SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
CgC2	Chester gravelly silt loam, 8 to 15 percent slopes, moderately eroded	B
ChD2	Chester silt loam, 15 to 25 percent slopes, moderately eroded	B
Cs	Comus silt loam	B
MIE	Manor loam, 25 to 45 percent slopes	B
MnF	Manor very stony loam, 25 to 60 percent slopes	B

SPECIMEN TREES

NO.	DBH	COMMON NAME	SCIENTIFIC NAME	CONDITION	RETAINED
ST-1	36"	Black Oak	Quercus velutina	Fair	YES

FOREST CONSERVATION EASEMENT LINE TABLE

LINE	LENGTH	BEARING
FC1	344.14'	S 05°14'55" E
FC2	59.63'	S 12°32'59" E
FC3	34.25'	S 76°54'06" W
FC4	40.54'	S 13°05'54" E
FC5	106.64'	S 57°33'53" E
FC6	79.82'	S 16°02'52" W
FC7	30.00'	S 73°57'08" E
FC8	74.27'	S 12°48'40" E
FC9	132.63'	S 00°01'17" E

Forest Retention Area Protection Signage

Min. 11"

FOREST RETENTION AREA

MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED

VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991

Min 15"

GENERAL NOTES

1. Subject property zoned RR-DEO per 02/02/04 Comprehensive Zoning Plan.
2. Total area of property = 4.62 ac.±
3. Existing 2 foot Topography on site based on field run topographic survey provided by FSH Associates in September, 2005. Existing 2 foot Topography for Sight Distance Analysis provided by FSH Associates in October, 2005. Boundary provided by FSH Associates in September, 2005.
4. All wells & septic fields within 100' of property's boundary have been shown.
5. Deed History:
   July, 1973-Present: Clifton D. Coleman and Carole M. Coleman
   November, 1965-July, 1973: James W. King and Audrey K. King
   July, 1936-November, 1965: Lewis W. Burgess.
6. There are no State Champion Trees on the project site.
7. Per a MERLIN online search on May 3, 2006, there are no floodplains, critical habitats of rare, threatened or endangered species, historic structures, or nontidal wetlands on the project site.
8. The Department of Planning and Zoning determined that the existing driveway did not have to be shifted to accommodate a 10' setback or perimeter landscaping because retention of existing trees constituted a more desirable alternative and existing conditions met the intent of the Regulations.
9. All driveway widening (needed to ensure compliance with Design Manual Standards) must be done on the west side of the existing driveway.

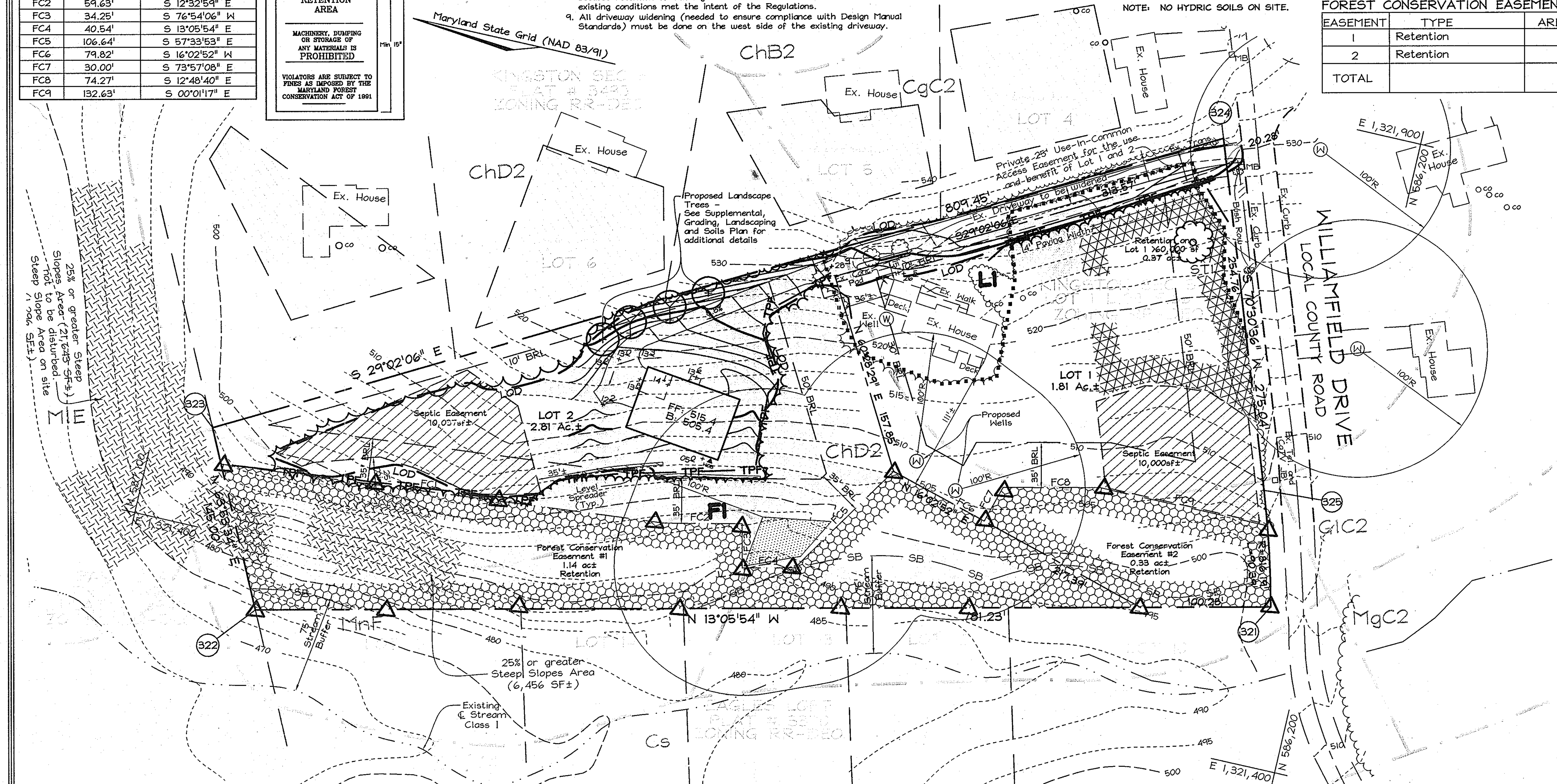
FOREST STAND ANALYSIS TABLE

KEY	TYPE OF COMMUNITY	AREA	SOIL INFORMATION: SOIL TYPE	SOIL INFORMATION: TYPICAL FOREST COVER	SOIL INFORMATION: WOODLAND SUITABILITY INDEX	SOIL INFORMATION: HABITAT VALUE	EXISTING VEGETATION (Type and approx. %)	STAND CHARACTERISTICS: SIZE AVG. DIAM	STAND CHARACTERISTICS: AGE	STAND CHARACTERISTICS: GENERAL CONDITIONS	FOREST AREA IN SENSITIVE ENVIRONMENTS
F1	Mixed hardwood	4.20	CgC2	Oaks and Upland Hardwoods	75-84 oaks	Good	Tulip Poplar 25%	8-28	50-125	Good, sparse understory closer to road and house.	0.3 Ac in stream buffers
			ChD2	Oaks and Upland Hardwoods	75-84 oaks	Fair	White Oak 15%	6-25			
							Black Oak 15%	8-24			
			Cs	Mostly Oak	75-84 oaks	Good	Chestnut Oak 25%	12-28			
							Black Cherry 5%	4-8			
			MnF	Mixed Upland Hardwoods	65-74 oaks	Fair	Red Oak 15%	8-26			

NOTE: NO HYDRIC SOILS ON SITE.

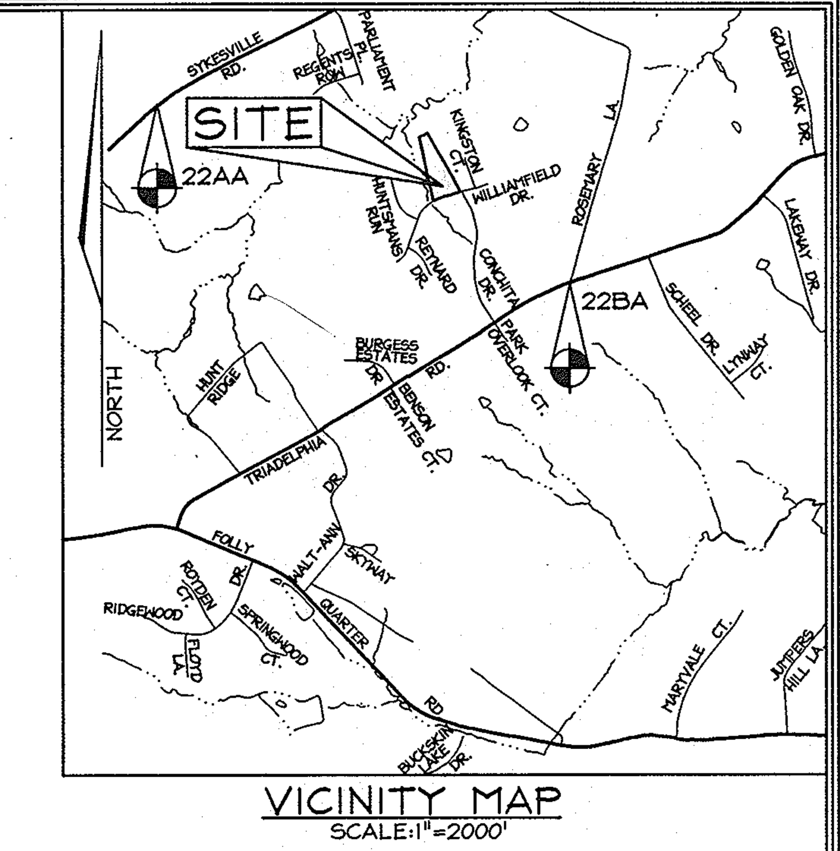
FOREST CONSERVATION EASEMENT TABLE

EASEMENT	TYPE	AREA (AC.)
1	Retention	1.14
2	Retention	0.33
TOTAL		1.47



LEGEND

- Existing Contour
- Existing Spot Elevation
- Existing Trees to Remain
- Existing Stream Buffer
- Existing Septic Clean Out
- Existing Septic Easement
- Proposed Septic Easement
- Existing Well
- Proposed Well Area
- Proposed House
- Steep Slopes (Greater Than 25%)
- 15% to 24.9% slopes
- Limit of Disturbance
- Forest Conservation Easement
- Forest Retention on Lot > 60,000 s.f.
- Tree Protection Fence
- Forest Stand Boundary
- Forest Conservation Easement Sign



VICINITY MAP

SCALE:1"=2000'

BENCHMARKS

Sta.	22AA	N 179,071.1931	E 401,696.1007	El.: 173.6488 (meters)
		N 587,502.739	E 1,317,897.957	El.: 569.713 (feet)
Sta.	22BA	N 178,349.4478	E 403,349.5492	El.: 175.8244 (meters)
		N 585,134.813	E 1,323,322.646	El.: 576.851 (feet)

FOREST CONSERVATION WORKSHEET

	Acres
Net Tract Area	
A. Total Tract Area	4.62
B. Area Within 100 Year Floodplain	--
C. Other deductions	--
D. Net Tract Area	4.62
Zoning Use Category: RESIDENTIAL-MEDIUM DENSITY	
Land Use Category	
E. Afforestation Minimum (20 % x D)	0.92
F. Conservation Threshold (25 % x D)	1.16
Existing Forest Cover	
G. Existing Forest on Net Tract Area	4.20
H. Forest Area Above Conservation Threshold	3.04
Breakeven Point	
I. Forest Retention Above Threshold with no Mitigation	1.77
J. Clearing Permitted without Mitigation	2.43
Proposed Forest Clearing	
K. Forest Areas to be Cleared	2.36
L. Forest Areas to be Retained	1.84
Planting Requirements	
M. Reforestation for Clearing Above Threshold	0.59
N. Reforestation for Clearing Below the Threshold	0
P. Credit for Retention Above Conservation Threshold	0.68
Q. Total Reforestation Required	0
R. Total Afforestation Required	0
S. Total Reforestation and Afforestation Requirement	0

Forest Conservation Narrative

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

The site consists of 4.62 Ac. in a single lot from a previous subdivision. The site contains 4.20 Ac. of forest. These woodlands will be preserved to the maximum extent possible utilizing foreset conservation easements and retention on lots greater than 60,000 s.f. for a total retention of 1.84 ac. There will be two easements totaling 1.47 ac. Easement #1 is 1.14 ac on Lot 2 and Easement #2 is 0.33 ac on Lot 1. The on-lot retention will total 0.37 Ac. as shown, which is enough to exceed the break even point. We do not anticipate that the lots will be cleared any more than is necessary; limits of disturbance reflect the maximum that could be needed. This includes preservation of Specimen Trees where possible.

Surety will be $12,806.60 for 1.47 ac or 64,033 s.f. of retention in easements at $0.20/s.f.

Forest Stand Delineation Narrative

This Forest Stand Delineation was prepared in accordance with the Howard County Forest Conservation Manual.

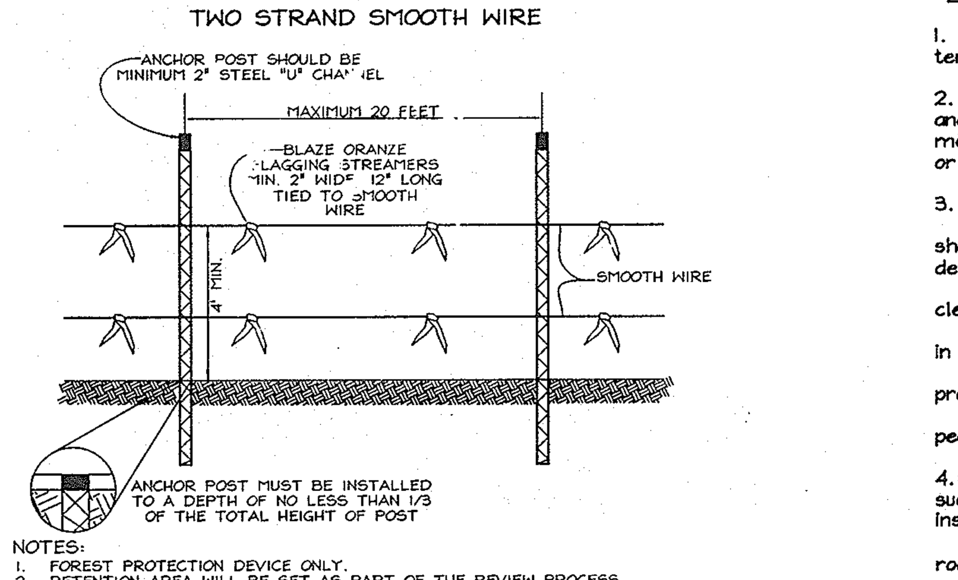
F1: This 4.20 Ac stand encompasses all of the forested area on the site. The understory is thinner closer to the road and existing house, but improves to the rear of the existing lot, and downhill towards the stream. Understory includes mountain laurel, saplings of the overstory, Japanese honeysuckle, and American Holly. There is a small area of stream buffer near the edge of the site, approximately 0.3 ac in size. Due to this and the steep slopes, most of the forest would be a high priority for retention. The moderate slopes and non-buffer area would be moderate priority. Woodland suitability is between 65 and 84 as shown in the Forest Stand Analysis Table. There is one specimen tree.

L1: The remainder of the site, 0.42 Ac, consisits of the house, driveway and a small cleared area around the house with a few trees and lawn.

Soil Protection Zone Notes

1. The Soil Protection Zone shall include all areas contained inside the Limit of Disturbance.
2. 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.
3. No construction activity is permitted within the Soil Protection Zone.
4. 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.
5. Root pruning shall occur prior to the beginning of construction.
6. 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.
7. Prior to construction, the Limits of Disturbance shall be marked and the ERI Professional shall determine which trees will need preventative treatment or removal.
8. Tree maintenance and removal shall be undertaken by a qualified MD Tree Expert to ensure damage to surrounding trees is minimized.
9. 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.

TWO STRAND SMOOTH WIRE



NOTES:
1. FOREST PROTECTION DEVICE ONLY.
2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION DETAIL

NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 10/5/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 10/6/06

~~DIRECTOR~~ ~~DATE~~

MANAGEMENT NOTES FOR FOREST RETENTION AREAS

1. All proposed activities shall adhere to the conditions, schedules and terms of an approved sediment control and erosion plan.

2. After the boundaries of the retention area have been staked and flagged and before any disturbance has taken place on-site, a preconstruction meeting at the construction site shall take place. The developer, contractor or project manager, and appropriate County inspectors shall attend.

3. Tree protection for all retained areas:
   a. All retention areas within 50 feet of proposed construction activities shall be protected by highly visible, well anchored temporary protection devices (silt fence or blaze orange plastic mesh).
   b. All protection devices shall be in place prior to any grading or land clearing.
   c. All protection devices shall be properly maintained and shall remain in place until construction has ceased.
   d. Attachment of signs, fencing or other objects to trees is prohibited.
   e. No equipment, machinery, vehicles, materials or excessive pedestrian traffic shall be allowed within protected areas.

4. If the critical root zone (see detail) is affected by construction activities such as grade change, digging for foundations and roads or utility installation:
   a. Prune roots with a clean cut using proper pruning equipment (see root pruning detail)
   b. Water and fertilize as needed.

5. During construction phase, monitor and correct condition of retained trees for: soil compaction, root injury, flood conditions, drought conditions and other stress signs.

6. Post-Construction Phase
   a. Inspect existing trees around the perimeter of disturbed limits for evidence of soil compaction, root injury, limb injury, or other stress signs and correct with proper management techniques such as root or limb pruning, soil aeration, fertilization, crown reduction or watering. Inspection and evaluation shall be performed by a licensed arborist.
   b. Inspect for dead or dying trees or limbs which may pose safety hazard and remove.
   c. No burial of discarded materials will occur onsite within the conservation areas.
   d. No burning within 100 feet of wooded area.
   e. All temporary forest protection structures will be removed after construction.
   f. Following completion of construction, prior to use, the County inspector shall inspect the entire area.

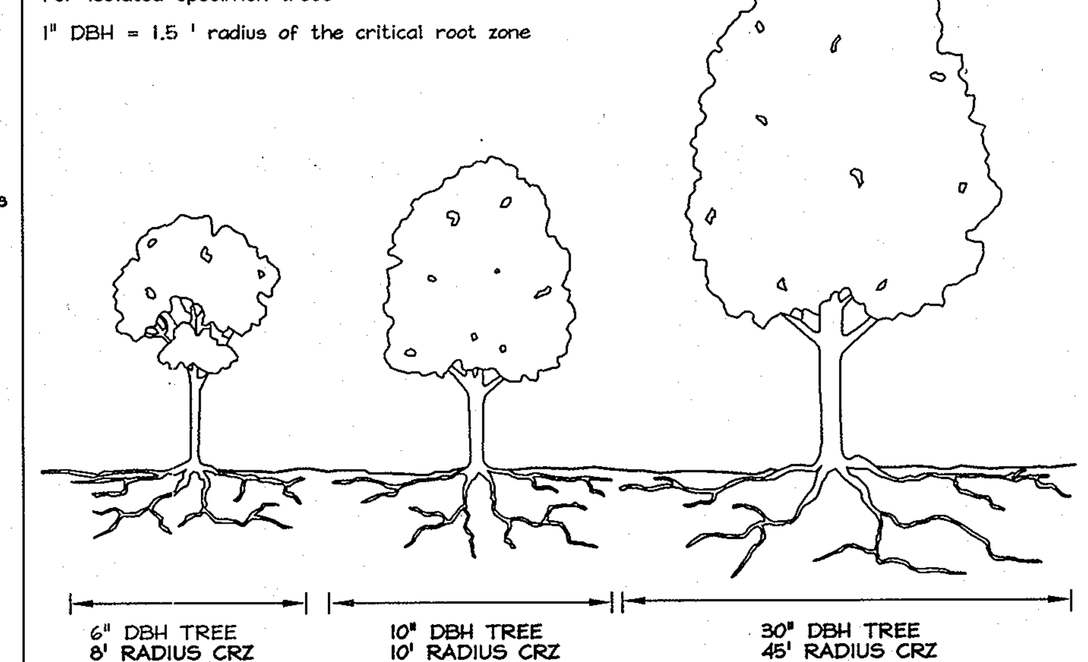
CRITICAL ROOT ZONE

For the edge of large areas, use the greater of the two choices below:

1" DBH of the tree = 1' radius of the critical root zone — or — 8 ft radius circle around the trunk of the tree

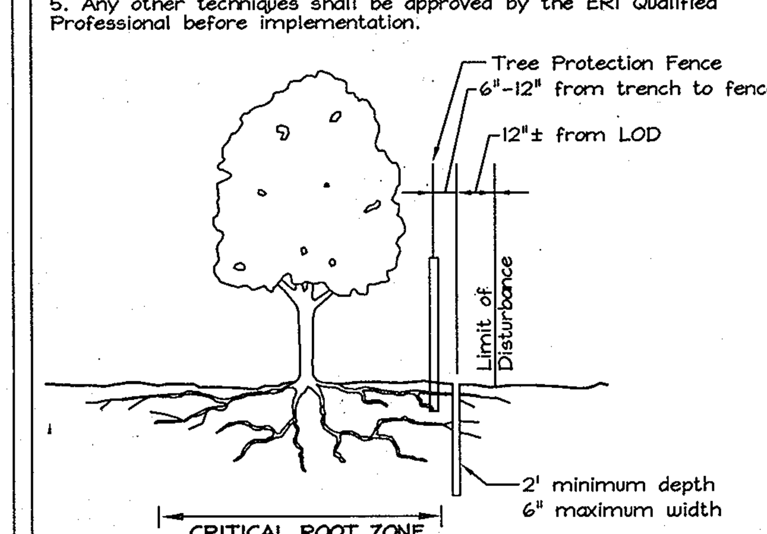
For isolated specimen trees:

1" DBH = 1.5 ' radius of the critical root zone



ROOT PRUNING

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



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OWNER/DEVELOPER

CAROLE P. COLEMAN
13104 WILLIAMFIELD DR
ELLICOTT CITY, MD 21042
(410) 988-8155

FOREST CONSERVATION PLAN

COLEMAN PROPERTY

TAX MAP 22 GRID 04 — PARCEL 205
3RD ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

STATE OF MARYLAND — STEPHEN L. HUBER — No. 303 — REGISTERED PROFESSIONAL FORESTER

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

DESIGN BY:	PS
DRAWN BY:	MA/MY/SM
CHECKED BY:	ZYF
SCALE:	As shown
DATE:	Sept. 22 2006
W.O. No.:	3332
SHEET No.:	1 OF 1

F-06-145