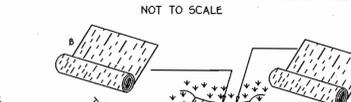


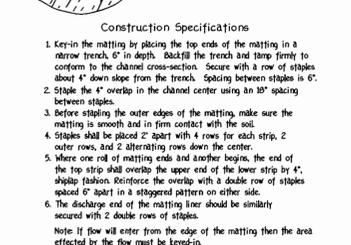
**SEDIMENT CONTROL NOTES**

- A MINIMUM OF 16 BENCH MARKS MUST BE PLACED ON THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (31-1055).
- VEGETATION AND EROSION CONTROL MEASURES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF.
- FOLLOWING INITIAL SOIL PREPARATION OF RE-DESTRUCTURED AREAS OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 31 TO 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS, BARRIERS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 25, OF THE HOWARD COUNTY DESIGN MANUAL AND MANDATORY.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1986 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 50), TEMPORARY STABILIZATION WITH MULCH ALONE CAN BE DONE WHILE PERMANENT 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 PERMSSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:**
  - TOTAL AREA OF SITE: 1.575 ACRES
  - AREA TO BE ROOFED OR PAVED: 0.036 ACRES
  - AREA TO BE VEGETATIVELY STABILIZED: 0.220 ACRES
  - TOTAL CUT: 230 CUBIC YARDS
  - TOTAL FILL: 250 CUBIC YARDS
- OFFSITE WASTE/BORROW AREA LOCATION:** CUYDYS
- ANY SEDIMENT CONTROL PRACTICES WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE PROVIDED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PREPARED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, UNLESS COMPLETION OF INSTALLATION OF PERMANENT EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE FEET DEPTH OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

**STABILIZED CONSTRUCTION ENTRANCE**

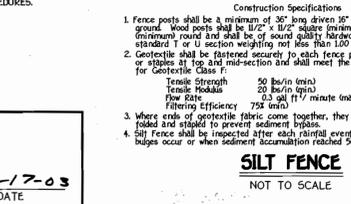


- Length - minimum of 50' (30' for single residence lot).
- Width - 10' minimum should be fixed at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate 2" to 3" (reclaimed or recycled concrete aggregate) equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - All surface water flowing to or directed toward construction entrances shall be piped through the entrance, maintaining positive drainage.
- Location - A stabilized construction entrance shall be located at every point where a drainage to convey a pipe will not be necessary.
- According to the amount of runoff to be conveyed, a minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entrance structure.



**EROSION CONTROL MATTING**

1. Lay-in the matting by placing the top ends of the matting in a row, trench 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
  2. Staple the 4" overlap in the channel center using an 18" spacing between staples.
  3. Before stepping the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
  4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
  5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 12".
  6. The discharge end of the matting layer shall be similarly secured with 2 double rows of staples.
- Note: If flow will enter from the edge of the matting then the area effected by the flow must be lay-in.



**SILT FENCE**

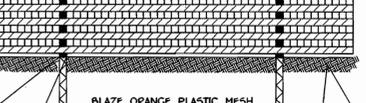
- Fence posts shall be a minimum of 30" long driven 15" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (permanent) or 1 1/4" diameter (temporary) round and shall be of sound quality hardwood. Steel posts will be standard 1" or U section weighing not less than 100 pound per linear foot.
- Geotextile 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:
  - Tensile Strength: 50 lbs/in (min)
  - Tensile Max: 20 lbs/in (min)
  - Flow Rate: 0.3 gal (l) / (minute) (max)
  - Filtering Efficiency: 90%
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

**SEQUENCE OF CONSTRUCTION**

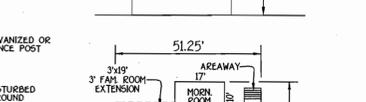
- OBTAIN GRADING PERMIT
- INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN
- CLEAR AND GRUB TO LIMITS OF DISTURBANCE
- INSTALL TEMPORARY SEEDING
- CONSTRUCT BUILDINGS
- FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE
- REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMSSION IS GRANTED BY E/S CONTROL INSPECTOR.



1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" - 7" stone or recycled concrete equivalent pressed into the soil 7" minimum.



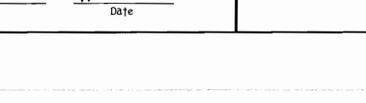
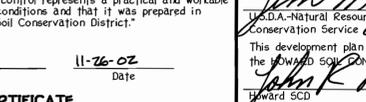
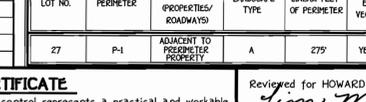
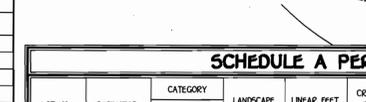
1. All temporary earth dikes shall have unretained positive grade to an outlet. Spot elevations may be necessary for grades less than 1".
2. Runoff diverted from a disturbed area shall be conveyed to a "I" sediment trapping device.
3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
5. The dike shall be excavated or sloped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
6. Fill shall be compacted by earth moving equipment.
7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of a "I" sediment trapping device.
8. Inspection and maintenance must be provided periodically and after each rain event.



- Fencing shall be 42" high chain constructed in accordance with the LATEST MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD DETAILS 69011 AND 69012 FOR CHAIN U FENCING. THE SPECIFICATIONS FOR A 6'-0" FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6" POSTS. POSTS SHALL BE PLACED WITHOUT CONCRETE ENDS.
- CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE.
- FILTER CLOTH TO BE FASTENED SECURELY TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
- FILTER CLOTH SHALL BE PROVIDED A MINIMUM OF 9" INTO THE GROUND.
- WHEN TWO SECTIONS OF DIVERSION CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED.

Fabric Properties	Value	Test Method
Grab Tensile Strength (lbs.)	90	ASTM D682
elongation at Failure (%)	50	ASTM D682
Hullen Burst Strength (PSI)	190	ASTM D3796
Puncture Strength (lbs.)	40	ASTM D751
Slurry flow Rate (gal/min/ft)	0.3	Virginia DOT 479-51
Equivalent Opening Size	40-80	US Std Sieve CW-0225
Ultraviolet Radiation Stability (%)	90	ASTM G-26

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10%	Unlimited	Unlimited
10 - 20%	10% - 33%	400 feet	1500 feet
20 - 33%	33% - 50%	300 feet	1000 feet
33 - 50%	33% - 21%	200 feet	500 feet
50% +	21% +	100 feet	250 feet



**DEVELOPER'S/BUILDER'S CERTIFICATE**

I/WE CERTIFY THAT THE LANDSCAPING WORK ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

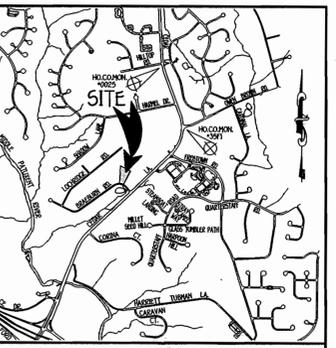
*Mitch Saula*  
DATE: 2-26-03

**BENCH MARKS**

- T.P. 35F1 ELEV. 40116
- N. 557,787.366
- E. 1,345,217.325
- LOC. NEAR THE INTERSECTION OF CEDAR LANE & OWEN BROWN ROAD
- T.P. 0025 ELEV. 410,993
- N. 558,255.351
- E. 1,344,653.950
- LOC. NEAR THE INTERSECTION OF CEDAR LANE & HILLTOP LANE

**ADDRESS CHART**

LOT NUMBER	STREET ADDRESS
27	10910 BRAEBURN ROAD



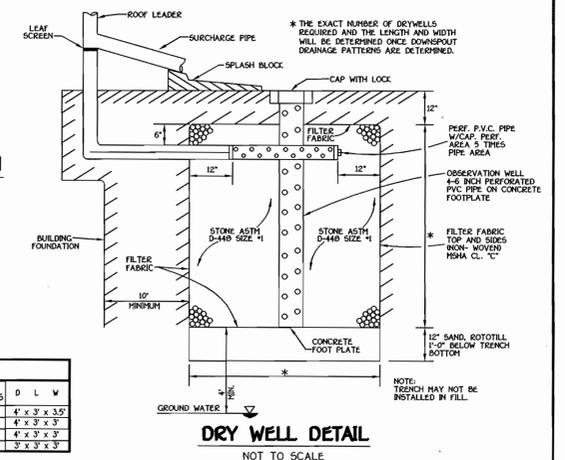
**GENERAL NOTES**

- THE PROPERTY IS ZONED R-20 PER THE 10/18/93 COMPREHENSIVE ZONING PLAN.
- TOTAL AREA INCLUDED IN THIS SUBDIVISION IS 1.575 ACRES.
- TOTAL NUMBER OF LOTS INCLUDED IN THIS SUBDIVISION IS 1.
- DEPARTMENT OF PLANNING AND ZONING REFERENCE FILE NUMBERS ARE F-290 P. 6, P. 24, P. 25, P. 26, P. 27, P. 28, P. 29, P. 30, P. 31, P. 32, P. 33, P. 34, P. 35, P. 36, P. 37, P. 38, P. 39, P. 40, P. 41, P. 42, P. 43, P. 44, P. 45, P. 46, P. 47, P. 48, P. 49, P. 50, P. 51, P. 52, P. 53, P. 54, P. 55, P. 56, P. 57, P. 58, P. 59, P. 60, P. 61, P. 62, P. 63, P. 64, P. 65, P. 66, P. 67, P. 68, P. 69, P. 70, P. 71, P. 72, P. 73, P. 74, P. 75, P. 76, P. 77, P. 78, P. 79, P. 80, P. 81, P. 82, P. 83, P. 84, P. 85, P. 86, P. 87, P. 88, P. 89, P. 90, P. 91, P. 92, P. 93, P. 94, P. 95, P. 96, P. 97, P. 98, P. 99, P. 100.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/DIVISION OF CONSTRUCTION INSPECTION DIVISION AT (410)313-1880 AT LEAST TWENTY FOUR (24) HOURS 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.
- THE TOPOGRAPHY ON THIS PLAN WAS TAKEN FROM PLANS PROVIDED BY THE S&A GROUP, ABOUT JUNE, 1999.
- HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON NAD 83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.
- HOWARD COUNTY MONUMENT 0025, N. 557,787.366 E. 1,345,217.325
- HOWARD COUNTY MONUMENT 0025, N. 559,255.351 E. 1,344,653.950
- NO 100 YEAR FLOOD PLANS, WETLANDS OR STREAMS EXIST ON THIS SITE.
- THIS PLAN IS SUBJECT TO THE 5TH EDITION OF THE SUBDIVISION AND THE LAND DEVELOPMENT REGULATIONS.
- DRIVEWAY SHALL BE PROVIDED PRIOR ISSUANCE OF A OCCUPANCY PERMIT FOR ANY NEW DWELLING TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
  - A) WIDTH 12' (4" SERVING MORE THAN ONE RESIDENCE)
  - B) SURFACE 6" OF COMPACTED CRUSH RUN BASE W/AT&R & CHIP COATING (1 1/2" MIN)
  - C) GEOMETRY MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45 FOOT TURNING RADII.
  - D) TURNING RADII.
  - E) DRAINAGE SUFFICIENT TO INSURE ALL WEATHER USE.
  - F) STRUCTURE CLEARANCES MINIMUM 12 FEET
  - G) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE.
  - H) DRAINAGE ELEMENTS CAPABLE OF SAFETY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
  - I) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE.
  - J) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE.
- THIS PLAN IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS PER SECTION 151202(b)(1)(ii) OF THE HO. CO. SUBDIVISION & LAND DEVELOPMENT REGULATIONS. AS THE HO HAS PRELIMINARY APPROVAL PRIOR TO DECEMBER 31, 1992.
- THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, PLANT MATERIALS, BENCH, 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, REPAIR OR REPLACED.
- ANY DAMAGE TO THE COUNTY RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.

**SOILS LEGEND**

SOIL	NAME	CLASS
GrcC	Glenview silt loam, 0 to 15 percent slopes, moderately eroded	C
MgC2	Manor gravelly loam, 0 to 15 percent slopes, moderately eroded	B
MnD	Manor very stony loam, 3 to 25 percent slopes	B

- Hydric soils and/or contains hydric inclusions
- May contain hydric inclusions
- Generally only within 100-year floodplain areas



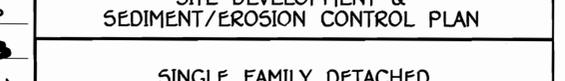
**STORMWATER MANAGEMENT NOTES**

- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER DESIGN MANUAL.
- CREDITS ARE GIVEN FOR DISCONNECTION OF IMPERVIOUS COVERS.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNFLOW SHALL BE LESS THAN 500 SQ. FT.
- DETENTION SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5% SLOPE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE FIGURE 5.2 OF THE MANUAL AND THE DETAIL SHOWN ON THIS SHEET.
- FINAL GRADING IS SHOWN ON THIS SITE DEVELOPMENT PLAN.

**DRY WELL CHART**

LOT NO.	AREA OF ROOF PER DOWN SPOUT	VOLUME REQUIRED	AREA OF TREATMENT	NO. OF DRYWELLS	D	L	W
LOT 27	500 SQ.FT.	40 CF	100'	1	4'	3'	3'
	450 SQ.FT.	36 CF	100'	1	4'	3'	3'
	420 SQ.FT.	34 CF	100'	1	4'	3'	3'
	300 SQ.FT.	24 CF	100'	1	3'	3'	3'

**DRY WELL DETAIL**



**SITE DEVELOPMENT & SEDIMENT/EROSION CONTROL PLAN**

SINGLE FAMILY DETACHED  
LOT 27  
**BRAEBURN**

FIFTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
SCALE: 1" = 30'  
DATE: NOVEMBER, 2002  
SHEET 1 OF 1

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
*Reynolds*  
COUNTY HEALTH OFFICER  
DATE: 4-17-03

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 1672 BALDRIDGE NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21117  
410-464-2000



**ENGINEER'S CERTIFICATE**  
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.  
*Earl D. Collins*  
Signature of Engineer  
EARL D. COLLINS  
Date: 11-26-02

**DEVELOPER'S CERTIFICATE**  
I/We certify that all development and construction will be done according to this plan for sediment and erosion control 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.  
*Mitch Saula*  
Signature of Developer  
Date: 11-26-02

Reviewed for HOWARD SCD and meets Technical Requirements.  
*Jim Myers*  
U.S.D.A.-Natural Resources Conservation Service  
Date: 3-31-03

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.  
*John K. Kobulsky*  
Howard SCD  
Date: 3-31-03

**OWNER/DEVELOPER/BUILDER**  
MITCH SAULA  
9427 OLD MAN COURT  
COLUMBIA, MARYLAND 21045  
410-715-1556

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Andy Hantz*  
Chief, Division of Planning and Development  
Date: 4/22/03

*Michael A. Long*  
Director - Department of Planning and Zoning  
Date: 4/21/03

PROJECT	SECTION	LOT NO.
BRAEBURN		27

PLAT BOOK	BLOCK NO.	ZONE	TAX MAP	ELEC. DIST.	CENSUS TR.
80	17	R-20	35	FIFTH	6056.01

WATER CODE	SEWER CODE
PRIVATE	PRIVATE

**SDP 03-078**