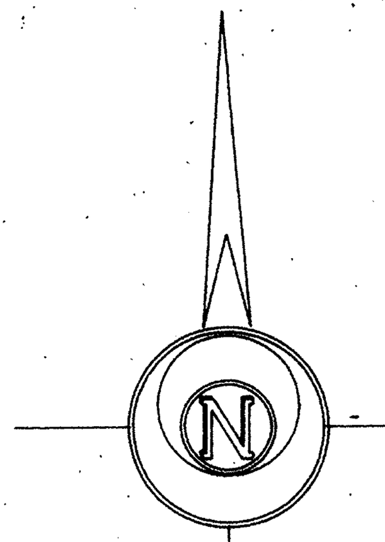
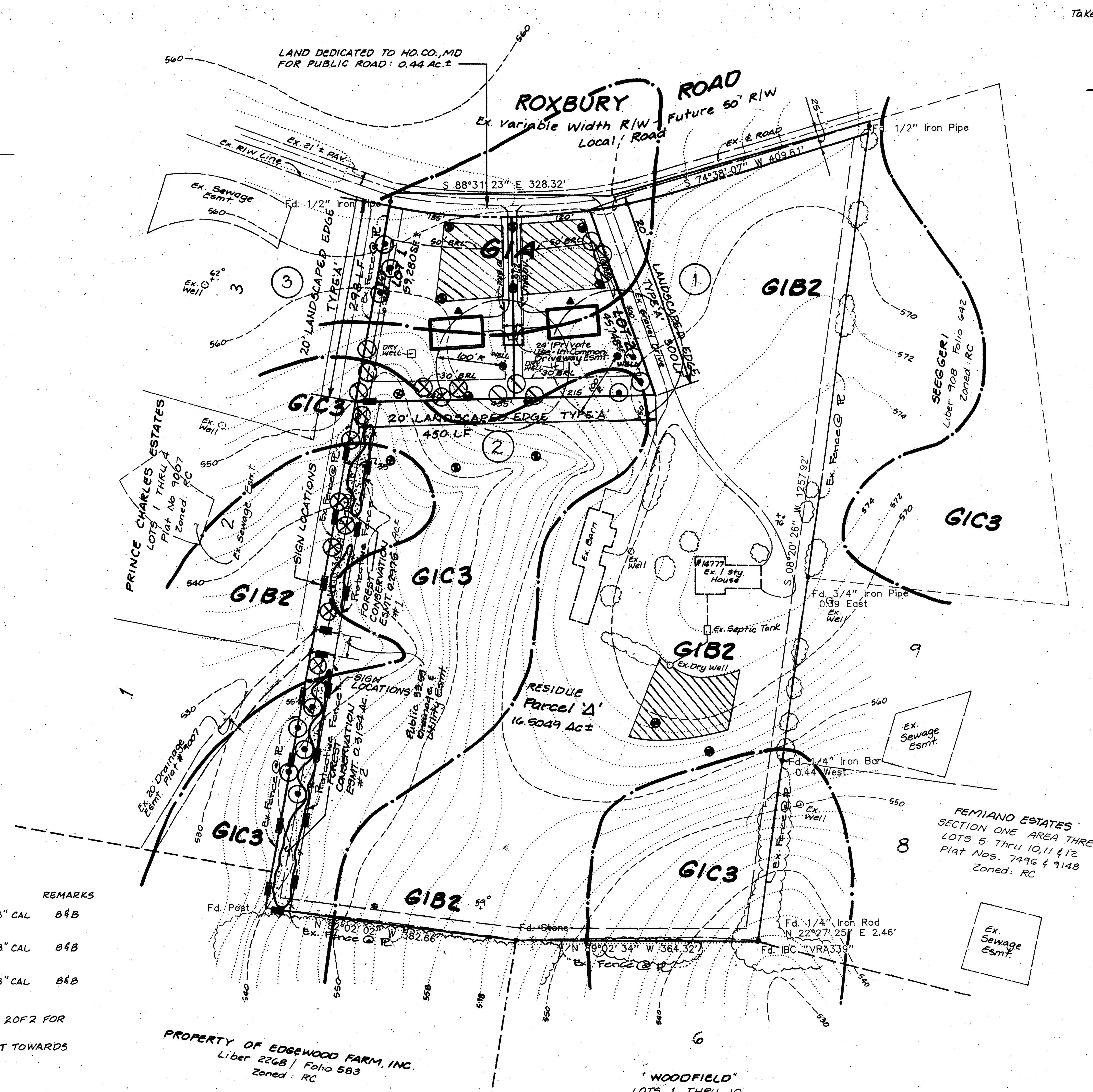
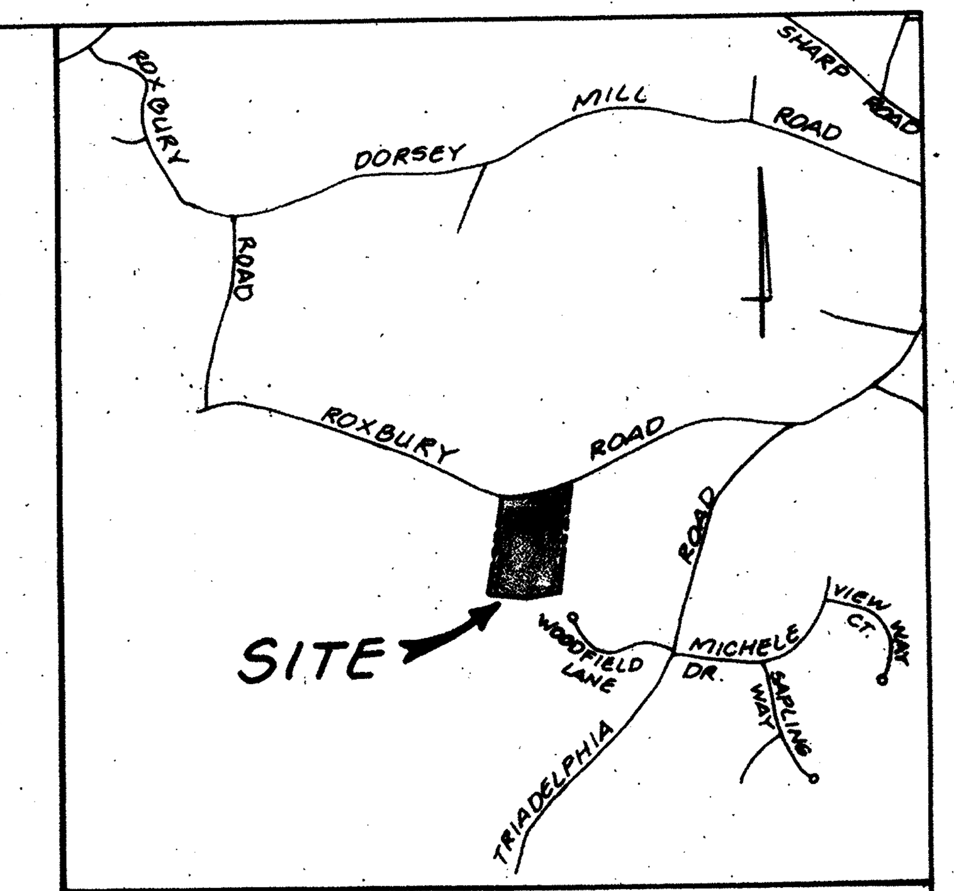




SOILS LEGEND

SYMBOL	NAME	SLOPE / CHARACTERISTICS	
G1A	Glenelg Loam	0 to 3% Slopes	
G1B2	Glenelg Loam	3 to 8% Slopes	Moderately Eroded
G1C3	Glenelg Loam	8 to 15% Slopes	Severely Eroded

Taken from U.S.D.A. Soils Map #17.



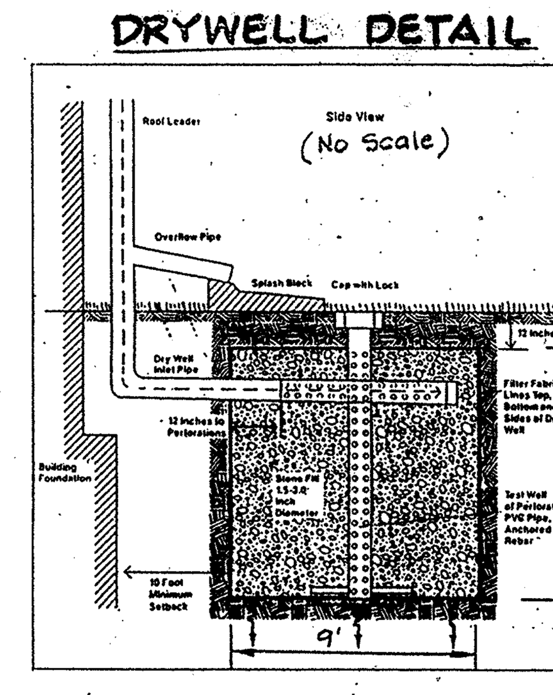
VICINITY MAP

Scale: 1" = 2000'

PERCOLATION TEST LEGEND

- ⊕ TEST PASSED
- ⊕ TEST FAILED

DRYWELL DETAIL



3.4.6. Construction Specifications

3.4.6.1. Timing

A dry well shall not be constructed or placed in service until all of the contributing drainage area has been stabilized and approved by the responsible inspector.

3.4.6.2. Dry Well Preparation

Excavate the dry well to the design dimensions. Excavated materials shall be placed away from the excavated sides to enhance wall stability. Large tree roots shall be trimmed flush with the sides in order to prevent fabric puncturing or tearing during subsequent installation procedures. The side walls of the dry well shall be roughened where sheared and sealed by heavy equipment

3.4.6.3. Fabric Laydown

The filter fabric roll shall be cut to the proper width prior to installation. The cut width must include sufficient material to conform to well perimeter irregularities and for a 6-inch minimum top overlap. Place the fabric roll over the well and unroll a sufficient length to allow placement of the fabric down into the well. Stones or other anchoring objects should be placed on the fabric at the edge of the well to keep the lined well open during windy periods. When overlaps are required between rolls, the upstream roll shall lap a minimum of 2 feet over the downstream roll in order to provide a shingled effect. The overlap ensures fabric continuity or the fabric conforms to the excavation surface during aggregate placement and compaction.

3.4.6.4. Aggregate Placement and Compaction

Drainage aggregate shall be placed in lifts and compacted using plate compactors. As a rule of thumb, a maximum loose lift thickness of 12 inches is recommended. The compaction process ensures fabric conformity to the excavation sides, thereby reducing the potential for soil piping and fabric clogging.

3.4.6.5. Overlapping and Covering

Following aggregate placement, the fabric previously weighted by stones should be folded over the aggregate to form a 6" minimum longitudinal lap. The desired fill soil should be placed over the lap at sufficient intervals to maintain the lap during subsequent backfilling.

3.4.6.6. Contamination

Care shall be exercised to prevent natural or fill soils from intermixing with the drainage aggregate. All contaminated aggregate shall be removed and replaced with uncontaminated aggregate.

3.4.6.7. Voids Behind Fabric

Voids can be created between the fabric and excavation sides and should be avoided. Removing boulders or other obstacles from the trench walls is one source of such voids. Natural soils should be placed in these voids at the most convenient time during construction to ensure fabric conformity to the excavation sides. Soil piping, fabric clogging, and possible surface subsidence will be avoided by this remedial process.

3.4.6.8. Unstable Excavation Sides

Vertically excavated trench walls may be difficult to maintain in areas where the soil moisture is high or where soft cohesive or cohesionless soils predominate. These conditions may require laying back of the side slopes to maintain stability; trapezoidal rather than rectangular cross sections may result.

3.4.6.9. Foundation Protection

Dry wells 3 or more feet deep shall be located at least 10 feet down gradient from foundation walls.

3.4.6.10. Observation Well

An observation well, as described in subsection 3.4.4.8 and Figure 3-5, will be provided. The depth of the well, at the time of installation, will be clearly marked on the well cap.

3.4.7. Maintenance

Dry wells shall be designed to minimize maintenance. However, it is recognized that all infiltration facilities are subject to clogging by sediment, oil, grease, grit and other debris. In addition, the performance and longevity of these structures is not well documented. Consequently, a monitoring observation well is required for all infiltration structures.

The observation well should be monitored periodically. For the first year after completion of construction, the well should be monitored on a quarterly basis and after every large storm. It is recommended that a log book be maintained indicating the rate at which the facility dewaters after large storms and the depth of the well for each observation. Once the performance characteristics of the structure have been verified, the monitoring schedule can be reduced to an annual basis, unless the performance data indicate that a more frequent schedule is required.

3.4.8. References

1. Becker, B.C., M.L. Clar, and R.R. Kautzman, Approaches to Stormwater Management, prepared by Hittman Associates, Inc. for the Office of Water Resources Research, USDI, November, 1973.
2. Sullivan, R.H., editor, Urban Stormwater Management, Special Report No. 49, American Public Works Association, Chicago, Illinois, 1981.
3. Anonymous, Controlling Stormwater Runoff in Developing Areas: Selected Best Management Practices, Metropolitan Washington Council of Governments, July, 1979.
4. Design Guidelines for Subsurface Drainage Structures, MIRAFI, Inc., P.O. Box 240967, Charlotte, NC 28224.

NOTE: All dry wells to be privately maintained by the lot owner.

GENERAL NOTES:

1. EXISTING ZONING: RC (RURAL CONSERVATION) PER 10/18/93 COMPREHENSIVE ZONING PLAN.
2. DEED REFERENCE: LIBER 3941 FOLIO 554
3. TOTAL AREA OF PROPERTY: 19.91 Ac.±
4. THE LOTS SHOWN COMPLY WITH THE MINIMUM LOT AREA AND OWNERSHIP WIDTH AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
5. THE TOPOGRAPHY SHOWN IS COMPILED FROM THE HOWARD COUNTY AERIAL PHOTOGRAMMETRY.
6. ALL PERCOLATION TESTS HAVE BEEN FIELD LOCATED. ALL WELLS AND SEPTIC SYSTEMS HAVE BEEN SHOWN WITHIN 100 FEET OF THE PROPERTY BOUNDARY WHICH MAY IMPACT THE PROPOSED SUBDIVISION.
7. ALL PROPOSED WELLS SHALL BE DRILLED PRIOR TO FINAL PLAT APPROVAL.

FROSTY PINES
Dry Well Design

Typical Dry Well Design

1.) Average House Size = 40' x 60' = 2,400 SF
2.) Average Driveway Size = 20' x 30' = 600 SF

3,000 SF IMPERVIOUS

Dry Well = 1/2" x Impervious Area
= .0416667' x Impervious Area
= .0416667' x 3,000 SF
= 125 cu.ft. +/-
= 125 cu.ft. / .40 Void RatioZ
= 312 cu.ft.

Use 1 Dry Well

9' x 9' x 4' = 324 cu.ft.
9' wide x 9' long x 4' deep

or =

Use 2 Dry Wells

6.5' x 6.5' x 4' = 169 cu.ft.
6.5' wide x 6.5' long x 4' deep

SCHEDULE A
PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	—	A
Linear Feet of Perimeter	—	1048 LF
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	—	No
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	—	No
Number of Plants Required Shade Trees Evergreen Trees Shrubs	—	18 — — —
Number of Plants Provided Shade Trees Evergreen Trees Other Trees (2:1 substitution) Shrubs (10:1 substitution) (Describe plant substitution credits below if needed)	—	18 — — — —

Comments ____________________

Note: Complex projects may require expansion of the schedule to accommodate multiple land uses on-site or on adjacent properties.

LANDSCAPE SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
10*	⊕	ACER RUBRUM "RED SUNSET"	RED MAPLE "RED SUNSET"	2½" - 3" CAL	B&B
9	⊘	LIQUIDAMBAR STYRACIFLUA	AM. SWEETGUM	2½" - 3" CAL	B&B
11*	⊙	QUERCUS RUBRUM	NORTHERN RED OAK	2½" - 3" CAL	B&B

AFFORESTATION PLANTING (SEE SHEET 2 OF 2 FOR PLANT LIST)

* 7 RED MAPLES AND 5 RED OAKS TO BE USED AS CREDIT TOWARDS AFFORESTATION OBLIGATION

THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, ENVIRONMENTAL DIVISION

SIGNATURE _______ DATE _______

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE
HOWARD COUNTY HEALTH DEPARTMENT.

Joyce M Boyd [signature] 9/18/98
Howard County Health Officer — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[signature] 7/11/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

Cindy Hamilton [signature] 8/1/00
CHIEF, DIVISION OF LAND DEVELOPMENT JA — DATE

[redacted]

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

NATURAL RESOURCE CONSERVATION SERVICE — DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROISION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT — DATE

ENGINEER'S CERTIFICATE

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Bruce D. B[signature] 6/28/00
SIGNATURE OF ENGINEER — DATE

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING 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. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

Josephine H. Spaulding [signature] 6/27/00
SIGNATURE OF DEVELOPER — DATE

DEVELOPER'S / BUILDER'S CERTIFICATE

We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. We further certify that upon completion a Certificate of Landscape Installation, accompanied by an executed one year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

[signature] 6/27/00
Dale E. Haylett, Jr. — Date

[signature] 6/27/00
Josephine H. Zimmerman — Date

STATE OF MARYLAND — BRUCE DAVID BURTON — No. 19184 — REGISTERED PROFESSIONAL ENGINEER
6/28/00

DENNIS J. LaBARE, M.S., & ASSOCIATES
Environmental Consulting Services
8903 Flagstone Circle
Randallstown, MD 21133

- Wetland Delineations & Mitigation
- Stream Assessment & Restoration
- Water Quality Monitoring
- Macroinvertebrate Taxonomy
- Forest Stand Delineations
- Forest Conservation Plans

Dennis LaBare [signature]
Qualified Professional, MDFCA
Ph./Fax (410) 922-7476

LDE, INC.
9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED BDB	LANDSCAPING / FOREST CONSERVATION PLAN FROSTY PINES LOT Nos. 1, 2 and PARCEL 'A'	SCALE 1" = 100'
DRAWN KBW STB	TAX MAP No. 21 BLOCK 22 PARCEL No. 58 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	DRAWING 1 of 2
CHECKED BDB	Previous Submittals: F99-188	JOB NO. 98-039
DATE 4/99	Owner/Developer: PHENE ZIMMERMAN 14777 Roxbury Road Glenelg, MD 21737	FILE NO. F00-140

F00-140

TREE PLANTING NOTES

1. Notify "Miss Utility" 72 hours prior to installation of all plant material.
2. Plant installation must conform to the minimum standards cited in the latest edition of Landscape Specification Guidelines, published by the Landscape Contractors Association.
3. Plants to be located in the field by the owner or owner's representative. Notify owner 72 hours in advance of planting.
4. A Certification of Landscape Installation is required as per the Howard County Landscape Ordinance.
5. The number, size, location of plants shall not be changed without the approval of the Landscape Architect. Substitutions must be included in the recommended plant list in the Howard County Landscape Ordinance.
6. Street tree locations may be adjusted for final location of driveways. Trees to be located a minimum of 10 feet from driveways.
7. Street trees may not be planted within 5 feet of drain inlets, 5 feet of an open space access strip and 10 feet of a driveway.
8. Street tree planting must conform to the Subdivision and Land Development Regulations and the Department of Public Works Design Manual of Howard County.
9. Balled and burlapped plant material shall not be accepted if ball is cracked or broken before or during planting. Protect all plants from drying by either sun or wind.
10. Tree pits shall be backfilled with 50% topsoil, 25% peat, 25% sand with one pound of 10-10-10 fertilizer per pit.
11. Top soil shall be sandy loam soil free from noxious weeds or grasses, roots, clay clumps, stones, sticks, etc. Peat moss shall be commercial with pi 4.5 to 5.5, free of woody material or harmful minerals.
12. All plants shall be watered at planting with weekly watering thereafter for the first 80 days. Watering shall continue bi-monthly or as necessary to maintain plants in a healthy condition during the guarantee period.
13. Maintain the site in an orderly manner. Streets and sidewalks shall be swept clean. All rejected or dead materials shall be immediately removed from the site.
14. Plant material to be alive and healthy at the time of the guarantee period (one year), as specified in the Howard County Landscape Ordinance.
15. Maintenance shall begin immediately after planting and continue to the end of guarantee period.
16. Maintenance consist of pruning, watering, weeding, re-mulching, resetting plants to proper grades as needed and repairing guys and stakes as needed.

AFFORESTATION PLANTING NOTES

1. Forest Stand Delineation and the Preliminary Forest Conservation Plan prepared by Dennis LaBare, MS LLC (SP 98-06).
2. Written Documentation including afforestation location, construction protection and management, cost estimate, plant densities, etc., prepared by Dennis LaBare, MS LLC (SP 98-06).
   A. Construction Protection and Management
      Upon completion of the rough grading of the afforestation areas, a protective fence and signs will be installed. Adjacent landowners will be informed about the existence and importance of these areas.
   B. Post Construction Protection
      After completion and approval of planting, the protective fence shall remain only if construction endangers the viability of the newly planted area. Signs will be removed after the two year maintenance period as directed by the Howard County Forest Conservation Manual.
3. All planting to meet the implementation techniques and practices as described in the Howard County Forest Conservation Manual.
4. There are existing trees on the site.
5. The hardwood container grown stock should be planted randomly at an average of eleven feet on center in a naturalized pattern. Species should be mixed with no less than three trees of one species in a group. Edge species should be planted on the perimeter of the afforestation area (Amelanchier, Cercis, and Viburnum).
6. Evergreen seedlings should be planted randomly at an average of eight feet on center in a naturalized pattern.
7. The Landscape Contractor will be responsible for general site preparation of the rough graded afforestation areas. The planting areas should be treated by incorporating natural mulch into the top twelve inches of soil. The Contractor will provide needed soil amendments as determined by a soil analysis. Amendments should be natural materials such as organic mulch or leaf mold compost.
8. All disturbed areas within the afforestation area to be seeded with K-31 Tall Fescue, March 1 thru April 30 and August 1 thru October 15, seed with 60 lbs./acre; May 1 thru July 31 use 60 lbs./acre K-31 and 2 lbs/acre of weeping lovegrass; October 16 thru February 28 use 60 lbs./acre K-31 and mulch with 2 tons/acre well anchored straw or mulch and seed in the spring.
9. Seeded areas to be hand mulched with 1-1/2 to 2 tons per acre of unrotted small grain straw and non-asphaltic tackifier and left unmowed.
10. The Landscape Architect will inspect the planting at the end of the construction period and provide to the County a certification that all plantings have been installed and that all protection devices are in place.
11. The Landscape Contractor shall be responsible for management of afforestation areas for a period of two years, including needed watering, removal of dead or damaged material and control of undesirable species, fertilizing if necessary and control of pests, and replacement of plant material as described in the Howard County Forest Conservation Manual.
12. All inspections as required by the Forest Conservation Manual shall be performed by the Landscape Architect.

AFFORESTATION – PLANTING SPECIFICATIONS AND NOTES

GENERAL NOTES

1.) This re/af-fforestation planting plan is provided in accordance with the requirements set forth by the Forest Conservation Act/Bill/Ordinance of Howard County. The preparation of these plan(s), the notes and details incident thereto were prepared using the guidelines of the Howard County Forest Conservation Manual, the State of Maryland's Forest Conservation Manual, as well as sound professional forestry, arborist, and nurseryman practice.
2.) This plan and shall be implemented by a contractor that is knowledgeable and experienced in the methods set forth herein.
3.) The survival rate of the plantings shall be 75% of the total number of plantings per acre as provided by this plan.
4.) Base sheet information was provided by LDE, Inc.

QUALITY ASSURANCE

1.) Names of plant material listed conform generally with names accepted by the nursery trade. The contractor is to provide stock true to botanical/scientific name.
2.) Material shall be grown and delivered so as to be that specified herein.
3.) If specified material is not available or there are other technical, logistical, financial imperatives that shall necessitate the substitution of plant materials, the contractor shall contact the plan preparer for permission to use equivalent material.

SITE PREPARATION AND SOILS

1.) Disturbance of soils should be limited to the Planting Field for each plant unless the area has been prepared with/for soil amendments and/or broadcast seeding for groundcovers, etc.
2.) Soil amendments should be considered for any site only after careful analysis of existing conditions. Soil samples should be analyzed by a qualified soils lab to determine the need for any amendments. Results of the soil analysis should be provided to the landscaping contractor and/or the local County Co-operative Extension Agent or interpretation in the context of the intended plantings. Their recommendations should be followed closely. In the case of highly compacted sites that need only soil aeration or loosening treatment, a mixture of 25% leaf mold and 25% manure, the remainder being landscape topsoil, may be added. This mixture should be applied at the rate of one cubic yard per 165 square feet of area. Till deeply taking care not to bring subsoils to the surface. Amendments should be tilled in after the initial tilling. This method is particularly suitable when broadcast seeding or perennial beds are involved.
3.) Soil mix for ericaceous material: Native topsoil into which the contractor shall thoroughly incorporate 25% by volume peat moss and 25% leaf mold may be mixed into soil.

PLANT STORAGE AND INSPECTION

1.) For container grown nursery stock, planting should occur within two weeks after delivery to site.
2.) Planting stock should be inspected prior to planting. Plants not conforming to standard nurseryman specifications for size, form, and vigor, roots, trunk wounds, insects and disease should be replaced.
3.) Container stock, if not planted within two weeks, may be ranked up with mulch and watered every other day or as needed until planting. Bare root stock may NOT be delivered and left on-site prior to planting.

SEASONAL PLANTING LIMITATIONS

1.) Planting activities shall conform with established nurseryman's practice and approximate the growing season for the geographic area. Planting of bare-root stock after March 15 should be avoided unless seasonal progression is measurably retarded by observable temperature or weather patterns and stock has been kept appropriately dormant through proper storage.
2.) Planting shall not take place in sub-freezing temperatures, when the ground is frozen, or when the soil is too wet or dry or otherwise a condition not generally accepted as satisfactory for planting and may adversely affect plant materials

PLANT INSTALLATION

1.) Container grown stock should be removed from the container and roots gently loosened from the soil. If the roots encircle the root ball, substitution is strongly recommended. J-shaped or kinked root systems should also be noted. ROOTS MAY NOT BE TRIMMED ON SITE, due to the increased chances of soil borne diseases.
2.) Bare root stock should be unwrapped on-site only when ready to plant then held in water. When handled for planting, stock shall be immediately dipped in Super-sorb or equivalent water-holding polymer prepared with water as a slurry per manufacturer's specification. Roots must be thoroughly coated upon withdrawal from slurry. Plant stock immediately after dipping. If not planted immediately, wrap in burlap. Roots are not to be exposed to air.
3.) For trees planted in the afforestation area, contractor shall evenly disperse species in groups of two to four per species over the entire designated area to be planted or on random center spacing by species as dictated by planting density.
4.) Avoid planting in a straight grid pattern. Trees shall be planted on an average spacing of ten feet O.C., randomly.
5.) As shown on the detail view, a Planting Field diameter of two – three times the diameter of the root ball or container is recommended. The depth of the hole should be no more than 1 – 1.5 times the length of the root mass. The hole should be established with an auger. If the walls of the hole should glaze due to auger rotation, they can be scored with a spade or the auger may be "wiggled" upon withdrawal to assure no glazing occurs. Additionally, there will be loose earth in the bottom of any hole. This should be lightly tamped with the foot to keep the planting unit from settling too much.
   Native stockpiled soils should be used to backfill Planting Field except where soil amendments are site-wide and specific. After plant placement in hole, move stock around in hole to allow settling of initial fill to avoid air pockets. Finish filling hole and use water to further settle soil backfilled around trees. Mulch with composted wood chips (>1 year composting). Mulch should be 3" deep and extend to limits of augured hole. This should keep weeds down for about one year.
6.) Newly planted trees may need watering as much as once a week for the entire growing season on well drained sites combined with the looseness of the backfilled, newly amended soil within the Planting Field. The next two years may require watering only a few times a year during summer and dry months. After that period, trees should only need water in severe droughts. Any watering plan should compensate for recent rainfall patterns.
7.) Do not fertilize newly planted trees within the first growing season after planting. Doing so may cause a spurt of canopy growth which the roots cannot support and add additional shock to the already disturbed plant. Fertilize by sidecasting after one year, if desirable.
8.) If and when it is time to fertilize, organic fertilizers are preferred to synthetic fertilizers. Bone meal or seaweed-based products are available commercially and are recommended. They have the ability to supply nutrients to the plant as needed while minimizing the risk of excess nutrients entering the forest system and water supply.
9.) All tags, labels, string, wire, etc., shall be removed from plant material.
10.) The landscape contractor is responsible for the location of all existing underground utilities such that the repair of utilities damaged during planting shall be the landscape contractor's expense.

AFFORESTATION PLANT LIST

QTY	SPECIES	SIZE	REMARKS
20	Common Chokecherry Prunus Virginiana	1" Cal.	B & B
20	Eastern Red Cedar Juniperus Virginiana	1" Cal.	B & B
20	Red Maple Acer rubrum	1" Cal.	B & B
20	Sassafras Sassafras albidum	1" Cal.	B & B
20	Maple Leaf Viburnum Viburnum aceri folium	1" Cal.	B & B

Planting Schedule/Time Frame

Planting shall occur after construction activities have ceased. If the planting stock is to be bare root material, it shall be planted no earlier than immediately after the first frost and no later than March 15. Container stock may be planted at any time and if such stock is chosen, planting shall be accomplished by the end of the first growing season after completion of construction activities.

Binding Maintenance Agreement/Schedule

1.) Annual maintenance during the growing season, for a period of two years. These tasks are the responsibility of the owner or individual to whom ownership has been conveyed or who has legally accepted responsibility for these tasks. Management may include the following: watering, fertilizing, pruning, removal of dead material and the control of pests and competing vegetation.
2.) Schedule: Year 1: 3 times (March–April), (July–August), (October–November). Year 2: Twice annually (April–May), (September–October). At the end of the time period specified in item #1 above, there shall be 75% survival of the total number of trees planted. If the survival rate is determined to have fallen below 75%, material identical to that not surviving shall be planted as replacement.
3.) Assess tree mortality of planting stock, remove and replace any dead or diseased plantings.
4.) Volunteer seeding of native, local and endemic vegetation is to be expected. Do not discourage this effort unless it is negatively effecting the planted stock.
5.) Remove through manual means (grubbing, pulling, cutting) aggressive, noxious, invasive species herbaceous and otherwise, if deemed necessary. Twice annual mowing/brushhogging and spot treatment with Rodeo or Roundup is one of the most effective means to control exotic/invasive species. No mowing shall occur during the wildlife nesting period of early April through mid-July.
6.) Remove and dispose of man-made trash. Do not remove down and dead material naturally occurring or accumulating, unless it is smothering planting stock.
7.) Certification of survival as required shall be completed by a licensed forester, licensed landscape architect or other qualified professional per COMAR and submitted to Howard County Planning and Zoning personnel. Release of bond or other security shall occur at this time.

HOWARD COUNTY
FOREST CONSERVATION WORKSHEET

		ACRES (1/10 acre)
I.	**BASIC SITE DATA**	
	GROSS SITE AREA	19.3
	AREA WITHIN 100 YEAR FLOODPLAIN	N/A
	AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL (IF APPLICABLE)	16.5
	NET TRACT AREA	2.75
	LAND USE CATEGORY (R-RLD, R-RMD,R-S, C/I/O, I)	RR
II.	**INFORMATION FOR CALCULATIONS**	
A.	NET TRACT AREA	2.75
B.	REFORESTAT ION THRESHOLD (25 % x A)	0.7
C.	AFFORESTATION MINIMUM (20 % x A)	0.55
D.	EXISTING FOREST ON NET TRACT AREA	0.0
E.	FOREST AREAS TO BE CLEARED	0.0
F.	FOREST AREAS TO BE RETAINED	0.0
V.	**AFFORESTATION CALCULATIONS**	
A	NET TRACT AREA	2.75
C.	AFFORESTATION MINIMUM (20% X A)	0.55
D.	EXISTING FOREST ON NET TRACT AREA	0.0
E.	FOREST AREAS TO BE CLEARED	0.0
F.	FOREST AREAS TO BE RETAINED	0.0

Select the alternative that applies:

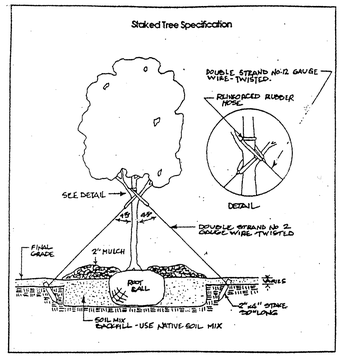
1. No clearing below the Minimum

   If existing forests are less than the afforestation minimum (if D is less than C) and no clearing is proposed, the following calculations apply:

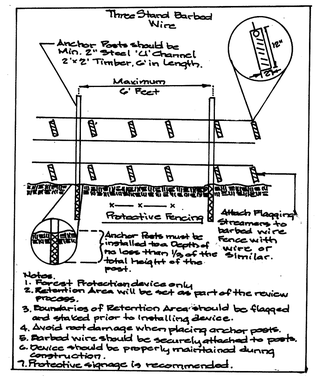
   TOTAL AFFORESTATION REQUIRED C - D = 0.6

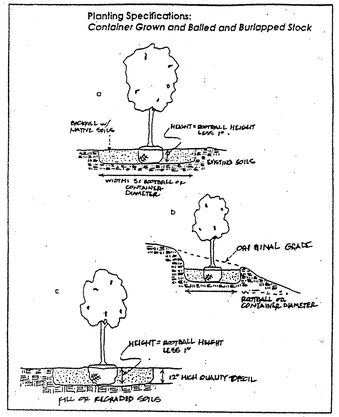
   TOTAL AFFORESTATION PROVIDED = 0.6 Ac ±

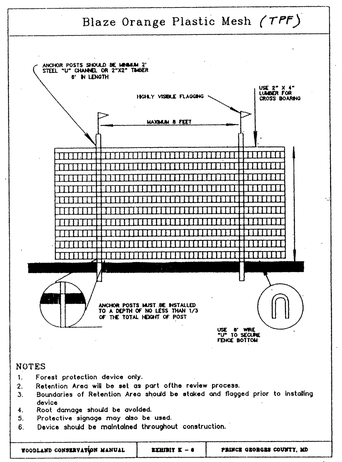
   Afforestation must make total forest area equal the minimum required



Staking of trees may be used only when necessitated by areas of high winds for trees larger than eight feet in height. Stakes and wires should be removed after the first growing season.

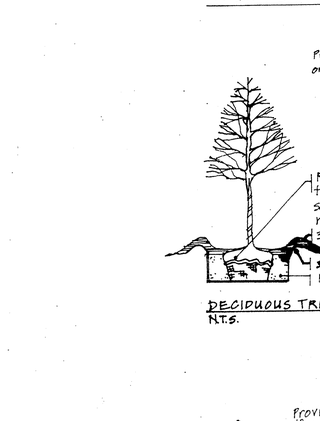






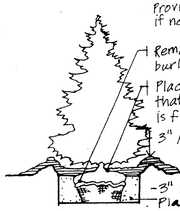
NOTES
1. Forest protection device only.
2. Retention Area will be set as part of the review process.
3. Boundaries of Retention Area should be staked and flagged prior to installing device.
4. Root damage should be avoided.
5. Protective signage may also be used.
6. Device should be maintained throughout construction.

WOODLAND CONSERVATION MANUAL | EXHIBIT K – 8 | PRINCE GEORGES COUNTY, MD



TREE PLANTING DETAILS

DECIDUOUS TREE PLANTING DETAIL
N.T.S.



EVERGREEN TREE PLANTING DETAIL
N.T.S.

ENGINEER'S CERTIFICATE

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS THAT WAS PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE SOIL CONSERVATION DISTRICT."

STATE OF MARYLAND — BRUCE DAVID BROWN — No. 19184 — REGISTERED PROFESSIONAL ENGINEER

SIGNATURE OF ENGINEER — DATE 6/08/00

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING 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. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

SIGNATURE OF DEVELOPER — DATE 6/27/00

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING, ENVIRONMENTAL DIVISION

SIGNATURE — DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/11/00

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 8/1/00

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

NATURAL RESOURCES CONSERVATION SERVICE — DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT — DATE

NOTES:

1. The Forest Conservation Easement has been established to fulfill the requirements of Section 16.1200 of the Howard County Code/Forest Conservation Act. No clearing, grading or construction are permitted within the easement; however forest management practices as defined in the Deed of Forest Conservation Easement are permitted. The Forest Conservation obligation is met by Afforestation planting on site using the Landscape option. The Forest Conservation Easement shown on this plat for 0.6 Acres and surety amount of $6,559.00 is for development of Lot 1 and 2 only. The obligation for Parcel "A" will be met upon subdivision of that 16.3049 Acres.
2. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and Landscape Manual. Landscape surety of $9,000.00 shall be posted prior to issuance of the Grading Permit.

AFFORESTATION CONSERVATION TECHNIQUE	AREA/ S.F.	PLANTS REQ'D.	PLANTS SHOWN
1. LANDSCAPE OPTION 40 TREES PER 10,000 S.F. (1 TREES × 400 S.F.)	4800	—	12
2. AFFORESTATION w/ 1" CAL. PLANTS (200/Ac.)	21,898	100	100
TOTAL:	26,698 S.F.		112

Note: The landscape option shown provides a total of 4800 SF or 18% of the afforestation requirement for this project.

DEVELOPER'S/BUILDER'S CERTIFICATE

We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. We further certify that upon completion a Certificate of Landscape Installation, accompanied by an executed one year guarantee, of plant materials, will be submitted to the Department of Planning and Zoning.

Dale E. Hoylett, Jr. — Date 6/27/2000 — Josephine H. Zimmerman — Date 6/27/00

STATE OF MARYLAND — BRUCE DAVID BROWN — No. 19184 — REGISTERED PROFESSIONAL ENGINEER — 6/08/00

DENNIS J. LABARE, M.S., & ASSOCIATES
Environmental Consulting Services
3901 Flagstone Circle
Randallstown, MD 21133
(410) 922-7476
- Wetland Delineations & Mitigation
- Stream Assessment & Restoration
- Water Quality Monitoring
- Macroinvertebrate Taxonomy
- Forest Stand Delineations
- Forest Conservation Plans

Qualified Professional, MDFCA

DESIGNED: BDB	LANDSCAPING / FOREST CONSERVATION DETAILS AND SPECIFICATIONS	SCALE: 1" = 100'
DRAWN: KBW, STB	FROSTY PINES LOT Nos. 1, 2 and PARCEL 'A' TAX MAP No.21 BLOCK 22 PARCEL No. 58 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	DRAWING: 2 of 2
CHECKED: BDB	Previous Submittals: F99-188	JOB NO.: 98-039
DATE: 4/99	Owner/Developer: PHENE ZIMMERMAN, 14777 Roxbury Road, Glenelg, MD 21737	FILE NO.: F00-140

LDE, INC.
9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

F00-140