

**FOREST PROTECTION PROCEDURES - Construction Phase**

Forest and tree conditions should be monitored during construction and corrective measures taken when appropriate.

The following shall be monitored:

- Soil compaction
- Root injury - prune and monitor; consider crown reduction
- Limb injury - prune and monitor
- Flooded conditions - drain and monitor; correct problem
- Drought conditions - water and monitor; correct problem
- Other stress signs - determine reason, correct and monitor

**FOREST PROTECTION PROCEDURES - Post-Construction Phase**

The following measures shall be taken:

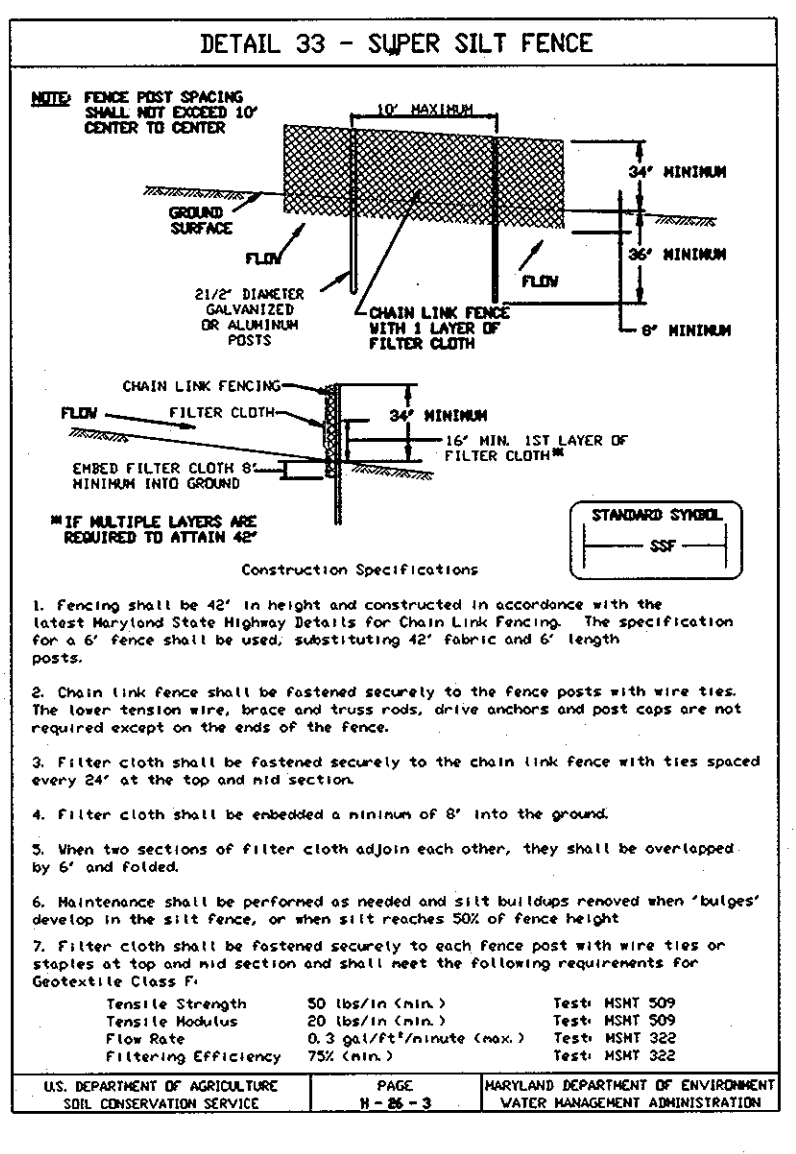
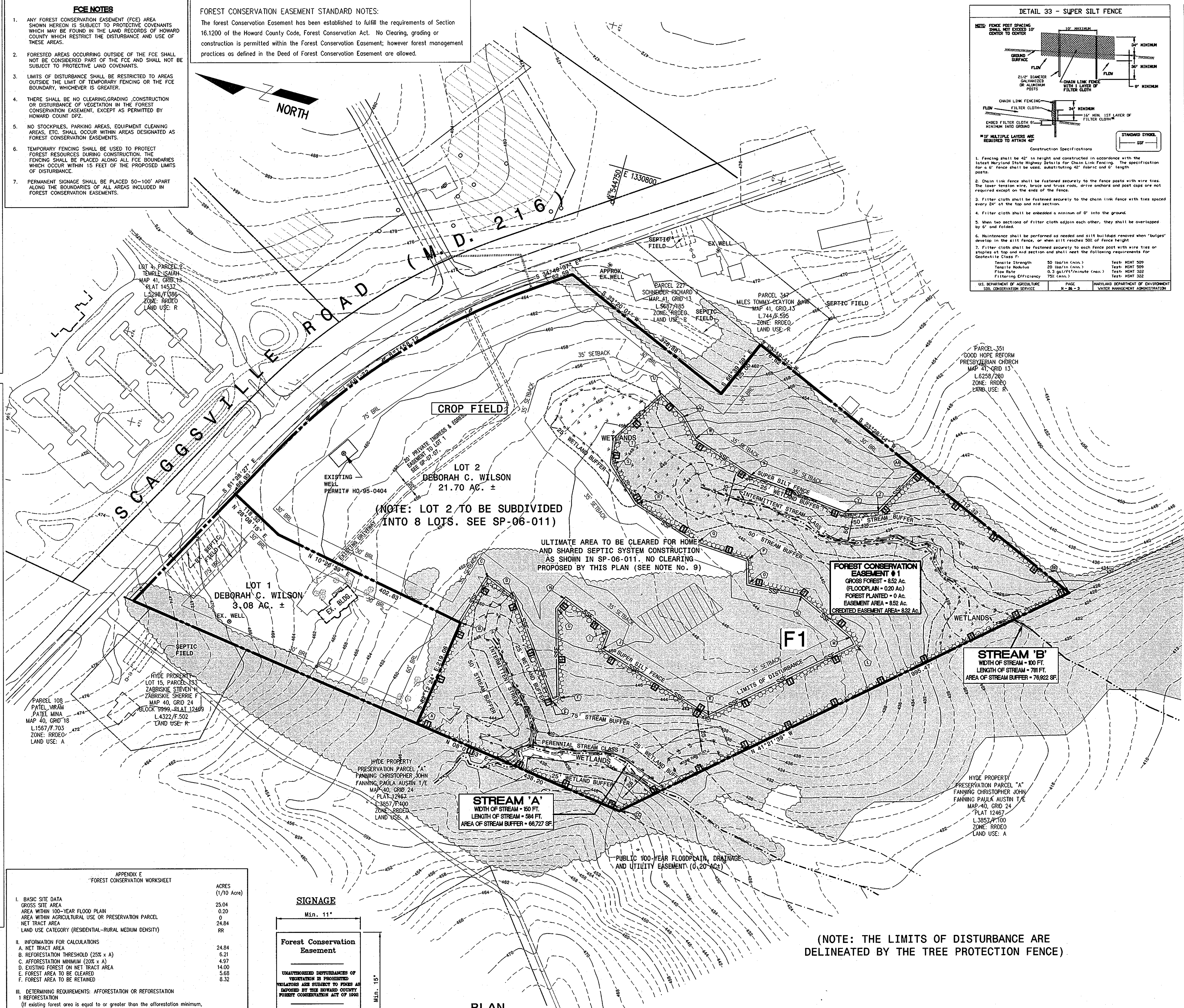
- Corrective measures if damages were incurred due to negligence:
  - Stress reduction
  - Removal of dead or dying trees. This may be done only if trees pose an immediate safety hazard.
- Removal of temporary structures:
  - No burial of discarded materials will occur on-site within the conservation area.
  - No open burning within 100 feet of a wooded area.
  - All temporary forest protection structures will be removed after construction.
  - Remove temporary roads by removing stone or broadcasting mulch; pre-construction elevation should be maintained.
  - Aerate compacted soil.
  - Replant disturbed sites with trees, shrubs and/or herbaceous plants.
  - Retain signs for retention areas or specimen trees.
- A county official shall inspect the entire site.

**FCE NOTES**

- ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
- FORESTED AREAS OCCURRING OUTSIDE OF THE FCE SHALL NOT BE CONSIDERED PART OF THE FCE AND SHALL NOT BE SUBJECT TO PROTECTIVE LAND COVENANTS.
- LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
- THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
- NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
- TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. THE FENCING SHALL BE PLACED ALONG ALL FCE BOUNDARIES WHICH OCCUR WITHIN 15 FEET OF THE PROPOSED LIMITS OF DISTURBANCE.
- PERMANENT SIGNAGE SHALL BE PLACED 50-100' APART ALONG THE BOUNDARIES OF ALL AREAS INCLUDED IN FOREST CONSERVATION EASEMENTS.

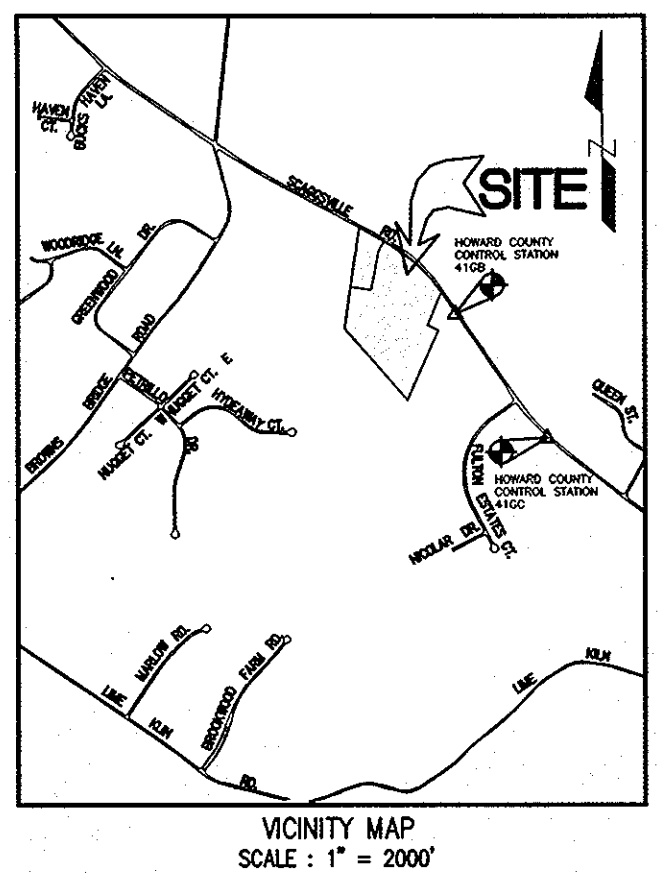
**FOREST CONSERVATION EASEMENT STANDARD NOTES:**

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 is permitted within the Forest Conservation Easement; however forest management practices as defined in the Deed of Forest Conservation Easement are allowed.



**F.C.E. DESCRIPTION**

LINE	BEARING	DISTANCE
A-B	S82°12'24"E	219.06
B-C	S75°58'00"E	104.24
C-D	S27°03'00"W	64.30
D-E	S54°09'04"W	220.66
E-F	S43°02'50"E	15.00
F-G	N75°31'15"E	177.87
G-H	S64°49'52"E	25.00
H-I	S21°47'58"W	105.35
I-J	N83°56'28"W	39.20
J-K	S164°11'00"W	253.10
K-L	S47°13'00"E	327.43
L-M	N45°07'38"E	20.00
M-N	N24°30'11"E	129.54
N-O	N03°11'00"W	107.66
O-P	N73°23'59"E	47.85
P-Q	N03°25'58"E	105.24
Q-R	N17°27'06"E	145.44
R-S	N42°52'04"E	92.27
S-T	N81°09'24"E	48.44
T-U	S58°39'03"E	126.02
U-V	S29°31'36"W	59.19
V-W	S45°34'23"W	51.25
W-X	S18°13'00"W	131.63
X-Y	S06°18'37"W	201.93
Y-Z	S16°44'03"E	67.97
Z-AA	S61°35'16"E	114.51
AA-BB	S27°28'14"W	385.69
BB-CC	N47°21'39"W	995.47
CC-AA	N08°01'53"E	438.20



**FOREST PROTECTION PROCEDURES - Preconstruction Phase**

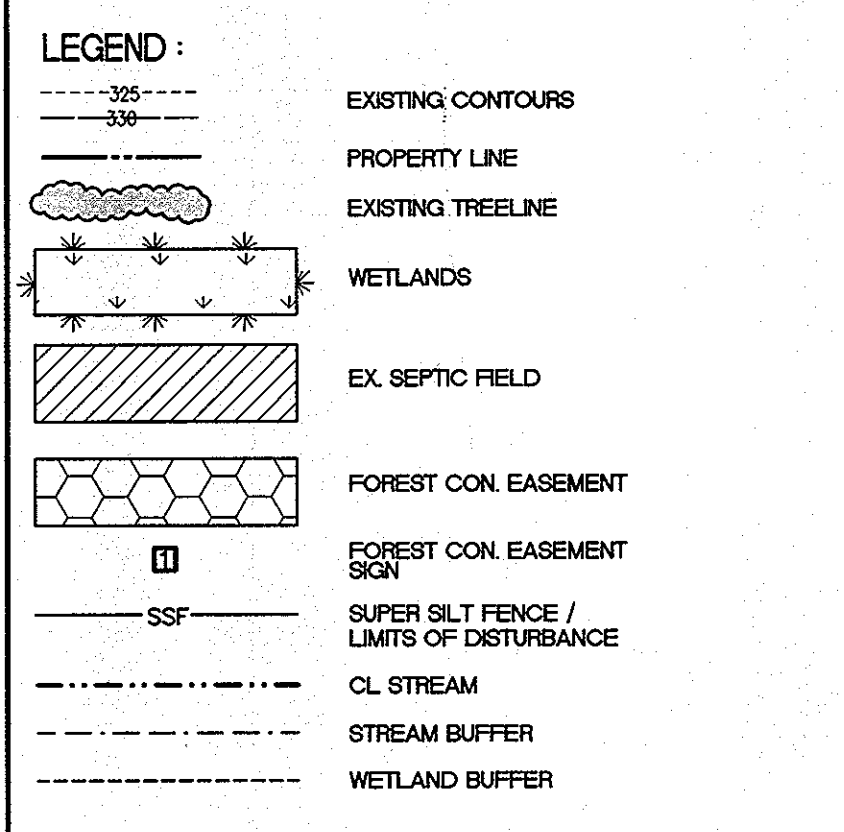
Stress Reduction and Protection of Specimen Trees Isolated from Forest Retention Areas and General Forest Retention Areas (As They May Apply)

- The edge of the woods to be protected will be marked (staked or flagged) in the field per the limits of disturbance shown in the approved final construction plan prior to the start of construction activity. All areas within protective fences are to be considered "off limits" to any construction activities. The protective fencing shall be installed at the outer edge of forested areas and specimen trees to be retained and should be combined with sediment control devices when possible. The limit of the critical root zone and therefore the location of the protective devices is to be determined as follows:
  - Isolated Specimen Trees - 1.5 feet of protective radius per inch of DBH
  - Edge of Forested Area - 1 foot of protective radius/inch of DBH or an eight foot protective radius, whichever is greater.

Construction activities expressly prohibited within the preservation areas are:

- Placing or stockpiling backfill or top soil in protected areas
- Felling trees into protected areas
- Driving construction equipment into or through protected areas
- Burning in or in close proximity to protected areas
- Stacking or storing supplies of any kind
- Concrete wash-off areas
- Conducting trenching operations
- Grading beyond the limits of disturbance
- Parking vehicles or construction equipment
- Removal of root mat or topsoil
- Installation of utility lines
- Sitting and construction of utility lines
- Access roads
- Impervious surfaces
- Storm water management devices
- Staging areas

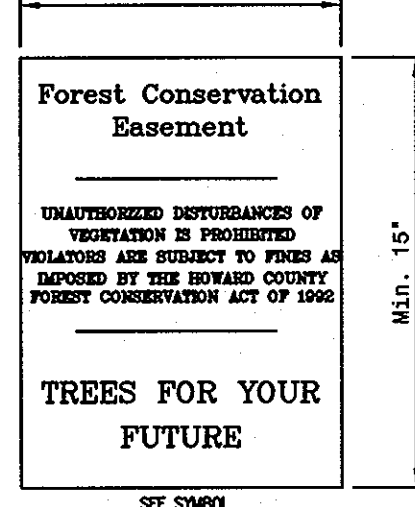
- Protective fencing (see Figure "Protective Fencing") shall be the responsibility of the general contractor. The general contractor shall affix signs to the fencing at 25' minimum intervals indicating that these areas are "Forest Retention Area" or "Specimen Tree" (see Figure "Signage"). The general contractor shall take great care to assure the restricted areas are not isolated and that root systems are protected from smothering, flooding, excessive wetting from de-watering operations, off-site run-off, spillage and drainage or solutions containing materials hazardous to tree roots.
- The general contractor shall be responsible for any trees damaged or destroyed within the preservation areas whether caused by the contractor, his agents, employees, sub-contractors, or licensees.
- Foot traffic shall be kept to a minimum in the protective areas.
- All trees which are not to be preserved within fifty feet of any tree preservation areas are to be removed in a manner that will not damage those trees that are designated for preservation. It is highly recommended that tree stumps within this fifty foot area be ground out with a stump grinding machine to minimize damage.
- The general contractor shall designate a "wash out" area on-site for concrete trucks which will not drain toward a protected area.
- A pre-construction meeting shall be held with local authorities before any disturbance has taken place on site.



**APPENDIX E - FOREST CONSERVATION WORKSHEET**

	ACRES (1/10 Acre)
I. BASIC SITE DATA	25.04
AREA WITHIN 100-YEAR FLOOD PLAIN	0.20
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL	0
NET TRACT AREA	24.84
LAND USE CATEGORY (RESIDENTIAL-RURAL MEDIUM DENSITY)	RR
II. INFORMATION FOR CALCULATIONS	
A. NET TRACT AREA	24.84
B. REFORESTATION THRESHOLD (25% x A)	6.21
C. AFFORESTATION MINIMUM (20% x A)	4.97
D. EXISTING FOREST ON NET TRACT AREA	14.00
E. FOREST AREA TO BE CLEARED	5.68
F. FOREST AREA TO BE RETAINED	8.32
III. DETERMINING REQUIREMENTS: AFFORESTATION OR REFORESTATION	
1. REFORESTATION (If existing forest area is equal to or greater than the afforestation minimum, (D > = C), Reforestation requirements apply.)	0
IV. REFORESTATION CALCULATIONS	
A. NET TRACT AREA	24.84
B. REFORESTATION THRESHOLD (25%)	6.21
C. EXISTING FOREST ON NET TRACT AREA	14.00
D. FOREST AREAS TO BE CLEARED	5.68
E. FOREST AREA TO BE RETAINED	8.32
F. FOREST AREA CLEARED ABOVE REFORESTATION THRESHOLD	5.68
G. FOREST AREA CLEARED BELOW REFORESTATION THRESHOLD	0
H. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD	2.61
ALTERNATE #1 APPLIES	
CLEARING ABOVE THE THRESHOLD (E-G)	0
If forest acres to be retained are greater than the reforestation threshold, (if E > B), the following calculations apply:	
REFORESTATION FOR CLEARING ABOVE THE THRESHOLD (F x 1/4)	1.42
CREDIT FOR FOREST RETAINED ABOVE THRESHOLD (H)	2.11
TOTAL REFORESTATION REQUIRED (IF 1/4) - H	2.11

**SIGNAGE**



**FOREST CONSERVATION AREA TABULATION**

Essment No.	Gross Forest Area *	Forest Area * Floodplain	Net Forest (Retained)	Planted Area (Afforestation)	Total Easement Area
FCE # 1	8.52Ac±	0.20Ac±	0 Ac±	0 Ac±	8.32 Ac±
TOTAL	8.52Ac±	0.20Ac±	0 Ac±	0 Ac±	8.32 Ac±

**PLAN**

SCALE: 1" = 100'

(NOTE: THE LIMITS OF DISTURBANCE ARE DELINEATED BY THE TREE PROTECTION FENCE)

**Eco-Science Professionals, Inc.**  
 Consulting Ecologists  
 P.O. Box 5066 Glen Arm, Maryland 21057 Telephone (410) 592-4752 Fax (410) 832-2488

MD DNR Qualified Professional  
 USACE Wetland Delimiter  
 Certification # WDCP93MD061004422  
 John P. Casales

PREPARED BY:  
**American Land Development and Engineering, Inc.**  
 10749 BIRMINGHAM WAY WOODSTOCK, MD. 21163  
 TEL. (410) 465-7903 FAX. (410) 465-3845

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Division of Land Development  
 Chief, Development Engineering Division

**FINAL FOREST CONSERVATION PLAN**  
**FULTON WOODS**  
 LOTS 1 AND 2  
 PARCEL 199, TAX MAP 41, GRID 13  
 5th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND



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The following measures shall be taken:

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  - Aerate compacted soil.
  - Replant disturbed sites with trees, shrubs and/or herbaceous plants.
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- A county official shall inspect the entire site.

The area of stream buffer/forestation planning shall be protected during construction per the following:

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**LEGEND:**

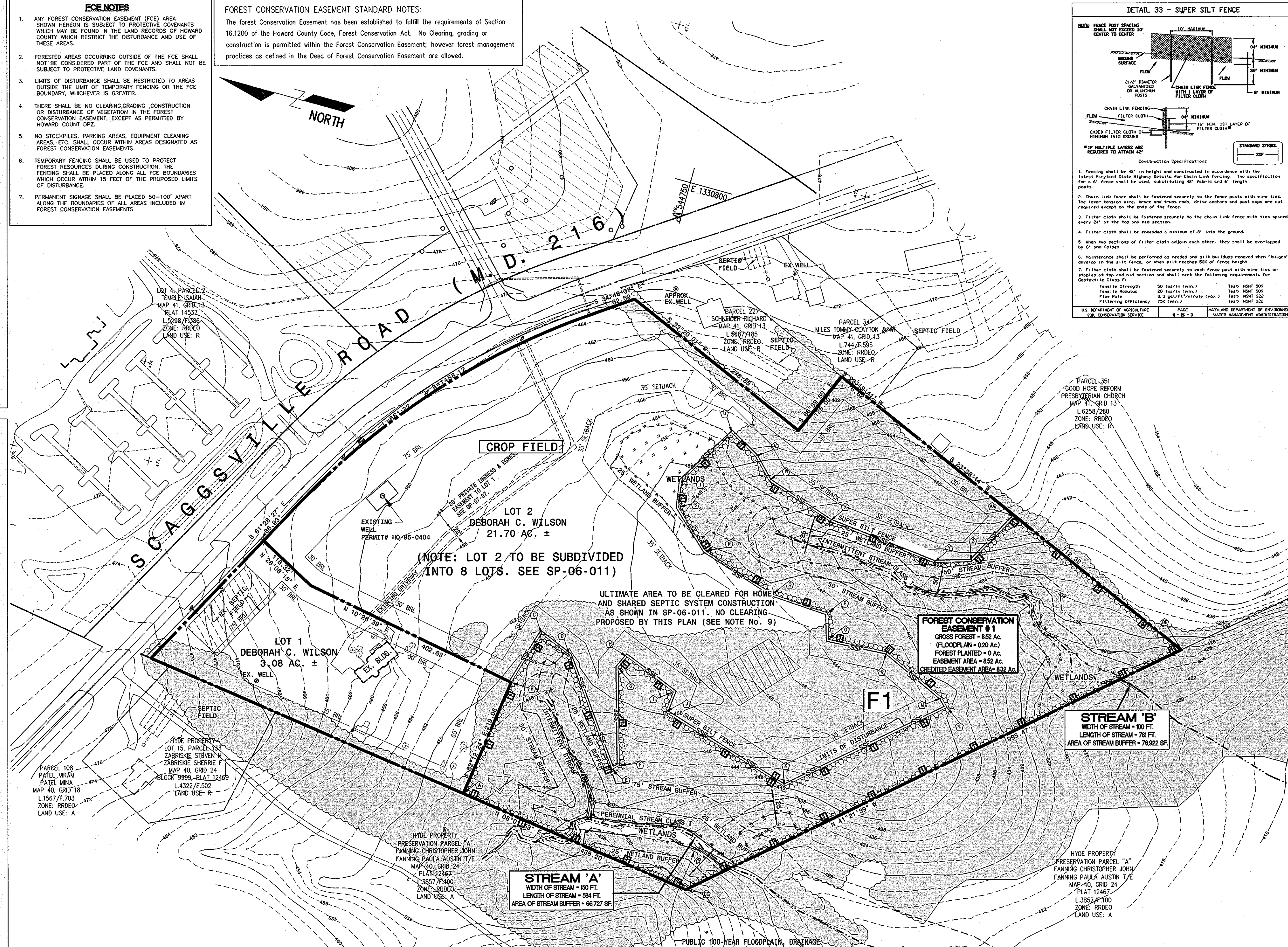
- EXISTING CONTOURS
- PROPERTY LINE
- EXISTING TREELINE
- WETLANDS
- EX SEPTIC FIELD
- FOREST CON. EASEMENT
- FOREST CON. EASEMENT SIGN
- SUPER SILT FENCE / LIMITS OF DISTURBANCE
- CL. STREAM
- STREAM BUFFER
- WETLAND BUFFER

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- PERMANENT SIGNAGE SHALL BE PLACED 50'-100' APART ALONG THE BOUNDARIES OF ALL AREAS INCLUDED IN FOREST CONSERVATION EASEMENTS.

**FOREST CONSERVATION EASEMENT STANDARD NOTES:**

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(NOTE: LOT 2 TO BE SUBDIVIDED INTO 8 LOTS. SEE SP-06-011)

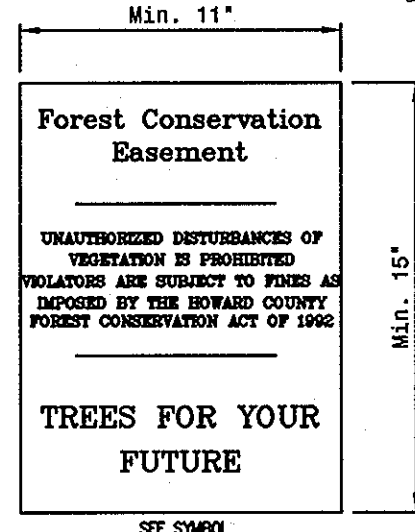
ULTIMATE AREA TO BE CLEARED FOR HOME AND SHARED SEPTIC SYSTEM CONSTRUCTION AS SHOWN IN SP-06-011. NO CLEARING PROPOSED BY THIS PLAN (SEE NOTE NO. 9)

**FOREST CONSERVATION EASEMENT #1**  
GROSS FOREST - 8.52 AC.  
(FLOODPLAIN - 0.20 AC.)  
FOREST PLANTED - 0 AC.  
EASEMENT AREA - 8.52 AC.  
CREDITED EASEMENT AREA - 8.52 AC.

**STREAM 'B'**  
WIDTH OF STREAM - 100 FT.  
LENGTH OF STREAM - 781 FT.  
AREA OF STREAM BUFFER - 76,922 SF

**STREAM 'A'**  
WIDTH OF STREAM - 150 FT.  
LENGTH OF STREAM - 584 FT.  
AREA OF STREAM BUFFER - 66,727 SF

**SIGNAGE**



**FOREST CONSERVATION AREA TABULATION**

Easement No.	Gross Forest Area *	Floodplain (Netland) [Afforestation]	Net Forest Planted Area [Afforestation]	Total Easement Area
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TOTAL	8.52Ac.±	0.20Ac.±	0 Ac.±	8.32 Ac.±

\* If forest area to be retained are greater than the reforestation threshold, (if E > B), the following calculations apply:  
REFORESTATION FOR CLEARING ABOVE THE THRESHOLD (F x 1/4)  
CREDIT FOR FOREST RETAINED ABOVE THRESHOLD (M)  
TOTAL REFORESTATION REQUIRED (F x 1/4) - M

**PLAN**  
SCALE: 1" = 100'

(NOTE: THE LIMITS OF DISTURBANCE ARE DELINEATED BY THE TREE PROTECTION FENCE)

**Eco-Science Professionals, Inc.**  
Consulting Ecologists  
P.O. Box 5066 Glen Arm, Maryland 21057 Telephone (410) 592-6752 Fax (410) 832-2488

MD DNR Qualified Professional  
USACOE Wetland Delimitator  
Certification # WDCP93MD061004412



PREPARED BY:  
**American Land Development and Engineering, Inc.**  
10749 BIRMINGHAM WAY WOODSTOCK, MD. 21163  
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER: DEBORAH C. WILSON  
12275 ROUTE 216  
FULTON, MD. 20759

DEVELOPER: FULTON, LLC.  
7017 MEANDERING STREAM WAY  
FULTON, MD. 20759

**F.C.E. DESCRIPTION**

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**Forest Stand Data**

Key	Community Type	Acres	Dominant Vegetation	General Condition	Priority
F1	Oak-Poplar	14.2 (n/a)	Liriodendron tulipifera, Quercus alba, Quercus rubra, Acer rubrum, Liriodendron benzoin	Good	20+ wetlands/buffers

See accompanying report for complete stand descriptions

- NOTES:**
- No rare, threatened or endangered species were observed on the property.
  - Surrounding land use is low density residential and agricultural.
  - All forest on the site is within Stand F-1.
  - Watershed Number 2131107 -Rocky Gorge Dam
  - Total area of existing forest on site = 14.2 Acres
  - 100 year Flood Plain = 0.20 Acres
  - There are no slopes 25% or greater on site.
  - No State Champion trees exist on site.
  - No clearing is proposed under F-06-096. It is the FCE worksheet calculation that requires those forest not encumbered by easement to be "considered cleared"
  - No development of Lot #2 is proposed under F-06-096. The development of Lot #2 into 8 building lots, and the resulting clearing will be under SP-06-011.
  - F-06-096 will be recorded after SP-06-011 is approved. The FCE recorded will satisfy the Forest Conservation ordinance requirements for both plans.

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Andy Hand*  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 3/12/07

*John P. Casales*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 3/9/07

**FINAL FOREST CONSERVATION PLAN**  
**FULTON WOODS**  
 LOTS 1 AND 2  
 PARCEL 199, TAX MAP 41, GRID 13  
 5th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND