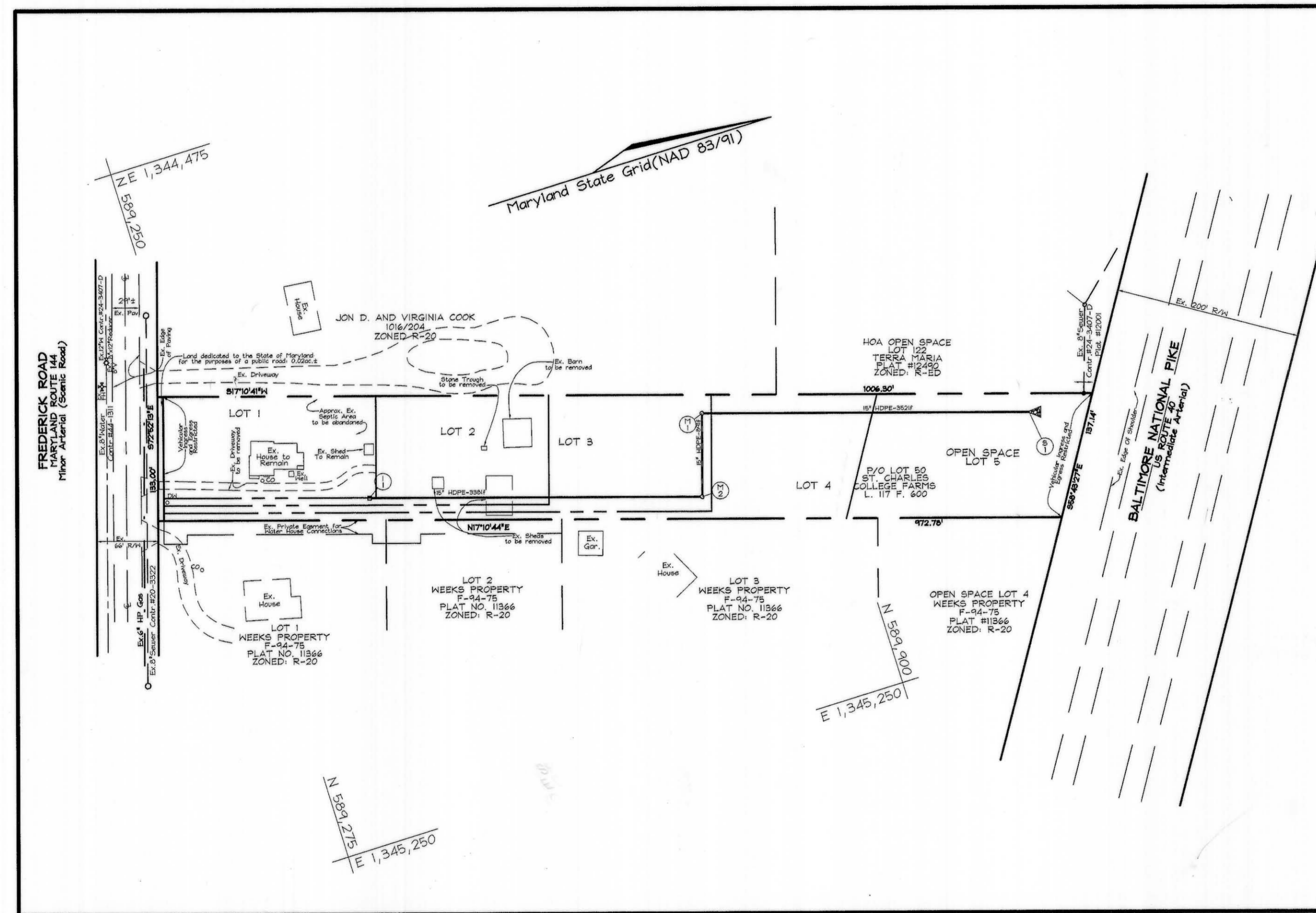


**GENERAL NOTES**

- Subject property zoned "R-20" per 9/18/93 Comprehensive Zoning Plan.
- Public water and sewer will be used within this site.
- Total area of property = 3.02 ac.±
- Area of proposed public R/W: 0.02 ac.±
- Number of proposed buildable lots: 3  
Area of proposed buildable lots: 2.30 ac.±
- Number of proposed open space lots: 1  
Area of proposed open space lots: 0.71 ac.±
- Open space requirements:
  - Open space required (6%):  
3.02 ac. x 0.06 = 0.18 ac.
  - Open space provided:  
0.71 ac. ±
- On April 10, 2001 the planning director approved waiver petition WP-01-89 from section 16.121.E.(1) to allow open space Lot 5 to have zero (0) feet frontage on a public road subject to:
  - Providing a 24' wide shared access easement to lots 1-4 and
  - Open space Lot 5 shall be dedicated to the homeowners association.
- The lots shown hereon comply with the minimum ownership, width and lot area as required by the Maryland State Department of the Environment.
- Topography based on a Field Run Topographic Survey prepared by C.B. Miller & Associates in December, 2001 with two foot contours.
- Existing house on Lot 1 to remain.
- Existing well and septic system on Lot 1 to be properly abandoned and replaced prior to submittal of record plat for signature.
- Howard County Solis Map #15.
- Howard County Geodetic Control Stations: 161A and 161B
- The project is within the metropolitan district.
- Previous Howard County file numbers: S-01-22; WP-01-089;
- The project is in conformance with the latest Howard County Standards unless waivers have been approved.
- There are no floodplains on-site.
- There are no wetlands on-site.
- The noise study for this project was taken from neighboring study F-98-111
- For flag or pipestem lots, refuse collection, snow removal and road maintenance are provided to the junction of the flag or pipestem and road right-of-way line and not to the pipestem lot driveway.
- Forest Stand Delineation and report prepared by Exploration Research Inc. and approved under S-01-22.
- Existing Dry Well to be abandoned.
- Stormwater Management requirements:
  - SWMP for Channel Protection (Cp) is not required for this site.
  - Water Quality (Wq) for lots 2 thru 4 and the driveway is provided by disconnecting roofs and driveways.
  - Recharge (Re<sub>v</sub>) for lots 2 thru 4 and the driveway is provided by disconnecting the roofs and driveways utilizing the Area Equivalent Credit.
- Landscape trees will be shown and bonded at Final Plan stage.
- This plan shall be subject to compliance with the fourth edition of the Howard County Subdivision and Land Development Regulations.
- Lots 2, 3 and 4 are subject to submission and approval of a site development plan in accordance with section 16.155 of the Subdivision and Land Development Regulations.

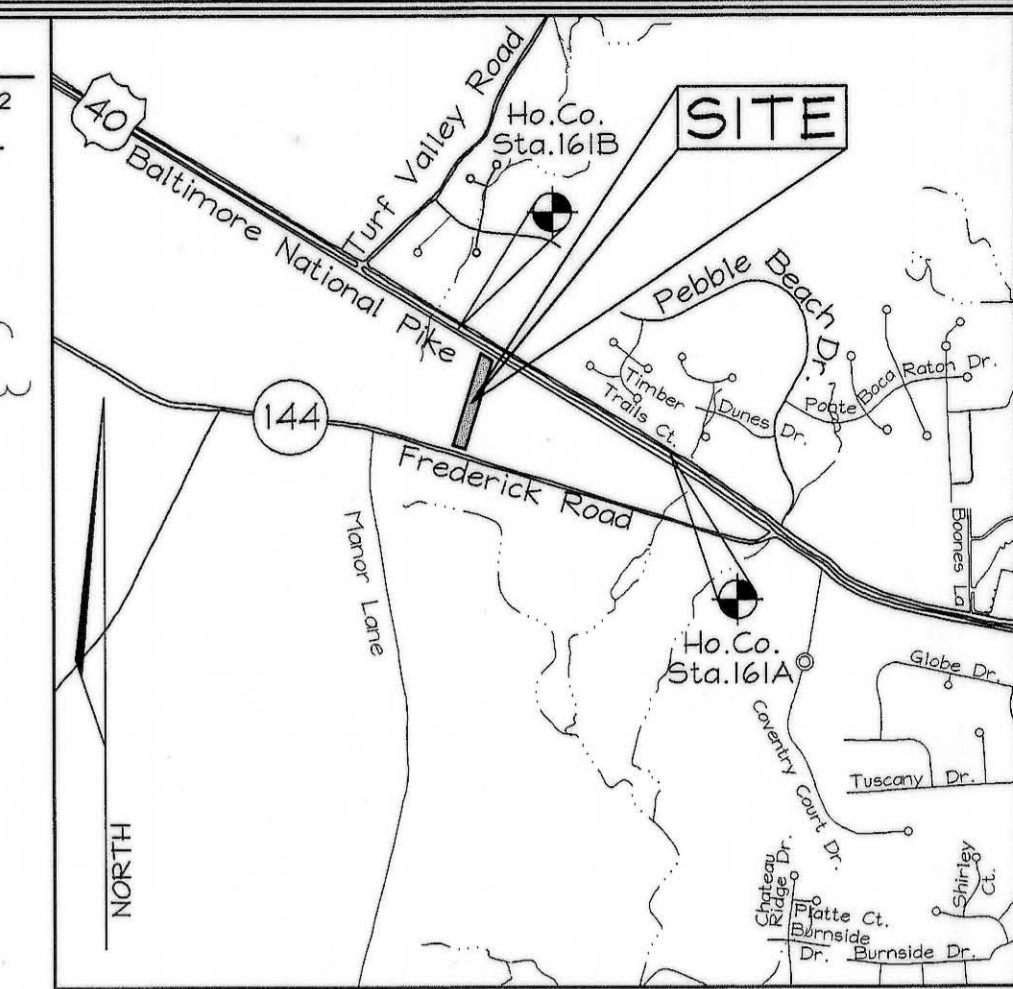
# PRELIMINARY PLANS VANBORINE PLACE LOTS 1 THRU 4 AND OPEN SPACE LOT 5 HOWARD COUNTY, MARYLAND



**LOCATION MAP**  
SCALE: 1"=100'

**LEGEND**

- Existing Contour
- Proposed Contour
- Direction of Flow
- Existing Spot Elevation
- Proposed Spot Elevation
- Existing Trees
- Existing Dry Well



**VICINITY MAP**  
SCALE: 1"=2000'

**BENCHMARKS**

Sta. 161A	N 179,682.8211	E 410,366.3677	El.: 141.3280 (meters)
	N 584,504.3885	E 1,346,343.6580	El.: 463.674 (feet)
Sta. 161BA	N 179,977.2258	E 409,881.8290	El.: 143.4319 (meters)
	N 590,475.2511	E 1,344,753.967	El.: 470.576 (feet)

**SHEET INDEX**

DESCRIPTION	SHEET No.
Cover Sheet	1 of 4
Preliminary Plan	2 of 4
Preliminary Grading, Landscaping, Sediment Control and Soils Plan	3 of 4
Preliminary Forest Conservation Plan	4 of 4

**MINIMUM LOT SIZE CHART**

LOT NUMBER	GROSS AREA (sf)	PIPESTEM AREA (sf)	MINIMUM LOT SIZE
2	23,586±	1,831±	21,755±
3	25,193±	3,318±	21,875±
4	26,213±	4,718±	21,495±

**U.S. EQUIVALENT COORDINATE TABLE**

POINT	NORTHING	EASTING
30	589,226.4720	1,344,717.4561
31	590,187.8785	1,345,014.6601
32	589,187.2988	1,344,844.5563
33	590,116.6811	1,345,131.8707

**OWNER**  
Paul D. and Dolores E. Henderson  
10772 Frederick Road  
Ellicott City, Md. 21042

**DEVELOPER**  
Knauff Development LLC.  
4979 Buckskin Lake Drive  
Ellicott City, Md. 21042

TENTATIVELY APPROVED  
DEPT. OF PLANNING AND ZONING OF HOWARD COUNTY

*Paul D. Henderson*  
PLANNING DIRECTOR  
DATE: 6/14/02

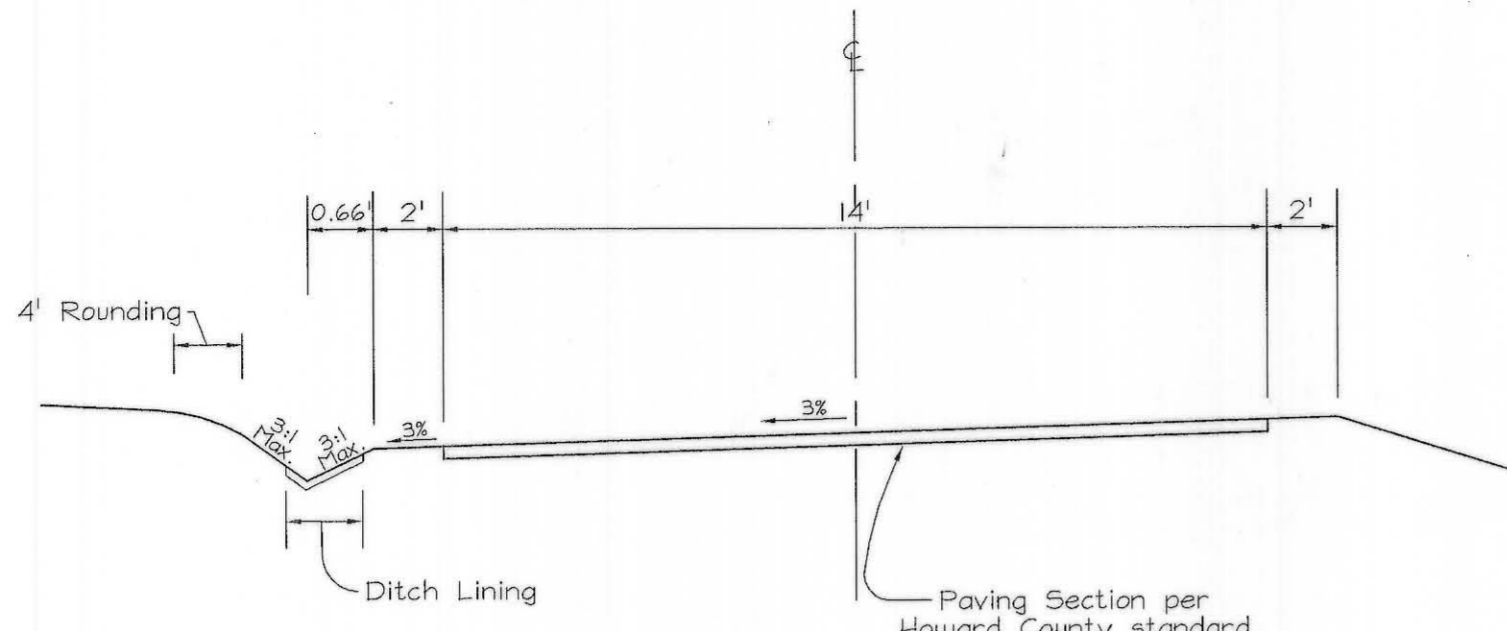
**COVER SHEET**  
**VANBORINE PLACE**  
A resubdivision P/O Lot 50, St. Charles College Farms, L.117 F.600, dated May 23, 1923  
**LOTS 1 THRU 4 AND OPEN SPACE LOT 5**  
TAX MAP 16 GRID 24 2ND ELECTION DISTRICT  
PARCEL 12 HOWARD COUNTY, MARYLAND



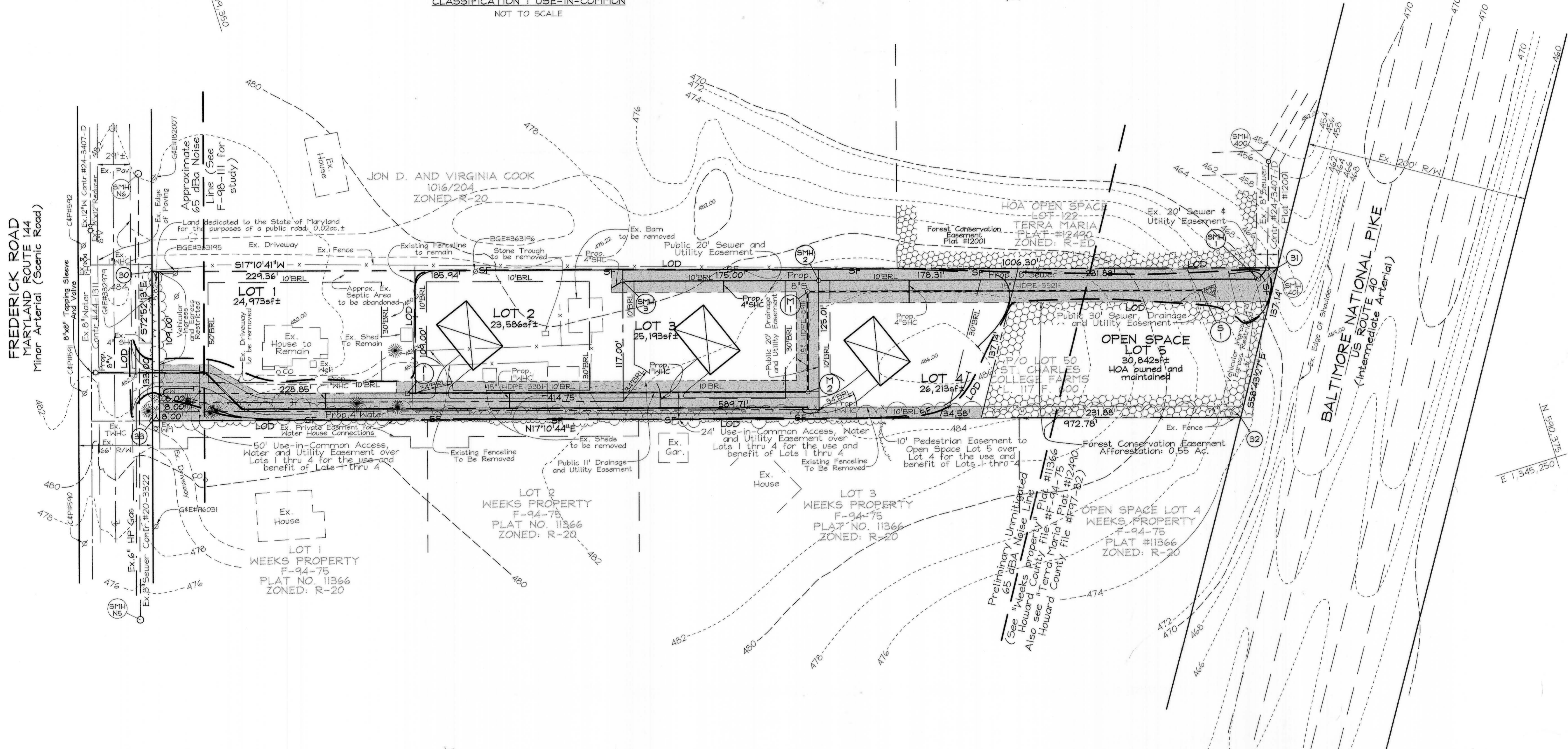
**FSH Associates**  
Engineers Planners Surveyors  
8318 Forrest Street, Ellicott City, MD 21043  
Tel: 410-750-2251 Fax: 410-750-7350  
E-mail: FSHAssociates@cs.com

DESIGN BY: PS  
DRAWN BY: JE  
CHECKED BY: ZYF  
SCALE: As Shown  
DATE: May 22, 2002  
P.L.O. No.: 3014  
SHEET No.: 1 OF 4





TYPICAL ROADWAY SECTION  
CLASSIFICATION: USE-IN-COMMON  
NOT TO SCALE



PLAN VIEW  
Scale: 1"=50'

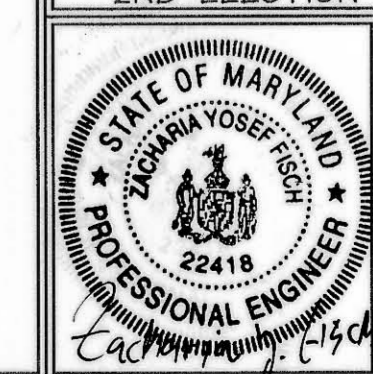
**OWNER**  
Paul D. and Dolores E. Henderson  
10772 Frederick Road  
Ellicott City, Md. 21042

**DEVELOPER**  
Knauff Development LLC.  
4974 Bucksin Lake Drive  
Ellicott City, Md. 21042

**PRELIMINARY PLAN  
VANBORINE PLACE**

A resubdivision P/O Lot 50, St. Charles College Farms,  
L.117 F.600, dated May 23, 1923  
**LOTS 1 THRU 4 AND  
OPEN SPACE LOT 5**  
TAX MAP 16 GRID 24 PARCEL 12  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TENTATIVELY APPROVED  
DEPT. OF PLANNING AND  
ZONING OF  
HOWARD COUNTY  
PLANNING DIRECTOR DATE



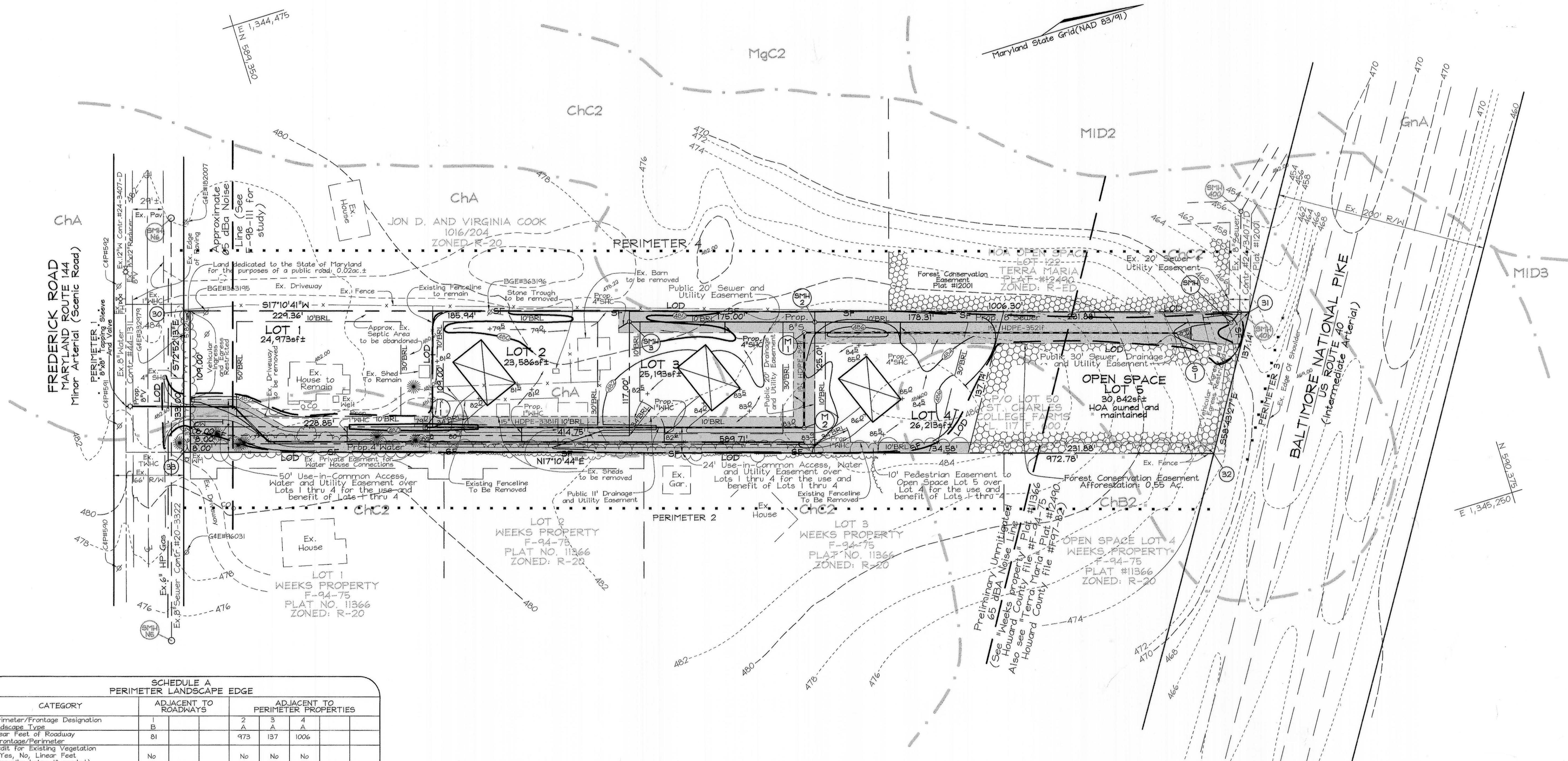
**FSH Associates**  
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8318 Forest Street, Ellicott City, MD 21043  
Tel: 410-750-2251 Fax: 410-750-7350  
E-mail: FSHAssociates@cs.com

DESIGN BY: PS  
DRAWN BY: JE  
CHECKED BY: ZYF  
SCALE: As Shown  
DATE: May 22, 2002  
I.O. No.: 3014  
SHEET No. 2 OF 4



SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	SOIL GROUP
ChA	Chester Silt Loam, 0 to 3 percent slopes	B
ChB2	Chester Silt Loam, 3 to 8 percent slopes, moderately eroded	B
ChC2	Chester Silt Loam, 8 to 15 percent slopes, moderately eroded	B

LEGEND	
Existing Contour	---382---
Proposed Contour	---+82.53---
Spot Elevation	+
Direction of Flow	→
Tree Protection Fence	~ ~ ~ ~ ~
Existing Trees to Remain	○
Silt Fence	SF --- SF
Limit of Disturbance	LOD --- LOD



PLAN VIEW  
Scale: 1"=50'

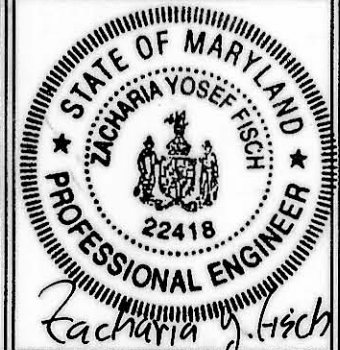
SCHEDULE A PERIMETER LANDSCAPE EDGE				
CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES		
Perimeter/Frontage Designation	1	2	3	4
Perimeter/Frontage Designation	B	A	A	A
Linear Feet of Roadway Frontage/Perimeter	81	973	137	1006
Credit for Existing Vegetation (Yes, No, Linear Feet Describe below if needed)	No	No	No	No
Credit for Wall, Fence or Berm (Yes, No, Linear Feet Describe below if needed)	No	No	No	No
Number of Plants Required				
Shade Trees	1:50 2	1:60 16	1:60 2	1:60 17
Evergreen Trees	1:40 2	-	-	-
Shrubs	-	-	-	-
Number of Plants Provided				
Shade Trees	0	16	2	17
Evergreen Trees	0	-	-	-
Other Trees (2:1 Substitution)	-	-	-	-
Shrubs (10:1 Substitution)	-	-	-	-
(Describe Plant Substitution Credits Below if needed)				

\* No landscaping required since house fronts on road.  
\*\* The required landscape trees are to be placed along the boundary of Lot 4 and Open Space Lot 5

TENTATIVELY APPROVED  
DEPT. OF PLANNING AND ZONING  
HOWARD COUNTY  
PLANNING DIRECTOR  
DATE: 6/10/22  
mpf

OWNER: Paul D. and Dolores E. Henderson  
10772 Frederick Road  
Ellicott City, Md. 21042  
DEVELOPER: Knaff Development LLC.  
4979 Buckskin Lake Drive  
Ellicott City, Md. 21042

PRELIMINARY GRADING, LANDSCAPING, SEDIMENT CONTROL, AND SOILS PLAN  
VANBORINE PLACE  
A resubdivision P/O Lot 50, St. Charles College Farms, L.117 F.600, dated May 23, 1923  
LOTS 1 THRU 4 AND OPEN SPACE LOT 5  
TAX MAP 16 GRID 24 PARCEL 12  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

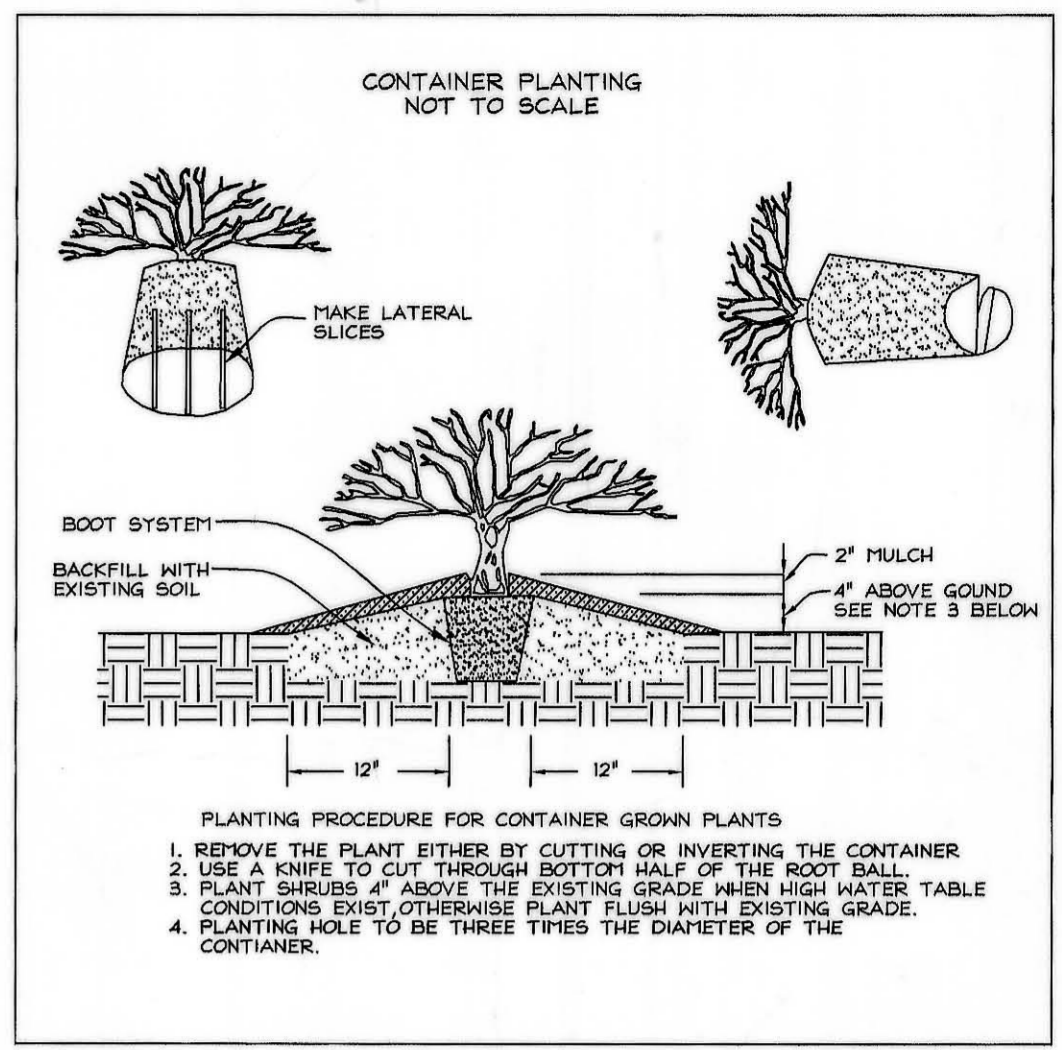
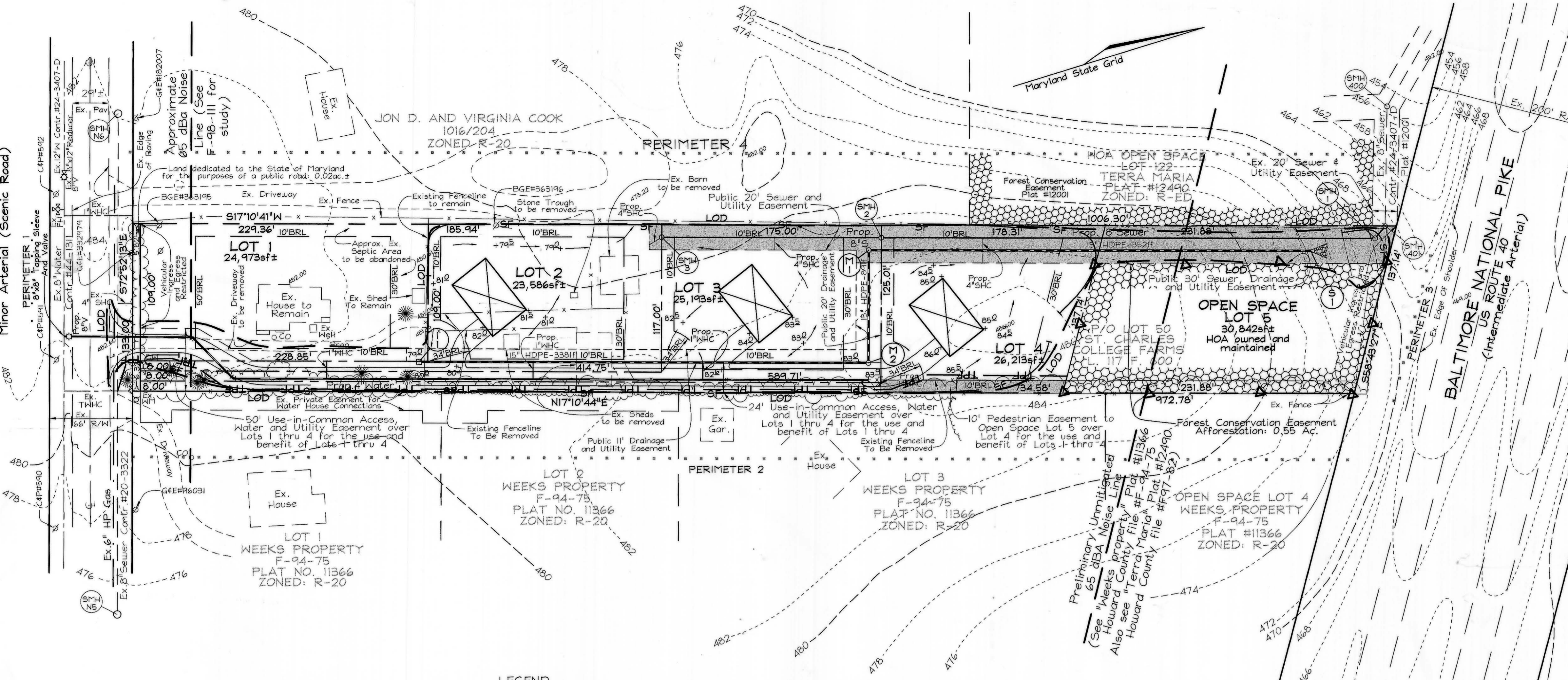


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Tel: 410-750-2251 Fax: 410-750-7350  
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DESIGN BY: PS  
DRAWN BY: JE  
CHECKED BY: ZYF  
SCALE: 1"=50'  
DATE: May 22, 2022  
W.O. No.: 3014  
SHEET No.: 3 OF 4



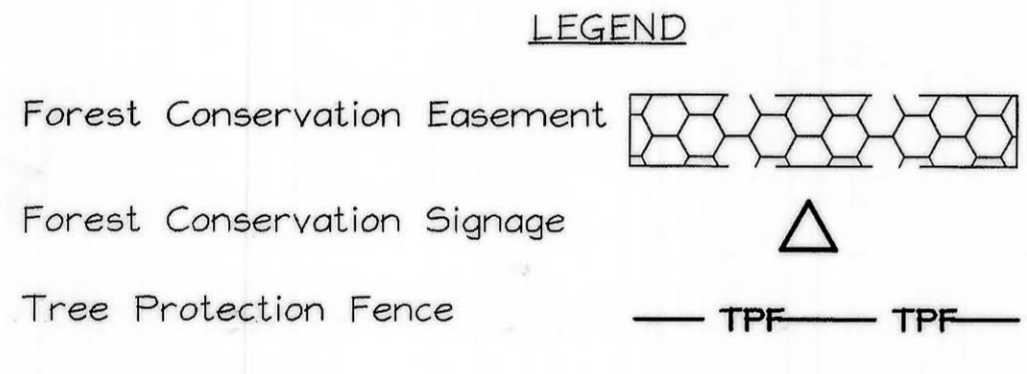
FREDERICK ROAD  
MARYLAND ROUTE 144  
Minor Arterial (Scenic Road)



- AFFORESTATION PLANTING NOTES**
- Afforestation areas may be planted as soon as reasonable to do so. Late winter-early spring plantings are preferred. Earliest planting dates will vary from year to year but planting may generally begin as soon as the ground is no longer frozen. Alternate planting dates may be considered as condition warrants.
  - Soil amendments and fertilization recommendations will be made based upon the results of soil analysis for nitrogen, phosphorus, potassium, organic matter content and pH. If required, fertilizer will be provided using a slow release, soluble 16-8-16 analysis designed to last 5-8 years contained in polyethylene perforated bags such as manufactured by ADCO Works, P.O. Box 310 Hollins, N.Y. 11423 or approved equal.
  - Plant materials will be planted in accordance with the Planting Distribution Diagram, Planting Details and plant schedule.
  - Plant material shall be nursery grown and inspected prior to planting. Plants not conforming to the American Standard for Nursery Stock specifications for size, form, vigor, or roots, or due to trunk wounds, breakage, desiccation, insect or disease must be replaced.
  - Planting stock must be protected from desiccation at all times prior to planting. Materials held for planting shall be moistened and placed in cool shaded areas until ready for placement.
  - Newly planted trees may require watering at least once per week during the first growing season depending on rainfall in order to get established. The initial planting operation should allow for watering during installation to completely soak backfill material.
  - Planting holes should be excavated to a minimum diameter of 2.5 to 3 times the diameter of the root ball or container. Mechanical angling is preferred with scarification of the sides of each hole.
  - Mulch shall be applied in accordance with the diagram provided and shall consist of composted, shredded hardwood bark mulch, free of wood alcohol.

**FOREST CONSERVATION WORKSHEET**

Net Tract Area	Acres
A. Total Tract Area	3.00
B. Area Within 100 Year Floodplain	--
C. Other deductions	--
D. Net Tract Area	3.00
Zoning Use Category: RESIDENTIAL-SUBURBAN	
<b>Land Use Category</b>	
E. Afforestation Minimum (15 % x D)	0.45
F. Conservation Threshold (20 % x D)	0.60
<b>Existing Forest Cover</b>	
G. Existing Forest on Net Tract Area	0
H. Forest Area Above Conservation Threshold	0
<b>Breakeven Point</b>	
I. Forest Retention Above Threshold with no Mitigation	N/A
J. Clearing Permitted without Mitigation	N/A
<b>Proposed Forest Clearing</b>	
K. Forest Areas to be Cleared	0
L. Forest Areas to be Retained	0
<b>Planting Requirements</b>	
M. Reforestation for Clearing Above Threshold	0
N. Reforestation for Clearing Below the Threshold	0
P. Credit for Retention Above Conservation Threshold	0
Q. Total Reforestation Required	0
R. Total Afforestation Required	0.45
S. Total Reforestation and Afforestation Requirement	0.45



**AFFORESTATION AREA MONITORING NOTES**

- Initial planting inspection and certification required. Planting contractor to notify ERI forester 24 hours in advance of planting.
- Monthly visits during the first growing season are to assess the success of the plantings and to determine if supplemental watering, pest control or other actions are necessary. Early spring visits will document winter kill and autumn visits will document summer kill.
- The minimum survival rate shall be 75 % of the total number of trees planted per acre at the end of the two year maintenance period. Wild tree seedlings from natural regeneration on the planting site may be counted up to 50% toward the total survival number if they are healthy native species at least 12 inches tall.
- Survival will be determined by a stratified random sampling of the plantings. The species composition of the sample population should be proportionate to the amount of each species in the entire planting to be sampled.
- Effective monitoring will assess plant survivability during the first growing season and make recommendations for reinforcement plantings if required at that time.
- A final inspection and certification by the ERI forester is required after the second growing season.

**FOREST CONSERVATION EASEMENT 0.45 AC AFFORESTATION**

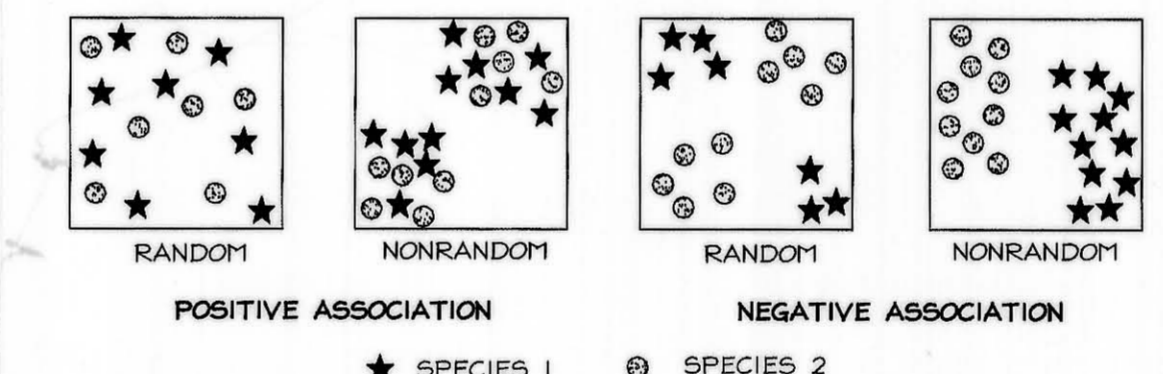
\* 350 container grown hardwood seedlings or whips/acre (11'x11' spacing) = 158 total

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
26	Acer rubrum	Red Maple	WHIP 2-3'	11' o.c.	1-3 gal. Container
22	Quercus alba	White Oak	WHIP 2-3'	11' o.c.	1-3 gal. Container
26	Liriodendron tulipifera	Tulip Poplar	WHIP 2-3'	11' o.c.	1-3 gal. Container
22	Quercus rubra	Red Oak	WHIP 2-3'	11' o.c.	1-3 gal. Container
31	Amelanchier arborea	Serviceberry	WHIP 2-3'	11' o.c.	1-3 gal. Container
31	Cercis canadensis	Redbud	WHIP 2-3'	11' o.c.	1-3 gal. Container

**FOREST CONSERVATION EASEMENT TABLE**

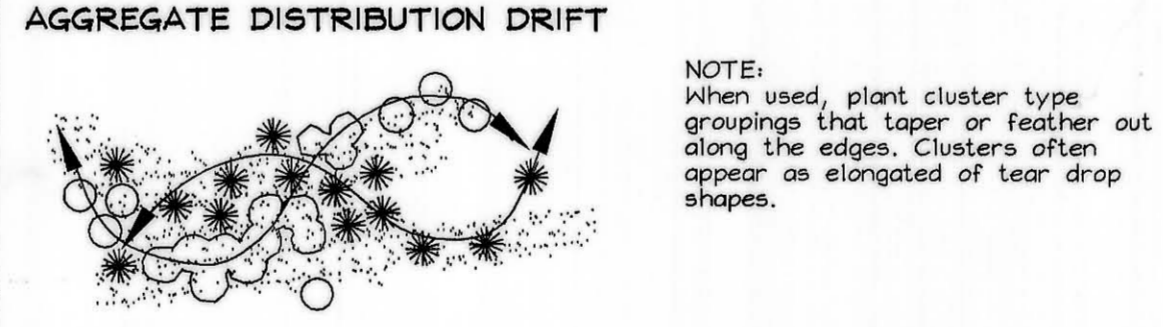
EASEMENT 1	0.55 AC
0.45 AC AFFORESTATION	
<b>TOTAL</b>	<b>0.45 AC</b>

**TYPICAL FOREST TREE DISTRIBUTION PATTERNS**



**NOTE:** Naturally occurring populations of trees tend to be found in informal groupings. A cluster of trees is really a mosaic of different species groups. The objective of an afforestation/reforestation plan is to select the appropriate species and distribution pattern for a close site that mimic natural patterns.

Source: Prince George's County woodland Conservation Manual.

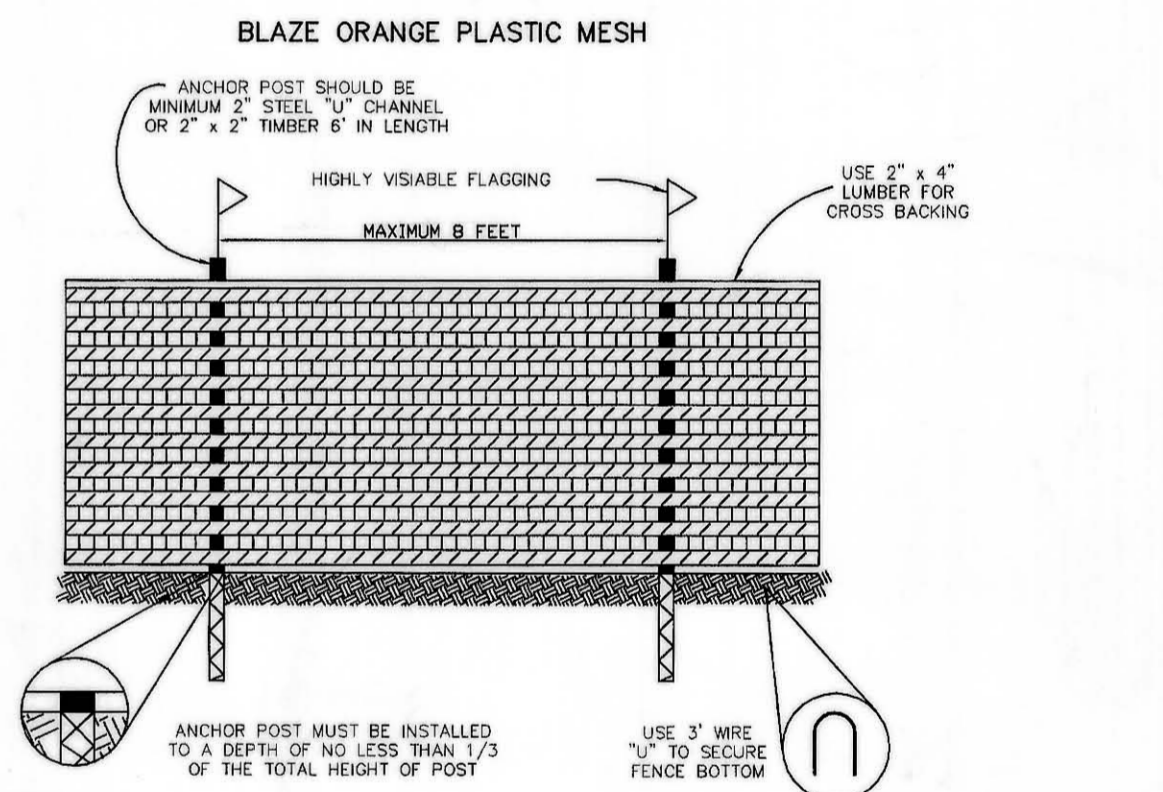
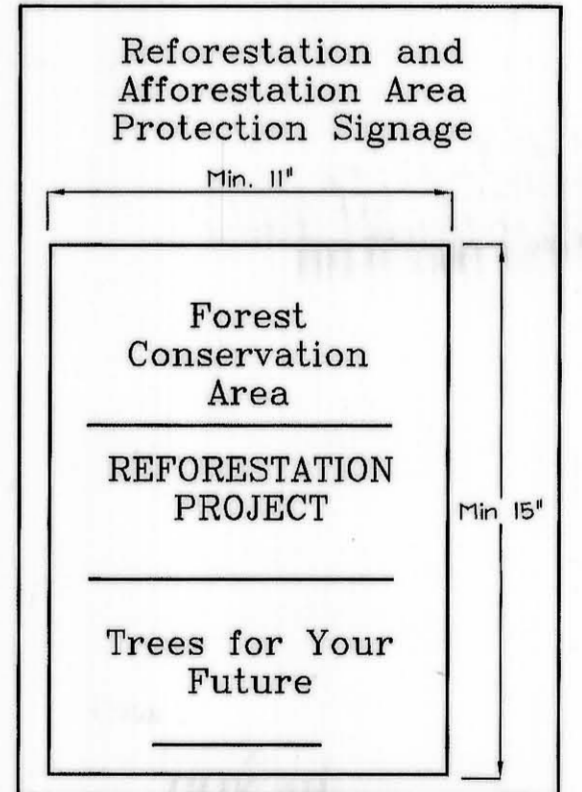


Source: EOR, Inc.

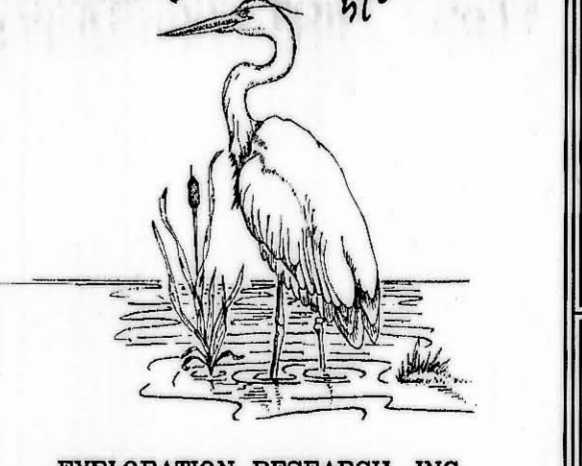
**MIXING TRANSPLANT STOCK**

- Locate larger trees (BAB or container grown) or transplant stock at the perimeter of reforestation/afforestation planting of whips, seedling grown stock.
- Protective fencing
- Smaller Stock

PLANTING DISTRIBUTION PATTERNS FIGURE 3.8.2



**TREE PROTECTION DETAIL** NOT TO SCALE



**EXPLORATION RESEARCH, INC.**  
ENVIRONMENTAL CONSULTANTS  
8018 FORREST STREET  
BELTSVILLE CITY, MARYLAND 21043  
TEL: (410) 750-1100 FAX: (410) 750-7850

**OWNER** Paul D. and Dolores E. Henderson  
10772 Frederick Road  
Ellicott City, Md. 21042

**DEVELOPER** Knauff Development LLC.  
4974 Buckskin Lake Drive  
Ellicott City, Md. 21042

**PRELIMINARY FOREST CONSERVATION PLAN VANBORINE PLACE**  
A resubdivision P/O Lot 50, St. Charles College Farms, L-117 F.600, dated May 23, 1923  
**LOTS 1 THRU 4 AND OPEN SPACE LOT 5**  
TAX MAP 16 GRID 24 PARCEL 12  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**FSH Associates**  
Engineers Planners Surveyors  
5318 Forrest Street Ellicott City, MD 21043  
Tel: 410-750-2251 Fax: 410-750-7350  
E-mail: FSHAssociates@cs.com

DESIGN BY: AB  
DRAWN BY: AB  
CHECKED BY: SLH  
SCALE: 1"=50'  
DATE: April 23, 2002  
W.O. No.: 3014  
SHEET No. 4 OF 4

**TENTATIVELY APPROVED**  
DEPT. OF PLANNING AND ZONING OF HOWARD COUNTY  
PLANNING DIRECTOR DATE 6/4/02