





### LEGEND

- EXISTING 2' CONTOUR  302
- EXISTING 10' CONTOUR  300
- PROPERTY LINE AND RIGHT OF WAY
- FLOODPLAIN
- EX. TREELINE
- PROP. TREELINE
- STREAM
- STREAM BUFFER  50
- WETLANDS
- WETLAND BUFFER
- SOILS  MID2
- 65 dba NOISE LINE
- 15-25% SLOPES
- >25% SLOPES
- VIET NOTATION

CENTER LINE OF ROAD HORIZONTAL DATA

LINE	LENGTH	BEARING
L1	13.94	N06°38'56"E
L2	38.92	N03°18'34"W
L3	73.43	N00°25'29"E
L4	23.44	S09°43'24"E
L5	104.44	S83°35'18"E
L6	35.92	N24°37'25"E

CURVE	LENGTH	RADIUS	DELTA
C1	77.12	1000.00	04°25'08"
C2	104.32	250.00	23°54'31"
C3	100.93	400.00	14°27'27"
C4	158.93	500.00	18°12'43"

**NOTE:**  
 LOTS 2-6, LOT 2 VOZNAK AND CALDERWOOD PROPERTY, LOTS 14-17, AND LOTS 42-46 HAVE USE IN COMMON DRIVEWAY EASEMENTS.

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS  
*Robert J. Walker* 9/11/06  
 COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT DATE

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY  
*Monika S. Lavelle* 9/14/06  
 PLANNING DIRECTOR DATE

DATE	NO.	REVISION

DEVELOPER  
 CENTEX HOMES, INC  
 ATTN: KEITH TUNELL  
 15890 GAITHER ROAD  
 GAITHERSBURG, MD 20877  
 866.783.6401

OWNER  
 MILDRED NIXON  
 DANIEL AND KIMBERLY VALENTI  
 2770 ROUTE 32  
 WEST FRIENDSHIP, MD 21794

PROJECT  
**TERRAPIN CROSSING**  
 LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2 PLAT NO. 11254 AND VOZNAK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90

AREA  
 TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO  
 GRID NO. S 16, 17, AND 22 3rd ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE  
**PRELIMINARY PLAN**

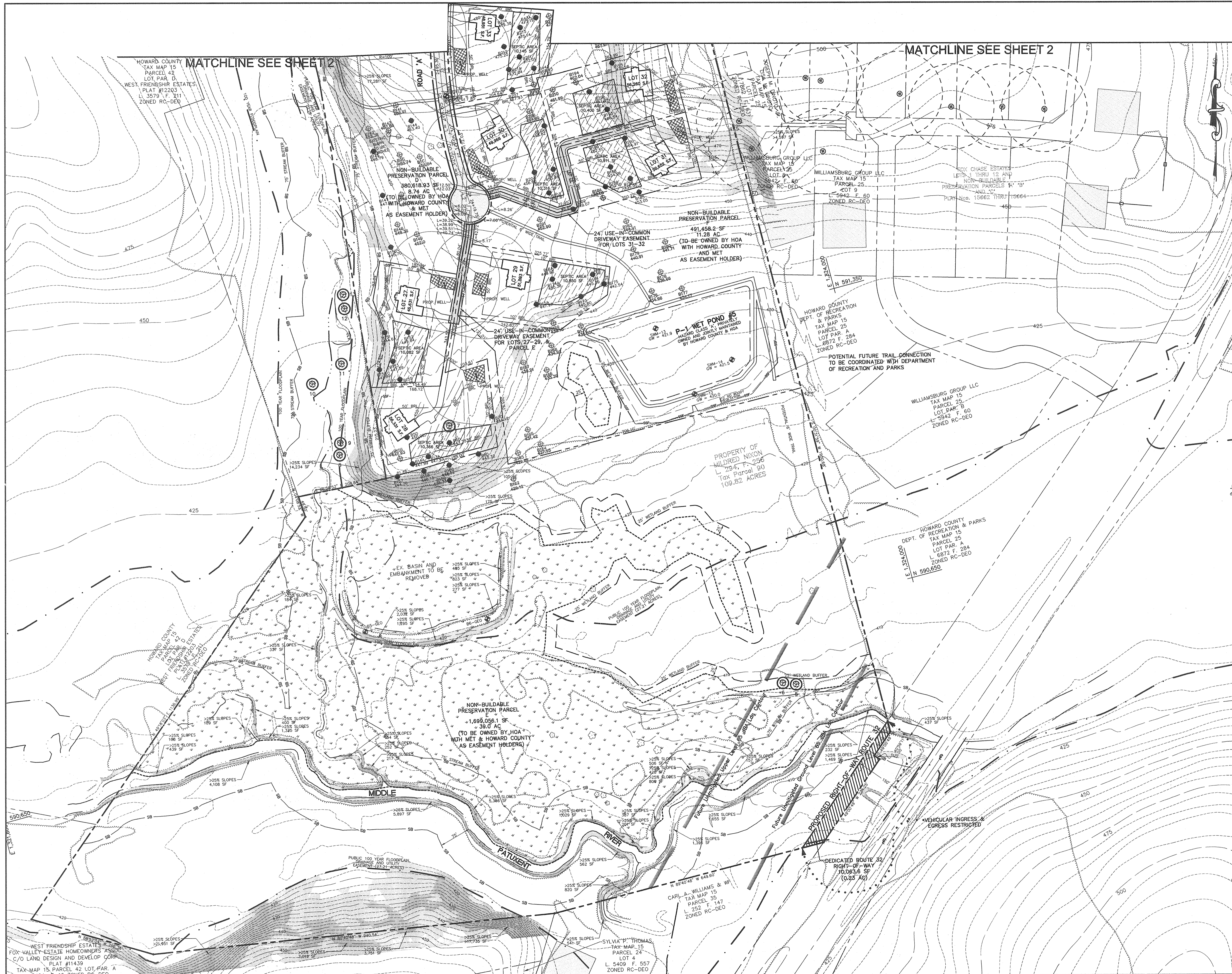
Patton Harris Rust & Associates, pc  
 Engineers, Surveyors, Planners, Landscape Architects.  
 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.8900  
 F 410.997.9282

9-7-06 DATE

DESIGNED BY: JSN/PJS  
 DRAWN BY: JSN  
 PROJECT NO: 12907-1-0  
 P400PRE01.DWG  
 DATE: SEPTEMBER 5, 2006  
 SCALE: 1" = 100'  
 DRAWING NO. 2 OF 20

MATCHLINE SEE SHEET 3

MATCHLINE SEE SHEET 3



**LEGEND**

EXISTING 2' CONTOUR	---	302
EXISTING 10' CONTOUR	---	300
PROPERTY LINE AND RIGHT OF WAY	---	
FLOODPLAIN	---	
EX. TREELINE	---	
PROP. TREELINE	---	
STREAM	---	
STREAM BUFFER	---	SB
WETLANDS	---	
WETLAND BUFFER	---	
SOILS	---	MID2
65 dba NOISE LINE	---	
15-25% SLOPES	---	
>25% SLOPES	---	
VIER NOTATION	---	

**NOTE:**  
 LOTS 27-29, PARCEL E, AND LOTS 31-32 HAVE USE-IN-COMMON DRIVEWAY EASEMENTS.

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS  
 Robert W. [Signature] 9/11/06  
 COUNTY HEALTH OFFICER DATE  
 HOWARD COUNTY HEALTH DEPARTMENT

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY  
 [Signature] 9/26/06  
 PLANNING DIRECTOR DATE

DATE	NO.	REVISION

DEVELOPER  
 CENTEX HOMES, INC  
 ATTN: KEITH TUNELL  
 15890 GAITHER ROAD  
 GAITHERSBURG, MD 20877  
 866.783.6401

OWNER  
 MILDRED NIXON  
 DANIEL AND KIMBERLY VALENTI  
 2770 ROUTE 32  
 WEST FRIENDSHIP, MD 21794

PROJECT **TERRAPIN CROSSING**  
 LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2 PLAT NO. 11254 AND VOZNAK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90

AREA  
 TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO  
 GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE  
**PRELIMINARY PLAN**

Patton Harris Rust & Associates, pc  
 Engineers, Surveyors, Planners, Landscape Architects.  
 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.8900  
 F 410.997.9282

**PHRA**

8/30/06  
 DATE

DESIGNED BY: JSN/PJS  
 DRAWN BY: JSN  
 PROJECT NO: 12907-1-0  
 P400PRE02.DWG  
 DATE: SEPTEMBER 5, 2006  
 SCALE: 1" = 100'  
 DRAWING NO. 3 OF 20

DOMENICK W. COLANGELO #27200



**LEGEND**

EXISTING 2' CONTOUR	302
EXISTING 10' CONTOUR	302
PROPOSED 2' CONTOUR	300
PROPOSED 10' CONTOUR	300
PROPERTY LINE AND RIGHT OF WAY	
FLOODPLAIN	
EX. TREELINE	
PROP. TREELINE	
STREAM	
STREAM BUFFER	SB
WETLANDS	
WETLAND BUFFER	
SOILS	
LIMIT OF DISTURBANCE	
STORM DRAIN	
65 dba NOISE LINE	
SUPER SILT FENCE	SSF
DRAINAGE AREA	
INLET	
EARTHDIKE	
15-25% SLOPES	
>25% SLOPES	
STABILIZED CONSTRUCTION ENTRANCE	

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

*Richard W. White* 9/10/06  
 COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT 70D DATE

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

*Mark D. Cagle* 9/22/06  
 PLANNING DIRECTOR DATE

DATE NO.	REVISION

DEVELOPER  
 CENTEX HOMES, INC  
 ATTN: KEITH TUNELL  
 15890 GAITHER ROAD  
 GAITHERSBURG, MD 20877  
 866.783.6401

OWNER  
 MILDRED NIXON  
 DANIEL AND KIMBERLY VALENTI  
 2770 ROUTE 32  
 WEST FRIENDSHIP, MD 21794

PROJECT **TERRAPIN CROSSING**  
 LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2 PLAT NO. 11254 AND VOZNIAK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90

AREA  
 TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO  
 GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE **PRELIMINARY GRADING AND SEDIMENT CONTROL PLAN**

Patton Harris Rust & Associates, pc  
 Engineers, Surveyors, Planners, Landscape Architects.  
 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.8900  
 F 410.997.9282

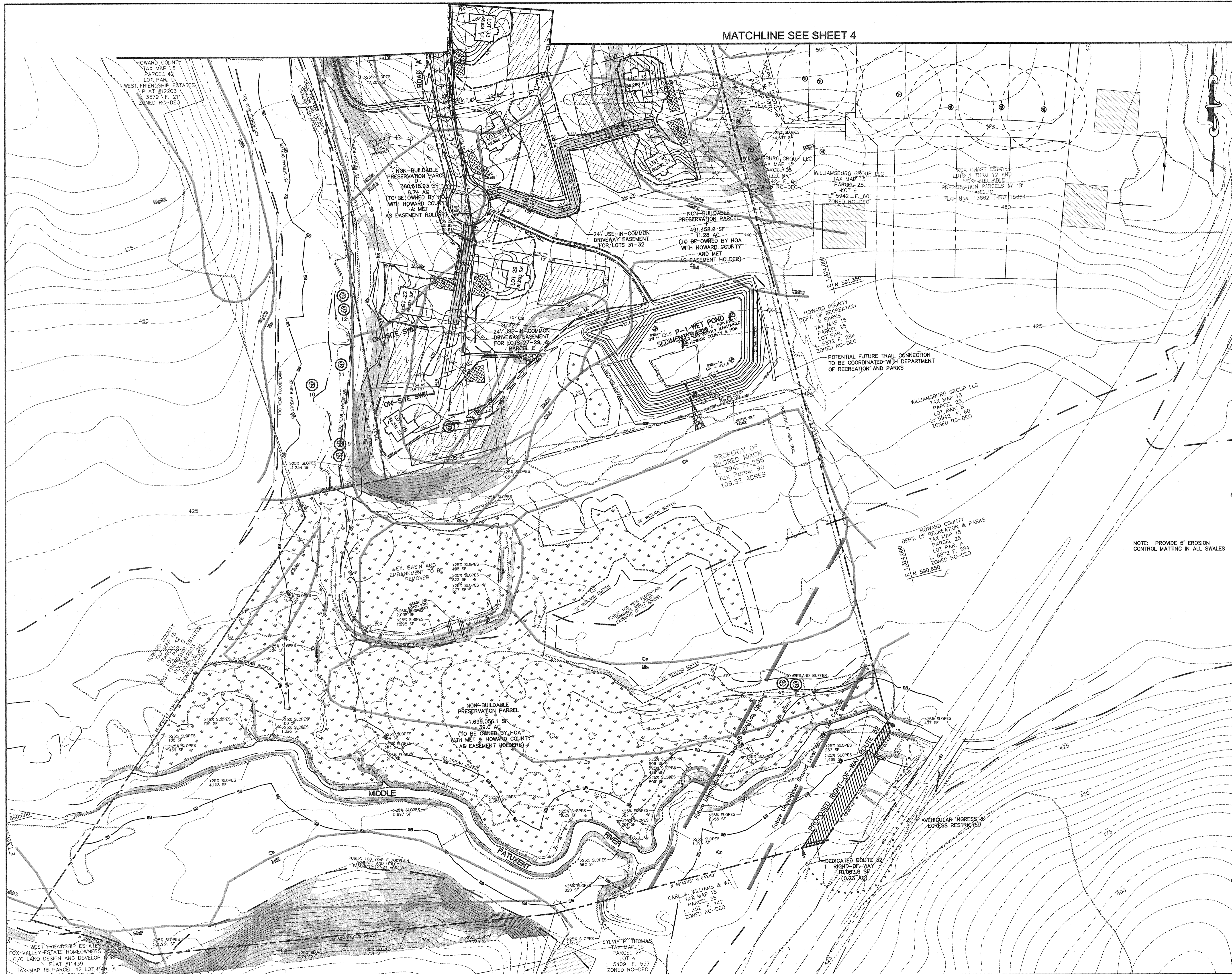
**PHRA**

9.9.06  
 DATE

DESIGNED BY: A.C.R.  
 DRAWN BY: A.C.R.  
 PROJECT NO. 12907-1-0  
 F600GRA01.DWG  
 DATE: SEPTEMBER 5, 2006  
 SCALE: 1" = 100'  
 DRAWING NO. 4 OF 20

DOMENICK W. COLANGELO #27200

MATCHLINE SEE SHEET 5



MATCHLINE SEE SHEET 4

**LEGEND**

EXISTING 2' CONTOUR	---	302
EXISTING 10' CONTOUR	---	300
PROPOSED 2' CONTOUR	---	302
PROPOSED 10' CONTOUR	---	300
PROPERTY LINE AND RIGHT OF WAY	---	
FLOODPLAIN	---	
EX. TREELINE	---	
PROP. TREELINE	---	
STREAM	---	
STREAM BUFFER	---	SB
WETLANDS	---	
WETLAND BUFFER	---	
SOILS	---	MID2
LIMIT OF DISTURBANCE	---	
SILT FENCE	---	SF SF SF
STORM DRAIN	---	
65 dba NOISE LINE	---	
SUPER SILT FENCE	---	SSF SSF
DRAINAGE AREA	---	
INLET	---	
EARTHDIKE	---	
15-25% SLOPES	---	
>25% SLOPES	---	
STABILIZED CONSTRUCTION ENTRANCE	---	

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS  
*Robert J. Wale* 9/16/06  
 COUNTY HEALTH OFFICER DATE  
 HOWARD COUNTY HEALTH DEPARTMENT

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY  
*Frank D. Lytle* 9/16/06  
 PLANNING DIRECTOR DATE

DATE	NO.	REVISION

DEVELOPER  
 CENTEX HOMES, INC  
 ATTN: KEITH TUNELL  
 15890 GAITHER ROAD  
 GAITHERSBURG, MD 20877  
 866.783.6401

OWNER  
 MILDRED NIXON  
 DANIEL AND KIMBERLY VALENTI  
 2770 ROUTE 32  
 WEST FRIENDSHIP, MD 21794

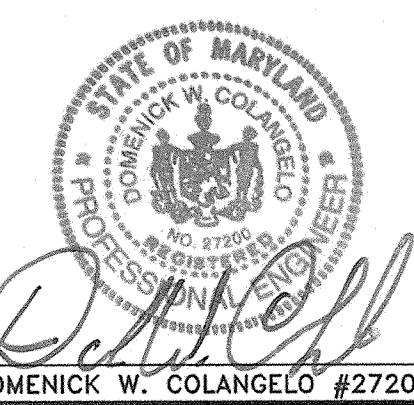
PROJECT  
**TERRAPIN CROSSING**  
 LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2 PLAT NO. 11254 AND VOZNIK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90

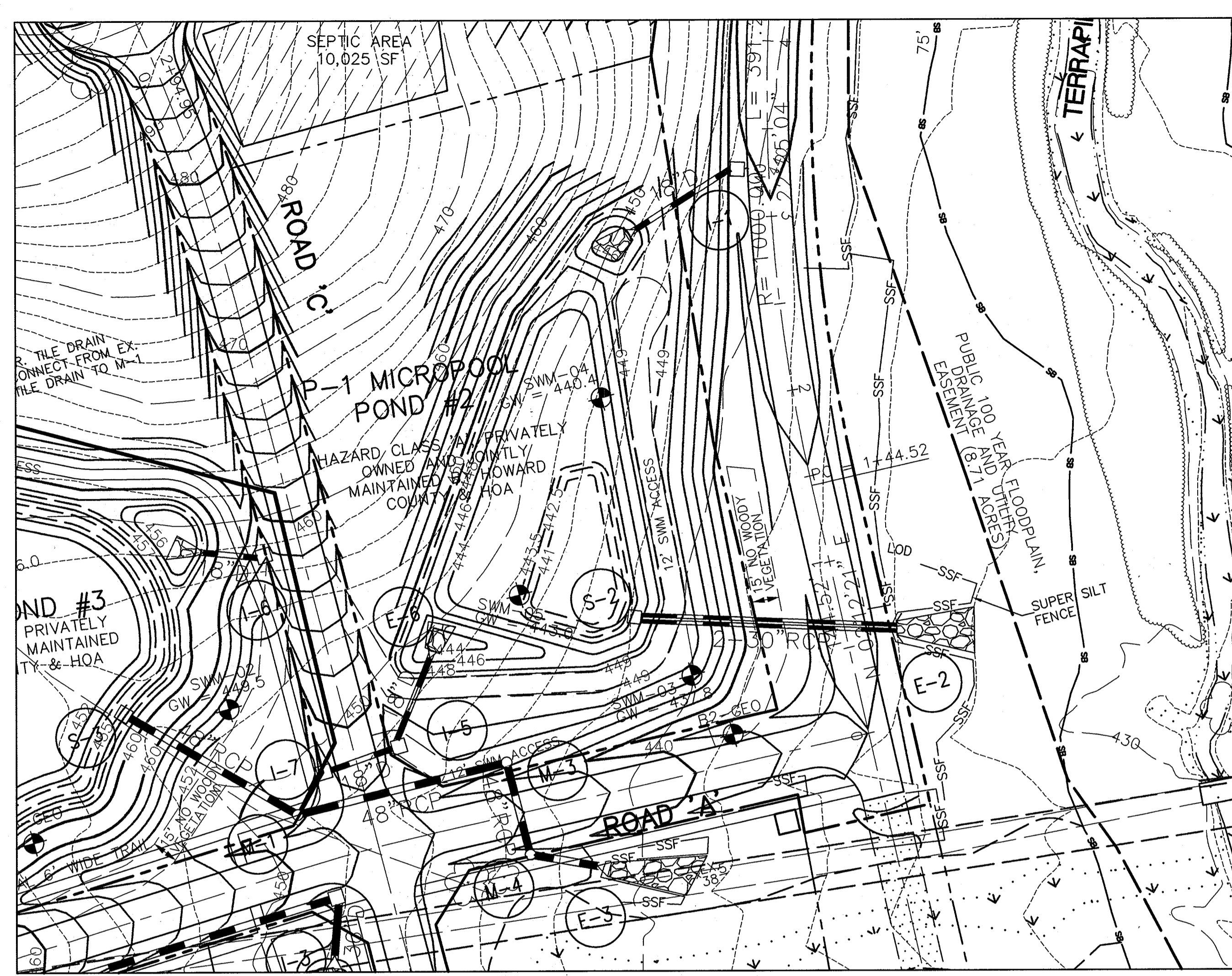
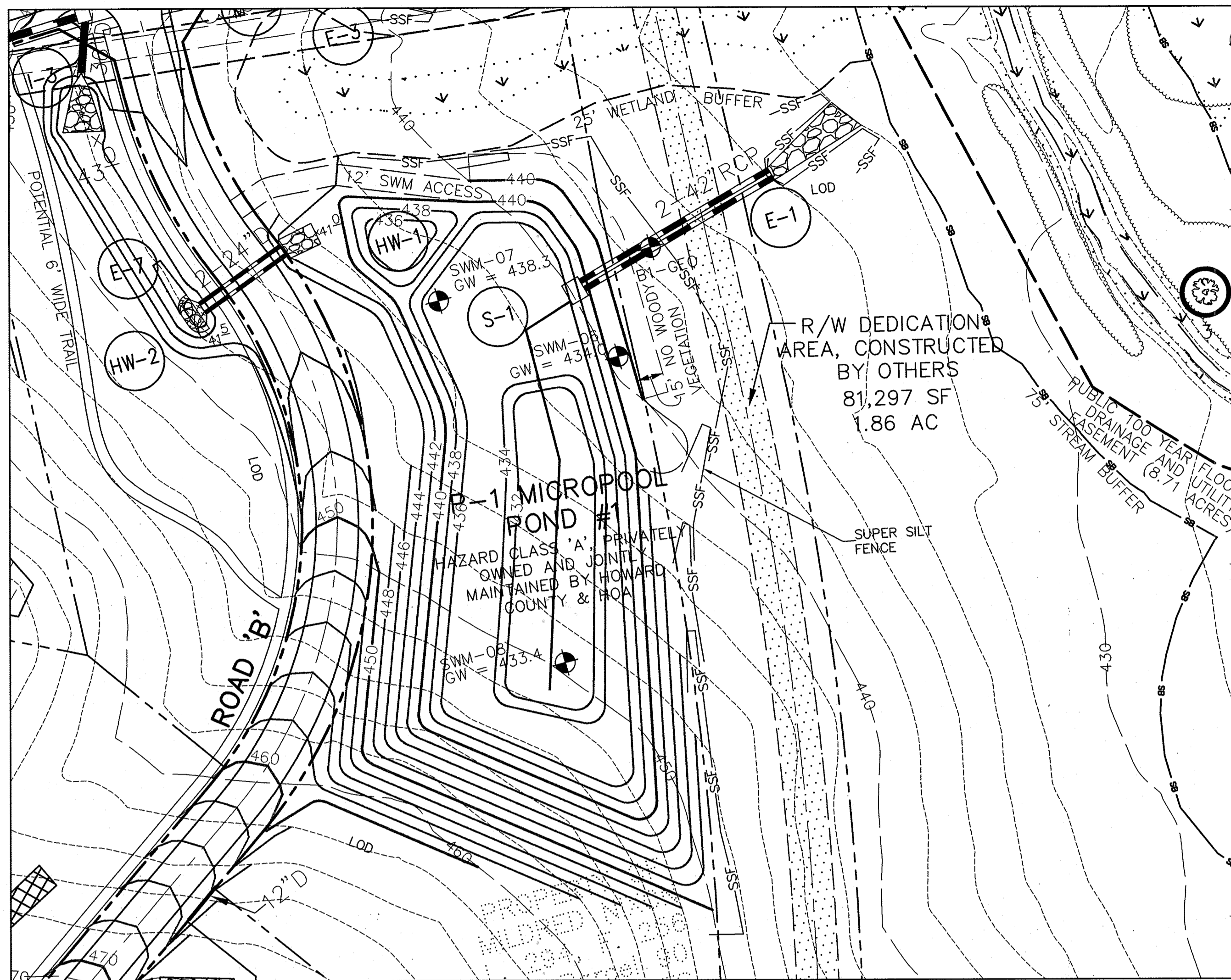
AREA  
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 GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE  
**PRELIMINARY GRADING AND SEDIMENT CONTROL PLAN**

Patton Harris Rust & Associates, p.c.  
 Engineers, Surveyors, Planners, Landscape Architects.  
 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.8900  
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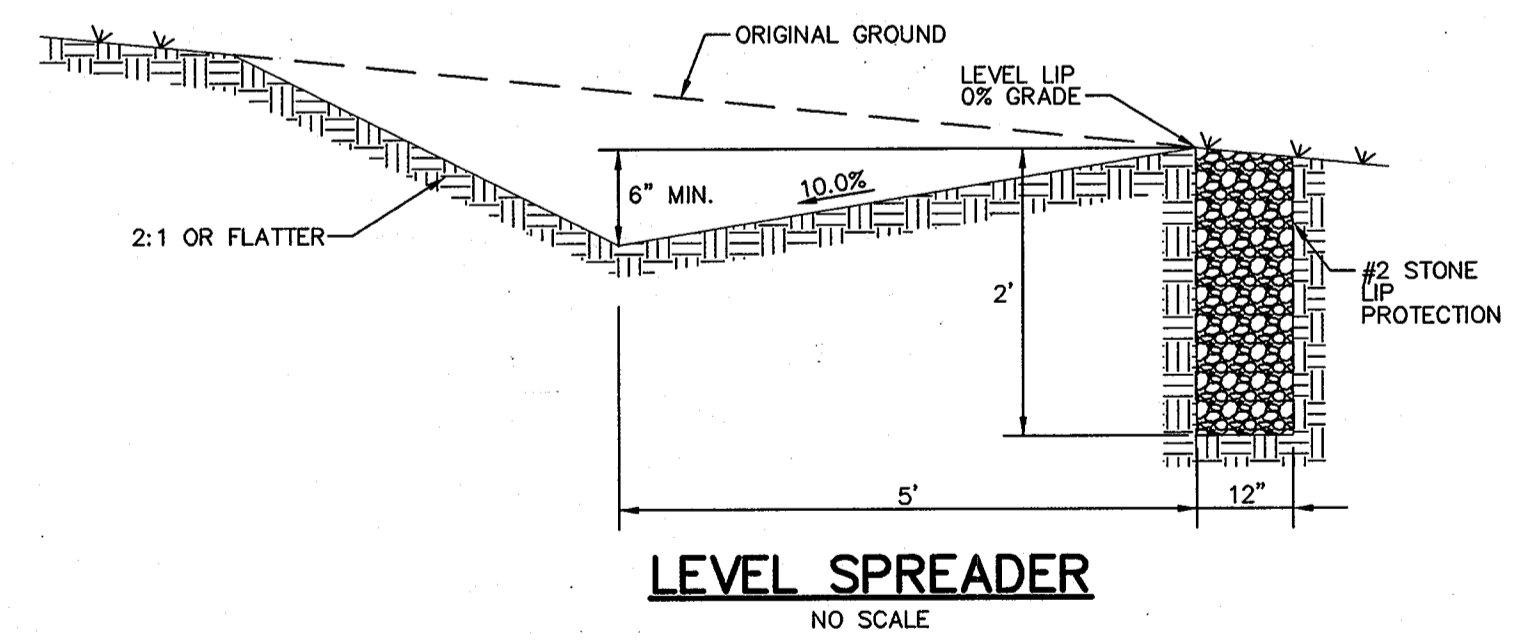
8-30-06  
 DATE  
 DESIGNED BY: A.C.R.  
 DRAWN BY: A.C.R.  
 PROJECT NO. 12907-1-0  
 P6006RA02.DWG  
 DATE: SEPTEMBER 5, 2006  
 SCALE: 1" = 100'  
 DRAWING NO. 5 OF 20





○ STORMWATER MANAGEMENT POND #1  
SCALE: 1"=50'

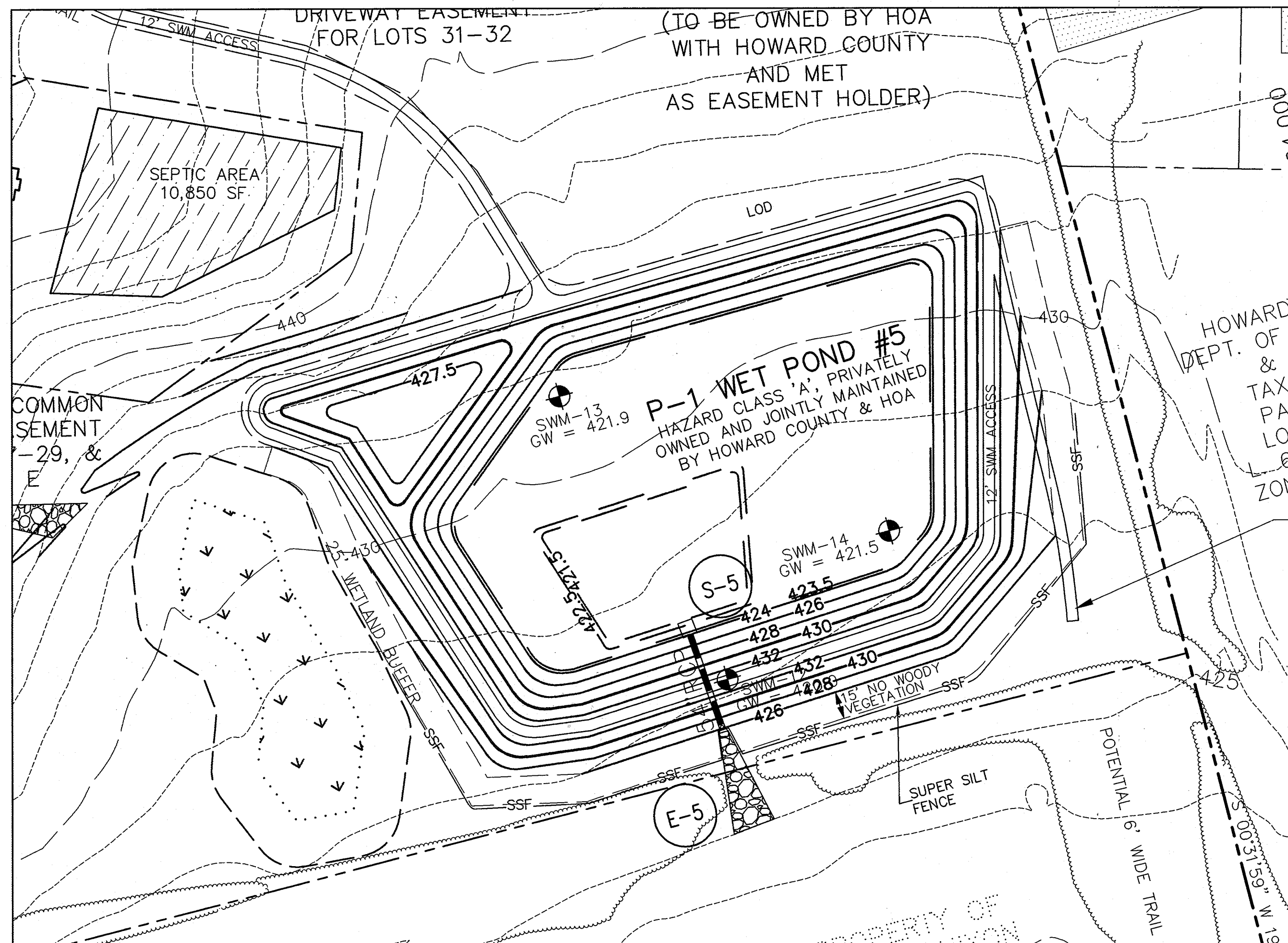
○ STORMWATER MANAGEMENT POND #2  
SCALE: 1"=50'



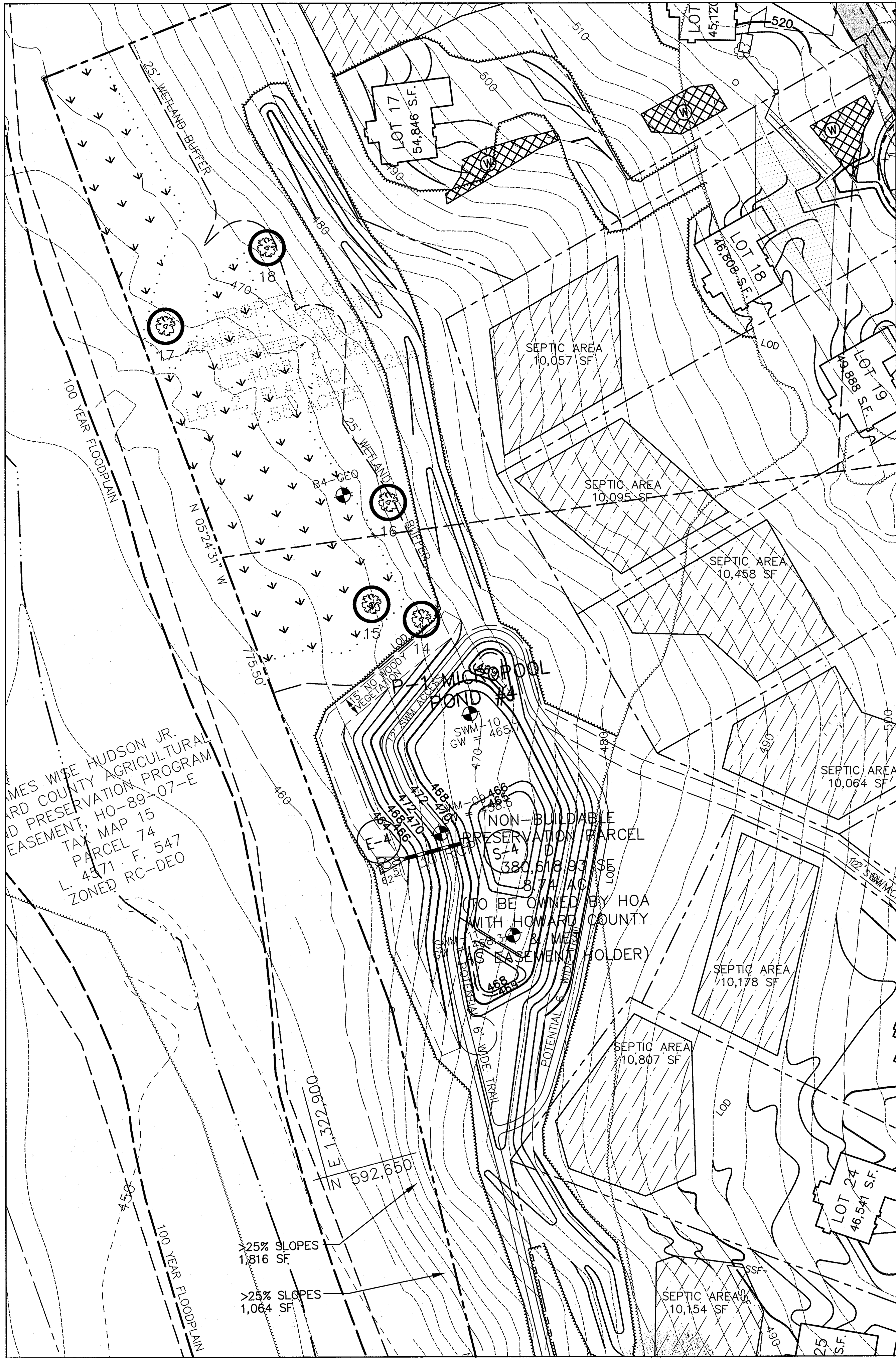
TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY	
<i>Frank K. Taylor</i> PLANNING DIRECTOR	<i>J. Lee</i> DATE 9/22/06
DATE NO.	REVISION
DEVELOPER CENTEX HOMES, INC ATTN: KEITH TUNELL 15890 GAITHER ROAD GAITHERSBURG, MD 20877 866.783.6401	
OWNER MILDRED NIXON DANIEL AND KIMBERLY VALENTI 2770 ROUTE 32 WEST FRIENDSHIP, MD 21794	
PROJECT <b>TERRAPIN CROSSING</b> LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2 PLAT NO. 11254 AND VOZNIK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90	
AREA TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE <b>STORMWATER MANAGEMENT DETAILS</b>	
Patton Harris Rust & Associates,pc Engineers. Surveyors. Planners. Landscape Architects. <b>PHRA</b> 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
DATE 9/15/06	DESIGNED BY : A.C.R.
	DRAWN BY: A.C.R.
	PROJECT NO : 12907-1-0 P600GRA03.DWG
	DATE : SEPTEMBER 5, 2006
	SCALE : AS SHOWN
	DRAWING NO. 6 OF 20



STORMWATER MANAGEMENT POND #3  
SCALE: 1"=50'



STORMWATER MANAGEMENT POND #5  
SCALE: 1"=50'



STORMWATER MANAGEMENT POND #4  
SCALE: 1"=50'

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY  
*Mark H. Coughlin* 9/5/06  
PLANNING DIRECTOR DATE

DATE NO. REVISION

DEVELOPER  
CENTEX HOMES, INC  
ATTN: KEITH TUNELL  
15890 GAITHER ROAD  
GAITHERSBURG, MD 20877  
866.783.6401

OWNER  
MILDRED NIXON  
DANIEL AND KIMBERLY VALENTI  
2770 ROUTE 32  
WEST FRIENDSHIP, MD 21794

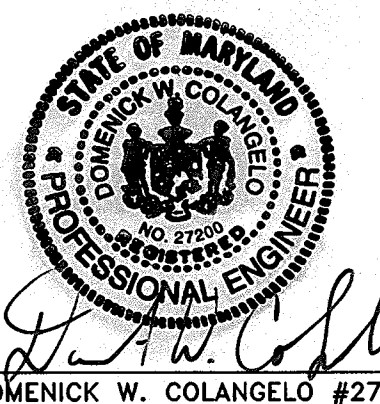
PROJECT  
**TERRAPIN CROSSING**  
LOTS 1-47, BUILDABLE PRESERVATION PARCEL K  
& NON-BUILDABLE PRESERVATION PARCELS A-J,  
A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2  
PLAT NO. 11254 AND VOZNIAK & CALDERWOOD SUBDIVISION  
LOT 1, PLAT NO. 13105 AND A SUBDIVISION  
OF PARCELS 18 AND 90

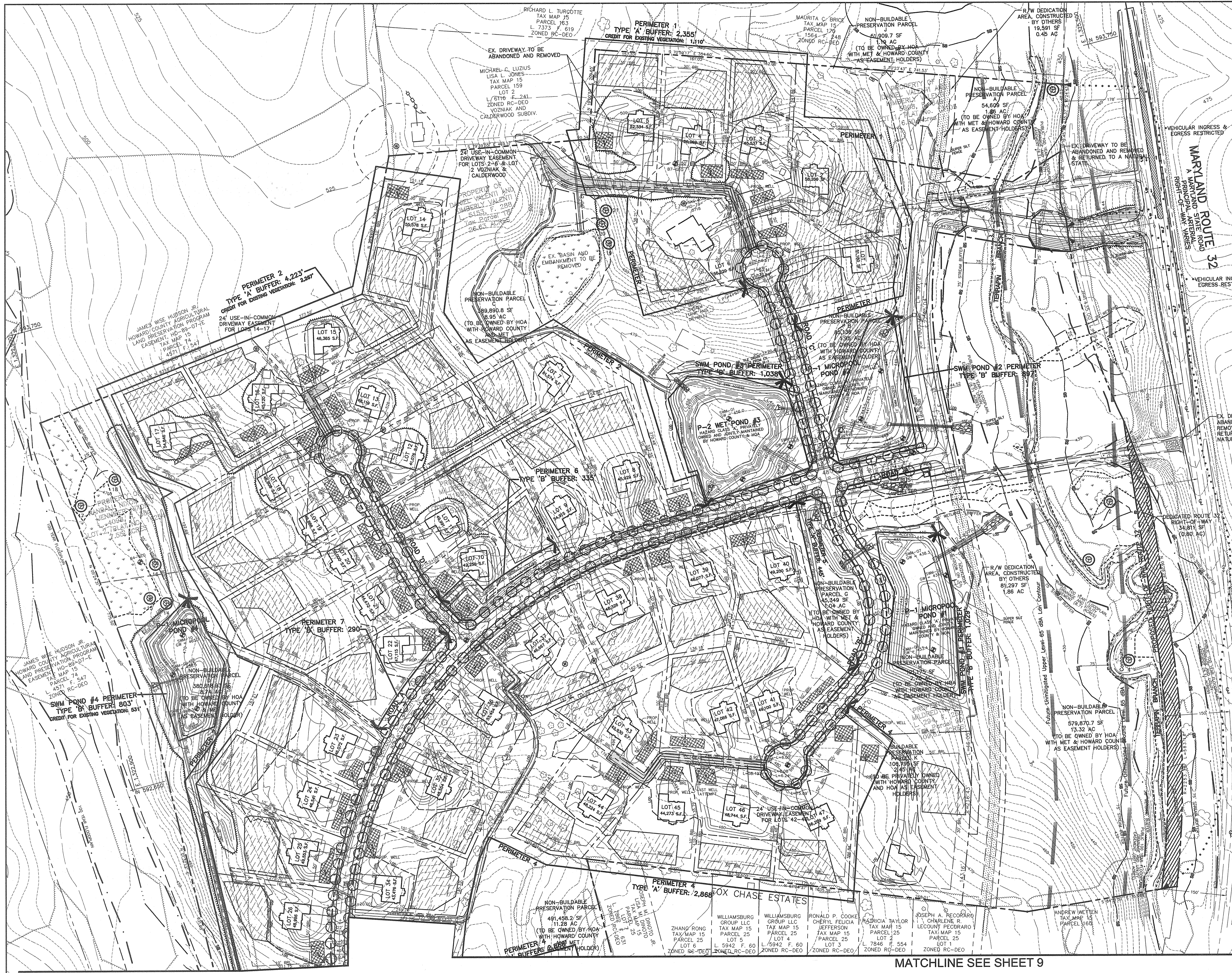
AREA  
TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO  
GRID NO.S 16, 17, AND 22 3RD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE  
**STORMWATER MANAGEMENT DETAILS**

Patton Harris Rust & Associates, pc  
Engineers, Surveyors, Planners, Landscape Architects.  
8818 Centre Park Drive  
Columbia, MD 21045  
T 410.997.8900  
F 410.997.9282

9/15/06  
DATE  
DESIGNED BY : A.C.R.  
DRAWN BY : A.C.R.  
PROJECT NO : 12907-1-0  
P6006RA03.DWG  
DATE : SEPTEMBER 5, 2006  
SCALE : AS SHOWN  
DRAWING NO. 7 OF 20

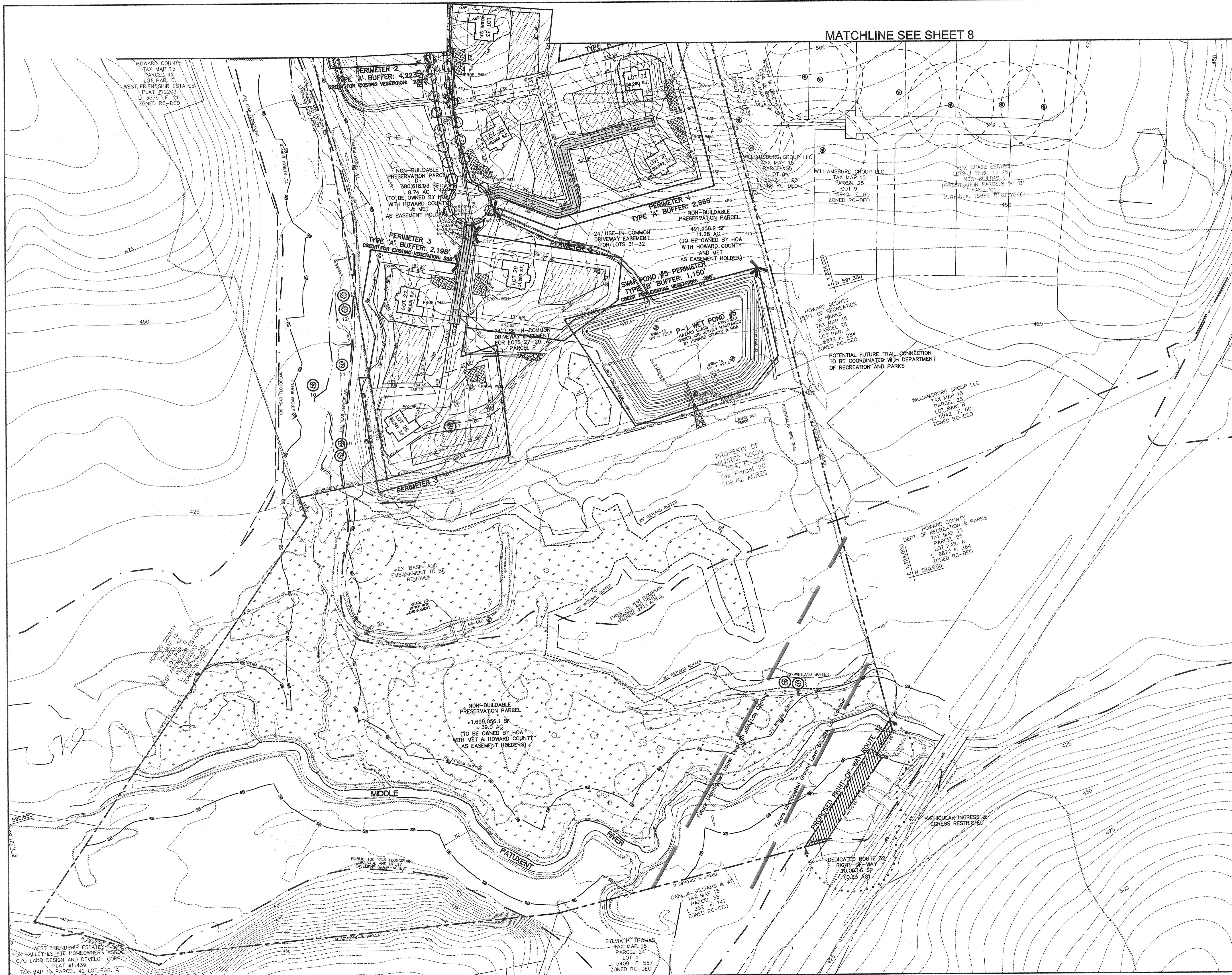




TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY	
<i>Keith Tunell</i> PLANNING DIRECTOR	<i>9/10/06</i> DATE
DATE NO.	REVISION
DEVELOPER CENTEX HOMES, INC ATTN: KEITH TUNELL 15900 GAITHER ROAD GAITHERSBURG, MD 20877 866.783.6401	
OWNER MILDRED NIXON DANIEL AND KIMBERLY VALENTI 2770 ROUTE 32 WEST FRIENDSHIP, MD 21794	
PROJECT <b>TERRAPIN CROSSING</b> LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2 PLAT NO. 11254 AND VOZNAK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90	
AREA TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE <b>PRELIMINARY LANDSCAPE PLAN</b>	
Patton Harris Rust & Associates,pc Engineers. Surveyors. Planners. Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
DESIGNED BY : JSN/PJS	DATE : 9-10-06
DRAWN BY: JSN	
PROJECT NO : 12907-1-0	
DATE : SEPTEMBER 5, 2006	
SCALE : 1" = 100'	
DRAWING NO. 8 OF 20	

MATCHLINE SEE SHEET 9





**LEGEND**

- EX. TREELINE
- PROPERTY LINE
- CONTOUR LINES
- EX. BUILDING
- PERIMETER LANDSCAPE EDGE LIMITS
- PROPOSED STREET TREE
- PROPOSED HOUSE
- LIMIT OF DISTURBANCE

NOTE:  
STREET TREES WILL BE PROVIDED AS REQUIRED BY THE HOWARD COUNTY SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL DATED MARCH 1998.

TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY	
<i>Mark H. Luyck</i> PLANNING DIRECTOR	<i>9/16/06</i> DATE
DATE NO.	REVISION
DEVELOPER CENTEX HOMES, INC ATTN: KEITH TUNELL 15890 GAITHER ROAD GAITHERSBURG, MD 20877 866.783.6401	
OWNER MILDRED NIXON DANIEL AND KIMBERLY VALENTI 2770 ROUTE 32 WEST FRIENDSHIP, MD 21794	
PROJECT <b>TERRAPIN CROSSING</b> LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY; LOTS 1 & 2, PLAT NO. 11254 AND VOZNIAK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90	
AREA TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE <b>PRELIMINARY LANDSCAPE PLAN</b>	
Patton Harris Rust & Associates,pc Engineers. Surveyors. Planners. Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
<b>PHRA</b>	
DATE <b>9-16-06</b>	
DESIGNED BY : JSN/PJS	
DRAWN BY: JSN	
PROJECT NO : 12907-1-0 L200LND02.DWG	
DATE : SEPTEMBER 5, 2006	
SCALE : 1" = 100'	
DRAWING NO. 9 OF 20	
PETER J. STONE #3068	

WEST FRIENDSHIP ESTATES  
FOX VALLEY ESTATE HOMEOWNERS ASSOC  
C/O LAND DESIGN AND DEVELOP CORP  
PLAT #11439  
TAX MAP 15 PARCEL 42 LOT PAR. A  
L 3404 F. 19 ZONED RC-DEO

SYLVIA THOMAS  
TAX MAP 15  
PARCEL 24  
LOT 4  
L. 5409 F. 557  
ZONED RC-DEO


STREET TREE CALCULATIONS		
ROAD A	4,840'/40	120 LARGE TREES
ROAD B	1,590'/40	40 LARGE TREES
ROAD C	1,100'/40	28 LARGE TREES
ROAD D	1,140'/40	29 LARGE TREES
TOTAL TREES REQUIRED		235 LARGE TREES

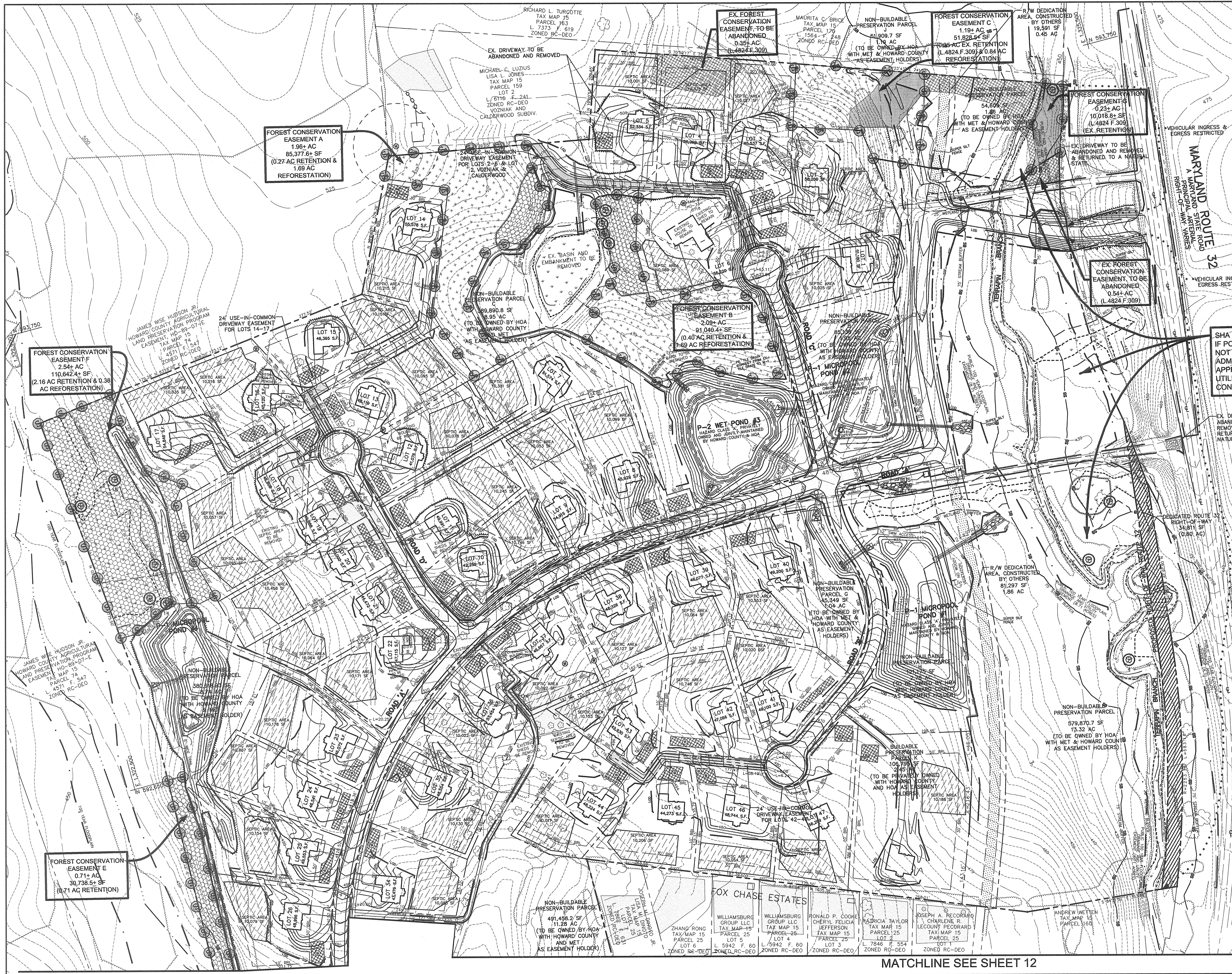
**GENERAL NOTES**

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT WITH THE FINAL PLAN SUBMISSION.
3. THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
4. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
5. ALL MATERIAL SELECTED SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND THE HOWARD COUNTY LANDSCAPE MANUAL.
6. ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION AND THE HOWARD COUNTY LANDSCAPE MANUAL.
7. AT THE TIME OF INSTALLATION, ALL SHRUBS AND OTHER PLANTINGS SHALL BE OF THE PROPER HEIGHT AND/OR SPREAD REQUIREMENTS IN ACCORDANCE WITH THIS PLAN AND THE HOWARD COUNTY LANDSCAPE MANUAL.
8. NO SUBSTITUTIONS OR RELOCATION OF PLANTS MAY BE MADE WITHOUT PRIOR APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING OF HOWARD COUNTY. ANY DEVIATION FROM THIS LANDSCAPE PLAN MAY RESULT IN A REQUIREMENT FOR SUBMITTAL OF AN OFFICIAL "REDLINE REVISION" TO THE SITE DEVELOPMENT PLAN(S) AND/OR DENIAL IN THE RELEASE OF LANDSCAPE SURETY.

SCHEDULE A - PERIMETER LANDSCAPE EDGE							
PERIMETER	ADJACENT TO PERIMETER PROPERTIES						
	1	2	3	4	5	6	7
LANDSCAPE TYPE	A	A	A	A	A	B	B
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	±2,355'	±4,223'	±2,190'	±2,060'	±445'	±335'	±290'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 1,110'	YES 2,261'	YES 200'	NO	NO	NO	NO
CREDIT FOR WALL, FENCE, BERM OR DRIVE AISLE (YES/NO/LINEAR FEET)	NO	NO	NO	NO	NO	NO	NO
LINEAR FEET REMAINING	±1,245'	±1,956'	±1,910'	±2,060'	±445'	±335'	±290'
NUMBER OF PLANTS REQUIRED:							
SHADE TREES	21	33	32	40	7	7	6
EVERGREEN TREES	0	0	0	0	0	0	0
FLOWERING TREES	0	0	0	0	0	0	0
SHRUBS	0	0	0	0	0	0	0

SCHEDULE D - STORMWATER MANAGEMENT AREA LANDSCAPING					
S.M.M. POND PERIMETER	1	2	3	4	5
LANDSCAPE TYPE	B	B	B	B	B
LINEAR FEET OF TOTAL PERIMETER	1,029'	897'	1,030'	803'	1,150'
CREDIT FOR EX. VEGETATION (NO OR YES & %)	-	-	-	YES 66%	YES 25%
CREDIT FOR OTHER PROP. LANDSCAPING (NO OR YES & %)	NO	NO	NO	NO	NO
LINEAR FEET OF REMAINING PERIMETER	1,029'	897'	1,030'	272'	864'
NUMBER OF TREES REQUIRED:					
SHADE TREES	21	18	21	5	17
EVERGREEN TREES	26	22	26	1	22
FLOWERING TREES	0	0	0	0	0

TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY	
<i>Mark D. Cagle</i> PLANNING DIRECTOR	<i>9/10/06</i> DATE
DATE NO.	REVISION
DEVELOPER CENTEX HOMES, INC ATTN: KEITH TUNELL 15890 GAITHER ROAD GAITHERSBURG, MD 20877 866.783.6401	
OWNER MILDRED NIXON DANIEL AND KIMBERLY VALENTI 2770 ROUTE 32 WEST FRIENDSHIP, MD 21794	
PROJECT <b>TERRAPIN CROSSING</b> LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2 PLAT NO. 11254 AND VOZNAK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90	
AREA TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE <b>PRELIMINARY LANDSCAPE NOTES AND TABULATIONS</b>	
Patton Harris Rust & Associates,pc Engineers. Surveyors. Planners. Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
<b>P.H.R.A.</b>	
DATE <b>9-10-06</b>	DESIGNED BY : JSN/PJS
	DRAWN BY: JSN
	PROJECT NO. : 12907-1-0 L200LND03.DWG
	DATE : SEPTEMBER 5, 2006
	SCALE : AS SHOWN
PETER J. STONE #3068	DRAWING NO. 10 OF 20



**LEGEND**

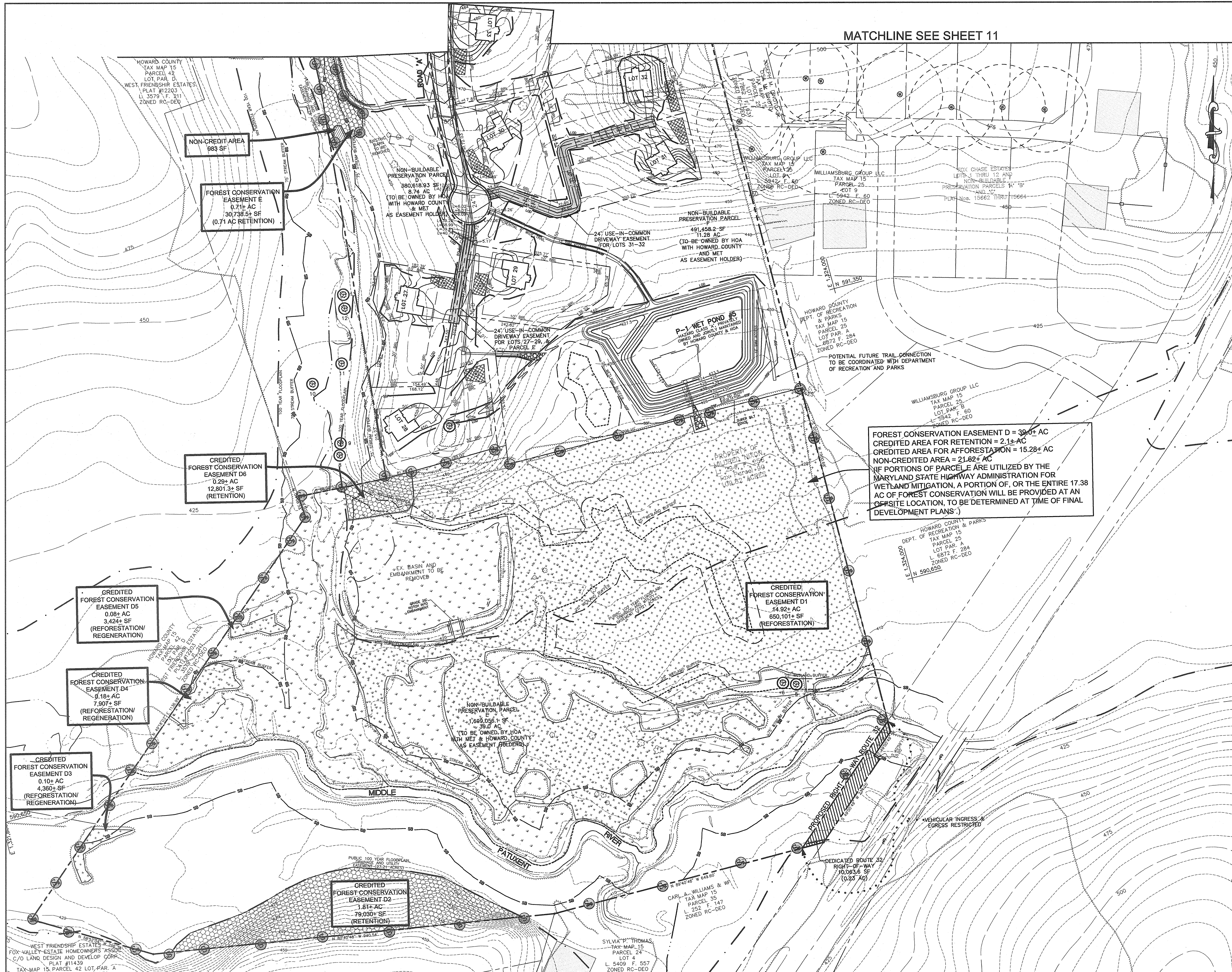
- PROP. BUILDING
- LIMIT OF DISTURBANCE
- FOREST RETENTION AREA
- REFORESTATION AREA
- EX. FOREST CONSERVATION EASEMENT TO BE ABANDONED
- EX. FOREST CONSERVATION EASEMENT TO REMAIN
- FOREST CONSERVATION EASEMENT SIGNAGE

SHA STREAM BUFFER RESTORATION. IF PORTIONS OF PARCEL I OR THE ENTIRE PARCEL I IS NOT UTILIZED BY THE MARYLAND STATE HIGHWAY ADMINISTRATION FOR STREAM BUFFER RESTORATION, APPROXIMATELY 9.0 ACRES OF PARCEL I MAY BE UTILIZED BY THE DEVELOPER FOR FOREST CONSERVATION.

TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY	
<i>John H. Ruggle</i> PLANNING DIRECTOR	<i>9/10/16</i> DATE
DATE NO.	REVISION
DEVELOPER CENTEX HOMES, INC ATTN: KEITH TUNELL 15890 GAITHER ROAD GAITHERSBURG, MD 20877 866.783.6401	
OWNER MILDRED NIXON DANIEL AND KIMBERLY VALENTI 2770 ROUTE 32 WEST FRIENDSHIP, MD 21794	
PROJECT <b>TERRAPIN CROSSING</b> LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2 PLAT NO. 11254 AND VOZNAK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90	
AREA TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE <b>PRELIMINARY FOREST CONSERVATION PLAN</b>	
Patton Harris Rust & Associates,pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
DESIGNED BY : JSN/PJS	DATE: 9-10-16
DRAWN BY: JSN	
PROJECT NO : 12907-1-0 L400FCP01.DWG	
DATE : SEPTEMBER 5, 2016	
SCALE : 1" = 100'	
DRAWING NO. 11 OF 20	

MATCHLINE SEE SHEET 12

MATCHLINE SEE SHEET 11



LEGEND

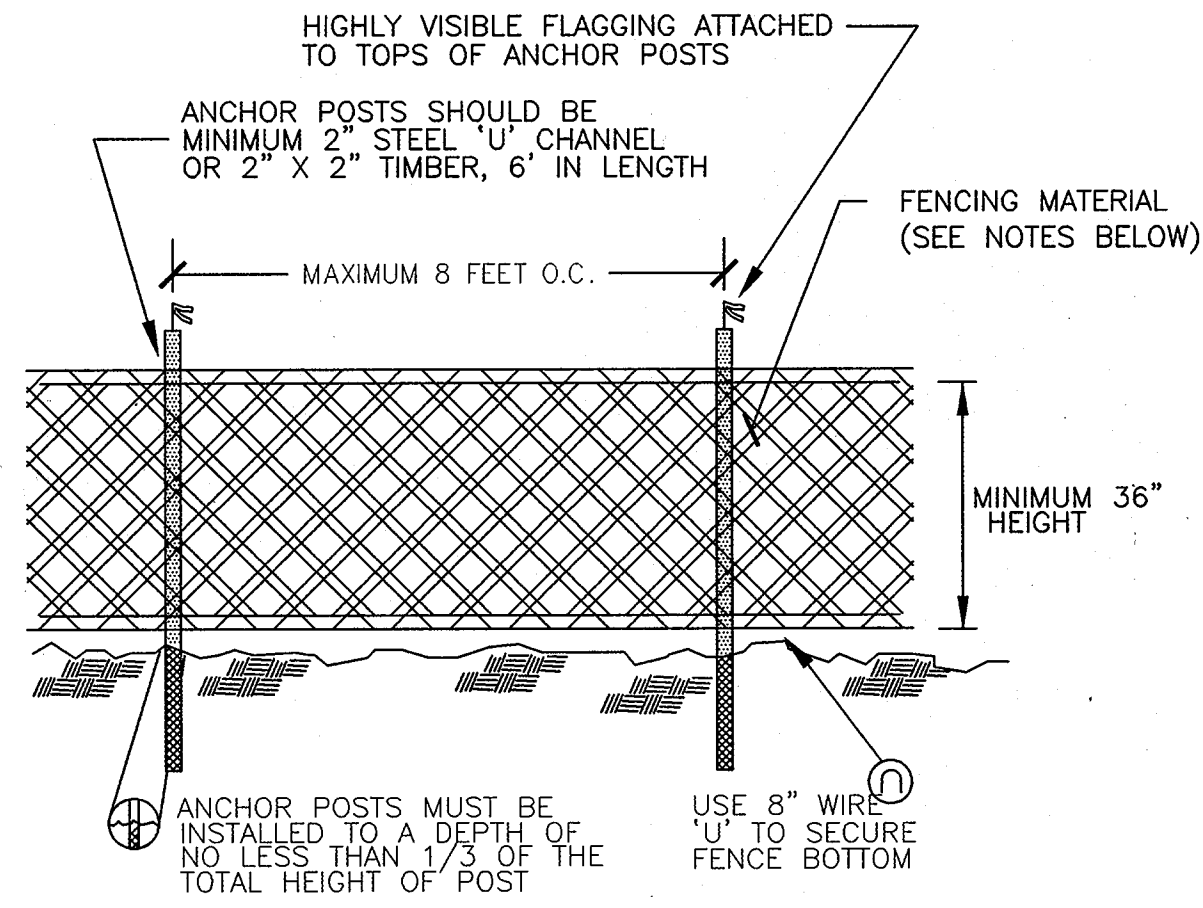
- PROP. BUILDING
- LIMIT OF DISTURBANCE
- FOREST RETENTION AREA
- REFORESTATION AREA
- EX. FOREST CONSERVATION EASEMENT
- FOREST CONSERVATION EASEMENT SIGNAGE

FOREST CONSERVATION EASEMENT D = 39.0± AC  
 CREDITED AREA FOR RETENTION = 2.1± AC  
 CREDITED AREA FOR AFFORESTATION = 15.28± AC  
 NON-CREDITED AREA = 21.62± AC  
 (IF PORTIONS OF PARCEL ARE UTILIZED BY THE MARYLAND STATE HIGHWAY ADMINISTRATION FOR WETLAND MITIGATION, A PORTION OF, OR THE ENTIRE 17.38 AC OF FOREST CONSERVATION WILL BE PROVIDED AT AN OFF-SITE LOCATION, TO BE DETERMINED AT TIME OF FINAL DEVELOPMENT PLANS.)

TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY	
PLANNING DIRECTOR	DATE 9/15/06
DATE NO.	REVISION
DEVELOPER CENTEX HOMES, INC ATTN: KEITH TUNELL 15890 GAITHER ROAD GAITHERSBURG, MD 20877 866.783.6401	
OWNER MILDRED NIXON DANIEL AND KIMBERLY VALENTI 2770 ROUTE 32 WEST FRIENDSHIP, MD 21794	
PROJECT <b>TERRAPIN CROSSING</b> LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2 PLAT NO. 11254 AND VOZNIAK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90	
AREA TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE <b>PRELIMINARY FOREST CONSERVATION PLAN</b>	
Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
 DATE 9.15.06	
DESIGNED BY : JSN/PJS	
DRAWN BY: JSN	
PROJECT NO : 12907-1-0 L400FCP02.DWG	
DATE : SEPTEMBER 5, 2006	
SCALE : 1" = 100'	
DRAWING NO. 12 OF 20	

**GENERAL NOTES:**

1. THIS PLAN HAS BEEN PREPARED USING AERIAL AND AVAILABLE HOWARD COUNTY TOPOGRAPHY.
2. NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
3. NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
4. THERE ARE NO KNOWN CEMETERIES OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY CEMETERIES INVENTORY.
5. EXISTING BUILDINGS ARE PRESENT ON THE SITE AS SHOWN AND WILL BE REMOVED AS NOTED.
6. THE SOILS ON SITE ARE BAILE SILT LOAM-Ba, CHESTER SILT LOAM (0-3% SLOPES)-ChA, CHESTER SILT LOAM (3-8% SLOPES)-ChB, CHESTER SILT LOAM (8-15% SLOPES)-ChC2, CHESTER GRAVELLY SILT LOAM (3-8% SLOPES)-CgB2, CHESTER GRAVELLY SILT LOAM (8-15% SLOPES)-CgC2, COMUS SILT LOAM-Cc, ELIOAK SILT LOAM (3-8% SLOPES)-EK2, ELIOAK SILT LOAM (8-15% SLOPES)-EK2, ELIOAK SILT LOAM (15-25% SLOPES)-EK2, GLENELG LOAM (3-8% SLOPES)-GB2, GLENVILLE SILT LOAM (3-8% SLOPES)-GnB2, HATBORO SILT LOAM-Ho, MANOR GRAVELLY LOAM (3-8% SLOPES)-MgB2, MANOR GRAVELLY LOAM (8-15% SLOPES)-MgC2, MANOR GRAVELLY LOAM (8-15% SLOPES)-MgC3, MANOR LOAM (3-8% SLOPES)-MIB2, MANOR LOAM (8-15% SLOPES)-MIG2, MANOR LOAM (15-25% SLOPES)-MID2, MANOR LOAM (15-25% SLOPES)-MID3, MANOR LOAM (25-45% SLOPES)-ME, AND MANOR VERY STONY LOAM (3-25% SLOPES)-Mnd ACCORDING TO THE SOIL SURVEY FOR HOWARD COUNTY, MARYLAND MAPS 8 AND 14.
7. THE FSD, DATED JUNE 1, 2005, HAS BEEN PREPARED BY PATTON HARRIS RUST & ASSOCIATES IN CONJUNCTION WITH THESE PLANS.
8. THE HOWARD COUNTY FOREST CONSERVATION MANUAL SUPERCEDES ANY DISCREPANCIES BETWEEN THE MANUAL AND THESE PLANS.
9. THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION.
10. THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION WITH AN OBLIGATION OF 34.92 ACRES PROVIDED BY 6.22 ACRES OF ON-SITE RETENTION, 19.88 ACRES OF ON-SITE REFORESTATION/AFFORESTATION, & 8.82 ACRES OF OFF-SITE REFORESTATION PLANTING. THE LOCATION OF THE OFF-SITE FOREST CONSERVATION WILL BE DETERMINED AT TIME OF FINAL PLAN. IN ADDITION TO THE EASEMENTS NOTED ABOVE, AN EXISTING EASEMENT OF 0.89 ACRES WILL BE ABANDONED.
11. A FOREST CONSERVATION EASEMENT WILL BE ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL. 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.

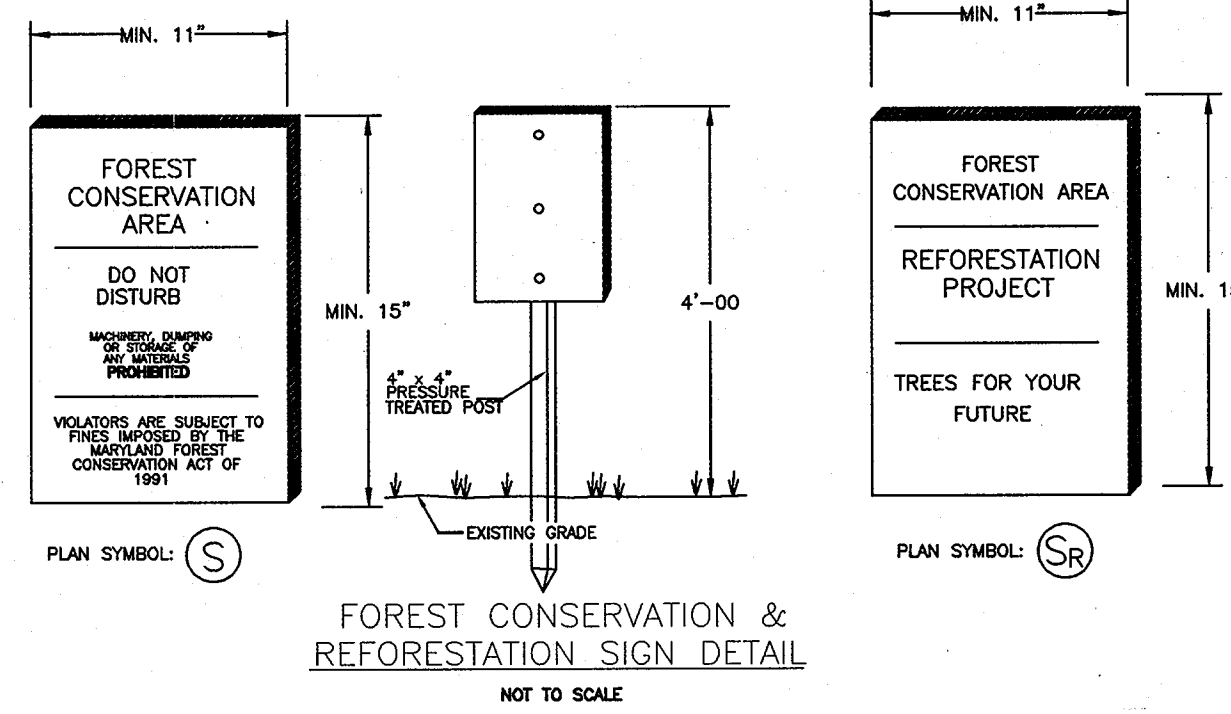


**NOTES:**

1. BLAZE ORANGE MESH OR SUPER SILT FENCE FOR TREE PROTECTION DEVICE, ONLY.
2. BOUNDARIES OF PROTECTION AREA WILL BE ESTABLISHED PRIOR TO GRADING AND SEDIMENT CONTROL.
3. AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
4. FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

**TREE PROTECTION FENCING**

NOT TO SCALE



**NOTES:**

1. SIGNAGE SHALL BE LOCATED ON FOREST CONSERVATION / REFORESTATION / AFFORESTATION EASEMENT BORDER.
2. SEE PLAN FOR SPACING.

**RANDOM PLANTING LAYOUT DETAIL**

NOT TO SCALE

**KEY**

- TREES**
- TREE SPECIES 'A'
  - TREE SPECIES 'B'
  - TREE SPECIES 'C'
  - TREE SPECIES 'D'
  - TREE SPECIES 'E'

**NOTES**

1. RANDOMLY LOCATE GROUPS OF PLANT SPECIES, TAKING CARE NOT TO PLANT IN SUCCESSION MORE THAN 4' OF THE SAME SPECIES.
2. THIS DETAIL PROVIDES A HYPOTHETICAL GRAPHIC DEPICTION OF A PROPOSED LAYOUT FOR NINE DIFFERENT TREE SPECIES (A-I). IT IS NOT MEANT TO BE FOLLOWED EXACTLY. THE PURPOSE IS TO ACHIEVE THE APPEARANCE OF RANDOM SPACING.
3. SEE PLANT LIST FOR ACTUAL NUMBER OF PLANT SPECIES. SEE PLANT LIST FOR ON-SITE REFORESTATION/AFFORESTATION/AFFORESTATION SPACING REQUIREMENTS.

**REFORESTATION/AFFORESTATION AREA A PLANTING LIST**

UPLAND PLANT LIST				
*QTY	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
68	LIRIODENDRON TULIPIFERA / TULIP TREE			
68	LIQUIDAMBAR STYRACIFLUA / SWEET GUM			
68	ACER RUBRUM / RED MAPLE	1" CAL.	CONT.	FULL CROWN PLANT 15' O.C.
68	QUERCUS ALBA / WHITE OAK			
66	FAGUS GRANDIFOLIA / AMERICAN BEECH			

\*NOTE: CALCULATIONS FOR 1" CAL. PLANTS IS BASED ON 200 PLANTS PER ACRE.

**REFORESTATION/AFFORESTATION AREA B PLANTING LIST**

UPLAND PLANT LIST				
*QTY	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
68	LIRIODENDRON TULIPIFERA / TULIP TREE			
68	LIQUIDAMBAR STYRACIFLUA / SWEET GUM			
68	ACER RUBRUM / RED MAPLE	1" CAL.	CONT.	FULL CROWN PLANT 15' O.C.
66	QUERCUS ALBA / WHITE OAK			
68	FAGUS GRANDIFOLIA / AMERICAN BEECH			

\*NOTE: CALCULATIONS FOR 1" CAL. PLANTS IS BASED ON 200 PLANTS PER ACRE.

**REFORESTATION/AFFORESTATION AREA C PLANTING LIST**

UPLAND PLANT LIST				
*QTY	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
34	LIRIODENDRON TULIPIFERA / TULIP TREE			
34	LIQUIDAMBAR STYRACIFLUA / SWEET GUM			
34	ACER RUBRUM / RED MAPLE	1" CAL.	CONT.	FULL CROWN PLANT 15' O.C.
32	QUERCUS ALBA / WHITE OAK			
34	FAGUS GRANDIFOLIA / AMERICAN BEECH			

\*NOTE: CALCULATIONS FOR 1" CAL. PLANTS IS BASED ON 200 PLANTS PER ACRE.

**REFORESTATION/AFFORESTATION AREA D PLANTING LIST**

STREAMVALLEY PLANT LIST				
*QTY	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
640	ACER RUBRUM / RED MAPLE			
640	PLATANUS OCCIDENTALIS / SYCAMORE			
640	QUERCUS PALUSTRIS / PIN OAK	1" CAL.	CONT.	FULL CROWN PLANT 15' O.C.
640	FRAXINUS PENNSYLVANICA / GREEN ASH			
638	ULMUS RUBRA / SLIPPERY ELM			

\*NOTE: CALCULATIONS FOR 1" CAL. PLANTS IS BASED ON 200 PLANTS PER ACRE.

**Howard County Forest Conservation Worksheet**

Project Name:	Terrapin Crossing
County File #:	SP-05-19
Date:	June 15, 2006

	Acres
<b>Net Tract Area</b>	
A. Total Tract Area	A = 155.72
B. Floodplain	B = 36.12
C. Net Tract Area	C = 119.60
<b>Land Use Category</b>	
D. Afforestation Threshold (Net Tract Area X .20%)	D = 23.92
E. Conservation Threshold (Net Tract Area X .25%)	E = 29.90
<b>Existing Forest Cover</b>	
F. Existing Forest Cover within the Net Tract Area	F = 17.22
G. Area of Forest Above Conservation Threshold	G = 0.00
H. Break Even Point	H = 17.22
I. Forest Clearing Permitted Without Mitigation	I = 0.00
J. Proposed Forest Clearing	J = 11.00
K. Total Area of Forest to be Retained	K = 6.22
L. Planting Requirements	L = 0.00
M. Reforestation for Clearing Above the Conservation Threshold	M = 22.00
N. Credit for Reforestation Above the Conservation Threshold	N = 0.00
P. Total Reforestation Required	P = 22.00
Q. Total Afforestation Required	Q = 6.70
R. Total Planting Requirement	R = 28.70

FOREST CONSERVATION EASEMENT TABLE		
CONSERVATION TYPE	AREA	ACRES
1. EXISTING ESMT TO BE ABANDONED		0.89
2. ON-SITE RETENTION	A	0.27
(EXISTING EASEMENT)	B	0.40
(EXISTING EASEMENT)	C	0.35
(EXISTING EASEMENT)	D	2.10
(EXISTING EASEMENT)	E	0.71
(EXISTING EASEMENT)	F	2.16
(EXISTING EASEMENT)	G	0.23
SUB-TOTAL 2		6.22
3. ON-SITE PLANTING	A	1.69
	B	1.69
	C	0.84
	D	15.28
	E	-
	F	0.38
SUB-TOTAL 3		19.88
SUB-TOTAL OF EX. EASEMENTS, RETENTION, & PLANTING		26.1
D. OFF-SITE		8.82
TOTAL		34.92

**NOTE:**

THIS PROJECT IS USING "RURAL CLUSTER OPTION B" PER APPENDIX L OF THE HOWARD COUNTY FOREST CONSERVATION MANUAL FOR THE FOREST REQUIREMENT CALCULATIONS INCLUDING THE AREA FOR ALL PRESERVATION PARCELS.

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

*Handwritten signature*  
PLANNING DIRECTOR

*Handwritten date*  
DATE 15

---

DATE NO. REVISION

---

DEVELOPER  
CENTEX HOMES, INC  
ATTN: KEITH TUNELL  
15890 GAITHER ROAD  
GAITHERSBURG, MD 20877  
866.783.6401

---

OWNER  
MILDRED NIXON  
DANIEL AND KIMBERLY VALENTI  
2770 ROUTE 32  
WEST FRIENDSHIP, MD 21794

---

PROJECT  
**TERRAPIN CROSSING**  
LOTS 1-47, BUILDABLE PRESERVATION PARCEL K  
& NON-BUILDABLE PRESERVATION PARCELS A-J,  
A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2  
PLAT NO. 11254 AND VOZNIAK & CALDERWOOD SUBDIVISION  
LOT 1, PLAT NO. 13105 AND A SUBDIVISION  
OF PARCELS 18 AND 90

---

AREA  
TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO  
GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

---

TITLE  
**PRELIMINARY FOREST  
CONSERVATION NOTES & DETAILS**

Patton Harris Rust & Associates,pc  
Engineers, Surveyors, Planners, Landscape Architects.  
8818 Centre Park Drive  
Columbia, MD 21045  
T 410.997.8900  
F 410.997.9282

---

9-18-06  
DATE

DESIGNED BY : JSN/PJS

DRAWN BY: JSN

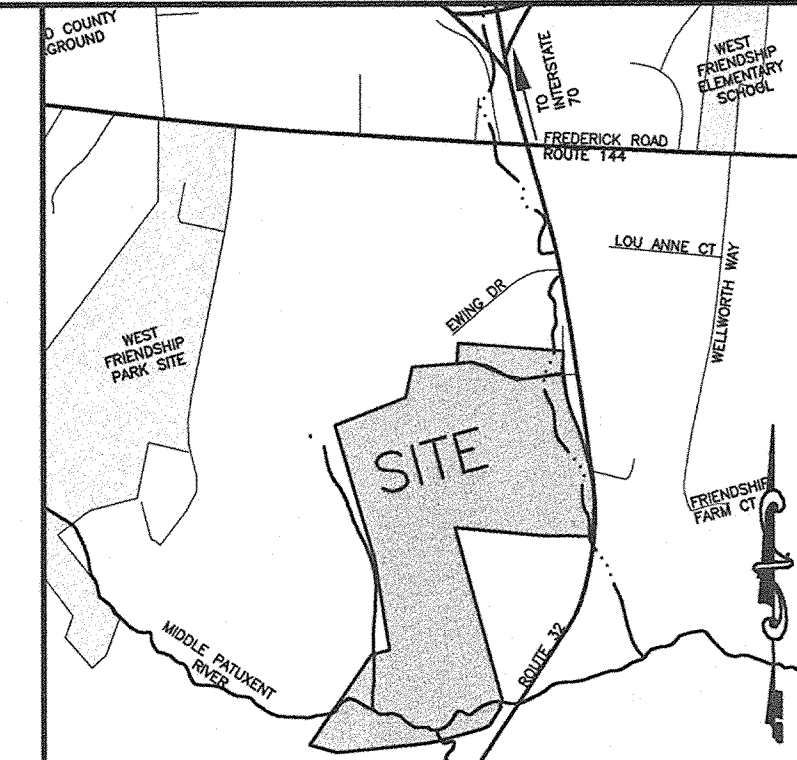
PROJECT NO : 12907-1-0  
L400FCP03.DWG

DATE : SEPTEMBER 5, 2006

SCALE : 1" = 100'

DRAWING NO. 13 OF 20

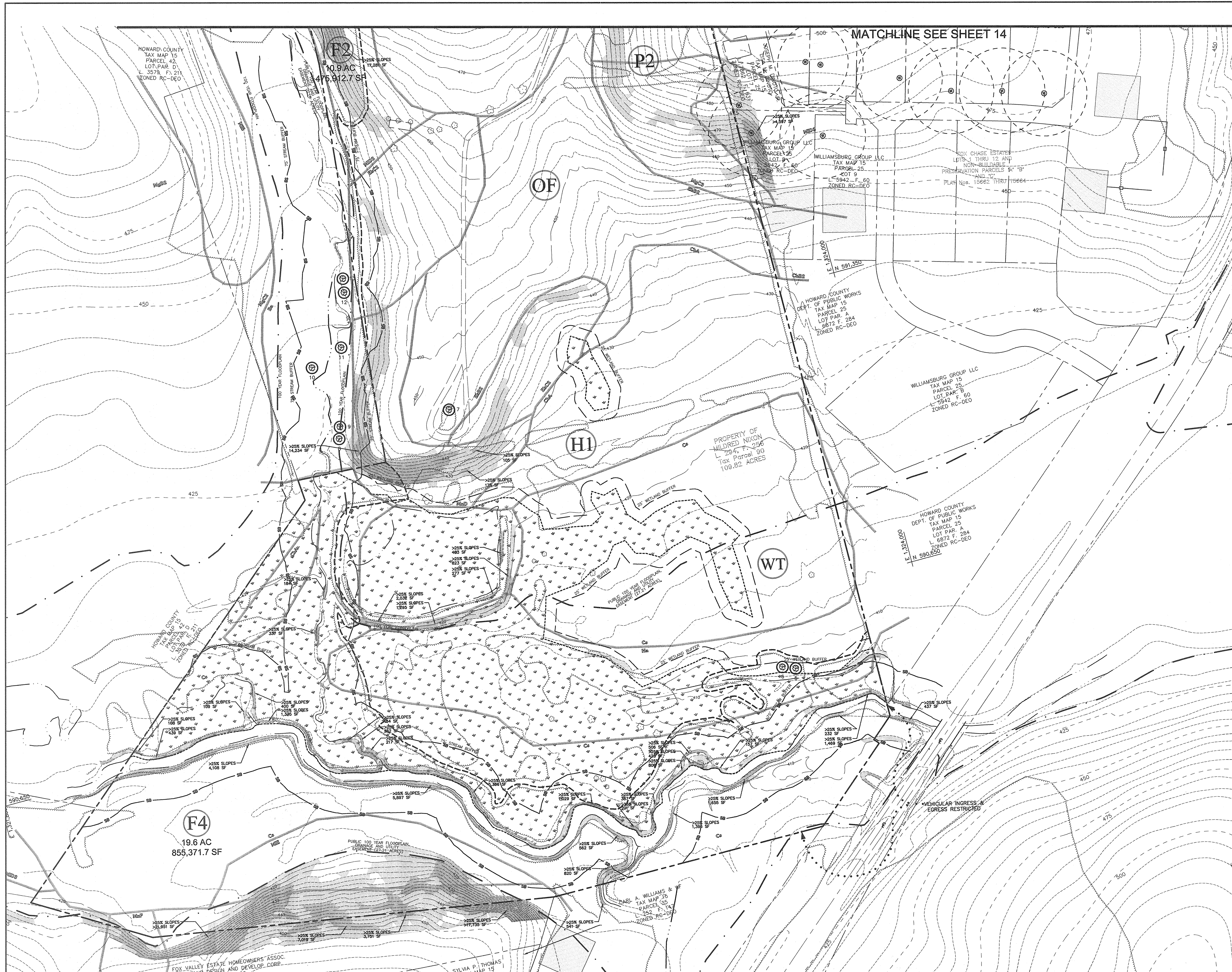
- LEGEND**
- (F1) PLANT COMMUNITY
  - (OF) OPEN FIELD
  - (WT) MARSH
  - (TL) TREE-LAWN
  - (H1) HEDGEROW
  - (P1) PINE STAND
  - (S) SPECIMEN TREE



TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY	
Planning Director: <i>Mark A. Taylor</i>	Date: <i>9/10/06</i>
DATE NO.	REVISION
DEVELOPER CENTEX HOMES, INC ATTN: KEITH TUNELL 15890 GAITHER ROAD GAITHERSBURG, MD 20877 866.783.6401	
OWNER MILDRED NIXON DANIEL AND KIMBERLY VALENTI 2770 ROUTE 32 WEST FRIENDSHIP, MD 21794	
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AREA TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE <b>FOREST STAND DELINEATION PLAN</b>	
Patton Harris Rust & Associates,pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
DATE: <i>9-10-06</i>	DESIGNED BY: JSN/PJS
	DRAWN BY: JSN
	PROJECT NO.: 12907-1-0 L200FSD01.DWG
	DATE: SEPTEMBER 5, 2006
	SCALE: 1" = 100'
	DRAWING NO.: 14 OF 20

MATCHLINE SEE SHEET 15

JOSEPH A. RECORARO TAX MAP 15 PARCEL 25 LOT 1 L. 7846 F. 554 ZONED RC-DEO	PATRICIA TAYLOR TAX MAP 15 PARCEL 25 LOT 4 L. 7846 F. 554 ZONED RC-DEO	RONALD P. COOK TAX MAP 15 PARCEL 25 LOT 7 L. 5942 F. 60 ZONED RC-DEO	WILLIAMSBURG GROUP LLC TAX MAP 15 PARCEL 25 LOT 5 L. 5942 F. 60 ZONED RC-DEO	WILLIAMSBURG GROUP LLC TAX MAP 15 PARCEL 25 LOT 6 L. 5942 F. 60 ZONED RC-DEO	ZHANG RONG TAX MAP 15 PARCEL 25 LOT 6 L. 5942 F. 60 ZONED RC-DEO
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- LEGEND**
- SPECIMEN TREE
  - PLANT COMMUNITY
  - OPEN FIELD
  - MARSH
  - TREE-LAWN
  - HEDGEROW
  - PINE STAND

TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY	
PLANNING DIRECTOR	DATE 9/5/06
DATE NO.	REVISION
DEVELOPER	
CENTEX HOMES, INC ATTN: KEITH TUNELL 15890 GAITHER ROAD GAITHERSBURG, MD 20877 866.783.6401	
OWNER	
MILDRED NIXON DANIEL AND KIMBERLY VALENTI 2770 ROUTE 32 WEST FRIENDSHIP, MD 21794	
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<b>TERRAPIN CROSSING</b> LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2 PLAT NO. 11254 AND VOZNAK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90	
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<b>FOREST STAND DELINEATION PLAN</b>	
Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
DATE 9.16.06	
DESIGNED BY : JSN/PJS	
DRAWN BY: JSN	
PROJECT NO : 12907-1-0 L200FSD02.DWG	
DATE : SEPTEMBER 5, 2006	
SCALE : 1" = 100'	
DRAWING NO. 15 OF 20	

SOILS CHART				
MAP SYMBOL	NAME	STRUCTURAL LIMITATIONS Dwellings w/ Basements	EROSION HAZARD	HYDRIC SLOPE (%)
Ba	Baile silt loam	Sev.-High water table	-	N -
ChA	Chester silt loam	Slight	-	N 0-3
ChB2	Chester silt loam	Slight	Moderate	N 3-8
ChC2	Chester silt loam	Moderate-Slopes	Moderate	N 8-15
CgB2	Chester gravelly silt loam	Slight	Moderate	N 3-8
CgC2	Chester gravelly silt loam	Moderate-Slopes	Moderate	N 8-15
Cs	Comus silt loam	Sev.-Flood hazard	-	N -
EkB2	Eloak silt loam	Slight	Moderate	N 3-8
EkC2	Eloak silt loam	Moderate-Slopes	Moderate	N 8-15
EkD2	Eloak silt loam	Moderate-Slopes	Moderate	N 15-25
GnB2	Glenelg loam	Slight	Moderate	N 3-8
GnB2	Glenville silt loam	Mod.-Impeded drainage	Moderate	N 3-8
Ha	Hatboro silt loam	Sev.-Flood hazard	-	N -
MgB2	Manor gravelly loam	Slight	Moderate	N 3-8
MgC2	Manor gravelly loam	Moderate-Slopes	Moderate	N 8-15
MgC3	Manor gravelly loam	Moderate-Slopes	Severe	N 8-15
MIB2	Manor loam	Slight	Moderate	N 3-8
MIC2	Manor loam	Moderate-Slopes	Moderate	N 8-15
MID2	Manor loam	Moderate-Slopes	Moderate	N 15-25
MID3	Manor loam	Severe-Slopes	Severe	N 15-25
MIE	Manor loam	Severe-Slopes	-	N 25-45
MnD	Manor very stony loam	Mod.-Very stony	-	N 3-25

SOURCE: SOIL INFORMATION TAKEN FROM HOWARD COUNTY, MARYLAND SOIL SURVEY MAPS 8 AND 14.

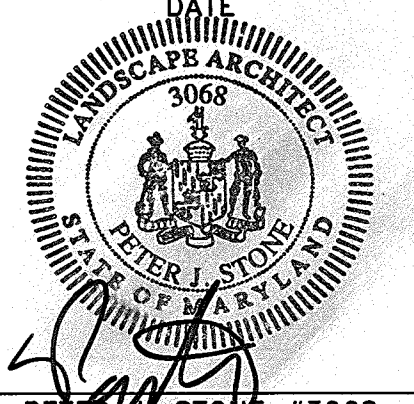
PLANT COMMUNITY SUMMARY			
SYMBOL	COMMUNITY	AREA	PRIORITY RETENTION
F1	FOREST	3.87 Ac.±	MEDIUM
F2	FOREST	10.9 Ac.±	HIGH
F3	FOREST	3.65 Ac.±	MEDIUM
F4	FOREST	19.6 Ac.±	HIGH
OF	OPEN FIELD	-	-
WT	MARSH	-	-
TL	TREE-LAWN	-	-
H1	HEDGEROW	-	-
H2	HEDGEROW	-	-
P1	PINE STAND	-	-
P2	PINE STAND	-	-

AREA CHART	
AREA	ACRES
TOTAL TRACT AREA	155.72
EXISTING FOREST	38.02
LAND WITHIN STREAM BUFFERS	21.7
LAND WITHIN FLOODPLAIN	36.09
FOREST WITHIN STREAM BUFFERS	8.2
FOREST WITHIN FLOODPLAIN	20.85

SPECIMEN TREE CHART				
KEY	SPECIES	SIZE	CONDITION	REMAIN OR REMOVE
1	WHITE OAK	30"	GOOD	REMAIN
2	SYCAMORE	30"	GOOD	REMAIN
3	SYCAMORE	24"	GOOD	REMAIN
4	SYCAMORE	30"	GOOD	REMAIN
5	SYCAMORE	30"	GOOD	REMAIN
6	PIN OAK	48"	POOR	REMAIN
7	WHITE OAK	30"	GOOD	REMAIN
8	WHITE OAK	30"	GOOD	REMAIN
9	WHITE OAK	30"	GOOD	REMAIN
10	PIN OAK	30"	POOR	REMAIN
11	ELM	30"	POOR	REMAIN
12	WHITE OAK	30"	GOOD	REMAIN
13	RED OAK	30"	POOR	REMAIN
14	TULIP POPLAR	30"	GOOD	REMAIN
15	TULIP POPLAR	30"	GOOD	REMAIN
16	TULIP POLAR	42"	GOOD	REMAIN
17	RED OAK	30"	GOOD	REMAIN
18	TULIP POPLAR	30"	GOOD	REMAIN
19	RED OAK	42"	GOOD	REMAIN
20	RED OAK	42"	GOOD	REMAIN
21	RED OAK	36"	GOOD	REMAIN

**GENERAL NOTES:**

- THE SITE IS LOCATED AT 2800 NIXON'S FARM LANE, WEST FRIENDSHIP, MD 21794 (TAX MAP 15, PARCELS 18, 90, 159 (LOTS 1 & 2), & 267). THE SITE CONSISTS OF 4 PARCELS WHICH COMPRISE OF 155.72 ACRES.
- BOUNDARY & TOPOGRAPHIC INFORMATION PROVIDED BY AVAILABLE HOWARD COUNTY RECORDS.
- THE SOILS ON SITE ARE BAILE SILT LOAM-Ba, CHESTER SILT LOAM (0-3% SLOPES)-ChA, CHESTER SILT LOAM (3-8% SLOPES)-ChB2, CHESTER SILT LOAM (8-15% SLOPES)-ChC2, CHESTER GRAVELLY SILT LOAM (3-8% SLOPES)-CgB2, CHESTER GRAVELLY SILT LOAM (8-15% SLOPES)-CgC2, COMUS SILT LOAM-Cs, ELOAK SILT LOAM (3-8% SLOPES)-EkB2, ELOAK SILT LOAM (8-15% SLOPES)-EkC2, ELOAK SILT LOAM (15-25% SLOPES)-EkD2, GLENELG LOAM (3-8% SLOPES)-GnB2, GLENVILLE SILT LOAM (3-8% SLOPES)-GnB2, HATBORO SILT LOAM-Ha, MANOR GRAVELLY LOAM (3-8% SLOPES)-MgB2, MANOR GRAVELLY LOAM (8-15% SLOPES)-MgC2, MANOR GRAVELLY LOAM (8-15% SLOPES)-MgC3, MANOR LOAM (3-8% SLOPES)-MIB2, MANOR LOAM (8-15% SLOPES)-MIC2, MANOR LOAM (15-25% SLOPES)-MID2, MANOR LOAM (15-25% SLOPES)-MID3, MANOR LOAM (25-45% SLOPES)-MIE, AND MANOR VERY STONY LOAM (3-25% SLOPES)-MnD ACCORDING TO THE SOIL SURVEY FOR HOWARD COUNTY, MARYLAND, MAP NO.'S 8 & 14.
- THE SITE IS ZONED RC-DEO (RURAL CONSERVATION-DENSITY EXCHANGE OPTION). THE SITE, CURRENTLY, HAS A FARM AND 4 RESIDENCES ON THE PROPERTY.
- THIS SITE IS LOCATED IN THE MIDDLE PATUXENT RIVER WATERSHED WHICH IS A USE 1/1-P WATERSHED.
- STREAMS, FLOODPLAINS, AND WETLAND LOCATIONS ARE SHOWN ON THIS PLAN.
- THERE ARE FOUR EXISTING FOREST STANDS LOCATED ON SITE, AS SHOWN ON THE PLAN. THEY RANGE FROM MEDIUM TO HIGH PRIORITY FOREST STANDS DUE TO THEIR LOCATIONS AS PART OF PROTECTED ENVIRONMENTAL SYSTEMS, INCLUDING WOODED FLOODPLAINS, STREAMS, AND WETLANDS.
- THERE ARE 21 SPECIMEN TREES LOCATED ON SITE, AS SHOWN ON THE PLAN.
- FIELD WORK FOR THIS INVENTORY WAS CONDUCTED ON MARCH 24, 2005 BY JONATHAN NORMAN, PLANNER OF PATTON HARRIS RUST AND ASSOCIATES, PC UNDER THE SUPERVISION OF PETER J. STONE, RLA AND SCOTT R. WOLFORD RLA OF PATTON HARRIS RUST AND ASSOCIATES, PC.
- THE SITE HAS A FOREST CONSERVATION THRESHOLD OF 25% AND AN AFFORESTATION THRESHOLD OF 20%.
- NO CEMETERIES OR HISTORIC STRUCTURES ARE LOCATED ON-SITE. EXISTING STRUCTURES ARE PRESENT ON THE SITE AS SHOWN. ALL EXISTING STRUCTURES ARE TO BE REMOVED UNLESS OTHERWISE NOTED.
- NO RARE, THREATENED, OR ENDANGERED PLANTS OR ANIMALS OR CRITICAL HABITATS WERE OBSERVED IN THE FIELD.
- THIS FOREST STAND DELINEATION (FSD) HAS BEEN PREPARED IN ACCORDANCE WITH HOWARD COUNTY REGULATIONS.

TENTATIVELY APPROVED DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY	
<i>Mark L. Lytle</i> PLANNING DIRECTOR	<i>Paul G.</i> DATE 9/5
DATE NO.	REVISION
DEVELOPER CENTEX HOMES, INC ATTN: KEITH TUNELL 15890 GAITHER ROAD GAITHERSBURG, MD 20877 866.783.6401	
OWNER MILDRED NIXON DANIEL AND KIMBERLY VALENTI 2770 ROUTE 32 WEST FRIENDSHIP, MD 21794	
PROJECT <b>TERRAPIN CROSSING</b> LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2 PLAT NO. 11254 AND VOZNIK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90	
AREA TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE <b>FOREST STAND DELINEATION NOTES AND TABULATIONS</b>	
Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
	
DATE 9-10-05	
DESIGNED BY : JSN/PJS	
DRAWN BY: JSN	
PROJECT NO : 12907-1-0 L300FSD03.DWG	
DATE : SEPTEMBER 5, 2006	
SCALE : AS SHOWN	
DRAWING NO. 16 OF 20	

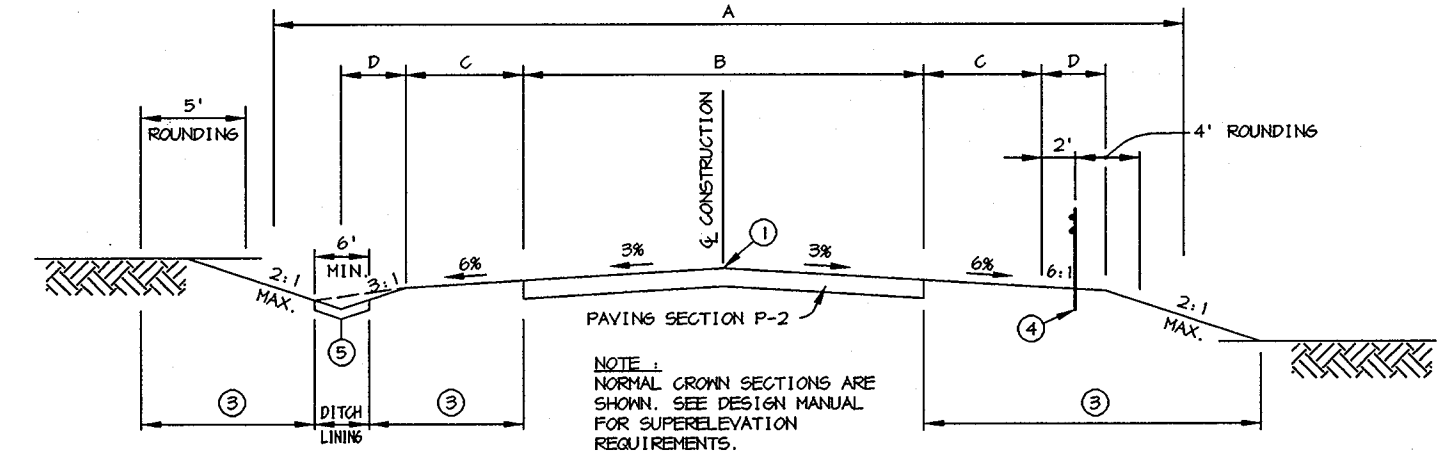
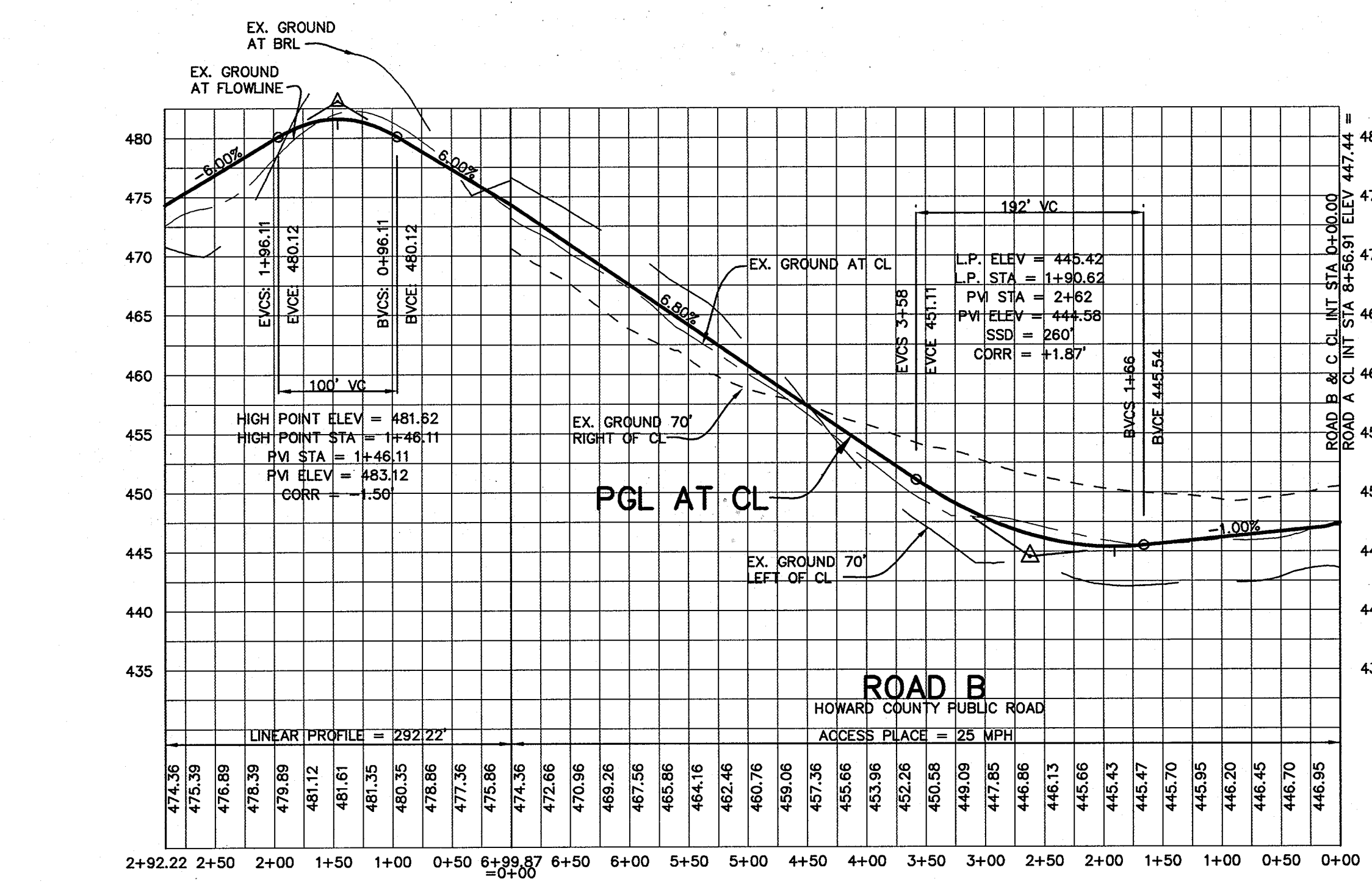
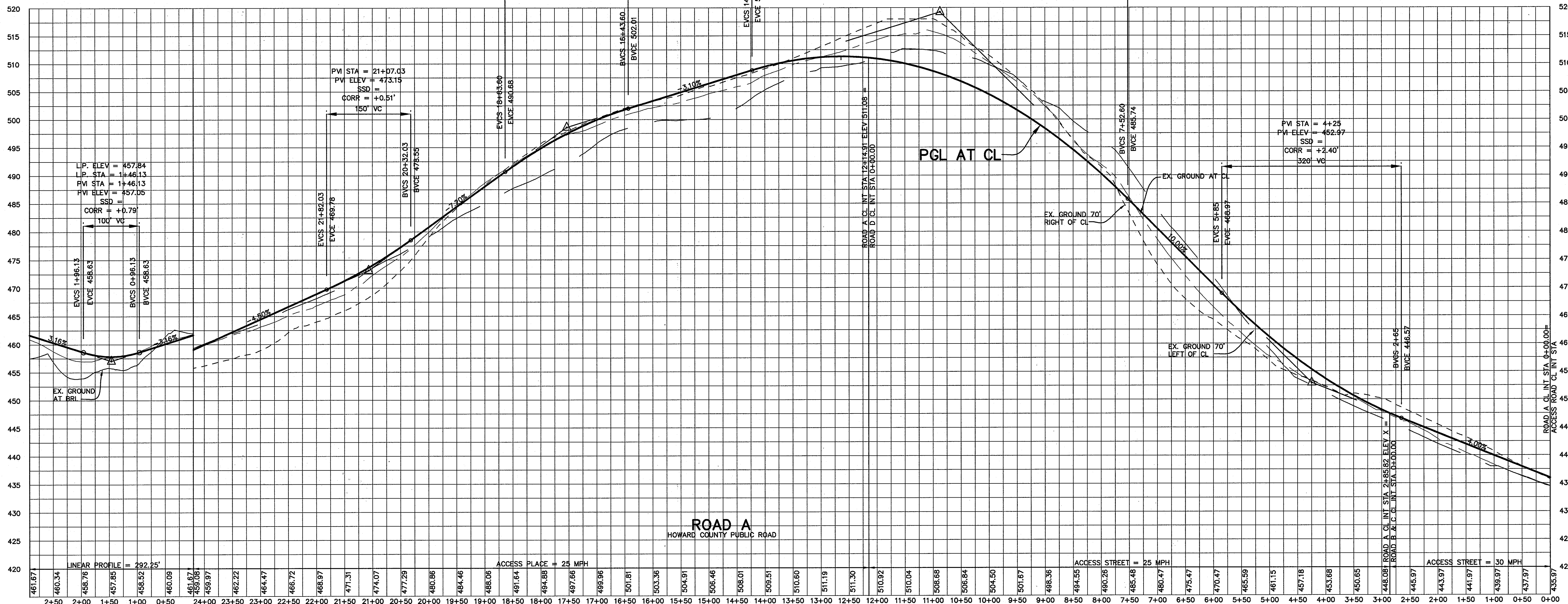


H.P. ELEV = 511.32  
H.P. STA = 12+64.08  
PVI STA = 10+87.60  
PVI ELEV = 519.25  
SSD = 260.70'  
CORR = -10.97'  
670' VC

PVI STA = 17+53.60  
PVI ELEV = 498.60  
SSD = 272.09'  
CORR = -1.13'  
220' VC

PVI STA = 21+07.03  
PVI ELEV = 473.15  
SSD = 150'  
CORR = +0.51'

PVI STA = 4+25  
PVI ELEV = 452.97  
SSD = 320'  
CORR = +2.40'



**OPEN SECTION**

① PROFILE GRADE LINE (PGL), SEE DESIGN MANUAL.  
② 4" CONCRETE SIDEWALK AS REQUIRED BY SUBDIVISION REGULATIONS.  
③ INDICATES 2" TOPSOIL, SEED AND MULCH.  
④ GUARDRAIL WHERE REQUIRED BY THE DESIGN MANUAL.  
⑤ DITCH CROSS SECTION SLOPE MAY BE FLATTENED TO PROVIDE A SHADE AT OR NEAR THE CREST OF VERTICAL CURVES WHERE QUANTITY OF SCALE FLOR IS SMALL, AS APPROVED BY PVP.

**TYPICAL SECTION LOCAL ROAD**  
NO SCALE

ROAD NAME	STATION TO STATION	A	B	C	D
ROAD A	0+00 TO 17+00	50'	24'	4'	4'
ROAD A	17+00 TO END	40'	22'	4'	4'
ROAD B	0+00 TO END	40'	22'	4'	4'
ROAD C	0+00 TO END	40'	22'	4'	4'

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

*Manuel D. Colangelo* 9/15/10  
PLANNING DIRECTOR DATE

DATE	NO.	REVISION

DEVELOPER  
CENTEX HOMES, INC  
ATTN: KEITH TUNELL  
15890 GAITHER ROAD  
GAITHERSBURG, MD 20877  
866.783.6401

OWNER  
MILDRED NIXON  
DANIEL AND KIMBERLY VALENTI  
2770 ROUTE 32  
WEST FRIENDSHIP, MD 21794

PROJECT  
**TERRAPIN CROSSING**  
LOTS 1-47, BUILDABLE PRESERVATION PARCEL K  
& NON-BUILDABLE PRESERVATION PARCELS A-J,  
A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2  
PLAT NO. 11254 AND VOZNAK & CALDERWOOD SUBDIVISION  
LOT 1, PLAT NO. 13105 AND A SUBDIVISION  
OF PARCELS 18 AND 90

AREA  
TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO  
GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

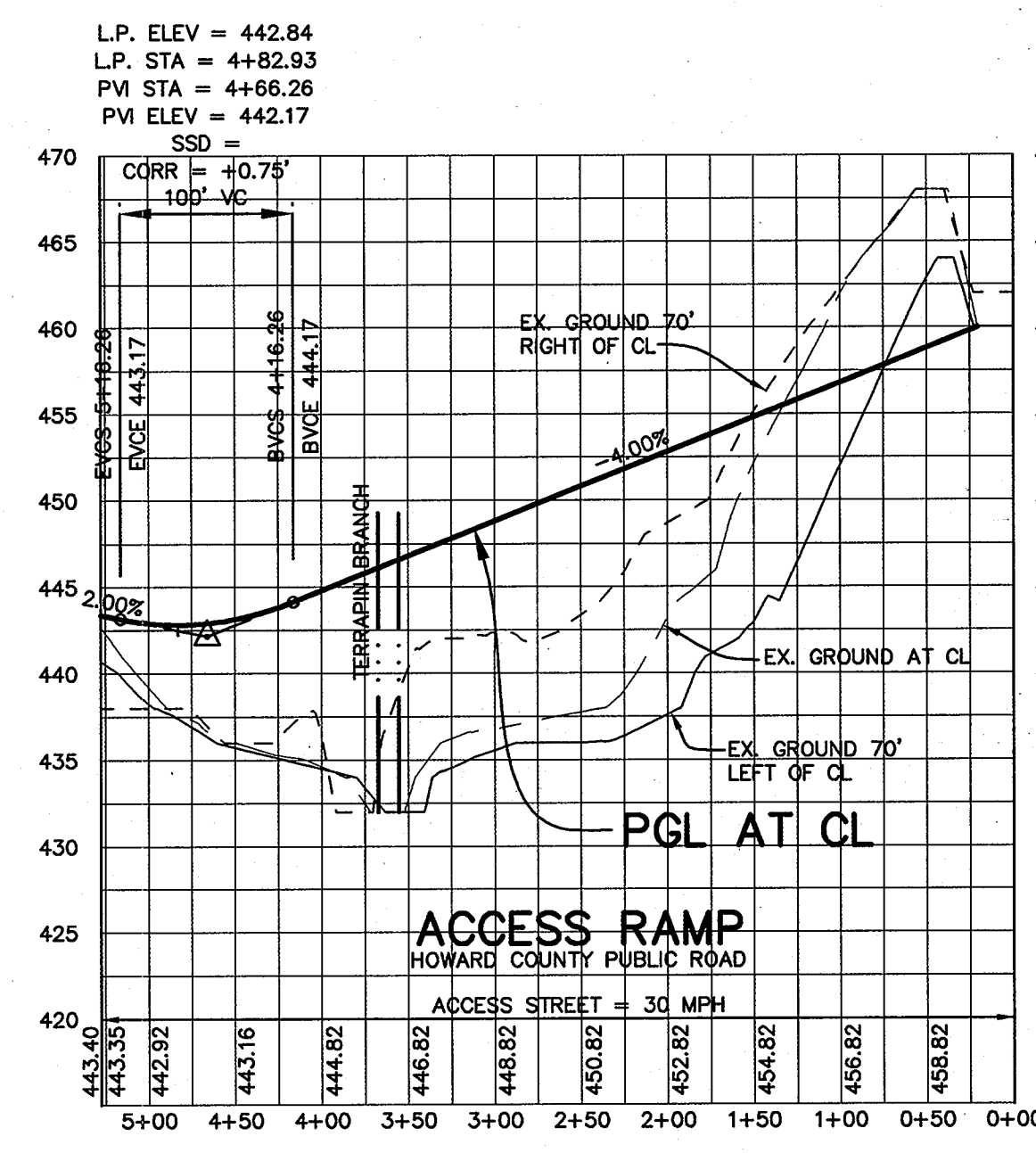
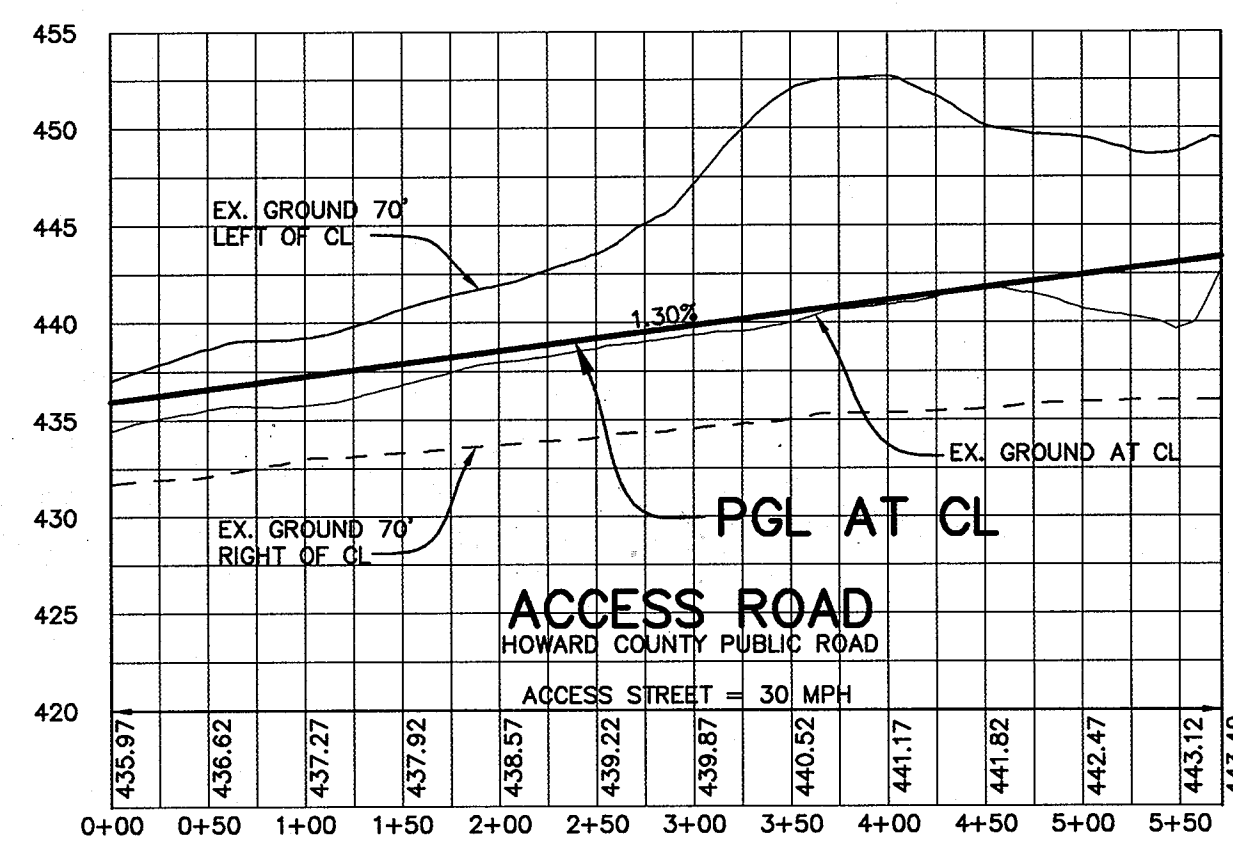
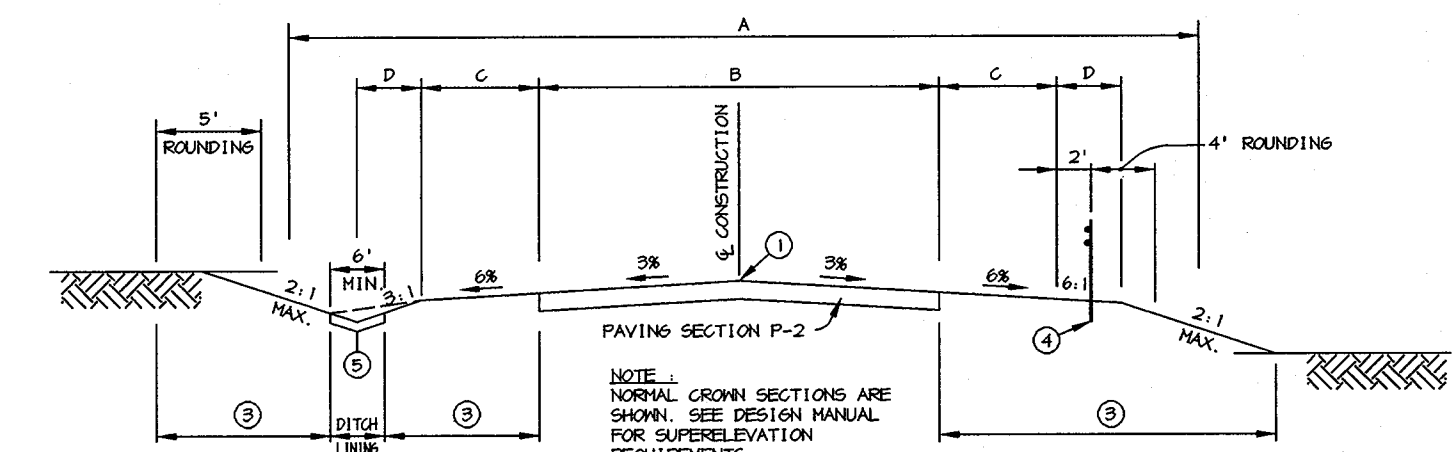
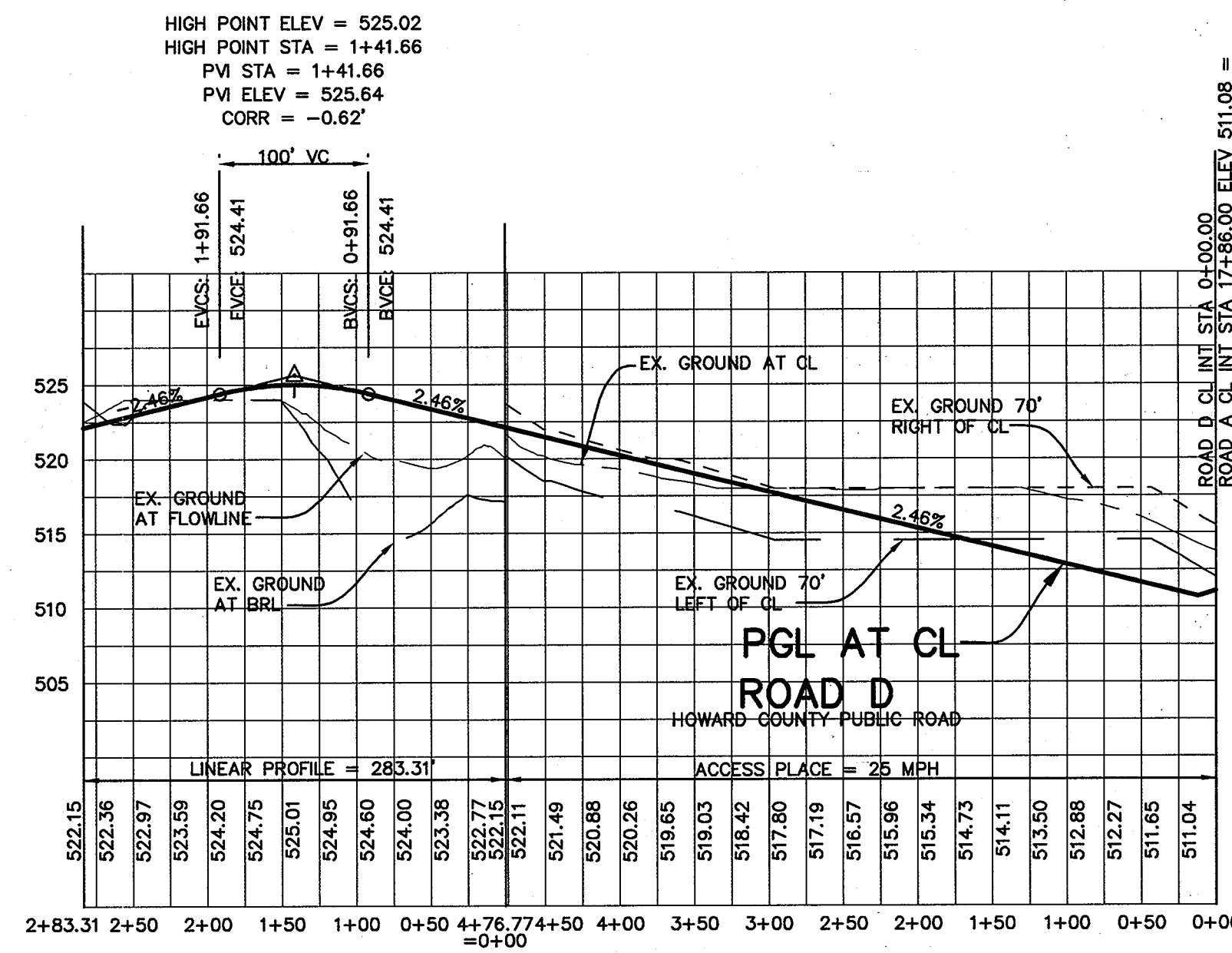
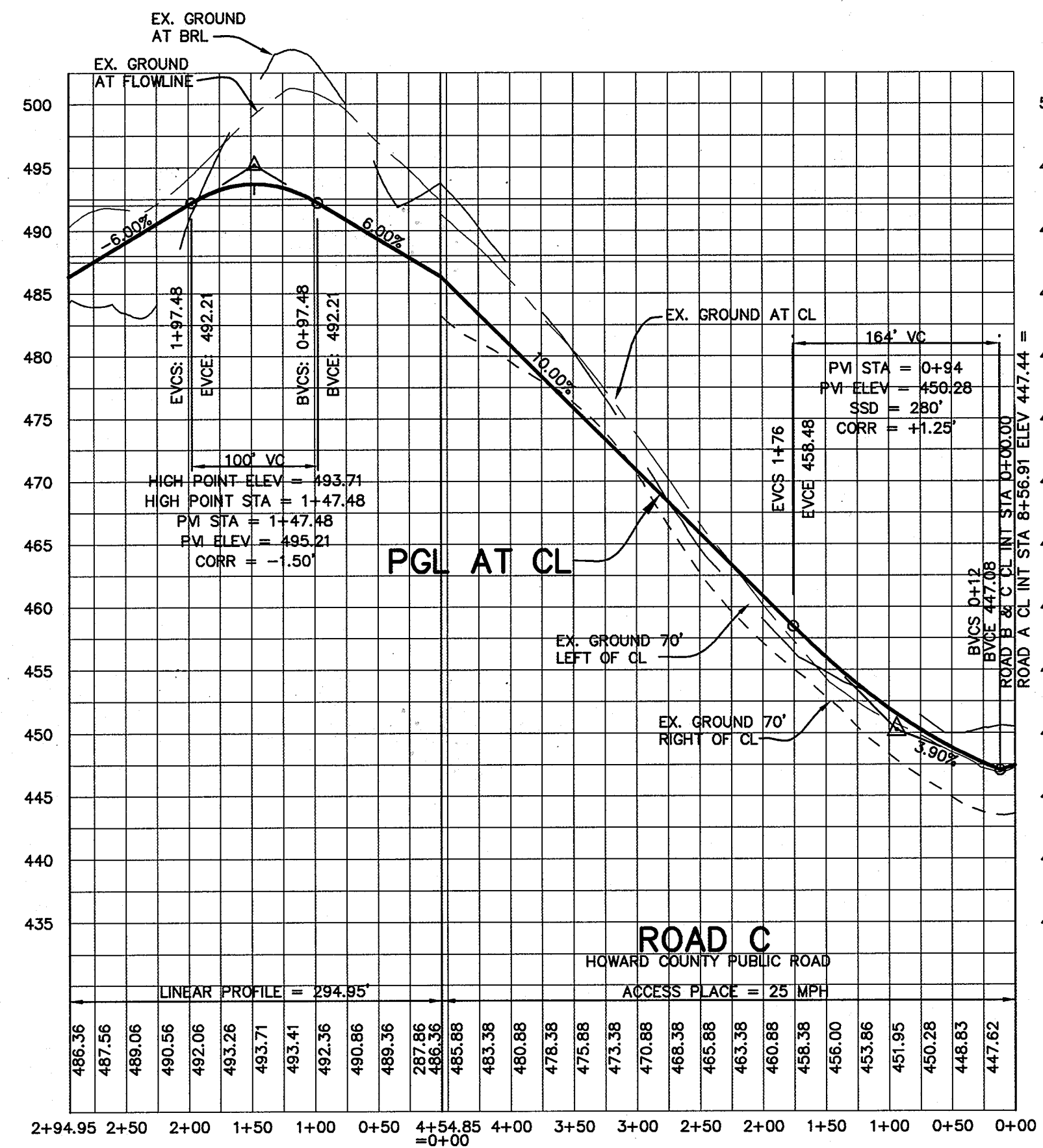
TITLE  
**PRELIMINARY ROAD PROFILES**

**Patton Harris Rust & Associates, p.c.**  
Engineers, Surveyors, Planners, Landscape Architects.  
8818 Centre Park Drive  
Columbia, MD 21045  
T 410.997.8900  
F 410.997.9282

9/15/10  
DATE

DESIGNED BY : A.C.R.  
DRAWN BY:  
PROJECT NO : 12907-1-0  
CS000EP01.DWG  
DATE : SEPTEMBER 5, 2006  
SCALE : HOR. 1" = 100'  
VERT. 1" = 10'  
DRAWING NO. 17 OF 20

DOMENICK W. COLANGELO #27200



TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

*John D. ...* PLANNING DIRECTOR  
*Flisloc* DATE 9/15/06

DATE	NO.	REVISION

DEVELOPER  
CENTEX HOMES, INC  
ATTN: KEITH TUNELL  
15890 GAITHER ROAD  
GAITHERSBURG, MD 20877  
866.783.6401

OWNER  
MILDRED NIXON  
DANIEL AND KIMBERLY VALENTI  
2770 ROUTE 32  
WEST FRIENDSHIP, MD 21794

PROJECT  
**TERRAPIN CROSSING**  
LOTS 1-47, BUILDABLE PRESERVATION PARCEL K  
& NON-BUILDABLE PRESERVATION PARCELS A-J,  
A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2  
PLAT NO. 11254 AND VOZNAK & CALDERWOOD SUBDIVISION  
LOT 1, PLAT NO. 13105 AND A SUBDIVISION  
OF PARCELS 18 AND 90

AREA  
TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO  
GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE  
**PRELIMINARY ROAD PROFILES**

Patton Harris Rust & Associates, p.c.  
Engineers, Surveyors, Planners, Landscape Architects.  
8818 Centre Park Drive  
Columbia, MD 21045  
T 410.997.8900  
F 410.997.9282

*John D. ...* DATE 9/15/06

DESIGNED BY : A.C.R.  
DRAWN BY:  
PROJECT NO 12907-1-0  
CS000EP02.DWG  
DATE : SEPTEMBER 5, 2006  
SCALE : HOR. 1" = 100'  
VERT. 1" = 10'  
DRAWING NO. 18 OF 20

STATE OF MARYLAND  
DOMENICK W. COLANGELO  
PROFESSIONAL ENGINEER  
NO. 27200  
EXPIRES 12/31/07

DOMENICK W. COLANGELO #27200

**LOG OF BORING NO. SWM-01**

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 3, 2005  
 DATE COMPLETED: November 3, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL: 9.5  
 DATE: 11/03/05  
 CAVED (ft): 10.0  
 GROUND SURFACE ELEVATION: 456.0  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWBEE INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	6	3-2	4	456.0	0	ML		Brown, moist, very loose to loose SILT with Sand, trace mica.	Topsoil: 2 inches.
2	2.5	0	2-4	6						
3	5.0	8	2-3	7						
4	8.5	12-30"	50"	50"	447.5	10			Brown, moist, Highly Weathered ROCK.	Localized Quartz layer at 8.5 feet.
5	13.5	14	2-2	6	442.5	15	SM		Multicolored, moist, loose Silty SAND with Rock Fragments, trace mica.	
6	18.5	10	3-4	9		20				
7	23.5	4	50"	50"	432.5	25			Brown, moist, Highly Weathered ROCK.	
Bottom of hole at 25 feet.										

NOTES:  
**GTA** Geo-Technology Associates, Inc.  
 5103 Pegasus Court, Suite K  
 Frederick, Maryland 21704  
**LOG OF BORING NO. SWM-01**  
 Sheet 1 of 1

**LOG OF BORING NO. SWM-02**

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 3, 2005  
 DATE COMPLETED: November 3, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL: 12.0  
 DATE: 11/03/05  
 CAVED (ft): 10.0  
 GROUND SURFACE ELEVATION: 452.1  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWBEE INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	14	2-3	5	452.1	0	ML		Brown, moist, loose SILT with Sand, trace mica.	Topsoil: 3 inches.
2	2.5	14	3-3	6						
3	5.0	12	3-3	6						
4	8.5	12	2-3	6	443.6	10	SM		Multicolored, moist, loose to medium dense Silty SAND, trace mica.	
5	13.5	8	2-2	5		15				
6	18.5	NR	5-7	12	432.1	20				
Bottom of hole at 20 feet.										

NOTES:  
**GTA** Geo-Technology Associates, Inc.  
 5103 Pegasus Court, Suite K  
 Frederick, Maryland 21704  
**LOG OF BORING NO. SWM-02**  
 Sheet 1 of 1

**LOG OF BORING NO. SWM-03**

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 3, 2005  
 DATE COMPLETED: November 3, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL: 5.0  
 DATE: 11/03/05  
 CAVED (ft): 7.3  
 GROUND SURFACE ELEVATION: 439.3  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWBEE INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	12	2-2	4	439.3	0	SM		Multicolored, moist, very loose to loose Silty SAND, trace mica.	Topsoil: 1.5 inches.
2	2.5	10	2-3	7					USDA: SANDY LOAM	
3	5.0	10	4-4	10	434.3	5	SM		Multicolored, moist, loose to medium dense Silty SAND with Rock Fragments, trace mica.	
4	8.5	16	3-4	9		10				
5	13.5	18	12-12	24	424.3	15				
Bottom of hole at 15 feet.										

NOTES:  
**GTA** Geo-Technology Associates, Inc.  
 5103 Pegasus Court, Suite K  
 Frederick, Maryland 21704  
**LOG OF BORING NO. SWM-03**  
 Sheet 1 of 1

**LOG OF BORING NO. SWM-04**

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 3, 2005  
 DATE COMPLETED: November 3, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL: 9.0  
 DATE: 11/03/05  
 CAVED (ft): 10.0  
 GROUND SURFACE ELEVATION: 445.2  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWBEE INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	8	2-3	6	445.2	0	ML		Brown, moist, loose Sandy SILT, trace mica.	Topsoil: 2 inches.
2	2.5	12	2-2	5					USDA: LOAM	
3	5.0	16	3-2	5						
4	8.5	14	4-4	11	436.7	10	SM		Brown, moist, medium dense Silty SAND, trace Rock Fragments and mica.	
5	13.5	14	20-18-17	35	431.7	15	ML		Brown, moist, dense Sandy SILT with Rock Fragments, trace mica.	
Bottom of hole at 15 feet.										

NOTES:  
**GTA** Geo-Technology Associates, Inc.  
 5103 Pegasus Court, Suite K  
 Frederick, Maryland 21704  
**LOG OF BORING NO. SWM-04**  
 Sheet 1 of 1

**LOG OF BORING NO. SWM-05**

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 3, 2005  
 DATE COMPLETED: November 3, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL: 6.0  
 DATE: 11/03/05  
 CAVED (ft): 17.0  
 GROUND SURFACE ELEVATION: 447.2  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWBEE INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	10	2-3	6	447.2	0	ML		Brown, moist, loose SILT with Sand, trace Rock Fragments and mica.	Topsoil: 1.5 inches.
2	2.5	12	2-3	6						
3	5.0	12	2-3	7						
4	8.5	10	6-8	15	438.7	10	SM		Brown, wet, medium dense Silty SAND, trace Rock Fragments and mica.	
5	13.5	4	6-9	13		15				
6	18.5	6	6-12	24	427.2	20				
Bottom of hole at 20 feet.										

NOTES:  
**GTA** Geo-Technology Associates, Inc.  
 5103 Pegasus Court, Suite K  
 Frederick, Maryland 21704  
**LOG OF BORING NO. SWM-05**  
 Sheet 1 of 1

**LOG OF BORING NO. SWM-06**

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 3, 2005  
 DATE COMPLETED: November 3, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL: Dry  
 DATE: 11/03/05  
 CAVED (ft): 5.9  
 GROUND SURFACE ELEVATION: 439.7  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWBEE INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	6	1-2	5	439.7	0	ML		Brown, moist, loose to medium dense SILT with Sand, trace Rock Fragments and mica.	Topsoil: 1 inch.
2	2.5	14	6-6	11						
3	5.0	2	2-4	9						
4	8.5	10	10-17	22	431.2	10	SM		Brown, moist, loose to medium dense Silty SAND with Rock Fragments, trace mica.	
5	13.5	10	3-3	9		15				
Bottom of hole at 15 feet.										

NOTES:  
**GTA** Geo-Technology Associates, Inc.  
 5103 Pegasus Court, Suite K  
 Frederick, Maryland 21704  
**LOG OF BORING NO. SWM-06**  
 Sheet 1 of 1

**LOG OF BORING NO. SWM-07**

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 3, 2005  
 DATE COMPLETED: November 3, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL: Dry  
 DATE: 11/03/05  
 CAVED (ft): 4.6  
 GROUND SURFACE ELEVATION: 442.9  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWBEE INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	14	1-2	3	442.9	0	ML		Brown, moist, very loose to medium dense SILT with Sand, trace mica.	Topsoil: 1.5 inches.
2	2.5	16	2-2	5						
3	5.0	12	2-6	11						
4	8.5	16	2-2	4	434.4	10	SM		Brown, moist, very loose Silty SAND with Rock Fragments, trace mica.	USDA: SANDY LOAM
5	13.5	NR	2-2	4	427.9	15				
Bottom of hole at 15 feet.										

NOTES:  
**GTA** Geo-Technology Associates, Inc.  
 5103 Pegasus Court, Suite K  
 Frederick, Maryland 21704  
**LOG OF BORING NO. SWM-07**  
 Sheet 1 of 1

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT  
 DATE

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY  
 DATE

DATE NO. REVISION

DEVELOPER  
 CENTEX HOMES, INC  
 ATTN: KEITH TUNELL  
 15890 GAITHER RD  
 GAITHERSBURG, MD 20877  
 866.783.6401

OWNER  
 MILDRED NIXON  
 DANIEL AND KIMBERLY VALENTI  
 2770 ROUTE 32  
 WEST FRIENDSHIP, MD 21794

PROJECT  
**TERRAPIN CROSSING**  
 LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2 PLAT NO. 11254 AND VOZNAK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90

AREA  
 TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE  
**BORING LOGS**

Patton Harris Rust & Associates, pc  
 Engineers. Surveyors. Planners. Landscape Architects.  
 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.8900  
 F 410.997.9282

DESIGNED BY: JSN/PJS  
 DRAWN BY: JSN  
 PROJECT NO.: 12907-1-0  
 DATE: SEPTEMBER 5, 2006  
 SCALE:  
 DRAWING NO. 19 OF 20

LOG OF BORING NO. SWM-08

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 3, 2005  
 DATE COMPLETED: November 3, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL:  $\nabla$  21.0  $\nabla$  Dry  $\nabla$  15.0  $\nabla$  15.9  
 DATE: 11/03/05 11/03/05 11/04/05  
 CAVED (ft): 15.0  
 GROUND SURFACE ELEVATION: 449.3  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWERS INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	12	2-2-3	5	449.3	0	ML		Brown, moist, loose to medium dense Sandy SILT, trace Rock Fragments and mica.	Topsoil: 4 inches.
2	2.5	8	12-8-8	14	444.3	5	SM		Brown, moist, loose to medium dense Silty SAND with Rock Fragments, trace mica.	
3	5.0	6	10-12-13	25	435.8	10	SM		Brown, moist, Highly Weathered ROCK, trace mica.	
4	8.5	12	3-4-4	8	424.3	25			Bottom of hole at 25 feet.	

NOTES: Geo-Technology Associates, Inc. 5103 Pegasus Court, Suite K Frederick, Maryland 21704

LOG OF BORING NO. SWM-09

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 4, 2005  
 DATE COMPLETED: November 4, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL:  $\nabla$  Dry  $\nabla$  Dry  $\nabla$  8.3  
 DATE: 11/04/05 11/04/05 11/05/05  
 CAVED (ft): 4.5  
 GROUND SURFACE ELEVATION: 465.8  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWERS INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	14	2-3-3	6	465.8	0	ML		Brown, moist, loose Sandy SILT, trace Rock Fragments and mica.	Topsoil: 3 inches.
2	2.5	16	4-4-4	8	461.8	5	SM		Brown, moist, medium dense Silty SAND with Rock Fragments, trace mica.	
3	5.0	10	6-6-7	13	456.8	10			Bottom of hole at 10 feet.	

NOTES: Geo-Technology Associates, Inc. 5103 Pegasus Court, Suite K Frederick, Maryland 21704

LOG OF BORING NO. SWM-10

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 4, 2005  
 DATE COMPLETED: November 4, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL:  $\nabla$  Dry  $\nabla$  Dry  $\nabla$  4.4  
 DATE: 11/04/05 11/04/05 11/05/05  
 CAVED (ft): 10.2  
 GROUND SURFACE ELEVATION: 470.1  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWERS INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	14	1-2-2	4	470.1	0	ML		Brown, moist, very loose to loose Sandy SILT, trace Rock Fragments and mica.	Topsoil: 2.5 inches.
2	2.5	16	4-4-4	8	461.8	5	SM		Brown, moist, medium dense Silty SAND with Rock Fragments, trace mica.	
3	5.0	14	2-3-4	7	455.1	15			Bottom of hole at 15 feet.	

NOTES: Geo-Technology Associates, Inc. 5103 Pegasus Court, Suite K Frederick, Maryland 21704

LOG OF BORING NO. SWM-11

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 4, 2005  
 DATE COMPLETED: November 4, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL:  $\nabla$  Dry  $\nabla$  Dry  $\nabla$  5.8  
 DATE: 11/04/05 11/04/05 11/05/05  
 CAVED (ft): 12.0  
 GROUND SURFACE ELEVATION: 474.1  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWERS INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	8	2-3-3	5	474.1	0	ML		Brown, moist, loose Sandy SILT, trace mica.	Topsoil: 3 inches.
2	2.5	16	3-3-4	7	469.1	5	ML		Brown, moist, loose Sandy SILT with Rock Fragments, trace mica.	
3	5.0	10	2-4-4	8	460.6	10	SM		Brown, moist, medium dense Silty SAND with Rock Fragments, trace mica.	
4	8.5	14	3-3-4	7	454.1	20			Bottom of hole at 20 feet.	

NOTES: Geo-Technology Associates, Inc. 5103 Pegasus Court, Suite K Frederick, Maryland 21704

LOG OF BORING NO. SWM-12

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 4, 2005  
 DATE COMPLETED: November 4, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL:  $\nabla$  Dry  $\nabla$  Dry  $\nabla$  6.4  
 DATE: 11/04/05 11/04/05 11/05/05  
 CAVED (ft): 5.5  
 GROUND SURFACE ELEVATION: 426.4  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWERS INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	14	2-2-2	4	426.4	0	ML		Brown, moist, very loose to loose Sandy SILT, trace mica.	Topsoil: 4 inches.
2	2.5	10	2-2-2	4	417.9	5	SM		Brown, moist, medium dense Silty SAND with Rock Fragments, trace mica.	
3	5.0	18	3-4-4	8	416.4	10			Bottom of hole at 10 feet.	

NOTES: Geo-Technology Associates, Inc. 5103 Pegasus Court, Suite K Frederick, Maryland 21704

LOG OF BORING NO. SWM-13

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 4, 2005  
 DATE COMPLETED: November 4, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL:  $\nabla$  Dry  $\nabla$  Dry  $\nabla$  10.0  
 DATE: 11/04/05 11/04/05 11/05/05  
 CAVED (ft): 5.8  
 GROUND SURFACE ELEVATION: 431.9  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWERS INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	12	3-4-4	8	431.9	0	ML		Orange-brown, moist, loose Sandy SILT, trace mica.	Topsoil: 4 inches.
2	2.5	16	2-3-3	8	426.9	5	SM		Orange-brown, moist, medium dense Silty SAND, trace mica.	
3	5.0	18	4-5-6	11	421.9	10			Bottom of hole at 10 feet.	

NOTES: Geo-Technology Associates, Inc. 5103 Pegasus Court, Suite K Frederick, Maryland 21704

LOG OF BORING NO. SWM-14

Sheet 1 of 1

PROJECT: Terrapin Crossing  
 PROJECT NO: 041010.1  
 PROJECT LOCATION: Howard County, Maryland  
 DATE STARTED: November 4, 2005  
 DATE COMPLETED: November 4, 2005  
 DRILLING CONTRACTOR: GTA  
 DRILLER: B. Rojrat  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: Split Spoon  
 WATER LEVEL:  $\nabla$  Dry  $\nabla$  Dry  $\nabla$  5.1  
 DATE: 11/04/05 11/04/05 11/05/05  
 CAVED (ft): 5.3  
 GROUND SURFACE ELEVATION: 428.6  
 DATUM: MSL  
 EQUIPMENT: CME 550 (2)  
 LOGGED BY: K. Trojnar  
 CHECKED BY: J. Cooper

SAMPLE NUMBER	SAMPLE DEPTH (ft)	SAMPLE RECOVERY (ft)	SAMPLE BLOWERS INCHES	N (blow/ft)	ELEVATION (ft)	DEPTH (ft)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
1	0.0	14	2-2-3	5	428.6	0	ML		Brown, moist, loose to medium dense Sandy SILT, trace Rock Fragments and mica.	Topsoil: 3 inches.
2	2.5	12	2-2-3	5	418.1	5	SM		Brown, moist, dense poorly graded SAND with Rock Fragments, trace mica.	
3	5.0	18	6-7-5	12	416.6	10			Bottom of hole at 10 feet.	

NOTES: Geo-Technology Associates, Inc. 5103 Pegasus Court, Suite K Frederick, Maryland 21704

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

COUNTY HEALTH OFFICER \_\_\_\_\_ DATE \_\_\_\_\_  
 HOWARD COUNTY HEALTH DEPARTMENT

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

*Paul J. Lyle* 9/26/06  
 PLANNING DIRECTOR DATE

DATE	NO.	REVISION

DEVELOPER  
 CENTEX HOMES, INC  
 ATTN: KEITH TUNELL  
 15890 GAITHER ROAD  
 GAITHERSBURG, MD 20877  
 866.783.6401

OWNER  
 MILDRED NIXON  
 DANIEL AND KIMBERLY VALENTI  
 2770 ROUTE 32  
 WEST FRIENDSHIP, MD 21794

PROJECT  
**TERRAPIN CROSSING**  
 LOTS 1-47, BUILDABLE PRESERVATION PARCEL K & NON-BUILDABLE PRESERVATION PARCELS A-J, A RESUBDIVISION OF NIXON PROPERTY, LOTS 1 & 2 PLAT NO. 11254 AND VOZNIAK & CALDERWOOD SUBDIVISION LOT 1, PLAT NO. 13105 AND A SUBDIVISION OF PARCELS 18 AND 90

AREA  
 TAX MAP 15, PARCELS 18, 90, 159, 267 ZONED RC-DEO GRID NO.S 16, 17, AND 22 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE  
**BORING LOGS**

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DESIGNED BY: JSN/PJS  
 DRAWN BY: JSN  
 PROJECT NO: 12907-1-0  
 DATE: SEPTEMBER 5, 2006  
 SCALE: \_\_\_\_\_  
 DRAWING NO. 20 OF 20