### PLANTING SPECIFICATIONS

Plants, related material, and operations shall meet the detailed description as given on the plans and as described herein. All plant material, unless otherwise specified, shall be nursery grown, uniformly branched, have a vigorous root system, and shall conform to the species, size, root and shape shown on the plant list and the American Association of Nurserymen (AAN) Standards. Plant material shall be healthy, vigorous, free from defects, decay, disfiguring roots, sun scald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will not be accepted. All plants shall be freshly dug; no healed-in plants from cold storage will be accepted.

Unless otherwise specified, all general conditions, planting operations, details and planting specification shall conform to "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas", (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architect, latest edition, including all agenda.

Contractor shall be required to guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section of the Landscape Guidelines Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.

Contractor shall be responsible for notifying utility companies, utility contractors and "Miss Utility" a minimum of 48 hours prior to beginning any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Damage to existing structure and utilities shall be repaired at the expense of the Contractor. Protection of existing vegetation to remain shall be accomplished by the temporary installation of 4 foot high snow fence or blaze orange safety fence at the drip line.

Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within the growing season of completion of site construction.

Bid shall be base on actual site conditions. No extra payment shall be made for work arising from site conditions differing from those indicated on drawings and specifications.

Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on

plan and those shown on the plant list, the quantities on the plan take precedence. All shrubs shall be planted in continuous trenches or prepared planting beds and mulched with composted hardwood mulch

Positive drainage shall be maintained in planting beds (2 percent slope).

as details and specified except where noted on plans.

fine graded and seeded.

Planting mix shall be as follows: Deciduous Plants - Two parts topsoil, one part well-rotted cow or horse manure. Add 3 lbs. of standard fertilizer per cubic yard of planting mix. Evergreen Plants - two parts topsoil, one part humus or other approved organic material. Add 3 lbs. of evergreen (acidic) fertilizer per cubic yard of planting mix. Topsoil shall conform to the Landscape Guidelines.

Weed Control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. Caution: Be sure to carefully check the chemical used to assure its adaptability to the specific ground cover to be treated. All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be

This plan is intended for landscape use only. See other plan sheets for more information on grading, sediment control,

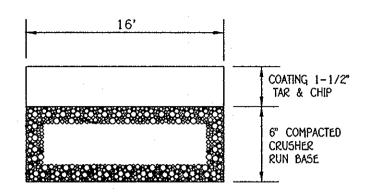
			5(	CHEDULE A F	PERIMETER LANDS	CAPE	EOGE				
PERIMETER	CATEGORY (PROPERTIES/ ROADWAYS)	LANDSCAPE TYPE	FRONTAGE	CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	FENCE OR BERM	SHADE	of plants evergreen trees	REQUIRED SHRUBS	NUMBER SHADE TREES	of plants evergreen trees	
P-1	ADJACENT TO ROADWAY	В	176.99'	NO	NO	4	4	-	4	4	
P-2	ADJACENT TO ROADWAY	В.	171.54'	NO	МО	3	4	-	3	4	
P-3	ADJACENT TO ROADWAY	NONE	215.63'	NO	МО	-	_	-	_	_	-
P4	ADJACENT TO ROADWAY	NONE	106.45'	NO	NO	~	-	-	-		-
P-5	ADJACENT TO PERIMETER	A	165.90'	NO	NO	3	<b>-</b>	_	3	-	

LANDSCAPING PLANT LIST						
QTY.	KEY	NAME	SIZE			
10	<b>EFF</b>	ACER SACCHARUM 'GREEN MOUNTAIN' GREEN MOUNTAIN/SUGAR MAPLE	2 1/2"-3" CALIPER FULL CROWN B/B			
8	*	PINUS STROBUS EASTERN WHITE PINE	6' - 8' HGT			

#### BUILDER/DEVELOPER'S/CERTIFICATE

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

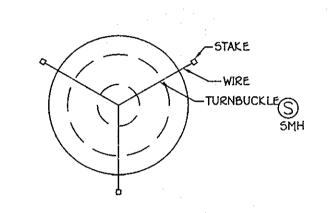
SPENCER PADGETT

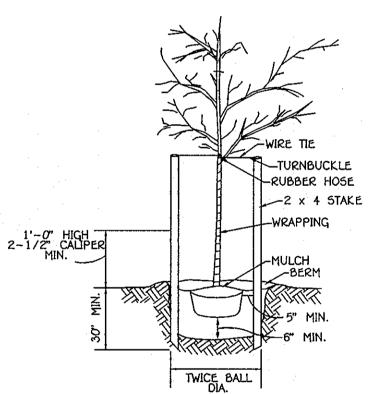


# COMMON DRIVEWAY DETAIL

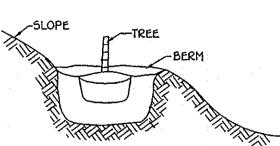
NOT TO SCALE

STAKING DETAIL





NOTE: REMOVE BURLAP FROM TOP 1/3 OF BALL



GRADING FOR PLANTING

PRIVATE 24' WIDE USE-IN-COMMON DRIVEWAY ACCESS EASEMENT	
EXISTING STREET TREES	
PROPOSED PERIMETER LANDSCAPE TREES	MINIMUM LOT SIZE CHAR
REPLACEMENT TREE	LOT NO. GROSS AREA PIPESTEM MINIMU AREA LOT SIZ
UNMITIGATED 65 - dba line	1 11 696 50 FT 1 1982 50 FT 1 9 714 50

MITIGATED 65 - dBA LINE
PRIVATE LINE OF SIGHT EASEMENT PLAT #19777
 EXISTING 15' PUBLIC WATER & UTILITY EASEMENT - PLAT #11997

PORCH

GAR.

<del>-----</del>24'-----

MODEL

-2' FRONT

١	1INIMUM	LOT SIZE	CHART
LOT NO.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
1	11,696 5Q. FT.	1,982 5Q. FT.	9,714 5Q. FT.
2	9,319 5Q. FT.	1,459 SQ. FT.	7,860 SQ. FT.
3	0,333 SQ. FT.	1,358 SQ. FT.	6,975 SQ. FT.

	4	3111	JOSEPHINE	WALK
		. '		
Ò,	3	30,	60,	

ADDRESS CHART

STREET ADDRESS

3122 SAINT CHARLES PLACE

3124 SAINT CHARLES PLACE

3126 SAINT CHARLES PLACE

PORCH

GAR.

MODEL

### BENCH MARK INFORMATION

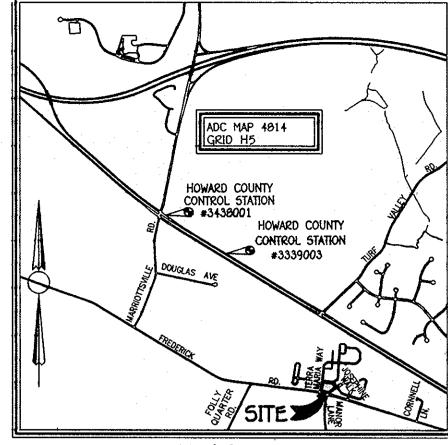
HOWARD COUNTY CONTROL 5TA, 3438001 CONC. MONUMENT SET ELEV. 464.55 N 532502.146

HOWARD COUNTY CONTROL STA. 339003 CONC. MONUMENT SET ELEV. 470.421 £ 829106.0

## SITE ANALYSIS DATA CHART

A. TOTAL PROJECT AREA: 1.110 ACRES OR 48,355 SQUARE FEET. B. AREA OF SUBMISSION: 1.110 ACRES OR 48,355 SQUARE FEET. C. LIMITS OF DISTURBANCE: 1.072 ACRES or 46,683 SQUARE FEET. D. PRESENT ZONING DESIGNATION: R-SC. E. PROPOSED USES FOR SITE AND STRUCTURES: RESIDENTIAL/SINGLE FAMILY DETACHED F. APPLICABLE OPZ FILE REFERENCES:

F-97-87 W&5 CONT. NO. 24-3407-D F08-028



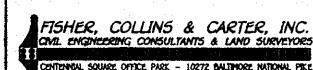
VICINITY MAP

5CALE: 1" = 2000"

# GENERAL NOTES

- SUBJECT PROPERTY ZONED R-SC PER THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE 7/20/06.
- A. TOTAL AREA OF SITE = 1.110 ACRES 3. TOTAL AREA OF FLOODPLAIN = 0.000 ACRES
- . TOTAL AREA OF STEEP SLOPES = 0.000 ACRES D. NET TRACT AREA = 1.110 ACRES - 0.000 ACRES = 1.110 ACRES
- E. TOTAL NUMBER OF BUILDABLE LOTS ALLOWED = 4 UNITS NET TRACT AREA X 4 UNITS / NET ACRE
- (1.110 ACRES X 4 UNITS) = 4.440 UNITS
- F. TOTAL NUMBER OF BUILDABLE LOTS PROPOSED = 4 UNITS 3. PRIVATE LINE OF SIGHT EASEMENT WITHIN LOTS 3 AND 4 SHALL BE MAINTAINED BY THE INDIVIDUAL LOT OWNER TO ALLOW UNOBSTRUCTED VEHICULAR LINE OF SIGHT ALONG SAINT CHARLES PLACE FROM PRIVATE DRIVEWAY ACCESS JOSEPHINE WALK
- SHOWN HEREON. 4. COORDINATES BASED ON NAD '27, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 3438001 AND NO. 3339003.
- STA. 3438001 N 532502.146 E 827774.234 STA. 3339003 N 531659.159 E 029105.460 5. THIS SUBDIVISION IS BASED ON PLAT MERIDIAN OF A PLAT ENTITLED "TERRA MARIA LOT 123 AND PARCEL F-1" RECORDED
- AS PLAT NO. 13997 AND BY A FIELD RUN BOUNDARY SURVEY PERFORMED ON OR ABOUT MAY, 2007, BY FISHER, COLLINS 6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY
- ALONG WITH MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.

  7. 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 CONSTRUCTION. 6. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO STARTING ANY EXCAVATION WORK.
- 9. B.R.L. DENOTES BUILDING RESTRICTION LINE.
- 10. USE-IN-COMMON DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:
- A) WIDTH 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE): 8) SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE
- WITH TAR AND CHIP COATING. (1 -1/2" MINIMUM);
- C) GEOMETRY MAXIMUM 14% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS:
- D) STRUCTURES (CULVERTS/BRIDGES) CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING);
- E) DRAINAGE ELEMENTS CAPABLE OF SAFELY PASSING
- 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER SURFACE;
- F) STRUCTURE CLEARANCES MINIMUM 12 FEET; G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- 11. PLAT SUBJECT TO PREVIOUS DEPARTMENT OF PLANNING AND ZONING FILE NOS. F-00-42, F-95-99. F-97-02, 24-3407-D AND F08-028.
- 12. NO CEMETERIES EXIST ON SITE BASED UPON A VISUAL SITE VISIT AND AN EXAMINATION OF THE HOWARD COUNTY CEMETERY INVENTORY MAP.
- 13. LOTS 1 THRU 4 AND OPEN SPACE LOT 5 DO NOT CONTAIN NON-TIDAL WETLANDS AND ASSOCIATED BUFFERS, STREAMS AND ASSOCIATED STREAM BANK BUFFERS, FOREST CONSERVATION EASEMENTS. 100-YEAR FLOODPLAINS OR STEEP SLOPES
- AS NOTED ON RECORD PLAT #19777 (F-00-020) SAINT CHARLES VIEW GENERAL NOTE 15. 14. LANDSCAPING FOR LOTS 1 THRU 4 IS PROVIDED IN ACCORDANCE WITH A CERTIFIED LANDSCAPE PLAN ON FILE WITH PLAT #19777 (F-08-028) IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL
- LANDSCAPE SURETY IN THE AMOUNT OF \$4200.00 WILL BE PART OF THE BUILDERS GRADING PERMIT APPLICATION (10 SHADE TREES X \$300.00/ TREE AND 8 EVERGREEN TREES X \$150.00/ TREE) FOR TEN (10) SHADE TREES AND EIGHT (8)
- 15. THE WATER QUALITY VOLUME (WQV), GROUNDWATER RECHARGE VOLUME (REV) AND CHANNEL PROTECTION VOLUME (CPV) REQUIREMENTS WERE ADDRESSED WITH THE STORMWATER MANAGEMENT REPORT PREPARED THE ROAD CONSTRUCTION, GRADING AND STORMWATER MANAGEMENT PLANS FOR TERRA MARIA F-95-99
- 16. THIS PLAT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BECAUSE THE FOREST CONSERVATION OBLICATION WAS ADDRESSED UNDER THE TERRA MARIA ROAD
- CONSTRUCTION, GRADING AND STORMWATER MANAGEMENT PLANS FOR F-95-99. 17. A MAINTENANCE AGREEMENT FOR THE PRIVATE USE-IN-COMMON DRIVEWAY ACCESS EASEMENT ACROSS AND WITHIN LOTS I THRU 4 FOR THE USE AND BENEFIT OF LOTS 1 THRU 4 AND OPEN SPACE LOT 5 IS RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY IN LIBER 11116 FOLIO 001.
- 18. OPEN SPACE LOT 5 SHOWN HEREON WILL BE OWNED BY THE TERRA MARIA HOMEOWNERS ASSOCIATION, INC. FOR THE RESIDENTS OF THIS SUBDIVISION AND WAS RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY AS LIBER 11116
- 19. A FREE FLOW SPEED DETERMINATION WAS CONDUCTED BY THE MARS GROUP IN JUNE OF 2007.
- 20. THE 65 DBA NOISE CONTOUR LINE DRAWN ON THIS SUBDIMISION PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5. REVISED IN FEBRUARY OF 1992 AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 DBA NOISE EXPOSURE. THE 65 DBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPER,5 BUILDERS AND FUTURE RESIDENTS THE AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT. AS SUCH, A NOISE MITIGATION STUDY WAS PREPARED BY THE MARS GROUP IN JULY 2007 AND BASED UPON THE ANALYSIS PROVIDED IN THE STUDY NOISE MITIGATION
- IS REQUIRED AND WILL BE PROVIDED BY THE SIX (6) FOOT BARRIER BERM SHOWN ON THIS PLAN. 21. FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND THE ROAD RIGHT-OF-WAY AND NOT ONTO THE FLAG OR PIPESTEM LOT
- 22. CONTRACTOR TO CHECK WATER AND SEWER HOUSE CONNECTIONS ELEVATIONS AT EASEMENT LINES PRIOR TO
- CONSTRUCTION. 23. ANY DAMAGE TO THE COUNTY'S RIGHT OF WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- 24. THIS PLAN IS FOR HOUSE SITING AND GRADING ONLY. IMPROVEMENTS SHOWN WITHIN THE RIGHTS OF WAY OF THIS S.D.P. ARE NOT USED FOR CONSTRUCTION.
- 25. FOR DRIVEWAY ENTRANCE DETAILS REFER TO HO. CO. CODES MANUAL VOLUME IV DETAILS R.6.03 AND R.6.05. 26. 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 SETBACKS. 27. PUBLIC WATER AND SEWER WILL BE USED WITHIN THIS SUBDIMISION.
- 20. THE EXISTING TOPOGRAPHY IS TAKEN FROM A FIELD RUN SURVEY WITH TWO FOOT CONTOUR INTERVALS PREPARED BY FISHER, COLLINS AND CARTER, INC. ON APRIL 26, 2007.
- 29. EXISTING UTILITIES ARE BASED ON CONTRACT NO. 24-3407-D (WATER AND SEWER) AND F-95-99 (STORM DRAIN). 30. 5HC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE. 31. SAINT CHARLES VIEW, LOTS 1-4 AND OPEN SPACE LOT 5 HAVE BEEN RECORDED AS PART OF THE TERRA MARIA HOMEOWNER'S ASSOCIATION. REFERENCES TO THE DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS WERE
- RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY AS LIBER 11116 FOLIO 010, AND AMENDMENT #2 OF THE DECLARATION AS LIBER 11116 FOLIO 0014. 32. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- DEVELOPMENT OR CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION OR BUILDING/GRADING PERMIT
- 33. ANY EXISTING STREET TREES DAMAGED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR.
- 34. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S), OR THEIR BUFFERS, FOREST CONSERVATION EASEMENTS AND 100 YEAR FLOODPLAIN 35. THIS SITE HAS BEEN DESIGNATED IN ACCORDANCE WITH SECTION 16.125 OF THE HOWARD COUNTY SUBDIMISION AND
- LAND DEVELOPMENT REGULATIONS FOR PROPERTY ABUTTING SCENIC ROADS. IN PARTICULAR, THIS DESIGN MINIMIZES THE IMPACT OF THIS SUBDIVISION TO THE ADJACENT SCENIC VIEWS BY MINIMIZING TREE REMOVAL AND PROVIDING A SIX FOOT HIGH BERM WITH LANDSCAPING.





licensed professional engineer under the laws of the State of Maryland, License No. 13204, Expiration Date: November 3,

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly

••••



DATE REVISION BLOCK 4-15-10 Date 4/13/10 Date

OWNER OLD FREDERICK ROAD REAL ESTATE HOLDINGS, LLC 8860 COLUMBIA PARKWAY SUITE 301 COLUMBIA, MARYLAND 21045

443-926-0021 <u>BUILDER/DEVELOPER</u> ARRISBROOK, LLC

8320 MAIN STREET ELLICOTT CITY, MARYLAND 21043 443-926-0021

_	PROJECT		1	SECTION/AREA	A PARCELS	LOTS
5	SAINT CHARL	ES VIEW		. <del>-</del>	416	1-5
_	PLAT NO.	BLOCK NO.	ZONE	TAX MAP	ELEC. DIST.	CEN5U5
	19777	23	R-5	6C 16	SECOND	6023.
P	WATER CODE JO	)1 AND H07		SEWER CODE	59920	00

TITLE SHEET AND HOUSE TYPES

### SINGLE FAMILY DETACHED SAINT CHARLES VIEW

LOTS 1 THRU 4 AND OPEN SPACE LOT 5 "A Resubdivision of Terra Maria, Parcel F-1, Plat No. 13997"

> ZONED: R-SC TAX MAP No.: 16 GRID No.: 23 PART OF PARCEL No.: 416

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: MARCH 15, 2010

LEGEND

---508---- EXISTING 2' CONTOUR

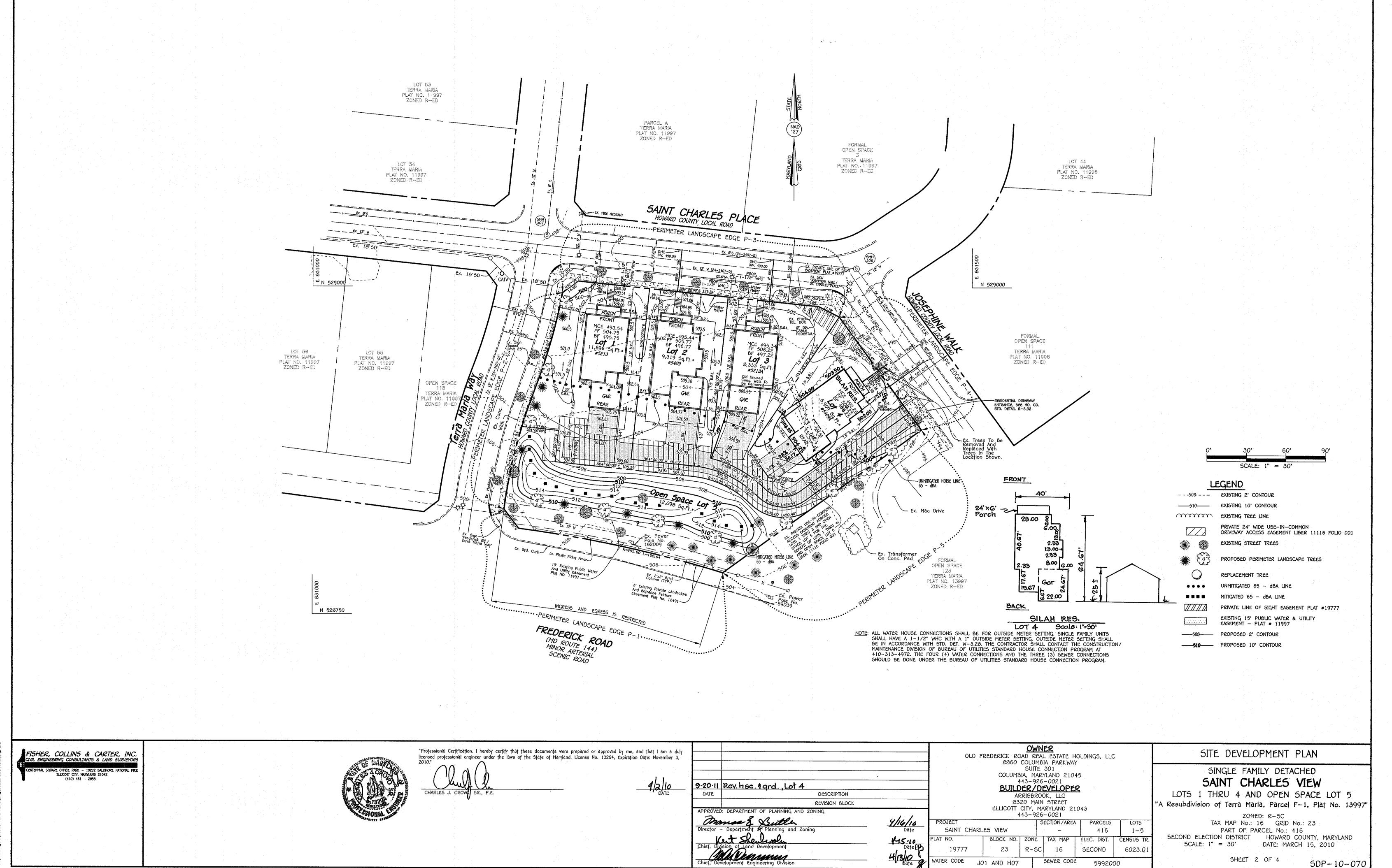
EXISTING TREE LINE

---510--- EXISTING 10' CONTOUR

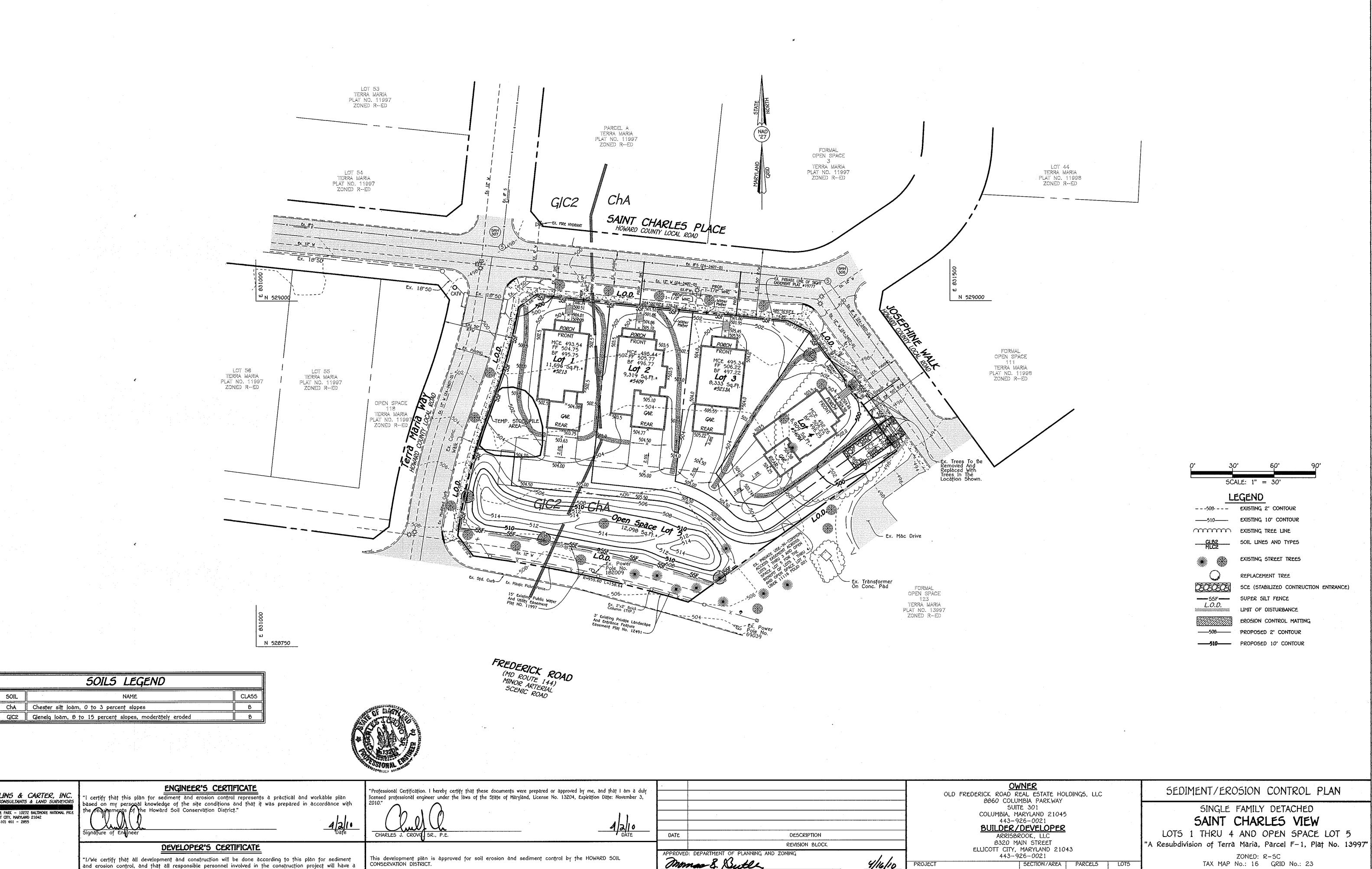
SOIL LINES AND TYPES

PROPOSED HOUSE

5DP-10-070



K:\Drawings 6\60026 Terra Maria\dwo\60026 Site Plan.dwo.



SAINT CHARLES VIEW

WATER CODE

Date Date

BLOCK NO. ZONE TAX MAP

16

23

JO1 AND HO7

PART OF PARCEL No.: 416

DATE: MARCH 15, 2010

5DP-10-070

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SHEET 3 OF 4

SCALE: 1" = 30'

1-5

6023.0

ELEC. DIST. | CENSUS TR

5992000

**SECOND** 

50IL

FISHER, COLLINS & CARTER, INC.

ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2055

Certificate of Attendance at a Department of the Environment Approved Training Program for the

Control of Sediment and Expsion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

SPENCER PADGETT

# 20.0 STANDARDS AND SPECIFICATIONS VEGETATIVE STABILIZATION

Using vegetation as cover for barren soil to protect it from forces that cause erosion

PURPOSE Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources.

CONDITIONS WHERE PRACTICE APPLIES This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration O(up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone. Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS A. Site Preparation Install erosion and sediment control structures (either temporary of permanent) such as diversions,

ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.

iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.

Soil Amendments (Fertilizer and Lime Specifications) Soil tests must be performed to determine the exact ratios and application rates for both lime and

grade stabilization structures, berms, waterways, or sediment control basins

fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses. ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee

iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 90-100% will pass through a #20

mesh sieve.

iv. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

Seedbed Preparation

i. Temporary Seeding

a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or suitable agricultural or construction equipment. After the soil is loosened it should not be rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges unning parallel to the contour of the slope.

b. Apply fertilizer and lime as prescribed on the plans.
c. In corporate time and fertilizer into the top 3-5" of soil by disking or other suitable means.
ii. Permanent Seeding Minimum soil conditions required for permanent vegetative establishment:

1. Soil pH shall be between 6.0 and 7.0.

Soluble salts shall be less than 500 parts per million (ppm). The soil shall contain less than 40% clay, but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass of serecia lespedezas is to be planted then a sandy soil (<30% sil plus clay) would be acceptable. Soil shall contain 1.5% minimum organic matter by weight.

Soil must contain sufficient pore space to permit adequate root penetration If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5 to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from

iding down a slope. Apply soil amendments as per soil test or as included on the plans.

Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches and ready the area for seed and application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on

i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job. Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.

ii. Inoculant — The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later that

the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75°-80° F. can weaken bacteria and make the inoculant less effective Methods of Seeding

i. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.

Seed Specifications

If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen; P205 (phosphorous); 200 lbs/ac; K20 (potassium): 200 lbs/ac.

Lime — use only ground agricultural limestone, (Up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.

Seed and fertilizer shall be mixed on site and seeding shall be done immediately and

without interruption.

Ary Seeding: This includes use of conventional drop or broadcast spreaders.

a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summairies or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil confact.

b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

iii. Orill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting. Where practical, seed should be applied in two directions perpendicular to each other Apply half the seeding rate in each direction.

Mulch Specifications (In order of preference)

i. Straw shall consist of thoroughly threshed wheat, rec or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.

Wood Cellulose Fiber Mulch (WCFN)

a. WCFM shall consist of specially prepared wood cellulose processed into a uniform

WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread sturry. WCFM, including dye, shall contain no germination or growth inhibiting factors. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation

ind will blend with seed, fertilizer and other additives to form a homogeneous slurr moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.

WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic.

WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pt range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

The sterile straw mulch should be used in areas where one species of grass is desired. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.

If grading is completed outside of the seeding season, mulch along shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications. ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch

n. When straw mulch is used, it shall be spread over all seeded dreas at the rate of 2 tons/acre. Mulch shall be applied to a uniform toose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.

iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gattons of water.

Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed b preference), depending upon size of area and erosion hazard:

i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the compour if possible.

ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and

mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area should be appear uniform after binder application. Synthetic binders — such as Acrylic OLR (Agro-Tack), DCA-70 Petroset, Terra To

application. Synthetic binders - such as Acrylic OLR (Agro-Tack), UCA-10 reprosel, te II. Terra Tack AR or other approved equal may be used at rates recommended by the iv. Lightweight plastic netting may be stapted over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long. All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.

Construction sequence (Refer to Figure 3 below): a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
b. Perform Phase 1 excavation, dress, and stabilize.
c. Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as

necessary. Perform final phase excavation, dress and stabilize. Overseed previously seeded

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions int he operation of completing the operation out of the seeding season will necessitate the application of temporary stabilization. J. Incremental Stabilization of Embankments - Fill Slopes

Embankments shall be constructed in lifts as prescribed on the plans. ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches

15", or when the grading operation ceases as prescribed in the plans.

iii. At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.

iv. Construction sequence: Refer to Figure 4 (below).

truction sequence: Refer to Figure 4 (below).

Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct slope silt fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.

Place Phase 1 embankment, dress and stabilize.

Place Phase 2 embankment, dress and stabilize.

Place final phase embankment, dress and stabilize.

Overseed previously seeded

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization. SECTION 2 - TEMPORARY SEEDING

Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover. Permanent Seeding is required. A. Seed mixtures - Temporary Seeding

i. Select one or more of the species or mixtures listed in Table 26 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Temporary seeding summary below, along with application rates, seeding dates and seeding depths. If this summary is not put on the plans and completed, then Table 26 must be put on the plans.

ii. For sites having soil tests performed, the rates shown on this table shall be deleted and the rates ecommended by the testing agency shall be written in Soil tests are not required for Temporary Seeding

5	eed Mixture (Hardiness Zone From Table 26	_63)			Fertilizer Rate	Lime Rate
No.	Species	Application Rate (lb/ac	Seeding Dates	Seeding Depths	(10-10-10)	dine kaje
1	RYE	140	3/15 - 5/31, 8/1 - 10/31	1" - 2"	600 lb/ac	2 tons/ac
2	BARLEY OR RYE PLUS FOXTAIL MILLOT	150	6/1 - 7/31		(15 lb/1000sf)	(100 lb/1000sf

SECTION 3 - PERMANENT SEEDING Seeding grass and legumes to establish groung cover for a minimum of one year on disturbed areas generally receiving low maintenance.

A Seed mixtures - Permanent Seeding i. Select one or more of the species or mixtures listed in Table 25 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Permanent Seeding Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 26. If this summary is not put on the construction plans and completed, then Table 25 must be put on the plans. Additional planting specifications for exceptional sites such as shorelines, streambanks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-SCS Techinical Field Office Guide. Section - Critical Area Planting. For special lawn maintenance areas, see Sections IV Sod and V Turforass.

rates recommended by the soil testing agency shall be written in. iii. For areas receiving low maintenance, apply ureaform fertilizer (46-0-0) at 3 1/2 lbs/1000 sq. ft. (150 lbs/ac), in addition to the above soil amendments shown in the table below, to be performed at

ii. For sites having disturbed area over 5 areas, the rates shown on this table shall be deleted and the

Seed Mixture (Hardiness Zone <u>6a</u> ) From Table 25						Fertilizer R (10-20-20		Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Date	Seeding Depths	N	P205	K20	134
1	TALL FESCUE (05%) KENTUCKY BLUEGRASS (5%) PERENNIAL RYEGRASS (10%)	125 15 10	3/15 - 6/1. 8/1 - 10/1	1" - 2"	(2.0 lb/	(4  b/	175 lb/ac (4 lb/	(100 lb/
2	TALL FESCUE (80%) HARD FESCUE (20%)	120 30	3/15 ~ 6/1. 8/1 - 10/1	1" - 2"	1000sf)	1000sf)	1000sf)	1000sf)

MINIMUM 6" OF 2"-3" AGGREGATE

OVER LENGTH AND WIDTH OF

STRUCTURE

— \* 50' MINIMUM

LENGTH

PROFILE

IO' MINIMUM

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

residences to use aeotextile

PLAN VIEW

Construction Specification

3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior

4. Stone – crushed aggregate (2" to 3") or reclaimed or recycled concrete

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

to placing stone. \*\*The plan approval authority may not require single family

equivalent shall be placed at least 6" deep over the length and width of the

entrances shall be piped through the entrance, maintaining positive drainage. Pipe

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

according to the amount of runoff to be conveyed. A 6" minimum will be required.

installed through the stabilized construction entrance shall be protected with a

has no drainage to convey a pipe will not be necessary. Pipe should be sized

Location - A stabilized construction entrance shall be located at every point

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

where construction traffic enters or leaves a construction site. Vehicles leaving

the site must travel over the entire length of the stabilized construction entrance

5. Surface Water - all surface water flowing to or diverted toward construction

\*\* GEOTEXTILE CLASS 'C'

OR BETTER

#### TOPSOIL SPECIFICATIONS

into compliance with the following:

per million shall not be used.

dissipation of phyto-toxic materials.

Stabilization Methods and Materials.

V. Topsoil Application

in elevation

practices such as diversions.

depressions or water pockets.

under COMAR 26.04.06.

requirements prior to use.

the normal lime application rate.

prescribed to raise the pH to 6.5 or higher.

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

c. Topsoil having soluble salt content greater than 500 parts

d. No sod or seed shall be placed on soil which has been

treated with soil sterilants or chemicals used for weed control

Note: Topsoil substitutes or amendments, as recommended by a

appropriate approval authority, may be used in lieu of natural

ii. Place topsoil (if required) and apply soil amendments as

ii. Grades on the areas to be topsoiled, which have been

previously established, shall be maintained, albeit 4" - 8" higher

lightly compacted to a minimum thickness of 4". Spreading shall

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

iv. Topsoil shall not be placed while the topsoil or subsoil is in a

VI. Alternative for Permanent Seeding - Instead of applying the

i. Composted Sludge Material for use as a soil conditioner fo

prescribe amendments and for sites having disturbed areas under

a. Composted sludge shall be supplied by, or originate from,

person or persons that are permitted (at the time of acquisition

of the compost) at the Maryland Department of the Environment

b. Composted sludge shall contain at least 1 percent nitrogen

1.5 percent phosphorus, and 0.2 percent potassium and have a

the appropriate constituents must be added to meet the

iv. Composted sludge shall be amended with a potassium

Ph of 7.0 to 8.0. If compost does not meet these requirements,

c. Composted sludge shall be applied at a rate of 1 ton/1,000

fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3

sites having disturbed areas over 5 acres shall be tested to

full amounts of lime and commercial fertilizer, composted sludge

in a condition that may otherwise be detrimental to

and amendments may be applied as specified below:

5 acres shall conform to the following requirements.

proper grading and seedbed preparation.

frozen or muddy condition, when the subsoil is excessively wet or

be performed in such a manner that sodding or seeding can

iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and

specified in 10.0 Vegetative Stabilization - Section 1 - Vegetative

i. When topsoiling, maintain needed erosion and sediment control

Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment

until sufficient time has elapsed (14 days min.) to permit

qualified agronomist or soil scientist and approved by the

b. Organic content of topsoil shall be not less than 1.5 percent

Definition Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose

in diameter.

NOTE: FENCE POST SPACING SHALL NOT EXCEED IN

TRATE

EMBED FILTER CLOTH &

MINIMUM INTO GROUND \* IF MULTIPLE LAYERS ARE REQUIRED TO ATTAIN 42

EXISTING PAVEMENT -

STANDARD SYMBOL

SCE W

---- PIPE AS NECESSARY

TRURTE

**GROUND** 

SURFACE

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 1. 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 turnish continuing supplies of moisture and plant growth. 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

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

Construction and Material Specifications 1. 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 Experimental Station. II. Topsoil Specifications - Soil to be used as topsoil must meet

the following: i. Topsoil shall be a loam, sandy loam, clay loam, sitt 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"

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 a 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.

II. For sites having disturbed areas under 5 acres: i. Place topsoil (if required) and apply soil amendments as specified in 10.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials. III. For sites having disturbed areas over 5 acres:

SEDIMENT CONTROL NOTES i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and time amendments required to bring the soil

1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LISCENSES AND PERMITS, SEDIMENT CONTROL DIMSION PRIOR ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY TABILIZATION SHALL BE COMPLETED WITHIN: 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 THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE. ) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL

EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES. 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 1.072 ACRES AREA TO BE ROOFED OR PAVED 0.37 ACRES AREA TO BE VEGETATIVELY STABILIZED 0.702 ACRES

OFFSITE WASTE/BORROW AREA LOCATION STOCKPILING WILL NOT BE PERMITTED ON SITE. 6) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE. ADDITIONAL SEDIMENT 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. 1) 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

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 occeptable means before seeding, if not previously

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 sa.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 once 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 previous 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. Horrow or disc into

upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureoform fertilizer (9 tbs. per 1000 sq.ft.). 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. Horrow 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. 3) Seed with 60 lbs. per acre Kentucky 31 Toll Fescue and mulch with 2 tons per acre well anchored straw.

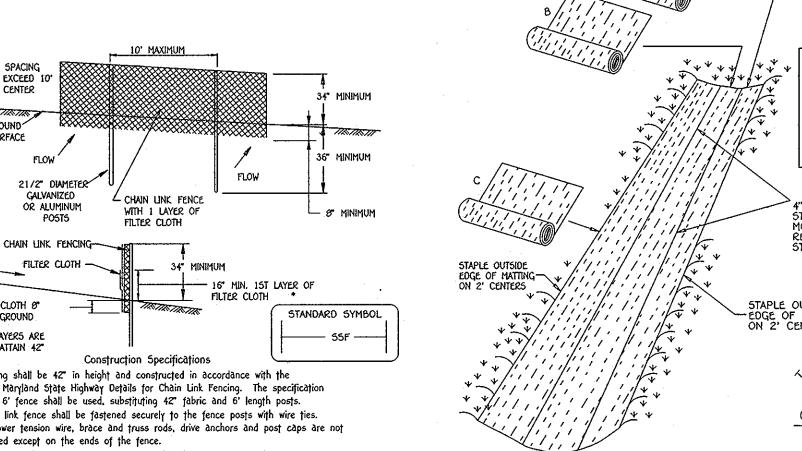
Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gol. per acre (5 gol. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or 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.

# SEQUENCE OF CONSTRUCTION

1.	OBTAIN GRADING PERMIT	1 DAY
2.	INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN	3 DAYS
3.	CLEAR AND GRUB TO LIMITS OF DISTURBANCE	4 DAYS
4.	INSTALL TEMPORARY SEEDING	2 DAYS
5	CONSTRUCT BUILDINGS	60 DAYS
6.	FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE	14 DAYS
7.	REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR.	7 DAYS



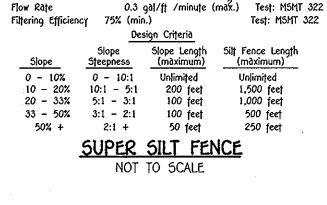
1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.

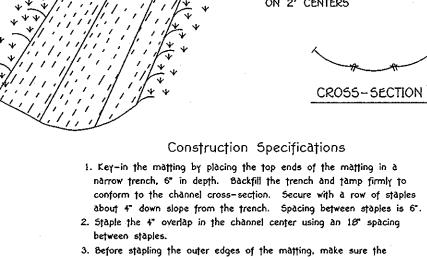
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence. 3. Filter cloth shall be fastened securely to the chain link fence with ties spaced

every 24" at the top and mid section. 4. Filter cloth shall be embedded a minimum of 8" into the ground. 5. When two sections of filter cloth adjoin each other, they shall be overlapped

by 6" and folded. 6. 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 7. Filter cloth shall be fastened securely to each fence post with wire ties of

staples at top and mid section and shall meet the following requirements for Geotextile Class F: Tensile Strength Test: MSMT 509 50 lbs/in (min.) Test: MSMT 509 20 lbs/in (min.) Tensile Modulus 0.3 gal/ft /minute (max.) Flow Rate





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

<u>\_ŧ\_</u>|| ||<u>ŧ\_</u>

TYPICAL STAPLES NO. 11

OVERLAP OF MATTING

REQUIRED. ATTACH STAPLES ON 10" CENTERS

STRIPS WHERE TWO OR MORE STRIP WIDTHS ARE

GAUGE WIRE

the top strip shall overlap the upper end of the lower strip by 4" shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side. 6. The discharge end of the matting liner should 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 keyed-in.

> EROSION CONTROL MATTING NOT TO SCALE

# 5CALE: 1" = 30"

#### FISHER, COLLINS & CARTER, INC. MIL ENGINEERING CONSULTANTS & LAND SURVEYOR entennial square office park – 10272 Baltimore national pik

(410) 461 - 2855

ENGINEER'S CERTIFICATE 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 ments of the Howard Soil Conservation District."

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 all 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 Sectional Architecture beginning the project. I also authorize periodic on-site inspection by the Moward Soil Conservation District." SPENCER PADGETT

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly

icensed professional engineer under the laws of the State of Maryland, License No. 13204, Expiration Date: November 3, CHARLES J. CROVA, SR., P.E.

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL

DATE DESCRIPTION REVISION BLOCK 4/16/10 4-15-1

OWNER OLD FREDERICK ROAD REAL ESTATE HOLDINGS, LLC 8860 COLUMBIA PARKWAY SUITE 301 COLUMBIA, MARYLAND 21045 443-926-0021 <u>BUILDER/DEVELOPER</u>

ARRISBROOK, LLC 8320 MAIN STREET ELLICOTT CITY, MARYLAND 21043 443-926-0021

ECTION/AREA PARCEL5 SAINT CHARLES VIEW 416 1-5 ELEC. DIST CENSUS ZONE 19777 6023.0 23 16 **SECOND** WATER CODE SEWER CODE J01 AND H07 5992000

SEDIMENT/EROSION CONTROL NOTES & DETAILS SINGLE FAMILY DETACHED

SAINT CHARLES VIEW LOTS 1 THRU 4 AND OPEN SPACE LOT 5

"A Resubdivision of Terra Maria, Parcel F-1, Plat No. 13997" ZONED: R-5C TAX MAP No.: 16 GRID No.: 23

PART OF PARCEL No.: 416 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: MARCH 15, 2010

SHEET 4 OF 4

50P-10-070