

The General Contractor shall stake the Limit of Disturbance (LOD) prior to installation of tree protection measures. In any locations where Super Silt Fence or other Sediment and Erosion Control measures sufficient to protect the critical root zones of trees have been installed, no tree protection fence shall be necessary. In areas where insufficient protection for the root zones of trees to be preserved throughout construction tree protection fencing that complies with the details contained on the Final Forest Conservation Plan shall be installed. Tree protection fence will serve three primary goals: (1) to keep construction equipment clear from contact by equipment materials and activities, (2) to preserve roots and soil condition in an intact and non-compacted state and; (3) to identify the Tree Protection Zone in which no soil disturbance is permitted, unless otherwise approved by the landscape architect or an ISA Certified arborist or licensed forester. Removal of tree protection fence, even temporarily to allow deliveries, is prohibited.

Forest Edge Treatment

The contractor shall employ the services of an ISA Certified arborist and/or professional forester to ascertain the condition of trees that will, in the case of forest clearing, establish a new forest edge. Trees shall be evaluated for susceptibility to windthrow and branches that may present a direct impediment to construction activities or hazards to health safety and welfare. Exotic or invasive species located near the forest edge shall be removed by mechanical means where possible or treated with approved herbicides.

Any trees inadvertently damaged through construction shall be treated if survival is expected. If it is determined that any part of a tree is in an unsafe or dangerous condition, then that part of the tree shall be removed. If the entire tree is affected, it shall be removed in its entirety. If the hazardous condition is questionable, the contractor shall acquire the services of an ISA Certified Arborist or professional forester who shall inspect the tree and certify that the condition of the tree is not a hazard and is not expected to be a hazard in the foreseeable future. Trees damaged by the contractor that must be removed shall be replaced by the contractor at no additional expense to the owner. In order to protect trees, super silt fence shall be provided in any area where the LOD comes within 50' of any environmental feature (including wetlands, slopes 25%+, stream buffer, floodplain, etc.) or an approved forest conservation easement area.

Protective Signage

Protective signs shall be installed around the perimeter of retention easements and afforestation and reforestation planting areas. Signs shall comply with the details included on the Final Forest Conservation Plan with respect to spacing, height, and content. Signs shall be mounted on metal posts at an approximate height of 5' above finished grade and shall be maintained in perpetuity. SIGNS MAY NOT BE ATTACHED TO TREES UNDER ANY CONDITION.

Materials and Vehicle Storage

The storage, disposal or placement of construction materials and operating or storing construction machinery, or driving or parking of vehicles in the Tree Protection Zone is strictly prohibited unless otherwise approved by the Landscape Architect or an ISA Certified Arborist or professional forester. The use of trees, trunks as backstops, limb supports, anchorages, temporary power poles, sign posts or other functions is also strictly prohibited. Cutting of tree roots in or near the Tree Protection Zone for utility trenching, foundation placement, curb or trench or other miscellaneous excavations should be preceded by root pruning conducted with a sharp saw that cuts roots cleanly, to sound wood, flush with the trench or excavation site.

Construction vehicle wash-out operations shall not be conducted where water from this work can drain into a forest retention easement or a designated afforestation or reforestation planting area. No grading work shall be conducted that temporarily conducts excessive drainage into a forest retention easement or a designated afforestation or reforestation planting area.

Activities Permitted within the Tree Protection Zone

The following activities may be conducted within the Tree Protection Zone in an effort to restore or enhance suitability for forest habitat:

- * Mulch may be spread within the Tree Protection Zones to a four to six inch depth, leaving the trunks of existing trees clear of mulch. Mulch shall be unpainted, untreated shredded wood or other material approved by the Landscape Architect or an ISA Certified Arborist or professional forester.
- * Aeration, fertilization and applications of mycorrhizae or other beneficial practices may be conducted within the Tree Protection Zone. Fertilization and mycorrhizal treatments shall be preceded by a soil analysis by a soils lab certified to perform such work. Natural amendments such as organic mulch, leaf mold or compost tea are preferred sources of fertilization.
- * Irrigation is the most important treatment for trees within the Tree Protection Zone. The Contractor shall designate an irrigation schedule to wet in the Tree Protection Zone to the depth of the root zone and replace that water once it is depleted. Light, frequent irrigation should be avoided.
- * In periods of extended drought, wind or grading, trunks, limbs and foliage should be sprayed with water to remove accumulated construction dust.
- * The removal of exotic or invasive plant material is a high priority within the tree protection zone. Invasive material should be removed by mechanical means where possible. Herbicides may be used where they will not negatively affect adjacent plant material.
- * Selective pruning or thinning to remove dead or diseased plant material.
- * Planting in stream or wetland buffers should be preceded by the correction of any existing erosion problem and the use of chemical fertilizers and herbicides should be minimized or eliminated.

Qualified Professional

The Contractor shall retain the services of an ISA Certified Arborist or professional forester for monitoring the Tree Protection Zone, performing any necessary construction period management, stress reduction, watering or other corrective activities during construction and during Post Construction (Guarantee Period) Management.

Timing of Afforestation and Reforestation Planting

Planting shall occur between September 15 and May 31, plant materials shall not be installed while ground is frozen. Planting of Proposed Forest Conservation Easement 'D' shall be delayed until the planting season after grading for the proposed public street is completed. All other easements have sufficient separation from construction activities to allow for planting, when possible, between the dates indicated above.

Certification of Completion

At the end of the construction period, the landscape architect, ISA Certified Arborist or professional forester retained by the Contractor shall convey to the Howard County Department of Planning and Zoning a certification that all forest retention areas have been preserved, all afforestation and reforestation plantings have been installed as required by the forest conservation plan, and that all protection measures required for the post construction period have been put in place. A sample certification can be found in Appendix J of the Howard County Forest Conservation Manual.

Post Construction (Guarantee Period) Management Program

The Contractor shall be responsible for the following post-construction activities for the full length of the Guarantee Period (minimum of 2 growing seasons per the Howard County Forest Conservation Manual):

- * Regular mowing of afforestation and reforestation planting areas shall be conducted through the Guarantee Period to suppress growth of weeds and remove habitat for mice, voles or other rodents that prey on newly planted trees. Mowing equipment shall have pneumatic tires and shall not be of sufficient size to cause excessive soil compaction.
- * Maintaining on site measures including fences and signs to prevent undesirable intrusion into the Tree Protection Zone.
- * Periodic inspection for continued compliance with this Construction Period Maintenance Program.
- * Education of new occupants of the development to avoid activities that could destroy or degrade protected forest resources.
- * Periodic thinning, watering, fertilizing or other measures to ensure survival and growth in the Tree Protection Zone and/or afforestation or reforestation planting areas.
- * Removal and replacement of dead afforestation and reforestation such that a 75% survival rating is achieved by the end of the second growing season.
- * Removal and/or control of competing or exotic vegetation.
- * Final inspection and certification that the survival rates have been met at the end of the Post Construction Management Period.

ACCEPTED FOR THE PROVISION OF THE SERVICES DETAILED ABOVE

NAME _____ DATE _____

COMPANY NAME _____

COMPANY ADDRESS _____

PHONE _____

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 3/5/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 3/6/07
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

FOREST CONSERVATION EASEMENT 'A'

OF 1" STOCK TO BE PLANTED (172) ACREAGE TO BE PLANTED (0.869±)

COMMON NAME	SPECIES	SIZE	SPACING	QUANTITY	TOLERANCE	REMARKS
TULIP POPLAR	LIRIODENDRON TULIPIFERA	1" CAL. 8'-10' HT.	15' O.C.	15	I	FACU
RED MAPLE	ACER RUBRUM	1" CAL. 8'-10' HT.	15' O.C.	22	I-VT	FAC
QUERCUS BICOLOR	SWAMP WHITE OAK	1" CAL. 8'-10' HT.	15' O.C.	15	I-MT	FACW
SYCAMORE	PLATANUS OCCIDENTALIS	1" CAL. 8'-10' HT.	15' O.C.	15	MT	FACW+
BLACK GUM	NYSSA SYLVATICA	1" CAL. 8'-10' HT.	15' O.C.	15	T	FAC
SERVICEBERRY	AMELANCHIER CANADENSIS	1" CAL. 8'-10' HT.	15' O.C.	19	T	FAC
PERSIMMON	DIOSPYROS VIRGINIANA	1" CAL. 8'-10' HT.	15' O.C.	15	VT	FAC-
SWEET GUM	LIQUIDAMBAR STRYACIFLUA	1" CAL. 8'-10' HT.	15' O.C.	15	I	FAC
PIN OAK	QUERCUS PALUSTRIS	1" CAL. 8'-10' HT.	15' O.C.	19	I	FACW
SALIX NIGRA	BLACK WILLOW	1" CAL. 8'-10' HT.	15' O.C.	22	MT	FACW+

FOREST CONSERVATION EASEMENT 'B'

OF 1" STOCK TO BE PLANTED (200) ACREAGE TO BE PLANTED (1.004±)

COMMON NAME	SPECIES	SIZE	SPACING	QUANTITY	TOLERANCE	REMARKS
TULIP POPLAR	LIRIODENDRON TULIPIFERA	1" CAL. 8'-10' HT.	15' O.C.	15	I	FACU
RED MAPLE	ACER RUBRUM	1" CAL. 8'-10' HT.	15' O.C.	25	I-VT	FAC
QUERCUS BICOLOR	SWAMP WHITE OAK	1" CAL. 8'-10' HT.	15' O.C.	18	I-MT	FACW
SYCAMORE	PLATANUS OCCIDENTALIS	1" CAL. 8'-10' HT.	15' O.C.	18	MT	FACW+
BLACK GUM	NYSSA SYLVATICA	1" CAL. 8'-10' HT.	15' O.C.	18	T	FAC
SERVICEBERRY	AMELANCHIER CANADENSIS	1" CAL. 8'-10' HT.	15' O.C.	25	T	FAC
PERSIMMON	DIOSPYROS VIRGINIANA	1" CAL. 8'-10' HT.	15' O.C.	18	VT	FAC-
SWEET GUM	LIQUIDAMBAR STRYACIFLUA	1" CAL. 8'-10' HT.	15' O.C.	18	I	FAC
PIN OAK	QUERCUS PALUSTRIS	1" CAL. 8'-10' HT.	15' O.C.	17	I	FACW
SALIX NIGRA	BLACK WILLOW	1" CAL. 8'-10' HT.	15' O.C.	25	MT	FACW+

FOREST CONSERVATION EASEMENT 'C'

OF 1" STOCK TO BE PLANTED (60) ACREAGE TO BE PLANTED (0.298±)

COMMON NAME	SPECIES	SIZE	SPACING	QUANTITY	TOLERANCE	REMARKS
TULIP POPLAR	LIRIODENDRON TULIPIFERA	1" CAL. 8'-10' HT.	15' O.C.	6	I	FACU
RED MAPLE	ACER RUBRUM	1" CAL. 8'-10' HT.	15' O.C.	6	I-VT	FAC
SCARLETT OAK	QUERCUS COCCINEA	1" CAL. 8'-10' HT.	15' O.C.	6	VI	N/A
SASSAFRAS	SASSAFRAS ALBIDUM	1" CAL. 8'-10' HT.	15' O.C.	6	I	FACU
BLACK GUM	NYSSA SYLVATICA	1" CAL. 8'-10' HT.	15' O.C.	6	T	FAC
WHITE OAK	QUERCUS ALBA	1" CAL. 8'-10' HT.	15' O.C.	6	MT	FACU
BLACK CHERRY	PRUNUS SEROTINA	1" CAL. 8'-10' HT.	15' O.C.	6	N/A	FACU
BLACKHAW	VIBURNUM PRUNIFOLIUM	1" CAL. 6'-8' HT.	15' O.C.	6	T	FACU
REDBUD	CERCIS CANADENSIS	1" CAL. 6'-8' HT.	15' O.C.	6	T	FACU
WHITE PINE	PINUS STROBUS	1" CAL. 8'-10' HT.	15' O.C.	6	MT	FACU

FOREST CONSERVATION EASEMENT 'D'

OF 1" STOCK TO BE PLANTED (72) ACREAGE TO BE PLANTED (0.361±)

COMMON NAME	SPECIES	SIZE	SPACING	QUANTITY	TOLERANCE	REMARKS
TULIP POPLAR	LIRIODENDRON TULIPIFERA	1" CAL. 8'-10' HT.	15' O.C.	10	I	FACU
RED MAPLE	ACER RUBRUM	1" CAL. 8'-10' HT.	15' O.C.	9	I-VT	FAC
SCARLETT OAK	QUERCUS COCCINEA	1" CAL. 8'-10' HT.	15' O.C.	9	VI	N/A
SASSAFRAS	SASSAFRAS ALBIDUM	1" CAL. 8'-10' HT.	15' O.C.	6	I	FACU
BLACK GUM	NYSSA SYLVATICA	1" CAL. 8'-10' HT.	15' O.C.	6	T	FAC
WHITE OAK	QUERCUS ALBA	1" CAL. 8'-10' HT.	15' O.C.	6	MT	FACU
BLACK CHERRY	PRUNUS SEROTINA	1" CAL. 8'-10' HT.	15' O.C.	6	N/A	FACU
BLACKHAW	VIBURNUM PRUNIFOLIUM	1" CAL. 6'-8' HT.	15' O.C.	6	T	FACU
REDBUD	CERCIS CANADENSIS	1" CAL. 6'-8' HT.	15' O.C.	6	T	FACU
WHITE PINE	PINUS STROBUS	1" CAL. 8'-10' HT.	15' O.C.	9	MT	FACU

FOREST CONSERVATION EASEMENT 'E'

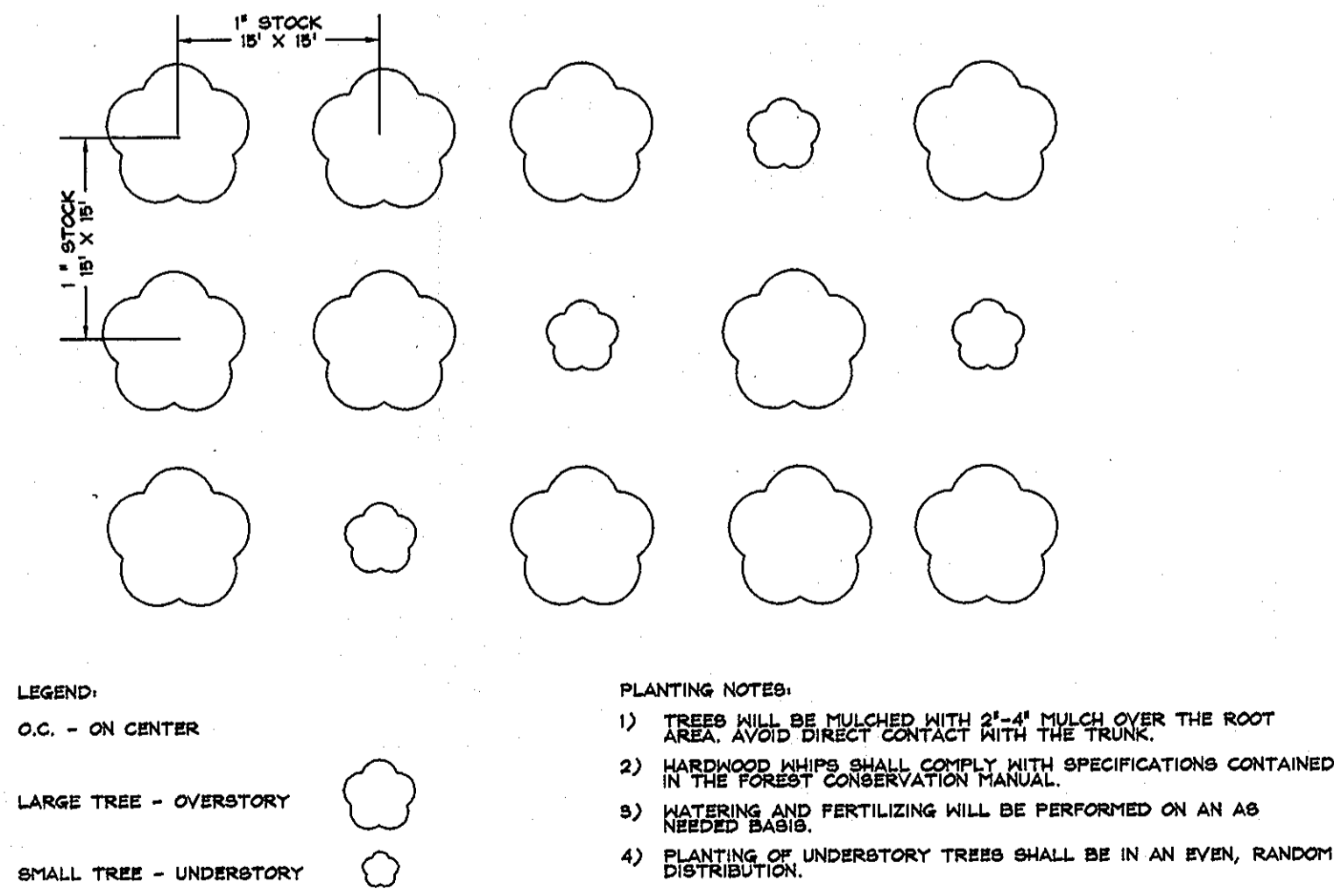
OF 1" STOCK TO BE PLANTED (154) ACREAGE TO BE PLANTED (0.766±)

COMMON NAME	SPECIES	SIZE	SPACING	QUANTITY	TOLERANCE	REMARKS
RED MAPLE	ACER RUBRUM	1" CAL. 8'-10' HT.	15' O.C.	14	I-VT	FAC
QUERCUS BICOLOR	SWAMP WHITE OAK	1" CAL. 8'-10' HT.	15' O.C.	14	I-MT	FACW
SYCAMORE	PLATANUS OCCIDENTALIS	1" CAL. 8'-10' HT.	15' O.C.	18	MT	FACW+
PERSIMMON	DIOSPYROS VIRGINIANA	1" CAL. 8'-10' HT.	15' O.C.	10	VT	FAC-
SWEET GUM	LIQUIDAMBAR STRYACIFLUA	1" CAL. 8'-10' HT.	15' O.C.	10	I	FAC
SALIX NIGRA	BLACK WILLOW	1" CAL. 8'-10' HT.	15' O.C.	18	MT	FACW+

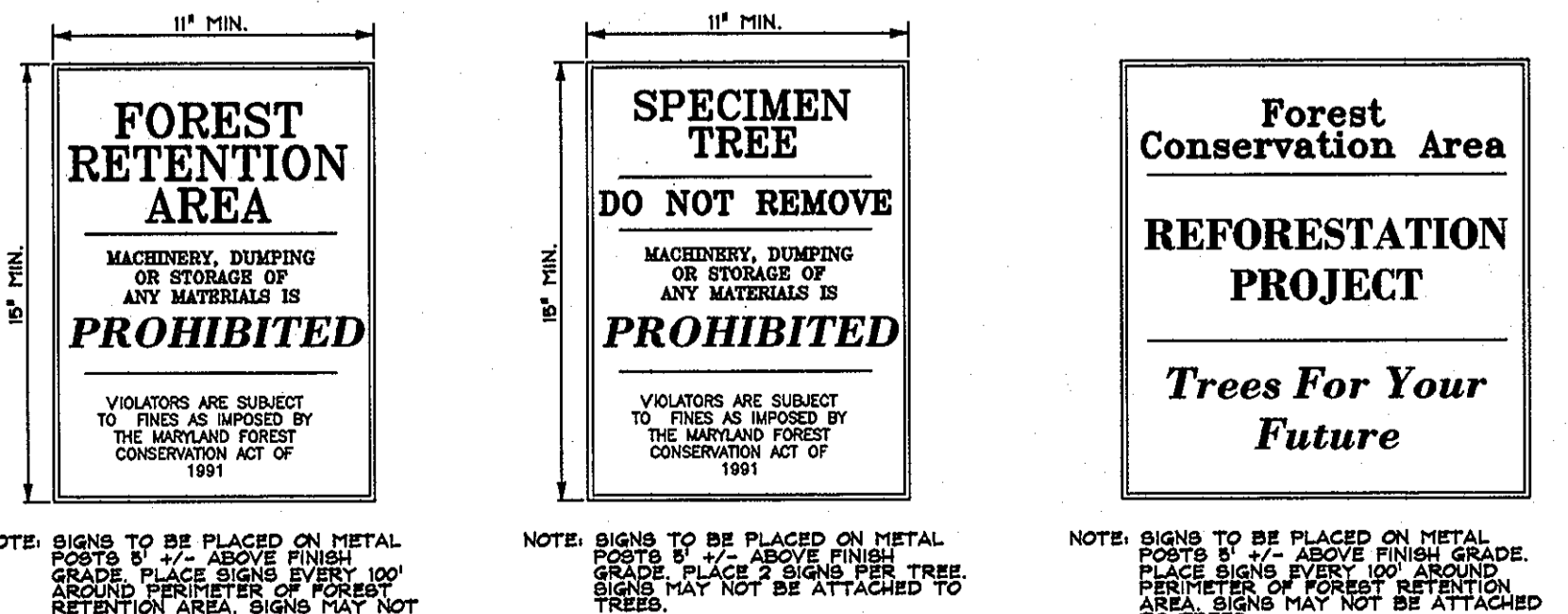
ZONE '2' WITHIN 40' OF EXISTING BGE 13KV TRANSMISSION LINE ON LIME KILN ROAD

OF 1" STOCK TO BE PLANTED (70) ACREAGE TO BE PLANTED (0.351±)

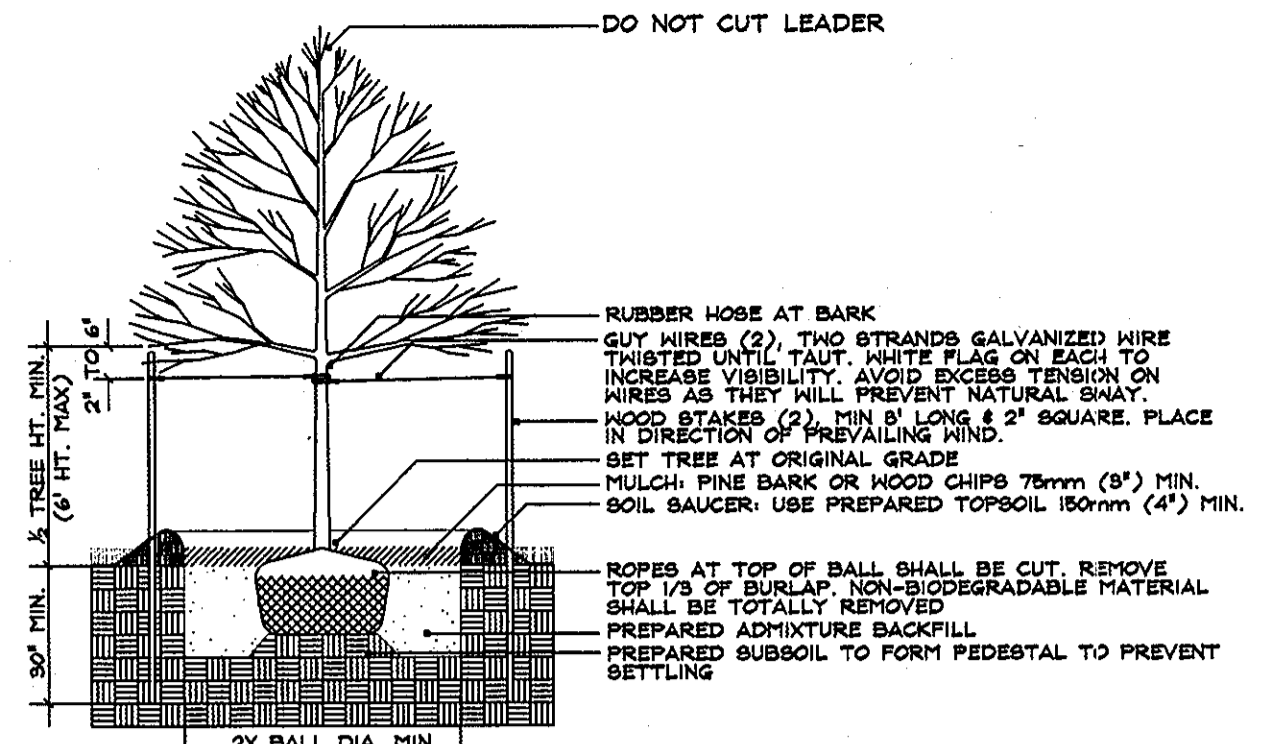
COMMON NAME	SPECIES	SIZE	SPACING	QUANTITY	TOLERANCE	REMARKS
SERVICEBERRY	AMELANCHIER CANADENSIS	1" CAL. 6'-8' HT.	15' O.C.	16	T	FAC
CRATAEGUS VIRDIS	GREEN HAWTHORNE	1" CAL. 6'-8' HT.	15' O.C.	16	T	FACW
CORUS ALMOND	WILKY DOGWOOD	1" CAL. 6'-8' HT.	15' O.C.	16	T	FACW
CHIOANTHUS VIRGIN.	WHITE FRINGETREE	1" CAL. 6'-8' HT.	15' O.C.	14	MT	FAC
CERCIS CANADENSIS	EASTERN REDBUD	1" CAL. 6'-8' HT.	15' O.C.	8	MT	FACU



PLANTING DESIGN
 N.T.S.

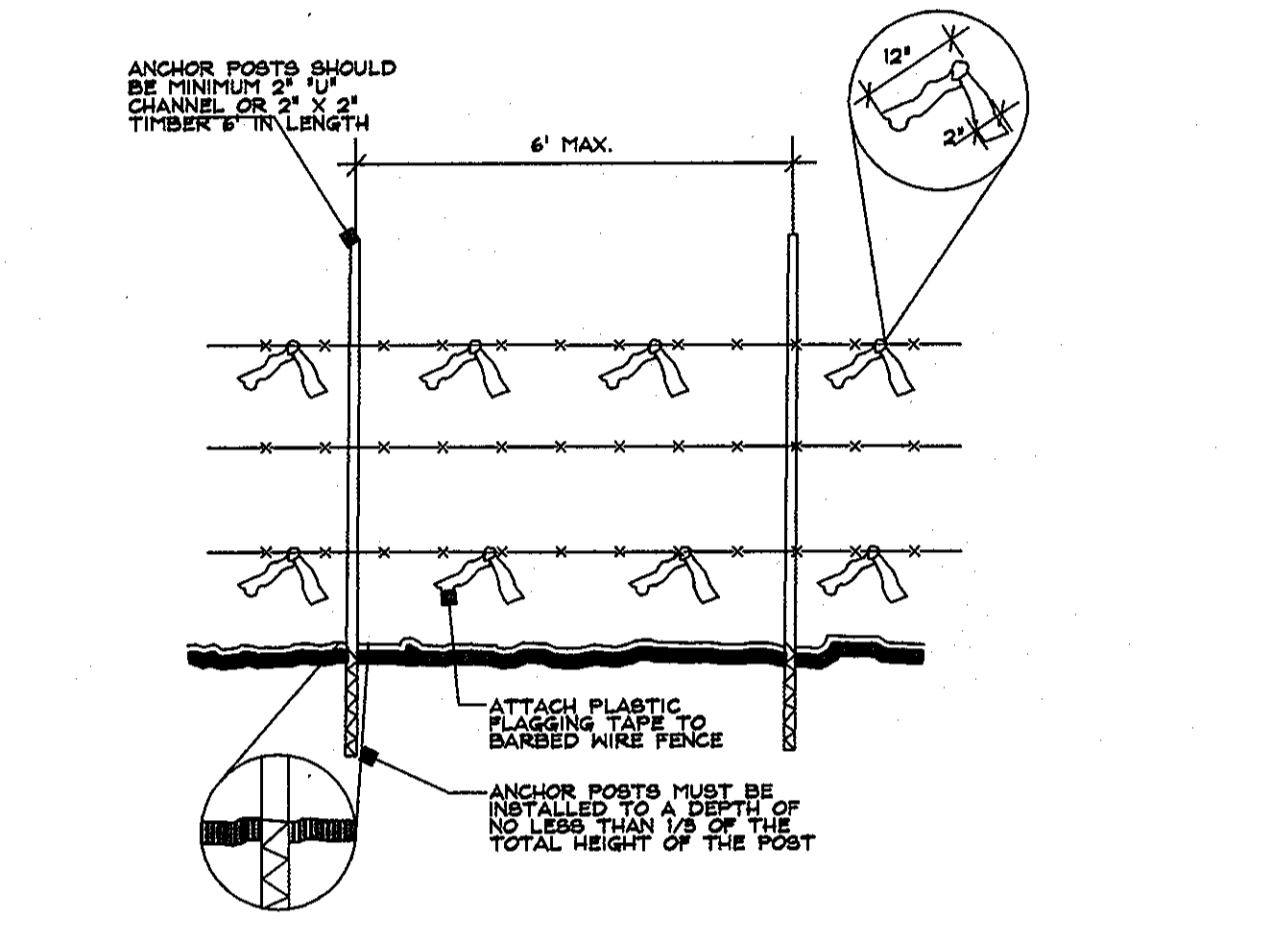


RETENTION, REFORESTATION, & AFFORESTATION PROTECTION SIGN DETAILS
 N.T.S.
 NOTE: ALL PROTECTIONS SIGNS SHALL BE INSTALLED IN PERPETUITY.



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

NOTE: THE DECISION TO GUY SHALL BE MADE BY THE CONTRACTOR ON AN THE BASIS OF INDIVIDUAL TREES AND MAY NOT BE NECESSARY FOR ANY TREES OF THIS SIZE.



BARB WIRE TREE PROTECTION FENCE
 N.T.S.

NOTES:
 1. FOREST PROTECTION DEVICE ONLY. RETENTION AND AFFORESTATION BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLATION.
 2. TO INSTALL DEVICE, BARBED WIRE SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLATION.
 3. AVOID ROOT DAMAGE WHEN PLACING ANCHOR POSTS.
 4. BARBED WIRE SHOULD BE RECORDED DURING CONSTRUCTION.
 5. DEVICE SHOULD BE MAINTAINED DURING CONSTRUCTION.
 6. PROTECTIVE SIGNAGE IS ALSO RECOMMENDED.

DATA SOURCES:
 EX. TOPOGRAPHY SHOWN PER AERIAL SURVEY BY VIRGINIA RESOURCE MAPPING. DATE OF CAPTURE IS SPRING 2006. EX. SOIL INFORMATION SHOWN PER HOWARD COUNTY SOIL SURVEY 1988. EX. WETLAND AND STREAM LOCATIONS SHOWN PER FIELD INVESTIGATION BY MARLEN ENVIRONMENTAL, INC. IN SPRING 2006. EX. OFF-PROPERTY WELL AND SEPTIC LOCATION APPROXIMATED FROM HOWARD COUNTY HEALTH DEPARTMENT RECORDS AND FIELD INVESTIGATION BY DEMARIO DESIGN CONSULTANTS, INC. SPRING 2006.

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 The Old Firehouse Phone: (410) 386-0560
 66 East Main Street, Suite 200 Fax: (410) 386-0564
 Westminster, MD 21157 eMail: ddc@demariodesign.us

OWNER: HOLLY HOUSE DVLPM.T.LLC DEVELOPER: SELFLEDGE BUILDERS
 C/O JIM SELFLEDGE C/O JIM SELFLEDGE
 4781 TEN OAKS ROAD 4781 TEN OAKS ROAD
 DAYTON, MD 21036 DAYTON, MD 21036

SITE ADDRESS:
 12402 LIME KILN ROAD
 FULTON, MD 20759

MINOR SUBDIVISION FOR HOLLY HOUSE MEADOWS
FOREST CONSERVATION NOTES & DETAILS

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
TAX ACC. #: 05-342775	DES. BY: AJS			
ZONE / USE: RR-DEO	DRN. BY: AJS			
DWG. SCALE: AS NOTED	CHK. BY: AJS			
DATE: 2/27/2007				
DDC JOB#: 05127.3				

2/27/2007

 ANDREW J. STINE
 LANDSCAPE ARCHITECT NO. 3222