<u>mooaland Conservation Worksheet</u> Prince George's County Zone: <u>R-80</u> Owner: Marrick Properties Gross Tract: <u>25,07 Acres</u> Address: 3150 West Ward Road, Suite 401 Floodplain: 1.29 Acres Dunkirk, Maryland 20754 Prev.Dedicated Land: <u>0.00 Acres</u> Phone: <u>301-855-3828</u> Net Tract (NTA): 23.78 Acres Тах Мар: <u>116</u>____ Subdivision/Block/Lot: Surrats Crossing Is this site subject to the 1989 Ordinance? Reforestation Requirement Reduction Questions Is this one (1) single family lot? N Are there prior TCP approvals which includes a combo of these lots and/or other lots? \underline{Y} is this a mitigation bank? <u>N</u> Break-even Point (preservation) = <u>4.97 Acres</u> Clearing permitted w/o reforestation = <u>0.84 Acres</u> Off-site Net Tract Floodplain impacts (acres) (acres) (acres) a. 5.81 k. 1.29 Moodland Conservation Calculations: Existing Woodland Woodland Conservation Threshold (NTA) = 20.00% b. 4.76 Smaller of a or b c. 4.76 Moodland above MCT 1.05 e. 3.54 l. 0.04 0.00 Moodland cleared Smaller of d or e f. 1.05 Clearing above WCT (0.25:1) replacement requirement g. 0.26 Clearing below WCT (2:1 replacement requirement) Afforestation Threshold (AFT) = 15.00% 1. 0.00 j. 0.00 Off-site Mitigation being provided on this property Woodland Conservation Required Moodland Conservation Provided: **Woodland Preservation** Afforestation / Reforestation 0.00 Area approved for fee-in-lieu 5.02 Credits for Off-site Mitigation on another property 0.00 Off-site Mitigation being provided on this property Moodland Conservation Provided 2.27 acres Area of woodland not cleared 0.34 acres Woodland retained but not part of requirements: Plan Certified by: Name: <u>Mike Petrakis</u>
Address: <u>|172| Woodmore Road, Suite 200</u>
<u>Mitchellville, MD 2072|</u>
License: <u>Qualified Professional</u> IMCT is the Woodland Conservation Threshold as shown in Part 5 of the Prince George's County Woodland Conservation and Tree Preservation Policy Document. ² All entries in parentheses are mathematical formulas. NOTE: Off-Site Tree Requirement to be provided at a County Approved Tree Bank.

No.	AREA (AC)
	0.04
TOTAL	0.04

AREA (AC)

0.61

0.61

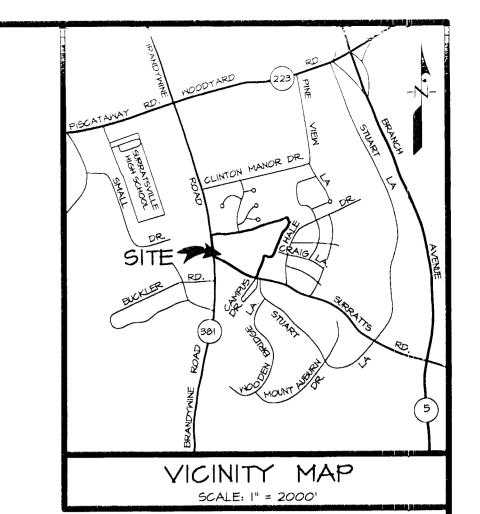
TOTAL

No.	AREA (AC)
	0.24
2	0.64
3	0.32
4	0.13
5	0.02
6	0.14
7	0.05
8	0.39
TOTAL	1.93

PRESERVATION AREAS (PA)

CLEARING AREAS (CA)			
No.	AREA (AC		
l	0.09		
2	0.05		
3	0.03		
4	0.29		
5	2.70		
6	0.38		
TOTAL	3.54		

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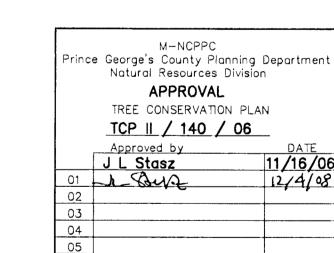


LEGEND	
PROPERTY BOUNDARY	- 4
EX. CONTOUR	
PROP. CONTOUR	72
EX. TREELINE	
LIMITS OF DISTURBANCE	
EXPANDED BUFFER	
COUNTY REGULAT STREAM	ED
STREAM BUFFER (50')	5B
NONTIDAL METLAND	
EX. WETLAND BUFFER (25')	
EX. FLOODPLAIN	FP
CLEARING AREA	

SPECIMEN TREE WITH LIMITS OF CRITICAL ROOT ZONE (30" DBH OR GREATER)

PRESERVATION AREA

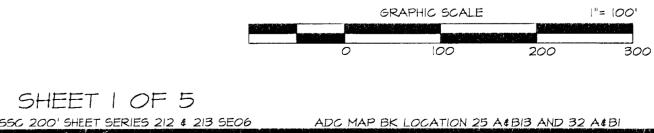
REFORESTATION AREA



TREE CONSERVATION PLAN - TYPE II FOR

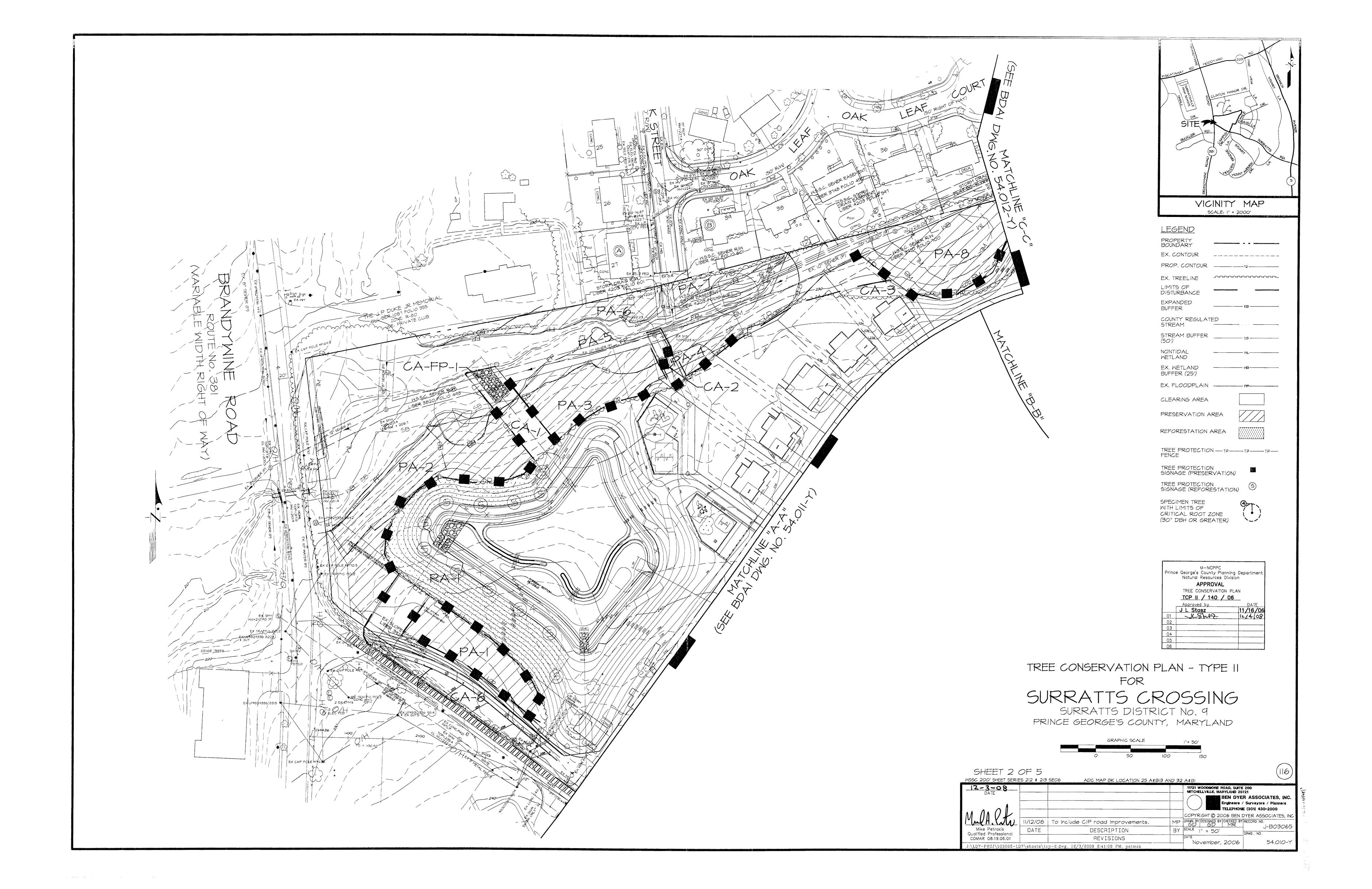
SURRATTS CROSSING

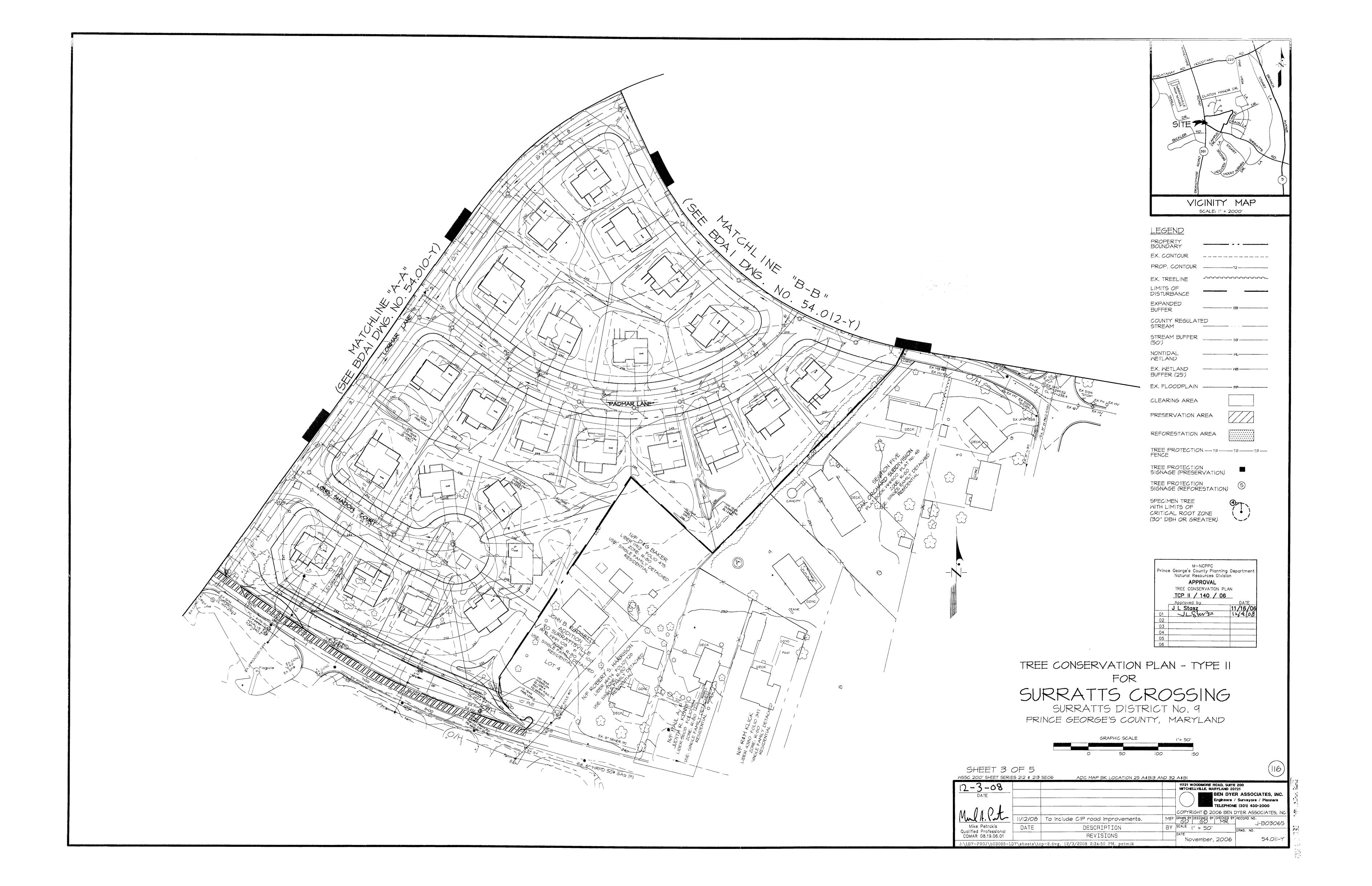
SURRATTS DISTRICT No. 9 PRINCE GEORGE'S COUNTY, MARYLAND

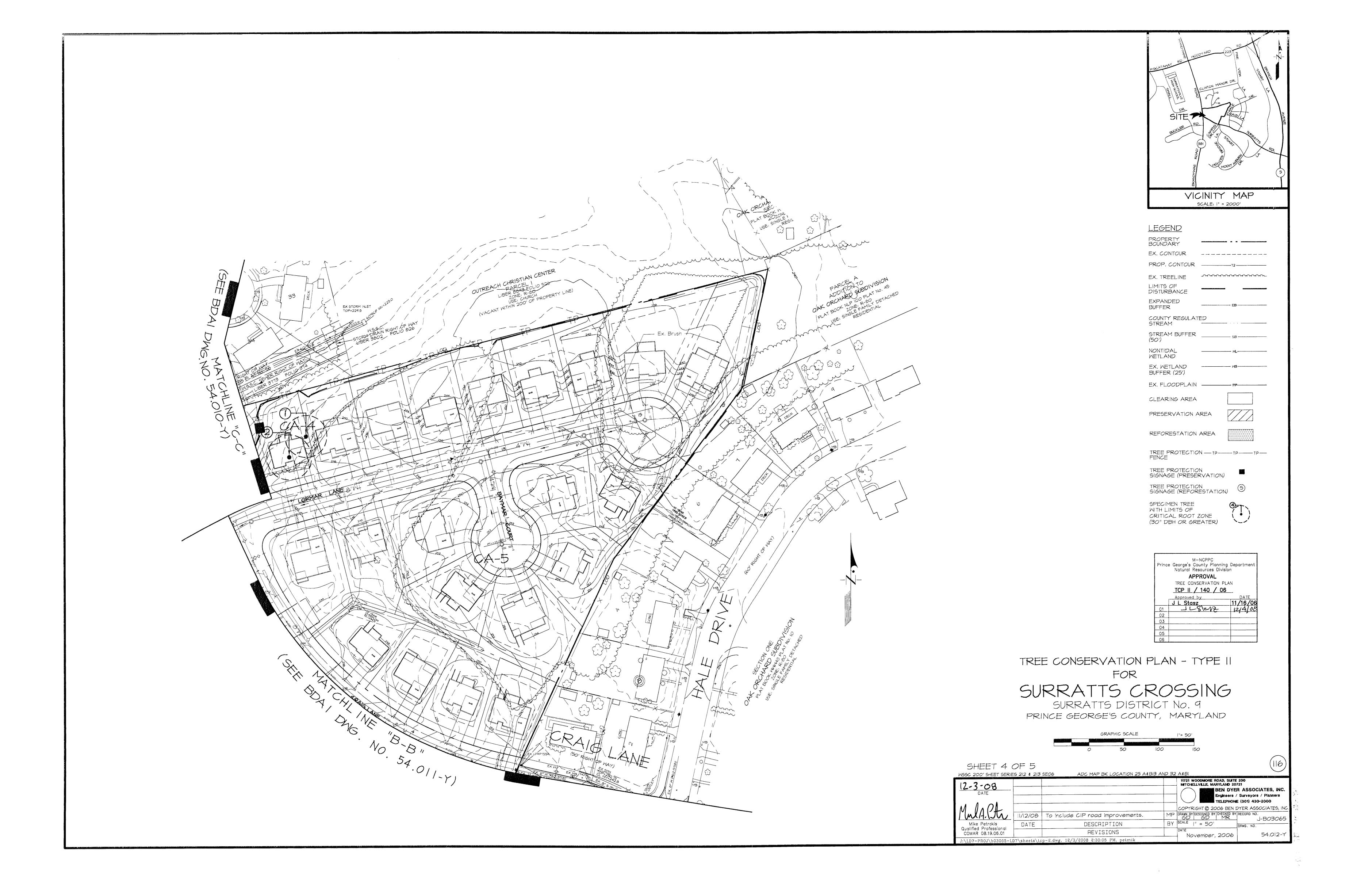


155C 200' SHEET SERIE	5 212 \$ 213	SEO6 ADC MAP BK LOCATION 25 A&BI	3 AND 32	A&BI 11721 WOODMORE ROAD, SUITE	200
12-3-08 DATE				Engineers	721 R ASSOCIATES, INC. / Surveyors / Planners E (301) 430-2000
MULKE	11/12/00	To toolisto CID and tools contain	MP	COPYRIGHT © 2006 BEN I	-
Mike Petrakis	11/12/08 DATE	To include CIP road improvements. DESCRIPTION	BY	GD GD MR SCALE " = 100"	J-B03065
Qualified Professional COMAR 08.19.06.01	5,112	REVISIONS		DATE August, 2006	DRWG. NO. 54.009-Y

_	SPECIMEN TABLE					
No.	Size	Species	Condition	Disposition		
	30"	yellow poplar	Poor	To Be Removed		
2	32"	yellow poplar	Fair	To Be Removed		







THE REE LUNSERVATION NOTES outling or diedring or wood and not in conformance with this plan o without the expressed written consent of the Pianning Director of

- designee, shall be subject to a \$150 per square foot mitigation fee. The Department of Environmental Resources (DER) 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 Moodland 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 Bullding Official until ail required activities have been satisfied. Three copies of the bonds are submitted with the grading permit ap-

i. 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.

- 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 from DER. Upon approval of the flagged or staked TPD locations by the inspector, nstallation 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.
- 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
- 3. All tree planting for woodland replacement, reforestation or afforestation will be completed prior to Use and Occupancy Permit. Fallure 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
- . The DER inspector shall be notified prior to soil preparation or initiation of any tree planting on this site.
- O. Results of survival checks for all tree plantings shall be reported to the DER inspector for the site and M-NCPPC, Environmental Planning Section... Prior to the issuance on any permits, the contractor responsible for soil preparation, site preparation, tree planting and tree maintenance must be

Business Name Phone Number

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 and 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.

- After the boundaries of the retention area have been staked and flagged and before any disturbance has taken place on site, a pre-construction neeting at the construction site shall take place. The developer, contractor
- or project manager, and appropriate local inspectors shall attend. Reforestation planting shall be done after the final grading is established, stabilized and approved by SCD. Reforestation techniques and methods must comply with the details and specifications provided hereon.

WOODLAND CONSERVATION AREA MANAGEMENT NOTES 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

. A tree is considered hazardous if a condition is present which

házardous may be removed.

- 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. if a hazardous condition may be alleviated by corrective pruning,
- the Licensed Arborist or a Licensed Tree Expert may proceed with out 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 cu by chainsan to near the existing ground level. The stump may not be removed or covered with soil, mulch or other materials that would
- 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 shail 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 Woodland Conservation Areas Owned by Individual

- 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 conducted. 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.
- ?. 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
- 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 instr-

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.

<u>Protection of Reforestation and Afforestation Areas by Developers or Builders</u> . 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 environmental planning section.

2. Reforestation areas shall not be moved, however the management of competing vegetation around individual trees is acceptable.

Protection of Reforestation and Afforestation Areas by Individual Homeowners . 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.

Woodland Areas NOT Counted as Part of the Woodland Conservation Requirements . 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, Environnental Planning Section located on the 4th floor of the County Administration Building at 14741 Governor Oden Bowle Drive, Upper Mariboro, 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 cleaning may be allowed, 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.

PLANTING SPECIFICATIONS FOR REJAFFORESTATION AREAS

Quantity: (see Plant Schedule)

until the time of planting.

2. Type: (see Plant Schedule) 3. Plant Quality Standards: The plants selected shall be healthy and sturdy representatives of their species. Seedlings shall have a minimum top growth of 18". The diameter of the root collar (the part of the root ust below ground level) shall be at least 3/8". The roots shall be well developed and at least 8" long. No more than twenty-five percent (25%) of the root system (both primary and auxillary/fibrous) shall show evidence of being cut (pruned) or striped from the plant during the digging process. Substantial auxillary/fibrous roots shall be present.

Plants that do not have an abundance of well developed terminal buds on the leaders and branches shall be rejected. Plants shall be shipped by the nursery immediately after lifting from the field or removal from the greenhouse, and planted immediately upon receipt

by the landscape contractor. If the plants cannot be planted immediately after delivery to the reforest-ation site, they shall be stored in the shade with their root masses protected from direct exposure to sun and wind by the use of straw, peat moss, compost, or other suitable material and shall be maintained through periodic watering,

- Plant Handling: The quantity of seedlings taken to the field shall not exceed the quantity that can be planted in a day. Seedlings, once removed from the nursery or temporary storage area shall be planted immediately.
- 5. Timing of Planting: The best time to plant seedlings is while they are dormant, prior to spring budding. The most sultable months for planting are March and April, when the soil is moist. November and early December are 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
- Seedling Planting: Tree seedlings can be hand planted using a dibble bar or sharp-shooter shovel. It is important that the seedling be placed in the hole so that the roots can spread out naturally; they should not be 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 be 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 plan must be contacted and give his approval before planting may begin.
- 7. Spacing: See Plant Schedule and/or Planting Plan for spacing requirements. Also refer to the Planting Layout detail for a description of the general planting
- 8. Soil: Upon the completion of all grading operations, a soil test shall be conducted 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 uniform, then only one sample is necessary), and submitted for testing to a private company.
- The company of choice shall make recommendations for improving the existing soil. The soil will be tested and recommended for corrections of soil texture, pH, magnesium, phosphorous, potassium, calcium and organic matter.
- 9. Soil improvement Measures: The soil shall then be improved according to the recommendations made by the testing company. 10. Fencing & Signage: Final protective fencing shall be placed on the visible and/or development side of planting areas. The protective fence shall be installed upon

completion of planting operations. Signs shall be posted per the signage detail

- II. Planting Method: Consult the Planting Detail(s) shown on this plan.
- 12. Mulching: Apply 2" thick layer of woodchip or shredded hardwood mulch (as noted) to each planting site (see detail shown on this plan).
- 13. Groundcover Establishment: The remaining disturbed area between seedling planting sites shall be seeded and stabilized with white clover seed at the rate of 5lbs/acre.
- 14. Mowing: No mowing shall be allowed in any planting area.
- 15. Survival Check for Bond Release: The seeding planting is to be checked at the end of each year far two years to assure that no less than 75% of the original planted quantity survives.
- 16. Source of Seedlings: Md. Forest, Park and Wildlife Service in Bowle, Md.; hone (301) 464-3065. Ruppert Environmental, Ashton, Maryland; Phone: (301)774-0400.

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

Site Preparation and Tree Planting <u>Survival check</u> once annually (September-November, see Note 1) <u>Matering if needed</u> (2 x month) Control of undesirable vegetation as needed (1 x in June &

Year 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 #

Year 4-5: Reinforcement planting if needed (See Note 2) <u>Survival check</u> once annually (September-November)

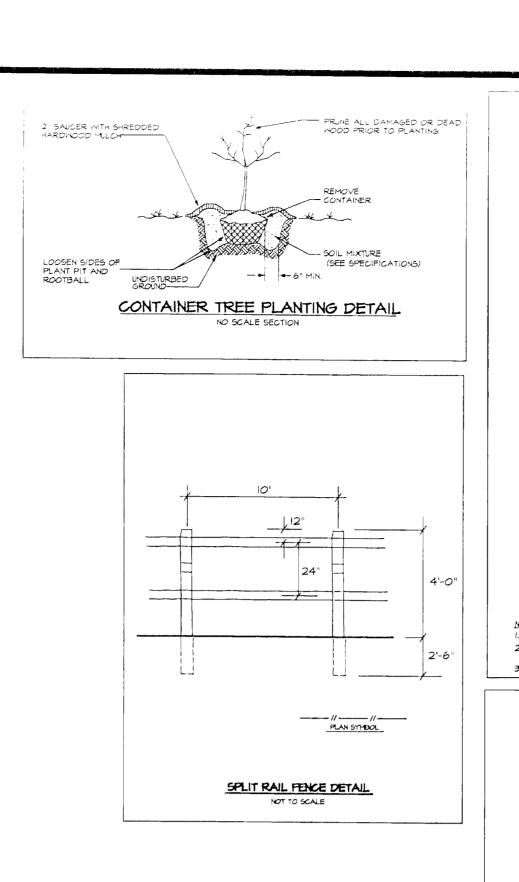
1 x in September min.)

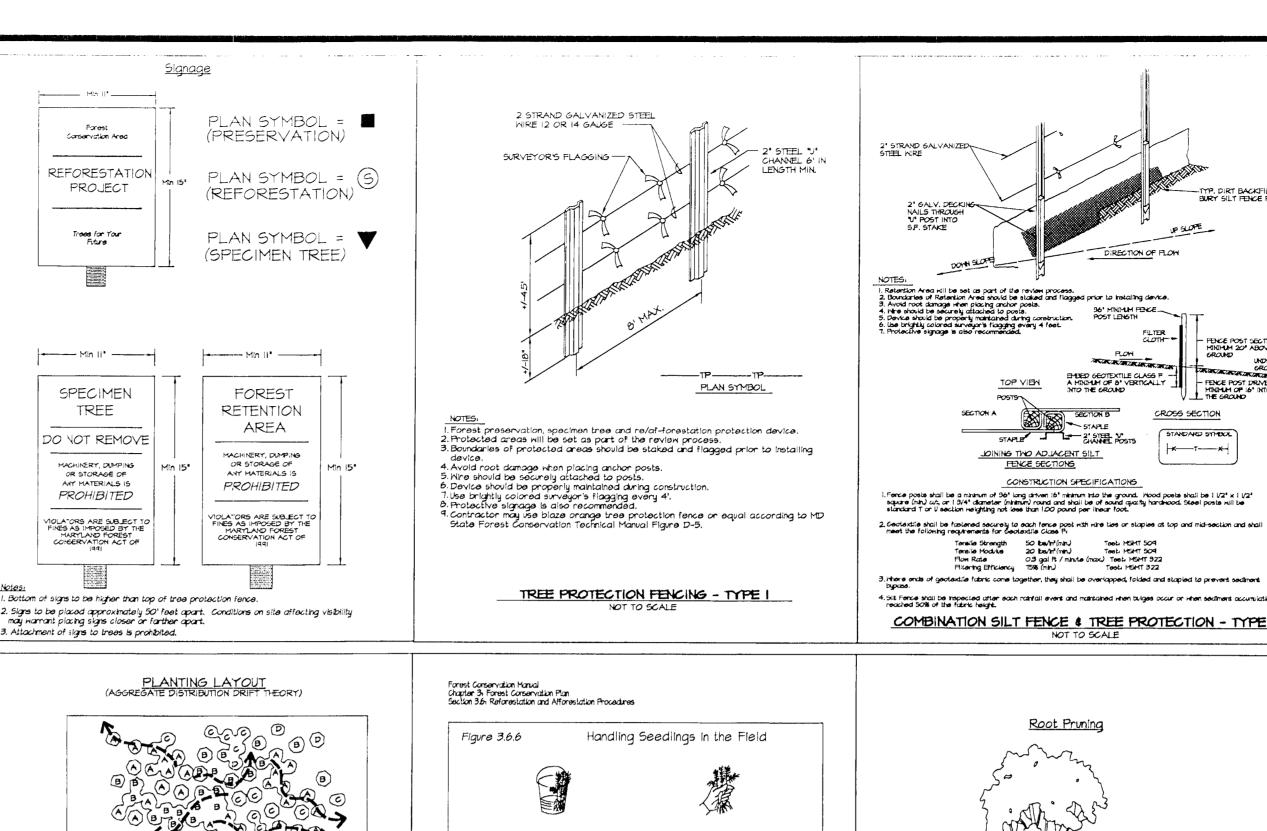
- i) Survival Check: Check planted stock against plant list (or as-built) by walking the site and taking inventory. Plants must show vitality. Submit field data forms (Condition Check Sheets) to owner after each inspection. Remove all dead plants.
- 2) Reinforcement Planting: Replace dead or missing 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.

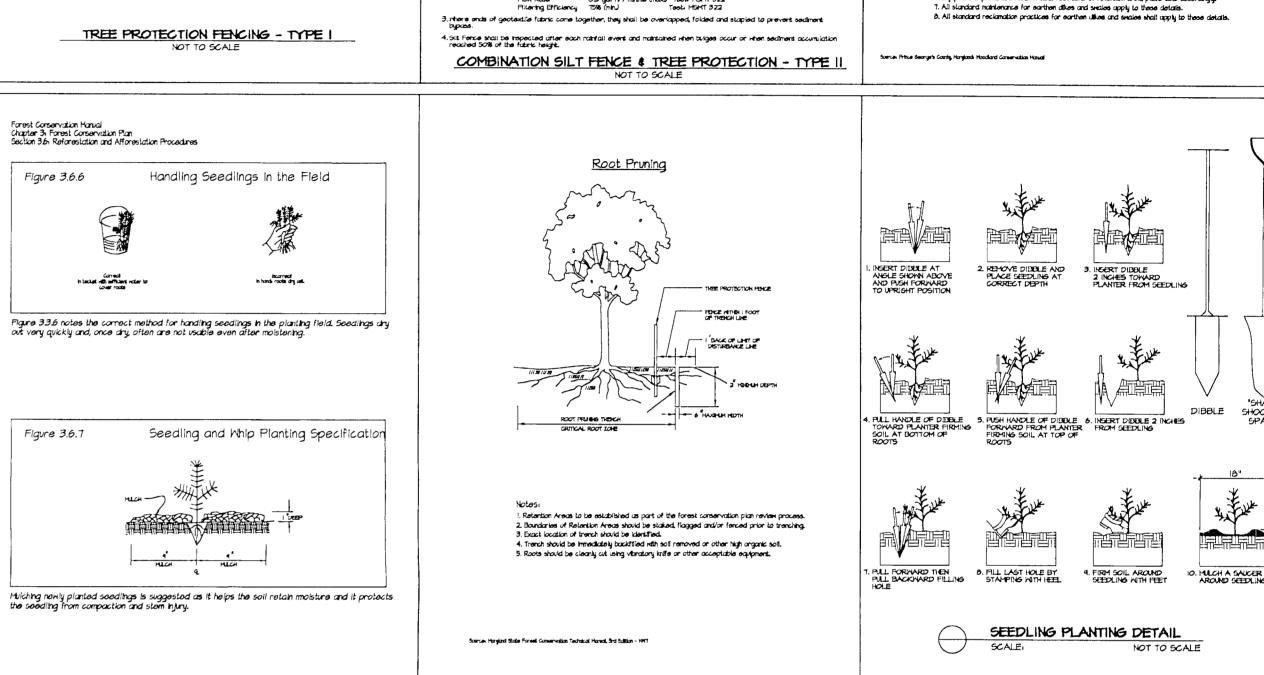
STOCK SPECIFICATION: 1000 SEEDLINGS PER ACRE TOTAL RE/AFFORESTATION REQUIRED: 0.61 ACRES TOTAL RE/AFFORESTATION PROVIDED: 0.61 ACRES

Reforestation A	Acreage	Seedling Selection					
		Tulip Poplar	Sweet Gum	Red Maple	Red Oak	American Beech	Total No. of Seedlings
1	0.61	122	22	122	122	122	610
TOTAL	0.61	122	122	122	122	122	610

| - 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. - In the even't of species unavailability, a substitution may be made. Any substitution made requires written notification to MNCPPC, Environmental Planning Section.







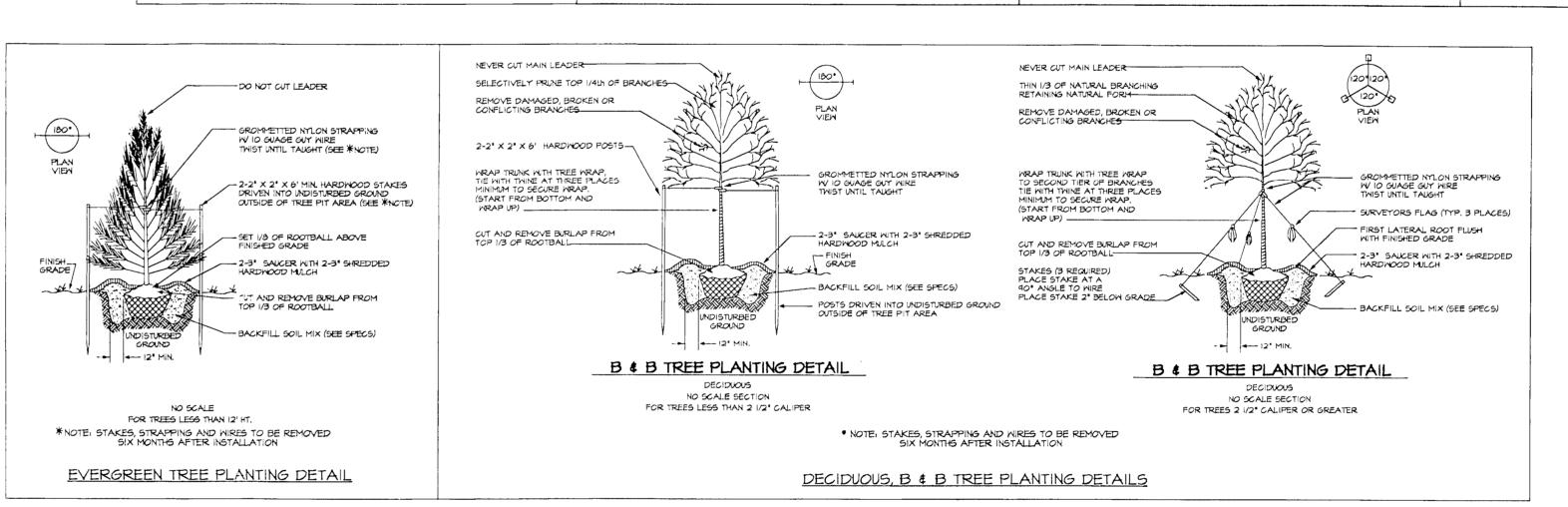
HENCE POST SECTION MINIMUM 20° ABOVE GROUND

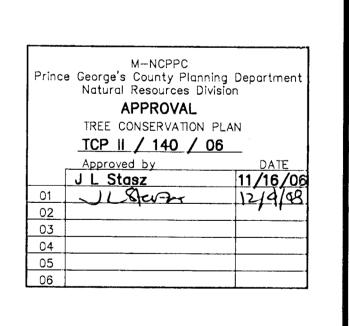
CROSS SECTION

CONSTRUCTION SPECIFICATIONS

STANDARD STIMBOL

K-1--X





COMBINATION EARTH DIKE & TREE PROTECTION - TYPE III

. Combination sectiment control and forest protection device.

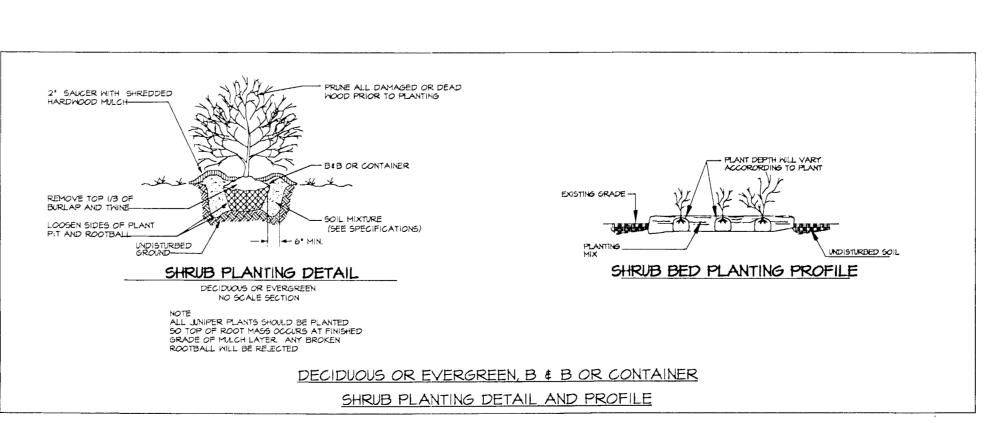
Root damage should be avoided.

2. Boundaries of the Retention Area will be set as part of the forest conservation plan review process.

l. Boundaries of Retention Area should be staked prior to installing protective device.

The Loe of slope should be outside the critical root zone
 Equipment is prohibited within critical root zone of retention area place dike accordingly.

THEE PROTECTION FENCE WITH FLASSONS TAPE EVERY 6' O.C.



Concept: Aggregate Drift or Sweep. A cluster type grouping which tapers or feathers out along the edges.

Example: Aggregate massing or drifts are one of the most common

Application: When developing a planting plan the Maryland Forest

on-center "grid pattern" layout.

tear drop in shape.

vegetation distribution patterns occurring in nature. Principle seed bearers are at the central core of the cluster with seed

dispersal outwards, often windblown, with densities thinning out

along the fringes or extremities (groupings blend through and to other groupings). Imagine the fallout of windblown milkweed seeds. They often appear as aggregate drifts, elongated and

Conservation Manual (pages 98 thru 101) offers recommendations on reforestation methods, species selection, plant materials

and site stocking options. This is meant for determining the

Many of the State's regulatory reforestation sites installed

the aforementioned forest conservation act criteria at the same time replicating natures aggregate drift patterns (see

then using this theory to lay out a planting plan the size of the drifts should depend on the quantity of plants allocated, the scale of the site, and the careful consideration of the

since the inception of the Act appear as orchards. This un-

natural grid patterns can be corrected thru the application of aggregate distribution. This does not mean that plants must be in a grid pattern, the drifts of shrubs cannot blend into

ir together. It simply means that the installer should meet

appropriate number of plants required, not necessarily a feet-

TREE CONSERVATION PLAN - TYPE II DETAILS AND SPECIFICATIONS

SURRATTS CROSSING

SURRATTS DISTRICT No. 9 PRINCE GEORGE'S COUNTY, MARYLAND

