SHEET INDEX	
NO	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	GRADING AND SEDIMENT CONTROL PLAN
4	DETAIL SHEET
5	RAINGARDEN DETAILS

SITE DEVELOPMENT PLAN
CHAPEL MANOR
LOTS 2–6
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

GENERAL NOTES:

1. 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.

2. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1–800–257–7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.

3. THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD STUDY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY PATTON HARRIS RUST & ASSOCIATES,PC DATED JULY, 2003.

4. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NO'S 31R1 AND 37B4 WERE USED FOR THIS PROJECT.

5. THE STORMWATER MANAGEMENT DESIGN HAS CHANGED FROM THE APPROVED PLAN F–04–152. THE STORMWATER MANAGEMENT FOR THIS SITE WILL BE PROVIDED BY DISCONNECTION OF ROOFTOP RUNOFF CREDIT SUPPLEMENTED BY RAIN GARDENS WHERE NEEDED AND THE GRASS CHANNEL CREDIT WITH STONE CHECK DAMS. RAIN GARDENS ARE OWNED AND MAINTAINED BY THE OWNER OF EACH INDIVIDUAL LOT.

6. EXISTING UTILITIES ARE BASED ON PUBLIC WATER AND PUBLIC SEWERAGE CONNECTIONS PROVIDED UNDER CONTRACT No. 14–4172–D.

7. ANY DAMAGE TO THE COUNTY'S RIGHT–OF–WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.

8. FOR DRIVEWAY ENTRANCE DETAILS, REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R–6.06. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENT OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS: A) WIDTH – 12 FEET (14 FEET IF SERVING MORE THAN ONE RESIDENCE) B) SURFACE – 6 INCHES OF COMPACTED CRUISHER RUN BASE WITH TAR AND CHIP COATING C) GEOMETRY – MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE, AND MINIMUM 45 FOOT TURNING RADIUS D) STRUCTURES (CULVERTS/BRIDGES) – MUST SUPPORT 25 GROSS TON LOADING (H25 LOADING) E) DRAINAGE ELEMENTS – CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE F) STRUCTURE CLEARANCES – MINIMUM 12 FEET G) MAINTENANCE – SUFFICIENT TO INSURE ALL WEATHER USE

9. BASED ON AVAILABLE COUNTY DATA, NO HISTORIC STRUCTURES OR BURIAL GROUNDS EXIST ON SITE

10. SOILS DATA BASED ON HOWARD COUNTY SOIL SURVEY DATED 1968.

11. NO WETLANDS EXIST ON SITE AS CERTIFIED BY PATTON HARRIS RUST & ASSOCIATES FIELD INVESTIGATION ON NOVEMBER 14, 2002.

12. THE FOREST CONSERVATION OBLIGATION FOR THE PROPOSED SITE DEVELOPMENT WILL BE MET BY AFFORESTATION ON 0.28 AC. OF THE SITE. SURETY WILL BE POSTED IN THE AMOUNT OF $6,099.00 AND A FEE–IN–LIEU IN THE AMOUNT OF $3,920.40 WILL BE PAID FOR THE REMAINING 0.18 AC. OF OBLIGATION AS APPROVED UNDER F–04–152.

13. PERIMETER LANDSCAPING SHALL BE IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL AND PER THE CERTIFIED LANDSCAPE PLAN ON FILE WITH F–04–152.

14. THE HOMEOWNERS' DOCUMENTS OF INCORPORATION HAVE BEEN RECORDED WITH THE MARYLAND STATE DEPARTMENT OF ASSESSMENTS AND TAXATION ON AS NUMBER 9044/115.

15. FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM LOT AND THE ROAD RIGHT–OF–WAY LINE AND NOT TO THE FLAG OR PIPESTEM DRIVEWAY.

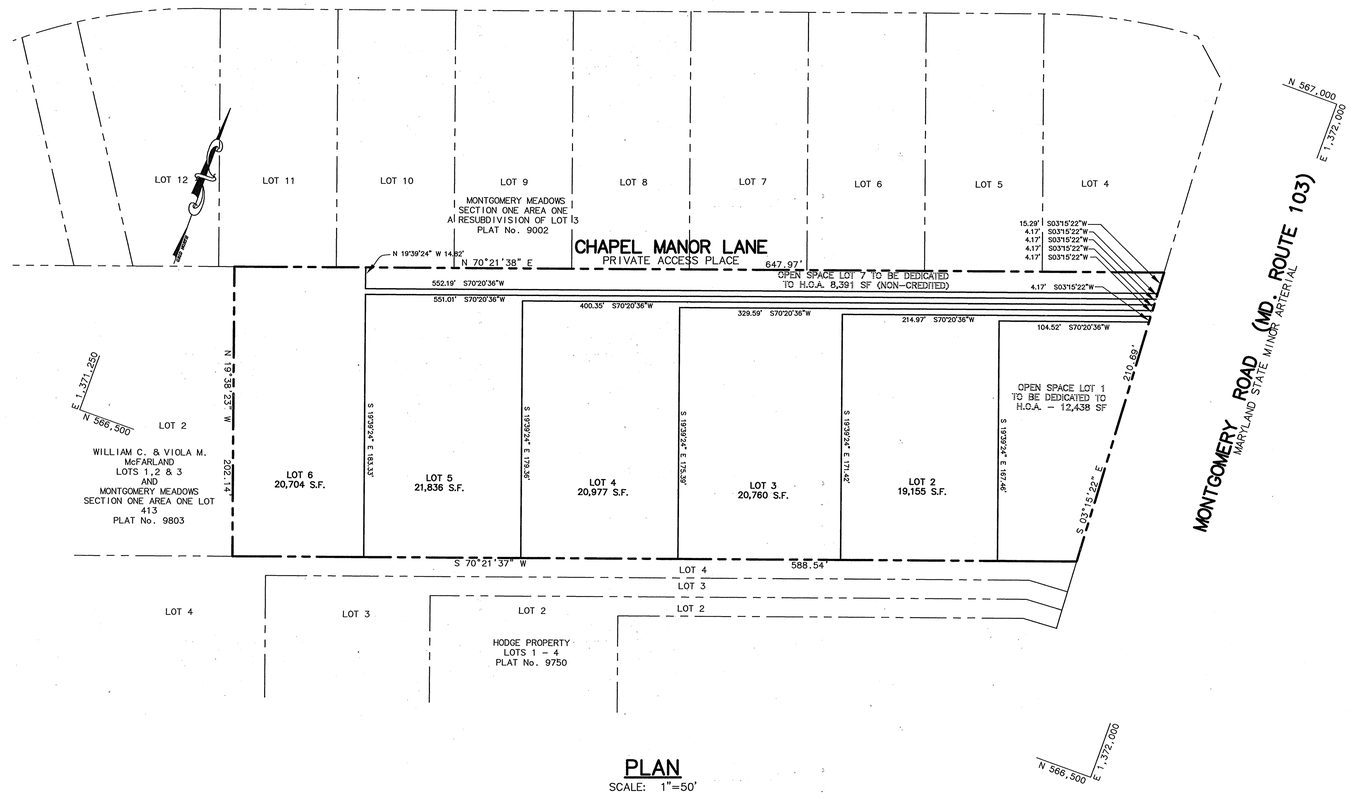
16. PROJECT BACKGROUND INFORMATION:

TAX MAP 31, PARCEL 192	
DEED REFERENCE :	PLAT NO. 17311
GROSS AREA	3.0625 ACRES
AREA OF PLAN SUBMISSION	2.37 ACRES
ZONE	R–20
AREA OF STEEP SLOPES	0 ACRES
AREA OF WETLANDS	0 ACRES
AREA IN ROW AND ROAD	0 ACRES
TOTAL AREA OF DISTURBANCE	2.40 ACRES
DPZ FILE NOS.	S–03–09, WP–03–86, P–04–003, F–04–152

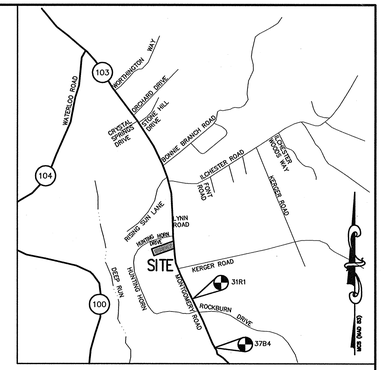
17. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.

18. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS AND AMENDED BY CB–75–2003. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT BY THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, OR BUILDING/GRADING PERMIT.

19. THE SUBJECT PROPERTY IS ZONED R–20 PER THE 2/2/04 COMPREHENSIVE ZONING PLAN.



PLAN
SCALE: 1"=50'



VICINITY MAP
SCALE: 1"=2000'

BENCH MARK

CONTROL STATION 31R1
ELEVATION 401.748
N 565,303.465
E 1,372,517.678

CONTROL STATION 37B4
ELEVATION 402.115
N 563,928.548
E 1,373,109.059

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
2	8103 CHAPEL MANOR LANE
3	8107 CHAPEL MANOR LANE
4	8111 CHAPEL MANOR LANE
5	8115 CHAPEL MANOR LANE
6	8119 CHAPEL MANOR LANE

SUBDIVISION NAME			SECT./AREA		PARCEL
CHAPEL MANOR			–		192
PLAT #	BLOCK #	ZONING	TAX MAP NO.	ELECT. DIST.	CENSUS TRACT
17311	20	R–20	31	1	6011.02
WATER CODE			SEWER CODE		
D03			1255010		

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR	DATE 8/1/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 8/1/05
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 8/2/05

DATE	NO.	REVISION

OWNER
WILLIAM McFARLAND, JR. TRUST
VIOLA McFARLAND TRUST
5386 MONTGOMERY ROAD
ELLICOTT CITY, MD 21043

DEVELOPER
CORNERSTONE HOLDINGS, LLC
ATTN: BRIAN BOY 9691
NORFOLK AVENUE LAUREL, MARYLAND 20723
410–792–2565

PROJECT
CHAPEL MANOR
SINGLE FAMILY UNITS

AREA TAX MAP 31 PARCEL 192 GRID 20 ZONED R–20
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

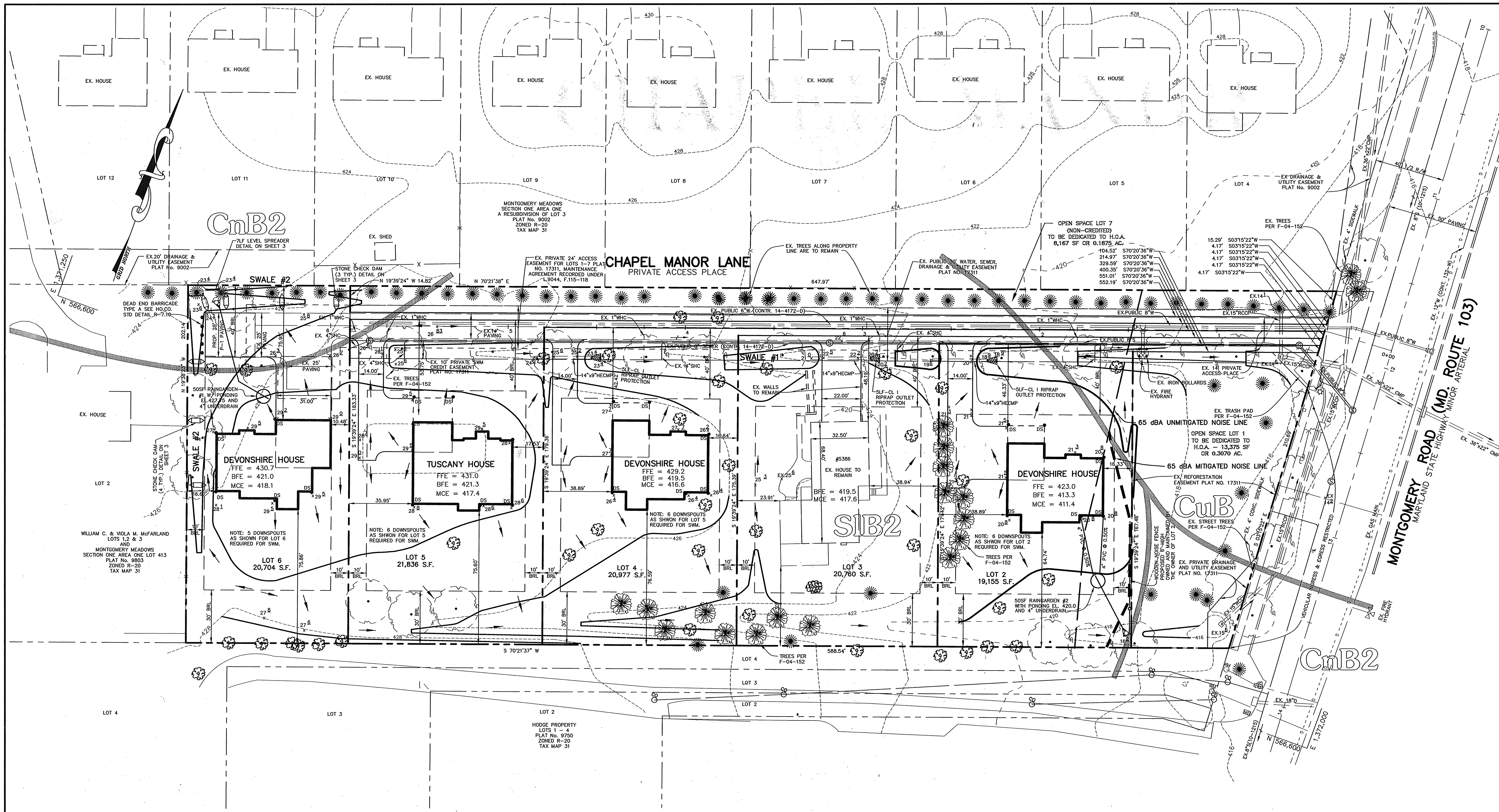
TITLE
TITLE SHEET

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

7.22.05
DATE
STATE OF MARYLAND AIMEE C. REMINGTON PROFESSIONAL ENGINEER No. 29923
AIMEE C. REMINGTON #29923

CHECKED BY :	
DESIGNED BY:	
DRAWN BY:	MAD
PROJECT NO:	11818
DATE:	JULY 22, 2005
SCALE:	AS SHOWN
DRAWING NO.	1 OF 5

SDP–05–097

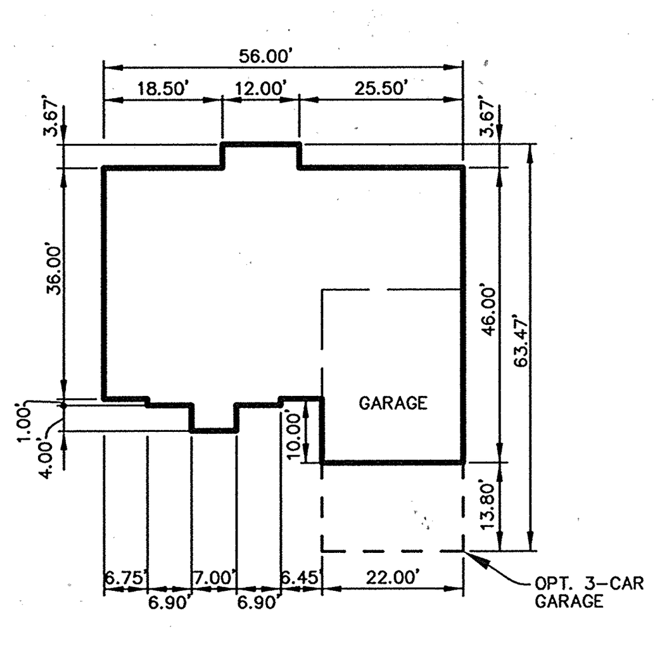


LEGEND

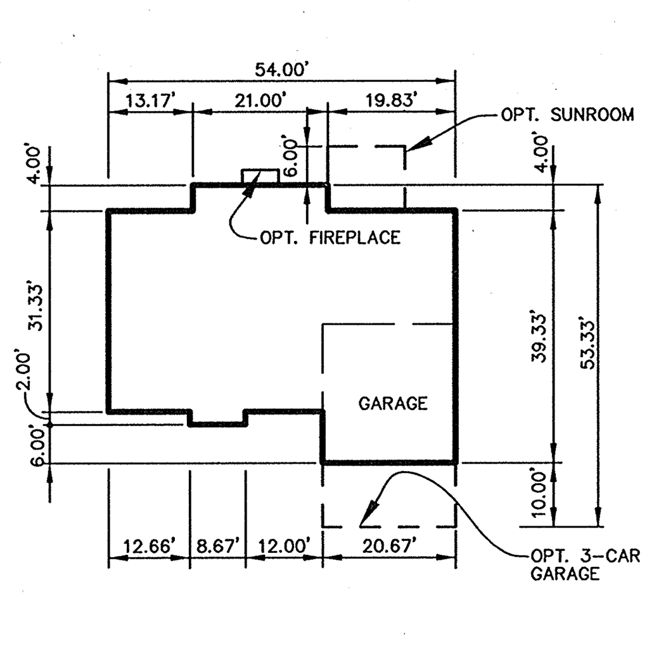
EXISTING 2'CONTOUR	402
EXISTING 10'CONTOUR	400
PROPOSED 2'CONTOUR	402
PROPOSED 10'CONTOUR	400
PROPERTY LINE AND RIGHT OF WAY	
EXISTING STORM DRAIN	15"D
OVERHEAD WIRES	OHW
EXISTING TREELINE	
PROPOSED TREELINE	
EXISTING TREE	
PROP.SPOT ELEVATION	13x2
SETBACK LINES	
EXISTING BUILDING	
PROPOSED BUILDING	
EXISTING TREES PER F-04-152	

SHC CHART

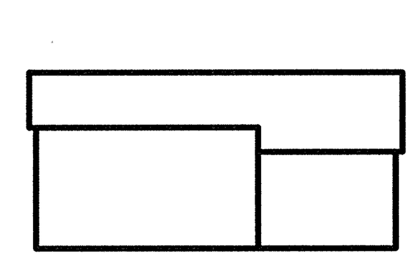
LOT NO.	INV. @ PL	MCE
2	409.23	411.4
3	412.39	417.6
4	414.04	416.6
5	414.77	417.4
6	415.07	418.1



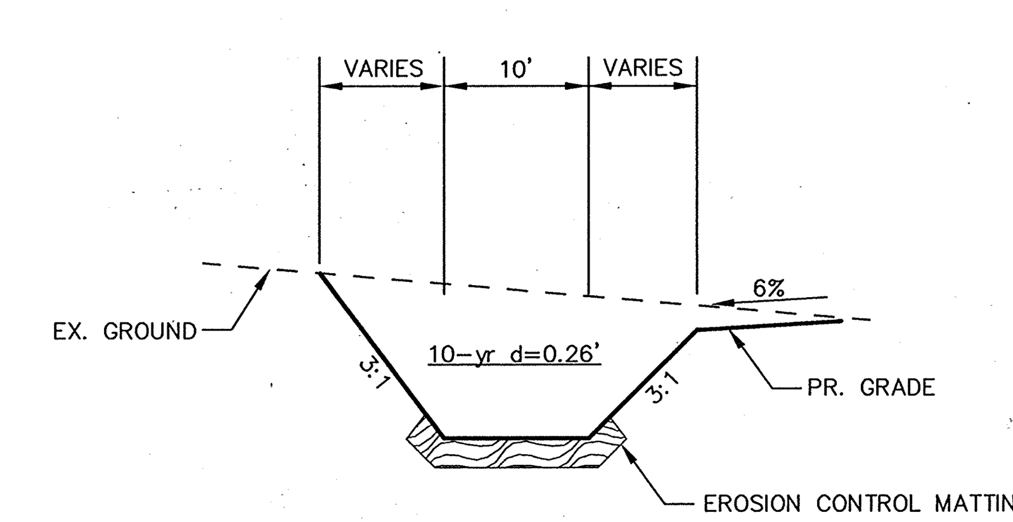
TUSCANY HOUSE TYPE
SCALE: 1"=30'



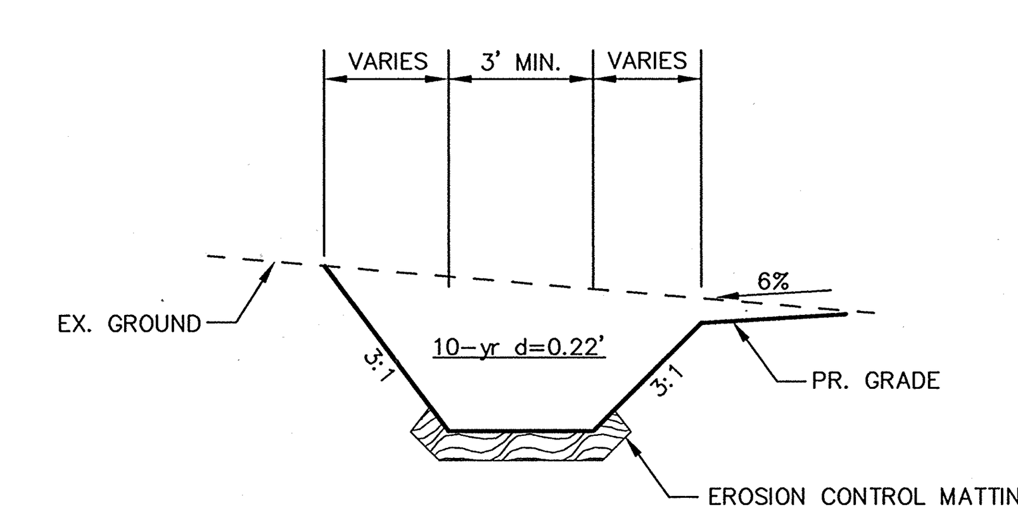
DEVONSHIRE HOUSE TYPE
SCALE: 1"=30'



HOUSE ELEVATION
SCALE: 1"=30'



SWALE #1
TYPICAL CROSS SECTION



SWALE #2
TYPICAL CROSS SECTION

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[signature] 8/8/05
DIRECTOR — DATE

[signature] 8/1/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

[signature] 8/2/05
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

DATE	NO.	REVISION

OWNER	DEVELOPER
WILLIAM McFARLAND, JR. TRUST VIOLA McFARLAND TRUST 5386 MONTGOMERY ROAD ELLICOTT CITY, MD 21043	CORNERSTONE HOLDINGS, LLC ATTN: BRIAN BOY 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565

PROJECT
CHAPEL MANOR
SINGLE FAMILY UNITS

AREA TAX MAP 31 PARCEL 192 GRID 20 ZONED R-20
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
SITE DEVELOPMENT PLAN

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

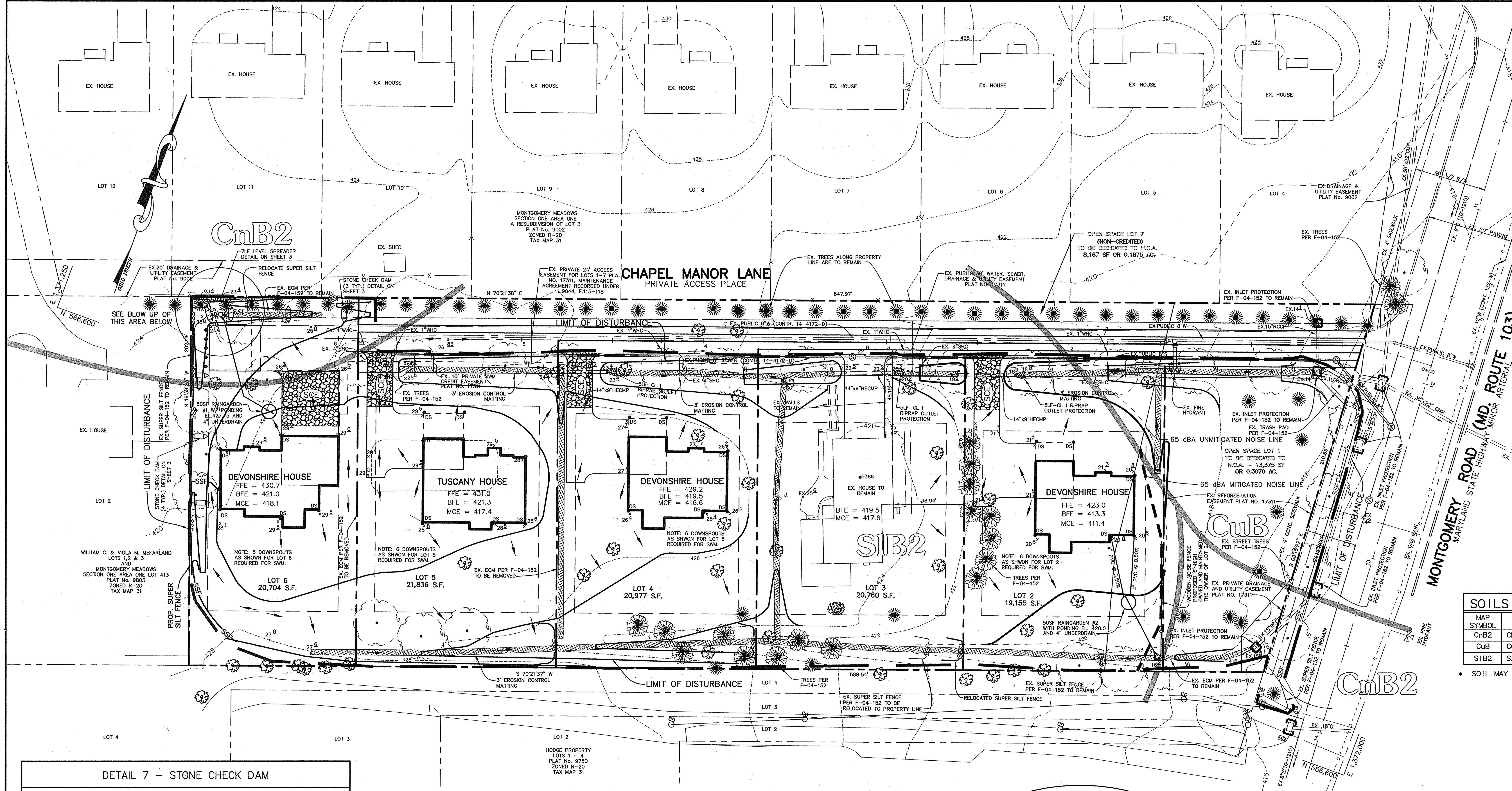
7-22-05
DATE

STATE OF MARYLAND AIMEE C. REMINGTON No. 29923 PROFESSIONAL ENGINEER

[signature]
AIMEE C. REMINGTON #29923

CHECKED BY :	
DESIGNED BY:	A.C.R
DRAWN BY:	MAD
PROJECT NO:	11818 C400SIT
DATE:	JULY 22, 2005
SCALE:	1"=30'
DRAWING NO.	2 OF 5

SDP-05-097



LEGEND

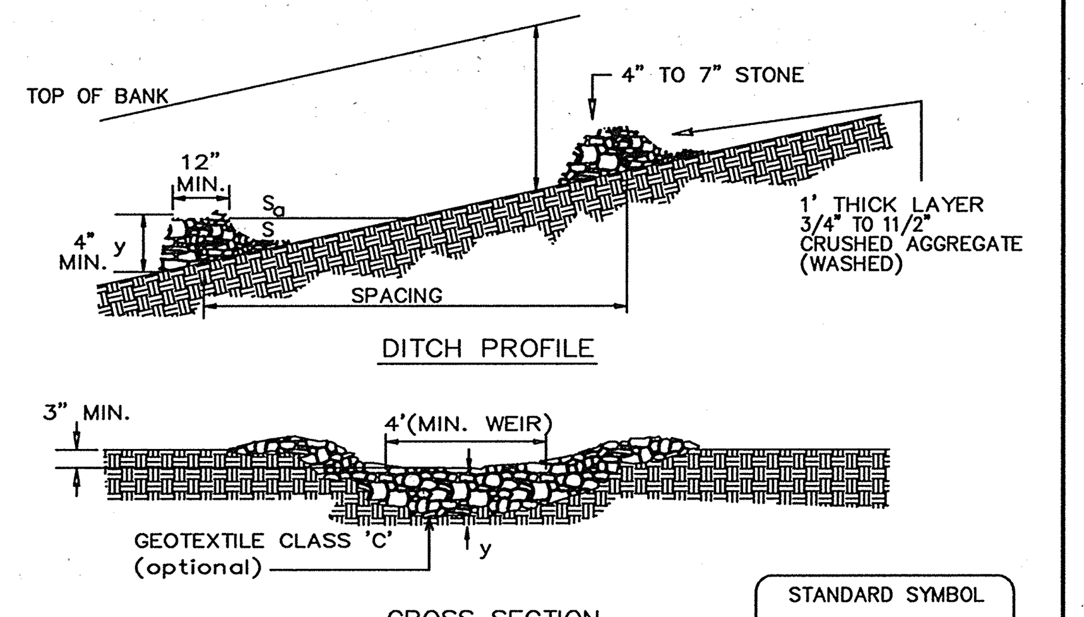
- SOIL LINES
- STABILIZED CONSTRUCTION ENTRANCE (SCE)
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE (SSF)
- EROSION CONTROL MATTING
- EX. SUPER SILT FENCE (SSF)
- EX. EROSION CONTROL MATTING
- EX. INLET PROTECTION

SOILS CHART

MAP SYMBOL	NAME	STRUCTURAL LIMITATIONS DWELLINGS	EROSION HAZARD	HYDRIC	SLOPE (%)
CnB2	CHILLUM-FAIRFAX LOAMS	SLIGHT	MODERATE	NO	1-5%
CuB	COMUS SILT LOAM	SLIGHT	LOCAL ALLUVIUM	NO*	3-8%
SIB2	SASSAFRAS LOAM	SLIGHT	MODERATE	NO	1-5%

* SOIL MAY CONTAIN HYDRIC INCLUSIONS

DETAIL 7 – STONE CHECK DAM



STANDARD STONE CHECK DAM DESIGN

SLOPE	SPACING
2% or less	80'
2.1% to 4%	40'
4.1% to 7%	25'
7.1% to 10%	15'
over 10%	use lined waterway design

Construction Specifications

1. Swales and ditches shall be prepared in accordance with the construction specifications described in Section A-2, Standards and Specifications for Temporary Swale.

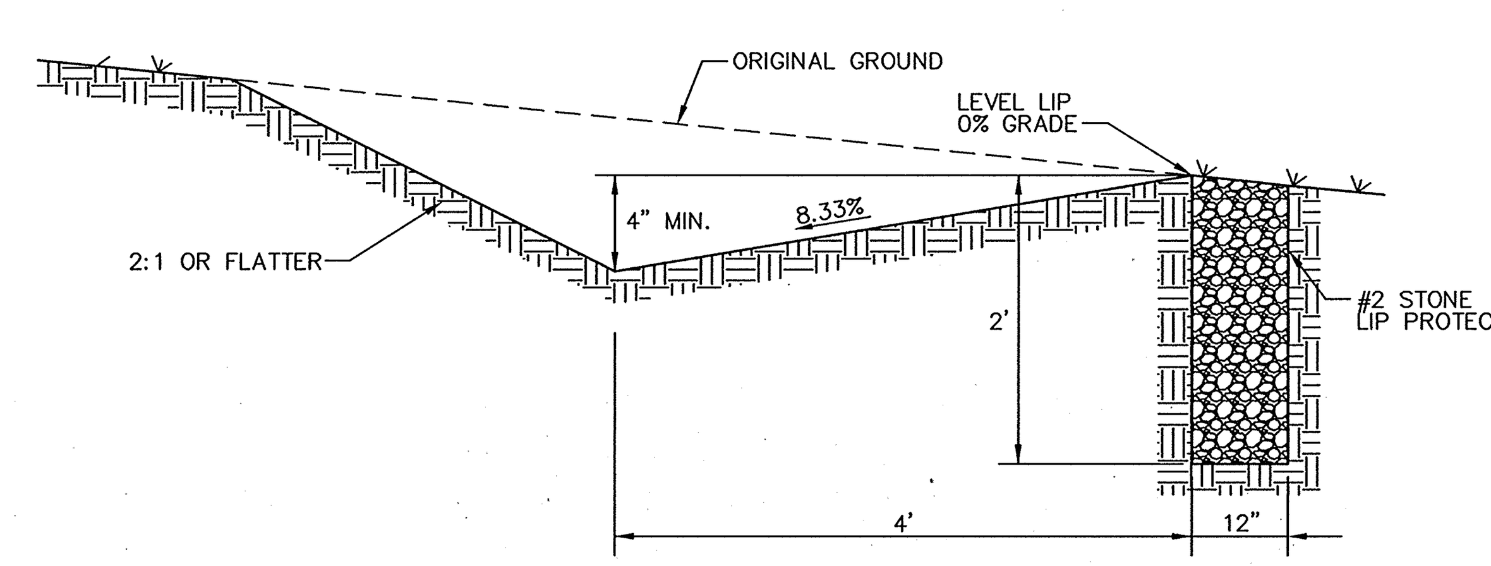
2. The check dam shall be constructed of 4"-7" stone. The stone shall be placed so that it completely covers the width of the channel and keyed into the channel banks.

3. The top of the check dam shall be constructed so the the center is approximately 6" lower than the outer edges, forming a weir that water can flow across.

4. The maximum height of the check dam at the center shall not exced 2".

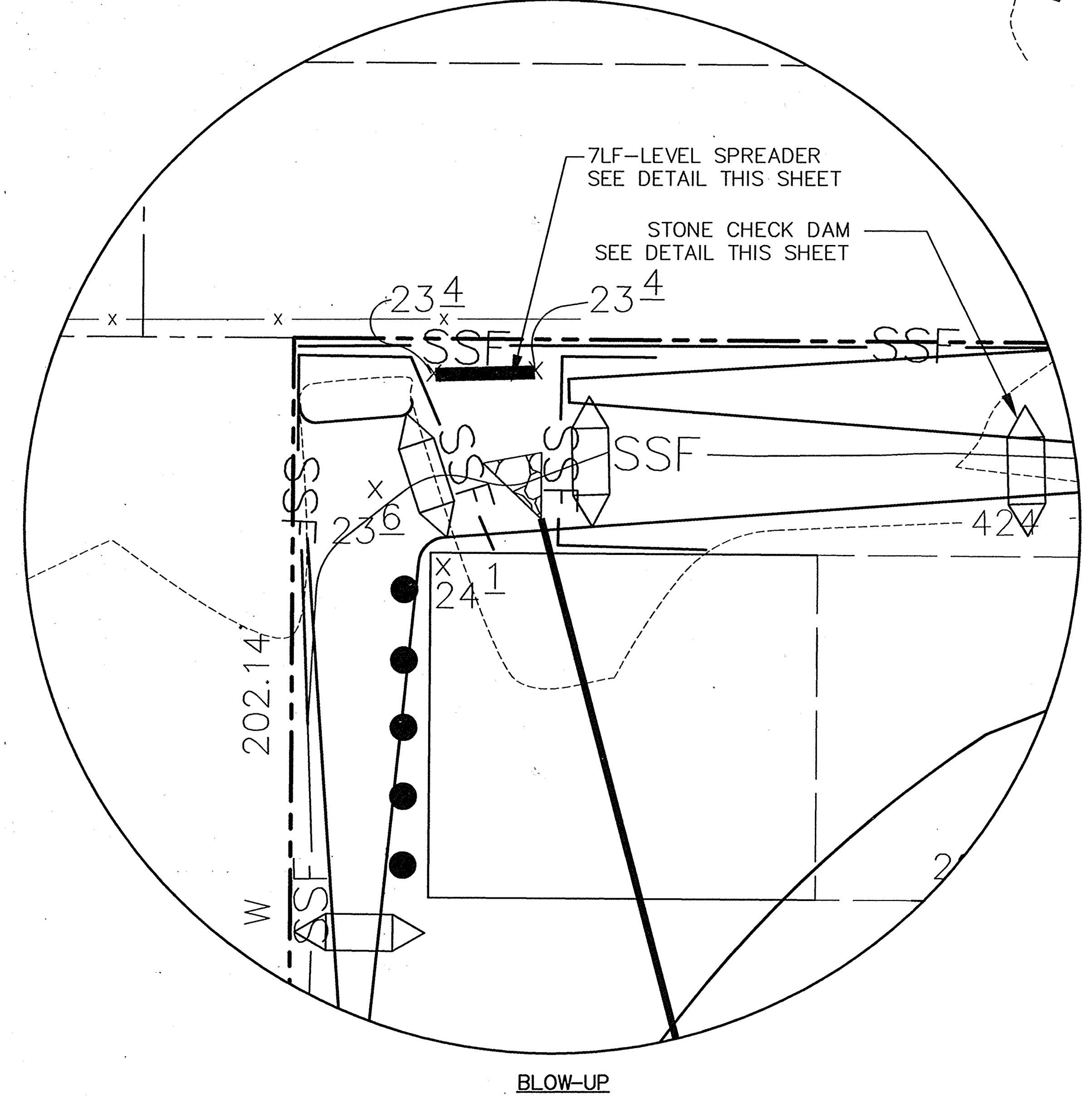
5. The upstream sideof the check dam shall be lined with approximately 1" of 3/4" to 11/2" crushed aggregate.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE B - 8 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



LEVEL SPREADER

NO SCALE



BLOW-UP
SCALE: 1" = 10'

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.

B. D. Boy — 7/22/05
DEVELOPER — 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.

Aimee C. Remington — 7-22-05
ENGINEER — DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Jim Myers — 7/28/05
NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

Geoffrey W. Schoming — 7/28/05
HOWARD SOIL CONSERVATION DISTRICT — DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 8/8/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 8/1/05
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 8/2/05

DATE	NO.	REVISION

OWNER	DEVELOPER
WILLIAM McFARLAND, JR. TRUST VIOLA McFARLAND TRUST 5386 MONTGOMERY ROAD ELLICOTT CITY, MD 21043	CORNERSTONE HOLDINGS, LLC ATTN: BRIAN BOY 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565

PROJECT
CHAPEL MANOR
SINGLE FAMILY UNITS

AREA TAX MAP 31 PARCEL 192 GRID 20 ZONED R-20
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
GRADING AND SEDIMENT CONTROL PLAN

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

7-22-05
DATE
STATE OF MARYLAND AIMEE C. REMINGTON No. 29923 PROFESSIONAL ENGINEER
AIMEE C. REMINGTON #29923

CHECKED BY :	
DESIGNED BY:	A.C.R
DRAWN BY:	MAD
PROJECT NO:	11818
DATE:	JULY 22, 2005
SCALE:	1"=30'
DRAWING NO.	3 OF 5

SDP-05-097

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION
PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE
TO PROVIDE A SUITABLE SOIL 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
I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
--a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
-b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
--c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
--d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. 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
I. 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 CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTATION STATION.

II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
-i. 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 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1-1/2" IN DIAMETER.
-ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
-iii. WHERE 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 PROCEDURES.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
-i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

IIII. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
-i. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
--a. 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.
--b. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
--c. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
--d. 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 PHYTO-TOXIC MATERIALS.

NOTE: TOPSOIL SUBSTITUTES TO 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.
-ii. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

V. TOPSOIL APPLICATION
-i. 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.
-ii. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" - 8" HIGHER IN ELEVATION.
-iii. 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.
-iv. 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.

VI. ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
-i. 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 SITE HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
--a. 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 26.04.06.
--b. 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.
--c. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
--d. 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. REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING. MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

TEMPORARY SEEDING NOTES

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. PER 1000 SQ.FT.).

SEEDING : FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS. PER 1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.07 LBS. PER 1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU 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 SOD.

MULCHING : APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL. PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL. PER ACRE (8 GAL. PER 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 NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED 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 : IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES :

1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 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. PER 1000 SQ.FT.).

2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING : FOR THE PERIOD MARCH 1 THRU APRIL 30 AND FROM AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS. PER 1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (0.05 LBS. PER 1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY ONE OF THE FOLLOWING OPTIONS :

1) 2 TONS PER ACRE OF WELL-ANCHORED MULCH STRAW AND SEED AS SOON AS POSSIBLE IN THE SPRING.

2) USE SOD.

3) SEED WITH 60 LBS. PER ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE WELL ANCHORED STRAW.

MULCHING : APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL. PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL. PER ACRE (8 GAL. PER 1000 SQ.FT.) FOR ANCHORING.

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

STANDARD SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
2. 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 THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A)7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5. 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 SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. G.). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHED OF GRASSES.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS:

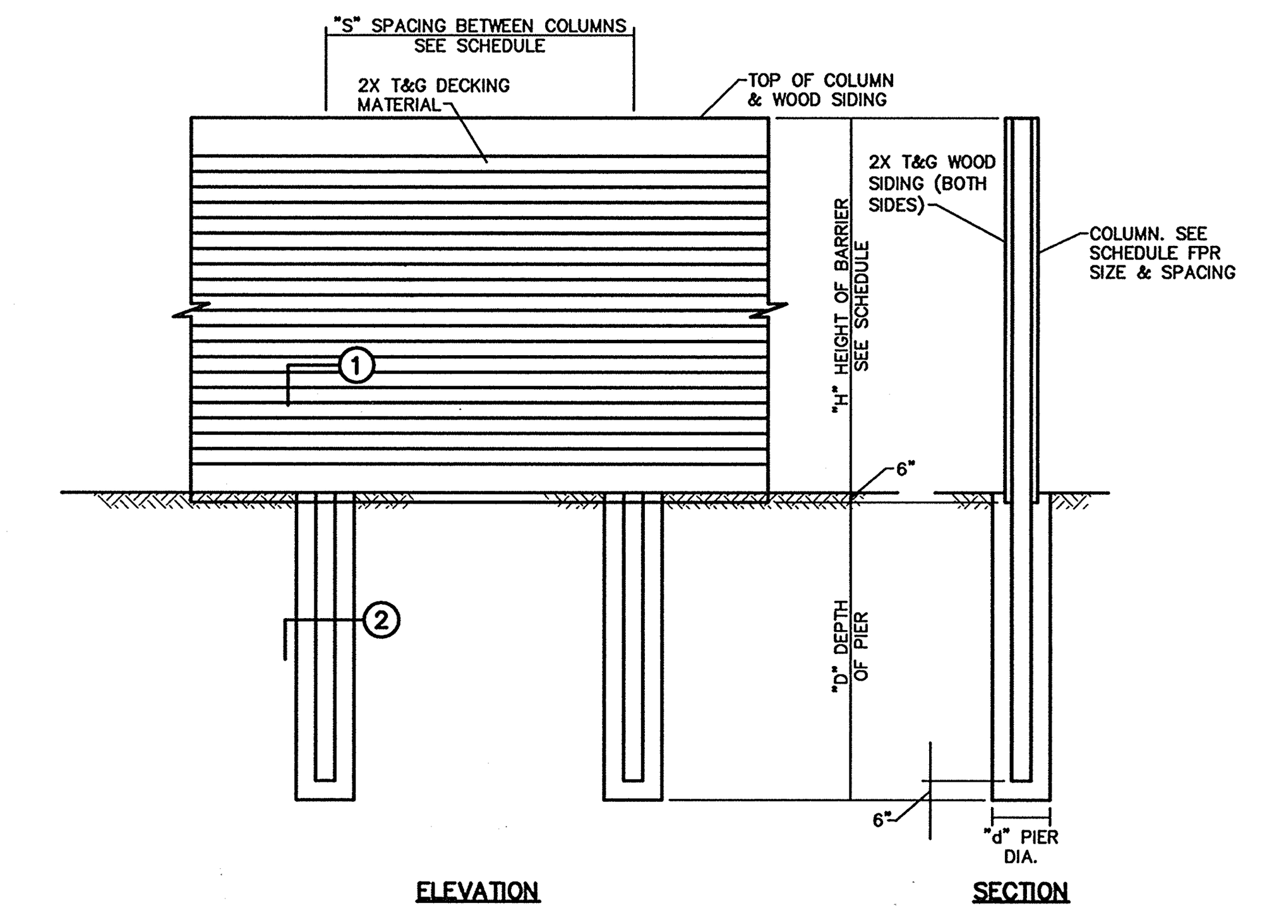
TOTAL AREA OF SITE	3.06 ACRES
AREA DISTURBED	2.40 ACRES
AREA TO BE ROOFED OR PAVED	1.87 ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.53 ACRES
TOTAL CUT	2300 CU. YARDS
TOTAL FILL	4600 CU. YARDS

OFFSITE WASTE AREA LOCATION TO HAVE ACTIVE GRADING PERMIT

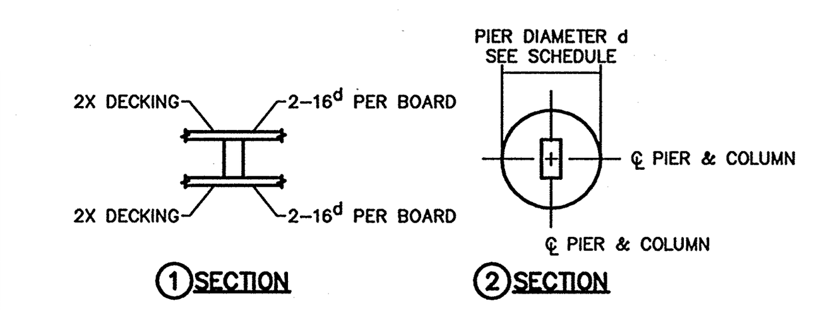
8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. ON ALL SITES WITH DISTURBED AREAS 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 INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
12. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
13. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.
14. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMITS FOR SINGLE FAMILY HOME CONSTRUCTION.
2. EXISTING SEDIMENT CONTROLS PER F-04-152 ARE TO BE UTILIZED FOR CONSTRUCTION. CONTRACTOR TO INSPECT EXISTING CONTROLS TO REMAIN AND REPAIR AS NECESSARY.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND SUPER SILT FENCE AND BEGIN ROUGH GRADING.(2 DAYS)
3. BEGIN HOUSE CONSTRUCTION.
4. FINE GRADE SITE AND CONSTRUCT DRIVEWAY.(4 WEEKS)
5. COMPLETE HOUSE CONSTRUCTION.(6 MONTHS)
6. UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.



SCHEDULE				
40 #/ø HORIZONTAL LOADING				
H	S	D	d	POST SIZE
5'	8'	6'	12"	4X8
10'	8'	8'	18"	6X12
15'	8'	10'	24"	8X15
20'	6'	10'	30"	10X16



NOISE WALL DETAIL
NOT TO SCALE

NOTE: THE PROPOSED NOISE WALL IS PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNER OF LOT 2. THE NOISE WALL SHALL BE INSPECTED AND REPAIRED AS NECESSARY AT A MINIMUM OF ONCE A YEAR.

NOTES:
I. GENERAL
A. HEIGHT OF BARRIER SHALL BE BASED ON ACOUSTIC REQUIREMENTS.
B. BARRIER WALLS HAVING A HEIGHT (H) NOT INDICATED IN THE TABLES SHALL BE CONSTRUCTED AS SHOWN IN THE NEXT HIGHER HEIGHT CATEGORY.

II. SIDING
A. 2X WOOD DECKING MATERIAL SHALL BE UTILIZED TO SPAN HORIZONTALLY BETWEEN POSTS. DESIGN CRITERIA IS BASED ON AN ALLOWABLE BENDING STRESS OF 1400 LBS. PER SQ. IN. AND 33⅓% INCREASE IN STRESS FOR WIND LOADS AS CONSIDERED APPROPRIATE. DECKING SHALL BE MCI5.
B. SIDING IN CONTACT WITH THE GROUND AND FOR A DISTANCE OF 6" ABOVE GRADE SHALL BE TREATED WITH WOOD PRESERVATIVE.

3. POST
A. WOOD POST SHALL BE UTILIZED OF THE SPACING INDICATED ON THE SCHEDULE. DESIGN CRITERIA IS BASED ON AN ALLOWABLE BENDING STRESS OF 1400 LBS. PER SQ. IN. AND A 33⅓% INCREASE FOR WIND LOADINGS.
B. POST EMBEDDED IN CONCRETE SHALL BE TREATED WITH A WOOD PRESERVATIVE IN THE AREA OF EMBEDMENT AND 12" ABOVE GRADE.

4. CONCRETE
A. CONCRETE IN THE PIERS SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 2500 LBS. PER SQ. IN.
B. CONCRETE SHALL BE PLACED IN DRILLED PIERS UTILIZING THE EARTH AS THE FORMS.

5. FOUNDATIONS
A. THE DRILLED PIERS HAVE BEEN DESIGNED UTILIZING AN ALLOWABLE PASSIVE PRESSURE OF 300 LBS. PER SQ. FT. AND THE FOLLOWING FORMULA:

$$D = \left(\frac{14.52M}{pd}\right)^{1/3}$$

M = MOMENT AT TOP OF DRILLED PIER (FT./LBS.)
P = ALLOWABLE PASSIVE PRESSURE (300 LBS. PER SQ. FT.)
d = DIAMETER OF PIER (FT.)
D = DEPTH OF PIER (FT.)

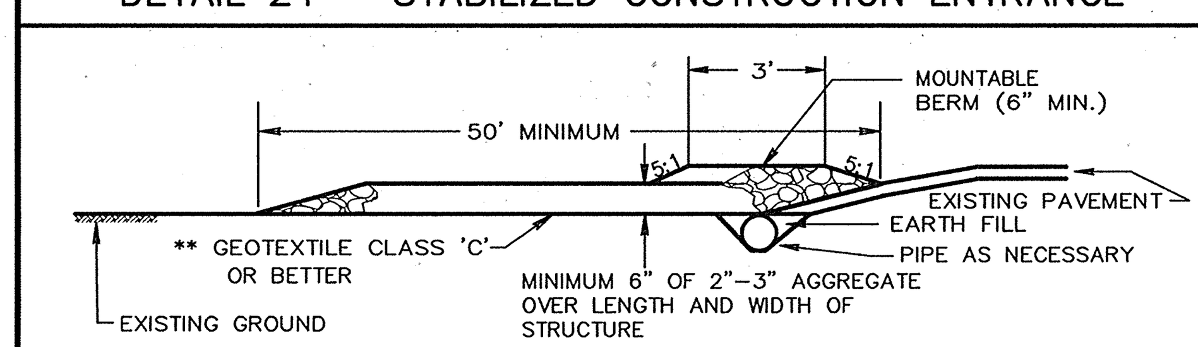
6. ALTERNATE #1 (PRESERVATIVE TREATMENT). ALTERNATE #1 REPRESENTS THE ADDITIONAL COST FACTOR FOR TREATING THE BASIC WOOD STRUCTURE INDICATED ON THIS REFERENCE PLAN. THE NECESSITY FOR TREATMENT AND THE TYPE OF PRESERVATIVE WILL BE SUBJECT TO LOCAL CONDITIONS. ALL TREATMENTS SHALL CONFORM TO AWPA STANDARD C-14.

7. ALTERNATE #2 (PAINTING) ALTERNATE #2 REPRESENTS THE ADDITIONAL COST FACTOR REQUIRED TO PAINT ONE SIDE OF THE BASIC WOOD STRUCTURE SHOWN ON THIS REFERENCE PLAN. PAINTING SHALL CONSIST OF 3 APPLICATIONS OF PAINT. 2 COATS OF LATEX BASE PAINT CONFORMING TO FEDERAL SPECIFICATION TT-P-00966 SHALL BE APPLIED OVER A PRIMER COAT CONFORMING TO FEDERAL SPECIFICATION TT-P-00250.

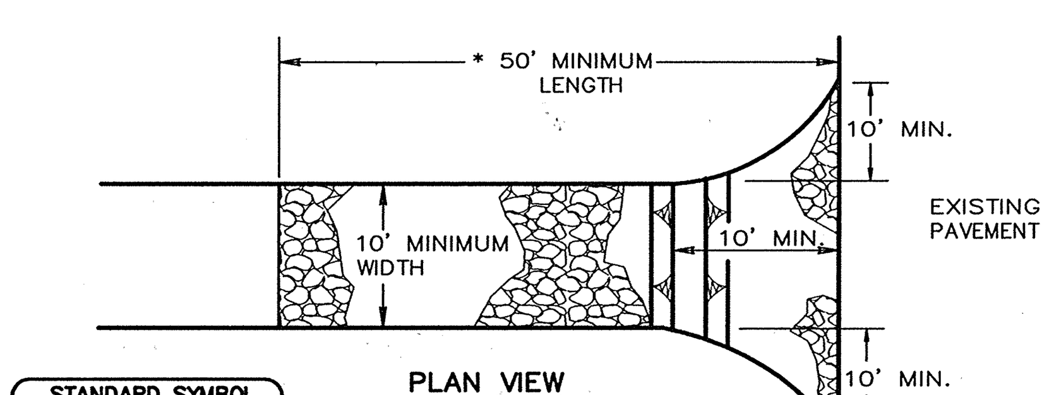
8. ALTERNATE #3 (STAINING) ALTERNATE #3 REPRESENTS THE ADDITIONAL COST FACTOR REQUIRED TO STAIN ONE SIDE OF THE BASIC WOOD STRUCTURE. STAIN SHALL CONSIST OF 2 COATS OF SEMI-TRANSPARENT SEALER STAIN APPLIED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

9. ALTERNATE #4 (PRESERVATIVE TREATMENT) SHALL BE UTILIZED FOR THIS PROJECT.

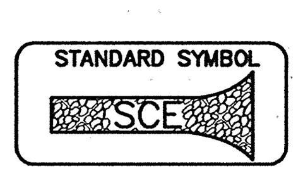
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



PROFILE



PLAN VIEW



Construction Specification

1. Length - minimum of 50' (*30' for single residence lot).

2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.

3. 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.

4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

6. 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 entire length of the stabilized construction entrance.

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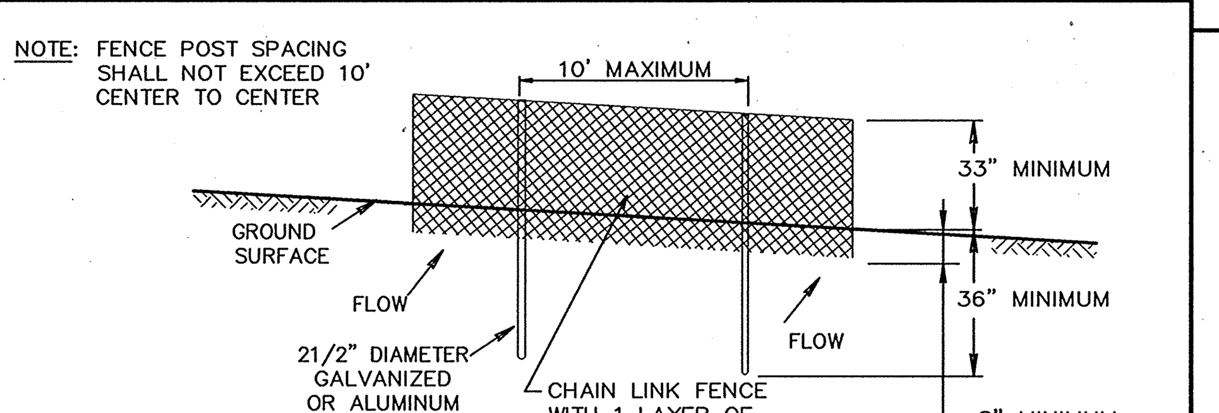
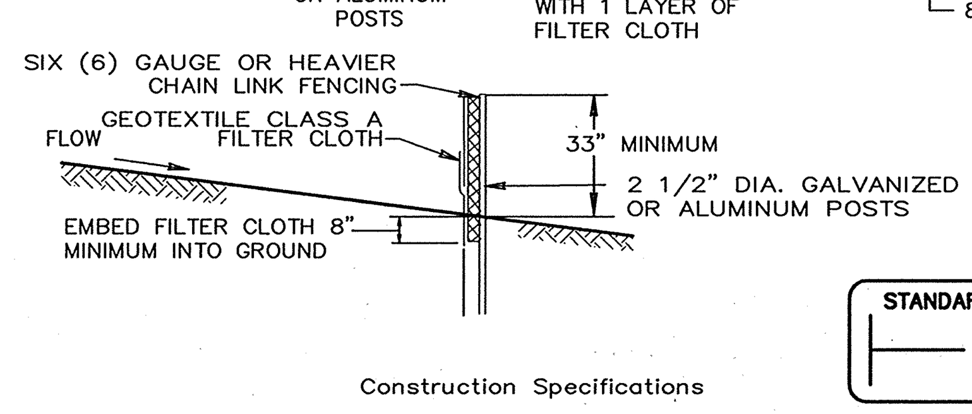
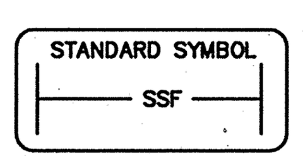
DETAIL 33 - SUPER SILT FENCE

NOTE: FENCE POST SPACING SHALL NOT EXCEED 10' CENTER TO CENTER







Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway (SHA) Details for Chain Link Fencing. The SHA specifications for a 6 foot fence shall be used, substituting 42" fabric and 6 foot length posts.

2. The posts do not need to be set in concrete.

3. Chain link fence shall be fastened securely to the fence posts with wire ties or staples. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence. The chain link fencing shall be six (6) gauge or heavier.

4. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.

5. Filter cloth shall be embedded a minimum of 8" into the ground.

6. When two sections of geotextile fabric adjoin each other, they shall be overlapped by 6" and folded.

7. 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

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30.0 - DUST CONTROL

DEFINITION

CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.

PURPOSE

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAMAGE, HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.

CONDITIONS WHERE PRACTICE APPLIES

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.

SPECIFICATIONS

TEMPORARY METHODS

1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.
2. VEGATATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
3. TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12" APART, SPRING-TOOTHED HARROWS, AND SIMILIAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
4. IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENGY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.
5. BARRIERS - SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
6. CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

PERMANENT METHODS

1. PERMANENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOD. EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.
2. TOPSOILING - COVERING WITH LESS EROSIVE SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.
3. STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

REFERENCES

1. AGRICULTURE HANDBOOK 346. WIND EROSION FORCES IN THE UNITED STATES AND THEIR USES IN PREDICTING SOIL LOSS.
2. AGRICULTURE INFORMATION BULLETIN 354. HOW TO CONTROL WIND EROSION, USDA-ARS.

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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.

[signature] 7/22/05
DEVELOPER 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.

Aimee C. Remington 7.22.05
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Jim Myers 7/28/05
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

Geoffrey W. Schmieg 7/28/05
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[signature] 8/4/05
DIRECTOR DATE

[signature] 8/1/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy Hamilton 8/2/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER	DEVELOPER
WILLIAM McFARLAND, JR. TRUST VIOLA McFARLAND TRUST 5386 MONTGOMERY ROAD ELLICOTT CITY, MD 21043	CORNERSTONE HOLDINGS, LLC ATTN: BRIAN BOY 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565

PROJECT
CHAPEL MANOR
SINGLE FAMILY UNITS

AREA TAX MAP 31 PARCEL 192 GRID 20 ZONED R-20
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
DETAIL SHEET

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

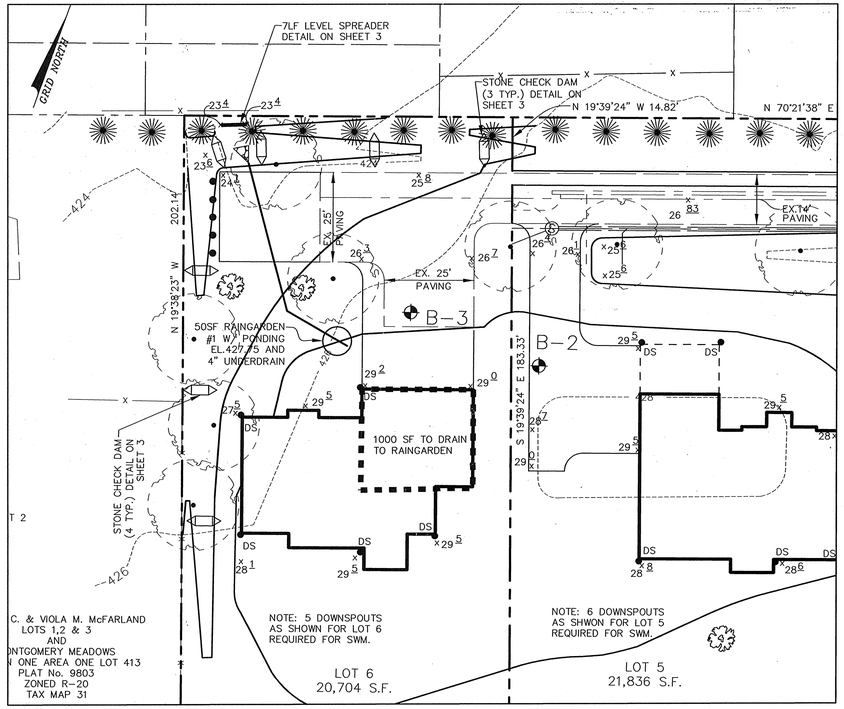
7.22.05
DATE

STATE OF MARYLAND AIMEE C. REMINGTON No. 29923 PROFESSIONAL ENGINEER

AIMEE C. REMINGTON #29923

CHECKED BY :	
DESIGNED BY:	A.C.R
DRAWN BY:	MAD
PROJECT NO:	11818
DATE:	JULY 22, 2005
SCALE:	AS SHOWN
DRAWING NO.	4 OF 5

SDP-05-097



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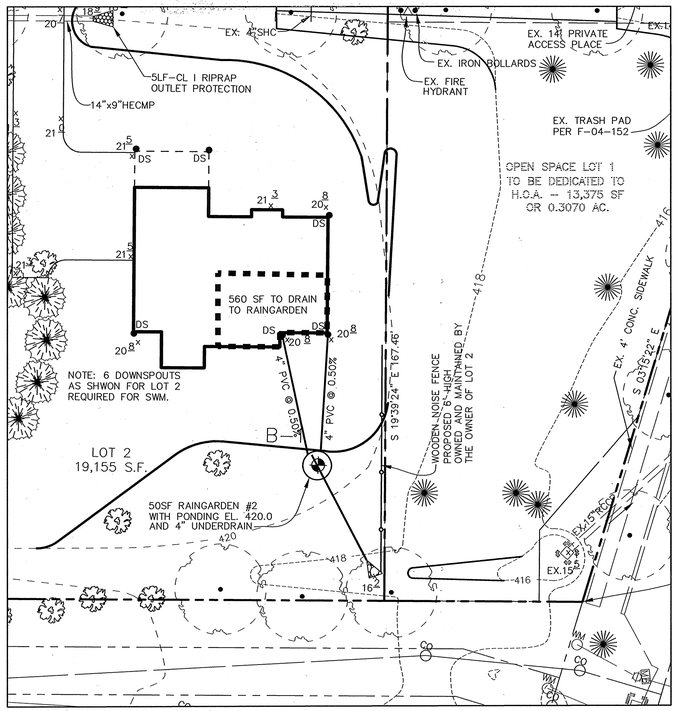

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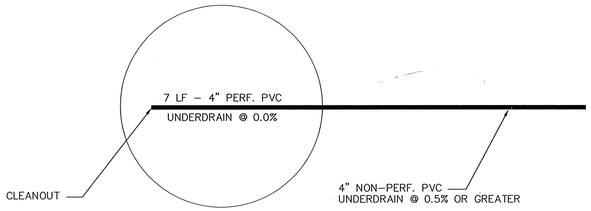
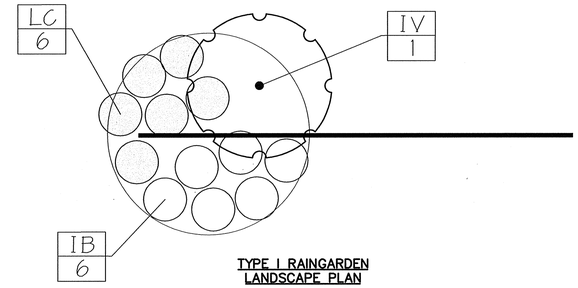


TYPE I RAINGARDEN PLAN
NOT TO SCALE



TYPE I RAINGARDEN LANDSCAPE PLAN
NOT TO SCALE

RAINGARDEN PLANT LIST

KEY	QTY. PER GARDEN	SCIENTIFIC / COMMON NAME	SIZE	ROOT	SPACING	ZONE*
IV	1	ITEA VIRGINICA 'HENRY'S GARNET' VIRGINIA SWEETSPIRE	2.5'-3' HT.	CONT.	PLANT AS SHOWN	***
LC	6	LOBELIA CARDINALIS CARDINAL FLOWER	1 GAL.	CONT.	18" SPACING	1, (2, 3), 4
IB	6	IRIS VERSICOLOR 'BLUE FLAG' BLUE FLAG IRIS	1 GAL.	CONT.	18" SPACING	(1 ,2), 3

RAINGARDEN LIST NOTES:

* HYDROLOGIC ZONES ACCORDING TO APPENDIX A OF THE MARYLAND MODEL STORMWATER MANAGEMENT ORDINANCE JULY 2000.

*** KNOWN TO TOLERATE INNUNDATION AS WELL AS DRY AREAS ACCORDING TO DIRR, MICHAEL A., MANUAL OF WOODY LANDSCAPE PLANTS.

**** COMMONLY USED BIORETENTION SPECIES ACCORDING TO TABLE A.4 IN APPENDIX A OF THE MARYLAND MODEL STORMWATER MANAGEMENT ORDINANCE JULY 2000.

MATERIAL SPECIFICATIONS FOR RAINGARDENS

MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTING SOIL	SAND: 30% TO 60% SILT: 30% TO 55% CLAY: 0% TO 25%	N/A	USDA SOIL TYPES LOAMY SAND, SANDY LOAM, OR LOAM
MULCH	SHREDDED HARDWOOD	N/A	AGED SIX MONTHS MINIMUM
GEOTEXTILE	CLASS "C" (ASTM D-4751) GRAB TENSILE STRENGTH (ASTM D-4832) PUNCTURE RESISTANCE (ASTM D-4833)	N/A	USE AS NECESSARY BENEATH UNDERDRAINS ONLY.
GRAVEL	AASHTO M-43 #57 OR #67	3/8" TO 3/4"	
UNDERDRAIN PIPING	F 758, TYPE PS 28 OR AASHTO M-278	4" RIGID SCHEDULE 40 PVC, SDR 35, OR HDPE	3/8" PERF. @ 6" ON CENTER, 4 HOLES PER ROW. MIN. OF 2" GRAVEL OVER PIPES. GRAVEL NOT NECESSARY BENEATH PIPES.

RAINGARDEN SPECIFICATIONS

PLANTING SOIL SHOULD BE SANDY LOAM, LOAMY SAND, OR A LOAM/SAND MIX AND SHOULD CONTAIN A MINIMUM 35 TO 60 % SAND BY VOLUME. THE CLAY CONTENT SHOULD BE LESS THAN 25%. THE SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER. ONE SIMPLE METHOD OF FOR PRODUCING SUITABLE PLANTING SOIL IS TO MIX THREE PARTS OF COMMERCIALLY AVAILABLE WASHED SAND WITH TWO PARTS TOPSOIL TO PRODUCE A HOMOGENEOUS SOIL. PLANTING SOIL SHOULD BE PLACED IN 12" TO 18" LAYERS TAHT ARE LOOSELY COMPACTED (TAMPED LIGHTLY WITH A BACKHOE BUCKET) TO A DEPTH OF 2½ FEET.

RAINGARDEN MULCH SHOULD BE STANDARD LANDSCAPE STYLE, SINGLE OR DOUBLE SHREDDED HARDWOOD MULCH. THE MULCH SHOULD BE WELL AGED, UNIFORM IN COLOR, AND FREE OF OTHER MATERIALS SUCH AS WEEDS OR ROOTS. GRASS CLIPPINGS ARE UNACCEPTABLE AS A MULCH MATERIAL. MULCH SHOULD BE APPLIED TO A MAXIMUM DEPTH OF THREE INCHES. RAINGARDENS SHOULD BE REMULCHED ON AN ANNUAL BASIS.

UNDERDRAINS SHALL CONSIST OF A 4" DIAMTER RIGID SCHEDULE 40 (OR SDR 35) PVC PIPE (SLOTTED HDPE IS ALSO ACCEPTABLE) THAT IS PERFORATED WITHIN THE RAINGARDEN. PERFORATIONS SHALL BE 3/8" DIAMTER MINIMUM AT 6" ON CENTER WITHA MINIMUM OF 4 HOLES PER ROW. UNDERDRAINS SHALL BE PLACED ON A 3' WIDE SECTION OF FILTER CLOTH (CLASS "C" GEOTEXTILE). THE PIPE IS PLACED NEXT, FOLLOWED BY THE GRAVEL BEDDING. THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. AT LEAST ONE OBSERVATION WELL/CLEANOUT MUST BE PROVIDED PER RAINGARDEN. A RODENT GUARD SHOULD BE INSTALLED AT THE DOWNSTREAM END OF UNDERDRAINS TO PREVENT MICE AND LARGER RODENTS FROM ENTRY. A TYPICAL RODENT GUARD CONSISTS OF A 3/8" HEX-HEAD BOLT THROUGH THE PIPE HORIZONTALLY. NUTS ARE PLACED ON BOTH THE INSIDE AND OUTSIDE OF THE PIPE.

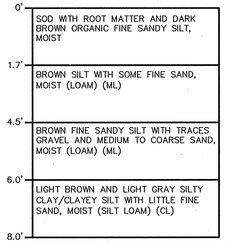
RAINGARDENS SHALL NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

FOR PLANT INSTALLATION ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO THAT 1/8 OF THE BALL IS ABOVE THE FINAL GRADE SURFACE. THE DIAMTER OF THE PLANTING PIT SHOULD BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT (UPRIGHT) DURING THE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION. GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER SPECIFICATIONS.

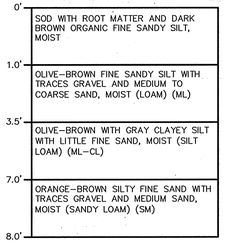
THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE RAINGARDEN IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH IS USED TO AMEND THE SOIL.

SEQUENCE OF CONSTRUCTION

1. SUBSEQUENT TO FINAL GRADING AND STABILIZATION OF LOT, EXCAVATE RAINGARDEN AREA TO PROPER DIMENSIONS.
2. INSTALL GRAVEL ENVELOPE, GEOTEXTILE, UNDERDRAIN, AND OBSERVATION WELL.
3. PLACE AND LOOSELY COMPACT PLANTING SOIL.
4. INSTALL PLANTS AT PROPER DEPTH AND LOCATION ACCORDING TO PLANTING PLAN.
5. MULCH THE SURFACE OF THE RAINGARDEN TO A THICKNESS OF 3".
6. WATER AS NECESSARY.



BORING B-1
NO SCALE



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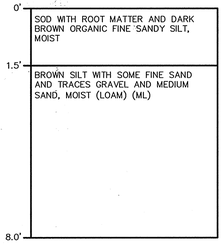

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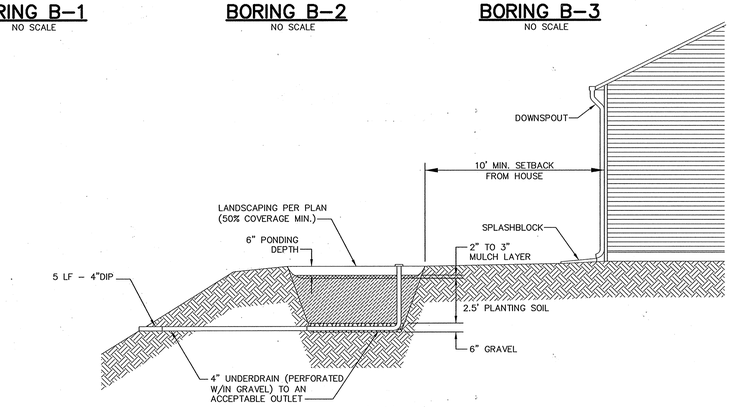


TYPE I RAINGARDEN PROFILE
NOT TO SCALE

RAINGARDEN SCHEDULE

#	SIZE	TYPE	TOP EL. AT MULCH LAYER	4" PERF. PIPE INV.	4" PIPE OUTFALL INV.	4" PERF. LINEAR FEET	4" NON-PERF LINEAR FEET
1	8' DIAM.	I	427.25	424.0	423.5	6.5	58.5
2	8' DIAM.	I	419.5	416.32	416.2	6.5	23.5

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 8/4/05

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 8/1/05

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 8/2/05

DATE	NO.	REVISION

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.

DEVELOPER — DATE 7/22/05

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.

ENGINEER — DATE 7.22.05

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

NATURAL RESOURCES CONSERVATION SERVICE — DATE 7/28/05

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 7/28/05

OWNER
WILLIAM McFARLAND, JR. TRUST
VIOLA McFARLAND TRUST
5386 MONTGOMERY ROAD
ELLICOTT CITY, MD 21043

DEVELOPER
CORNERSTONE HOLDINGS, LLC
ATTN: BRIAN BOY 9691
NORFOLK AVENUE LAUREL,
MARYLAND 20723
410-792-2565

PROJECT
CHAPEL MANOR
SINGLE FAMILY UNITS

AREA TAX MAP 31 PARCEL 192 GRID 20 ZONED R-20
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
RAINGARDEN DETAILS

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

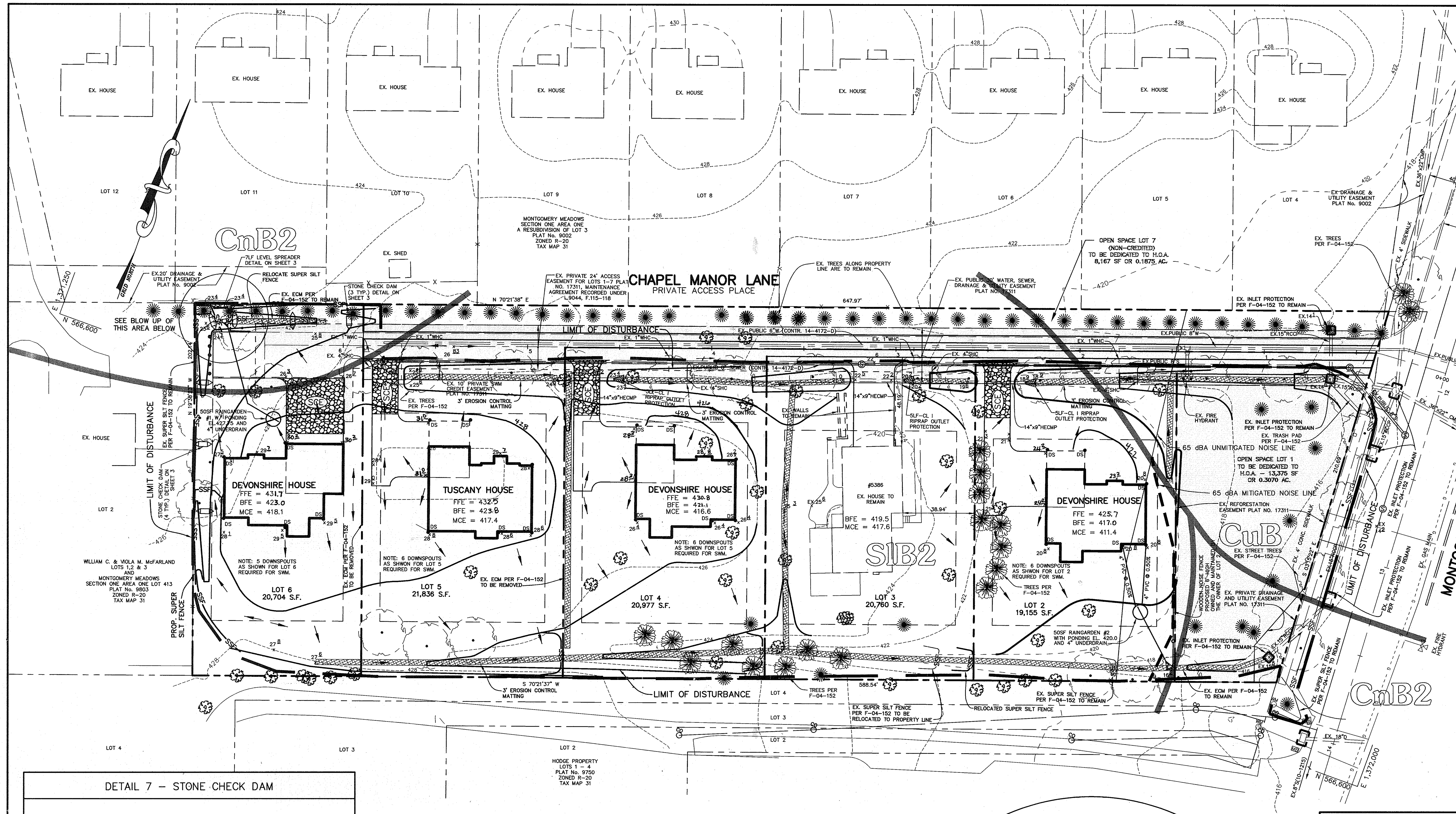
7.22.05 — DATE

STATE OF MARYLAND — AIMEE C. REMINGTON — No. 29923 — REGISTERED PROFESSIONAL ENGINEER

AIMEE C. REMINGTON #29923

CHECKED BY :	
DESIGNED BY:	A.C.R
DRAWN BY:	MAD
PROJECT NO:	11818
DATE:	JULY 22, 2005
SCALE:	AS SHOWN
DRAWING NO.	5 OF 5

SDP-05-097



LEGEND

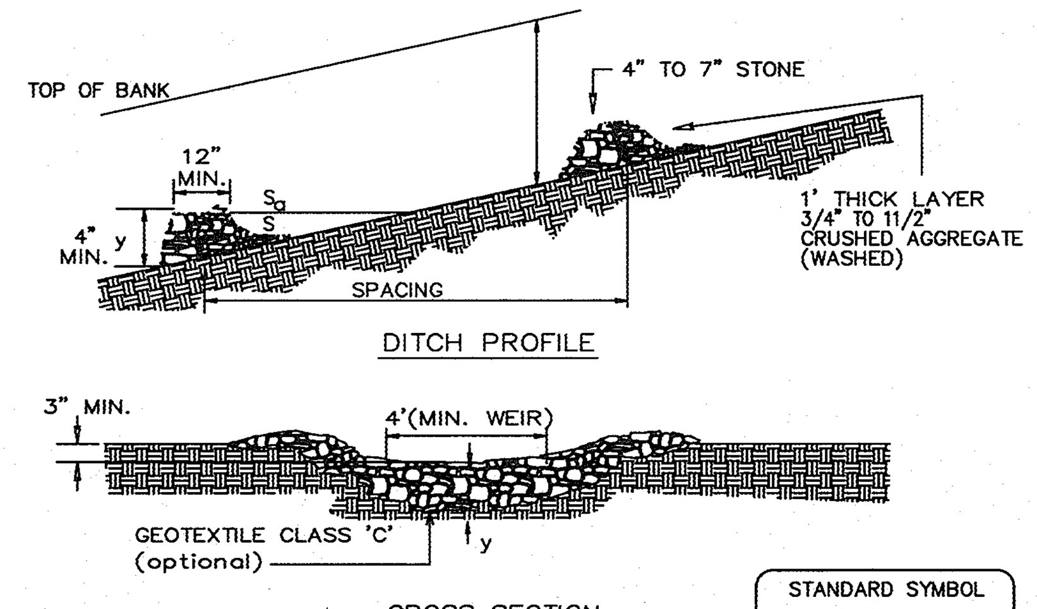
SOIL LINES	(symbol)
STABILIZED CONSTRUCTION ENTRANCE	SCE
LIMIT OF DISTURBANCE	(symbol)
SUPER SILT FENCE	——SSF——
EROSION CONTROL MATTING	(symbol)
EX. SUPER SILT FENCE	——SSF——
EX. EROSION CONTROL MATTING	(symbol)
EX. INLET PROTECTION	(symbol)

SOILS CHART

MAP SYMBOL	NAME	STRUCTURAL LIMITATIONS DWELLINGS	EROSION HAZARD	HYDRIC	SLOPE (%)
CnB2	CHILLUM-FAIRFAX LOAMS	SLIGHT	MODERATE	NO	1-5%
CuB	COMUS SILT LOAM	SLIGHT	LOCAL ALLUVIUM	NO*	3-8%
SIB2	SASSAFRAS LOAM	SLIGHT	MODERATE	NO	1-5%

* SOIL MAY CONTAIN HYDRIC INCLUSIONS

DETAIL 7 - STONE CHECK DAM



STANDARD STONE CHECK DAM DESIGN

SLOPE	SPACING
2% or less	80'
2.1% to 4%	40'
4.1% to 7%	25'
7.1% to 10%	15'
over 10%	use lined waterway design

Construction Specifications

1. Swales and ditches shall be prepared in accordance with the construction specifications described in Section A-2, Standards and Specifications for Temporary Swale.

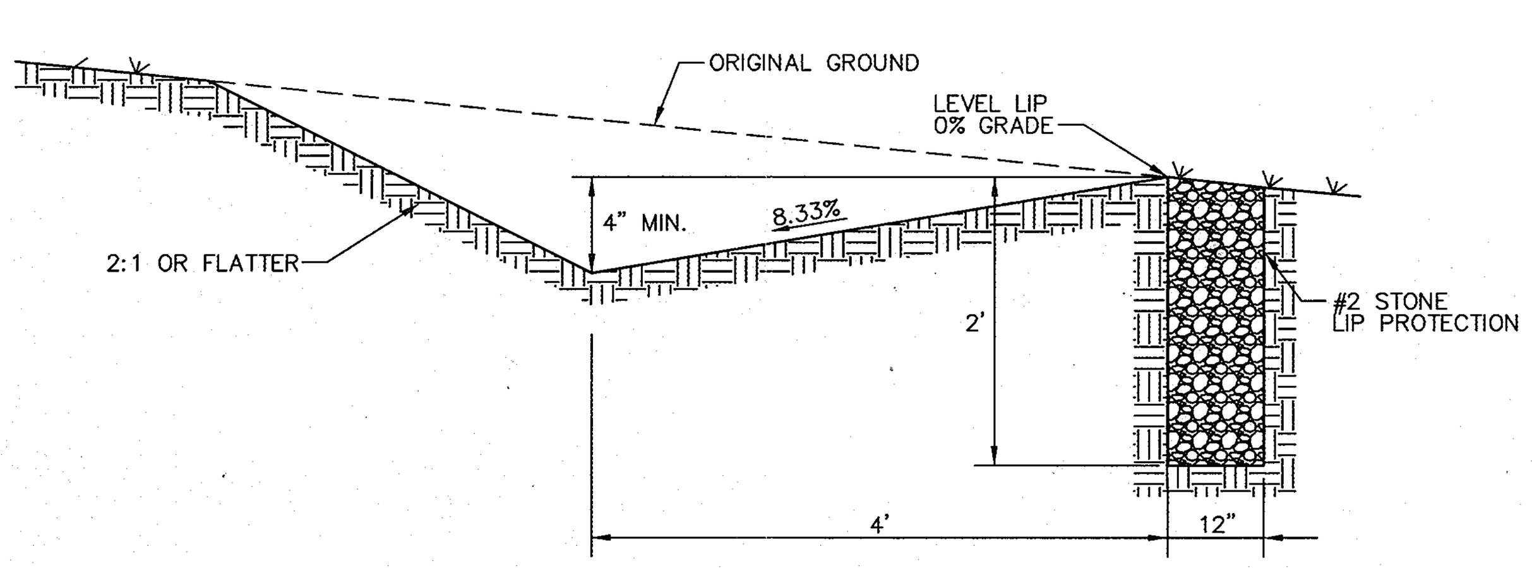
2. The check dam shall be constructed of 4"-7" stone. The stone shall be placed so that it completely covers the width of the channel and keyed into the channel banks.

3. The top of the check dam shall be constructed so the the center is approximately 6" lower than the outer edges, forming a weir that water can flow across.

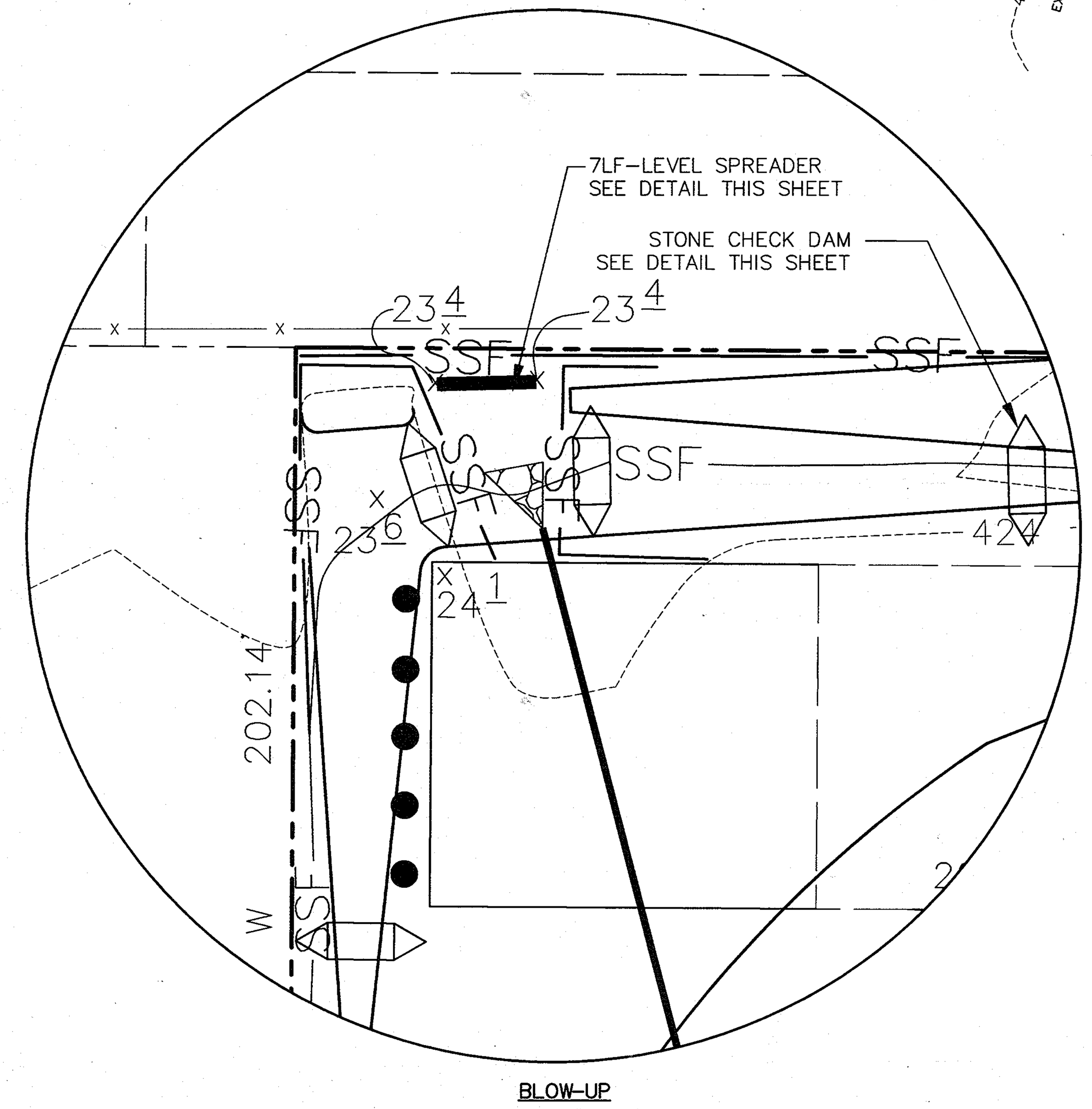
4. The maximum height of the check dam at the center shall not exced 2".

5. The upstream sideof the check dam shall be lined with approximately 1" of 3/4" to 11/2" crushed aggregate.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE B - 8 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



LEVEL SPREADER
NO SCALE



BLOW-UP
SCALE: 1" = 10'

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.

B. D. Boy — 7/22/05
DEVELOPER — 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.

Aimee C. Remington — 7-22-05
ENGINEER — DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Jim Myers — 7/28/05
NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

Geoffrey W. Schoning — 7/28/05
HOWARD SOIL CONSERVATION DISTRICT — DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — 8/8/05 — DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION — 8/1/05 — DATE
Andy Hamos
CHIEF, DIVISION OF LAND DEVELOPMENT — 8/2/05 — DATE

DATE	NO.	REVISION
11-03-05	1	REVISED FFE AND GRADING ON LOTS 2,4-6

OWNER	DEVELOPER
WILLIAM McFARLAND, JR. TRUST VIOLA McFARLAND TRUST 5386 MONTGOMERY ROAD ELLICOTT CITY, MD 21043	CORNERSTONE HOLDINGS, LLC ATTN: BRIAN BOY 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565

PROJECT
CHAPEL MANOR
SINGLE FAMILY UNITS

AREA TAX MAP 31 PARCEL 192 GRID 20 ZONED R-20
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

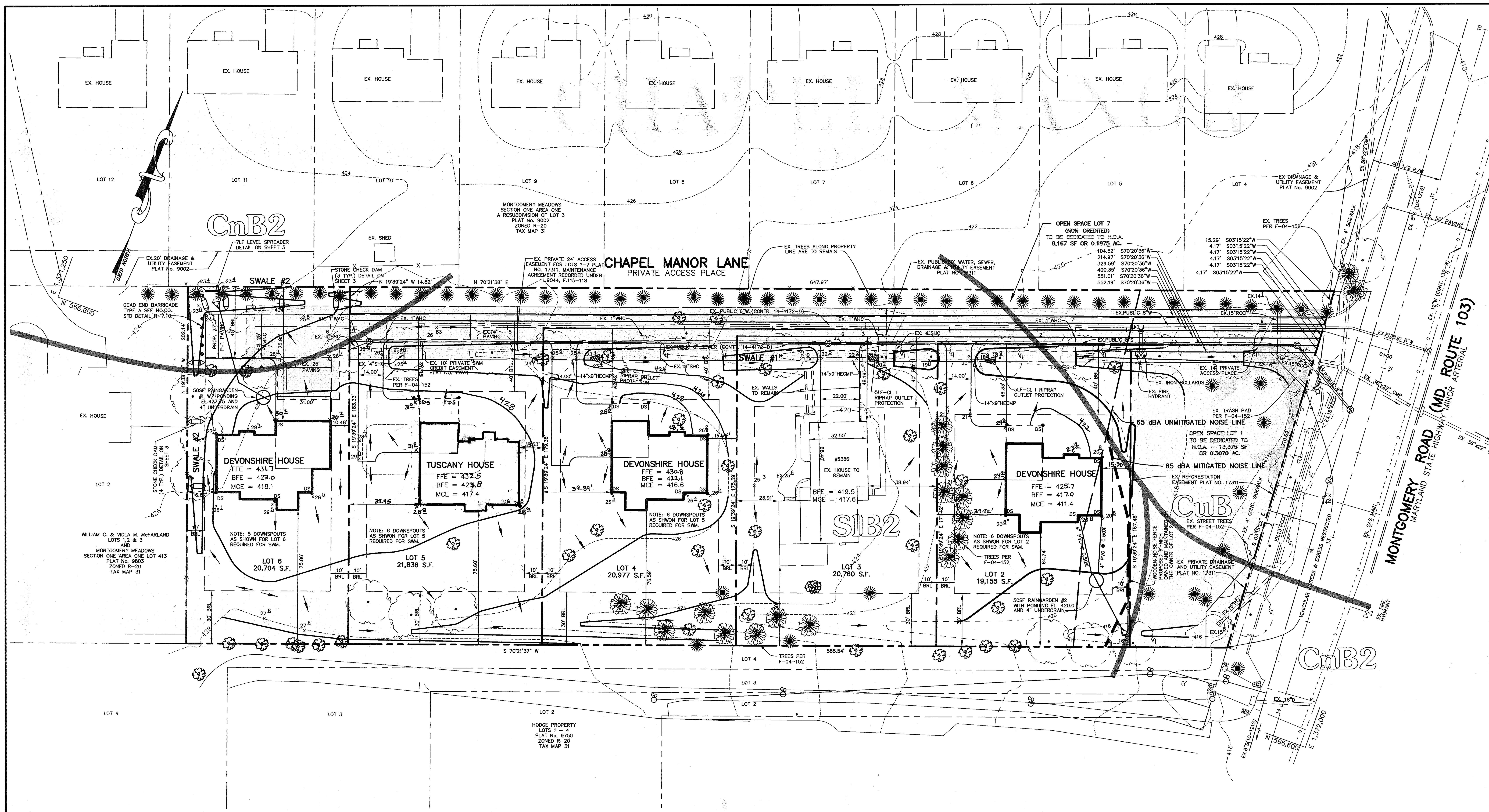
TITLE
GRADING AND SEDIMENT CONTROL PLAN

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

7-22-05
DATE
STATE OF MARYLAND AIMEE C. REMINGTON No. 29923 PROFESSIONAL ENGINEER
AIMEE C. REMINGTON #29923

CHECKED BY :
DESIGNED BY: A.C.R
DRAWN BY: MAD
PROJECT NO: 11818
DATE: JULY 22, 2005
SCALE: 1"=30'
DRAWING NO. 3 OF 5

SDP-05-097

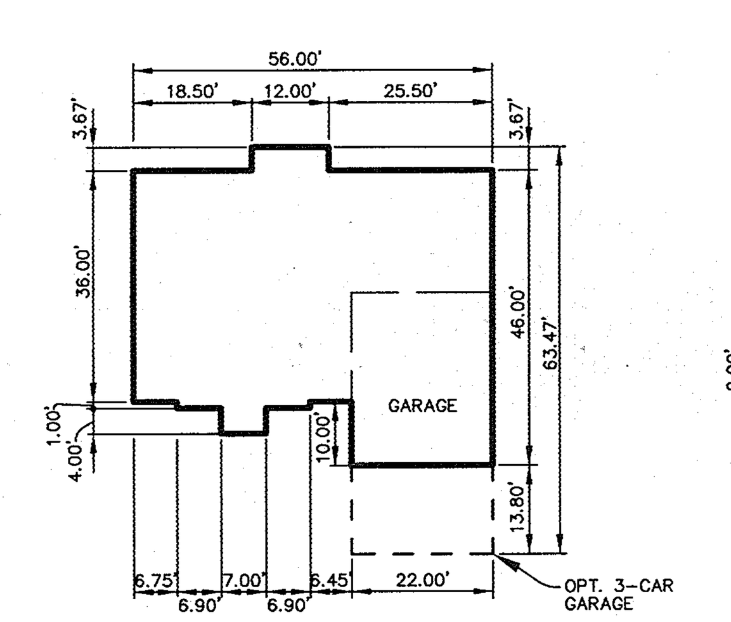


LEGEND

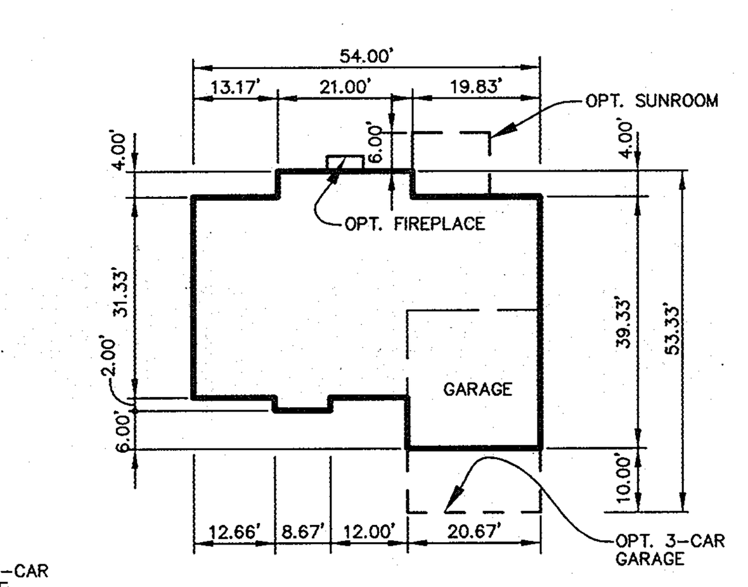
EXISTING 2'CONTOUR	402
EXISTING 10'CONTOUR	400
PROPOSED 2'CONTOUR	402
PROPOSED 10'CONTOUR	400
PROPERTY LINE AND RIGHT OF WAY	
EXISTING STORM DRAIN	15"D
OVERHEAD WIRES	OHW
EXISTING TREELINE	
PROPOSED TREELINE	
EXISTING TREE	
PROP.SPOT ELEVATION	13 x 2
SETBACK LINES	
EXISTING BUILDING	
PROPOSED BUILDING	
EXISTING TREES PER F-04-152	

SHC CHART

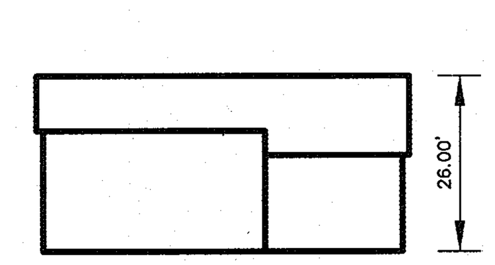
LOT NO.	INV. @ PL	MCE
2	409.23	411.4
3	412.39	417.6
4	414.04	416.6
5	414.77	417.4
6	415.07	418.1



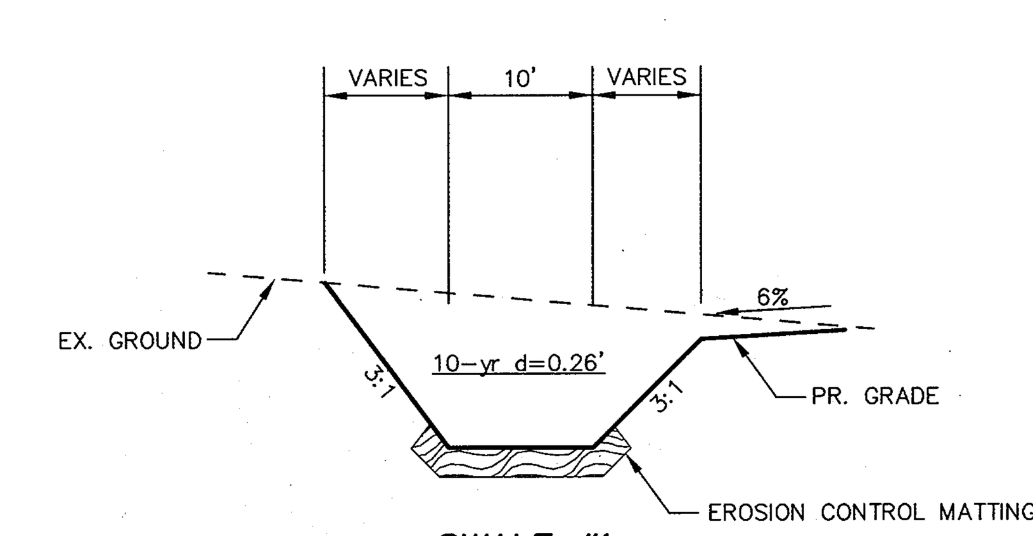
TUSCANY HOUSE TYPE
SCALE: 1"=30'



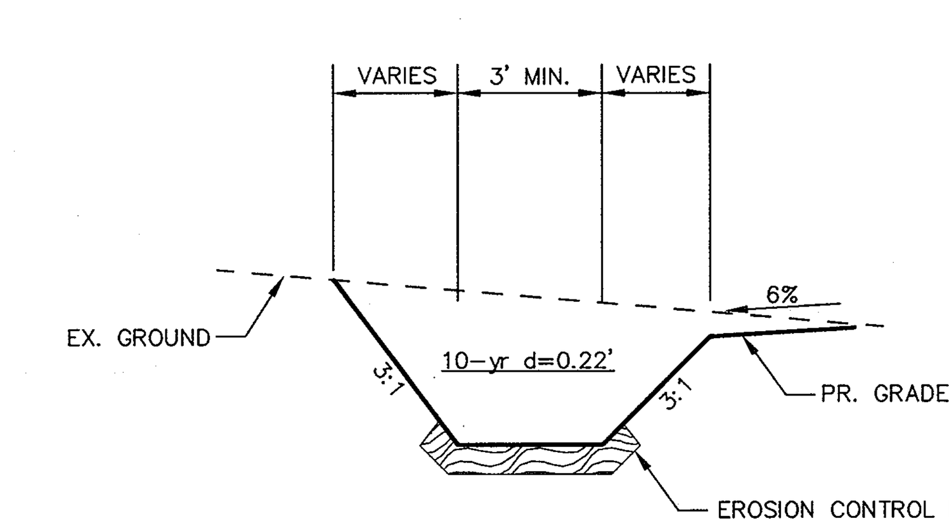
DEVONSHIRE HOUSE TYPE
SCALE: 1"=30'



HOUSE ELEVATION
SCALE: 1"=30'



SWALE #1
TYPICAL CROSS SECTION



SWALE #2
TYPICAL CROSS SECTION

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR	DATE 8/8/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 8/1/05
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 8/2/05

DATE	NO.	REVISION
11-03-05	1	SHIFTED HOUSES ON LOTS 2,4,&5 TO GET 35' WIDE DRIVEWAY AND REVISED FFE FOR LOTS 2,4-6

OWNER	DEVELOPER
WILLIAM McFARLAND, JR. TRUST VIOLA McFARLAND TRUST 5386 MONTGOMERY ROAD ELLICOTT CITY, MD 21043	CORNERSTONE HOLDINGS, LLC ATTN: BRIAN BOY 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565

PROJECT
CHAPEL MANOR
SINGLE FAMILY UNITS

AREA TAX MAP 31 PARCEL 192 GRID 20 ZONED R-20
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
SITE DEVELOPMENT PLAN

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

7-22-05
DATE
STATE OF MARYLAND
AIMEE C. REMINGTON
No. 29923
PROFESSIONAL ENGINEER
AIMEE C. REMINGTON #29923

CHECKED BY :	
DESIGNED BY:	A.C.R
DRAWN BY:	MAD
PROJECT NO:	11818 C400SIT
DATE:	JULY 22, 2005
SCALE:	1"=30'
DRAWING NO.	2 OF 5

SDP-05-097