

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pound per linear foot.

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft ² /minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

PAGE
E-15-3

MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

SILT FENCE

Silt Fence Design Criteria

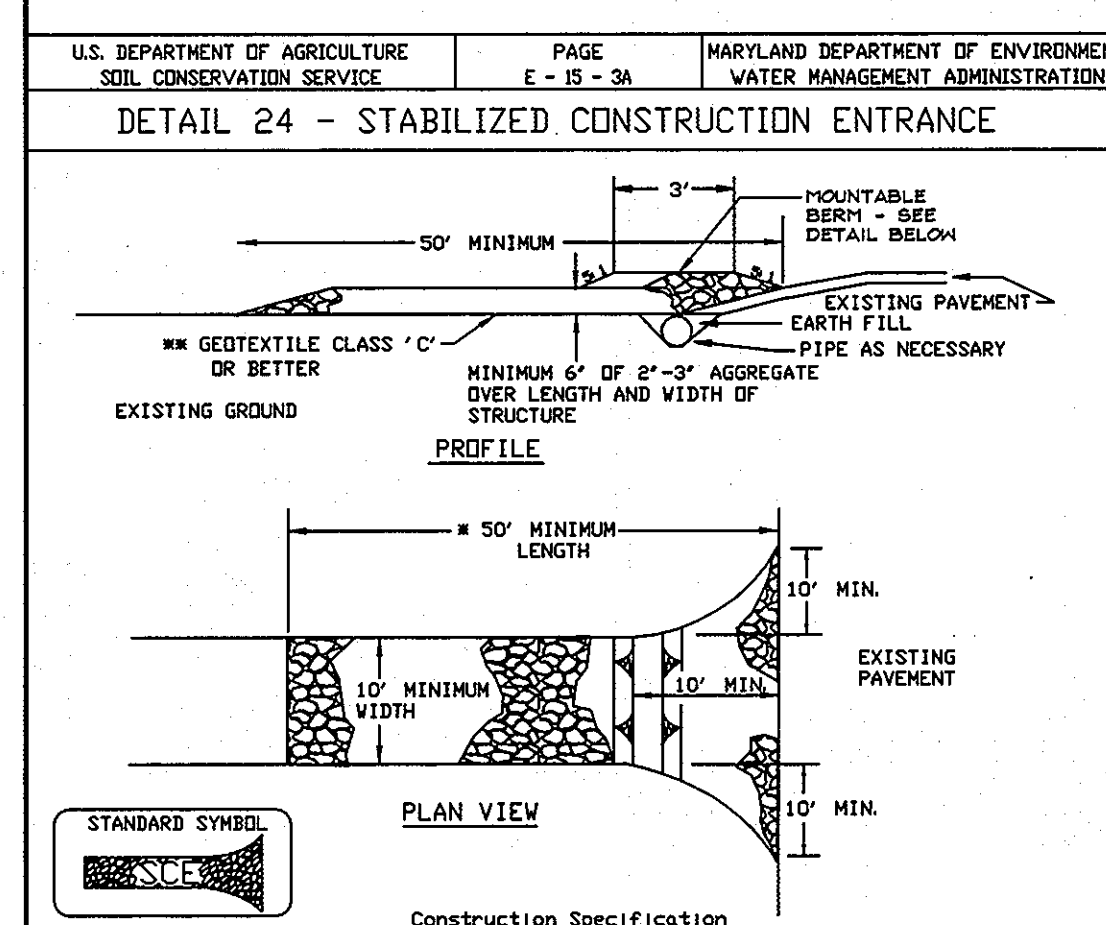
Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

PAGE
E-15-3A

MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION



1. Length - minimum of 50' (±30' for single residence lots).

2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.

3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.

4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

5. Surface water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a hountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

PAGE
F-17-3

MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

ADDRESS CHART

LOT/PARCEL	STREET ADDRESS
13	9125 Forest Hill Drive

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
CHESTNUT HILL	Section 1	354
PLAT # OR L.F.	GRID#	ZONING
4 FOLIO 18	20	R-20
TAX MAP NO.	ELECT. DISTRICT	CENSUS TRACT
18	2ND DISTRICT	6029
WATER CODE	SEWER CODE	
1-F01	1450000	

GENERAL NOTES:

1. THE SUBJECT PROPERTY IS ZONED R-20 PER THE 02/02/04 COMPREHENSIVE ZONING PLAN AND PER THE "COMP LITE" ZONING REGULATION AMENDMENTS EFFECTIVE 7/28/06.

2. IN ACCORDANCE WITH SECTION 12B OF THE HOWARD COUNTY ZONING REGULATIONS, ANY MINOR OR EXTERIOR DRIVEWAYS NOT MORE THAN 12 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACK, PROVIDED ON DECKS, PORCHES OR ENCLOSURES PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK (APPLIES FOR RESIDENTIAL SDP'S).

3. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITH THE REQUIRED WETLANDS, STREAMS, OR OTHER BUFFER FOREST CONSERVATION REGULATION AREAS AND 100 YEAR FLOODPLAIN.

4. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 913-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.

5. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-287-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.

6. THE COORDINATES SHOWN HEREON ARE BASED ON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM - HOWARD COUNTY MONUMENT NOS. 177A AND 2422. THESE COORDINATES ARE BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM - HOWARD COUNTY MONUMENT NOS. 177A AND 2422. THESE COORDINATES ARE BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM - HOWARD COUNTY MONUMENT NOS. 177A AND 2422. THESE COORDINATES ARE BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM - HOWARD COUNTY MONUMENT NOS. 177A AND 2422.

7. ANY DAMAGE TO THE COUNTY'S RIGHT OF WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.

8. SMC ELEVATION SHOWN ARE LOCATED AT THE PROPERTY LINE.

9. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW BUILDINGS TO INSURE BARRIERS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:

10. WIDTH - 12' (4' SERVING MORE THAN ONE RESIDENCE)

11. SURFACE - 6" OF COMPACTED CRUSHER RUN BLENDED W/ TAR AND CHIP COATING (1 1/2" MIN)

12. GEOMETRY - MAX. 1% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS

13. STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (425 LBS)

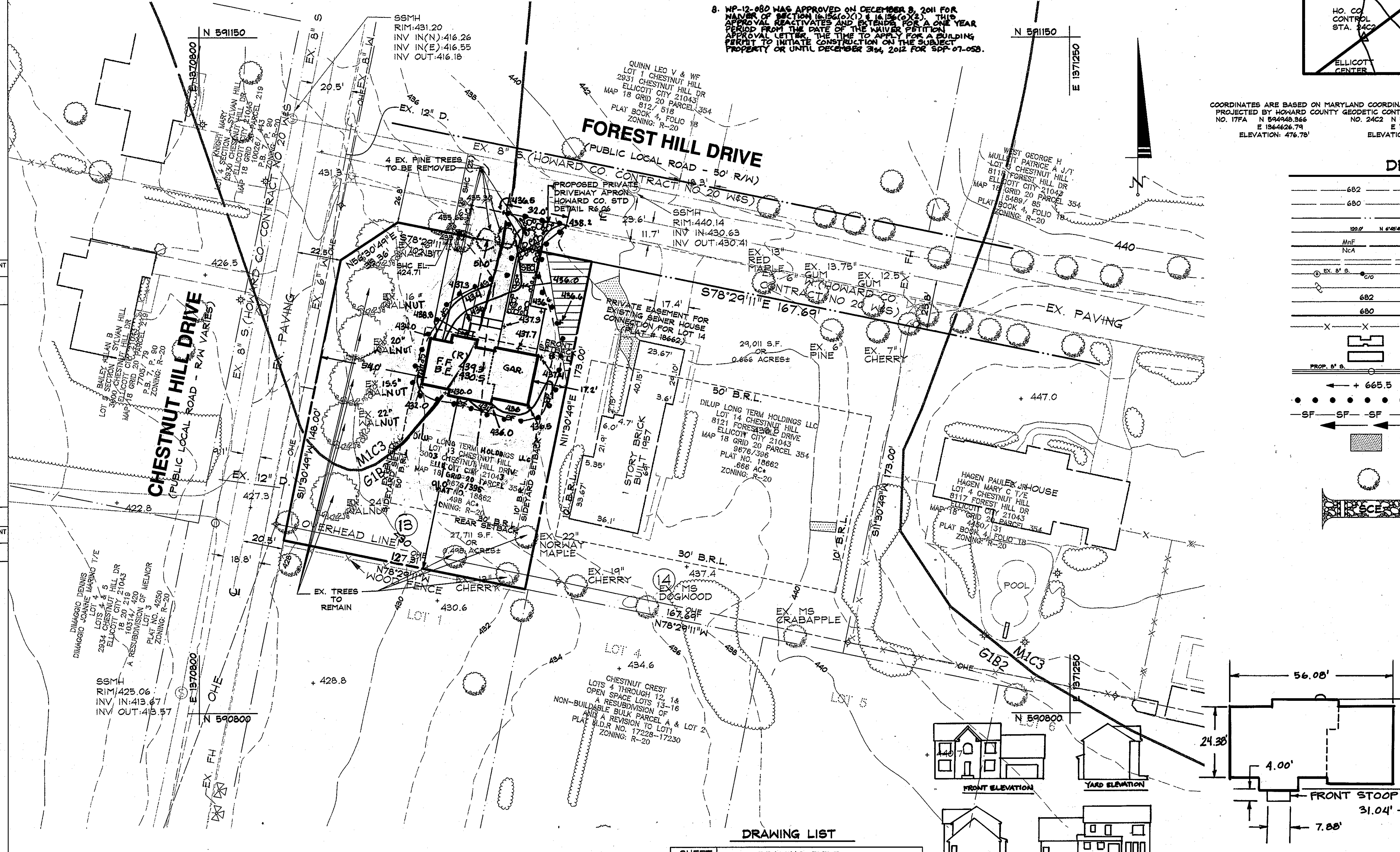
14. DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER THE DRIVEWAY SURFACE

15. MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE

16. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

17. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S OBLIGATION TO INSURE THE AMOUNT OF \$450.00 FOR 10 GRADE TREES, EVERGREEN TREES, AND 200 PLANTING WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY FULFILLING FOREST CONSERVATION REQUIREMENTS AT THE COMPLETED FINAL PLAN.

18. PREVIOUS COUNTY FILE NUMBERS: F-06-200, THERE ARE NO WETLANDS, STREAMS OR 100-YEAR FLOODPLAINS ON THIS SITE.



APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

County Health Officer
Howard County Health Department

Reviewed for HOWARD SCD and meets Technical Requirements

USA - Natural Resources Commission Service
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 7/6/07

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 7/6/07

DIRECTOR
DATE: 7/6/07

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 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 (print name below signature) Date: 6-20-07
Chris Rachuba

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."

Signature of Engineer (print name below signature) Date: 4/19/07
W. Richard DeMario

15. PER SECTION 5.1.2 OF THE HOWARD COUNTY DESIGN MANUAL VOLUME I, THIS PROJECT IS EXEMPT FROM SWM REQUIREMENTS AS THE LIMITS OF DISTURBANCE DO NOT EXCEED 1.0 ACRES.

16. FOREST CONSERVATION OBLIGATIONS FOR THIS PROPERTY OF 0.18 ACRES HAS BEEN FULFILLED THROUGH THE PAYMENT OF \$18,000.00 TOTALING \$3600.00 FOR A TOTAL OBLIGATION OF \$18,000.00 FOR FOREST CONSERVATION FULFILLED AS PART OF FINAL PLAN F-06-200.

SITE ANALYSIS DATA CHART

A. TOTAL PROJECT AREA: 0.82 ACRES OR 2771.28± S.F.

B. AREA OF PLAN SUBMISSION: 0.82 ACRES OR 2771.28± S.F.

C. LIMIT OF DISTURBED AREA: 444.0 S.F.

D. PRESENT ZONING DESIGNATION: R-20

E. NUMBER OF UNITS ALLOWED FOR PROJECT AS SHOWN ON FINAL PLAN:

F. TOTAL NUMBER OF UNITS PROPOSED ON SUBMISSION: 1

G. MAXIMUM NUMBER OF TEACHES ON SITE PER USE: 1

H. NUMBER OF PARKING SPACES REQUIRED BY HOWARD COUNTY ZONING REGULATIONS: 2.0

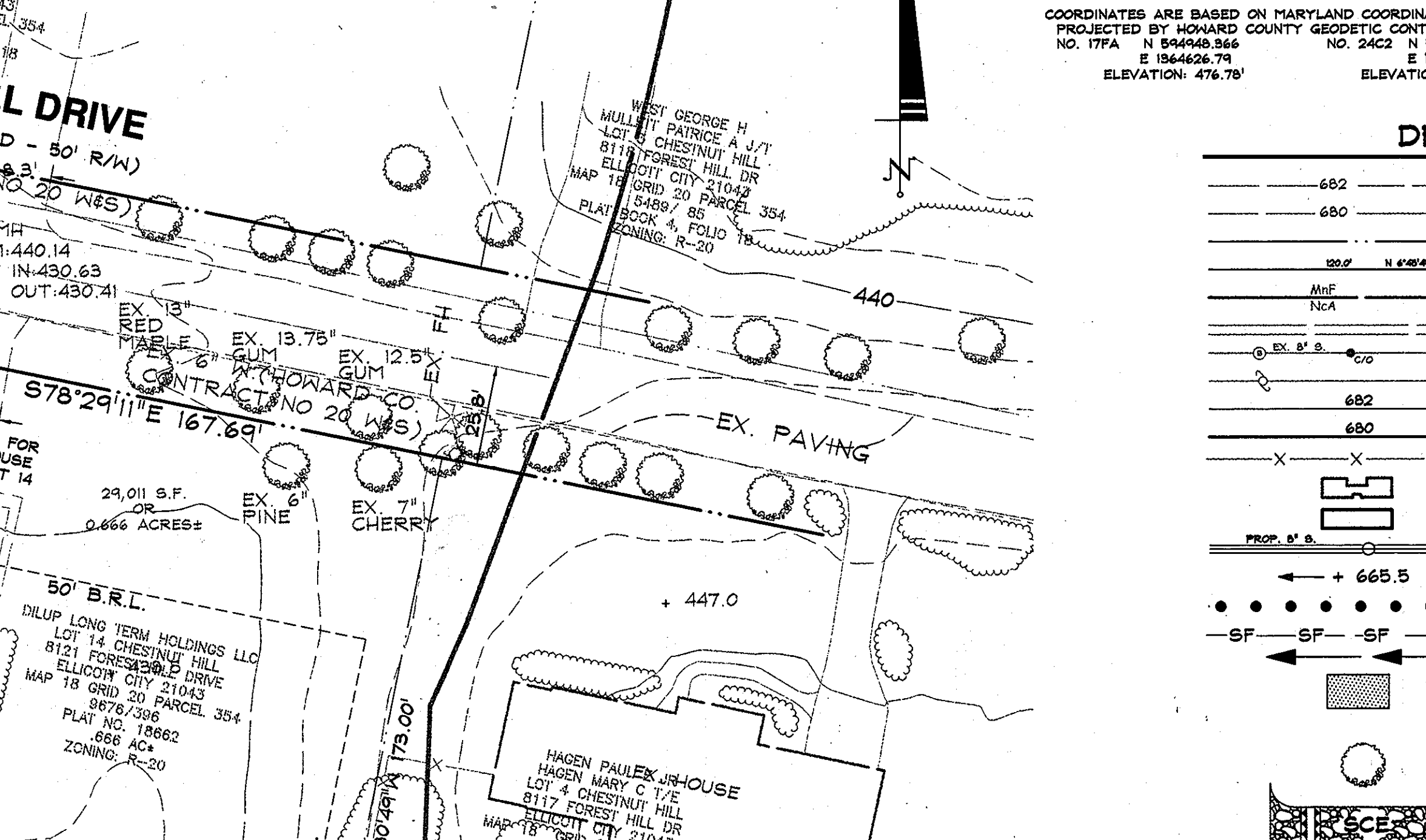
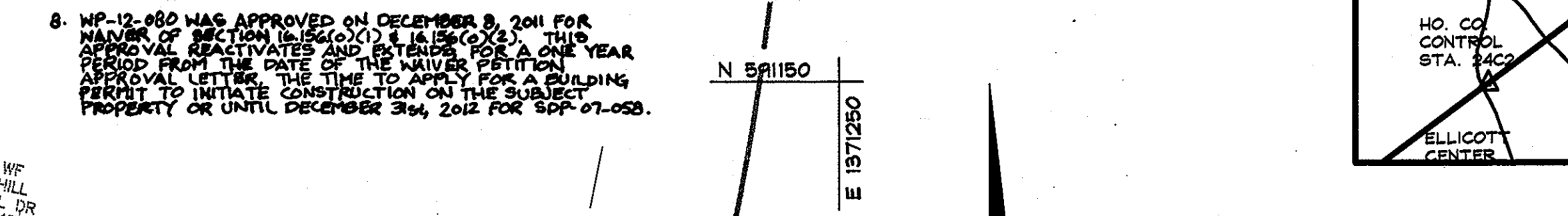
I. NUMBER OF PARKING SPACES PROVIDED ON SITE: 3.0

J. (2 IN GARAGE, 1 IN DRIVEWAY)

K. BUILDING COVERAGE OF SITE: .035 ACRES AND 6.93% OF PROJECT AREA

M. APPLICABLE DPZ FILE REFERENCES: F-06-200

8. WP-12-80 WAS APPROVED ON DECEMBER 8, 2011 FOR MAJOR REVISIONS AND EXTENDS FOR ONE YEAR FROM THE DATE OF THE MAJOR REVISIONS. APPROVAL LETTER, THE TIME TO APPLY FOR A BUILDING PERMIT TO INITIATE CONSTRUCTION ON THE SUBJECT PROPERTY OR UNTIL DECEMBER 31, 2012 FOR SDP-07-058.



DATA SOURCES:

EXISTING TOPOGRAPHY & SITE FEATURES SHOWN PER FIELD SURVEY BY DENARIO DESIGN CONSULTANTS INC. DATED JAN 25, 2006. EXISTING SOILS SHOWN PER HOWARD COUNTY SOILS SURVEY DATED 1968. EXISTING BOUNDARY SHOWN PER BOUNDARY SURVEY BY DENARIO DESIGN CONSULTANTS, INC.

DeMario Design Consultants, Inc.

The Old Firehouse
66 East Main Street, Suite 200
Weston, MD 21157
301.959.9999

Phone: (410) 385-0560
Fax: (410) 385-0564
eMail: ddc@demariodesign.com

OWNER:
DILUP LONG TERM HOLDINGS LLC
183 GOLF LINK VW
ALPHARETTA, GA 30004
410-268-9221
C/O CHRIS DILLO

DEVELOPER:
THE RACHUBA GROUP
905-A MARIMICH COURT
ELDERSBURG, MD 21784
410-781-3400
C/O CHRIS RACHUDA

3001 CHESTNUT HILL DRIVE
ELLCOTT CITY, MD 21043

Plot Number: 18662
Dead Reference: 9676/396

SINGLE FAMILY DETACHED UNIT FOR CHESTNUT HILL SUBDIVISION SECTION 1, LOT 13

SITE DEVELOPMENT PLAN LOT 13

2ND ELECTION DISTRICT HOWARD COUNTY, MD

REVISIONS

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
2	REDLINE REVISION OF HOUSE TYPE	AS	AS	12/21/11
1	REDLINE REVISION OF HOUSE TYPE	SDS	LIC	3/9/11

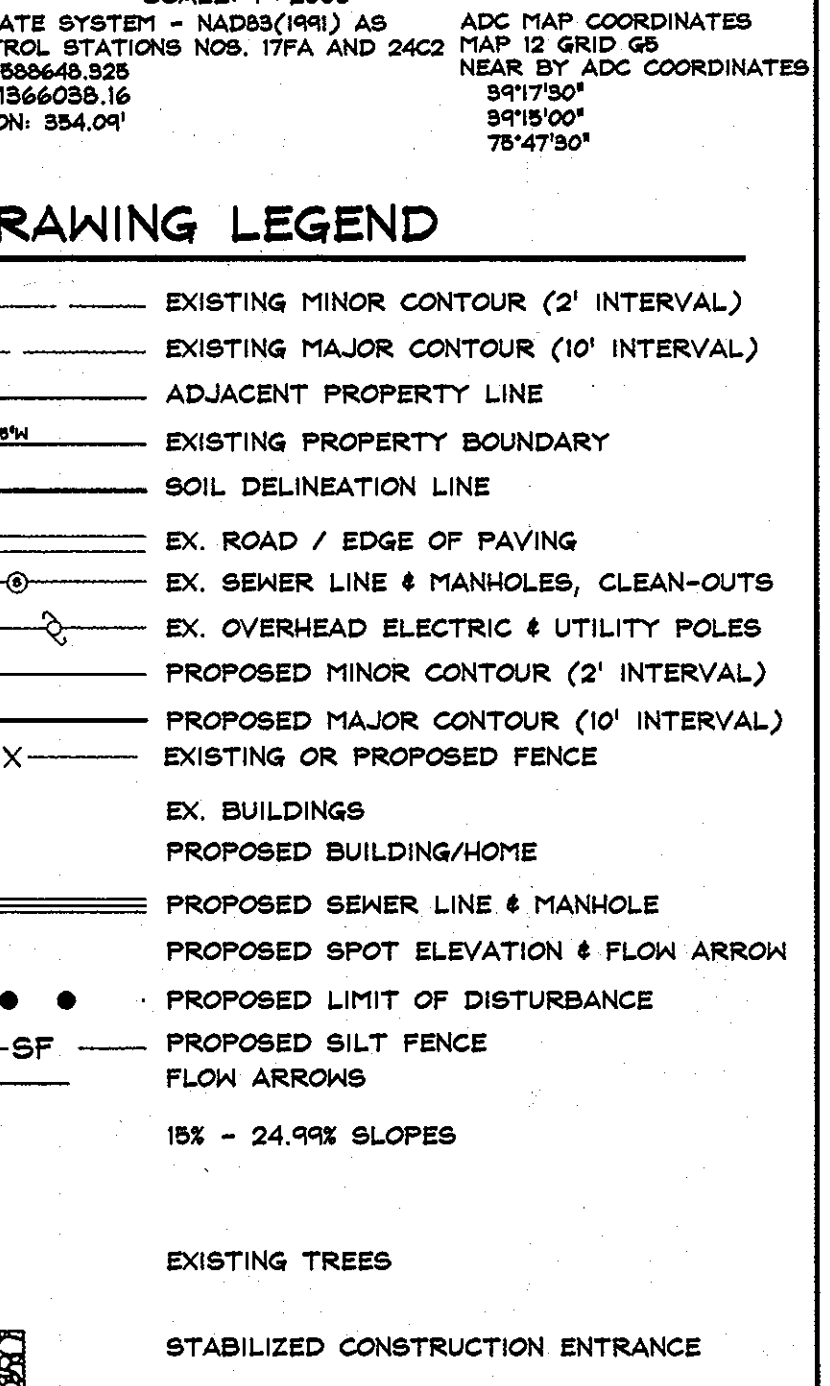
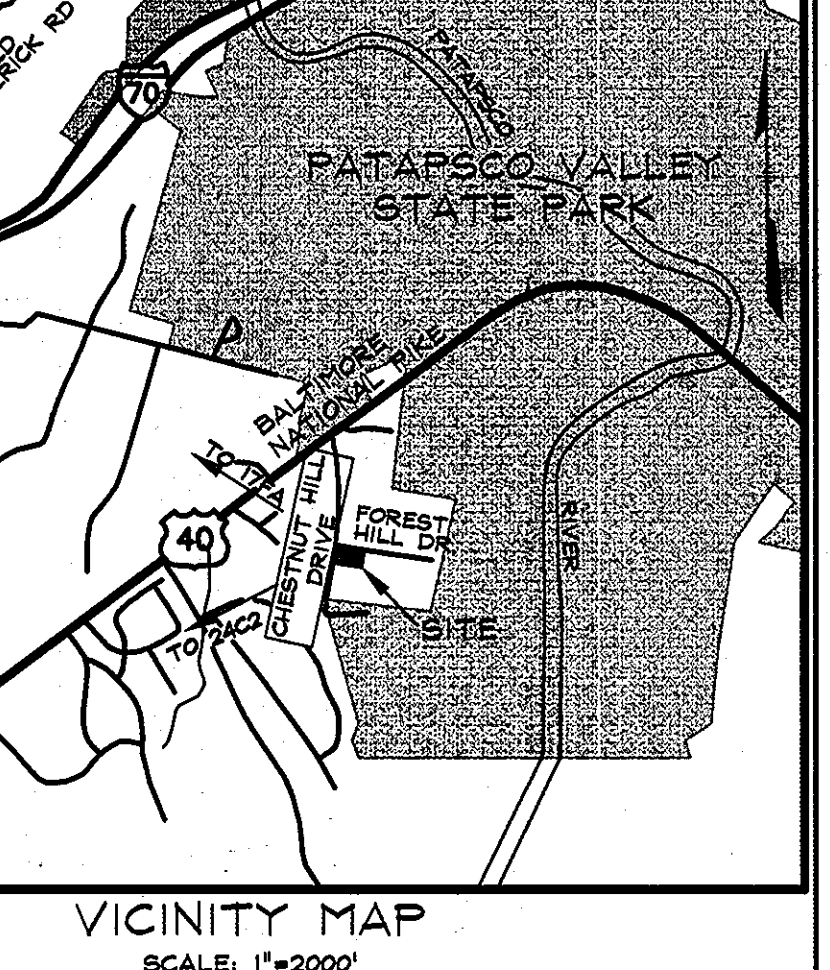
CO. FILE #: SDP-07-
TAX ACC. #:
TAX MAP: 18
BLOCK / GRID: 20
PARCEL #: 354
ZONE / USE: R-20
DWG. SCALE: 1"=30'

DES. BY: CVL
DRN. BY: CVL
CHK. BY: WRD
DATE: 04-19-2007
DDC JOB#: 05134.1
SHEET NUMBER:
1 of 3

04/19/2007
DATE

W. RICHARD DEMARIO
PROFESSIONAL ENGINEER NO. 21988

SDP-07-058



DATA SOURCES:

EXISTING TOPOGRAPHY & SITE FEATURES SHOWN PER FIELD SURVEY BY DENARIO DESIGN CONSULTANTS INC. DATED JAN 25, 2006. EXISTING SOILS SHOWN PER HOWARD COUNTY SOILS SURVEY DATED 1968. EXISTING BOUNDARY SHOWN PER BOUNDARY SURVEY BY DENARIO DESIGN CONSULTANTS, INC.

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W. RICHARD DEMARIO
PROFESSIONAL ENGINEER NO. 21988

SDP-07-058

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 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 (print name below signature) Date: 6-20-07
Chris Rachuba

ENGINEER'S CERTIFICATE

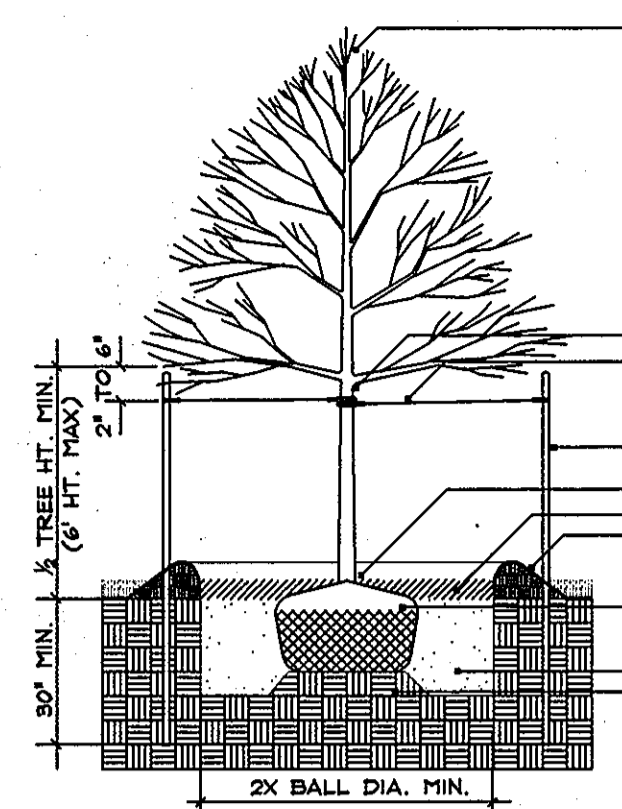
"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer (print name below signature) Date: 4/19/07
W. Richard DeMario

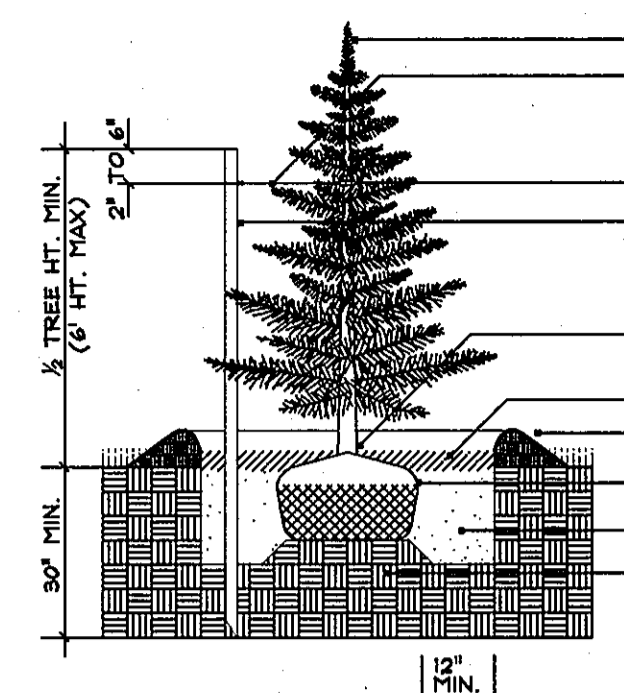
SCHEDULE A
PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES	
	PERIMETER 1** TYPE 'A'	PERIMETER 3 TYPE 'B'	PERIMETER 2 TYPE 'A'	PERIMETER 4 TYPE 'A'
LANDSCAPE TYPE	PERIMETER 1** TYPE 'A'	PERIMETER 3 TYPE 'B'	PERIMETER 2 TYPE 'A'	PERIMETER 4 TYPE 'A'
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	103 L.F. TOTAL	183 L.F. TOTAL	130 L.F. TOTAL	173 L.F. TOTAL
CREDIT FOR EXISTING VEGETATION (DESCRIBE BELOW IF NEEDED)	N/A	YES***	YES*	N/A
CREDIT FOR BERM (DESCRIBE BELOW IF NEEDED)	N/A	N/A	N/A	N/A
NUMBER OF PLANTS REQUIRED				
SHADE TREES	0*	4	2	0
EVERGREEN TREES	0	5	0	0
SHRUBS	0	0	0	0
NUMBER OF PLANTS PROVIDED				
SHADE TREES	0*	4	1*	0
EVERGREEN TREES	0	5	0	0
OTHER TREES (2:1 SUBSTITUTION)	0	0	0	0
SHRUBS	0	0	0	0
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)				

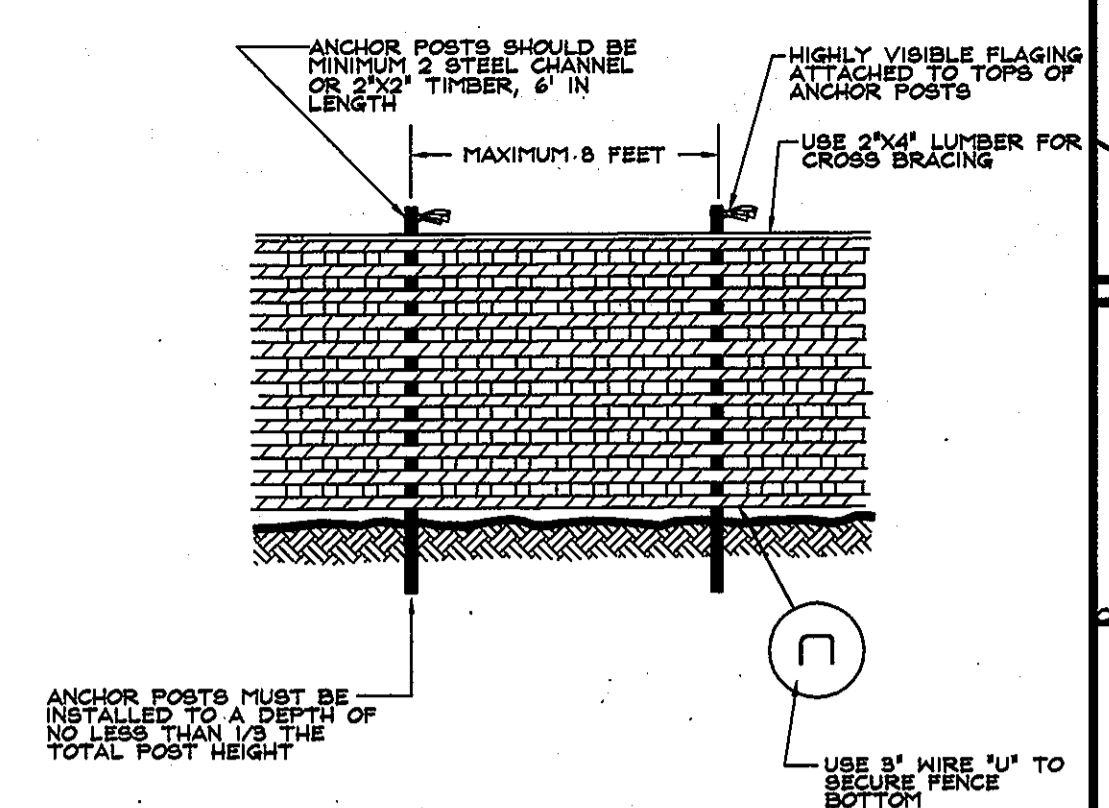
- NOTES:
- * - CREDIT IS REQUESTED FOR ONE EXISTING CHERRY (SHADE) TREE ALONG PERIMETER 2 (SEE PLAN FOR LOCATION).
 - ** - PERIMETER 1 IS EXEMPT FROM LANDSCAPE REQUIREMENTS AS IT REPRESENTS SINGLE FAMILY DETACHED UNITS WITH A FRONT ORIENTATION TO A PUBLIC R/W. STREET TREES HAVE BEEN CREDITED INDEPENDENTLY OF THIS REQUIREMENT (SEE PLAN FOR LOCATION).
 - *** - PER COMMENT LETTER DATED 8/30/2006, CREDIT IS REQUESTED FOR FOUR EXISTING SHADE TREES TO REMAIN ALONG PERIMETER 3.



DECIDUOUS TREE PLANTING (LESS THAN 3" CAL.)
N.T.S.



EVERGREEN TREE PLANTING
N.T.S.

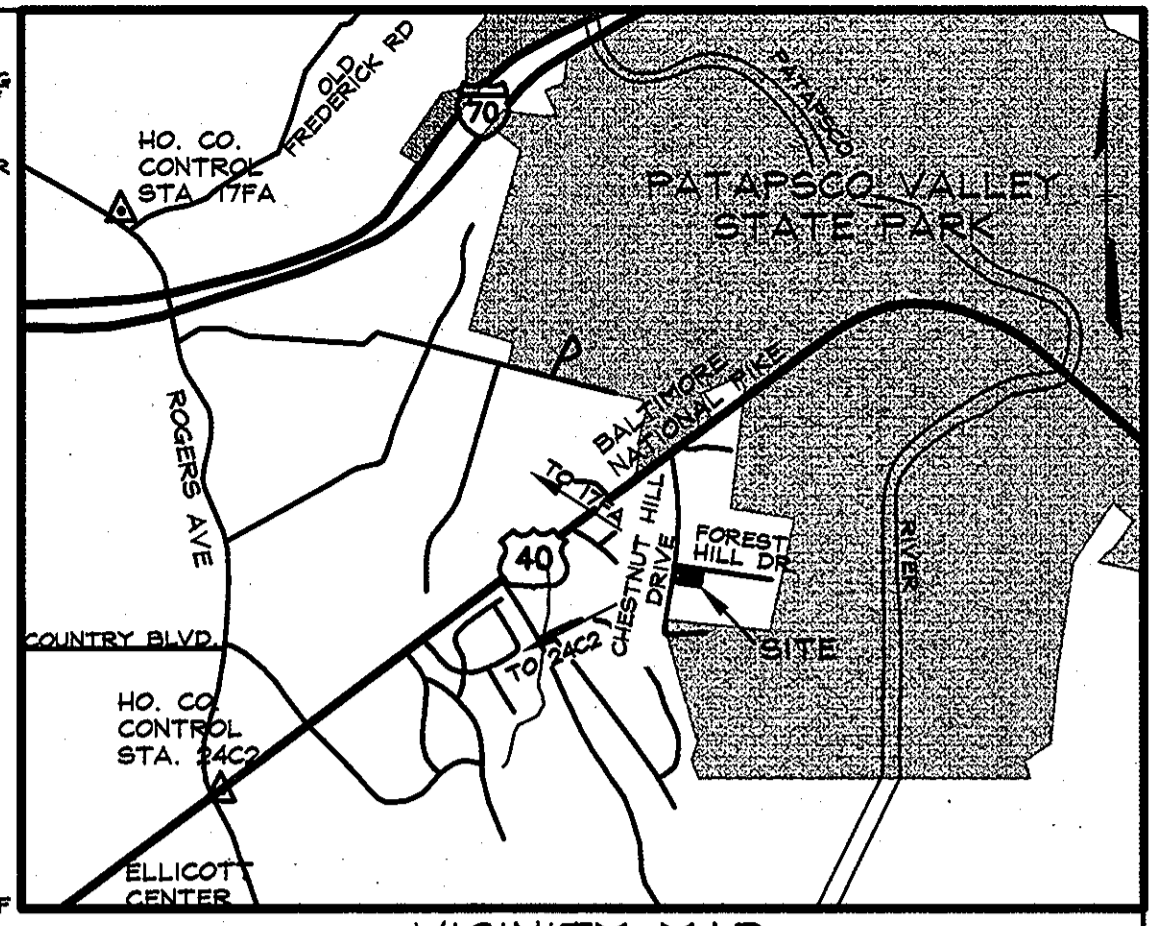


NOTES:

1. PLACE ORANGE OR BLUE PLASTIC MESH FENCE FOR FOREST/TREE PROTECTION DEVICE ONLY.
2. BOUNDARIES OF RETENTION/PROTECTION AREA WILL BE ESTABLISHED AS PART OF THE FOREST LANDSCAPE PLAN REVIEW PROCESS.
3. BOUNDARIES OF THE RETENTION/PROTECTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE PROTECTION AREA.
4. AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS.
5. PROTECTION SIGNS ARE REQUIRED FOR FOREST RETENTION AREAS.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

SOURCE: FIGURE D-5, CARROLL COUNTY FOREST CONSERVATION MANUAL, SECOND EDITION, DATED MAY 16, 2002.

PLASTIC MESH TREE PROTECTION FENCE
N.T.S.



HOWARD COUNTY FOREST CONSERVATION WORKSHEET

I. BASIC SITE DATA	ACRES
Gross Site Area	01.19
Area Within 100 Year Floodplain	00.00
Area Within Agricultural Use or Preservation Parcel (if Applicable)	00.00
Net Tract Area	01.19
Land Use Category (R-RLD, R-RMD, R-S, CAO, I)	R-RMD

II. INFORMATION FOR CALCULATIONS	ACRES
A. Net Tract Area	01.19
B. Reforestation Threshold (20% x A)	00.24
C. Afforestation Minimum (15% x A)	00.18
D. Existing Forest on Net Tract Area	00.00
E. Forest Areas to be Cleared	00.00
F. Forest Areas to be Retained	00.00

III. AFFORESTATION CALCULATIONS	ACRES
A. Net Tract Area	01.19
B. Afforestation Minimum (15% x A)	00.18
C. Existing Forest on Net Tract Area	01.19
D. Forest to be Cleared	00.00
E. Forest to be Retained	00.00

No clearing below the Minimum

If existing forests are less than the afforestation minimum (if D is less than C) and no clearing is proposed, the following calculations apply:

Total Afforestation required
C-D 00.18 ACRES

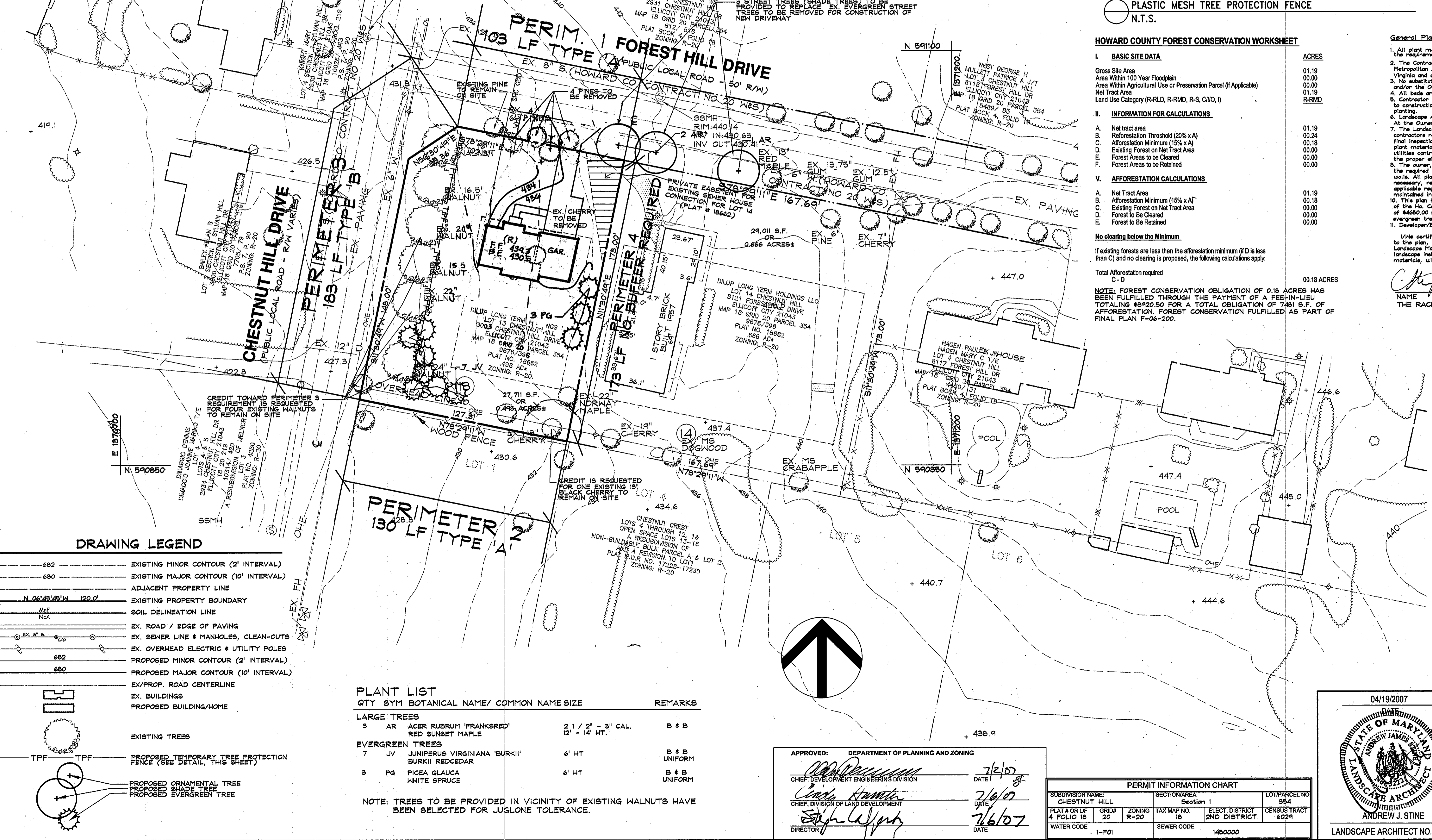
NOTES: FOREST CONSERVATION OBLIGATION OF 0.18 ACRES HAS BEEN FULFILLED THROUGH THE PAYMENT OF A FEE-IN-LIEU TOTALING \$3920.50 FOR A TOTAL OBLIGATION OF 7481 S.F. OF AFFORESTATION. FOREST CONSERVATION FULFILLED AS PART OF FINAL PLAN F-06-2002.

General Planting Notes

1. All plant materials to meet A.N.L.A. Standards. All planting must conform to the requirements set forth in the Howard County Landscape Manual.
2. The Contractor is to follow specification guidelines for Baltimore & Washington Metropolitan Area as approved by the L.C.A. of Maryland, Washington D.C., & Virginia and described in the latest edition of "Landscape Specification Guidelines."
3. No substitutions are to be made without the consent of the Landscape Architect and/or the Owner.
4. All beds are to be topped with three (3) inches of hardwood mulch.
5. Contractor shall notify HES Utility at: 1 (800) 287-7777, at least 72 hours prior to construction and verify the location of all utilities with the Owner before planting.
6. Landscape Architect/Owner shall select, verify, and/or approve all plant material. At the Owner's discretion, specimen and other plant material may be selected.
7. The Landscape Contractor shall coordinate with the general, lighting, & irrigation contractors regarding timing and installation of plant material. At the time of final inspection with acceptance, all electric, water & drainage utilities, as well as plant material, shall remain undamaged. Likewise, the Landscape Contractor and utilities contractors shall coordinate efforts to ensure that surface utilities are at the proper elevation relative to final grades.
8. 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.
9. This plan has been prepared in accordance with the provisions of Section 16.124 of the Ho. Co. Code. Financial surety for the required landscaping in the amount of \$4680.00 must be posted as part of the Developer's Agreement (10 shade trees, 11 evergreen trees).
10. Developer/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 certification of landscape installation, accompanied by an executed one-year guarantee of the plant materials, will be submitted to the Department of Planning and Zoning.

Signature: [Signature] DATE: 6-20-07
NAME: THE RACHUBA GROUP



DRAWING LEGEND

682	EXISTING MINOR CONTOUR (2' INTERVAL)
680	EXISTING MAJOR CONTOUR (10' INTERVAL)
---	ADJACENT PROPERTY LINE
N 06°45'45" W 120.0'	EXISTING PROPERTY BOUNDARY
MNF	SOIL DELINEATION LINE
NCA	EX. ROAD / EDGE OF PAVING
EX. S.E.	EX. SEWER LINE & MANHOLES, CLEAN-OUTS
EX. O.E.	EX. OVERHEAD ELECTRIC & UTILITY POLES
682	PROPOSED MINOR CONTOUR (2' INTERVAL)
680	PROPOSED MAJOR CONTOUR (10' INTERVAL)
---	EX/PROP. ROAD CENTERLINE
---	EX. BUILDINGS
---	PROPOSED BUILDING/HOME
---	EXISTING TREES
---	PROPOSED TEMPORARY TREE PROTECTION FENCE (SEE DETAIL, THIS SHEET)
---	PROPOSED ORNAMENTAL TREE
---	PROPOSED SHADE TREE
---	PROPOSED EVERGREEN TREE

PLANT LIST

QTY	SYM	BOTANICAL NAME/ COMMON NAME SIZE	REMARKS
3	AR	ACER RUBRUM 'FRANKSRED'	2 1/2' - 3' CAL. B & B
		RED SUNSET MAPLE	12' - 14' HT.
7	JV	JUNIPERUS VIRGINIANA 'BURKII'	6' HT B & B
		BURKII REDCEDAR	UNIFORM
3	PG	PICEA GLAUCA	6' HT B & B
		WHITE SPRUCE	UNIFORM

NOTE: TREES TO BE PROVIDED IN VICINITY OF EXISTING WALNUTS HAVE BEEN SELECTED FOR JUGLONE TOLERANCE.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

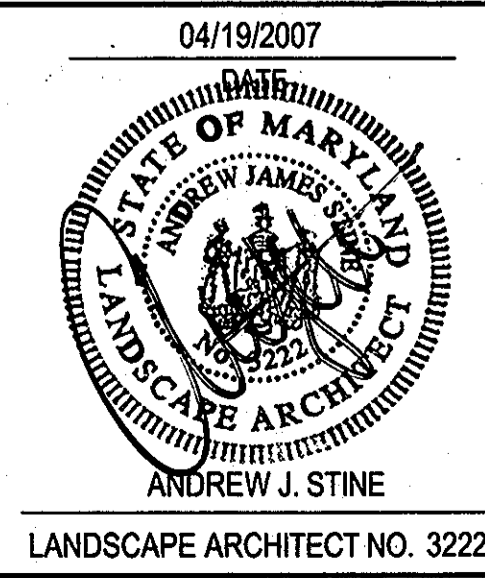
Signature: [Signature] DATE: 7/2/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Signature: [Signature] DATE: 7/4/07
CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: [Signature] DATE: 7/6/07
DIRECTOR

PERMIT INFORMATION CHART

SUBDIVISION NAME:	SECTION/AREA:	LOT/PARCEL NO:
CHESTNUT HILL	Section 1	584
PLAT # OR L/E	GRID#	ZONING
4 FOLIO 18	20	R-20
TAX MAP NO.	ELECT. DISTRICT	CENSUS TRACT
18	2ND DISTRICT	6029
WATER CODE	SEWER CODE	
1-F01	1450000	



DATA SOURCES:

EXISTING TOPOGRAPHY & SITE FEATURES SHOWN PER FIELD SURVEY BY DEMARIO DESIGN CONSULTANTS INC. DATED JAN 23, 2006. EXISTING SOILS SHOWN PER HOWARD COUNTY SOILS SURVEY DATED 1968. EXISTING BOUNDARY SHOWN PER BOUNDARY SURVEY BY DEMARIO DESIGN CONSULTANTS, INC.

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DEVELOPER: THE RACHUBA GROUP
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C/O CHRIS RACHUBA

Plat Number: 18662
Dead Reference: 9678/396

SINGLE FAMILY DETACHED UNIT FOR CHESTNUT HILL SUBDIVISION SECTION 1, LOT 13

LANDSCAPE PLAN, NOTES & DETAILS

2ND ELECTION DISTRICT HOWARD COUNTY, MD

NO.	REVISIONS	DRN.	REV.	DATE
2	REDLINE REVISION OF HOUSE TYPE	AJS	ADD	7/2/07
1	REDLINE REVISION OF HOUSE TYPE	SDS	LIC	3/9/10

CO. FILE #: SDP-07- DES. BY: CVL/AJS
TAX ACC. #: DRN. BY: AJS
TAX MAP: 18 CHK. BY: WRD
BLOCK / GRID: 20 DATE: 04-19-2007
PARCEL #: 354 DDC JOB#: 05134.1
ZONE / USE: R-20 SHEET NUMBER:
DWG. SCALE: 1"=30' 2 of 3

SDP-07- 058

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

Section I - Vegetative Stabilization Methods and Materials

- A. Site Preparation
1. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
2. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.

- B. Soil Amendments (Fertilizer and Lime Specifications)
1. Soil test must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 3 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.

- 2. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Measures may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warranty of the producer.
3. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98 - 100% will pass through a #20 mesh sieve.

- C. Seeded Preparation
1. Temporary Seeding
a. Seeded preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable equipment for construction equipment. After the soil is loosened it should not be rolled or dragged smooth but left in the rough condition. Seeded areas (greater than 3 ft) should be tracked leaving the surface in an irregular condition with ridges running parallel to the counter of the slope.

- ii. Permanent Seeding
1. Minimum soil conditions required for permanent vegetative establishment:
1. Soil pH shall be between 6.0 and 7.0
2. Soluble salts shall be less than 500 parts per million (ppm).
3. The soil shall contain less than 40% clay but enough fine grained material (> 30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if loess or serecia lespedeza is to be planted, then a sandy soil (< 30% silt plus clay) would be acceptable.

- 4. Soil shall contain 1.5% minimum organic matter by weight.
5. Soil must contain sufficient pore space to permit adequate root penetration.
6. If these conditions cannot be met by the soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.

- D. Seed Specifications
1. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.

- E. Methods of Seeding
1. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeder, or a cultipacker seeder.
2. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: 100 lbs/acre total of soluble nitrogen; P205 (phosphorus): 200 lbs/acre; K20 (potassium): 200 lbs/acre.

- ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summary or (Table 25 or 26). The seeded area shall then be rolled with a weighted roller to provide good seed soil contact.
b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

- iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
a. Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.

- F. Mulch Specifications (In order of preference)
1. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color, and shall not be excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.

- ii. Wood Cellulose Fiber Mulch (WCFM)
a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical form.
b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
c. WCFM, including dye, shall contain no germination or growth inhibiting factors.

- iii. Mulch Specifications
1. H. Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.

- 2. J. Incremental Stabilization --- Fill Slopes --- See G-20-7

- ii. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended amount of inoculant to keep inoculant as cool as possible until used. Temperatures above 70-100 °F can weaken bacteria and make the inoculant less effective.

TABLE 26 TEMPORARY SEEDING RATES, DEPTHS, AND DATES

Table with columns: SPECIES, MINIMUM SEEDING RATES, PLANTING DEPTH, and SEEDING DATES (7a and 7b).

Note: Select one or more of the species or mixtures listed on Table 26 for the appropriate plant hardness zone.

SECTION IV - SOD

To provide quick cover on disturbed areas (2:1 grade or flatter).

- A. General Specifications
1. Class of turfgrass sod shall be Maryland or Virginia State Certified or Approved. Sod labels shall be made available to the job foreman and inspector.

- ii. Sod shall be machine cut at a uniform soil thickness of 3/4" plus or minus 1/4" at the time of cutting and measured to the top of the sod. Sod shall be cut by a sod cutter which will cut the sod to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pots and torn or uneven ends will not be acceptable.

- iii. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
iv. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.

- v. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period shall be approved by an agronomist or soil scientist prior to its installation.

- B. Sod Installation
1. During periods of excessively high temperatures or in areas having dry subsoil, the subsoil shall be lightly irrigated immediately prior to laying the sod.

- ii. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overpiled and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.

- iii. Wherever possible, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pugged otherwise secured to prevent slippage on slopes and to ensure solid contact between sod roots and the underlying soil surface.

- iv. Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

- C. Sod Maintenance
1. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4". Watering should be done during the heat of the day to reduce evaporation.

- ii. After the first week, sod watering is required as necessary to maintain adequate moisture content.
iii. The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2" and 3" unless otherwise specified.

- iv. Maintenance fertilizer rates for permanent seedings are shown in Table 24. For lawns and other medium high maintenance turfgrass areas, refer to the University of Maryland publication "Lawn Care in Maryland" Bulletin No. 171.

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 vegetative 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. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured topsoil or shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.

- ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
iii. 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 over 5 acres:
1. 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 the sterilant or chemical 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. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

- V. Topsoil Application
1. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and sediment traps and basins.

- ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4"-8" higher in elevation.
iii. 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.

- iv. 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 seeded preparation.

- VI. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and complete fertilizer, composted sludge and amendments may be applied as specified below:
1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
a. Composted sludge: shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.

- b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 6.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.

- ii. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

- References: Guideline Specifications, Soil Preparation and Sodding, MD-V-A, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

DATA SOURCES: EXISTING TOPOGRAPHY & SITE FEATURES SHOWN PER FIELD SURVEY BY DEMARIO DESIGN CONSULTANTS, INC. DATED JAN 23, 2006.

EXISTING SOILS SHOWN PER HOWARD COUNTY SOILS SURVEY DATED 1968. EXISTING BOUNDARY SHOWN PER BOUNDARY SURVEY BY DEMARIO DESIGN CONSULTANTS, INC.

DeMario Design Consultants, Inc. logo and contact information.

OWNER: DILUP LONG TERM HOME INC. 183 GOLF LINK VW ALPHARETTA, GA 30004

DEVELOPER: THE RACHUBA GROUP 945-A MARION COURT ELDERSBURG, MD 21784

Plat Number: 18662 Dead Reference: 9678/396

SINGLE FAMILY DETACHED UNIT FOR CHESTNUT HILL SUBDIVISION SECTION 1, LOT 13

SEDIMENT CONTROL NOTES & DETAILS

Table with columns: NO., DESCRIPTION OF CHANGES, DRN., REV., DATE. Includes revision 1: REDLINE REVISION OF HOUSE TYPE.

Professional Engineer seal for W. Richard Demario, State of Maryland, No. 21998.

DUST CONTROL

Definition: Controlling dust blowing and movement on construction sites and roads. Purpose: To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

Conditions Where Practice Applies: This practice is applicable to areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

- Specifications
1. Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.
2. Vegetative Cover - See standards for temporary vegetative cover.

- 3. Tillage - To roughen surface and bring clods to the surface. This is an emergency method which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12' apart, spring-toothed harrows and similar plows are examples of equipment which may produce the desired effect.
4. Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.

- 5. Barriers - Solid board fences, silt fences, snow fences, burlop fences, straw bales, and similar materials can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.
6. Calcium Chloride - Apply at rates that will keep soil moist. May need retreatment.

- Permanent Methods
1. Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
2. Topsoiling - Covering with less erosive materials. See standards for topsoiling.
3. Stone-Cover Surface with crushed stone or coarse gravel.

References
1. Agriculture Handbook 346. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.
2. Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA-ARS.

ENGINEER'S CERTIFICATE and DEVELOPER'S CERTIFICATE sections with signatures and dates.

TABLE 25: PERMANENT SEEDING FOR LOW MAINTENANCE AREAS

Table with columns: MIX, SEED MIX USE CERTIFIED MATERIAL IF AVAILABLE, PLANTING (LBS/AC, 1000 SF), SITE CONDITIONS, and USDA HARDINESS ZONES.

Table 25 and 26 references

Note: Select one or more of the species or mixtures listed in Table 25 and enter in the Permanent Seeding Summary Below along with application rates and dates. For special low maintenance areas, see Sections II, Sod and V, Turfgrass.

SEED MIXTURE (HARDINESS ZONE) FROM TABLE 26

SEED MIXTURE (HARDINESS ZONE) FROM TABLE 26

SEED MIXTURE (HARDINESS ZONE) FROM TABLE 26

Section III - Permanent Seeding

Seed Mixture No. 3 (Hardiness Zone 7A)

Reviewed for HOWARD SCD and meets Technical Requirements

Signatures and dates for developer and engineer.