

### FOREST CONSERVATION WORKSHEET

**NET TRACT AREA**  
 A. TOTAL TRACT AREA: A= 16.4376  
 B. DEDUCTIONS: FLOODPLAIN: B= 4.1240  
 C. NET TRACT AREA: C= 12.3136

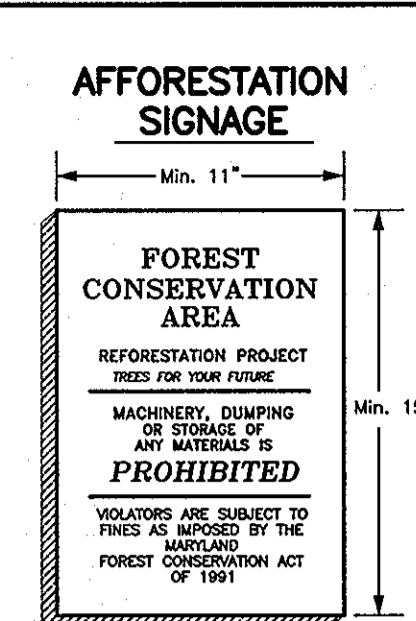
**LAND USE CATEGORY**  
 INPUT THE NUMBER "1" UNDER THE APPROPRIATE LAND USE ZONING AND LIMIT TO ONLY ONE ENTRY  
 D. AFFORESTATION THRESHOLD (NET TRACT AREA X 20%): D= 2.4627  
 E. CONSERVATION THRESHOLD (NET TRACT AREA X 25%): E= 3.0784

**EXISTING FOREST COVER**  
 F. EXISTING FOREST COVER WITHIN THE NET TRACT AREA: F= 0.000  
 G. AREA OF FOREST ABOVE CONSERVATION THRESHOLD: G= 0.000

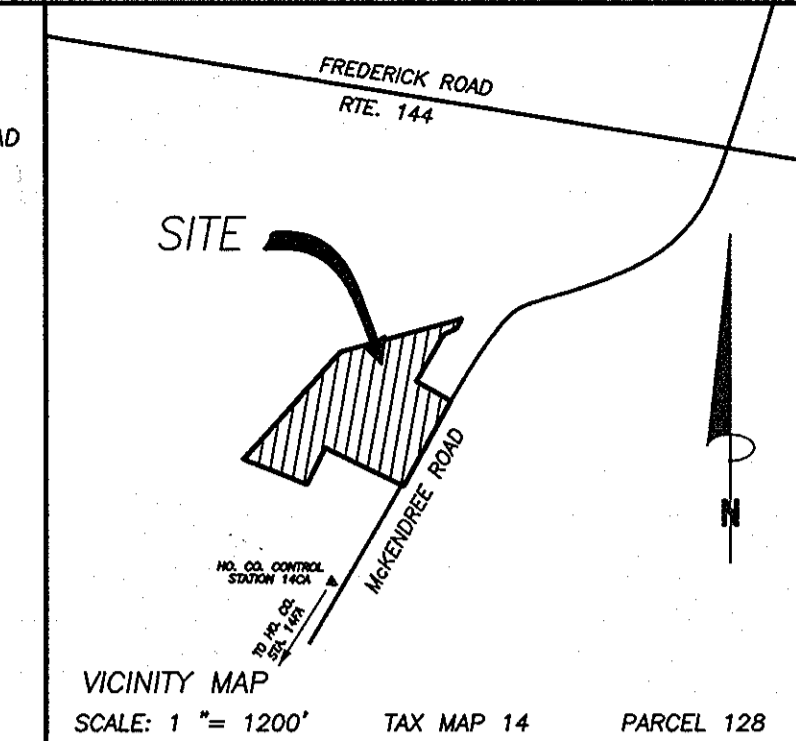
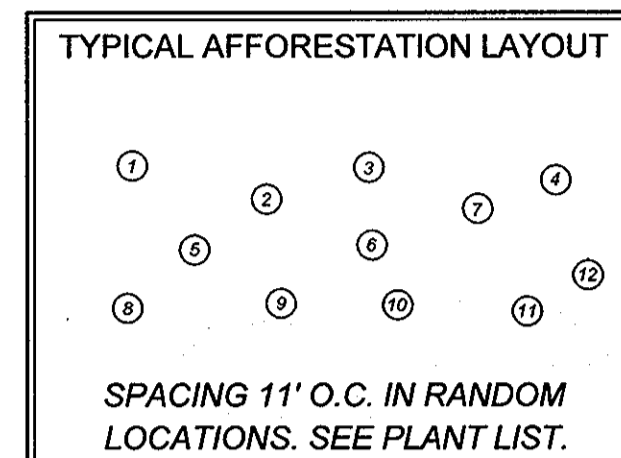
**BREAK EVEN POINT**  
 H. BREAK EVEN POINT: H= 0.000  
 I. FOREST CLEARING PERMITTED WITHOUT MITIGATION: I= 0.000

**BREAK EVEN POINT**  
 J. TOTAL AREA OF FOREST TO BE CLEARED: J= 0.000  
 K. TOTAL AREA OF FOREST TO BE RETAINED: K= 0.000

**PLANTING REQUIREMENTS**  
 L. REFORESTATION FOR CLEARING ABOVE THE CONSERVATION THRESHOLD: L= 0.000  
 M. REFORESTATION FOR CLEARING BELOW THE CONSERVATION THRESHOLD: M= 0.000  
 N. CREDIT FOR RETENTION ABOVE THE CONSERVATION THRESHOLD: N= 0.000  
 P. TOTAL REFORESTATION REQUIRED: P= 0.000  
 Q. TOTAL AFFORESTATION REQUIRED: Q= 2.4627  
 R. TOTAL PLANTING REQUIRED: R= 2.4627



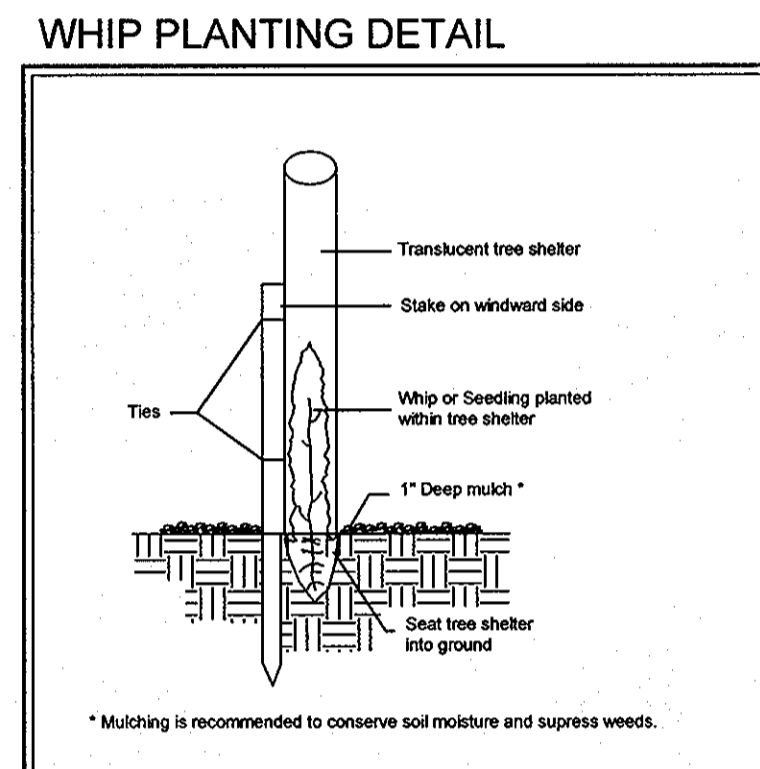
- NOTES:**
- Forest conservation easement signage to be installed using 2" x 2" lumber, 6' in length and installed to a depth of no less than 1/3 of the total height of post.
  - Signage may be installed on corner posts used for support of Tree Protection Fence, and post may remain after construction is complete and mesh is removed.
  - Boundaries of Retention area should be staked and flagged prior to installing device.
  - SPACE SIGNS AS SHOWN.



- GENERAL NOTES:**
- OWNER: MCKENDREE ASSOCIATES LLC  
DEED REFERENCE: LIBER 7803 FOLIO 591  
LIBER 4023 FOLIO 54
  - DATE: NOVEMBER 13, 2003  
GRANTORS: J. ALVIN SMITH
  - TAX MAP: 14 GRID: 6 PARCEL: 128  
DISTANCE: 4.5 MILES ±
  - THERE IS A FLOOD HAZARD (100 YEAR FLOOD PLAN) LOCATED ON THIS PROPERTY ACCORDING TO FEMA FLOOD INSURANCE RATE MAP, COMMUNITY PANEL # 240044 0014 B, REVISED DECEMBER 4, 1986
  - TOPOGRAPHY: FIELD RUN BY VANAM ASSOC. INC. CONTOUR INTERVALS ARE AT 2 FEET.
  - ZONING DISTRICT: RCDED
  - TOPOGRAPHY FIELD VERIFIED BY VANAM ASSOCIATES JULY, 2006
  - EXISTING GREENHOUSES LABELED (TR) TO BE DONATED TO THE DEPT. OF AGRICULTURE.
  - EXISTING GREEN HOUSES LABELED (TR) ARE TO REMAIN.
  - EXISTING POND TO REMAIN.

### SOILS LEGEND HOWARD COUNTY SOILS MAP #7

SOIL TYPE	SYMBOL	LAND CAPABILITY	Kw	SLOPE %	HYDRIC?	HYDROLOGIC SOIL GROUP
Baile Silt Loam	Ba	Vw-1	>.35	0-3%	YES	D
Chester Silt Loam	ChB2	Ile-4	≤.35	3-8%	NO	B
Chester Silt Loam	ChD2	Ive-3	≤.35	15-25%	NO	B
Chester Gravelly Silt Loam	CgB2	Ile-4	≤.35	3-8%	NO	B
Chester Gravelly Silt Loam	CgC2	Ile-4	≤.35	8-15%	NO	B
Cornus Silt Loam	Cs	I-6	≤.35	0%	NO	B
Eliok Silt Loam	EkB2	Ile-4	≤.35	3-8%	NO	B
Glenville Silt Loam	Gna	Iv-25	>.35	0-3%	NO	C



- ### SEQUENCE OF CONSTRUCTION
- Flag limits of tree planting and brush removal.
  - Call "Miss Utility" at 1-800-257-7777 prior to any work for the location of all utilities.
  - Install tree protection measures, tree protection signage, and conduct brush removal and site afforestation measures as called for on the plans.
  - After site has been stabilized and all planting has been completed, remove tree protection measures.

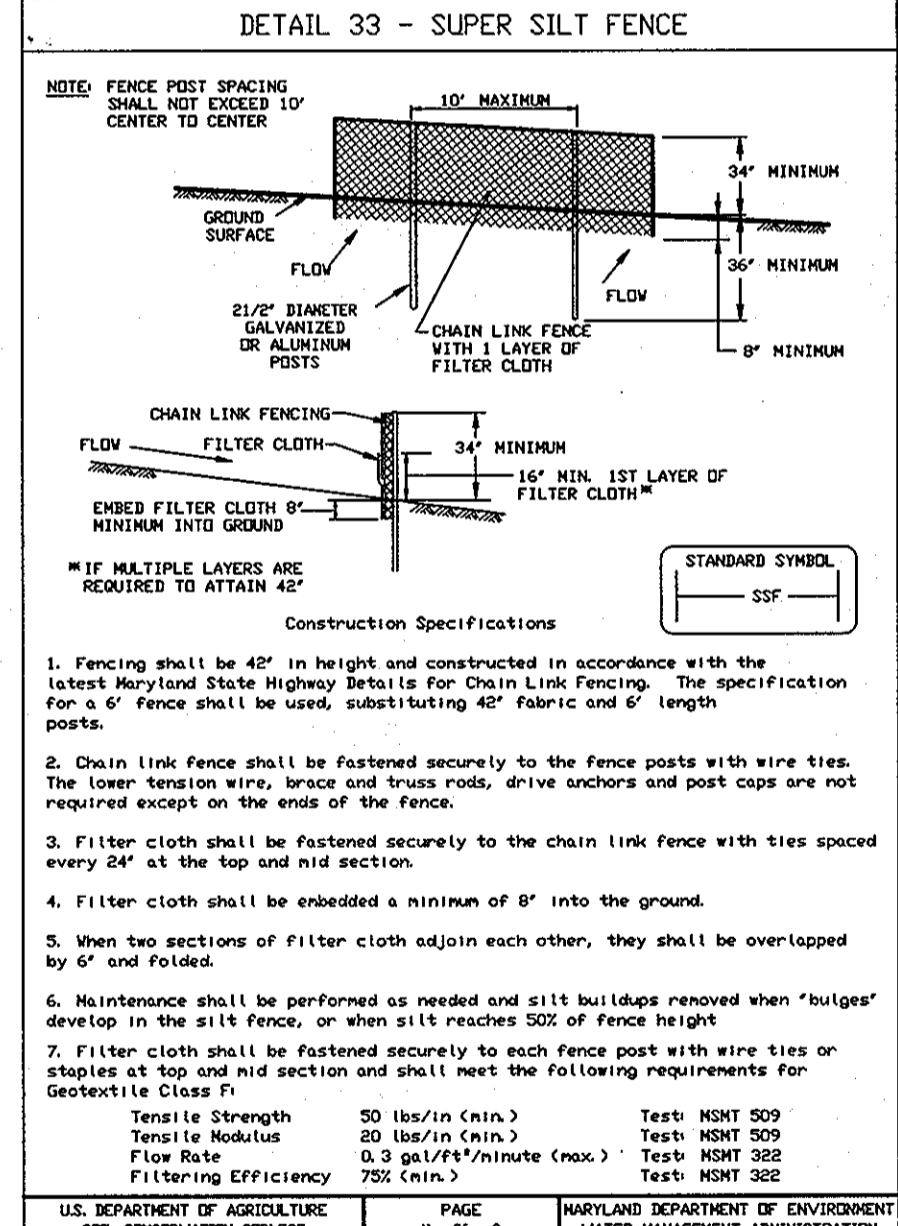
- ### 26 MONTH MAINTENANCE PLAN
- Fence and sign the area as per details.
  - Water at planting time, then as required depending on rainfall.
  - Fertilize, if necessary, only after the first growing season. Fertilize with organic or slow release type.
  - Mow twice annually after mid-July, or herbicide areas, if preferred.
  - Survival rate is low, additional plants must be added to meet REQUIRED success rate at 75 percent survival at the second year inspection.
  - The fence can be removed after second year inspection approval. Signage is to remain.

### TREE PLANTING AND MAINTENANCE CALENDAR

Tasks	Months											
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Transplant of 2" DBH or Greater												
Planting Seedlings, Whips												
Minimum Monitoring			*				*				*	
Fertilizer (if needed)**												
Water**												
Pruning												

**NOTES:**

- Activities during November through February depend on ground conditions.
- No fall planting of oaks and pines.
- The planting and care of trees is most successful when coordinated with the local conditions. This calendar summarizes some of the recommended time frames for basic reforestation and stress reduction activities.



- ### GENERAL NOTES
- These perpetual forest easements are established in accordance with the Howard County Forest Conservation Manual, as specifically set forth in the recorded forest easement.
  - Tree protection signs shall be installed as shown on plan and inspected prior to any grading or disturbance activities on site.
  - A forest conservation easement will be placed around each forest preservation area and a deed of easement will be recorded specifying long-term protection of the area.
  - The owner will execute a forest public works agreement.
  - A preconstruction meeting is to be arranged as follows:  
After the boundaries of the limits of disturbance have been staked and flagged, and the forest protection devices have been installed, and before any disturbance has taken place on site, a pre construction meeting at the construction site shall take place. The developer, contractor or project manager, and appropriate local inspectors should attend. The purpose of this meeting will be to:  
A. Identify the locations of the forest retention areas, specimen trees, limits of construction, employee parking areas, and equipment staging areas on site plans.  
B. Inspect all flagged boundaries, protection devices, and sediment and erosion control devices on site.  
C. Make all necessary adjustments.  
D. Assign responsibilities as appropriate and discuss penalties.
  - This plan sheet is to show the on site forest retention, afforestation, easement area and location of signs only.
  - All contractors performing work on this site shall notify "Miss Utility" 48 hours prior to any construction or grading by calling 1-800-257-7777 for the location of all utilities.
  - The contractors performing work in the site are responsible for protecting existing native & noninvasive plantings during construction.
  - All planting, pruning, and maintenance shall be according to the National Arborist Standards and the Howard County Forest Conservation Manual, latest edition.
  - Financial surety for the required afforestation will be posted as part of the Owner's DPW Developer's Agreement in the amount of \$53,637.50 for:  
2.4627 AC. = 107,275 SQ.FT. @ \$0.50/SQ.FT. = \$53,637.50
  - Stream buffer acreage: 2.3865  
Length: 935'  
Avg. Width: 100'

**AFFORESTATION NOTES**  
 ACREAGE OF PLANTING: 2.4627 x Acres 350 whips/acre = 862 whips required

**TYPE OF PREPARATION NEEDED:** Remove existing wire fence, silt fence and invasive species, if present. See Forest Conservation Specifications for discussion regarding removal of invasives. Minimize soil disturbances as much as possible. All exposed soil areas to be stabilized with a mix of native and naturalized grasses and legumes designed for use in reforestation areas, or in wetland soil areas, a mix of native or naturalized grasses adapted to survival in temporarily or seasonally saturated soils.\* Mow area prior to planting.

**PLANTING SPECIFICATIONS:**  
 Plant whips in tree shelters per detail and in accordance with manufacturers recommendations. Whips to be planted on a 10' x 10' grid and mixed in a random manner per detail.

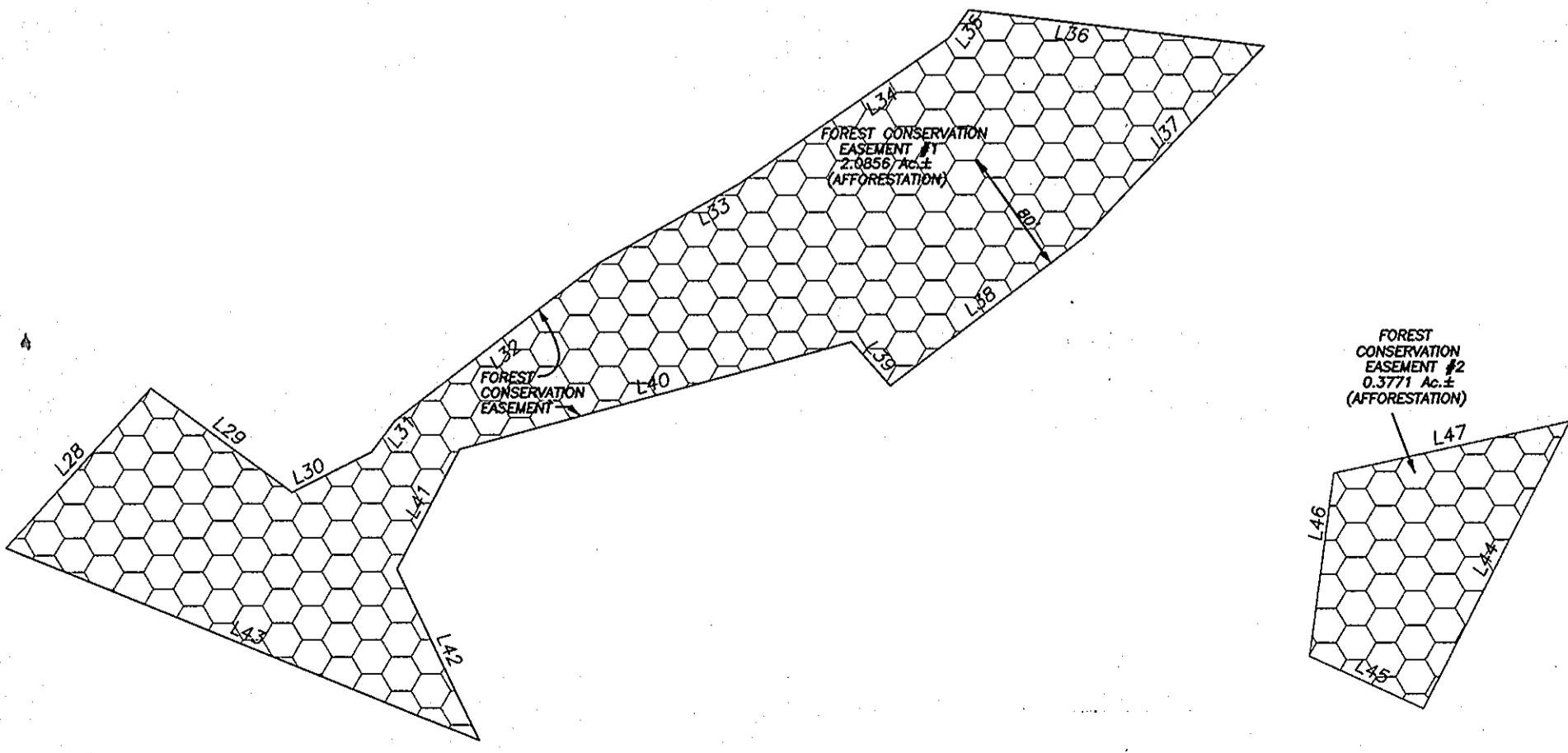
Source: Within 100 mile radius of Maryland if possible  
 Seed Mix: "Field and Forest Mix" and "Wet Mix" available from Sylva Native Nursery & Seed Co. or approved equal.  
 Sylva Native Nursery & Seed Co.  
 3815 Roser Road  
 Glen Rock, PA 17327  
 P: 717-227-0486  
 F: 717-227-0484  
 www.sylvanative.com

### AFFORESTATION SCHEDULE

SPECIES	WHIPS
<b>DOMINANT PIONEER 24%</b>	
1 Red Maple <i>Acer rubrum</i>	52
2 Hackberry <i>Celtis occidentalis</i>	52
3 Sweetgum <i>Liquidambar styraciflua</i>	52
4 Black Willow <i>Salix nigra</i>	51
<b>DOMINANT CLIMAX 36%</b>	
5 Black Gum <i>Nyssa sylvatica</i>	77
6 American Sycamore <i>Platanus occidentalis</i>	78
7 Swamp White Oak <i>Quercus bicolor</i>	77
8 Pin Oak <i>Quercus palustris</i>	78
<b>UNDERSTORY 40%</b>	
9 Smooth Alder <i>Alnus serrulata</i>	86
10 Buttonbush <i>Cephaelis occidentalis</i>	86
11 Winterberry Holly <i>Ilex verticillata</i>	86
12 Common Elderberry <i>Sambucus canadensis</i>	87
<b>TOTAL</b>	<b>862</b>

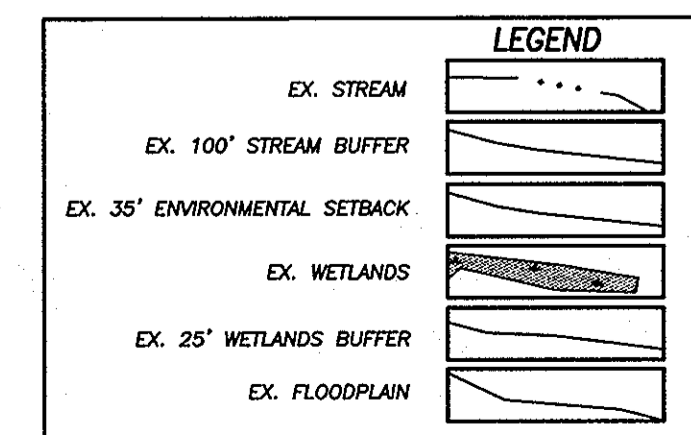
### ACCEPTABLE SUBSTITUTIONS

#1-4 Ironwood	<i>Carpinus caroliniana</i>
	<i>Asimina triloba</i>
#5-8 Willow Oak	<i>Quercus phellos</i>
	<i>Betula nigra</i>
	<i>Bitternut Hickory</i>
	<i>Quercus michauxii</i>
#9-12 Serviceberry	<i>Amelanchier canadensis</i>
	<i>Aronia arbutifolia</i>
	<i>Spirobaush</i>
	<i>Lindera benzoin</i>



### FCE EASEMENT

NUMBER	DIRECTION	DISTANCE
L28	N 42°07'52" E	136.14'
L29	S 53°24'43" E	111.03'
L30	N 62°59'54" E	55.98'
L31	N 36°46'58" E	24.44'
L32	N 82°15'36" E	163.48'
L33	N 60°33'18" E	101.56'
L34	S 55°12'59" E	160.82'
L35	W 35°41'49" E	22.46'
L36	S 82°48'42" E	187.87'
L37	S 43°15'19" W	166.06'
L38	S 52°33'28" W	154.19'
L39	N 41°04'14" W	37.20'
L40	S 74°41'22" W	256.58'
L41	S 27°35'28" W	85.45'
L42	S 25°23'32" E	120.63'
L43	N 67°38'18" W	322.60'
L44	S 27°01'59" W	204.00'
L45	N 65°09'46" W	78.97'
L46	N 07°31'23" E	117.07'
L47	N 77°40'23" E	152.43'



### FOREST CONSERVATION PLAN

#### MCKENDREE SPRINGS

LOTS 1 & 2  
 LIBER 7803 FOLIO 591  
 SITUATED ON MCKENDREE ROAD  
 ELECTION DISTRICT No. 4  
 HOWARD COUNTY, MARYLAND  
 SCALE: 1" = 100' MARCH, 2006

**VANAM ASSOCIATES, INC.**  
 Engineers Surveyors Planners  
 210 South Main Street P.O. Box 228 Mount Airy, Maryland 21771  
 (301) 678-2800 (301)301-3015 (410) 548-2761  
 F-06-186 A4-4777

*Net Slo. Drawn/Plotted* 8/16/07  
 CHIEF, DIVISION OF LAND DEVELOPMENT TKM DATE

*[Signature]* 8/16/07  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION YR DATE

F-06-186