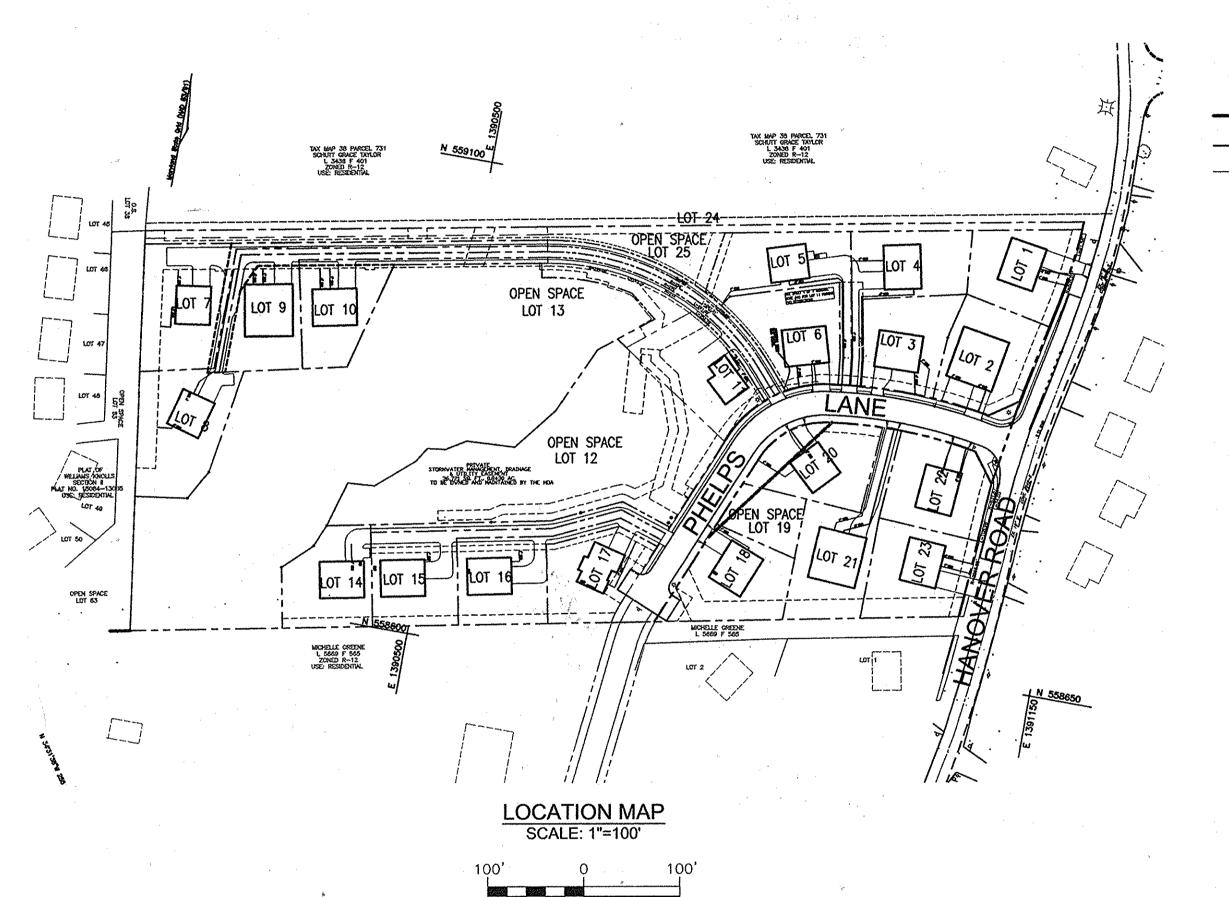
## **GENERAL NOTES** 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF STANDARDS AND SPECIFICATIONS. ALL WORK AND MATERIALS SHALL COMPLY WITH O.S.H.A. STANDARDS. 2. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK. 4. SITE ANALYSIS: GROSS PROJECT AREA: 8.90212 ACRES PRESENT ZONING: R-12 USE OF STRUCTURE: SINGLE FAMILY DETACHED TOTAL BUILDING COVERAGE: 65,301 SF (1.50 AC.) PAVED DRIVEWAY/AREA ON SITE: 27,330 SF. (0.63 AC.) LIMIT OF DISTURBED AREA: 5.27 AC CUT: 8,300 CY FILL: 8,300 CY 5. PROJECT BACKGROUND: DPZ REFERENCES: F-06-97, S-02-19, P-05-11, WP-03-65, WP-13-085, DEVELOPER RESERVES UNTO ITSELF, ITS SUCCESSORS AND ASSIGNS, ALL EASEMENTS SHOWN ON THIS PLAN FOR WATER, SEWER, STORM DRAINAGE, OTHER PUBLIC UTILITIES AND FOREST CONSERVATION (FOREST CONSERVATION AREA), LOCATED IN, ON, OVER AND THROUGH LOTS 1 THROUGH 25. DEVELOPER SHALL EXECUTE AND DELIVER DEEDS FOR THE EASEMENTS HEREIN RESERVED TO HOWARD COUNTY WITH METES AND BOUNDS DESCRIPTION OF THE FOREST CONSERVATION AREA. UPON COMPLETION OF THE PUBLIC UTILITIES AND THEIR ACCEPTANCE BY HOWARD COUNTY, AND IN THE CASE OF THE FOREST CONSERVATION EASEMENTS, UPON COMPLETION OF THE DEVELOPER'S OBLIGATIONS UNDER THE FOREST CONSERVATION INSTALLATION AND MAINTENANCE AGREEMENT EXECUTED BY THE DEVELOPER AND THE COUNTY, AND THE RELEASE OF DEVELOPER'S SURETY POSTED WITH SAID AGREEMENT. THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED OF OF EASEMENT IN THE LAND RECORDS OF HOWARD COUNTY. STORM WATER MANAGEMENT TO BE PROVIDED FOR THIS DEVELOPMENT IN ACCORDANCE WITH 2000 MDE STORMWATER DESIGN MANUAL. THE FACILITY WILL BE LOCATED ON OPEN SPACE LOT 12. OPEN SPACE LOT 12 WILL BE OWNED BY THE H.O.A. WITH PUBLIC STORMWATER MANAGEMENT, DRAINAGE AND UTILITY EASEMENT. THE SWM FACILITY TO BE JOINTLY MAINTAINED BY THE H.O.A. AND HOWARD COUNTY. 9. THERE ARE NO STEEP SLOPES ONSITE WITH A MIN. CONTIGUOUS AREA OF 20.000 SF. 10. FLOODPLAIN STUDY PERFORMED BY ROBERT H. VOCEL ENGINEERING, INC. DATED NOVEMBER 2004. 11. FOREST CONSERVATION PLAN PREPARED BY FREDERICK WARD AND ASSOCIATES, DATED JANUARY 2002. FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION WAS FULFILLED UNDER F-06-097, BY THE RETENTION OF 1.87 AC. (81457.2 x \$0.20 = \$16,291.44) OF FOREST IN A FOREST CONSERVATION EASEMENT PAYABLE BY DEVELOPER AS PART OF THE DEVELOPERS AGREEMENT. A FEE-IN-LIEU PAYMENT FOR REMAINING 1.06 AC. (46,173.60 x \$0.75 = \$34,630.20) IS REQUIRED, WHICH IS PAID TO THE FOREST CONSERVATION FUND. 12. APFO TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, DATED FEBRUARY, 2000. 13. AS PO5-11 RECEIVED APPROVAL PRIOR TO 10/6/2013, THE SUBJECT PROPERTY IS ZONED R-82 IN ACCORDANCE WITH 02/02/04 COMPREHENSIVE ZONING PLAN AND THE COMP. LITE ZONING REGULATIONS EFFECTIVE ON 7/28/06. 14. LANDSCAPING SURETY IN THE AMOUNT OF \$11,700.00 FOR 37 SHADE TREES AND 4 EVERGREEN TREES WAS PAID WITH THE DEVELOPER'S AGREEMENT UNDER F-06-097. 15. SEDIMENT AND EROSION CONTROL WILL BE PROVIDED FOR THIS SITE. 16. THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT. 17. TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL/CEMETERY LOCATIONS ON SITE. 18. STREET TREES ARE REQUIRED FOR THIS SUBDIVISION IN ACCORDANCE WITH SECTION 16.124(e)(1) OF THE SUBDIVISION SURETY IN THE AMOUNT OF \$9,600.00 FOR 32 STREET TREES WILL BE PAID WITH THE DEVELOPER'S AGREEMENT. 19. STREET LIGHTING IS PROVIDED FOR THIS SITE. 20. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE. 21. OPEN SPACE LOT 19 - RECREATIONAL OPEN SPACE MAINTAINED BY HOA OPEN SPACE LOTS 24 & 25 - OPEN SPACE MAINTAINED BY HOA OPEN SPACE LOT 12 - STORMWATER MANAGMENT MAINTAINED BY HOA OPEN SPACE LOT 13 - FOREST CONSERVATION EASEMENT DEDICATED TO HOWARD COUNTY DEPARTMENT OF REC AND PARKS 22. A NOISE STUDY IS NOT REQUIRED FOR THIS SITE. 23. LOTS 4 & 5, 7 THRU 11, LOTS 14 THRU 17 WILL UTILIZE A USE-IN-COMMON DRIVEWAY. HOWARD COUNTY STANDARD DETAIL NO. R-6.06 WILL BE UTILIZED FOR THE ENTRANCE AT THE INTERSECTION OF THE PUBLIC ROAD. 24. TREE PROTECTION FENCING WILL BE PROVIDED AT THE LIMITS OF DISTURBANCE WHERE GRADING IS ADJACENT TO FOREST CONSERVATION RETENTION AREAS AND SENSITIVE ENVIRONMENTAL AREAS, SUCH AS STREAM BUFFERS AND STEEP SLOPES. OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT TO THE PIPESTEM LOT DRIVEWAY. 26. ON 2/7/02, DPW BUREAU OF ENGINEERING APPROVED 8 LOTS TO HAVE NO BASEMENT GRAVITY SEWER SERVICE. SAID LOTS HAVE BEEN IDENTIFIED AT PRELIMINARY PLAN PHASE AND AT FINAL PLAN STAGE. SEE NOTE 39. 27. THIS PLAN IS SUBJECT TO A DESIGN WAIVER TO DESIGN MANUAL, VOLUME III SECTION 2.5.2.H 1. THE APPLICANT HAS SUBMITTED SUFFICIENT EVIDENCE THAT A SIGHT DISTANCE EASEMENT WAS REQUESTED FROM THE ADJACENT PROPERTY OWNER(S) AS A MINIMUM REQUIREMENT FOR APPROVING A WAIVER TO THE CURRENT INTERSECTION SIGHT DISTANCE REQUIREMENTS. 2. THE PROPOSED INTERSECTIONS AS DESIGNED WILL MEET THE REQUIREMETNS FOR ADEQUATE STOPPING SIGHT DISTANCE. THIS PLAN IS SUBJECT TO WP-03-65 TO WAIVE SECTION 16.116(a) TO ALLOW DISTURBANCE OF WETLANDS, WETLANDS BUFFER AND STREAM BUFFER FOR THE CONSTRUCTION OF A USE—IN-COMMON DRIVEWAY TO SERVE 4 RESIDENTIAL LOTS. THE CROSSING FOR THE SEWER MAIN WAS APPROVED. THE THREE CONDITIONS FOR APPROVAL OF WP-03-65 ARE AS FOLLOWS. 1. COMPLY WITH THE COMMENTS FROM THE DEVELOPMENT ENGINEERING DIVISION REGARDING CULVERT CAPACITY AND LIMITING DISTURBANCE TO THAT SHOWN ON THE EXHIBITS DATED 1-14-03 WHICH ACCOMPANIED THE REVISED WAIVER PETITION. 2. COMPLY WITH THE COMMENTS FROM THE SOIL CONSERVATION DISTRICT DURING SUBDIVISION DESIGN. DEVELOPEMENT TO MINIMIZE THE IMPACT OF THE DESIGN AND CONSTRUCTION OF THE DRIVEWAY ON THE WETLANDS. THE DEVELOPER MUST OBTAIN ALL NECESSARY STATE AND/OR COE PERMITS FOR THE PROPOSED ENVIRONMENTAL IMPACTS. THE TRACKING NUMBER IS 200763552\07-NT-3202. 29. A STOP SIGN IS REQUIRED AT THE INTERSECTION OF HANOVER ROAD. 30. THIS SUBMISSION IS SUBJECT TO THE 5TH EDITION SUBDIVISION REGULATIONS, THE ZONING REGULATIONS, AND THE 1993 ZONING REGULATIONS AMENDED BY CB 50-2001, EFFECTIVE 1-08-02. 31. ALL SIGN POST USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT—OF—WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2—1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE — 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST. 33. NO WELLS OR SEPTIC SYSTEMS WERE FOUND ONSITE. IF WELLS AND/OR SEPTIC SYSTEMS ARE ENCOUNTERED DURING GRADING GRADING, CONTRACTOR TO CONTACT THE HEALTH DEPARTMENT FOR PROPER ABANDONMENT. 34. ALL RETAINING WALLS LOCATED IN PRIVATE PROPERTY SHALL BE MAINTAINED BY HOMEOWNER'S ASSOCIATION (H.O.A.) EXCEPT FOR THE RETAINING WALL ON ALL RETAINING WALLS LOCATED IN THE PUBLIC SWM FACILITY AND STORMDRAIN & UTILITY EASEMENTS" SHALL BE MAINTAINED BY THE HOA. 25. AT SITE OF CONTENT OF THE PUBLIC SWM FACILITY AND STORMDRAIN & UTILITY EASEMENTS" SHALL BE MAINTAINED BY THE HOA. LOT 8 WHICH WILL BE MAINTAINED BY THE 35. AT SITE DEVELOPMENT PLAN STAGE, THE BRL'S SHALL BE ESTABLISHED IN ACCORDANCE WITH CURRENT ZONING REGULATIONS. HOMEOWNER. 36. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED. 37. WATER AND SEWER FOR THIS PROJECT WILL BE PUBLIC AND WILL BE PROVIDED THROUGH CONTRACT NO. 14-4348-D. 38. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS: A) WIDTH - 12 FEET (16 FEET IF SERVING MORE THAN ONE RESIDENCE) B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR C) GEOMETRY - MAXIMUM 14% GRADE, MAXIMUM 10% GRADE CHANGE, AND MINIMUM 45 FOOT TURNING RADIUS D) STRUCTURES (CULVERTS/BRIDGES) - MUST SUPPORT 25 GROSS TON E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE F) STRUCTURE CLEARANCES - MINIMUM 12 INCHES G) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE ON JANUARY 17, 2008, THE HOWARD COUNTY BUREAU OF ENGINEERING APPROVED A REQUEST FOR WAIVER OF BASEMENT GRAVITY SEWER SERVICE FOR LOTS 4, 5, 8, 10, 21. THE APPROVAL IS UNDER WAIVER OF GRAVITY SEWER FOR LOTS 14, 15, 16, 17 AND 18. LOTS 14, 15, 16, 17 AND 18. WILL BE SERVICED BY PRIVATE ON—SITE PUMPS AND PRIVATE LOW 41. 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, 42. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING OR NEW STRUCTURES SHALL BE PERMITTED WITHIN WETLANDS, STREAMS, THEIR BUFFÉRS, 100-YEAR FLOODPLAIN OR FOREST CONSERVATION EASEMENTS UNLESS WAIVERS HAVE BEEN APPROVED. 43. LOTS WITH THE NOTATION "C.N.S." INDICATES CELLAR CAN NOT BE SERVED BY GRAVITY SEWER. 44. A DESIGN MANUAL WAIVER TO WAIVE SECTION 5.4B5 OF THE HOWARD COUNTY DESIGN MANUAL VOLUME II, WHICH REQUIRES A MINIMUM 10-FOOT HORIZONTAL CLEARANCE BETWEEN ANY PERMANENT STRUCTURE AND THE EDGE OF THE UTILITY EASEMENT. THE REQUEST WAS APPROVED ON MAY 15, 2013 WHICH REDUCES THE CLEARANCE REQUIRED FOR LOTS 15, 16 AND 17 TO 4, 5 AND 3 FEET RESPECTIVELY WHERE A PROPOSED HOME IS LOCATED CLOSER THAN 5 FEET FROM THE EASEMENT LINE, THE OUTSIDE WATER METER SETTINGS AND SEWER CLEANOUTS ARE OFF-SET AT LEAST 5 FEET TO THE SIDE OF THE STRUCTURE 45. NO IMPROVEMENTS SHALL BE CONSTRUCTED OR PLACED WITHIN THE PUBLIC WATER, SEWER AND UTILITY EASEMENT THAT WILL IMPEDE OR HINDER ACCESS TO THE SEWER MAIN, STRUCTURES SUCH AS DECKS AND FENCING SHALL NOT BE PLACED WITHIN THE EASEMENT SETBACK AREA 46. A DESIGN MANUAL WAIVER HAS BEEN APPROVED BY DPW - DED FOR THE LOT 8 RETAINING WALL ENCROACHMENT INTO THE UTILITY EASEMENT BUFFER APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING Chil Ldud CHIEF, DEVELOPMENT ENGINEERING DIVISION JEP 3-27-14 hard- Jackeylli-

# SITE DEVELOPMENT PLAN SHADY LANE CROSSING

LOTS 1-11, 14-18 AND 20-23 HOWARD COUNTY, MARYLAND



SITE ANALYSIS DATA

AREA OF FLOODPLAIN: 0.16460 AC. AREA OF STEEP SLOPES: 0.059 AC.

NUMBER OF PROPOSED RESIDENTIAL LOTS: 20 AREA OF PROPOSED RESIDENTIAL LOTS: 4.9896 AC.

AREA OF OPEN SPACE LOTS: 3.44 ACRES

PER LIBER 8848, FOLIO 244
AREA OF 1871 ACCESS EASEMENT: 8072.43 SF (0.185 AC.)
PER LIBER 3436, FOLIO 410
AREA OF RIGHT OF WAY: 0.67845 ACRES

NET AREA OF PROJECT: 8.90212 AC. - 0.16460 AC. = 8.7375 AC.

AREA OF SMALLEST BUILDABLE LOT PROPOSED: 8402 SQ. FT (LOT 10)

AREA OF RECREATION OPEN SPACE REQUIRED: 4200 SF AREA OF RECREATION OPEN SPACE PROVIDED: 4366 SF ON LOT 19

NUMBER OF PROPOSED OPEN SPACE LOTS: 5 (LOT 12, 13, 19, 24 & 25)

AREA OF OPEN SPACE REQUIRED: 30% OF GROSS AREA OF PARCEL (2.6706 AC.) TOTAL AREA OF CREDITED OPEN SPACE PROVIDED: 3.02 ACRES (LOTS 12, 13 AND 19)

TOTAL AREA OF NON-CREDITED OPEN SPACE PROVIDED: 0.32 ACRES (LOTS 24 AND 25)

LEGEND

--- ADJACENT BOUNDARY LINE

HOWARD COUNTY CONTROL STATION

HOWARD COUNTY CONTROL STATION 38

ELEVATION 124.653' (NAVD 1988)

EAST 1,391,227.052'

SHEET INDEX TITLE COVER SHEET LAYOUT PLAN GRADING & SOIL EROSION AND SEDIMENT CONTROL PLAN LOT 8 RETAINING WALL

REVISIONS 1-6



PROFESSIONAL CERTIFICATION: I hereby certify that these documents were prepared by or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland, License No. 21440 Expiration Date DECEMBER 18,2016

DEWBERRY CONSULTANTS, LIC 10003 DEREKWOOD LANE, SUITE 204 DOTOS OM, MAHMAL 301.731.5551

ADDRESS CHART

6164 HANOVER ROAD

6102 PHELPS LANE

6106 PHELPS LANE

6110 PHELPS LANE

6114 PHELPS LANE

6118 PHELPS LANE

6227 SWEETGUM LANE

6223 SWEETGUM LANE

6219 SWEETGUM LANE

6215 SWEETGUM LANE

6205 SWEETGUM LANE

OPEN SPACE

UNIT/BUILDING

LOT 6

PERMIT INFORMATION CHART								
SUBDIVISION NAME SHADY LANE CROSSING			SECTION/AREA N/A		AREA	LOT/PARCEL NUMBER 1-11, 14-18 20-23		
PLAT OR L/F	GRID NO.	ZONING	TAX	MAP	NO.	ELECT. DIST.	CENSUS TR.	
22595 <del>-</del> 22597	9	R-12		38		1ST	6069.02	

**BUILDER AND** DEVELOPER/OWNER K. HOVNANIAN HOMES OF MD. LLC 1802 BRIGHTSEAT RD. LANDOVER, MD 20785

301-683-6304

ATTN: MIKE IRONS U SHEET 8 ADDED TO SHEET INDEX

> SITE DEVELOPMENT PLAN **COVER SHEET** SHADY LANE CROSSING

> > LOTS 1-11, 14-18 AND 20-23

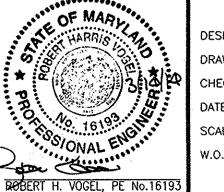
REVISION

1ST ELECTION DISTRICT TAX MAP: 38 GRID: 9

DPZ REF'S: F-06-97

ZONING: R-12 PARCEL: 235 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC. ENGINEERS . SURVEYORS . PLANNERS 8407 MAIN STREET TEL: 410.461.7666 ELLICOTT CITY, MD 21043 FAX: 410.461.8961



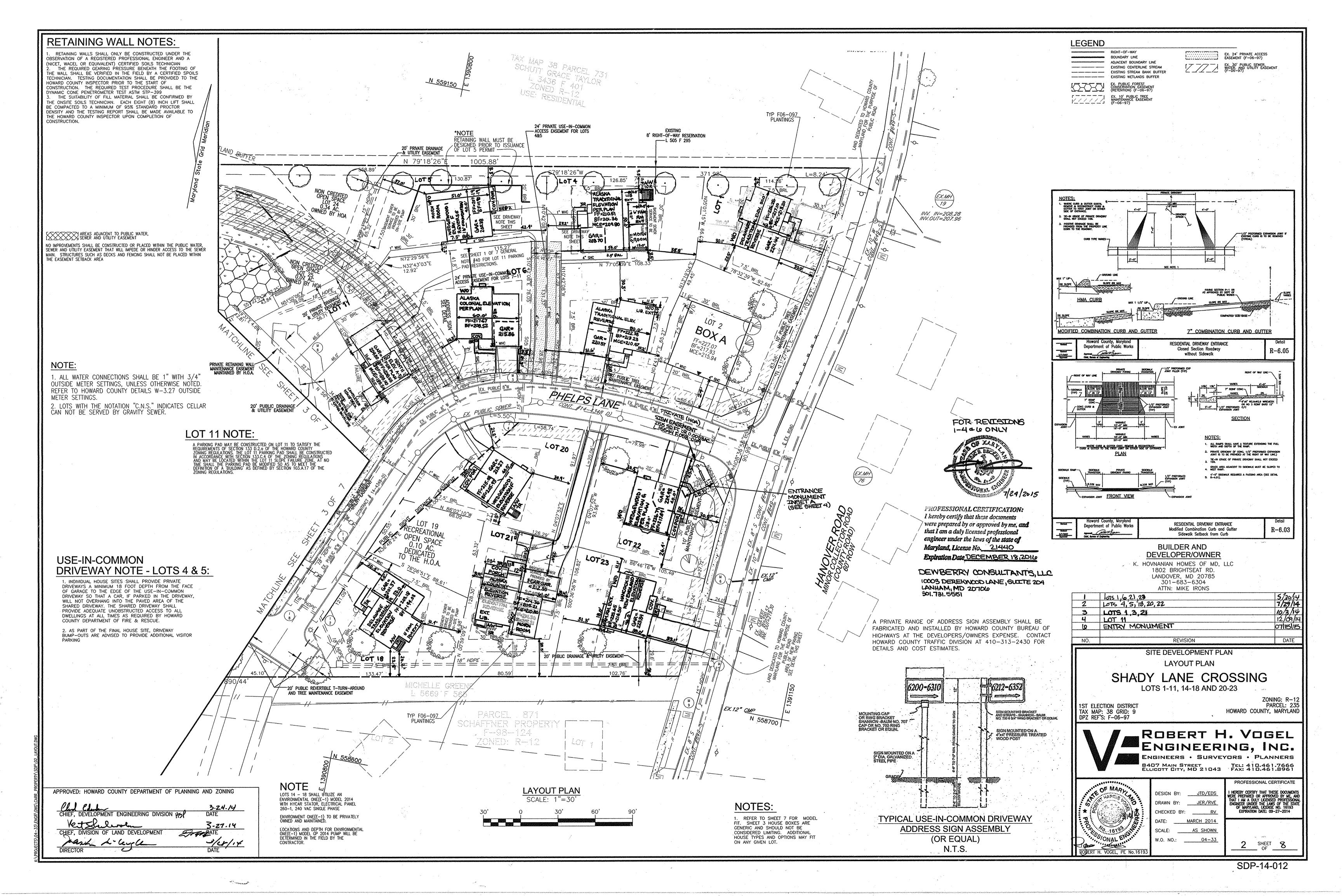
DESIGN BY:	JTD/EDS
DRAWN BY:	JER/RVE
CHECKED BY:	RV
DATE:	MARCH 2014
SCALE:	AS SHOWN
W.O. NO.: _	04-33

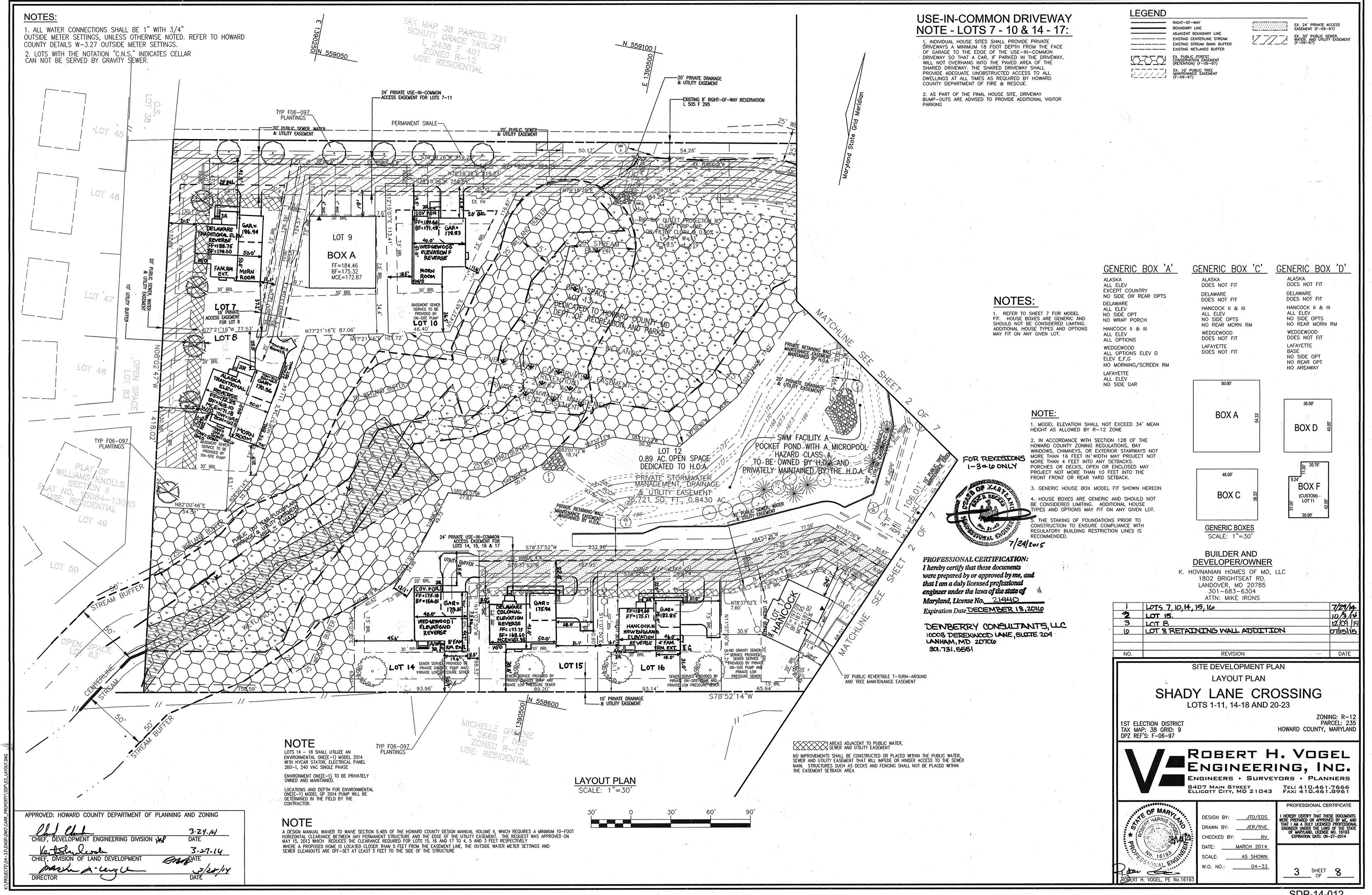
STREET ADDRESS 6134 PHELPS LANE 6138 PHELPS LANE 6142 PHELPS LANE 6146 PHELPS LANE 6145 PHELPS LANE OPEN SPACE 6119 PHELPS LANE 6111 PHELPS LANE 6105 PHELPS LANE 6188 HANOVER ROAD

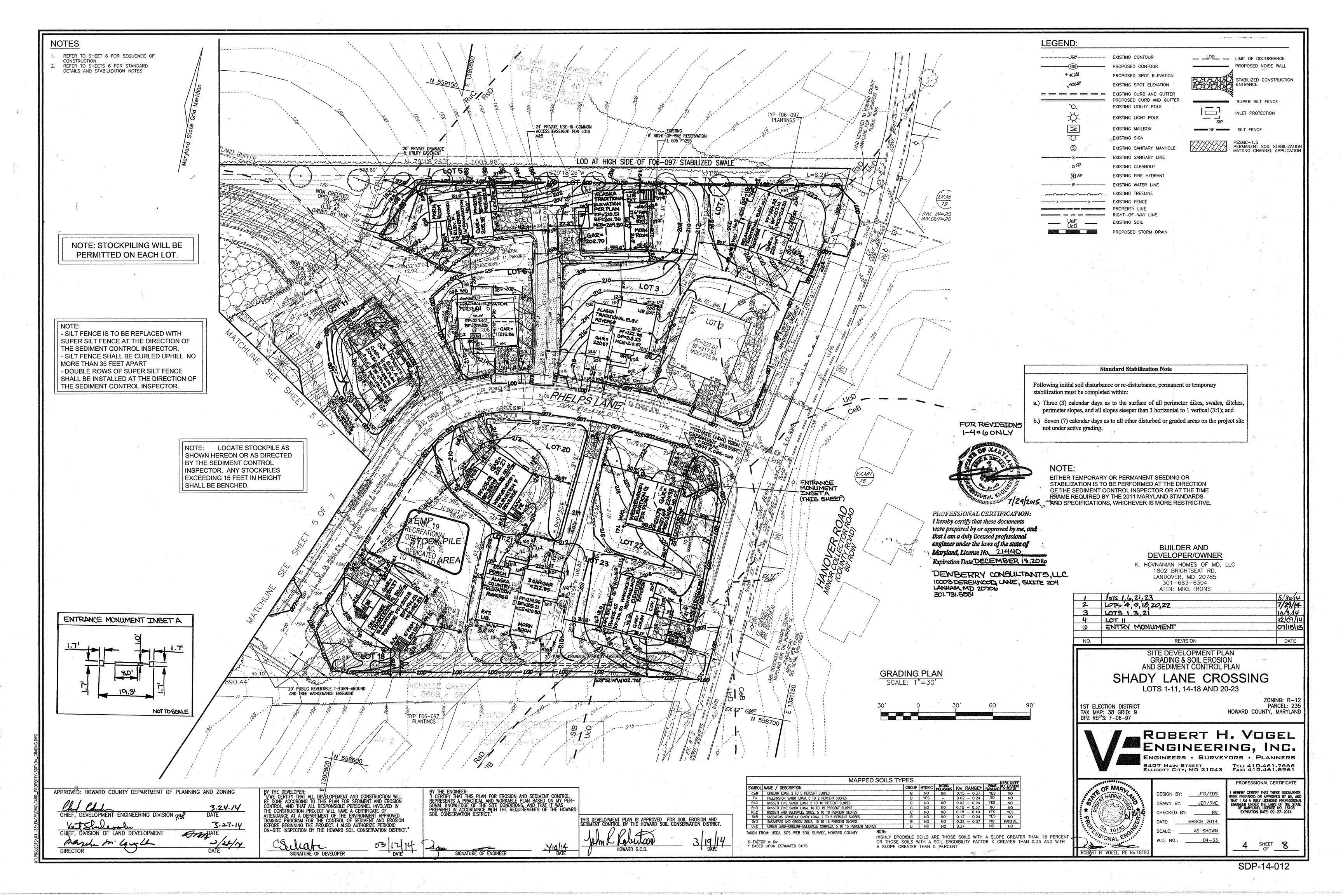
SDP-14-012

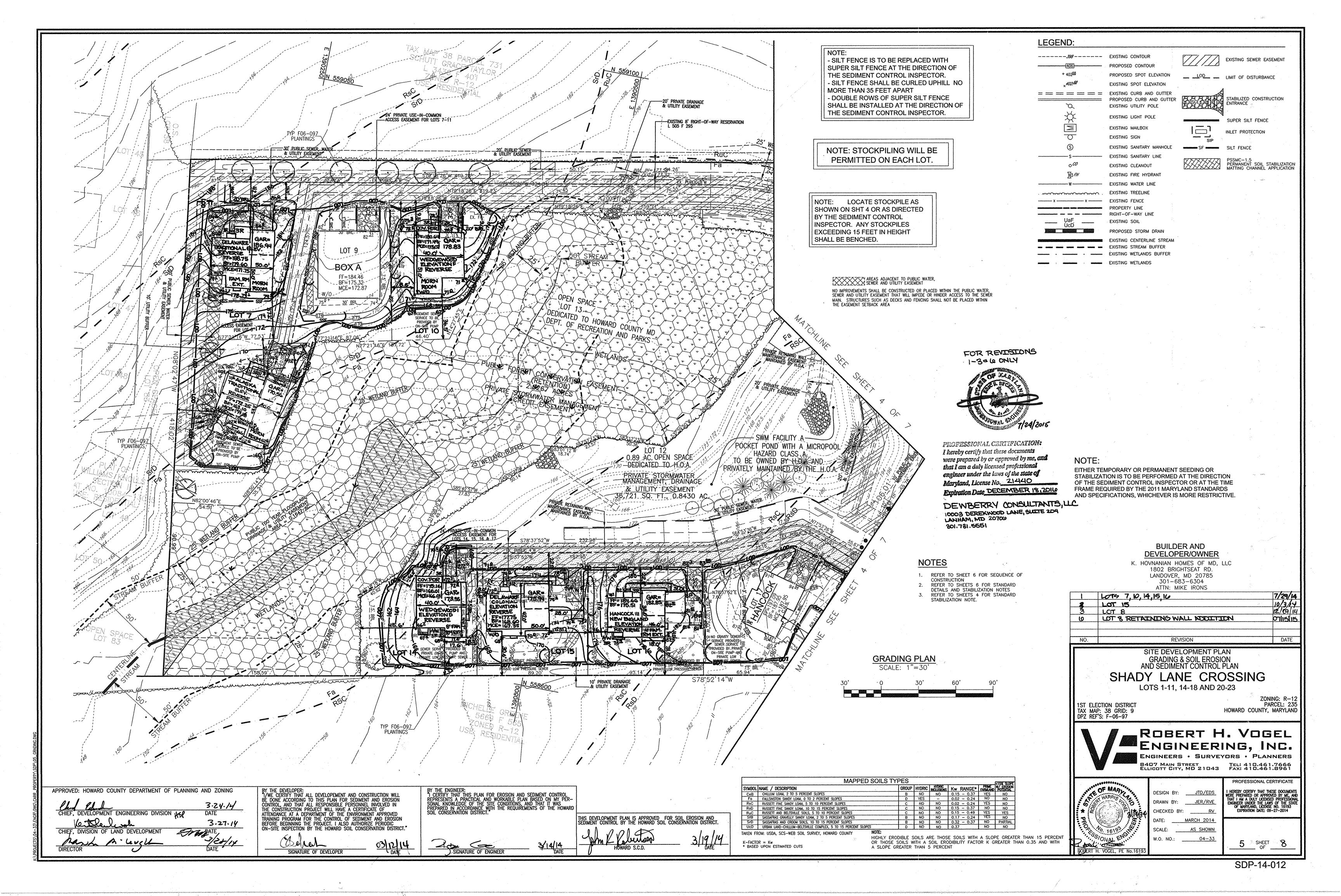
PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2014









HOWARD SOIL CONSERVATION DISTRICT <u>STANDARD SEDIMENT CONTROL NOTES</u>

A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION, (313-1855). 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", FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORAR STABILIZATION SHALL BE COMPLETED WITHIN: A) 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE

ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MUI CHING (SEC. B-4-3), TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW

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.

1.44 ACRES

4,700 CU, YDS1

4,700 CU. YDS\*

total site area AREA TO BE ROOFED OR PAVED AREA TO BE VEGETATIVELY STABILIZED OFFSITE WASTE/BORROW LOCATION

\*\*TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, WITH AN APPROVED AND ACTIVE GRADING PERMIT.

ANY SEDIMENT CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF 1 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

10. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED BY THE END OF EACH WORKDAY,

ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION. UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY, UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

#### B-4-4 STANDARDS AND SPECIFICATIONS TEMPORARY STABILIZATION

TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS

TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE 8.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3), 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 PLAN AND COMPLETED, THEN TABLE 8.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT P. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY 3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.B AND

### TEMPORARY SEEDING SUMMARY

					<del></del>		
HARDINESS ZONE (FROM FIGURE B.3): ZONE 6b SEED MIXTURE (FROM TABLE B.1):					FERTILIZER RATE	LIME RATE	
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	(10-20-20)	EME IVIE	
1	COOL SEASON ANNUAL RYEGRASS OR EQUAL	40 LB / AC	MAR 1 TO MAY 15 AUG 1 TO OCT 15	1/2 IN.	436 LB/AC (10 LB PER 1000 SF )	2 TONS/AC (90 LB PER 1000 SF )	
2	WARM SEASON FOXTAIL MILLET OR FOUAL	30 LB / AC	MAY 16 TO JUL 31	1/2 IN.		**************************************	

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPEMENT 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 SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Obeliah SIGNATURE OF DEVELOPER

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 3.24.14 CHIEF, DEVELOPMENT ENGINEERING DIVISION 3-27-14 panin

# B-4-5 STANDARDS AND SPECIFICATIONS

DEFINITION TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS. CONDITIONS WHERE PRACTICE APPLIES

PERMANENT STABILIZATION

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

A SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE 8.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE 8.3) AND BASED ON THF SITE CONDITION OR PURPOSE FOUND ON TABLE 8.2. ENTER SELECTED MIXTURE(S) APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE Summary is to be placed on the plan.

B. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, Section 342 – Critical Area Planting C. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES recommended by the soil testing agency. D. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3-1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT

2. TURFGRASS MIXTURES A. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS ND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE B. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE, ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND EEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED

ON THE PLAN. I. KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT, IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT. II KENTICKY BLUFGRASS/PERENNIAL RYF: FULL SUN MIXTURE: FOR USE IN FULL SUIL

AREAS WHERE RAPID ÉSTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT, CERTIFIED PERENNIAL RYEGRASS CULTIVARS/ Certified Kentucky Bluegrass seeding Rate: 2 pounds mixture per 1000 EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT. III. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FUL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.

IV. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES; CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT SEEDING RATE: 11/2 TO 3 POUNDS PER 1000 SQUARE FEET.

SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO \$77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND" CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC

C. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES

- WESTEM MD: MARCH 15 TO JUNE 1, AUGUST ITO OCTOBER 1 (HARDINESS ZONES: SB, 6A) - CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 68) - SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7B)

D. TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 11/4 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOVING OF GRASSES WILL POSE NO DIFFICULTY. E. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

1. GENERAL SPECIFICATIONS A. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE made available to the Job Foreman and inspectof B. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS 1/4 INCH, AT THE TIME OF CUITING, MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH. BROKEN PADS AND TOM OR UNEVEN ENDS WILL NOT BE C. STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION. D. SOD MUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL. SOD MUST BE HARVESTÉD, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR

SOIL SCIENTIST PRIOR TO ITS INSTALLATION. A DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL. LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD. B. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS. C. WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. ROLL AND TAMP, PEG OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE. D. WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF HE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE

SOD MAINTENANC A. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT WILTING. B. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN

HE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT

ADEQUATE MOISTURE CONTENT. C. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.

PERMANENT SEEDING SUMMARY

HARDINESS ZONE (FROM FIGURE B.3): ZONE 6b SEED MIXTURE (FROM TABLE B.3): 9				FERTILIZER RATE (10-20-20)			LIME RATE	
NO	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P <sub>2</sub> O <sub>5</sub>	к <sub>2</sub> 0	
1	COOL SEASON TALL FESCUE & KENTUCKY BLUEGRASS OR EQUAL	T.F. 60 LB / AC K.B. 40 LB / AC	MAL IS	1/4-1/2 IN.	(1 LB PER	(2 LB PER	(2 LB PER	2 TONS/AC (90 LB PER 1000 SF )

# R-4-2 STANDARDS AND SPECIFICATIONS

SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS

THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. CONDITIONS WHERE PRACTICE APPLIES

WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

CRITERIA

A. SOIL PREPARATION

THE ABOVE CONDITIONS.

A SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES 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 MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. B. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLAN : INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING

OR OTHER SUITABLE MEANS. PERMANENT STABILIZATION A. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE: I, SOIL PH BETWEEN 6.0 AND 7.0.

II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM). III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE, AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.

3. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET

C. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO D. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED B' THE RESULTS OF A SOIL TEST. E. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS JKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN

SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDRED. PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING TH SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT "VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH, SOILS OF CONCEM HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH. MATERIALS TOXIC TO PLANTS. AND/OR UNACCEPTABLE SOIL GRADATION. 2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE TANDARDS 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-

3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE: A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO 3. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FLIRNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH. D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

I. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND

5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING A. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT B VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1½ INCHES IN DIAMETER. B. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA grass, quack grass, Johnson Grass, nut sedge, poison My, Thistle, or others : TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL

JUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL. 6. TOPSOIL APPLICATION A. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING B. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPAC TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS. C. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR

MIDDLY CONDITION WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT

MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS) I. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES' TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES. . FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND

3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE. 4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. 5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

# H-5 STANDARDS AND SPECIFICATIONS

DUST CONTROL

Controlling the suspension of dust particles from construction activities

prevent blowing and movement of dust from exposed soil surfaces to reduce on and off-site damage including Conditions Where Practice Apolies reas subject to dust blowing and movement where on and off-site damage is likely without treatment

Mulches: See Section B-4-2 Soil Preparation, Topsoiling, and Soil Amendments, Section B-4-3 eding and Mulching, and Section B-4-4 Temporary Stabilization. Mulch must be anchored to

<u>Vegetative Cover</u>: See Section B-4-4 Temporary Stabilization

<u>Tillage</u>: Till to roughen surface and bring clods to the surface. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment that may produce the desired effect. Injustion: Sprinkle site with water until the surface is moist. Repeat as needed. The site must

material can be used to control air currents and soil blowing. Chemical Treatment: Use of chemical treatment requires approval by the appropriate plan

Barriers: Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar

B-4-3 STANDARDS AND SPECIFICATIONS SEEDING AND MULCHING

THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

A. SEEDING

TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION. CONDITIONS WHERE PRACTICE APPLIES

TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE

1.SPECIFICATIONS A ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE TO RE-TESTING BY A RECOGNIZED SEED LABORATORY, ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT, REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED, SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE. B. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE CROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND

C. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. NOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH NOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEFDING: NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE rhe inoculant less effective D. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

A DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS 1. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE 8.1, PERMANENT SEEDING TABLE 8.3, OR SITE-SPECIFIC SEEDING SUMMARIES. II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION, ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.

B. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL. I, 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. II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING : hydroseeding: apply seed uniformly with hydroseeder (slurry includes seed and

I. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P205 (PHOSPHOROUS), 200 POUNDS PER ACRE; K20 (POTASSIUM), 200 POUNDS PER ACRE. II. 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. III. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION. IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

I. MULCH MATERIALS (IN ORDER OF PREFERENCE A STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, LYE, OAT, OR BARLEY AND REASONABLY

BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED B. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE. PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STAT I. WCFM IS TO 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. II. WCFM. INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTOR: III. WCFM MATERIALS ARE TO 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 'H SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL

MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS. IV. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE V. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.

A APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.

8. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING

MULCH ANCHORING TOOL INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE C. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

A PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE) DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD: LA MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PLINCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 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 FOLLOW THE CONTOUR II. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER. HE SYNTHETIC RINDERS SHICH AS ACRYLIC DER (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER, APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IV. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER

> B-4-8 STANDARDS AND SPECIFICATIONS STOCKPILE AREA

RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET

A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL

TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGES TO DRAINAGE PATTERNS. CONDITIONS WHERE PRACTICE APPLIES

STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE. 1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY

INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN. 2. THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NO STEEPER THAN 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL. AN APPROPRIAT EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY 8. IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHOULD BE PROVIDED BELOW

THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST

MAINTENANCE

BE COVERED WITH IMPERMEABLE SHEETING.

THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN A 2:1 RATIO. THE STOCKPILE AREA MUST BE KEPT FREE OF EROSION. IF THE VERTICAL HEIGHT OF A STOCKPILE EXCEEDS 20 FEET FOR 2:1 SLOPES, 30 FEET FOR 3:1 SLOPES, OR 40 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION

DETAIL B-1 STABILIZED CONSTRUCTION EX SCE 18 -PIPE (SEE NOTE 6) PROFILE 50 FT MIN. PLAN VIEW PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MANUAU LENGTH OF 50 FEET (\*30 FEET FOR SNOEL RESIDENCE LOT), USE MAINLUM WHOTH OF 10 FEET. FLARE SCE 10 FEET MAINLUM AT THE EDISTING ROAD TO PROVIDE A TURNING RADIUS.

2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE, PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERN WITH S. T SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE, PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN, WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY, A MOUNTABLE BERN IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT, PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOU REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE. 5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEMEMENT SPILLED, DROPPED, OR TRACKED DATO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAYEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

10 FT MAX

. INSTALL 2% INCH DIAMETER CALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOLENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MANIMUM OF 36 INCHES INTO THE GROUND.

FASTEN 9 GAUGE OR HEAVER GALVANIZED CHAIN LINK FENCE (2% INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.

. FASTEN WOVEN SUT FILM GEOTEXTILE AS SPECIFED IN SECTION H-1 MATERIALS, SECURELY TO THURSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION, EMBED GEOTEXTILE AND CHAIN LINK FENCE A MIRBADM OF 8 INCHES INTO THE GROUND.

WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.

. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.

7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT, REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011

DETAIL E-3 SUPER SILT FENCE

WOYEN SUIT FILM GEOTEXTILE-

EMBED GEOTEXTILE AND — CHAIN LINK FENCE 8 IN MIN. INTO GROUND

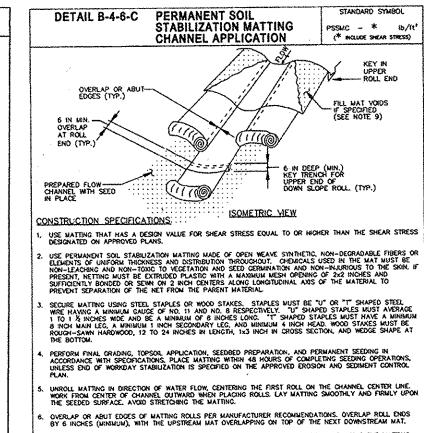
FLOW -

INSTRUCTION SPECIFICATIONS

2011

GALVANIZED CHAIN LINK FENCE WITH WOVEN SLIT FILM GEOTEXTILE

|---SSF----|



PERFORM FINAL GRADING, TOPSOL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS, PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT. . KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY. ). Establish and maintain vegetation so that requirements for adequate vegetative establishme are continuously met in accordance with section 8–4 vegetative stabilization.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011 WARYLAND DEPARTMENT OF ENYRONMED
WATER MANAGEMENT ADMINISTRATION

SEQUENCE OF CONSTRUCTION

OBTAIN GRADING PERMIT. - 1 DAY DEVELOPER / CONTRACTOR SHALL REQUEST A PRE-CONSTRUCTION MEETING WITH THE APPROPRIATE ENFORCEMENT AUTHORITY PRIOR TO BEGINNING CONSTRUCTION. (1 DAY) NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (410-313-1880) AT LEAST 24 HOURS BEFORE STARTING ANY WORK. (1 DAY)

STAKEOUT LIMITS OF DISTURBANCE. - 3 DAYS INSTALL STABILIZED CONSTRUCTION ENTRANCE. (1 DAY) IN ACCORDANCE WITH DETAILS HEREON, INSTALL SEDIMENT CONTROL MEASURES AS SHOWN IN PLAN VIEW (SHEETS 4 & 5) OR AS DIRECTED BY SEDIMENT CONTROL

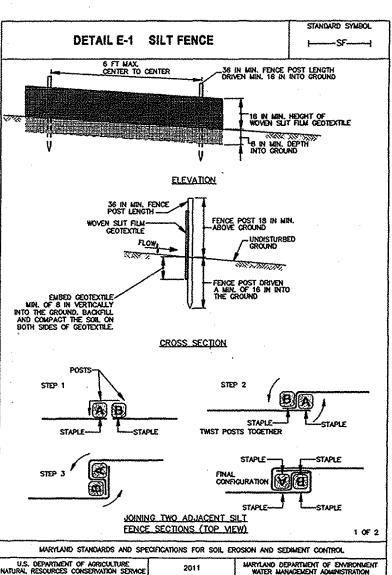
INSPECTOR (5 DAYS) DRY UTILITIES (CABLE, GAS ELECTRIC) MUST BE INSTALLED AFTER ROAD CONSTRUCTION. AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO PROCEED, ROUGH GRADE INDIVIDUAL LOT FOR HOUSE CONSTRUCTION. (2 DAYS) STOCKPILING SHALL BE LIMITED TO ONLOT OR AS SHOWN HEREON. STOCKPILES SHALL

BE STABILIZED AS DETAILED HEREON. (1 DAY) CONSTRUCT HOUSES. THE FIRST FLOOR ELEVATIONS CANNOT BE MORE THAN 1' HIGHER OR 0.2' LOWER THAN THE ELEVATIONS SHOWN ON THIS PLAN. (6 MONTHS) 10. FINE GRADE LOT AS DETAILED HEREIN AND PER SPOT ELEVATIONS AS SHOWN. (2 DAYS) 11. UPON COMPLETION OF HOME CONSTRUCTION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, COMPLETE ANY REMAINING FINE GRADING, ADD TOPSOIL PER THE

SPECIFICATIONS SHOWN HEREON, AND STABILIZE DISTURBED AREAS WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH. (1 WEEK) 12. AFTER FULL STABILIZATION OF ALL AREAS DRAINING TOWARD THE F 06-097 SEDIMENT BASIN HAS BEEN ACHIEVED, COMPLETE CONVERSION OF THE BASIN TO THE STORMWATER

MANAGMENT FACILITY AS DETAILED THEREON. (3 WEEKS) 12. AFTER PERMISSION HAS BEEN GIVEN BY SEDIMENT CONTROL INSPECTOR, REMOVE ANY REMAINING E/S CONTROLS AND STABILIZE THE DISTURBED AREAS FROM THE AFOREMENTIONED DISTURBANCES WITH PERMANENT SEEDING MIXTURE AND STRAW

NOTE: ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION



DETAIL E-1 SILT FENCE |----SF-----| ONSTRUCTION SPECIFICATIONS . Use wood posts 1% x 1%  $\pm$  % inch (minibum) square cut of sound quality hardwood. As an alternative to wooden post use standard "t" or "u" section steel posts weighing not less than 1 pound per linear foot. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APAR . Use woven suit film geotextile as specified in section H-1 materials and fasten geotextile securely to upslope side of fence posts with wire ties or staples at top and Mid-Section. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/DEPORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND, BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL. LEXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

**BUILDER AND DEVELOPER/OWNER** K. HOVNANIAN HOMES OF MD. LLC 1802 BRIGHTSEAT RD. LANDOVER, MD 20785

ATTN: MIKE IRONS DATE REVISION

301-683-6304

SITE DEVELOPMENT PLAN GRADING & SOIL EROSION AND SEDIMENT CONTROL PLAN - NOTES AND DETAILS SHADY LANE CROSSING LOTS 1-11, 14-18 AND 20-23

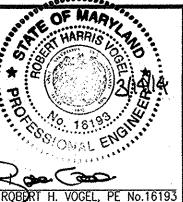
1ST ELECTION DISTRIC TAX MAP: 38 GRID: 9 DPZ REF'S: F-06-97

ZONING: R-12 PARCEL: 235 HOWARD COUNTY, MARYLAND



ROBERT H. VOGEL ENGINEERING, INC.

ENGINEERS • SURVEYORS • PLANNERS 8407 MAIN STREET TEL: 410.461.7666 ELLICOTT CITY, MD 21043 FAX: 410.461.8961 PROFESSIONAL CERTIFICATE



DESIGN BY: \_\_\_JTD/EDS DRAWN BY: JER/RVE CHECKED BY: MARCH 2014 SCALE: AS SHOWN 04-33

HEREBY CERTIFY THAT THESE DOCUMENTS VERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2014 SHEET \_

SDP-14-012

