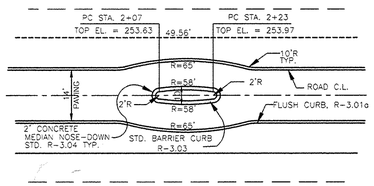
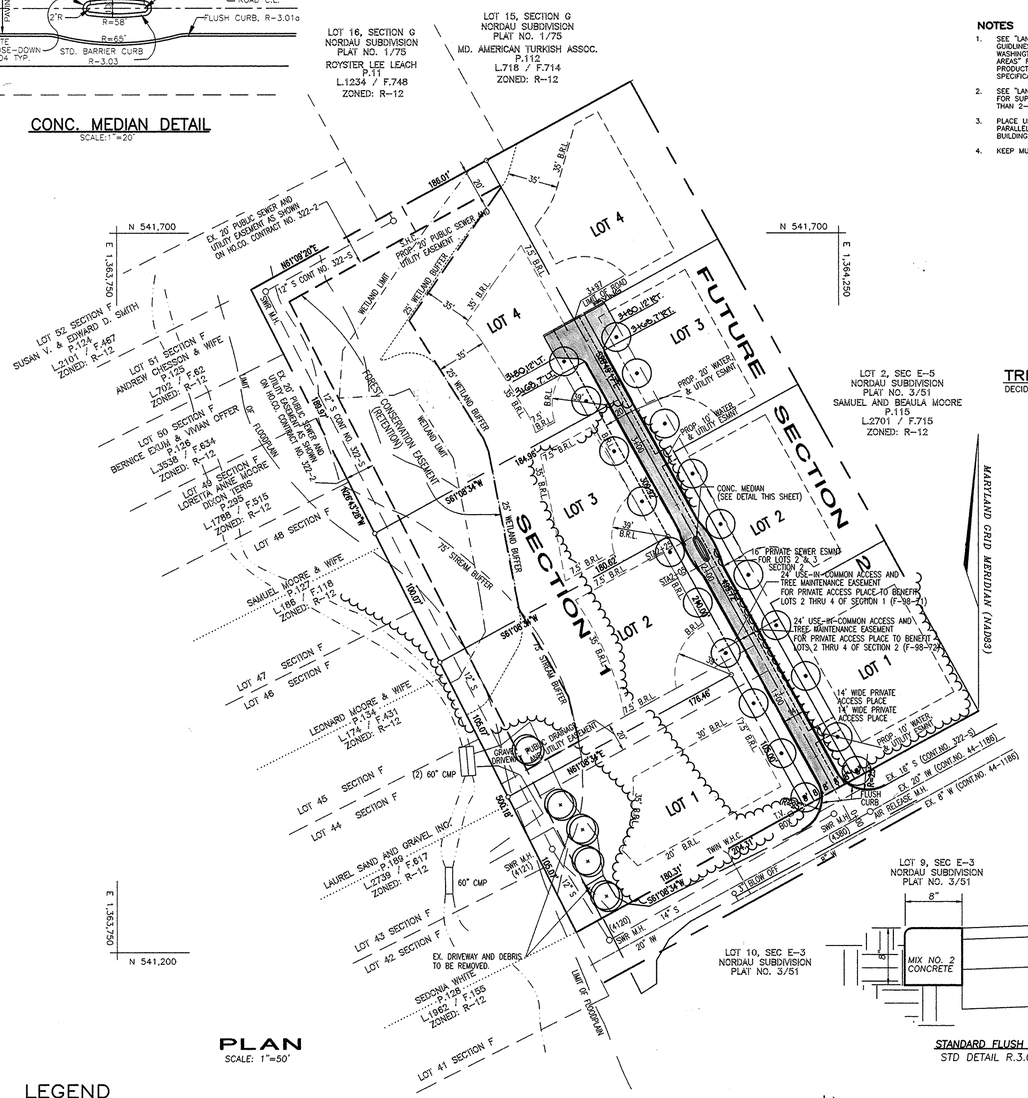
ROSE LANE: SECTIONS 1 AND 2
FINAL ROAD CONSTRUCTION PLANS
HOWARD COUNTY, MARYLAND

SHEET INDEX



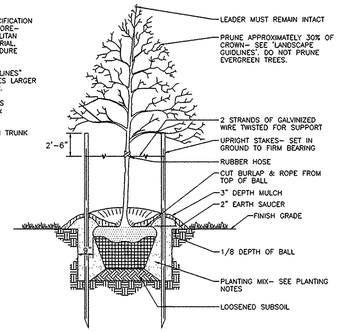
CONC. MEDIAN DETAIL
SCALE: 1"=20'



PLAN
SCALE: 1"=50'

NOTES

1. SEE "LANDSCAPE SPECIFICATION GUIDLINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" FOR ALL MATERIAL, PRODUCT, AND PROCEDURE SPECIFICATIONS.
2. SEE "LANDSCAPE GUIDLINES" FOR SUPPORTING TREES LARGER THAN 2-1/2" CALIPER.
3. PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
4. KEEP MULCH 1" FROM TRUNK



TREE PLANTING AND STAKING
DECIDUOUS AN EVERGREEN TREES UP TO 2-1/2" CALIPER — NOT TO SCALE

SCHEDULE A
PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	NONE REQUIRED	TYPE 'A'
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	NA	1600LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	YES, 1345LF*
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	NO
NUMBER OF PLANTS REQUIRED SHADE TREES (1600LF) EVERGREEN TREES SHRUBS	NA NA NA	1:60=27 0 0
NUMBER OF PLANTS PROVIDED SHADE TREES (1600LF-1345LF=255LF) EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	NA NA NA NA	5 0 0 0

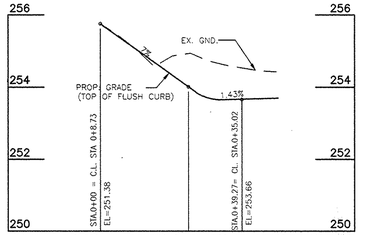
*SEE SHEET 2 FOR CREDIT AREAS.

PLANT LIST(PERMITER TREES)

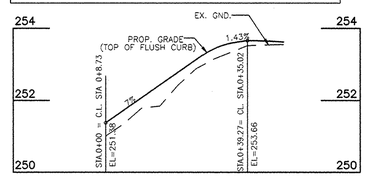
QTY	BOTANICAL NAME/ COMMON NAME	SIZE	ROOT
5	ACER RUBRUM/ RED MAPLE	1 1/2"-2" CAL	B & B

PLANT LIST(STREET TREES)

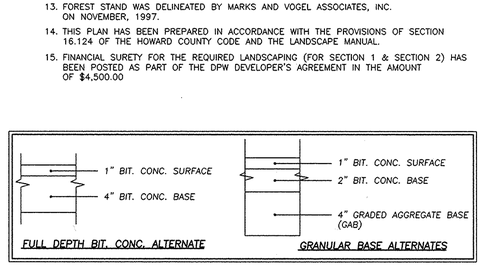
QTY	BOTANICAL NAME/ COMMON NAME	SIZE	ROOT
20	PLATANUS X ACERIFOLIA/ LONDON PLANE	2 1/2"-3" CAL	B & B (40' O.C.)



FILLET PROFILE-NORTHEAST FLUSH CURB
SCALE: HORIZ:1"=20' VERT: 1"=2'



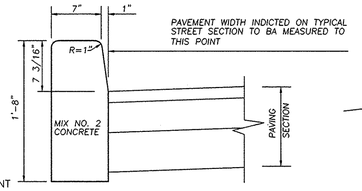
FILLET PROFILE-SOUTHWEST FLUSH CURB
SCALE: HORIZ:1"=20' VERT: 1"=2'



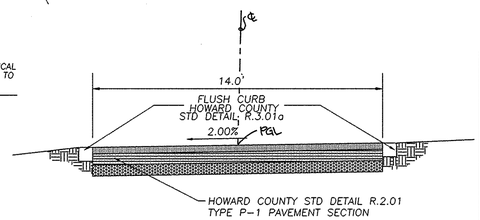
(P-1) PAVING SECTION
HOWARD COUNTY STD DETAIL R.2.01
N.T.S

PRIVATE ACCESS PLACE PROFILE
SCALE: HOR 1"=50'
VERT 1"=5'
DESIGN SPEED: 15 MPH

STANDARD FLUSH CURB
STD DETAIL R.3.01a



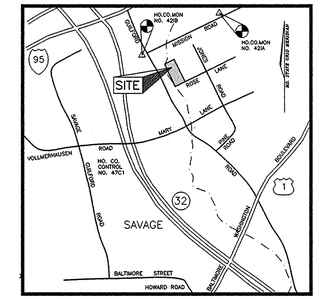
STANDARD BARRIER CURB



PRIVATE ACCESS PLACE TYPICAL SECTION
N.T.S

LEGEND

- EXISTING TREELINE
- PROPERTY LINE
- NON TIDAL WETLAND LIMIT
- EDGE OF EXISTING STREAM
- PROPOSED PERIMETER TREES (RED MAPLE)
- PROPOSED STREET TREES (LONDON PLANE)
- FOREST CONSERVATION EASEMENT



VICINITY MAP
SCALE: 1"=2000'

GENERAL NOTES

1. ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
2. PROJECT BACKGROUND:
   LOCATION : TAX MAP NO. 42 BLOCK 24 PARCEL 115
   6TH ELECTION DISTRICT
   ZONING R-12
   TOTAL TRACT AREA = 3.547 AC.
   DATE PRELIMINARY PLAN APPROVED:
   APPLICABLE TPZ FILE NUMBERS:
3. THE PROPERTY OUTLINE IS BASED ON A FIELD RUN BOUNDARY SURVEY PERFORMED BY MARKS AND VOGEL ASSOCIATES, INC. IN NOVEMBER, 1997.
4. THE EXISTING FEATURES AND CONTOURS SHOWN HEREON ARE BASED ON FIELD RUN TOPOGRAPHY PERFORMED BY MARKS AND VOGEL ASSOCIATES INC. IN NOVEMBER 1997.
5. EXISTING STREAM LOCATED BY MARKS & VOGEL ASSOCIATES, INC IN NOVEMBER 1997.
6. EXISTING NON TIDAL WETLANDS LOCATED BY MARKS AND VOGEL ASSOCIATES INC. IN NOVEMBER 1997.
7. COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY THE FOLLOWING HOWARD COUNTY GEODETIC CONTROL STATIONS:
   421A N543,390.358 E1,364,912.687
   421B N542,366.848 E1,363,076.011
8. WATER FOR THIS PROJECT WILL BE PUBLIC AND WILL BE CONNECTED TO CONTRACT NO. 44-1186.
9. SEWER FOR THIS PROJECT WILL BE PUBLIC AND WILL BE CONNECTED TO CONTRACT NO. 322-S.
10. A NOISE STUDY IS NOT REQUIRED FOR THIS SITE.
11. A TRAFFIC STUDY IS NOT REQUIRED FOR THIS SITE.
12. CONTRACTOR SHOULD LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
13. FOREST STAND WAS DELINEATED BY MARKS AND VOGEL ASSOCIATES, INC. ON NOVEMBER, 1997.
14. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
15. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING (FOR SECTION 1 & SECTION 2) HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF $4,500.00

OWNERS	CONTRACT PURCHASER
SAMUEL & BEAULA MOORE 9989 GUILFORD ROAD JESSUP, MD. 20796	ROBERT W. McLEWEE 2519 LONDONDERRY ROAD TIMONIUM, MD 21093

DATE	NO.	REVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS — DATE 8/4/98

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/12/98

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 8/6/98

ROSE LANE
SECTION 1; LOTS 1 THRU 4
SECTION 2; LOTS 1 THRU 4
PRIVATE ACCESS PLACE
COVER SHEET, ROAD CONSTRUCTION PLAN AND LANDSCAPE PLAN

TAX MAP #42 REF.:F 98-71, F: 98-72 6th ELECTION DISTRICT
PARCELS 115 & 116 REF.: PLAT BK 3/51 HOWARD COUNTY, MARYLAND

MARKS & VOGEL ASSOCIATES, INC.
ENGINEERS - SURVEYORS - PLANNERS
3691 PARK AVENUE, SUITE 101
ELLICOTT CITY, MARYLAND 21043
TELEPHONE: (410) 461-5828
FAX: (410) 465-3966

STATE OF MARYLAND — WILLIAM H. MARKS — No. 10984 — REGISTERED PROFESSIONAL ENGINEER — 7/22/98

DESIGN BY: M.D.M.
DRAWN BY: M.D.M.
CHECKED BY: R.H.V.
DATE: MARCH, 1998
SCALE: AS SHOWN
W.O. NO.: 97-75

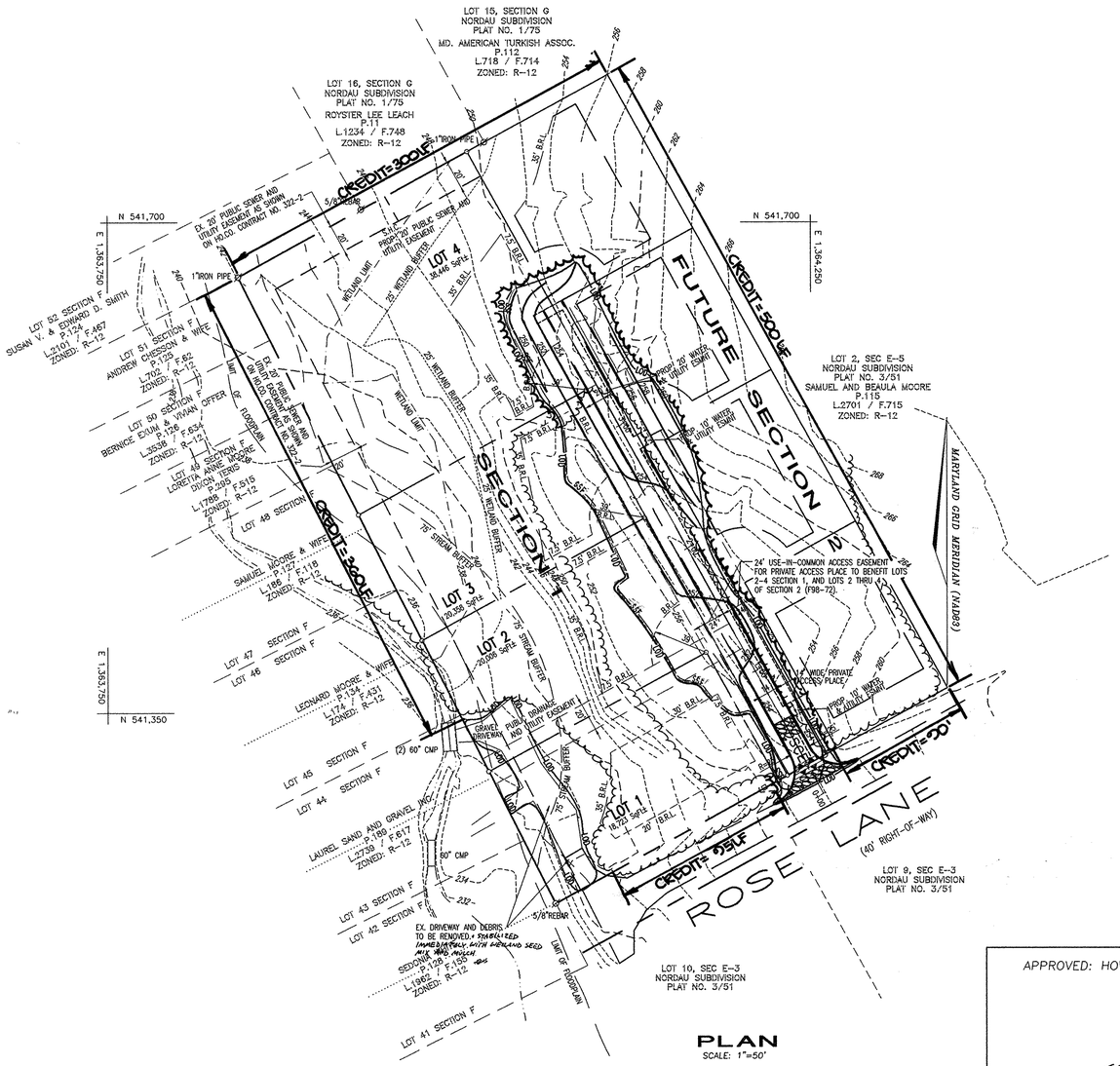
SHEET 1 OF 3

F-98-71

ACAD FILE: G:\ACAD\JOBS\MOORE\LTRPLAN.DWG

SEQUENCE OF CONSTRUCTION

	DURATION
1. OBTAIN GRADING PERMIT.	3 DAYS
2. NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (313-1880) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.	1 DAY
3. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.	1 DAY
4. INSTALL SILT FENCE AND SUPER SILT FENCE AS SHOWN ON THIS PLAN.	3 DAYS
5. GRADE ROAD TO SUB-BASE, PAVE AS SHOWN ON THIS PLAN.	3 WEEKS
6. REMOVE THE ENTIRE GRAVEL DRIVEWAY AND DEBRIS TO NATURAL GROUND WITHIN THE 75' STREAM BUFFER, AND APPLY A WETLAND SEED MIX TO THE DISTURBED AREA, IMMEDIATELY WITH STRAW MULCH. AS	3 DAYS
7. STABILIZE ALL DISTURBED AREAS AND INSTALL LANDSCAPING.	1 WEEK
8. REMOVE ALL SEDIMENT CONTROL DEVICES UPON APPROVAL FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.	



PLAN
SCALE: 1"=50'

LEGEND

- EXISTING TREELINE
- PROPOSED TREELINE
- 250 — EXISTING CONTOUR
- 252 — PROP. CONTOUR
- PROPERTY EVIDENCE
- PROPERTY LINE
- STABILIZED CONSTRUCTION ENTRANCE
- LOD — LOD — LIMIT OF DISTURBANCE
- SSF — SSF — SUPER SILT FENCE

OWNERS
SAMUEL & BEAULA MOORE
9989 GUILFORD ROAD
JESSUP, MD. 20796

CONTRACT PURCHASER
ROBERT W. McLEWEE
2519 LONDONDERRY ROAD
TIMONIUM, MD 21093

"AS-BUILT" CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS APPROVED PLANS AND SPECIFICATIONS.

ROBERT H. VOGEL, P.E. NO. 16193 — DATE

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ONSITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ONSITE SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

PURPOSE

To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, material toxic to plants, and/or unacceptable soil gradation.

CONDITION WHERE PRACTICE APPLIES

I. This practice is limited to areas having 2:1 or flatter slopes where:
   a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
   b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
   c. The original soil to be vegetated contains material toxic to plant growth.
   d. The soil is so acidic that treatment with limestone is not feasible.

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design to adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. Topsoil salvaged from the existing site may be used, provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by the USDA Soil Conservation Service in cooperation with Maryland Agriculture Experimental Station.

II. Topsoil Specifications – Soil to be used as topsoil must meet the following:
   i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand, silty clay loam or soils may be used if recommended by a qualified agronomist or soil scientist and approved by the appropriate approving authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
   ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Canada thistle, sod/nutgrass, poison ivy, thistle, or others as specified.
   iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures:

II. For sites having disturbed areas under 5 acres:
   i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Material.

III. For sites having disturbed areas over 5 acres:
   i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
      a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
      b. Organic content of topsoil shall not be less than 1.5 percent by weight.
      c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
      d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

   Note: Topsoil substitutes or amendments as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

   ii. Place a topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Materials.

V. Topsoil Application
   i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
   ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" – 8" higher in elevation.
   iii. Topsoil shall be uniformly distributed in a 4"–8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the formation of depressions or water pockets.
   iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

TEMPORARY SEEDING

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seedbed preparation: Loosen upper three inches of soil by raking, discing, or other acceptable means before seeding, if not previously loosened.

Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq. ft.).

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs./1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs./1000 sq. ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well-anchored straw mulch, and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal./1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gal. per acre (8 gal./1000 sq. ft.) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent, long-lived vegetative cover is needed.

Seedbed Preparation: Loosen upper 3 inches of soil by raking, discing, or other acceptable means before seeding, if not previously loosened.

Soil Amendments: Use one of the following schedules:

1) Preferred– Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq. ft) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq. ft.) before seeding. Harrow or disc into upper 3 inches of soil. At time of seeding apply 400 lbs. per acre 30-0-0 ureaform fertilizer(9 lbs./1000 sq. ft.).

2) Acceptable– Apply 2 tons per acre dolomitic limestone (92 lbs./1000sq. ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs./1000 sq. ft.) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the periods March 1 thru April 30 and August 1 thru October 15, seed with 60lbs. per acre (1.4 lbs./1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. of Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (.05 lbs./1000 sq. ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option 1– 2 tons per acre of well-anchored straw mulch, and seed as soon as possible in the spring. Option 2– Use sod. Option 3– Seed with 60 lbs. per acre Kentucky 31 Tall Fescue, and mulch with 2 tons per acre well anchored straw.

Mulching: Apply 1 1/2 to 2 tons per acre (70–90 lbs./1000 sq. ft.) of un-rotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal./1000 sq. ft.)of emulcified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal./1000 sq. ft.) for anchoring.

Maintenance: Inspect all seeded areas, and make needed repairs, replacements, and reseedings.

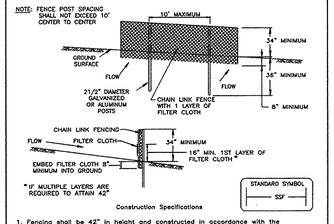
SEDIMENT CONTROL NOTES

1. All Grading Permits shall be obtained prior to the starting of any Grading work.
2. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction (313-1855).
3. All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
4. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1, (b) 14 days as to all other disturbed or graded areas on the project site.
5. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, Storm Drainage, of the Howard County Design Manual.
6. All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51), sod(Sec. 54), temporary seeding (Sec. 50), and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommend seeding dates do not allow proper germination and establishment of grasses.
7. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
8. Site Analysis

Total area of site	3.547 acres
Area disturbed	0.39 acres
Area to be roofed or paved	0.12 acres
Area to be vegetatively stabilized	0.20 acres
Total cut	189 cu. yds.
Total fill	189 cu. yds.
Offsite waste/borrow area location	To be determined by contractor, with pre-approval of the Sediment Control Inspector

9. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
10. Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
11. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

DETAIL 33 – SUPER SILT FENCE



Construction Specifications

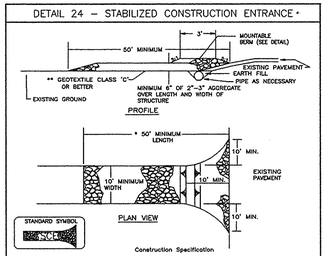
1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6" length posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.
7. Filter cloth shall be fastened securely to each fence post with wire 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
Flow Rate	0.3 gal/ft²/minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE M - 26 - 3 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

NOTE: SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF HOWARD COUNTY DESIGN MANUAL AND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS.

DETAIL 24 – STABILIZED CONSTRUCTION ENTRANCE *



Construction Specification

1. Length – minimum of 50' (*30' for single residence lot).
2. Width – 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.
4. Stone – crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water – all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
6. Location – A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE F - 37 - 3 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DATE	NO.	REVISION
1-7-99	1	REVISED LOD & RELOCATE SUPER SILT FENCE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS — DATE 5/14/98

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/12/98

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 5/6/98

ENGINEERS CERTIFICATE

"I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Vogel & Associates, Inc.

SIGNATURE OF ENGINEER — DATE 7/15/98

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

SIGNATURE OF DEVELOPER — DATE 7/15/98

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 7/27/98

THESE DEVELOPMEN IS APPROVED FOR SOIL EROSION EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT — DATE 7/27/98

ROSE LANE
SECTION 1: LOTS 1 THRU 4
SECTION 2: LOTS 1 THRU 4
PRIVATE ACCESS PLACE
SEDIMENT CONTROL PLAN AND NOTES

TAX MAP #42 REF.:F 98-71, F 98-72 — 6th ELECTION DISTRICT
PARCELS 115 & 116 REF.: PLAT BK 3/51 HOWARD COUNTY, MARYLAND

MARKS & VOGEL ASSOCIATES, INC.
ENGINEERS - SURVEYORS - PLANNERS
3691 PARK AVENUE, SUITE 101 — TELEPHONE: (410) 461-5828
ELLICOTT CITY, MARYLAND 21043 — FAX: (410) 465-3966

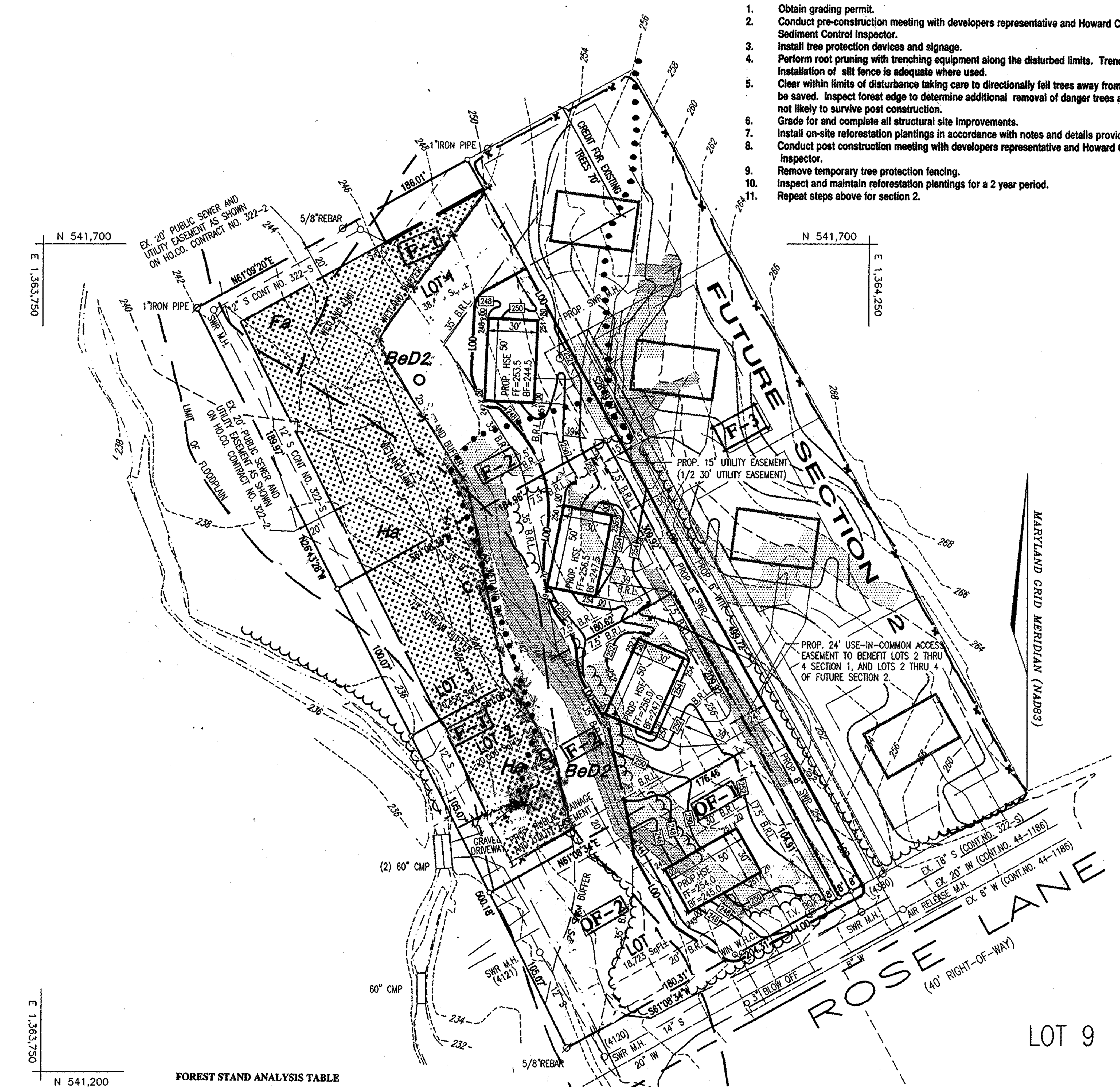
STATE OF MARYLAND ROBERT H. VOGEL NO. 16193 REGISTERED PROFESSIONAL ENGINEER

DESIGN BY: M.D.M.
DRAWN BY: J.E.R.
CHECKED BY: R.H.V.
DATE: MARCH, 1998
SCALE: 1"=50'
W.O. NO.: 97-75

SHEET 2 OF 3

F-98-71

ACAD FILE: O:\ACAD\JOBS\MOORES\sedplan.DWG

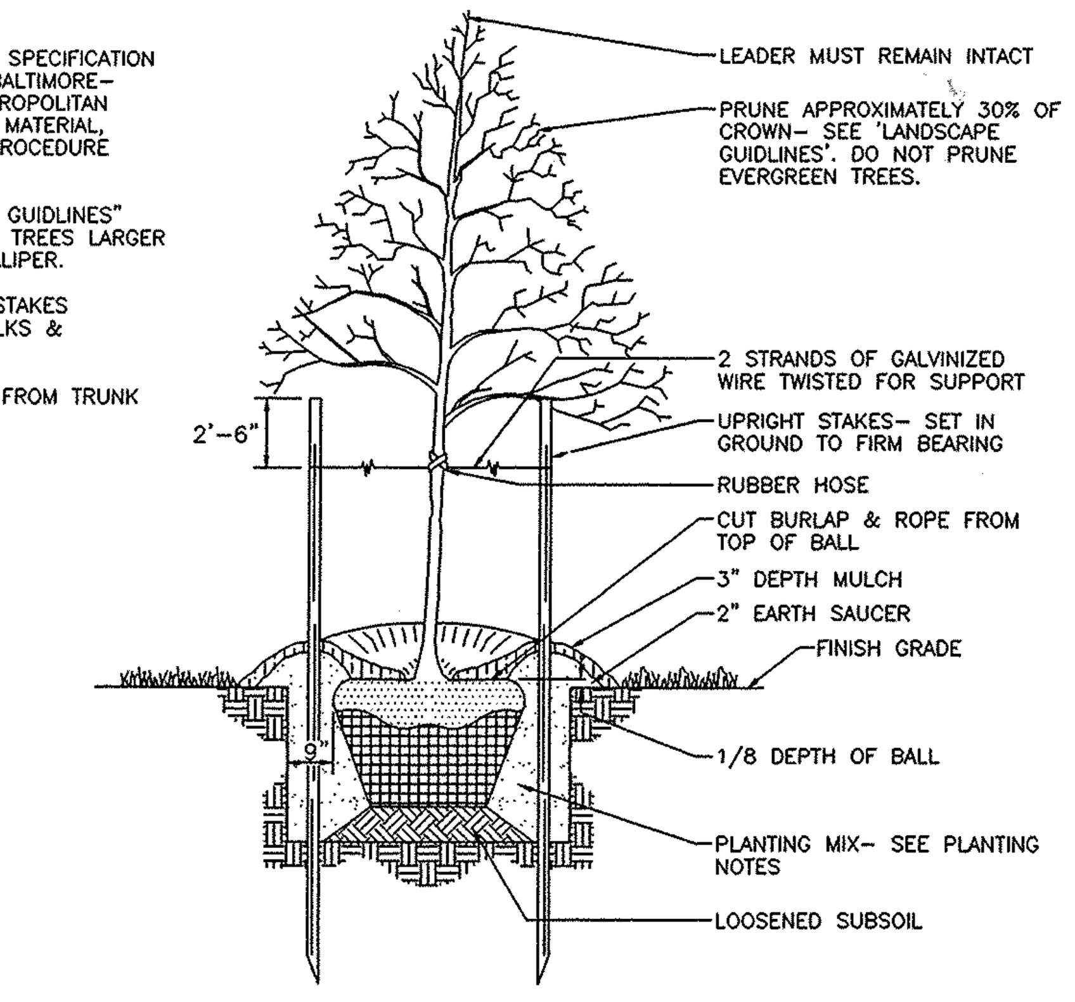


CONSTRUCTION SEQUENCE

1. Obtain grading permit.
2. Conduct pre-construction meeting with developers representative and Howard Co. Sediment Control Inspector.
3. Install tree protection devices and signage.
4. Perform root pruning with trenching equipment along the disturbed limits. Trenching for installation of silt fence is adequate where used.
5. Clear within limits of disturbance taking care to directionally fell trees away from those to be saved. Inspect forest edge to determine additional removal of danger trees and others not likely to survive post construction.
6. Grade for and complete all structural site improvements.
7. Install on-site reforestation plantings in accordance with notes and details provided.
8. Conduct post construction meeting with developers representative and Howard County inspector.
9. Remove temporary tree protection fencing.
10. Inspect and maintain reforestation plantings for a 2 year period.
11. Repeat steps above for section 2.

NOTES

1. SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" FOR ALL MATERIAL, PRODUCT, AND PROCEDURE SPECIFICATIONS.
2. SEE "LANDSCAPE GUIDLINES" FOR SUPPORTING TREES LARGER THAN 2-1/2" CALIPER.
3. PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
4. KEEP MULCH 1" FROM TRUNK



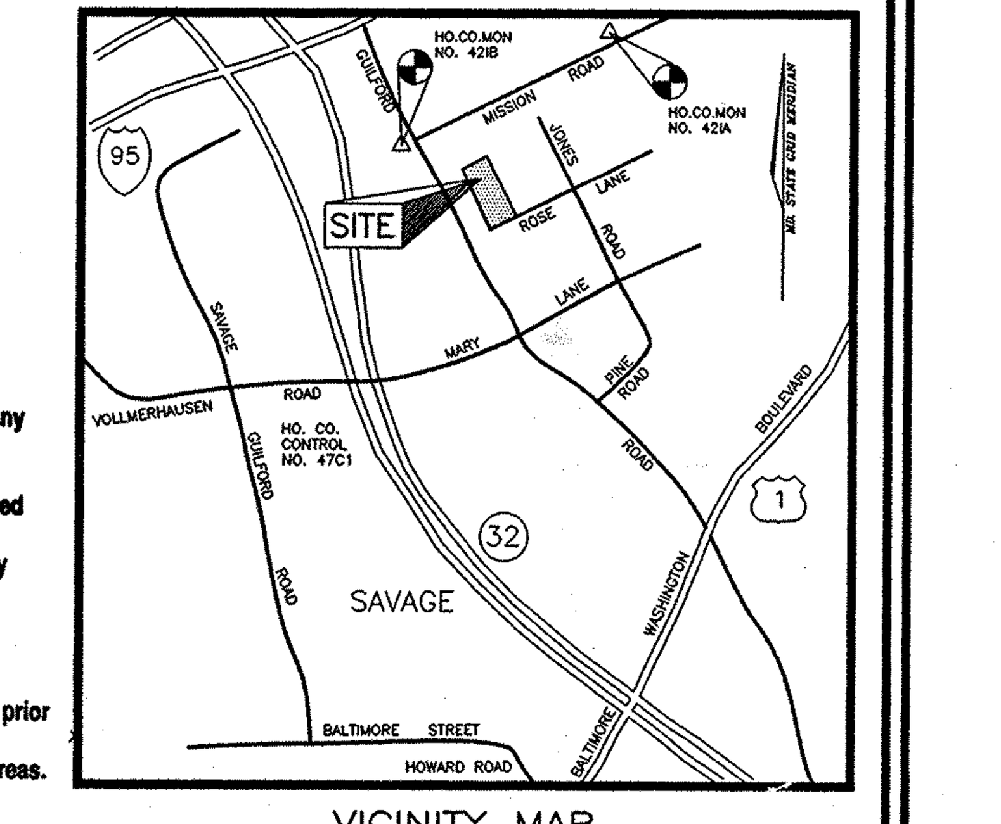
TREE PLANTING AND STAKING

DECIDUOUS AN EVERGREEN TREES UP TO 2-1/2" CALIPER — NOT TO SCALE

FOREST TREE PROTECTION AND MANAGEMENT NOTES

1. Tree protection devices shall be installed prior to any grading or land clearing.
2. After the boundaries of the retention area have been staked and flagged and before any disturbance has taken place a pre-construction meeting with the Howard County inspector is required.
3. No grading, storage of equipment, vehicles, equipment staging or dumping is permitted within forest conservation easement areas.
4. Provide maintenance to tree protection devices and signage to maintain their integrity throughout the duration of the project.
5. Attachment of signs or any other objects to trees is prohibited.
6. Root pruning will be performed with rotary ditching equipment or vibratory knife as conditions warrant.
7. Any significant changes made to the forest conservation plan shall be made with the prior consent of the Howard County Inspector.
8. No burial of discarded material is permitted within forest conservation and planting areas.
9. No open burning within 100ft. Of wooded areas is permitted.
10. Post Construction Phase
    - a. Inspect existing trees around perimeter of site for signs of root or trunk damage and excessive soil compaction.*
    - b. Remove dead or dying trees and evaluate for hazard tree removal*
    - c. All temporary forest protection devices will be removed after construction.
    - d. Following completion of construction, prior to use, the county inspector shall inspect the entire site for compliance with this forest conservation plan.

* A licensed arborist or forester should be retained for this service as needed.



VICINITY MAP
SCALE: 1"=2000'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

N/A

CHIEF, BUREAU OF HIGHWAYS — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Cindy Hamilton 8/12/98
CHIEF, LAND DEVELOPMENT DIVISION — DATE

8/6/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

APPENDIX G
FOREST CONSERVATION WORKSHEET

	ACRES. (1/10 acre) SEC I	SEC II
BASIC SITE DATA		
GROSS SITE AREA	2.2	1.3
AREA WITHIN 100 YEAR FLOODPLAIN	.1	0
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL (IF APPLICABLE)		
NET TRACT AREA	2.1	1.3
LAND USE CATEGORY (R-RLD, R-RMD, R-S, C/I/O, I) R-S		
INFORMATION FOR CALCULATIONS		
A. NET TRACT AREA	2.1	1.3
B. REFORESTATION THRESHOLD (20 % x A)	0.4	0.3
C. AFFORESTATION MINIMUM (15 % x A)	0.3	0.2
D. EXISTING FOREST ON NET TRACT AREA	1.5	1.3
E. FOREST AREAS TO BE CLEARED	0.9	1.3
F. FOREST AREAS TO BE RETAINED	0.6	0
REFORESTATION CALCULATIONS		
A. NET TRACT AREA	2.1	1.3
B. REFORESTATION THRESHOLD (20 % x A)	0.4	0.3
D. EXISTING FOREST ON NET TRACT AREA	1.5	1.3
E. FOREST AREAS TO BE CLEARED	0.9	1.3
F. FOREST AREAS TO BE RETAINED	0.6	0
G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD (D - F, If F equals or is greater than B, Alternate 1) (D - B, If F is less than B, Alternate 2)	0.9	1.0
H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD (B - F, If applicable)	0	0.3
I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD (F - B, Retention Credit, If applicable)	0.2	0

Select the alternative that applies:

1. Clearing above the threshold only

If forest areas to be retained equal or are greater than the reforestation threshold (If F equals or is greater than B), the following calculations apply:

	SEC I	SEC II
REFORESTATION FOR CLEARING ABOVE THRESHOLD G x 1/4	0.2	—
CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD I = Retention Credit	0.2	—
TOTAL REFORESTATION REQUIRED (G x 1/4) - I	0	—

If the total reforestation requirement is equal to or less than 0, no reforestation is required.

2. Clearing below the threshold

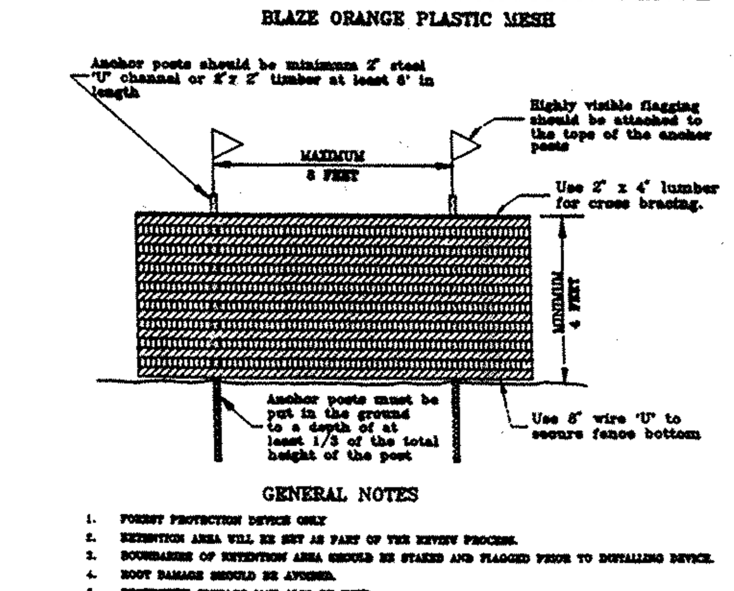
If forest areas to be retained are less than the reforestation threshold (If F is less than B), the following calculations apply:

	SEC I	SEC II
REFORESTATION FOR CLEARING ABOVE THRESHOLD G x 1/4	—	0.3
REFORESTATION FOR CLEARING BELOW THRESHOLD H x 2	—	0.6
TOTAL REFORESTATION REQUIRED (G x 1/4) + (H x 2)	—	0.9

FEE-IN-LIEU PAYMENT PROPOSED

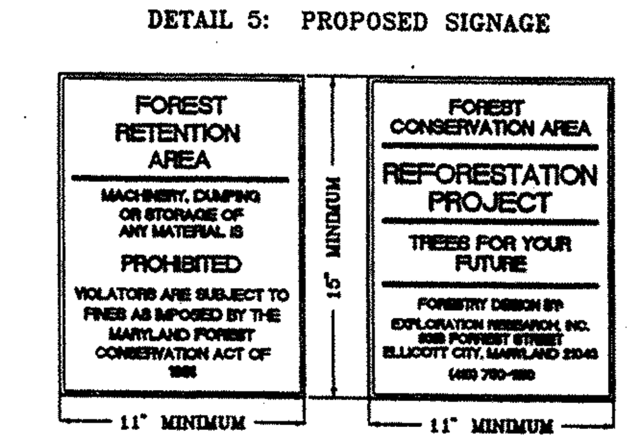
DETAIL 1: TREE PROTECTION FENCE

BLAZE ORANGE PLASTIC MESH



GENERAL NOTES

DETAIL 5: PROPOSED SIGNAGE



FOREST STAND ANALYSIS TABLE

Project Name: Moore Property

KEY	A. TYPE OF COMMUNITY	B. AREA	C. 1. Soil Types	2. Typical forest cover for soil type	3. Woodland Suitability Index	D. EXISTING VEGETATION (Dominant Species and Approx. %)	E. 1. Size (Diam)	2. Age	3. General Conditions	F. FOREST AREA IN SENSITIVE ENVIRONMENTS (Acres)	G. Habitat Value
F-1	Forest	1.0	BeD2 Ha Fa	Maple - Sycamore	16 2 1	50% Tulip Poplar 25% Green ash 25% Am. sycamore	12-20	40+	Good	0.2	Good
F-2	Forest	0.5	BeD2 Ha	Maple	16 2	Tulip Poplar Am. beech	12-18	30+	Good - Poor	0.2	Fair
F-3	Forest	1.2	BeB2 BeD2	Oak	12 16	60% Tulip Poplar 40% Virginia Pine	12-20 12-20	30+ 30+	Good Poor	0	Good

FOREST STAND DELINEATION NARRATIVE

SECTION 1 & 2

F-1 This is a bottomland forest located on the northern portion of the property. It is composed of a mixture of tulip poplar, red maple, green ash and pin oak in the overstory with arrowood viburnum, American beech and black gum in the understory. Much of this forest is located within priority retention area due to the location relative to stream and wetland buffers.

F-2 This area is located in the south-central portion of the site. Its composition is highly variable due to past land disturbances. In general, this forest is occupied by large tulip poplars and sycamores which range from 12 to 18 inch DBH on the northern end which thin out considerably from north to south. The larger trees are remnants of the forest that once occupied the site. Many of these trees have been weakened by grading and filling on the site. Saplings of tulip poplar and sycamore dominate the understory. Although this forest occupies steep slopes it is not a high priority forest due to the fact that it is dominated by invasive honeysuckle.

F-3 This forest is located within the eastern portion of the property on section 2 and is composed of an overstory of tulip poplar and Virginia pine in the 12 to 20 inch DBH. The understory is dominated by dogwood, American beech and black gum. Virginia pine is susceptible to windthrow and should be selectively removed.

OF-1 Open Field dominated by grasses, forbes and small trees.

OF-2 Open Field dominated by gravel, overgrown fill piles and discarded landscape materials.

NOTES

1. THE PROPERTY OUTLINE IS BASED ON A FIELD RUN BOUNDARY SURVEY PERFORMED BY MARKS AND VOGEL ASSOCIATES, INC. IN NOVEMBER, 1997.
2. THE EXISTING FEATURES AND CONTOURS SHOWN HEREON ARE BASED ON FIELD RUN TOPOGRAPHY PERFORMED BY MARKS AND VOGEL ASSOCIATES INC. IN NOVEMBER 1997.
3. EXISTING STREAM LOCATED BY MARKS & VOGEL ASSOCIATES, INC IN NOVEMBER 1997.
5. EXISTING NON TIDAL WETLANDS LOCATED BY MARKS AND VOGEL ASSOCIATES INC. IN NOVEMBER 1997.

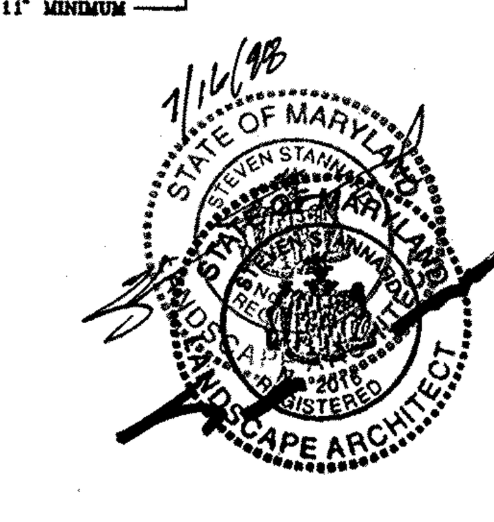
SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	TYPE
BeB2	BELTSVILLE SILT LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED	C
BeD2	BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED	C
Fa	* FALLSINGTON LOAM, NEARLY LEVEL, MODERATELY ERODED	D
Ha	* HATBORO SILT LOAM, LESS THAN 2 PERCENT SLOPES	D

* SOILS GROUPS WHICH ARE CONSIDERED HYDRIC SOILS PER HOWARD COUNTY SOILS SURVEY HOWARD COUNTY SOILS MAP NUMBER 30

LEGEND

Symbol	Description
— — —	SOILS DIVISION LINE
BeD2	SOIL TYPE (SEE TABLE THIS SHEET)
(light shading)	AREA OF 15% TO 24.9% SLOPES
(dark shading)	AREA OF 25% SLOPES OR GREATER
(circle)	PROPOSED TREE (RED MAPLE)
(dotted box)	FOREST CONSERVATION EASEMENT
O	PROPOSED SINAGE
• • • • • • •	FOREST DIVISION LINE
—x—x—	TREE PROTECTION FENCE
------410------	EXISTING CONTOUR
(scalloped line)	EXISTING TREELINE
(symbol)	PROPERTY EVIDENCE
—— — — ——	PROPERTY LINE
-·-·-·-	NON TIDAL WETLAND LIMIT
-··-··-	EDGE OF EXISTING STREAM
—LOD—LOD—	LIMIT OF DISTURBANCE



EXPLORATION RESEARCH, INC
ENVIRONMENTAL CONSULTANTS

CONTRACT PURCHASER
ROBERT W. McLEWEE
2519 LONDONDERRY ROAD
TIMONIUM, MD 21093

DATE	NO.	REVISION	BY

ROSE LANE
SECTION 1 & SECTION 2, LOTS 1 THRU 4

PREVIOUSLY RECORDED AS NORDAU SUBDIVISION
SECTION E-5: LOT 1
SUPPLEMENTAL INFORMATION
AND FOREST CONSERVATION PLAN

TAX MAP #42 REF.: — 6th ELECTION DISTRICT
PARCELS 115 & 116 REF.: PLAT BK 3/51 HOWARD COUNTY, MARYLAND

MARKS & VOGEL ASSOCIATES, INC.
ENGINEERS - SURVEYORS - PLANNERS
3691 PARK AVENUE, SUITE 101
ELLICOTT CITY, MARYLAND 21043
TELEPHONE: (410) 461-5828
FAX: (410) 465-3966

DESIGN BY: M.D.M.
DRAWN BY: M.D.M.
CHECKED BY: R.H.V.
DATE: JANUARY, 1998
SCALE: 1"=50'
W.O. NO.: 97-75

SHEET 3 OF 3

F-98-71

ACAD FILE: C:\ACADJOBS\VOGEL\FORCON.DWG