

#### DEFINITION

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

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL

CONDITIONS WHERE PRACTICE APPLIES

- 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

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 O A 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, STONE SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIAL LARGER THAT 1 AND 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 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 FEED 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:

MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS III. 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

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 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 OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF

ii. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS A SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS

I. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT

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 MUDD CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

# SEDIMENT CONTROL NOTES

V. TOPSOIL APPLICATION

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSE AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1855). 2. ALL VEGETATION 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 3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (A) 7 CALENDAR DAYS FOR ALL PERIMETER

SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1. (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 THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, 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 BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT 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:	2.96 ACRES
AREA DISTURBED:	2.30 ACRES
AREA TO BE ROOFED OR PAVED:	0.83 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	1.47 ACRES
TOTAL CUT:	*3,527 CY
TOTAL FILL:	*3,444 CY
OFFSITE WASTE/BORROW AREA LOCATION:	**

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

\* EARTHWORK QUANTITIES ARE SOLELY FOR THE PURPOSE OF CALCULATING FEES. CONTRACTOR TO VERIFY ALL QUANTITIES PRIOR TO THE START OF CONSTRUCTION. \*\* TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT.

## PERMANENT SEEDING NOTES

INTO UPPER THREE INCHES OF SOIL.

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/100 SQ.FT.) AND 600 LBS

PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO

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

SEEDING: FOR THE PERIODS MARCH 1 THRU MAY 15, AND AUGUST 15 THRU OCTOBER 15, SEED WITH 40 LBS PER ACRE (0.93 LBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 16 THRU AUGUST 14, SEED WITH 40 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 5 LBS PER ACRE (0.11 LBS/1000 SQ.FT.) OF WHITE COVER, DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OPTION (2) USE SOD. OPTION (3) SEED WITH 40 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRAIN 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 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING

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

# TEMPORARY SEEDING NOTES

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

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

SEEDING: FOR PERIODS MARCH 1 THRU MAY 15 AND FROM AUGUST 1 THRU OCTOBER 15, SEED WITH 40 LBS PER ACRE OF ANNUAL RYE (1.0 LBS/1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 1, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (0.07 LBS/1000 SO FT.) FOR THE PERIOD OCTOBER 15 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/1000 SQ.FT.) OF UNROTTED SMALL GRAIN 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 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING

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

# SEQUENCE OF CONSTRUCTION

OBTAIN GRADING PERMIT. 2. NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSE AND PERMITS AT (410) 313-1880 AT

LEAST 24 HOURS BEFORE STARTING ANY WORK INSTALL STABILIZED CONSTRUCTION ENTRANCES, SILT FENCE AND SUPER SILT FENCE. (1 WEEK)

ROUGH GRADE SITE AND BEGIN CONSTRUCTION OF HOUSES. (6 MONTHS) COMPLETE HOUSE CONSTRUCTION AND FINE GRADE SITE TO GRADES INDICATED. (1 MONTH)

INSTALL MICRO BIORETENTION FACILITIES (NO SEDIMENT TO ENTER BIORETENTION FACILITY). (1 WEEK) (SEE DOTE CA INSTALL EROSION CONTROL MATTING IN SWALE AREAS AS NECESSARY. (1 DAY)

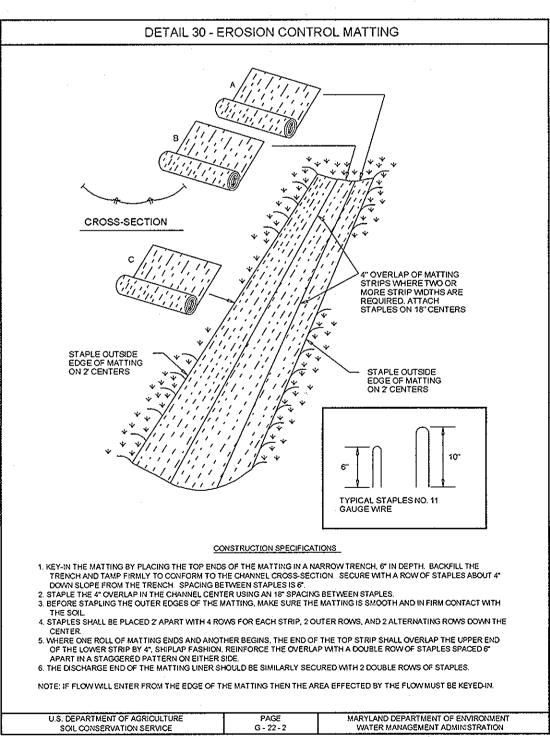
STABILIZE ALL REMAINING DISTURBED AREAS. (1 DAY) 9. WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES AND STABILIZE THE REMAINING DISTURBED AREA. (1 WEEK)

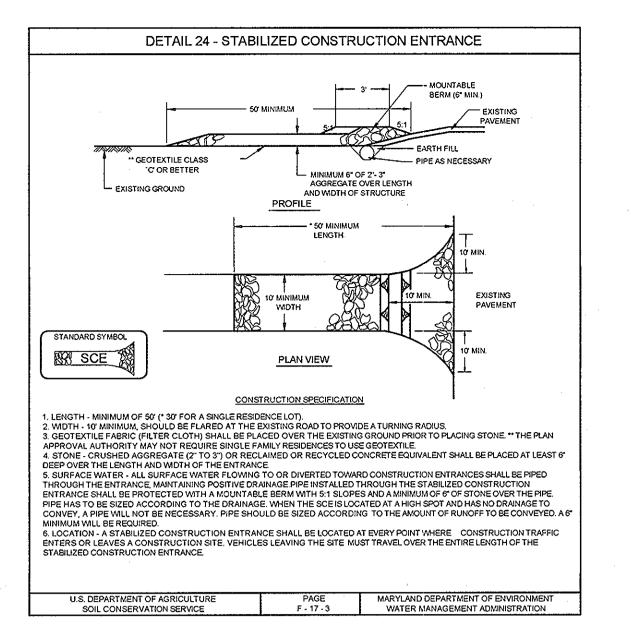
NOTE: 1) FOLLOWING INITIAL SOIL DISTURBANCE OR ANY REDISTURBANCES, PERMANENT OR

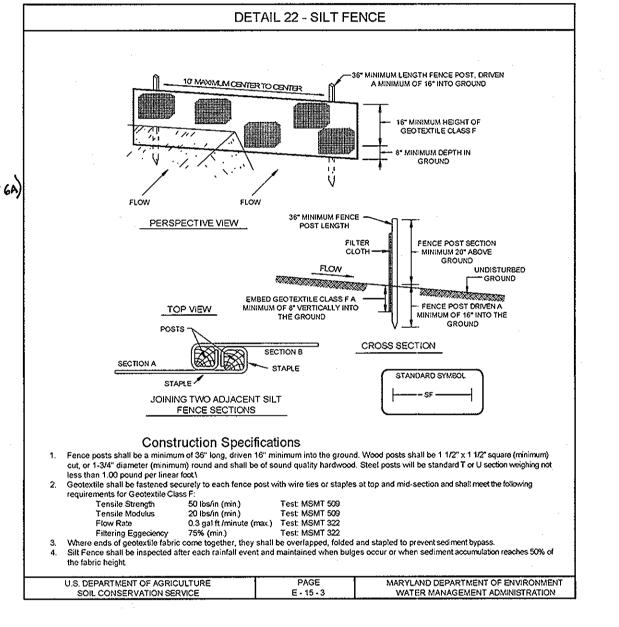
TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES AND ALL SLOPES GREATER THAN 3:1.

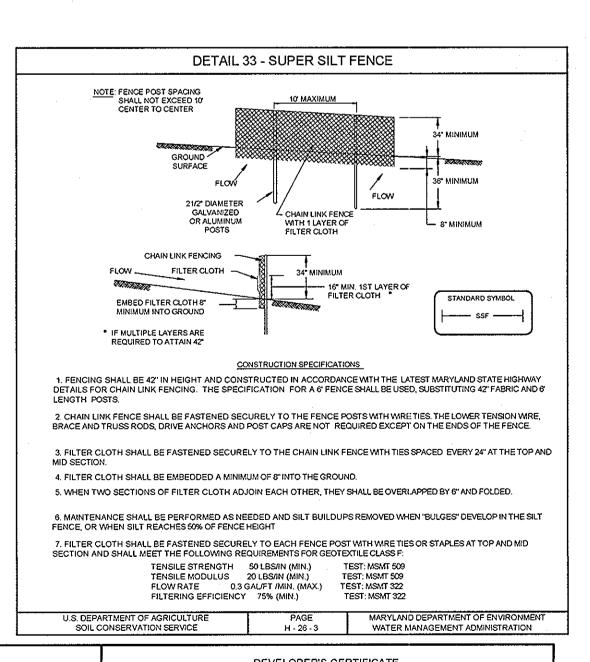
B. 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS. 2) DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES ON THIS PLAN. 3) EXISTING SEDIMENT CONTROLS INSTALLED UNDER F-10-039 ARE TO REMAIN IN PLACE FOR CONSTRUCTION OF THESE LOTS, INCLUDING SILT FENCE, SUPER SILT FENCE, AND EARTH DIKE. DEVELOPER IS THE SAME AS WITH THE FINAL PLANS. NO PERMISSION LETTER IS

6A ONCE THE MICRO BIORETENTION FACILITY WAS BEEN INSTALLED, IT SHALL BE WRAPPED WITH SILT FENCE UNTIL SUCH TIME AS THE ENTIRE DRAINAGE AREA TO THE BIO HAS BEEN STABILIZED. NO RUNOFF SHALL REACH THE MICRO BIORETENTION FACILITY UNTIL THE BIO AND THE DRAWAGE AREA TO THE BIO HAVE BEEN STABILIZED.











#### SOILS REPORT FOR WATKINS CHOICE -- 6 LOTS

On January 15, 2007 five (5) borings were dug and were field classified by Samuel W. Corrice, P.E., as indicated on the following plan. Borings 6-11 were dug and classified on August 21, 2007 and August 22, 2007

The USDA Web Soil Survey for Howard County, Maryland indicates a soil type of UcD -Urban Land - Chillum - Beltsville complex. Some of the boring logs indicate "likely fill" on surface soils. However, most of the soil is a good example of Chillum silt and gravelly loam. The soils of the first 3' to 5' are generally more clayey whereas soils below that level were sandier and more permeable. In each location, saudy soils were underlain by a sandstone layer that included iron ore deposits. The deeper soils above rock refusal were at the lower elevations. Excavation near a previous SFD revealed a 2' thick iron ore deposit.

In general, the hydrologic class of the surface soils is "C". The underlying soils above the sandstone and iron ore layer are closer to a "B" soil.

	<u> 2011-1068</u>		
	<u>B-1</u>	USDA	ANTICIPATED PERC RATE
DEPTH	DESCRIPTION	CLASS	IN./HR.
0 0.5'	Loamy Topsoil	}	
0.5 ' - 2.5'	Brown micaccous loamy clay - moist (likely fill)	CL	0.17
2.5' - 4.0'	Brown micaccous silty / sandy loam, moist	MIL	0.27
4.0' - 5.5'	Brown and rusty micaccous clayey sand - moist	SC	0.52
5.5' - 7.5'	Rusty, tan and brown micaceous loamy sand with iron ore frags, damp to moist	SM	1.02
7.5'	Hand auger refusal	]	

COT TOCC

	B-2		ANTICIPATED
		USDA	PERC RATE
DEPTH	DESCRIPTION	CLASS	IN./HR.
0 - 0.75'	Topsoil		
0.75' - 1.5'	Dark grey to tan micaccous wet silty clay (likely fill)	CL	0.17
1.5' - 4.0'	Tan silty clay loam, moist	MH	0.27
4.0' - 5.0'	Yellowish tan silty clayey sand, moist	SC	0.52
5.0' - 6.5'	Tan and rusty sandy loam, moist,		
	trace clay and gravel	SM	1.02
6.5'	Sandstone - hand auger refusal		

	B-3		ANTICIPATED
		USDA	PERC RATE
DEPTH	DESCRIPTION	CLASS	IN./HR.
0 - 1.0'	Plowed topsoil - gravelly, clayey loam		
1.0' - 3.0'	Tan and rusty micaccous loamy sand, trace clay, moist	sc	.52
3.0' - 5.0'	Black, orange, tan and rust micaccous loamy sand, Moist	SM	1.02
5.0' - 8.5'	Greyish micaceous loamy sand, damp to moist	SM SP	2.0

	w. The state of th	USDA	PERC RATE
DEPTH	DESCRIPTION	CLASS	IN / HR.
0.0 - 1.0'	Plowed loamy moist topsoil with gravel		
1.0' - 4.0'	Brown and rusty micaceous clayey sand loam, moist	SC	0.52
4.0' - 6.0'	Brown and rusty micaccous silty sand loam	SM	1.02
6.0' - 6.5'	Grey layer - micaceous loamy sand, moist	SM	J.02
6.5' - 8.0'	Brown and rusty micaccous loamy sand, damp	SW-SM	2.41

	B-5		ANTICIPATED
		USDA	PERC RATE
DEPTH	DESCRIPTION	CLASS	IN./HR.
0 - 1.0	Topsoil - clayey sand and gravel		
1.0' - 3.5'	Light brown micaceous sandy clay, moist	SC - CL	0.27
3.5' - 4.0'	Light brown micaccous clayey sand, moist	\$C	0.52
4.0'	Rock - hand auger refusal (Fe fragments)	}	

	B-6		ANTICIPATED
		USDA	PERC RATE
DEPTH	DESCRIPTION	CLASS	IN./HR.
0 0.8'	Topsoil - gravelly silt loam (moist)		
0.8' - 2.5'	Tan gravelly sandy silt, some mica (damp to dry)	MH	0.52
2.5'	Rock - sandstone		

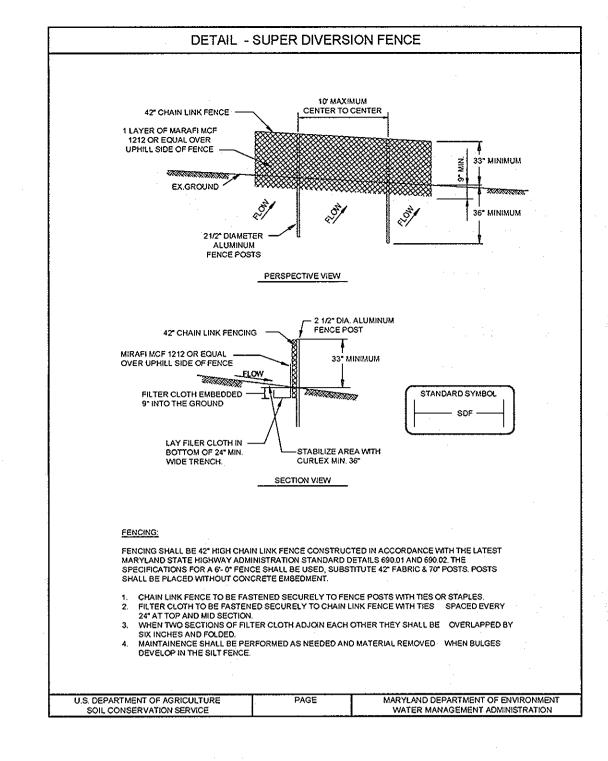
DEPTH	B-7 DESCRIPTION	<u>USDA</u> CLASS	ANTICIPATED PERC RATE JN./HR.
0-0.3	Topsoil – gravelly silt loam (moist)	Cinado	711.7 711.
	Tan loamy gravelly silt - 1/2" thick iron ore layer underlain with soil (dry)	ML	0.52
1.0'	Rock – sandstone		

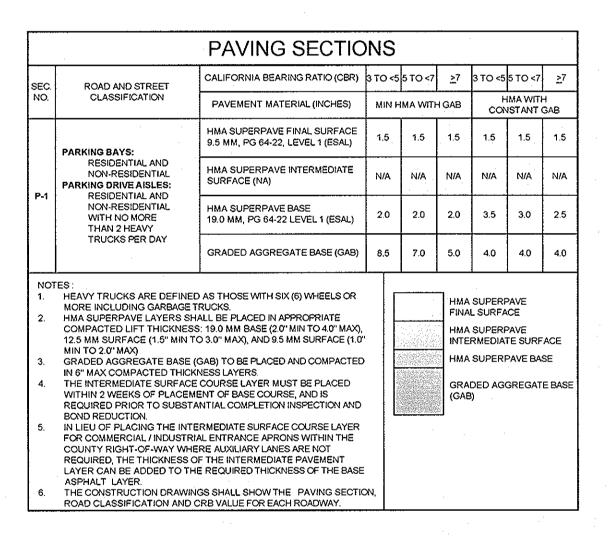
	<u>B-8</u>	USDA	ANTICIPATED PERC RATE
DEPTH	DESCRIPTION	CLASS	IN./HR.
0 – 0.3'	Loamy topsoil (noist)	7.47.47.47.47.47.47.47.47.47.47.47.47.47	Market Market Market Control of the
0.3' 3.0'	Tan loamy sand and gravel (damp to dry) Iron ore layer at 1.0'	GM	1.02
3.0'	Rock sandstone, some iron		

	<u>B-9</u>		ANTICIPATED
	•	<u>USDA.</u>	PERC RATE
DEPTH	DESCRIPTION	CLASS	IN./ <u>HR.</u>
0 – 0.5'	Loanny topsoil (moist)		
0.5' 1.0'	Tan gravelly sandy clay loam (damp to dry)	CL	0.17
1.0'	Rock - sandstone		

	B-10		ANTICIPATED
	l l	USDA	PERC RATE
DEPTH	DESCRIPTION	CLASS	<u>IN./HR.</u>
0 - 0.5'	Silty topsoil (moist)		
0.5' - 0.75'	Tan gravelly silt with some clay (damp)	GM	0.52
0.75'	Rock - sandstone		

	B-11		
	(No Topsoil)		ANTICIPAT
		USDA	PERC RAT
DEPTH	DESCRIPTION	CLASS	IN./HR.
0 - 0.5'	Tan and orange silty gravelly clay	CL	0.17
0.5' ~ 1.5'	Tan gravelly silt (quartzite)	GM	0.52





## OWNER / DEVELOPER WILLIAMSBURG GROUP, LLC

C/O ROBERT CORBETT 5485 HARPERS FARM ROAD, SUITE 200 COLUMBIA, MD 21044 410.997.8800

# GRADING, SEDIMENT AND EROSION CONTROL NOTES & DETAILS

WATKINS' CHOICE PHASES I & II LOTS 1, 2 & 4 THRU 7

PLATBOOKS: 22153-22154 & 22169-22170 TAX MAP 46 GRID 18 ZONING: R-20

SINGLE FAMILY UNITS HOWARD COUNTY, MARYLAND 6TH ELECTION DISTRICT



Engineers · Surveyors · Planners 300 North Ridge Road, Suite 160 Ellicott City, Maryland 21043

PROJECT #: Phone: 443.325.7682 Fax: 443.325.7685 SHEET#: 3 of 4 mail: info@saaland.com NATIONAL CERTIFICATION: LHERERY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME. AND THAT LAM A DULY

LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2013 SDP-13-014

DESIGN BY:

CHECKED BY:

SCALE:

PARCEL 215

AS SHOWN

12-056

DATE: DECEMBER 12, 2012

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

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

ENGINEERS CERTIFICATE

PAUL M. SILL, P.E.

"I 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 SOIL CONSERVATION DISTRICT.

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE CLION BY THE HOWARD SOIL CONSERVATION DISTRICT. 12-12-12

ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF GNATURE OF DEVELOPER

