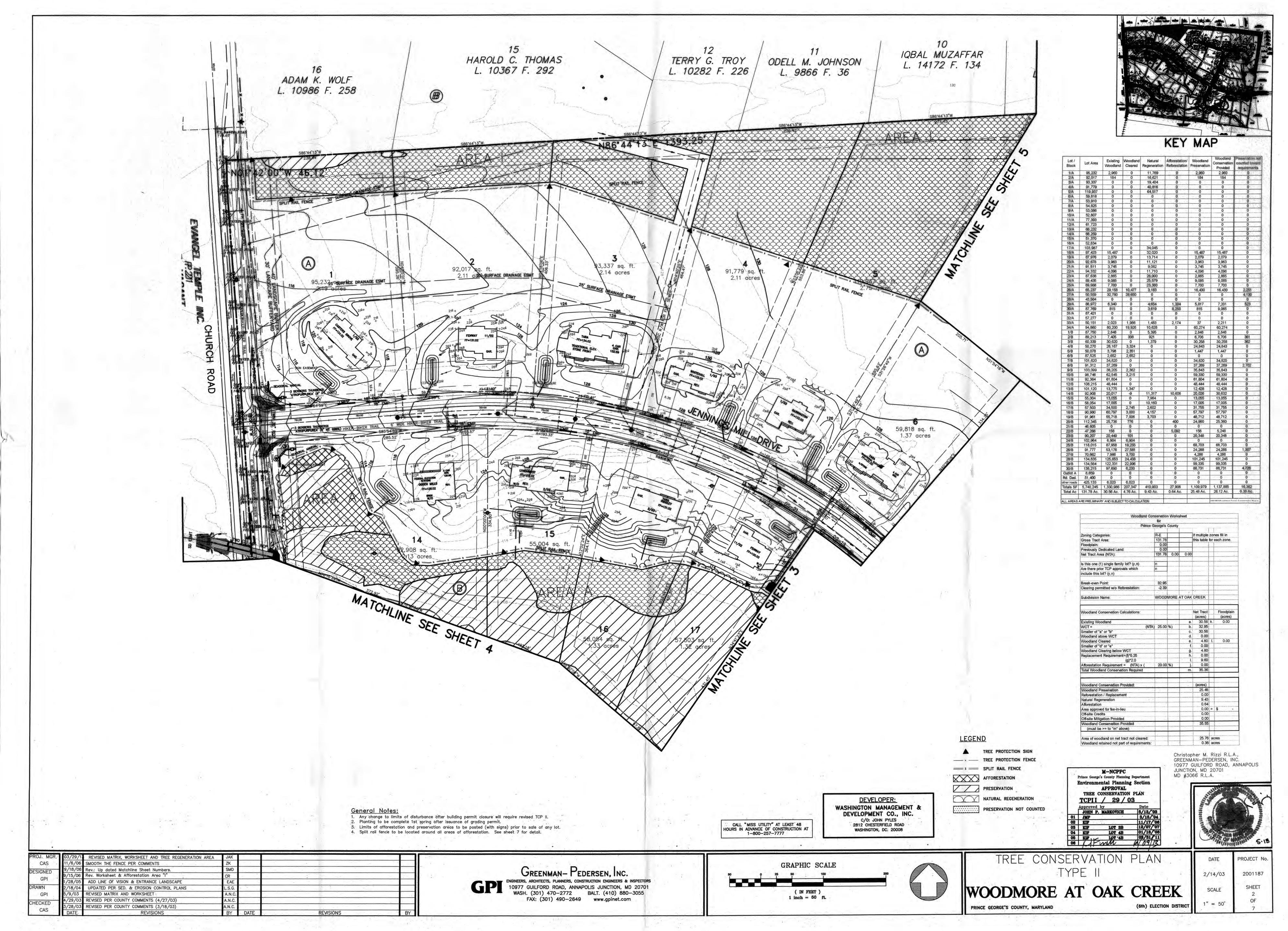
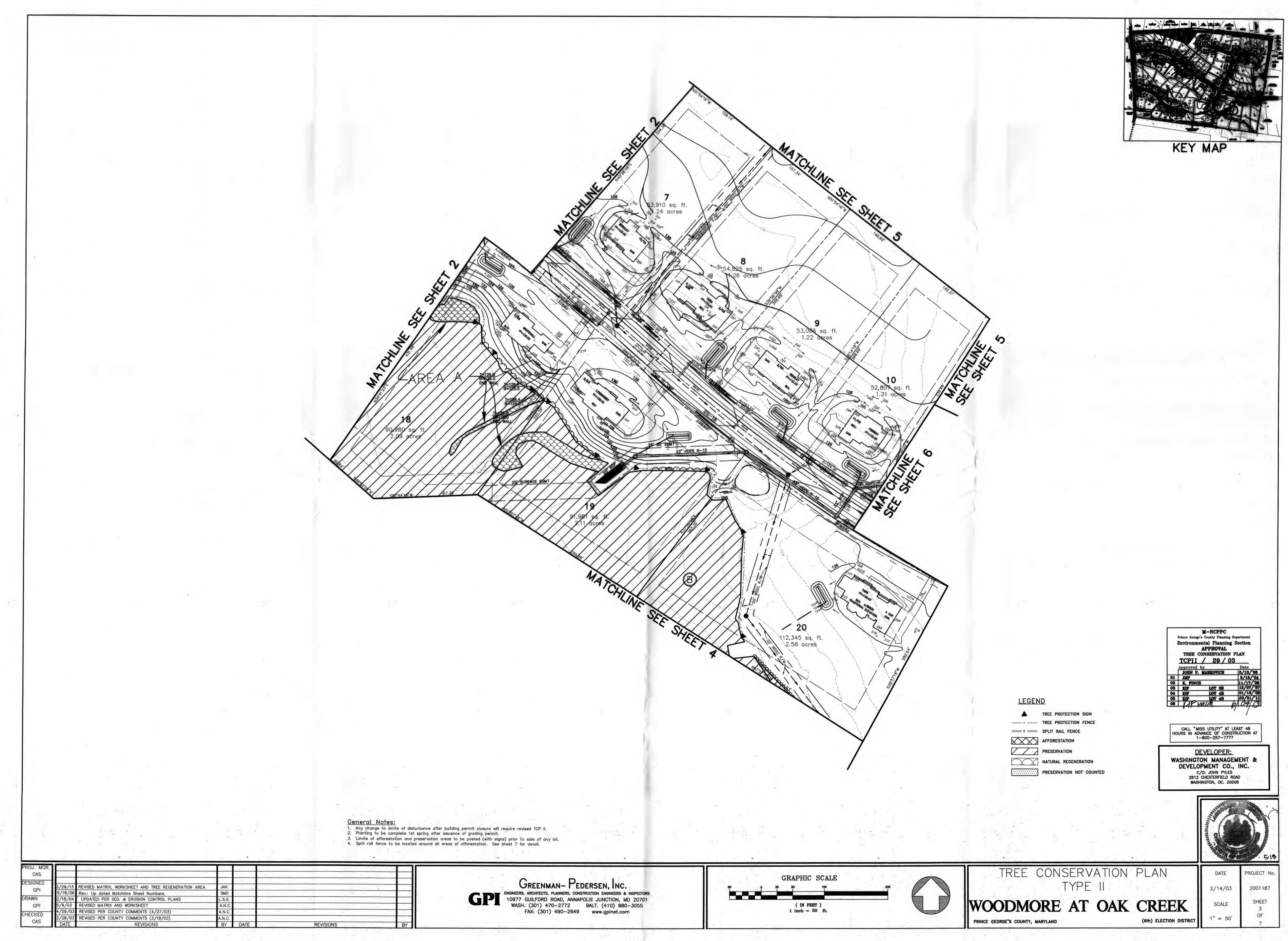


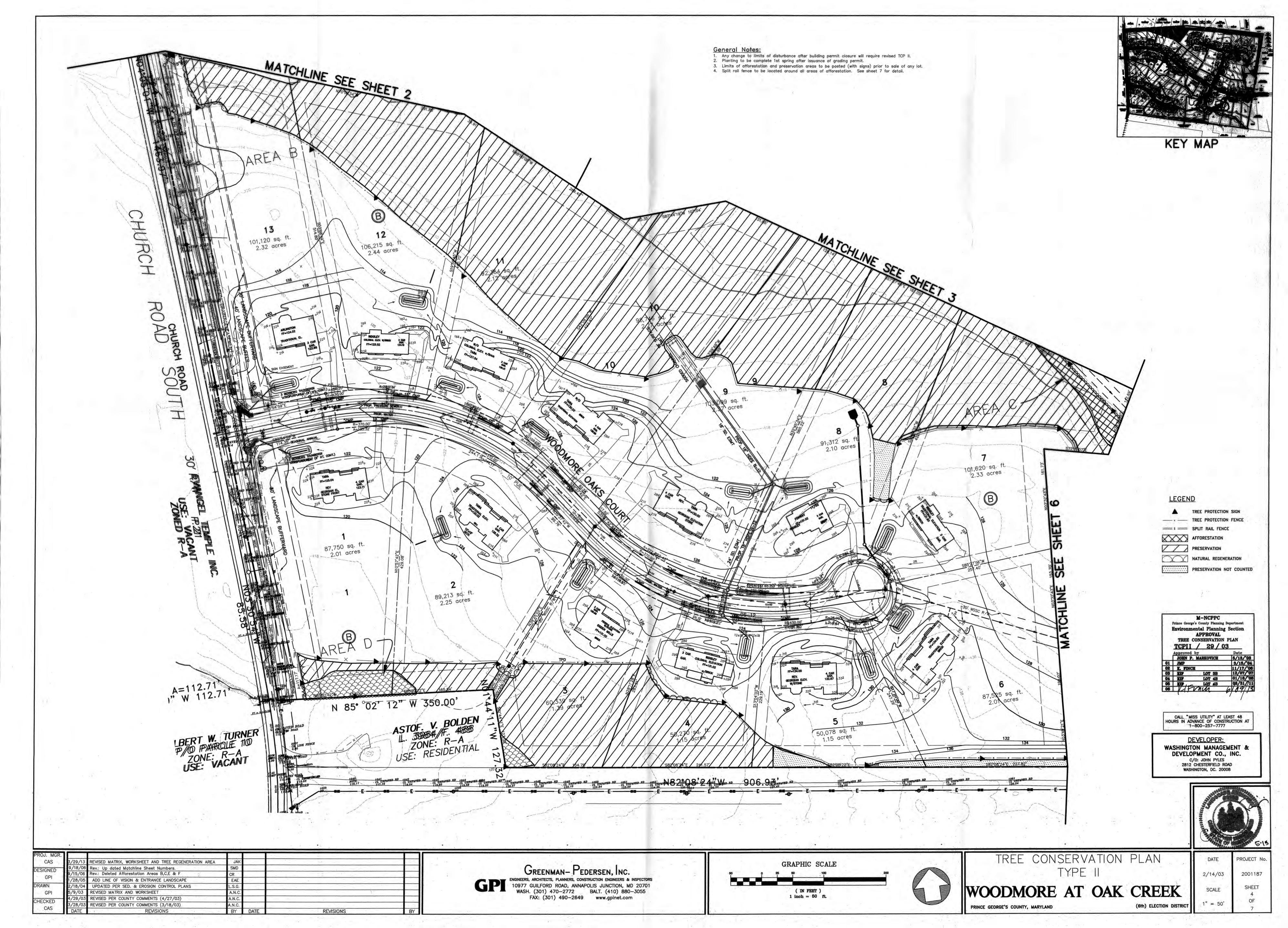
CIVERIANA I FR	LINGEN, ING.
IGINEERS, ARCHITECTS, PLANNERS, CONS	TRUCTION ENGINEERS & INSPECTO
10977 GUILFORD ROAD, ANNAP	OLIS JUNCTION, MD 2070
WASH. (301) 470-2772	BALT. (410) 880-3055
FAX: (301) 490-2649	www.gpinet.com

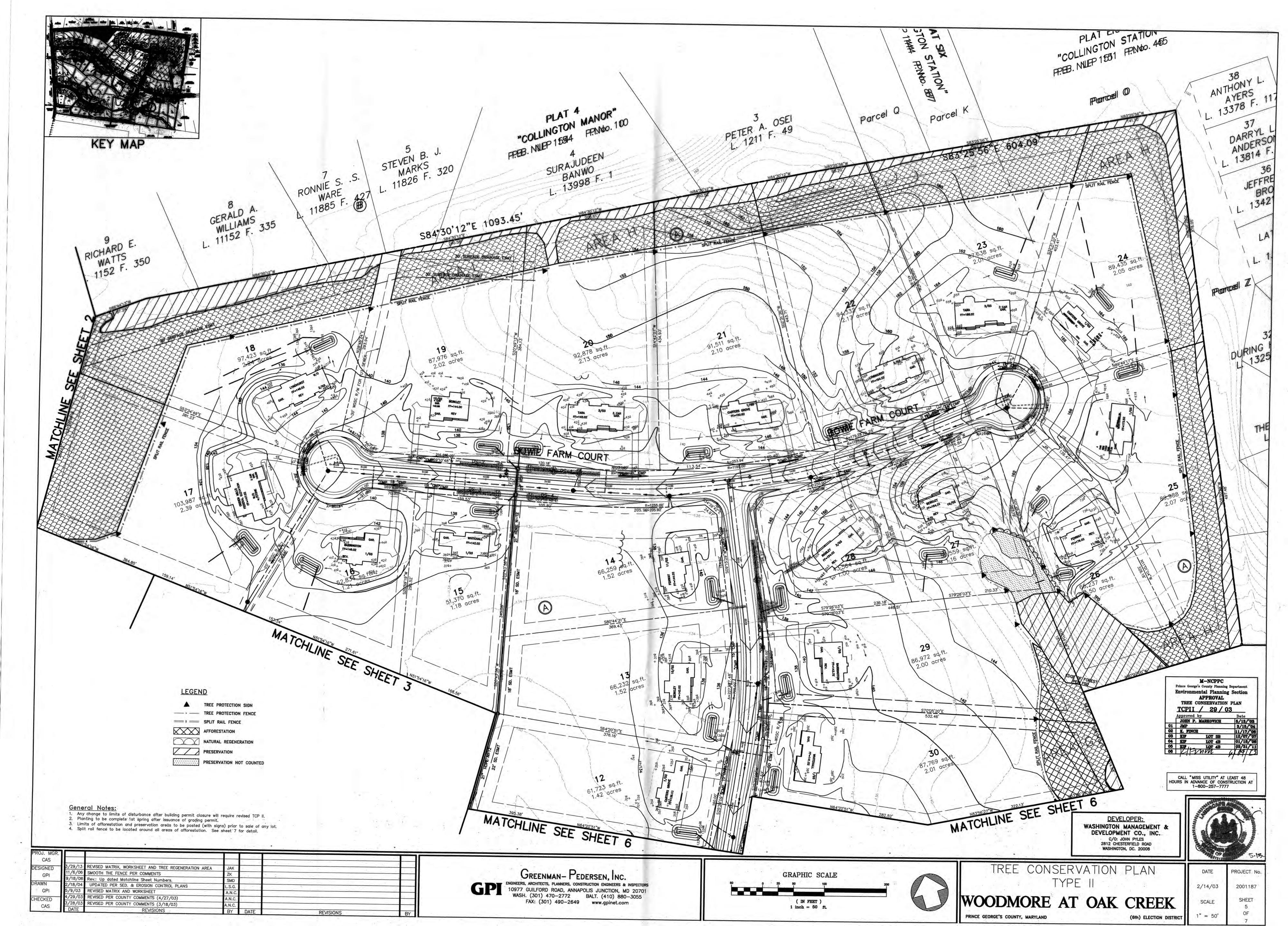
DATA	<u>A</u>	
	WOODMORE AT OAK CREEK EVALINA SUMMERS MITCHELL, et ESTATE OF ALICE H. HALL	al
YANCE:	8/7/1975 WASHINGTON MANAGEMENT & DEVELOPMENT CO., INC. c/o: JOHN PYLES, PRESIDENT	
	2812 CHESTERFIELD ROAD WASHINGTON, D.C. 20008	
	GREENMAN-PEDERSEN, INC.	
	10620 GUILFORD ROAD, SUITE 10 JESSUP, MARYLAND 20794)0
	(301) 470-2772	
	PUBLIC/CATEGORY 4	
	PUBLIC/CATEGORY 4	
MENT:	STORMWATER MANAGEMENT	
	CONCEPTUAL PLAN CSD# (PENDIN	G)
APHY:	RDA ENGINEERING CO., INC.	
4:	NO FLOODPLAIN PER FEMA	
1:	MCCARTHY AND ASSOCIATES	
	14458 OLD MILL ROAD #201	
ATION	UPPER MARLBORO, MD. 20772	
AHON:	J. COOK CONSULTANTS 12211 MT. PLEASANT DRIVE	
	LAUREL, MD 20708	
	SINGLE FAMILY DETACHED	
	RESIDENTIAL LOTS	
	R-A	
	134.01 ACRES	

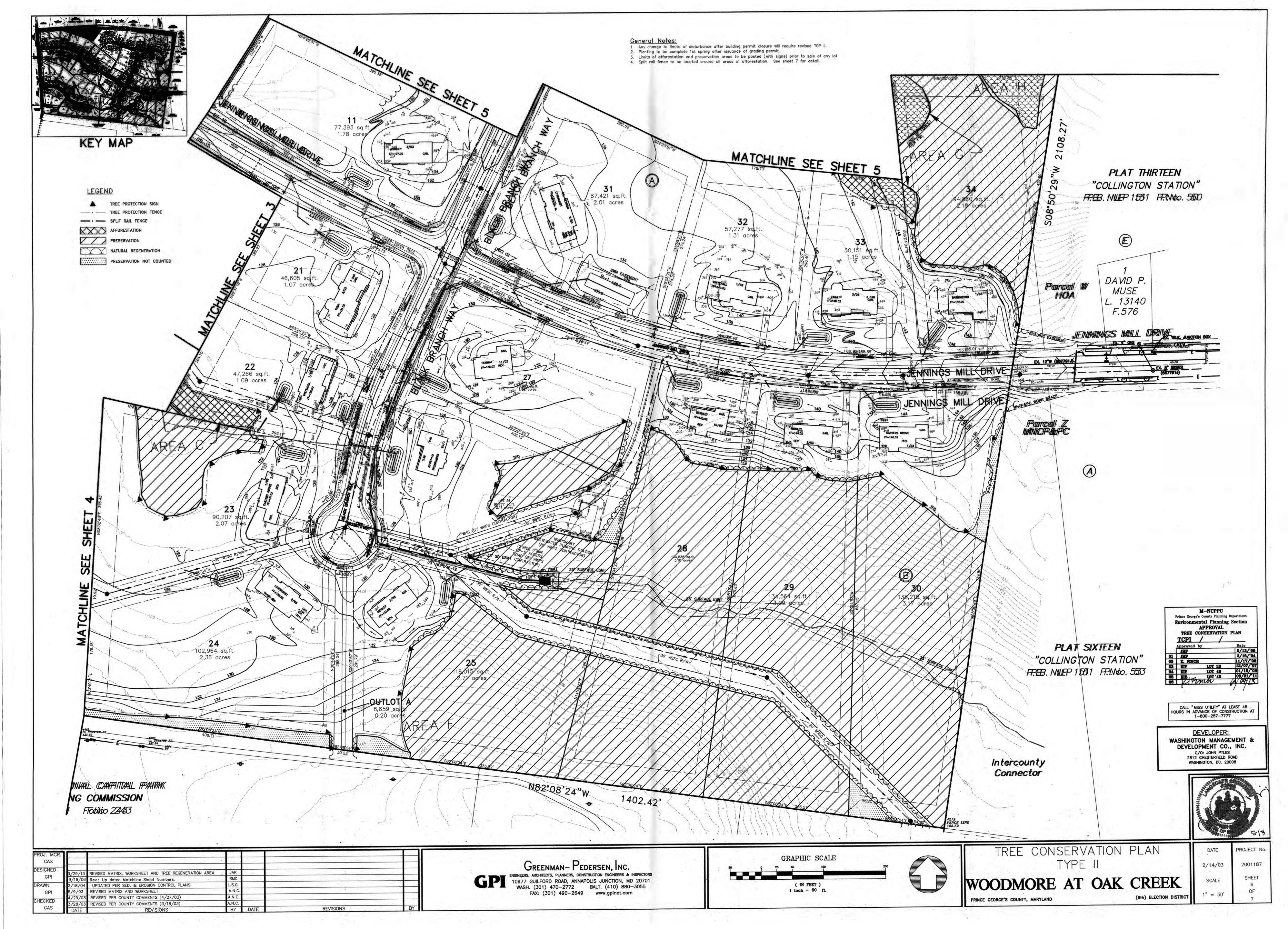
SHEET INDEX
DESCRIPTION
COVER SHEET 1"=100'
REE CONSERVATION PLAN 1"=50'
ETAILS AND SPECIFICATIONS











General Tree Conservation Notes:	HANDLING AND PLANTING OF SEEDLING	SPECIFICATIONS FOR PLANTING
1. 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.	HANDLING AND PLANTING OF SEEDLING HANDLING SEEDLINGS IN THE FIELD	Plant Identification: All plants shall be properly marked for identification
The Department of Environmental Resources (DER) Inspector must be contacted prior to the start of any work on the site to address implementation of Tree Conservation measures shown on	- the	List of Plant Material The Contractor will verify the plant quantities prior to bidding and any
this Plan. 3. All appropriate bonds will 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		discrepancies shall be brought to the attention of the Landscape Architect. The Contractor shall furnish and plant all plants required to complete the work shown on the drawings. Substitution shall not be made
have been satisfied. 4. The location of all Tree Protection Devices (TPDs) for areas of preservation shown on this Plan shall be flagged or staked in the field prior to the pre-construction meeting with the Inspector		without the written approval of the Landscape Architect. This Contract will be based on the bidder having verified prior to bidding, the availability of the required plant material as specified on the Plant
from DER. Upon approval of the flagged or staked TPD locations by the DER Inspector, installation of the TPDs may begin. TPD installation shall be completed prior to installation of initial Sediment	Correct incorrect	Materials List. Plant Quality
Controls. No cutting or clearing of trees may begin before final approval of TPD installation. 5. Since work on this project will be initiated in several phases all TPDs required for a given phase shall be installed prior to any disturbance within that phase of work.	IN BUCKET WITH SUFFICIENT IN HAND: ROOT DRY OUT WATER TO COVER ROOTS	All shrubs shall be dense, heavy to the ground, and well grown, showing
 Woodland Conservation — Tree Save Areas shall be posted as shown at the same time as Tree Protective Device installation. The signs shall remain in place in perpetuity. Roots of all trees within 20 feet of the limits of disturbance shall be cut along the limits of 	NOTE:	evidence of having been sheared regularly, and shall be sound, free of plant disease or insect eggs and shall have a healthy normal root system. Plants shall be freshly dug and not heeled—in stock, nor from
disturbance to a depth of at least 18 inches using a vibratory plow (cable laying machine) or toothed chain trencher, prior to installation of Tree Protective Devices or start of grading.	Seedlings dry out very quickly and, once dry, often are not usable even after moistening.	cold storage. All plants shall be nursery grown (except as noted below). Plants shall not be pruned prior to delivery. The shape of the plant shall in general conform to its natural growth proportions unless
 Contractor is liable for any damages he causes during construction to any preservation areas, fences, roads, paved paths, utilities, or other improvements on private or public property. Approved Sediment and Erosion Control Measures may be substituted in lieu of Tree Protective 	SEEDLING PLANTING METHODS	otherwise specified. Trees shall conform to the branching, caliber, and height specifications of the American Association of Nurserymen, and shall have a well—shaped, heavy branch structure for the species. Evergreen
Devices (TPDs) shown on this plan. In-field location and substitutions must be approved by the DER Inspector.	A. DIBBLE PLANTING	trees are to have an internode no greater than 18" and shall be uniformly well shaped. All plant sizes shall average at least the middle of the range given in the plant list.
10. Tree Protection Device shown below (Detail 1) is to be used for both preservation and reforestation areas.		Soil Mix
		Soil mix will be 2/3 existing soil, 1/3 leafmold or equal organic material, thoroughly mixed and homogenized.
	DIBBLE	Excavation
		Holes for all plants shall be 18" larger in diameter than size of ball or container and shall have vertical sides. Hedges shall be planted in a trench 12" wider; beds for mass planting shall be entirely rototilled to a
		depth of 8" and shall be 18" beyond the average outside edge of plant balls.
	1. INSERT DIBBLE AT 2. REMOVE DIBBLE AND 3. INSERT DIBBLE ANGLE SHOWN ABOVE PLACE SEEDLING AT 2 INCHES TOWARD	Planting
	AND PUSH FORWARD CORRECT DEPTH. PLANTER FROM SEEDLING. TO UPRIGHT POSITION.	Backfilling shall be done with soil mix, reasonably free of stones, subsoil, clay lumps, stumps, roots, weeds, bermuda grass, litter, toxic substances, or any other material which may be harmful to plant growth,
AFFORESTATION DETAIL	SOURCE: adapted from the Maryland State FOREST CONSERVATION MANUAL	or hinder grading, planting, or maintenance operations. Should any unforeseen or unsuitable planting conditions arise, such as faulty soil drainage or chemical residues, they should be called to the attention of
LEGEND		the Landscape Architect and Owner for adjustment before planting. The plant shall be set plumb and straight, and shall be staked at the time of planting. Backfill shall be well worked about the roots and settled by
O RED MAPLE ■ SYCAMORE ● PIN OAK □ SWEETGUM		of planting. Backfill shall be well worked about the roots and settled by watering. Plants will be planted higher than surrounding grade. Shrubs will be 1" higher and trees will be 3" higher.
AFFORESTATION AREA "A" PLANT SCHEDULE	HANDLING AND PLANTING OF SEEDLING (CONT.)	Cultivation
SPECIES CONDITION QUANTITY		All trenches and shrub beds shall be cultivated, edged and mulched to a depth of 3" with fine shredded hardwood bark. The area around
ACER RUBRUM - RED MAPLE WHIP 695 (30%) QUERCUS PALUSTRIS - PIN OAK WHIP 464 (20%) LIQUIDAMBER STYRACIFLUA - SWEETGUM WHIP 695 (30%)		isolated plants shall be mulched to at least a 6" greater diameter than that of the hole. Plant beds adjacent to buildings shall be mulched to the building wall.
PLATANUS OCCIDENTALIS - SYCAMORE WHIP 464 (20%) 1.16 acres x 1,000 inch calipers/acre =1159 x 1/2 inch average caliper = 2318		Maintenance
Note: At least 25% of whips for each species shall be 1"caliper material or larger and be at least 24 inches in height.	4. PULL HANDLE OF DIBBLE 5. PUSH HANDLE OF DIBBLE 6. INSERT DIBBLE 2 INCHES TOWARD PLANTER FIRMING FORWARD FROM PLANTER FROM SEEDLING.	The Contractor shall be responsible during the contract and up to the time of acceptance, for keeping the planting and work incidental thereto in good conditions, by replanting, plant replacement, watering, weeding,
AFFORESTATION AREA "B" PLANT SCHEDULE	SOIL AT BOTTOM OF FIRMING SOIL AT TOP OF ROOTS. ROOTS.	cultivating, pruning and spraying, restaking and cleaning up and by performing all other necessary operations of care for promotion of apod plant growth so that all work is in satisfactory condition at time
SPECIES CONDITION QUANTITY ACER RUBRUM - RED MAPLE WHIP 918 (30%)	Mile We we	of acceptance, at no additional cost to the Owner.
QUERCUS PALUSTRIS - PIN OAK WHIP 612 (20%) LIQUIDAMBER STYRACIFLUA - SWEETCHAN WHIP 918 (30%) PLATANUS OCCIDENTALIS - SYGAMORE WHIP 612 (20%)		Fertilizer
1.53 acres x 1,000 inch collipers/acre = 1530 x 1/2 inch average colliper = 3060	7. PULL FORWARD THEN 8. FILL LAST HOLE BY 9. FIRM SOIL AROUND PULL BACKWARD FILLING STAMPING WITH HEEL. SEEDLING WITH FEET.	Fertilizer shall be a slow release type contained in polyethylene perforated bags with micropore holes for controlled feeding such as Easy Grow as manufactured by Specialty Fertilizer, Inc., Box 355,
Note: At least 25% of whips for each species shall be 1"caliper material or larger and be at least 24 inches in height.	HOLE. APPLY MULCH 2-4".	Suffern, New York 10901 or approved equal. The bags shall contain 1 ounce of soluble fertilizer analysis 16—18—18 per units to last for three years and shall be applied during planting as recommended by the
AFFORESTATION AREA "C" PLANT SCHEDULE SPECIES CONDITION QUANTITY	B. MATTOCK PLANTING	manufacturer. If fertilizer packets are not used the Contractor shall apply granular fertilizer to the soil mix with 10-6-4 analysis at the following rates: Tree Pits, 2-3 lbs. per caliper inch; Shrub Beds, 3-5 lbs.
ACER RUBRUM - RED MAPLE WHIP 318 (30%) QUERCUS PALUSTRIS - PIN OAK WHIP 212 (20%)	No the state	per 100 square foot; Ground cover, 2—3 lbs. per 100 square foot. Ground Cover
LIQUIDAMBER STYRACIFLUA - SWEETSHAN WHIP 318 (30%) PLATANUS OCCIDENTALIS - SYCAMORE WHIP 212 (20%)		All areas of around cover shall be rotatilled to a depth of 6". Apply
0.53 acres x 1,000 Inch catters/acre = 530 x 1/2 Inch average caller = 1060 Note: At least 25% of whips for each species shall be 1"caller material	1. INSERT NATTLOCK. LIFT HANDLE AND PULL. 2. PLACE SEEDLING ALONG 3. FILL IN AND PACK SOIL STRAIGHT SIDE AT TO BOTTOM OF ROOTS.	2" of organic material and rototill until thoroughly mixed. Apply fertilizer as stated above.
or larger and be at least 24 inches in height. AFFORESTATION AREA "D" PLANT SCHEDULE	CORRECT DEPTH.	Guarantee and Replacement
SPECIES CONDITION QUANTITY ACER RUBRUM - RED MAPLE WHIP 108 (30%)		All materials shall be unconditionally guaranteed for one year. The Contractor is not responsible for losses or damages caused by mechanical injury or vandalism. Guarantee shall cover both labor and
QUERCUS PALUSTRIS - PIN OAK WHIP 72 (20%) LIQUIDAMBER STYRACIFLUA - SWEETGUM WHIP 108 (30%)	4. FIRM AROUND SEEDLING 5. FINISH FILLING IN SOIL WITH HEEL. AND FIRM WITH FEET.	materials. Earth saucers and stakes and guys shall be removed and trees shrubs and whips mulched to 3" maximum depth with shredded bark
PLATANUS OCCIDENTALIS - SYCAMOREWHIP72 (20%)0.18 acres x 1,000 inch calipers/acre = 180 x 1/2 inch average caliper =360	WITH HEEL. APPLY MULCH 2-4".	just prior to expiration of the one—year guarantee. The owner shall be notified in writing when this work is to occur.
Note: At least 25% of whips for each species shall be 1"caliper material or larger and be at least 24 inches in height.	SOURCE: adapted from the Maryland State FOREST CONSERVATION MANUAL	Plant Spacing Plant spacing is generally to scale on plan. Shrub spacing is noted in
AFFORESTATION AREA "E" PLANT SCHEDULE		the plant list. No plants except viney ground covers or espaliered material shall be closer than 30" to building, walks or curbs.
SPECIES CONDITION QUANTITY ACER RUBRUM - RED MARLE WHIP 438 (30%) QUERCUS PALUSTRIS - PIN OAK WHIP 292 (20%)		
LIQUIDAMBER STYRACIFLUA - SWEETGLAN WHIP 438 (30%) PLATANUS OCCIDENTALIS - SYCAMORE WHIP 292 (20%)		
0.73 acres x 1,000 inch calipers/acre = 730 x 1/2 inch average caliper = 1460		
Note: At least 25% of whips for each species shall be 1"caliper material or larger and be at least 24 inches in height. AFFORFSTATION ARFA "F" PLANT SCHEDULE		
SPECIES CONDITION QUANTITY		
ACER RUBRUM - RED MAPLE WHIP 84 (30%) QUERCUS PALUSTRIS - PIN OAK WHIP 56 (20%) LIQUIDAMBER STYRACIFLUA - SWEEDCHAL WHIP 84 (30%)		PRESSURE TREATED
PLATANUS OCCIDENTALIS - SYCAMORE WHIP 56 (20%) 0.14 acres x 1,000 inch calipers/acre = 140 x 1/2 inch average caliper = 280		SPLIT RAIL
Notes 21 locat 25% of which for each species shall be 1"colliner material	ation Notes:	4"x4" POST / 10'-0" O.C. MAX
	/Whips will be hand planted using random distribution of species and locations, at an of 1,000 inch calipers per acre, utilizing the "Dibble Planting" or "Mattock Planting" methods.	has a factor
SPECIESCONDITIONQUANTITYaverageACER RUBRUM - RED MAPLEWHIP377 (30%)2.SeedlingsLocal soSeedlingsSeedlingsSeedlingsSeedlings	/Whips will be graded for quality, especially root systems, before planting, and come from	
QUERCUS PALUSTRIS - PIN OAKWHIP251 (20%)Iocal soLIQUIDAMBER STYRACIFLUA - SWEETGUMWHIP377 (30%)3. Contract	arces. or will provide for proper care of seedlings, including during transport, in storage, dling in the field.	
PLATANUS OCCIDENTALIS - SYCAMORE WHIP 251 (20%) and han 0.63 acres x 1,000 inch calipers/acre = 628 x 1/2 inch average caliper = 1256 4. Any trewill be	e shown by inspection within 30 days of planting to be improperly planted replaced and properly planted with new trees of the same type and ations. If 20% or more of seedlings are improperly planted, the entire nay be required to be replaced with new trees properly planted, or the	
total o	of the trees and replanting repaid to the owner, at the owners option.	
AFFORESTATION AREA "H" PLANT SCHEDULE 5. The plant for 5 y during	nting contractor shall guarantee a minimum of 75% survival of the plants ears from date of planting. Plants will be field checked at least three times the first year, with watering if needed and control of undesirable vegetation ed. Plants will be field checked two times during the second and third years nforcement planting if needed and control of undesirable vegetation if Plants will be field checked one time during the fourth and fifth years nforcement planting if needed. Records of survival to be maintained during d checks. Field data forms will be sent to the client after each visit. Dead will be replaced to maintain at least 75% survival. Perimeter fencing and will be removed after year 5 based on the date planted.	FINISH GRADE
SPECIESCONDITIONQUANTITYduringACER RUBRUM - RED MAPLEWHIP1560 (30%)if needQUERCUS PALUSTRIS - PIN OAKWHIP1040 (20%)needed	ed. Plants will be field checked two times during the second and third years nforcement planting if needed and control of undesirable vegetation if Plants will be field checked one time during the fourth and fifth years	
QUERCUS PALUSTRIS - PIN OAK With 1040 (20%) needed LIQUIDAMBER STYRACIFLUA - SWEETGUM WHIP 1560 (30%) with re PLATANUS OCCIDENTALIS - SYCAMORE WHIP 1040 (20%) the fiel	nforcement planting if needed. Records of survival to be maintained during d checks. Field data forms will be sent to the client after each visit. Dead will be replaced to maintain at least 75% survival. Perimeter fencing and	CONCRETE FOOTING
C Contract	will be removed after year 5 based on the date planted. or will locate all existing utilities prior to start of operations.	SPLIT RAIL FENCE (NTS)
or larger and be at least 24 inches in height. 7. Contract	or to adjust plant locations to avoid existing utilities and maintain existing Its. New plant locations to be approved by the County and/or Urban Forester.	AREAS OF AFORESTATION
AFFORESTATION AREA I PLANT SCHEDULE SPECIES CONDITION QUANTITY 8. Contract cost to	or is liable for damages caused to any utilities, including any repairs, at no additional the owner.	
ACER RUBRUM – RED MAPLE WHIP 2502 (30%) 9. Contract QUERCUS PALUSTRIS – PIN OAK WHIP 1668 (20%) other in	or is liable for damages he causes during planting to any fences, roads, paved paths, provements on private or public property.	
LIQUIDAMBER STYRACIFLUA - SWEETGUMWHIP2502 (30%)PLATANUS OCCIDENTALIS - SYCAMOREWHIP.1668 (20%)10. The edge4.17 acres x 1,000 lnch calipers/acre = 4170 x 1/2 lnch average caliper =8,34010. The edge	es of reforestation areas shall be defined with larger plant materials, 1" caliper and at least 24 inches in height.	
Note: At least 25% of whips for each species shall be 1"caliper material		
or larger and be at least 24 inches in height.	•	
		Greenman-Pedersen, Inc.
3/29/13 REVISED MATRIX, WORKSHEET AND TREE REGENERATION AREA JAK 9/15/06 Rev.: Deleted Reforestation Areas B,C,E & F , Rev Area I CR GPI 9/15/06 Rev.: Plant Schedule CR		ENGINEERS ARCHITECTS PLANNERS, CONSTRUCTION ENGINEERS & INSPECTO
N 2/18/04 UPDATED PER SED. & EROSION CONTROL PLANS L.S.G.		GPI 10977 GUILFORD ROAD, ANNAPOLIS JUNCTION, MD 2070 WASH. (301) 470-2772 BALT. (410) 880-3055
GPI 5/9/03 REVISED MATRIX AND WORKSHEET A.N.C. 4/29/03 REVISED PER COUNTY COMMENTS (4/27/03) A.N.C.		FAX: (301) 490–2649 www.gpinet.com

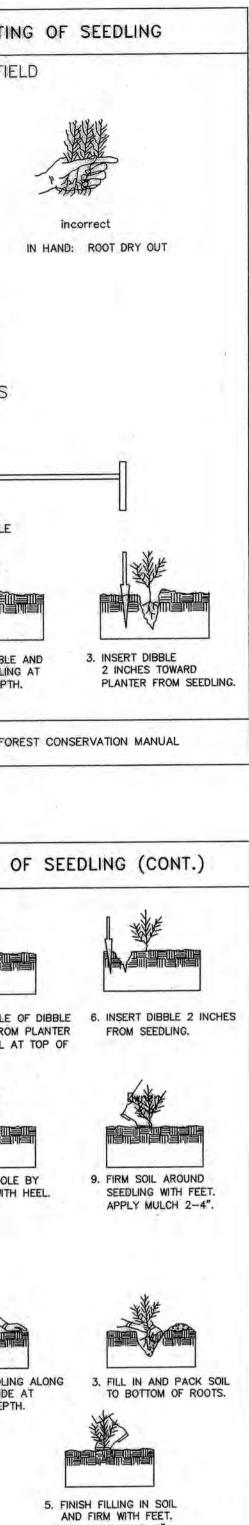
CHECKED

CAS

/28/0.

REVISED PER COUNTY COMMENTS (3/18/03)

REVISIONS



REVISIONS

DATE

SPECIFICATIONS FOR PLANTING

Materials List. Plant Quality

Soil Mix Soil mix will be 2/3 existing soil, 1/3 leafmold or equal organic material,

Planting ____

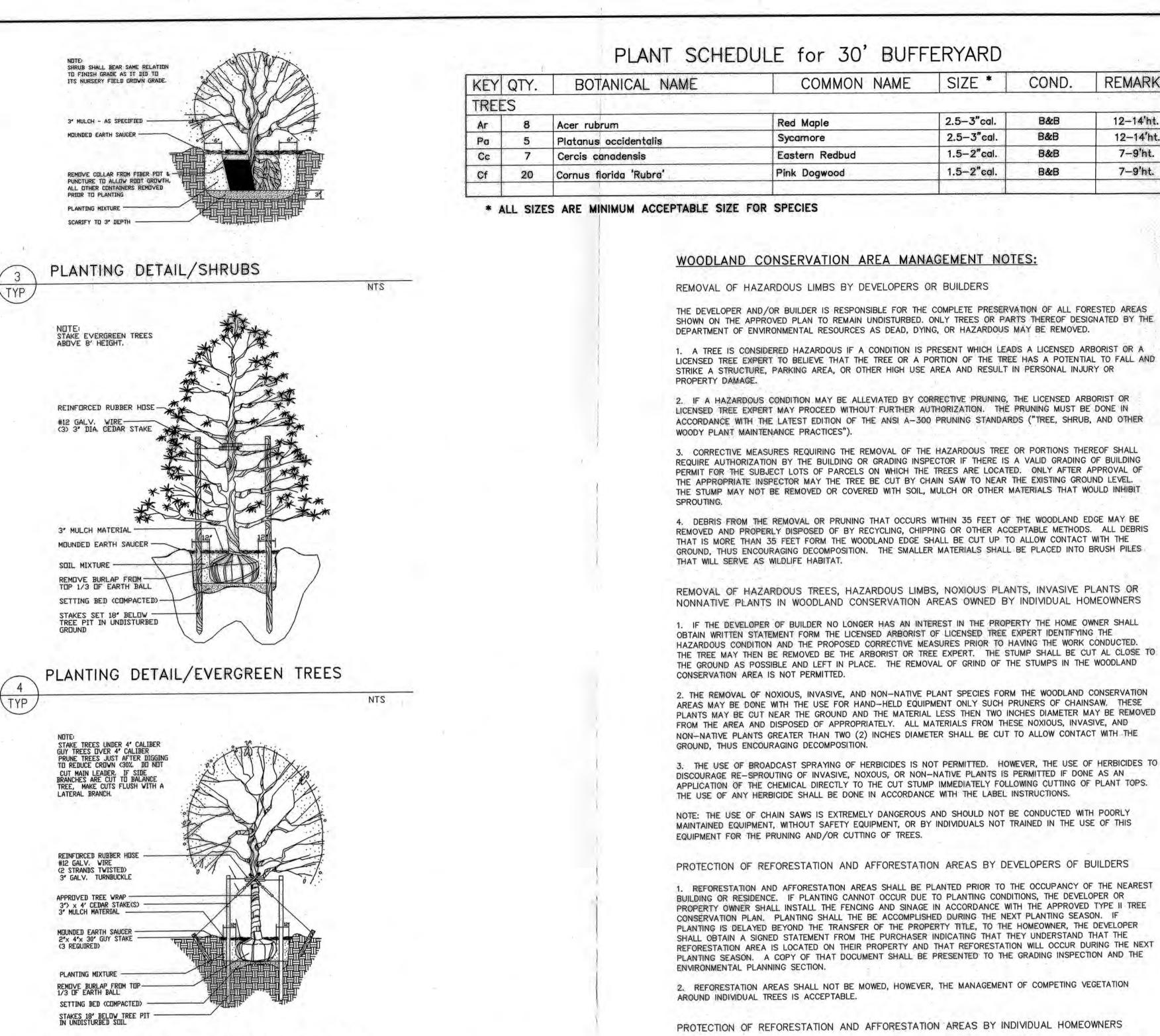
Cultivation

Fertilizer _____

Ground Cover

Guarantee and Replacement

Plant Spacing

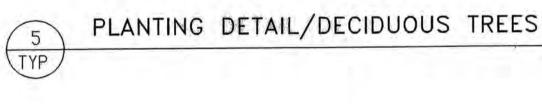


NTS

TREE CONSERVATION SIGN

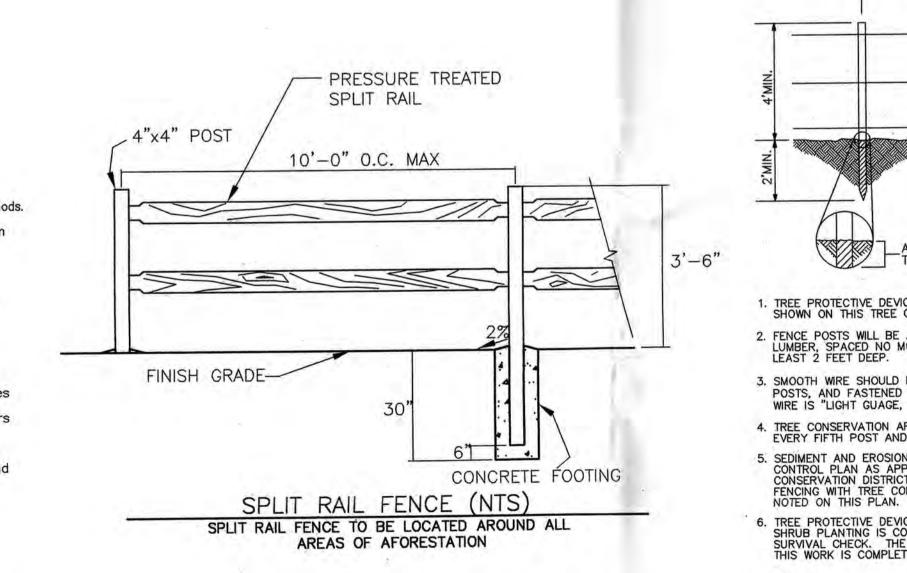
INSTALL WIRE AT ABOUT

EQUAL SPACING



MAXIMUM 8 FEET

SMOOTH WIRE FENCE



TYP SMOOTH WIRE FENCE



1. REFORESTATION AND AFFORESTATION AREAS SHALL BE PLANTED PRIOR TO THE 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 SINAGE IN ACCORDANCE WITH THE APPROVED TYPE II TREE CONSERVATION PLAN. PLANTING SHALL THE BE ACCOMPLISHED DURING THE NEXT PLANTING SEASON. IF PLANTING IS DELAYED BEYOND THE TRANSFER OF THE 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 INSPECTION AND THE

2. REFORESTATION AREAS SHALL NOT BE MOWED, HOWEVER, THE MANAGEMENT OF COMPETING VEGETATION

PROTECTION OF REFORESTATION AND AFFORESTATION AREAS BY INDIVIDUAL HOMEOWNERS

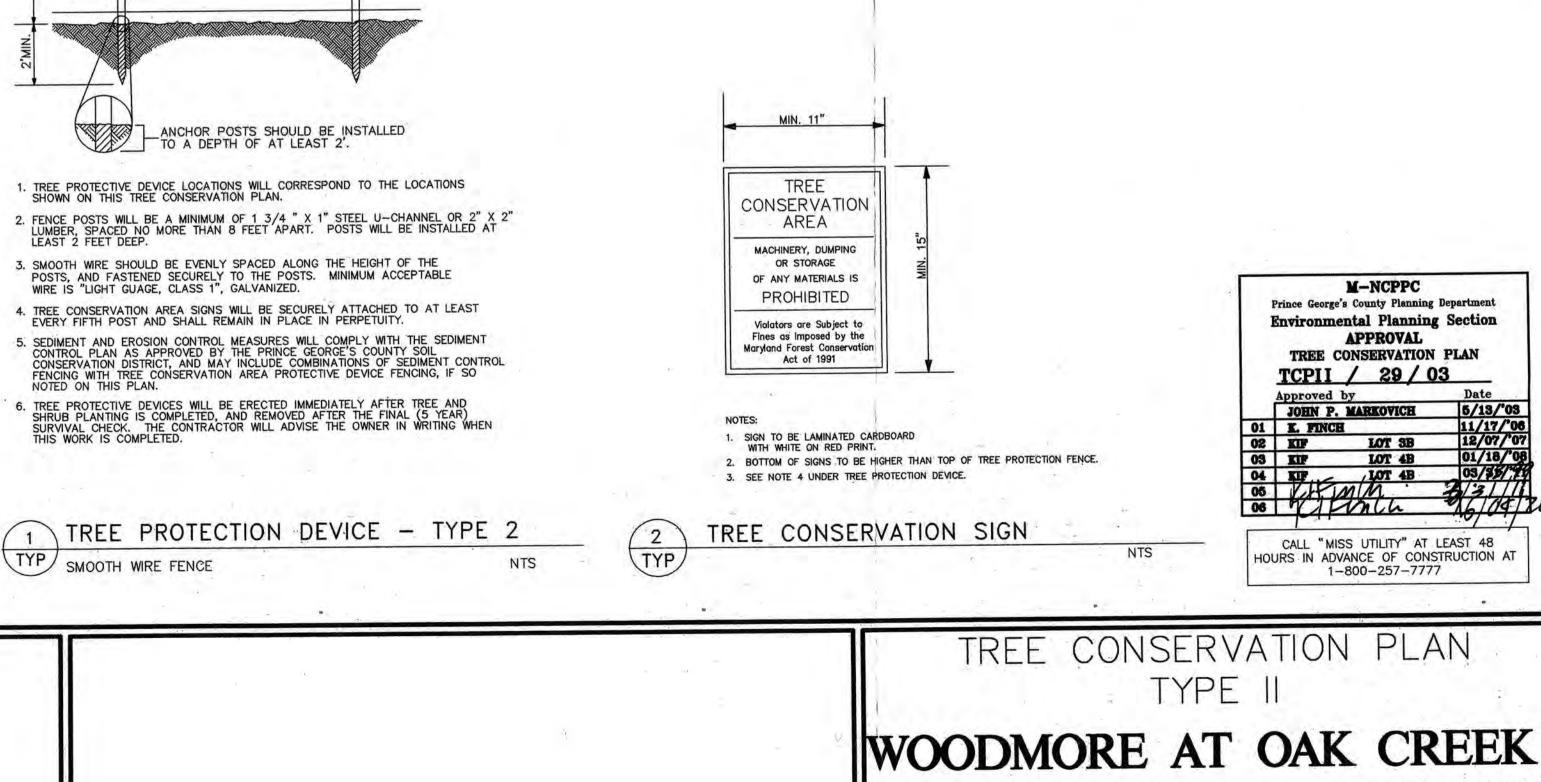
AROUND INDIVIDUAL TREES IS ACCEPTABLE.

1. REFORESTATION FENCING AND SINAGE 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 MOWED, HOWEVER, THE MANAGEMENT OF COMPETING VEGETATION

WOODLAND AREAS NOT COUNTED AS PART OF THE WOODLAND 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 (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 OF THE APPROVED PLANS. ALTHOUGH CLEARING 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-MCPPC 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 AREAS MAY NOT BE TILLED OF HAVE OTHER GROUND DISTURBANCES WHICH WOULD RESULT IN DAMAGE TO THE TREE ROOTS. RAKING THE LEAVES AND OVERSEEDING WITH NATIVE GRASSES, NATIVE FLOWERS OR NATIVE GROUND COVERS IS ACCEPTABLE. SEEDING WITH INVASIVE GRASSES INCLUDING ANY VARIETY OF KENTUCKY 31 FESCUE IS NOT ACCEPTABLE.



PRINCE GEORGE'S COUNTY, MARYLAND

RD		
*	COND.	REMARKS
cal.	B&B	12-14'ht.
cal.	B&B	12-14'ht.
cal.	B&B	7–9'ht.
cal.	B&B	7–9'ht.

