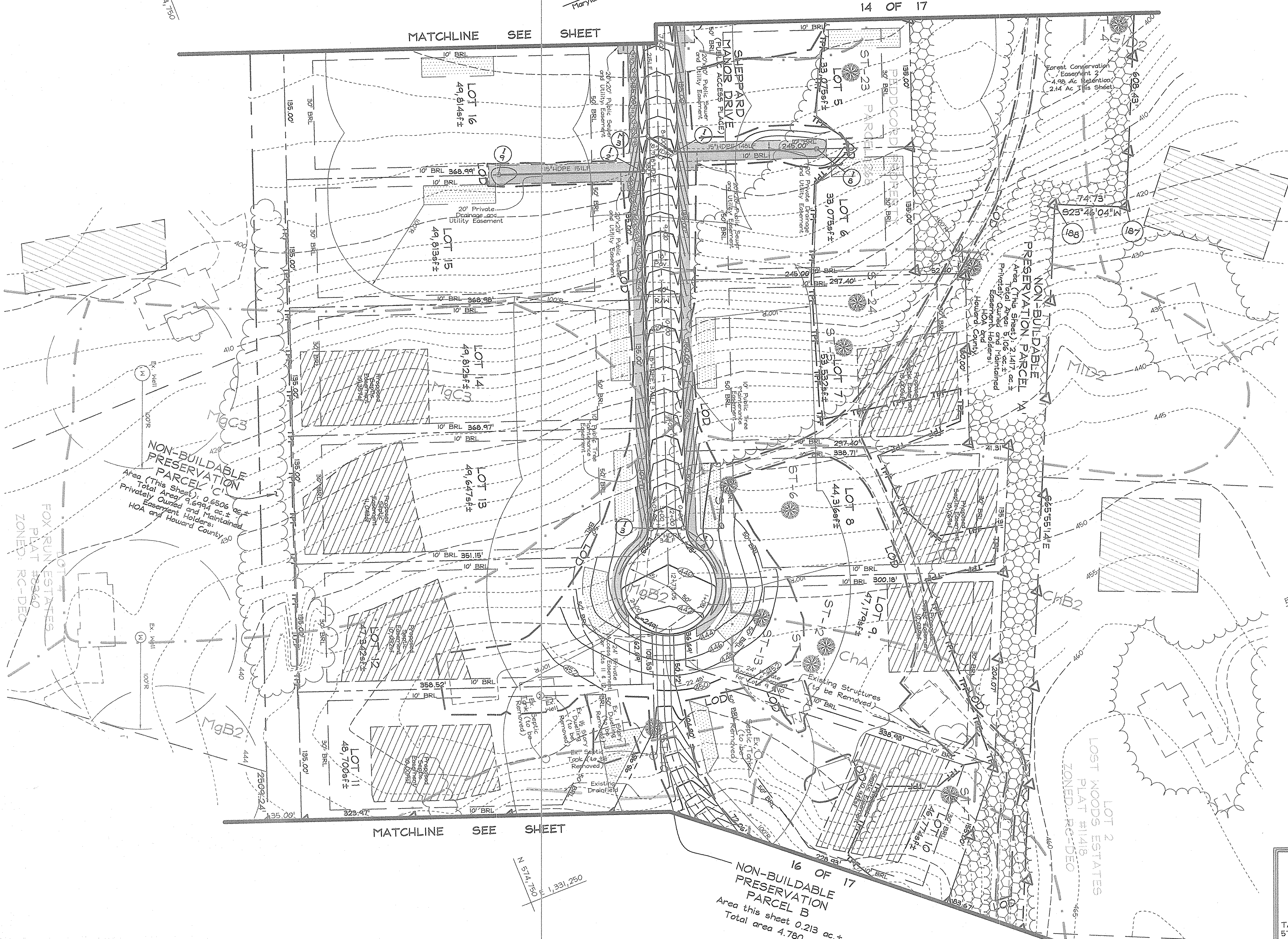
Maryland State Grid (NAD 83/91)

14 OF 17

MATCHLINE SEE SHEET

MATCHLINE SEE SHEET

16 OF 17
NON-BUILDABLE
PRESERVATION
PARCEL B
Area this sheet 0.213 ac.±
Total area 4.780 ac.±



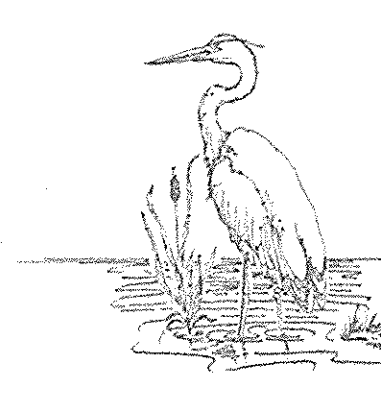
LEGEND

- Forest Conservation Easement Retention Area
- Forest Conservation Easement Reforestation Area
- FCE Signage
- Tree Protection Fence

SPECIMEN TREE LIST

Number	Common name	Species	Condition	DBH	Retain
ST-1	Red oak	Quercus rubra	Fair	35"	Yes
ST-2	Black oak	Quercus velutina	Fair	37"	Yes
ST-3	Black oak	Quercus velutina	Good	32"	Yes
ST-4	Black oak	Quercus velutina	Fair	31"	Yes
ST-5	Red oak	Quercus rubra	Fair	30"	No
ST-6	Red oak	Quercus rubra	Good	45"	No
ST-7	White oak	Fraxinus americana	Good	34"	No
ST-8	Red oak	Quercus rubra	Fair	42"	Yes
ST-9	Red oak	Quercus rubra	Good	35"	No
ST-10	White oak	Fraxinus americana	Good	45"	No
ST-11	Red oak	Quercus rubra	Fair	42"	No
ST-12	Yellow poplar	Liriodendron tulipifera	Fair	31"	No
ST-13	Yellow poplar	Liriodendron tulipifera	Fair	37"	No
ST-14	Black oak	Quercus velutina	Fair	33"	Yes
ST-15	Red oak	Quercus rubra	Poor	40"	Yes
ST-16	White oak	Quercus alba	Good	48"	Yes
ST-17	Hickernut hickory	Carya tomentosa	Good	30"	Yes
ST-18	Red oak	Quercus rubra	Fair	47"	Yes
ST-19	Red oak	Quercus rubra	Fair	30"	Yes
ST-20	Black oak	Quercus velutina	Fair	31"	No
ST-21	White oak	Quercus alba	Fair	31"	No
ST-22	Yellow poplar	Liriodendron tulipifera	Good	30"	No
ST-23	White oak	Quercus alba	Fair	31"	No
ST-24	Black oak	Quercus velutina	Fair	31"	No
ST-25	Yellow poplar	Liriodendron tulipifera	Good	31"	Yes
ST-26	Yellow poplar	Liriodendron tulipifera	Fair	31"	Yes
ST-27	Yellow poplar	Liriodendron tulipifera	Fair	33"	Yes
ST-28	Yellow poplar	Liriodendron tulipifera	Good	30"	Yes

Note: Specimen Trees will be retained where possible. This preliminary assessment of retention is subject to change in non-easement areas.



EXPLORATION RESEARCH, INC.
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS
6539 HOWARD LANE
COLUMBIA, MARYLAND 21075
TEL: (410) 667-5210 FAX: (410) 799-1562

OWNER/DEVELOPER
WILLIAMSBURG GROUP LLC
5495 Harpers Farm Road #200
Columbia, Maryland 21044-3834
Telephone: (410) 997-8800
Fax: (410) 997-4558

FOREST CONSERVATION PLAN
LOTS 1 THRU 19 AND NON-BUILDABLE
PRESERVATION PARCELS 'A', 'B', 'C' & 'D'
SHEPPARD MANOR
TAX MAP 29 GRID 01 PARCEL 268
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

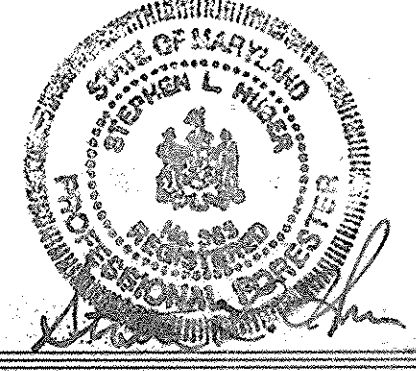
FSH Associates
Engineers Planners Surveyors
6339 Howard Lane, Elkridge, MD 21075
Tel: 410-567-5200 Fax: 410-796-1562
E-mail: info@fsh.com

DESIGN BY: ZYF/AB
DRAWN BY: AB
CHECKED BY: ZYF
SCALE: 1"=50'
DATE: Feb. 23, 2007
I.C. No.: 3160
SHEET No.: 15 OF 17

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Candis Korman 2/13/07
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

William J. ... 2/12/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



MATCHLINE SEE SHEET

NON-BUILDABLE PRESERVATION PARCEL 'C'
Area (This Sheet): 7,3697 ac.
Total Area: 9,6994 ac.
Privately Owned and Maintained
Easement Holders:
HOA and Howard County

Public Community Sewage Disposal Easement for the Use and Benefit of Lots 15 thru 19
Existing Road to be Breached and Dewatered

NON-BUILDABLE PRESERVATION PARCEL 'B' OBSERVATION

Community Sewage Disposal Area for Lots 15 thru 19

Existing Structures (to be Removed)

Existing Structure (to be Removed)

Forest Conservation Easement 1
Area: 0.59 Ac
Retention
0.59 Ac
Reforestation

E 1,330,900
N 574,200

N 575,450
E 1,331,950

SPECIMEN TREE LIST

Number	Common name	Species	Condition	DBH	Retain
ST-1	Red oak	Quercus rubra	Fair	35"	Yes
ST-2	Black oak	Quercus velutina	Fair	37"	Yes
ST-3	Black oak	Quercus velutina	Good	32"	Yes
ST-4	Black oak	Quercus velutina	Fair	31"	Yes
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ST-6	Red oak	Quercus rubra	Good	45"	No
ST-7	White ash	Fraxinus americana	Good	34"	No
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ST-11	Red oak	Quercus rubra	Fair	42"	No
ST-12	Yellow poplar	Liriodendron tulipifera	Fair	31"	No
ST-13	Yellow poplar	Liriodendron tulipifera	Fair	37"	No
ST-14	Black oak	Quercus velutina	Fair	33"	Yes
ST-15	Red oak	Quercus rubra	Poor	40"	Yes
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ST-17	Hickory	Carya lomentosa	Good	30"	Yes
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ST-19	Red oak	Quercus rubra	Fair	30"	Yes
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ST-22	Yellow poplar	Liriodendron tulipifera	Good	30"	No
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ST-24	Black oak	Quercus velutina	Fair	31"	No
ST-25	Yellow poplar	Liriodendron tulipifera	Good	31"	Yes
ST-26	Yellow poplar	Liriodendron tulipifera	Fair	31"	Yes
ST-27	Yellow poplar	Liriodendron tulipifera	Fair	33"	Yes
ST-28	Yellow poplar	Liriodendron tulipifera	Good	30"	Yes

Note: Specimen Trees will be retained where possible. This preliminary assessment of retention is subject to change in non-easement areas.

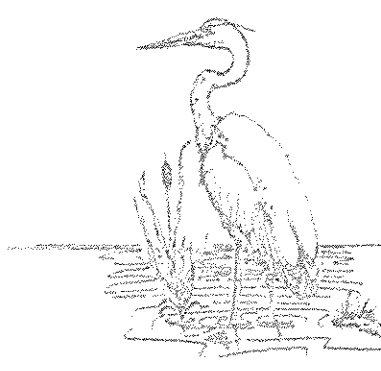
LEGEND

- Forest Conservation Easement Retention Area
- Forest Conservation Easement Reforestation Area
- FCE Signage
- TPF Tree Protection Fence

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Cathy Hand 3/18/07
CHIEF, DIVISION OF LAND DEVELOPMENT JA DATE

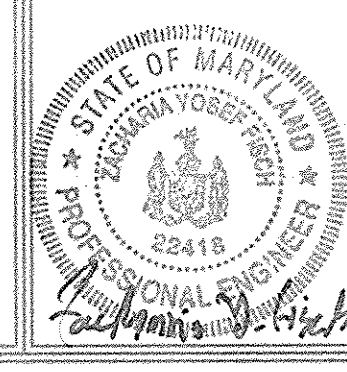
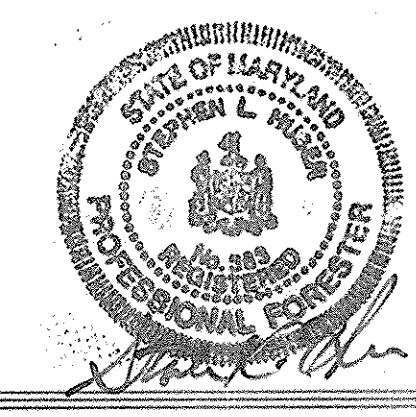
William 3/12/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION 40 DATE



EXPLORATION RESEARCH, INC.
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS
6839 HOWARD LANE
KESWICK, MARYLAND 21075
TEL: (410) 667-5210 FAX: (410) 766-1582

OWNER/DEVELOPER
WILLIAMSBURG GROUP LLC
5405 Herpers Farm Road #220
Columbia, Maryland 21044-3834
Telephone: (410) 997-8800
Fax: (410) 997-4558

FOREST CONSERVATION PLAN
LOTS 1 THRU 19 AND NON-BUILDABLE PRESERVATION PARCELS 'A', 'B', 'C' & 'D'
SHEPPARD MANOR
TAX MAP 29 GRID 01 PARCEL 268
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



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E-mail: info@fsh.net

DESIGN BY: ZYFAB
DRAWN BY: AB
CHECKED BY: ZYF
SCALE: 1"=50'
DATE: Feb. 23, 2007
H.C. No.: 3160
SHEET No.: 16 OF 17

FOREST CONSERVATION NARRATIVE

This Forest Conservation Plan has been developed in accordance with the Howard County Forest Conservation Act of 1991. Additionally, the rules for Rural Cluster Subdivisions, Option C have been utilized. The total tract area consists of 42.84 acres of land. The site contains 17.91 acres of forest cover on the net tract.

Forest retained in easements will total 11.51 acres. A total of 0.85 acres of reforestation planting is proposed. Two forest conservation easements will be established. Total area contained within easements is 12.36 acres. Easement 1 will have retention and newly forested area for credit, including large caliper stock to also meet landscape buffering requirements. Easement 2 will be all retention, including areas shown as existing driveway, which have complete canopy closure and are within critical root zone areas for the stand. The driveway will be removed and the forest floor allowed to regenerate naturally. Additionally, Easement 1 contains an existing pond, which will be dewatered and breached to allow planting. All easements contain some wetlands, streams and their buffers, and steep slopes.

New on-site plantings will be 2.5" cal. stock in area utilized for perimeter buffering and 2-3" containerized whip stock planted at 350 stems/acre with tree shelters in all other areas. Plant material will be chosen to match existing forest resources, as appropriate.

Forest Conservation Surety in the amount of \$118,788.20 will be posted with the Developers Agreement. Reforestation - 0.85 Ac./37,025 s.f. @ \$0.50/s.f. = \$42,562.50 Retention - 11.51 Ac./501,376 s.f. @ \$0.20/s.f. = \$100,275.20

FOREST CONSERVATION EASEMENT TABLE

EASEMENT	TYPE	AREA (ACRES)
1	Reforestation Retention	0.85
2	Retention	6.52
TOTAL		12.36
	Reforestation	0.85
	Retention	11.51

Easement 1: PLANTING AREA: 0.85 Ac.

Provided: 0.79 Ac of 2' to 3' whips at 350/acre = 277 trees; and 0.06 Ac of 2.5" cal. trees at 100/acre = 6 trees -- Total = 283 trees. (Required: 0.79 Ac x 350 trees/acre = 277 2'-3' whips + 0.06 Ac x 100 trees/acre = 6 2.5" cal trees; 277+6=283)

QTY	Botanical Name	Common Name	Size
36	Amelanchier canadensis	Serviceberry	2-3" ht.
35	Carya tomentosa	Hickory	2-3" ht.
30	Cornus florida	Flowering Dogwood	2-3" ht.
30	Juniperus virginiana	Eastern Redcedar	2-3" ht.
2	Liriodendron tulipifera	Tulip Poplar	2.5" cal.+
34	Liriodendron tulipifera	Tulip Poplar	2-3" ht.
34	Pinus strobus	White Pine	2-3" ht.
2	Quercus alba	White Oak	2.5" cal.+
34	Quercus alba	White Oak	2-3" ht.
2	Quercus rubra	Red Oak	2.5" cal.+
34	Quercus rubra	Red Oak	2-3" ht.
10	Salix nigra	Black Willow	2-3" ht.
283	Total		0.85 Ac = 37,025 s.f.

* Black Willow to be planted around the existing pond area which will retain a shallow pool after dewatering.

Management Notes for Retention Areas

- All proposed activities shall adhere to the conditions, schedules and terms of an approved sediment control and erosion plan.
- After the boundaries of the retention area have been staked and flagged and before any disturbance has taken place on-site, a preconstruction meeting at the construction site shall take place. The developer, contractor or project manager, and appropriate County Inspectors shall attend.
- Tree protection for all retained areas:
 - All retention areas within 50 feet of proposed construction activities shall be protected by highly visible, well anchored temporary protection devices (silt fence or blaze orange plastic mesh).
 - All protection devices shall be in place prior to any grading or land clearing.
 - All protection devices shall be properly maintained and shall remain in place until construction has ceased.
 - Attachment of signs, fencing or other objects to trees is prohibited.
 - No equipment, machinery, vehicles, materials or excessive pedestrian traffic shall be allowed within protected areas.
- If the critical root zone (see detail) is affected by construction activities such as grade change, digging for foundations and roads or utility installation:
 - Prune roots with a clean cut using proper pruning equipment (see root pruning detail).
 - Water and fertilize as needed.
- During construction phase, monitor and correct condition of retained trees for soil compaction, root injury, flood conditions, drought conditions and other stress signs.
 - Post-Construction Phase
 - Inspect existing trees around the perimeter of disturbed limits for evidence of soil compaction, root injury, limb injury, or other stress signs and correct with proper management techniques such as root or limb pruning, soil aeration, fertilization, crown reduction or watering. Inspection and evaluation shall be performed by a licensed arborist.
 - Inspect for dead or dying trees or limbs which may pose safety hazard and remove.
 - No burial of discarded materials will occur onsite within the conservation areas.
 - No burning within 100 feet of wooded area.
 - All temporary forest protection structures will be removed after construction. Temporary signs shall be replaced with permanent signage on posts in locations shown.
 - Following completion of construction, prior to use, the County inspector shall inspect the entire area.

Soil Protection Zone Notes

- The Soil Protection Zone shall include all areas contained inside the Limit of Disturbance.
- Where possible, the Soil Protection Zone shall extend to the drip line of specimen trees. For other groups of trees, the zone shall be the drip line or 40% of the height of the tree, whichever is greater.
- No construction activity is permitted within the Soil Protection Zone.
- If soil has been compacted or grading has taken place in the vicinity of the Soil Protection Zone, root pruning shall be implemented per Root Pruning detail, shown on this plan.
- Root pruning shall occur prior to the beginning of construction.
- Where the Soil Protection Zone must encroach inside the Critical Root Zone of a tree, soil disturbance shall be mitigated with vertical mulching, radial trenching, or another method approved by the ERI Forest Conservation Professional.
- Prior to construction, the Limits of Disturbance shall be marked and the ERI Professional shall determine which trees will need preventative treatment or removal.
- Tree maintenance and removal shall be undertaken by a qualified MD Tree Expert to ensure damage to surrounding trees is minimized.
- Brush and limbs removed for construction shall be chipped and spread at the edge of the Soil Protection Zone to a depth of 6 inches. This shall occur outside the Soil Protection Zone where compaction could impact otherwise unprotected Critical Root Zone.

Reforestation Area Monitoring Notes

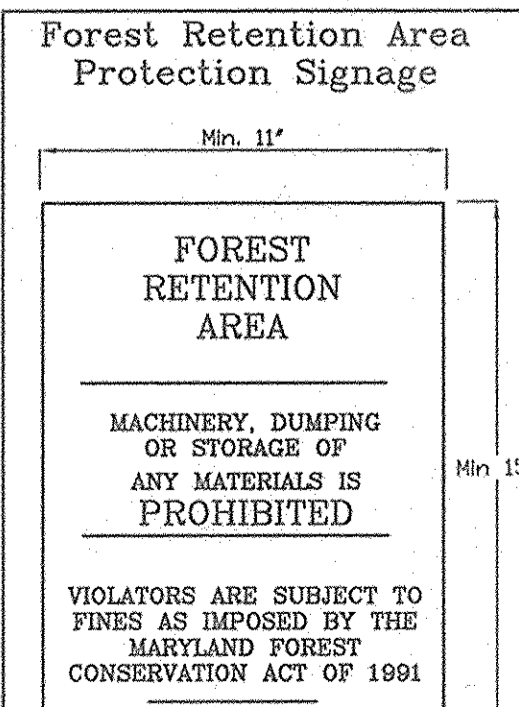
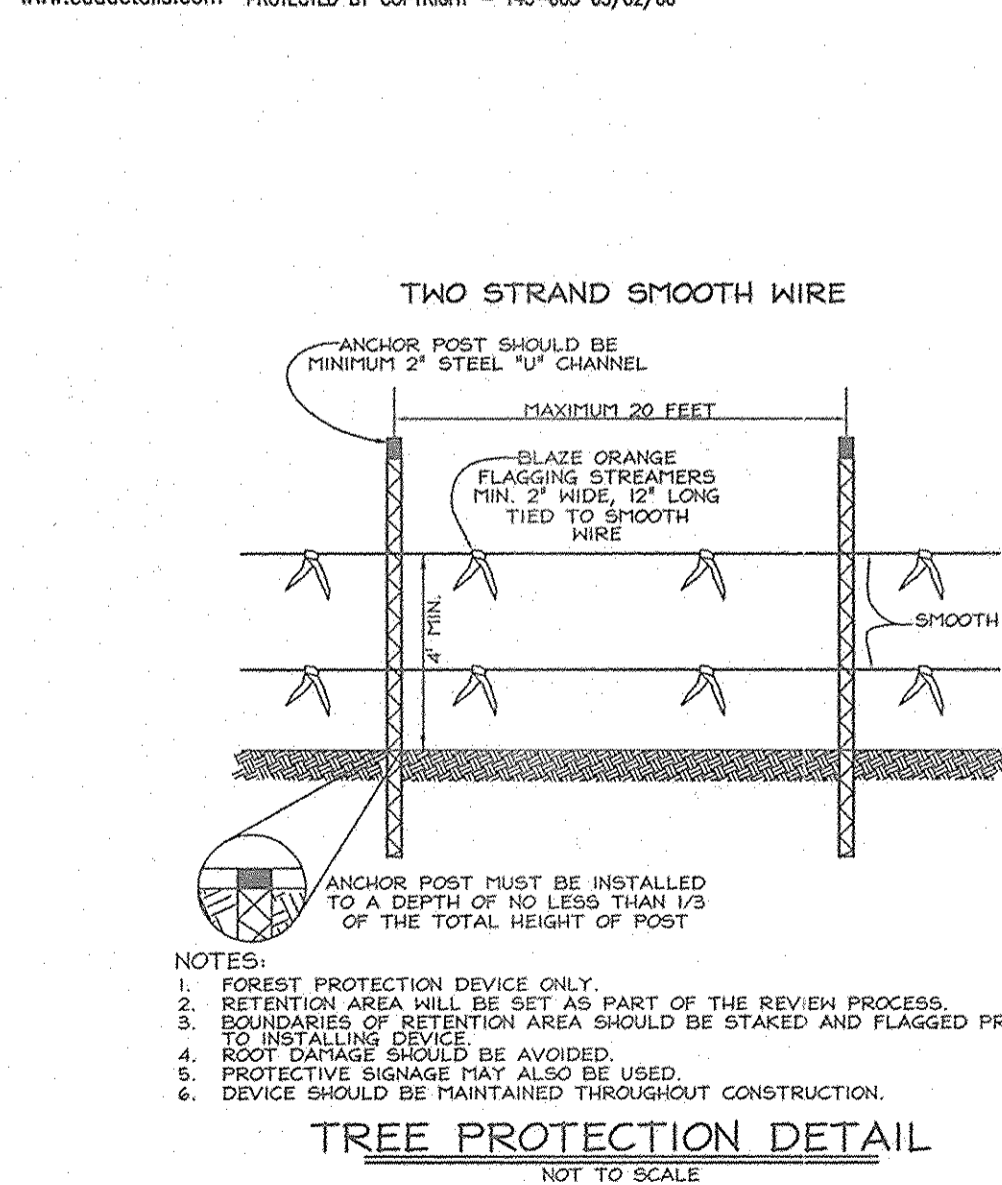
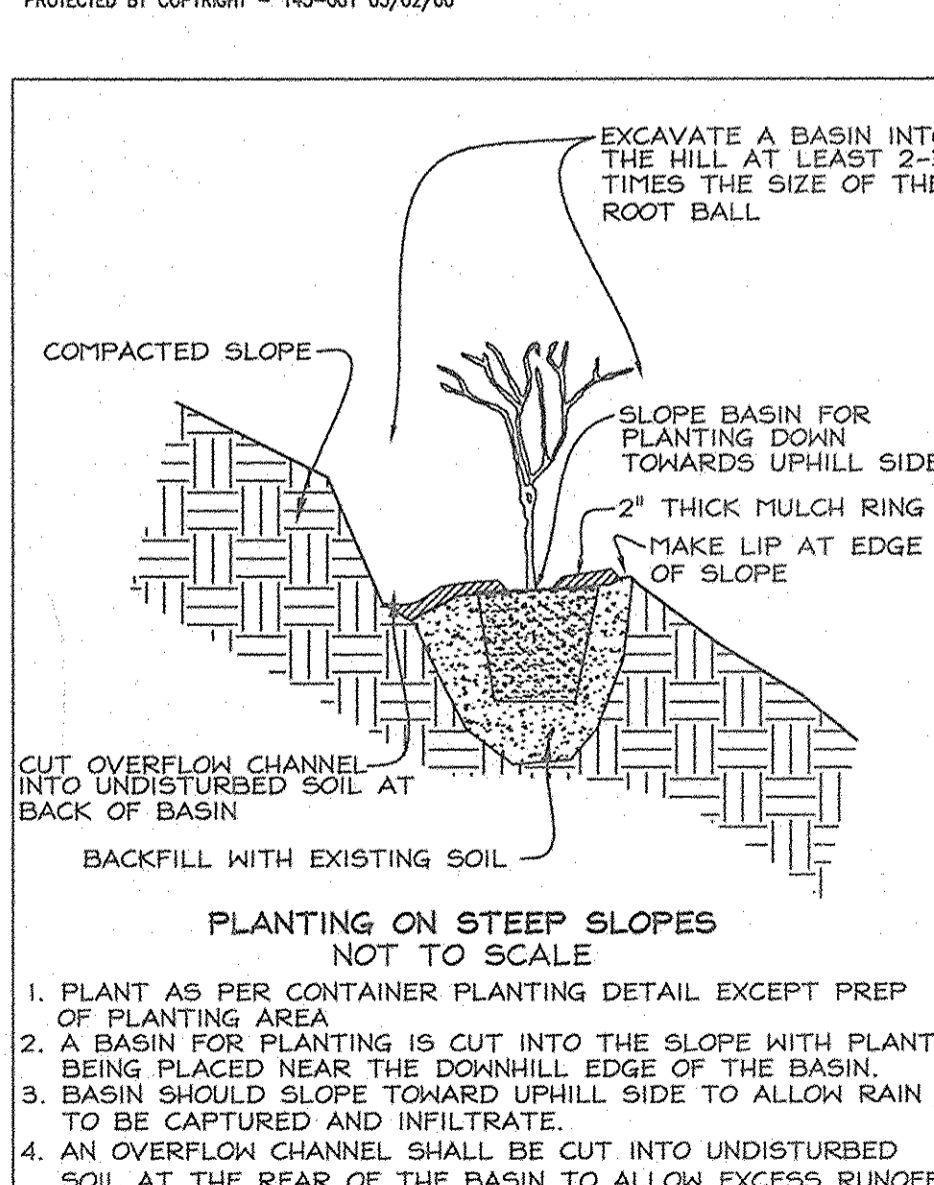
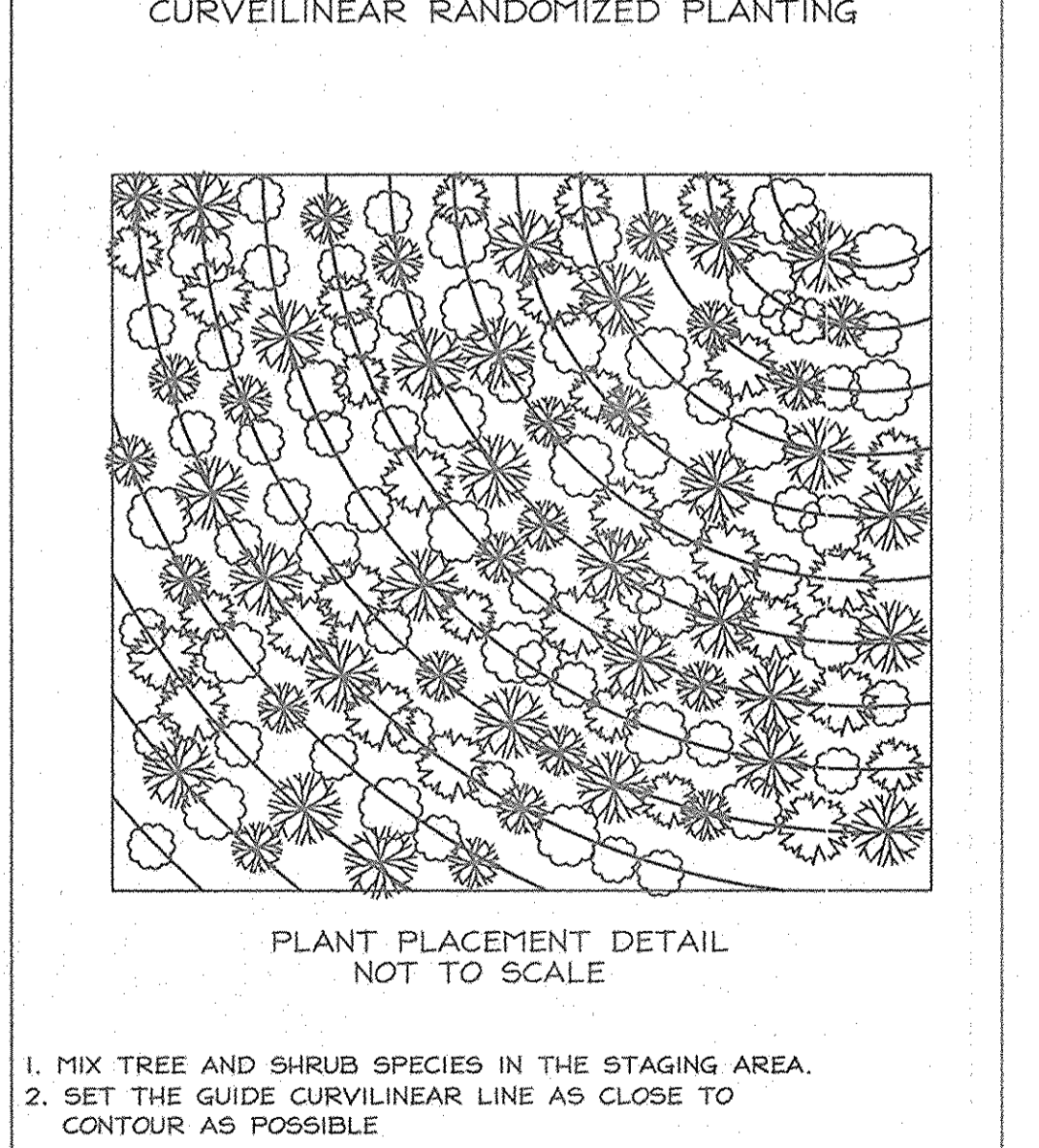
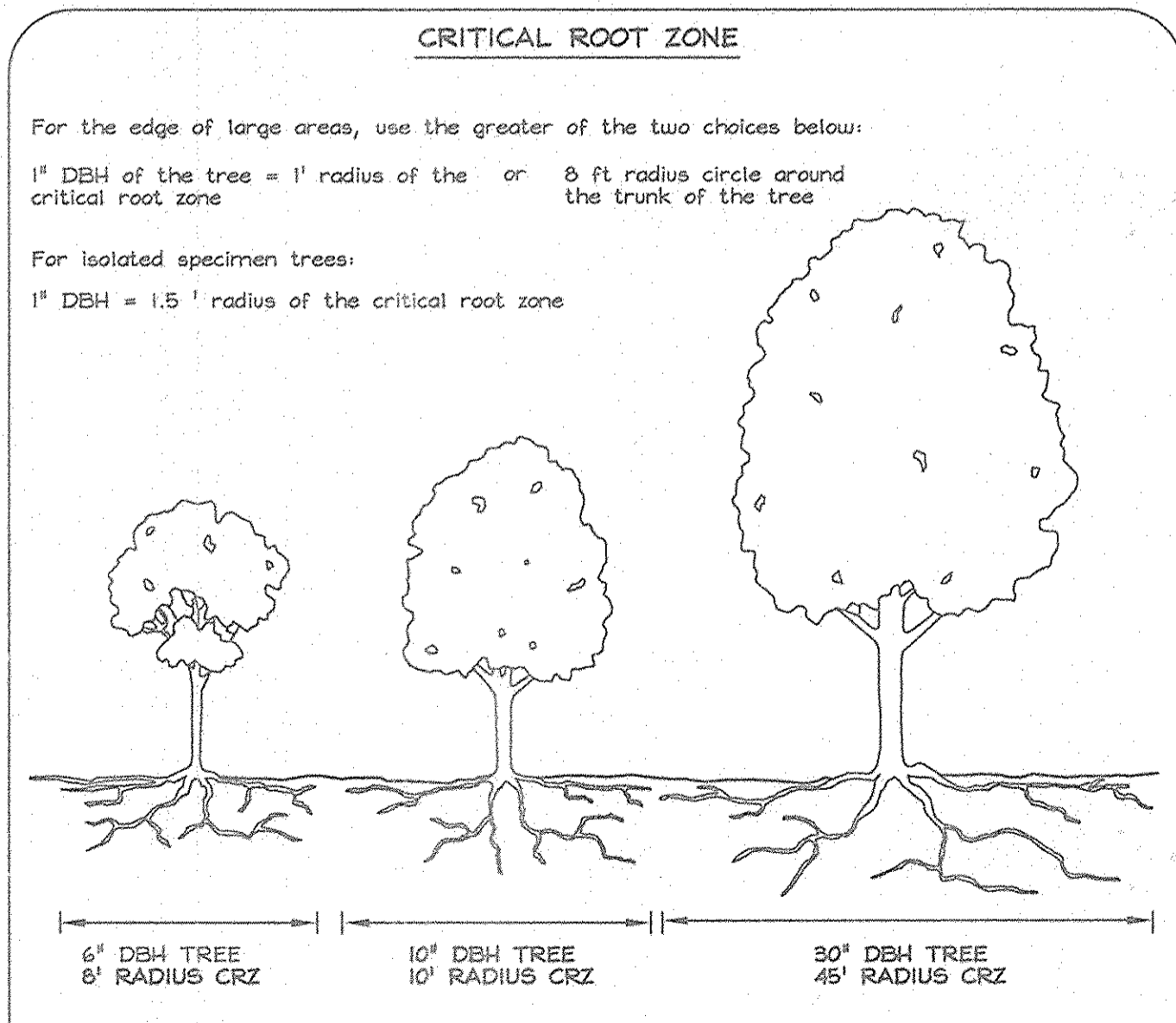
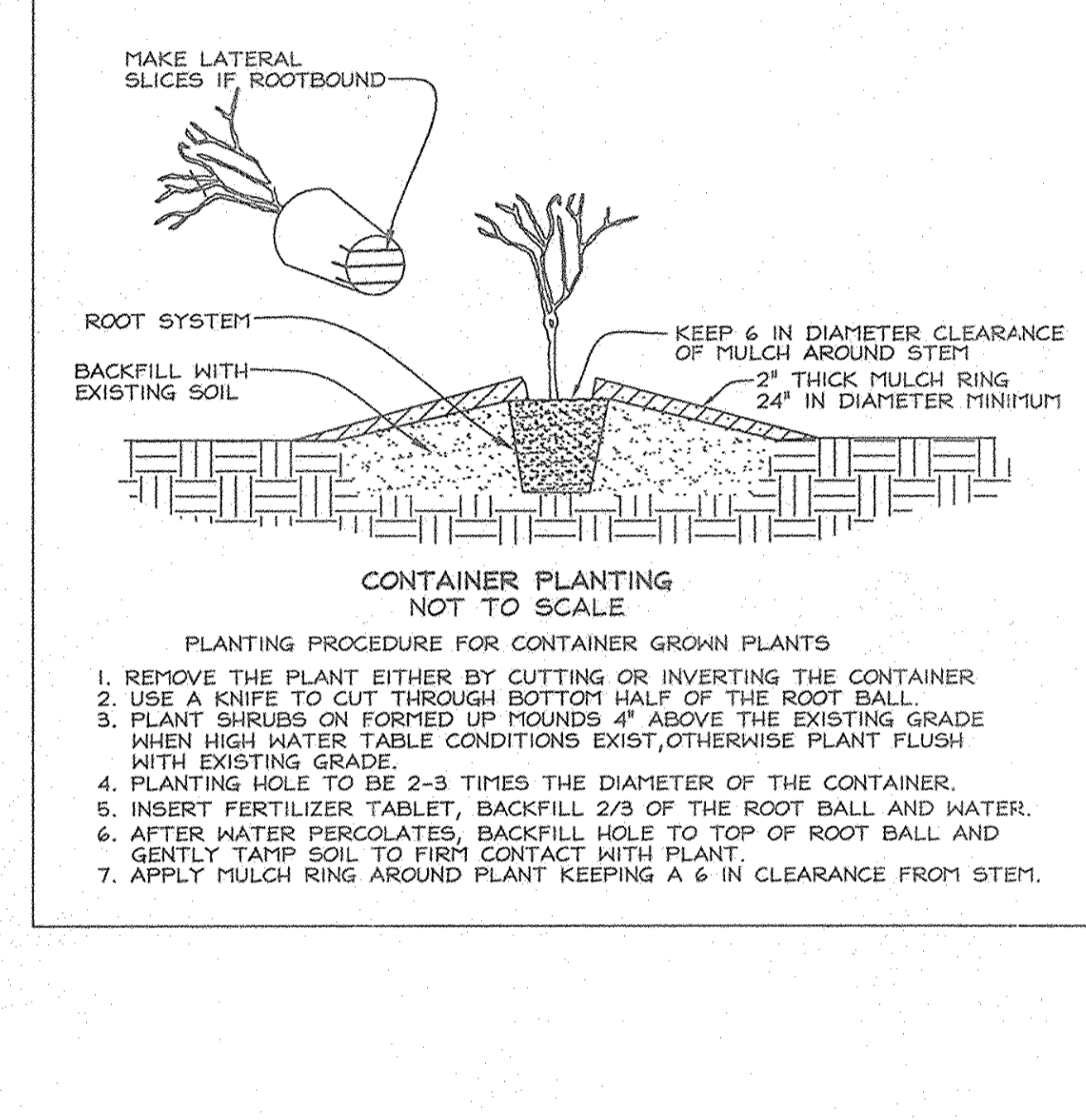
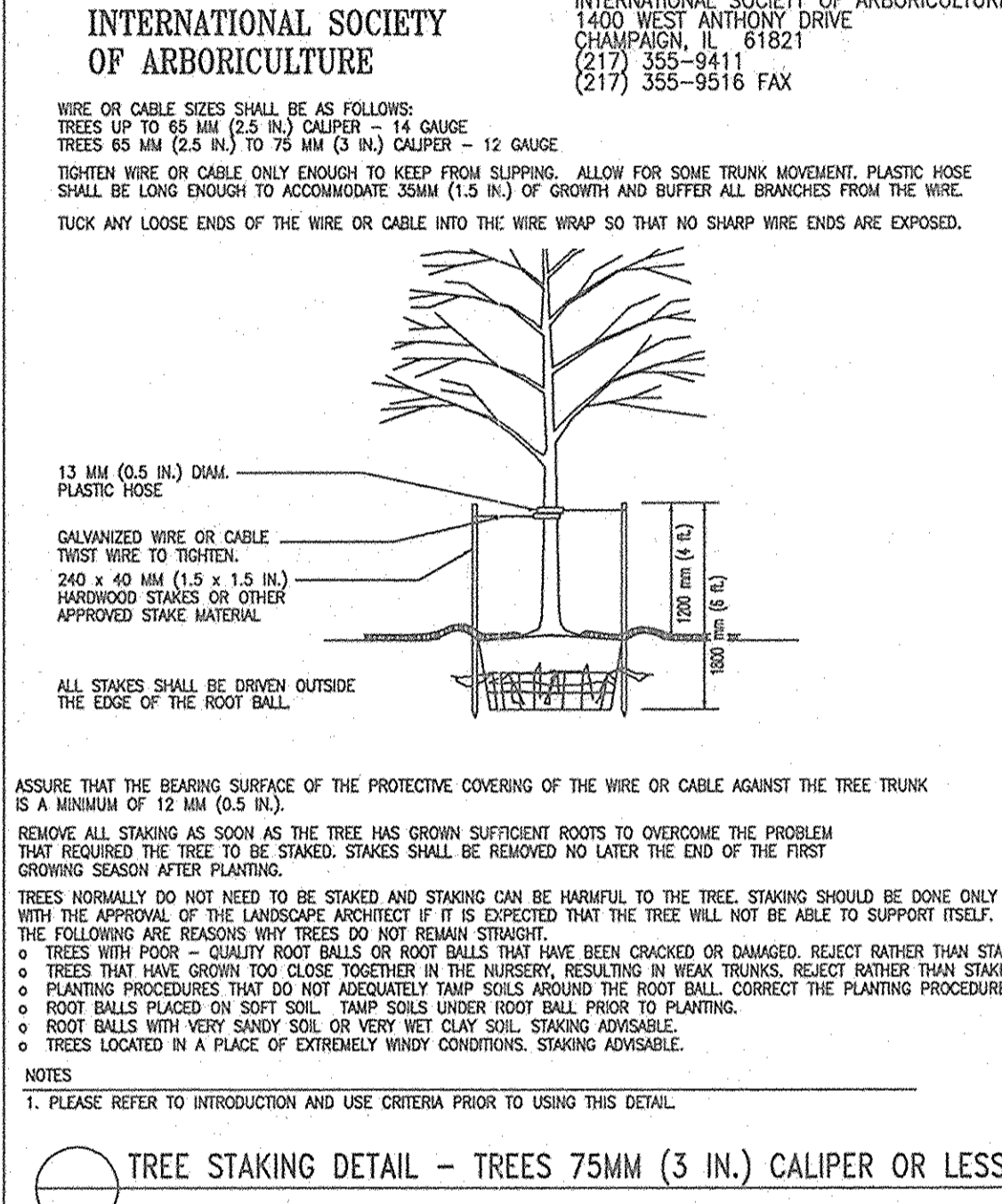
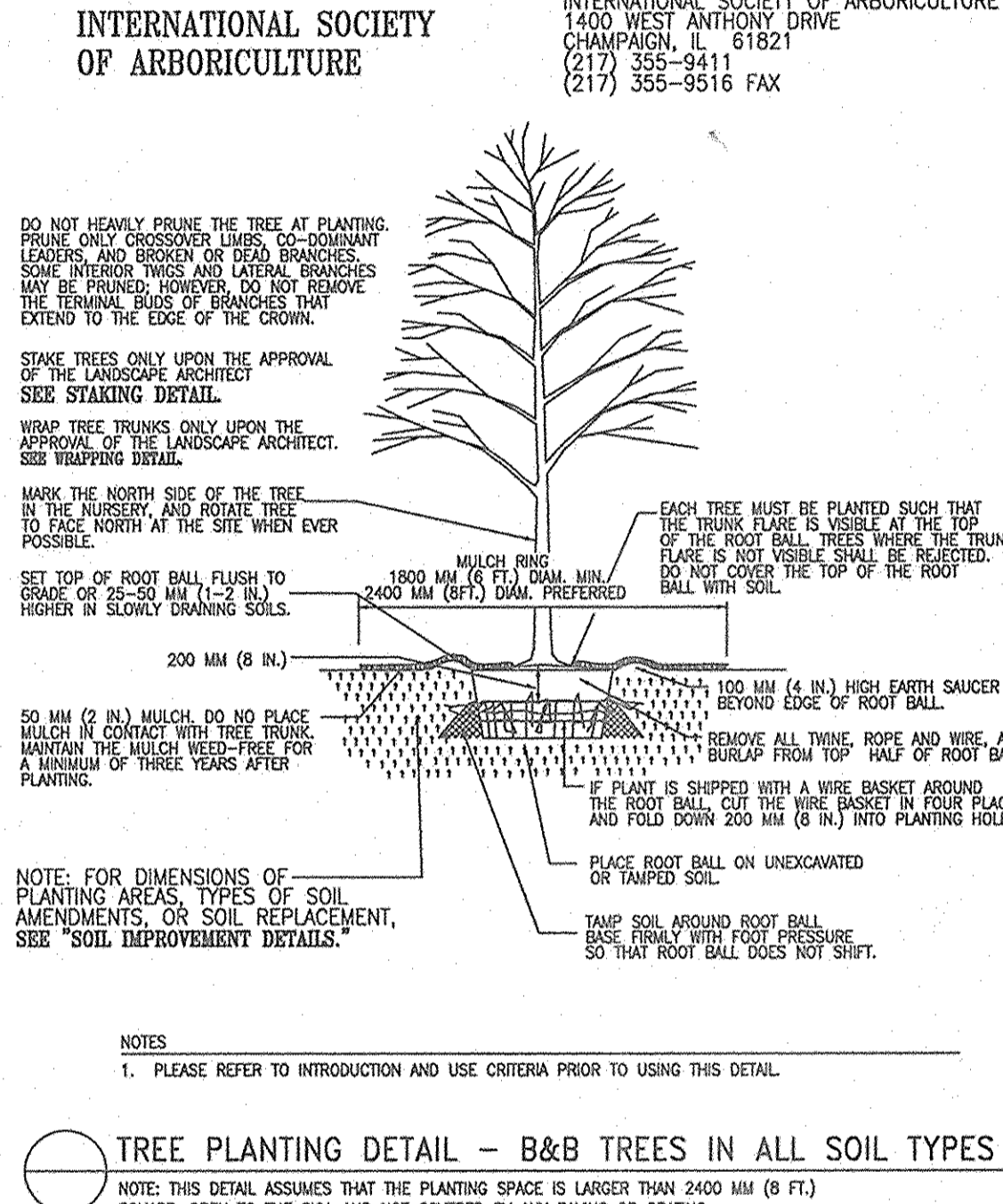
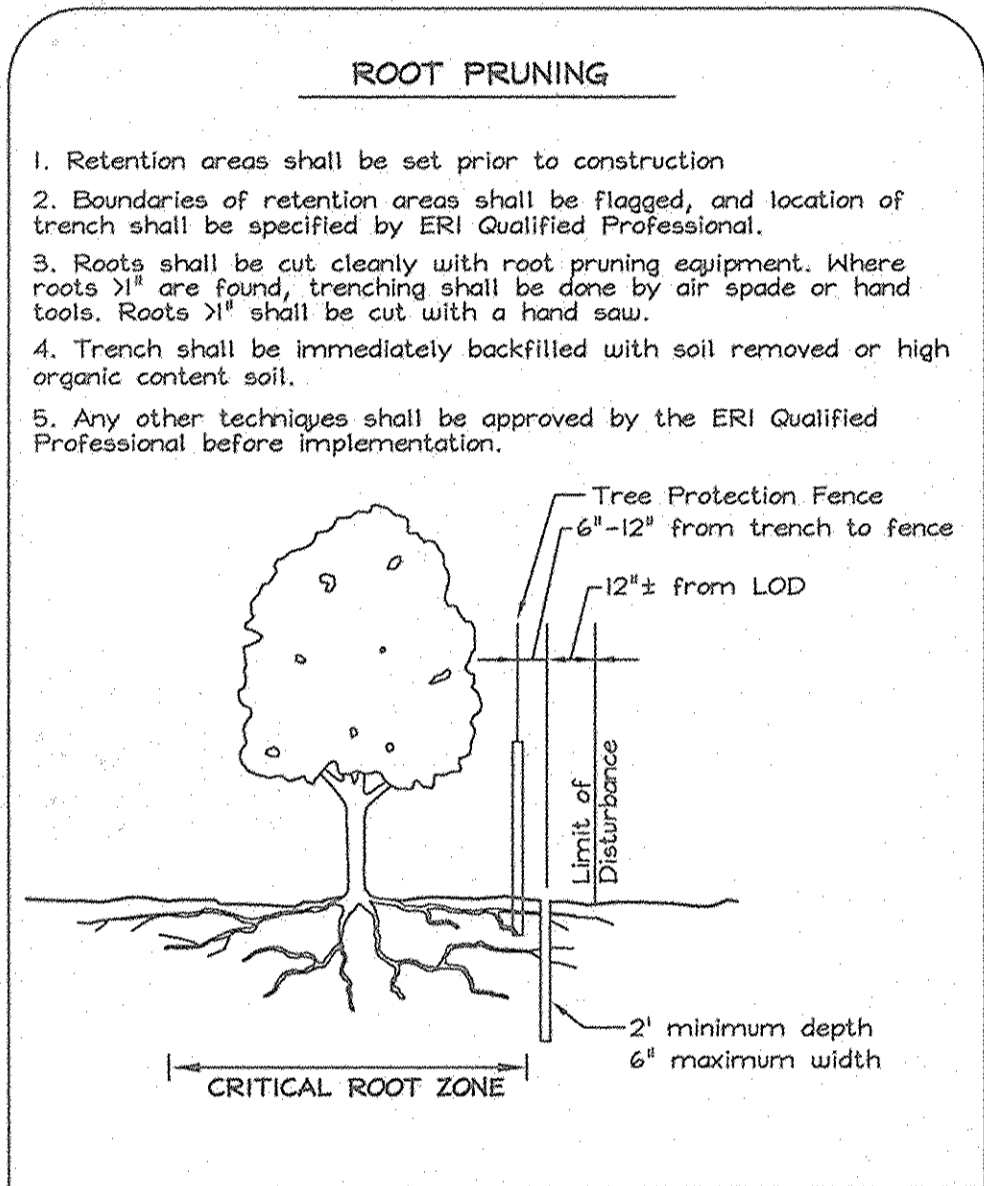
- Monthly visits during the first growing season are to assess the success of the plantings and to determine if supplemental watering, pest control or other actions are necessary. Early spring visits will document winter kill and autumn visits will document summer kill.
- The minimum survival rate shall be 75% of the total number of trees planted per acre at the end of the two year maintenance period. Wild tree seedlings from natural regeneration on the planting site may be counted up to 50% toward the total survival number if they are healthy native species at least 12 inches tall.
- Certification at the end of the two-year post construction period must indicate that the survival rates will result in a 100 tree per acre ratio for a forest and the 3 to 4 foot height standard for whips by the end of the two growing season post construction period, with at least 50% of those trees having the potential of attaining a 2" caliper DBH within 7 years.
- Survival will be determined by a stratified random sample of the plantings. The species composition of the sample population should be proportionate to the amount of each species in the entire planting to be sampled.
- Effective monitoring will assess plant survivability during the first growing season and make recommendations for reinforcement planting if required at that time.

Reforestation Area Planting Notes

- Initial planting inspection and certification required. Planting contractor to notify ERI qualified professional 24 hours in advance of planting.
- Reforestation areas may be planted as soon as reasonable to do so. Late winter- early spring plantings are preferred. Earliest planting dates will vary from year to year but planting may generally begin as soon as the ground is no longer frozen. Alternate planting dates may be considered as conditions warrant.
- Soil amendments and fertilization recommendations will be made based upon the results of soil analysis for nitrogen, phosphorus, potassium, organic matter content and pH. If required, fertilizer will be provided using a slow release, soluble 16-8-16 analysis designed to last 5-8 years contained in polyethylene perforated bags such as manufactured by ADCO Morka, P.O. Box 310 Hollins, N.Y. 11423 or approved equal.
- Plant materials shall be planted in accordance with the planting diagram, planting details and planting schedule.
- Plant stock must be protected from desiccation at all times prior to planting. Materials held for planting shall be moistened and placed in cool shaded areas until ready for placement.
- Planting materials shall be nursery grown and inspected prior to planting. Plants not conforming to the American Standards for Nursery Stock specifications for size, form, vigor, or roots, or due to trunk wounds, breakage, desiccation, insect or disease must be replaced.
- Newly planted trees may require watering at least once per week during the first growing season depending on rainfall in order to get established. The initial watering operation should allow for watering during installation to completely soak backfill materials.
- Mulch shall be applied in accordance with the diagram provided and shall consist of composted, shredded hardwood bark mulch, free of wood alcohol.
- Planting holes shall be excavated to a minimum diameter of 2.5 to 3 times the diameter of the root ball or container. Mechanical angling is preferred with scarification of the sides of each hole.
- All nursery stock to be sprayed with deer repellent containing Bitrex such as Repellex All nursery stock to be grown with deer repellent tablets in growing medium, such as Repellex Tablets.

FOREST CONSERVATION WORKSHEET

Item	Acres
A. Total Tract Area	42.89
B. Area Within 100 Year Floodplain	0
C. Other deductions (Area p/o FCP for F-00-115)	0
D. Net Tract Area	42.89
Zoning Use Category: Residential	
Land Use Category	
E. Afforestation Minimum (20 % x D)	8.58
F. Conservation Threshold (25 % x D)	10.72
Existing Forest Cover	
G. Existing Forest on Net Tract Area	17.91
H. Forest Area Above Conservation Threshold Breakeven Point	7.19
I. Forest Retention Above Threshold with no Mitigation	12.16
J. Clearing Permitted without Mitigation	5.75
Proposed Forest Clearing	
K. Forest Areas to be Cleared	6.40
L. Forest Areas to be Retained	11.51
Planting Requirements	
M. Reforestation for Clearing Above Threshold	1.60
N. Reforestation for Clearing Below the Threshold	0
P. Credit for Retention Above Conservation Threshold	0.79
Q. Total Reforestation Required	0.81
R. Total Afforestation Required	0
S. Total Reforestation and Afforestation Requirement	0.81



EXPLORATION RESEARCH, INC.
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS
6339 HOWARD LANE
ELKRIE, MARYLAND 21075
TEL: (410) 997-8100 FAX: (410) 998-1662

OWNER/DEVELOPER
WILLIAMSBURG GROUP LLC
5405 Harpers Farm Road #200
Columbia, Maryland 21044-5854
Telephone: (410) 997-8800
Fax: (410) 997-4558

FOREST CONSERVATION NOTES AND DETAILS
LOTS 1 THRU 19 AND NON-BUILDABLE PRESERVATION PARCELS 'A', 'B', 'C' & 'D'

SHEPPARD MANOR

TAX MAP 29 GRID 01 PARCEL 268
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FSH Associates
Engineers Planners Surveyors
6339 Howard Lane, Elkridge, MD 21075
Tel: 410-567-5200 Fax: 410-798-1582
E-mail: info@fshnet.com

DESIGN BY: ZYFAB
DRAWN BY: AB
CHECKED BY: ZYF
SCALE: As Shown
DATE: Feb 23, 2007
W.O. No.: 3160
SHEET No.: 17 OF 17

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 2/16/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION JJK DATE

[Signature] 2/16/07
CHIEF, DIVISION OF LAND DEVELOPMENT JCB DATE



SIGN DETAIL: PERMANENT SIGN
SIGNAGE NOTE: ALL TREE PROTECTION SIGNS SHALL BE PLACED ON METAL 'I' POSTS OR PRESSURE TREATED WOOD POLES. NO ATTACHMENT OF SIGNS TO TREES IS PERMITTED.