

FOREST CONSERVATION NOTES \$ DETAILS FOREST CONSERVATION LEGEND: APPENDIX G Construction Adjacent to Soil Protection Zone SOIL AND FOREST PROTECTION TECHNIQUES Prior to the start of any construction (including clearing) adjacent to the soil protection FOR FOREST RETENTION AREAS FOREST CONSERVATION EASEMENT zone, a fence must be erected along the boundary round all soil protection zones. This fence shall have 8-1/2" x 11" orange signs which shall read "Tree Preservation Area" in 1" high lettering posted every 50'. The fence shall be one of the following: SOIL PROTECTION ZONE FOREST PROTECTION FENCING —X——X—— 3 strands of barbed wire spaced 18" apart - 4' high. 4' high wood and wire "snow fencing". The soil protection zone is that area which must be protected from construction activity and 4' high chain link fence. other stresses (e.g. flooding) to protect a forest retention stand from construction damage. Protecting trees from construction damage means protecting sufficient roots to provide the FOREST RETENTION SIGN 4' high welded wire fence trees with adequate water and nutrient uptake for the existing leaf area and to maintain the physical stability of the tree. Trees in forest stands become interdependent on each other All fencing shall be attached to "U" Channel metal posts set 10" o.c. max. No fencing or or physical support during high winds. Removal of adjacent trees and destruction of roots wire shall be attached to any tree. can cause windthrow long after the completion of construction. Prior to the start of any grading, all sediment control devices shall be in place to prevent 02/04/09 any silt or sediment from entering the soil protection zone. A synthetic filter labric silt fence of a type acceptable to the U.S.D.A. Soil Conservation Service shall be installed on The extent of a tree's root system can be quite large. The ratio of root expansion to crown spread can be 2:1 for large open grown specimen trees and can be significantly larger (up to 5:1) for trees growing in the interior of forest stands. The increase of root expansion in the uphill side of all soil protection zones. This fence shall be cleaned and maintained on a regular basis through the construction period. All drainage devices, inlets, or swales FOREST CONSERVATION WORKSHEET forest stands stems from adjacent trees restricting the crown spread of a tree while its roots can constantly grow through the soil medium. required to maintain existing surface and subsurface groundwater conditions within the soil VERSION 1.0 protection zone must also be installed and operational prior to grading. The minimum requirement for root protection varies from species to species and from soil (Enter in Yellow Cells) Management of the Soil Protection Zone type to soil type. The soil protection zone changes with the proximity of other trees, the amount of past human influence (agriculture or construction) In the vicinity of the tree and Forest retention stands, smaller tree stands, and individual trees that the Forest changes in soil type or ground water. For open grown trees, protecting the soil within the Conservation Plan specifies must be protected and require careful management during **NET TRACT AREA:** dipline of the tree is adequate to save the tree in most cases. For trees that have been part of forest communities, however, the soil protection zone must reflect a more complex relationship between crown spread and root growth. Specimen trees and groups of trees are nearly always growing on soils previously A. Total tract area.. Calculating the Soil Protection Zone influenced by human activity. If the soils under these trees are already compacted, they 0.00 B. Area within 100 year floodplain. should be core aerated prior to construction and again after construction. Light spring and fall low nitrogen fertilizations will also help these trees adjust to the new environment. A workable set of criteria for determining the limit of the soil protection zone is needed. C. Area to remain in agricultural production... 0.00 In general, the soil protection zone is easier to define as a relationship to tree height. The 14.01 following guidelines will protect most of the trees, most of the time, from construction Very old trees (30" or larger D.B.H.) should be manually imgated several times during the D. Net tract area..... first two summers following grading in their vicinity. Each group of trees must also be monitored for disease and insect problems during and after construction. Trees in 1) Specimen trees: the limit of the soil protection zone shall be the area within construction zones are more susceptible to attack by pests than trees in undisturbed Contractors Association LAND USE CATEGORY: (from table 3.2.1, page 40, Manual) Clusters of trees: i.e., groups of trees which are open grown, but growing close enough so that the individual crowns have grown together. For trees on the exterior of the group, the limit of the soil protection zone shall be the Landscape practices under trees are as critical to tree survival as how much construction occurs around them. The following management practices must occur in the soil protection County Landscape Ordinance. limit of the drip line. For interior trees, the soil protection zone shall be a Input the number "1" under the appropriate land use zoning, and limit to only one entry. Bare soil: prior to construction, core aerate. Hand scarify with a steel rake distance from the trunk of 40 percent of the height of tree or the limit of the to a depth of 1" max. Top dress with 1" - 2" shredded bark mulch. drip line, whichever is greater Mown lawn: prior to construction, core aerate. Keep grass mowed during MDR IDA HDR 3) Forest stands: trees with a continuous canopy and an undisturbed ground Unmown grass: leave undisturbed during construction. After construction. plane. The limit of the soil protection zone for an individual tree shall be a 0 distance from the trunk of 40 percent of the height of the tree or the limit of mow grass and core aerate. Landscape shrubs and/or groundcovers: leave undisturbed during the drip line, whichever is greater. either sun of wind. construction. Hand scarify and mulch any area with bare soil. Leave any 20% xD= 2.80 Modifications to the Soil Protection Zone paved areas, walks, drives, etc. in place within the dripline until other E. Afforestation Threshold... construction is nearly completed. Fill voids from removed objects with light 25% xD = 3.50 F. Conservation Threshold... When disturbance of the soil protection zone is unavoidable, tree survival remains Natural occurring ground plane growth: leave undisturbed except for invasive vines or small trees which could affect growth habits of specimen 1) Disturbance does not exceed 20 percent of the original soil protection zone EXISTING FOREST COVER: A protected area of equal size and contiguous to the remaining soil protection zone is added back so that the finals soil protection zone area is G. Existing forest cover (excluding floodplain).....= 2.49 3) The new limit of the soil protection zone is no closer to the center of any tree H. Area of forest above afforestaion threshold. BLAZE ORANGE PLASTIC MESH to be protected than 20 percent of the tree's height. 1.79 I. Area of forest above conservation threshold All reductions to the original soil protection zone shall be deducted from the of guaranteed period. calculations of the size of the forest retention area. ANCHOR POSTS SHOULD BE MINIMUM 2' STEEL "U" CHANNEL OR 2"X2" TIMBER 6' IN LENGTH Reduction to the Soil Protection Zone for Individual Trees BREAK EVEN POINT: The soil protection zone for a specific tree may be reduced if it can be demonstrated that a smaller area will have no less impact on the tree's health than the size of the soil protection zone which would have resulted using the standard calculation. Requests for 3.86 J. Forest retention above threshold with no mitigation.....= HIGHLY VISIBLE FLAGGINGsuch reductions should include the following information 1.43 K. Clearing permitted without mitigation... 1) The extent of the rooting system with root diameters 1" or greater; as 2) The exact species of the tree and the qualified professional's estimation of PROPOSED FOREST CLEARING: this species' ability to withstand construction damage. 3) The soil texture and the existing bulk density of the soil as measured in grams per cubic centimeter. L. Total area of forest to be cleared. 1.12 4) An estimate of soil moisture conditions before and after construction M. Total area of forest to be retained.. 4.17 PLANTING REQUIREMENTS: A list of construction impact mitigation practices to be performed before, N. Reforestation for clearing above conservation threshold... Upon determination that the request does not pose any significant threat to the tree, 0.00 P. Reforestation for clearing below conservation threshold...= 0.67 Q. Credit for retention above conservation threshold... 0.00 0.0 R. Total reforestation required... 10" - 15" db 40 percent 15" - 25" db 30 percent 0.00 S. Total afforestation required.. 25" db or larger 20 percent 0.00 T. Total reforestation and afforestation required... Requirements for the Soil Protection Zone Unless specifically approved by the forest conservation plan, no construction activity shall be permitted within the soil protection zone. This includes: 3.88 acres of Forest Conservation Easement (Retention) Grading cut or fill. Forest protection device only. Retention Area will be set as part of the review process. DECIDUOUS TREE PLANTING DETAIL has been provided onsite. Removal of existing ground plane vegetation or organic leaf layers. Boundaries of Retention Area should be staked and flagged prior to Roads or parking. Walks, patios or decks installina device * THE REMAINING 0.29 ACRES OF EXISTING FOREST IS NOT Root damage should be avoided. Foundations, walls, or building footprints. Protective signage may also be used. Device should be maintained throughout construction Underground utilities. Temporary stormwater or sediment control structures. BEING PLACED UNDER FOREST CONSERVATION EASEMENT. Storage or stock piling of construction supplies and equipment, including machinery, construction trailers, fill, topsoil, trash, etc. Disposal of construction waste, including concrete truck wash off, paints, plyents, contaminated runoff, oils, fuels, or any other substances which are NOODLAND CONSERVATION MANUAL PRINCE GEORGES COUNTY, MD EXHIBIT K - 8 harmful to plants or animals. The following activities are permitted within the soil protection zone: EXHIBIT G - 17 Removal of tree limbs which are outside of the soil protection zone and Interfere with construction. Removal of dead or dying trees within the soil protection zone. Forest thinning or tree removal which is consistent with recognized forestry Removal of trees on the edges of tree groups or forest stands whose trunks are within the soil protection zone of other trees, but which do not have sufficient soil protection zones of their own to allow them to survive. Note that trees which have a remaining soil protection zone of less than 50 ----- Min 11"----percent of the limit required by these specifications must be removed. Removal of vines or other herbaceous plants which threaten the ecological SPECIMEN FOREST balance of the remaining plants in the soil protection zone. TREE RETENTION Below ground utilities that can be placed by the use of a tunneling machine. AREA Fences which do not require continuous footings or which have posts no DO NOT REMOVE closer than 6'-0" o.c. and which can be manually installed. Walks and paths that meet the following requirements: They are constructed of materials that can be installed using MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS MACHINERY, DUMPING equipment with a maximum weight of 1/2 ton. OR STORAGE OF **PROHIBITED** They are no wider than 6'-0". They are placed no closer than 6' from the base of the trunk of any **PROHIBITED** tree over 12" D.B.H. violators are subject to Are constructed without filling greater than 6*. FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF Removal of any existing walks, walls, roads, or other structures as required. VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE These items should be removed without the use of heavy equipment. MARYLAND FOREST CONSERVATION ACT O APPROVED: DEPARTMENT OF PLANNING AND ZONING

GENERAL NOTES

LANDSCAPE PLAN NOTES \$ DETAILS

1. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code, Landscape Manual and Forest Conservation Manual. 2. The Owner/Developer is responsible for the planting of all plant material

required to meet the standards established by the Howard County Landscape Financial Surety of \$7.500.00 shall be released upon the approval of an inspection of the existing trees to be retained as amended on the Schedule and Landscape Chart.

4. Should any tree designated for preservation for which landscaping credit is given,

die prior to release of bonds, the owner will be required to replace the tree with the equivalent species or with a tree which will obtain the same height, spread and growth characteristics. The replacement tree must be a minimum of 3 inches in caliper and installed as required in the Howard County Landscape 5. 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 material 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 and replaced. 6. At the time of installment, 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 relocation 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 revision made to applicable plans and certificates.

TREE PLANTING NOTES

Notify "Miss Utility" 72 hours prior to installation of all plant material. Plant installation must conform to the minimum standards cited in the latest edition of Landscape Specification Guidelines, published by the Landscape

Plants to be located in the field by the owner or owner's representative. Notify owner 72 hours in advance of planting. 4. A Certification of Landscape Installation is required as per the Howard

5. The number, size, location of plants shall not be changed without the approval of the Landscape Architect. Substitutions must be included in the recommended plant list in the Howard County Landscape Ordinance.

6. Trees may not be planted within 5 feet of drain inlets, 5 feet of an open space access strip and 10 feet of a driveway. Balled and burlapped plant material shall not be accepted if ball is cracked or broken before or during planting. Protect all plants from drying by

8. Tree pits shall be backfilled with 50% topsoil, 25% peat 25% sand with one pound of 10-10-10 fertilizer per pit.

Top soil shall be sondy loam soil free from noxious weeds or grasses, roots, clay clumps, stones, sticks, etc. Peat moss shall be commercial with ph 4.5 to 5.5, free of woody material or harmful minerals.

10. All plants shall be watered at planting with weekly watering thereafter for the first 80 days. Watering shall continue bimonthly or as necessary to maintain plants in a healthy condition during the guarantee period. Maintain the site in an orderly manner. Streets and sidewalks shall be

swept clean. All rejected or dead materials shall be immediately removed 12. Plant material to be alive and healthy at the time of the guarantee period

(one year), as specified in the Howard County Landscape Ordinance. Maintenance shall begin immediately after planting and continue to the end

Maintenance consists of pruning, watering weeding, re-mulching, resetting plants to proper grades as needed and repairing guys and stakes as needed

TREE PLANTING DETAILS

Provide tree stakes

Remove covering from

top of ball & place tree

root is flush with a rade.

so that first lateral

3" Mulch

only if necessary.

London Plane Quercus Bubra $2-\frac{1}{2}$ "-3" cal. B¢B Northern/Red Oak SHRUB. 1lex verticillata 0 Common Winterberry FLOWERING \odot Cercis canadensis $1\frac{1}{2}$ " - 2" cal. B¢B Eastern Redbud SCHEDULE A PERIMETER LANDSCAPE EDGE Adjacent to Category Perimeter Properties Perimeter Landscape Type Α Linear Feet of Roadway 1501 L.F 814 L.F. 428 L.F. Frontage / Perimeter YES 150 LF Credit for Existing Vegetation* YES 428 LF YES 465 LF (Yes, No, Linear Feet) 455(37 Credit For Wall, Fence or Berm NO (Yes, No, Linear Feet) 294 LF

PERIMETER PLANTING SCHEDULE

SIZE

2-1,"-3"

-3" cal.

 $2-\frac{1}{3}$ -3" cal.

2-3"-3" cal.

COMMENT

B¢B

B¢B

B¢B

BOTANICAL/

COMMON NAME

SHADE TREES

Acer rubrum 'October Glory'

Sctober Glory Red Maple

Acer Rubrum 'Red Sunset'

Red Staset Red Maple

Black Gum

Platanus x Acerif

×lvatica

Nyssa

KEY

(1) Perimeter 1 - 1501 Total Perimeter Length. Credit for, individual existing trees "tetained provide 60 LF of hedge.

(2) Retain 4 Specimen and I Non Specimen along Perimeter #I. See Sheet I (3) Gradit for 394 LF Common Adjacent Ownership 1. Should any tree designated for preservation for which landscaping credit is given,

Number of Plants Required

Number of Plants Provided

Shade Trees

Shade Trees

Evergreens

Shrubs

Flowering Trees

die prior to release of bonds, the owner will be required to replace the tree with the equivalent species or with a tree which will obtain the same height, spread and growth characteristics. The replacement tree must be a minimum of 3 inches in caliper and installed as required in the Howard County Landscape

2. 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 material 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 and replaced.

3. At the time of installment, 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 relocation 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 revision made to applicable plans and certificates.

8-2-09

DEVELOPER'S / BUILDER'S CERTIFICATION

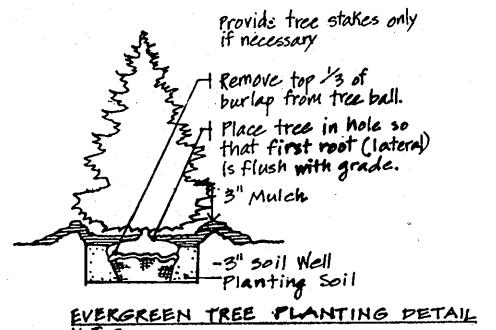
REVISE LANDSCAPE SCHEDULES

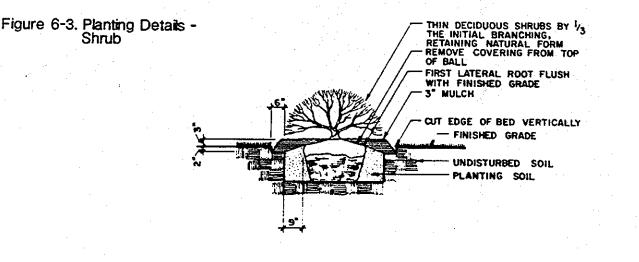
Description

submitted to the Department of Planning and Zoning.

Date

5-12-12





I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LILENSED FER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO: 19184, EXPIRA Engineers, Surveyors, Planners 9250 Rumsey Road, Suite 106 Columbia, Maryland - 21045 (410)715-1070 - (301)596-3424 - FAX(410)715-9540 certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code SUPPLEMENTAL, LANDSCAPE AND FOREST CONSERVATION BDB NOTES # DETAILS and the Howard County Landscape Manual. I further certify that upon completion a Letter of Landscape Installation, accompanied EDS SHOWN PLEASANT VALLEY FARM by an executed One Year Guarantee of Plant Materials will be DRAWN LOTS 1-3 **EDS** 4 OF 6

LDE TAX MAP 9 GRID 7 P/O PARCEL 92 CHECKED OB NO. 4th ELECTION DISTRICT HOWARD COUNTY, MD 07-017 Previous Submittals: WP 09-130, F 09-079 DEVELOPER: CHRISTINA WHEELER RIZZUTO TLE NO. ENNETH L. WHEELER, JR.

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