

DECIDUOUS TREES UP TO 2-1/2" CALIPER

Forest Retention Area Reforestation and Protection Signage Afforestation Area Protection Signage Min. II# FOREST RETENTION Forest AREA Conservation Area MACHINERY, DUMPING REFORESTATION OR STORAGE OF ANY MATERIALS IS PROJECT PROHIBITED VIOLATORS ARE SUBJECT TO Trees for Your FINES AS IMPOSED BY THE MARYLAND FOREST Future CONSERVATION ACT OF 1991

SIGN DETAIL: PERMANENT SIGN SIGNAGE NOTE: ALL TREE PROTECTION SIGNS SHALL BE PLACED ON METAL 'T' POSTS OR PRESSURE TREATED WOOD POLES. NO ATTACHMENT OF SIGNS TO TREES IS PERMITTED.

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 (wire fencing, silt fence or blaze orange plastic mesh). b. All protection devices shall be in place prior to any grading or land

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

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.

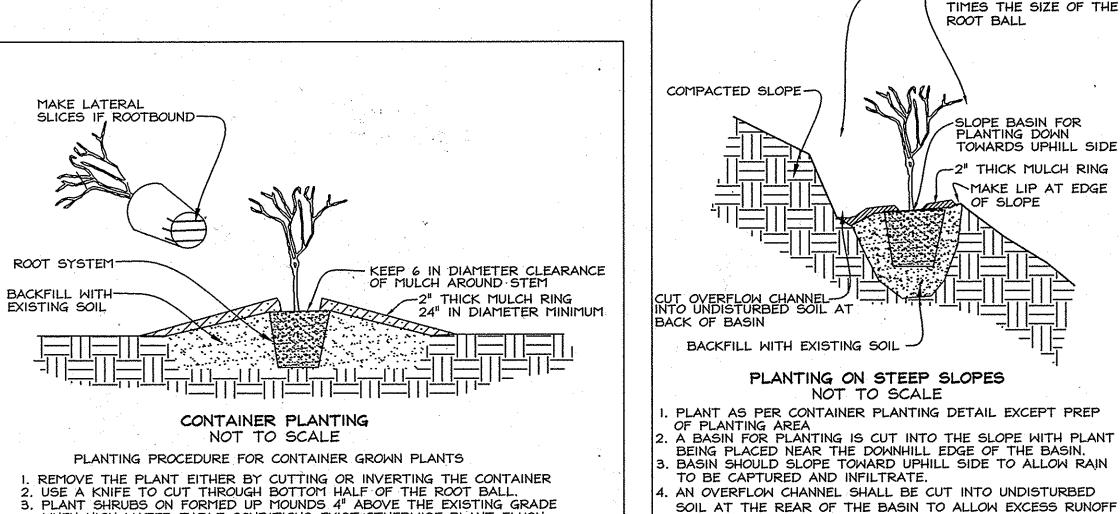
6. Post-Construction Phase a. Inspect existing trees around the perimeter of disturbed limits for evidence of soil compaction, root injury, limb injury, or other stress signs and correct with proper management techniques such as root or pruning, soil aeration, fertilization, crown reduction or watering. Inspection and evaluation shall be performed by a licensed arborist.

b. Inspect for dead or dying trees or limbs which may pose safety hazard c. No burial of discarded materials will occur onsite within the conservation

d. No burning within 100 feet of wooded area. e. All temporary forest protection structures will be removed after construction. Temporary signage shall be replaced with permanent signage on posts in locations shown.

f. Following completion of construction, prior to use, the County inspector shall inspect the entire area.

7. 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.



3. PLANT SHRUBS ON FORMED UP MOUNDS 4" ABOVE THE EXISTING GRADE WHEN HIGH WATER TABLE CONDITIONS EXIST, OTHERWISE PLANT FLUSH WITH EXISTING GRADE. 4. PLANTING HOLE TO BE 2-3 TIMES THE DIAMETER OF THE CONTAINER.

5. INSERT FERTILIZER TABLET, BACKFILL 2/3 OF THE ROOT BALL AND WATER. 6. AFTER WATER PERCOLATES, BACKFILL HOLE TO TOP OF ROOT BALL AND GENTLY TAMP SOIL TO FIRM CONTACT WITH PLANT.

7. APPLY MULCH RING AROUND PLANT KEEPING A 6 IN CLEARANCE FROM STEM.

CURVEILINEAR RANDOMIZED PLANTING PLANT PLACEMENT DETAIL NOT TO SCALE MIX TREE AND SHRUB SPECIES IN THE STAGING AREA.

2. SET THE GUIDE CURVILINEAR LINE AS CLOSE TO

CONTOUR AS POSSIBLE

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

3. No construction activity is permitted within the Soil Protection

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. . Root pruning shall occur prior to the beginning of construction. 6. Where the Soil Protection Zone must encroach inside the

by the ERI Forest Conservation Professional. 1. Prior to construction, the Limits of Disturbance shall be marked and the ERI Professional shall determine which trees will need preventative treatment or removal. 3. Tree maintenance and removal shall be undertaken by a qualified MD Tree Expert to ensure damage to surrounding trees is

Critical Root Zone of a tree, soil disturbance shall be mitigated

with vertical mulching, radial trenching, or another method approved

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.

EXCAVATE A BASIN INTO

Afforestation Area Planting Notes

Afforestation Area Monitoring Notes

visits will document summer kill.

12 inches tall.

1. Initial planting inspection and certification required. Planting contractor to notify ERI qualified professional 24 hours in advance of planting. 2. Afforestation areas may be planted as soon as reasonable to do so. Late

I. 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

2. 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

indicate that the survival rates will result in a 100 tree per acre ratio for

a forest and the 3 to 4 foot height standard for whips by the end of the

two growing season post construction period, with at least 50% of those

3. Survival will be determined by a stratified random sample of the plantings.

4. Effective monitoring will assess plant survivability during the first growing season and make recommendations for reinforcement planting if required at

The species composition of the sample population should be proportionate to

trees having the potential of attaining a 2" caliper DBH within 7 years.

the amount of each species in the entire planting to be sampled.

Certification at the end of the two-year post construction period must

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 warrants. 3. 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 310 Hollins, N.Y. 11423 or approved equal.

 Plant materials shall be planted in accordance with the planting diagram, planting details and planting schedule.
 Plant stock must be protected from desiccation at all times prior to planting. Materials held for planting shall be moistened and placed

in cool shaded areas until ready for placement. 6. Planting materials shall be nursery grown and inspected prior to planting. Plants not conforming to the American Standards for Nursery Stock

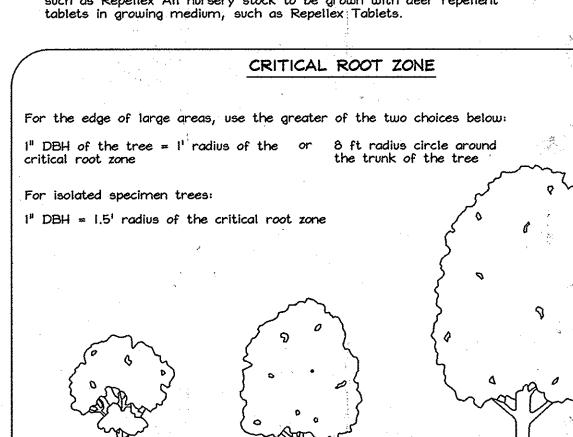
specifications for size, form, vigor, or roots, or due to trunk wounds, breakage, desiccation, insect or disease must be replaced.

7. 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. 8. Mulch shall be applied in accordance with the diagram provided and shall consist of composted, shredded hardwood bark mulch, free of

9. Planting holes should be excavated to a minimum diameter of 2.5 to 3 times the diameter of the root ball or container. Mechanical angering is preferred with scarification of the sides of each hole.

10. 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.

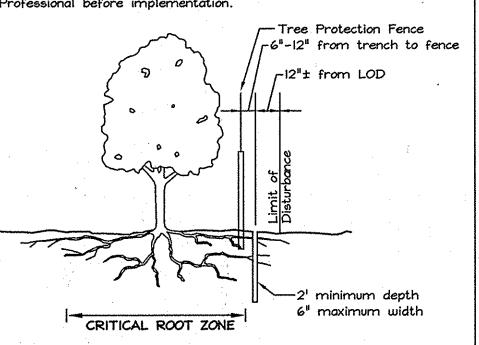


2. Boundaries of retention areas shall be flagged, and location of trench shall be specified by ERI Qualified Professional. 3. Roots shall be cut clearly with root pruning equipment. Where roots >1" are found, trenching shall be done by air spade or hand tools. Roots >1" shall be cut with a hand saw. 4. Trench shall be immediately backfilled with soil removed or high organic content soil.

AND SEDIMENT TO ESCAPE WITHOUT DAMAGING THE BASIN. MULCH AROUND PLANT IN BASIN.

ROOT PRUNING

5. Any other techniques shall be approved by the ERI Qualified Professional before implementation.



EXPLORATION RESEARCH, INC. **ENVIRONMENTAL CONSULTANTS** LANDSCAPE ARCHITECTS

10" DBH TREE 10' RADIUS CRZ



30" DBH TREE 45' RADIUS CRZ

LOTS 1, 2 \$ 3 AND OPEN SPACE LOT 4 (A RESUBDIVISION OF LOT 15, WARFIELD

ESTATES, SECTION SEVEN PLAT #3706 TAX MAP 21 GRID 04 PARCEL 183 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

. 22418

6" DBH TREE 8' RADIUS CRZ

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

DESIGN BY: __SMM_ DRAWN BY: __SMM_ CHECKED BY: AB/SH SCALE: As shown DATE: Sept. 19, 2008 W.O. No.: <u>3418</u> SHEET No.: 2 OF 3

OWNER/DEVELOPER GEORGE ROSCOE 14527 MacClintock Drive Glenwood, Maryland 21738-9626 Phone No.: (410) 489-5615

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

