

LANTING SPECIFICATIONS FOR RE/AFFORESTATION AREAS <u>As applicable):</u>

- wantity: (see Plant Schedule)
- Type: (see Plant Schedule)
- Plant Quality Standards: The plants selected shall be healthy and sturdy representatives of their species. Seedlings shall have a minimum op growth of 18". The diameter of the root collar (the part of the root just below ground level) shall be at least 3/8". The roots shall be mell developed and at least 8" long. No more than twenty-five percent (25%) of the root system (both primary and auxiliary/fibrous) shall show evidence of being cut (pruned) or striped from the plant during the algging process. Substantial auxiliary/fibrous roots shall be present.
- Plants that do not have an abundance of well developed terminal buds the leaders and branches shall be rejected.
- Plants shall be shipped by the nursery immediately after lifting from the leld or removal from the greenhouse, and planted immediately upon eceipt by the landscape contractor.
- the plants cannot be planted immediately after delivery to the eforestation site, they shall be stored in the shade with their not masses protected from direct exposure to sun and wind by the se of straw, peat moss, compost, or other suitable material and shall maintained through periodic watering, until the time of planting.
- Flant Handling: The quantity of seedlings taken to the field shall not exceed the quantity that can be planted in a day. Seedlings, once emoved from the nursery or temporary storage area shall be planted mmediately.
- ming of Planting: The best time to plant seedlings is while they are armant, prior to spring budding. The most suitable months for planting me March and April, when the soil is moist. November and early December ire also acceptable planting times for this region as cool and cloudy weather is considered ideal. Planting shall occur within one growing season of the issuance of grading/building permits and/or reaching the Final grades and stabilization of planting areas.
- Seedling Planting: Tree seedlings can be hand planted using a dibble bar marp-shooter shovel. It is important that the seedling be placed in the hole so that the roots can spread out naturally; they should not pe twisted, balled up, or bent. Moist soil should then be packed firmly around the roots. Seedlings should be planted at a depth where their roots collars lie just below the ground surface. Air pockets should not ce left after closing the hole which would allow the roots to dry out. see planting details for further explanation. If the contractor wishes to plant by another method, the preparer of this tree conservation clan must be contacted and give his approval before planting may begin.
- pacing: See Plant Schedule and/or Planting Plan for spacing equirements. Also refer to the Planting Layout detail for a description the general planting theory.
- Mon. Upon the completion of all grading operations, a soil test shall be anducted to determine what soil preparation and soil amendments, if any, are necessary to create good tree growing conditions. Soil samples shall be taken at a rate that provides one soil sample for each area that appears to have a different soil type (if the entire area appears miform, then only one sample is necessary), and submitted for testing a private company. The company of choice shall make recommendations or improving the existing soil. The soil will be tested and recommended or corrections of soil texture, pH, magnesium, phosphorous, potassium, alcium and organic matter.
- Soil Improvement Measures: The soil shall then be improved according to the recommendations made by the testing company.
- encing & Signage: Final protective fencing shall be placed on the sible and/or development side of planting areas. The protective mee shall be installed upon completion of planting operations. Signs Hi be posted per the signage detail on this sheet.
- canting Method: Consult the Planting Detail(s) shown on this plan.
- Mulching: Apply 2" thick layer of woodchip or shredded hardwood mulch (as noted) to each planting site (see detail shown on this plan).
- Groundcover Establishment: The remaining disturbed area between seedling planting sites shall be seeded and stabilized with white clover seed at the rate of 51bs./acre.
- Mowing: No mowing shall be allowed in any planting area.
- Functival Check for Bond Release: The seedling planting is to be shecked at the end of each year for two years to assure that no 395 than 75% of the original planted quantity survives.
- Potential Source of Seedlings: Maryland Department of Natural Resources John S. Ayton State Forest Tree Nursery 3424 Gallagher Road Preston, MD 21655 (410) 673-2467

- TYPE II TREE CONSERVATION NOTES (As applicable): Cutting or clearing of woodland not in conformance with this plan or without the expressed written consent of the Planning Director or designee, shall be subject to a \$1.50 per square foot mitigation fee.
- 2. The County Inspection and Code Compliance Section (301-883-6033), must be contacted prior to the start of any work on the site to address implementation of Tree Conservation measures shown on this plan.
- 3. Property owners shall be notified by the Developer or Contractor, of any Woodland Conservation Areas (Tree Save Areas, Reforestation Areas, Afforestation Areas or Selective Clearing Areas) located on their lot or parcel of land and the associated fines for unauthorized disturbances to these areas. Upon the sale of the property the owner/ developer or owners representative shall notify the purchaser of the property of any Woodland Conservation Areas.
- 4. All appropriate bonds shall be posted with the Building Official prior to the issuance of any permits. These bonds will be retained as surety by the Building Official until all required activities have been satisfied. Three copies of the bonds are submitted with the grading permit ap-
- 5. All required off-site mitigation shall be identified on an approved TCPII for the off-site location and shall be recorded as an off-site easement in the land records of Prince George's County prior to issuance of any permits for the subject property.
- 6. Work on this project will be iniated in several phases. All TPDs required for a given phase shall be installed prior to any disturbance within that phase of work.
- 7. Woodland Conservation Tree Save Areas and/or Reforestation Areas shall be posted as shown at the same time as the Tree Protective Device installation and/or start of reforestation activities. These signs shall remain in place.
- 8. The County shall be notified prior to soil preparation or initiation of any tree planting on this site.
- . Results of survival checks for all tree plantings shall be reported to the County for the site and M-NCPPC, Environmental Planning
- 10. The location of all Tree Protection Devices (TPD's) shown on this Plan, shall be flagged or staked in the field prior to the pre-construction meeting with the Sediment and Erosion Control Inspector. Upon approval of the flagged or staked TPD locations by the inspector, installation of the TPD's may begin. TPD installation shall be completed prior to installation of initial sediment controls. No cutting or clearing of trees may begin before final approval of TPD installation.
- 11. All tree planting for woodland replacement, reforestation or afforestation will be completed after final grading is established. Failure to establish the woodland replacement, reforestation or afforestation within the prescribed time frame will result in the forfeiture of the Reforestation Bond and/or a violation of this Plan including the associated \$1.50 per square foot penalty unless a written extension is approved by the DER Inspector.
- 12. The Applicant shall notify the Maryland-National Park and Planning Commission, Environmental Planning Section, prior to the start of work on each phase of this mining operation and schedule a meeting to address reforestation and woodland conservation issues including: timing for reforestation activities associated with the most recently completed phase, timing for restoration for the upcoming phase, changes in the species to be planted, decreases in the quantity of trees planted in the event that some natural regeneration has occurred, the need for additional or less site preparation, and other pertinent woodland conservation or reforestation issues. The installation of perimeter sediment control devices shall not be subject to this, as set forth in the Special Exception Conditions.
- 13. Prior to the start of work in any phase or portion thereof, the limits of disturbance for that phase or portion thereof shall be identified and marked in the field. The Applicant or their representative shall walk the limits of disturbance with a representative of the MDE Minerals, Oil and Gas Division, prior to the installation of sediment/erosion control measures and tree protective devices. The Applicant or their representative shall notify the M-NCPPC, Evironmental Planning Section, as to the date and time this walk will occur, and they will be afforded the oppurtunity to participate in this walk and provide their concerns to the MDE representatives.

PRE-CONSTRUCTION ACTIVITIES

· SAUCER WITH SHREDDED

HARDWOOD MULCH T

- Prior to any disturbance of the site, the tree save lines shall be field located by surveying techniques and the appropriate tree protective device (see detail) shall be erected along these designated lines. Only after the tree protective devices have been installed shall any tree cutting or other clearing, grubbing or grading operations begin. All protection devices shall remain in place until all construction has ceased in the immediate vicinity. Devices shall be maintained throughout construction. Attachment of signs, or any other objects, to trees is prohibited. No equipment, machinery, vehicles, materials or excessive pedestrian traffic shall be allowed within protected areas.
- 2. After the boundaries of the retention area have been staked and flagged and before any disturbance has taken place on site, a pre-construction meeting at the construction site shall take place. The developer, contractor or project manager, and appropriate local inspectors shall attend.
- 3. Reforestation planting shall be done after the final grading is established.

MOODLAND CONSERVATION AREA MANAGEMENT NOTES (As applicable): Removal of Hazardous Trees or Limbs BY DEVELOPERS OR BUILDERS

- The developer and/or builder is responsible for the complete preservation of all forested areas shown on the approved plan to remain undisturbed. Only trees or parts thereof designated by the Department of Environmental Resources as dead, dying or hazārdous māy be removed.
- I. A tree is considered hazardous if a condition is present which leads a Licensed Arborist or a Licensed Tree Expert to believe that the tree or a portion of the tree has a potential to fall and strike a structure, parking area or other high use area and result in personal injury or property damage.
- 2. If a hazardous condition may be alleviated by corrective pruning, the Licensed Arborist or a Licensed Tree Expert may proceed without further authorization. The pruning must be done in accordance with the latest edition of the ANSI A-300 Pruning Standards ("Tree Shrub and Other Woody Plant Maintenance-Standard Practices").
- 3. Corrective measures requiring the removal of the hazardous tree or portions thereof shall require authorization by the building or grading inspector if there is a valid grading or building permit for the subject lots or parcels on which the trees are located. Only after approval of the appropriate inspector, may the tree be cut by chainsaw to near the existing ground level. The stump may not be removed or covered with soil, mulch or other materials that would inhibit sprouting.
- 4. Debris from the tree removal or pruning that occurs within 35 feet of the woodland edge may be removed and properly disposed of by recycling, chipping or other acceptable methods. All debris that is more than 35 feet from the woodland edge shall be cut up to allow contact with the ground, thus encouraging decomposition. The smaller materials shall be placed into brush piles that will serve as wildlife habitat.

Removal of Hazardous Trees, Limbs, Noxious Plants , Invasive Plants or Non-native Plants in Moodland Conservation Areas Owned BY INDIVIDUAL HOMEOWNERS

- !. If the developer or builder no longer has an interest in the property, the homeowner shall obtain a written statement from the Licensed Arborist or Licensed Tree Expert identifying the hazardous condition and the proposed corrective measures prior to having the work con-ducted. The tree may then be removed by the arborist or tree expert. The stump shall be cut as close to the ground as possible and left in place. The removal or grinding of the stumps in the woodland conservation area is not permitted.
- 2. The removal of noxious, invasive and non-native plant species from the woodland conservation areas may be done with the use of hand-held equipment only, such as pruners or a chain saw. These plants may be cut near the ground and the material less than two inches diameter may be removed from the area and disposed of appropriately. All material from these noxious, invasive and non-native plants greater than two (2) inches diameter shall be cut to allow contact with the ground, thus encouraging decomposition.
- 3. The use of broadcast spraying of herbicides is not permitted. However, the use of herbicides to discourage re-sprouting of invasive, noxious, or non-native plants is permitted if done as an application of the chemical directly to the cut stump immediately following the cutting of plant tops. The use of any herbicide shall be done in accordance with the label instructions.
- Note: The use of chainsaws is extremely dangerous and should not be conducted with poorly maintained equipment, without safety equipment, or by individuals not trained in the use of this equipment for the pruning and/or cutting of trees.

Protection of Reforestation and Afforestation Areas BY DEVELOPERS OR

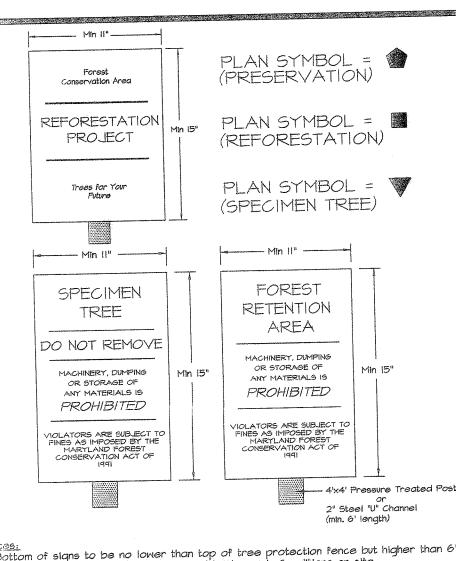
- 1. Reforestation and afforestation areas shall be planted prior to occupancy of the nearest building or residence. If planting cannot occur due to planting conditions, the developer or property owner shall install the fencing and signage in accordance with the approved Type II Tree Conservation Plan. Planting shall then be accomplished during the next planting season. If planting is delayed beyond the transfer of property title, to the homeowner, the developer shall obtain a signed statement from the purchaser indicating that they understand that the reforestation area is located on their property and that reforestation will occur during the next planting season. A copy of that document shall be presented to the grading inspector and the environ-mental planning section.
- 2. Reforestation areas shall not be mowed, however the management of competing vegetation around individual trees is acceptable.

Protection of Reforestation and Afforestation Areas BY INDIVIDUAL

- 1. Reforestation fencing and signage shall remain in place in accordance with the approved Type II Tree Conservation Plan or until the trees have grown sufficiently to have crown closure.
- 2. Reforestation areas shall not be moved, however, the management of competing vegetation around individual trees is acceptable.

MOODLAND AREAS NOT COUNTED AS PART OF THE MOODLAND CONSERVATION REQUIREMENTS

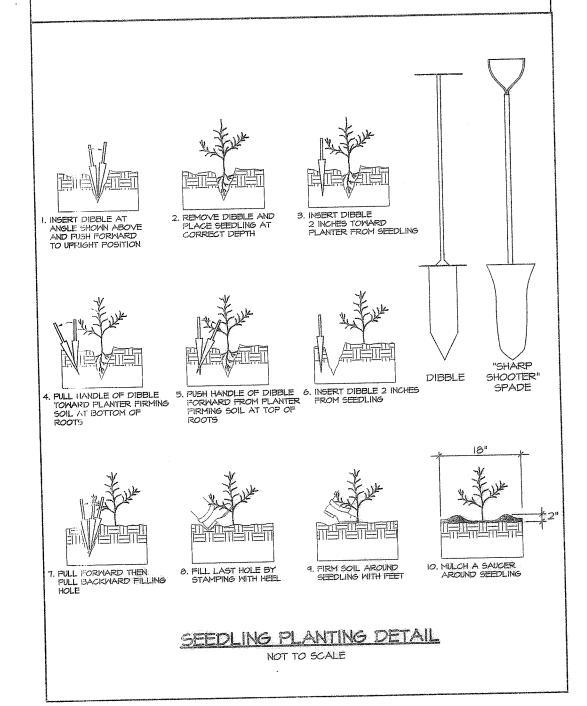
- 1. A revised Tree Conservation Plan is required prior to clearing any woodland area which is not specifically identified to be cleared on the most recently approved Type II Tree Conservation Plan (TCP) on file in the office of the M-NCPPC, Environmental Planning Section located on the 4th floor of the County Administration Building at 14741 Governor Oden Bowie Drive, Upper Marlboro, Maryland 20772, phone 301-952-3650. Additional mitigation will be required for the clearing of all woodlands beyond that reflected on the approved plans. Although clearing may be allówed, it may be subject to additional replacement requirements, mitigation and fees which must be reflected on TCP revisions approved by the M-NCPPC Environmental Planning Section.
- 2. Homeowners or property owners may remove trees less than two (2) inches diameter, shrubs, and vines in woodland areas which are saved but not part of the woodland conservation requirements after all permits have been released for the subject property. This area may not be tilled or have other ground disturbances which would result in damage to the tree roots. Raking leaves and overseeding with native grasses, flowers and groundcovers is acceptable. Seeding with invasive grasses, including any variety of Kentucky 31 fescue is not acceptable.



Notes:

1. Bottom of signs to be no lower than top of tree protection fence but higher than 6' . Signs to be placed approximately 50' feet apart. Conditions on site ecting visibility may warrant placing signs closer or farther apart. 3. Attachment of signs to trees is prohibited. 4. Signs to be posted on 4'x4' pressure treated wood posts driven a minimum of 1.5' into ground or 2" steel "U" channel (minimum 6' length) driven into ground. 5. Signs to be attached to posts with 2 galvanized boits, each with 2

mashers and a galvanized nut.



NOTES:

1. Retention Area will be set as part of the review process.

2. Boundaries of Retention Area should be staked and flagged prior to installing device.

3. Avoid root damage when placing anchor posts.

4. Whre should be securely attached to posts.

5. Device should be properly maintained during construction.

6. Use brightly colored surveyor's flagging every 4 feet.

7. Protective signage is also recommended. FENCE POST SECTION
MINIMUM 20" ABOVE
GROUND - FENCE POST DRIVEN STANDARD SYMBOL JOINING TWO ADJACENT SILT FENCE SECTIONS CONSTRUCTION SPECIFICATIONS I. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" X 1 1/2" square (min.) aut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pound per linear foot. Geotextile shall be fastened securely to each fence post with vire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F: Tensile Strength 50 lbs/in/(min.) Test: MSMT 509
Tensile Modulus 20 lbs/in/(min.) Test: MSMT 509 Tensile Modulus

20 ibs/ir²(min.)

Flow Rate

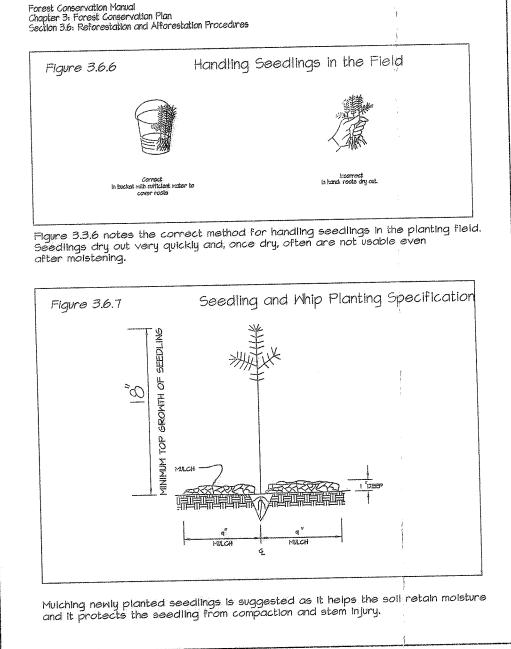
0.3 gal ft / minute (max.)

Test: MSMT 322

Filtering Efficiency

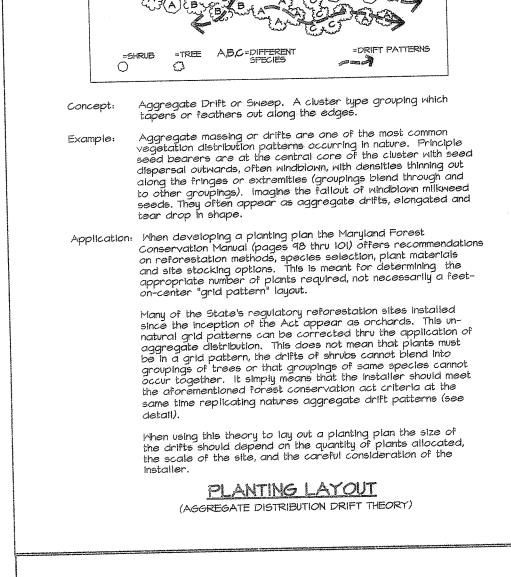
75% (min.)

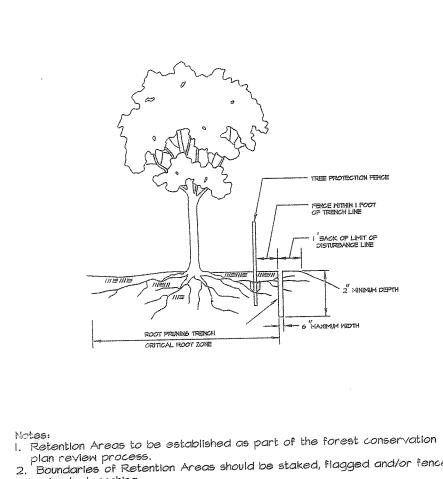
Test: MSMT 322 Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bipass. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height. COMBINATION SILT FENCE & TREE PROTECTION - TYPE II



SAUGER WITH SHREDDED

HARDWOOD MULCH





2. Boundaries of Retention Areas should be staked, flagged and/or fenced

PLANT DEPTH WILL YARY AGGORDING TO PLANT

SHRUB BED PLANTING PROFILE

3. Exact location of trench should be identified. 4. Trench should be immediately backfilled with soil removed or other high 5. Roots should be cleanly cut using vibratory knife or other acceptable

Sources, Maryland State Forest Conservation Technical Manual, 3rd Edition - 1947

PLANT SCHEDULE FOR RE/AFFORESTATION STOCK SPECIFICATION: 1000 SEEDLINGS PER ACRE TOTAL RE/AFFORESTATION PROVIDED: 55.99 ACRES

Reforestation Area	Acreage	Seedling Selection				1"-1 1/2" Caliper	"- 1/2" Caliper	"- /2" Caliper	1"-1 1/2" Caliper	Total No. of	Total No. of
		Black Locust	Red Oak	Loblolly Pine	Red Cedar		Scarlet Oak	Willow Oak	Sweetgum	(' '	Caliper Trees
	3.67	688	688	688	688	67	67	67	67	2,752	*268
Phase IA-I		670	670	670	670	0	0	0	0	2,680	0
Phase IA-II	2.68		4,555	4,555	4,555	0	0	0	0	18,220	0
Phase IB		4,555 4,943	4,943	4,943	4,943	0	0	0	0	19,770	0
Phase 2	19.77		<u> </u>	3,080	3,080	0	0	0	0	12,320	0
Phase 3	12.32	3,080	3,080	ļ	<u> </u>			67	67	55,742	*268
TOTAL.	56.66	13,936	13,936	13,936	13,936	67	67				

*Excludes 39 - 1 1/2" caliper trees from Landscape Plan.

- 1. All tree/shrub species planted within the re/afforestation areas, should be randomly distributed throughout the proposed relafforestation area, so as to promote a natural woodland structure. (See Planting Layout detail) 2. In the event of species unavailability, a substitution may be made. Any
- 3. All I"-1 1/2" caliper trees are to be planted as randomly as indicated on the Planting Layout detail and as shown on the Special Excéption Landscape Plan (BDA1 dwg. no. 50.001-Z).

SURVEYORS FLAG (TYP. 3 PLACES)

- 2-3' SAUCER WITH 2-3' SHREDDED

- BACKFILL SOIL MIX (SEE SPECS)

FIRST LATERAL ROOT FLUSH WITH FINISHED GRADE

HARDWOOD MULCH

UNDISTURBED

GROUND

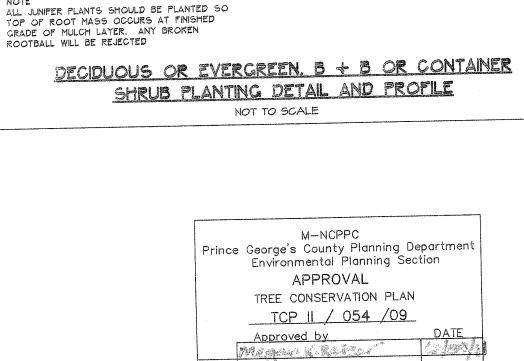
B + B TREE PLANTING DETAIL

NO SCALE SECTION

FOR TREES 2 1/2' CALIPER OR GREATER

--- 12' MIN.

substitution made requires written notification to MNCPPC, Environmental APPROVAL 4. The 1 1/2" caliper trees meet county requirements for "Type D" bufferyard. Approved by Market Commence of the second



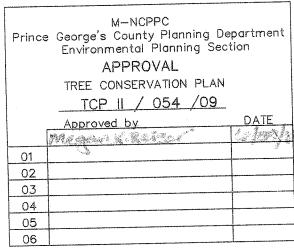
- B+B OR CONTAINER

SHRUB PLANTING DETAIL

DECIDUOUS OR EVERGREEN

NO SCALE SECTION

(SEE SPECIFICATIONS)



SE-4674

TREE CONSERVATION PLAN - TYPE II JENKINS PROPERT

PARCEL 39 AQUASCO ELECTION DISTRICT No. 8 PRINCE GEORGE'S COUNTY, MARYLAND

Alvin F. Jenkins 9001 Baltimore Avenue College Park, Maryland 20740

Maryland Natural Resource Solutions, LLC 7500 Old Georgetown Road Bethesda, Maryland 20814 Matthew Tillotson Phone: 703-550-0518 ex. 112

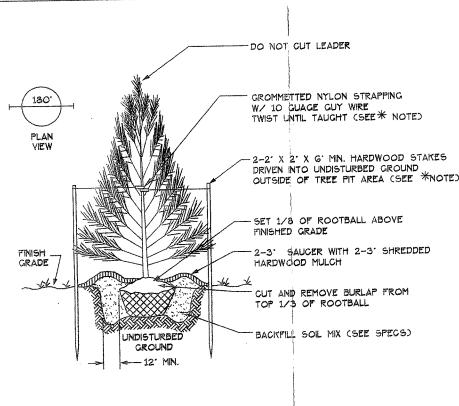
SHEET 2 OF 2 WSSC 200' SHEET SERIES 223 SE 12 ADC MAP BK LOCATION 6000 J-8 11721 WOODWORE ROAD, SUITE 200 MITCHELLVILLE, MARYLAND 20721 BEN DYER ASSOCIATES, INC 6-23-11 Engineers / Surveyors / Planners 6/21/11 REVISED PER STAFF COMMENTS RECEIVED 6/21/11 FON COPYRIGHT @ 2009 BEN DYER ASSOCIATES, IN 6/06/11 Revised to address ZHE conditions 04/02/10 REVISED PER STAFF COMMENTS RECEIVED 3/25/10 PCN DRAWN BY DESIGNED BY CHECKED BY RECORD NO.

J-A87078 BY SCALE |" = 100' DRWG. NO. DESCRIPTION Mike Petrakis DATE JUNE 2009 54.007-2 Qualified Professional REVISIONS COMAR 08.19.06.01 J:\LD7-PROJ\87078-LD7\Sheets\TCP-HDet-39.dwg. 6/29/2011 8:53:59 AM, nicpag

eld check the re-afforestation area according to the following schedule:

5 YEAR MANAGEMENT PLAN FOR RE/AFFORESTATION

- ear I: <u>Site Preparation and Tree Planting</u> Survival check once annually (September-November, see Note 1) <u>Matering if needed</u> (2 x month) Control of undesirable vegetation as needed (I \times in June $^{\sharp}$ $1 \times \text{in September min.}$
- ear 2-3: Reinforcement planting if needed (see Note 2) <u>Survival check</u> once annually (September-November) Control of undesirable vegetation if needed (1 x in May \$ $1 \times \text{in August min}$.
- ar 4-5: Reinforcement planting if needed (See Note 2) Survival check once annually (September-November)
- Survival Check: Check planted stock annually against plant list (or as-built) by walking the site and taking inventory. Plants must show vitality. Submit field data forms (Condition Check Sheets) to owner and the MNCPPC Environmental Planning Section after each annual inspection. Remove all dead plants.
- Reinforcement Planting: Replace dead or missing plants in sufficient quantity to bring the total number of live plants to at least 75% of the number originally planted. If a particular species suffers unusually high mortality, replace with an alternate plant
- 3. Miscellaneous: Fertilization or watering during years I through 3 will be done on an as needed basis. Special return operations or recommendations will be conducted on an as needed basis. Remove perimeter fencing and signage after year 5 based on the date planted.



EVERGREEN TREE PLANTING DETAIL

C<u>ontainer tree planting Detail</u>

DRIVEN INTO UNDISTURBED GROUND OUTSIDE OF TREE PIT AREA (SEE *NOTE) NO SCALE SECTION FOR TREES LESS THAN 12' HT. * NOTE: STAKES, STRAPPING AND WIRES TO BE REMOVED SIX MONTHS AFTER INSTALLATION

PRUNE ALL DAMAGED OR DEAD

WOOD PRIOR TO PLANTING

NEVER CUT MAIN LEADER SELECTIVELY PRUNE TOP 1/4th OF BRANCHES-CONFLICTING BRANCHES-2-2' X 2' X 6' HARDWOOD POSTS-W/ 10 GUAGE GUY WIRE TIE WITH TWINE AT THREE PLACES MINIMUM TO SECURE WRAF ----- 2-3' SAUCER WITH 2-3' SHREDDED HARDWOOD MULCH CUT AND REMOVE BURLAP FROM TOP 1/3 OF ROOTBALL -BACKFILL SOIL MIX (SEE SPECS) - POSTS DRIVEN INTO UNDISTURBED GROUND OUTSIDE OF TREE PIT AREA UNDISTURBED GROUND --- 12' MIN. B + B TREE PLANTING DETAIL DECIDUOUS NO SCALE SECTION FOR TREES LESS THAN 2 1/2' CALIPER

* NOTE: STAKES, STRAPPING AND WIRES TO BE REMOVED SIX MONTHS AFTER INSTALLATION DECIDUOUS. B + B TREE PLANTING DETAILS

NEVER CUT MAIN LEADER

CONFLICTING BRANCHES

RETAINING NATURAL FORM

REMOVE DAMAGED, BROKEN OR

WRAP TRUNK WITH TREE WRAP TO SECOND TIER OF BRANCHES

MINIMUM TO SECURE WRAP

STAKES (3 REQUIRED)

PLACE STAKE AT A

O' ANGLE TO WIRE

CSTART FROM BOTTOM AND

TIE WITH TWINE AT THREE PLACES

CUT AND REMOVE BURLAP FROM

PLACE STAKE 2' BELOW GRADE-