







**NON-BUILDABLE PRESERVATION PARCEL 'E'**  
 Privately Owned and Maintained;  
 Easement Holders: HOA and  
 Howard County, Maryland  
 7.561 Ac.± (Total)  
 0.431 Ac.± (This Sheet)

**BUILDABLE PRESERVATION PARCEL 'A'**  
 Privately Owned and Maintained;  
 Easement Holders: HOA and  
 Howard County, Maryland  
 10.855 Ac.± (Total)  
 5.769 Ac.± (This Sheet)

**NON-BUILDABLE PRESERVATION PARCEL 'F'**  
 For Stormwater Management  
 HOA Owned and Maintained;  
 Easement Holder:  
 Howard County, Maryland  
 2.271 Ac.±

**NON-BUILDABLE PRESERVATION PARCEL 'D'**  
 Privately Owned and Maintained;  
 Easement Holders: HOA and  
 Howard County, Maryland  
 5.177 Ac.±

**NON-BUILDABLE PRESERVATION PARCEL 'B'**  
 Privately Owned and Maintained;  
 Easement Holders: HOA and  
 Howard County, Maryland  
 4.104 Ac.± (Total)  
 0.573 Ac.± (This Sheet)

Portion of fence to be removed to prevent obstruction of flow in the flood plain. If a fence is needed to split rail-fence can install.

6 68°53'52" W 245.00'

MATCHLINE - SEE SHEET 2 OF 10

**PRELIMINARY EQUIVALENT SKETCH PLAN**

**MACBETH FARM**

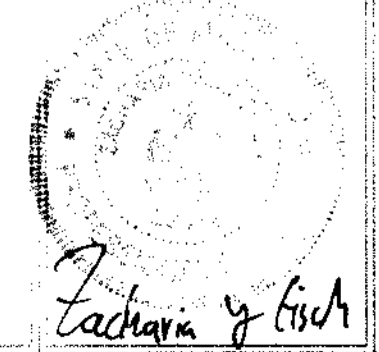
LOTS THRU 35, BUILDABLE PRESERVATION PARCEL 'A'  
 NON-BUILDABLE PRESERVATION PARCELS 'B', 'C', 'D', 'E', 'F'  
 Tax Map 34, Grids 18 & 24 Parcel 40  
 11th Election District Howard County, Maryland

*Robert W. Weber* 4/14/15  
 JA

APPROVED FOR PRELIMINARY MATTER AND PRIVATE SEWERAGE SYSTEMS ACCORDING TO THE MASTER PLAN OF HOWARD COUNTY  
*Robert W. Weber* 4/14/15  
 COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT

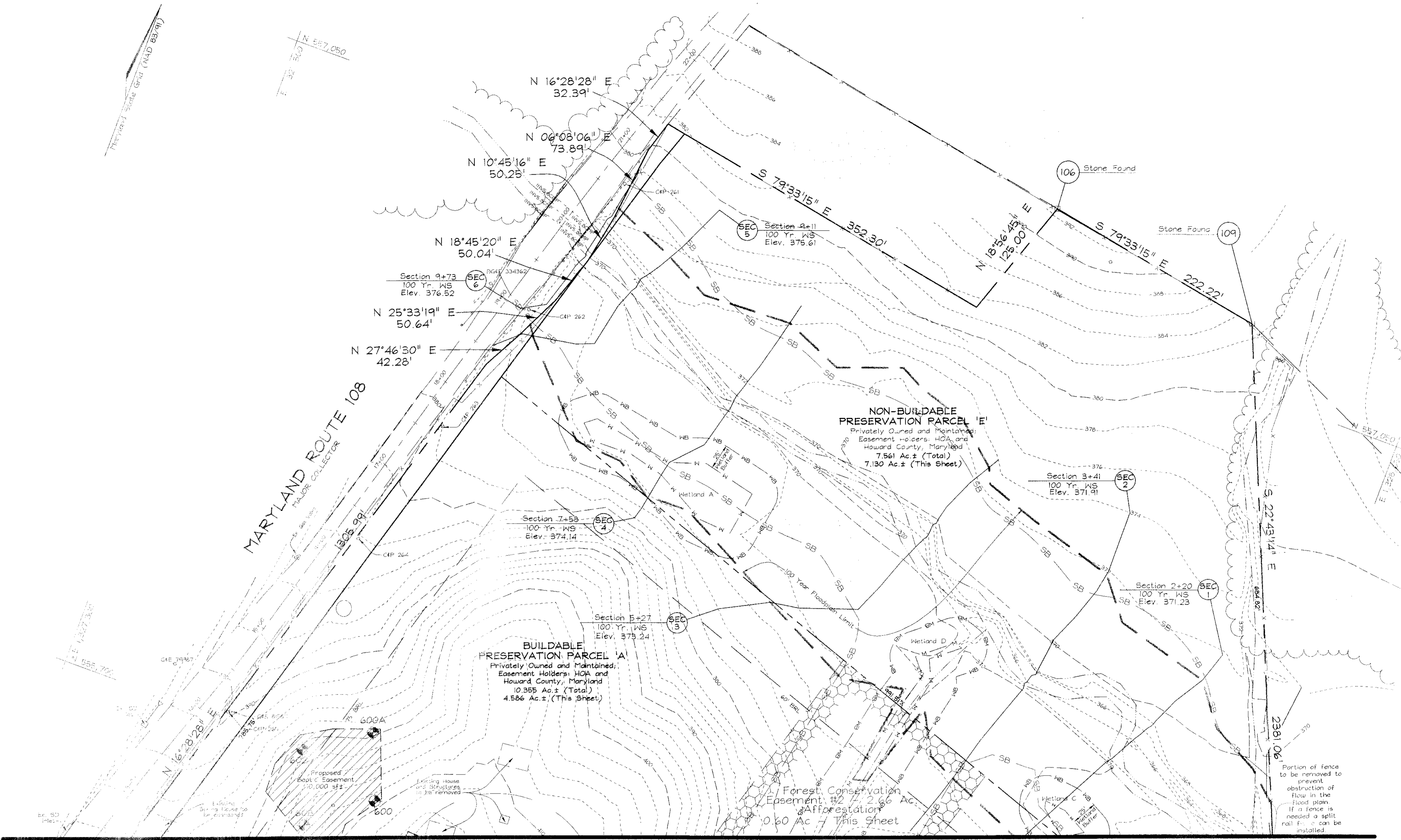
**OWNER**  
 THE ESTATE OF ELIZABETH SMITH  
 c/o Charles Glade, Personal Representative  
 10450 Shaker Drive, Suite 112  
 Columbia, Maryland 21046

**DEVELOPER**  
 MACBETH FARM, LLC  
 8605 Center Park Drive, Suite 200  
 Columbia, Maryland 21046



**FSH Associates**  
 Engineers Planners Surveyors  
 8318 Forest Grove, Ellicott City, MD 21045  
 Tel: 410-768-2551 Fax: 410-750-7340  
 Email: info@fsh.biz

DESIGN BY: [Signature]  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]  
 SCALE: [Blank]  
 DATE: 4/14/15  
 SHEET NO. 2 OF 10



MARYLAND ROUTE 108  
MAJOR COLLECTOR

**BUILDABLE PRESERVATION PARCEL 'A'**  
Privately Owned and Maintained;  
Easement Holders: HOA and  
Howard County, Maryland  
0.955 Ac.± (Total)  
4.586 Ac.± (This Sheet)

**NON-BUILDABLE PRESERVATION PARCEL 'E'**  
Privately Owned and Maintained;  
Easement Holders: HOA and  
Howard County, Maryland  
7.561 Ac.± (Total)  
7.130 Ac.± (This Sheet)

Forest Conservation  
Easement #2 2.66 Ac.  
Afforestation  
0.60 Ac - This Sheet

MATCHLINE - SEE SHEET 3 OF 10

APPROVED FOR PRIVATE WATER AND SEWAGE GENERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY  
*Robert J. Wilson*  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT  
DATE: 2/10/05

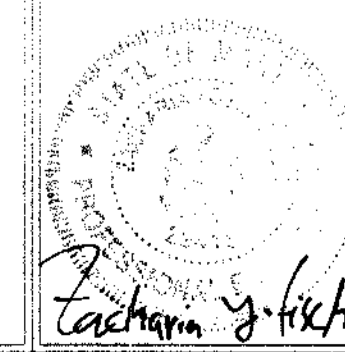
**OWNER**  
THE ESTATE OF ELIZABETH SMITH  
c/o Charles Slade, Personal Representative  
10450 Shaker Drive, Suite 110  
Columbia, Maryland 21046

**DEVELOPER**  
MACBETH FARM, LLC  
8808 Center Park Drive, Suite 209  
Columbia, Maryland 21045

PRELIMINARY EQUIVALENT SKETCH PLAN

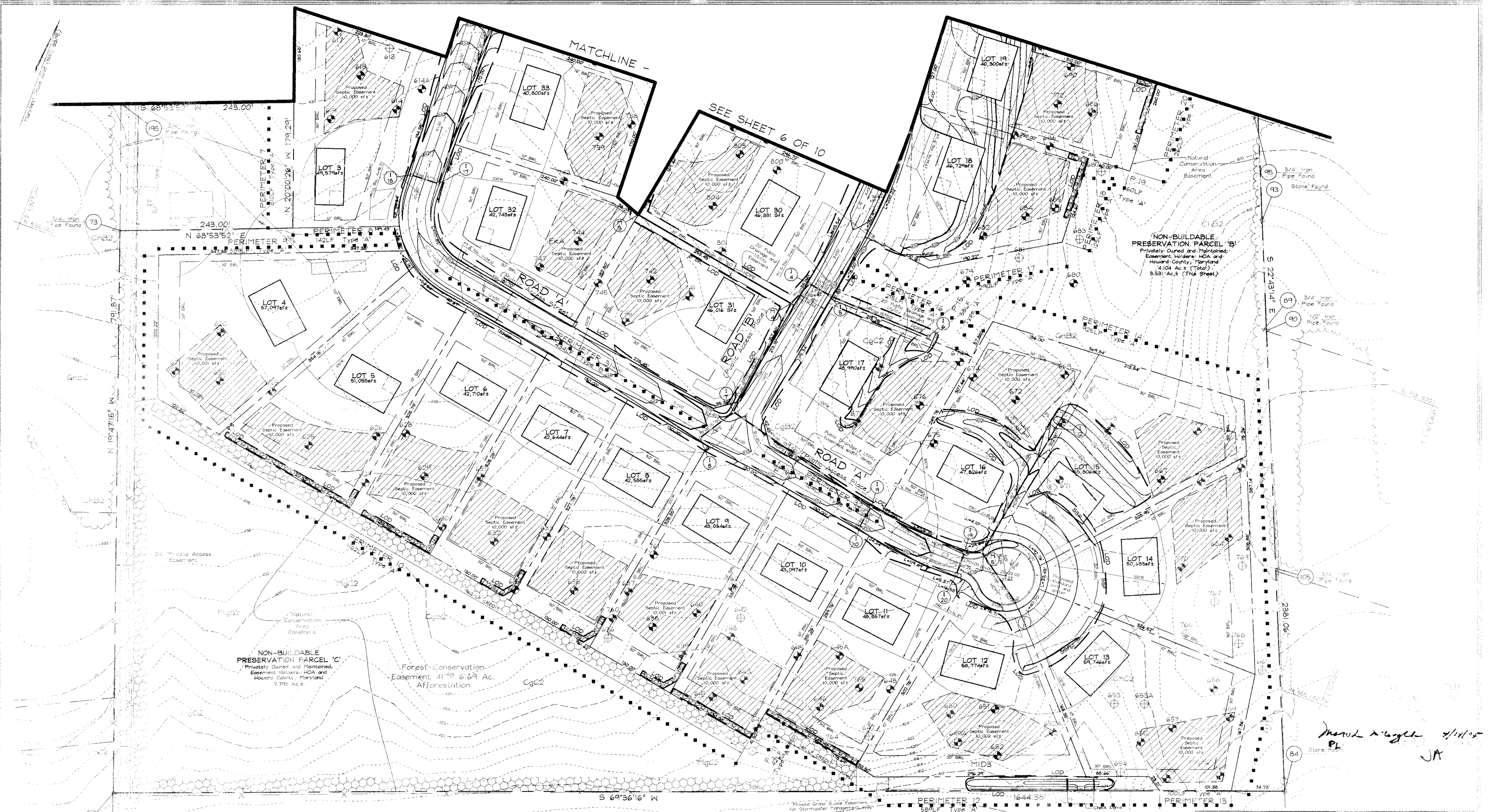
MACBETH FARM

LOTS 1 THRU 35, BUILDABLE PRESERVATION PARCEL 'A',  
NON-BUILDABLE PRESERVATION PARCELS 'B', 'C', 'D', 'E', 'F', 'G',  
Tax Map 34 Grids 18 & 24 Parcel 40  
4th Election District Howard County, Maryland



**FSH Associates**  
Engineers, Planners, Surveyors  
4318 Forest Green, Liberal City, MD 21154  
Tel: 410-759-7751 Fax: 410-759-7350  
E-mail: info@fisha.com

DESIGN BY: JSP  
DRAWN BY: JSP  
CHECKED BY: JSP  
SCALE: 1"=50'  
DATE: Feb 7, 2005  
P.L.D. No. 3125  
SHEET No. 4 OF 10

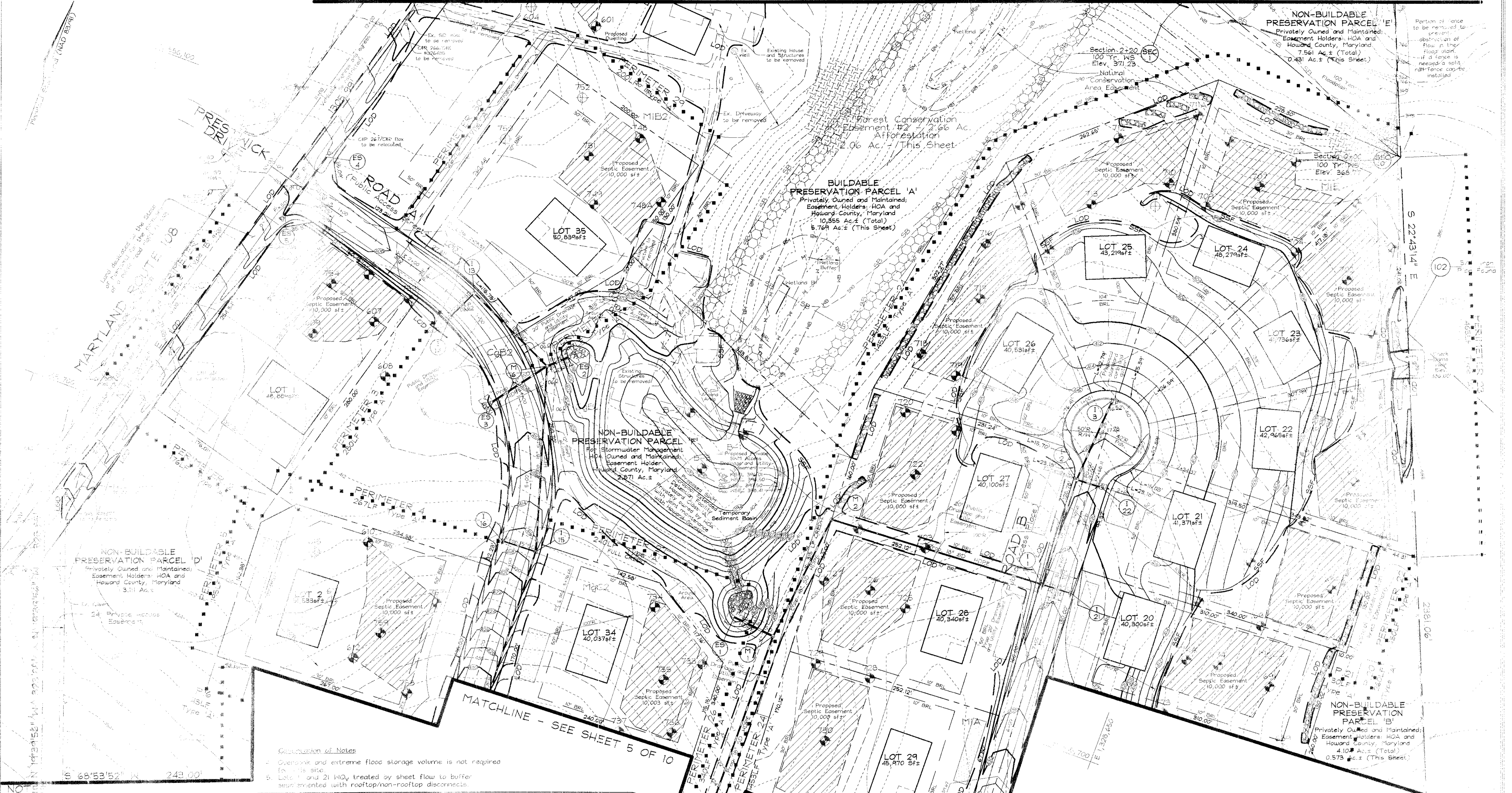


**PRELIMINARY GRADING, LANDSCAPE, SEDIMENT AND EROSION CONTROL AND SOILS PLAN**  
**MACBETH FARM**  
 LOTS 1 THRU 35, BUILDABLE PRESERVATION PARCEL 'A'  
 NON-BUILDABLE PRESERVATION PARCELS 'B', 'C', 'D', 'E', 'F'  
 Tax Map 34, Grids 18 & 24  
 4th Election District

	<b>OWNER</b> THE ESTATE OF ELIZABETH SMITH c/o Charles Slade, Personal Representative 10450 Shaker Drive, Suite 112 Columbia, Maryland 21046	<b>DEVELOPER</b> MACBETH FARM, LLC 8806 Center Park Drive, Suite 209 Columbia, Maryland 21045	<b>FSH Associates</b> Engineers Planners Surveyors 8318 Forest Stone, Oldland 152, 1512 21st 4th Floor, Oldland 152 Oldland 152, Maryland 21046 Tel: 410-750-2251 Fax: 410-750-7051 E-mail: info@fshaz.com	DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: _____ SCALE: _____ DATE: Feb. 7, 2015 NO. OF SHEETS: 3 SHEET NO. 3 OF 10
	APPROVED: _____ OFFICER OF HEALTH DEPARTMENT DATE: 2/10/15			PERMITS: _____ DATE: _____ NO. OF SHEETS: _____ SHEET NO. _____ OF _____

APPROVED: \_\_\_\_\_  
 OFFICER OF HEALTH DEPARTMENT  
 DATE: 2/10/15

*March 2, 2015 7/10/15*  
 JA



**Notes:**

- Channel protection volume (Cov) is not required for DA-1 as it is provided by a minimum extended detention basin with a water control structure.
- The water quality volume (WQV) is provided for DA-1 as follows: 1/2 within the micro pool and 1/2 provided through a 10' extended detention basin at the SPM facility. Drains in areas 2, 4 and 5 will treat water quality through grass P3x to buffer the drain into natural area and detention basins. Areas 2, 4 and 5 will treat WQV through channel control.
- Recharge volume (Rav) is met through impervious areas, disconnection and open section, and through channel treatment structures with the above method.

**Notes:** Channel Protection Volume

APPROVED FOR THE DEPARTMENT OF ENVIRONMENTAL AND PLANNING SERVICES  
HOWARD COUNTY DEPARTMENT OF ENVIRONMENTAL AND PLANNING SERVICES

*Robert Wilson*  
DATE: 2/1/2008

**STORMWATER MANAGEMENT SUMMARY TABLE:**

CATEGORY	DA-1*	DA-2	DA-3	DA-4	DA-5	DA-6	
	23.87 Ac	14.14 Ac	3.35 Ac	9.4 Ac	1.94 Ac	7.73 Ac	
CHANNEL PROTECTION VOLUME (Cov) Required/Provided	0.54/0.54	N/A	N/A	N/A	N/A	N/A	0.1 C2CFS for DA 2 to 6 DA-1 volume in micro pool e.d. facility.
WATER QUALITY VOLUME (WQV) Required/Provided	0.46/0.65	0.17/0.17	0.06/0.06	0.09/0.09	0.037/0.037	0.04/0.04	DA-1 Provided in micro pool/e.d. structure (See Note No.2 Below)
RECHARGE VOLUME (Rav) Required/Provided	Site area 76.3A 0.27/0.27at 2.94/2.94ac						Rea method treats required 2.24 Ac+ impervious areas (See Note No.3 Below)
OVERBANK STORAGE VOLUME (OSV)	N/A	N/A	N/A	N/A	N/A	N/A	Not Required by Howard County
EXTREME FLOOD VOLUME (EFV)	N/A	N/A	N/A	N/A	N/A	N/A	Not Required by Howard County

\* For channel protection design off site area includes:

**OWNER:** THE ESTATE OF ELIZABETH...  
c/o Charles Stiede, Personal Representative  
10450 Shaker Drive, Suite 100  
Columbia, Maryland 21046

**DEVELOPER:** MACBETH FARM, LLC  
8806 Center Park Drive, Suite 209  
Columbia, Maryland 21045

*Handwritten signature and date: 4/14/08*

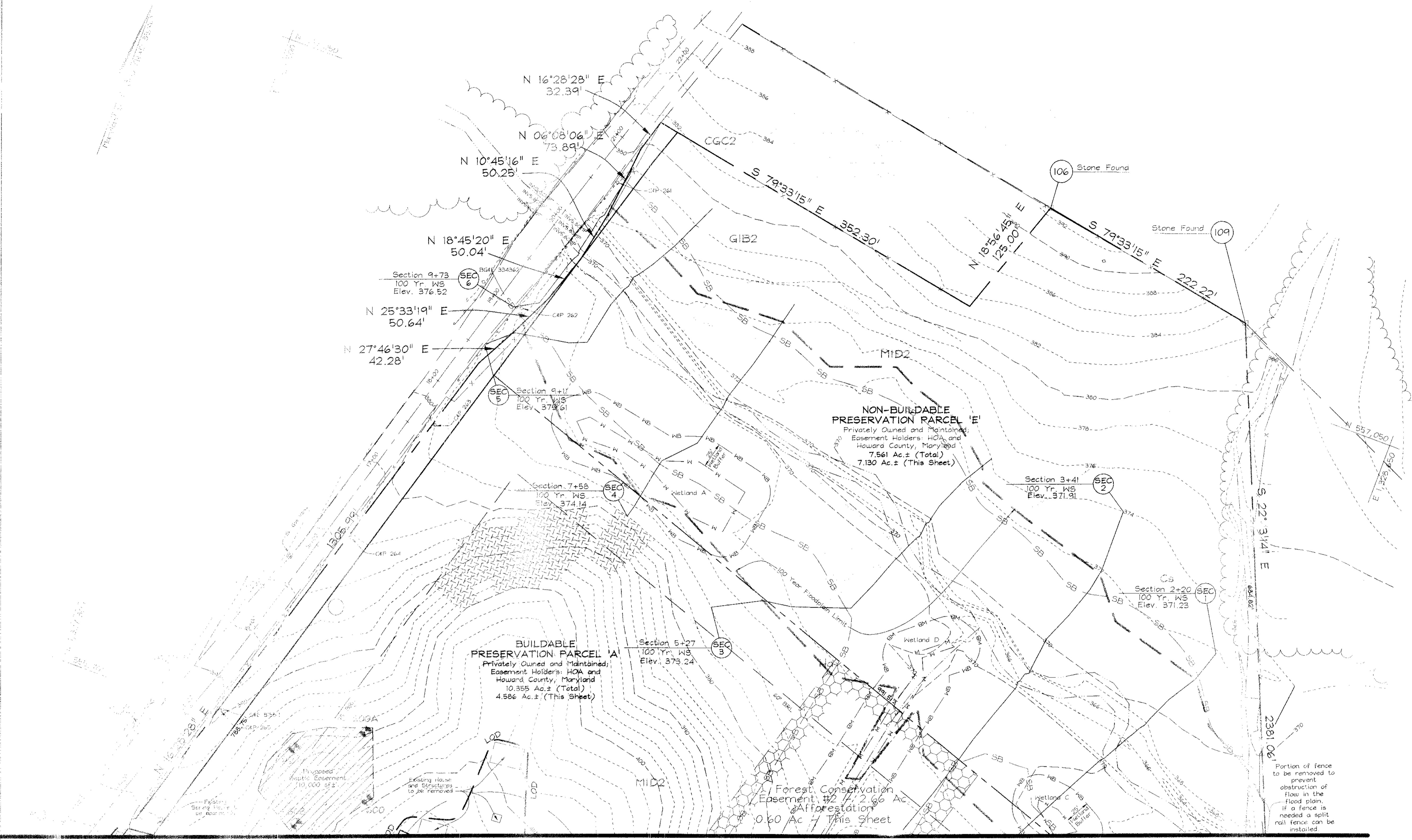
**PRELIMINARY GRADING, LANDSCAPE, SEDIMENT AND EROSION CONTROL AND SOILS PLAN**  
**MACBETH FARM**

LOTS 1 THRU 35, BUILDABLE PRESERVATION PARCEL 'A', NON-BUILDABLE PRESERVATION PARCELS 'B', 'C', 'D', 'E', 'F'  
Tax Map 34, Grids 16 & 24  
4th Election District, Howard County, Maryland

**FSH Associates**  
Engineers Planners Surveyors  
8318 Forest Street, Suitland City, Md 21104  
Tel: 410.750.2255 Fax: 410.750.7356  
E-mail: info@fsh.biz

DATE: Feb. 7, 2008  
SCALE: 1"=40'-0"  
SHEET No. 8 OF 10

DESIGN BY: [Signature]  
CHECKED BY: [Signature]  
SCALE: 1"=40'-0"  
DATE: Feb. 7, 2008  
A.C. No.: B165  
SHEET No. 8 OF 10



SCHEDULE D - STORMWATER MANAGEMENT AREA LANDSCAPING	
Linear Feet of Perimeter	
Credit for Existing Vegetation (100 Yr. WS and Linear Feet)	
Credit for Other Landscaping (No. Trees and 4)	
Number of Trees Required	
Shade Trees (150)	
Evergreen Trees (100)	

NOTES  
 Planting of landscaping trees is the developer's obligation and part of the developers agreement.

MATCHLINE - SEE SHEET 6 OF 10

CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES																													
	1	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Planting of trees for vegetation	11	25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Planting of trees for vegetation	235	434	16	290	267	195	43	310	142	339	162	42	589	100	920	55	215	290	75	60	260	30	180	480	1453	56	140	297	100	262		
Credit for existing vegetation	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
Credit for other landscaping	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
Number of trees required	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	

APPROVED: *Robert N. Weber*  
 DATE: 2/1/05

OWNER: THE ESTATE OF ELIZABETH SMITH  
 DEVELOPER: MACBETH FARM, LLC

PRELIMINARY GRADING, LANDSCAPE SEDIMENT AND EROSION CONTROL AND SOILS PLAN  
 MACBETH FARM  
 LOTS 1 THRU 35, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'E', 15.13 AC. Tax Map 34, Grids 18 & 24, Howard County, Maryland, 4th Election District.

**FSH Associates**  
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 8318 Forest Stone Ridge Road, Suite 100  
 Tel: 410-750-2261 Fax: 410-750-2262  
 E-mail: info@fsh.biz



APPROVED: *Robert D. Wilson*  
 2/10/05

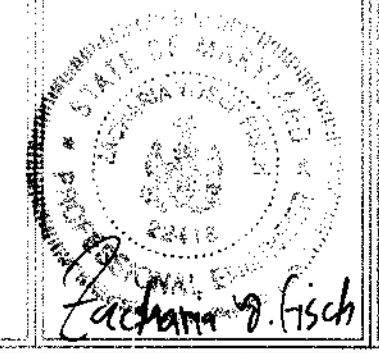
**PRELIMINARY FOREST CONSERVATION PLAN  
 MACBETH FARM**

LOTS 1 THRU 35, BUILDABLE PRESERVATION PARCEL A  
 NON-BUILDABLE PRESERVATION PARCELS B & C  
 Tax Map 24, Grids 18 & 24  
 4th Election District

**EXPLORATION RESEARCH, INC.**  
 ENVIRONMENTAL CONSULTANTS  
 834 FOREST STREET  
 ELICOTT CITY, MARYLAND 21043  
 TEL: (410) 760-1100 FAX: (410) 760-7260

**OWNER**  
 THE ESTATE OF ELIZABETH W. WILSON  
 c/o Charles Glade, Paragon Homes, LLC  
 10450 Shaker Drive, Suite 1  
 Columbia, Maryland 21046

**DEVELOPER**  
 MACBETH FARM, LLC  
 8808 Center Park Drive, Suite 209  
 Columbia, Maryland 21046



**FSH Associates**

13311 Forest Glen Road, Suite 100  
 Ellicott City, MD 21043  
 Tel: 410-392-2222 Fax: 410-392-2222  
 E-mail: info@fsh.com

DESIGN: FISH  
 DRAWN BY: FISH  
 CHECKED BY: FISH  
 SCALE: AS SHOWN  
 DATE: 02/10/05  
 NO. OF SHEETS: 10  
 SHEET NO. 9 OF 10



NON-BUILDABLE PRESERVATION PARCEL 'E'  
Privately Owned and Maintained;  
Easement Holders: HOA and  
Howard County, Maryland  
7.561 Ac.± (Total)  
0.481 Ac.± (This Sheet)

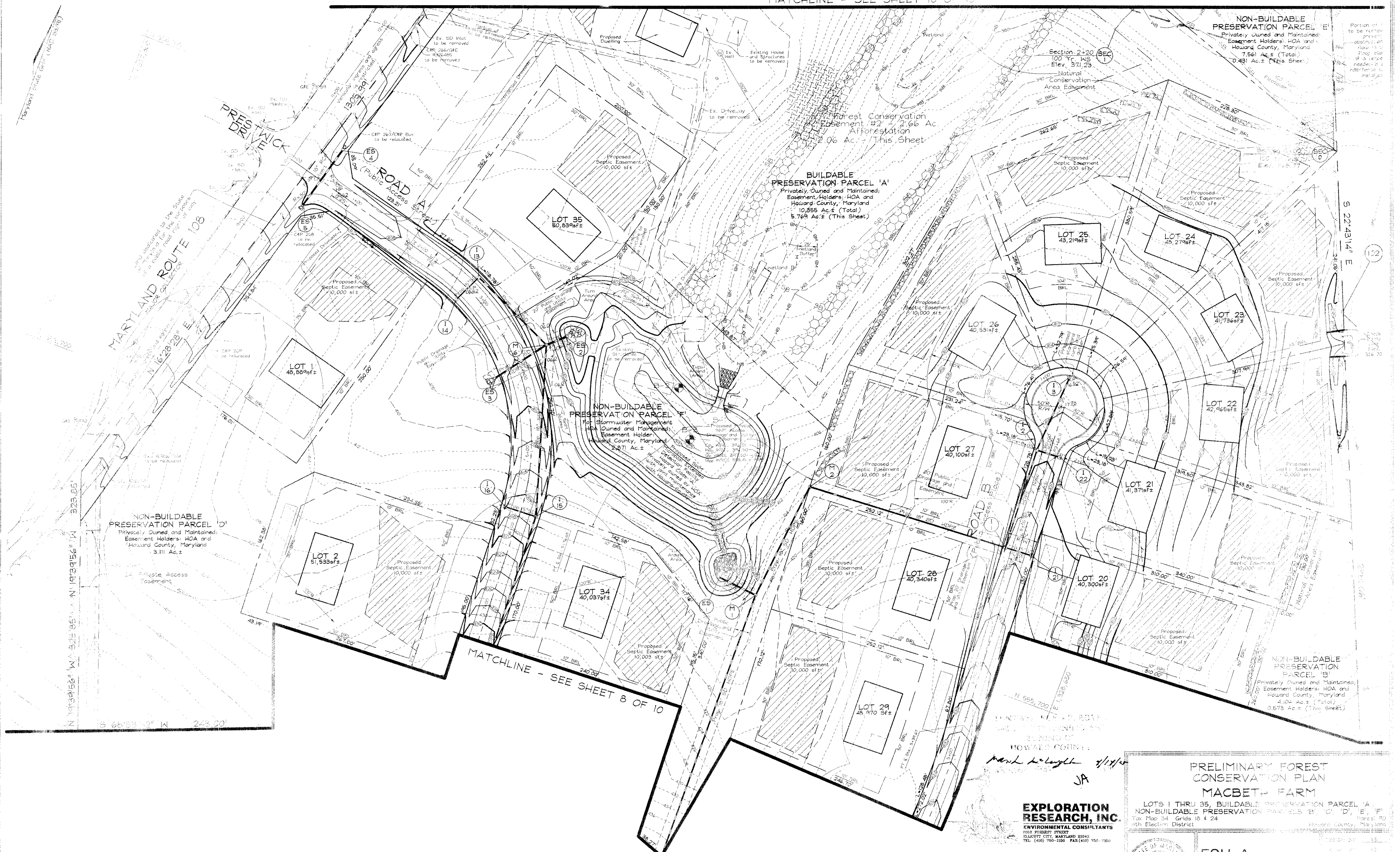
BUILDABLE PRESERVATION PARCEL 'A'  
Privately Owned and Maintained;  
Easement Holders: HOA and  
Howard County, Maryland  
10.855 Ac.± (Total)  
5.769 Ac.± (This Sheet)

NON-BUILDABLE PRESERVATION PARCEL 'F'  
For Stormwater Management  
HOA Owned and Maintained;  
Easement Holder:  
Howard County, Maryland  
2.871 Ac.±

NON-BUILDABLE PRESERVATION PARCEL 'D'  
Privately Owned and Maintained;  
Easement Holders: HOA and  
Howard County, Maryland  
3.111 Ac.±

NON-BUILDABLE PRESERVATION PARCEL 'B'  
Privately Owned and Maintained;  
Easement Holders: HOA and  
Howard County, Maryland  
4.102 Ac.± (Total)  
0.573 Ac.± (This Sheet)

MATCHLINE - SEE SHEET 8 OF 10



APPROVED: [Signature] DATE: 2/10/05  
COUNTY DEPARTMENT: [Signature]  
FOR: [Signature]

Mark K. Houghton 4/11/05  
JA

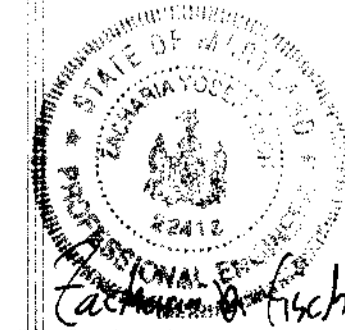
**EXPLORATION RESEARCH, INC.**  
ENVIRONMENTAL CONSULTANTS  
1018 WILSON STREET  
BETHESDA, MARYLAND 20814  
TEL: (410) 750-1100 FAX: (410) 750-1150

**OWNER**  
THE ESTATE OF ELIZABETH SMITH  
c/o Charles Stadel, Personal Representative  
10450 Shaker Drive, Suite 100  
Columbia, Maryland 21046

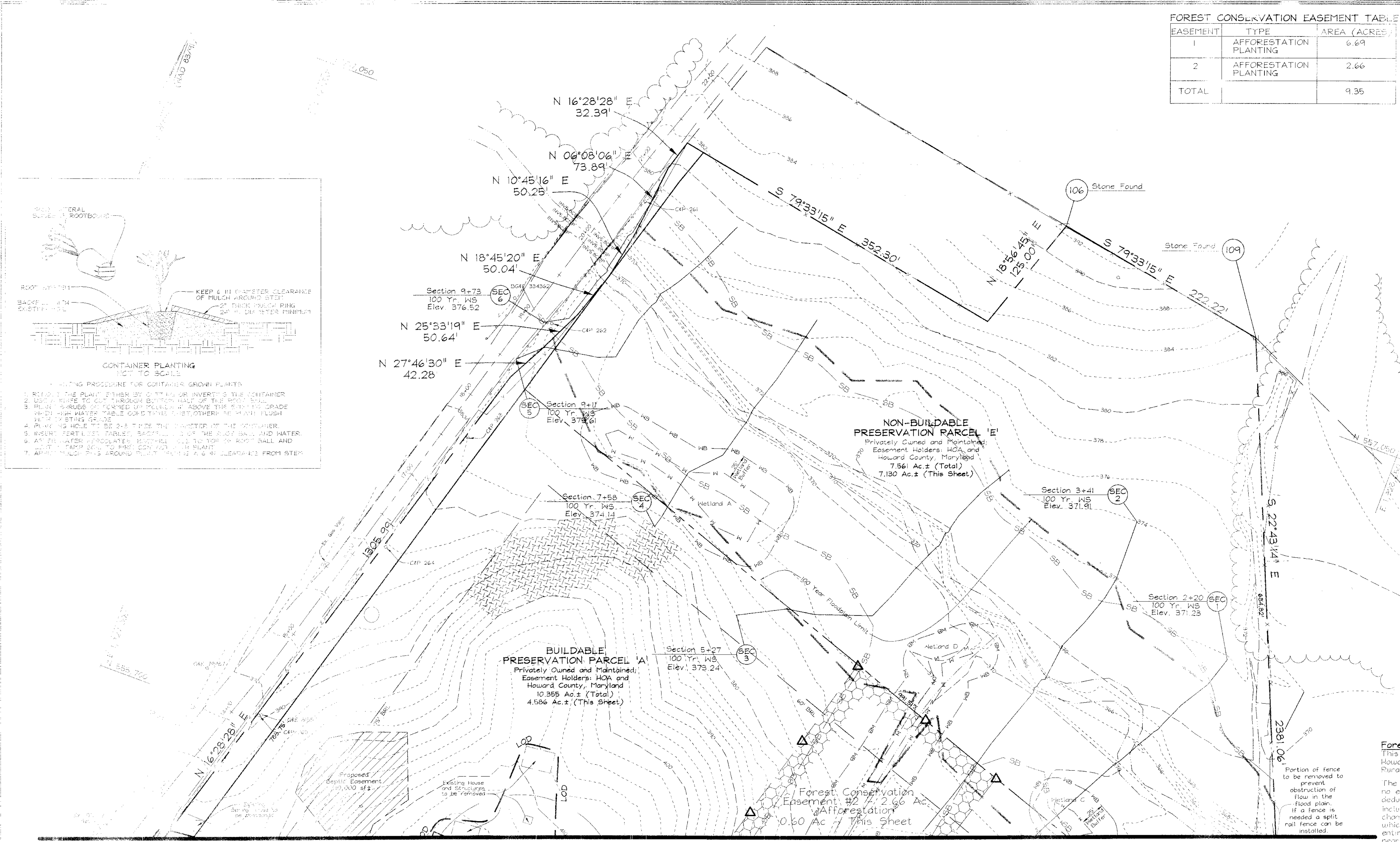
**DEVELOPER**  
MACBETH FARM, LLC  
8808 Center Park Drive, Suite 201  
Columbia, Maryland 21046

**PRELIMINARY FOREST CONSERVATION PLAN  
MACBETH FARM**

LOTS 1 THRU 35, BUILDABLE PRESERVATION PARCEL 'A',  
NON-BUILDABLE PRESERVATION PARCELS 'B', 'C', 'D', 'E', 'F',  
Tax Map 34, Grids 18 & 24 Parcel 20  
4th Election District Howard County, Maryland



**FSH Associates**  
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4318 Forest Stream, Ellicott City, MD 21120  
Tel: 410-750-2251 Fax: 410-750-1000  
E-mail: info@fsh.biz



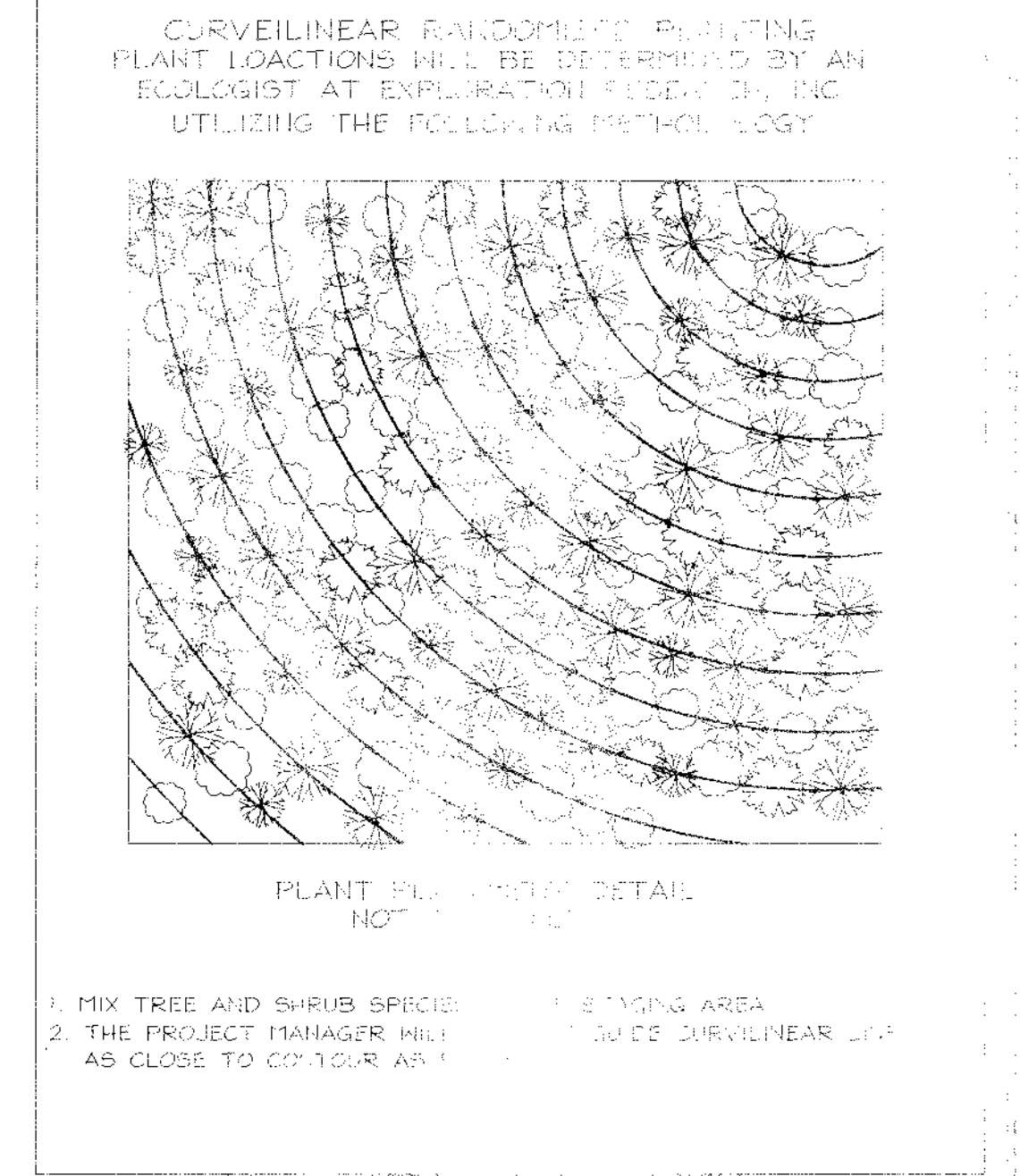
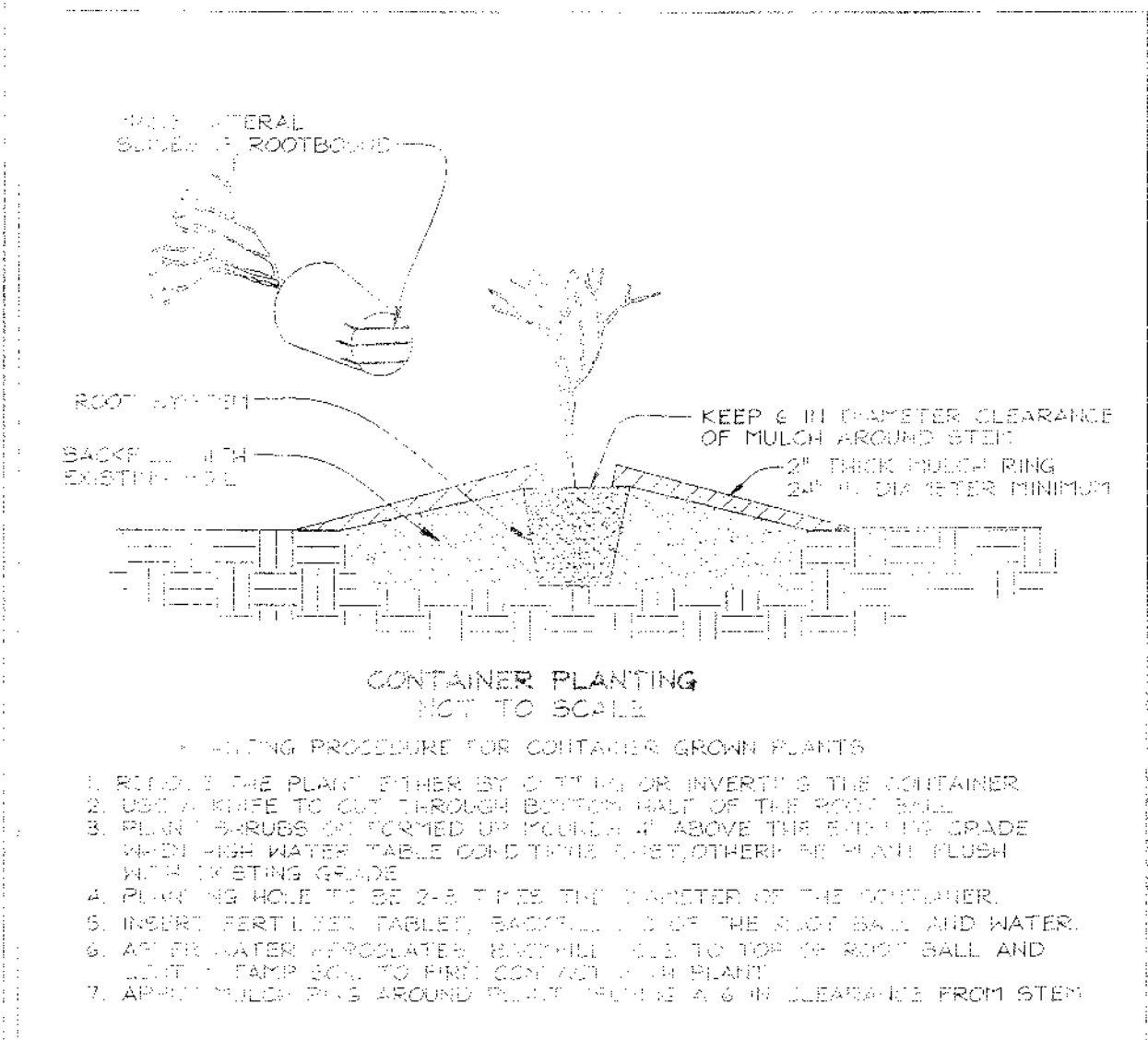
**FOREST CONSERVATION EASEMENT TABLE**

EASEMENT	TYPE	AREA (ACRES)
1	AFFORESTATION PLANTING	6.69
2	AFFORESTATION PLANTING	2.66
TOTAL		9.35

**FOREST CONSERVATION WORKSHEET**

Net Tract Area	Acres	79.35
A. Total Tract Area		79.35
B. Area Within 100 Year Floodplain		0
C. Other Deductions		52.86
D. Net Tract Area		26.49
Zoning Use Category: RESIDENTIAL-SUBURBAN		
Land Use Category		
E. Afforestation Minimum		9.35
F. Conservation Threshold (25%)		6.62
Existing Forest Cover		
G. Existing Forest on Net Tract		0
H. Forest Area Above Conservation Threshold		0
Breakeven Point		
I. Forest Retention Above Breakeven		1/4
Mitigation		
J. Clearing Permitted with Mitigation		N/A
Proposed Forest Clearing		
K. Forest Areas to be Cleared		0
L. Forest Areas to be Retained		0
Planting Requirements		
M. Reforestation for Clearing Above Threshold		0
N. Reforestation for Clearing Below Threshold		0
O. Credit for Retention Above Conservation Threshold		0
P. Total Reforestation Required		0
Q. Total Afforestation Required		9.35
R. Total Reforestation and Afforestation Requirement		9.35

\* 4.35 Ac of Floodplain was deducted from the exclusion of Preservation Parcel A and E per Rural Cluster rules. The majority of the floodplain is within these two parcels.



MATCHLINE - SEE SHEET 9 OF 10

Easement 1: PLANTING AREA: 6.69 Ac. - 2279 trees @ 350/Ac for 6.51 Ac and 20 - 2.5" cal. trees for 8000 sf

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
380	Acer rubrum	Red Maple	WHIP 2-3'	11' o.c.	
380	Quercus alba	White Oak	WHIP 2-3'	11' o.c.	1-3 Gallon Container
380	Quercus rubra	Red oak	WHIP 2-3'	11' o.c.	Group or Bare Root with 5' tree shelters
380	Amelanchier canadensis	Service berry	WHIP 2-3'	11' o.c.	
380	Prunus serotina	Black Cherry	WHIP 2-3'	11' o.c.	
378	Juniperus virginiana	Redcedar	WHIP 2-3'	11' o.c.	B&B See Detail on Landscape
5*	Acer rubrum	Red Maple	2.5-3" cal.	60' o.c.	
5*	Quercus rubra	Red oak	2.5-3" cal.	60' o.c.	
5*	Quercus coccinea	Scarlet Oak	2.5-3" cal.	60' o.c.	
5*	Liquidambar styraciflua	Sweetgum	2.5-3" cal.	60' o.c.	

\* Planted in conjunction with landscape buffer requirements

Easement 2: PLANTING AREA: 2.66 Ac. - 931 trees @ 350/Ac.

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
155	Acer rubrum	Red Maple	WHIP 2-3'	11' o.c.	
155	Quercus alba	White Oak	WHIP 2-3'	11' o.c.	
155	Quercus rubra	Red oak	WHIP 2-3'	11' o.c.	
155	Amelanchier canadensis	Service berry	WHIP 2-3'	11' o.c.	
155	Prunus serotina	Black Cherry	WHIP 2-3'	11' o.c.	
156	Juniperus virginiana	Redcedar	WHIP 2-3'	11' o.c.	

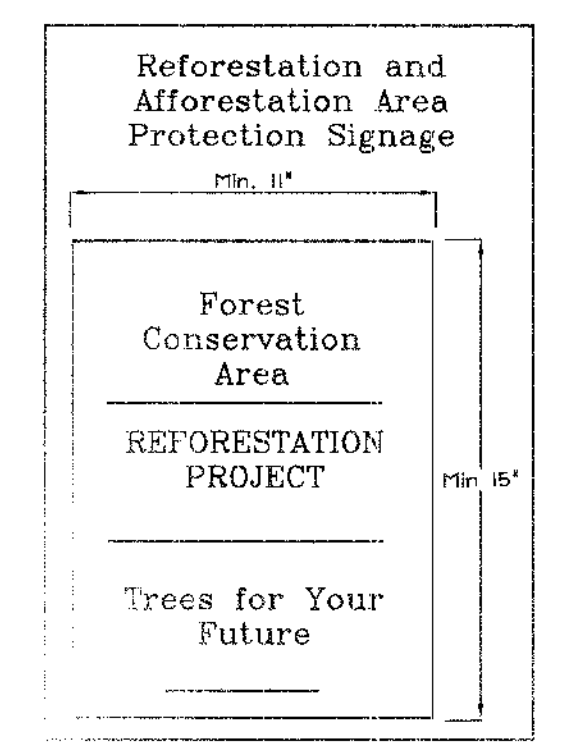
**Planting Area Monitoring Notes**

1. Monitor during the first growing season...
2. Monitor during the second growing season...
3. Monitor during the third growing season...
4. Monitor during the fourth growing season...
5. Monitor during the fifth growing season...

APPROVED: [Signature] DATE: 2/10/15

**Afforestation Area Planting Notes**

1. Planting areas must be planted as soon as reasonable to do so...
2. Soil amendments and fertilization recommendations will be made based upon the results of soil analysis...
3. Planting materials shall be inspected prior to planting...
4. Planting materials shall be inspected prior to planting...
5. Planting materials shall be inspected prior to planting...



**SIGN DETAIL: PERMANENT SIGN**  
SIGNAGE NOTE: ALL TREE PROTECTION SIGNAGE SHALL BE PLACED ON METAL T-posts OR PRESSURE TREATED WOOD POLES. NO ATTACHMENT OF SIGNS TO TREES IS PERMITTED.

**EXPLORATION RESEARCH, INC.**  
ENVIRONMENTAL CONSULTANTS  
5814 FOREST STREET  
ELIZABETH CITY, MARYLAND 21043  
TEL: (410) 750-1100 FAX: (410) 750-7260

**OWNER**  
THE ESTATE OF ELIZABETH SMITH  
c/o Charles Stok, Personal Representative  
10450 Shaker Drive, Suite 100  
Columbia, Maryland 21046

**DEVELOPER**  
MACBETH FARM, LLC  
6508 Center Park Drive, Suite 209  
Columbia, Maryland 21045

**PRELIMINARY FOREST CONSERVATION PLAN, NOTES & DETAILS**  
MACBETH FARM

LOTS 1 THRU 35, BUILDABLE PRESERVATION PARCEL E, NON-BUILDABLE PRESERVATION PARCEL F, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z

Map 34, Grids 18 & 24

**FSH**  
Engineers  
8810 Forest Hill Road  
Columbia, Maryland 21046  
Tel: 410-750-2255  
E-mail: info@fish.com