

AFFORESTATION AREA : 4,356 Sq. ft. (0.10 Ac.)

4,365 Sq. ft. (350 TPA) 2'-3' WHIP planting with Tree Shelters
0.10 acre x 350 TPA = 35 trees required

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
8	Acer rubrum	Red Maple	WHIP 2-3' w/shelters	11' o.c.	1-3 Gallon Container Grown
8	Platanus occidentalis	Sycamore	WHIP 2-3' w/shelters	11' o.c.	
8	Nyssa sylvatica	Black Gum	WHIP 2-3' w/shelters	11' o.c.	
11	Lindera benzoin	Spicebush	WHIP 2-3' w/shelters	11' o.c.	

FOREST CONSERVATION EASEMENT TABLE

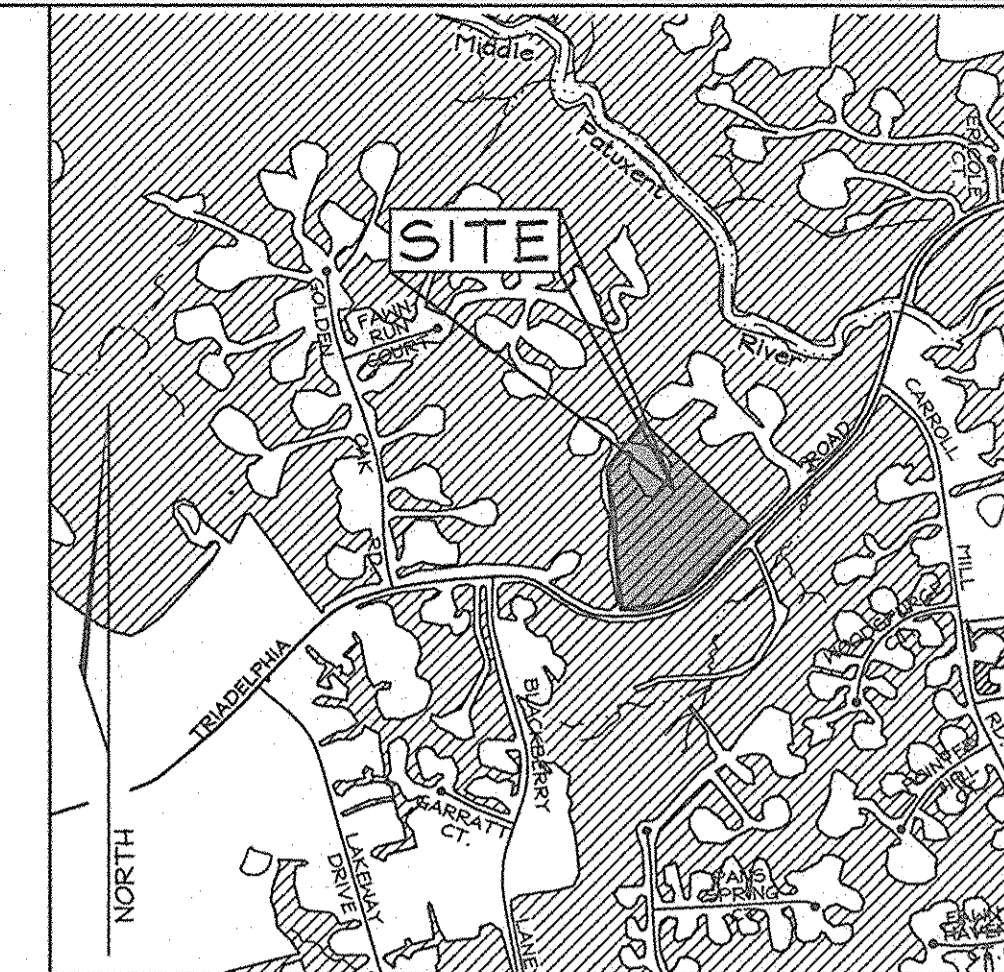
EASEMENT	TYPE	AREA (ACRES)
I	RETENTION	3.54
	REFORESTATION	0.10
TOTAL		3.64

The forest conservation easements have been established to fulfill the requirements of Section 16.1200 of the Howard County Code and the Forest Conservation Manual. 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.

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	SOIL GROUP	K Value
ChB2	Chester silt loam, 15 to 25 percent slopes, moderately eroded	B	.32
GnB2	Glenville silt loam, 3 to 8 percent slopes, moderately eroded	C	.32
MgC2	Manor gravelly loam, 8 to 15 percent slopes, moderately eroded	B	.37
MIB2	Manor loam, 3 to 8 percent slopes, moderately eroded	B	.37
MIC2	Manor loam, 8 to 15 percent slopes, moderately eroded	B	.37
MID3	Manor loam, 15 to 25 percent slopes, severely eroded	B	.37

LEGEND

Existing Contour	--- 302.3 --- 382
Existing Spot Elevation	302.3
Existing Trees	(Symbol of tree)
15% - 25% slopes	(Hatched pattern)
25% or greater slopes	(Hatched pattern)
Existing Septic Easement	(Symbol of septic tank)
Existing Well	(Symbol of well)
Stream Centerline	--- SB --- SB
Stream Buffer	--- W --- W
Wetland	--- MB --- MB
Wetland Buffer	--- MB --- MB
Soil Boundary	(Symbol of soil boundary)
Forest Conservation Easement Retention Area	(Hatched pattern)
Forest Conservation Easement Reforestation Area	(Hatched pattern)
FCE Signage	(Symbol of sign)
Tree Protection Fence	(Symbol of fence)



VICINITY MAP
SCALE: 1"=1000'

FOREST CONSERVATION NARRATIVE

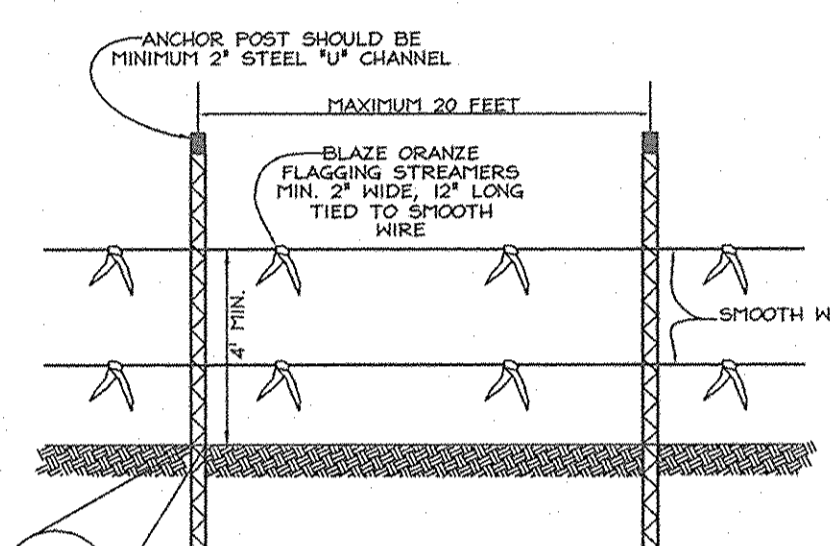
This Forest Conservation Plan has been developed in accordance with the Howard County Forest Conservation Act of 1991.

The total tract area consists of 10.05 acres of land. The site contains 9.06 acres of forest resources and 20 specimen trees. The majority of the specimen trees will be retained; four will be removed for site grading.

The total forest conservation obligation for the site is 3.89 acres. There shall be an easement containing 3.64 acres of retained and replanted forest. Due to space limitations on site, we will request that the remainder of the forest planting obligations (0.25 acres, or 10,890 SF) be fulfilled with a fee-in-lieu payment of \$8,167.50 (\$9.75/sf for 10,890 sf).

The total forest conservation obligation met on this site is 3.64 acres, with a total forest conservation surety amount of \$33,018.48 (retention of 154,202.40 s.f. x \$9.20 + afforestation planting of 4,356 s.f. x \$0.50/s.f.).

TWO STRAND SMOOTH WIRE



ANCHOR POST SHOULD BE MINIMUM 2" STEEL 1/4" CHANNEL
MAXIMUM 20 FEET
SMOOTH WIRE

ANCHOR POST MUST BE INSTALLED TO A DEPTH OF NO LESS THAN 1/3 OF THE TOTAL HEIGHT OF POST

TREE PROTECTION DETAIL

NOT TO SCALE

- 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 INSTALLATION.
 - ROOT DAMAGING DEVICES SHOULD BE AVOIDED.
 - PROTECTIVE SIGNAGE MUST BE USED.
 - DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

SPECIMEN TREE LIST

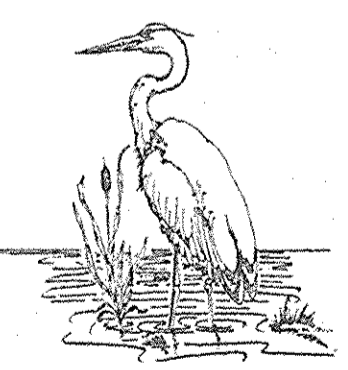
Number	Common name	Species	Condition	DBH	Status
ST-1	Tulip Poplar	Liriodendron tulipifera	Good	30"	Retain
ST-2	White Oak	Quercus alba	Fair	31"	Retain
ST-3	Red maple	Acer rubrum	Poor	31"	Remove
ST-4	Tulip Poplar	Liriodendron tulipifera	Good	32"	Remove
ST-5	Tulip Poplar	Liriodendron tulipifera	Good	31"	Retain
ST-6	Tulip Poplar	Liriodendron tulipifera	Fair	31"	Retain
ST-7	Red Oak	Quercus rubra	Good	31"	Retain
ST-8	Tulip Poplar	Liriodendron tulipifera	Good	31"	Remove
ST-9	Tulip Poplar	Liriodendron tulipifera	Fair	40"	Retain
ST-10	Tulip Poplar	Liriodendron tulipifera	Fair	37"	Retain
ST-11	Tulip Poplar	Liriodendron tulipifera	Fair	35"	Retain
ST-12	Tulip Poplar	Liriodendron tulipifera	Fair	31"	Retain
ST-13	Tulip Poplar	Liriodendron tulipifera	Fair	30"	Retain
ST-14	Tulip Poplar	Liriodendron tulipifera	Good	34"	Retain
ST-15	Tulip Poplar	Liriodendron tulipifera	Fair	40"	Remove
ST-16	Tulip Poplar	Liriodendron tulipifera	Good	43"	Retain
ST-17	Tulip Poplar	Liriodendron tulipifera	Good	30"	Retain
ST-18	Red maple	Acer rubrum	Good	32"	Retain
ST-19	White Oak	Quercus alba	Fair	31"	Retain
ST-20	Tulip Poplar	Liriodendron tulipifera	Fair	30"	Retain

GENERAL NOTES

- There are no floodplains, historic sites or features, rare, threatened or endangered species, critical habitat for rare, threatened or endangered species, or cemeteries on the subject site.

FOREST CONSERVATION WORKSHEET

Net Tract Area	Acres
A. Total Tract Area	10.05
B. Area Within 100 Year Floodplain	---
C. Other deductions	---
D. Net Tract Area	10.05
Zoning Use Category: RESIDENTIAL-SUBURBAN	
Land Use Category	
E. Afforestation Minimum (20 % x D)	2.01
F. Conservation Threshold (25 % x D)	2.51
Existing Forest Cover	
G. Existing Forest on Net Tract Area	9.06
H. Forest Area Above Conservation Threshold Breakeven Point	6.55
I. Forest Retention Above Threshold with no Mitigation	3.82
J. Clearing Permitted without Mitigation	5.24
Proposed Forest Clearing	
K. Forest Areas to be Cleared	5.52
L. Forest Areas to be Retained	3.54
Planting Requirements	
M. Reforestation for Clearing Above Threshold	1.38
N. Reforestation for Clearing Below the Threshold	0
P. Credit for Retention Above Conservation Threshold	1.03
Q. Total Reforestation Required	0.35
R. Total Afforestation Required	0
S. Total Reforestation and Afforestation Requirement	0.35



EXPLORATION RESEARCH, INC.

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LANDSCAPE ARCHITECTS
6339 HOWARD LANE
BLOOMING MARLBOROUGH, MARYLAND 21075
TEL: (410) 667-5210 FAX: (410) 788-1882



OWNER
SAMUEL M. & ANDREA ROZOLEM
12500 Triadelphia Road
Ellicott City, Maryland 21042

DEVELOPER
TRIDELPHIA ESTATES, LLC
627 Luster Drive
Highland, Maryland 20777
(410) 781-6782

FOREST CONSERVATION PLAN
THE WOODS AT TRIADDELPHIA
LOTS 1-4 & BUILDABLE
PRESERVATION PARCEL 'A'
RESUBDIVISION OF LOTS 13 & 14
TRIADDELPHIA WOODS PLAT# 6286
TAX MAP 22 GRIDS 5 & 6 PARCEL 528
3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

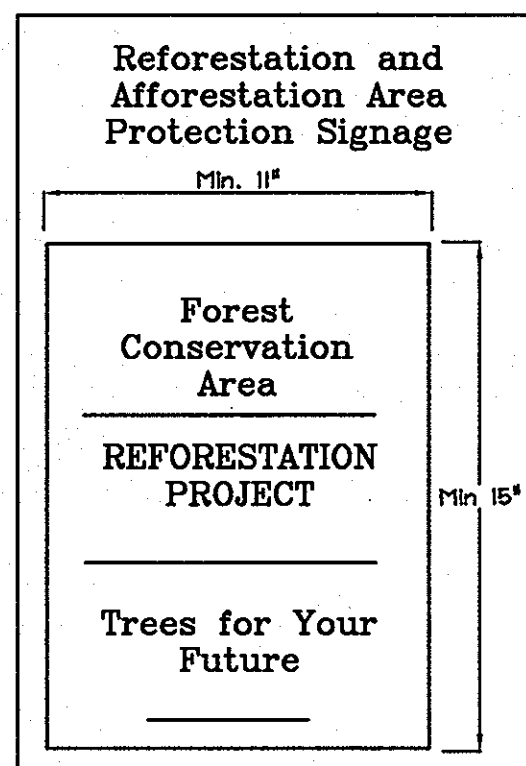
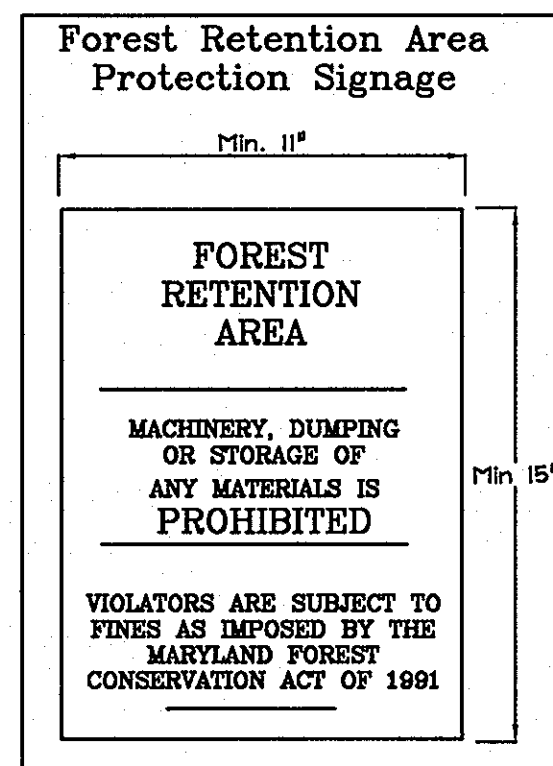
DESIGN BY: FSH	CHECKED BY: SH
DRAWN BY: SM	SCALE: 1"=50'
DATE: Jan. 24, 2008	W.O. No.: 3383
SHEET No.: 1 OF 2	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 2/1/08

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 2/5/08

TRIADDELPHIA ROAD
(1/2 R/W 40')
(Major Collector)



SIGN DETAIL: PERMANENT SIGN
 SIGNAGE NOTE: ALL TREE PROTECTION SIGNS SHALL BE PLACED ON METAL 1" POSTS OR PRESSURE TREATED WOOD POLES. NO ATTACHMENT OF SIGNS TO TREES IS PERMITTED. Signs shown for example only, actual sign may vary.

Management Notes for Forest Retention Areas

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

Soil Protection Zone Notes

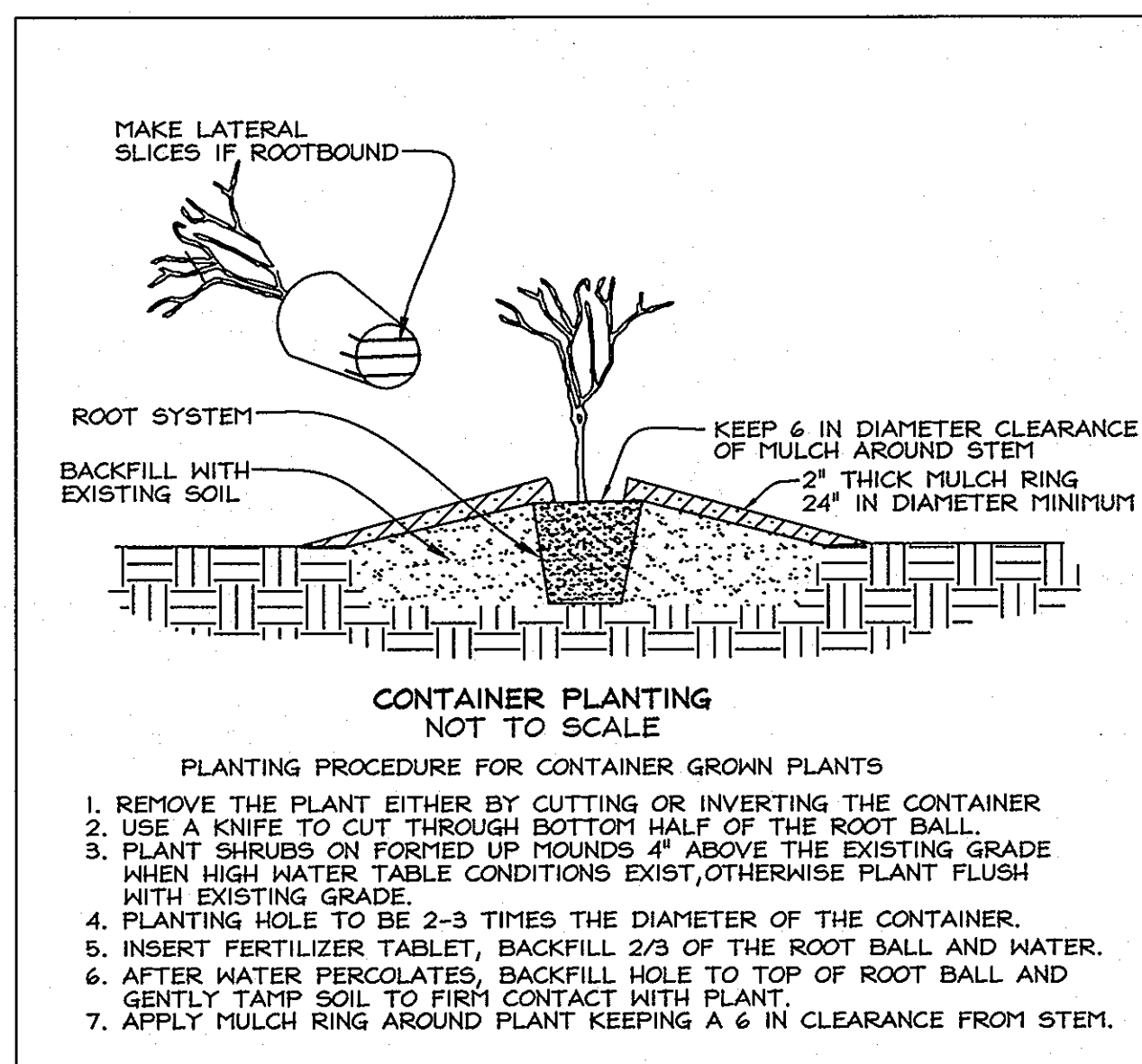
- The Soil Protection Zone shall include all areas contained inside the Limit of Disturbance.
- Where possible, the Soil Protection Zone shall extend to the drip line of specimen trees. For other groups of trees, the zone shall be greater.
- No construction activity is permitted within the Soil Protection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

Reforestation Area Monitoring Notes

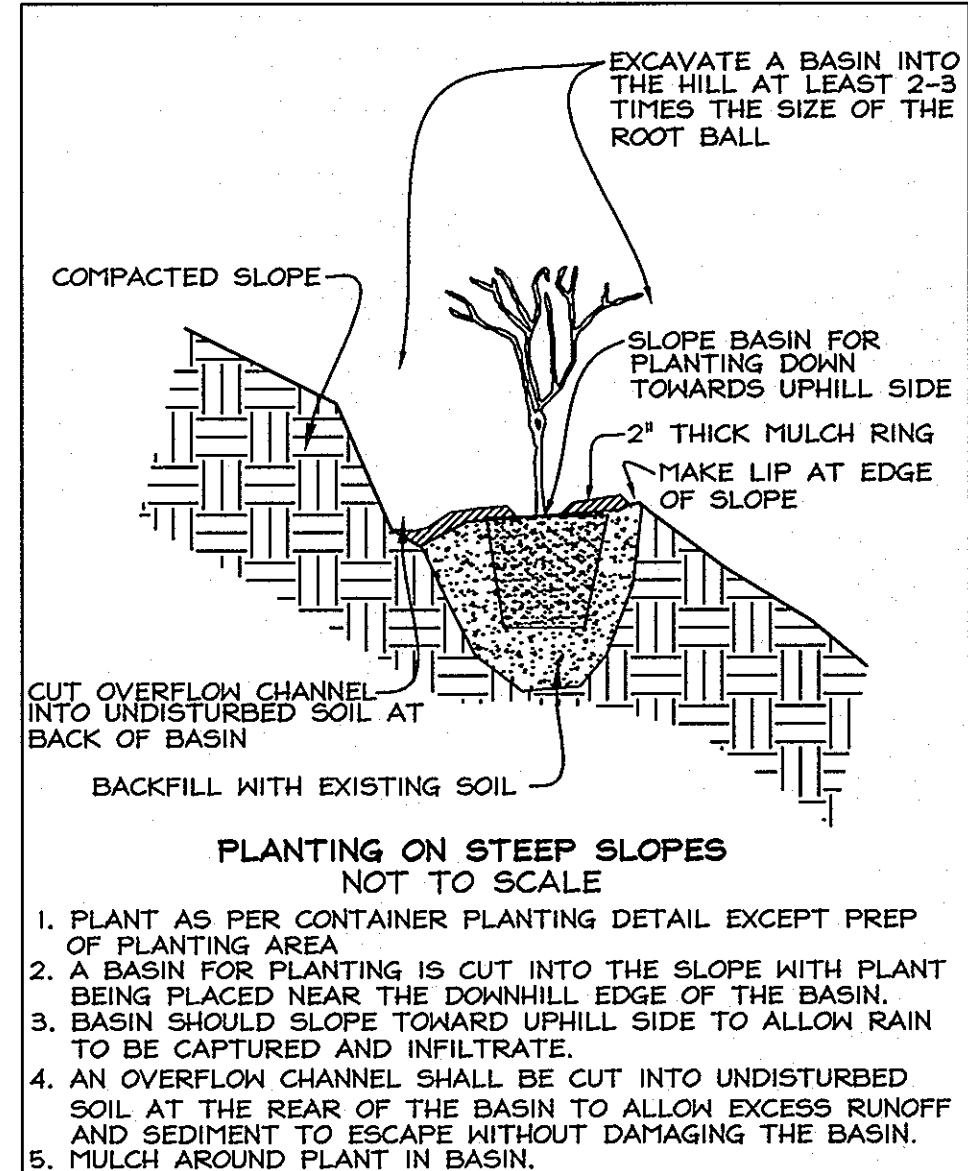
- Monthly visits during the first growing season are to assess the success of the plantings and to determine if supplemental watering, pest control or other actions are necessary. Early spring visits will document winter kill and autumn visits will document summer kill.
- The minimum survival rate shall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

Reforestation Area Planting Notes

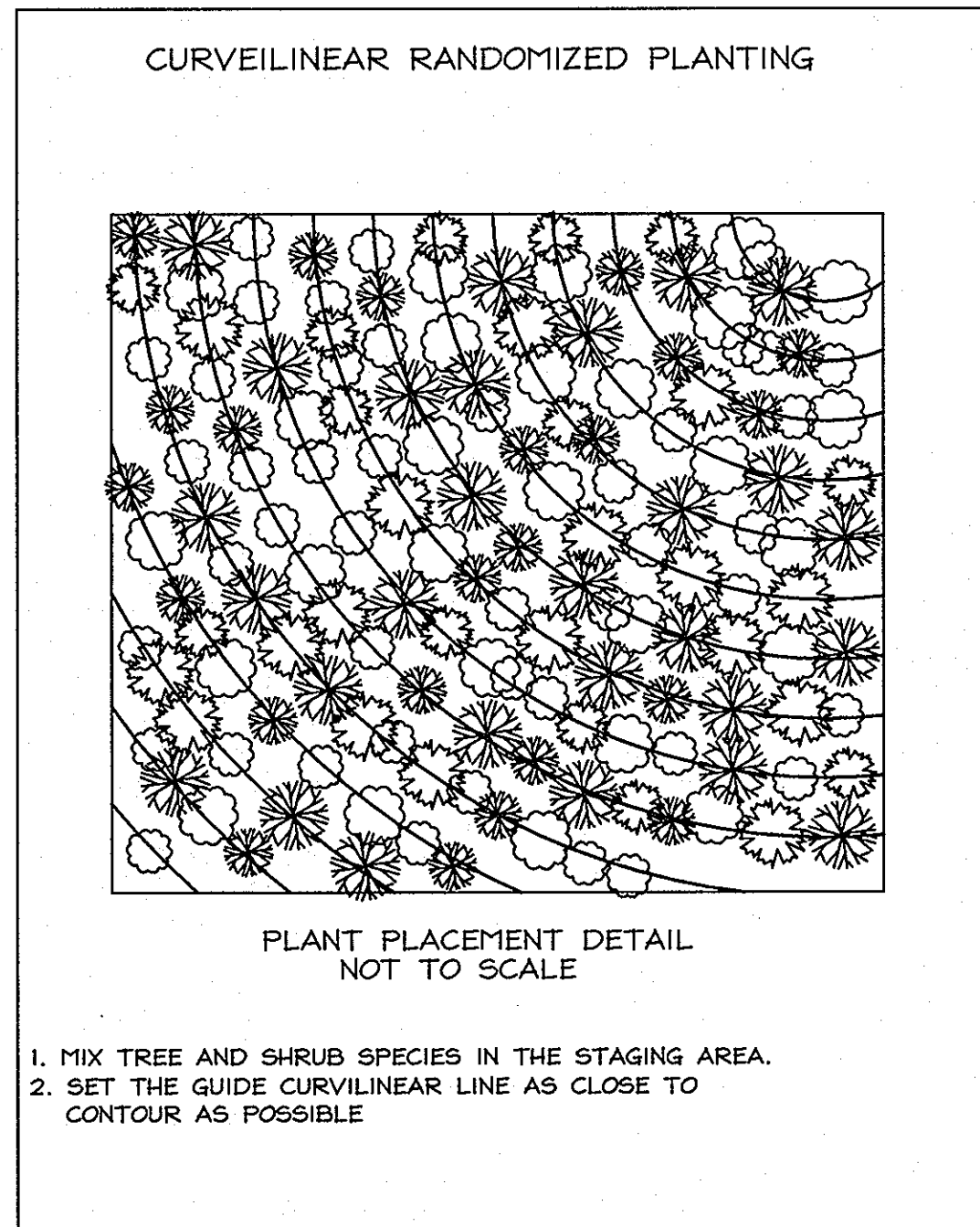
- Initial planting inspection and certification required. Planting contractor to notify ERI qualified professional 24 hours in advance of planting.
- Reforestation areas may be planted as soon as reasonable to do so. Late winter-early spring plantings are preferred. Earliest planting dates will vary from year to year but planting may generally begin as soon as the ground is no longer frozen. Alternate planting dates may be considered as conditions warrant.
- Soil amendments and fertilization recommendations will be made based upon the results of soil analysis for nitrogen, phosphorus, potassium, organic matter content and pH. If required, fertilizer will be provided using a slow release, soluble 16-8-16 analysis designed to last 5-8 years contained in polyethylene perforated bags such as manufactured by ADCO Works, P.O. Box 510 Hollins, N.Y. 11423 or approved equal.
- Plant materials shall be planted in accordance with the planting diagram, planting details and planting schedule.
- Plant stock must be protected from desiccation at all times prior to planting. Materials held for planting shall be moistened and placed in cool shaded areas until ready for placement.
- Planting materials shall be nursery grown and inspected prior to planting. Plants not conforming to the American Standards for Nursery Stock specifications for size, form, vigor, or roots, or due to trunk wounds, breakage, desiccation, insect or disease must be replaced.
- Newly planted trees may require watering at least once per week during the first growing season depending on rainfall in order to get established. The initial planting operation should allow for watering during installation to completely soak backfill materials.
- Mulch shall be applied in accordance with the diagram provided and shall consist of composted, shredded hardwood bark mulch, free of wood chips.
- Planting holes should be excavated to a minimum diameter of 2.5 to 3 times the diameter of the root ball or container. Mechanical angling is preferred with scarification of the sides of each hole.
- All nursery stock to be sprayed with deer repellent containing Bitrex such as Repellex All nursery stock to be grown with deer repellent tablets in growing medium, such as Repellex Tablets.



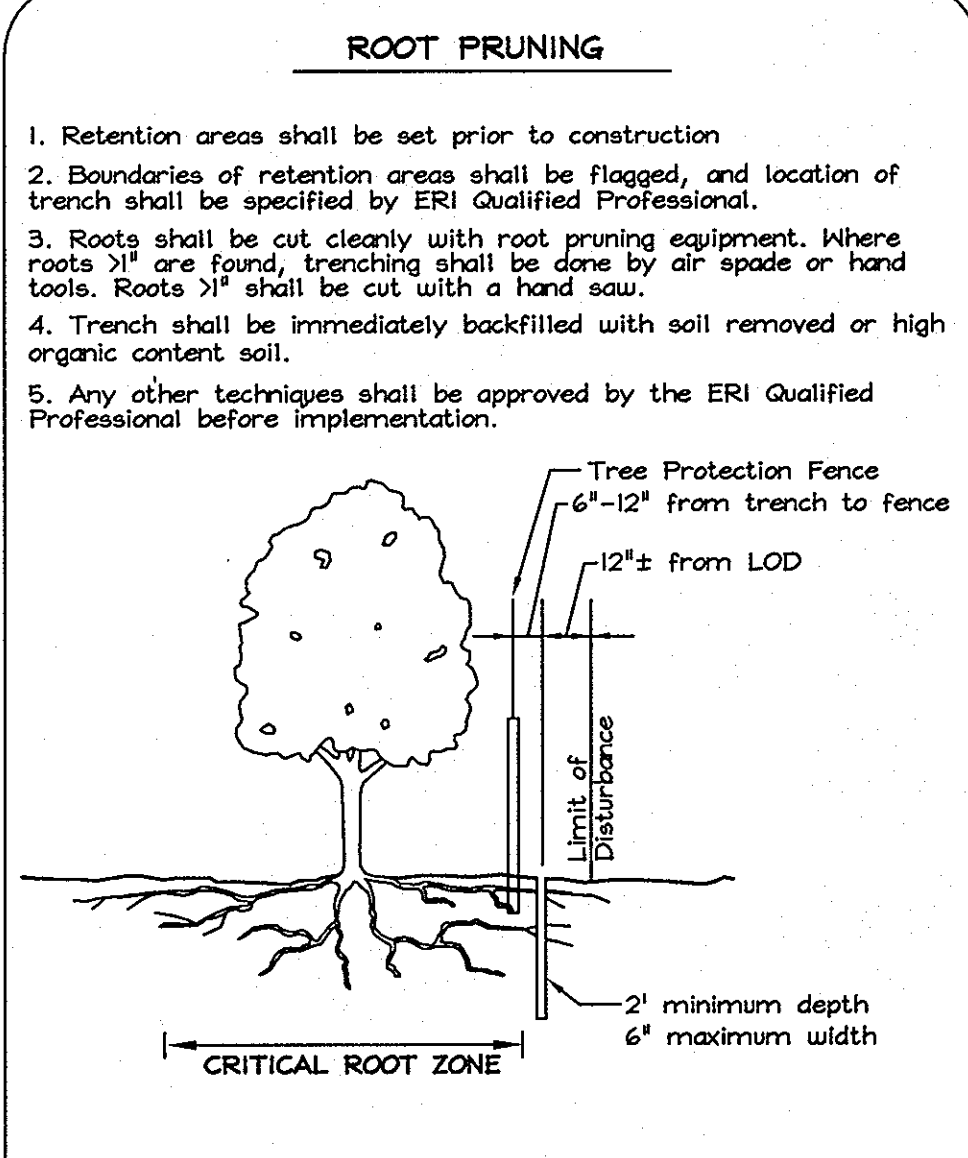
- CONTAINER PLANTING**
 NOT TO SCALE
- PLANTING PROCEDURE FOR CONTAINER GROWN PLANTS**
- REMOVE THE PLANT EITHER BY CUTTING OR INVERTING THE CONTAINER
 - USE A KNIFE TO CUT THROUGH BOTTOM HALF OF THE ROOT BALL.
 - PLANT SHRUBS ON FORMED UP MOUNDS 4" ABOVE THE EXISTING GRADE WHEN HIGH WATER TABLE CONDITIONS EXIST, OTHERWISE PLANT FLUSH WITH EXISTING GRADE.
 - PLANTING HOLE TO BE 2-3 TIMES THE DIAMETER OF THE CONTAINER.
 - INSERT FERTILIZER TABLET, BACKFILL 2/3 OF THE ROOT BALL AND WATER.
 - AFTER WATER PERCOLATES, BACKFILL HOLE TO TOP OF ROOT BALL AND GENTLY TAMP SOIL TO FIRM CONTACT WITH PLANT.
 - APPLY MULCH RING AROUND PLANT KEEPING A 6 IN CLEARANCE FROM STEM.



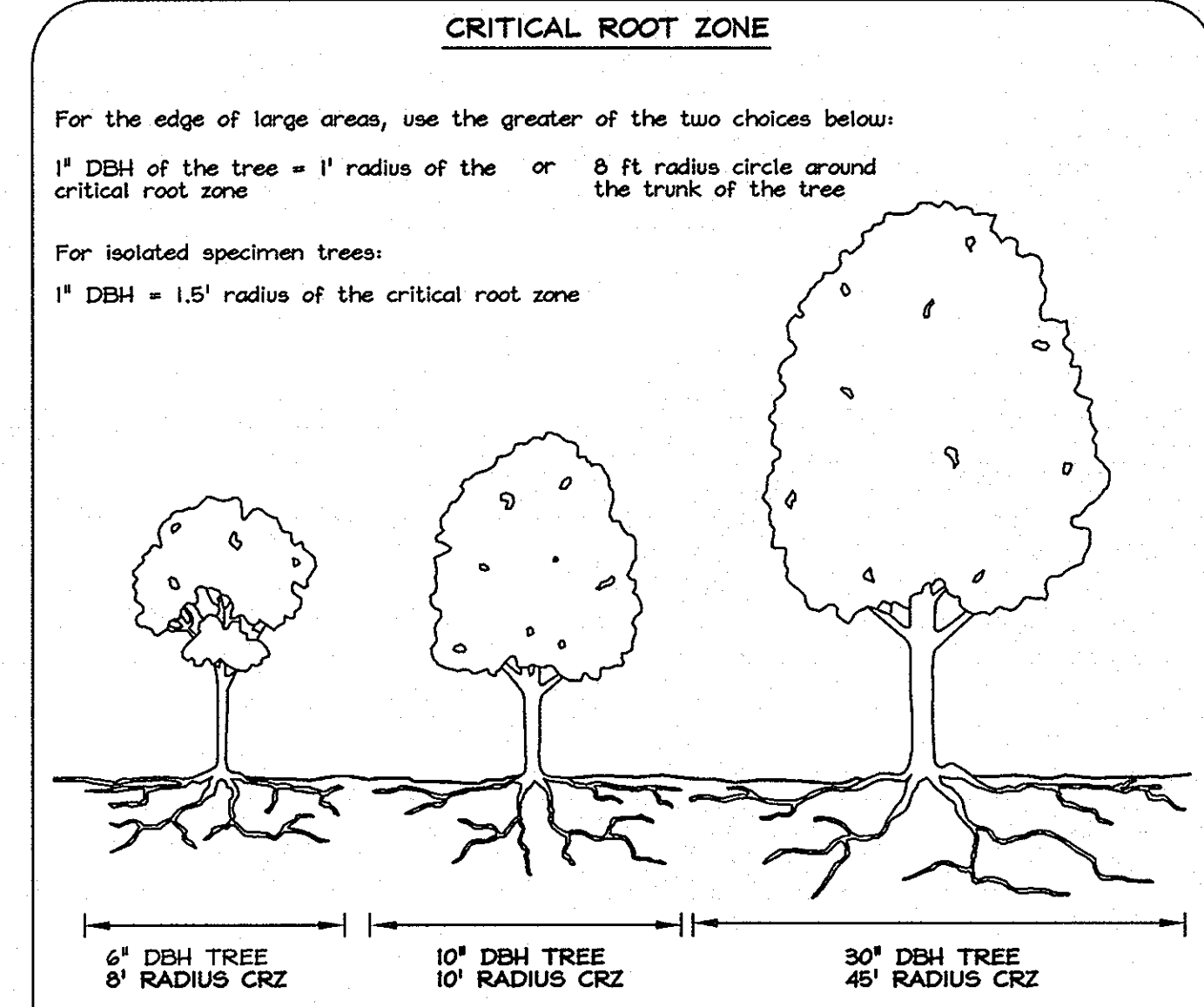
- PLANTING ON STEEP SLOPES**
 NOT TO SCALE
- PLANT AS PER CONTAINER PLANTING DETAIL EXCEPT PREP OF PLANTING AREA
 - A BASIN FOR PLANTING IS CUT INTO THE SLOPE WITH PLANT BEING PLACED NEAR THE DOWNHILL EDGE OF THE BASIN.
 - BASIN SHOULD SLOPE TOWARD UPHILL SIDE TO ALLOW RAIN TO BE CAPTURED AND INFILTRATE.
 - AN OVERFLOW CHANNEL SHALL BE CUT INTO UNDISTURBED SOIL AT THE REAR OF THE BASIN TO ALLOW EXCESS RUNOFF AND SEDIMENT TO ESCAPE WITHOUT DAMAGING THE BASIN.
 - MULCH AROUND PLANT IN BASIN.



- MIX TREE AND SHRUB SPECIES IN THE STAGING AREA.
- SET THE GUIDE CURVILINEAR LINE AS CLOSE TO CONTOUR AS POSSIBLE



- 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 are found, trenching shall be done by air spade or hand tools. Roots 1/2" 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.



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

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FOREST CONSERVATION PLAN
THE WOODS AT TRIADELPHIA
 LOTS 1-4 & BUILDABLE
 PRESERVATION PARCEL 'A'
 RESUBDIVISION OF LOTS 13 & 14
 TRIADELPHIA WOODS PLAT# 6286

TAX MAP 22 GRIDS 5 & 6
 3RD ELECTION DISTRICT

PARCEL 528
 HOWARD COUNTY, MARYLAND

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

DESIGN BY: FSH
 DRAWN BY: SH
 CHECKED BY: SH
 SCALE: 1"=50'
 DATE: Jan. 24, 2008
 N.O. No.: 3383
 SHEET No.: 2 OF 2

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* 2/4/08 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT *[Signature]* 2/5/08 DATE