

SHEET INDEX	
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2	SITE DEVELOPMENT AND GRADING PLAN
3	LANDSCAPE AND SEDIMENT & EROSION CONTROL PLAN, NOTES AND DETAILS

# SITE DEVELOPMENT PLAN

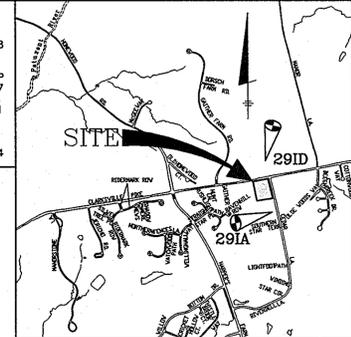
## CEDAR GROVE

### LOTS 1-12

### 5th ELECTION DISTRICT

## HOWARD COUNTY, MARYLAND

BENCHMARKS (NAD '83)	
NO. CO. #291D	ELEV. 473.938
STANDARD DISC ON CONCRETE MONUMENT	
1.5' NW FROM END OF SDW/LK. ON NW EOP	
N 571,234.389	E 1,343,193.07
NO. CO. #291A	ELEV. 482.291
STANDARD DISC ON CONCRETE MONUMENT	
WEST SIDE OF CEDAR LA.; 3.9' FROM EOP;	
41.7' S OF FH; ±0.4MI S OF MD RTE 108	
N 588,986.053	E 1,343,640.14



ADC MAP 4934, GRID H3  
VICINITY MAP  
SCALE: 1" = 2000'

- GENERAL NOTES**
- THE SUBJECT PROPERTY IS ZONED R-SC PER THE 2/02/04 COMPREHENSIVE ZONING PLAN AND PER COMP. LITE ZONING AMENDMENTS EFFECTIVE 7/28/06.
  - THE EXISTING TOPOGRAPHY IS TAKEN FROM ROAD CONSTRUCTION PLANS F-08-045. ALL VERTICAL CONTROLS ARE BASED ON THE MONUMENTED BOUNDARY IS BASED ON A MONUMENTED FIELD-RUN SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC., DATED AUGUST, 2005.
  - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS 291A & 291D WERE USED FOR THIS PROJECT.
  - WATER AND SEWER ARE PUBLIC AND EXISTING UTILITIES ARE BASED ON CONTRACT 24-4425-D.
  - STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH F-08-045. QUALITY CONTROL SHALL BE PROVIDED BY A POCKET POND (P-5) & AN UNDERGROUND STONE RUN CHAMBER. QUANTITY CONTROL SHALL BE PROVIDED WITHIN THE POCKET POND (P-5) SWM FACILITY. ALL SWM FACILITY/BMP PRACTICES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE H.O.A.
  - EXISTING UTILITIES SHOWN WERE TAKEN FROM RECORD DRAWINGS PER F-08-045. IF NECESSARY, CONTRACTOR SHALL ADJUST STRUCTURE TOPS TO MEET SFP GRADES.
  - NO WETLANDS OR 100-YEAR FLOODPLAIN EXIST WITHIN THE PROJECT LIMITS AS PER A CERTIFICATION LETTER PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED FEBRUARY 3, 2006 AND APPROVED UNDER S-03-000.
  - A P.F.O. TRAFFIC STUDY WAS PREPARED BY THE MARS TRAFFIC GROUP, INC. DATED JULY, 2005 AND APPROVED UNDER S-06-003.
  - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
  - FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WAS POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$17,100.00 FOR 35 SHADE TREES AND 44 EVERGREENS, PER F-08-045. *See Note # 34 for the landscaping obligation for SDR 10-044.*
  - A TYPE "C" LANDSCAPING BUFFER WITHIN A 10' SETBACK IS PROVIDED ALONG THE WESTERN PROPERTY BOUNDARY, ADJACENT TO PARCEL 115, AS PER S-06-003.
  - THIS PROJECT COMPLIED WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY MEETING THE FOREST CONSERVATION OBLIGATIONS OF 2.37 AC. REFORESTATION BY 0.97 AC. OF REFORESTATION WHICH IS PROVIDED OFF-SITE ON PARCEL 90, TAX MAP 21, BLOCK NO. 22, EDGEWOOD FARM, PHASE 1 (F-06-108); THE REMAINING OBLIGATION OF 1.40 AC. WILL BE PROVIDED BY 2.80 AC. OFF-SITE FOREST RETENTION WITHIN AN APPROVED FOREST CONSERVATION EASEMENT/MITIGATION BANK ESTABLISHED ON THE SHARP/FERGUSON PROPERTY (SDP-09-031) LOCATED AT PARCEL 1, TAX MAP 10, BLOCK No.2.
  - UNLESS NOTED AS "PRIVATE", ALL EASEMENTS ARE PUBLIC.
  - BRL INDICATES ZONING BUILDING RESTRICTION LINE. OTHER RESTRICTIONS MAY APPLY.
  - IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS; BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS; PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
  - ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE BUILDERS EXPENSE.
  - THE NOISE LINE SHOWN ON PLANS FOR THIS PROJECT BASED ON DATA PROVIDED BY THE MSHA AS PER CONTRACT NO. H06625170 AND APPROVED UNDER P-07-005.
  - FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPE STEM AND ROAD RIGHT OF WAY LINE ONLY AND NOT ONTO THE FLAG OF PIPE STEM LOT DRIVEWAY.
  - DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
    - WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE)
    - SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.)
    - GEOMETRY - MAXIMUM 14% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM 45' TURNING RADIUS.
    - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
    - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY.
    - STRUCTURE CLEARANCES - MINIMUM 12 FEET.
    - STRUCTURE CLEARANCES - SUFFICIENT TO INSURE ALL WEATHER USE.
  - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
  - ALL WATER METERS SHALL BE SET INSIDE.
  - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
  - FOR DRIVEWAY ENTRANCE DETAIL SEE HOWARD COUNTY STANDARD DETAILS R-6.02 & R-6.05.
  - SHO ELEVATIONS SHOWN ARE AT THE PROPERTY LINE OR EASEMENT LINE.
  - THE STAKING OF FOUNDATIONS PRIOR TO CONSTRUCTION TO ENSURE COMPLIANCE WITH REGULATORY BUILDING RESTRICTION LINES IS RECOMMENDED.
  - DRIVEWAY SLOPES SHOWN ARE AVERAGE. THE SLOPE AT THE OUTSIDE EDGES COULD BE FLATTER OR STEEPER DEPENDING ON GRADE OF ROADWAY.
  - THIS PLAN CONFORMS WITH THE SIXTH EDITION OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE 1993 ZONING REGULATIONS AMENDED BY CB 50-2001. THE BUILDER SHALL APPLY FOR BUILDING PERMITS FOR ALL LOTS AS SHOWN ON THIS SITE DEVELOPMENT PLAN WITHIN FIVE YEARS OF SIGNATURE APPROVAL OF THIS PLAN.
  - OPEN SPACE LOTS 13, 14 AND 15 ARE OWNED BY THE HOA PER F-08-045 (PLAT 21054).
  - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
  - THERE ARE NO CEMETERIES ON THIS PROPERTY, TO THE BEST OF OUR KNOWLEDGE.
  - 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 65DBA NOISE CONTOUR LINE DRAWN ON THIS SUBDIVISION PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992, AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 DBA NOISE EXPOSURE. THE 65 DBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
  - A DESIGN MANUAL WAIVER WAS SUBMITTED TO THE DEVELOPMENT ENGINEERING DIVISION AND APPROVED BY THE DIRECTOR IN A LETTER DATED OCTOBER 11, 2007 FOR DMV IV, CHAPTER 3, STANDARD DETAIL R-5.05 TO ALLOW FOR A DEVIATION OF A STANDARD TEE TURN-AROUND WITHIN A PUBLIC RIGHT-OF-WAY.
  - LANDSCAPE SURETY IN THE AMOUNT OF \$600.00 WILL BE REQUIRED FOR LOT 3 WITH THE FILING OF THE BUILDER'S GRADING PERMIT.



**SITE ANALYSIS DATA CHART**

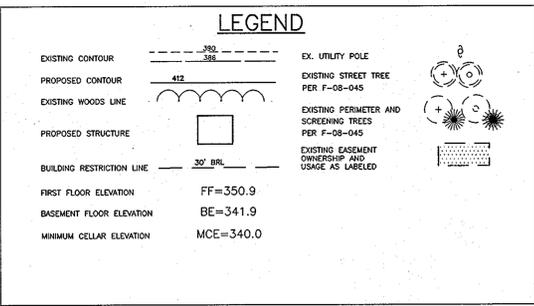
A.) TOTAL PROJECT AREA	1.81 AC.
B.) AREA OF THIS PLAN SUBMISSION	1.81 AC.
C.) APPROXIMATE LIMIT OF DISTURBANCE	1.81 AC.
D.) PRESENT ZONING:	R-SC
E.) PROPOSED USE OF SITE:	RESIDENTIAL SINGLE FAMILY DETACHED UNITS
F.) TOTAL NUMBER OF UNITS ALLOWED AS SHOWN ON FINAL PLAT(S)	12
G.) TOTAL NUMBER OF UNITS PROPOSED:	12
H.) APPLICABLE DPZ FILE REFERENCES:	S-06-003, P-07-005 F-08-045, CONTRACT #24-4425-D
I.) PROPOSED WATER AND SEWER SYSTEMS:	<input checked="" type="checkbox"/> PUBLIC <input type="checkbox"/> PRIVATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Keith S. ...* 4/19/10  
CHIEF, DIVISION OF LAND DEVELOPMENT

*...* 4/1/10  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

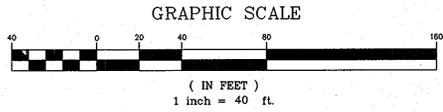
*...* 4/19/10  
DIRECTOR



**PLAN**  
SCALE: 1" = 40'

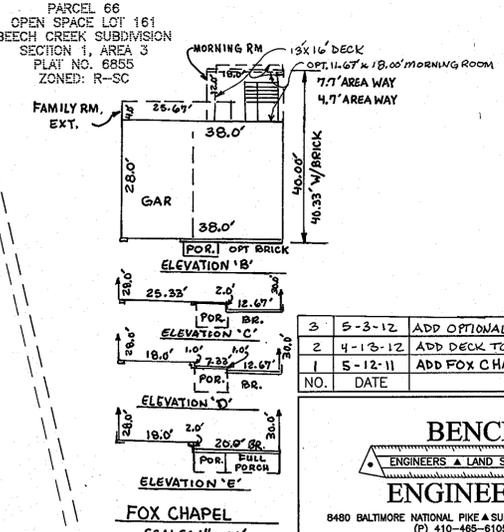
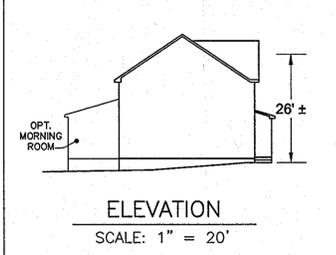
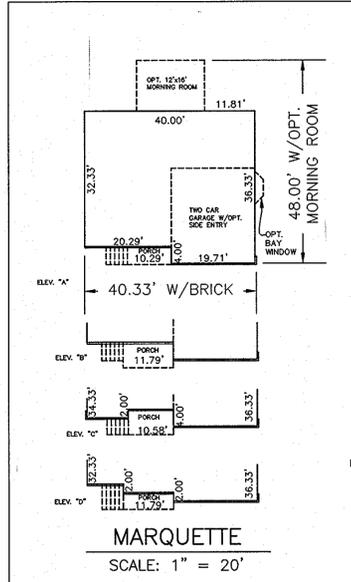
**ADDRESS CHART**

LOT	STREET ADDRESS
1	10902 CEDAR OAKS LANE
2	10906 CEDAR OAKS LANE
3	10910 CEDAR OAKS LANE
4	10914 CEDAR OAKS LANE
5	10918 CEDAR OAKS LANE
6	10922 CEDAR OAKS LANE
7	10926 CEDAR OAKS LANE
8	10925 CEDAR OAKS LANE
9	10919 CEDAR OAKS LANE
10	10915 CEDAR OAKS LANE
11	10911 CEDAR OAKS LANE
12	10907 CEDAR OAKS LANE



**PERMIT INFORMATION CHART**

SUBDIVISION NAME:	SECTION/AREA:	LOT/PARCEL #
CEDAR GROVE	N/A	LOTS 1-12
PLAT No. 21054	GRID No. 17	ZONE R-SC
TAX MAP 29	ELECTION DISTRICT 5th	CENSUS TRACT 6055.02



NO.	DATE	REVISION
2	5-3-12	ADD OPTIONAL 11.67' x 18.00' MORNING ROOM ON TO FOX CHAPEL FOOTPRINT
2	4-13-12	ADD DECK TO FOX CHAPEL MODEL
1	5-12-11	ADD FOX CHAPEL MODEL <i>John A. Adams</i>

**BENCHMARK ENGINEERING, INC.**

ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE SUITE 418 A ELLICOTT CITY, MARYLAND 21043  
(P) 410-465-6105 (F) 410-465-6644

60 THOMAS JOHNSON DRIVE A FREDERICK, MARYLAND 21702  
(P) 301-371-3505 (F) 301-371-3506

WWW.BE-CIVILENGINEERING.COM

OWNER/DEVELOPER:  
SDC CEDAR GROVE, L.L.C.  
8480 BALT. NAT. PIKE, SUITE 415  
ELLICOTT CITY, MD 21043  
PHONE: 410-465-4244

BUILDER:  
RYAN HOMES, INC.  
6031 UNIVERSITY BOULEVARD  
SUITE 250  
ELLICOTT CITY, MD 21043  
PHONE: 410-796-0980

PROJECT: CEDAR GROVE LOTS 1-12

LOCATION: TAX MAP 29 - GRID 17  
PARCEL 65  
5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: TITLE SHEET  
S-06-003, P-07-005, F-08-045  
CONTRACT #24-4425-D

DATE: FEBRUARY, 2010  
MARCH, 2010

PROJECT NO. 2316

SCALE: AS SHOWN

DRAWING 1 OF 3

LOT	INV. @ MAIN	INV. @ R/W	MCE
LOT 1	459.09	462.78	466.68
LOT 2	459.37	464.68	468.58
LOT 3	460.70	469.60	473.40
LOT 4	461.00	464.38	468.18
LOT 5	461.31	464.35	468.15
LOT 6	461.78	462.21	466.01
LOT 7	(SM-104)	462.54	466.87
LOT 8	(SM-104)	462.96	467.82
LOT 9	461.25	465.65	469.75
LOT 10	460.93	468.20	471.90
LOT 11	460.60	470.30	474.00
LOT 12	(SM-102)	474.62	476.00

CONTRACTOR TO CHECK SEWER HOUSE CONNECTION ELEVATION AT PROPERTY EASEMENT LINE PRIOR TO CONSTRUCTION OF HOUSE TO ENSURE PROPER SLOPES CAN BE MAINTAINED.

1.5' x 1.5' YARD INLET  
INV. = 470.0  
TOP = 471.3

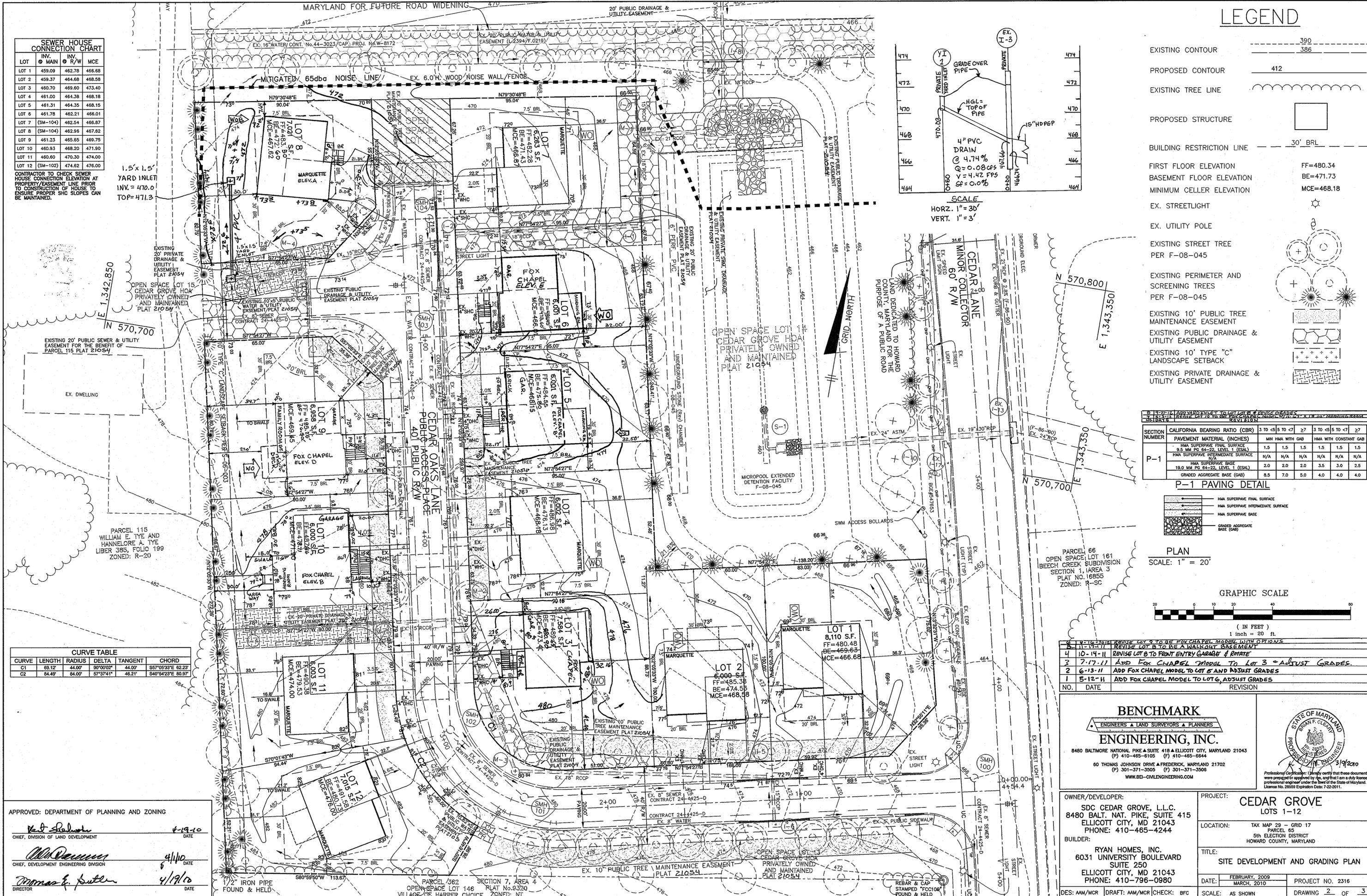
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD
C1	69.12	44.00'	90°00'00"	44.00'	87°05'33"E 62.23'
C2	84.49'	84.00'	57°37'41"	46.21'	84°04'23"E 80.97'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Neil S. Johnson* 4/19/10  
CHIEF, DIVISION OF LAND DEVELOPMENT

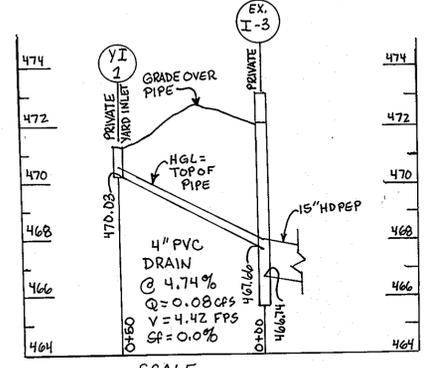
*Mark P. ...* 4/19/10  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*Thomas E. ...* 4/19/10  
DIRECTOR



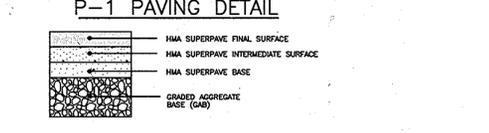
### LEGEND

- EXISTING CONTOUR 390  
386
- PROPOSED CONTOUR 412
- EXISTING TREE LINE
- PROPOSED STRUCTURE
- BUILDING RESTRICTION LINE 30' BRL
- FIRST FLOOR ELEVATION FF=480.34
- BASEMENT FLOOR ELEVATION BE=471.73
- MINIMUM CELLER ELEVATION MCE=468.18
- EX. STREETLIGHT
- EX. UTILITY POLE
- EXISTING STREET TREE PER F-08-045
- EXISTING PERIMETER AND SCREENING TREES PER F-08-045
- EXISTING 10' PUBLIC TREE MAINTENANCE EASEMENT
- EXISTING PUBLIC DRAINAGE & UTILITY EASEMENT
- EXISTING 10' TYPE "C" LANDSCAPE SETBACK
- EXISTING PRIVATE DRAINAGE & UTILITY EASEMENT

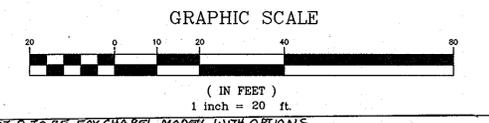


SCALE  
HORZ. 1" = 30'  
VERT. 1" = 3'

SECTION NUMBER	CALIFORNIA BEARING RATIO (CBR)	MIN HMA WITH GAB						HMA WITH CONSTANT GAB						
		3 TO <5	5 TO <7	>7	3 TO <5	5 TO <7	>7	3 TO <5	5 TO <7	>7	3 TO <5	5 TO <7	>7	
P-1	HMA SUPERPAVE FINAL SURFACE	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	HMA SUPERPAVE INTERMEDIATE SURFACE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	HMA SUPERPAVE BASE	2.0	2.0	2.0	3.5	3.0	2.5	2.0	2.0	2.0	3.5	3.0	2.5	2.5
GRADED AGGREGATE BASE (GAB)		8.5	7.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0



PLAN  
SCALE: 1" = 20'



NO.	DATE	REVISION
1	5-12-11	ADD FOX CHAPEL MODEL TO LOT 6, ADJUST GRADES
2	6-13-11	ADD FOX CHAPEL MODEL TO LOT 6 AND ADJUST GRADES
3	7-17-11	ADD FOX CHAPEL MODEL TO LOT 3 *ADJUST GRADES
4	10-14-11	REVISE LOT 6 TO BE FRONT ENTRY GARAGE & RETAIN
5	11-17-11	REVISE LOT 6 TO BE FOX CHAPEL MODEL WITH OPTIONS
6	11-17-11	REVISE LOT 6 TO BE FOX CHAPEL MODEL WITH OPTIONS

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60 THOMAS JOHNSON DRIVE FREDERICK, MARYLAND 21702  
(P) 301-371-3505 (F) 301-371-3506  
WWW.BEI-CVLENGINEERING.COM

STATE OF MARYLAND PROFESSIONAL ENGINEER 319/2010

OWNER/DEVELOPER: SDC CEDAR GROVE, L.L.C. 8480 BALT. NAT. PIKE, SUITE 415 ELLICOTT CITY, MD 21043 PHONE: 410-465-4244

BUILDER: RYAN HOMES, INC. 6031 UNIVERSITY BOULEVARD SUITE 250 ELLICOTT CITY, MD 21043 PHONE: 410-796-0980

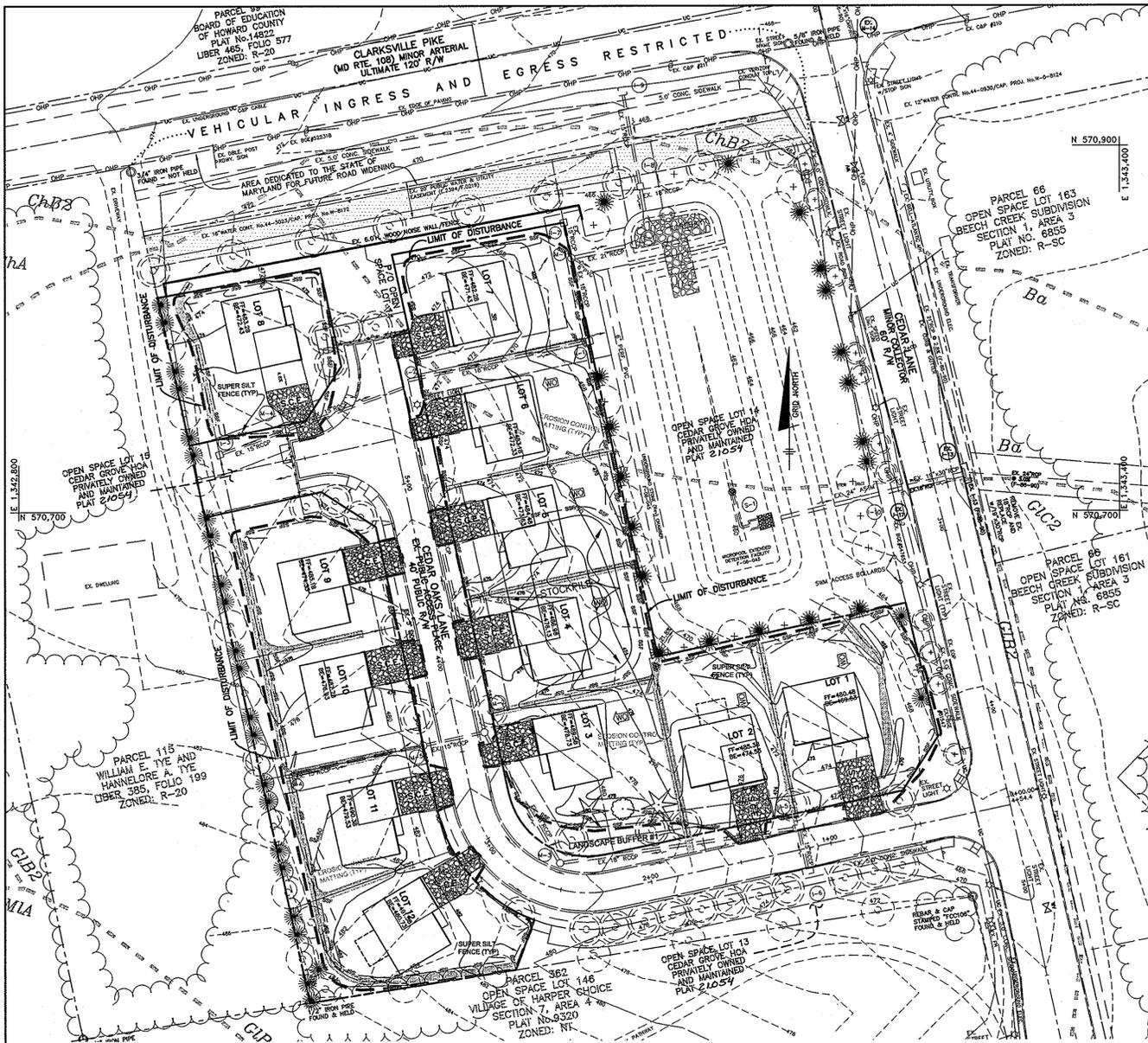
PROJECT: CEDAR GROVE LOTS 1-12

LOCATION: TAX MAP 23 - GRID 17 PARCEL 65 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: SITE DEVELOPMENT AND GRADING PLAN

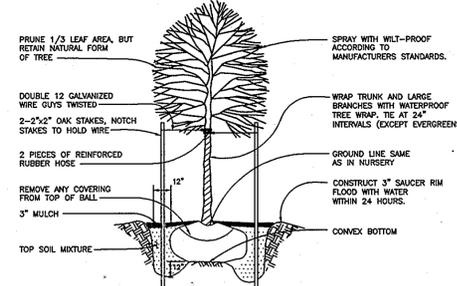
DATE: FEBRUARY, 2009 MARCH, 2010 PROJECT NO. 2316

DES: AAM/MCR DRAFT: AAM/MCR CHECK: BFC SCALE: AS SHOWN DRAWING 2 OF 3



**THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES AND LANDSCAPING ONLY**

- LANDSCAPE NOTES:**
- TREES SHOULD BE PLANTED A MINIMUM OF 6 FEET FROM THE EDGE OF PAVING AND MUST BE A MINIMUM OF 5 FEET FROM ANY STORM DRAIN.
  - TREES MUST BE PLANTED A MINIMUM OF 5 FEET FROM AN OPEN SPACE ACCESS STRIP AND 10 FEET FROM A DRIVEWAY.
  - SEE TREE PLANTING DETAIL - THIS SHEET.
  - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.
  - AT THE TIME OF INSTALLATION, ALL SHRUBS AND OTHER PLANTINGS HEREWIT 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 RESULT IN DENIAL OR DELAY IN RELEASE OF LANDSCAPE SECURITY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATIONS.
  - THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, 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 OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
  - PERIMETER AND STORM WATER MANAGEMENT LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL WAS PROVIDED AS SHOWN ON THE LANDSCAPE PLAN SHEETS OF THE ROAD CONSTRUCTION DRAWINGS FOR THIS PROJECT (P-08-04S). FOR MORE INFORMATION, SEE GENERAL NOTE 1 ON SHEET 1 OF THIS PLAN.



**SCHEDULE A PERIMETER LANDSCAPE EDGE**

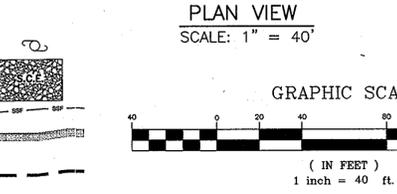
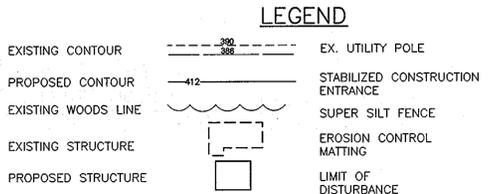
CATEGORY	ADJACENT TO ROADWAYS
LANDSCAPE BUFFER TYPE	1 B
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	70'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO
NUMBER OF PLANTS REQUIRED SHADE TREES	1
NUMBER OF PLANTS PROVIDED SHADE TREES	2
NUMBER OF PLANTS REQUIRED EVERGREEN TREES	1
NUMBER OF PLANTS PROVIDED EVERGREEN TREES	2

**LANDSCAPE PLANTING LIST**

SYMBOL	QUANTITY	NAME	REMARKS
○	1	QUERCUS COCCINEA SCARLET OAK	2 1/2" MIN. CAL. B&B FULL HEAD
★	2	PINUS THUNBERGIANA (JAPANESE BLACK PINE)	6'-8" ht. UNSHEARED

**SOILS LEGEND**

MAP SYMBOL	SOIL TYPE	MAPPING UNIT
Bs	D	BAILE SILT LOAM
ChA	B	CHESTER SILT LOAM - 0 TO 3 PERCENT SLOPES
ChB2	B	CHESTER SILT LOAM - 3 TO 8 PERCENT - MODERATELY ERODED
ChB2	B	CHESTER SILT LOAM - 3 TO 8 PERCENT SLOPES - MODERATELY ERODED
MA	B	MANOR LOAM - 0 TO 3 PERCENT SLOPES



**TOPSOIL SPECIFICATIONS**

- Topsoil salvaged 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 as found in the representative soil profile sections 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 approved by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of concrete, rubble, and other materials. Topsoil shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1-1/2" in diameter.
  - Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nutgrass, poison ivy, huckle, or others as specified in the following:
    - 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 mixed into the soil in conjunction with tillage operations as described in the following procedures.
- 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 or 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 soil 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.
  - Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
  - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
- Topsoil Application
  - When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, earth dikes, slope silt fence and sediment traps and basins.
  - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, shall be 4" - 5" higher in elevation than existing grades.
  - Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
  - Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.
- Alternative for Permanent Seeding - Instead of applying the full amounts of time and commercial fertilizer, composted sludge and amendments may be applied as specified below:
  - Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
    - Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.03.02.01.
    - Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
    - Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
  - Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

**SEDIMENT CONTROL NOTES**

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (313-1850).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL. REVISIONS THERETO.
- 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, SEDIMENT TRAPS, AND ALL SLOPES GREATER THAN 3:1; B) 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) SOO (SEC. 54), TEMPORARY SEEDINGS (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 PERMANENT SEEDING FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:
 

TOTAL AREA OF SITE (THIS SUBMISSION)	1.81 ACRES
AREA DISTURBED	1.69 ACRES
AREA TO BE ROOFED OR PAVED	0.69 ACRES
AREA TO BE VEGETATIVELY STABILIZED	1.00 ACRES
TOTAL CUT	2303 CY
TOTAL FILL	1200 CY
OFFSITE WASTE/BORROW AREA LOCATION	*
- \*IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY THE SPILL/BORROW SITE AND NOTIFY AND GAIN APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR OF THE SITE AND ITS GRADING PERMIT NUMBER AT THE TIME OF CONSTRUCTION.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 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 INCLUDING OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

**TEMPORARY SEEDBED PREPARATIONS**

- 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, DISING 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 LOVEGRASS (0.7 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THROUGH FEBRUARY 29, 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 GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES, 8 FT. 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.

**ENGINEER'S CERTIFICATE**

I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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 CONSERVATION DISTRICT.

ENGINEER: *[Signature]* DATE: 3/3/2010

**DEVELOPER'S CERTIFICATE**

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THE PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE 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 COUNTY CONSERVATION DISTRICT.

BUILDER: *[Signature]* DATE: 3-10-10

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

HOWARD SCD

*[Signature]* 3/30/10

**SEQUENCE OF CONSTRUCTION**  
NOTIFY SEDIMENT CONTROL DIVISION 48 HOUR PRIOR TO START OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- INSTALL SEDIMENT CONTROLS THAT ARE INCLUDED UNDER THIS SDP.
- EXCAVATE FOR FOUNDATIONS, ROUGH GRADE AND STABILIZE IN ACCORDANCE WITH TEMPORARY SEEDBED NOTES.
- CONSTRUCT HOUSES, BACKFILL AND CONSTRUCT DRIVEWAYS.
- FINAL GRADE AND STABILIZE IN ACCORDANCE WITH PERMANENT SEEDBED NOTES AND FLUSH STORM DRAIN SYSTEM.
- WITH THE APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE ANY REMAINING DISTURBED AREAS.

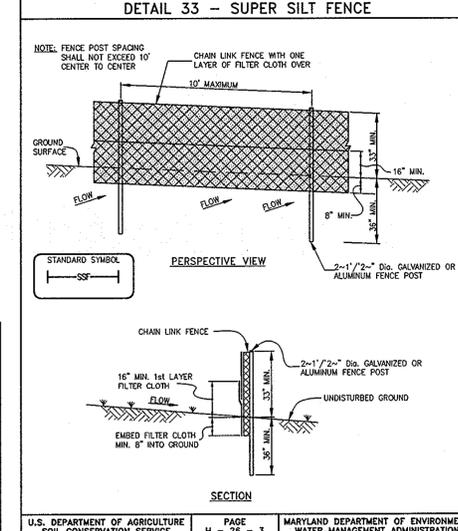
NOTE: - - INDICATES SINGLE HOUSE CONSTRUCTION.  
EROSION CONTROL MATTING SHALL BE PLACED IN SWALES WHERE DEEMED NECESSARY UNTIL VEGETATION IS ESTABLISHED OR SOLID SOO SHOULD BE USED.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 4-19-10 DATE

*[Signature]* 4/11/10 DATE

*[Signature]* 4/19/10 DATE

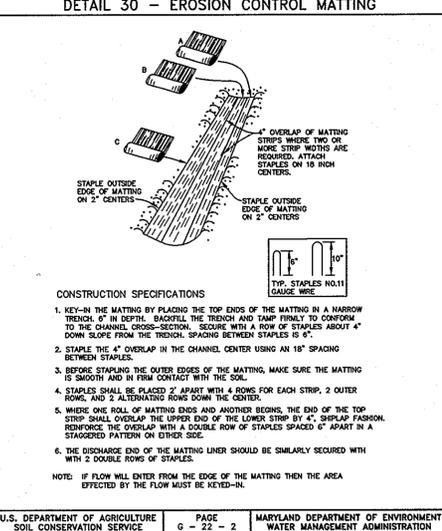
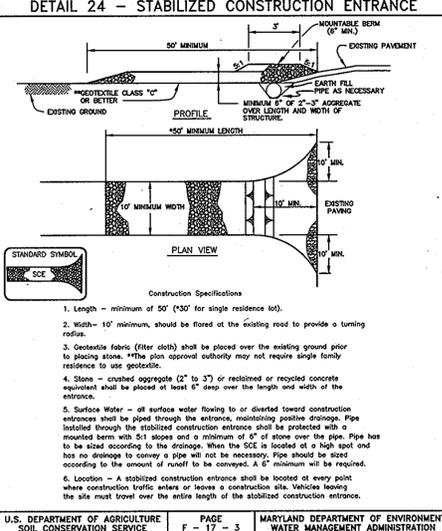


**CONSTRUCTION SPECIFICATIONS**

- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6" length posts.
- Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and frust rods, drive anchors and post caps are not required except on the ends of the fence.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 8" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height
- Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

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	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

NOTE: Tensile Strength 50 lbs/in (min.), Test: MSMT 509  
Tensile Modulus 20 lbs/in (min.), Test: MSMT 509  
Flow Rate 0.3 gal/ft./minute (max.), Test: MSMT 322  
Filtering Efficiency 75% (min.), Test: MSMT 322



**BENCHMARK ENGINEERING, INC.**

8480 BALTIMORE NATIONAL PIKE & SUITE 418 • ELLICOTT CITY, MARYLAND 21043  
(P) 410-465-8105 (F) 410-465-8844  
60 THOMAS JOHNSON DRIVE • FREDERICK, MARYLAND 21702  
(P) 301-371-3505 (F) 301-371-3508  
WWW.BC-ENGINEERING.COM

OWNER/DEVELOPER: SDG CEDAR GROVE, L.L.C. 8480 BALT. NAT. PIKE, SUITE 415 ELLICOTT CITY, MD 21043 PHONE: 410-465-4244

BUILDER: RYAN HOMES, INC. 6031 UNIVERSITY BOULEVARD SUITE 250 ELLICOTT CITY, MD 21043 PHONE: 410-796-0980

PROJECT: CEDAR GROVE LOTS 1-12

LOCATION: TAX MAP 29 - GRID 17 PARCEL 65 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: LANDSCAPE AND SEDIMENT & EROSION CONTROL PLAN, NOTES AND DETAILS

DATE: FEBRUARY, 2009 MARCH, 2010 PROJECT NO. 2316

SCALE: AS SHOWN DRAWING 3 OF 3

DES: AM/MCR DRAFT: AM/MCR CHECK: BFC