

**GENERAL NOTES**

- Subject property Zoned "R-SC" per 02/02/04 Comprehensive Zoning Plan, "Comprehensive Lite" Zoning Regulation Amendments effective 7/28/06.
- Howard County Soils map # 30.
- This site is located within the Metropolitan District.
- Total area of site: 2.952 ac.±
- Area of proposed public r/w: 0.000 ac.±
- Number of proposed buildable lots: 9
- Area of proposed buildable lots: 1.98 ac.±
- Number of proposed open space lots: 1
- Area of proposed open space lot: 0.81 ac.±
- Open space requirements:
  - Open space required (25% of minimum lot size): 2.952 ac.± x 0.25 = 0.74 ac.±
  - Open space provided: 0.81 ac.±
- Open Space Lot 10 will be owned and maintained by the Home Owners Association of this subdivision.
- Existing topography is based on a field run survey with two-foot contour intervals prepared by FSH Associates, Inc. in July 2005.
- Field Run Boundary Survey prepared by C.B. Miller and Associates in July, 2005.
- Stormwater management quantity & quality is provided in accordance with the 2000 Stormwater Management Manual. Water Quality and Recharge are treated as follows:
  - New Driveway paving for lots 1-3: Non-Rooftop disconnects. (All of the driveway for lot 3 is existing; only a small portion of the driveway for lot 2 is new paving; all of the driveway for lot 1 is new paving.)
  - New house on lot 2: Rooftop disconnects
  - Remainder of project: Dry Swales
 Channel Protection is not required for this site since the discharge from each drainage area is less than 2.0 cfs. The Home Owners Association will own and maintain storm water management facilities on Open Space Lot 10.
- A.P.F.O. Traffic Study was prepared by Street Traffic Studies Ltd. in June 2005, and was approved on March 6, 2006.
- Wetland Letter and report and Forest Stand Delineation and report prepared by Exploration Research Inc. on July 6, 2005.
- There are no floodplains, steep slopes, wetlands, streams, historic structures or cemeteries on-site.
- Forest Conservation obligations for this site in accordance with Section 16.1202 of the Howard County Code and Forest Conservation Manual shall be met by the placement of 278 ac.± of Forest Conservation on the site. PARCEL MAP AREA LOCATED ON QUARTZ HILL P&R - SDP-10-104 TAX MAP @ PARCEL 401.
- Street trees are to be planted along Mission Road in accordance with the Route 1 Manual.
- The lots shown herein comply with the minimum ownership, width and lot area requirements of the Maryland State Department of the Environment.
- 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 421A and 42FA were used for this project.
- Driveway(s) shall be provided prior to issuance of a use and occupancy permit for any new dwellings to ensure safe access for fire and emergency vehicles per the following requirements:
  - Width - 12 feet (16 feet serving more than one residence);
  - Surface - six (6") inches of compacted crusher run base with tar and chip coating (1-1/2" minimum);
  - Geometry - Maximum 14% grade, Maximum 10% grade change and 45-foot turning radius;
  - Structures (culverts/bridges) - capable of supporting 25 gross tons (H25-loading);
  - Drainage elements - capable of safely passing 100 year flood with no more than 1 foot depth above driveway surface;
  - Maintenance - sufficient to ensure all weather use.
- For flag or pipe stem lots, refuse collection, snow removal and road maintenance are provided to the junction of the flag or pipe stem and road right-of-way line and not to the pipestem lot driveway.
- This subdivision is subject to Section 18.122B of the Howard County Code. Public water and sewer service has been granted under the terms and provisions, thereof.
- There are existing dwellings located on Lots 1 and 3, to remain. No new buildings, extensions or additions to the existing dwellings are to be constructed at a distance less than the zoning regulation requirements.
- Previous Howard County file numbers: S-06-02, 350-S 24-1076-D, 76-W, F-77-163, WP-08-33
- This plan is subject to the April 13, 2004 Zoning Regulations and the Amended 5th Edition Subdivision and Land Development Regulations.
- This project does not require a noise study in accordance with the September 10 1996 Revised Noise Policy.
- Sketch Plan S-06-002 was approved on March 6, 2006.
- This Plan is subject to Waiver Petition WP 08-33. On Nov. 14, 2007, the Planning Director granted a waiver from Section 16.146 to submit a preliminary plan for this property.
- All construction shall be in accordance with the latest editions of Howard County and MSHA Standards and Specifications, where applicable.
- The contractor shall notify the following utility companies or agencies at least five (5) working days before starting work shown on these plans:
 

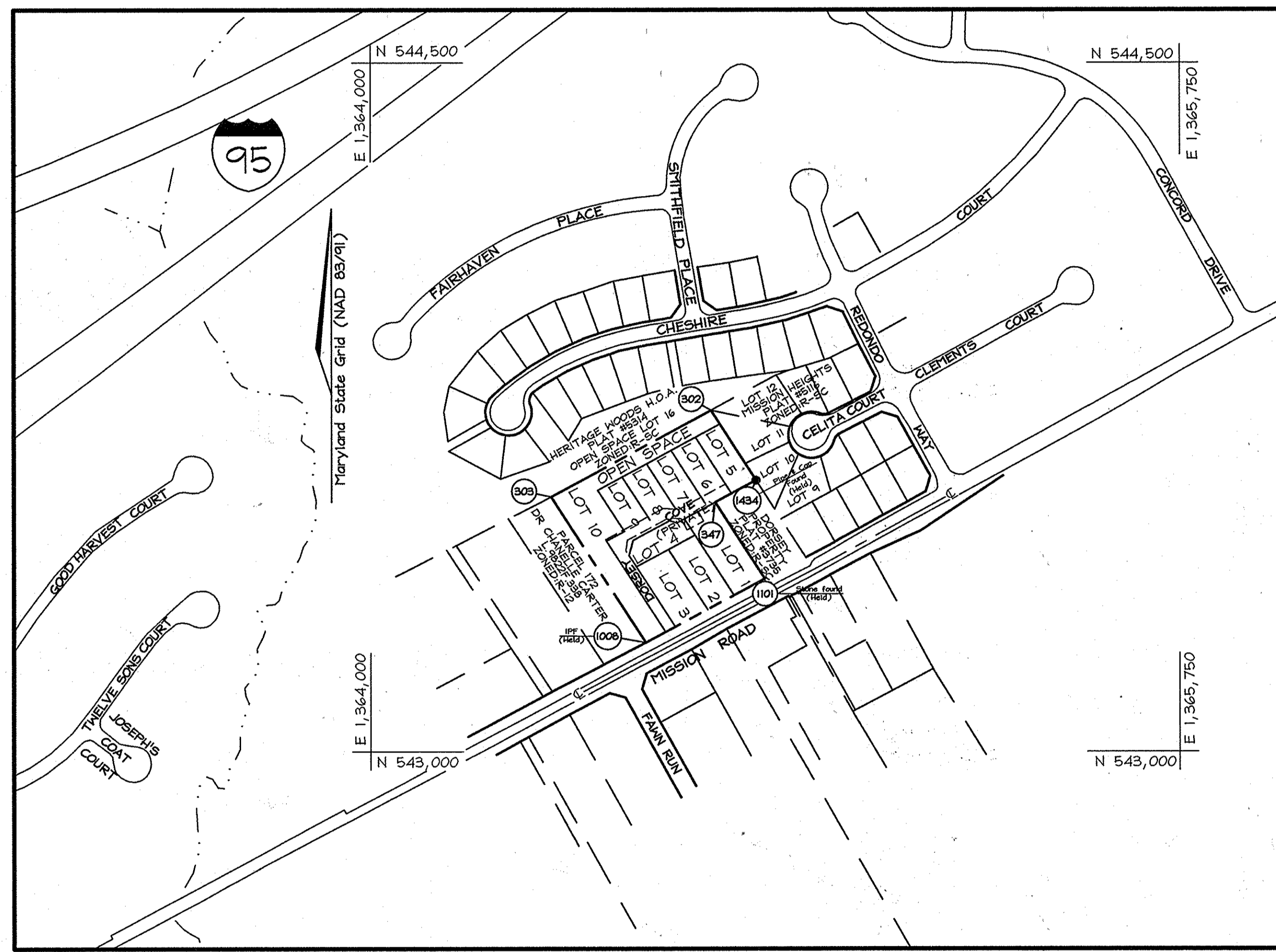
State Highway Administration	410.531.5533
BGE (contractor services)	410.850.4620
BGE (underground damage control)	410.787.9068
Miss Utility	1.800.257.7777
Colonial Pipeline Company	410.745.1390
Howard County, Dept. of Public Works, Bureau of Utilities	410.313.4900
Howard County Dept. of Public Works, Bureau of Engineering, Construction Inspection Division	410.313.1880
Howard County Health Department	410.313.2640
- The contractor shall notify Miss Utility at 1-800-257-7777 at least 48 hours prior to any excavation work being done.
- Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD).
- Water is public, Contract No. 76-W The sewer is public, Contract No. 350-S and 24-1076-D
- Sign Posts: 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.
- Any damages to the Howard County right of way shall be corrected at the Developer's expense.
- Landscape in accordance with Section 16.124 of the Howard County Code and Landscape Manual shall be provided as shown on the Landscape Plan, Sheet 3, of the Final Road Construction Drawings for the R.W. Dorsey Property. Financial surety for required perimeter, rear yard screening from shared driveway, refuse pad landscaping and Rt. 1 Manual Street Trees shall be posted with the Developers Agreement for this final plan, F-08-153, in the amount of \$4,360.00 for 20 shade trees @ \$300 each, 21 evergreens @ \$150 each, and 7 shrubs @ \$30 each.
- A Private road street name sign (SNS) that needs to be installed at the intersection of the private road with a public road, shall be fabricated and installed by Howard County Bureau of Highways at the developer's/owners expense. Contact Howard County Traffic Division at 410-313-5752 for details and cost estimates.

# FINAL ROAD CONSTRUCTION PLANS

# R.W. DORSEY PROPERTY

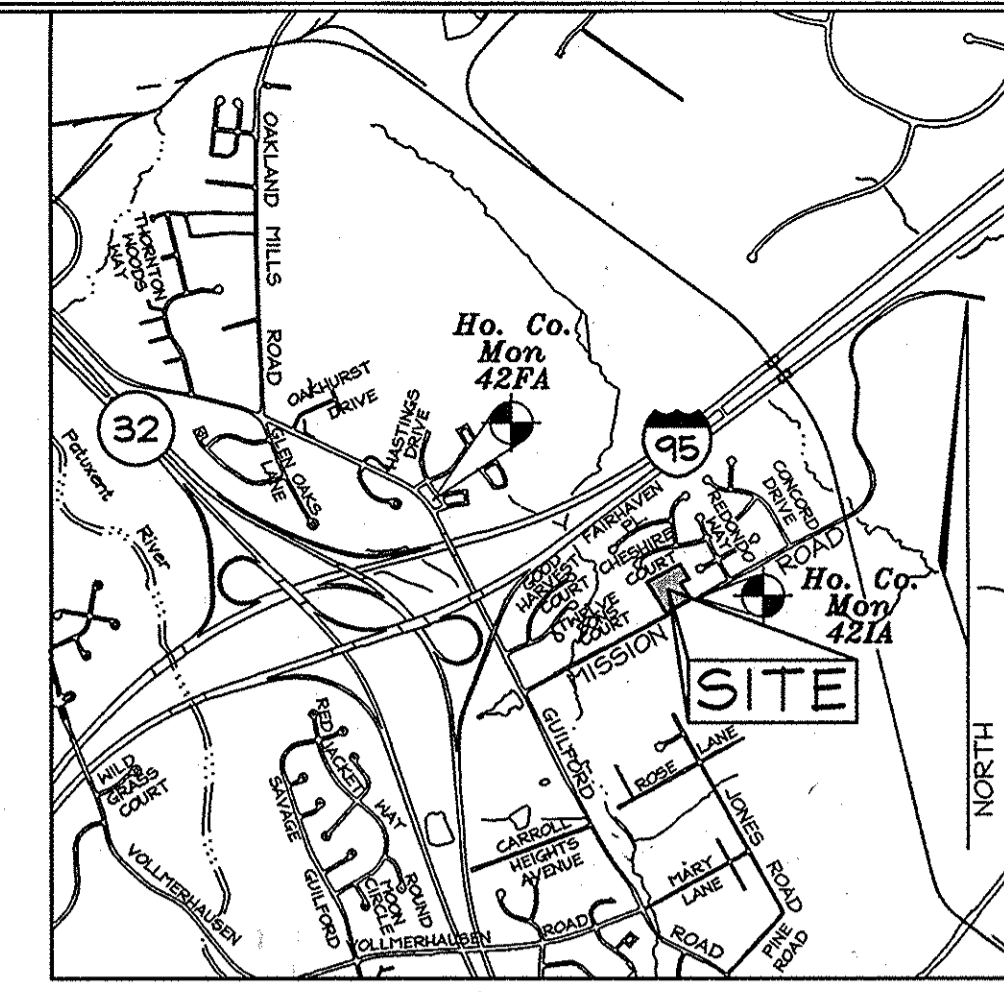
## LOTS 1 THRU 9 AND OPEN SPACE LOT 10

## HOWARD COUNTY, MARYLAND



**LEGEND**

- Existing Contour
- Proposed Contour
- Spot Elevation
- Proposed Spot Elevation
- Ex. Utility Pole
- Ex. Tree
- Ex. Evergreen
- Proposed Street Tree
- Non-rooftop receiving area
- Rooftop disconnect treatment path
- Paving Widening
- Proposed House
- Direction of Flow
- Tree Protection Fence
- Existing Trees to Remain
- Stabilized Construction Entrance
- Silt Fence and Tree Protection Fence
- Silt Fence
- Limit of Disturbance
- Erosion Control Matting
- Soil Boundary
- Use-In-Common Access Easement & Pedestrian Access to Open Space
- Prop. Public Water, Sewer and Utility Easement
- 15' Tree Maintenance Easement
- Private 10'x16' Refuse Pad Easement
- Proposed Paving
- Rooftop Disconnect



**BENCHMARKS**

Coordinates based on NAD83, Maryland coordinate system as projected by Howard County geodetic control stations no. 421A and no. 42FA

- Denotes approximate location (see vicinity map).
- Sta. 421A N 543,390.4150 (feet) E 1,364,912.6600 (feet) Elev. 311.99 (feet) (NADV'88)
- Sta. 42FA N 544,412.6160 (feet) E 1,362,179.3700 (feet) Elev. 341.83 (feet) (NADV'88)

**COORDINATE TABLE**

POINT	NORTHING	EASTING
302	543,744.4846	1,364,735.9358
303	543,556.7739	1,364,390.2943
1008	543,238.2328	1,364,594.8591
1101	543,378.0265	1,364,852.2686
347	543,545.2479	1,364,744.8802
1434	543,593.1648	1,364,833.1122

**BUILDABLE LOTS FRONTAGE CHART**

Lot #	Total frontage along Public R/W.
1	75.77'
2	65.18'
3	79.29'
4	4.01'
5	4.01'
6	4.01'
7	4.01'
8	4.01'
9	4.01'

**SHEET INDEX**

DESCRIPTION	SHEET No.
Cover Sheet	1 of 9
Final Road Plan, Profiles and Details	2 of 9
Road Widening Plan for Mission Road, Profiles and Details	3 of 9
Sediment, Erosion Control and Grading Plan	4 of 9
Sediment, Erosion Control Notes and Details and Dry Swale Profiles	5 of 9
Stormwater Management Plan and Details	6 of 9
Forest Conservation Plan	7 of 9
Landscape Plan	8 of 9
Forest Conservation Off-Site Planting Plan	9 of 9

**OWNERS**  
DORSEY FAMILY PROPERTY, L.L.C.  
P.O. BOX 482  
LISBON, MD 21765  
(301) 725-7059  
Ms. Bessie M. Bordenave

**DEVELOPER/ CONTRACT PURCHASER**  
HERITAGE LAND DEVELOPMENT  
15950 North Ave. P.O. Box 482  
Lisbon, MD 21765  
(410) 484-7900

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*William Z. ...* 2-27-09  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*J. ...* 3-9-09  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

**REVISIONS BLOCK**

REV. NO.	DATE	DESCRIPTION
2	4/3/12	RELOCATED INLET I-1, ADDED LEVEL SPREADER DOWNSTREAM OF I-1, ADDED LEVEL SPREADER DETAIL, ADDED MODIFIED I-1 DETAIL AND REMOVED OUTFALL STORM DRAIN PIPE FROM I-1.
1	11/3/11	REVISE GENERAL NOTE 17 ON SHEET #1, REVISE FOREST CONSERVATION NARRATIVE ON SHEET #7, VOID SHEET # 9.

**AS-BUILT**  
FOR STORMWATER MANAGEMENT

*Zacharia Fisch* 11/7/14  
ZACHARIA FISCH  
PE No. 22418

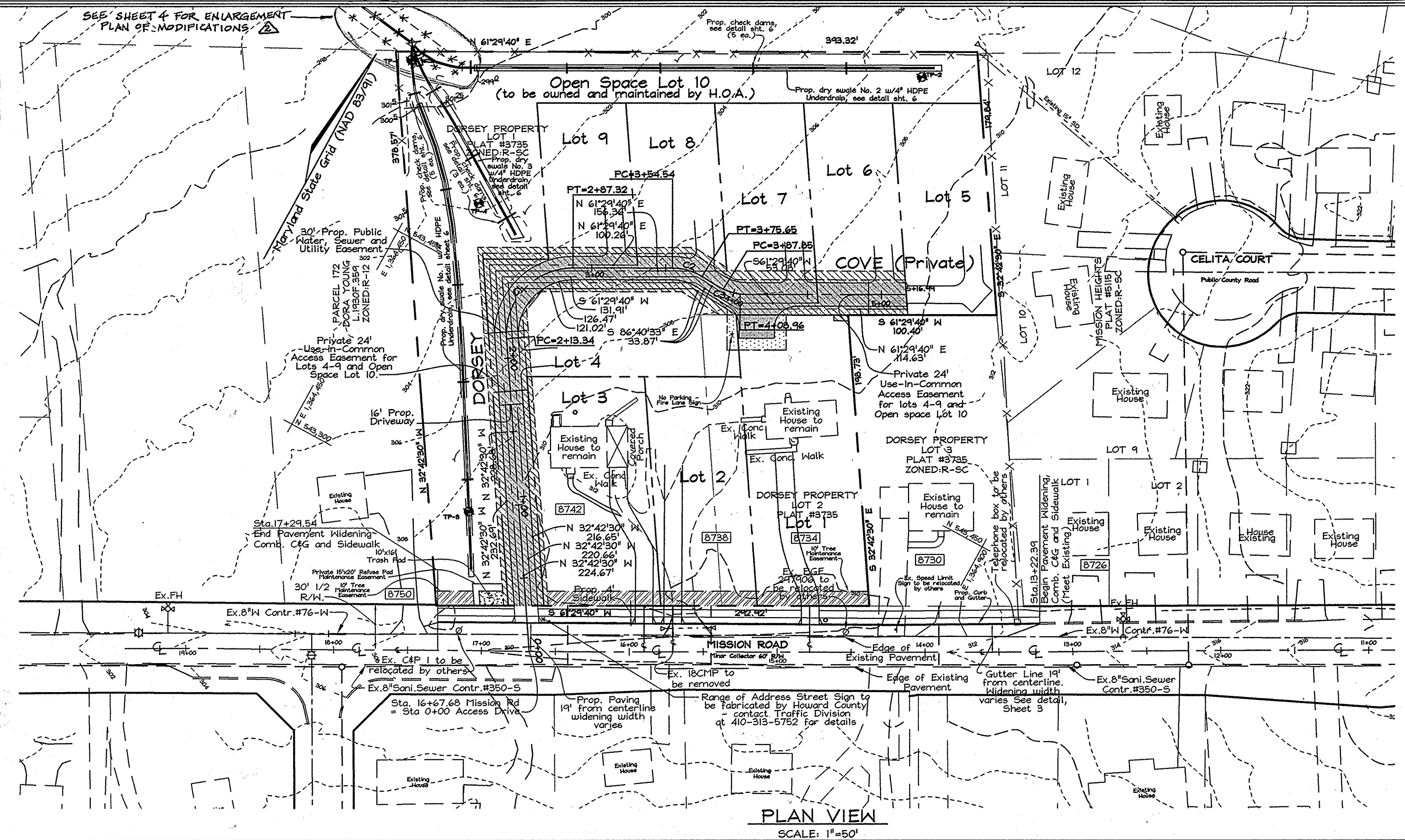
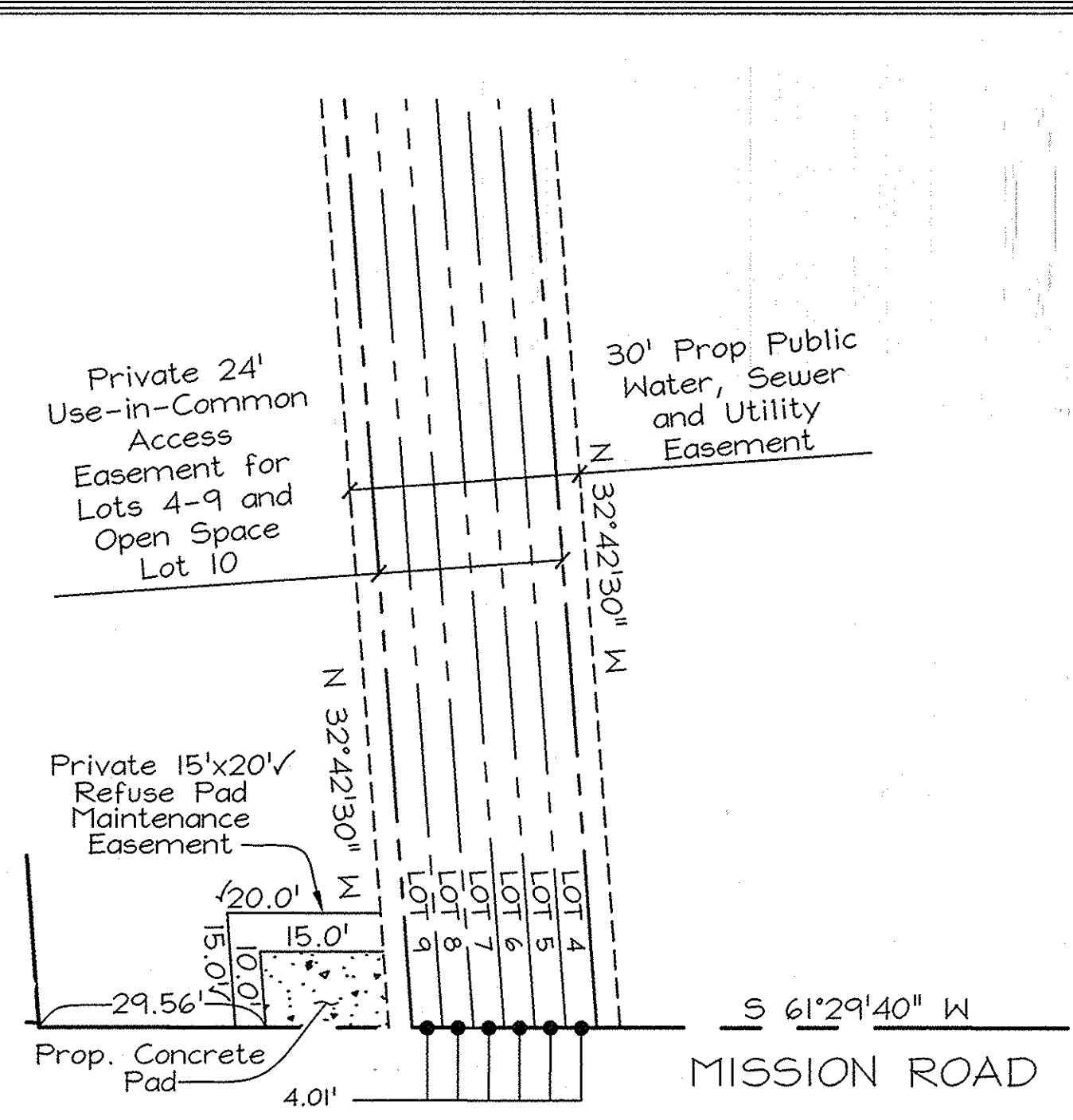
**PROFESSIONAL CERTIFICATION**  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 07/24/09, 2015

**COVER SHEET**

**R.W. DORSEY PROPERTY**  
LOTS 1 TO 9 AND OPEN SPACE LOT 10  
(A RESUBDIVISION OF LOTS 1 & 2 OF THE DORSEY PROPERTY, PLAT #3735)  
TAX MAP 42 GRID 24 PARCEL P/O 425  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN BY: AG-D  
DRAWN BY: CED  
CHECKED BY: ZTF  
SCALE: As Shown  
DATE: Feb. 5, 2009  
P.L.O. No.: 3331  
SHEET No. 1 OF 9

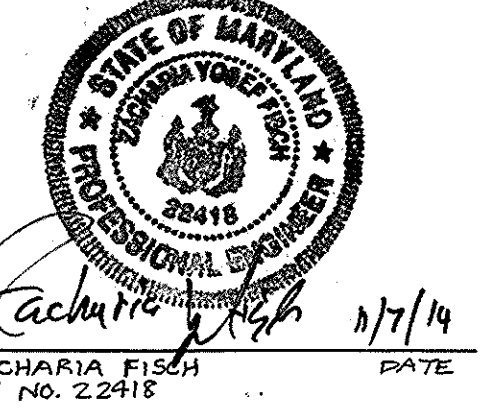
**FSH Associates**  
Engineers Planners Surveyors  
6339 Howard Lane Elkridge, MD 21075  
Tel: 410-587-5200 Fax: 410-796-1562  
E-mail: info@fsh.com



DORSEY COVE CURVE DATA					
CURVE No.	RADIUS	LENGTH	DELTA	CHORD BEARING	CHORD LENGTH
C1	45.00'	73.93'	94°12'10"	N 14°23'35" E	65.93'
C2	38.00'	21.11'	31°49'46"	N 77°24'34" E	20.84'
C3	38.00'	21.11'	31°49'46"	N 77°24'34" E	20.84'

**LEGEND**

- Use-in-Common Access Easement & Pedestrian Access to Open Space
- Prop. Public Water, Sewer and Utility Easement
- Prop. Private Access Easement
- Proposed Paving
- AS-BUILT



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Ms. Bessie M. Bordenave

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HERITAGE LAND DEVELOPMENT  
15950 North Ave. P.O. Box 482  
Lisbon, MD 21765  
(410) 489-7900

**FINAL ROAD PLAN, PROFILE AND DETAILS**

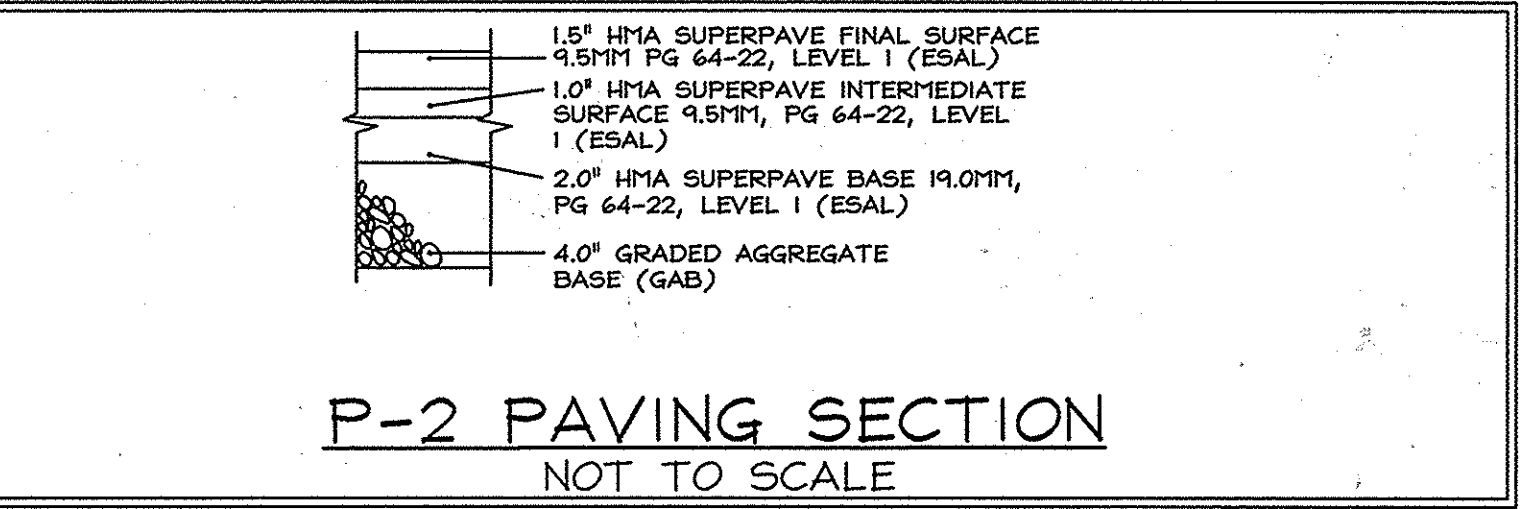
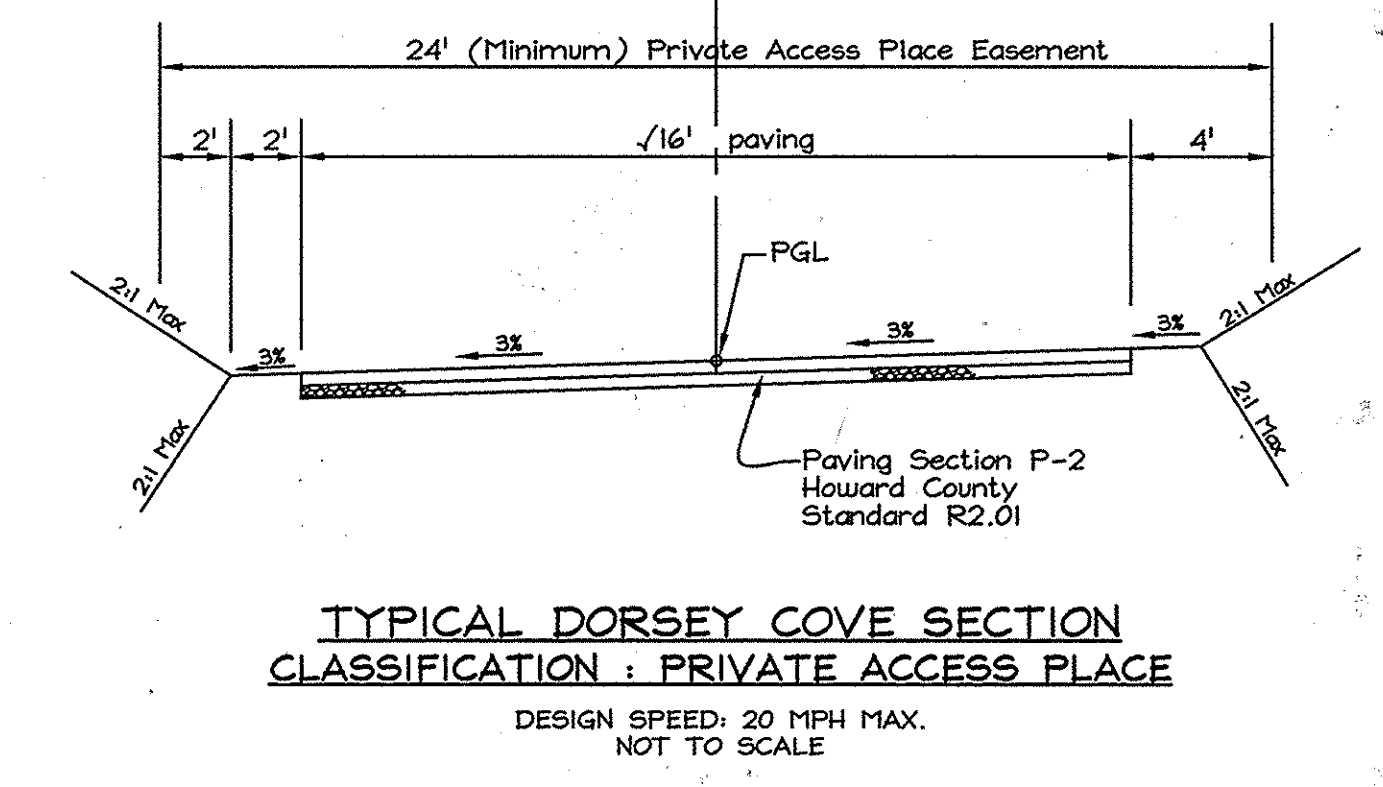
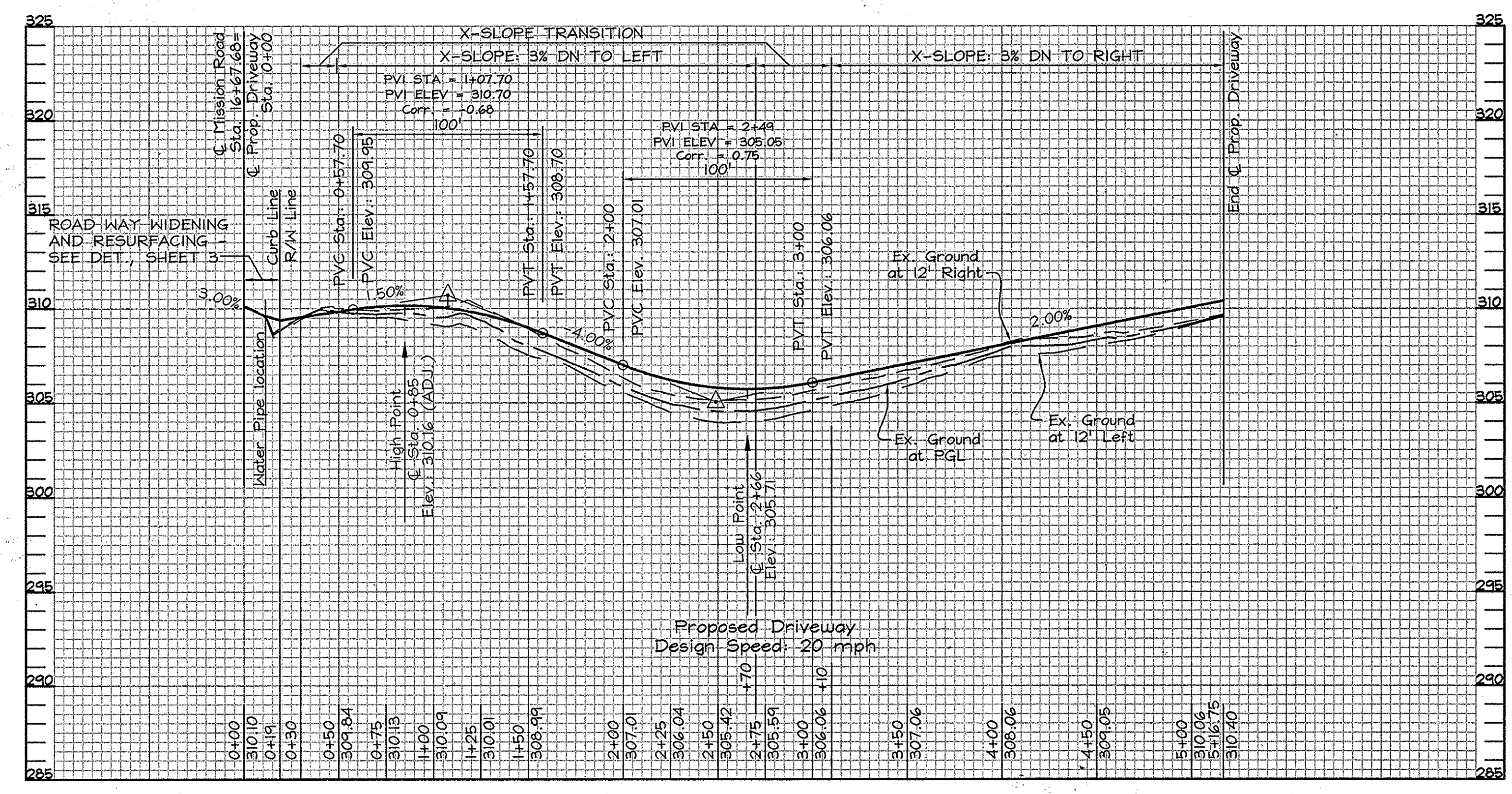
**R.W. DORSEY PROPERTY**  
LOTS 1 TO 9 AND OPEN SPACE LOT 10  
(A RESUBDIVISION OF LOTS 1 & 2 OF THE DORSEY PROPERTY, PLAT #3735)

TAX MAP 42 GRID 24  
6TH ELECTION DISTRICT

PARCEL P/O 425  
HOWARD COUNTY, MARYLAND

**FSH Associates**  
Engineers Planners Surveyors  
8339 Howard Lane Elkridge, MD 21075  
Tel: 410-567-5200 Fax: 410-796-1562  
E-mail: info@fsh.net

DESIGN BY: AG-D  
DRAWN BY: CED  
CHECKED BY: ZYF  
SCALE: 1"=50'  
DATE: Feb. 5, 2009  
I.O. No.: 9391  
SHEET No.: 2 OF 9



**Note:**  
Paving section shown is based on a California Bearing Ratio (CBR) of 7 or greater. Actual CBR tests may result in modifications to the paving section. For other CBR values go to the Howard County Design Manual Volume IV, Standard Detail R-2.01, for associated P-1 Paving Sections.

**PROFESSIONAL CERTIFICATION**  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 07/24/09.

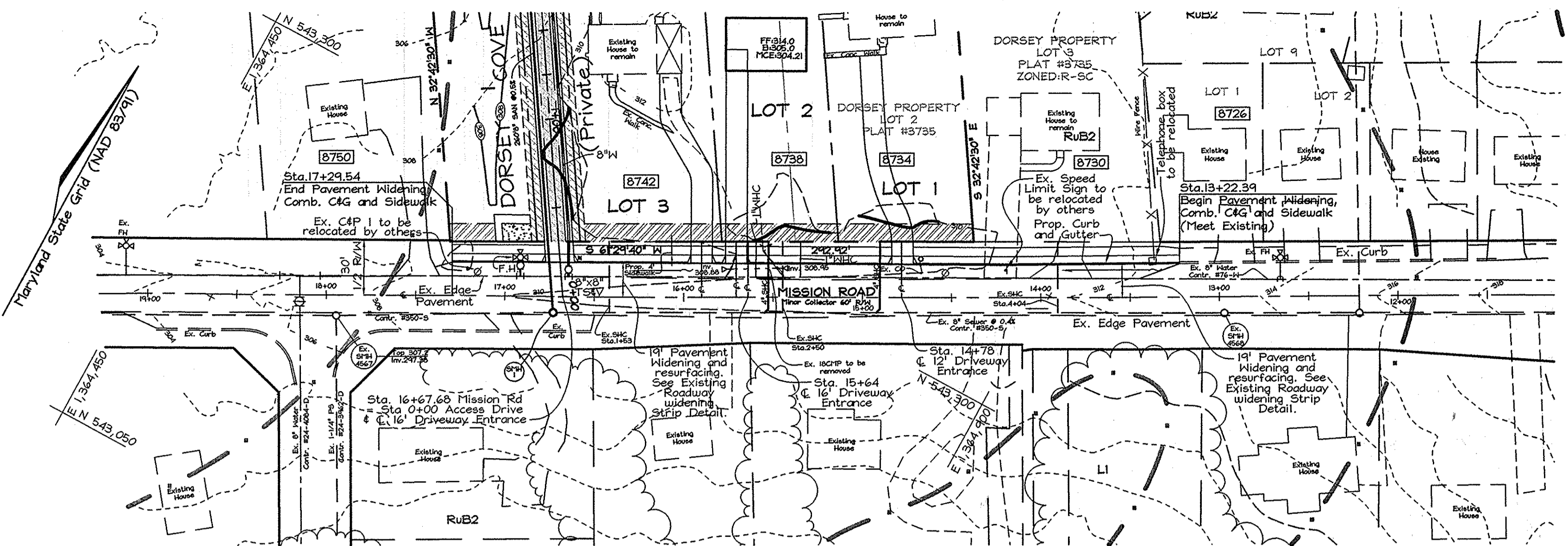
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

*William J. Mullan*  
CHIEF, BUREAU OF HIGHWAYS  
DATE: 2-27-09

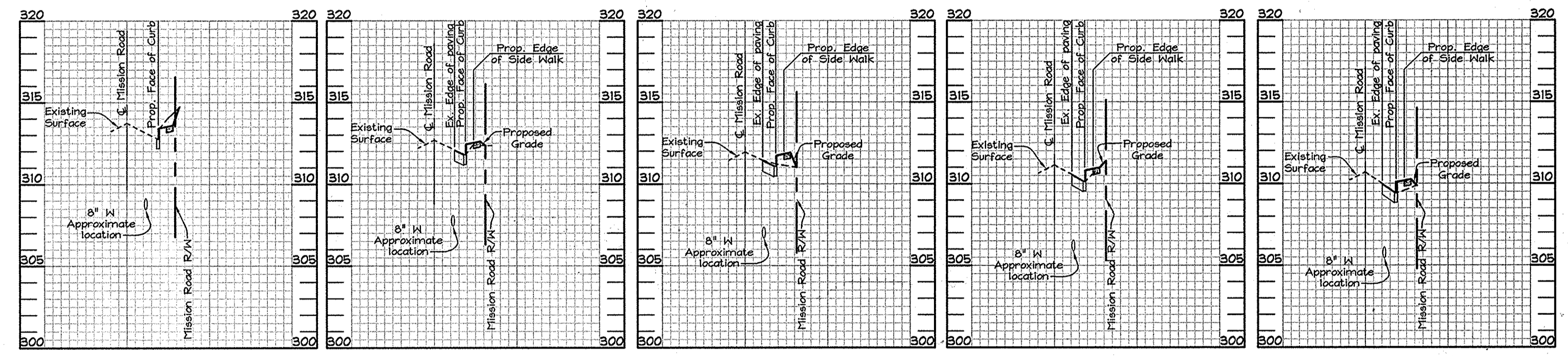
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*William J. Mullan*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 2/6/09

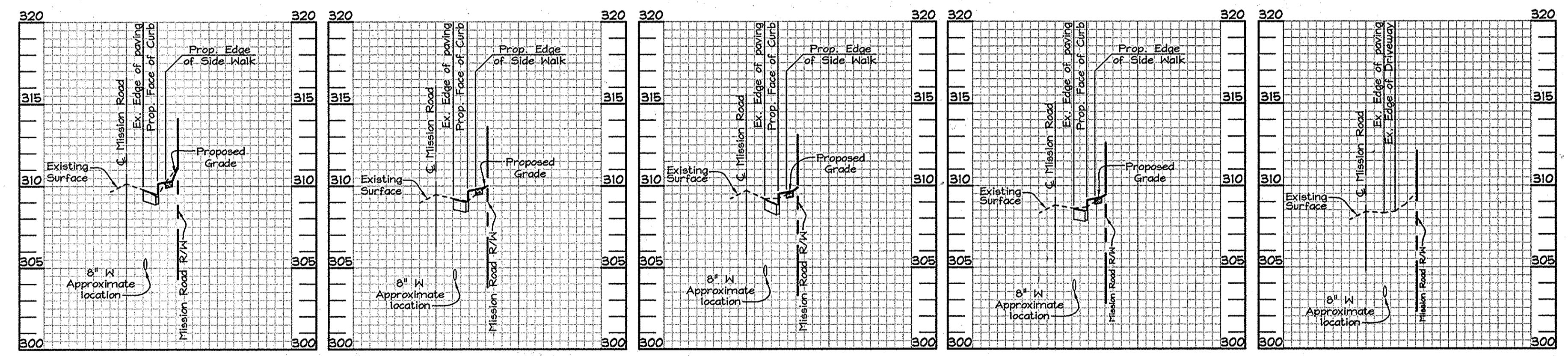
*T. Mullan*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 3-9-09



PLAN VIEW  
SCALE: 1"=50'



STATION: 12+90 SCALE H:1"=50' V:1"=5'  
 STATION: 13+40 SCALE H:1"=50' V:1"=5'  
 STATION: 13+90 SCALE H:1"=50' V:1"=5'  
 STATION: 14+40 SCALE H:1"=50' V:1"=5'  
 STATION: 14+90 SCALE H:1"=50' V:1"=5'



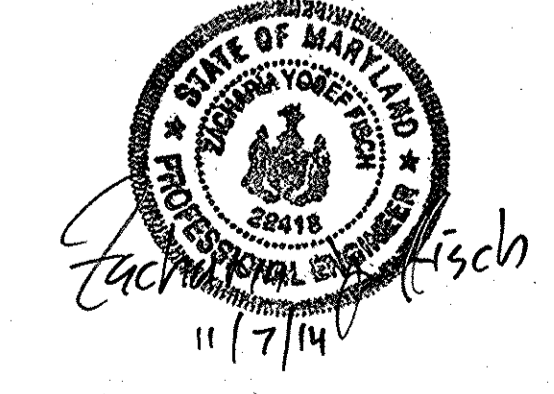
STATION: 15+40 SCALE H:1"=50' V:1"=5'  
 STATION: 15+90 SCALE H:1"=50' V:1"=5'  
 STATION: 16+40 SCALE H:1"=50' V:1"=5'  
 STATION: 16+90 SCALE H:1"=50' V:1"=5'  
 STATION: 17+40 SCALE H:1"=50' V:1"=5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Walter Z. ...* 2-27-09  
 CHIEF, BUREAU OF HIGHWAYS DATE

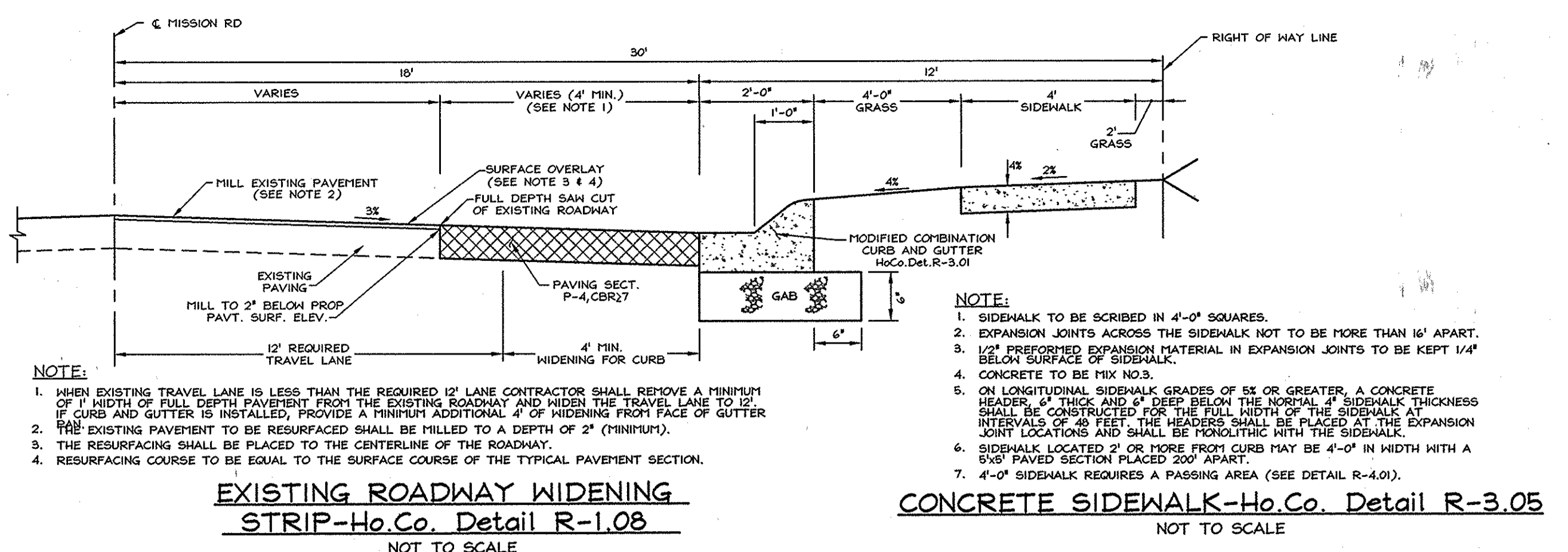
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Tom ...* 3/6/09  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*T.M. ...* 3-9-09  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

PROFESSIONAL CERTIFICATION  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 07/29/09, 15

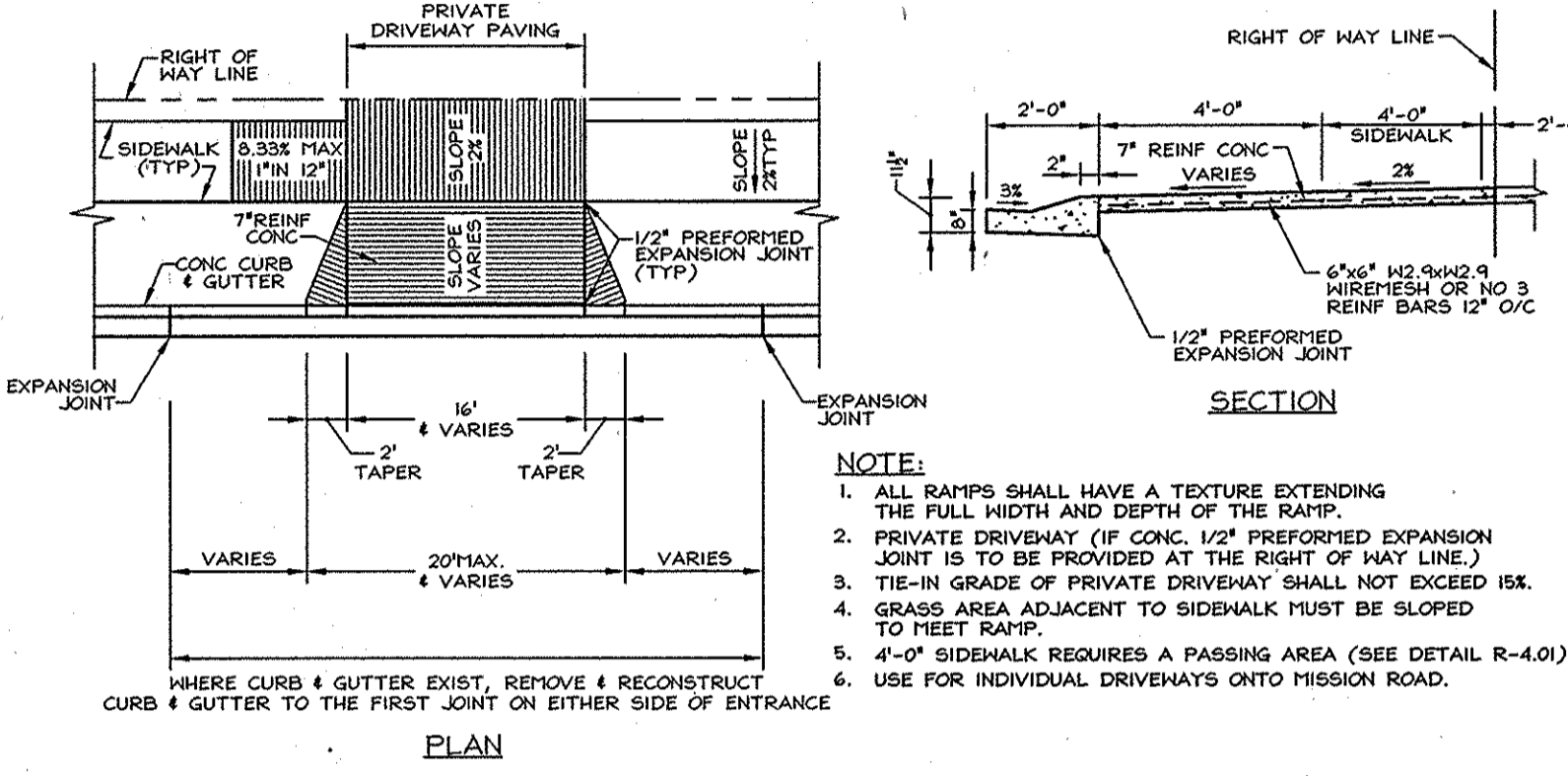


AS-BUILT REVISIONS  
 SEE SHEET 6 OF 9

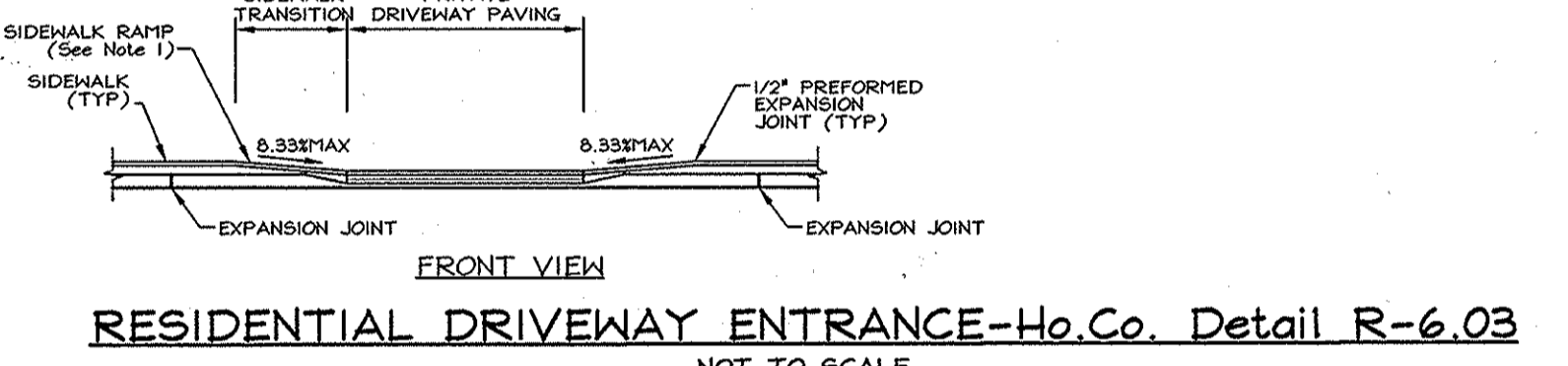


EXISTING ROADWAY WIDENING STRIP-Ho.Co. Detail R-1.08  
NOT TO SCALE

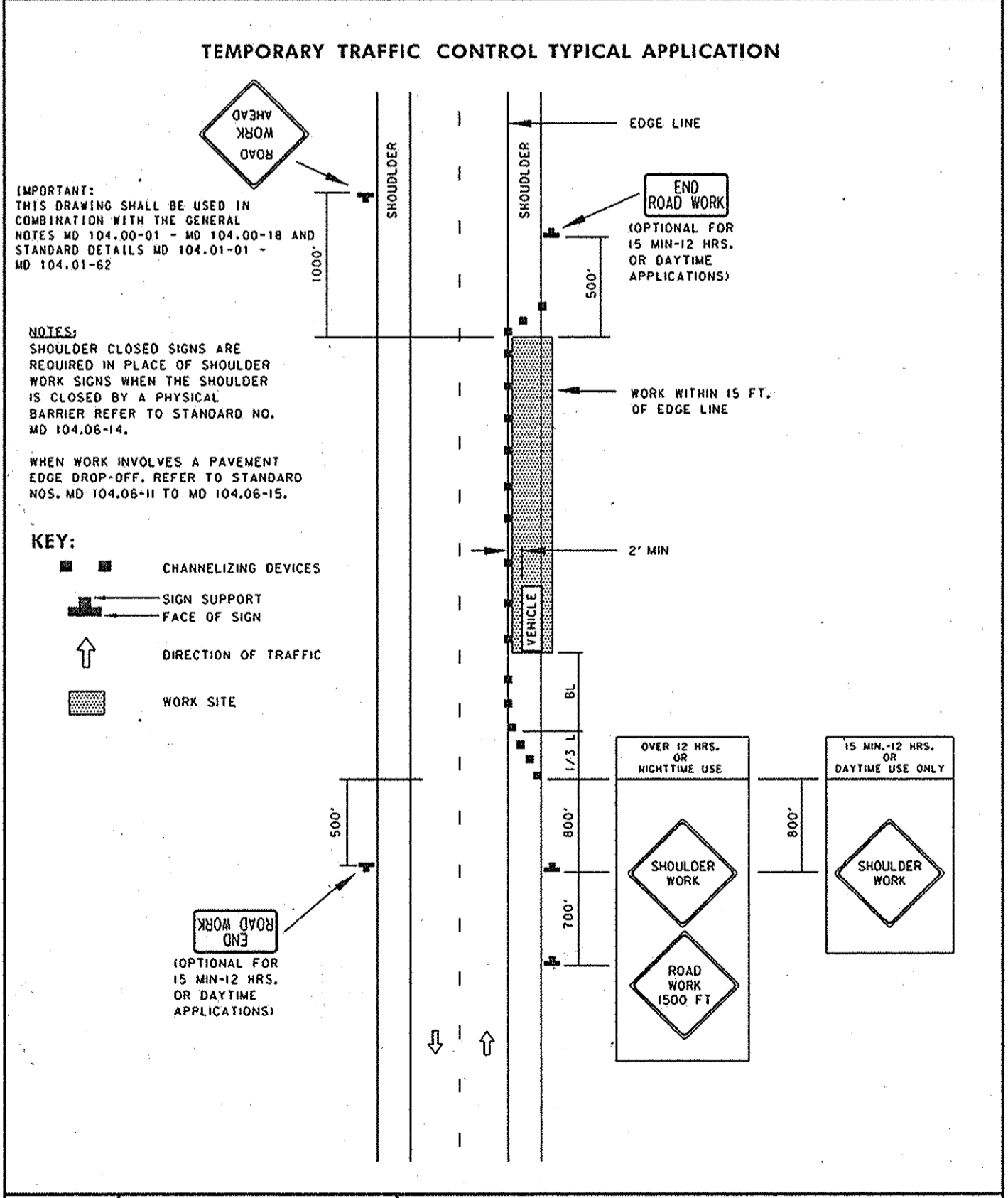
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NOT TO SCALE



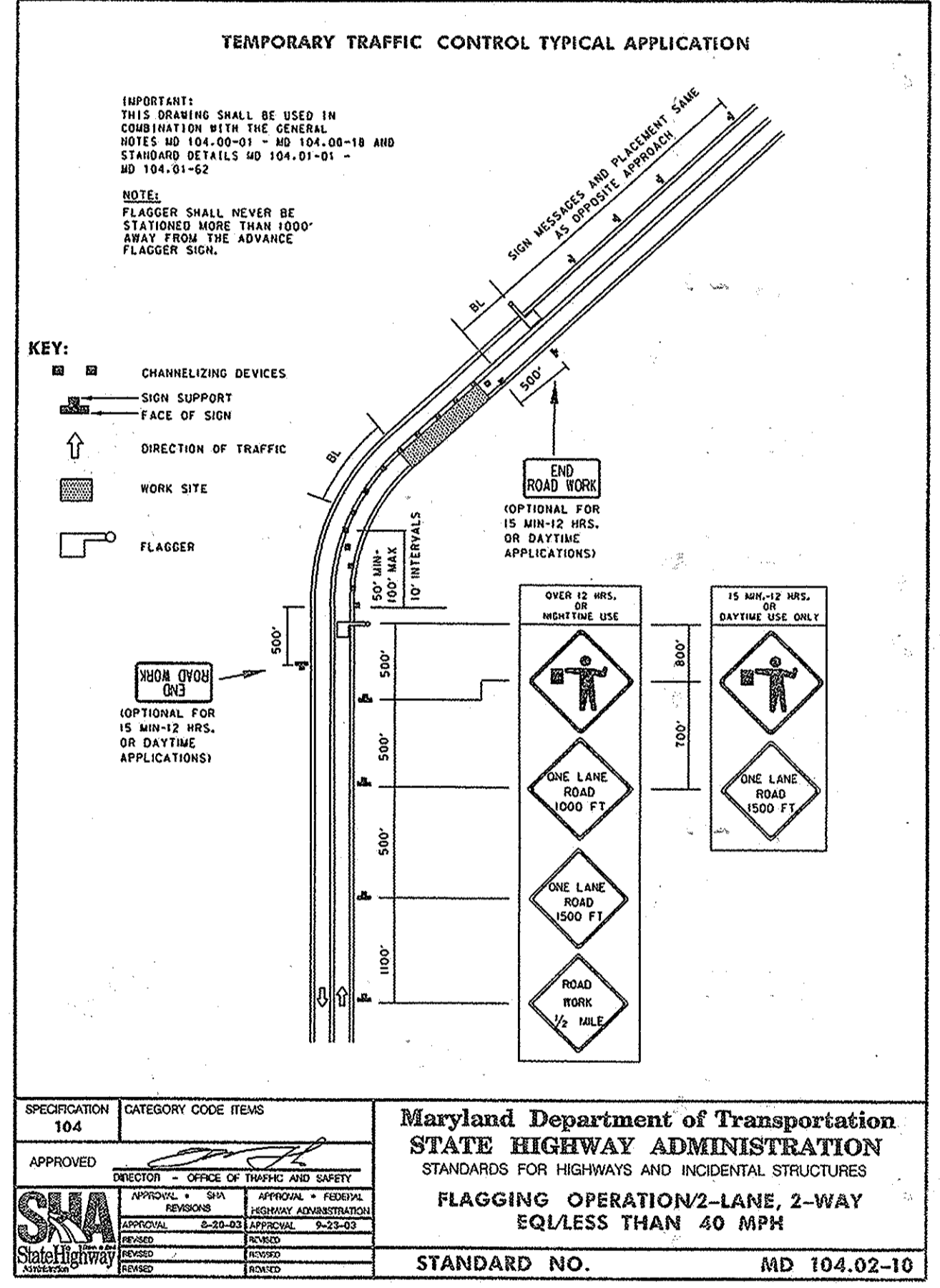
PAVING SECTION-Ho.Co. Detail R-2.01  
NOT TO SCALE



RESIDENTIAL DRIVEWAY ENTRANCE-Ho.Co. Detail R-6.03  
NOT TO SCALE



SPECIFICATION 104 CATEGORY CODE ITEMS  
 APPROVED: *[Signature]*  
 DIRECTOR, OFFICE OF TRAFFIC AND SAFETY  
 APPROVAL: *[Signature]* APPROVAL: *[Signature]*  
 APPROVAL: 8-22-09 APPROVAL: 8-23-09  
 STATE HIGHWAY ADMINISTRATION  
 SHOULDER WORK/2-LANE, 2-WAY  
 EQL/LESS THAN 40 MPH  
 STANDARD NO. MD 104.02-02



APPROVED: *[Signature]*  
 DIRECTOR, OFFICE OF TRAFFIC AND SAFETY  
 APPROVAL: *[Signature]* APPROVAL: *[Signature]*  
 APPROVAL: 8-22-09 APPROVAL: 8-23-09  
 STATE HIGHWAY ADMINISTRATION  
 FLAGGING OPERATION/2-LANE, 2-WAY  
 EQL/LESS THAN 40 MPH  
 STANDARD NO. MD 104.02-10

OWNERS: DORSEY FAMILY PROPERTY, L.L.C.  
 P.O. BOX 482 LISBON, MD 21765  
 (301) 725-7059  
 Ms. Bessie M. Bordenave

DEVELOPER/ CONTRACT PURCHASER: HERITAGE LAND DEVELOPMENT  
 15950 North Ave. P.O. Box 482 LISBON, MD 21765  
 (410) 489-7900

WIDENING PLAN FOR MISSION ROAD  
 PROFILES AND DETAILS  
**R.W. DORSEY PROPERTY**  
 LOTS 1 TO 9 AND OPEN SPACE LOT 10  
 (A RESUBDIVISION OF LOTS 1 & 2 OF THE DORSEY PROPERTY, PLAT #3735)  
 TAX MAP 42 GRID 24 PARCEL P/O 425  
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN BY: AG-D  
 DRAWN BY: CED  
 CHECKED BY: ZTF  
 SCALE:  
 DATE: Feb. 5, 2009  
 W.O. No.: 3331  
 SHEET No. 3 OF 9

**FSH Associates**  
 Engineers Planners Surveyors  
 6339 Howard Lane Elkridge, MD 21075  
 Tel: 410-567-5200 Fax: 410-786-1562  
 E-mail: info@fsh.com

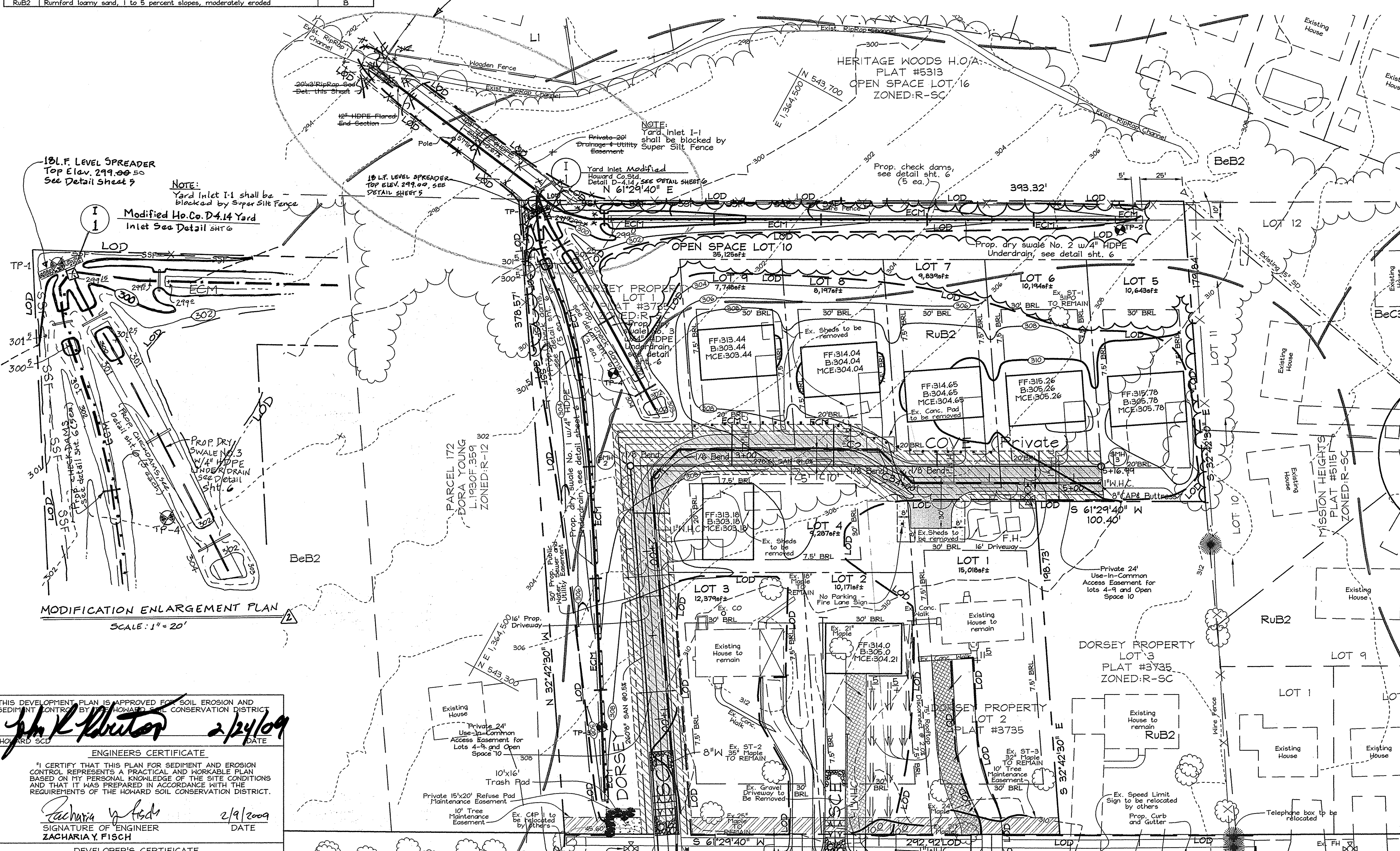
**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
BeB2	Beitsville silt loam, 1 to 5 percent slopes, moderately eroded	C
RuB2	Rumford loamy sand, 1 to 5 percent slopes, moderately eroded	B

**LEGEND**

Existing Contour	--- 382
Proposed Contour	--- 478.6
Spot Elevation	478.6
Direction of Flow	→
Trees Protection Fence	⊕
Existing Trees to Remain	⊕
Stabilized Construction Entrance	ECM
Silt Fence and Trees Protection Fence	SF TPF
Silt Fence	SF
Limit of Disturbance	LOD
Erosion Control Matting	ECM
Soil Boundary	---
Use-In-Common Access Easement & Pedestrian Access to Open Space	---
Prop. Public Water, Sewer and Utility Easement	---
Prop. Private Access Easement	---
Proposed Paving	---
Rooftop Disconnect	---

SEE MODIFICATION ENLARGEMENT PLAN-THIS SHEET



181. F. LEVEL SPREADER  
Top Elev. 299.00±  
See Detail Sheet 5

NOTE:  
Yard Inlet I-1 shall be blocked by Super Silt Fence

Modified Ho. Co. D-4.14 Yard Inlet See Detail SHT 6

181. F. LEVEL SPREADER  
Top Elev. 299.00±, see DETAIL SHEET 5

NOTE:  
Yard Inlet I-1 shall be blocked by Super Silt Fence

MODIFICATION ENLARGEMENT PLAN  
SCALE: 1" = 20'

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY CONSERVATION DISTRICT  
*J.R.K. Hunter* 2/24/09  
HOWARD COUNTY CONSERVATION DISTRICT

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 COUNTY CONSERVATION DISTRICT.  
*Zacharia Y. Fisch* 2/9/2009  
SIGNATURE OF ENGINEER DATE  
ZACHARIA Y. FISCH

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 COUNTY CONSERVATION DISTRICT.  
*Kenny Livesay* 2/6/09  
SIGNATURE OF DEVELOPER DATE  
KENNY LIVESAY

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Walter Z. Marshall* 2-27-09  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*John P. ...* 2/6/09  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*T. MacArthur Sr. CH* 3-9-09  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

OWNERS: DORSEY FAMILY PROPERTY, L.L.C.  
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Lisbon, MD 21765  
(410) 489-7400

**SEDIMENT AND EROSION CONTROL AND GRADING PLAN**  
**R.W. DORSEY PROPERTY**  
LOTS 1 TO 9 AND OPEN SPACE LOT 10  
(A RESUBDIVISION OF LOTS 1 & 2 OF THE DORSEY PROPERTY, PLAT #3735)  
TAX MAP 42 GRID 24 PARCEL P/O 425  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN BY: AG-D  
DRAWN BY: CED  
CHECKED BY: ZTF  
SCALE: 1"=30'  
DATE: Feb. 5, 2009  
P.L.O. No.: 3331  
SHEET No.: 4 OF 9

**FSH Associates**  
Engineers Planners Surveyors  
8339 Howard Lane Elkridge, MD 21075  
Tel: 410-567-5200 Fax: 410-796-1562  
E-mail: info@fshri.com

PROFESSIONAL CERTIFICATION  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 07/29/09, 15

AS-BUILT  
SEE SHEET 6 OF 9 FOR REVISIONS.

AS-BUILT 11/7/14  
SEE SHEET 6 OF 9 FOR REVISIONS

PLAN  
SCALE: 1"=30'

**21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL**

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

**Purpose**  
To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

**Conditions Where Practice Applies**  
I. This practice is limited to areas having 2:1 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 zone 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 limestone is not feasible.

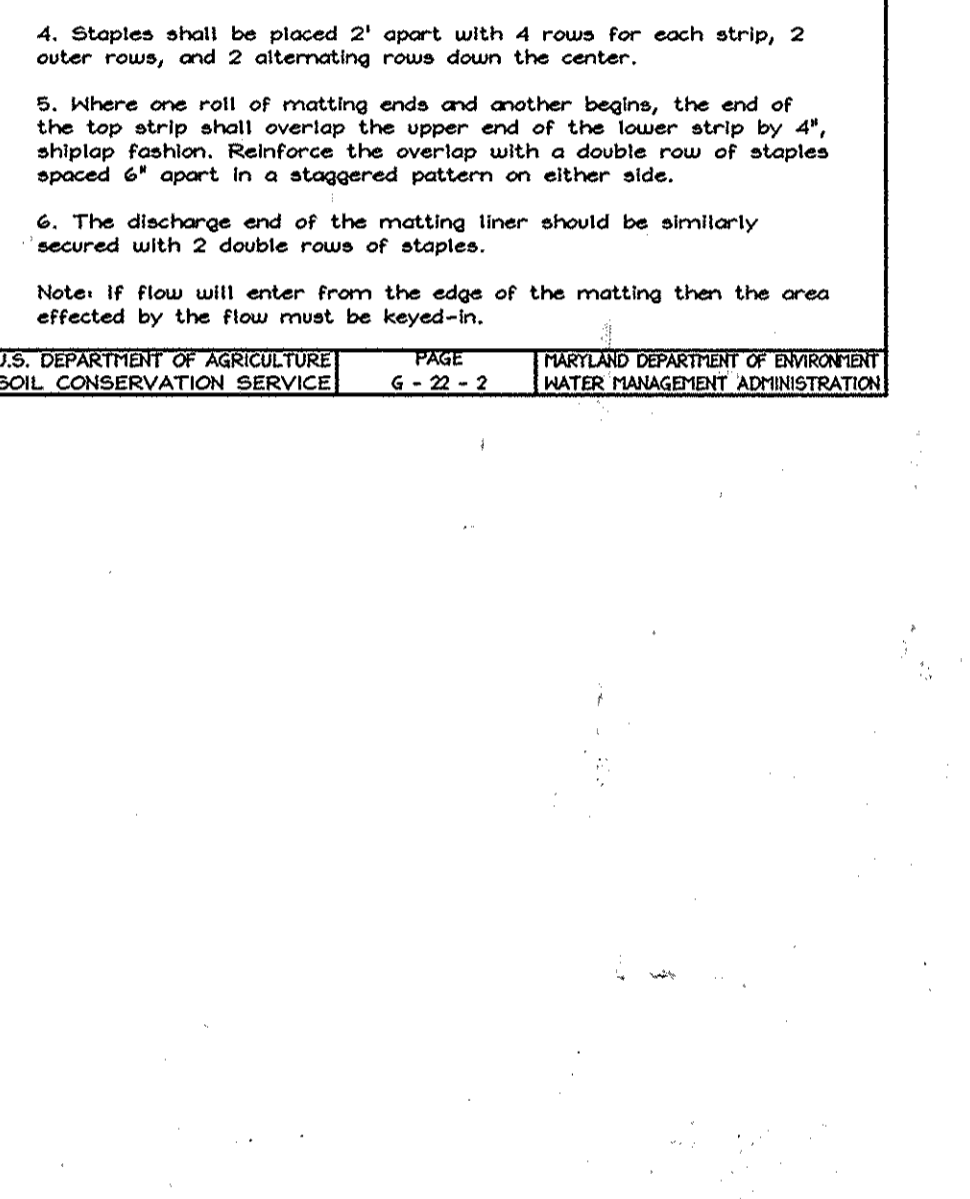
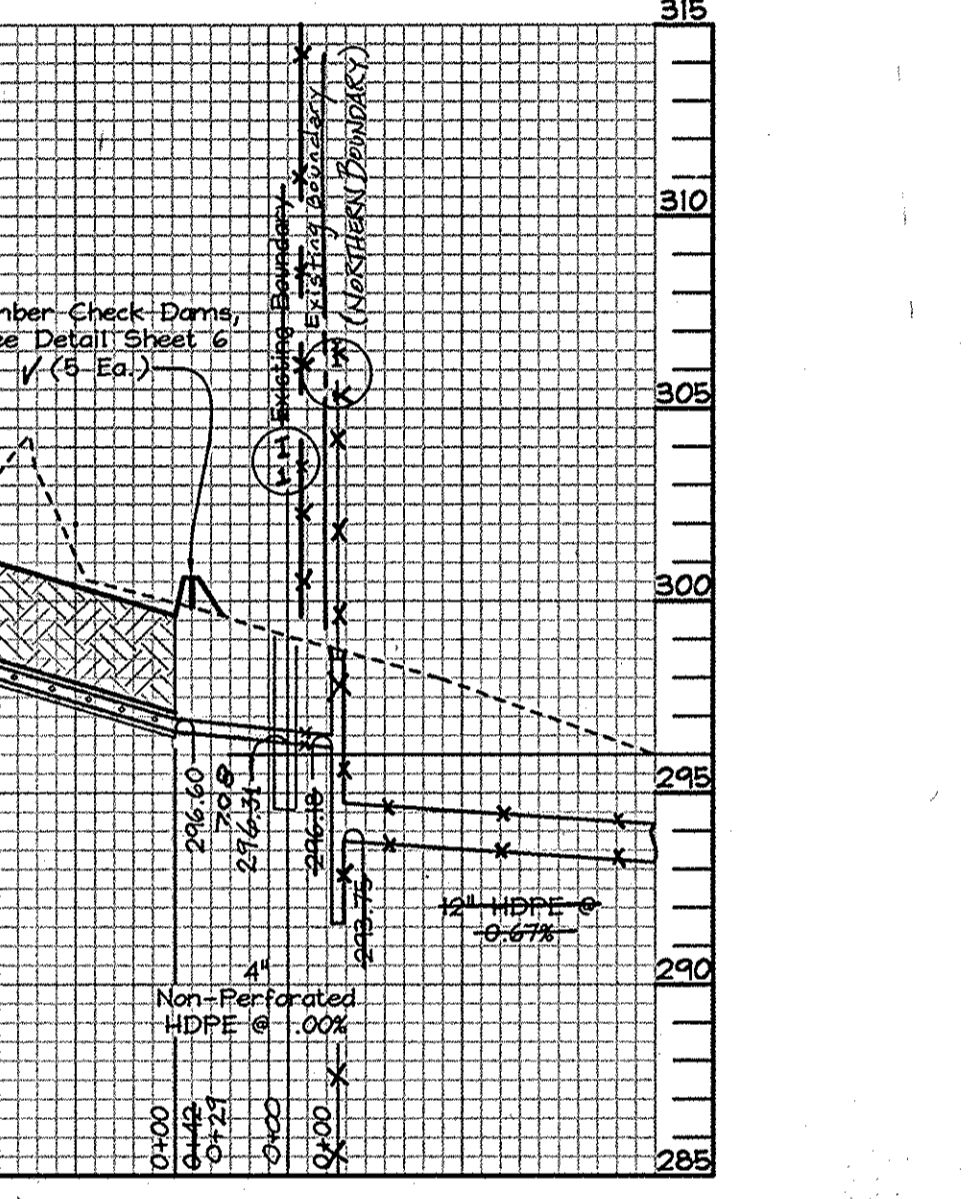
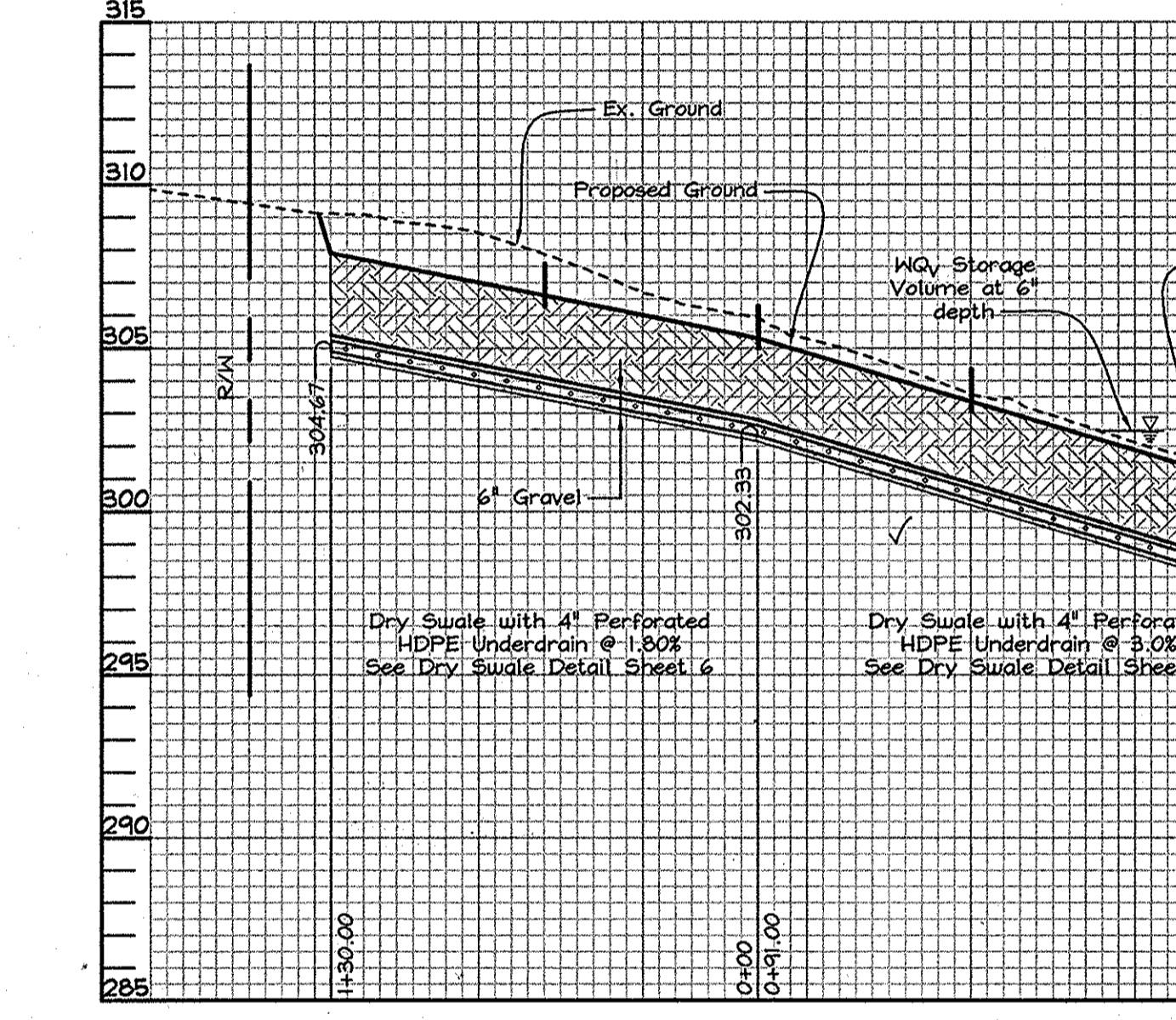
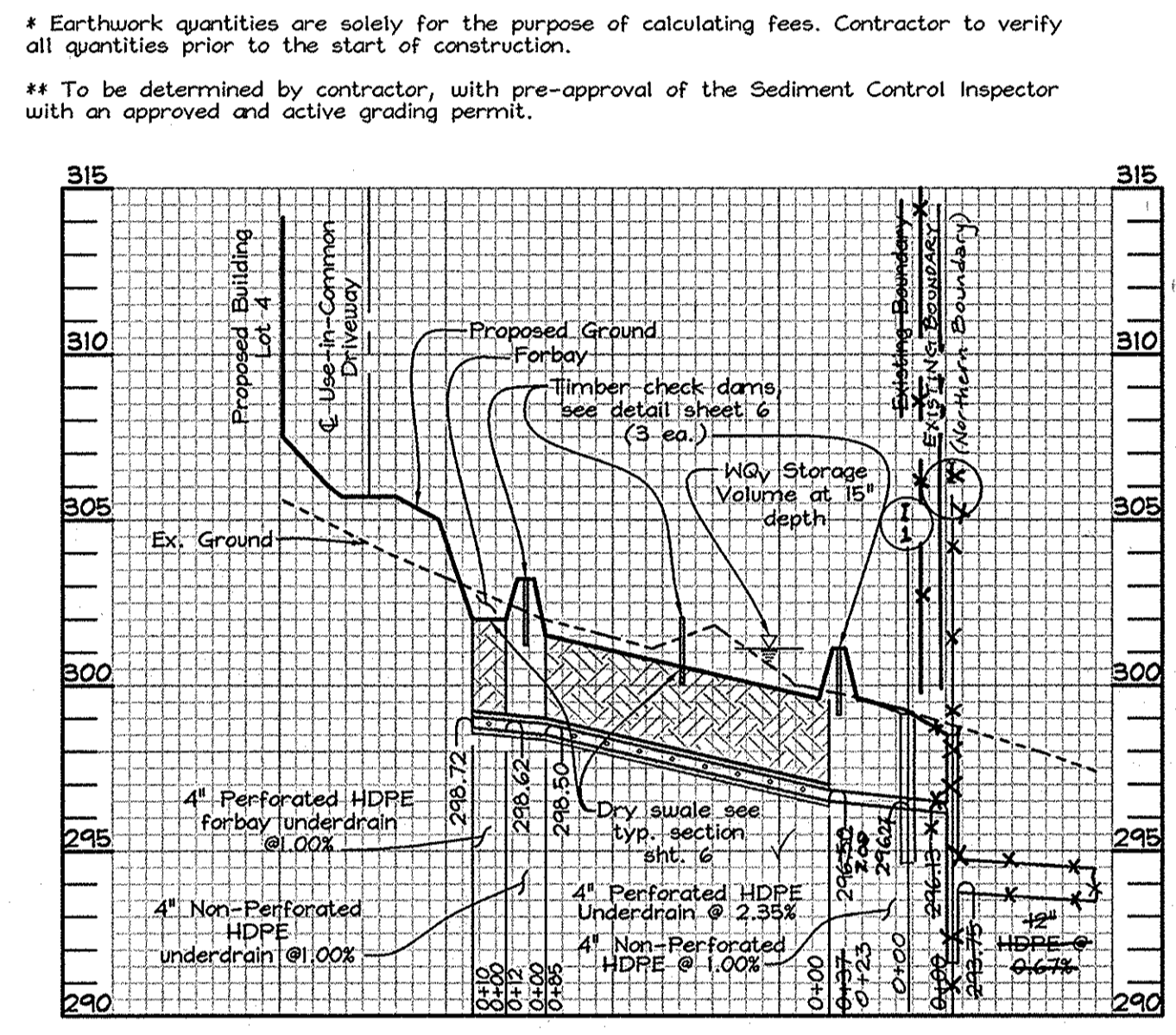
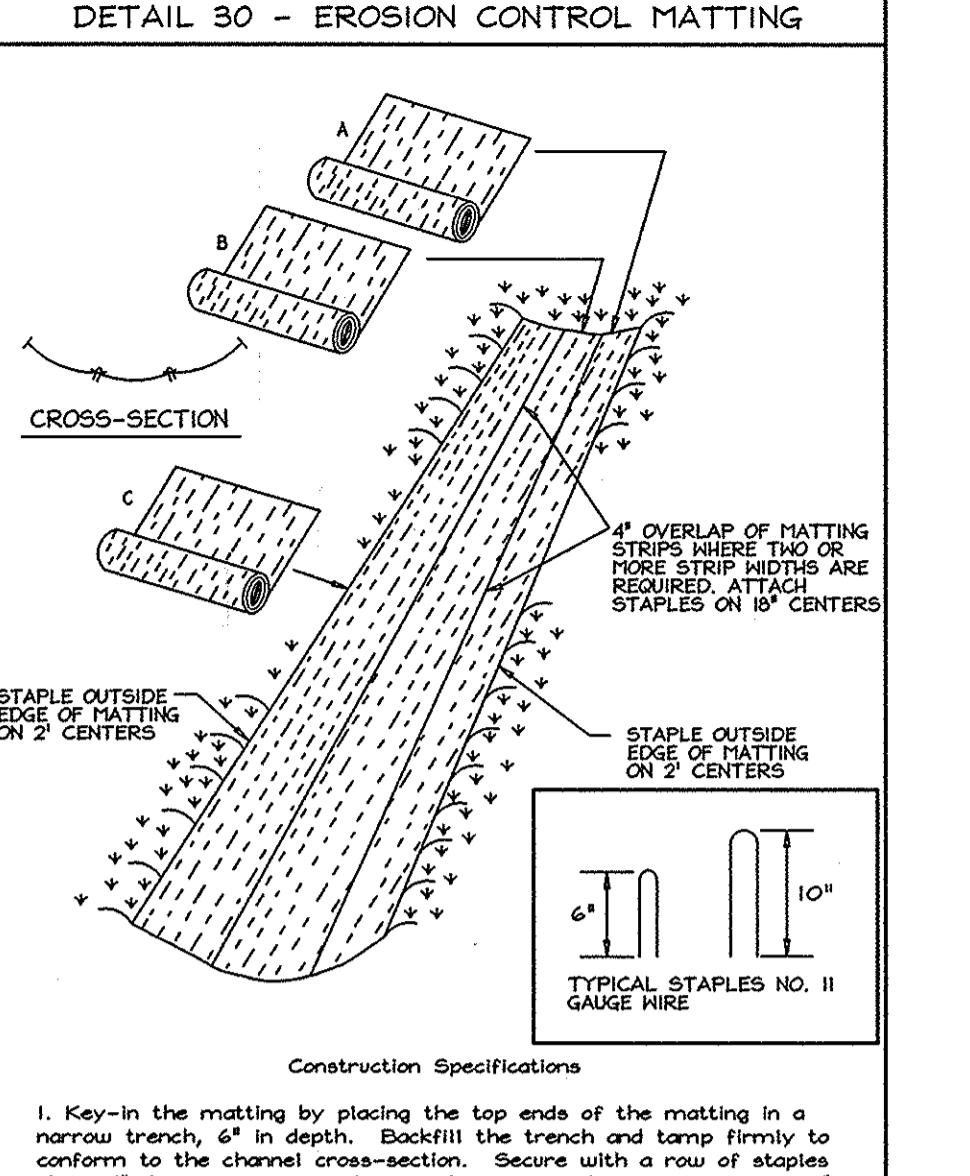
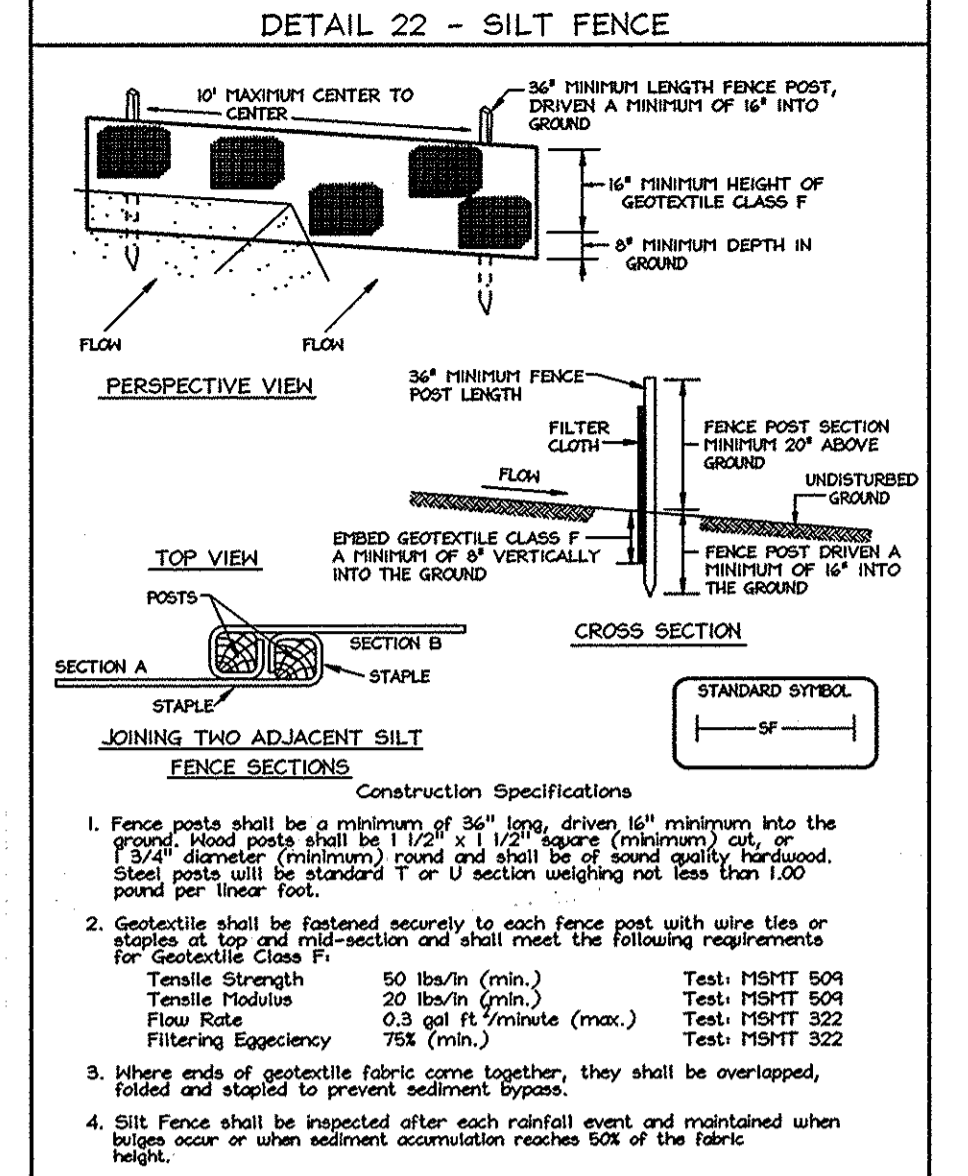
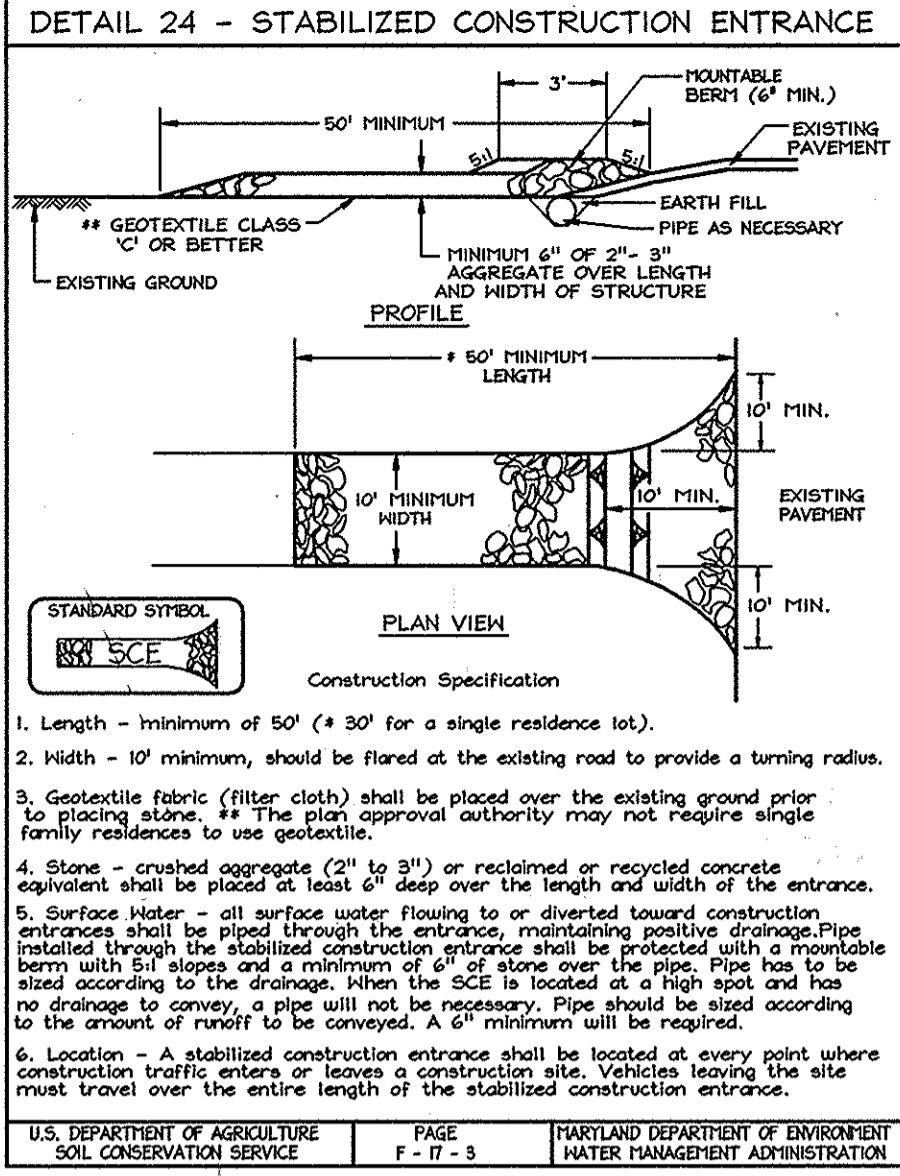
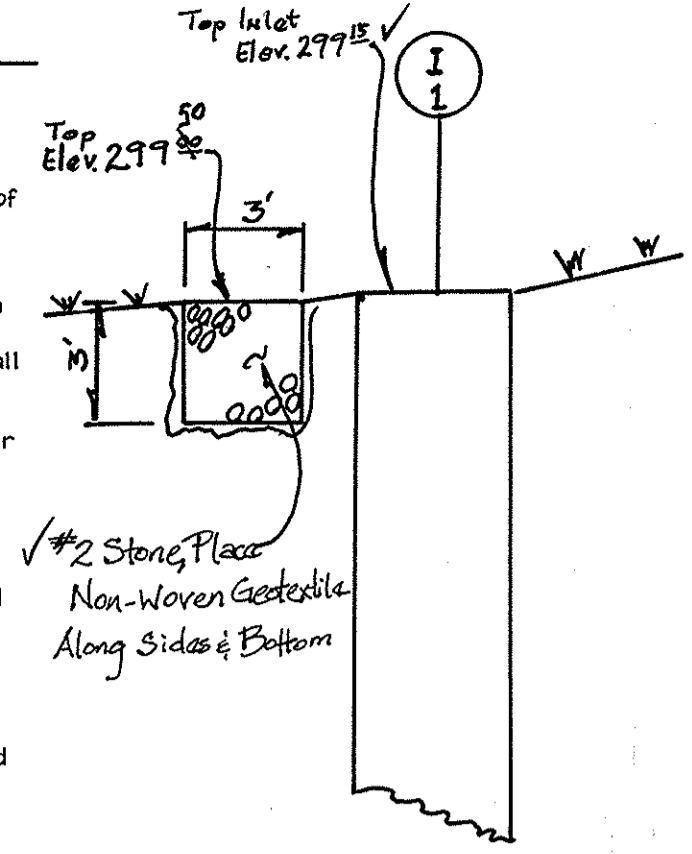
II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.  
**Construction and Material Specifications**  
I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.  
II. Topsoil Specifications - Soil to be used as topsoil must meet the following:  
1. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand, or silty clay loam.  
2. Other soils may be used if recommended by an agronomist or a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 and 1/2" in diameter.  
3. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.  
4. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread 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 soil in conjunction with tillage operations as described in the following procedures.

III. For sites having disturbed areas under 5 acres:  
I. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.  
II. For sites having disturbed areas over 5 acres:  
I. On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:  
a. pH for topsoil shall be between 6.0 and 7.5. 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.  
b. Organic content of topsoil shall be not less than 1.5 percent by weight.  
c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.  
d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.  
NOTE: Topsoil substitutes or 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.

II. Topsoil substitutes or 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.  
III. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.  
IV. Topsoil Application  
1. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fences and Sediment Traps and Basins.  
2. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4"-8" higher in elevation.  
3. Topsoil shall be uniformly distributed in a 4"-8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.  
4. Topsoil shall not be placed while 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.

**SEDIMENT CONTROL NOTES**

- A minimum of 48 hours notice must be given to the Howard County Department of Inspection, License and Permits Sediment Control Division prior to the start of any construction (410-318-1858).
- All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1, (b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. I, Chapter 7, HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:  
Total Area: 2.95 Acres  
Area Disturbed: 2.05 Acres  
Area to be roofed or paved: 0.45 Acres  
Area to be vegetatively stabilized: 1.60 Acres  
Total Cut: 1,990 CY  
Total Fill: 4,300 CY  
Offsite waste/borrow area location: #4
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.



**PERMANENT SEEDING NOTES**

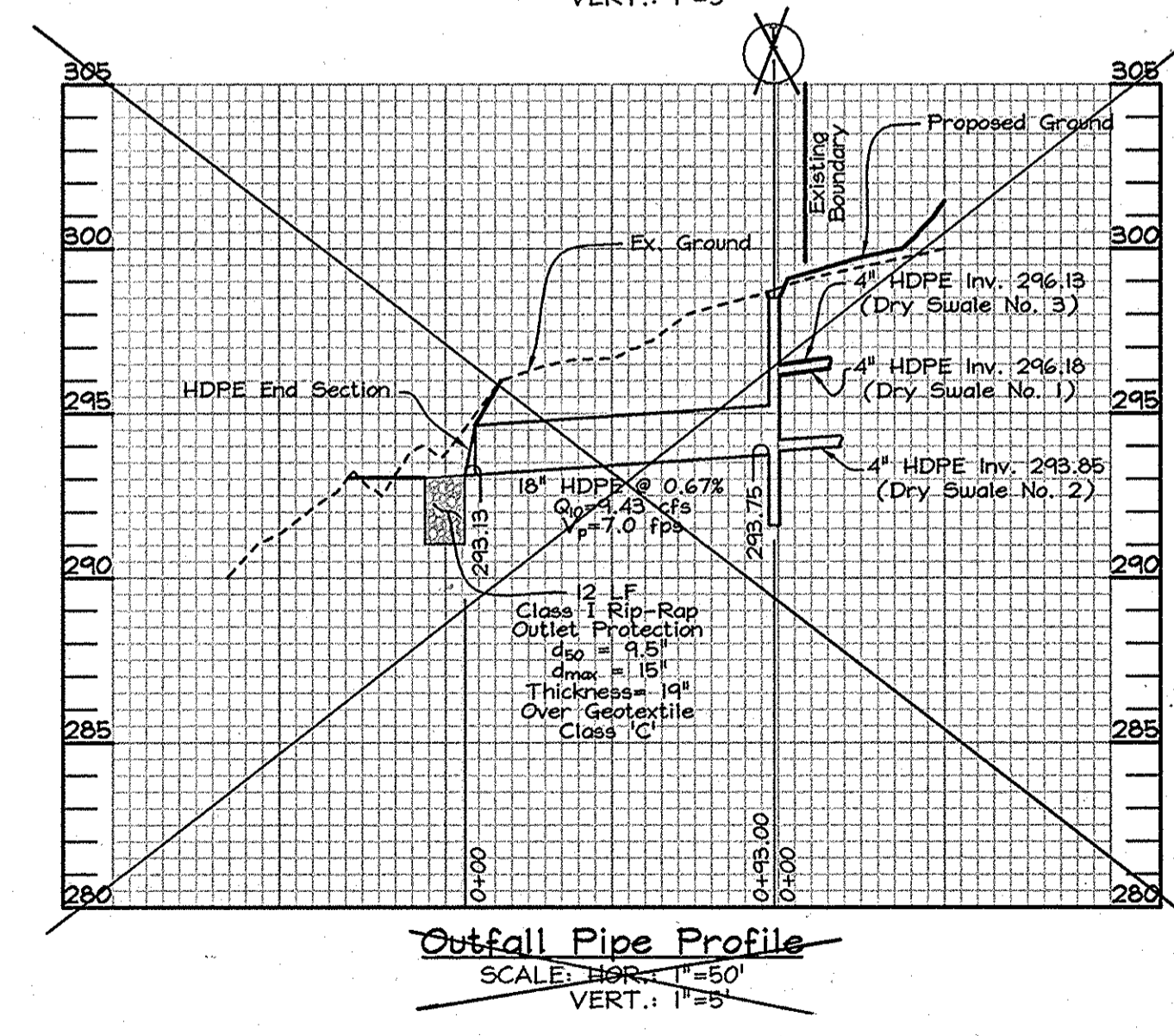
APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.  
**SEEDBED PREPARATION:** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.  
**SOIL AMENDMENTS:** 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 a mixture of Turf Type Tall Fescue (80%) and Hard Fescue (20%) in accordance with seeding dates and 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 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 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 Tax II, Acrylic DLR (Agro-Tack), DCA-70, Petrosol and other approved equals may be used at rates recommended by the manufacturers.

Permanent Seeding Summary				Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/acre)	Seeding Dates	N	P2O5	K2O	2tons/acre
10	Tall Fescue (80%) Hard Fescue (20%)	120 30	3/1-5/15 8/15-11/15	90lb/acre (2.0lb/1000sf)	175lb/acre (4lb/1000sf)	175lb/acre (4lb/1000sf)	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 Barley or Rye plus Foxtail Millet in accordance with seeding dates and 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 Tax II, Acrylic DLR (Agro-Tack), DCA-70, Petrosol and other approved equals may be used at rates recommended by the manufacturers.  
**REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATES AND METHODS NOT COVERED.**

Temporary Seeding Summary				Fertilizer Rate (10-10-10)			Lime Rate
No.	Species	Application Rate (lb/acre)	Seeding Dates	N	P2O5	K2O	2 tons/acre
2	Barley or Rye plus Foxtail Millet	150 lbs (3.5lbs/1000sf)	2/1-11/30 (7a) 3/15-10/31 (6a)	600 lb/acre (15lb/1000sf)			2 tons/acre (100lb/1000sf)



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 3/6/09  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*[Signature]* 3/9/09  
CHIEF, DIVISION OF LAND DEVELOPMENT

**DEVELOPER'S CERTIFICATE**  
"I HEREBY 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 COUNTY SEDIMENT CONTROL DIVISION."  
*[Signature]* 2/6/09  
SIGNATURE OF DEVELOPER  
KENNY LIVESAY  
DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
*[Signature]* 2/24/09  
HOWARD SCD

**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]* 2/9/2009  
SIGNATURE OF ENGINEER  
ZACHARIA Y. FISCH  
DATE

**PROFESSIONAL CERTIFICATION**  
*[Signature]*  
ZACHARIA Y. FISCH  
PE NO. 22418

**AS-BUILT**  
**SEAL OF MARYLAND**  
**PROFESSIONAL ENGINEER**  
**STATE OF MARYLAND**  
**ZACHARIA Y. FISCH**  
**22418**  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 07/29/09, 2.015

**SEQUENCE OF CONSTRUCTION**  
1. Obtain grading permit and contact Howard County Sediment Control Inspector (SCI) 410-318-1880 to arrange a preconstruction meeting. (1 Day)  
2. Install Stabilized Construction Entrances. (1 Day)  
3. Clear and grub as necessary to install sediment control practices. Install silt fence and silt fence. (3 Days)  
4. With permission of SCI begin shared drive and site grading. (2 Weeks)  
5. Grade roads and building pads to subgrade, construct SWM drainage pipes facility and protect with geotextile.  
6. Fine grade and apply temporary stabilization to all disturbed areas. (1 Day)  
7. Pave shared driveway and permanently stabilize all disturbed areas. (1 Week)  
8. With permission of SCI remove all remaining sediment control devices and stabilize disturbed areas. Remove geotextile over drainage pipes, cover with specified materials and permanently stabilize. (5 Days)

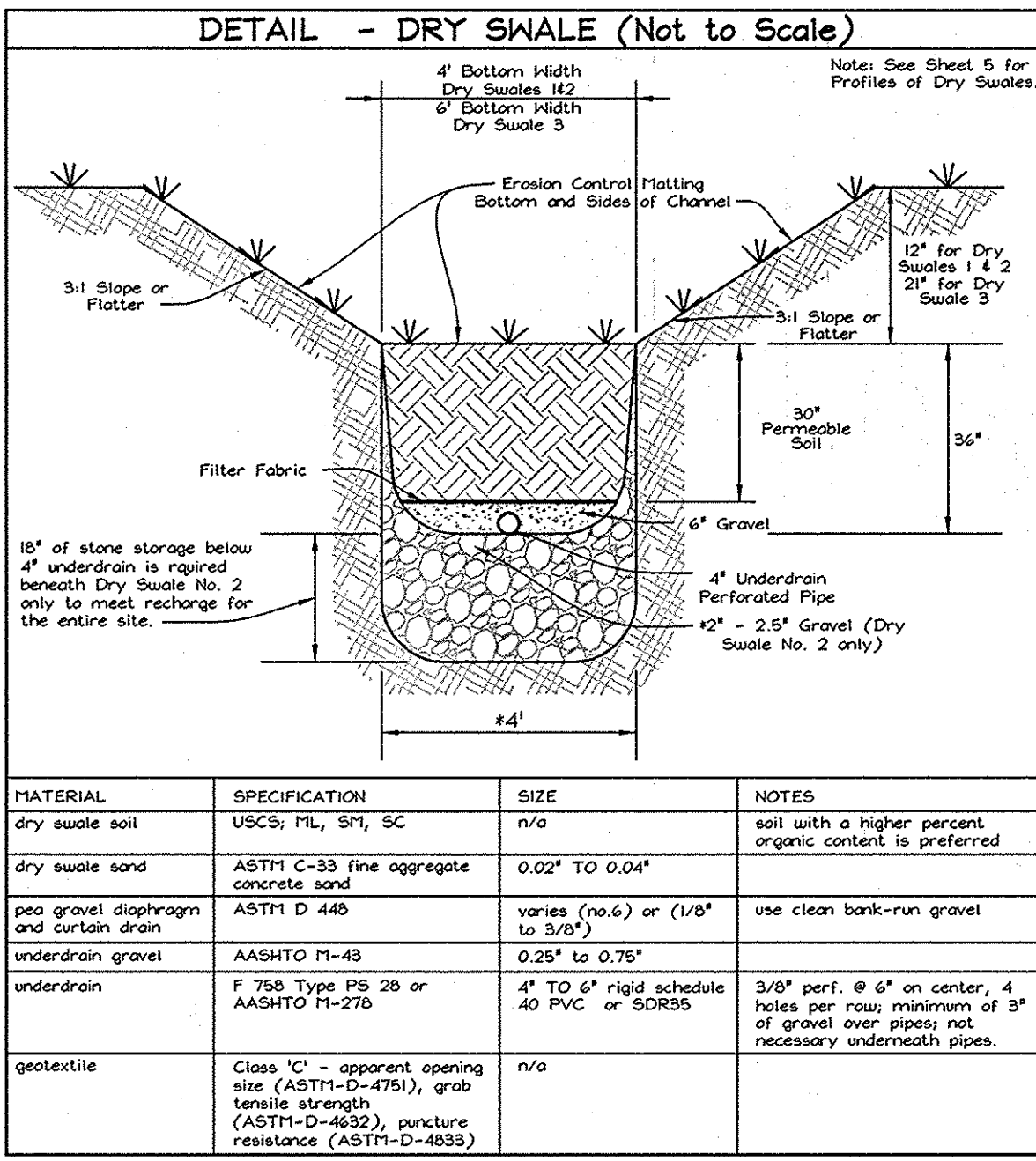
**OWNERS**  
DORSEY FAMILY PROPERTY, L.L.C.  
P.O. BOX 482  
LISBON, MD 21765  
(301) 725-7059  
Ms. Bessie M. Bordenave

**DEVELOPER/ CONTRACT PURCHASER**  
HERITAGE LAND DEVELOPMENT  
15950 North Ave. P.O. Box 482  
Lisbon, MD 21765  
(410) 484-7900

**SEDIMENT AND EROSION CONTROL NOTES AND DETAILS AND DRY SWALE PROFILES**  
**R.W.DORSEY PROPERTY**  
LOTS 1 TO 9 AND OPEN SPACE LOT 10  
(A RESUBDIVISION OF LOTS 1 & 2 OF THE DORSEY PROPERTY, TAX MAP 42 GRID 24 PLAT #3735) PARCEL P/O 425 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

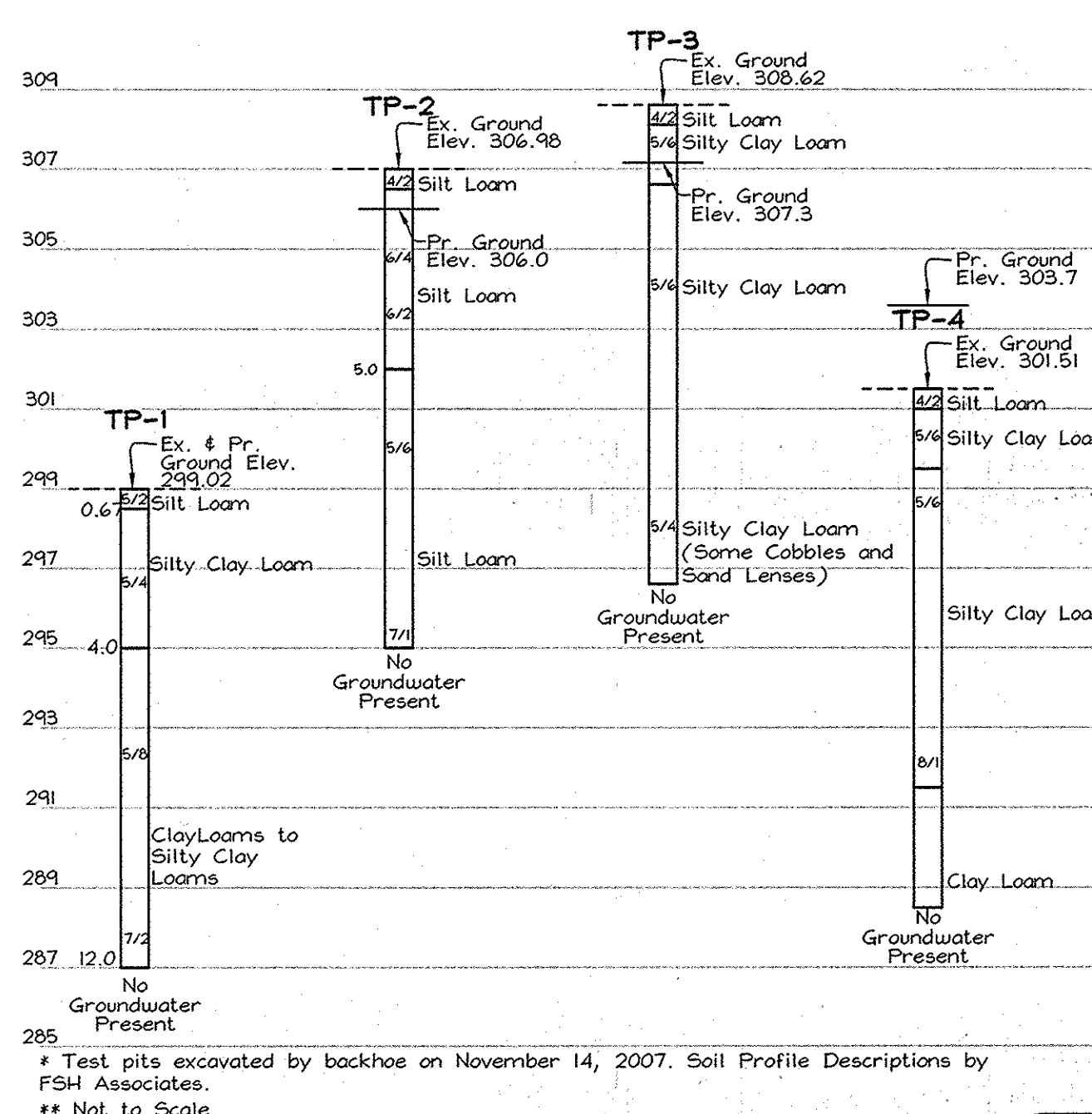
**FSH Associates**  
Engineers Planners Surveyors  
6339 Howard Lane ElkrIDGE, MD 21075  
Tel: 410-567-5200 Fax: 410-796-1562  
E-mail: info@fsh.net

DESIGN BY: AG-D  
DRAWN BY: CED  
CHECKED BY: ZYF  
SCALE: No Scale  
DATE: Feb. 5, 2009  
P.L.O. No.: 3331  
SHEET No. 5 OF 9



### OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY SWALES (O-1)

- The stormwater facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the facility is functioning properly.
- Open channel and grass filter strips should be mowed as required during the growing season to maintain grass heights in the 4 to 6 inch range.
- Debris and litter shall be removed during regular mowing operations and as needed.
- Visible signs of erosion in the facility shall be repaired as soon as it is noticed.
- Sediment build-up within the bottom of the swale shall be removed when 25% of the original H<sub>2</sub>O has been exceeded.



### DRY SWALE TEST PIT LOGS

N.T.S.

### PIPE SCHEDULE

SIZE	TYPE	LENGTH
4"	HDPE-NON-PERFORATED	-
4"	HDPE-PERFORATED	-
12"	HDPE	100'

### WATER QUALITY AND RECHARGE SUMMARY TABLE

Dry Swale NO.	MGV Req'd.	MGV Prov'd.	Rev. Req'd.*	Rev. Prov'd.*
1	497 cu.ft.	534 cu.ft.	727 cu.ft.	728 cu.ft.
2	832 cu.ft.	891 cu.ft.		
3	1,032 cu.ft.	1,137 cu.ft.		

Notes: 1. Channel Protection Overbank Flood Protection and Extreme Low Protection are not required for this project.  
2. Recharge was computed for the entire property and is provided beneath dry swale no. 2 through stone storage beneath the dry swale underdrain.

### STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	Det.
1-1	Yard Inlet	N 543,566.917 E 1,364,397.198	299.85	299.85	299.85	D-4.14
1-2	HDPE End Section	N 543,576.366 E 1,364,408.825	299.85	299.85	299.85	(See Note 3)

Notes: 1. Top elevation and location for the yard inlet is at the center of the inlet grate.  
2. The HDPE End Section Location corresponds to the point where the end section meets the in-situ pipe.  
3. Use No-nah Foundry R-6460G round grate.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Zacharia Y. Fisch* 3/6/09  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*T. M. ...* 3/9/09  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

### ENGINEERS CERTIFICATE

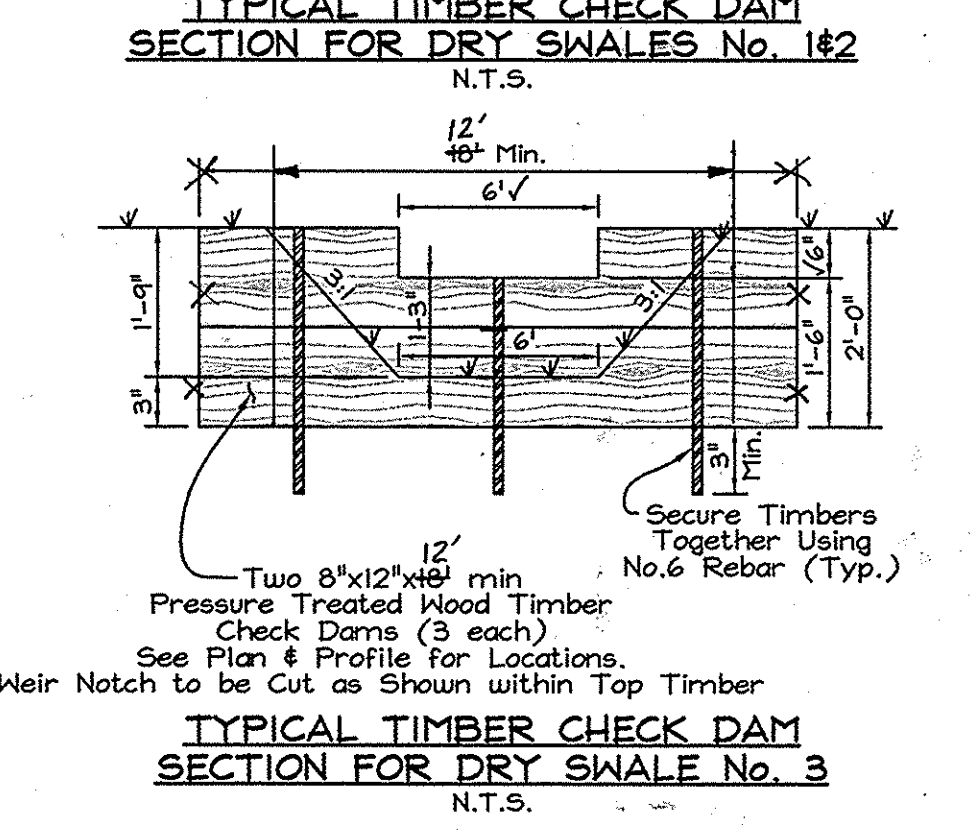
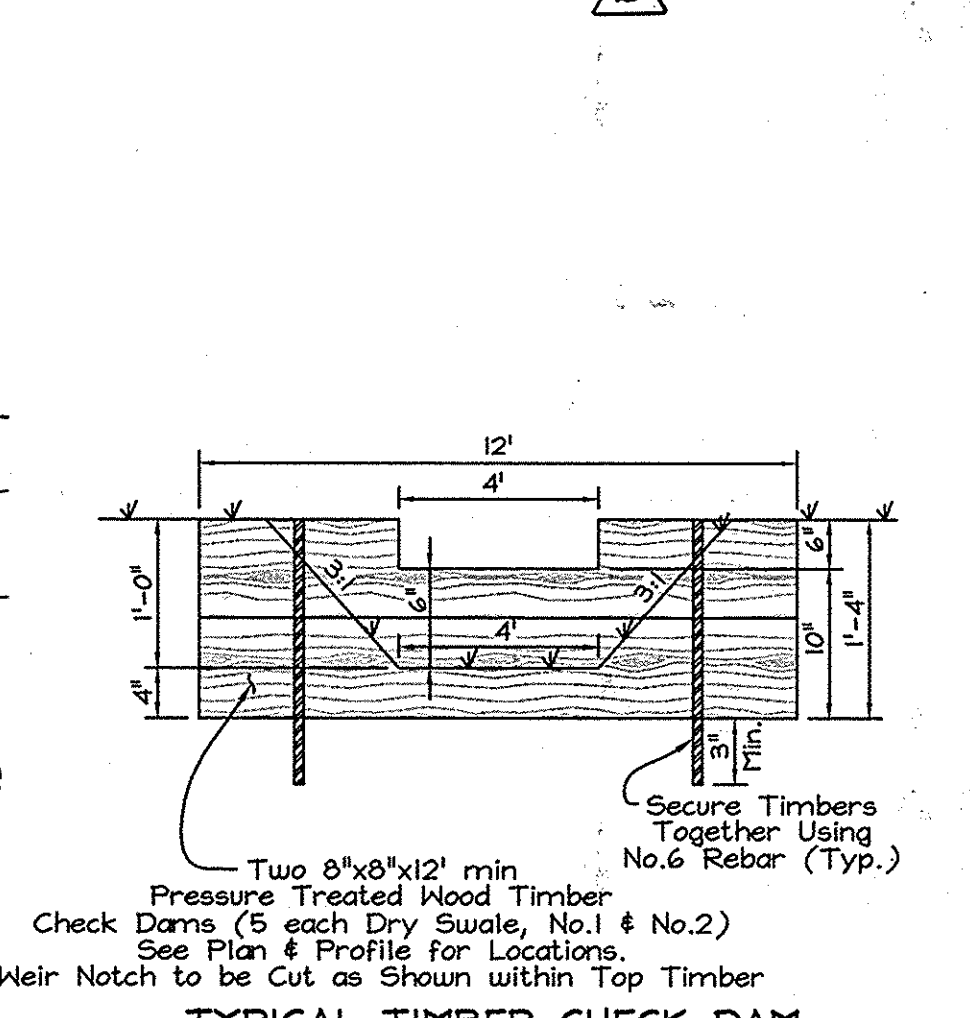
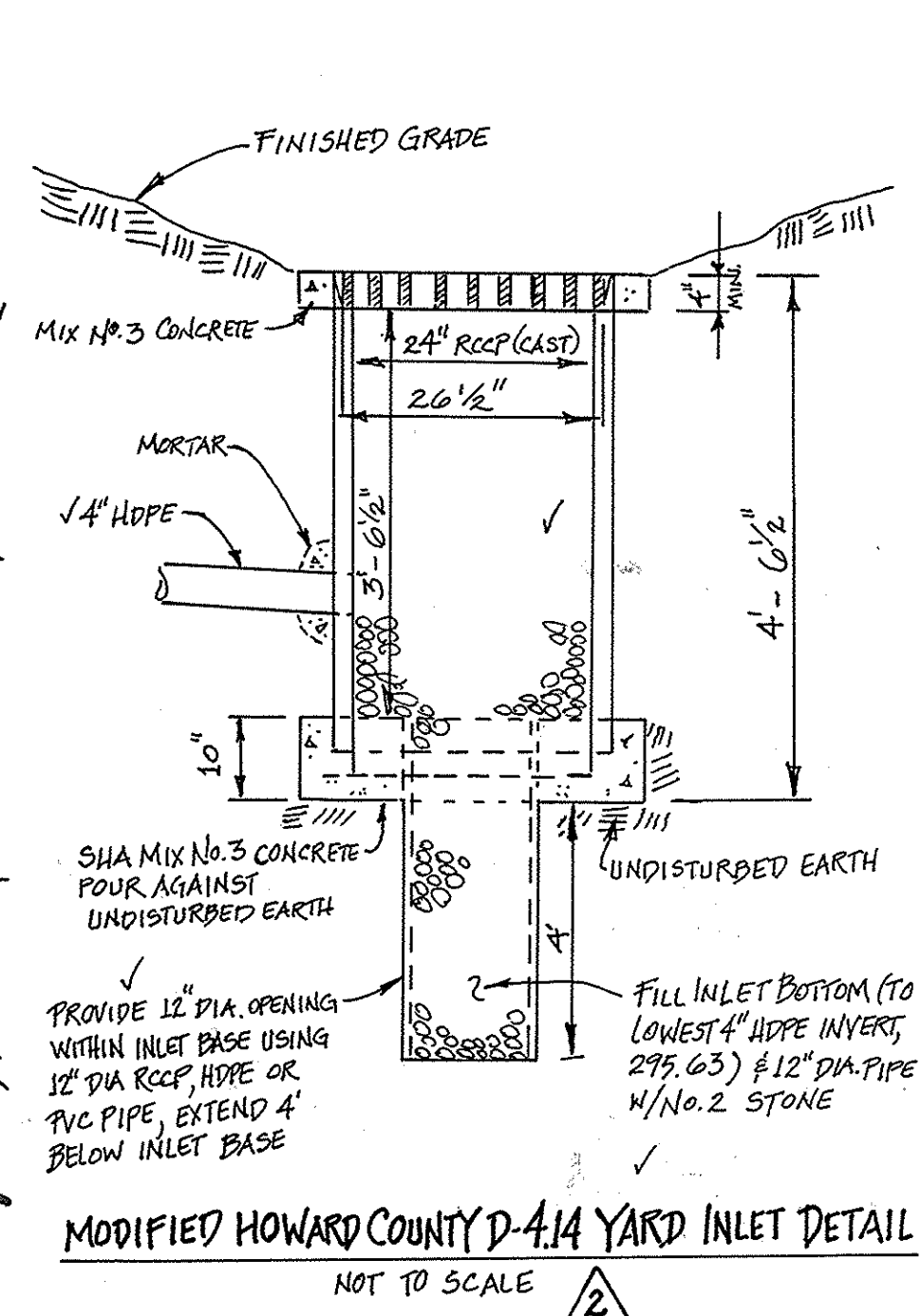
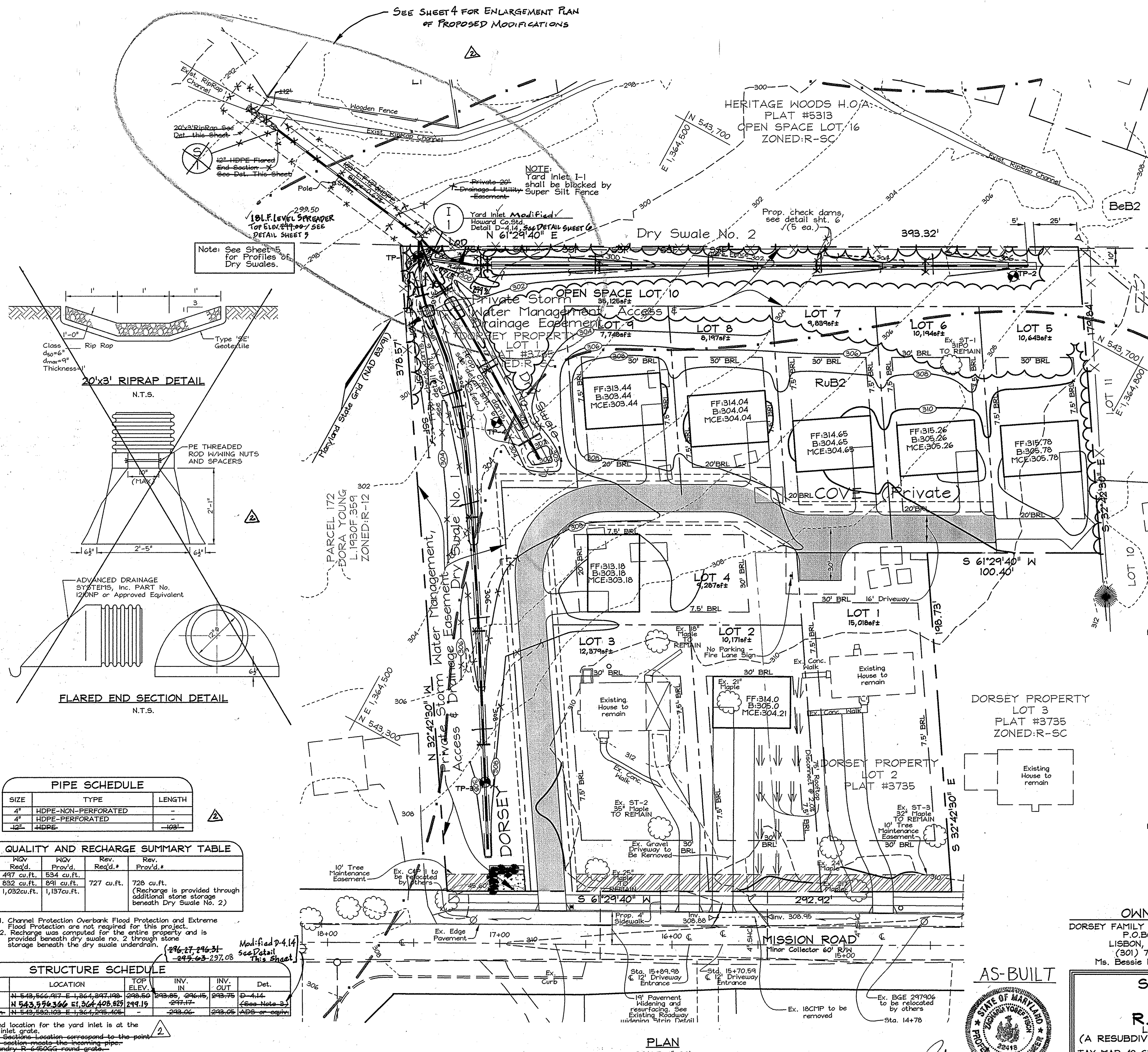
I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Zacharia Y. Fisch* 2/19/2009  
SIGNATURE OF ENGINEER DATE  
ZACHARIA Y. FISCH

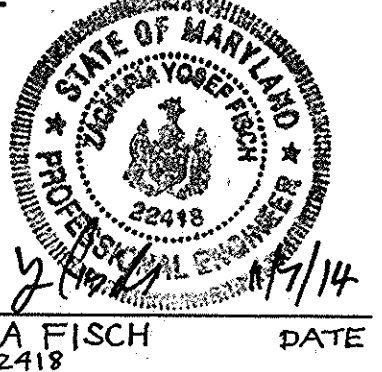
### DEVELOPER'S CERTIFICATE

I HEREBY 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 COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Kenny Livesay* 2/6/09  
SIGNATURE OF DEVELOPER DATE  
KENNY LIVESAY



AS-BUILT



### PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. #22418, Expiration Date: 07/29/2015

OWNERS: DORSEY FAMILY PROPERTY, L.L.C. P.O. BOX 482 LISBON, MD 21765 (301) 725-7059 Ms. Bessie M. Bordenave

DEVELOPER/ CONTRACT PURCHASER: HERITAGE LAND DEVELOPMENT 15950 North Ave. P.O. Box 482 LISBON, MD 21765 (410) 489-7900

### STORMWATER MANAGEMENT PLAN AND DETAILS

R.W. DORSEY PROPERTY

LOTS 1 TO 9 AND OPEN SPACE LOT 10 (A RESUBDIVISION OF LOTS 1 & 2 OF THE DORSEY PROPERTY, PLAT #3735)

TAX MAP 42 GRID 24 PARCEL P/O 425 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN BY: MLT  
DRAWN BY: CED  
CHECKED BY: ZYF  
SCALE: AS SHOWN  
DATE: Feb. 5, 2009  
N.O. No.: 3391  
SHEET No.: 6 OF 9

FSH Associates  
Engineers Planners Surveyors  
6339 Howard Lane Elkridge, MD 21075  
Tel: 410-587-5200 Fax: 410-798-1552  
E-mail: info@fisher.com

SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	SOIL GROUP
BeB2	Beltville silt loam, 1 to 5 percent slopes, moderately eroded	C
RuB2	Rumford loamy sand, 1 to 5 percent slopes, moderately eroded	B

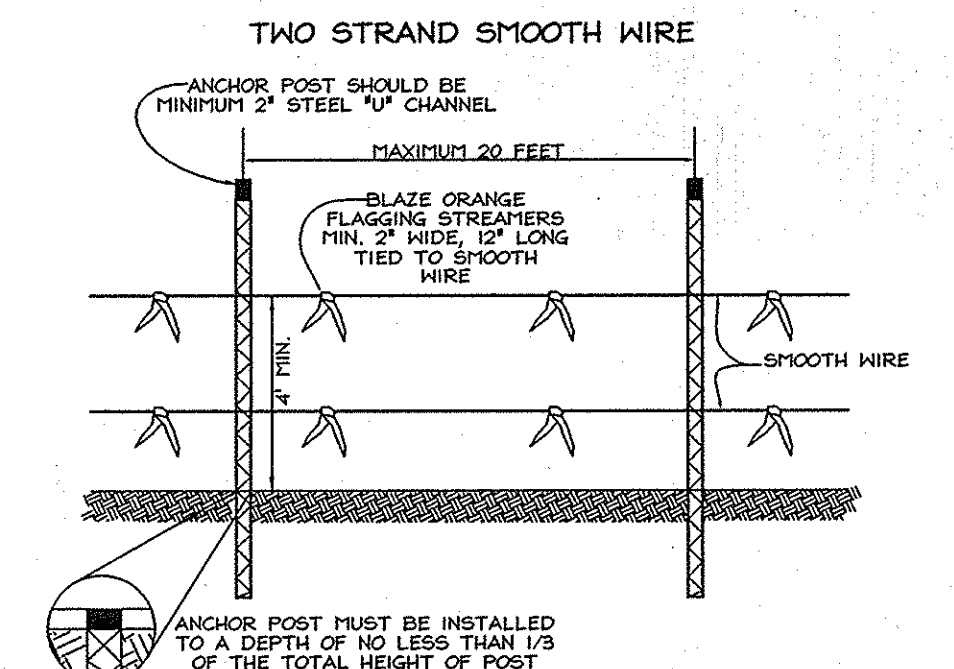
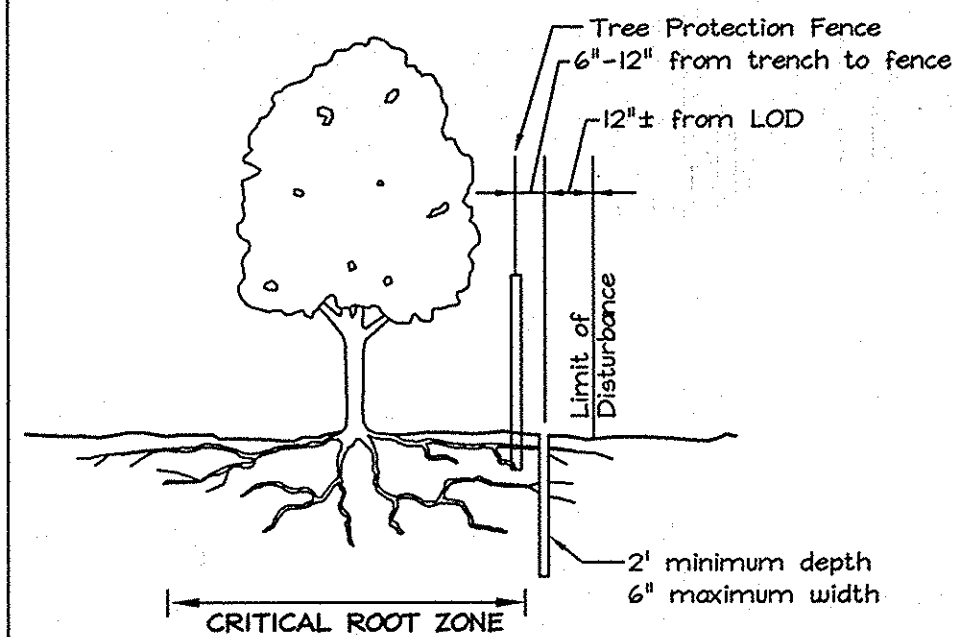
SPECIMEN TREES					
NO.	DBH	COMMON NAME	SCIENTIFIC NAME	CONDITION	RETAINED
ST-1	31"	Pine Oak	Quercus sp.	Fair	YES
ST-2	35"	Red Maple	Acer rubrum	Poor	YES
ST-3	32"	Red Maple	Acer rubrum	Good	YES

**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 MID 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.

**ROOT PRUNING**

- Retention areas shall be set prior to construction.
- Boundaries of retention areas shall be flagged, and location of trench shall be specified by ERI Qualified Professional.
- Roots shall be cut cleanly with root pruning equipment. Where roots  $\geq 1"$  are found, trenching shall be done by air spade or hand tools. Roots  $\geq 1"$  shall be cut with a hand saw.
- Trench shall be immediately backfilled with soil removed or high organic content soil.
- Any other techniques shall be approved by the ERI Qualified Professional before implementation.



- NOTES:**
- FOREST PROTECTION DEVICE ONLY.
  - RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
  - BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
  - ROOT DAMAGE SHOULD BE AVOIDED.
  - PROTECTIVE SIGNAGE THAT ALSO BE USED.
  - DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

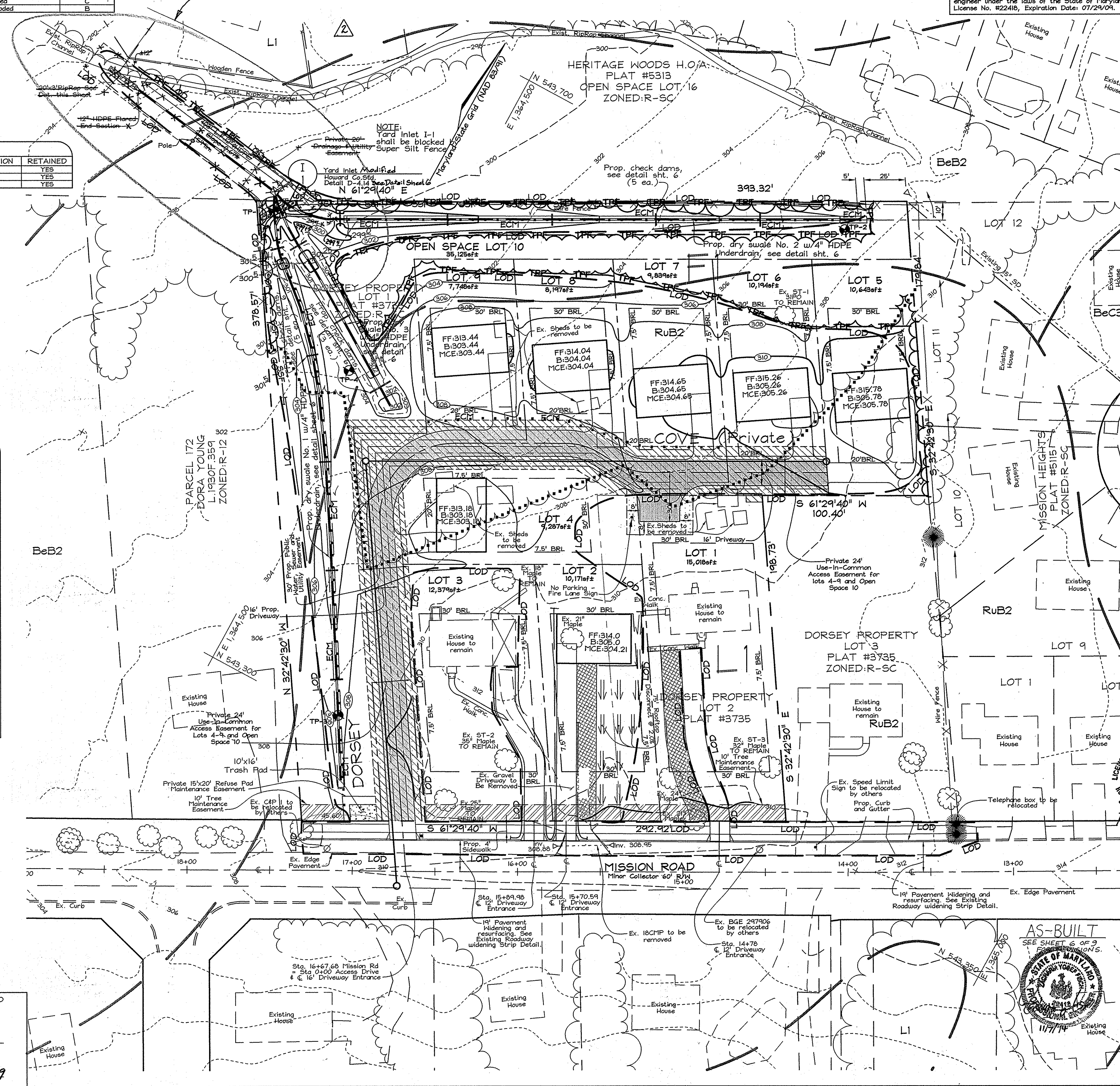
**TREE PROTECTION DETAIL**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 3/6/09 DATE  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 3/9/09 DATE  
 CHIEF, DIVISION OF LAND DEVELOPMENT

SEE SHEET 4 FOR ENLARGEMENT  
 PLAN OF PROPOSED MODIFICATIONS



**PROFESSIONAL CERTIFICATION**  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 07/24/09.

LEGEND	
Existing Contour	--- 382
Proposed Contour	--- 382
Spot Elevation	478.6
Direction of Flow	→
Tree Protection Fence	⊞
Existing Trees to Remain	⊞
Limit of Disturbance	LOD
Soil Boundary	---
Use-In-Common Access Easement & Pedestrian Access to Open Space	▨
Prop. Public Water, Sewer and Utility Easement	▨
Prop. Private Access Easement	▨
Proposed Paving	▨
Roof Top Disconnect	▨
Forest Stand Boundary	⊞
Tree Protection Fence	⊞

**FOREST CONSERVATION NARRATIVE**  
 This Forest Conservation Plan has been developed in accordance with the Howard County Forest Conservation Act of 1991.  
 The gross and net tract area consists of 2.95 acres of land. The site contains no floodplain. There are three specimen trees located on site, as shown on the plan view, which shall be retained.  
 Due to limited site area and pipes for drainage, there is no ability to retain forest for credit on site. Trees will be retained for landscape credit. The total forest conservation obligation for the site is 1.39 acres. Forest conservation obligations shall be met by the placement of 278 AC. OF RETENTION INTO AN OFF-SITE EASEMENT AREA LOCATED ON QUARTE HILL PER SDP-10-104 TAX MAP 8, PARCEL 401.

FOREST CONSERVATION WORKSHEET	
<b>Net Tract Area</b>	Acres
A. Total Tract Area	2.95
B. Area Within 100 Year Floodplain	--
C. Other deductions	--
D. Net Tract Area	2.95
Zoning Use Category: RESIDENTIAL-SUBURBAN	
Land Use Category	
E. Afforestation Minimum (15 % x D)	0.44
F. Conservation Threshold (20 % x D)	0.59
Existing Forest Cover	
G. Existing Forest on Net Tract Area	1.44
H. Forest Area Above Conservation Threshold	0.85
I. Forest Retention Above Threshold with no Mitigation	0.76
J. Clearing Permitted without Mitigation	0.68
Proposed Forest Clearing	
K. Forest Areas to be Cleared	1.44
L. Forest Areas to be Retained	0
Planting Requirements	
M. Reforestation for Clearing Above Threshold	0.21
N. Reforestation for Clearing Below the Threshold	1.18
P. Credit for Retention Above Conservation Threshold	0
Q. Total Reforestation Required	1.39
R. Total Afforestation Required	0
S. Total Reforestation and Afforestation Requirement	1.39

**EXPLORATION RESEARCH, INC.**  
 ENVIRONMENTAL CONSULTANTS  
 LANDSCAPE ARCHITECTS  
 6339 HOWARD LANE  
 LISBON, MARYLAND 21076  
 TEL: (410) 687-5200 FAX: (410) 798-1552

**DEVELOPER/ CONTRACT PURCHASER**  
 DORSEY FAMILY PROPERTY, L.L.C.  
 P.O. BOX 482  
 LISBON, MD 21765  
 (301) 725-7059  
 Ms. Bessie M. Bordenave

**OWNERS**  
 DORSEY FAMILY PROPERTY, L.L.C.  
 P.O. BOX 482  
 LISBON, MD 21765  
 (301) 725-7059  
 Ms. Bessie M. Bordenave

**FOREST CONSERVATION PLAN**  
**R.W. DORSEY PROPERTY**  
 LOTS 1 TO 9 AND OPEN SPACE LOT 10  
 (A RESUBDIVISION OF LOTS 1 & 2 OF THE DORSEY PROPERTY, PLAT #3735)  
 TAX MAP 42 GRID 24  
 6TH ELECTION DISTRICT  
 PARCEL P/O 425  
 HOWARD COUNTY, MARYLAND

**FSH Associates**  
 Engineers Planners Surveyors  
 6339 Howard Lane Elkridge, MD 21075  
 Tel: 410-587-5200 Fax: 410-798-1552  
 E-mail: info@fsh.com

DESIGN BY: AG-D  
 DRAWN BY: CED  
 CHECKED BY: ZTF  
 SCALE: 1"=30'  
 DATE: Feb. 5, 2009  
 W.O. No.: 3331  
 SHEET No. 1 OF 3

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
BeB2	Beltville silt loam, 1 to 5 percent slopes, moderately eroded	C
RuB2	Rumford loamy sand, 1 to 5 percent slopes, moderately eroded	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 relocations 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.
- Landscaping in accordance with Section 16.124 of the Howard County Code and Landscape Manual shall be provided as shown on the Landscape Plan, Sheet 8, of the Final Road Construction Drawings for the R.J. Dorsey Property. Financial surety for required perimeter, rear yard screening from shared driveway, refuse pad landscaping and Rt. 1 Main Street Trees shall be posted with the Developers Agreement for this final plat, F-08-153, in the amount of \$4,360.00 for 20 shade trees @ \$300 each, 21 evergreens @ \$150 each, and 7 shrubs @ \$30 each.
- 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	PROVIDED
Mission Road	293'	(1.30)* = 10	10

\* Smaller trees proposed due to power lines along Mission Road.

STREET TREE PLANTING SCHEDULE*				
KEY	QUAN.	BOTANICAL/COMMON NAME	SIZE	NOTE
+	10	Crataegus crusgalli 'nervis' Thornless Cockspur Hawthorn	2 1/2"-3" Cal.	B + B

\* In accordance with Route 1 Manual.

SCHEDULE A PERIMETER LANDSCAPE EDGE					
CATEGORY	ADJACENT TO PERIMETER PROPERTIES				
	1	2	3	4	5
Perimeter/Frontage Designation	A	A	A	A	A
Linear Feet of Roadway	379'	393'	280'	199'	262'
Frontage/Perimeter					
Credit for Existing Vegetation (Yes, No, Linear Feet Describe below if needed)	No	Yes* 543'	Yes* 74'	Yes*** 199'	No****
Credit for Wall, Fence, Berm, or Other Planting (Yes, No, Linear Feet Describe below if needed)	No	No	No	No	No
Number of Plants Required					
Shade Trees	160	6	160	3	0
Evergreen Trees	-	-	-	-	-
Shrubs	-	-	-	-	-
Number of Plants Provided					
Shade Trees	7	0**	3	0	0
Evergreen Trees	-	-	-	-	-
Other Trees (21 Substitution)	-	-	-	-	-
Shrubs (101 Substitution)	7****	-	-	-	-
(Describe Plant Substitution Credits Below if needed)					

- \* Credit for existing woods to remain
- \*\* Planted along Perimeter 1, which has a greater need for screening due to existing on and off-site trees along Perimeter 2.
- \*\*\* Perimeter 4 requires no screening between internal lots of the same subdivision.
- \*\*\*\* Screening for refuse pad
- \*\*\*\*\* Required screening per DPZ.

LANDSCAPE SCHEDULE				
KEY	QUAN.	BOTANICAL/COMMON NAME	SIZE	NOTE
5	5	Acer rubrum 'Red Sunset' 'Red Sunset' Red Maple	2 1/2"-3" Cal.	B + B
5	5	Quercus palustris Pin Oak	2 1/2"-3" Cal.	B + B
11	11	Ilex x 'Nellie R Stevens' Nellie Stevens Holly	5'-6" Ht.	B + B
10	10	Thuja occidentalis 'Wintergreen' Wintergreen Arborvitae	5'-6" Ht.	B + B
7	7	Ilex glabra 'Compact' Compact Inkberry Holly	2.5'-3" Ht.	Cont.

**PROFESSIONAL CERTIFICATION**

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 07/29/04.

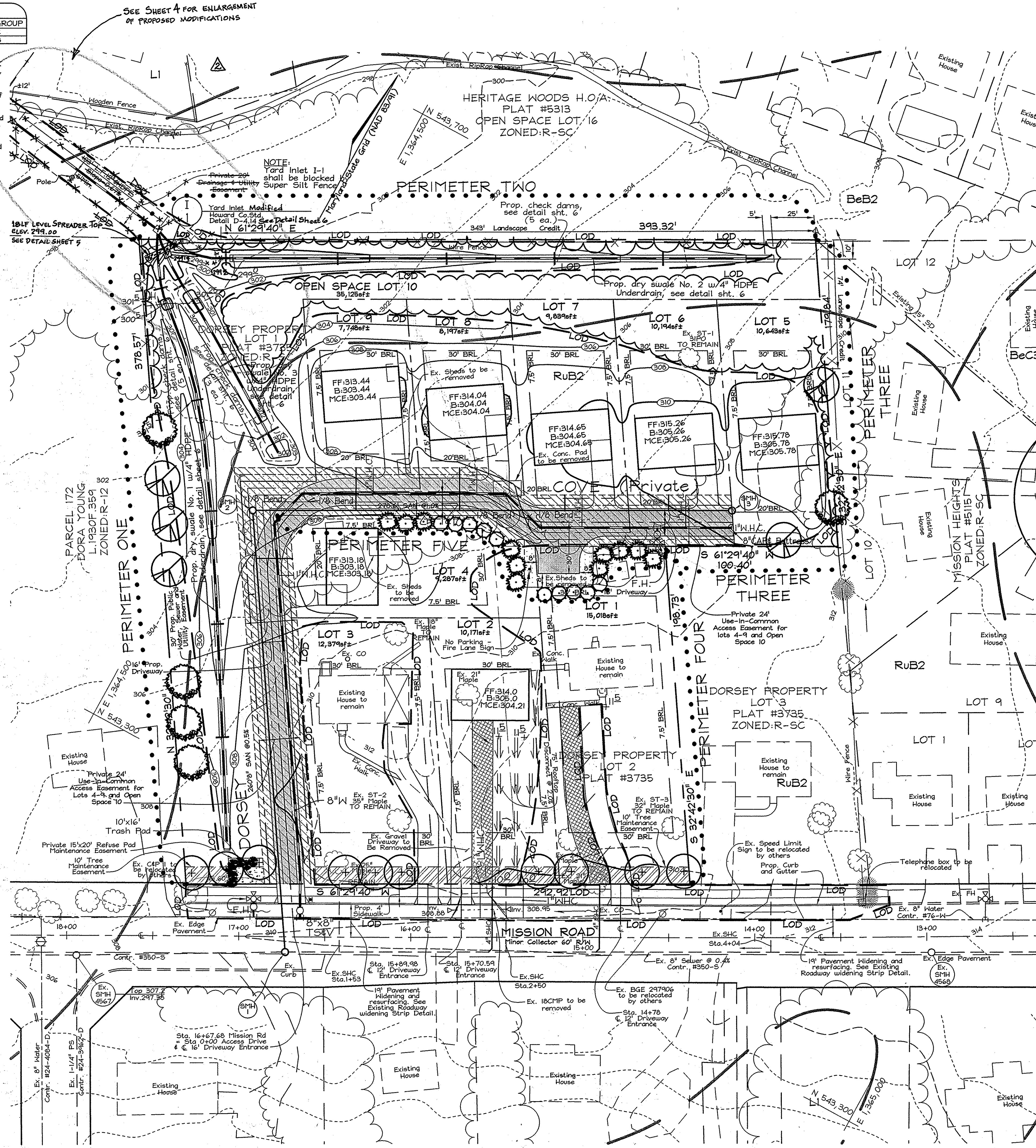
**EXPLORATION RESEARCH, INC.**  
 ENVIRONMENTAL CONSULTANTS  
 LANDSCAPE ARCHITECTS  
 839 BROADWAY  
 ELKDRIDGE, MARYLAND 21074  
 TEL: (410) 687-5200 FAX: (410) 796-1562



**DEVELOPER'S BUILDER'S CERTIFICATE**

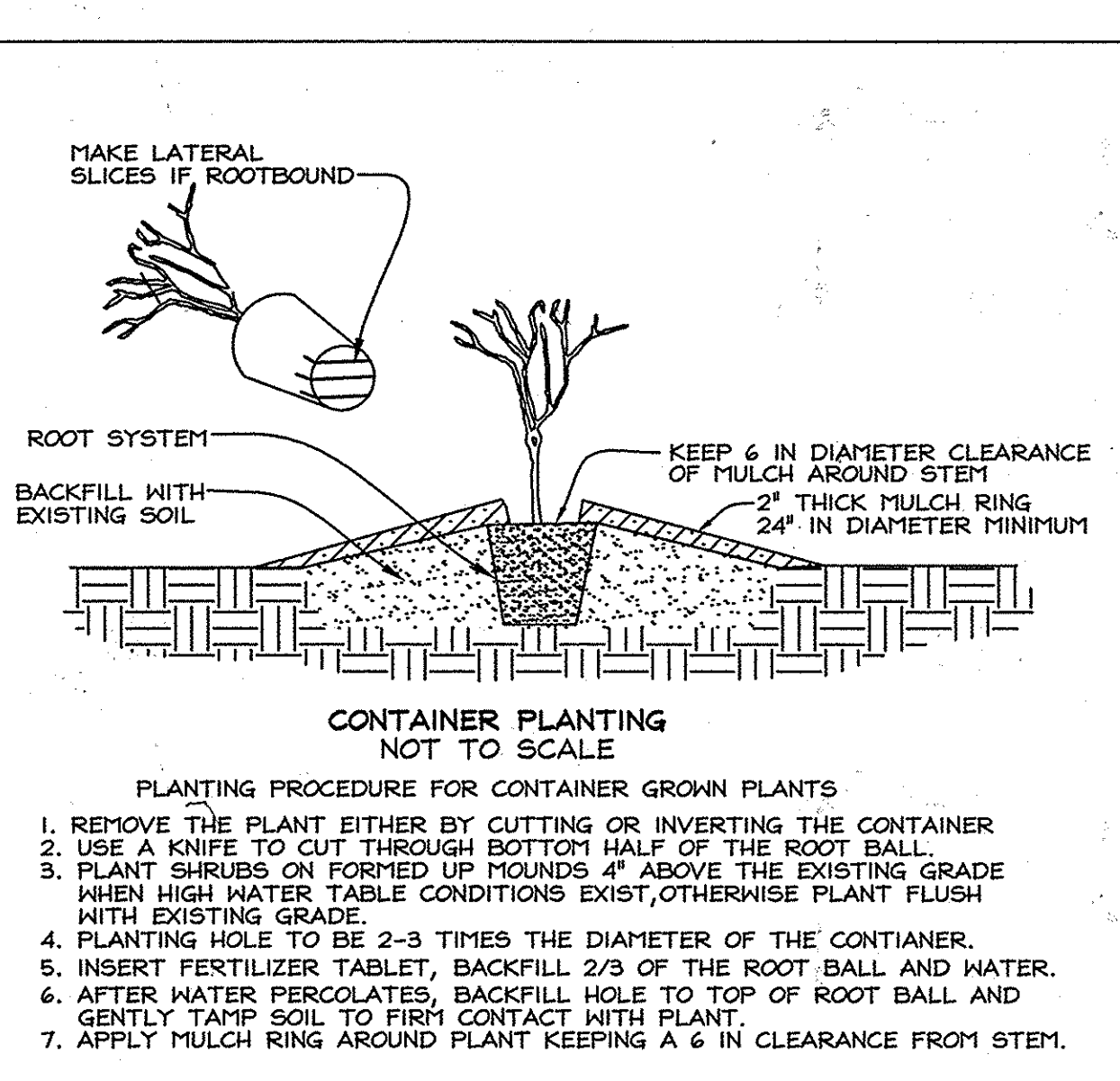
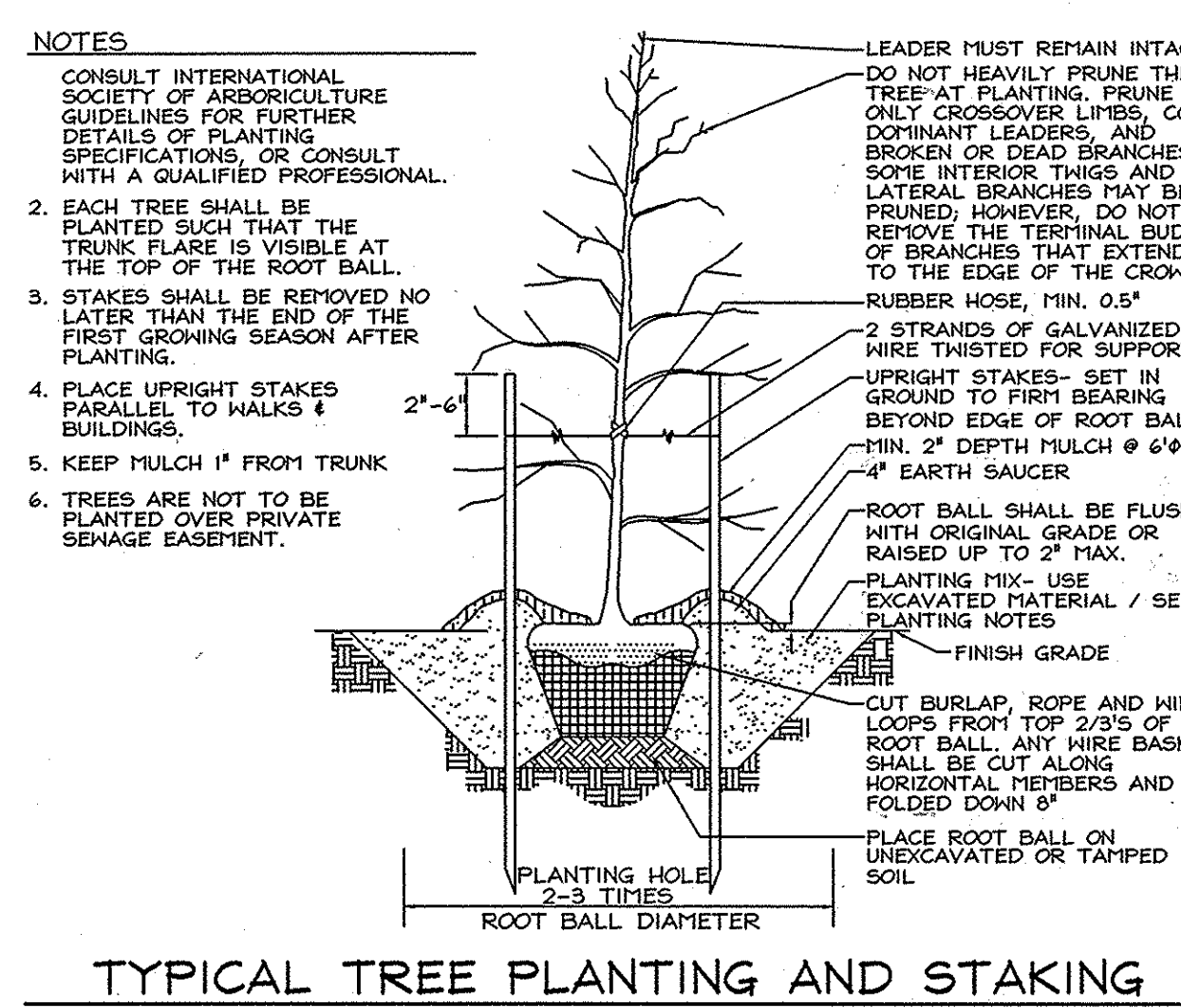
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

SIGNATURE OF DEVELOPER: *Kenny Livesay* DATE: 2/6/09  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: *T. J. ...* DATE: 3/6/09  
 CHIEF, DIVISION OF LAND DEVELOPMENT: *T. J. ...* DATE: 3-9-09



**LEGEND**

Existing Contour	--- 982
Proposed Contour	--- 478.6
Spot Elevation	478.6
Direction of Flow	→
Tree Protection Fence	⊕
Existing Trees to Remain	⊕
Limit of Disturbance	LOD
Soil Boundary	---
Use-In-Common Access Easement & Pedestrian Access to Open Space	▨
Prop. Public Water, Sewer and Utility Easement	▨
Prop. Private Access Easement	▨
Proposed Paving	▨
Rooftop Disconnect	▨



**OWNERS**  
 DORSEY FAMILY PROPERTY, L.L.C.  
 P.O. BOX 482  
 LISBON, MD 21765  
 (301) 725-7059  
 Ms. Bessie M. Bordenave

**DEVELOPER/ CONTRACT PURCHASER**  
 HERITAGE LAND DEVELOPMENT  
 15950 North Ave. P.O. Box 482  
 Lisbon, MD 21765  
 (410) 489-7900

**LANDSCAPE PLAN**  
**R.W. DORSEY PROPERTY**  
 LOTS 1 TO 9 AND OPEN SPACE LOT 10  
 (A RESUBDIVISION OF LOTS 1 & 2 OF THE DORSEY PROPERTY, PLAT #3735)  
 TAX MAP 42 GRID 24 PARCEL P/O 425  
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN BY: AG-D  
 DRAWN BY: CED  
 CHECKED BY: ZTF  
 SCALE: 1"=30'  
 DATE: Feb. 5, 2009  
 N.O. No.: 3331  
 SHEET No.: 8 OF 9

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



**PLANTING SCHEDULE**

FOREST CONSERVATION EASEMENT No. 4 (0.56 ACRES)

Qty	Species	Size	Spacing
76	Acer rubrum - Red Maple	3-4"	11' RAN
20	Acer saccharinum - Silver Maple	3-4"	11' RAN
20	Carpinus caroliniana - American Hornbeam	3-4"	11' RAN
20	Nyssa sylvatica - Black Gum	3-4"	11' RAN
20	Platanus occidentalis - American Sycamore	3-4"	11' RAN
20	Quercus palustris - Pin Oak	3-4"	11' RAN
20	Salix nigra - Black Willow	3-4"	11' RAN

ALL PLANTING WILL REQUIRE TREE SHELTERS  
TOTAL TREES PROPOSED= 350 TREES/ACRE X 0.56 ACRES = 196 TREES

**PLANTING SCHEDULE**

FOREST CONSERVATION EASEMENT No. 5 (0.83 ACRES)

Qty	Species	Size	Spacing
81	Acer rubrum - Red Maple	3-4"	11' RAN
35	Acer saccharinum - Silver Maple	3-4"	11' RAN
35	Carpinus caroliniana - American Hornbeam	3-4"	11' RAN
35	Nyssa sylvatica - Black Gum	3-4"	11' RAN
35	Platanus occidentalis - American Sycamore	3-4"	11' RAN
35	Quercus palustris - Pin Oak	3-4"	11' RAN
35	Salix nigra - Black Willow	3-4"	11' RAN

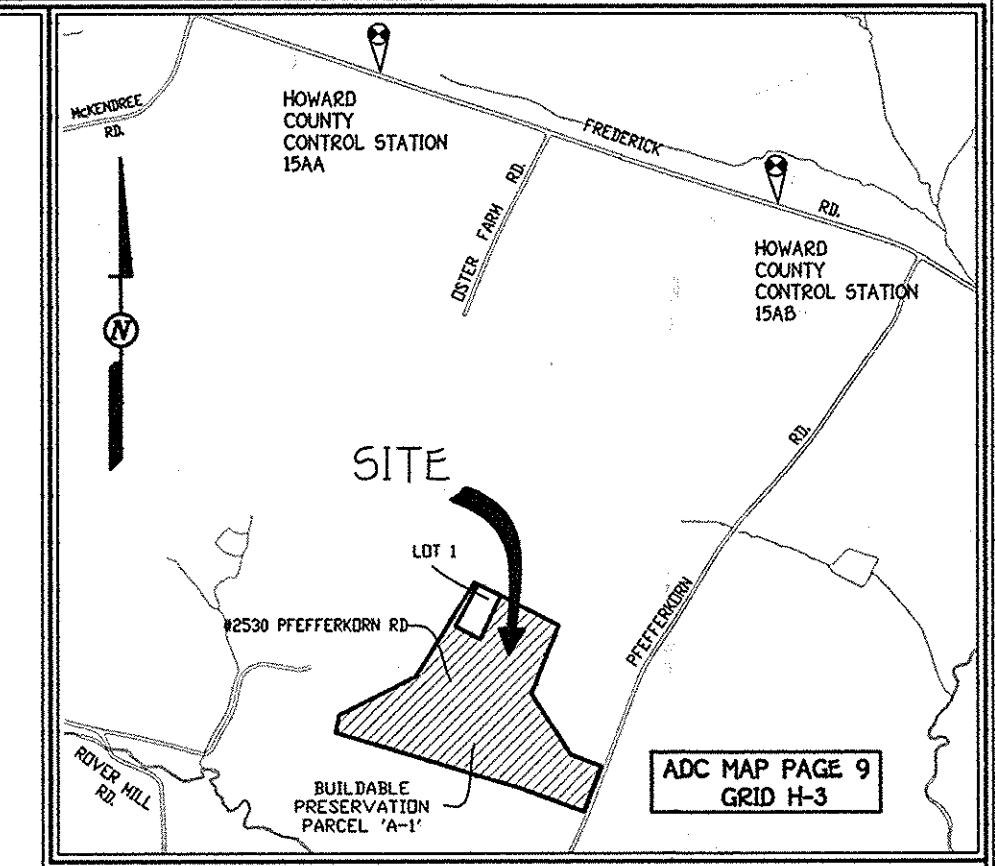
ALL PLANTING WILL REQUIRE TREE SHELTERS  
TOTAL TREES PROPOSED= 350 TREES/ACRE X 0.83 ACRES = 291 TREES

**MULTIFLORA ROSE CONTROL NOTE:**

PRIOR TO PLANTING ALL MULTIFLORA ROSE WITHIN PLANTING AREAS SHALL BE REMOVED. REMOVAL OF THE ROSE MAY BE PERFORMED WITH MOWING AND HERBICIDE TREATMENTS. PHYSICAL REMOVAL OF ALL TOP GROWTH FOLLOWING BY A PERIODIC HERBICIDE TREATMENT OF STUMP SPROUTS IS RECOMMENDED. NATIVE TREE AND SHRUB SPECIES OCCURRING WITHIN THE ROSE THICKETS SHOULD BE RETAINED WHEREVER POSSIBLE. HERBICIDES TREATMENTS SHALL OCCUR ON 2 MONTH INTERVALS DURING THE FIRST GROWING SEASON AND ONCE EACH IN THE SPRING AND FALL FOR SUBSEQUENT YEARS. HERBICIDE USED SHALL BE MADE SPECIFICALLY TO ADDRESS WOODY PLANT MATERIAL AND SHALL BE APPLIED AS PER MANUFACTURERS SPECIFICATIONS. CARE SHOULD BE TAKEN NOT TO SPRAY PLANTED TREES OR NATURALLY OCCURRING NATIVE TREE/SHRUB SEEDLINGS. IT IS RECOMMENDED THAT INITIATION OF ROSE REMOVAL BEGIN AT LEAST SIX MONTHS PRIOR TO PLANTING.

**PLANTING NOTES:**

1" CALIPER TREES SHOULD BE STAGGERED ALONG THE OUTER PERIMETER OF THE PLANTING AREA TO SERVE AS DEMARCATION OF THE BOUNDARY. THE TREES SHOULD BE NO CLOSER THAN 15 FOOT SPACING.  
PLANTING SHALL BE MADE IN A CURVE LINEAR FASHION ALONG CONTOUR. THE PLANTING SHOULD AVOID A GRID APPEARANCE BUT SHOULD BE SPACED TO FACILITATE MAINTENANCE.  
MULTIFLORA ROSE/HEAVY BUSH REMOVAL/CONTROL MAY BE REQUIRED PRIOR TO INSTALLATION OF PLANTING.



**VICINITY MAP**  
SCALE: 1" = 1200'

**FCP NOTES**

1. ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
  2. THE FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 18200 OF THE HOWARD COUNTY CODE. FOREST CONSERVATION ACT: NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
  3. FORESTED AREAS OCCURRING OUTSIDE OF THE FCE SHALL NOT BE CONSIDERED PART OF THE FCE AND SHALL NOT BE SUBJECT TO PROTECTIVE LAND COVENANTS.
  4. LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
  5. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
  6. NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED.
  7. TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. THE FENCING SHALL BE PLACED ALONG ALL FCE BOUNDARIES WHICH OCCUR WITHIN 15 FEET OF THE PROPOSED LIMITS OF DISTURBANCE.
  8. PERMANENT SIGNAGE SHALL BE PLACED 50' - 100' APART ALONG BOUNDARIES OF ALL AREAS INCLUDED IN THE FCE.
  9. FOREST CONSERVATION OBLIGATION OF 1.39 ACRES REFORESTATION TO FULFILL THE REQUIREMENTS OF SECTION 18200 OF THE HOWARD COUNTY CODE. FOREST CONSERVATION ACT IS PROVIDED BY OFF-SITE PLANTING ON PROPERTY OF ARRINGTON ESTATES, TAX MAP 15, GRID 3, TAX PARCEL NO. 1. A FOREST CONSERVATION SURETY IN THE AMOUNT OF \$30,275.00 BASED ON 1.39 ACRES X 43,560 SQ. FT./ACRES X 0.50/54 FT. = \$30,275.00 IS POSTED WITH THE DEVELOPER'S AGREEMENT ASSOCIATED WITH R.W. DORSEY PROPERTY LOTS 1 TO 9 AND OPEN SPACE LOT 10 (F-08-153).
- THE UNENCUMBERED AREA OF WETLAND AND STREAM BUFFER BETWEEN THE EXISTING AND PROPOSED EASEMENT AREAS IS MAINTAINED AS ACCESS FOR FARM EQUIPMENT.

**PLANTING/SOIL SPECIFICATIONS**

1. PLANTING OF NURSERY STOCK SHALL TAKE PLACE BETWEEN MARCH 15TH AND APRIL 30TH OR SEPTEMBER 15TH AND NOVEMBER 15TH.
2. A TWELVE (12) INCH LAYER OF TOPSOIL SHALL BE SPREAD OVER ALL FORESTATION AREAS IMPACTED BY SITE GRADING TO ASSURE A SUITABLE PLANTING AREA. DISTURBED AREAS SHALL BE SEEDED AND STABILIZED AS PER GENERAL CONSTRUCTION PLAN FOR PROJECT. PLANTING AREAS NOT IMPACTED BY SITE GRADING SHALL HAVE NO ADDITIONAL TOPSOIL INSTALLED.
3. ALL BAREROOT PLANTING STOCK SHALL HAVE THEIR ROOT SYSTEMS DIPPED INTO AN ANTI-DESICCANT GEL PRIOR TO PLANTING.
4. PLANTS SHALL BE INSTALLED SO THAT THE TOP OF ROOT MASS IS LEVEL WITH THE TOP OF EXISTING GRADE. BACKFILL IN THE PLANTING PITS SHALL CONSIST OF 3 PARTS EXISTING SOIL TO 1 PART PINE FINES OR EQUIVALENT.
5. FERTILIZER SHALL CONSIST OF AGRIFORM 22-0-2, OR EQUIVALENT, APPLIED AS PER MANUFACTURERS SPECIFICATIONS.
6. A TWO (2) INCH LAYER OF HARDWOOD MULCH SHALL BE PLACED OVER THE ROOT AREA OF ALL PLANTINGS.
7. PLANT MATERIAL SHALL BE TRANSPORTED TO THE SITE IN A TARPED OR COVERED TRUCK. PLANTS SHALL BE KEPT MOIST PRIOR TO PLANTING.
8. ALL NON-ORGANIC DEBRIS ASSOCIATED WITH THE PLANTING OPERATION SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.

**SEQUENCE OF CONSTRUCTION**

1. SEDIMENT CONTROL AND TREE PROTECTION DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH GENERAL CONSTRUCTION PLAN FOR SITE. SITE SHALL BE GRADED IN ACCORDANCE WITH GENERAL CONSTRUCTION PLANS.
2. PROPOSED FORESTATION AREAS IMPACTED BY SITE GRADING SHALL BE TOPSOILED AND STABILIZED AS PER NOTE NO. 2 OF PLANTING/SOIL SPECIFICATIONS FOR PROJECT.
3. PLANTS SHALL BE INSTALLED AS PER PLANT SCHEDULE AND THE PLANTING/SOIL SPECIFICATIONS FOR THE PROJECT.
4. UPON COMPLETION OF THE PLANTING, SIGNAGE SHALL BE INSTALLED AS PER THE FOREST PROTECTION DEVICES SHOWN ON THE FOREST CONSERVATION PLAN.
5. PLANTINGS SHALL BE MAINTAINED AND GUARANTEED IN ACCORDANCE WITH THE MAINTENANCE AND GUARANTEE REQUIREMENTS FOR PROJECT.

**MAINTENANCE OF PLANTINGS**

1. MAINTENANCE OF PLANTINGS SHALL LAST FOR A PERIOD OF 24 MONTHS.
2. ALL PLANT MATERIAL SHALL BE WATERED EACH MONTH DURING THE 1st GROWING SEASON. WATERING MAY BE MORE OR LESS FREQUENT DEPENDING ON WEATHER CONDITIONS DURING 2nd GROWING SEASON, ONCE A MONTH DURING 3rd GROWING SEASON IF NEEDED.
3. INVASIVE EXOTICS AND NOXIOUS WEEDS WILL BE REMOVED FROM FORESTATION AREAS. OLD FIELD SUCCESSIONAL SPECIES WILL BE TOLERATED.
4. PLANTS WILL BE EXAMINED A MINIMUM TWO TIMES DURING THE GROWING SEASON FOR SERIOUS PLANT PESTS AND DISEASES. SERIOUS PROBLEMS WILL BE TREATED WITH THE APPROPRIATE AGENT.
5. DEAD BRANCHES WILL BE PRUNED FROM PLANTINGS.

**GUARANTEE REQUIREMENTS**

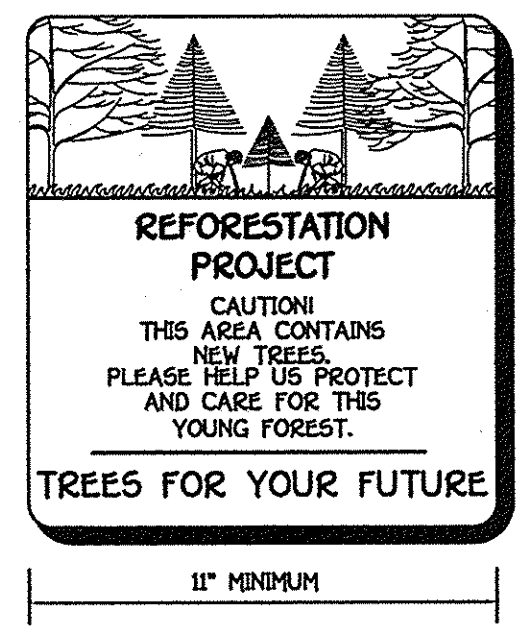
1. A 75 PERCENT SURVIVAL RATE OF FORESTATION PLANTINGS WILL BE REQUIRED AT THE END OF THE 24 MONTH MAINTENANCE PERIOD. ALL PLANT MATERIAL BELOW THE 75 PERCENT THRESHOLD WILL BE REPLACED AT THE BEGINNING OF THE NEXT GROWING SEASON.

**SURETY FOR FORESTATION**

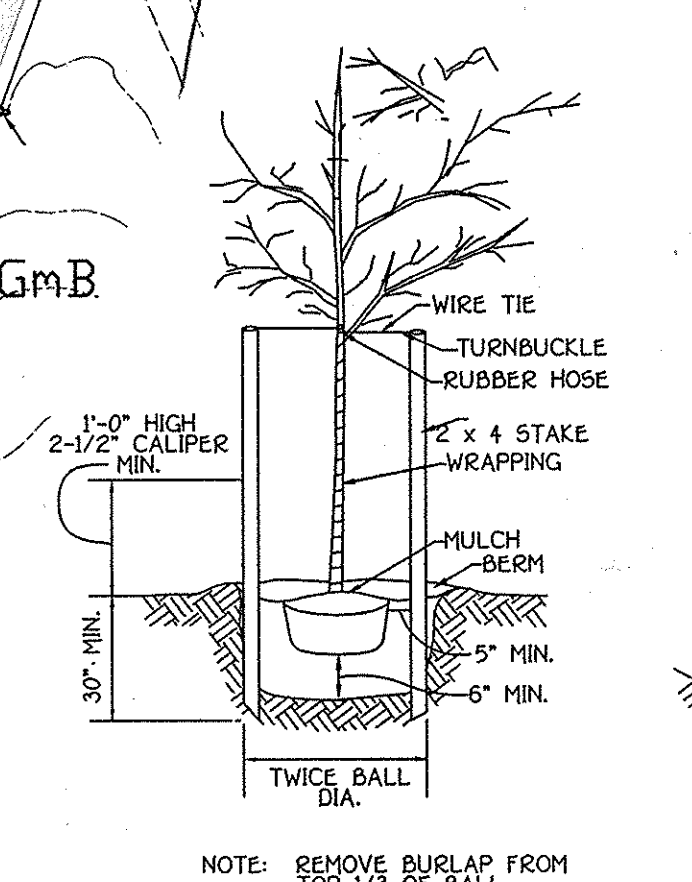
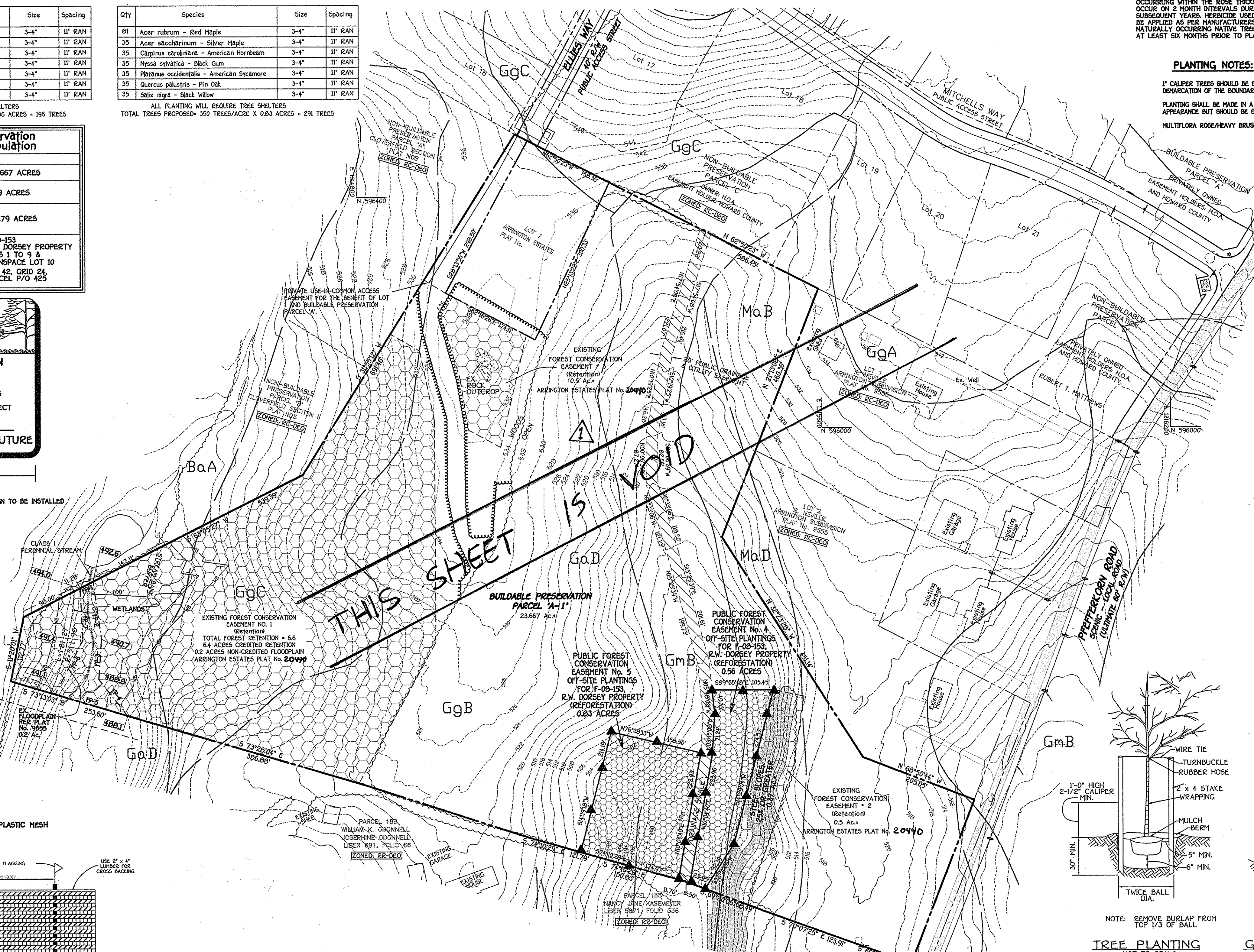
1. THE DEVELOPER SHALL POST A SURETY BOND, LETTER OF CREDIT TO ENSURE THAT REFORESTATION PLANTINGS ARE COMPLETED UPON ACCEPTANCE OF THE PLANTINGS BY THE COUNTY. THE BOND SHALL BE RELEASED.
2. SURETY FOR OFF-SITE REFORESTATION (1.39 AC X 43,560 SQ. FT./AC X 0.50/54 FT. = \$30,275.00) IS POSTED WITH THE DEVELOPER'S AGREEMENT ASSOCIATED WITH THE R.W. DORSEY PROPERTY LOTS 1 TO 9 AND OPEN SPACE LOT 10 (F-08-153).

**Forest Conservation Easement Tabulation**

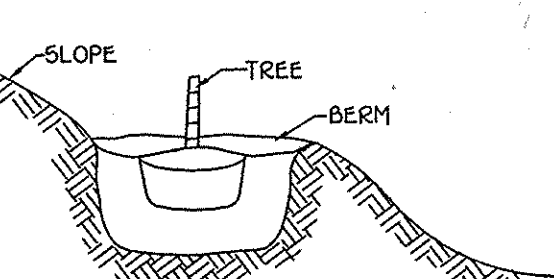
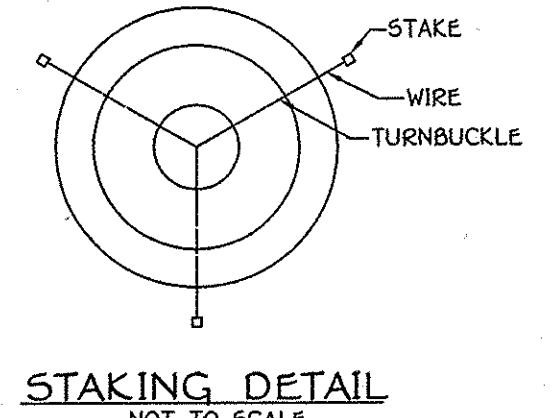
INITIAL (F.C.E. NO. 4 & 5)	
TOTAL AREA OF PROPERTY	23,667 ACRES
AREA OF FOREST EASEMENT CREATED BY THIS PLAT	1.39 ACRES
TOTAL AREA OF CREDITED FOREST EASEMENT CREATED INCLUDING THIS PLAT (F.C.E. NOS. 4 THRU 5)	8.79 ACRES
SUBDIVISION REQUIRING OFF-SITE REFORESTATION	F-08-153 R.W. DORSEY PROPERTY LOTS 1 TO 9 & OPEN SPACE LOT 10 T.M. 42, GRID 24, PARCEL P/O 425



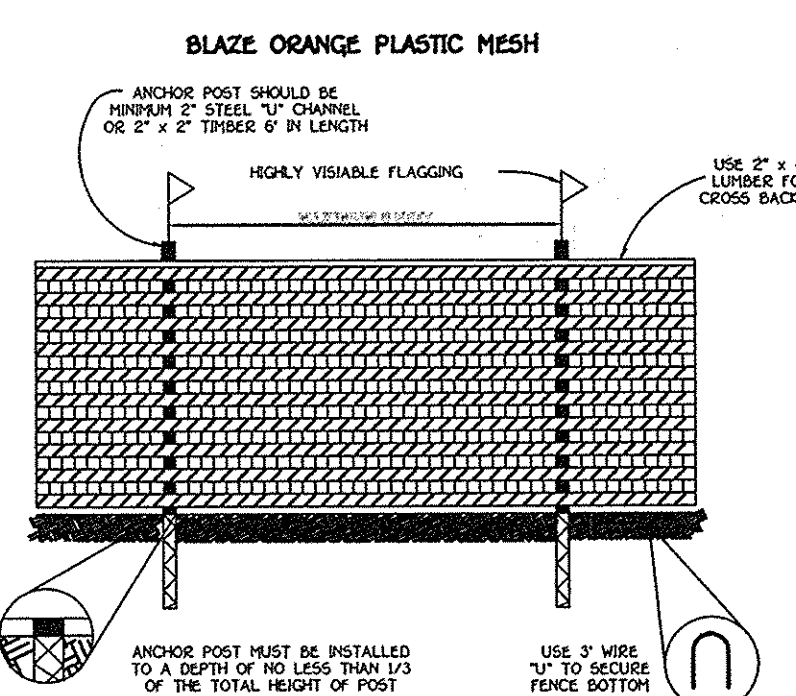
▲ - DENOTES REFORESTATION PROJECT SIGN TO BE INSTALLED



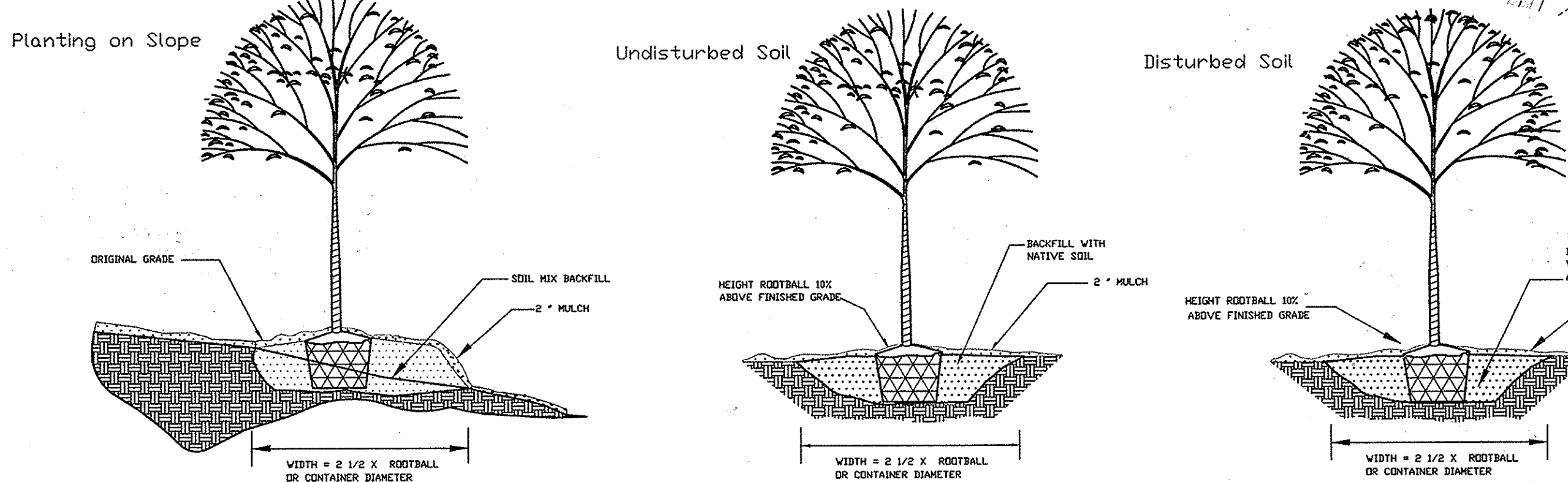
**TREE PLANTING**  
NOT TO SCALE



**TYPICAL TREE PLANTING DETAIL**



**TREE PROTECTION DETAIL**  
NOT TO SCALE



APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*T. Alenhard* 3/9/09  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*Mark D...* 3/6/09  
CHIEF, DEVELOPMENT ENGINEERING DIVISION



**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
303 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELKTON CITY, MARYLAND 21828  
(410) 461-2895

**FOREST CONSERVATION OFFSITE PLANTING PLAN**  
**ARRINGTON ESTATES**  
BUILDABLE PRESERVATION PARCEL 'A-1'  
(A RESUBDIVISION OF NON-BUILDABLE PARCEL 'A',  
R. NEVILLE ARRINGTON SUBDIVISION PLAT No. 20440)

TAX MAP #15 PARCEL: 3 GRID: 7  
3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
ZONED: RC-DEO  
SCALE: 1" = 100' DATE: JANUARY 28, 2009

F-08-152  
F-08-154  
F-90-127