

GENERAL NOTES

- 1.) THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- 2.) THE EXISTING TOPOGRAPHY IS BASED ON A FIELD SURVEY PERFORMED BY BENCHMARK ENGINEERING INC. IN MARCH, 2002 AND SUPPLEMENTED WITH DIGITAL GIS TOPOGRAPHY PURCHASED FROM HOWARD COUNTY.
- 3.) 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. 34E5 AND 34E4 WERE USED FOR THIS PROJECT.
- 4.) WATER IS PRIVATE.
- 5.) SEWER IS PRIVATE.
- 6.) STORMWATER MANAGEMENT SHALL BE PROVIDED BY A WET EXTENDED DETENTION FACILITY AND A MICRO-POOL EXTENDED DETENTION FACILITY.
- 7.) EXISTING UTILITIES ARE BASED UPON FIELD SURVEY LOCATIONS.
- 8.) THE FLOODPLAIN STUDY FOR THIS PROJECT WAS PREPARED BY BENCHMARK ENGINEERING, INC. DATED NOVEMBER, 2004.
- 9.) THE WETLANDS DELINEATION FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONAL, INC. IN NOVEMBER, 2001.
- 10.) THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP, INC. IN NOVEMBER, 2001 AND REVISED IN JANUARY, 2002.
- 11.) A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- 12.) THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY GEO-TECHNOLOGY ASSOCIATES, INC. (GTA) IN DECEMBER, 2004.
- 13.) THE SUBJECT PROPERTY IS ZONED RR-DEO PER THE 2-2-04 COMPREHENSIVE ZONING PLAN.
- 14.) TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO BURIAL GROUNDS OR CEMETERIES LOCATED ON THIS SITE.
- 15.) THERE SHALL BE NO DISTURBANCE WITHIN THE 100-YR FLOODPLAIN, WETLANDS, STREAMS, THEIR BUFFERS OR STEEP SLOPES THAT ARE AT LEAST 20,000 S.F. UNLESS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING.
- 16.) BOUNDARY IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED DURING NOVEMBER, 2002 BY BENCHMARK ENGINEERING, INC.
- 17.) FOREST STAND DELINEATION WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. IN NOVEMBER, 2001.
- 18.) THIS PROJECT IS NOT LOCATED WITHIN THE METROPOLITAN DISTRICT.
- 19.) THE STORMWATER MANAGEMENT SYSTEM SHOWN ON THIS PLAN IS AN APPROXIMATION OF THE SIZE, SHAPE AND LOCATION. IT IS UNDERSTOOD THAT THIS SYSTEM HAS NOT BEEN DESIGNED AND THE ACTUAL DESIGN MAY CHANGE ALTERING THE NUMBER OF UNITS ALLOCATED FOR THIS DEVELOPMENT.
- 20.) THIS PROJECT IS SUBJECT TO COMPLIANCE WITH THE FOURTH EDITION OF THE SUBDIVISION REGULATIONS AS A CONSEQUENCE FOR ITS SUBMISSION PRIOR TO 1-15-01. THIS PROJECT IS SUBJECT TO COMPLIANCE WITH COUNTY COUNCIL BILL 50-2001 WHICH AMENDS PORTIONS OF THE ZONING REGULATIONS AS A CONSEQUENCE FOR NOT HAVING PRELIMINARY PLAN APPROVAL PRIOR TO 11-1-2001. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS OR PARCELS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF THE SUBMISSION OF A BUILDING OR GRADING PERMIT APPLICATION.
- 21.) THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10,000 SQUARE FEET AS REQUIRED BY THE STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA IS RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECDERATION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE NECESSARY.
- 22.) THE PURPOSE OF THE PRESERVATION PARCELS AND THE JUSTIFICATION FOR THE DESIGN OF THE CLUSTER SUBDIVISION IS AS FOLLOWS:
 PRESERVATION PARCEL 'A' IS PROPOSED AS A BUILDABLE PARCEL. ONE (1) HOUSING ALLOCATION ALLOWING ONE (1) BUILDABLE UNIT SHALL BE UTILIZED. THIS PARCEL SHALL INCLUDE BUT NOT BE LIMITED TO STORM DRAINS, UTILITY EASEMENTS AND FOREST CONSERVATION EASEMENTS. IT WILL BE PRIVATELY OWNED. IT IS ENCUMBERED BY AN EASEMENT AGREEMENT WITH HOWARD COUNTY AND THE HOMEOWNERS ASSOCIATION. THIS AGREEMENT PROHIBITS FURTHER SUBDIVISION OF THE PARCEL. OUTLINES THE MAINTENANCE RESPONSIBILITIES OF ITS OWNER AND ENUMERATES THE USES PERMITTED ON THE PROPERTY.
 PRESERVATION PARCELS 'B' AND 'C' ARE PROPOSED AS NON-BUILDABLE PARCELS THAT SHALL INCLUDE BUT NOT BE LIMITED TO STORM DRAINS, UTILITY EASEMENTS, FOREST CONSERVATION EASEMENTS THEY WILL BE PRIVATELY OWNED. THEY ARE ENCUMBERED BY AN EASEMENT AGREEMENT WITH HOWARD COUNTY AND THE HOMEOWNERS ASSOCIATION. THIS AGREEMENT PROHIBITS FURTHER SUBDIVISION OF THE PARCEL. OUTLINES THE MAINTENANCE RESPONSIBILITIES OF ITS OWNER AND ENUMERATES THE USES PERMITTED ON THE PROPERTY.
 PRESERVATION PARCEL 'D' IS PROPOSED AS A NON-BUILDABLE PARCEL TO PRESERVE ENVIRONMENTALLY SENSITIVE AREAS INCLUDING STEEP SLOPES, STREAM BUFFERS, WETLANDS FLOODPLAIN AND EXISTING FOREST. IT WILL BE DEDICATED TO THE HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS. IT IS ENCUMBERED BY AN EASEMENT AGREEMENT WITH THE HOMEOWNERS ASSOCIATION. THIS AGREEMENT PROHIBITS FURTHER SUBDIVISION OF THE PARCEL. OUTLINES THE MAINTENANCE RESPONSIBILITIES OF ITS OWNER AND ENUMERATES THE USES PERMITTED ON THE PROPERTY.
 PRESERVATION PARCELS 'E' AND 'F' ARE PROPOSED AS NON-BUILDABLE PARCELS FOR STORMWATER MANAGEMENT FACILITIES AS A REQUIREMENT TO CONTROL STORMWATER RUNOFF. THEY WILL BE OWNED BY THE HOMEOWNERS ASSOCIATION. THEY ARE ENCUMBERED BY AN EASEMENT AGREEMENT WITH HOWARD COUNTY. THIS AGREEMENT PROHIBITS FURTHER SUBDIVISION OF THE PARCEL. OUTLINES THE MAINTENANCE RESPONSIBILITIES OF ITS OWNER AND ENUMERATES THE USES PERMITTED ON THE PROPERTY.
- 23.) THE TOTAL FOREST CONSERVATION OBLIGATION AMOUNT OF 15.1 ACRES (0.6 AC. RETENTION, 7.0 AC. REFORESTATION, AND 7.5 AC. OF AFFORESTATION) SHALL BE MET BY ON-SITE RETENTION ON PARCEL 'C' IN THE AMOUNT OF 0.6 AC., 7.0 AC. OF RETENTION (3.5 AC. CREDITED AFFORESTATION/REFORESTATION) AT 2 TO 1 CONSIDERED AS OFF-SITE ON PARCELS 'B' AND 'D' SINCE THOSE PARCELS WERE EXCLUDED FROM THE FOREST CALCULATIONS, AND 11.0 AC. OF AFFORESTATION/REFORESTATION ON PARCEL 'D'.
- 24.) THERE ARE NO EXISTING STRUCTURES LOCATED ON THIS SITE.
- 25.) NO DRIVEWAY SHALL BE BUILT WITHIN 20' OF THE NOSE OF THE ISLAND OF ANY OF THE CALMING DEVICES.
- 26.) APPLICABLE LPZ FILE REFERENCE NUMBERS: S-02-011
- 27.) THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- 28.) GROUNDWATER APPROPRIATION PERMIT SHALL BE OBTAINED PRIOR TO THE SUBMITTAL OF THE RECORD PLAT FOR SIGNATURE.
- 29.) THE EXISTING MONITORING WELLS LOCATED ON THE PRESERVATION PARCEL SHALL BE PROPERLY ABANDONED BY A CERTIFIED WELL DRILLER PRIOR TO RECDERATION OF THE SUBDIVISION PLAT.
- 30.) SEPTIC EASEMENTS SHALL BE STAKED PRIOR TO LOT GRADING.

COORDINATE CHART (NAD '83)

No.	NORTH	EAST
100	560,663.0290	1,327,687.0796
101	560,516.0283	1,327,733.1434
102	559,503.8297	1,327,865.7255
103	559,161.9905	1,327,608.9434
104	558,781.4613	1,327,657.3854
105	558,845.4878	1,327,892.0143
106	558,700.5384	1,327,862.1408
107	558,524.8780	1,327,771.1848
108	558,298.0282	1,327,578.1284
109	557,281.1143	1,327,578.1284
110	557,405.7378	1,326,878.1578
111	557,492.4830	1,326,410.3654
112	557,635.1916	1,325,966.2225
113	558,717.1019	1,326,150.9715
114	559,619.0029	1,326,116.7496
115	560,300.0141	1,325,988.4035
116	560,487.2112	1,326,846.2344

NON-STRUCTURAL GROUND WATER RECHARGE PROVISIONS SUMMARY TABLE

AREA	METHOD	REV (PROVIDED)	REV (REQUIRED)
#1 (SUB 1)	GRASSED SWALES	7,000.00 AC.	2,063.33 AC.
#3 (SUB 1)	GRASSED SWALES	0,620.00 AC.	0,715.33 AC.
TOTAL FOR THE SITE		7,620.00 AC.	2,778.66 AC.
REMAINING REQUIREMENT		0,000.00 AC.	

NOTE: GROUND WATER RECHARGE VOLUME FULLY ADDRESSED WITH THE GRASSED SWALES.

SWM FACILITY SUMMARY

FACILITY	TYPE	STORAGE VOLUME/ELEVATIONS	
		WQv	CPv
SWMF #1	WET EXTENDED DETENTION	0,868.89 AC-FT / 390.13 FT.	2,126.67 AC-FT / 391.84 FT.
SWMF #2	MICRO-POOL EXTENDED DETENTION	0,288.1 AC-FT / 430.10 FT.	0,655.55 AC-FT / 431.49 FT.
TOTAL PROVIDED		1,157.0 AC-FT	2,782.2 AC-FT
TOTAL REQUIRED		1,157.0 AC-FT	2,782.2 AC-FT
REMAINING		0.0 AC-FT	0.0 AC-FT

CPv AND WQv ARE ADDRESSED FULLY WITHIN SWM FACILITIES #1 AND #2

CENTER LINE CURVE DATA

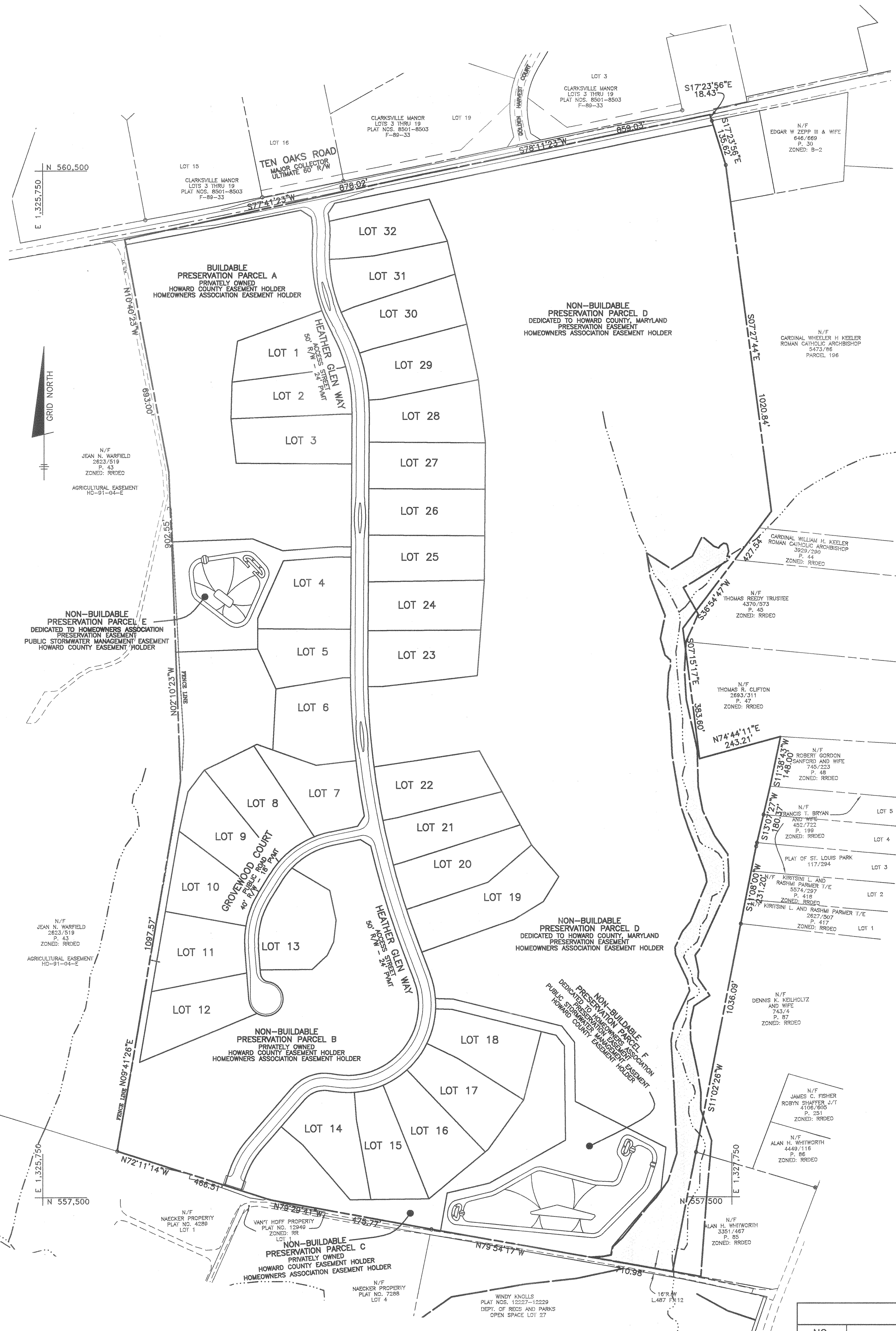
STREET NAME	STATION	RADIUS	ARC	DELTA	TANGENT	CHORD
HEATHER GLEN WAY	STA. 0+67.48 TO 1+09.43	150.00'	41.95'	16°01'24"	21.11'	S04°17'55"E 41.81'
	STA. 1+42.66 TO 3+97.09	450.00'	254.43'	32°23'41"	130.72'	S12°29'03"E 251.05'
	STA. 3+97.09 TO 6+50.50	500.00'	253.41'	29°02'19"	129.49'	S14°09'44"E 250.71'
	STA. 13+84.38 TO 22+36.22	2300.00'	851.84'	21°13'13"	430.86'	S10°15'11"E 846.98'
	STA. 23+25.96 TO 28+02.43	230.00'	476.47'	118°41'42"	388.10'	S38°34'31"W 395.73'
GROVEWOOD COURT	STA. 28+25.41 TO 29+25.37	100.00'	99.95'	57°16'11"	54.60'	S69°17'16"W 95.85'
	STA. 31+22.79 TO 32+24.40	250.00'	101.60'	23°17'10"	51.51'	S29°00'36"W 100.91'
	STA. 1+31.40 TO 3+35.49	250.00'	204.10'	46°46'32"	108.12'	S54°47'22"W 198.48'
	STA. 4+01.02 TO 5+57.79	250.00'	156.78'	35°55'52"	81.06'	S13°26'10"W 154.22'
	STA. 6+32.80 TO 6+92.55	100.00'	59.75'	34°13'58"	30.80'	S21°38'45"E 58.86'

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT

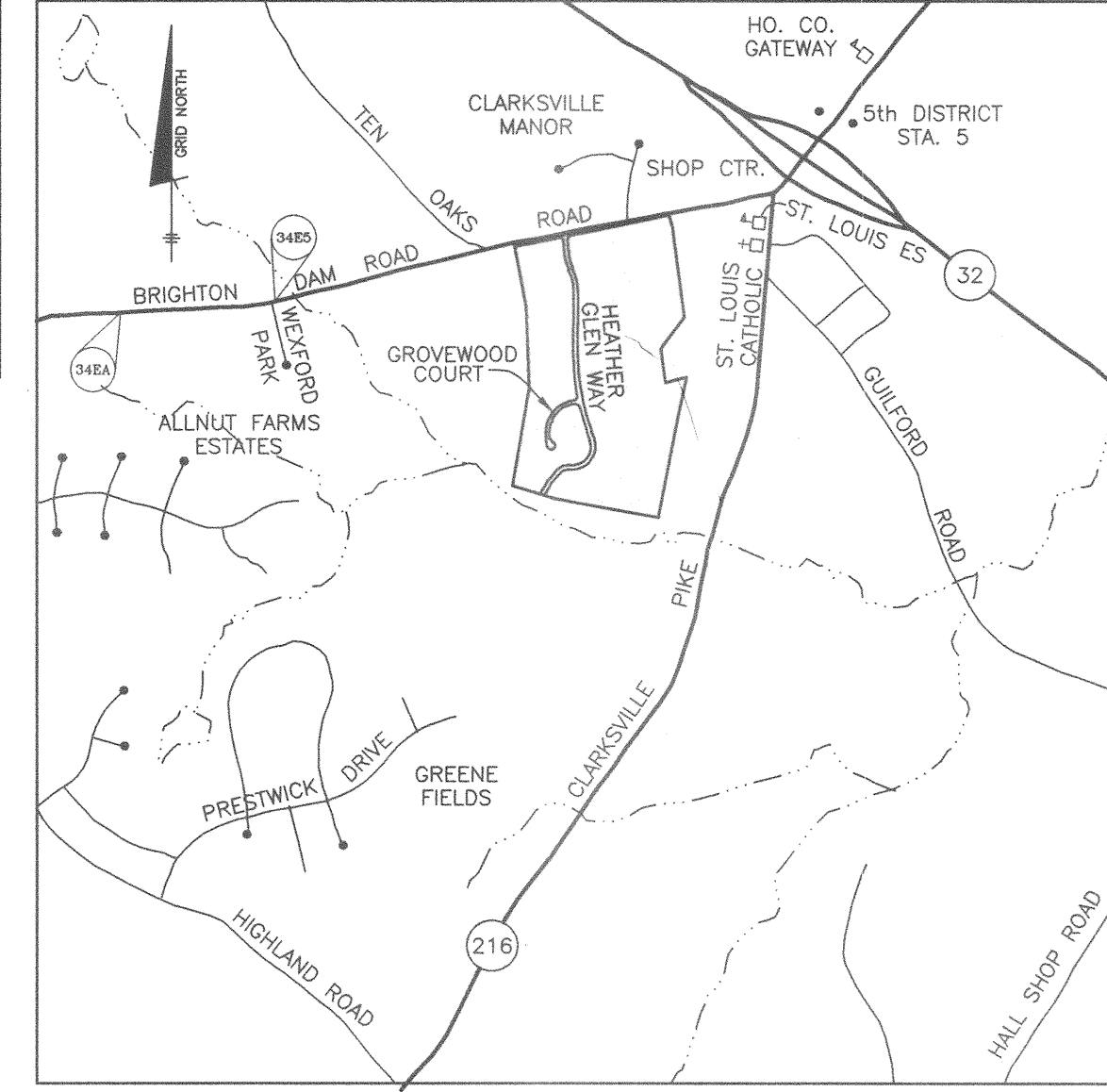
Robert J. Walker
HOWARD COUNTY HEALTH OFFICER
DATE: 7/8/05

PLAN VIEW

SCALE: 1" = 200'



BENCH MARKS NAD'83 HORIZONTAL
 HO. CO. #34E5
 STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE.
 N 559538.064 E 1322535.853
 ELEV. = 461.27
 HO. CO. #34E4
 STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE.
 N 559441.249 E 1320527.982
 ELEV. = 496.36



SITE ANALYSIS DATA CHART

GENERAL SITE DATA

- 1.) PRESENT ZONING: RR-DEO
- 2.) APPLICABLE DPZ FILE REFERENCES: S-02-011
- 3.) PROPOSED USE OF SITE: RESIDENTIAL (SPD)
- 4.) PROPOSED WATER AND SEWER SYSTEMS: PRIVATE

AREA TABULATION

- 1.) GROSS TRACT AREA: 117.71 AC.±
- 2.) AREA WITHIN 100-YEAR FLOODPLAIN: 3.73 AC.±
- 3.) TOTAL AREA OF 25% OR GREATER STEEP SLOPES: 0.00 AC.±
- 4.) AREA NOT IN FLOODPLAIN (FOR NTA CALC): 0.00 AC.±
- 5.) NET TRACT AREA: 113.98 AC.±
- 6.) TOTAL NUMBER OF LOTS ALLOWED PER ZONING: 27
- 7.) 1 UNIT PER 4.25 GROSS ACRES: 56
- 8.) TOTAL NUMBER OF RESIDENTIAL UNITS/LOTS PROPOSED ON THIS SUBMISSION: 33
- 9.) AREA OF CLUSTER LOTS: 34.46 AC.±
- 10.) AREA OF NON-BUILDABLE PRESERVATION PARCELS (PARCELS B - F): 69.12 AC.±
- 11.) AREA OF BUILDABLE PRESERVATION PARCELS: 8.50 AC.±
- 12.) AREA OF NON-BUILDABLE BULK PARCELS: N/A
- 13.) AREA OF BUILDABLE BULK PARCELS: N/A
- 14.) AREA OF ROAD RIGHT-OF-WAY: 5.63 AC.±
- 15.) OPEN SPACE ON-TOTAL SITE: N/A
- 16.) AREA OF RECREATIONAL OPEN SPACE REQUIRED: N/A

* 5% OF GROSS REQUIRED (5.89 AC.±) OR NONE IF THE PRES. PARCEL IS DEDICATED TO THE HOMEOWNERS ASSOCIATION OR HOWARD COUNTY. PRES. PARCEL 'D' (49.53 AC.) SHALL BE DEDICATED TO HOWARD COUNTY, MARYLAND

DENSITY EXCHANGE CHART

GROSS AREA	117.71 AC.±
100-YEAR FLOODPLAIN AREA & STEEP SLOPES	3.73 AC.±
NET TRACT AREA	113.98 AC.±
DWELLING UNITS ALLOWED (as matter of right)	117.71 AC.± @ 1 DU per 4.25 GROSS ACRES = 27
MAXIMUM DWELLING UNITS ALLOWED W/ DEO'S	113.98 AC.± @ 1 DU per 2.00 NET ACRES = 56
PROPOSED DWELLING UNITS	33
NUMBER OF DEO UNITS TO BE RECEIVED	33 - 27 (base density) = 6

SENDING PARCEL INFORMATION
 8' DEO'S
 PROPERTY OF JASON PARKER
 TAX MAP 15 GRID 10
 PARCEL 17
 L. 3856 F. 65

TENTATIVELY APPROVED
 DEPT. OF PLANNING AND ZONING
 JASON PARKER
 7/14/05

BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS ENGINEERING, INC.
 8480 BALTIMORE NATIONAL PIKE & SUITE 418
 ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-8105 FAX: 410-465-6644
 WWW.BE-CIVILENGINEERING.COM

Donald Moran
7/6/05

SHEET INDEX

NO.	DESCRIPTION
1	PRELIMINARY PLAN TITLE SHEET
2	PRELIMINARY PLAN
3	PRELIMINARY PLAN
4	PRELIMINARY GRADING, SEDIMENT AND EROSION CONTROL PLAN
5	PRELIMINARY GRADING, SEDIMENT AND EROSION CONTROL PLAN
6	PRELIMINARY LANDSCAPE PLAN
7	PRELIMINARY LANDSCAPE PLAN
8	PRELIMINARY FOREST CONSERVATION PLAN
9	PRELIMINARY FOREST CONSERVATION PLAN
10	PERCOLATION CERTIFICATION PLAN
11	PERCOLATION CERTIFICATION PLAN

OWNER: BARBARA J. PALMER AND DONNA P. CLELAND 6100 BROOKLYN BRIDGE ROAD LAUREL, MARYLAND 20707	PROJECT: TURNBURY GROVE LOTS 1-32, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCELS 'B' - 'F'
DEVELOPER: D.R. HORTON 1370 PICCARD DRIVE ROCKVILLE, MARYLAND 20850 301-670-6144	LOCATION: TAX MAP: 34, GRID: 11, 12, 17 & 18 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE: PRELIMINARY PLAN TITLE SHEET	DATE: JULY, 2005 PROJECT NO. 1407
DESIGN: LDD DRAFT: DBT/LDD CHECK: DAM	SCALE: AS SHOWN SHEET 1 OF 11

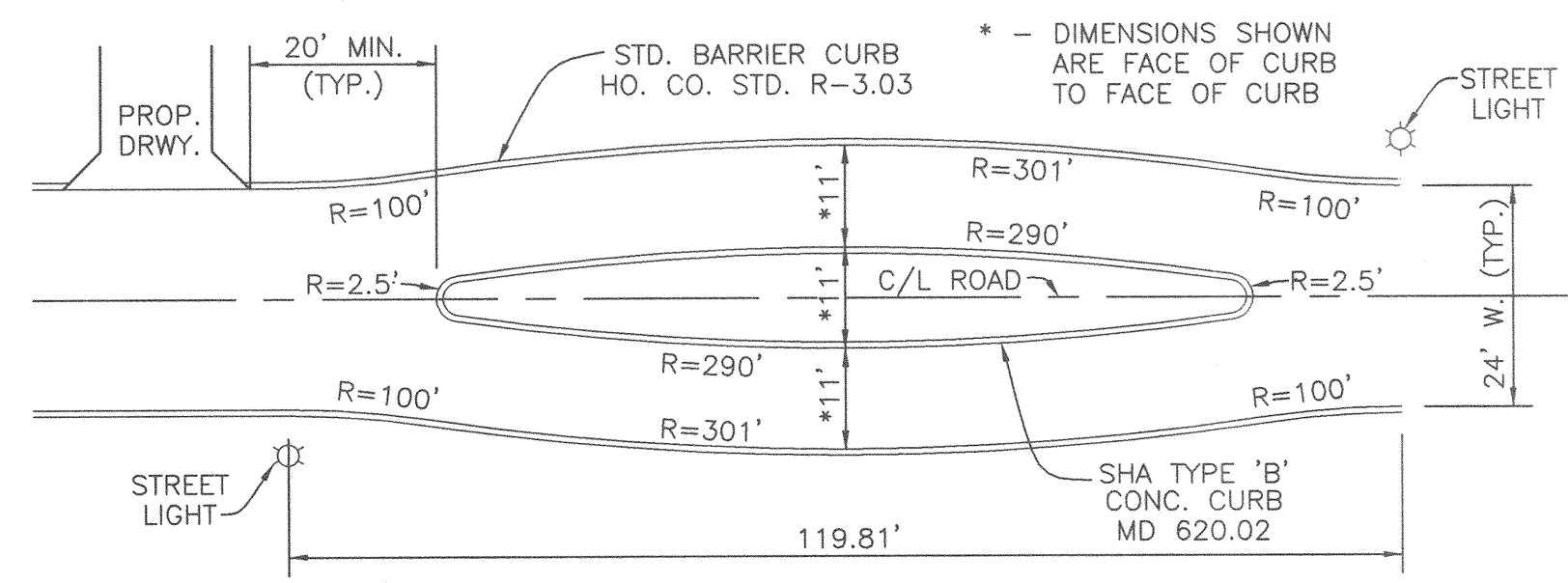


LEGEND

- EXISTING CONTOURS (2' INTERVALS)
- EXISTING TREELINE
- PROPOSED TREELINE
- CL. STREAM
- LIMIT OF WETLANDS
- LIMIT OF SUBMISSION
- PROPOSED SEPTIC AREA
- FOREST CONSERVATION EASEMENT
- 1500 S.F. WELLBOX
- LIMIT OF 100YR FLOODPLAIN

PREVIOUSLY APPROVED
DEPT. OF PLANNING AND
ZONING OF
HOWARD COUNTY

David L. High
PLANNING DIRECTOR



TYPICAL SPEED CONTROL DEVICE

SCALE: 1" = 20'

NOTE: NO DRIVEWAY ACCESS WITHIN SPEED CONTROL DEVICE OR WITHIN 20' OF EITHER END OF MEDIAN ISLAND AS SHOWN

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT

Robert J. Walden
HOWARD COUNTY HEALTH OFFICER

7/8/05
DATE

PLAN VIEW
SCALE: 1" = 100'

MATCH LINE SEE SHEET 3

BENCHMARK
ENGINEERS • LAND SURVEYORS • PLANNERS
ENGINEERING, INC.

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WWW.BEI-CMLENGINEERING.COM

Donald Moon
NABOS

OWNER: BARBARA J. PALMER AND DONNA P. CLELAND 6100 BROOKLYN BRIDGE ROAD LAUREL, MARYLAND 20707	PROJECT: TURNBURY GROVE LOTS 1-32, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCELS 'B' - 'F'
	LOCATION: TAX MAP: 34, GRID: 11, 12, 17 & 18 PARCEL: 77 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DEVELOPER: D.R. HORTON 1370 PICCARD DRIVE ROCKVILLE, MARYLAND 20850 301-670-6144	TITLE: PRELIMINARY PLAN
DESIGN: LDD	DATE: JULY, 2005
DRAFT: DBT/LDD	PROJECT NO. 1407
CHECK: DAM	SCALE: AS SHOWN
	SHEET <u>2</u> OF <u>11</u>



MAP SYMBOL		SOIL GROUP	SOIL TYPE
Bs	D*	B	BAILE SILT LOAM
CgB2	B	B	CHESTER GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
CgC2	B	B	CHESTER GRAVELLY SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
ChA	B	B	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES
ChB2	B	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
Cs	B	B	COMUS SILT LOAM
EKA	B	B	ELIOLAK SILT LOAM, 0 TO 3 PERCENT SLOPES
EB2	B	B	ELIOLAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
EK2	B	B	ELIOLAK SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GA	B	B	GLENELG LOAM, 0 TO 3 PERCENT SLOPES
GIB2	B	B	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
GIC2	B	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GI2	B	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
GIA	C*	B	GLENVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES
GIB2	C*	B	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MgB2	B	B	MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MgC2	B	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MgC3	B	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
MID2	B	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
MI2	B	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES

* INDICATES HYDRIC SOILS
 TAKEN FROM SOIL SURVEY, HOWARD COUNTY, MARYLAND (ISSUED JULY 1988) MAP NO. 23

LEGEND

- EXISTING CONTOURS (2' INTERVALS)
- EXISTING TREELINE
- PROPOSED TREELINE
- CL. STREAM
- LIMIT OF WETLANDS
- PROPOSED SEPTIC AREA
- FOREST CONSERVATION EASEMENT
- 1500 S.F. WELLBOX
- LIMIT OF 100YR FLOODPLAIN
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE

TENTATIVELY APPROVED
 DEPT. OF PLANNING AND ZONING OF
 HOWARD COUNTY
Thomas R. Clifton 7/16/05
 PLANNING DIRECTOR DATE

BENCHMARK ENGINEERING, INC.
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Donald Moon
7/16/05

OWNER: BARBARA J. PALMER AND DONNA P. CLELAND 6100 BROOKLYN BRIDGE ROAD LAUREL, MARYLAND 20707	PROJECT: TURNBURY GROVE LOTS 1-32, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCELS 'B' - 'F'
DEVELOPER: D.R. HORTON 1370 PICCADILLO DRIVE ROCKVILLE, MARYLAND 20850 301-670-6144	LOCATION: TAX MAP: 34, GRID: 11, 12, 17 & 18 PARCEL: 77 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE: PRELIMINARY GRADING, SEDIMENT AND EROSION CONTROL PLAN	DATE: JULY, 2005
DESIGN: LDD	DRAFT: DBT/LDD
CHECK: DAM	PROJECT NO. 1407
SCALE: AS SHOWN	SHEET 4 OF 11

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM
 HOWARD COUNTY HEALTH DEPARTMENT
Robert G. Wilson 7/16/05
 FOR HOWARD COUNTY HEALTH OFFICER DATE

PLAN VIEW
 SCALE: 1" = 100'

SOILS LEGEND		
MAP SYMBOL	SOIL GROUP	SOIL TYPE
Bs	D*	BALE SILT LOAM
CgB2	B	CHESTER GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
CgC2	B	CHESTER GRAVELLY SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
ChA	B	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES
ChB2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
Cs	B	COMUS SILT LOAM
EaA	B	ELIJAH SILT LOAM, 0 TO 3 PERCENT SLOPES
EkB2	B	ELIJAH SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
EkC2	B	ELIJAH SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GaA	B	GLENELG LOAM, 0 TO 3 PERCENT SLOPES
GaB2	B	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
GaC2	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
Gd2	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
Gna	C*	GLENVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES
GnB2	C*	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MgB2	B	MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MgC2	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MgC3	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
Md2	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
Mie	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES

* INDICATES HYDRIC SOILS
 TAKEN FROM SOIL SURVEY, HOWARD COUNTY, MARYLAND (ISSUED JULY 1968) MAP NO. 23



LEGEND

- EXISTING CONTOURS (2' INTERVALS)
- EXISTING TREELINE
- PROPOSED TREELINE
- CL STREAM
- LIMIT OF WETLANDS
- PROPOSED SEPTIC AREA
- FOREST CONSERVATION EASEMENT
- 1500 S.F. WELLBOX
- LIMIT OF 100YR FLOODPLAIN
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE

TENTATIVELY APPROVED
 DEPT. OF PLANNING AND ZONING OF
 HOWARD COUNTY
Mark K. Taylor
 PLANNING DIRECTOR DATE

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8480 BALTIMORE NATIONAL PIKE A SUITE 418
 ELICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6644
 WWW.BEI-CVLENGINEERING.COM

Donald Mason
/elas

<p>OWNER: BARBARA J. PALMER AND DONNA P. CLELAND 6100 BROOKLYN BRIDGE ROAD LAUREL, MARYLAND 20707</p> <p>DEVELOPER: D.R. HORTON 1370 PICCARD DRIVE ROCKVILLE, MARYLAND 20850 301-670-6144</p>	<p>PROJECT: TURNBURY GROVE LOTS 1-32, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCELS 'B' - 'F'</p> <p>LOCATION: TAX MAP: 34, GRID: 11, 12, 17 & 18 PARCEL 77 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p> <p>TITLE: PRELIMINARY GRADING, SEDIMENT AND EROSION CONTROL PLAN</p> <p>DATE: JULY, 2005 PROJECT NO. 1407 SCALE: AS SHOWN SHEET 5 OF 11</p>
DESIGN: LDD DRAFT: DBT/LDD CHECK: DAM	

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM
 HOWARD COUNTY HEALTH DEPARTMENT

Robert J. Walden 7/8/05
 for HOWARD COUNTY HEALTH OFFICER DATE

PLAN VIEW
 SCALE: 1" = 100'



LEGEND

- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING STREAM
- 100-YEAR FLOODPLAIN
- FOREST CONSERVATION EASEMENT
- LANDSCAPE PERIMETER DESIGNATION
- 2406' CREDIT LANDSCAPE CREDIT PERIMETER
- STREET TREES

TENTATIVELY APPROVED
 DEPT. OF PLANNING AND ZONING OF
 HOWARD COUNTY
Marsha DeLong 2/14/05
 PLANNING DIRECTOR DATE

STREET TREE SCHEDULE

ROAD NAME	PERIMETER	TREES REQ.
HEATHER GLEN ROAD	6335'	159
GROVEWOOD COURT	1502'	38
TEN OAKS ROAD	1641'	41

**SCHEDULE D
SWM AREA LANDSCAPING**

	SWM1	SWM2
LINEAR FEET OF PERIMETER	1744'	1195'
LINEAR FEET OF EXISTING WOODS LINE	432'	0'
LINEAR FEET OF REQUIRED PLANTING	1312'	1195'
BUFFER TYPE	"B"	"B"
NUMBER OF TREES REQUIRED		
SHADE TREES	27	24
EVERGREEN TREES	33	30
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	24.6%	0.0
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	NO	NO

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJ. TO PERIMETER PROP. (1)	ADJ. TO PERIMETER PROP. (2)	ADJ. TO PERIMETER PROP. (3)	ADJ. TO PERIMETER PROP. (4)	ADJ. TO PERIMETER PROP. (5)	ADJ. TO ROADWAY PROP. (6)
LANDSCAPE TYPE	A	A	A	A	A	A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	955'	1778'	535'	1447'	2544'	296'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	YES* 370'	NO	YES* 243'	YES* 1991'	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED	955'	1408'	535'	1204'	553'	296'
SHADE TREES	16	24	9	20	10	6
EVERGREEN TREES	-	-	-	-	-	8
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-	-	-
SHRUBS	-	-	-	-	-	-

*EXISTING WOODS 20' OR GREATER IN WIDTH.

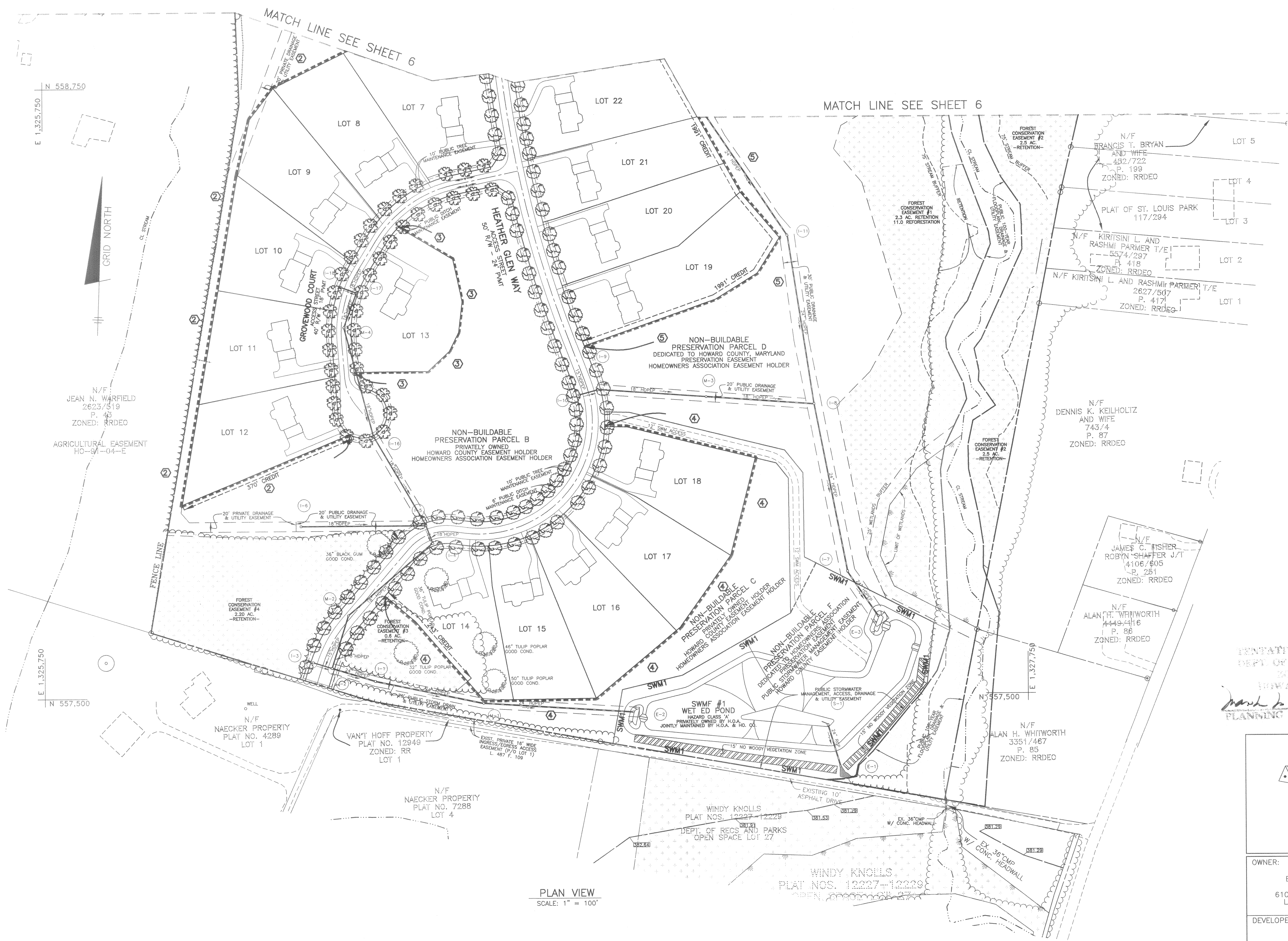
BENCHMARK ENGINEERING, INC.
 ENGINEERS • LAND SURVEYORS • PLANNERS
 8480 BALTIMORE NATIONAL PIKE • SUITE 418
 ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6844
 WWW.BEI-CVLENGINEERING.COM

Donald Moon
 7/1/05

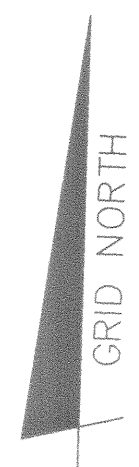
OWNER: BARBARA J. PALMER AND DONNA P. CLELAND 6100 BROOKLYN BRIDGE ROAD LAUREL, MARYLAND 20707	PROJECT: TURNBURY GROVE LOTS 1-32, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCELS 'B' - 'F'
DEVELOPER: D.R. HORTON 1370 PICCARD DRIVE ROCKVILLE, MARYLAND 20850 301-670-6144	LOCATION: TAX MAP: 34, GRID: 11, 12, 17 & 18 PARCEL: 77 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DESIGN: LDD	TITLE: PRELIMINARY LANDSCAPE PLAN
DRAFT: DBT/LDD	DATE: JULY, 2005
CHECK: DAM	PROJECT NO.: 1407
SCALE: AS SHOWN	SHEET 6 OF 11

PLAN VIEW
 SCALE: 1" = 100'

LANDSCAPING AND STREET TREES FOR THIS SUBMISION WILL BE PROVIDED ON THE FINAL PLANS IN ACCORDANCE WITH SECTION 16.124 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY LANDSCAPE MANUAL.



N 558.750
E 1.325.750



N/F JEAN N. WARFIELD
2623/519
P. 43
ZONED: RRDEG
AGRICULTURAL EASEMENT
HO-91-04-E

N 557.500
E 1.325.750

FENCE LINE

N/F NAECKER PROPERTY
PLAT NO. 4289
LOT 1

VANT HOFF PROPERTY
PLAT NO. 12949
ZONED: RR
LOT 1

N/F NAECKER PROPERTY
PLAT NO. 7288
LOT 4

WINDY KNOLLS
PLAT NOS. 12227-12229
DEPT. OF RECS AND PARKS
OPEN SPACE LOT 27

WINDY KNOLLS
PLAT NOS. 12227-12229
OPEN SPACE LOT 27

N/F ALAN H. WHITWORTH
3351/467
P. 85
ZONED: RRDEG

N/F ALAN T. WHITWORTH
443/416
P. 86
ZONED: RRDEG

N/F JAMES C. FISHER
ROBYN SHAFER J/T
4106/605
P. 251
ZONED: RRDEG

N/F DENNIS K. KELLHOLITZ
AND WIFE
743/4
P. 87
ZONED: RRDEG

N/F KIRTISINI L. AND
RASHMI PARMAR T/E
5574/297
P. 418
ZONED: RRDEG
N/F KIRTISINI L. AND RASHMI PARMAR T/E
2827/507
P. 417
ZONED: RRDEG-1

N/F FRANCIS T. BRYAN
AND WIFE
432/722
P. 199
ZONED: RRDEG

PLAT OF ST. LOUIS PARK
117/294

LEGEND

- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING STREAM
- 100-YEAR FLOODPLAIN
- FOREST CONSERVATION EASEMENT
- LANDSCAPE PERIMETER DESIGNATION
- 2400' CREDIT
- LANDSCAPE CREDIT PERIMETER
- STREET TREES

TEMPORARILY APPROVED
DEPT. OF PLANNING AND
ZONING OF
HOWARD COUNTY
Mark A. Lovell 2/15/05
PLANNING DIRECTOR DATE

BENCHMARK
ENGINEERS • LAND SURVEYORS • PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE & SUITE 418
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644
WWW.BE-CIVILENGINEERING.COM

Donald M...
2/1/05

PLAN VIEW
SCALE: 1" = 100'

LANDSCAPING AND STREET TREES FOR THIS SUBDIVISION WILL BE PROVIDED ON THE FINAL PLANS IN ACCORDANCE WITH SECTION 16.124 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY LANDSCAPE MANUAL.

OWNER: BARBARA J. PALMER AND DONNA P. CLELAND 6100 BROOKLYN BRIDGE ROAD LAUREL, MARYLAND 20707		PROJECT: TURNBURY GROVE LOTS 1-32, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCELS 'B' - 'F'	
DEVELOPER: D.R. HORTON 1370 PICCARD DRIVE ROCKVILLE, MARYLAND 20850 301-670-6144		LOCATION: TAX MAP: 34, GRID: 11, 12, 17 & 18 PARCEL 77 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE: PRELIMINARY LANDSCAPE PLAN		DATE: JULY, 2005 PROJECT NO. 1407	
DESIGN: LDD	DRAFT: DBT/LDD	CHECK: DAM	SCALE: AS SHOWN SHEET 7 OF 11

APPENDIX G
FOREST CONSERVATION WORKSHEET

NOTE: THIS SUBMISSION PLAN IS USING "RURAL CLUSTER OPTION C" OF APPENDIX "L" OF THE FOREST CONSERVATION MANUAL BY INCLUDING ALL THE AREAS OF LAND USE CHANGE. (57.80 AC. TOTAL)
 - AREA OF CLUSTER LOTS = 34.46 AC.
 - AREA OF BUILDABLE PRESERVATION PARCEL 'A' = 8.50 AC.
 - AREA OF PUBLIC ROAD R/W = 5.83 AC.
 - AREA OF NON-BUILDABLE PRES. PARCELS 'C', 'E', & 'F' = 9.21 AC.

I. BASIC SITE DATA		ACRES (1/10 acre)
GROSS SITE AREA		117.7
AREA WITHIN 100 YEAR FLOODPLAIN		3.7
AREA WITHIN PRESERVATION PARCELS ('B' & 'D')		56.2
(OUTSIDE OF FLOODPLAIN AND NOT INCLUDING RETENTION AREA)		57.8
NET TRACT AREA		57.8
LAND USE CATEGORY (R-RLD, R-RMD, R-S, C1/O, I)		R-RMD

II. INFORMATION FOR CALCULATIONS		ACRES
A. NET TRACT AREA		57.8
B. REFORESTATION THRESHOLD (25% x A)		14.5
C. AFFORESTATION MINIMUM (20% x A)		11.6
D. EXISTING FOREST ON NET TRACT AREA		4.1
E. FOREST AREAS TO BE CLEARED		3.5
F. FOREST AREAS TO BE RETAINED		0.6

III. DETERMINING REQUIREMENTS: AFFORESTATION OR REFORESTATION

- Reforestation.**
If existing forest areas equal or exceed the afforestation minimum (if D equals or is more than C), and clearing of forest areas is proposed, reforestation requirements may apply.
GO TO SECTION IV
If existing forest areas equal or exceed the afforestation minimum (if D equals or is more than C), and no clearing of existing forest resources is proposed, no reforestation is required. No further calculations are needed.

- Afforestation.**
If existing forest areas are less than the afforestation minimum (if D is less than C), afforestation requirements apply.
GO TO SECTION V

V. AFFORESTATION CALCULATIONS		ACRES (1/10 acre)
A. NET TRACT AREA		57.8
B. AFFORESTATION MINIMUM (20% x A)		11.6
C. EXISTING FOREST ON NET TRACT AREA		4.1
D. FOREST AREAS TO BE CLEARED		3.5
E. FOREST AREAS TO BE RETAINED		0.6

SELECT THE ALTERNATE THAT APPLIES:

- No clearing below the minimum.**
If existing forests are less than the afforestation minimum (if C is less than B) and NO clearing is proposed, the following calculations apply:
TOTAL AFFORESTATION REQUIRED: B - C
Afforestation must make total forest area equal the minimum required.

- Clearing below the minimum.**
If existing forests are less than the afforestation minimum (if C is less than B) and clearing is proposed, the following calculations apply:
AFFORESTATION FOR UNFORESTED AREAS BELOW MINIMUM: 7.5
B - C
REFORESTATION FOR CLEARING BELOW MINIMUM: 7.0
D x 2
TOTAL AFFORESTATION + REFORESTATION REQUIRED: 14.5
(B - C) + (D x 2)
Afforestation requires the total forest area to be equal to the minimum and it requires compensation for clearing.

LEGEND

- EXISTING CONTOURS (2' INTERVALS)
- EXISTING TREELINE
- PROPOSED TREELINE
- CL. STREAM
- LIMIT OF WETLANDS
- LIMIT OF 100YR FLOODPLAIN
- FOREST CONSERVATION EASEMENT
- FOREST CONSERVATION SIGNAGE

PROVISIONALLY APPROVED
DEPT. OF PLANNING AND ZONING
HOWARD COUNTY
PLANNING DIRECTOR
DATE: 2/13/05

<p>BENCHMARK ENGINEERS • LAND SURVEYORS • PLANNERS ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE & SUITE 418 ELLCOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6644 WWW.BE-CIVLENGINEERING.COM</p>		<p><i>Donald Moran</i> 7/1/05</p>
OWNER:	<p>BARBARA J. PALMER AND DONNA P. CLELAND 6100 BROOKLYN BRIDGE ROAD LAUREL, MARYLAND 20707</p>	
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LOCATION:	<p>TAX MAP: 34, GRID: 11, 12, 17 & 18 PARCEL: 77 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p>	
TITLE:	<p>PRELIMINARY FOREST CONSERVATION PLAN</p>	
DATE:	JULY, 2005	PROJECT NO. 1407
DESIGN:	LDD	DRAFT: DBT/LDD CHECK: DAM
SCALE:	AS SHOWN	SHEET 8 OF 11



Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS
MD DNR Qualified Professional
USACE Wetland Delineator
Certification # 170233MD061004103
John P. Casella

PLAN VIEW
SCALE: 1" = 100'

MATCH LINE SEE SHEET 9

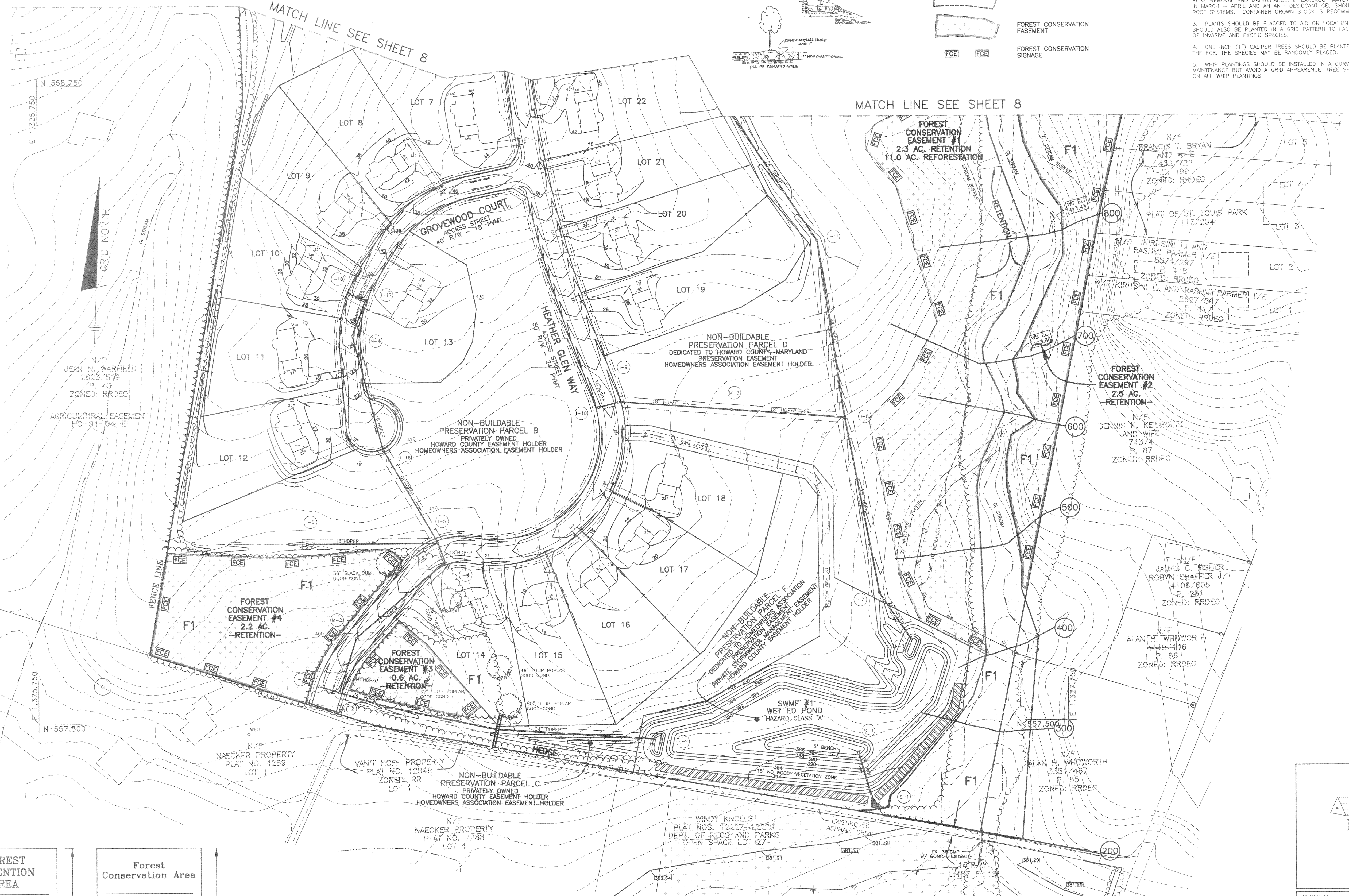
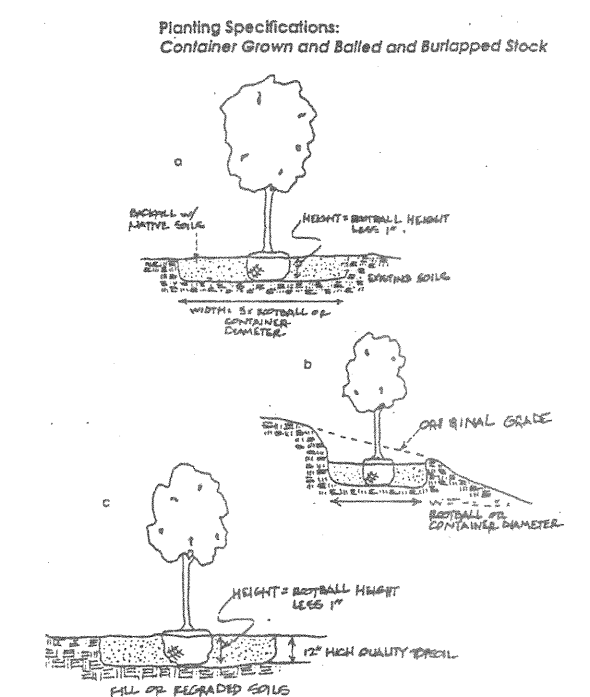
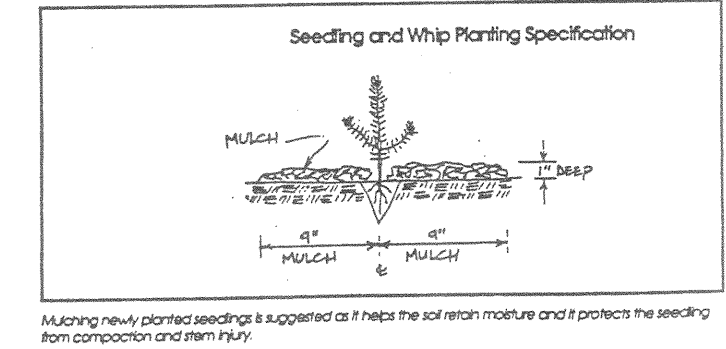
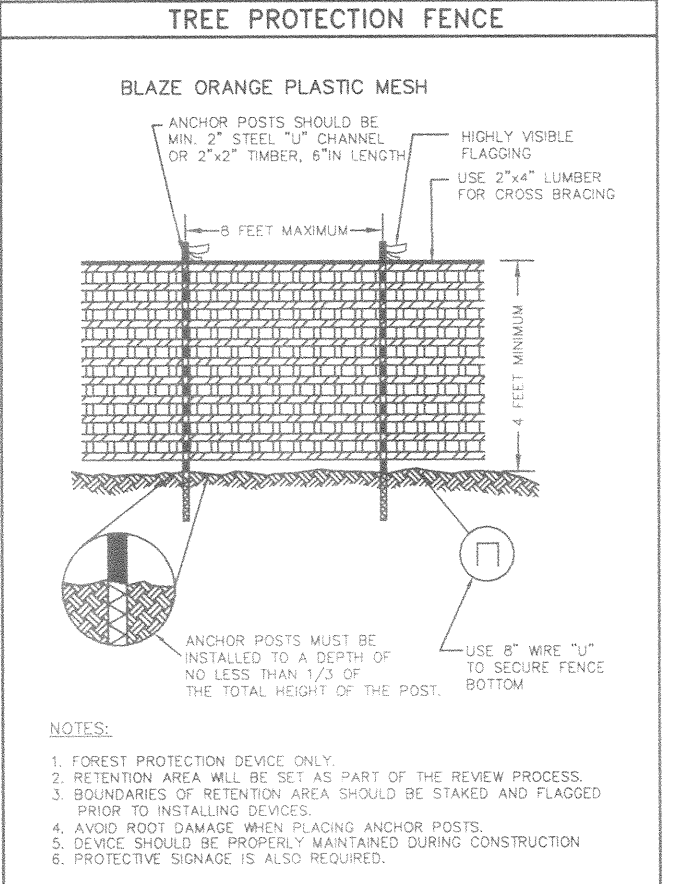
LEGEND

- EXISTING CONTOURS (2' INTERVALS)
- EXISTING TREELINE
- PROPOSED TREELINE
- CL STREAM
- LIMIT OF WETLANDS
- LIMIT OF 100YR FLOODPLAIN
- FOREST CONSERVATION EASEMENT
- FOREST CONSERVATION SIGNAGE

MULTIFLORA ROSE CONTROL NOTE
 MULTIFLORA ROSE IS PREVALENT IN CERTAIN AREAS TO BE AFFORESTED. PRIOR TO PLANTING ALL MULTIFLORA ROSE SHOULD BE REMOVED. REMOVAL OF THE ROSE MAY BE PERFORMED WITH MOWING AND HERBICIDE TREATMENTS. PHYSICAL REMOVAL OF ALL TOP GROWTH FOLLOWED BY A PERIODIC HERBICIDE TREATMENT OF STUMP SPROUTS IS RECOMMENDED. NATIVE TREE AND SHRUB SPECIES OCCURRING WITHIN THE ROSE THICKETS SHOULD BE RETAINED WHEREVER POSSIBLE. HERBICIDE TREATMENTS SHALL OCCUR ON 2 MONTH INTERVALS DURING THE FIRST GROWING SEASON AND ONCE EACH IN THE SPRING AND FALL FOR SUBSEQUENT YEARS. HERBICIDE USED SHALL BE MADE SPECIFICALLY TO ADDRESS WOODY PLANT MATERIAL AND SHALL BE APPLIED AS PER MANUFACTURERS SPECIFICATIONS. CARE SHOULD BE TAKEN NOT TO SPRAY PLANTED TREES OR NATURALLY OCCURRING NATIVE TREE/SHRUB SEEDLINGS. IT IS RECOMMENDED THAT INITIATION OF ROSE REMOVAL BEGIN AT LEAST SIX MONTHS PRIOR TO PLANTING.

PLANTING NOTES:

1. MULTIFLORA ROSE CONTROL MAY BE REQUIRED AS PART OF THIS PLANTING PLAN.
2. BAREROOT PLANT MATERIAL MAY BE USED TO OFFSET THE COST OF MULTIFLORA ROSE REMOVAL AND MAINTENANCE. IF BAREROOT MATERIAL IS USED IT MUST BE PLANTED IN MARCH - APRIL AND AN ANTI-DESICCANT GEL SHOULD BE UTILIZED TO PROTECT ROOT SYSTEMS. CONTAINER GROWN STOCK IS RECOMMENDED.
3. PLANTS SHOULD BE FLAGGED TO AID ON LOCATION DURING MAINTENANCE. PLANTINGS SHOULD ALSO BE PLANTED IN A GRID PATTERN TO FACILITATE MAINTENANCE AND REMOVAL OF INVASIVE AND EXOTIC SPECIES.
4. ONE INCH (1") CALIPER TREES SHOULD BE PLANTED ALONG THE OUTER EDGE OF THE FCE. THE SPECIES MAY BE RANDOMLY PLACED.
5. WHIP PLANTINGS SHOULD BE INSTALLED IN A CURVILINEAR PATTERN TO FACILITATE MAINTENANCE BUT AVOID A GRID APPEARANCE. TREE SHELTERS SHOULD BE INSTALLED ON ALL WHIP PLANTINGS.



FCE Planting Area # 1 - 11.0 acres
 Planting units required: 7700 (700 units/acre)
 Planting units proposed: 7707

Qty	Species	Size	Spacing	Total Units
35	Acer rubrum - Red maple	1" cal.	15' o.c.	
35	Acer saccharum - Silver maple	1" cal.	15' o.c.	
35	Liriodendron tulipifera - Tulip poplar	1" cal.	15' o.c.	
20	Quercus alba - White oak	1" cal.	15' o.c.	
20	Quercus rubra - Red oak	1" cal.	15' o.c.	
111	Red 1" whip (15 planting units per tree)	1.50 unit credit		507.5
750	Acer rubrum - Red maple	2-3" whip	11" o.c.	
350	Acer saccharum - Silver maple	2-3" whip	11" o.c.	
200	Cornus florida - Flowering dogwood	2-3" whip	11" o.c.	
100	Diospyros virginiana - Persimmon	2-3" whip	11" o.c.	
550	Liriodendron tulipifera - Tulip poplar	2-3" whip	11" o.c.	
300	Platanus occidentalis - Sycamore	2-3" whip	11" o.c.	
450	Prunus serotina - Black cherry	2-3" whip	11" o.c.	
300	Quercus alba - White oak	2-3" whip	11" o.c.	
300	Quercus rubra - Red oak	2-3" whip	11" o.c.	
300	Viburnum prunifolium - Blackhaw	2-3" whip	11" o.c.	
7200	FCE Unit Credit			7200
	Total Unit Credit			7707.5

Planting Notes:
 2" caliper trees = 7 planting units. 1" caliper trees = 3.5 planting units. whips with shelter = 2 planting units
 1" caliper trees should be staggered along the outer perimeter of the planting area to serve as demarcation of the boundary. The tree should be no closer than 15 foot spacing.
 Planting shall be made in a curvilinear fashion along contour. The planting should avoid a grid appearance but should be spaced to facilitate maintenance.
 Multiflora rose removal/control may be required prior to installation of planting.

FCEP NOTES:

1. ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
2. THE FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16-1200 OF THE HOWARD COUNTY CODE. FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
3. LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
4. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
5. NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
6. TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. THE FENCING SHALL BE PLACED ALONG ALL FCE BOUNDARIES WHICH OCCUR WITHIN 15 FEET OF THE PROPOSED LIMITS OF DISTURBANCE.
7. PERMANENT SIGNAGE SHALL BE PLACED 50'-100' APART ALONG THE BOUNDARIES OF ALL AREAS INCLUDED IN FOREST CONSERVATION EASEMENTS.
8. THE TOTAL FOREST CONSERVATION OBLIGATION AMOUNT OF 15.1 ACRES (0.6 AC. RETENTION, 7.0 AC. REFORESTATION, AND 7.5 AC. OF AFFORESTATION) SHALL BE MET BY ON-SITE RETENTION ON PARCEL 'C' IN THE AMOUNT OF 0.6 AC.; 7.0 AC. OF RETENTION (3.5 AC. CREDITED AFFORESTATION/REFORESTATION) AT 2 TO 1 CONSIDERED AS OFF-SITE ON PARCELS 'B' AND 'D' SINCE THOSE PARCELS WERE EXCLUDED FROM THE FOREST CALCULATIONS; AND 11.0 AC. OF AFFORESTATION/REFORESTATION ON PARCEL 'D'.

FOREST RETENTION AREA

MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED

VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE HOWARD COUNTY FOREST CONSERVATION ACT OF 1991

Forest Conservation Area

REFORESTATION PROJECT

Trees For Your Future

Eco-Science Professionals, Inc.
 CONSULTING ECOLOGISTS
 P.O. Box 5056 Glen Arden, MD 21057 (410) 592-6752

MD DNR Qualified Professional
 USACE Wetland Delimitation
 Certification #WDC2700MD06100403
 John A. Caserio 7/18/05

FLOODPLAIN NOTE:

PORTIONS OF THE SITE OCCURRING WITHIN THE 100-YEAR FLOODPLAIN ARE NOT INCLUDED AS PART OF THE NET TRACT AREA OF THE SITE. AREAS OF FLOODPLAIN FOREST OCCURRING WITHIN THE LIMITS OF A FOREST CONSERVATION EASEMENT WILL BE PROTECTED BY THE EASEMENT RESTRICTIONS BUT HAVE NOT BEEN CREDITED TOWARD THE PROJECTS FCA OBLIGATIONS.

SIGNAGE NOT TO SCALE

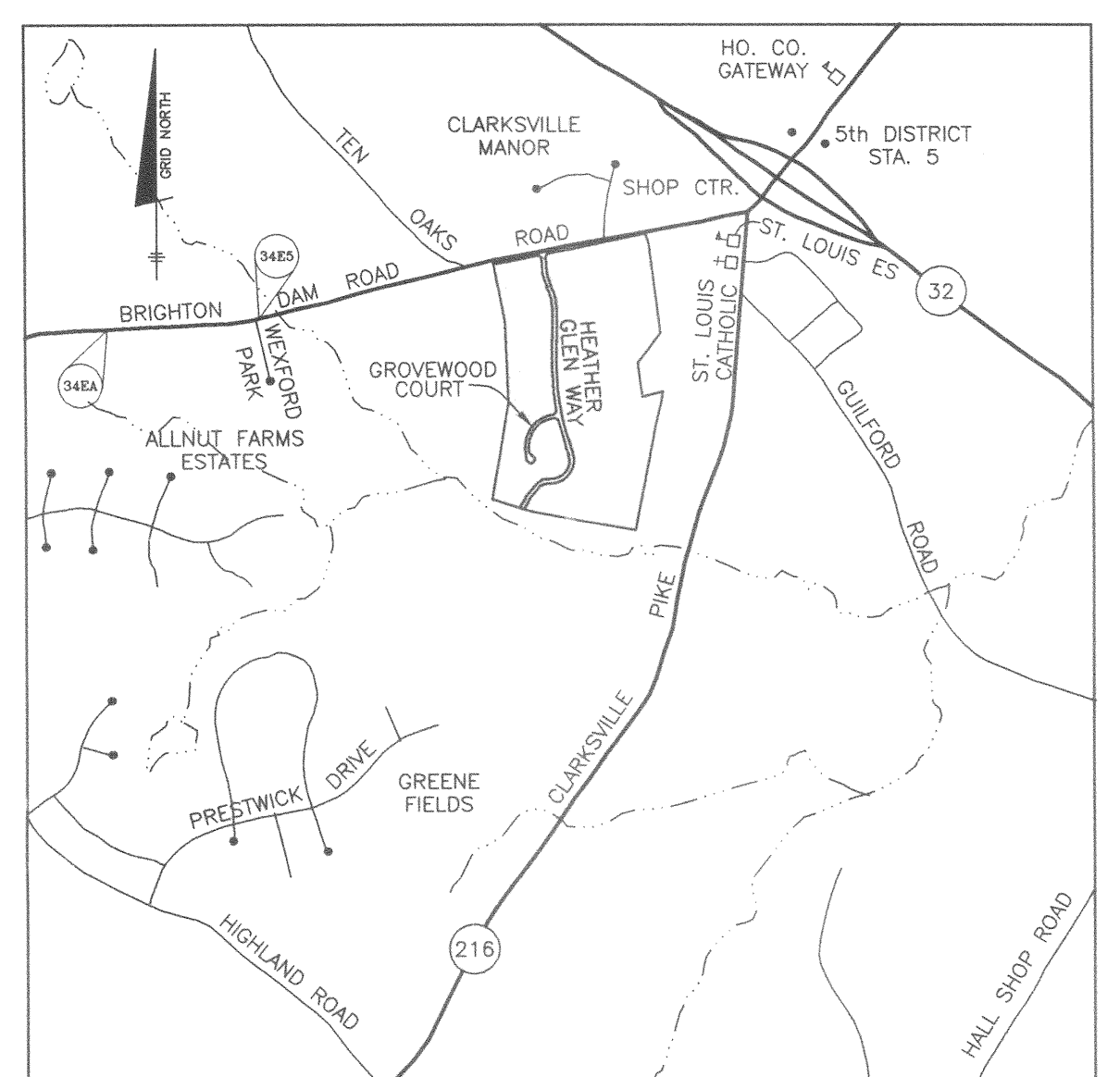
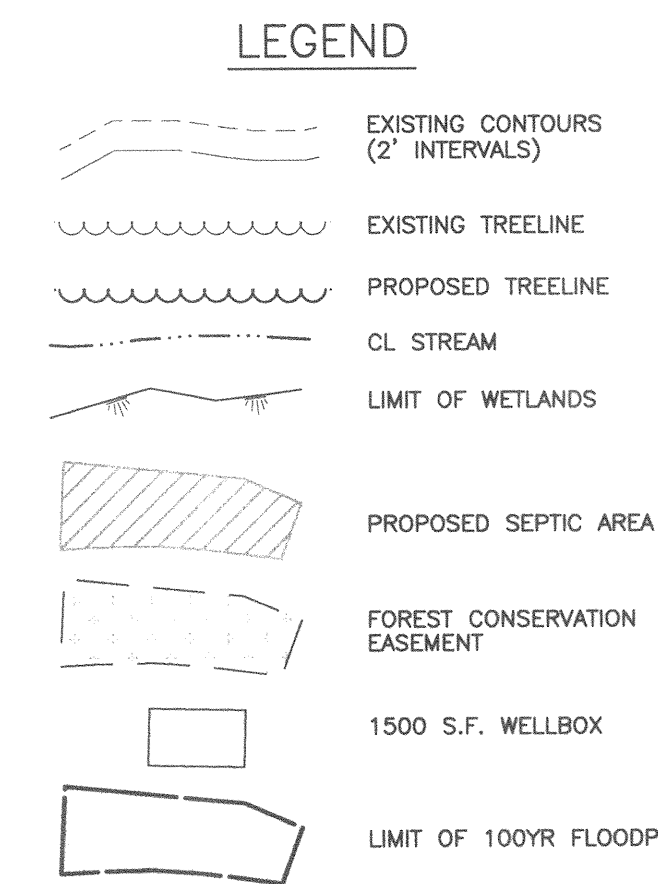
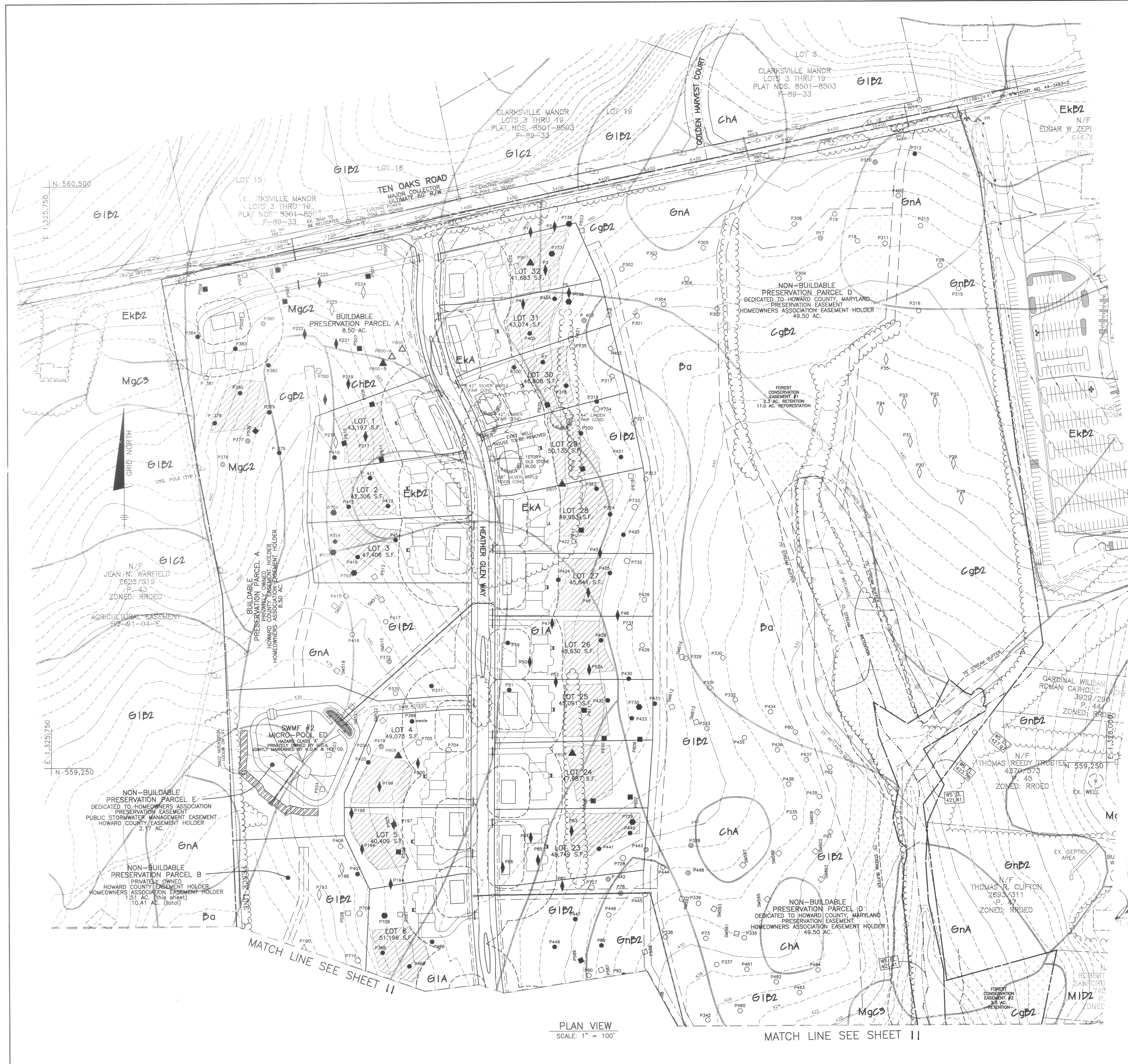
PLAN VIEW
 SCALE: 1" = 100'

BENCHMARK ENGINEERING, INC.
 ENGINEERS • LAND SURVEYORS • PLANNERS

Donald Man
7/1/05

8480 BALTIMORE NATIONAL PIKE # SUITE 418
 ELLETTT CITY, MARYLAND 21043
 PHONE: 410-485-6105 FAX: 410-465-6644
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OWNER: BARBARA J. PALMER AND DONNA P. CLELAND 6100 BROOKLYN BRIDGE ROAD LAUREL, MARYLAND 20707	PROJECT: TURNBURY GROVE LOTS 1-32, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCELS 'B' - 'F'
DEVELOPER: D.R. HORTON 1370 PICCADILLO DRIVE ROCKVILLE, MARYLAND 20850 301-670-6144	LOCATION: TAX MAP: 34, GRID: 11, 12, 17 & 18 PARCEL: 77 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE: JULY, 2005	PROJECT NO.: 1407
DESIGN: LDD	DRAFT: DBT/LDD
CHECK: DAM	SCALE: AS SHOWN
SHEET 9 OF 11	



SOILS LEGEND

MAP SYMBOL	SOIL GROUP	SOIL TYPE
Ba	D*	BALE SILT LOAM
G1B2	B	CHESTER GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
G1C2	B	CHESTER GRAVELLY SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
ChA	B	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES
ChB2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
Ca	B	COMUS SILT LOAM
E1A	B	ELDOAK SILT LOAM, 0 TO 3 PERCENT SLOPES
E1B2	B	ELDOAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
ENC2	B	ELDOAK SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
G1A	B	GLENELO SILT LOAM, 0 TO 3 PERCENT SLOPES
G1B2	B	GLENELO SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
G1C2	B	GLENELO SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
G1D2	B	GLENELO SILT LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
G1A*	C*	GLENEVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES
G1B2	C*	GLENEVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MgB2	B	MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MgC2	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MgC3	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
M1D2	B	MANOR LOAM, 13 TO 25 PERCENT SLOPES, MODERATELY ERODED
M1E	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES

* INDICATES HYDRIC SOILS
 TAKEN FROM SOIL SURVEY, HOWARD COUNTY, MARYLAND (ISSUED JULY 1988) MAP NO. 23

- GENERAL NOTES
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
 - THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10,000 S.F. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE REQUIRED.
 - THE EXISTING TOPOGRAPHY IS BASED ON A FIELD SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. IN MARCH, 2002.
 - EXACT LENGTH OF SEPTIC TRENCHES IS TO BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF TRENCH LAYOUT AND INSPECTION.
 - THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THIS PROJECT'S BOUNDARY EXCEPT AS NOTED.
 - GROUNDWATER APPROPRIATION PERMIT SHALL BE OBTAINED PRIOR TO THE SUBMITTAL OF THE RECORD PLAT FOR SIGNATURE.
 - THE EXISTING MONITORING WELLS LOCATED ON THE PRESERVATION PARCEL SHALL BE PROPERLY ABANDONED BY A CERTIFIED WELL DRILLER PRIOR TO RECORDATION OF THE SUBDIVISION PLAT.
 - WELLS SHALL BE DRILLED PRIOR TO RECORD PLAT SUBMITTAL FOR SIGNATURE. IT IS THE DEVELOPER'S RESPONSIBILITY TO DRILL THE WELLS. IT WILL NOT BE CONSIDERED TO BE GOVERNMENTAL DELAY IF THE WELLS ARE NOT COMPLETED PRIOR TO THE SUBMISSION'S MILESTONE DATE.
 - THE HEALTH DEPARTMENT MAY REQUIRE THAT WELLS WITHIN WELL SITE AREAS THAT ARE IN CLOSE PROXIMITY TO EACH OTHER BE YIELD TESTED SIMULTANEOUSLY.

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF KNOWLEDGE AND BELIEF.

Donald Mason 5/18/05
 DONALD MASON P.E. #21443
 PLAN PREPARER

Robert J. Weber 6/3/05
 HOWARD COUNTY HEALTH OFFICER
 DATE

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM
 HOWARD COUNTY HEALTH DEPARTMENT

PROVINCIALY APPROVED
 DEPT. OF PLANNING AND ZONING OF
 HOWARD COUNTY

Donna M. ... 2/15/05
 PLANNING DIRECTOR

BENCHMARK ENGINEERING, INC.
 ENGINEERS • LAND SURVEYORS • PLANNERS
 8480 BALTIMORE NATIONAL PIKE & SUITE 418
 ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-485-6105 FAX: 410-485-6644
 WWW.BEI-CIVILENGINEERING.COM

OWNER: BARBARA J. PALMER AND DONNA P. CLELAND 6100 BROOKLYN BRIDGE ROAD LAUREL, MARYLAND 20707	PROJECT: TURNBURY GROVE LOTS 1-32, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCELS 'B' - 'F'
DEVELOPER: D.R. HORTON 1370 PICCARD DRIVE ROCKVILLE, MARYLAND 20850 301-670-6144	LOCATION: TAX MAP: 34, GRID: 11, 12, 17 & 18 PARCEL: 77 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DESIGN: LDD	TITLE: PERCOLATION CERTIFICATION PLAN
DRAFT: DBT/LDD	DATE: MAY, 2005
CHECK: DAM	PROJECT NO. 1407
	SCALE: AS SHOWN
	SHEET 10 OF 11

SOILS LEGEND		
MAP SYMBOL	SOIL GROUP	SOIL TYPE
Bs	D*	BALD SILT LOAM
CgB2	B	CHESTER GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
CgC2	B	CHESTER GRAVELLY SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
ChA	B	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES
ChB2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
Cs	B	COMUS SILT LOAM
EA	B	ELIASK SILT LOAM, 0 TO 3 PERCENT SLOPES
EkB2	B	ELIASK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
EkC2	B	ELIASK SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GIA	B	GLENELG LOAM, 0 TO 3 PERCENT SLOPES
GB2	B	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
GIC2	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GR2	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
ShA	C*	GLENVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES
GnB2	C*	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MgB2	B	MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MgC2	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MgC3	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
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MIE	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES
* INDICATES HYDRIC SOILS		
TAKEN FROM SOIL SURVEY, HOWARD COUNTY, MARYLAND (ISSUED JULY 1968) MAP NO. 23		

LEGEND

- EXISTING CONTOURS (2' INTERVALS)
- EXISTING TREELINE
- PROPOSED TREELINE
- CL STREAM
- LIMIT OF WETLANDS
- PROPOSED SEPTIC AREA
- FOREST CONSERVATION EASEMENT
- 1500 S.F. WELLBOX
- LIMIT OF 100YR FLOODPLAIN

■ PASSED TEST HOLE TESTED NOV-DEC 2001
 ◊ FAILED TEST HOLE TESTED NOV-DEC 2001
 ● PASSED TEST HOLE TESTED APRIL/MAY 2003
 ○ FAILED TEST HOLE TESTED APRIL/MAY 2003
 ■ PASSED TEST HOLE TESTED JANUARY/FEBRUARY 2004
 ◊ FAILED TEST HOLE TESTED JANUARY/FEBRUARY 2004
 ● PASSED TEST HOLE TESTED JUNE 2004
 ○ FAILED TEST HOLE TESTED JUNE 2004
 ⊙ MARSHAL TEST HOLE TESTED JUNE 2004



I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Donald Mason 5/18/05
 DONALD MASON P.E. #21443
 PLAN PREPARER

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM
 HOWARD COUNTY HEALTH DEPARTMENT

Robert J. Walker 6/3/05
 HOWARD COUNTY HEALTH OFFICER
 DATE

TEMPORARILY APPROVED
 DEPT. OF PLANNING AND ZONING OF
 HOWARD COUNTY

Marsha L. Anglen 5/15/05
 PLANNING DIRECTOR
 DATE

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Donald Mason

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TITLE: PERCOLATION CERTIFICATION PLAN	DATE: MAY, 2005 PROJECT NO. 1407
DESIGN: LDD DRAFT: DBT/LDD CHECK: DAM	SCALE: AS SHOWN SHEET 11 OF 11

PLAN VIEW
 SCALE: 1" = 100'