SUPPLEMENTAL PLAN, LANDSCAPE, TOPOGRAPHY, AND STORMWATER MANAGEMENT PLAN

TALBOTS WOODS II

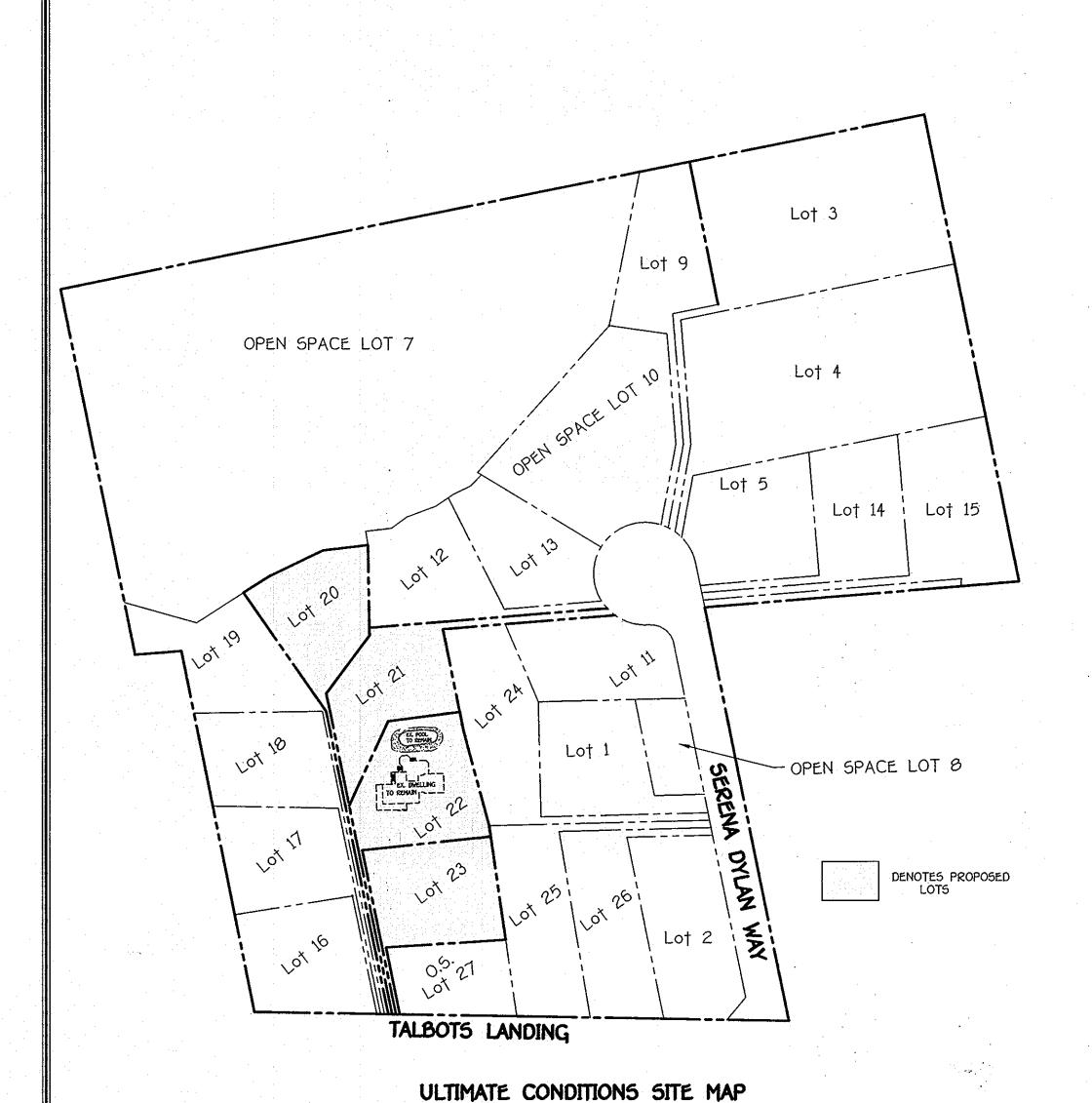
Lots 20 Thru 23 Of Phase Two

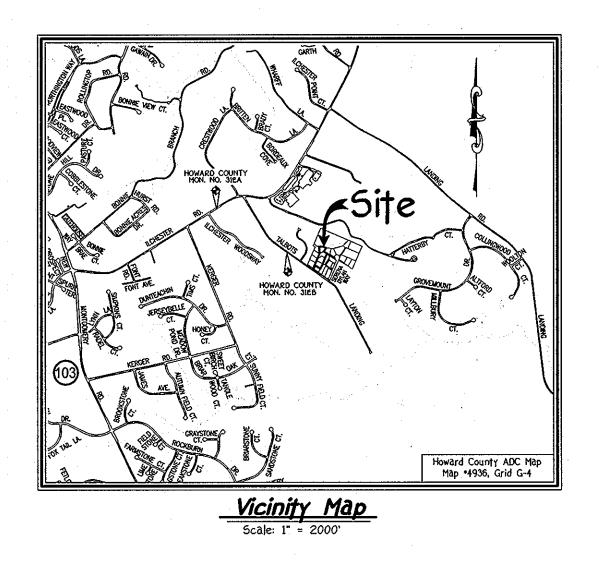
(A Resubdivision Of Buildable Bulk Parcel 'H', As Shown On Plats Entitled "Talbots Woods II, Lots 24-26 Of Phase One & Lots 16 Thru 19, Open Space Lot 27 And Buildable Bulk Parcel 'H' Of Phase Two" Recorded Among The Land Records Of Howard County, Maryland As Plat Nos. 21536 And 21537)

ZONING: R-20

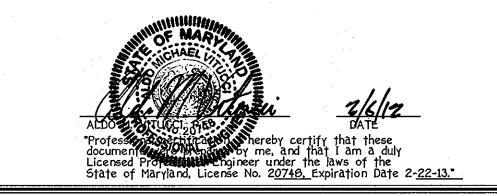
TAX MAP No. 31 GRID No. 16 P/O PARCEL No. 863

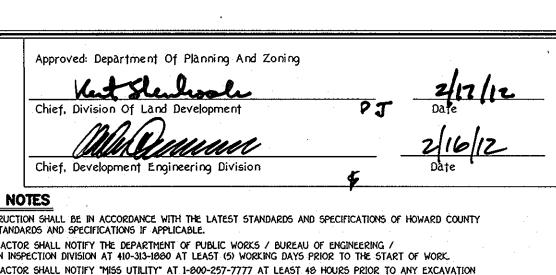
STORMWATER MANAGEMENT PRACTICES					
LOT No.	STREET ADDRESS	DISCONNECTION OF NON-ROOFTOP RUNOFF N-2 (Y/N)	SHEET FLOW TO CONSERVATION AREAS N-3 (Y/N)	DRY WELLS M-5 (NUMBER)	
20	7418 FEDERLINE LANE	· N	Υ	1	
21	7414 FEDERLINE LANE	Ý	N	4	
22	7410 FEDERLINE LANE	N/A EX. HOUSE	N/A EX. HOUSE	N/A EX. HOUSE	
23	7406 FEDERLINE LANE	LANE EXISTING BIO-RETENTION FACILITY ON ADJACENT LOT 2			





FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND





GENERAL NOTES 2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK.

CONTROL STATIONS NO. 31 EA AND NO. 31 EB. HOWARD COUNTY MONUMENT NO. 31 EA - N 569641.1294, E 1374816.0271, ELEV. 468.899 HOWARD COUNTY MONUMENT NO. 31 EB - N 568730.9925, E 1376273.5708, ELEV. 452.700' 6. SUBJECT PROPERTY ZONED R-20 PER 02/02/04 COMPREHENSIVE ZONING PLAN AND COMP LITE ZONING REGULATIONS 7. BACKGROUND INFORMATION

a. SUBDIVISION NAME: TALBOTS WOODS II c. PARCELS NO. p/o 063 d ZONING R-20 e. ELECTION DISTRICT: FIRST f. GROSS AREA OF TRACT = 1.446 AC.* g. NUMBER OF BUILDABLE LOTS: 4 h NUMBER OF OPEN SPACE LOTS: 0 . NUMBER OF BUILDABLE BULK PARCELS: 0 k. Number of Non-Buildable Parcels: 0 I. AREA OF BUILDABLE LOTS: 1.446 AC+

m. AREA OF OPEN SPACE LOTS: 0.00 AC.
n. AREA OF NON-BUILDABLE BULK PARCELS: 0.00 AC.
o. AREA OF BUILDABLE BULK PARCEL: 0.00 AC.
p. AREA OF NON-BUILDABLE PARCEL: 0.00 AC. 4. AREA OF ROADWAY TO BE DEDICATED: 0.00 AC. F-11-011, F-11-025, SDP-11-005, SDP-11-007 & F-12-034

8. OPEN SPACE REQUIRED = (15.222 AC. X 30X) = 4.567 AC.

B). OPEN SPACE PROVIDED = 5.052 AC. PER F-08-194, F-09-096 AND F-11-025 (4.045 AC. + 0.127 AC. + 0.657 AC. + 0.223 AC.) C). NON-CREDITED OPEN SPACE PROVIDED = 0.00 AC.

RECREATIONAL OPEN SPACE TABULATION: LOT 1 THRU 5 + LOT 9 + LOTS 11 THRU 15 + LOTS 16 THRU 19 + LOTS 24 THRU 26 + LOTS 20 THRU 23 = 22 LOTS.

B). TOTAL CREDITED RECREATIONAL AREA PROVIDED = 4,886 SQ. FT. (OPEN SPACE LOT 8, PLAT NO. 20543, F-08-194)

11. WATER & SEWER ARE PUBLIC (CONTRACT NO. 14-4450-D & 14-4601-D) THIS SUBDIVISION IS SUBJECT TO SECTION 18.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND/OR SEWER SERVICE HAS BEEN GRANTED UNDER THE TERMS AND PROVISIONS, THEREOF

13. ALL EXISTING STRUCTURES LOCATED ON SITE ARE TO REMAIN UNLESS OTHERWISE NOTED.

15. TOPOGRAPHIC CONTOURS BASED ON FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS AND CARTER, INC. DATED OCTOBER, 2006 16. THERE ARE NO AREAS OF STEEP SLOPES LOCATED ON THIS PROPERTY AS DEFINED BY THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SECTION 16.116.b. 7. STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH THE : & II. IT WAS DETERMINED THAT THE PROJECT MET THE CRITERIA OUTLINED IN THE MDE STORMWATER MANAGEMENT REGULATIONS GUIDELINES FOR IMPLEMENTATION FOR ACCEPTANCE OF THE 2000 DESIGN CRITERIA AND GRANTED A WAIVER. THIS PLAN RECEIVED PRELIMINARY PLAN APPROVAL (P-08-009) ON DECEMBER 12, 2000 AND FINAL PLAN APPROVAL (F-11-025) ON 12/16/10. THIS PLAN IS ALSO SUBJECT TO THE EXPIRATION OF THIS WAIVER UNLESS ALL STORMWATER MANAGEMENT IS CONSTRUCTED BY MAY 4, 2017, FOR ONSTRICTED LINDER (F-08-194) WATER MIALITY AND CHANNEL PROTECTION VOLLIME HAS BEEN PROVIDED BY A POCKET POND FACILITY NO. 1 UNDER (F-08-194). THIS PROJECT IS EXEMPT FROM THE LATEST 2010 MDE SWM DESIGN MANUAL UNTIL MAY 4, 2017, AS LONG AS CONSTRUCTION IS COMPLETED BY THIS DATE. OVERBANK FLOOD PROTECTION VOLUME AND EXTREME FLOOD VOLUMES ARE

IND THE RUNOFF FROM THE PROPOSED HOUSE AND DRIVEWAY ON LOT 23 WILL BE TREATED IN AN EXISTING SWM FACILITY CONSTRUCTED UNDER F-11-025. RUNOFF FROM THE PROPOSED HOUSES AND DRIVEWAYS ON LOTS 20 AND 21 WILL BE TREATED USING HE FOLLOWING PRACTICES: LOT 20: SHEETFLOW TO CONSERVATION AREA (N-3) AND A DRYWELL (M-5) LOT 21: NON-ROOFTOP 19. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS

SURFACE - 6" OF COMPACTED CRUSHER RUN BASE W/TAR AND CHIP COATING (1-1/2" MIN.) GEOMETRY - MAX, 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS; DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE; MAINTENANCE/SUFFICIENT TO INSURE ALL WEATHER USE.

FOR DRIVEWAY ENTRANCE DETAILS, REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R - 6.03. 19. THERE IS NO FLOODPLAIN WITHIN THIS SITE. 20. THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED AND APPROVED UNDER 5-05-010

21. "NO GRADING, CLEARING, DUMPING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT: HOWEVER. forest management practices as defined in the deed of forest conservation easement are allowed."

23. THE FOREST STAND DELINEATION AND WETLAND DELINEATION FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., DATED DECEMBER, 2003 AND APPROVED UNDER 5-05-010. 25. 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 line only and not onto the flag or pipestem lot driveway 26. NO CEMETERIES EXIST WITHIN THIS SUBDIVISION. 27. THE LANDSCAPE REQUIREMENTS FOR THIS SUBDIVISION HAVE BEEN FULFILLED WITH THE APPROVAL OF F-11-025

COUNCIL BILL NO. 75-2003 NAD THE COMP LITE ZONING REGULATION AMENDMENTS EFFECTIVE 7/28/06. DEVELOPMENT OF CONSTRUCTION ON THESE LOTS OR PARCELS MUST COMPLY WITH SETBACKS AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF A BUILDING OR GRADING PERMIT APPLICATION. 30. AN ADDRESS RANGE SIGN WAS PROVIDED (F-11-025) FOR LOTS 17-20 & 22-23 AT THE INTERSECTION OF TALBOTS LANDING AND THE USE-IN-COMMON DRIVEWAY. EACH NUMBER SHALL BE A MINIMUM OF 3" PLAIN BLOCK LETTERING. IN ADDITION, THERE SHALL BE AN ADDRESS

31. THE FOREST CONSERVATION REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAS BEEN FULFILLED BY PROVIDING 2.20 ACRES OF ON-SITE AFFORESTATION. A total surety of \$49,650.40 based on 2.20 ac. afforestation has been provided with the developer's agreemen FOR F-08-194. NO CLEARING GRADING DUMPING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION

32. APPROVAL OF A SITE DEVELOPMENT PLAN FOR LOTS 20, 21 AND 23 IS REQUIRED FOR THE DEVELOPMENT OF ALL RESIDENTIAL LOTS WITHIN THIS SUBDIVISION PRIOR TO ISSUANCE OF ANY GRADING OR BUILDING PERMITS FOR NEW HOUSE CONSTRUCTION IN ACCORDANCE WITH SECTION 16.155 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. 34. PLAT IS SUBJECT TO WP-02-022 WHICH THE PLANNING DIRECTOR, ON NOVEMBER 2, 2007, APPROVED A REQUEST TO FEET OF ITS PERIMETER FRONTING ON A PUBLIC OR PRIVATE ROAD AND THAT IT IS CENTRALLY LOCATED TO THE LOT: SERVED. HOWEVER, A REDESIGN OF THE SUBDIVISION LOTS HAS PROVIDED RECREATIONAL OPEN SPACE FRONTING A

35. ARTICLES OF INCORPORATION FOR TALBOTS WOODS II HOMEOWNERS ASSOCIATION, INC. WAS FILED WITH THE 36. The existing private use-in-common driveway access easement for the benefit of lots 17 thru 19, open SPACE LOT 27 AND BUILDABLE BULK PARCEL "H" HAS BEEN RECORDED IN THE LAND RECORDS OF HOWARD COUNTY. BENEFIT OF LOT 21 HAS BEEN RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, MARYLAND IN LIBER 13409 AT

37. THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH SECTION 16.127 -RESIDENTIAL INFILL DEVELOPMENT-OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPER OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH IHE EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PËRIMETER LANDSCAPING, BERMS, FENCES, SIMILAR HOUSING UNIT TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES. 38. DECLARATIONS OF COVENANTS AND EASEMENTS FOR THE TALBOTS WOODS II HOMEOWNERS ASSOCIATION, INC. ARE RECORDED AMONG THE FOLIO 162 (SECOND AMENDMENT); LIBER 12401, FOLIO 234 (THIRD AMENDMENT); LIBER 12738, FOLIO 225 (FOURTH AMENDMENT)

FIFTH AMENDMENT TO BE RECORDED SIMULTANEOUSLY WITH THE RECORDATION OF THIS PLAT. 39. THE WELL AND SEPTIC SERVING THE EXISTING DWELLING ON LOT 22 WILL BE PROPERTY ABANDONED AND DOCUMENTATION DELIVERED TO THE HEALTH DEPARTMENT AT THE TIME IN WHICH PUBLIC WATER AND SEWER SERVICE BECOMES AVAILABLE TO THE LOT AS STATED

Supplemental Plan
Talbots Woods I

Lots 20 Thru 23 Of Phase Two

(A Resubdivision Of Buildable Bulk Parcel 'H', As Shown On Plats Entitled "Talbots Woods 11, Lots 24-26 Of Phase One & Lots 16 Thru 19, Open Space Lot 27 And Buildable Bulk Parcel 'H' Of Phase Two" Recorded Among The Land Records Of Howard County, Maryland As Plat Nos. 21536 And 21537)

> Tax Map No. 31 Grid No. 16 Parcel No. p/o 863 First Election District Howard County, Maryland Scale: As Shown Date: February 3, 2012

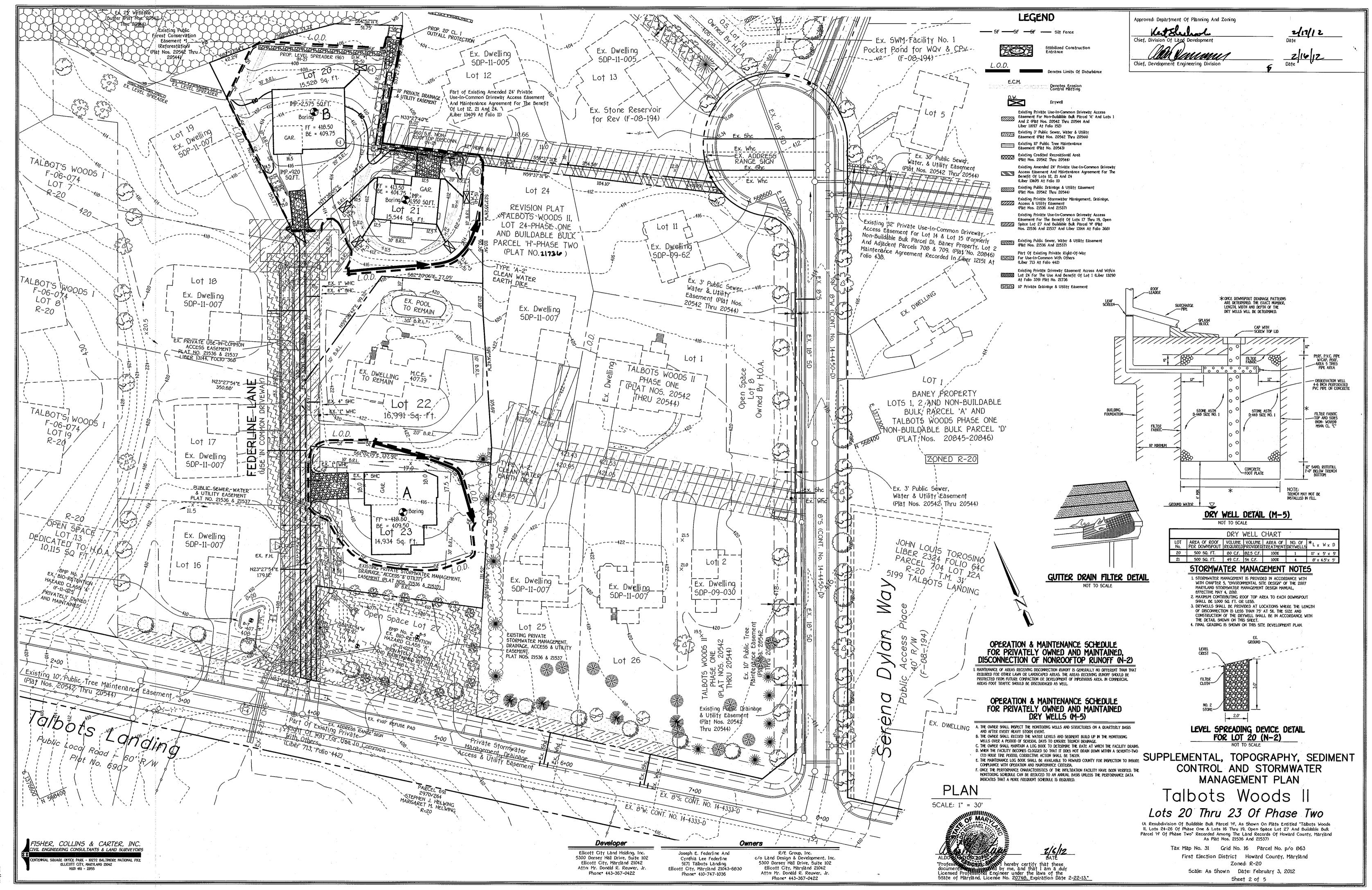
FISHER, COLLINS & CARTER, INC.

Ellicott City Land Holding, Inc 5300 Dorsey Hall Drive. Suite 10 Ellicott City. Maryland 21042 Attn: Mr. Donald R. Reuwer, Jr.

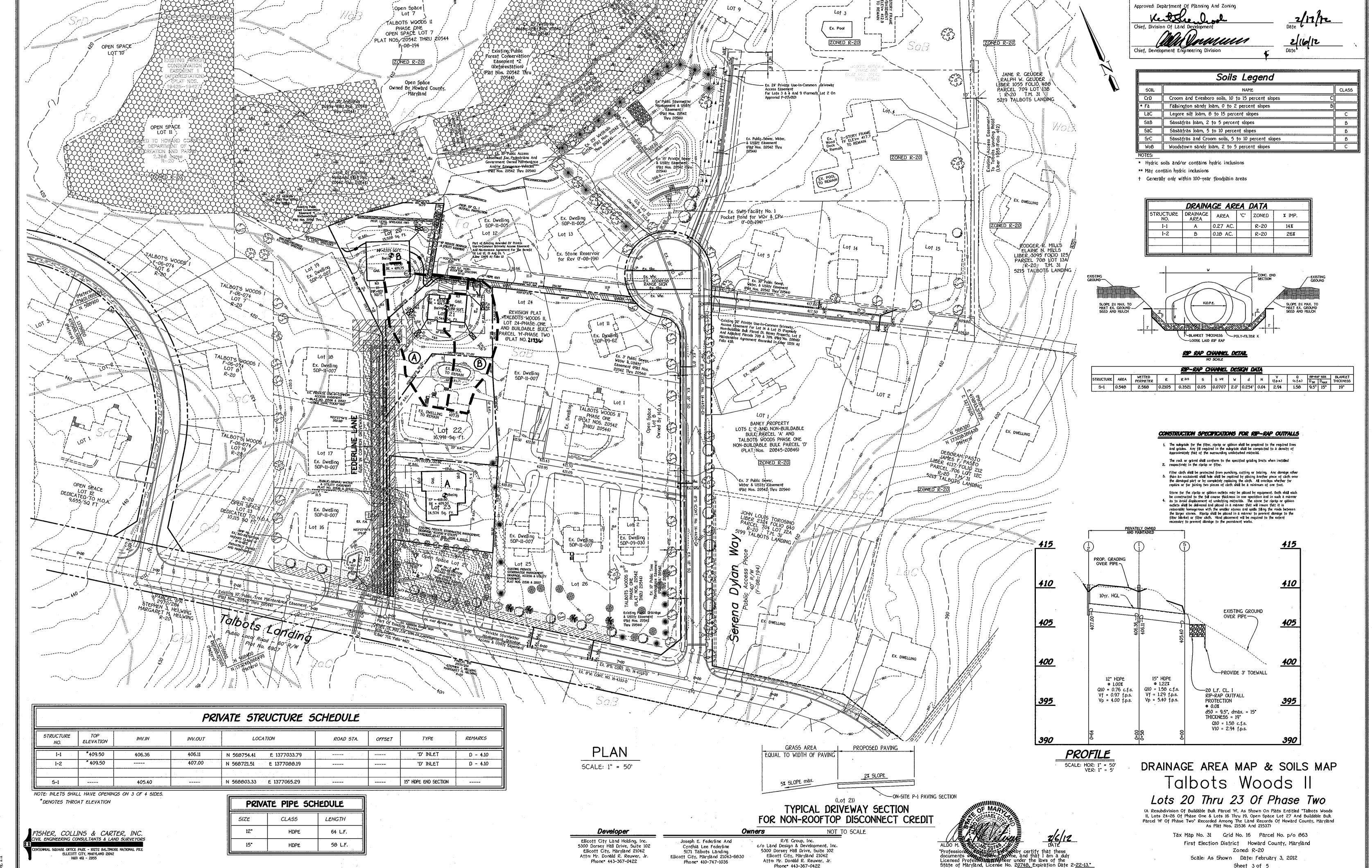
Joseph E. Federline And Cynthia Lee Federline 5171 Talbots Landing Ellicott City, Maryland 21043-6030

R/E Group, Inc. c/o Land Design & Development, Inc 5300 Dorsey Hall Drive, Suite 102 Ellicott City, Maryland 21042 Attn: Mr. Donald R. Reuwer, J.

F-12-032



F-12-032



I:\2006\06053\dwg\SUPPLEMENTAL LOTS 20-23\06053 SHEET 2-3 Lots 20 - 23.d

F-12-032

Using vegetation as cover for barren soil to protect it from forces that cause erosion. Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilize 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 Olup 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

i. Install erosion and sediment control structures (either temporary of permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.

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.

B. Soil Amendments (Fertilizer and Lime Specifications)

A. Site Preparation

i. Soil tests must be performed to determine the exact ratios and application rates for both lime and 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. 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

of the producer.

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 98-100% 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.

C. Seedbed Preparation
i. Temporary Seeding a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of 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 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 running parallel to the contour of the slope.

b. Apply fertilizer and lime as prescribed on the plans.

c. In corporate lime and fertilizer into the top 3-5° of soil by disking or other suitable means.

ii. Permanent seeding

a. 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). 3. 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 it lovegrass of serecia lespedezas is to be planted, then a sandy soil (30% si

plus clay) would be acceptable. Soil shall contain 1.5% minimum organic matter by weight. 5. Soil must contain sufficient pore space to permit adequate root penetration. 5. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.

b. 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 topsoi to the surface area and to create horizontal erosion check slots to prevent topsoil from

sliding down a slope.

c. Apply soil amendments as per soil test or as included on the plans.

d. 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. Institution preceding the date of sowing such material on this 100.

Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.

Il 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 than 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.

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

On the application rates amounts will not a. 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. b. 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.

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

c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.

ii. Dry 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 Summaries or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.

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

iii. Drill 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.

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

F. Mulch Specifications (In order of preference)

i. Straw shall consist of thoroughly threshed wheat, rye 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.

as specified in the Maryland Seed Law.

ii. Wood Cellulose Fiber Mulch (WCFM)

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

b. 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 slurry.

c. WCFM, including dye, shall contain no germination or growth inhibiting factors.

d. 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 and will blend with seed, fertilizer and other additives to form a homogeneous slurry

The mulch material shall form a blotter-like ground cover, on application, having 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.

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

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

Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.

i. 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 shall be applied to a uniform loose 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 gallons of water.

H. 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 by

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 contour 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 the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

of water.

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 DLR (Agro-Tack), DCA-70 Petroset, Terra Tax II. Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.

iv. Lightweight plastic netting may be stapled 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.

1. Incremental Stabilization - Cut Slopes
i. 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 ii. 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.

d. Perform final phase excavation, dress and stabilize. Overseed previously seeded areas as necessary. 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 embarkment 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).

a. 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.

b. Place Phase 1 embankment, dress and stabilize.

c. Place Phase 2 embankment, dress and stabilize.

d. Place fool phase embankment dress and stabilize.

the operation out of the seeding season will necessitate the application of temporary stabilization.

d. Place final phase embankment, dress and stabilize. Overseed previously seeded areas as necessary.

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of and placement of topsoil (if required) grading and permanent seed and mulch, any interruptions in the operation or completing

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.

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.

Seed Mixture (Hardiness Zone <u>6b</u>) From Table 26					Fertilizer	Lime Rate	
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	(10-10-10)		
1	BARLEY OATS RYE	122 96 140	3/1 - 5/15, 8/15 - 10/15	1" - 2" 1" - 2" 1" - 2"	600 b/ac (15 b/1000sf)	2 tons/ac (100 tb/1000sf)	

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

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

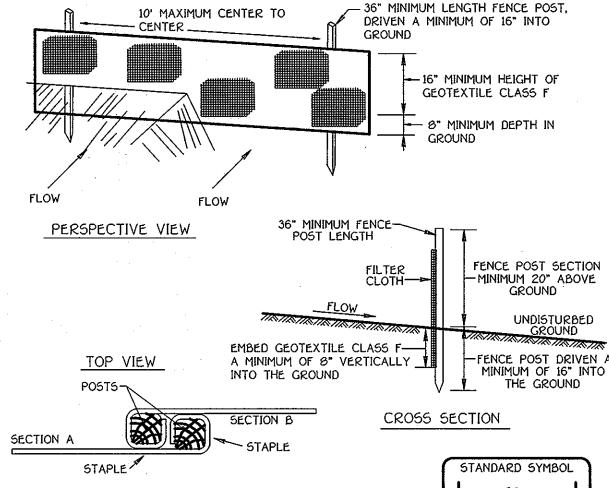
A. Seed mixtures - Permanent Seeding

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, streabarks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-SCS Techinical Field Office Guide, Section 342 - Critical Area Planting. For special lawn maintenance areas, see Sections IV Sod and V Turfgrass.

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

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	Seed Mixture (Hardiness Zone6b_) From Table 25				Fertilizer Rate (10-20-20)			Lime Rate
No	. Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	И	P205	K20	
3	TALL FESCUE (85%) PERENNIAL RYE GRASS (10%) KENTUCKY BLUEGRASS (5%)	125 15 10	3/1 - 5/15, 8/15 - 10/15	1" - 2"	90 lb/ac (2.0 lb/ 1000sf)	0 lb/ (4 lb/	(4 16/	2 tons/ac (100 lb/
10	TALL FESCUE (80%) HARD FESCUE (20%)	120 30	3/1 - 5/15. 8/15 - 10/15	1" - 2"				1000sf)



JOINING TWO ADJACENT SILT FENCE SECTIONS Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot. 2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F

Tensile Strength 50 |bs/in (min.) Test: MSMT 509 20 |bs/in (min.) Test: MSMT 509 Tensile Modulus Flow Rate 0.3 gal ft / minute (max.)2 Test: MSMT 322 Filtering Efficiency 75% (min.) Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass. 4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

Silt Fence Design Criteria

Slope Steepness	(Maximum) Stope Length	(Maximum) Silt Fence Length			
Flatter than 50:1	unlimited	unlimited			
50:1 to 10:1	125 feet	1,000 feet			
10:1 to 5:1	100 feet .	750 feet			
5:1 to 3:1	60 feet	500 feet			
3:1 to 2:1	40 feet	250 feet			
2:1 and steeper	20 feet	125 feet			
	Flatter than 50:1 50:1 to 10:1 10:1 to 5:1 5:1 to 3:1 3:1 to 2:1	Slope Steepness Slope Length Flatter than 50:1 unlimited 50:1 to 10:1 125 feet 10:1 to 5:1 100 feet 5:1 to 3:1 60 feet 3:1 to 2:1 40 feet			

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control reauired

SILT FENCE

DUST CONTROL

DEFINITION CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.

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 AND 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. VEGETATIVE 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 THE SITE, CHISEL-TYPE PLOWS SPACED ABOUT 12"

APART. SPRING-TOOTHED HARROWS AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT. 4. IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY 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,

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.

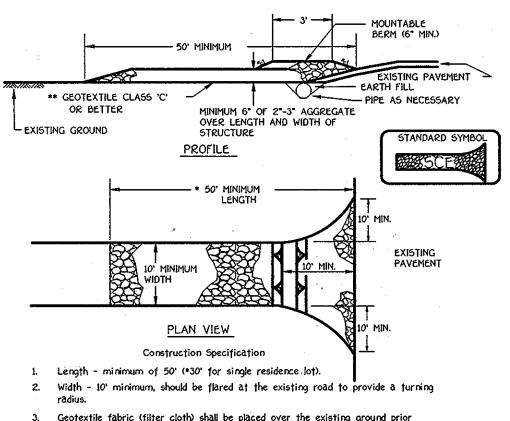
CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING

STRAW BALE DIKES AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR

PERMANENT METHODS

1. PERMENENT 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



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

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.

STABILIZED CONSTRUCTION ENTRANCE

SEDIMENT CONTROL NOTES

1) A MINIMUM OF 40 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LISCENSES 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 MOST CURRENT 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 THEIR PERIMETER IN ACCORDANCE WITH VOL. 1. CHAPTER 12, 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 (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 AREA DISTURBED 0.69 ACRES AREA TO BE ROOFED OR PAVED **ACRES** AREA TO BE VEGETATIVELY STABILIZED ACRES CU.YD5 TOTAL FILL 600 CU.YDS. OFFSITE WASTE/BORROW AREA LOCATION N/A

B) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE

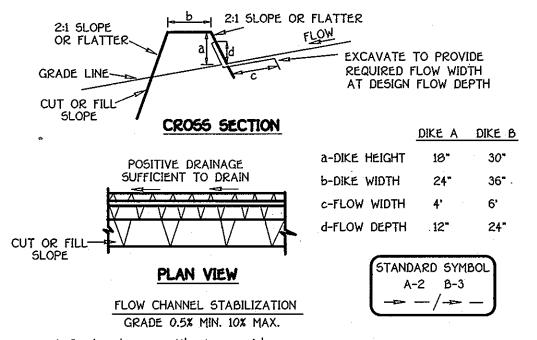
BY THE INSPECTION AGENCY IS MADE.

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

11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL



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

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1 2. Runoff diverted from a disturbed area shall be conveyed to a

sediment trapping device. 3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity. 4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere

with the proper functioning of the dike. 5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.

6. Fill shall be compacted by earth moving equipment. 7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike. 8. Inspection and maintenance must be provided periodically and after

EARTH DIKE

SEQUENCE OF CONSTRUCTION

each rain event.

1. OBTAIN A GRADING PERMIT.

2. NOTIFY "MISS UTILITY" AT LEAST 40 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK.

3. INSTALL THE STABILIZED CONSTRUCTION ENTRANCE, EARTH DIKES AND SUPER SILT FENCE AS SHOWN. (LDAY)

4. UPON COMPLETION OF THE ABOVE WORK RECEIVE PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR PRIOR TO PROCEEDING.

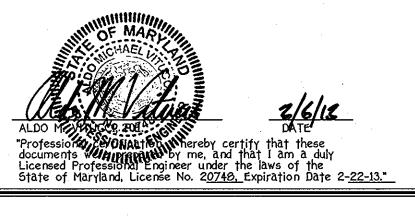
5. CLEAR AND GRUB FOR THE REMAINDER OF THE WORK AREA. (1 DAY)

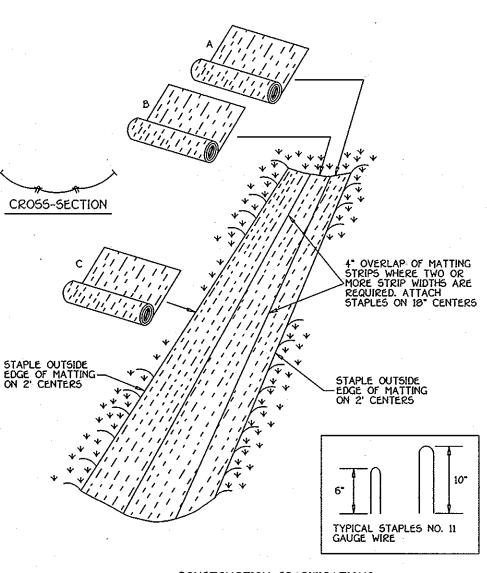
6. INSTALL STORM DRAIN AS SHOWN. CONSTRUCT HOUSES AND DRIVEWAYS ON LOTS 20, 21 & 23. STABILIZE ALL SLOPES IMMEDIATELY UPON COMPLETION OF GRADING. (3 MONTHS)

7. WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROL DEVICES MAY BE REMOVED. STABILIZE ALL AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.

8. NOTIFY HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS FOR FINAL INSPECTION OF THE COMPLETED PROJECT

NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON, AFTER EACH RAINFALL AND ON A DAILY





Approved: Department Of Planning And Zoning

CONSTRUCTION SPECIFICATIONS

1. KEY-IN THE MATTING BY PLACING THE TOP ENDS OF THE MATTING IN A NARROW TRENCH, 6" IN DEPTH. BACKFILL THE TRENCH AND TAMP FIRMLY TO CONFORM TO THE CHANNEL CROSS-SECTION. SECURE WITH A ROW OF STAPLES ABOUT 4" DOWN SLOPE FROM THE TRENCH. SPACING BETWEEN STAPLES IS 6". 2. STAPLE THE 4" OVERLAP IN THE CHANNEL CENTER USING AN 18" SPACING BETWEEN STAPLES.

3. BEFORE STAPLING THE OUTER EDGES OF THE MATTING, MAKE SURE THE MATTING IS SMOOTH AND IN FIRM CONTACT WITH THE SOIL. 4. STAPLES SHALL BE PLACED 2' APART WITH 4 ROWS FOR EACH STRIP, 2 OUTER ROWS, AND 2 ALTERNATING ROWS DOWN THE CENTER. 5. WHERE ONE ROLL OF MATTING ENDS AND ANOTHER BEGINS, THE END OF THE TOP STRIP SHALL OVERLAP THE UPPER END OF THE LOWER STRIP BY 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.

EFFECTED BY THE FLOW MUST BE KEYED-IN.

NOTE: IF FLOW WILL ENTER FROM THE EDGE OF THE MATTING THEN THE AREA

EROSION CONTROL MATTING

SEDIMENT AND EROSION CONTROL NOTES & DETAILS Talbots Woods I

Lots 20 Thru 23 Of Phase Two

(A Resubdivision Of Buildable Bulk Parcel 'H', As Shown On Plats Entitled "Talbots Woods li, Lots 24-26 Of Phase One & Lots 16 Thru 19, Open Space Lot 27 And Buildable Bulk Parcel 'H' Of Phase Two" Recorded Among The Land Records Of Howard County, Maryland As Plat Nos. 21536 And 21537)

> Tax Map No. 31 Grid No. 16 Parcel No. p/o 863 First Election District Howard County, Maryland Zoned: R-20 Scale: As Shown Date: February 3, 2012 Sheet 4 of 5

FISHER, COLLINS & CARTER, INC. IVIL ENGINEERING CONSULTANTS & LAND SURVEYORS nnial souare office park - 10272 Baltimore national pik

(410) 461 - 2855

Owners

Zoned: R-20 Scale: As Shown Date: February 3, 2012 Sheet 5 of 5