

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE, UNLESS WAIVER(S) HAVE BEEN APPROVED.
- 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.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT 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 LIGHTS PLACEMENT AND TYPE OF FIXTURE & SIGNING SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. II (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE, 1993)".
- EXISTING TOPOGRAPHY SHOWN HEREON WAS FIELD RUN BY BENCHMARK ENGINEERING, INC. DATED MAY 2003. CONTOUR INTERVAL IS 2 FEET.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL MONUMENTS 30C22 & 30C23, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM.
- THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT. WATER AND SEWER SHALL BE PUBLIC, CONNECTING TO CONTRACTS 344-S AND 221-S FOR SEWER AND TO CONTRACT 137-W FOR WATER. DRAINAGE AREA IS WITHIN THE FATUXENT RIVER AREA WATERSHED.
- STORMWATER MANAGEMENT SHALL BE PROVIDED FOR THIS PROJECT BASED ON GUIDELINES ESTABLISHED BY THE 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUMES I & II. STORMWATER MANAGEMENT SHALL BE PROVIDED IN ACCORDANCE WITH F-04-102, F-04-103 AND F-04-104 BY USE OF ROOFTOP DISCONNECTION AND RAIN GARDENS.
- EXISTING UTILITIES SHOWN WERE LOCATED BY APPROVED CONTRACT DRAWINGS AND FIELD LOCATIONS.
- PERIMETER LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL SHALL BE PROVIDED AS SHOWN ON THIS SITE PLAN. FINANCIAL SURETY WILL BE POSTED WITH THE BUILDERS' GRADING PERMIT.
 - SECTION 7 IN THE AMOUNT OF \$2,400 FOR 8 SHADE TREES.
 - SECTION 8 IN THE AMOUNT OF \$1,800 FOR 6 SHADE TREES.
 - SECTION 9 IN THE AMOUNT OF \$5,400 FOR 18 SHADE TREES.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO CEMETERY LOCATIONS ON-SITE.
- UNLESS NOTED AS "PRIVATE", ALL EASEMENTS ARE PUBLIC.
- BRL INDICATES BUILDING RESTRICTION LINE.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - WIDTH - 12' (14' SERVING MORE THAN ONE RESIDENCE).
 - SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.)
 - GEOMETRY - MAX. 10% GRADE CHANGE & MIN. 45' TURNING RADIUS.
 - STRUCTURES/CULVERTS/BRIDGES - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOAD)
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
 - STRUCTURE CLEARANCES - MINIMUM 12 FEET.
 - MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- THIS PLAN IS SUBJECT TO THE AMENDED 5th EDITION OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL 45-203 AND THE HOWARD COUNTY ZONING REGULATIONS, AS AMENDED UNDER COUNCIL BILL 75-2003. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT.
- SUBJECT PROPERTY IS ZONED R-20 PER 2-2-04 COMPREHENSIVE ZONING PLAN.
- PREVIOUS APPLICABLE HOWARD COUNTY DPZ FILE REFERENCES FOR THIS PROJECT ARE F-04-102, F-04-103 AND F-04-104.
- CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITY AND SHALL ADJUST ALL UTILITIES AND RIM ELEVATIONS AS NEEDED TO MATCH THIS PLAN.
- THE EX. 18' PRIVATE INGRESS & EGRESS R/W WAS ABANDONED BY DEED L8647/F361 ON SEPT. 21, 2004.
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS MORE THAN 16 FEET IN WIDTH MAY NOT PROJECT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED, MAY NOT PROJECT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- DRIVEWAY APRON TO BE CONSTRUCTED PER THE HOWARD COUNTY STANDARD DETAIL R6.06.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS AND FOREST CONSERVATION EASEMENT AREAS.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION AS FOLLOWS:
 - SECTION 7 (F-04-104) BY PAYMENT OF A FEE IN LIEU IN THE AMOUNT OF \$15,246 FOR 30,492SF (0.7AC) SECTION 8 (F-04-102) NOTE#11 THIS SUBDIVISION IS EXEMPT FROM THE FOREST CONSERVATION REQUIREMENTS IN ACCORDANCE WITH SECTION 16.120(b)(1)(viii) OF THE HOWARD COUNTY CODE FOR A MINOR SUBDIVISION THAT CREATES ONE ADDITIONAL LOT WITH NO FURTHER SUBDIVISION POTENTIAL SECTION 9 (F-04-103) NOTE#11 BY PAYMENT OF A FEE IN LIEU IN THE AMOUNT OF \$21,780
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT TO THE PIPESTEM LOT DRIVEWAY.
- THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH THE RECENTLY ADOPTED RESIDENTIAL INFILL DEVELOPMENT REGULATIONS AS ALLOWED IN THE AMENDED FIFTH EDITION OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPER OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH THE EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, BERMS, FENCES, SIMILAR HOUSING UNIT TYPES AND DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSED.
- THE RECORDED REAR BUILDING RESTRICTION LINE (BRL) FOR SECTION 9, LOT 4 COINCIDES WITH THE BOUNDARY OF THE 20' PUBLIC DRAINAGE UTILITY EASEMENT. THEREFORE, THE DISTANCE FROM THE REAR BUILDING RESTRICTION LINE TO THE REAR PROPERTY LINE OF LOT 4 WILL VARY IN DISTANCE, NOT TO BE LESS THAN 30 FEET PER ZONING REGULATIONS. SECTION 16.120(b)(4)(c) OF THE SUBDIVISION REGULATIONS PROHIBITS THE PLACEMENT OF RIP-RAP WITHIN THE BUILDING ENVELOPE.
- THE RECORDED 35' SIDE BUILDING RESTRICTION LINE (BRL) FOR SECTION 8, LOT 2 COINCIDES WITH THE BOUNDARY OF THE 35' SETBACK FROM THE WETLAND BUFFER; THEREFORE, THE DISTANCE FROM THE SIDE BUILDING RESTRICTION LINE TO THE PROPERTY LINE OF LOT 2 WILL VARY IN DISTANCE, NOT TO BE LESS THAN 10 FEET PER THE ZONING REGULATIONS. SECTION 16.120(b)(4)(iii)c OF THE SUBDIVISION REGULATIONS PROHIBITS THE BUILDING ENVELOPE TO BE NO CLOSER THAN 35 FEET FROM THE WETLAND BUFFER.
- OPEN SPACE WAS PROVIDED BY PAYMENT OF A FEE IN LIEU OF OPEN SPACE IN THE AMOUNT OF \$1,500 FOR F-04-102, \$6,000 FOR F-04-103 AND \$3,000 FOR F-04-104.

SITE DEVELOPMENT PLAN

COLUMBIA HILLS

SECTIONS 7-9

PARCEL 16 AND 39

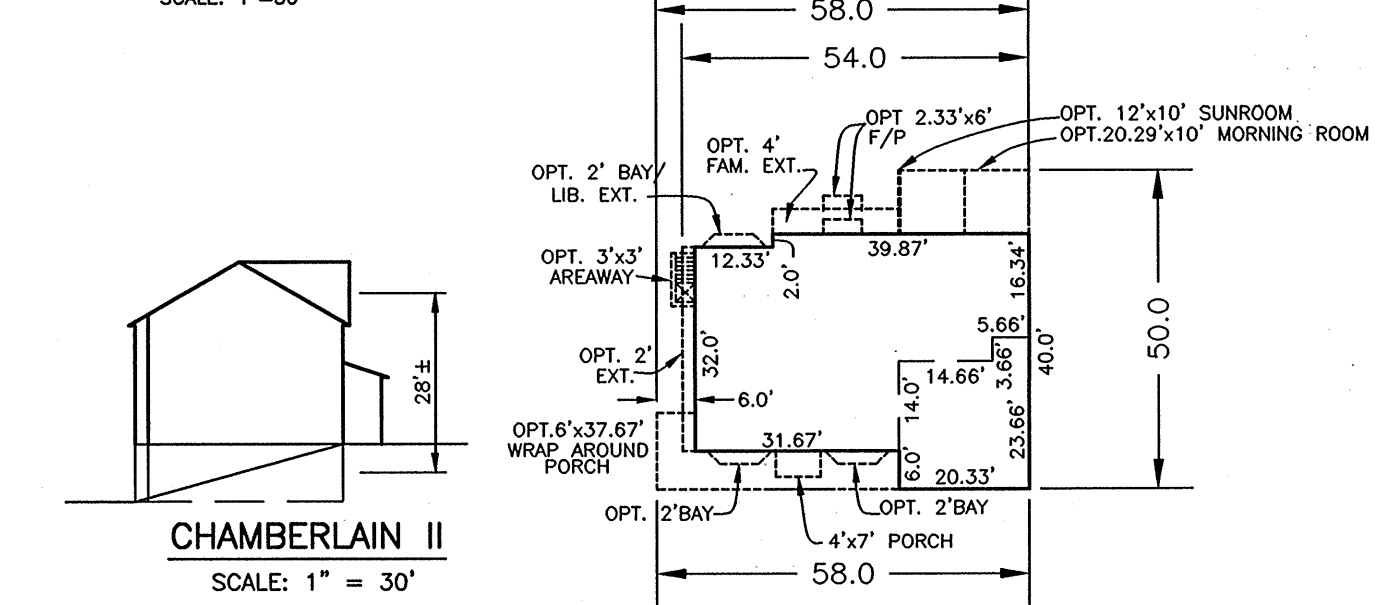
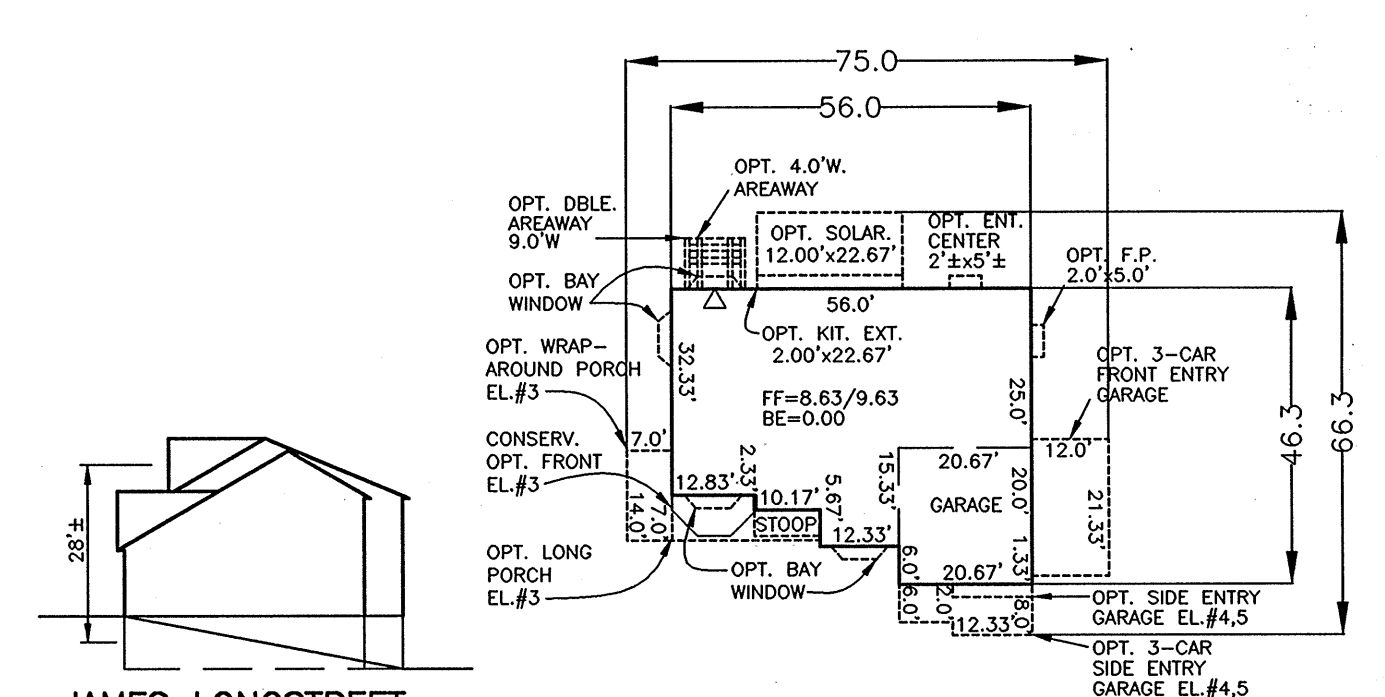
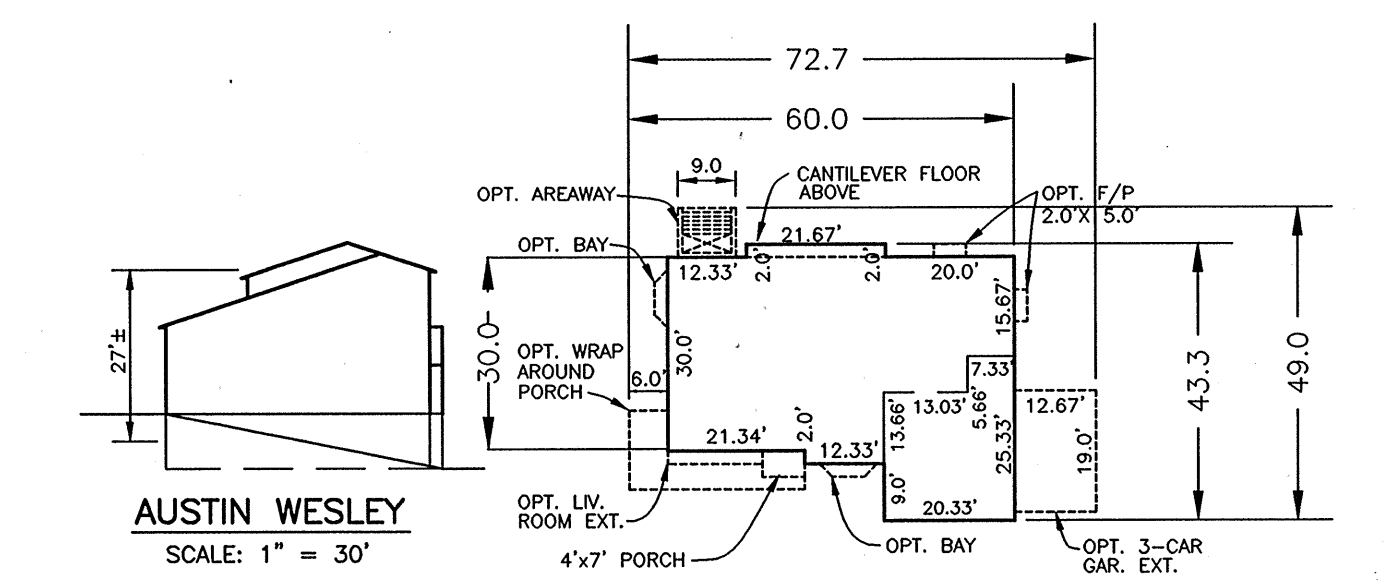
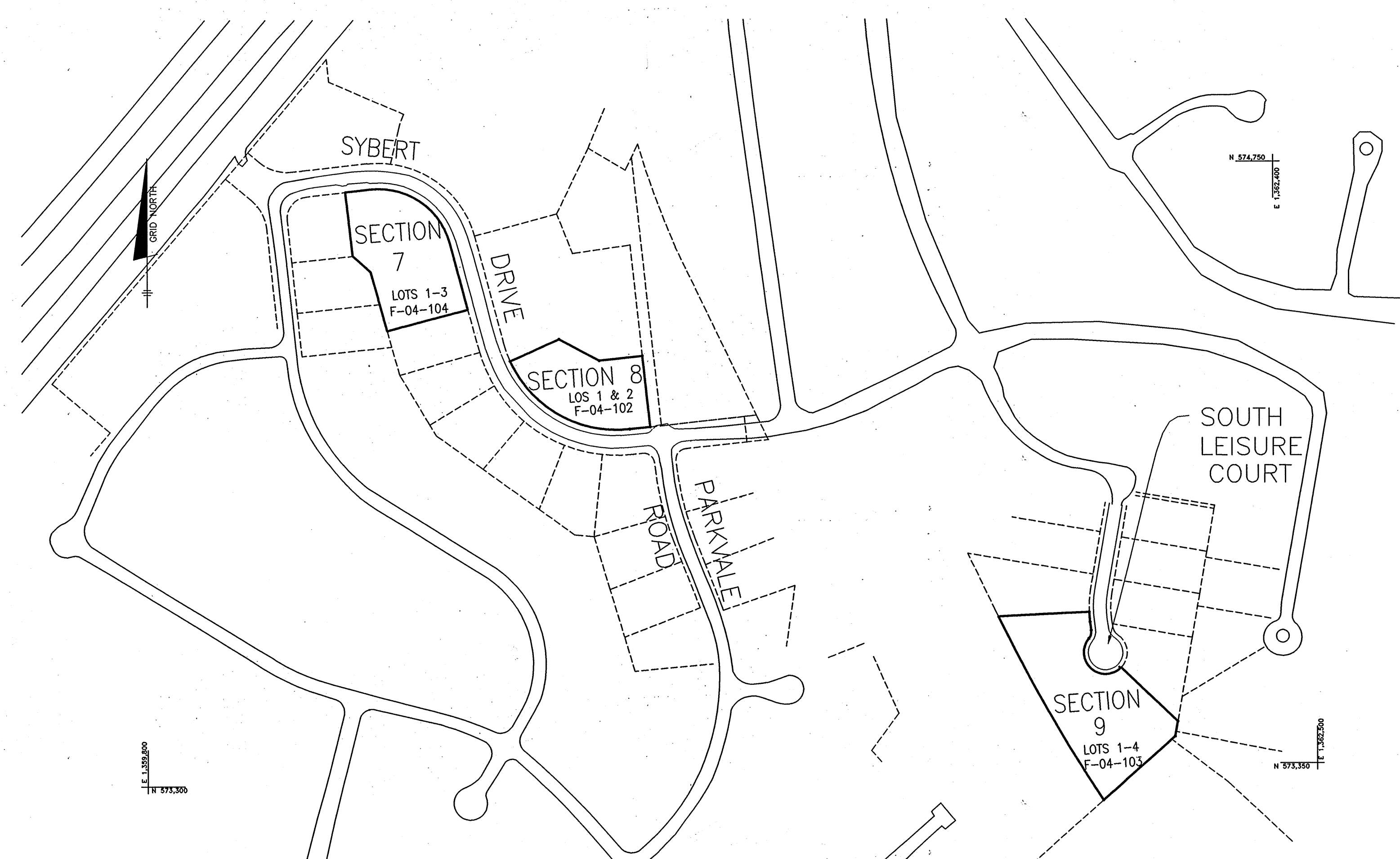
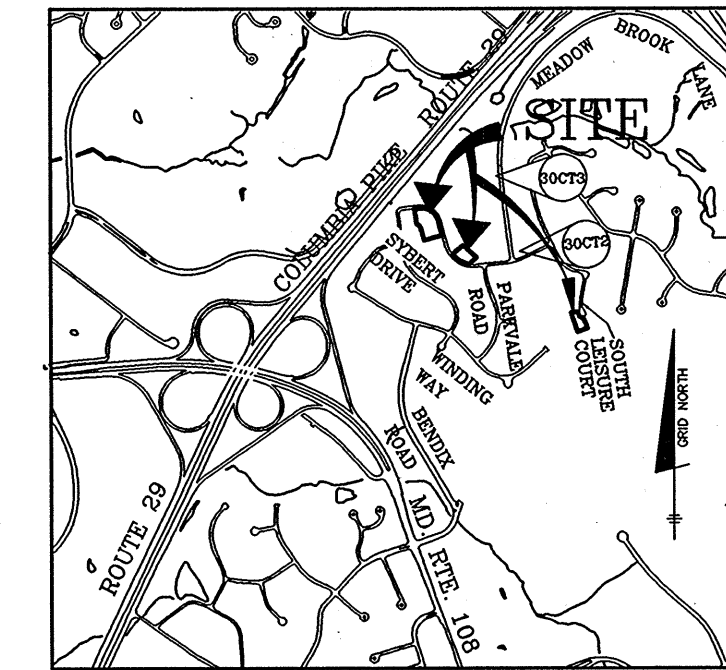
2nd ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

LEGEND

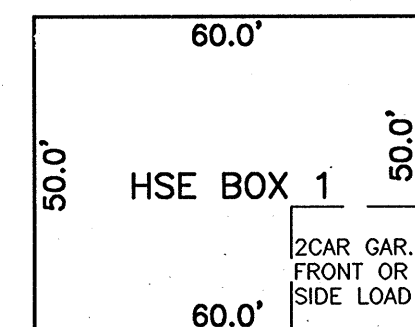
- SOILS CLASSIFICATION AbC1
- SOILS DELINEATION
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING WOODS LINE
- PROPOSED WOODS LINE
- EXISTING STRUCTURE
- PROPOSED STRUCTURE
- SOIL BORING
- RAIN GARDEN
- LIMIT OF DISTURBANCE

BENCH MARKS NAD'83 HORIZONTAL	
NO. CO. #30C22 3/8" REBAR WITH RED PLASTIC CAP N 574179.232' ELEV. = 388.74	E 1361312.723'
NO. CO. #30C23 3/8" REBAR WITH RED PLASTIC CAP N 574812.755' ELEV. = 386.42	E 1361173.247'



FOOTPRINT
SCALE: 1" = 30'

PLAN VIEW
SCALE: 1" = 100'



SITE DATA TABULATION

AREA TABULATION	
1.) TOTAL PROJECT AREA:	
SECTION 7.....	1.41 AC.±
SECTION 8.....	1.03AC.±
SECTION 9.....	1.88 AC.±
2.) TOTAL NUMBER OF LOTS ALLOWED	
SECTION 7.....	3
SECTION 8.....	2
SECTION 9.....	4
3.) TOTAL NUMBER OF RESIDENTIAL UNITS PROPOSED ON THIS SUBMISSION.....	9
4.) APPROXIMATE LIMIT OF DISTURBANCE:	
SECTION 7.....	1.41 AC.±
SECTION 8.....	1.03AC.±
SECTION 9.....	1.88 AC.±
TOTAL.....	4.32 AC.±
5.) AREA OF THIS PLAN SUBMISSION:	
SECTION 7.....	1.41 AC.±
SECTION 8.....	1.03AC.±
SECTION 9.....	1.88 AC.±
TOTAL.....	4.32 AC.±

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT AND LANDSCAPE PLAN
3	SITE DEVELOPMENT AND LANDSCAPE PLAN
4	GRADING AND SEDIMENT CONTROL PLAN
5	GRADING AND SEDIMENT CONTROL PLAN
6	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

PERMIT INFORMATION CHART					
SUBDIVISION NAME:	COLUMBIA HILLS	SECTION/AREA:	N/A	PARCEL #	P/O 16 & 39
PLAT No.	17276	GRID No.	5	ZONE	R-20
	17277			TAX MAP	30
	17278			ELECTION DISTRICT	2nd
WATER CODE	F-09	SEWER CODE	5655400	CENSUS TRACT	6023.02

MINIMUM LOT SIZE CHART SECTION 9			
LOT NO.	GROSS AREA	PIPESTEM AREA	MIN. LOT SIZE
3	21,296 S.F.	1,206 S.F.	20,090 S.F.

SOILS LEGEND		
MAP SYMBOL	SOIL TYPE	MAPPING UNIT
C8B2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
C8C2	B	GLENEVA LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
M8B2	B	MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
M8C2	B	MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
M8D3	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
C8B2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED

SECTION 7 ADDRESS CHART	
LOT No.	STREET ADDRESS
1	9141 SYBERT DRIVE
2	9137 SYBERT DRIVE
3	9133 SYBERT DRIVE

SECTION 8 ADDRESS CHART	
LOT No.	STREET ADDRESS
1	9120 SYBERT DRIVE
2	9118 SYBERT DRIVE

SECTION 9 ADDRESS CHART	
LOT No.	STREET ADDRESS
1	4682 SOUTH LEISURE DRIVE
2	4686 SOUTH LEISURE DRIVE
3	4690 SOUTH LEISURE DRIVE
4	4685 SOUTH LEISURE DRIVE

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE YEAR QUARRANT OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Robert S. Dorey 7-13-05
DEVELOPER

Cindy Hamilton 8/3/05
CHIEF, DIVISION OF LAND DEVELOPMENT

Mark A. ... 8/2/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Mark ... 8/2/05
DIRECTOR

BENCHMARK ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE & SUITE 418
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-8105 FAX: 410-465-8644
www.bei-civilengineering.com

NO. DATE REVISION

ONWER/DEVELOPER: DAWSON PROPERTY, LLC
9926 CYPRESSMEDE DRIVE
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-7200

PROJECT: COLUMBIA HILLS
SECTION 7 LOTS 1-3, SECTION 8, LOTS 1 AND 2
SECTION 9, LOTS 1-4

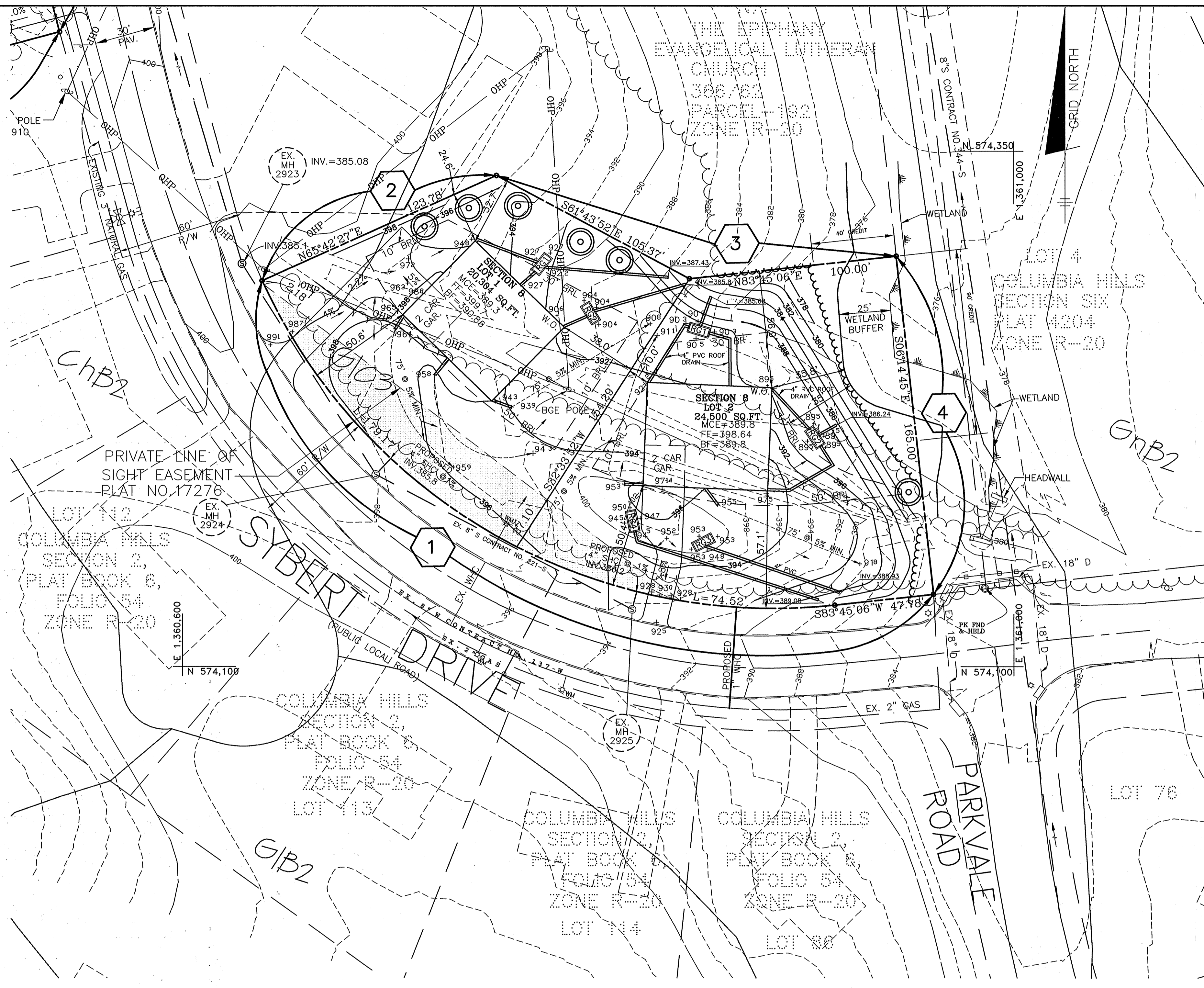
LOCATION: TAX MAP 30 - GRID 5
PARCEL 16 & 39
2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: SITE DEVELOPMENT PLAN

DATE: NOVEMBER, 2004 PROJECT NO. 1795
SCALE: AS SHOWN DRAWING 1 OF 6



PLAN VIEW SECTION 7
SCALE: 1" = 30'



PLAN VIEW SECTION 8
SCALE: 1" = 30'

SCHEDULE A SECTION 7 PERIMETER LANDSCAPE EDGE					
CATEGORY	ADJACENT TO ROADWAY	NO	NO	NO	YES
ADJACENT TO PERIMETER PROPERTIES	YES	YES	YES	YES	NO
PERIMETER NO. / LANDSCAPE TYPE	(1) A	(2) A	(3) A	(4) A	N/A
LINEAR FEET OF ROADWAY (FRONTAGE/PERIMETER)	192.66'	191.54'	150.00'	460.79'	
CREDIT FOR EXISTING VEGETATION: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 35'	YES 95'	NO	NO	-
CREDIT FOR WALL, FENCE, OR BERM: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	-
NUMBER OF PLANTS REQUIRED: SHADE TREES	3	2	3	-	-
EVERGREEN TREES	-	-	-	-	-
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-	-
SHRUBS	-	-	-	-	-
NUMBER OF PLANTS PROVIDED: SHADE TREES	3	2	3	-	-
EVERGREEN TREES	-	-	-	-	-
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-	-
SHRUBS (10:1 SUBSTITUTE)	-	-	-	-	-
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)					

NOTE: ONSITE OVERHEAD ELECTRIC LINES ARE TO BE RELOCATED IN ACCORDANCE WITH A CONTRACT BETWEEN THE OWNER AND BGE.

SCHEDULE A SECTION 8 PERIMETER LANDSCAPE EDGE					
CATEGORY	ADJACENT TO PERIMETER PROPERTIES	YES	NO	NO	NO
ADJACENT TO PERIMETER PROPERTIES	YES	YES	YES	YES	NO
PERIMETER NO. / LANDSCAPE TYPE	(1) NA	(2) A	(3) A	(4) A	
LINEAR FEET OF ROADWAY (FRONTAGE/PERIMETER)	386.87'	123.70'	205.37'	185.00'	
CREDIT FOR EXISTING VEGETATION: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	-	YES 12'	YES 40'	YES 125'	-
CREDIT FOR WALL, FENCE, OR BERM: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	-	NO	NO	NO	-
NUMBER OF PLANTS REQUIRED: SHADE TREES	-	2	3	1	-
EVERGREEN TREES	-	-	-	-	-
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-	-
SHRUBS	-	-	-	-	-
NUMBER OF PLANTS PROVIDED: SHADE TREES	-	2	3	1	-
EVERGREEN TREES	-	-	-	-	-
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-	-
SHRUBS (10:1 SUBSTITUTE)	-	-	-	-	-
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)					

LEGEND

- SOILS CLASSIFICATION: Abc1
- SOILS DELINEATION: ————
- EXISTING CONTOURS: ————
- PROPOSED CONTOURS: ————
- EXISTING WOODS LINE: ~~~~~~
- PROPOSED WOODS LINE: ~~~~~~
- EXISTING STRUCTURE: []
- PROPOSED STRUCTURE: []
- SOIL BORING: B-1
- RAIN GARDEN: [RG1]
- LIMIT OF DISTURBANCE:

LANDSCAPE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
(C)	8	SHADE TREES QUERCUS RUBRA "NORTHERN RED OAK"	2.5"-3.0" MIN. CAL. 8 & 8 FULL HEAD

LANDSCAPE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
(C)	6	SHADE TREES QUERCUS RUBRA "NORTHERN RED OAK"	2.5"-3.0" MIN. CAL. 8 & 8 FULL HEAD

DEVELOPER'S/BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND THE LAND DEVELOPMENT REGULATIONS AND LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Robert S. Dorsey 7-13-05
DEVELOPER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cecilia Hamata 8/2/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

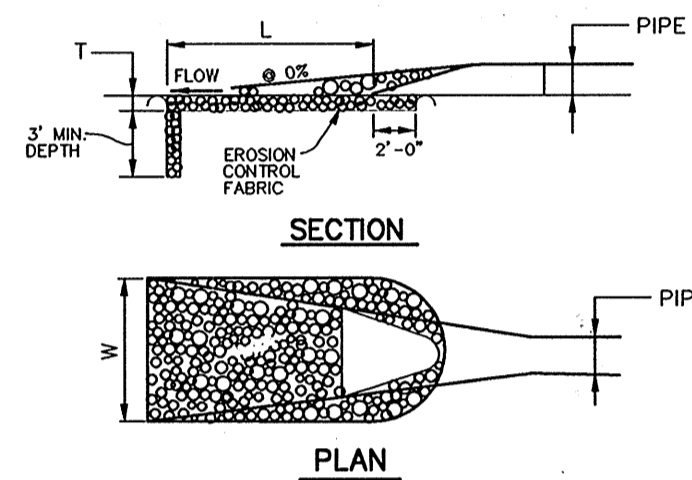
Ellos
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Marsha M. Leight 8/14/05
DIRECTOR DATE

NO.		DATE		REVISION	
BENCHMARK ENGINEERS • LAND SURVEYORS • PLANNERS ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE • SUITE 418 ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6644 www.bei-civilengineering.com					
OWNER/DEVELOPER: DAWSON PROPERTY, LLC 9926 CYPRESSEME DRIVE ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-7200			PROJECT: COLUMBIA HILLS SECTION 7 LOTS 1-3, SECTION 8, LOTS 1 AND 2 SECTION 9, LOTS 1-4		
BUILDER: DORSEY FAMILY HOMES 9926 CYPRESSEME DRIVE ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-7200			LOCATION: TAX MAP 30 - GRID 5 PARCEL 16 & 39 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE: SITE DEVELOPMENT PLAN					
DATE: NOVEMBER, 2004		PROJECT NO. 1795			
Design: DAM	Draft: EDD	Check: DAM	SCALE: AS SHOWN	DRAWING 2 OF 6	

LEGEND

SOILS CLASSIFICATION	AbC1
SOILS DELINEATION	---
EXISTING CONTOURS	999
PROPOSED CONTOURS	999
EXISTING WOODS LINE	~~~~~
PROPOSED WOODS LINE	~~~~~
EXISTING STRUCTURE	[]
PROPOSED STRUCTURE	[]
SOIL BORING	B-1
RAIN GARDEN	RG1
LIMIT OF DISTURBANCE

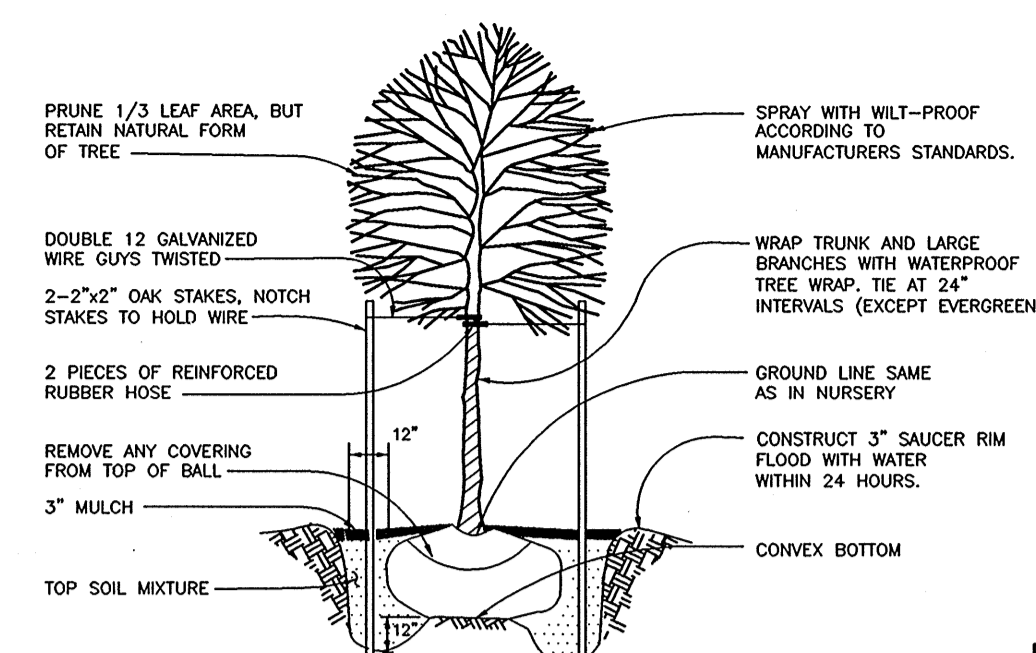
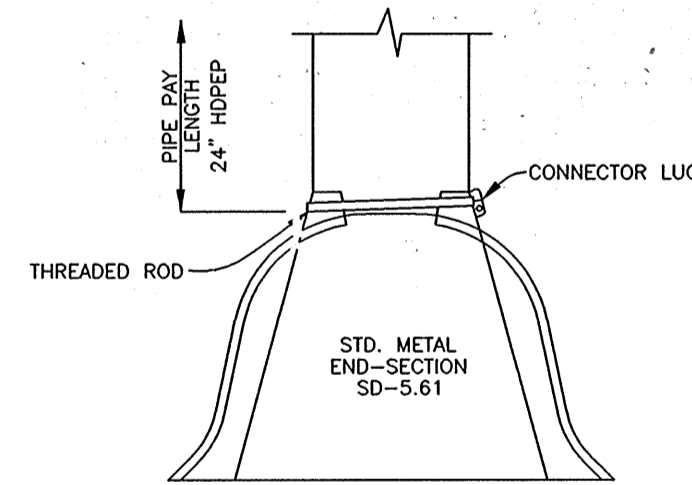


STRUCTURE	D-30	DEPTH	WIDTH	THICKNESS	SOIL CLASS
E-1	9.5"	10"	6"	19"	1

OUTLET PROTECTION DETAIL
NOT TO SCALE

PIPE SCHEDULE

SIZE	TYPE	LF
24"	HDPE	70



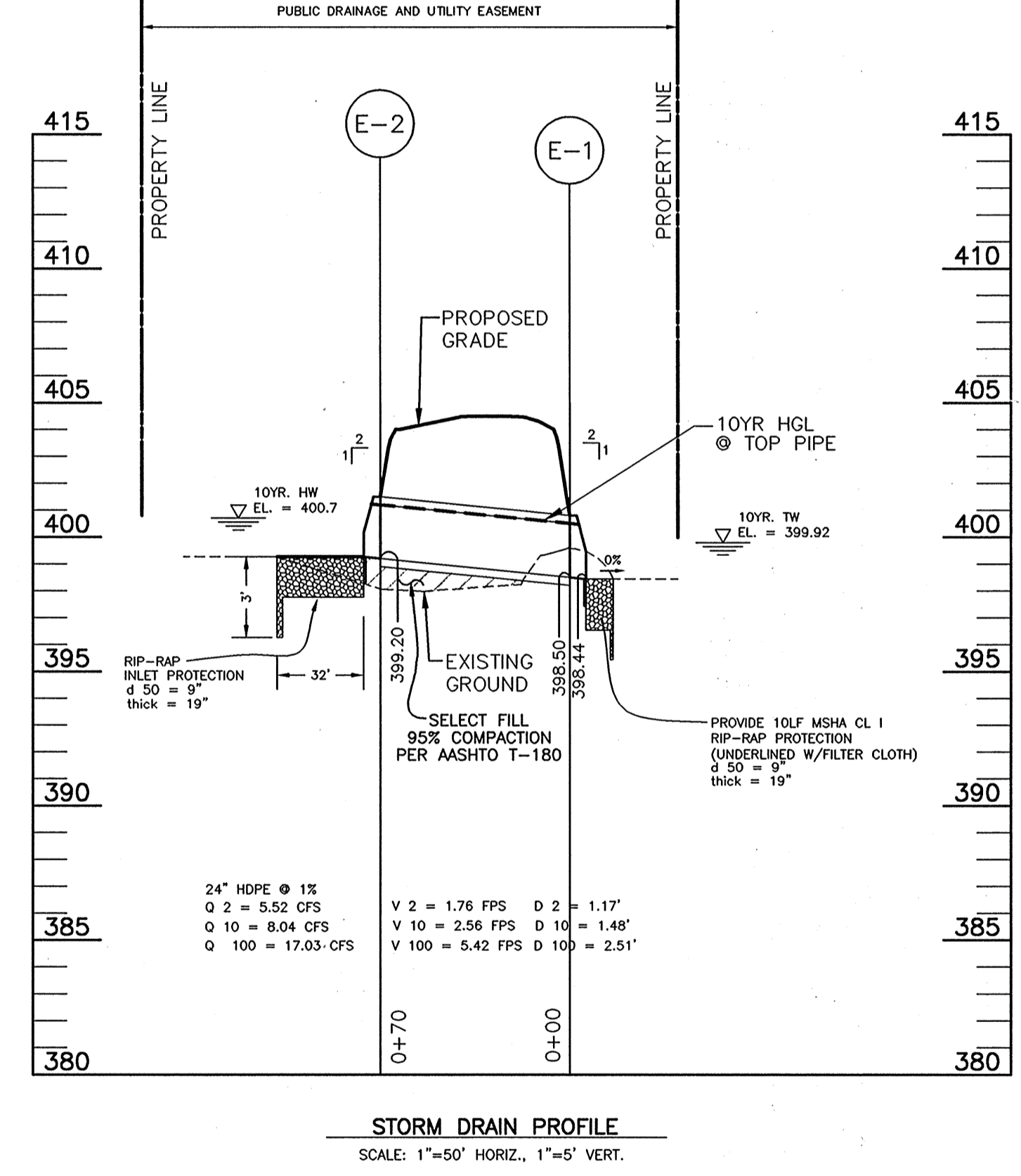
LANDSCAPE PLANTING LIST

SYMBOL	QUANTITY	NAME	REMARKS
(Symbol)	18	SHADE TREES QUERCUS RUBRA "NORTHERN RED OAK"	2.5'-3.0" MIN. CAL. B & B FULL HEAD

- LANDSCAPING NOTES**
- PERIMETER LANDSCAPING SHALL BE PROVIDED BY THE PLANTINGS AS SHOWN ON THESE PLANS.
 - TREES MUST BE A MINIMUM OF FOUR(4) FEET FROM THE CURB OR SIDEWALK AND MUST BE A MINIMUM OF FIVE(5) FEET FROM ANY STORM DRAIN.
 - A MINIMUM DISTANCE OF TWENTY(20) FEET MUST BE MAINTAINED BETWEEN ANY TREES LOCATED ALONG THE CURB LINE AND FROM ANY STREET LIGHTS.
 - TREES MUST BE PLANTED A MINIMUM OF FIVE(5) FEET FROM AN OPEN SPACE ACCESS STRIP AND TEN(10) FEET FROM A DRIVEWAY.
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SEC.-16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
 - FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE BUILDERS GRADING PERMIT APPLICATION. SECTION 9 IN THE AMOUNT OF \$2,400 FOR 8 SHADE TREES. SECTION 8 IN THE AMOUNT OF \$1,800 FOR 6 SHADE TREES. SECTION 7 IN THE AMOUNT OF \$5,400 FOR 18 SHADE TREES.
 - THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, PLANT MATERIALS, BERRIES, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

SCHEDULE A SECTION 9 PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES	YES	NO	YES	NO
PERIMETER NO. / LANDSCAPE TYPE	(1) N/A	(2) A	(3) A	(4) A	(4) A	
LINEAR FEET OF ROADWAY (FRONTAGE/PERIMETER)			1139.48'			
CREDIT FOR EXISTING VEGETATION: NO OR YES (✓/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)			YES 70'			
CREDIT FOR WALL, FENCE OR BERM: NO OR YES (✓/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)			NO			
NUMBER OF PLANTS REQUIRED: SHADE TREES 18, EVERGREEN TREES, OTHER TREES (21 SUBSTITUTE) SHRUBS						
NUMBER OF PLANTS PROVIDED: SHADE TREES 18, EVERGREEN TREES, OTHER TREES (21 SUBSTITUTE) SHRUBS (101 SUBSTITUTE) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)						



DEVELOPER'S/BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND THE LAND DEVELOPMENT REGULATIONS AND LANDSCAPE MANUAL, I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Robert S. Dwyer 7-13-05
DEVELOPER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Carole Hamilton 8/1/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mark A. Leight 8/14/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Mark A. Leight
DIRECTOR

NOTE: ONSITE OVERHEAD ELECTRIC LINES ARE TO BE RELOCATED IN ACCORDANCE WITH A CONTRACT BETWEEN THE OWNER AND BGE.

PLAN VIEW SECTION 9
SCALE: 1" = 30'

OAKLAND RIDGE IND. DEVELOPMENT CORP.
NO DEED REFERENCE
PARCEL 26
ZONE R-20

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	REMARKS
E-1	24" METAL END SECTION	N573433.8636 E1362134.1813	-	398.50	-	HO.CO. G5.61
E-2	24" METAL END SECTION	N573374.0590 E1362097.7647	399.20	-	-	HO.CO. G5.61

1) STRUCTURE ELEVATION AND LOCATION FOR END SECTIONS IS AT THE CONNECTION OF PIPE AND END SECTION.
2) ALL STORM DRAINS SHALL BE HIGH DENSITY POLYETHYLENE PIPE UNLESS OTHERWISE NOTED.

BENCHMARK ENGINEERING, INC.
ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE • SUITE 418
ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644
www.bei-civilengineering.com

Professional Engineer
7/13/05

OWNER/DEVELOPER:
DAWSON PROPERTY, LLC
9926 CYPRESSMEDE DRIVE
ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-7200

BUILDER:
DORSEY FAMILY HOMES
9926 CYPRESSMEDE DRIVE
ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-7200

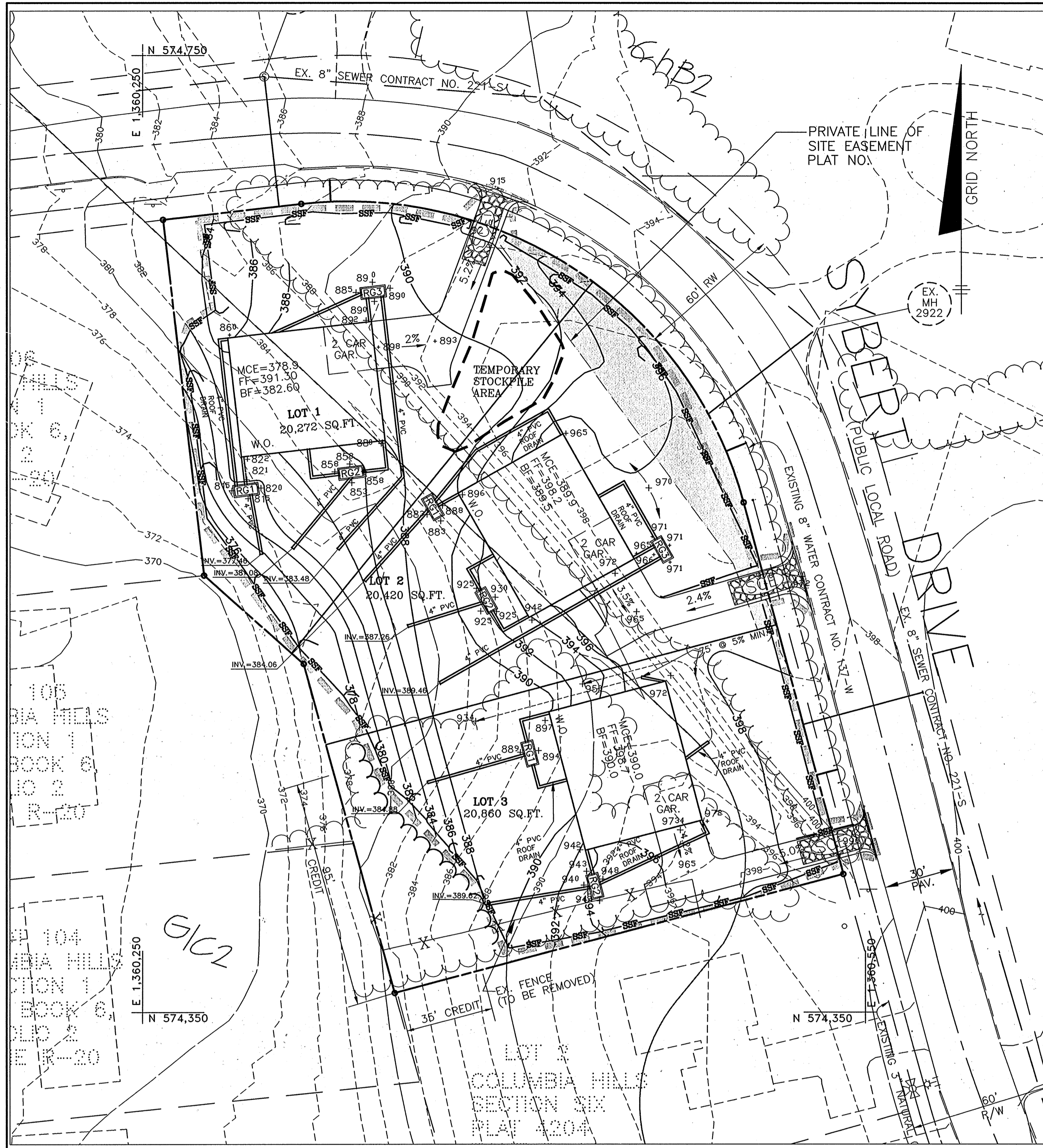
PROJECT:
COLUMBIA HILLS
SECTION 7 LOTS 1-3, SECTION 8, LOTS 1 AND 2
SECTION 9, LOTS 1-4

LOCATION:
TAX MAP 30 - GRID 5
PARCEL 16 & 39
2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

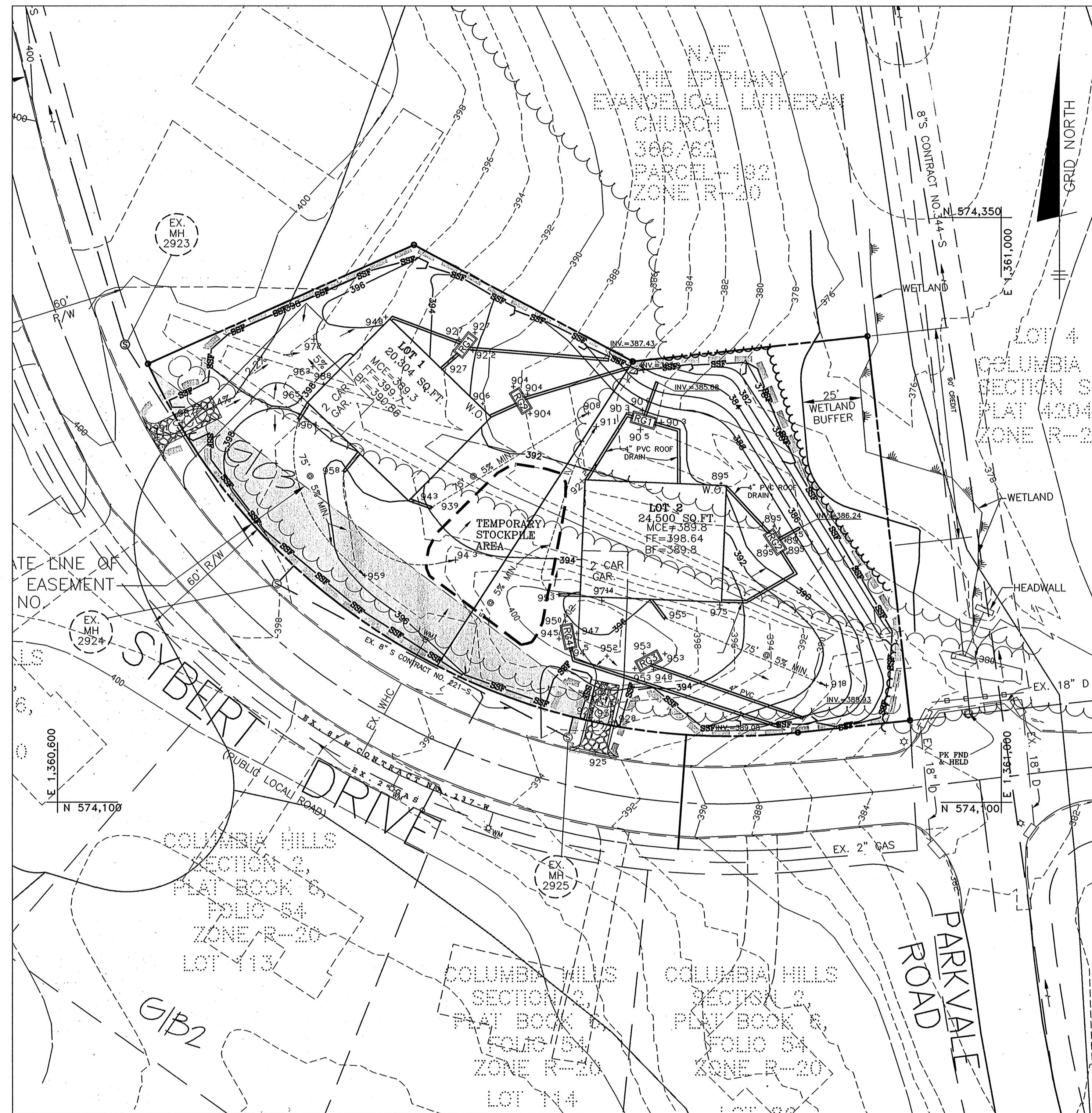
TITLE:
SITE DEVELOPMENT PLAN
AND LANDSCAPE PLAN

DATE: NOVEMBER, 2004 PROJECT NO. 1795
SCALE: AS SHOWN DRAWING 3 OF 6

Design: DAM Draft: EDD Check: DAM



PLAN VIEW SECTION 7
SCALE: 1" = 30'



PLAN VIEW SECTION 8
SCALE: 1" = 30'

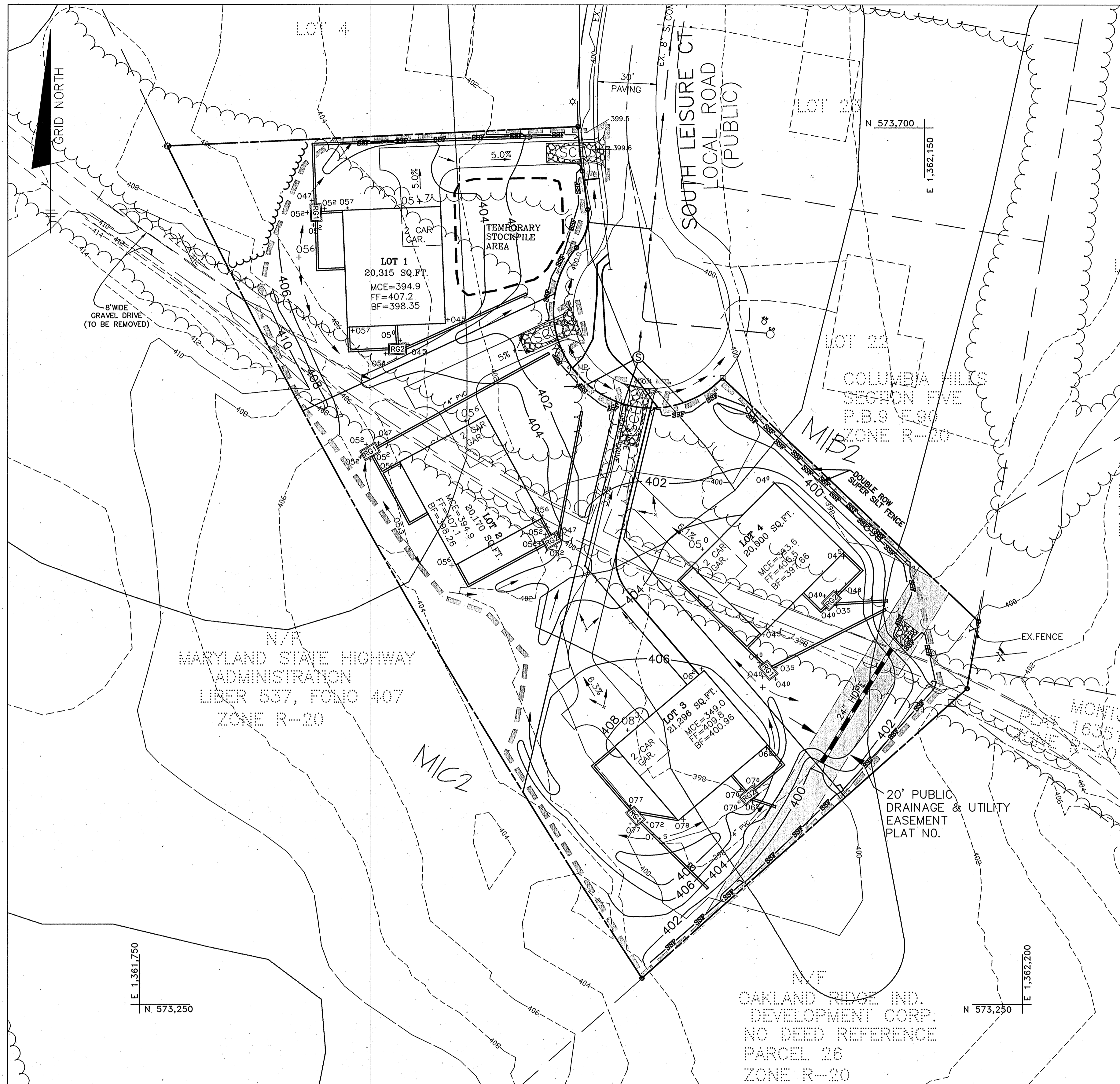
LEGEND

SOILS CLASSIFICATION	AbC1
SOILS DELINEATION	---
EXISTING CONTOURS	---999---
PROPOSED CONTOURS	---999---
EXISTING WOODS LINE	~~~~~
PROPOSED WOODS LINE	~~~~~
PROPOSED STRUCTURE	[]
LIMIT OF DISTURBANCE	---x---x---x---
STABILIZED CONSTRUCTION ENTRANCE	[]
SILT FENCE	SSF
SOIL STABILIZATION MATTING	[]
EARTH DIKE	→

(A-1)

<p>BY THE DEVELOPER: "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."</p> <p><i>Robt's Borg</i> 7-13-05 DAWSON PROPERTY, LLC DATE</p>	
<p>BY THE ENGINEER: "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."</p> <p><i>Ronald Man</i> 9/16/05 ENGINEER DATE</p>	
<p>THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.</p> <p><i>J. L. White</i> 7/27/05 HOWARD SOIL CONSERVATION DISTRICT DATE</p>	
<p>REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.</p> <p><i>Jim M...</i> 7/27/05 NATURAL RESOURCES OBSERVATION DATE</p>	
<p>APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING</p> <p><i>...</i> 8/1/05 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE</p>	
<p><i>...</i> 8/2/05 CHIEF, DIVISION OF LAND DEVELOPMENT DATE</p>	
<p><i>...</i> 8/14/05 DIRECTOR DATE</p>	

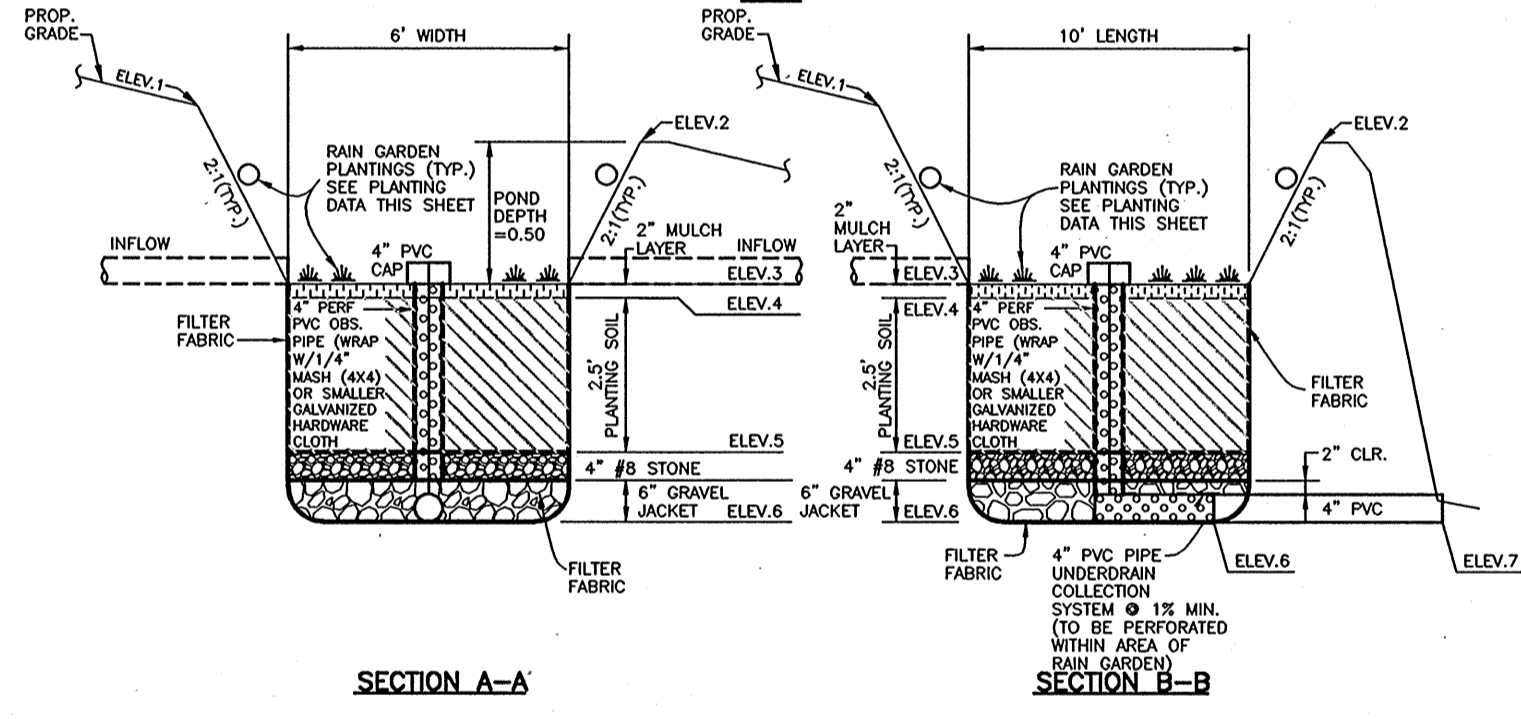
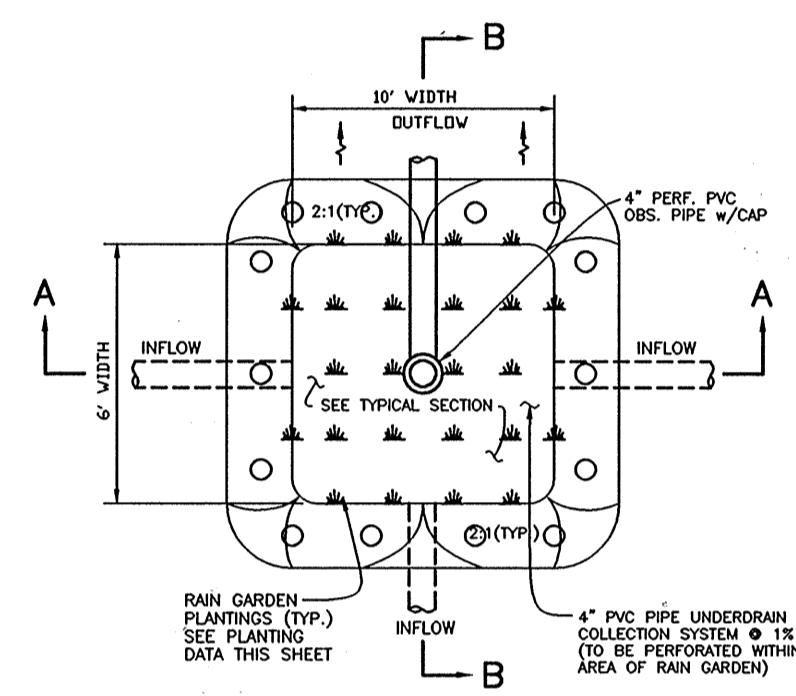
<p>NO. DATE REVISION</p>	
<p>BENCHMARK ENGINEERING, INC. ENGINEERS • LAND SURVEYORS • PLANNERS 8480 BALTIMORE NATIONAL PIKE • SUITE 418 ELLCOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6644 www.bei-civilengineering.com</p>	
<p><i>...</i> 7/26/05 PROFESSIONAL ENGINEER</p>	
<p>OWNER/DEVELOPER: DAWSON PROPERTY, LLC P.O. BOX 417 ELLCOTT CITY, MARYLAND 21041 PHONE: 410-465-4244</p>	<p>PROJECT: COLUMBIA HILLS SECTION 7 LOTS 1-3, SECTION 8, LOTS 1 AND 2 SECTION 9, LOTS 1-4</p>
<p>BUILDER: DORSEY FAMILY HOMES 9926 CYPRESSEME DRIVE ELLCOTT CITY, MARYLAND 21043 PHONE: 410-465-7200</p>	<p>LOCATION: TAX MAP 30 - GRID 5 PARCEL 16 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p>
<p>TITLE: GRADING AND SEDIMENT CONTROL PLAN</p>	
<p>DATE: NOVEMBER, 2004</p>	<p>PROJECT NO. 1795</p>
<p>Design: DAM Draft: EDD Check: DAM</p>	<p>SCALE: AS SHOWN DRAWING 4 OF 6</p>



PLAN VIEW SECTION 9
SCALE: 1" = 30'

LEGEND

- SOILS CLASSIFICATION AbC1
- SOILS DELINEATION
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING WOODS LINE
- PROPOSED WOODS LINE
- PROPOSED STRUCTURE
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- SOIL STABILIZATION MATTING
- EARTH DIKE



NOTE: THE DISTURBED AREA UPSTREAM OF THE PROPOSED 24" PIPE LOCATED AT THE REAR OF LOTS 3 AND 4 SHALL BE IMMEDIATELY STABILIZED WITH SOD.

BY THE DEVELOPER: I, WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.	<i>Robert S. Dwyer</i> 7-13-05 DATE
DAWSON PROPERTY, LLC	
BY THE ENGINEER: I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.	<i>Donald Moran</i> 7/12/05 DATE
ENGINEER	
THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT	<i>John R. Watson</i> 7/12/05 DATE
HOWARD SOIL CONSERVATION DISTRICT	
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.	<i>Jim Meyer</i> 7/27/05 DATE
NATURAL RESOURCES CONSERVATION SERVICE	
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	<i>Michael...</i> 8/1/05 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	
CHIEF, DIVISION OF LAND DEVELOPMENT	<i>...</i> 8/2/05 DATE
DIRECTOR	<i>...</i> 8/14/05 DATE

<p>NO. DATE REVISION</p>	
<p>BENCHMARK ENGINEERS • LAND SURVEYORS • PLANNERS</p> <p>ENGINEERING, INC.</p> <p>8480 BALTIMORE NATIONAL PIKE • SUITE 418 ELLCOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6644 www.bei-civilengineering.com</p>	
<p>OWNER/DEVELOPER: DAWSON PROPERTY, LLC P.O. BOX 417 ELLCOTT CITY, MARYLAND 21041 PHONE: 410-465-4244</p>	<p>PROJECT: COLUMBIA HILLS SECTION 7 LOTS 1-3, SECTION 8, LOTS 1 AND 2 SECTION 9, LOTS 1-4</p>
<p>BUILDER: DORSEY FAMILY HOMES 9926 CYPRESSMEDE DRIVE ELLCOTT CITY, MARYLAND 21043 PHONE: 410-465-7200</p>	<p>LOCATION: TAX MAP 30 - GRID 5 PARCEL 16 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p>
<p>DESIGN: DAM DRAFT: EDD CHECK: DAM</p>	<p>TITLE: GRADING AND SEDIMENT CONTROL PLAN</p>
<p>DATE: NOVEMBER, 2004 PROJECT NO. 1795</p>	<p>SCALE: AS SHOWN DRAWING 5 OF 6</p>

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN A 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DICES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. BY 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) 500 (SEC. 64), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52) TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

SECTION 7

TOTAL AREA OF SITE	1.41	ACRES
TOTAL AREA DISTURBED	1.28	ACRES
AREA TO BE ROOFED OR PAVED	0.30	ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.98	ACRES
TOTAL CUT	2,500	CU. YDS.
TOTAL FILL	558	CU. YDS.
OFFSITE HAUL	101-SITE STOCKPILE	

SECTION 8

TOTAL AREA OF SITE	1.03	ACRES
TOTAL AREA DISTURBED	0.83	ACRES
AREA TO BE ROOFED OR PAVED	0.19	ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.64	ACRES
TOTAL CUT	1,657	CU. YDS.
TOTAL FILL	3,150	CU. YDS.
OFFSITE HAUL	101-SITE STOCKPILE	

SECTION 9

TOTAL AREA OF SITE	1.88	ACRES
TOTAL AREA DISTURBED	1.68	ACRES
AREA TO BE ROOFED OR PAVED	0.78	ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.90	ACRES
TOTAL CUT	1,873	CU. YDS.
TOTAL FILL	897	CU. YDS.
OFFSITE HAUL	51-SITE STOCKPILE	

8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

9. ALL ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, OTHER BUILDING OR GRADING INSTALLATION OR OPERATIONS THAT MAY BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES ARE LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

12. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY AN OFF-SITE FILL AREA WITH AN APPROVED SEDIMENT & EROSION CONTROL PLAN.

TEMPORARY SEEDING PREPARATION

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT).

SEEDING: FOR PERIOD MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2-1/2 BUYSLS PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (2.0 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOO.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL CREAM STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 2 1/2 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FT. OR HIGHER, USE 3/8 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

PERMANENT SEEDING PREPARATION

SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ON OF THE FOLLOWING SCHEDULES:

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 500 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL AT TIME OF SEEDING. APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIOD MARCH 1 THROUGH APRIL 30 AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT) OF PERENNIAL RYEGRASS. FOR THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOO. OPTION (3) SEED WITH 60 LBS PER ACRE OF KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF WELL ANCHORED STRAW.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL CREAM STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 2 1/2 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FT. OR HIGHER, USE 3/8 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

BY THE DEVELOPER:
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS."
Robert S. Long 7-13-05
DAWSON PROPERTY, LLC DATE

BY THE ENGINEER:
"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS."
Donald M. Mason 7/13/05
ENGINEER DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS.
John L. Whitman 7/27/05
HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS DATE

REVIEWED FOR HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS TECHNICAL REQUIREMENTS.
Jim Muzey 7/27/05
NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Guido Hammer 8/1/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DATE: 8/1/05
DATE: 8/1/05
DATE: 8/1/05

DIRECTOR DATE: 8/1/05

SECTION 7 - LOTS 1 THRU 3

RAINGARDEN

LOT 1	RG 1	RG 2	RG 3
ELEV. 1	382.00	385.80	389.00
ELEV. 2	381.50	385.30	388.50
ELEV. 3	381.00	384.80	388.00
ELEV. 4	380.83	384.63	387.83
ELEV. 5	378.16	381.96	385.16
ELEV. 6	377.66	381.46	384.66
ELEV. 7	377.46	381.08	383.48
OUTFALL PIPE	20' @ 1%	38' @ 1%	118' @ 1%

LOT 2	RG 1	RG 2	RG 3
ELEV. 1	388.80	393.00	397.10
ELEV. 2	388.30	392.50	396.60
ELEV. 3	387.80	392.00	396.10
ELEV. 4	387.63	391.83	395.93
ELEV. 5	384.96	389.16	393.26
ELEV. 6	384.46	388.66	392.76
ELEV. 7	384.06	387.26	389.46
OUTFALL PIPE	40' @ 1%	35' @ 4%	110' @ 3%

LOT 3	RG 1	RG 2
ELEV. 1	389.40	394.80
ELEV. 2	388.90	394.30
ELEV. 3	388.40	393.80
ELEV. 4	388.23	393.63
ELEV. 5	385.73	390.96
ELEV. 6	384.90	390.46
ELEV. 7	384.48	389.62
OUTFALL PIPE	42' @ 1%	42' @ 2%

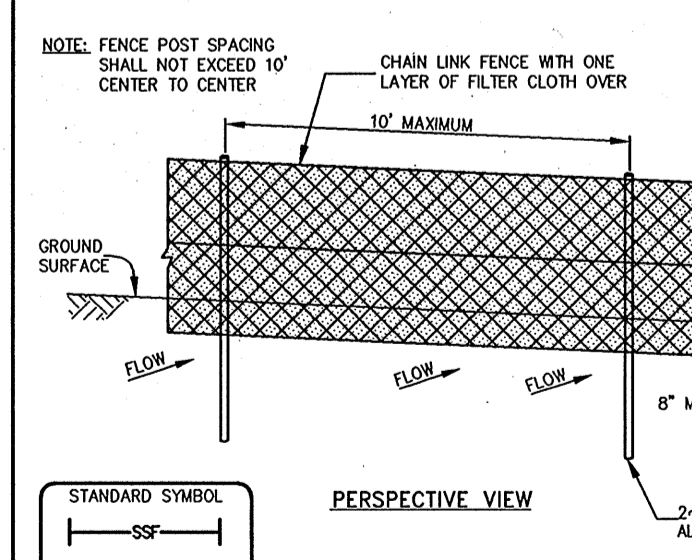
RAIN GARDEN - PLANTING DATA

- PLANTINGS WITHIN THE PONDING AREA OF THE RAIN GARDEN ARE TO BE OF A MEDIUM TO HIGH WATER TOLERANCE.
SUGGESTED SPECIES:
CREEPING BUGLEWEED (AJUGA REPTANS)
COMMON PERIWINKLE (VINCA MINOR)
LILY-TURF (LIRIOPE, SP.)
- PLANTINGS ALONG THE PERIMETER (BERM) AREA OF THE RAIN GARDEN ARE TO BE OF A LOW TO MEDIUM WATER TOLERANCE.
SUGGESTED SPECIES (PERENNIALS/ANNUALS):
IRIS (IRIS VERSICOLOR)
DAYLILY (HEMEROCALLIS SP.)
WHITE GLORY (ASTILBE SP.)
- AVOID PLANTINGS WITH EXCESSIVE ROOT MASS IN POND AREA OF THE RAIN GARDEN. NEAR OBS. PIPE AND UNDERDRAIN.

RAIN GARDEN - LANDSCAPE DATA

- HYDROLOGIC ZONE 3 - REGULARLY INUNDATED SHORELINE FRINGE (HIGH MARSH)
- EROSION CONTROL MATTING SHALL BE PLACED IN SWALES WHERE DEEMED NECESSARY UNTIL VEGETATION IS ESTABLISHED OR SOIL SLOD SHOULD BE USED.
- THE DISTURBED AREA UPSTREAM OF THE PROPOSED 24" PIPE LOCATED AT THE REAR OF LOTS 3 AND 4 SHALL BE IMMEDIATELY STABILIZED WITH SOO.
- THE DURATION OF EVENTS SHOWN IN THIS SEQUENCE ARE APPROXIMATE ONLY. THEY DO NOT REFLECT ACTUAL BUILDING TIMES AND WILL BE ADJUSTED DURING CONSTRUCTION BY THE BUILDER.

DETAIL 33 - SUPER SILT FENCE



SUPER SILT FENCE DESIGN CRITERIA

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	50 feet	500 feet
50% +	2:1 +	50 feet	250 feet

SECTION 9 - LOTS 1 THRU 4

RAINGARDEN ELEVATIONS

LOT 1	RG 1	RG 2
ELEV. 1	405.20	405.00
ELEV. 2	404.70	404.50
ELEV. 3	404.20	404.00
ELEV. 4	404.03	403.83
ELEV. 5	401.53	401.33
ELEV. 6	401.03	400.83
ELEV. 7	399.48	400.13
OUTFALL PIPE	155' @ 1%	70' @ 1%

LOT 3	RG 1	RG 2
ELEV. 1	407.70	407.00
ELEV. 2	407.20	406.50
ELEV. 3	406.70	406.00
ELEV. 4	406.53	406.83
ELEV. 5	404.03	403.33
ELEV. 6	403.53	402.83
ELEV. 7	402.83	402.71
OUTFALL PIPE	47' @ 1.5%	12' @ 1%

LOT 4	RG 1	RG 2
ELEV. 1	404.00	404.00
ELEV. 2	403.50	403.50
ELEV. 3	403.00	403.00
ELEV. 4	402.83	402.83
ELEV. 5	400.33	400.33
ELEV. 6	399.83	399.83
ELEV. 7	398.86	399.41
OUTFALL PIPE	65' @ 1.5%	28' @ 1.5%

OPERATION & MAINTENANCE SCHEDULE FOR RAIN GARDENS

- ANNUAL MAINTENANCE OF PLANT MATERIAL AND MULCH LAYER IS REQUIRED. MAINTENANCE OF MULCH IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH-OUT. ANY REPLACEMENT OF MULCH SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE & INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL & PRUNING.
- SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN THE SPRING AND FALL. THIS INSPECTION WILL INCLUDE: REMOVAL OF DEAD & DISEASED VEGETATION CONSIDERED BEYOND TREATMENT; TREATMENT OF ALL DISEASED TREES & SHRUBS; AND REPLACEMENT OF ALL DEFICIENT STAKES & WIRES.
- MULCH SHALL BE INSPECTED EACH SPRING. REMOVE THE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER EVERY 2 TO 3 YEARS.
- SOIL EROSION TO BE ADDRESSED ON AN AS-NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

MATERIALS AND SPECIFICATIONS FOR RAIN GARDEN

MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE APPENDIX A, TABLE A.4	N/A	PLANTINGS ARE SITE SPECIFIC
PLANTING SOIL (2.5' TO 4.0' DEEP)	SAND: 30-60% SILT: 30-50% CLAY: 0-25%	N/A	USDA SOIL TYPES: LOAMY SAND, SANDY LOAM OR LOAM
MULCH	SHREDED HAYWOOD	N/A	ACROSS 6 MONTHS, MINIMUM
GEOTEXTILE (CLASS "C")	APPARENT OPENING SIZE: (ASTM D-4751) TENSILE STRENGTH: (ASTM D-4832) PUNCTURE RESISTANCE: (ASTM D-4833)	N/A	FOR USE AS NECESSARY BENEATH UNDERDRAINS ONLY
UNDERDRAIN GRNCEL	AKSHIO M-43	0.375" TO 0.750"	
UNDERDRAIN PIPING	FRP, TYPE P328 OR AKSHIO M-278	4" TO 6" RIGID SCH 40 PVC, 3/8" PERFOR. @ 6" O/C, 4 HOLES PER ROW, MINIMUM OF 3" OF GRAVEL OVER PIPES.	

ALL SEDIMENT & EROSION CONTROL FEATURES ARE TO BE REPAIRED IMMEDIATELY IF DISRUPTED BY CONSTRUCTION ACTIVITY

SILT FENCE IS TO BE INSPECTED FREQUENTLY & CLEANED, REPAIRED AND/OR RE-INSTALLED IMMEDIATELY AS NECESSARY

SEDIMENT CONTROL LOCATION AND IMPLEMENTATION SHOWN ON THIS PLAN IS SUBJECT TO REVISIONS IN THE FIELD AT THE DISCRETION OF THE SEDIMENT CONTROL INSPECTOR

ALL SEDIMENT CONTROL FEATURES SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS SHOWN IN THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

SWM SUMMARY TABLE
GENERAL STORAGE REQUIREMENTS
SECTION 7
F-04-104

Requirement	Volume Required(cc-ft)	Volume Provided(cc-ft)	Notes
Water Quality Volume (WQV)	0.032 (1394 cf)	0.032 (1394 cf)	WQV provided by raingarden & credits
Recharge Volume (Rev)	0.008 (348 cf)	0.008 (348 cf)	Rev provided by credits
Channel Protection Volume (Cpv)	N/A	N/A	Cpv release rate is < 2 cfs (0.77)
Overbank Flood Protection Volume (Opv)	N/A	N/A	Not required for this area
Extreme Flood Volume (Of)	N/A	N/A	Not required for this area

SWM SUMMARY TABLE
GENERAL STORAGE REQUIREMENTS
SECTION 8
F-04-102

Requirement	Volume Required(cc-ft)	Volume Provided(cc-ft)	Notes
Water Quality Volume (WQV)	0.0236 (1028 cf)	0.0236 (1028 cf)	WQV provided by credits and raingardens
Recharge Volume (Rev)	0.0081 (268 cf)	0.0081 (268 cf)	Rev provided by credits
Channel Protection Volume (Cpv)	N/A	N/A	Cpv release rate is < 2 cfs (0.97)
Overbank Flood Protection Volume (Opv)	N/A	N/A	Not required for this area
Extreme Flood Volume (Of)	N/A	N/A	Not required for this area

SWM SUMMARY TABLE
GENERAL STORAGE REQUIREMENTS
SECTION 9
F-04-103

Requirement	Volume Required(cc-ft)	Volume Provided(cc-ft)	Notes
Water Quality Volume (WQV)	0.027 (1176 cf)	0.027 (1176 cf)	WQV provided by raingarden and credits
Recharge Volume (Rev)	0.007 (305cf)	0.007 (305cf)	Rev provided by credits
Channel Protection Volume (Cpv)	N/A	N/A	Cpv release rate is < 2 cfs (0.33)
Overbank Flood Protection Volume (Opv)	N/A	N/A	Not required for this area
Extreme Flood Volume (Of)	N/A	N/A	Not required for this area

SECTION 8 - LOTS 1 AND 2

RAINGARDEN ELEVATIONS

LOT 1	RG 1	RG 2
ELEV. 1	392.70	392.00
ELEV. 2	392.20	391.50
ELEV. 3	391.70	391.00
ELEV. 4	391.53	390.83
ELEV. 5	388.53	387.83
ELEV. 6	388.03	387.33
ELEV. 7	387.43	386.93
OUTFALL PIPE	60' @ 1%	40' @ 1%

LOT 2	RG 1	RG 2	RG 3	RG 4
ELEV. 1	390.50	391.00	395.30	394.70
ELEV. 2	390.00	390.50	394.80	394.20
ELEV. 3	389.50	390.00	394.30	393.70
ELEV. 4	389.33	389.83	394.13	393.53
ELEV. 5	386.33	386.83	391.13	390.53
ELEV. 6	385.50	385.00	390.30	390.70
ELEV. 7	385.35	384.91	389.60	398.75
OUTFALL PIPE	15' @ 1%	9' @ 1%	70' @ 1%	95' @ 1%

NO. DATE REVISION

BENCHMARK ENGINEERS, INC.
ENGINEERS • LAND SURVEYORS • PLANNERS
8480 BALTIMORE NATIONAL PIKE # SUITE 418
ELlicott CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644
www.bei-civilengineering.com

OWNER/DEVELOPER:
DAWSON PROPERTY, LLC
P.O. BOX 417
ELlicott CITY, MARYLAND 21041
PHONE: 410-465-4244

PROJECT:
COLUMBIA HILLS
SECTION 7 LOTS 1-3, SECTION 8, LOTS 1 AND 2
SECTION 9, LOTS 1-4

LOCATION:
TAX MAP 30 - GRID 5
PARCEL 16
2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

BUILDER:
DORSEY FAMILY HOMES
9926 CYPRESSME DRIVE
ELlicott CITY, MARYLAND 21043
PHONE: 410-465-7200

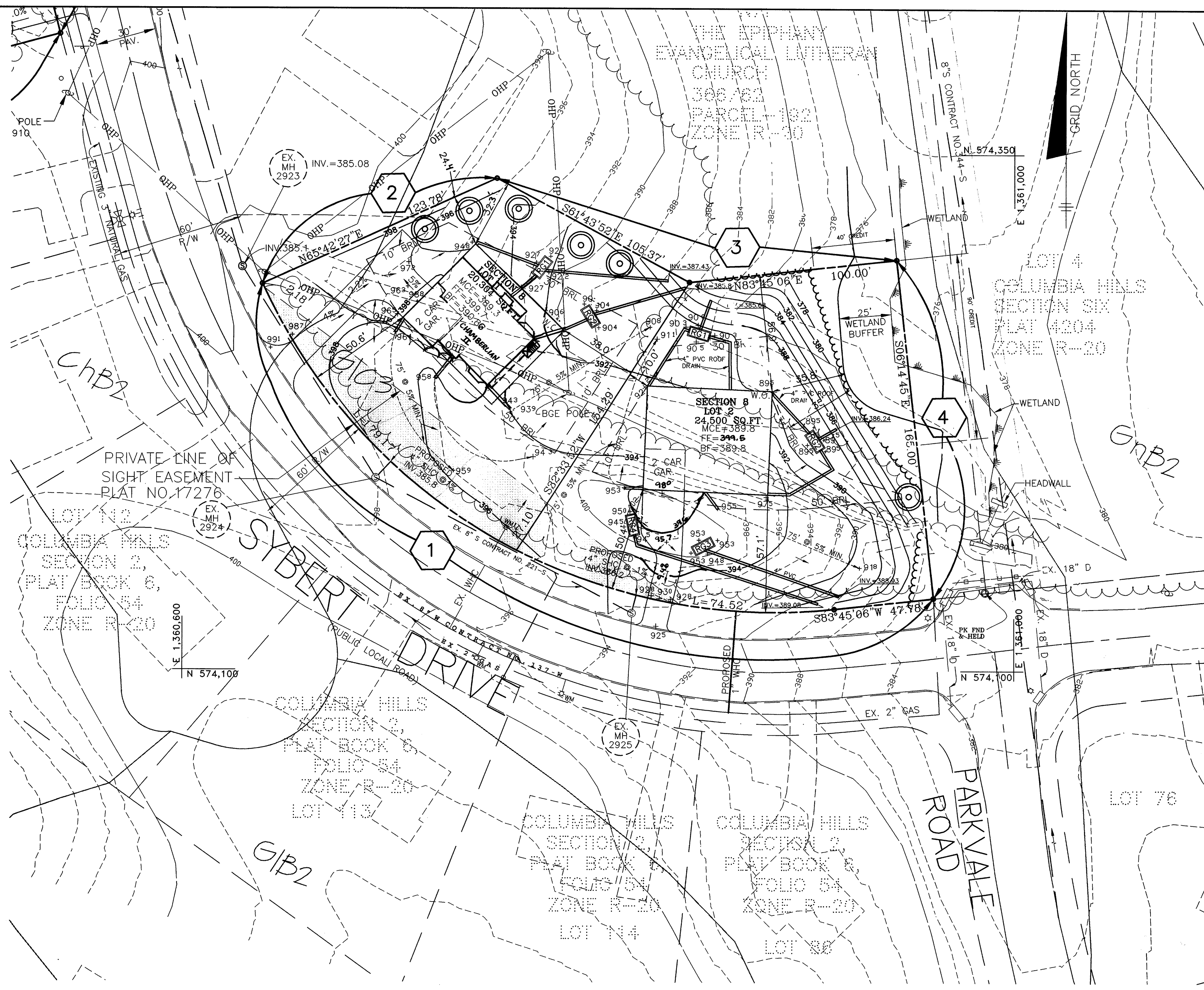
TITLE:
SEDIMENT AND EROSION CONTROL NOTES & DETAILS

DATE: NOVEMBER, 2004 PROJECT NO. 1795

Design: DAM Draft: EDD Check: DAM SCALE: AS SHOWN DRAWING 6 OF 6



PLAN VIEW SECTION 7
SCALE: 1" = 30'



PLAN VIEW SECTION 8
SCALE: 1" = 30'

SCHEDULE A SECTION 7 PERIMETER LANDSCAPE EDGE				
CATEGORY	ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES	YES	NO
PERIMETER NO. / LANDSCAPE TYPE	(1) A	(2) A	(3) A	(4) N/A
LINEAR FEET OF ROADWAY (FRONTAGE/PERIMETER)	192.66' / 1500.00'	191.54' / 1500.00'	460.79'	
CREDIT FOR EXISTING VEGETATION: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 35'	YES 95'	NO	-
CREDIT FOR WALL, FENCE OR BERM: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	-
NUMBER OF PLANTS REQUIRED:				
SHADE TREES	3	2	3	-
EVERGREEN TREES	-	-	-	-
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-
SHRUBS	-	-	-	-
NUMBER OF PLANTS PROVIDED:				
SHADE TREES	3	2	3	-
EVERGREEN TREES	-	-	-	-
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-
SHRUBS (10:1 SUBSTITUTE)	-	-	-	-

NOTE: ONSITE OVERHEAD ELECTRIC LINES ARE TO BE RELOCATED IN ACCORDANCE WITH A CONTRACT BETWEEN THE OWNER AND BGE.

SCHEDULE A SECTION 8 PERIMETER LANDSCAPE EDGE				
CATEGORY	ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES	YES	NO
PERIMETER NO. / LANDSCAPE TYPE	(1) A	(2) A	(3) A	(4) A
LINEAR FEET OF ROADWAY (FRONTAGE/PERIMETER)	386.87' / 1233.78'	205.37' / 165.00'		
CREDIT FOR EXISTING VEGETATION: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	-	YES 12'	YES 40'	YES 125'
CREDIT FOR WALL, FENCE OR BERM: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	-	NO	NO	NO
NUMBER OF PLANTS REQUIRED:				
SHADE TREES	-	2	3	1
EVERGREEN TREES	-	-	-	-
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-
SHRUBS	-	-	-	-
NUMBER OF PLANTS PROVIDED:				
SHADE TREES	-	2	3	1
EVERGREEN TREES	-	-	-	-
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-
SHRUBS (10:1 SUBSTITUTE)	-	-	-	-

LEGEND

SOILS CLASSIFICATION: AbC1

SOILS DELINEATION: ---

EXISTING CONTOURS: ---

PROPOSED CONTOURS: ---

EXISTING WOODS LINE: ---

PROPOSED WOODS LINE: ---

EXISTING STRUCTURE: []

PROPOSED STRUCTURE: []

SOIL BORING: B-1

RAIN GARDEN: [RG1]

LIMIT OF DISTURBANCE: ...

LANDSCAPE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
⊙	8	SHADE TREES QUERCUS RUBRA "NORTHERN RED OAK"	2.5"-3.0" MIN. CAL. B & B FULL HEAD

LANDSCAPE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
⊙	6	SHADE TREES QUERCUS RUBRA "NORTHERN RED OAK"	2.5"-3.0" MIN. CAL. B & B FULL HEAD

DEVELOPER'S/BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND THE LAND DEVELOPMENT REGULATIONS AND LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Robert S. Doy 7-13-05
DEVELOPER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Carole Hamilton 8/9/05
CHIEF, DIVISION OF LAND DEVELOPMENT

Matthew M. Leight 7/18/05
CHIEF, DEPARTMENT ENGINEERING DIVISION

Matthew M. Leight
DIRECTOR

2	2-13-06	SEC. 8 LOT 1 ADD CHAMBERLAIN II ELEV. #9, LOT 2 REVISED F.F. ELEV. & SPOT ELEV. PER AS-BUILT CONDITIONS
1	1-24-06	REVISED FIRST FLOOR ELEV. ON LOTS 2 & 3, REVISED SPOTELEV.
NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.
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ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644
www.bei-civilengineering.com

7/13/05

OWNER/DEVELOPER: DAWSON PROPERTY, LLC
9926 CYPRESSMEDE DRIVE
ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-7200

BUILDER: DORSEY FAMILY HOMES
9926 CYPRESSMEDE DRIVE
ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-7200

PROJECT: COLUMBIA HILLS SECTION 7 LOTS 1-3, SECTION 8, LOTS 1 AND 2 SECTION 8, LOTS 1-4

LOCATION: TAX MAP 30 - GRID 5 PARCEL 18 & 39 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: SITE DEVELOPMENT PLAN

DATE: NOVEMBER, 2004 PROJECT NO. 1795

Design: DAM Draft: EDD Check: DAM SCALE: AS SHOWN DRAWING 2 OF 6

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE, UNLESS WAIVERS HAVE BEEN APPROVED.
- 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.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT 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 LIGHTS PLACEMENT AND TYPE OF FIXTURE & SIGNING SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS" (JUNE, 1993)
- EXISTING TOPOGRAPHY SHOWN HEREON WAS FIELD RUN BY BENCHMARK ENGINEERING, INC. DATED MAY 2003. CONTOUR INTERVAL IS 2 FEET.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL MONUMENTS 30C22 & 30C13, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM.
- THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT. WATER AND SEWER SHALL BE PUBLIC, CONNECTING TO CONTRACTS 344-S AND 221-S FOR SEWER AND TO CONTRACT 137-W FOR WATER. DRAINAGE AREA IS WITHIN THE PATUXENT RIVER AREA WATERSHED.
- STORMWATER MANAGEMENT SHALL BE PROVIDED FOR THIS PROJECT BASED ON GUIDELINES ESTABLISHED BY THE 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUMES I & II. STORMWATER MANAGEMENT SHALL BE PROVIDED IN ACCORDANCE WITH F-04-102, F-04-103 AND F-04-104 BY USE OF ROOFTOP DISCONNECTION AND RAIN GARDENS.
- EXISTING UTILITIES SHOWN WERE LOCATED BY APPROVED CONTRACT DRAWINGS AND FIELD LOCATIONS.
- PERIMETER LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL SHALL BE PROVIDED AS SHOWN ON THIS SITE PLAN. FINANCIAL SURETY WILL BE POSTED WITH THE BUILDERS' GRADING PERMIT.
 - A) SECTION 7 IN THE AMOUNT OF \$2,400 FOR 8 SHADE TREES.
 - B) SECTION 8 IN THE AMOUNT OF \$1,800 FOR 6 SHADE TREES.
 - C) SECTION 9 IN THE AMOUNT OF \$5,400 FOR 18 SHADE TREES.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO CEMETERY LOCATIONS ON-SITE.
- UNLESS NOTED AS "PRIVATE", ALL EASEMENTS ARE PUBLIC.
- BRL INDICATES BUILDING RESTRICTION LINE.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - A) WIDTH - 12' (14' SERVING MORE THAN ONE RESIDENCE).
 - B) SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.).
 - C) GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE & MIN. 45' TURNING RADIUS.
 - D) STRUCTURES/CULVERTS/BRIDGES - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOAD)
 - E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
 - F) STRUCTURE CLEARANCES - MINIMUM 12 FEET.
 - G) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- THIS PLAN IS SUBJECT TO THE AMENDED 5th EDITION OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL 45-203 AND THE HOWARD COUNTY ZONING REGULATIONS, AS AMENDED UNDER COUNCIL BILL 75-2003. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT.
- SUBJECT PROPERTY IS ZONED R-20 PER 2-2-04 COMPREHENSIVE ZONING PLAN.
- PREVIOUS APPLICABLE HOWARD COUNTY DPZ FILE REFERENCES FOR THIS PROJECT ARE F-04-102, F-04-103 AND F-04-104.
- CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITY AND SHALL ADJUST ALL UTILITIES AND RIM ELEVATIONS AS NEEDED TO MATCH THIS PLAN.
- THE EX. 18' PRIVATE INGRESS & EGRESS R/W WAS ABANDONED BY DEED L8647/F361 ON SEPT.21, 2004.
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS MORE THAN 16 FEET IN WIDTH MAY NOT PROJECT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED, MAY NOT PROJECT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- DRIVEWAY APRON TO BE CONSTRUCTED PER THE HOWARD COUNTY STANDARD DETAIL R6.06.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS AND FOREST CONSERVATION AREAS.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION AS FOLLOWS:
 - SECTION 7 (F-04-104) BY PAYMENT OF A FEE IN LIEU IN THE AMOUNT OF \$15,246 FOR 30,492SF (0.7AC)
 - SECTION 8 (F-04-102) NOTE#11 THIS SUBDIVISION IS EXEMPT FROM THE FOREST CONSERVATION REQUIREMENTS IN ACCORDANCE WITH SECTION 16.120(b)(iv) OF THE HOWARD COUNTY CODE FOR A MINOR SUBDIVISION THAT CREATES ONE ADDITIONAL LOT WITH NO FURTHER SUBDIVISION POTENTIAL
 - SECTION 9 (F-04-103) NOTE#11 BY PAYMENT OF A FEE IN LIEU IN THE AMOUNT OF \$21,780
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT TO THE PIPESTEM LOT DRIVEWAY.
- THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH THE RECENTLY ADOPTED RESIDENTIAL INFILL DEVELOPMENT REGULATIONS AS ALLOWED IN THE AMENDED FIFTH EDITION OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPER OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH THE EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, BERMS, FENCES, SIMILAR HOUSING UNIT TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES.
- THE RECORDED REAR BUILDING RESTRICTION LINE (BRL) FOR SECTION 9, LOT 4 COINCIDES WITH THE BOUNDARY OF THE 20' PUBLIC DRAINAGE UTILITY EASEMENT. THEREFORE, THE DISTANCE FROM THE REAR BUILDING RESTRICTION LINE TO THE REAR PROPERTY LINE OF LOT 4 WILL VARY IN DISTANCE, NOT TO BE LESS THAN 30 FEET PER ZONING REGULATIONS. SECTION 16.120(b)(4)(i)(b) OF THE SUBDIVISION REGULATIONS PROHIBITS THE PLACEMENT OF RIP-RAP WITHIN THE BUILDING ENVELOPE.
- THE RECORDED 35' SIDE BUILDING RESTRICTION LINE (BRL) FOR SECTION 8, LOT 2 COINCIDES WITH THE BOUNDARY OF THE 35' SETBACK FROM THE WETLAND BUFFER; THEREFORE, THE DISTANCE FROM THE SIDE BUILDING RESTRICTION LINE TO THE PROPERTY LINE OF LOT 2 WILL VARY IN DISTANCE, NOT TO BE LESS THAN 10 FEET PER THE ZONING REGULATIONS. SECTION 16.120(b)(4)(ii)(c) OF THE SUBDIVISION REGULATIONS PROHIBITS THE BUILDING ENVELOPE TO BE NO CLOSER THAN 35 FEET FROM THE WETLAND BUFFER.
- OPEN SPACE WAS PROVIDED BY PAYMENT OF A FEE IN LIEU OF OPEN SPACE IN THE AMOUNT OF \$1,500 FOR F-04-102, \$6,000 FOR F-04-103 AND \$3,000 FOR F-04-104.

SITE DEVELOPMENT PLAN

COLUMBIA HILLS

SECTIONS 7-9

PARCEL 16 AND 39

2nd ELECTION DISTRICT

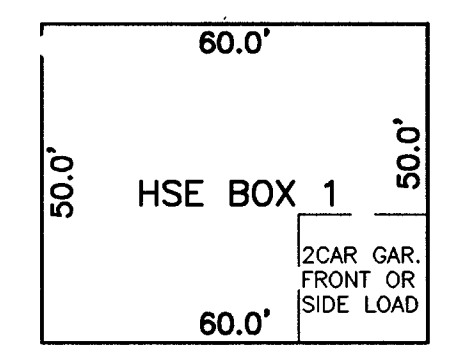
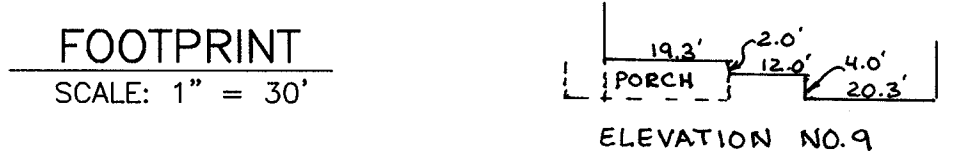
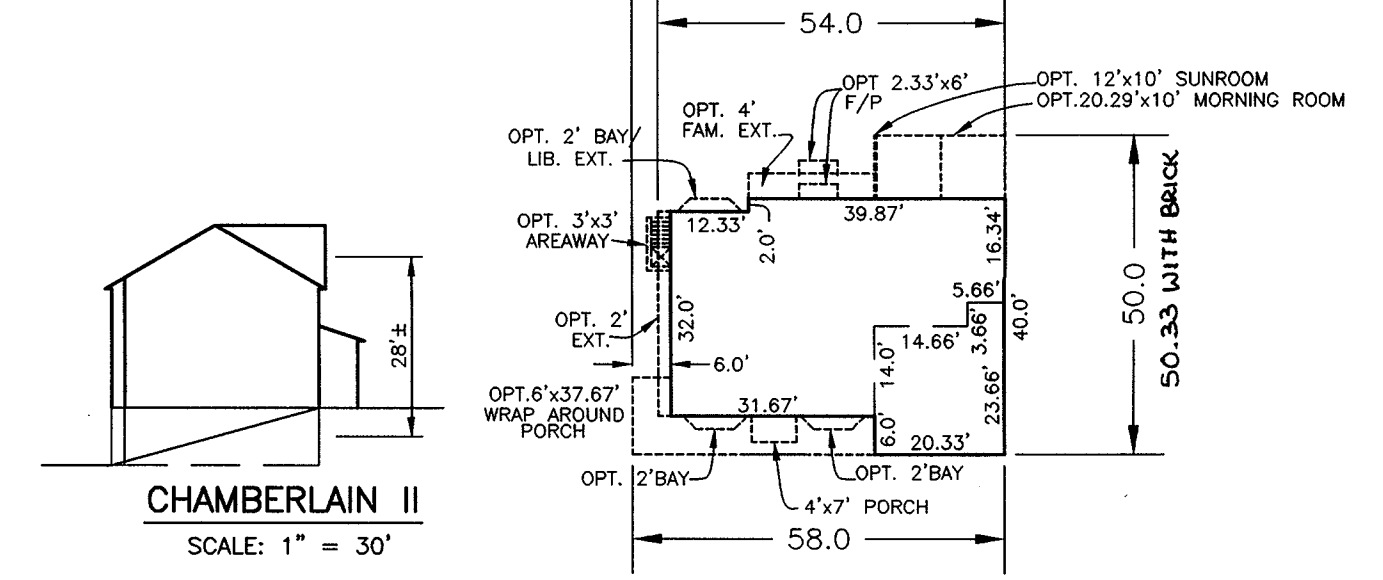
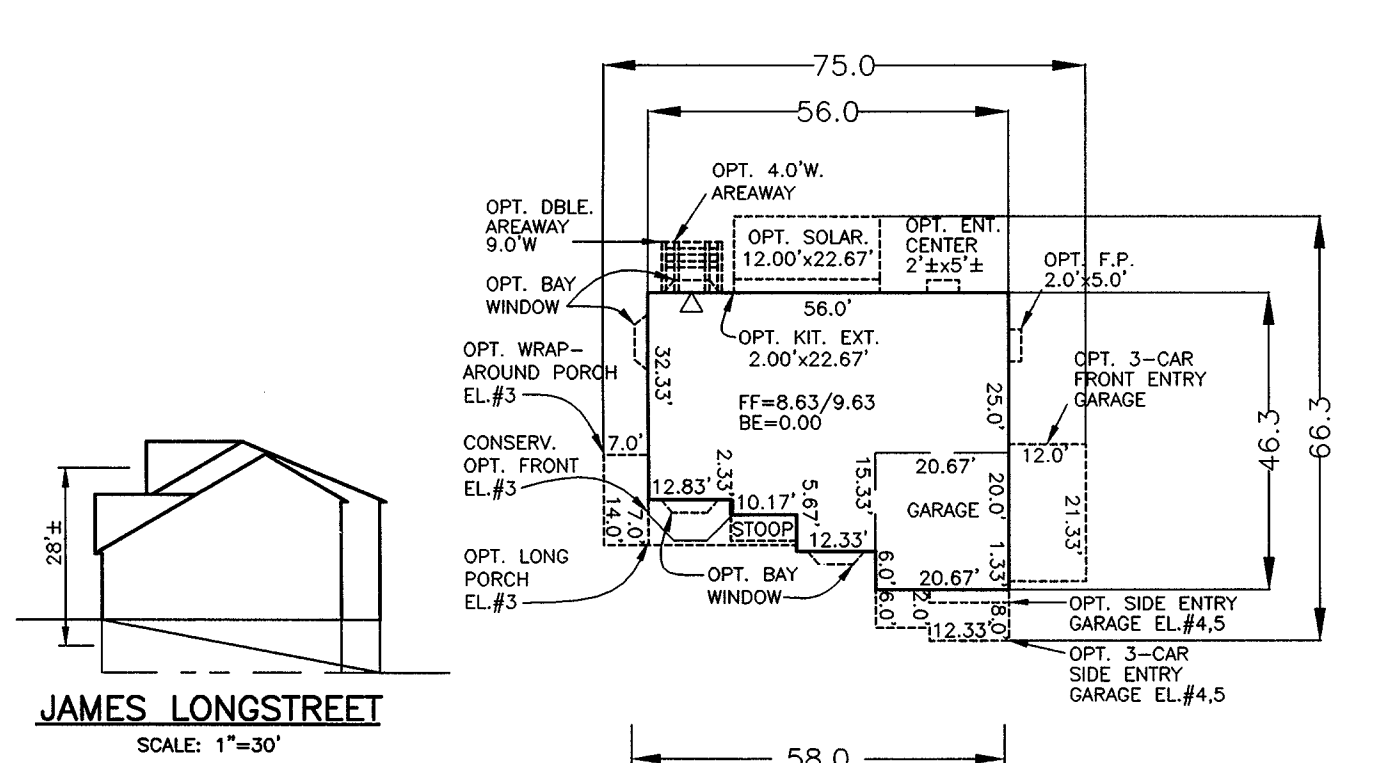
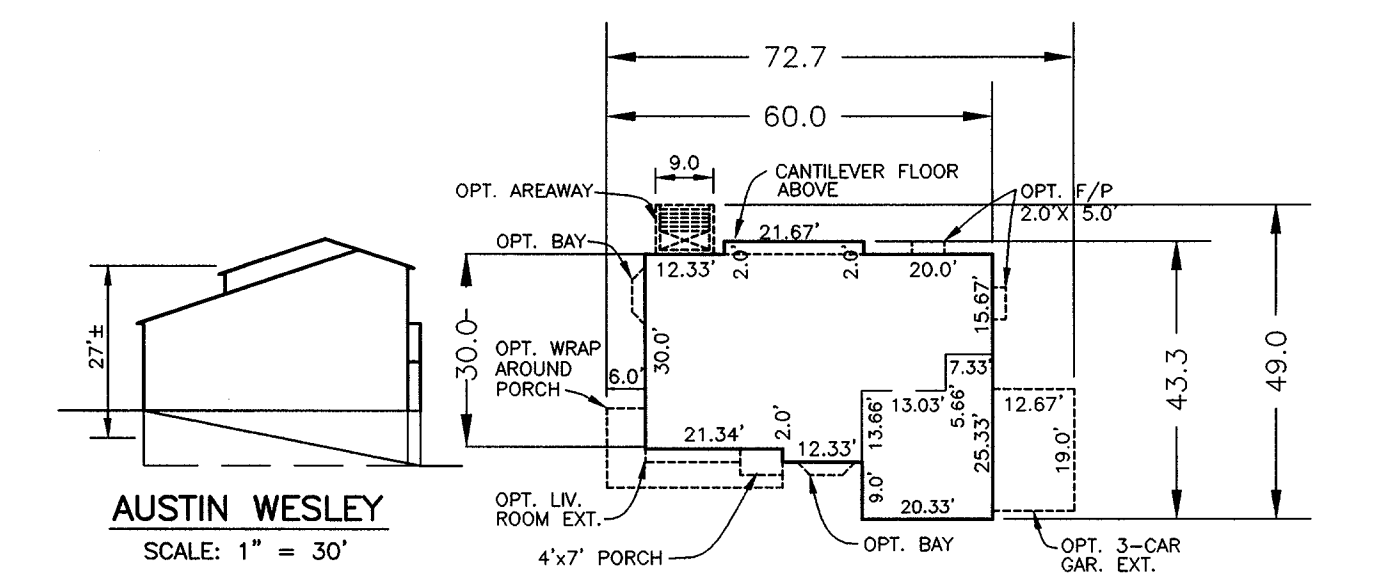
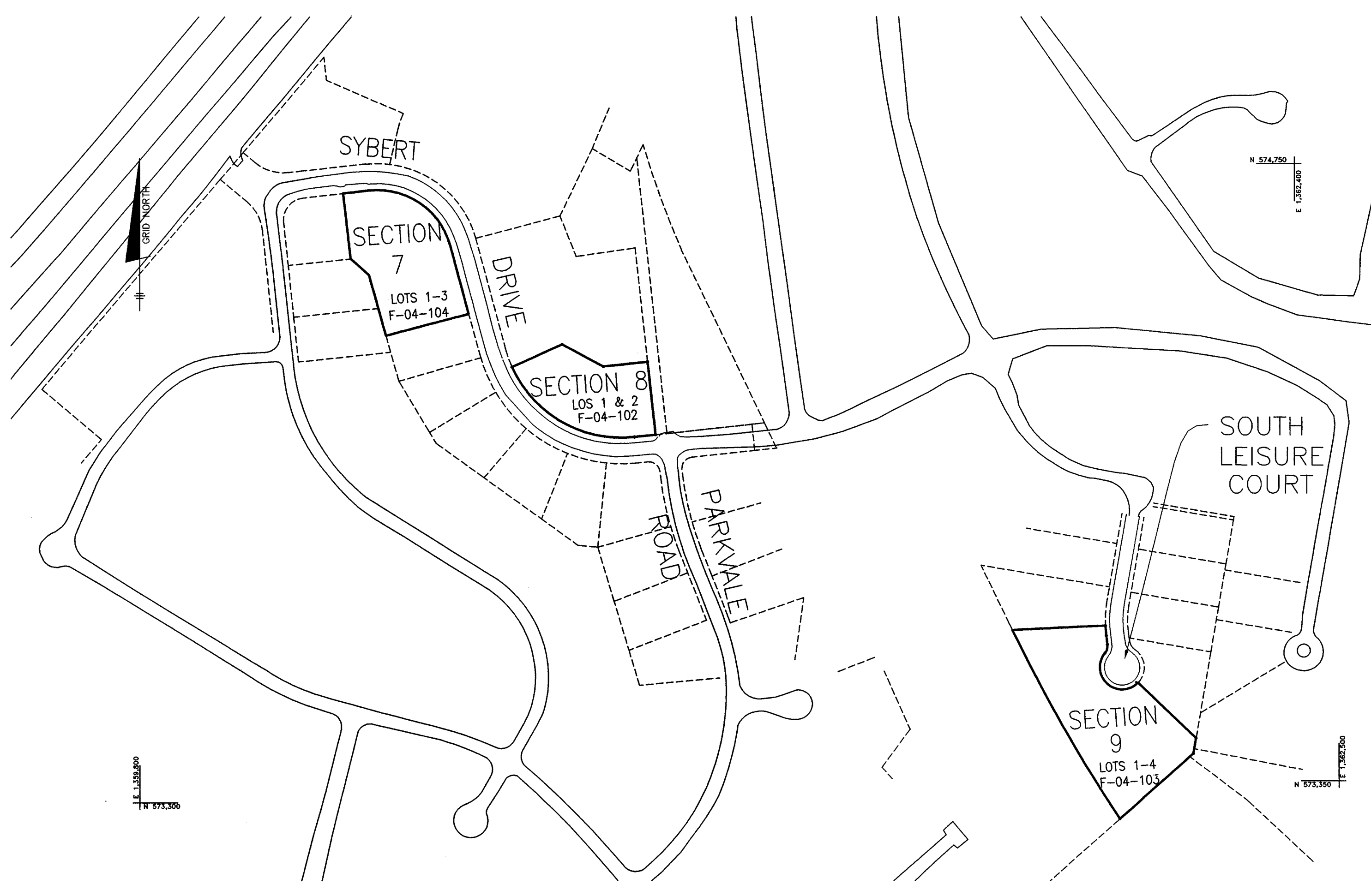
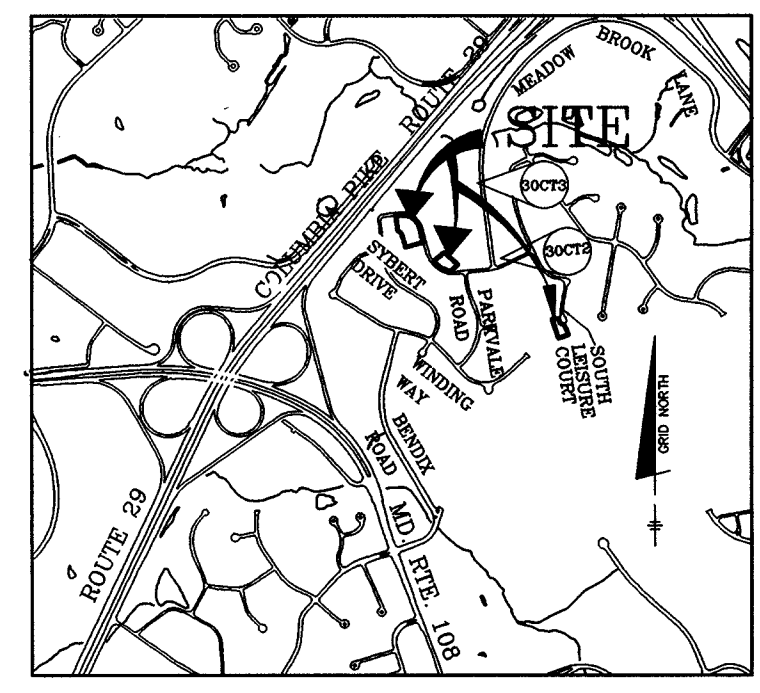
HOWARD COUNTY, MARYLAND

LEGEND

SOILS CLASSIFICATION	AbC1
SOILS DELINEATION	---
EXISTING CONTOURS	---999---
PROPOSED CONTOURS	---999---
EXISTING WOODS LINE	~~~~~
PROPOSED WOODS LINE	~~~~~
EXISTING STRUCTURE	[Box]
PROPOSED STRUCTURE	[Box]
SOIL BORING	B-1
RAIN GARDEN	[RG1]
LIMIT OF DISTURBANCE	•••••

BENCHMARK NAD'83 HORIZONTAL

HO. CO. #30C22 3/8" REBAR WITH RED PLASTIC CAP ELEV. = 388.74	E 1361312.723'
HO. CO. #30C13 3/8" REBAR WITH RED PLASTIC CAP ELEV. = 386.42	E 1361173.247'



PLAN VIEW
SCALE: 1" = 100'

SITE DATA TABULATION

AREA TABULATION

- TOTAL PROJECT AREA:
 - SECTION 7.....1.41 AC.±
 - SECTION 8.....1.03AC.±
 - SECTION 9.....1.88 AC.±
- TOTAL NUMBER OF LOTS ALLOWED:
 - SECTION 7.....3
 - SECTION 8.....2
 - SECTION 9.....4
- TOTAL NUMBER OF RESIDENTIAL UNITS PROPOSED ON THIS SUBMISSION..... 9
- APPROXIMATE LIMIT OF DISTURBANCE:
 - SECTION 7.....1.41 AC.±
 - SECTION 8.....1.03AC.±
 - SECTION 9.....1.88 AC.±
 - TOTAL.....4.32 AC.±
- AREA OF THIS PLAN SUBMISSION:
 - SECTION 7.....1.41 AC.±
 - SECTION 8.....1.03AC.±
 - SECTION 9.....1.88 AC.±
 - TOTAL.....4.32 AC.±

SHEET INDEX

NO.	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT AND LANDSCAPE PLAN
3	SITE DEVELOPMENT AND LANDSCAPE PLAN
4	GRADING AND SEDIMENT CONTROL PLAN
5	GRADING AND SEDIMENT CONTROL PLAN
6	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

DEVELOPER'S/BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Robert S. Dorsey 7-13-05
DEVELOPER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Candy Horvath 8/3/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chris Peterson 8/1/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Mark A. Uggler 8/2/05
DIRECTOR DATE

SECTION 7 ADDRESS CHART

LOT No.	STREET ADDRESS
1	9141 SYBERT DRIVE
2	9137 SYBERT DRIVE
3	9133 SYBERT DRIVE

SECTION 8 ADDRESS CHART

LOT No.	STREET ADDRESS
1	9120 SYBERT DRIVE
2	9118 SYBERT DRIVE

SECTION 9 ADDRESS CHART

LOT No.	STREET ADDRESS
1	4682 SOUTH LEISURE DRIVE
2	4686 SOUTH LEISURE DRIVE
3	4690 SOUTH LEISURE DRIVE
4	4685 SOUTH LEISURE DRIVE

JAMES LONGSTREET
NO 3 CAR GARAGE OPTION
NO WRAP AROUND PORCH
NO OPT. SOLARIUM

AUSTIN WESLEY
NO 3 CAR GARAGE OPTION

CHAMBERLAIN II
ALL OPTIONS

HOUSE BOX
SCALE: 1" = 30'

MINIMUM LOT SIZE CHART SECTION 9

LOT NO.	GROSS AREA	PIPESTEM AREA	MIN. LOT SIZE
3	21,296 S.F.	1,206 S.F.	20,090 S.F.

SOILS LEGEND

MAP SYMBOL	SOIL TYPE	MAPPING UNIT
CH2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
CI2	B	CLENGLE LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MI2	B	MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MC2	B	MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MC3	B	MANOR LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
MI3	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
CH2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED

SOILS MAP No.20
- - - INDICATES HYDRIC SOILS

- GENERAL SITE DATA**
- PRESENT ZONING: R-20
 - APPLICABLE DPZ FILE REFERENCES:
 - SECTION 7 - LIBER 8647, FOLIO 338, F-04-104 PLAT NO.17278
 - SECTION 8 - LIBER 8647, FOLIO 338, F-04-102 PLAT NO.17276
 - SECTION 9 - LIBER 8647, FOLIO 338, F-04-103 PLAT NO.17277
 - A. USE-IN-COMMON EASEMENT FOR SECTION 9 LOTS 3 AND 4, LIBER 9016, FOLIO 371 AND 372.
 - PROPOSED USE OF SITE: SINGLE-FAMILY DETACHED
 - PROPOSED WATER IS PUBLIC
PROPOSED SEWER IS PUBLIC

PERMIT INFORMATION CHART

SUBDIVISION NAME:	SECTION/AREA:	PARCEL #	LOT
COLUMBIA HILLS	N/A	P/O 16 & 39	SECTION 7 LOTS 1-3 SECTION 8 LOTS 1 AND 2 SECTION 9 LOTS 1-4
PLAT No. 17276 17277 17278	GRID No. 5	ZONE R-20	TAX MAP 30
WATER CODE F-09	SEWER CODE 5655400	ELECTION DISTRICT 2nd	CENSUS TRACT 6023.02

NO.	DATE	REVISION
1	2-13-06	ADD ELEVATION NO. 9 TO FOOTPRINT FOR CHAMBERLAIN II

BENCHMARK ENGINEERING, INC.
ENGINEERS & LAND SURVEYORS & PLANNERS

8480 BALTIMORE NATIONAL PIKE & SUITE 418
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644
www.bei-civilengineering.com

Robert S. Dorsey 7/13/05
PROFESSIONAL ENGINEER

OWNER/DEVELOPER: DAWSON PROPERTY, LLC
9926 CYPRESSEME DRIVE
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-7200

PROJECT: COLUMBIA HILLS
SECTION 7 LOTS 1-3, SECTION 8, LOTS 1 AND 2
SECTION 9, LOTS 1-4

LOCATION: TAX MAP 30 - GRID 5
PARCEL 16 & 39
2ND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

BUILDER: DORSEY FAMILY HOMES
9926 CYPRESSEME DRIVE
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-7200

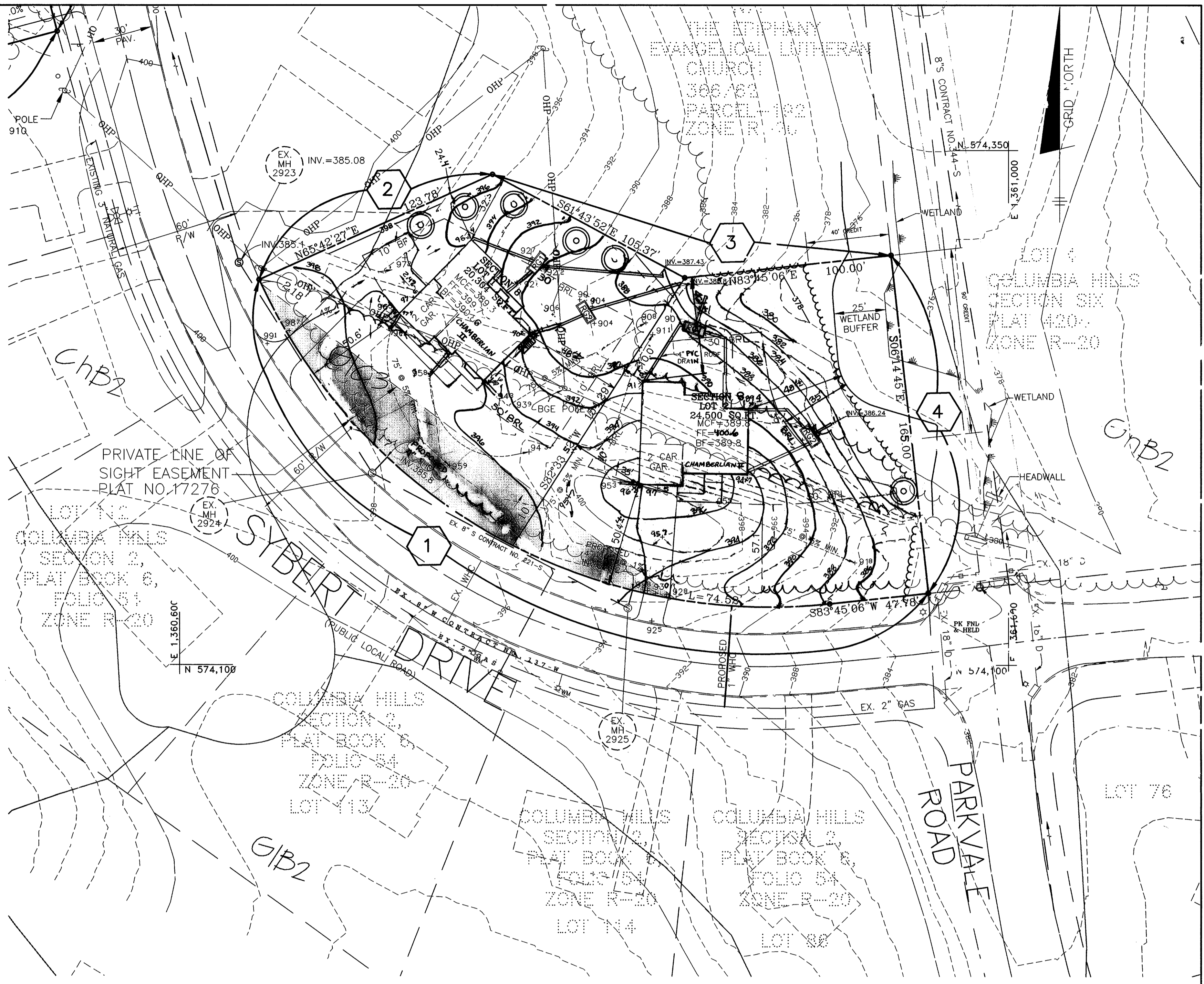
TITLE: SITE DEVELOPMENT PLAN

DATE: NOVEMBER, 2004 PROJECT NO. 1795

Design: DAM Draft: EDD Check: DAM SCALE: AS SHOWN DRAWING 1 OF 6



PLAN VIEW SECTION 7
SCALE: 1" = 30'



PLAN VIEW SECTION 8
SCALE: 1" = 30'

SCHEDULE A SECTION 7 PERIMETER LANDSCAPE EDGE				
CATEGORY	ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES	YES	NO
PERIMETER NO. / LANDSCAPE TYPE	(1) A	(2) A	(3) A	(4) N/A
LINEAR FEET OF ROADWAY (FRONTAGE/PERIMETER)	192.66'	191.54'	150.00'	460.79'
CREDIT FOR EXISTING VEGETATION: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 35'	YES 95'	NO -	-
CREDIT FOR WALL, FENCE OR BERM: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO -	NO -	NO -	-
NUMBER OF PLANTS REQUIRED:				
SHADE TREES	3	2	3	-
EVERGREEN TREES	-	-	-	-
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-
SHRUBS	-	-	-	-
NUMBER OF PLANTS PROVIDED:				
SHADE TREES	3	2	3	-
EVERGREEN TREES	-	-	-	-
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-
SHRUBS (10:1 SUBSTITUTE)	-	-	-	-
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)				

NOTE: ONSITE OVERHEAD ELECTRIC LINES ARE TO BE RELOCATED IN ACCORDANCE WITH A CONTRACT BETWEEN THE OWNER AND BCE.

SCHEDULE A SECTION 8 PERIMETER LANDSCAPE EDGE					
CATEGORY	ADJACENT TO PERIMETER PROPERTIES	YES	NO	NO	NO
PERIMETER NO. / LANDSCAPE TYPE	(1) NA	(2) A	(3) A	(4) A	(5) A
LINEAR FEET OF ROADWAY (FRONTAGE/PERIMETER)	386.87'	123.78'	205.37'	165.00'	-
CREDIT FOR EXISTING VEGETATION: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	-	12'	40'	125'	-
CREDIT FOR WALL, FENCE OR BERM: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	-	NO -	NO -	NO -	-
NUMBER OF PLANTS REQUIRED:					
SHADE TREES	-	2	3	1	-
EVERGREEN TREES	-	-	-	-	-
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-	-
SHRUBS	-	-	-	-	-
NUMBER OF PLANTS PROVIDED:					
SHADE TREES	-	2	3	1	-
EVERGREEN TREES	-	-	-	-	-
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-	-
SHRUBS (10:1 SUBSTITUTE)	-	-	-	-	-
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)					

LEGEND

- SOILS CLASSIFICATION: AbC1
- SOILS DELINEATION: ---
- EXISTING CONTOURS: ---
- PROPOSED CONTOURS: ---
- EXISTING WOODS LINE: ~~~~~
- PROPOSED WOODS LINE: ~~~~~
- EXISTING STRUCTURE: []
- PROPOSED STRUCTURE: []
- SOIL BORING: B-1
- RAIN GARDEN: [RG1]
- LIMIT OF DISTURBANCE:

LANDSCAPE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
(C)	8	SHADE TREES QUERCUS RUBRA "NORTHERN RED OAK"	2.5"-3.0" MIN. CAL. B & B FULL HEAD

DEVELOPER'S/BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND THE LAND DEVELOPMENT REGULATIONS AND LANDSCAPE MANUAL, I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXCLUDED ONE GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Robert S. Dwyer 7-13-05
DEVELOPER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

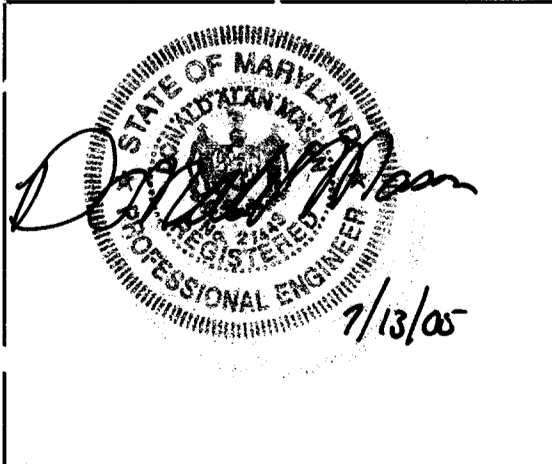
Conrad Hammett 8/13/05
CHIEF, DIVISION OF LAND DEVELOPMENT

Matthew M. Leighton 8/13/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Matthew M. Leighton 8/13/05
DIRECTOR

BENCHMARK ENGINEERING, INC.
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PHONE: 410-465-6105 FAX: 410-465-6644
www.benchmark-engineering.com



OWNER/DEVELOPER: DAWSON PROPERTY, LLC
9926 CYPRESSMEDE DRIVE
ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-7200

BUILDER: DORSEY FAMILY HOMES
9926 CYPRESSMEDE DRIVE
ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-7200

PROJECT: COLUMBIA HILLS
SECTION 7 LOTS 1-3, SECTION 8, LOTS 1 AND 2
SECTION 9, LOTS 1-4

LOCATION: TAX MAP 30 - GRID 5
PARCEL 13 & 39
2nd ELECTION DISTRICT
HOWARD COUNTY MARYLAND

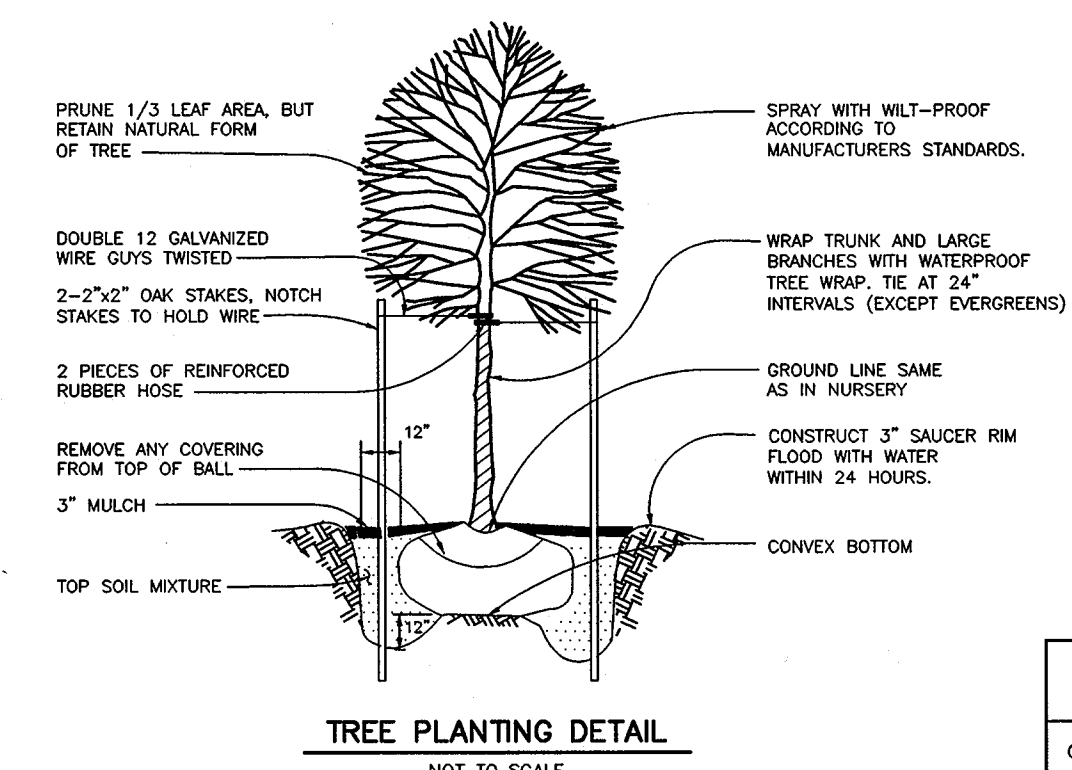
TITLE: SITE DEVELOPMENT PLAN

DATE: NOVEMBER, 2004 PROJECT NO. 1795
SCALE: AS SHOWN DRAWING 2 OF 6

Design: DAM Draft: EDD Check: DAM

LEGEND

SOILS CLASSIFICATION	AbC1
SOILS DELINEATION	---
EXISTING CONTOURS	---999---
PROPOSED CONTOURS	---999---
EXISTING WOODS LINE	~~~~~
PROPOSED WOODS LINE	~~~~~
EXISTING STRUCTURE	[]
PROPOSED STRUCTURE	[]
SOIL BORING	B-1
RAIN GARDEN	RG1
LIMIT OF DISTURBANCE	•••••



AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY BE IN DENIAL OR DELAY IN RELEASE OF THE LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIAL ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.

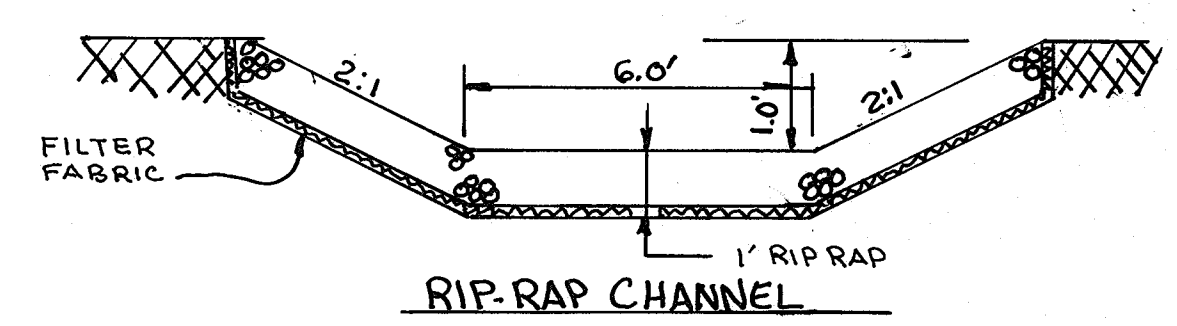
LANDSCAPE PLANTING LIST

SYMBOL	QUANTITY	NAME	REMARKS
⊙	18	SHADE TREES QUERCUS RUBRA "NORTHERN RED OAK"	2.5'-3.0' MIN. CAL. B & B FULL HEAD

- LANDSCAPING NOTES**
- 1.) PERIMETER LANDSCAPING SHALL BE PROVIDED BY THE PLANTINGS AS SHOWN ON THESE PLANS.
 - 2.) TREES MUST BE A MINIMUM OF FOUR(4) FEET FROM THE CURB OR SIDEWALK AND MUST BE A MINIMUM OF FIVE(5) FEET FROM ANY STORM DRAIN.
 - 3.) A MINIMUM DISTANCE OF TWENTY(20) FEET MUST BE MAINTAINED BETWEEN ANY TREES LOCATED ALONG THE CURB LINE AND FROM ANY STREET LIGHTS.
 - 4.) TREES MUST BE PLANTED A MINIMUM OF FIVE(5) FEET FROM AN OPEN SPACE ACCESS STRIP AND TEN(10) FEET FROM A DRIVEWAY.
 - 5.) THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SEC. 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
 - 6.) FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE BUILDER'S GRADING PERMIT APPLICATION.
 - 7.) SECTION 7 IN THE AMOUNT OF \$2,400 FOR 8 SHADE TREES.
SECTION 8 IN THE AMOUNT OF \$1,800 FOR 6 SHADE TREES.
SECTION 9 IN THE AMOUNT OF \$5,400 FOR 18 SHADE TREES.
 - 8.) THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING. PLANT MATERIALS, BRIMS, FENCES AND WALLS, ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

SCHEDULE A SECTION 9 PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAY	YES	NO	YES	NO	YES	NO
PERIMETER NO. / LANDSCAPE TYPE		(1) N/A	(2) A	(3) A	(4) A		
LINEAR FEET OF ROADWAY (FRONTAGE/PERIMETER)			1139.48'				
CREDIT FOR EXISTING VEGETATION: NO OR YES (1/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)			70'				
CREDIT FOR WALL, FENCE OR BERM: NO OR YES (1/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)			NO				
NUMBER OF PLANTS REQUIRED:							
SHADE TREES			18				
EVERGREEN TREES							
OTHER TREES (2:1 SUBSTITUTE)							
SHRUBS							
NUMBER OF PLANTS PROVIDED:			18				
SHADE TREES							
EVERGREEN TREES							
OTHER TREES (2:1 SUBSTITUTE)							
SHRUBS (10:1 SUBSTITUTE)							
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)							



DEVELOPER'S/BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND THE LAND DEVELOPMENT REGULATIONS AND LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Robert S. Borg 7-13-05
DEVELOPER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Carlyle Kennedy 8/16/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mark A. Leagle 8/18/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Mark A. Leagle
DIRECTOR

PLAN VIEW SECTION 9
SCALE: 1" = 30'

NOTE: ONSITE OVERHEAD ELECTRIC LINES ARE TO BE RELOCATED IN ACCORDANCE WITH A CONTRACT BETWEEN THE OWNER AND EGE.

2	6-6-06	SITE CHAMBERLAIN II ON LOTS 1 & 2 REVISE FF, ELEV AND GRADES PER AS-BUILT CONDITIONS
1	5-22-06	REVISE RAIN GARDENS ON LOTS 3 & 4 AND REMOVE DRAIN PIPE / ADD RIP-RAP TO DRAINAGE
NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.
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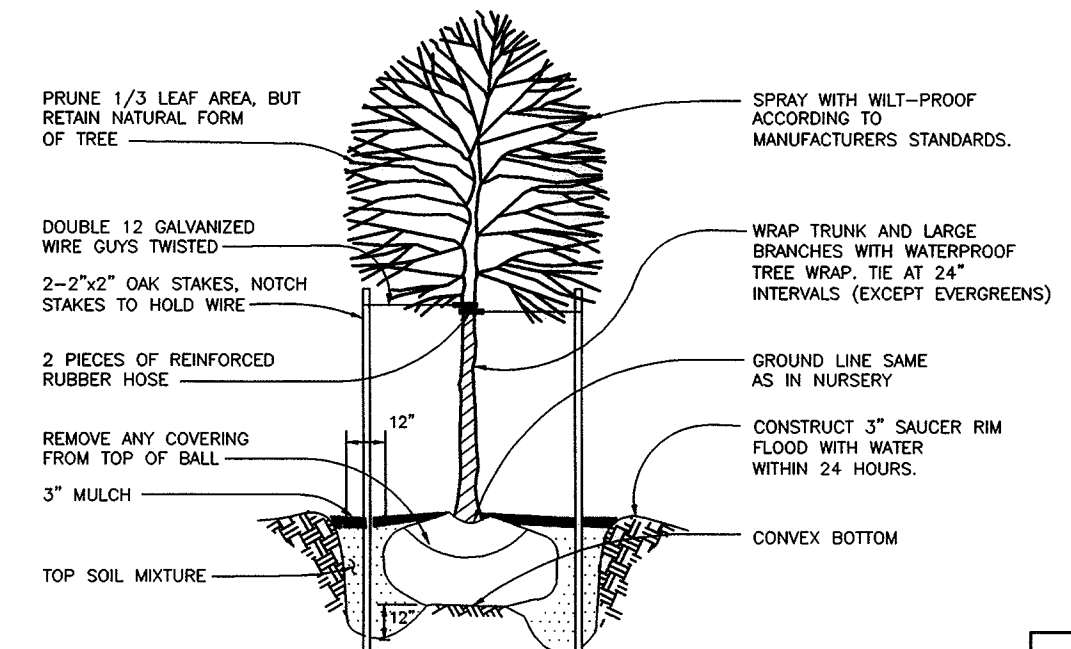
8480 BALTIMORE NATIONAL PIKE - SUITE 418
ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6844
www.bei-civilengineering.com

Robert M. ...
7/13/05

OWNER/DEVELOPER: DAWSON PROPERTY, LLC 9926 CYPRESSMEDE DRIVE ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-7200	PROJECT: COLUMBIA HILLS SECTION 7 LOTS 1-3, SECTION 8, LOTS 1 AND 2 SECTION 9, LOTS 1-4
BUILDER: DORSEY FAMILY HOMES 9926 CYPRESSMEDE DRIVE ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-7200	LOCA ON: TAX MAP 30 - GRID 5 PARCEL 16 & 39 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE: NOVEMBER, 2004	PROJECT NO. 1795
Design: DAM	Draft: EDD
Check: DAM	SCALE: AS SHOWN
	DRAWING 3 OF 6

LEGEND

SOILS CLASSIFICATION	AbC1
SOILS DELINEATION	---
EXISTING CONTOURS	999
PROPOSED CONTOURS	999
EXISTING WOODS LINE	~~~~~
PROPOSED WOODS LINE	~~~~~
EXISTING STRUCTURE	[]
PROPOSED STRUCTURE	[]
SOIL BORING	B-1
RAIN GARDEN	RG1
LIMIT OF DISTURBANCE	•••••



AT THE TIME OF INSTALLATION, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DETENTION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN RELEASE OF THE LANDSCAPE SURVEY UNTIL SUCH TIME AS ALL REQUIRED MATERIAL ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.

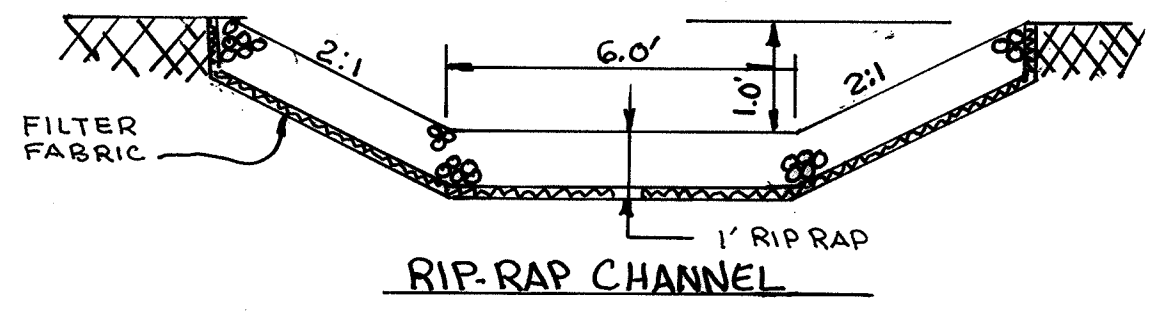
LANDSCAPE PLANTING LIST

SYMBOL	QUANTITY	NAME	REMARKS
(Symbol)	18	SHADE TREES QUERCUS RUBRA "NORTHERN RED OAK"	2.5'-3.0" MIN. CAL B & B FULL HEAD

- LANDSCAPING NOTES**
- PERIMETER LANDSCAPING SHALL BE PROVIDED BY THE PLANTINGS AS SHOWN ON THESE PLANS.
 - TREES MUST BE A MINIMUM OF FOUR(4) FEET FROM THE CURB OR SIDEWALK AND MUST BE A MINIMUM OF FIVE(5) FEET FROM ANY STREET LIGHTS.
 - A MINIMUM DISTANCE OF TWENTY(20) FEET MUST BE MAINTAINED BETWEEN ANY TREES LOCATED ALONG THE CURB LINE AND FROM ANY STREET LIGHTS.
 - TREE MUST BE PLANTED A MINIMUM OF FIVE(5) FEET FROM AN OPEN SPACE ACCESS STRIP AND TEN(10) FEET FROM A DRIVEWAY.
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SEC. 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
 - FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE BUILDERS GRADING PERMIT APPLICATION.
SECTION 7 IN THE AMOUNT OF \$2,400 FOR 8 SHADE TREES.
SECTION 8 IN THE AMOUNT OF \$1,800 FOR 18 SHADE TREES.
SECTION 9 IN THE AMOUNT OF \$5,400 FOR 18 SHADE TREES.
 - THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, PLANT MATERIALS, BENCHES, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

SCHEDULE A SECTION 9 PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAY	YES	NO	YES	NO
PERIMETER NO. / LANDSCAPE TYPE	(1) N/A	(2) A	(3) A	(4) A	(5) A
LINEAR FEET OF ROADWAY (FRONTAGE/PERIMETER)			1139.48'		
CREDIT FOR EXISTING VEGETATION: NO OR YES (4) LINEAR FEET (DESCRIBE BELOW IF NEEDED)			YES 7"		
CREDIT FOR WALL, FENCE OR BERM: NO OR YES (4) LINEAR FEET (DESCRIBE BELOW IF NEEDED)			NO		
NUMBER OF PLANTS REQUIRED: SHADE TREES			18		
EVERGREEN TREES					
OTHER TREES (2:1 SUBSTITUTE) SHRUBS					
NUMBER OF PLANTS PROVIDED: SHADE TREES					
EVERGREEN TREES					
OTHER TREES (2:1 SUBSTITUTE) SHRUBS (1:0:1 SUBSTITUTE) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)					



DEVELOPER'S/BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND THE LAND DEVELOPMENT REGULATIONS AND LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Robert S. Dwyer
DEVELOPER
7-13-05
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Conrad Hamaker
CHIEF, DIVISION OF LAND DEVELOPMENT
8/1/05
DATE

Michael J. McLaughlin
CHIEF, DEVELOPMENT ENGINEERING DIVISION
8/1/05
DATE

Michael J. McLaughlin
DIRECTOR

PLAN VIEW SECTION 9
SCALE: 1" = 30'

NOTE: ONSITE OVERHEAD ELECTRIC LINES ARE TO BE RELOCATED IN ACCORDANCE WITH A CONTRACT BETWEEN THE OWNER AND BGE.

OAKLAND RIDGE IND. DEVELOPMENT CORP.
NO DEED REFERENCE
PARCEL 26
ZONE R-20

3	7-26-06	SHOW CHAMBERLAIN II ON LOTS 3/4 #1 REVISE RAIN GARDENS & GRADES PER AS-BUILT CONDITIONS
2	6-6-06	SITE CHAMBERLAIN II ON LOTS 1/2 REVISE FF, ELEV. AND GRADES PER AS-BUILT CONDITIONS
1	5-22-06	REVISE RAIN GARDENS ON LOTS 3/4 AND REMOVE DRAIN PIPE / ADD RIP-RAP TO DRAINAGE
NO.	DATE	REVISION

ESMTT: #ADD CHANNEL DETAIL

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Robert M. Dwyer
PROFESSIONAL ENGINEER
7/13/05

OWNER/DEVELOPER: DAWSON PROPERTY, LLC 9926 CYPRESSEME DRIVE ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-7200	PROJECT: COLUMBIA HILLS SECTION 7 LOTS 1-3, SECTION 8, LOTS 1 AND 2 SECTION 9, LOTS 1-4
BUILDER: DORSEY FAMILY HOMES 9926 CYPRESSEME DRIVE ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-7200	LOCAL ON: TAX MAP 30 - GRID 5 PARCEL 16 & 39 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE: SITE DEVELOPMENT PLAN AND LANDSCAPE PLAN	DATE: NOVEMBER, 2004 PROJECT NO. 1795
Design: DAM Draft: EDD Check: DAM	SCALE: AS SHOWN DRAWING 3 OF 6

SEEDING CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN A 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. BY 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (PERMANENT SEEDING (SEC. 51), SOIL (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52)). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- NOTE: SITE ANALYSIS:

SECTION 7	
TOTAL AREA OF SITE	1.41 ACRES
TOTAL AREA DISTURBED	1.29 ACRES
AREA TO BE ROOFED OR PAVED	0.39 ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.90 ACRES
TOTAL CUT	2,000 CU. YDS.
TOTAL FILL	3,350 CU. YDS.
SOIL-SITE STOCKPILE	

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

- Definition**
Placement of topsoil over a prepared subgrade prior to establishment of permanent vegetation.
- Purpose**
To provide a suitable medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
- Conditions Where Practice Applies**
- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subgrade/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or to retain continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible. If, for the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.
- Construction and Material Specifications**
- Topsoil subgrade from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
 - Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 2% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1" in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nutgrass, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedure.
 - For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
 - For sites having disturbed areas over 5 acres:
 - On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

TEMPORARY SEEDBED PREPARATION

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT).

SEEDING: FOR PERIOD MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOWGRASS (0.7 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOIL.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GALLONS PER 100 SQ FT) OF GRANULE ASPHALT ON FLAT AREAS, ON SLOPES 3 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

PERMANENT SEEDBED PREPARATION

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ON OF THE FOLLOWING SCHEDULES:

- PREPARED - APPLY 3 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL AT TIME OF SEEDING. APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIOD MARCH 1 THROUGH APRIL 30 AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT) OF ANNUAL RYE. FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOWGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOIL. OPTION (3) SEED WITH 60 LBS PER ACRE OF ANNUAL RYE OR 3 LBS PER ACRE OF WEEPING LOWGRASS AND 2 TONS PER ACRE OF WELL ANCHORED STRAW.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GALLONS PER 100 SQ FT) OF GRANULE ASPHALT ON FLAT AREAS, ON SLOPES 3 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT."

Dawson Property, LLC 7-13-05 DATE

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT."

Donald Maas 7/13/05 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

John L. Hinton 7/27/05 DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyers 7/27/05 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Charles Hannon 8/1/05 DATE

David A. Lege 8/1/05 DATE

SECTION 7 - LOTS 1 THRU 3

RAIN GARDEN

LOT 1	RG 1	RG 2	RG 3
ELEV. 1	382.00	385.80	389.00
ELEV. 2	381.50	385.30	388.50
ELEV. 3	381.00	384.80	388.00
ELEV. 4	380.83	384.63	387.83
ELEV. 5	378.16	381.96	385.16
ELEV. 6	377.66	381.46	384.66
ELEV. 7	377.46	381.08	383.48

LOT 2	RG 1	RG 2	RG 3
ELEV. 1	388.80	393.00	397.10
ELEV. 2	388.30	392.50	396.60
ELEV. 3	387.80	392.00	396.10
ELEV. 4	387.63	391.83	395.93
ELEV. 5	384.96	389.16	393.26
ELEV. 6	384.46	388.66	392.76
ELEV. 7	384.06	387.26	389.46

LOT 3	RG 1	RG 2
ELEV. 1	389.40	394.80
ELEV. 2	388.90	394.30
ELEV. 3	388.40	393.80
ELEV. 4	388.23	393.63
ELEV. 5	385.73	390.96
ELEV. 6	384.90	390.46
ELEV. 7	384.48	389.62

LOT 3	RG 1	RG 2
ELEV. 1	389.40	394.80
ELEV. 2	388.90	394.30
ELEV. 3	388.40	393.80
ELEV. 4	388.23	393.63
ELEV. 5	385.73	390.96
ELEV. 6	384.90	390.46
ELEV. 7	384.48	389.62

LOT 3	RG 1	RG 2
ELEV. 1	389.40	394.80
ELEV. 2	388.90	394.30
ELEV. 3	388.40	393.80
ELEV. 4	388.23	393.63
ELEV. 5	385.73	390.96
ELEV. 6	384.90	390.46
ELEV. 7	384.48	389.62

RAIN GARDEN - PLANTING DATA

- PLANTINGS WITHIN THE PONDING AREA OF THE RAIN GARDEN ARE TO BE OF A MEDIUM TO HIGH WATER TOLERANCE.
SUGGESTED SPECIES: CREEPING BUGLEWEED (AJUCA REPTANS), COMMON PERIWINKLE (VINCA MINOR), LILY-TURF (LIRIOPE, SP.)
- PLANTINGS ALONG THE PERIMETER (BERM) AREA OF THE RAIN GARDEN ARE TO BE OF A LOW TO MEDIUM WATER TOLERANCE.
SUGGESTED SPECIES: PERENNIALS/ANNUALS) IRIS (IRIS VERSICOLOR), DAYLILY (HEMEROCALLIS, SP.), WHITE GLORY (ASTILE, SP.)
- AVOID PLANTINGS WITH EXCESSIVE ROOT MASS IN POND AREA OF THE RAIN GARDEN NEAR OBS. PIPE AND UNDERDRAIN.

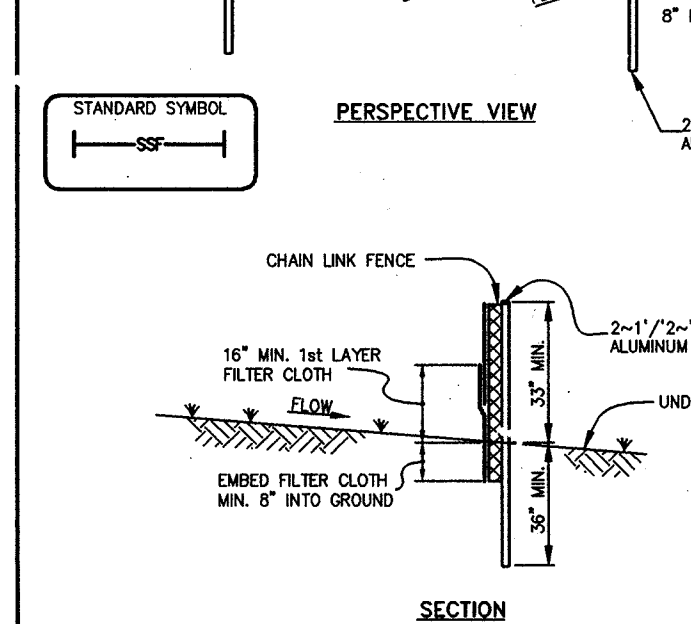
RAIN GARDEN - LANDSCAPE DATA

HYDROLOGIC ZONE 3 - REGULARLY INUNDATED SHOULDER FRINGE (HIGH MARSH)

HYDROLOGIC CONDITION - 0" TO 1"-0" DEEP HARDNESS - TEMPERATE ZONE (B₀ - 5' TO 7')

SEE SHEET 2 FOR SEQUENCE OF CONSTRUCTION

NOTE: REFER TO MDE 2000 MD STORMWATER DESIGN MANUAL VOLUMES 1 & 2 FOR LANDSCAPE CONTRACTOR RESPONSIBILITIES, PRACTICES AND



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
	26	3		26	3A

SECTION 9 - LOTS 1 THRU 4

RAIN GARDEN ELEVATIONS

LOT 1	RG 1	RG 2
ELEV. 1	405.20	405.00
ELEV. 2	404.70	404.50
ELEV. 3	404.20	404.00
ELEV. 4	404.03	403.83
ELEV. 5	401.53	401.33
ELEV. 6	401.03	400.83
ELEV. 7	399.48	400.13

LOT 3	RG 1	RG 2
ELEV. 1	406.5	406.0
ELEV. 2	406.5	406.0
ELEV. 3	406.0	405.53
ELEV. 4	405.83	405.36
ELEV. 5	403.33	402.86
ELEV. 6	402.5	402.03
ELEV. 7	400.5	401.5

LOT 3	RG 1	RG 2
ELEV. 1	406.5	406.0
ELEV. 2	406.5	406.0
ELEV. 3	406.0	405.53
ELEV. 4	405.83	405.36
ELEV. 5	403.33	402.86
ELEV. 6	402.5	402.03
ELEV. 7	400.5	401.5

LOT 3	RG 1	RG 2
ELEV. 1	406.5	406.0
ELEV. 2	406.5	406.0
ELEV. 3	406.0	405.53
ELEV. 4	405.83	405.36
ELEV. 5	403.33	402.86
ELEV. 6	402.5	402.03
ELEV. 7	400.5	401.5

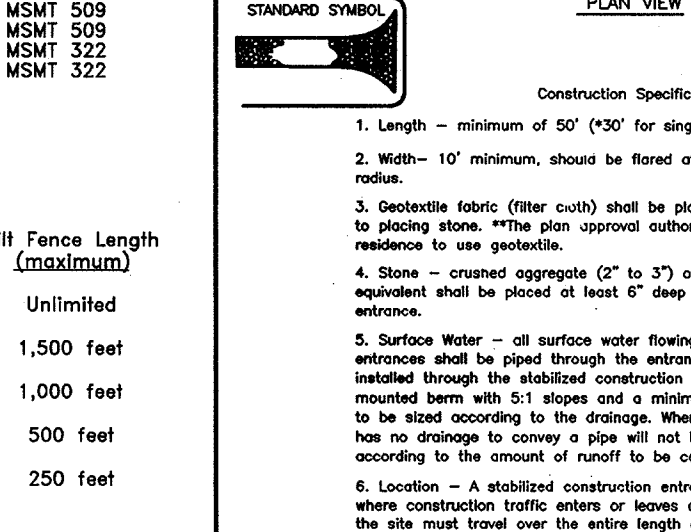
LOT 4	RG 1	RG 2
ELEV. 1	405.7	404.00
ELEV. 2	405.7	403.50
ELEV. 3	405.2	403.00
ELEV. 4	405.03	402.83
ELEV. 5	402.53	400.33
ELEV. 6	401.38	399.83
ELEV. 7	400.5	399.41

OPERATION & MAINTENANCE SCHEDULE FOR RAIN GARDENS

- ANNUAL MAINTENANCE OF PLANT MATERIAL AND MULCH LAYER IS REQUIRED. MAINTENANCE OF MULCH IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH-OUT. ANY REPLACEMENT OF MULCH SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE & INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL & PRUNING.
- SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN THE SPRING AND FALL. THIS INSPECTION WILL INCLUDE: REMOVAL OF DEAD & DISEASED VEGETATION CONSIDERED BEYOND TREATMENT; TREATMENT OF ALL DISEASED TREES & SHRUBS; AND REPLACEMENT OF ALL DEFICIENT STAKES & WIRES.
- MULCH SHALL BE INSPECTED EACH SPRING. REMOVE THE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
- SOIL EROSION TO BE ADDRESSED ON AN AS-NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

MATERIALS AND SPECIFICATIONS FOR RAIN GARDEN

MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE APPENDIX A, TABLE A.4	N/A	PLANTINGS ARE SITE SPECIFIC.
PLANTING SOIL (2\"/>			



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	17	3		17	3

SWM SUMMARY TABLE GENERAL STORAGE REQUIREMENTS SECTION 7 F-04-104			
Requirement	Volume Required(cc-r)	Volume Provided(cc-r)	Notes
Water Quality Volume (WQV)	0.032 (1394 cf)	0.032 (1394 cf)	WQV provided by rain gardens & credits
Recharge Volume (Rev)	0.008 (348 cf)	0.008 (348 cf)	Rev provided by credits
Channel Protection Volume (Cpv)	N/A	N/A	Cpv release rate is < 2 cfs (0.77)
Overbank Flood Protection Volume (Op)	N/A	N/A	Not required for this area
Extreme Flood Volume (Of)	N/A	N/A	Not required for this area

SWM SUMMARY TABLE GENERAL STORAGE REQUIREMENTS SECTION 8 F-04-102			
Requirement	Volume Required(cc-r)	Volume Provided(cc-r)	Notes
Water Quality Volume (WQV)	0.0238 (1028 cf)	0.0238 (1028 cf)	WQV provided by credits and rain gardens
Recharge Volume (Rev)	0.0061 (266 cf)	0.0061 (266 cf)	Rev provided by credits
Channel Protection Volume (Cpv)	N/A	N/A	Cpv release rate is < 2 cfs (0.97)
Overbank Flood Protection Volume (Op)	N/A	N/A	Not required for this area
Extreme Flood Volume (Of)	N/A	N/A	Not required for this area

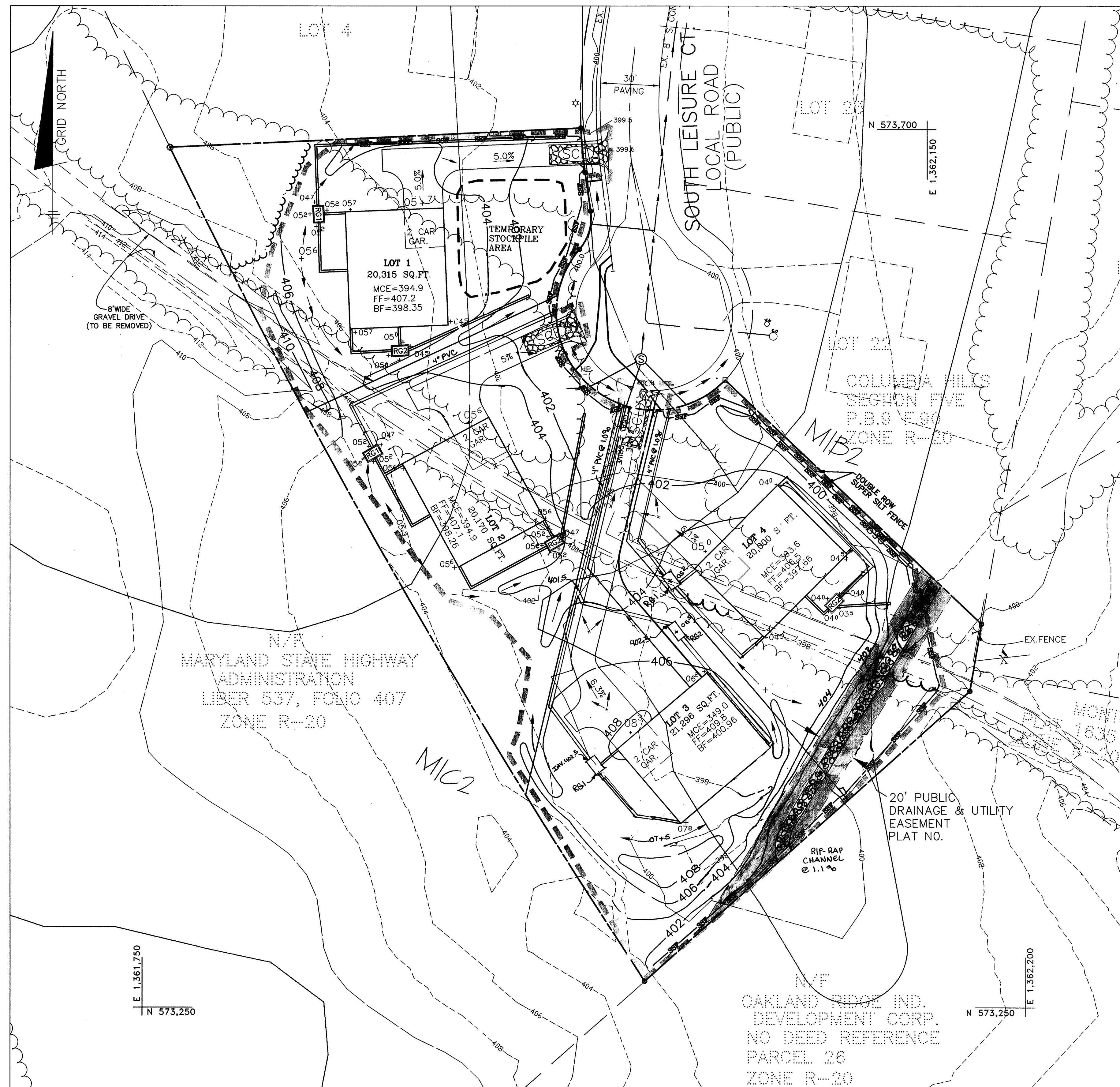
SWM SUMMARY TABLE GENERAL STORAGE REQUIREMENTS SECTION 9 F-04-103			
Requirement	Volume Required(cc-r)	Volume Provided(cc-r)	Notes
Water Quality Volume (WQV)	0.027 (1176 cf)	0.027 (1176 cf)	WQV provided by rain garden and credits
Recharge Volume (Rev)	0.007 (305cf)	0.007 (305cf)	Rev provided by credits
Channel Protection Volume (Cpv)	N/A	N/A	Cpv release rate is < 2 cfs (0.33)
Overbank Flood Protection Volume (Op)	N/A	N/A	Not required for this area
Extreme Flood Volume (Of)	N/A	N/A	Not required for this area

SECTION 8 - LOTS 1 AND 2

RAIN GARDEN ELEVATIONS

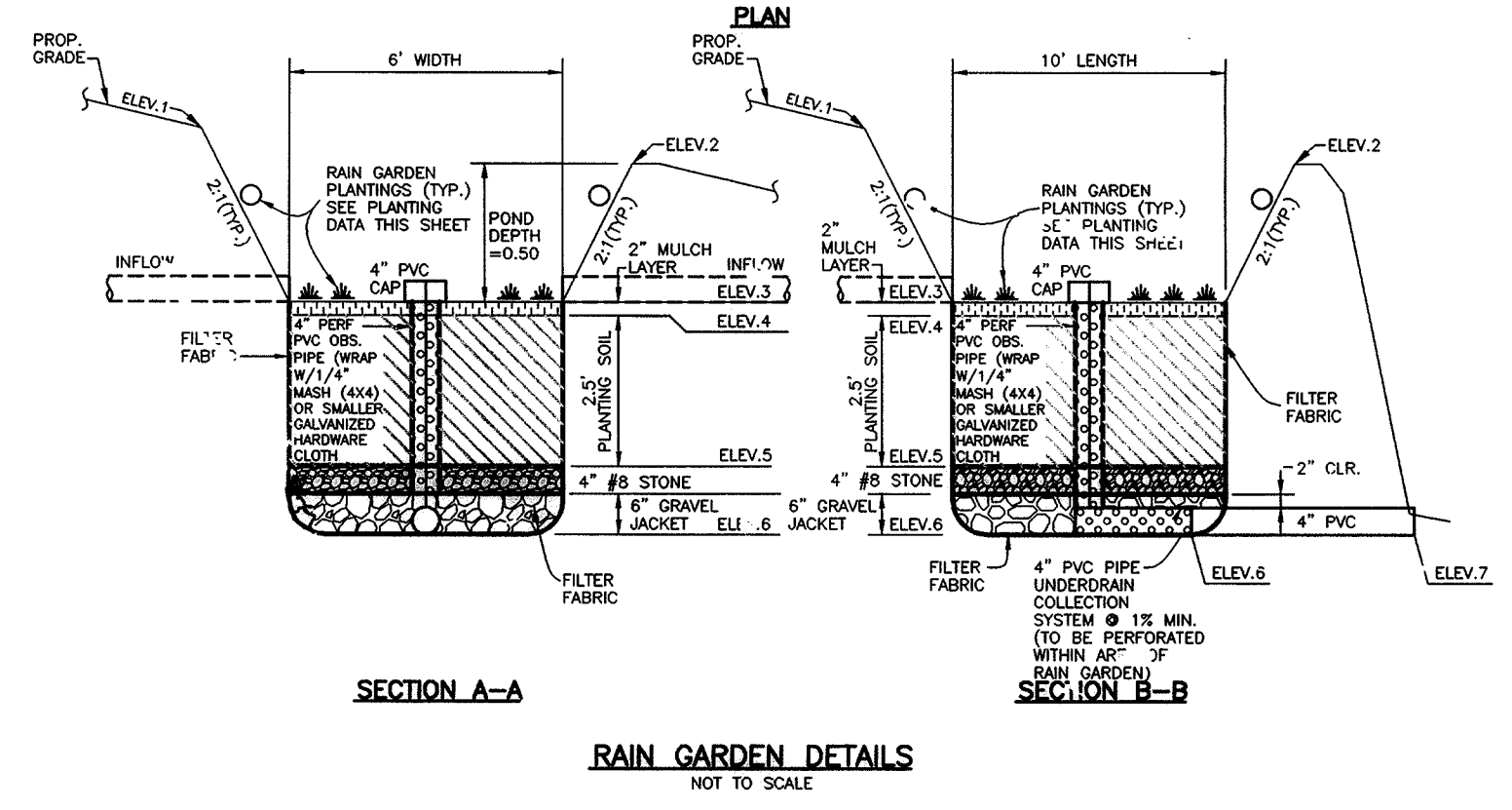
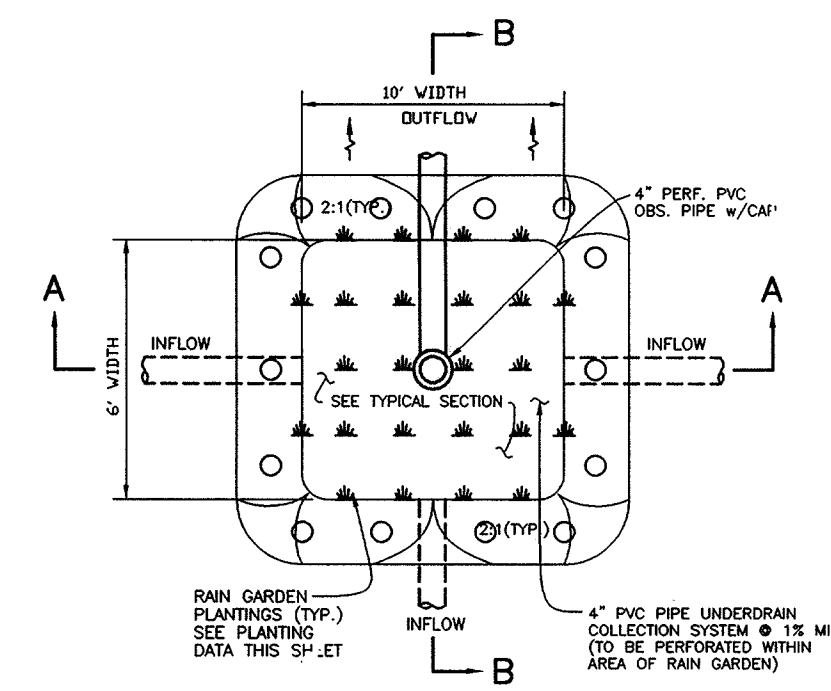
LOT 1	RG 1	RG 2
ELEV. 1	392.70	392.00
ELEV. 2	392.20	391.50
ELEV. 3	391.70	391.00
ELEV. 4	391.53	390.83
ELEV. 5	388.53	387.83
ELEV. 6	388.03	387.33
ELEV. 7	387.43	386.93

LOT 2	RG 1	RG 2	RG 3	RG 4
ELEV. 1	390.50	391.00	395.30	394.70
ELEV. 2	390.00	390.50	394.80	394.20
ELEV. 3	389.50	390.00	394.30	393.70
ELEV. 4	389.33	389.83	394.13	393.53
ELEV. 5	386.33	386.83	391.13	390.63
ELEV. 6	385.50	385.00	390.30	390.70



LEGEND

- SOILS CLASSIFICATION AbC1
- SOILS DELINEATION
- EXISTING CONTOURS 99.0, 95.0, 99.9
- PROPOSED CONTOURS
- EXISTING WOODS LINE
- PROPOSED WOODS LINE
- PROPOSED STRUCTURE
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE SSF
- SOIL STABILIZATION MATTING
- EARTH DIKE (A-1)



BY THE DEVELOPER: I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.	<i>Robert S. Sturge</i> 7-13-05 DATE
BY THE ENGINEER: I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.	<i>Donald M. Moore</i> 7/13/05 DATE
THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.	<i>John L. Johnston</i> 7/27/05 DATE
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.	<i>Jim Meyer</i> 7/27/05 DATE
NATURAL RESOURCES CONSERVATION SERVICE	
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	<i>[Signature]</i> 8/1/05 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	
CHIEF, DIVISION OF LAND DEVELOPMENT	<i>[Signature]</i> 8/2/05 DATE
DIRECTOR	<i>[Signature]</i> 8/18/05 DATE

NO.	DATE	REVISION
1	5-22-06	RENSE RAINGARDENS ON LOTS 3&4 AND REMOVE 24" HOME PIPE FROM DRAINAGE ESMT. # ADD RIP-RAP TO ESMT.

BENCHMARK ENGINEERING, INC.
ENGINEERS & LAND SURVEYORS & PLANNERS
3480 BALTIMORE NATIONAL PIKE SUITE 418
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644
www.bel-civilengineering.com

OWNER/DEVELOPER: DAWSON PROPERTY, LLC P.O. BOX 417 ELLCOTT CITY, MARYLAND 21043 PHONE: 410-465-4244	PROJECT: COLUMBIA HILLS SECTION 7 LOTS 1-3, SECTION 8, LOTS 1 AND 2 SECTION 9, LOTS 1-4
BUILDER: DORSEY FAMILY HOMES 9926 CYPRESSMEDE DRIVE ELLCOTT CITY, MARYLAND 21043 PHONE: 410-465-7200	LOCATION: TAX MAP 30 - GRID 5 PARCEL 16 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE: GRADING AND SEDIMENT CONTROL PLAN	DATE: NOVEMBER, 2004
Design: DAM	Draft: EDD
Check: DAM	PROJECT NO. 1795
SCALE: AS SHOWN	DRAWING 5 OF 6