

SHEET INDEX	
NO	DESCRIPTION
1	TITLE SHEET
2	PRELIMINARY EQUIVALENT SKETCH PLAN
3	PRELIMINARY DRAINAGE AREA MAP, GRADING PLAN AND SOILS MAP
4	STORMWATER MANAGEMENT DETAILS
5	PRELIMINARY LANDSCAPE PLAN
6	FOREST CONSERVATION PLAN

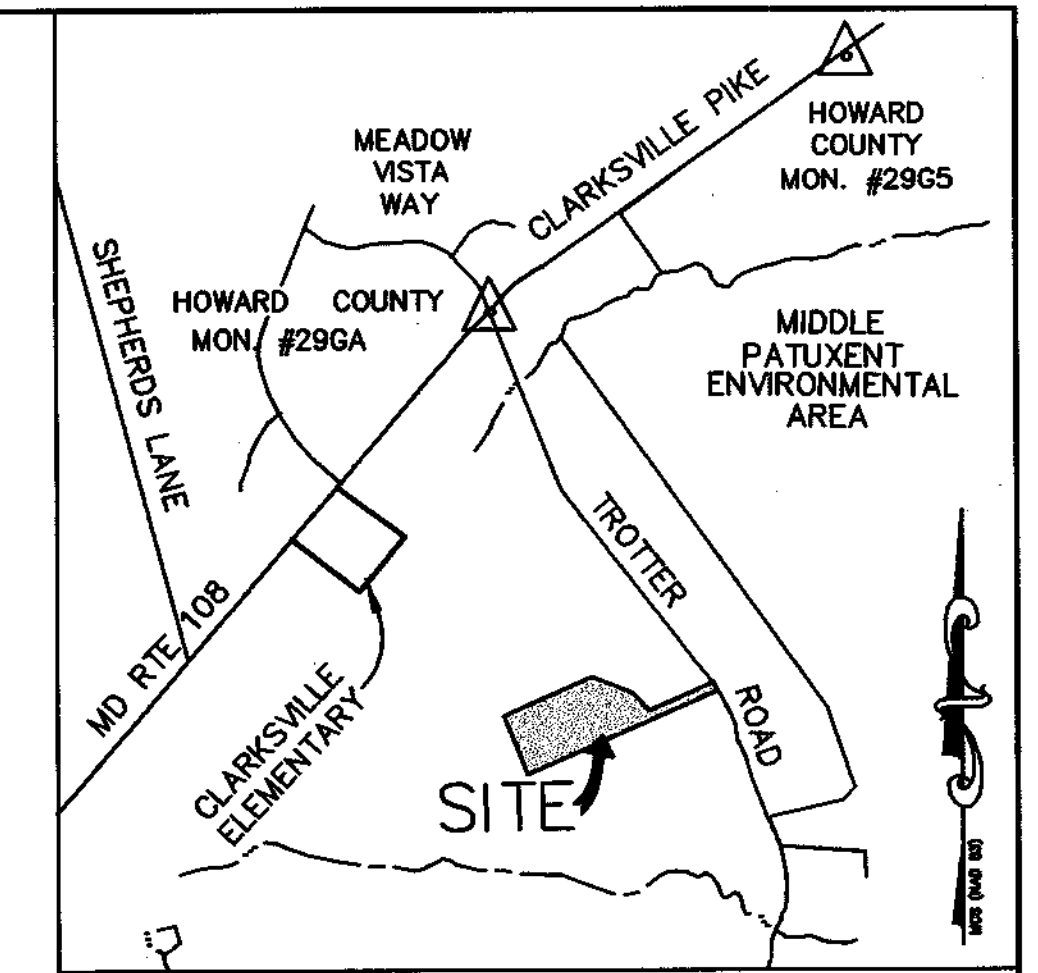
# PRELIMINARY EQUIVALENT SKETCH PLANS

# TROTTER CROSSING

## LOTS 1-12

## 5th ELECTION DISTRICT

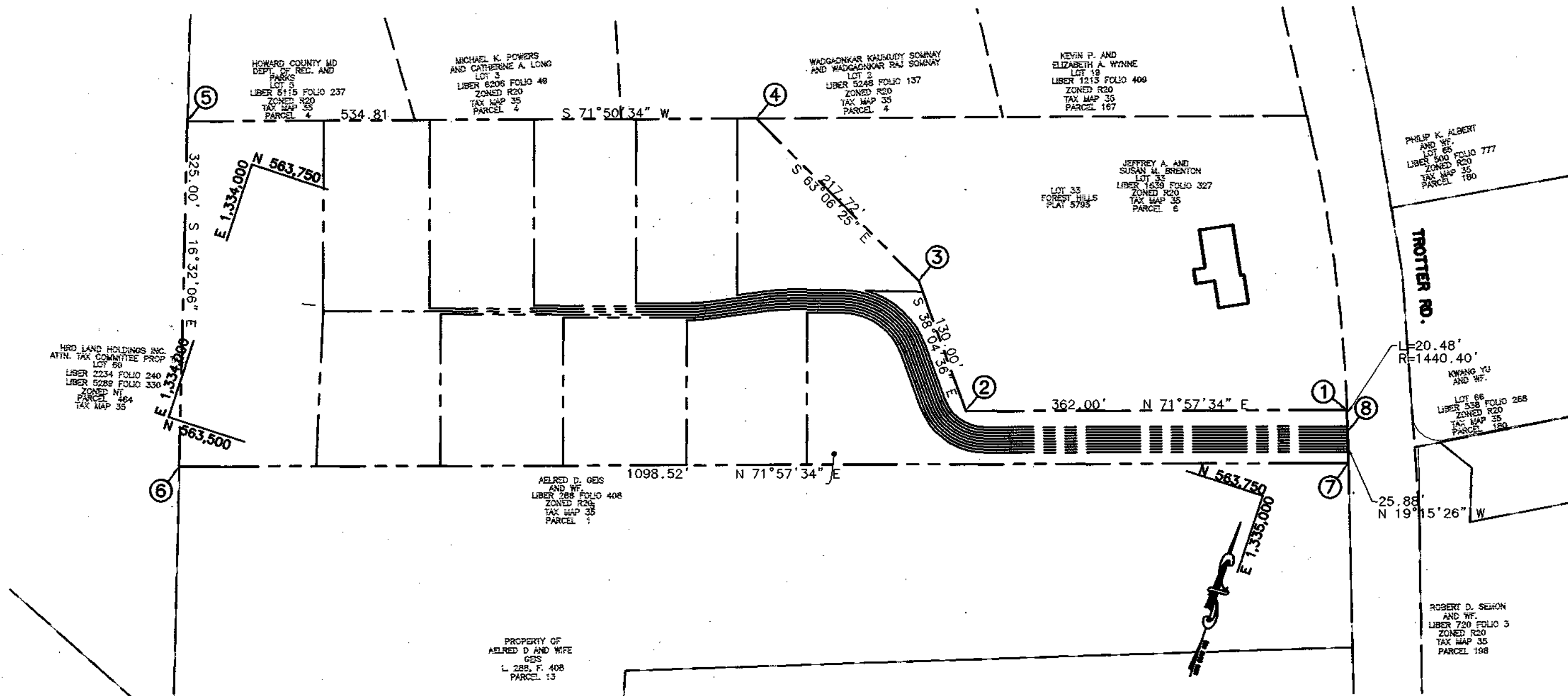
## HOWARD COUNTY, MARYLAND



VICINITY MAP  
SCALE: 1"=1000'

**GENERAL NOTES**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION" PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME II (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS, (JANUARY 1998)." A MINIMUM SPACING OF 20 SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD STUDY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY PATTON HARRIS RUST AND ASSOCIATES IN DECEMBER, 2002.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM, HOWARD COUNTY MONUMENT NOS. 421A AND 421B.
- PUBLIC WATER WILL BE EXTENDED TO THE SITE FROM PUBLIC WATER LOCATED APPROXIMATELY 1400' SOUTH OF THE SITE IN TROTTER ROAD. PUBLIC WATER WILL CONNECT TO WATER BEING CONSTRUCTED UNDER HOWARD COUNTY CAPITAL PROJECT # S-6239. THE EXISTING PRIVATE WELL AND SEPTIC FACILITIES WILL BE ABANDONED IN ACCORDANCE WITH HOWARD COUNTY HEALTH DEPARTMENT GUIDELINES. THE ISSUE OF PUBLIC WATER AND SEWER PROVISION WILL BE ADDRESSED AT THE FINAL PLAN STAGE.
- SEWER DRAINAGE AREA: LITTLE PATUXENT. PUBLIC SEWER WILL BE EXTENDED TO THE SITE FROM PUBLIC SEWER LOCATED APPROXIMATELY 1100' SOUTH OF THE SITE IN TROTTER ROAD. PUBLIC SEWER WILL CONNECT TO SEWER BEING CONSTRUCTED UNDER HOWARD COUNTY CAPITAL PROJECT # S-6239.
- THE PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FOR THIS SITE WILL BE PROVIDED BY A BIORETENTION FACILITY AND A POCKET POND.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY PATTON HARRIS RUST AND ASSOCIATES, DATED DECEMBER 2002.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP AND APPROVED DATED MAY 15, 2003.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY PATTON HARRIS RUST AND ASSOCIATES DATED MARCH 2003.
- SUBJECT PROPERTY ZONED R-20 PER 10-18-89 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S.: F-84-12. (FOREST HILLS LOT 32)
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOL. III. ALL 40' RIGHT OF WAYS 20 M.P.H.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95 % COMPACTION OF AASHTO T160.
- ALL STREET CURB RETURNS SHALL HAVE 25' RADII UNLESS OTHERWISE NOTED.
- ALL STREET LIGHTS SHALL BE LOCATED BETWEEN 2'-0" AND 4'-0" BEHIND FACE OF CURB.
- TYPE AND NUMBER OF STREET TREES SHOWN ON THIS PLAN ARE TENTATIVE AND ARE USED FOR BOND PURPOSES ONLY. THE FINAL LOCATION AND VARIETY OF LOCATION AND VARIETY OF TREES MAY VARY TO ACCOMMODATE FIELD CONDITIONS INCLUDING 20' CLEARANCE OF ANY STREET LIGHT AND SHALL BE IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. BOND RELEASE IS CONTINGENT UPON SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS, AS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING.
- THERE ARE THREE EXISTING PERMANENT STRUCTURES ON-SITE. ALL EXISTING STRUCTURES WILL BE REMOVED.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE STREAM OR REQUIRED BUFFER.
- WETLANDS, 100 YEAR FLOODPLAIN, AND +15 % SLOPES HAVE BEEN SHOWN.
- BASED ON AVAILABLE COUNTY MAPS AND RECORDS, THERE ARE NO HISTORIC STRUCTURES OR KNOWN CEMETERIES LOCATED ON THE SUBJECT PROPERTY.
- WP-03-123 - A REQUEST TO WAIVE SECTION 16.121(b)(1) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS - OPEN SPACE LOTS SHALL HAVE A MINIMUM OF 40 FEET OF FRONTAGE ON A PUBLIC ROAD WHICH IS SUITABLE FOR ACCESS BY PEDESTRIANS AND MAINTENANCE VEHICLES. OPEN SPACE FRONTAGE MAY BE REDUCED TO 30 FEET IF THE ADJACENT SIDE YARD SETBACK OF ABUTTING LOTS IS INCREASED BY 10 FEET, AND 16.120(b)(4)(ii) - RESIDENTIAL LOTS SHALL NOT BE ENCUMBERED BY ACCESS EASEMENTS FOR STORMWATER MANAGEMENT FACILITIES OR OPEN SPACE HAS BEEN APPROVED BY LETTER DATED JUNE 2, 2003 AND SUBJECT TO THE FOLLOWING CONDITIONS: (1) IN ACCORDANCE WITH THE ENCLOSED COMMENTS FROM THE DEPARTMENT OF RECREATION AND PARKS, THE DEVELOPER SHALL TRANSFER OPEN SPACE LOT 6 TO HOWARD COUNTY. IN ADDITION THE DEVELOPER SHALL PROVIDE A 12' WIDE (MINIMUM) ACCESS EASEMENT FOR PEDESTRIAN AND VEHICULAR ACCESS TO OPEN SPACE LOT 6 WHICH SHALL EXTEND FROM TROTTER ROAD TO OPEN SPACE LOT 6. THIS EASEMENT SHALL BE WITHIN THE PROPOSED USE IN COMMON DRIVEWAY EASEMENT SERVING RESIDENTIAL LOTS TO THE WESTERN TERMINUS OF THAT SHARED DRIVEWAY EASEMENT AND BEYOND TO THE BOUNDARY OF OPEN SPACE LOT 6. (2) A MAINTENANCE AGREEMENT FOR THE SHARED DRIVEWAY WITHIN A 24 FOOT WIDE EASEMENT SHALL BE RECORDED WITH THE CORRESPONDING SUBDIVISION PLAT. THIS DOCUMENT SHALL PROVIDE FOR ACCESS TO OPEN SPACE LOT 6 BUT SHALL EXCLUDE THE DEPARTMENT OF RECREATION AND PARKS FROM ALL MAINTENANCE OBLIGATIONS. (3) ON ALL PLANS AND PLATS, THE 24 FOOT WIDE USE-IN-COMMON ACCESS EASEMENT SERVING RESIDENTIAL LOTS SHALL ALSO BE LABELED AS SERVING OPEN SPACE LOT 6. (4) OPEN SPACE LOTS 11 AND 12 SHALL BE OWNED BY THE HOMEOWNER'S ASSOCIATION FOR THIS SITE. ON ALL PLANS, LABEL ACCESS PROVIDED TO OPEN SPACE LOTS 11 AND 12 FROM THE USE-IN-COMMON DRIVEWAY. MAKE THAT STIPULATION A PART OF THE MAINTENANCE AGREEMENT.
- THE FOREST CONSERVATION OBLIGATION FOR THE PROPOSED SITE DEVELOPMENT HAS BEEN MET BY PLACING 0.22 ± AC OF ON-SITE FOREST IN ON-SITE FOREST RETENTION EASEMENTS AND BY AFFORESTING 0.25 ± AC ON SITE. SURETY IN THE AMOUNT OF \$1,917 (8,583 S.F. x \$20) HAS BEEN POSTED FOR RETENTION. SURETY IN THE AMOUNT OF \$6,445 (10,890 S.F. x \$50) HAS BEEN POSTED FOR AFFORESTATION. PAYMENT OF FEE-IN-LIEU IN THE AMOUNT OF \$6,316.20 (12,632.4 S.F. x \$50) IS PROPOSED FOR THE REMAINING OBLIGATION OF 0.29 ± AC.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT.
- TROTTER ROAD IS CLASSIFIED AS A HOWARD COUNTY SCENIC ROAD. THE SCENIC ROAD IMPACT ANALYSIS WAS APPROVED ON MAY 30, 2003.
- THIS PROJECT IS SUBJECT TO THE 5th EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS BECAUSE IT WAS SUBMITTED ON APRIL 16, 2003 PRIOR TO MAY 22, 2003.



PLAN  
SCALE: 1"=100'

**SITE TABULATION**

EXISTING ZONING	R-20
GROSS AREA OF PROPERTY	5.42 AC (236,136 SF)
AREA IN 100 YR. FLOODPLAIN	0.35 AC (15,246 SF)
AREA OF STEEP SLOPE	0.00 AC
NET TRACT AREA	5.16 AC (224,761 SF)
AREA OF PROPOSED BUILDABLE LOTS	3.85 AC
MINIMUM LOT SIZE SELECTED	16,000 SF
AREA OF REQUIRED OPEN SPACE (20% OF NET)	1.03 AC (44,952 SF)
AREA OF PROVIDED OPEN SPACE:	
CREDITED	1.29 AC (56,176 SF)
NON-CREDITED	0.28 AC (12,368 SF)
TOTAL PROVIDED	1.57 AC (68,544 SF)
NUMBER OF BUILDABLE LOTS	9
NUMBER OF OPEN SPACE LOTS	3
PROPOSED WATER AND SEWER	PUBLIC

TENTATIVELY APPROVED  
DEPT. OF PLANNING AND  
ZONING OF  
HOWARD COUNTY  
*Marks & Lytle* 4/16/04  
PLANNING DIRECTOR DAT

COORDINATE LIST		
1	N 563,851.42	E 1,335,050.04
2	N 563,738.76	E 1,334,710.25
3	N 563,841.30	E 1,334,629.89
4	N 563,939.00	E 1,334,437.39
5	N 563,769.69	E 1,333,930.08
6	N 563,458.62	E 1,334,024.22
7	N 563,804.34	E 1,335,066.93
8	N 563,832.17	E 1,335,057.04

MINIMUM LOT SIZE TABULATION			
LOT NO.	GROSS AREA	LESS PIPESTEM	REMAINING AREA/ MIN LOT SIZE
1	17,465	1,394	16,071
2	18,113	1,712	16,401
3	18,834	1,972	16,862
4	19,634	2,228	17,406
5	20,416	2,489	17,927
7	18,997	2,462	16,535
8	18,569	2,154	16,415
9	17,978	1,845	16,133
10	17,578	1,542	16,036

ALL AREAS SHOWN ABOVE ARE IN SQUARE FEET

DATE	NO.	REVISION

**OWNER**  
JOSEPH H. RICHMOND & WIFE  
P.O. BOX 193  
5686 TROTTER ROAD  
CLARKSVILLE, MD 21029-0193

**DEVELOPER**  
CORNERSTONE HOLDINGS, LLC  
ATTN: BRIAN BOY  
9691 NORFOLK AVENUE  
LAUREL, MD 20723  
(410) 792-2565

**PROJECT**  
**TROTTER CROSSING LOTS 1-12**  
A RESUBDIVISION OF FOREST HILLS LOT 32

AREA TAX MAP 35 GRID 2 PARCEL 6 ZONING R-20  
5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**TITLE SHEET**

**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

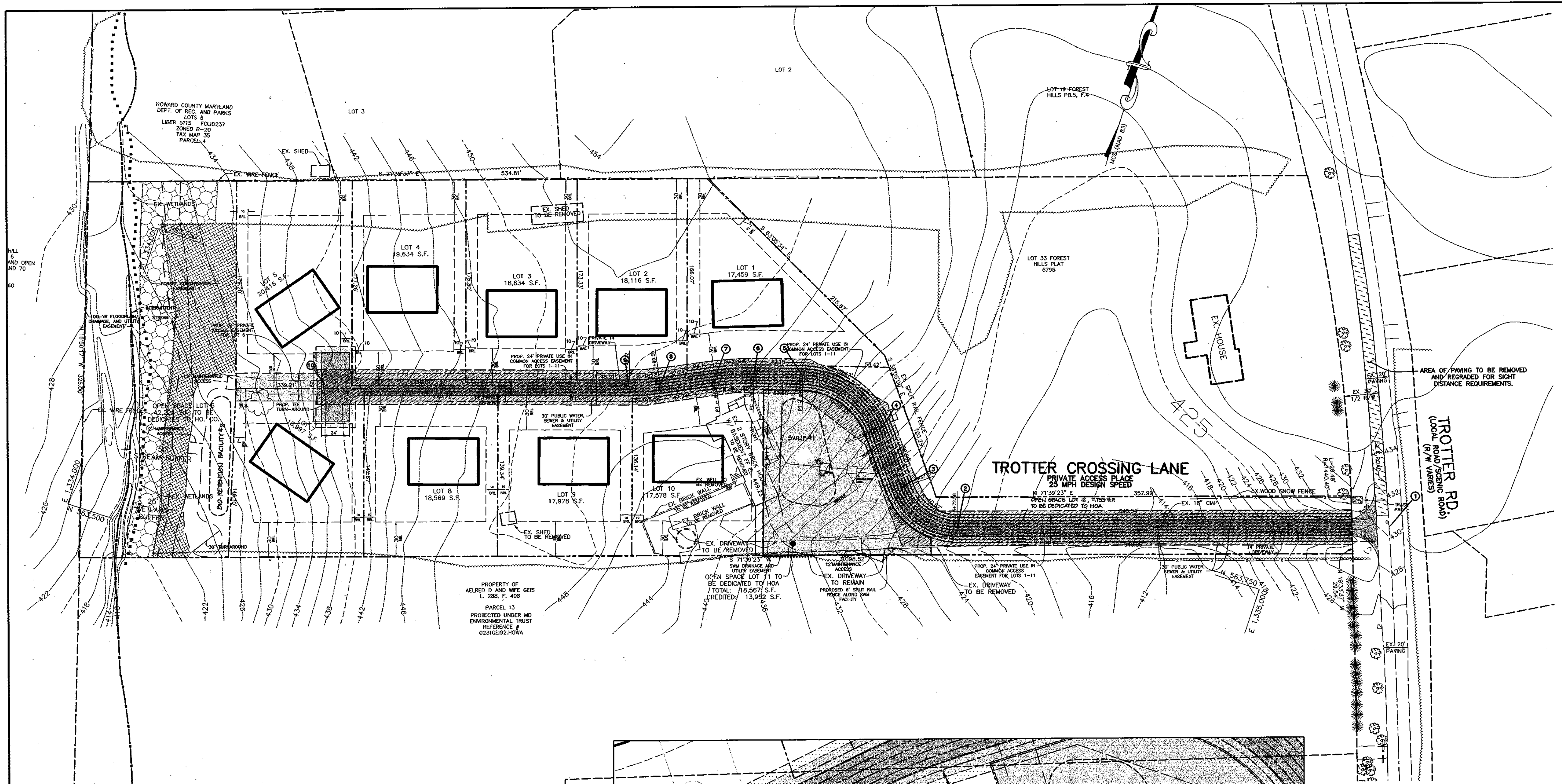
**PHRA**

1-26-04  
DATE

DESIGNED BY: PJS  
DRAWN BY: PJS/KLS  
PROJECT NO.: 1885/1-0/ENGR/PLANS  
PRELIM/COOCCOV.DWG  
DATE: JANUARY 26, 2004  
SCALE: AS SHOWN  
DRAWING NO. 1 OF 6

CHRISTOPHER J. REID #19949  
SP-03-15



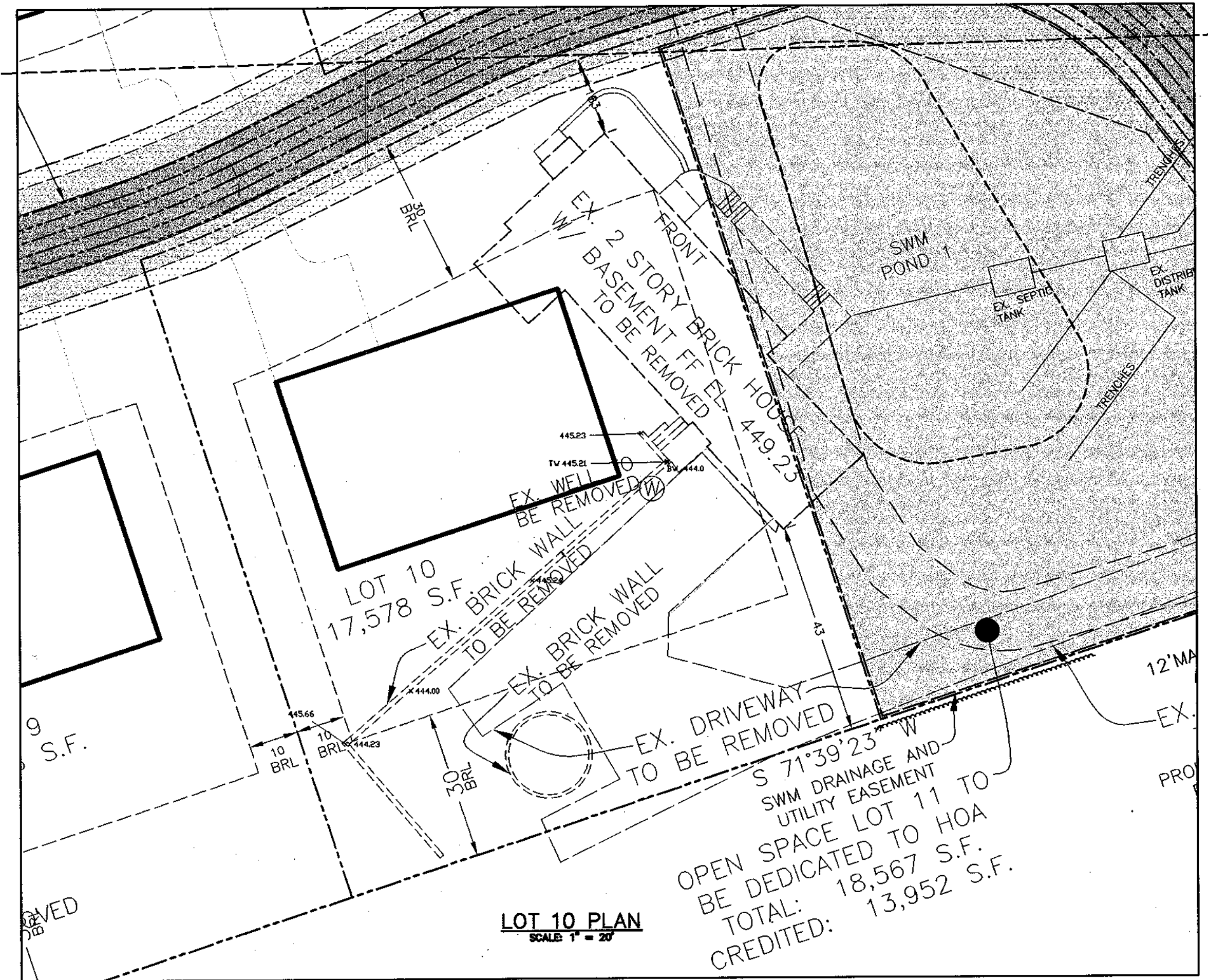


**LEGEND**

EXISTING 2' CONTOUR	400
EXISTING 10' CONTOUR	400
PROPOSED 2' CONTOUR	400
PROPOSED 10' CONTOUR	400
PROPERTY LINE AND RIGHT OF WAY	
EXISTING STORM DRAIN	15" D
PROPOSED STORM DRAIN	15" D
EXISTING TREELINE	
PROPOSED TREELINE	
EXISTING TREE	
SETBACK LINES	
P-1 PAVING	
EXISTING BUILDING	
PROPOSED BUILDING	
AFFORESTATION	
FOREST RETENTION	

**ROAD CENTERLINE DATA**

①	N 56°38'55.94" E, L=1335089.63
②	N 71°39'20" E, L=372.58'
③	R=52.67', L=64.59'
④	S 38°04'36" E, L=52.86'
⑤	R=71.33', L=85.86"
⑥	N 72°57'22" E, L=42.15'
⑦	R=211.33', L=33.71'
⑧	N 63°48'58" E, L=47.74'
⑨	R=188.67', L=26.81'
⑩	N 71°57'37" E, L=261.25'



TENTATIVELY APPROVED  
 DEPT. OF PLANNING AND ZONING OF  
 HOWARD COUNTY

*Mark A. Reid*  
 PLANNING DIRECTOR

2/1/04  
 DATR

DATE	NO.	REVISION
<b>OWNER</b>		
JOSEPH H. RICHMOND & WIFE P.O. BOX 193 5686 TROTTER ROAD CLARKSVILLE, MD 21029-0193		
<b>DEVELOPER</b>		
CORNERSTONE HOLDINGS, LLC ATTN: BRIAN BOY 9691 NORFOLK AVENUE LAUREL, MD 20723 (410) 792-2565		
<b>PROJECT</b>		
TROTTER CROSSING LOTS 1-12 A RESUBDIVISION OF FOREST HILLS LOT 32		
AREA TAX MAP 35 GRID 2 PARCEL 6 ZONING R-20 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
<b>TITLE</b>		
PRELIMINARY EQUIVALENT SKETCH 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		
DESIGNED BY :	PJS	
DRAWN BY :	PJS/KLS	
PROJECT NO.:	1185/1-0/ENGR/PLANS PRELIM/C40051.DWG	
DATE :	JANUARY 26, 2004	
SCALE :	1" = 50'	
DRAWING NO.:	2 OF 6	





**LEGEND**

- SOIL LINES
- BORING LOCATION
- DRAINAGE AREA LINES TO STORM DRAIN STRUCTURES
- TREE PROTECTION FENCE
- RIPRAP OUTLET PROTECTION

SOILS CHART					
MAP SYMBOL	NAME	STRUCTURAL LIMITATIONS DWELLINGS	EROSION HAZARD	HYDRIC	SLOPE (%)
ChC2	CHESTER SILT LOAM	MODERATE	MODERATE	NO	8-15%
Eka	ELIOAK SILT LOAM	SLIGHT	---	NO	0-3%
EkB2	ELIOAK SILT LOAM	SLIGHT	MODERATE	NO	3-8%
EkC2	ELIOAK SILT LOAM	MODERATE	MODERATE	NO	8-15%
GnB2	GLENVILLE SILT LOAM	MODERATE	MODERATE	NO*	3-8%
MIA	MANOR LOAM	SLIGHT	---	NO	0-3%
MID2	MANOR LOAM	MODERATE/SEVERE	MODERATE	NO	15-25%
MGC2	MANOR GRAVELLY LOAM	MODERATE	MODERATE	NO	0-3%

\* SOIL MAY CONTAIN HYDRIC INCLUSIONS

STORMWATER MANAGEMENT SUMMARY TABLE								
	DRAINAGE AREA (AC)	WQv (CF)	Rev (CF)	Cpv (AC-FT)	Qp 1 (CFS)	Qp 10 (CFS)	Qp 100 (CFS)	COMMENTS
DA 1 (STUDY POINT 1)	2.10	2570	496	N/A	1.97	6.85	---	NON-ROOFTOP DISCONNECT CREDIT AND BIORETENTION FACILITY
POCKET POND	1.43	---	---	---	0.03	4.82	7.36	
DA 2A & 2C	2.12	2672	608	0.058	0.68	5.85	10.79	NON-ROOFTOP DISCONNECT CREDIT AND POCKET POND
DA 2B	7.69	N/A	N/A	N/A	6.67	23.97	40.33	OFFSITE AREA
STUDY POINT 2	9.81	N/A	N/A	N/A	7.15	29.30	51.02	

FOR DRAINAGE AREA #1 THE NON-ROOFTOP DISCONNECT CREDIT AND THE BIORETENTION FACILITY WILL PROVIDE FOR THE REQUIRED WQv AND Rev. THE 1-YEAR PEAK DISCHARGE AT STUDY POINT 1 IS LESS THAN 2 CFS; THEREFORE, Cpv IS NOT REQUIRED. FROM DRAINAGE AREA 2A & 2C THE NON-ROOFTOP RUNOFF DISCONNECT CREDIT WILL PROVIDE THE REQUIRED Rev AND A POCKET POND WILL PROVIDE THE REQUIRED WQv AND Cpv. AT STUDY POINT 2 THE 1-YEAR PEAK DISCHARGE IS LESS THAN THE EXISTING CONDITIONS.

DRAINAGE AREA CHART			
INLET NO.	AREA (AC.)	C	% IMP
HW-2	8.95	---	17
1-1	0.63	0.23	24

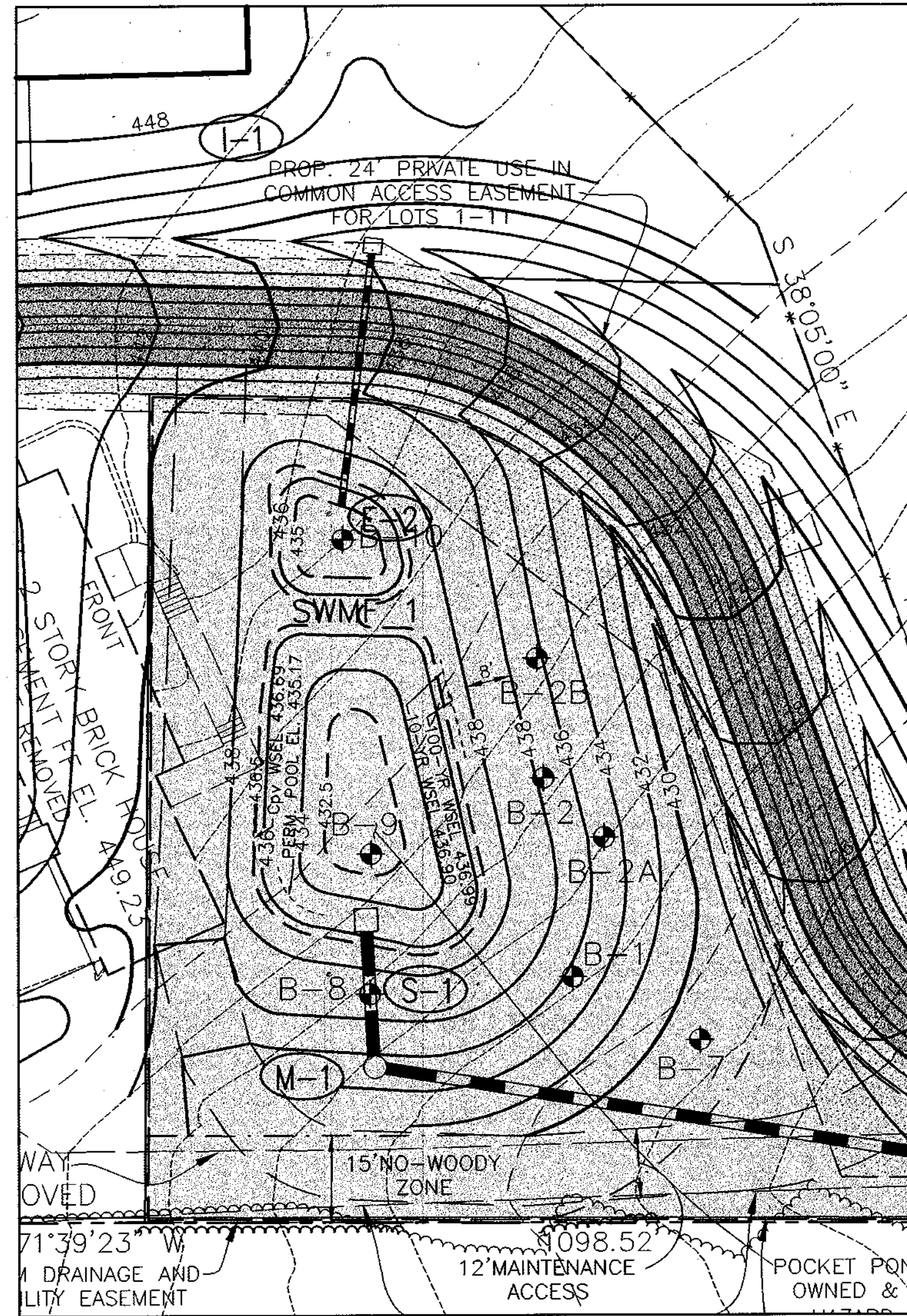
TENTATIVELY APPROVED  
 DEPT. OF PLANNING AND ZONING OF  
 HOWARD COUNTY  
*Christopher J. Reid*  
 PLANNING DIRECTOR DATE

DATE NO.	REVISION
OWNER	JOSEPH H. RICHMOND & WIFE P.O. BOX 193 5686 TROTTER ROAD CLARKSVILLE, MD 21029-0193
DEVELOPER	CORNERSTONE HOLDINGS, LLC ATTN: BRIAN BOY 9691 NORFOLK AVENUE LAUREL, MD 20723 (410) 792-2565
PROJECT	TROTTER CROSSING LOTS 1-12 A RESUBDIVISION OF FOREST HILLS LOT 32
AREA TAX MAP 35 GRID 2 PARCEL 6 ZONING R-20 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE	PRELIMINARY DRAINAGE AREA MAP, GRADING PLAN & SOILS MAP
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	1.26.04
DESIGNED BY:	PJS
DRAWN BY:	PJS/KLS
PROJECT NO:	11885/1-0/ENGR/PLANS PRELIM/CS000RA.DWG
DATE:	JANUARY 26, 2004
SCALE:	1" = 50'
DRAWING NO.	3 OF 6

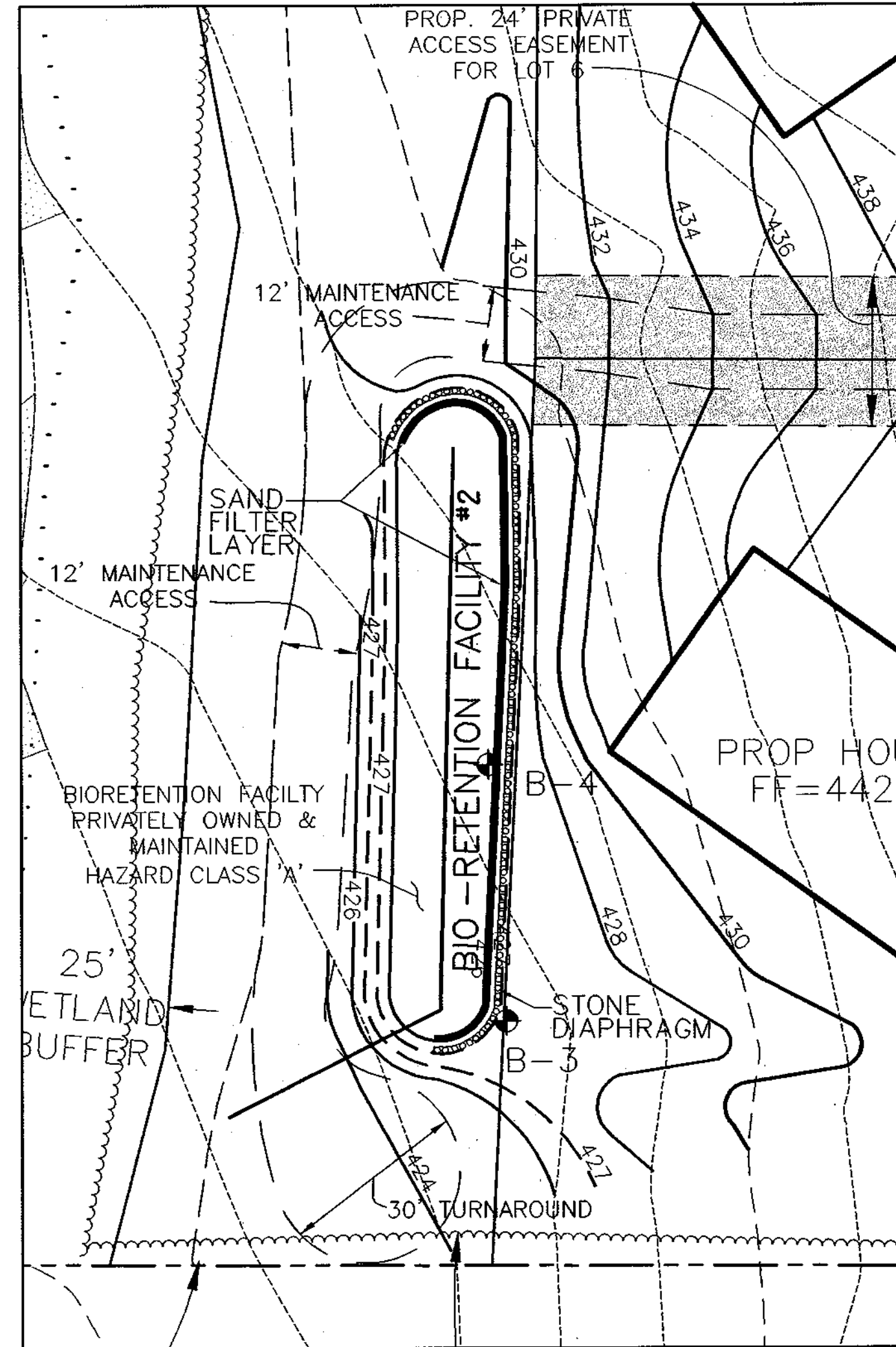


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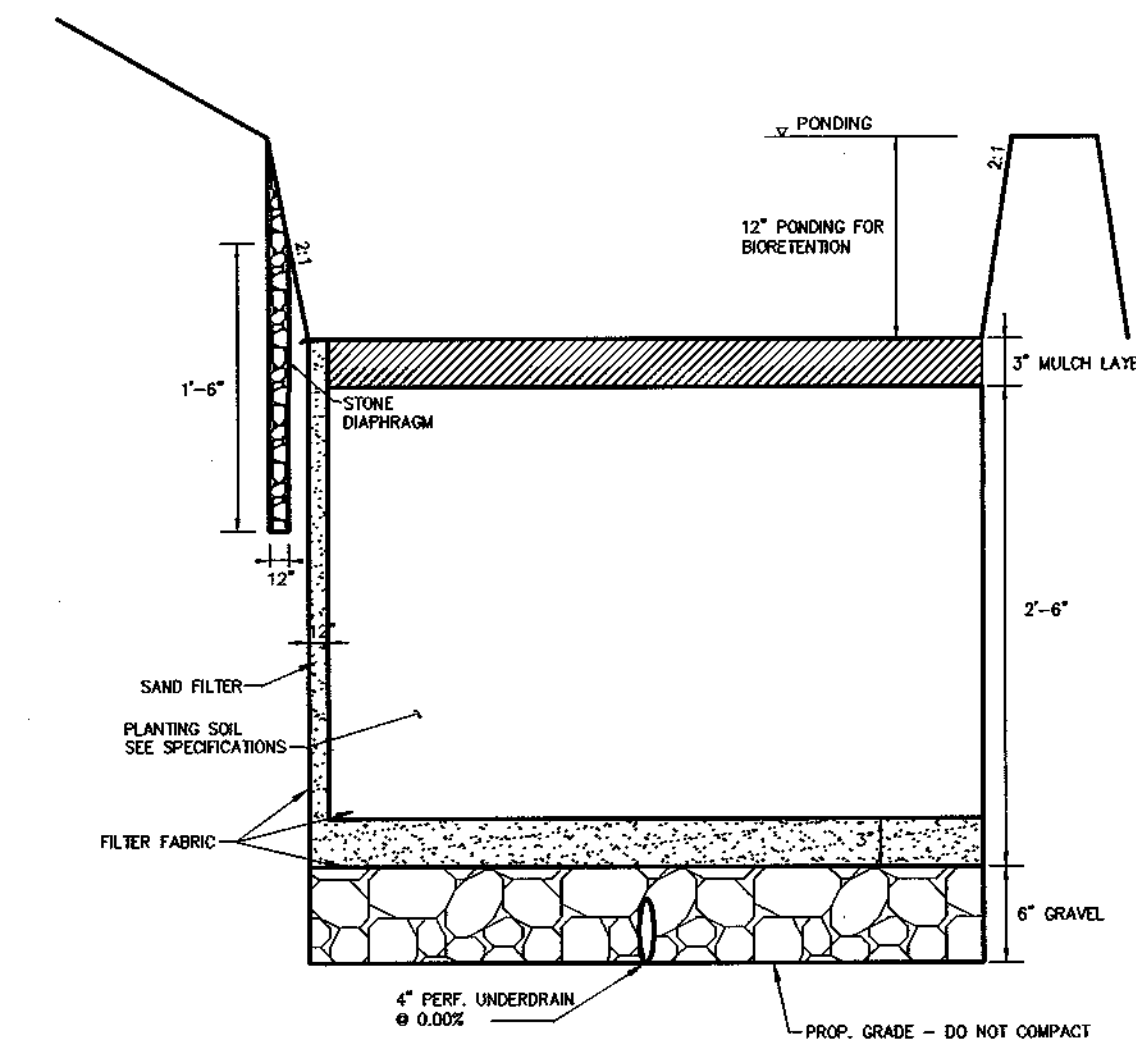






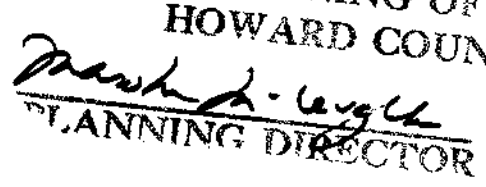
**POCKET POND FACILITY #1 (SWM POND)**  
SCALE: 1"=20'



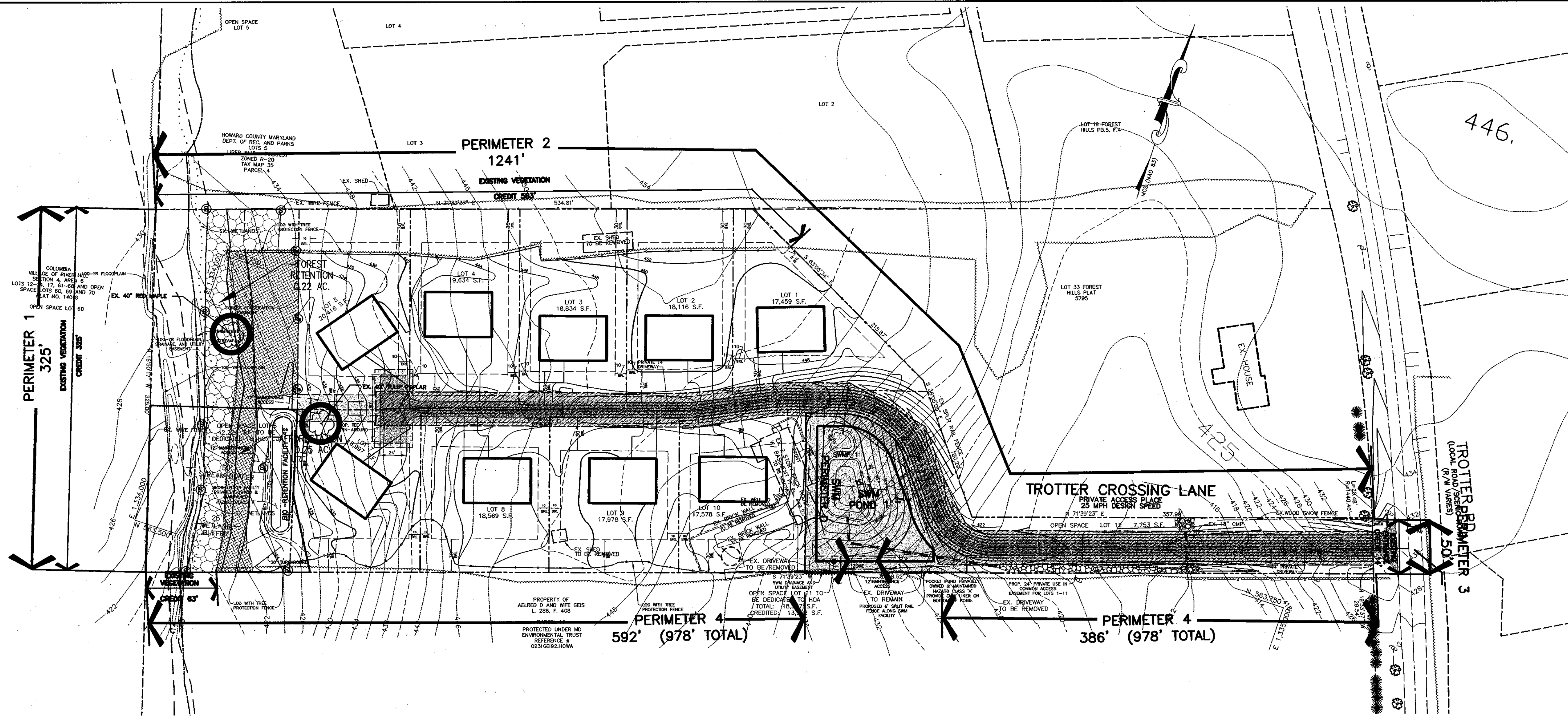
**BIORETENTION FACILITY #2 (SWM POND)**  
SCALE: 1"=20'



**TYPICAL BIORETENTION FACILITY #2 SECTION (SWM POND)**

DATE	NO.	REVISION
<b>OWNER</b>		
JOSEPH H. RICHMOND & WIFE P.O. BOX 193 5686 TROTTER ROAD CLARKSVILLE, MD 21029-0193		
<b>DEVELOPER</b>		
CORNERSTONE HOLDINGS, LLC ATTN: BRIAN BOY 9691 NORFOLK AVENUE LAUREL, MD 20723 (410) 792-2565		
<b>PROJECT</b>		
TROTTER CROSSING LOTS 1-12 A RESUBDIVISION OF FOREST HILLS LOT 32		
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<b>TITLE</b>		
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		
		
1.26.04 DATE		
		
TENTATIVELY APPROVED DEPT. OF PLANNING AND ZONING OF HOWARD COUNTY  PLANNING DIRECTOR 2/04/04 DATE		
DESIGNED BY : ACR		
DRAWN BY : DAM/ACR		
PROJECT NO: 11885/1-0/ENGR/PLANS PRELIM/C900DET.DWG		
DATE : JANUARY 26, 2004		
SCALE : 1" = 50'		
DRAWING NO. 4 OF 6		





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.
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 NURSERMEN.
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.
7. AT THE TIME OF INSTALLMENT, 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 ROADWAYS		ADJACENT TO PERIMETER PROPERTIES	
	3	1	2	4
LANDSCAPE TYPE	NONE	A	A	A
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	50'±	325'±	1241'±	978'±
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	YES 325'±	YES 583'±	YES 63'±
CREDIT FOR DRIVE ENTRANCES (YES, NO, LINEAR FEET)	YES 14'	NO	NO	NO
LINEAR FEET REMAINING	36'±	0'±	707'±	915'±
CREDIT FOR WALL, FENCE, OR BERM (YES/NO/LINEAR FEET)	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED				
SHADE TREES	0	0	12	15
EVERGREEN TREES	0	0	0	0
SHRUBS	0	0	0	0

SCHEDULE D - STORMWATER MANAGEMENT AREA LANDSCAPING	
S. N. M. POND PERIMETER	1
LANDSCAPE TYPE	B
LINEAR FEET OF TOTAL PERIMETER	±483
CREDIT FOR EX. VEGETATION (NO OR YES & %)	NO
CREDIT FOR OTHER PROP. LANDSCAPING (NO OR YES & %)	NO
LINEAR FEET OF REMAINING PERIMETER	±483'
NUMBER OF TREES REQUIRED:	
SHADE TREES	10
EVERGREEN TREES	12

NOTE: SWM FACILITY #2 WILL BE PLANTED WITHIN THE FACILITY.

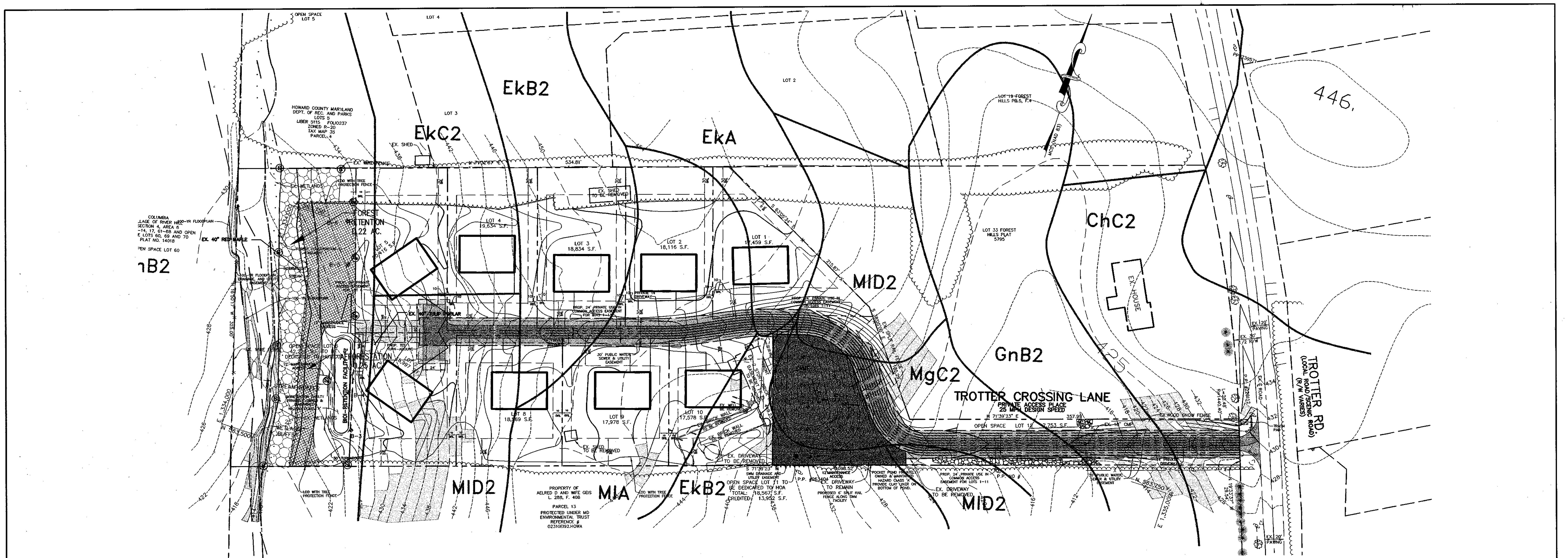
STREET TREE CALCULATIONS *		
ROAD A	1880' / 40	47 LARGE TREES
TOTAL TREES REQUIRED		47 LARGE TREES

NOTE: STREET TREES BONDED WITH LANDSCAPE PLANTINGS AND STORM WATER MANAGEMENT PLANTINGS.  
\* LANDSCAPE TREES ALONG PRIVATE ACCESS PLACE.

DATE	NO.	REVISION
OWNER		
JOSEPH H. RICHMOND & WIFE P.O. BOX 193 5686 TROTTER ROAD CLARKSVILLE, MD 21029-0193		
DEVELOPER		
CORNERSTONE HOLDINGS, LLC ATTN: BRIAN BOY 9631 NORFOLK AVENUE LAUREL, MD 20723 (410) 792-2565		
PROJECT		
TROTTER CROSSING LOTS 1-12 A RESUBDIVISION OF FOREST HILLS LOT 32		
AREA TAX MAP 35, GRID 2, PARCEL 6, ZONING R-20 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
PRELIMINARY LANDSCAPE 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		
1-26-04 DATE		
DESIGNED BY: PJS		
DRAWN BY: PJS/KLS		
PROJECT NO: 11885/1-0/ENGR/PLANS PRELIM/L2004.DWG		
DATE: JANUARY 26, 2004		
SCALE: 1" = 50'		
DRAWING NO. 5 OF 6		
SCOTT R. WOLFORD #797		

TENTATIVELY APPROVED  
DEPT. OF PLANNING AND  
ZONING OF  
HOWARD COUNTY  
*Scott R. Wolford*  
PLANNING DIRECTOR 1/26/04





**GENERAL NOTES:**

- THIS PLAN HAS BEEN PREPARED USING FIELD RUN TOPOGRAPHY. PORTIONS OF THE EXISTING TREELINE AND SPECIMEN TREE LOCATIONS WERE FIELD APPROXIMATED.
- NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
- NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
- THERE ARE NO KNOWN CEMETERIES OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY CEMETERIES INVENTORY.
- THREE EXISTING STRUCTURES ARE PRESENT ON THE SITE AS SHOWN.
- THIS SITE CONTAINS NO HYDRIC SOILS AND ONE SOIL WITH POSSIBLE HYDRIC INCLUSIONS, GLENVILLE SILT LOAM (GnB2), CHESTER SILT LOAM (ChC2), ELOAK SILT LOAM (Eka), ELOAK SILT LOAM (Ekb2), CHESTER SILT LOAM (Ekc2), MANOR LOAM (MIA), MANOR LOAM (MID2), AND MANOR GRAVELLY LOAM (MgC2) ARE ALSO PRESENT ON THE SITE.
- THE FSD, DATED NOVEMBER 20, 2002, HAS BEEN PREPARED BY PATTON HARRIS RUST & ASSOCIATES IN CONJUNCTION WITH THIS PROJECT.
- JUSTIFICATION FOR FOREST REMOVAL: IN ORDER TO PROVIDE PARKING AND STORMWATER MANAGEMENT, A PORTIONS OF THE FORESTED AREA NEEDS TO BE CLEARED.
- THE HOWARD COUNTY FOREST CONSERVATION MANUAL SUPERCEDES ANY DISCREPANCIES BETWEEN THE MANUAL AND THESE PLANS.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION.
- THE FOREST CONSERVATION OBLIGATION FOR THE PROPOSED SITE DEVELOPMENT HAS BEEN MET BY PLACING 0.22+ AC OF ON-SITE FOREST IN ON-SITE FOREST RETENTION EASEMENTS AND BY AFForestING 0.25+ AC ON-SITE. SURETY IN THE AMOUNT OF \$1,011 (0.25+ AC x \$400,000) POSTED FOR RETENTION, SURETY IN THE AMOUNT OF \$9,442 (0.25+ AC x \$37,768) HAD BEEN POSTED FOR AFForestation. PAYMENT OF \$2,143 (0.25+ AC x \$8,572) HAD BEEN POSTED FOR AFForestation. PAYMENT OF \$2,143 (0.25+ AC x \$8,572) HAD BEEN POSTED FOR AFForestation. PAYMENT OF \$2,143 (0.25+ AC x \$8,572) HAD BEEN POSTED FOR AFForestation.

**Howard County Forest Conservation Worksheet**

Project Name: Trotter Crossing  
 County File #: December 8, 2003  
 Date:

**Net Tract Area**  
 A = Total Tract Area  
 B = 100 year Floodplain  
 C = Net Tract Area - Net Tract Area = (A-B-C)  
**Land Use Category: Residential - Suburban**  
 D = Afforestation Threshold (Net Tract Area X 15%)  
 E = Conservation Threshold (Net Tract Area X 20%)  
**Existing Forest Cover**  
 F = Existing Forest Cover within the Net Tract Area  
 G = Area of Forest Above Conservation Threshold  
 If the Existing Forest Cover (F) is greater than Conservation Threshold (E), then  
 G = Existing Forest Cover (F) - Conservation Threshold (E); Otherwise G = 0

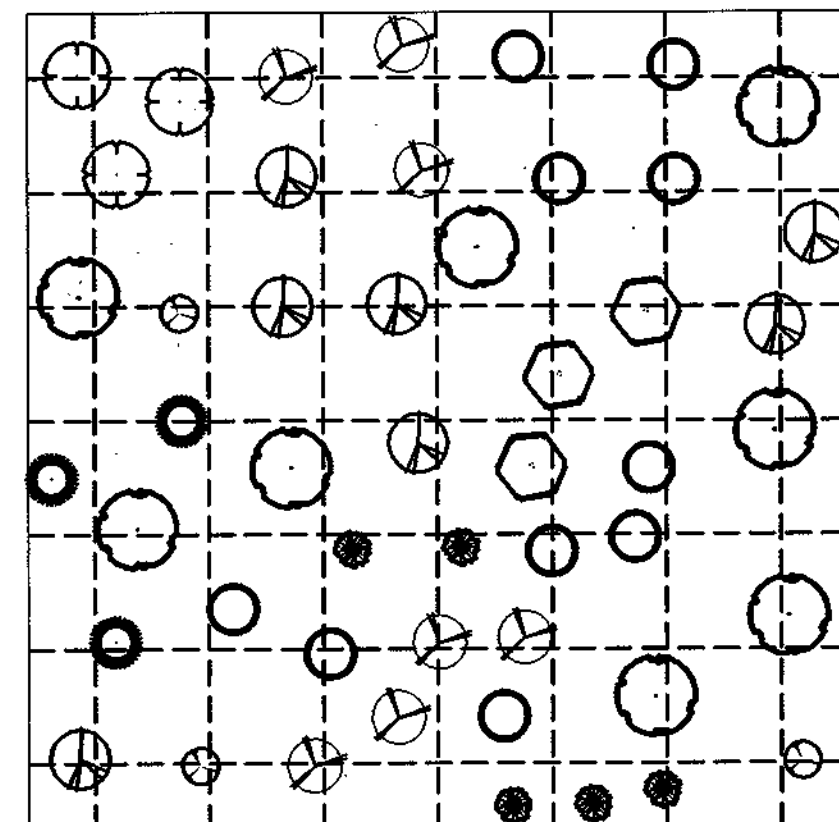
**Break Even Point**  
 H = Break Even (Amount of forest that must be retained so that no mitigation is required)  
 (1) If the area of forest above the Conservation Threshold (G) is greater than zero, then  
 H = (0.2 X the area of forest above Conservation Threshold (G)) + the Conservation Threshold (E)  
 (2) If the area of forest above the Conservation Threshold (G) is equal to zero, then  
 H = Existing Forest Cover (F)  
**Forest Clearing Permitted Without Mitigation**  
 I = Existing Forest Cover (F) - Break Even Point (H)

**Proposed Forest Clearing**  
 J = Total Area of Forest to be Cleared  
 K = Total Area of Forest to be Retained  
 K = Existing Forest Cover (F) - forest to be cleared (J)

**Planting Requirements**  
 If the Total Area of Forest to be Cleared (J) is at or above the Break Even Point (H), no planting is required and no further calculations are necessary (L=0, M=0, N=0, P=0).  
 If not, calculate the planting requirement below:

**L: Reforestation for Clearing Above the Conservation Threshold**  
 (1) If the total area of forest to be retained (K) is greater than the Conservation Threshold (E), then  
 L = the area of forest to be cleared (J) X 0.25 or  
 (2) If the forest to be retained (K) is less than or equal to the Conservation Threshold (E), then  
 L = area of forest above Conservation Threshold (G) X 0.25  
**M: Reforestation for Clearing Below the Conservation Threshold**  
 (1) If Existing Forest Cover (F) is greater than Conservation Threshold (E) and the forest to be retained (K) is less than or equal to the Conservation Threshold (E), then  
 M = 2.0 X (the Conservation Threshold (E) - the forest to be retained (K))  
 (2) If Existing Forest Cover (F) is less than or equal to the Conservation Threshold (E), then  
 M = 2.0 X Forest to be cleared (J)  
**N: Credit for Retention Above the Conservation Threshold**  
 If the area of forest to be retained (K) is greater than the Conservation Threshold (E), then N = K - E  
**P: Total Reforestation Required P = L + M - N**  
**Q: Total Afforestation Required**  
 (1) If Existing Forest Cover (F) is less than the Afforestation Threshold (D) then  
 Q = the Afforestation Threshold (D) - the Existing Forest Cover (F)  
**R: Total Planting Requirement R = P + Q**

	Acres
A =	5.42
B =	0.36
C =	5.07
D =	0.76
E =	1.01
F =	0.22
G =	0.00
H =	FALSE
I =	FALSE
J =	0.00
K =	0.22
L =	0.00
M =	0.00
N =	0.00
P =	0.00
Q =	0.94
R =	0.94



RANDOM PLANTING LAYOUT DETAIL

NOT TO SCALE

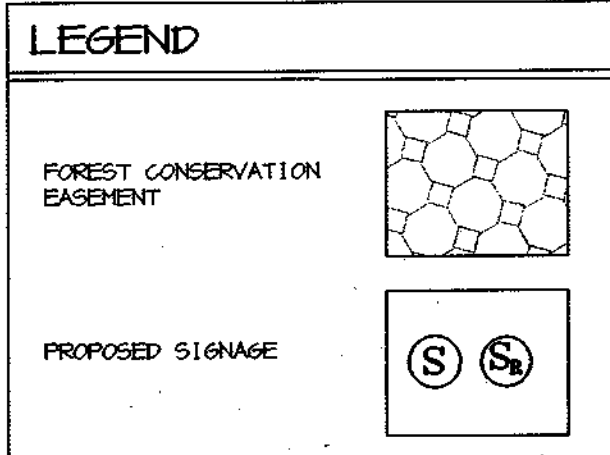
**KEY**

- TREES**
- TREE SPECIES 'A'
  - TREE SPECIES 'B'
  - TREE SPECIES 'C'
  - TREE SPECIES 'D'
  - TREE SPECIES 'E'
  - TREE SPECIES 'F'
  - TREE SPECIES 'G'
  - TREE SPECIES 'H'
  - TREE SPECIES 'I'

TENTATIVELY APPROVED  
 DEPT. OF PLANNING AND ZONING OF HOWARD COUNTY  
 Mark D. Wagle  
 PLANNING DIRECTOR

**NOTES**

- RANDOMLY LOCATE GROUPS OF PLANT SPECIES, TAKING CARE NOT TO PLANT IN SUCCESSION MORE THAN 4 OF THE SAME SPECIES.
- 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. SEE PLANT LIST FOR ACTUAL NUMBER OF PLANT SPECIES.
- SEE PLANT LIST FOR ON-CENTER SPACING REQUIREMENTS.



MET VIA 0.22 AC RETENTION, 0.25 AC AFForestation, AND 0.29 AC FEE-IN-LIEU

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