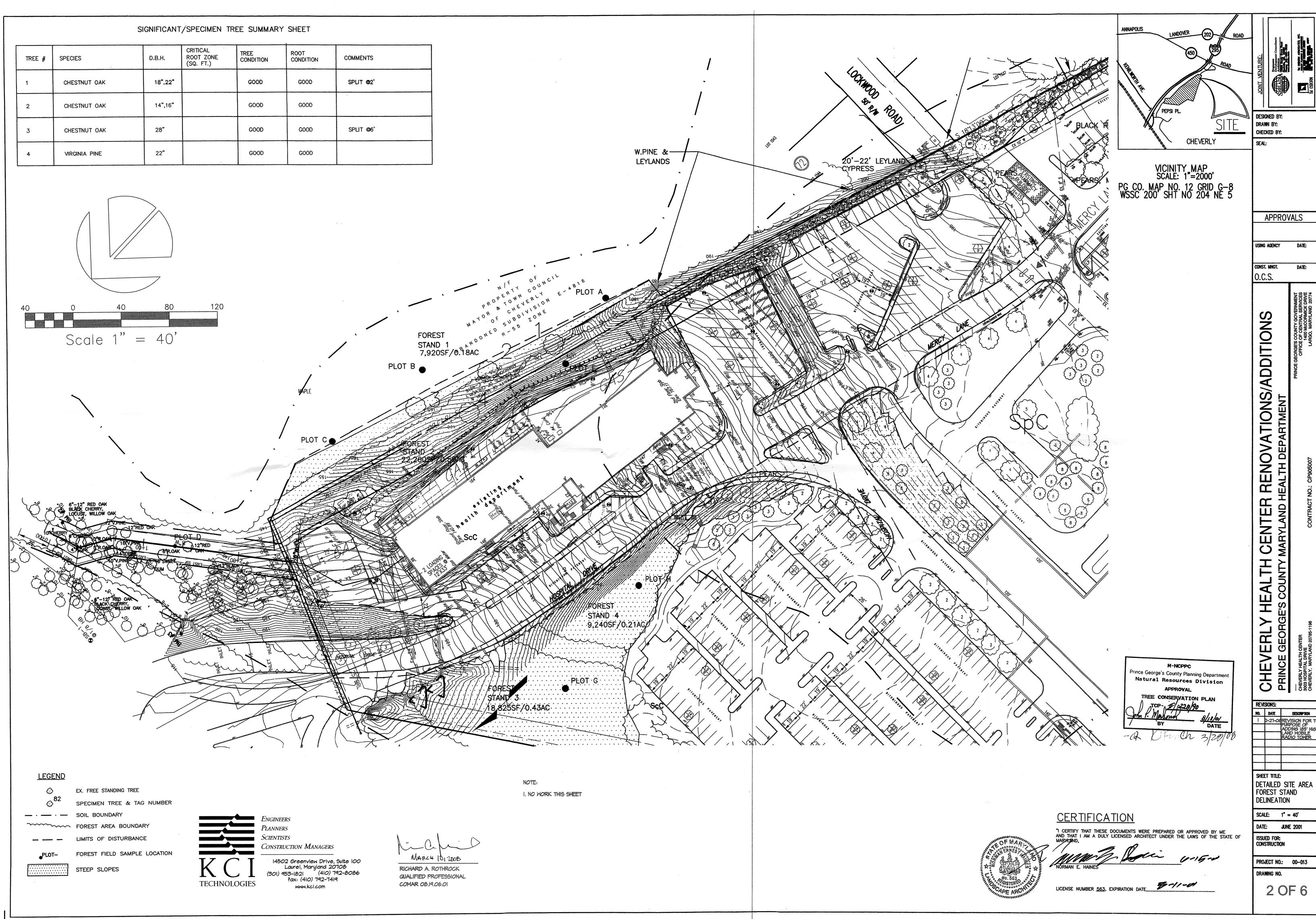
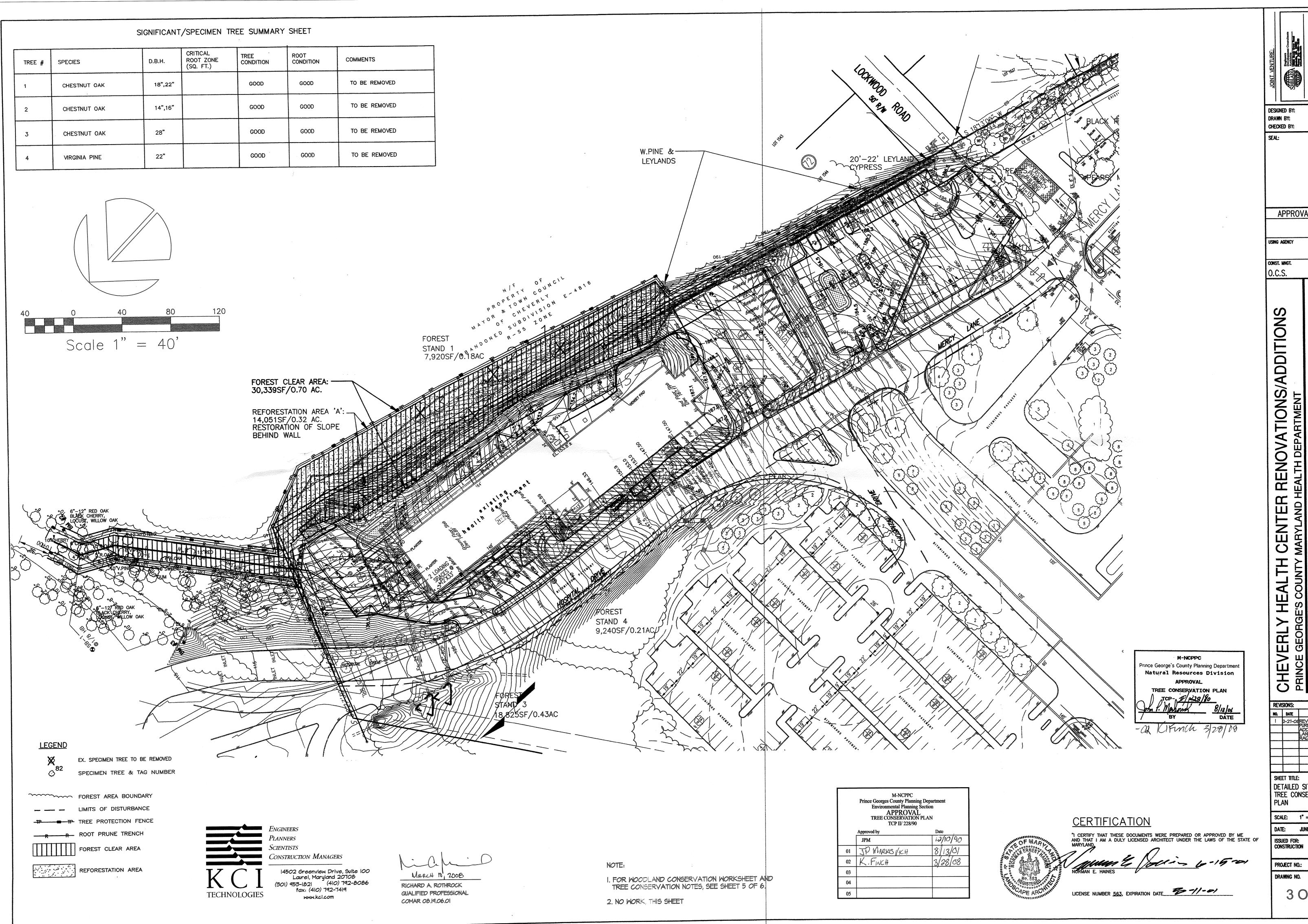


2000-





APPROVALS

NO. DATE DESCRIPTION

DETAILED SITE AREA

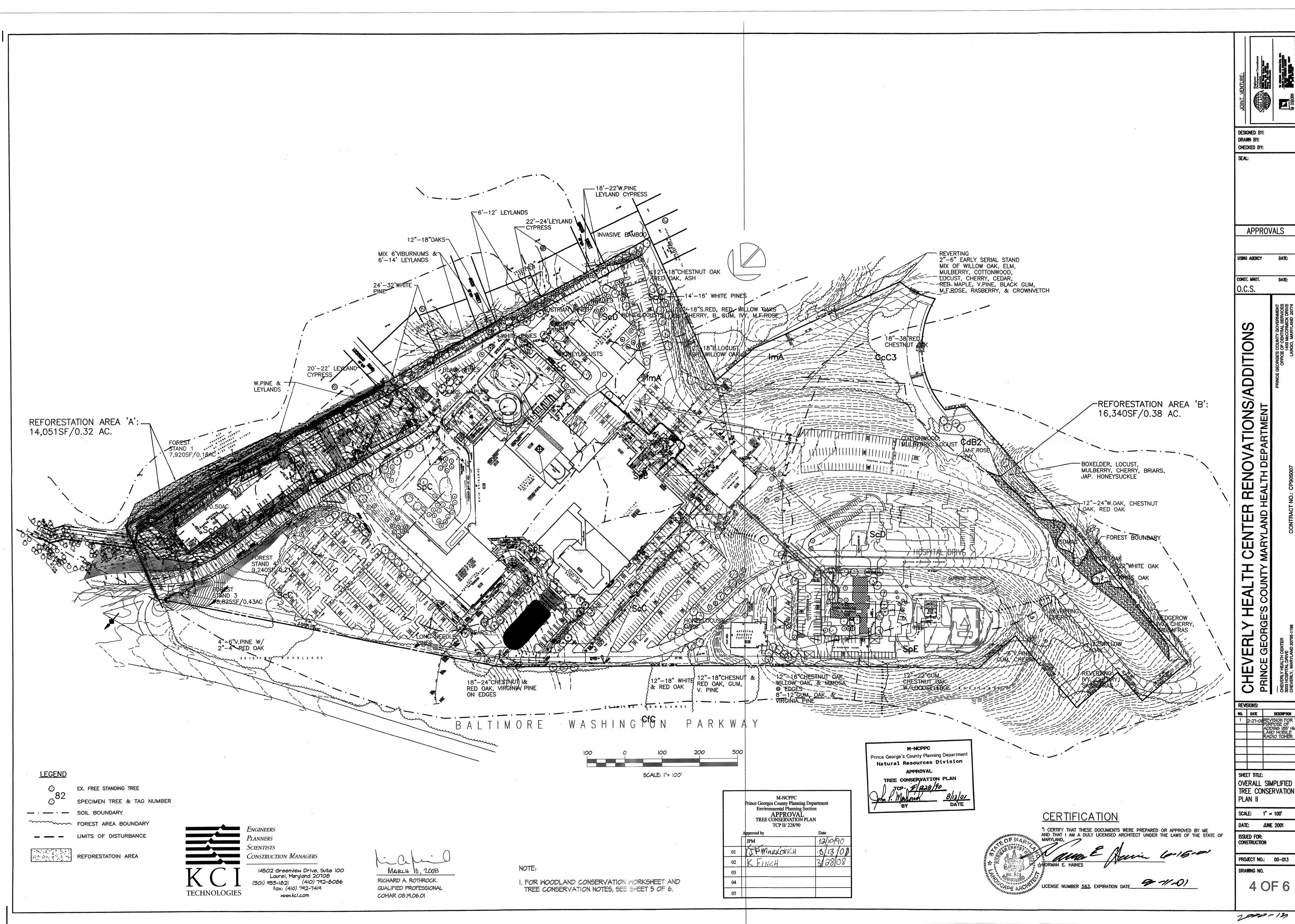
TREE CONSERVATION SCALE: 1" = 40'

DATE: JUNE 2001

ISSUED FOR: CONSTRUCTION

PROJECT NO.: 00-013

3 OF 6



APPROVALS

DESCRIPTION

TREE CONSERVATION

DATE: JUNE 2001

General Forest Conservation Notes, Inspections, Reforestation Measures, Sequence of Construction and Management Plan

GENERAL FOREST CONSERVATION NOTES:

An on-site preconstruction meeting shall be required after the limits of disturbance have been staked and flagged, but before any clearing or grading begins. Attendees shall include the School Board representative, construction superintendent, tree professional, sediment control inspector site design engineer and a representative from the M-NCP&PC Forest Conservation Planning office (County Forester). It is the contractor's responsibility to coordinate and schedule the preconstruction meeting.

No clearing or grading shall begin before stress-reduction measures have been implemented, unless otherwise permitted by the County Forester. Appropriate measures (see Forest Conservation Plan) may include:

- A. Root pruning
 B. Crown reduction and pruning
- C. Watering
- D. Fertilizing E. Vertical mulching

All stress—reduction measures must be preformed by a State of Maryland licensed tree expert or International Society of Arboriculture certified arborist. Documentation of tree protection and tree stress reduction must be maintained by the contractor and be available for review by the county forester.

Temporary tree protection devises shall be installed per the Forest Conservation Plan and prior to any construction/activities. Tree protection fencing locations should be staked in the field prior to the preconstruction meeting; or if installed, be prepared to make field adjustments as determined by the County Forester. Temporary tree protection devices may include:

- A. Chain link fence (four feet high) B. Orange plastic mesh fence (four feet high)
- C. Protective signage

Temporary protection devices shall be maintained and installed by the contractor for the duration of the construction project and must not be altered without prior approval of the County Forester. No equipment trucks, materials, or debris may be stored within the protection fence areas during the entire construction project. No access to the fenced area will be permitted. Tree protection fencing shall not be removed without the approval of the County Forester.

Long-term protection devices (see Forest Conservation Plan) may include:

- A. Root aeration systems
- B. Retaining walls C. Raised sidewalks
- D. Tunnel of utilities
- E. Pier and panel walls

Long-term protection devices will be installed per the Forest Conservation Plan and attached details. Installation will occur at the appropriate time during the construction project.

Periodic inspections by the County Forester will occur during the construction project. Corrections and repairs to all tree protection devices, as determined by the County Forester, must be made in a timely

Prior to installation of landscaping afforestation or reforestation projects, the contractor will request an on—site pre—planting meeting. Attendees shall include the contractor, landscaper, site design engineer and County Forester. All details of the planting plans will be discussed.

After construction is completed, an inspection shall be requested. Corrective measures which may be required include:

- A. Removal and replacement of dead or dying trees B. Pruning of dead or declining limbs
- C. Soil aeration
- D. Fertilization
- E. Waterina F. Wound repair

G. Cleanup of retention areas

After inspection and completion of corrective measures have been undertaken, all temporary protection devices shall be removed from the site. No additional grading, sodding, or burial of debris may take place.

INSPECTIONS

There shall be a minimum of four inspections for forest conservation.

A. The first inspection shall occur after flagging/staking of the I.O.D. and/or stream buffers, and prior to any clearing, grading or sediment control measures. This inspection is to address the issues of the protection and sediment control. The developer and representatives from M-NCP&PC will meet to walk the

limits of disturbance and determine the final locations of sediment control devices and tree

b. The 2nd inspection shall occur prior to planting in reforestation areas. This pre-planting inspection is to make final decisions regarding the best implementation of the planting plan, including, but not limited to. the final placement and selection of plant species, determination of the regeneration potential of existing plants to remain, and a determination of the best edge planting treatment. The purchase and delivery of plant materials should not be made until after this inspection since a determination may be made in the field to alter the choice of plant material.

c. The 3rd and inspection shall occur at the completion of the site reforestation planting and construction of the permanent forest protection measures. The purpose of the inspection is to determine the success and adequacy of the maintenance program and final determination will be made at this time as to whether additional planting and a further maintenance measures are necessary.

d. The 4th and final inspection shall occur at the completion of the two-year maintenance program. The purpose of the inspection is to determine the success and adequacy of the maintenance program (and deer management program). A final determination will be made at this time as to whether additional plantings and a further maintenance program are necessary.

REFORESTATION MEASURES:

1. Pre-Planting Considerations

A. In areas with substantial growth of invasive undercover species, measures will be taken to remove and control invasives. The infested areas should be mown prior to commencement of planting. Necessary weed control measures should be determined during the pre-planting inspection, including but not limited to, mulching, periodic mowing around the reforestion plantings and fabric coverdigs. The use of chemical weed controls will be limited to extreme cases and only with prior to written approval by M-NCPPC inspector. Where periodic mowing will occur as a weed control measure, the typical tree planting distribution pattern should be modified so as to allow access by mowing equipment without damage to planting.

B. A soils analysis will be conducted prior to commencement of reforestation. On land where extensive agricultural use has occured in the past, test pits will be dug in areas of undisturbed soil to determine if a fragipan layer is present. If fragipan is present, it should be pierced by auguring and planting holes should be dug to twice the normal diameter for the material planted.

C. Soils should be treated by incorporating natural mulch within the top 12 inches, or amendments as determined by the soils analysis. Natural amendments, such as organic mulch or leaf mold compost are

D. If the planting shall occur in cut areas or if fill material is used at the planting site, it should be clean fill with 12 inches of native topsoil. Stockpiling of native top soils must be done in such a way that the height of the pile does not damage the seed bank.

2. Plant Material Storage

It is recommended that the planting occur within 24 hours of delivery to the site. Plant materials which are left unplanted for more than 24 hours should be protected from direct sunlight and weather and kept moist. Nursery stock should not be left unplanted for more than two (2) weeks.

3. On-Site Inspection

Prior to planting, planting stock should be inspected. Plants not conforming to standard nurseryman specifications for size, form, vigor, roots, trunk wounds, insects, and disease should be replaced.

4. Planting Specifications

A. Container grown stock: Successful planting of container grown stock requires careful site preparation and inspection of the plant material root system. Caution is recommended when selecting plants grown in a soils medium differing from that of the planting site. The plant should be removed from the container and the roots gently loosened from the soils. If the roots encircle the root ball substitution is strongly recommended. S-shaped or kinked root systems should also be noted, and substituted if necessary. Roots may not be trimmed on-site due to the increased chances of soil borne diseases. The planting field should be prepared as specified. Native stockpiled soils should be used to backfill planting field. Rake soils evenly over the planting field and cover with 2 to 4 inches of mulch.

B. Balled and burlapped trees: Balled and burplapped trees must be handled with care while planting. Trees should not be picked up by the trunk or dropped, as both practices will tend to separate the trunk from the root ball. Prior to planting, root balls should be kept moist.

C. Planting fields should be created equal to 2-5 times the diameter of the root ball use watering to settle soil backfilled ground trees. Stockpiled native top soils, if available, should be used to backfill the planting field. Amendments are not recommended in the planting field, as studies have shown that the roots will be encouraged to stay within the amended soils. Soils should be raked evenly over

- encouraged to stay within the amended soils. Soils should be raked evenly over the planting field and covered with 2 to 4 inches of mulch.
- A. Staking of trees is not recommended except in areas of high winds. Movement is necessary strengthen the trunk of the planted tree. If stakes are used, they should be removed after the first growing season. Wrapping is also not recommended due to the increased opportunities for insect infestation and
- 1. Post Planting Considerations
- A. Soil stabilization: for areas of large scale disturbance, soils must be stabilized using a non-turf-building ground cover or engineering fabric.
- B. Protective devices: To prevent damage of planting areas, all forestation and afforestation sites must be posted with appropriate signs and fenced. Construction equipment shall be prohibited in these areas. SEQUENCE OF CONSTRUCTION:
- 1. Call "Miss Utility" at 1-800-257-7777 prior to any work for the location of all existing utilities.
- 2. Flag limits of construction and stake out sediment control measures, new utilities, and proposed locations for tree protection measures.
- 3. Arrange pre-construction meeting with the contracting officer, landscape contractor and County Forester
- to coordinate tree conservation measures procedures as identified in the inspection sequence above. 4. Prune roots and branches of existing plants as required for site work to promote plant health and provide proper shape.
- 5. Construct tree protection fences, install conservation signs and sediment control measures.
- 6. Construct utilities and site improvements.
- 7. Adjust existing sediment control measures for reforestation construction as required.
- 8. After site construction has been completed implement site reforestation as shown on the plan and install permanent tree protection measures and install forest conservation signs.

9. After site has been stabilized and all construction has been completed, remove sediment control measures upon contracting officer and inspectors approval.

MANAGEMENT PLAN:

Post Construction

1. A final Inspection by a licensed arborist will be made after final grading and reforestation has been completed and after all heavy equipment has been removed from the site.

2. The licensed Arborist will determine the areas to be vertically mulched, restoring the organic matter and maintaining the air and water penetration of the soil.

3. The licensed Arborist shall conduct class III pruning to remove all dead or damaged limbs as required to allow for proper wound closure. No crown reduction should occur unless terminal die back occurs.

4. Notify the M-NCP&PC inspector for a final inspection of the trees to be saved and reforestation areas.

Additional Requirements:

1. One year after completion of construction the trees can be safely fertilized. The licensed Arborist should make the initial application and provide information to the owner on successive fertilizing.

2. Contractor shall provide 2 years of maintenance which will include watering, corrective stabilization and wildlife depredation measures as required for the reforestation and tree save areas.

3. Two years after completion of construction the licensed Arborist shall perform Class II pruning to remove any damaged, dead, interfering and objectional limbs 0.5 inches in diameter and larger and selectively thin the canopy areas to reduce wind resistance and the possibility of storm damage.

PROPOSED REFORESTATION PLANT MATERIALS

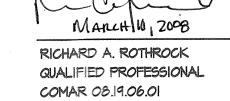
QU	ANTI	TIES				11NIT (DOOT	CDAONO	FORM
A	В	TOTAL	BOTANICAL NAME	COMMON NAME	SIZE	UNIT/ROOT	SPACING	FORM
6	8	14	ACER RUBRUM	RED MAPLE	1" CAL.	B&B	RANDOMLY 15' O.C.	TREE
8	10	18	CELTIS OCCIDENTALIS	HACKBERRY	1" CAL.	B&B	RANDOMLY 15' O.C.	TREE
3	4	7	CORNUS SERICEA	RED-OSIER DOGWOOD	15–18*	CONT.	RANDOMLY 25' O.C.	SHRUB
6	8	14	FAGUS GRANDIFOLIA	AMERICAN BEECH	1" CAL.	B&B	RANDOMLY 15' O.C.	TREE
8	8	16	FRANXINUS PENNSYLVANICA	GREEN ASH	1" CAL.	B&B	RANDOMLY 15' O.C.	TREE
3	4	7	ILEX GLABRA	INKBERRY	12–18*	CONT.	RANDOMLY 25' O.C.	SHRUB
3	3	6	ILEX VERTICILLATA	WINTERBERRY	18-24"	CONT.	RANDOMLY 25' O.C.	SHRUB
3	4	7	LINDERA BENZOIN	SPICE BUSH	12–18"	CONT.	RANDOMLY 25' O.C.	SHRUB
6	10	16	LIRIODENDRON TULIPIFERA	TULIP POPLAR	1" CAL.	В&В	RANDOMLY 15' O.C.	TREE
8	8	16	NYSSA SYLVATICA	BLACK GUM	1" CAL.	В&В	RANDOMLY 15' O.C.	TREE
6	8	14	PRUNUS SEROTINA	BLACK CHERRY	1" CAL.	B&B	RANDOMLY 15' O.C.	TREE
8	8	16	QUERCUS RUBRA	RED OAK	1" CAL.	В&В	RANDOMLY 15' O.C.	TREE
6	10	16	QUERCUS PHELLOS	WILLOW OAK	1" CAL.	8&8	RANDOMLY 15' O.C.	TREE
3	4	7	VIBURNUM ACERFIUM	MAPLE LEAF VIBURNUM	18-24"	CONT.	RANDOMLY 25' O.C.	SHRUB
3	4	7	VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	15–18"	CONT.	RANDOMLY 25' O.C.	SHRUB
3	3	6	VIBURNUM TRILOBUM	AM. CRANBERRY BUSH	15–18"	CONT.	RANDOMLY 25' O.C.	SHRUB
13	15	28		SYLVA FIELD AND FOREST MIX OR ERNST UPLAND AND MEADOW MIX OR EQUIVALENT*			40LBS./AC	SEED

NOTES: A MINIMUM OF 75% SURVIVAL AFTER 2 YEARS OF GROWING SEASON IS REQUIRED FOR ALL REFORESTATION AREAS SHOWN. * OVERSEED WITH MIX OF 50% SHEEP FESCUE AND ANNUAL RYE SEED AT A RATE OF 6 LBS/ 10,000 SF



SCIENTISTS CONSTRUCTION MANAGERS

14502 Greenview Drive, Suite 100 Laurel, Maryland 20708 (301) 953-1821 (410) 792-8086 fax: (410) 792-7419 www.kci.com



WOODLAND CONSERVATION WORKSHEET

GOVERNMENT PROJECTS ZONE: GROSS TRACT: 11.25 FLOODPLAIN: PREVIOUSLY DEDICATED LAND:

WOODLAND CONSERVATION CALCULATIONS: NET TRACT (ACRES)

WOODLAND CONSERVATION PROVIDED

(MUST EQUAL ITEM "C" ABOVE)

EXISTING WOODLAND

SECURITY TOWER).

WOODLAND CLEARED B. 0.70 WOODLAND CONSERVATION REQUIRED (A.): C. 0.70 WOODLAND CONSERVATION PROVIDED: (ACRES) 0.63 WOODLAND PRESERVATION REFORSTATION/REPLACEMENT 0.70 AFFORESTATION AREA APPROVED FOR FEE-IN-LIEU OFF-SITE CREDITS OFF-SITE MITIGATION PROVIDED

PLAN CERTIFIED BY: NORMAN HAINES 811 RUSSELL AVE, SUITE 303 GAITHERSBURG, MD 20879

LICENSE NUMBER 563

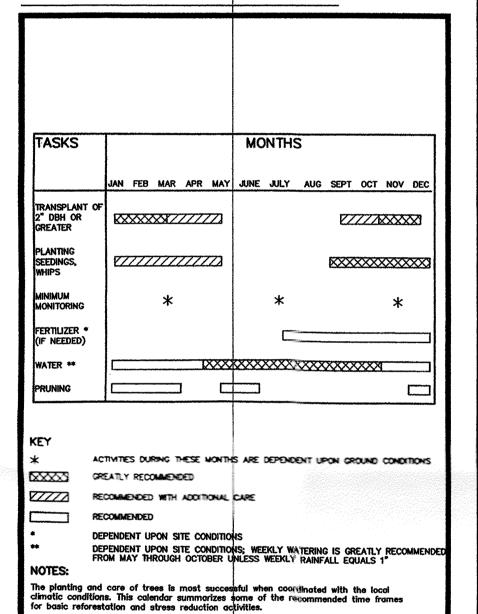
THERE IS NO CLEARING PROPOSED FOR THE CURRENT SCOPE OF WORK (ADDITION TO P.G. COUNTY OFFICE OF HOMELAND

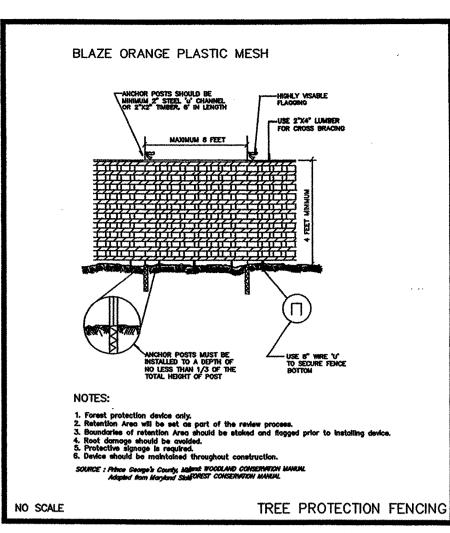
PLANTING SCHEDULE

11.25

A. 1.33

0.70





STAKED TREE SPECIFICATION

WIDTH = 2-5 X ROOTBALL OR

MDTH = 2-5 X ROOTBALL OF

WIDTH == 2 X ROOTBALL OR CONTAINER DIAMETER

NOT TO SCALE

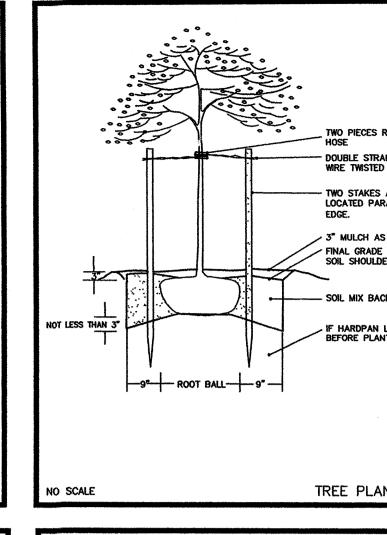
Tree pit to be five times the rootball is preferred, particularly in poor soil

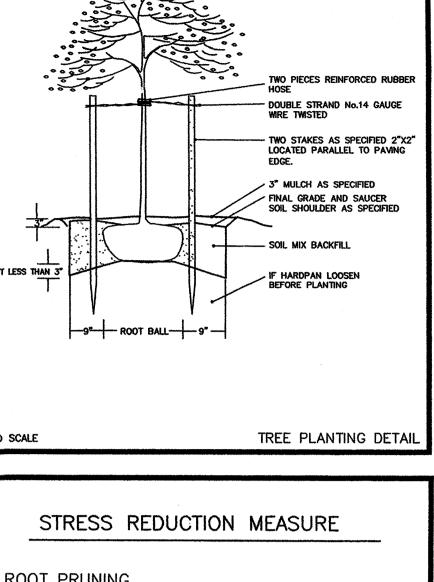
UNDISTURBED SOIL

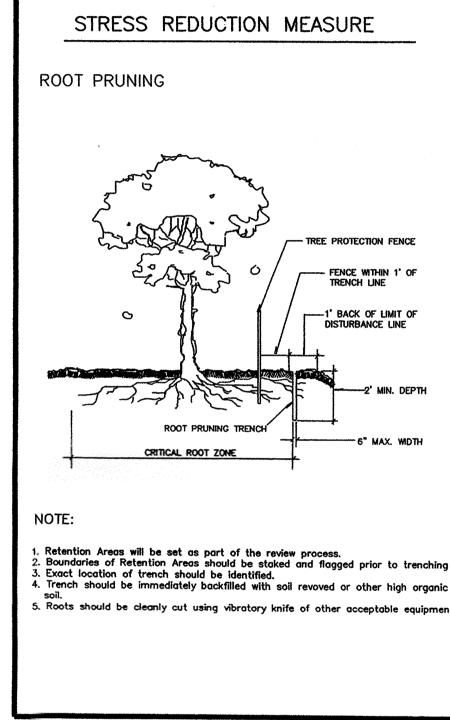
HEIGHT = 1" LESS THAN THE ROOTBALL HEIGHT ...

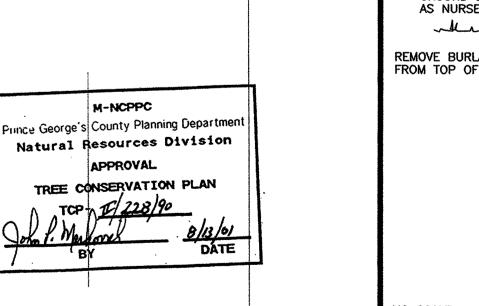
DISTURBED SOIL

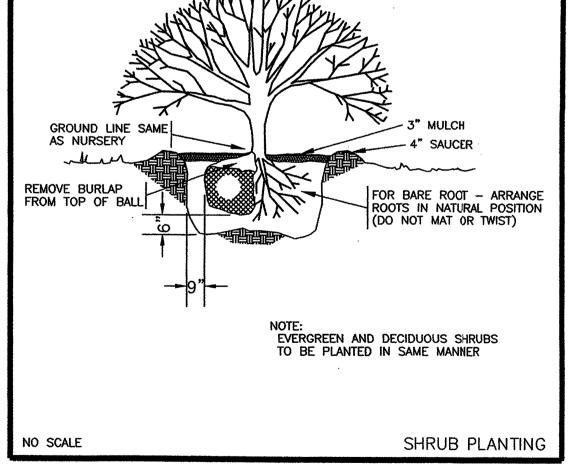
PLANTING ON SLOPE

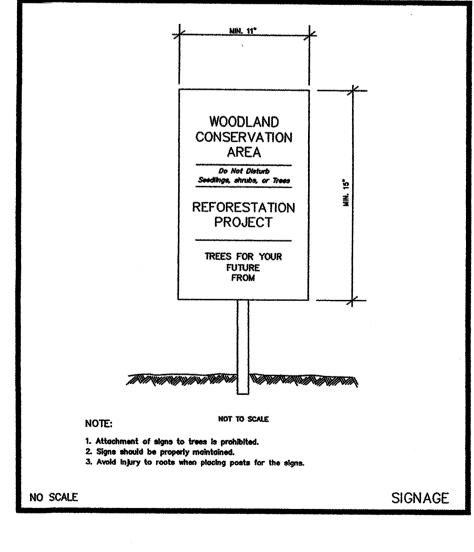


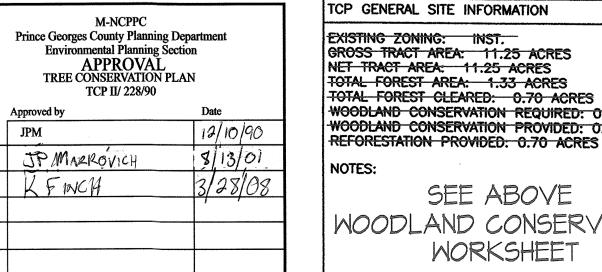






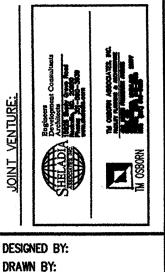






WOODLAND CONSERVATION REQUIRED: 0.70 ACRES WOODLAND CONSERVATION PROVIDED: 0.70 ACRES SEE ABOVE WOODLAND CONSERVATION

CERTIFICATION I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF LICENSE NUMBER 563, EXPIRATION DATE 8-11-03



CHECKED BY:

SEAL:

APPROVALS

USING AGENCY

const. Mngt.

DATE:

DITIONS AD S

NOL A RENOV/

ENTER $\overline{\mathbf{O}}$ ALTH

HE/ VERL SE GEOR

CHE **REVISIONS:** NO. DATE DESCRIPTION
1 7.26.01 PARK & PLANNING COMMENTS 2 2-21-08 REVISION FOR THE PURPOSE OF ADDING 125' HIGH LAND MOBILE RADIO TOMER

SHEET TITLE: TREE CONSERVATION PLAN II

NOTES & DETAILS SCALE: N/A DATE: JUNE 2001

ISSUED FOR: CONSTRUCTION PROJECT NO.: 00-013

DRAWING NO. 5 OF 6

