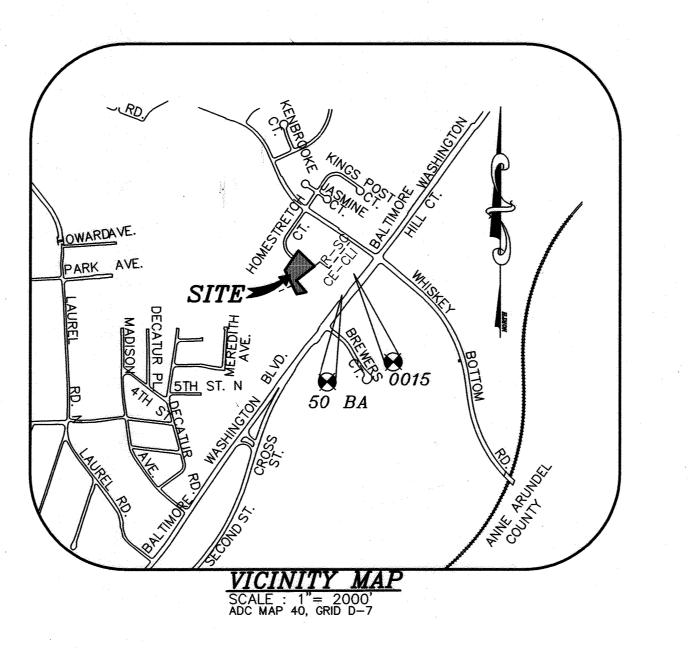
CUPPT INDEV

:	SHEET INDEX
NO	TITLE
1	COVER SHEET
2	ROAD PLAN, PROFILES AND DETAILS
3	FINAL GRADING, EROSION AND SEDIMENT CONTROL PLAN
4	STORM DRAIN DRAINAGE AREA MAP AND PROFILES
5	SEDIMENT CONTROL NOTES AND DETAILS
6	STORMWATER MANAGEMENT PLAN
7	LANDSCAPING AND FOREST CONSERVATION AND DETAILS PLAN

ROAD CONSTRUCTION PLANS WHISKRY BOTTOM PO LOTS 1-6, OPEN SPACE LOTS 7-9 AND NON-BUILDABLE BULK PARCEL SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



-					Dan karana baran							· .				
	STORMWATER MANAGEMENT PRACTICES															
_OT #	ADDRESS	GREEN ROOF A-1 (Y/N)	PAVEMENTS A-2	REINFORCED TURF A-3 (Y/N)	DISCONNECTION OF ROOFFOP RUNOFF N-1 (NUMBER)	DISCONNECTION OF NON-ROOFTOP RUNOFF N-2 (Y/N)	SHEETFLOW TO CONSERVATION AREAS N-3 (Y/N)	RABNWAILK	SUBMERGED GRAVEL WETLANDS M-2 (NUMBER)	LANDSCAPE INCILTRATION M-3 (NUMBER)	BERMS M-4		MICRO-BIORETENTION M-6 (NUMBER)	M-7	M-8	ENHANCED FILTERS M-9 (NUMBER)
1	9252 HOMESTRETCH COURT	N	N	N	0	N	N	0	0	0	0	0_	MB-1	0	0	0
2	9256 HOMESTRETCH COURT	. N	N	N	0	N	N	0	-0	0	0	0	MB-1	-0	0	0
3	9260 HOMESTRETCH COURT	N	N	N	0	N	N	0	0	0		_0_	MB-1	0	0	0
4	9259 HOMESTRETCH COURT	N	N	N	0		N	0	0	0	0	0	MB=2	0	0	0
5	9255 HOMESTRETCH COURT	N	N	N	0	N	N	0	0	0	0	0	MB-2	0	0	0
6	9251 HOMESTRETCH COURT	N	N	N	0	N	N	0	0	0	0	0	MB-2	0	0	0

ZONING DISTRICT BOUNDARY APPROVED: DEPT OF PUBIC WORKS nerme-CHIEF, BUREAU OF HIGHWAYS DEVELOPERS CERTIFICATE I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED RAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON—SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE. **ENGINEER'S CERTIFICATE** I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABJÆ PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE.

MICRO-BIORETENTION

8' ASPHALT PATH

5' CONC. SIDEWALK

EXISTING CONTOUR

PROPOSED CONTOUR

LIMIT OF DISTURBANCE

——SF—— SILT FENCE

SIGNATURE OF ENGINEER

. JACOB HIKMAT P.E

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL

EROSION AND SEDIMENT CONTROL BY THE HOWARD

PPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION WAR

CHIEF, DIVISION OF LAND DEVELOPMENT

PRINTED NAME OF ENGINEER

-----SDF------ SILT DIVERSION FENCE

ENTRANCE

SOIL BORING LOCATION

PROPOSED SPOT GRADE

STABILIZED CONSTRUCTION

<u>OWNER</u> JENMAR HOMES AT WHISKEY BOTTOM, LLC 3403 OLD POST DRIVE BALTIMORE, MD. 21208 (410) 486-5693

DEVELOPER JENMAR HOMES, INC. 3403 OLD POST DRIVE BALTIMORE, MD. 21208 (410) 486-5693



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. 17942, EXP DATE 09/03/16

R. JACOB HIKMAT P.E.

DURING CONSTRUCTION, ACCESS FROM LOTS ON THE "WATSON DEVELOPMENT" TO HOMESTRETCH COURT IS TO BE MAINTAINED.

THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

1. THIS SUBJECT PROPERTY IS ZONED R-SC PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.

3. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/ BUREAU OF ENGINEERING/ /CONSTRUCTION INSPECTION DIVISION AT (410)313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR

4. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY

5. ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMMUTCD).

TOPOGRAPHY WITHIN 200' OF SITE BOUNDARY SHOWN HEREON IS BASED ON FIELD RUN TOPOGRAPHY BY MILDENBERG, BOENDER, & ASSOCIATES, ON OR ABOUT FEBRUARY, 2006. OTHER TOPOGRAPHY SHOWN IS

7. BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT FEBRUARY, 2006 BY MILDENBERG, BOENDER & ASSOC., INC.

8. COORDINATES BASED ON NAD '83 (HORIZONTAL) AND NAD '88 (VERTICAL) MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS STA. No. 50BA N 527,561.667, E 1,359,772.600, ELEV. 248.655

N 527,889.354, E 1,360,017.060, ELEV. 239.581 STA. No. 0015 9. PROJECT BACKGROUND:

TAX MAP: 50 , GRID: 4, PARCEL: 488 / BULK PARCEL B-3 ELECTION DISTRICT: SIXTH DEED REFERENCE: 11026/111

PREVIOUS PROJECT NUMBERS: ECP-13-055, F-12-065, F-07-036, WP-10-158

10. SITE DATA TABULATION GROSS AREA OF PROPERTY TRACT: 1.72 Ac ± AREA OF FLOODPLAIN: 0 Ac AREA OF STEEP SLOPES: NET AREA OF PROPERTY TRACT: DISTURBED AREA MINIMUM LOT SIZE PROPOSED: 6,000 SQ.FT. NUMBER OF BUILDABLE LOTS PROPOSED: 6 (SFD) NUMBER OF OPEN SPACE LOTS PROPOSED: TOTAL LOTS / PARCELS PROPOSED: REQUIRED OPEN SPACE (25% OF TOTAL SITE AREA): 18,731 S.F. PROVIDED CREDITED OPEN SPACE AREA: 19,072 S.F. PROVIDED NON-CREDITED OPEN SPACE AREA: 4,360 S.F. AREA TO BE DEDICATED FOR USE AS A PUBLIC ROAD: 11,359 S.F. / 0.26 AC.± 11. WATER IS PUBLIC, CONTRACT # 24-4872-D.

12. SEWER IS PUBLIC, CONTRACT # 24-4872-D.

▶ 13. STORMWATER MANAGEMENT IS PROVIDED BY 2 M-6 MICRO-BIORETENTION FACILITIES IN ACCORDANCE WITH THE 2007 MARYLAND STORMWATER DESIGN MANUAL AND THE HOWARD COUNTY DESIGN MANUAL (REGARDING MANAGEMENT OF THE 10-YEAR STORM EVENT). ALL STORMWATER MANAGEMENT FACILITIES ARE PRIVATELY OWNED AND AMAINTAINED.

14. NO AREAS OF THE 100-YEAR FLOODPLAIN, STREAMS, STREAM BUFFERS, WETLANDS, WETLAND BUFFERS, OR CONTIGUOUS AREAS OF 10,000 SQUARE FEET OR MORE OF STEEP SLOPES EXIST ON-SITE.

15. DURING A FIELD VISIT ON JANUARY 31, 2013 BY MILDENBERG, BOENDER & ASSOCIATES, INC. IT WAS DETERMINED THAT NO AREAS OF FOREST STAND EXIST ON-SITE. 16. DURING A FIELD VISIT ON JANUARY 31, 2013 BY MILDENBERG, BOENDER & ASSOCIATES, INC. IT WAS

DETERMINED THAT NO AREAS OF WETLAND EXIST ON-SITE. AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION WILL BE FULFILLED BY PAYMENT OF FEE-IN-LIEU IN

THE AMOUNT OF \$14,048.10 FOR 0.43 ACRES OF REFORESTATION.

19. LANDSCAPING FOR LOTS 1 THRU 6 IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A LANDSCAPE SURETY FOR THE REQUIRED LANDSCAPING IN THE AMOUNT OF \$7,800.00 (21 SHADE TREES, 2 EVERGREEN TREES, 20 SHRUBS AND 4 ORNAMENTAL TREES) WILL BE POSTED AT THE SITE DEVELOPMENT PLAN STAGE.

20. PER SECTION 16.121(a) OF THE HOWARD COUNTY SUBDIVISION AND LAND USE REGULATIONS, OPEN SPACE

FOR THIS SUBDIVISION HAS BEEN PROVIDED THROUGH THE CREATION OF OPEN SPACE LOTS 7 AND 9. 21. A PRE-SUBMISSION COMMUNITY MEETING WAS HELD FOR THIS PROJECT ON JANUARY 10, 2014 AT HOWARD COUNTY SAVAGE BRANCH PUBLIC LIBRARY.

22. THIS DEVELOPMENT PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS. DEVELOPMENT OR CONSTRUCTION ON LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE

✓ 23. AN APFO TRAFFIC STUDY FOR THIS PROJECT WAS APPROVED ON SEPTEMBER 8, 2014. FEE-IN-LIEU IN THE AMOUNT OF \$5,466.75 FOR ROAD IMPROVEMENTS WILL BE REQUIRED FOR APPROVAL OF THE FINAL ROAD

24. WAIVER PETITION WP-10-158 TO WAIVE SECTION 16.120(c)(2)(IV) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WAS APPROVED ON AUGUST 17, 2010. SECTION 16.120(c)(2)(IV) REQUIRES THAT SHARED USE AND MAINTENANCE OF A SINGLE USE-IN-COMMON DRIVEWAY IS LIMITED TO SIX (6) SINGLE-FAMILY LOTS. WP-10-158 ALLOWS FOR SEVEN (7) LOTS TO HAVE ACCESS TO THE USE-IN-COMMON DRIVEWAY THAT IS REFERRED TO AS "DAVENE LANE"

25. PER SECTION 110.0.E OF THE HOWARD COUNTY ZONING REGULATIONS, AT LEAST 10% OF THE DWELLINGS SHALL BE MODERATE INCOME HOUSING UNITS.

26. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS: A) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENT).

B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1.5" MIN). C) GEOMETRY - MAX. 14% GRADE, MAX. 10% GRADE CHANGE AND MIN. OF 45 FOOT TURNING RADIUS. D) STRUCTURES (CULVERT/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING). E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD PLAIN WITH NO MORE THAN 1 FOOT OF DEPTH OVER DRIVEWAY SURFACE.

F) STRUCTURE CLEARANCES - MINIMUM 12 INCHES G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.

27. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN LIMITS OF WETLANDS, STREAMS OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, EXCEPT AS DETERMINED TO BE NECESSARY DISTURBANCE.

28. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURES AND POLES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (2006), SECTION 5.5.A. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.

29. THE SUBDIVISION WILL CREATE SIX (6) NEW LOTS WHICH WILL BE SUBJECT TO THE MIHU FEE-IN-LIEU REQUIREMENT THAT IS TO BE CALCULATED AND PAID TO THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS BY THE PERMIT APPLICANT AT THE TIME OF BUILDING

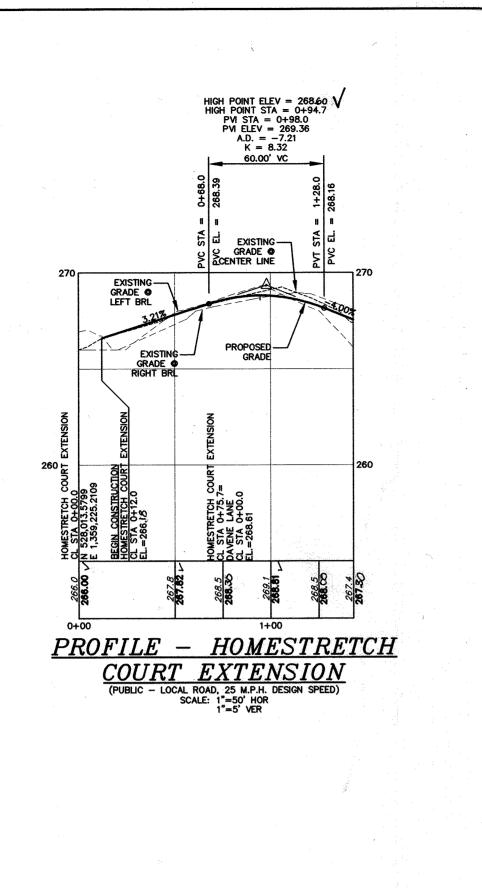
30. THE OPEN SPACES SHOWN HEREON ARE HEREBY DEDICATED TO A HOMEOWNERS ASSOCIATION AND HOWARD COUNTY RECREATION AND PARKS.

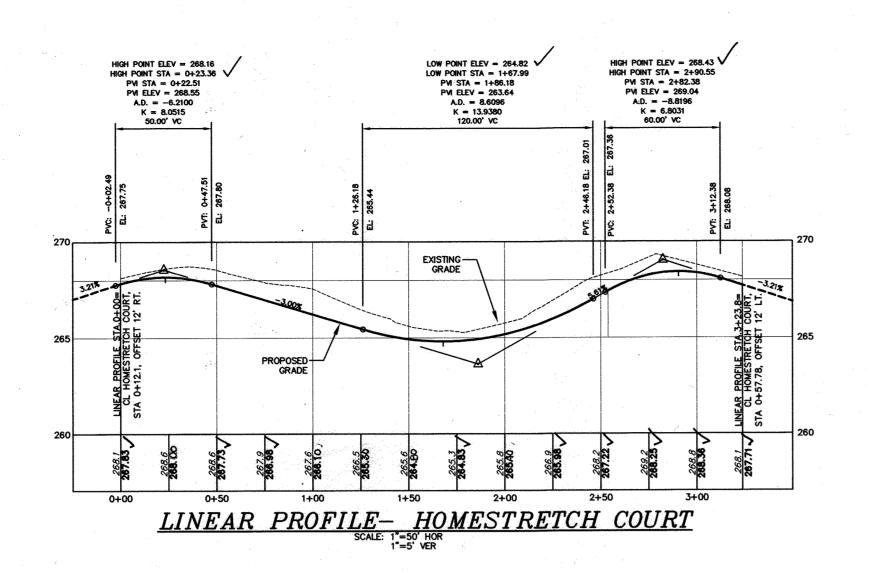
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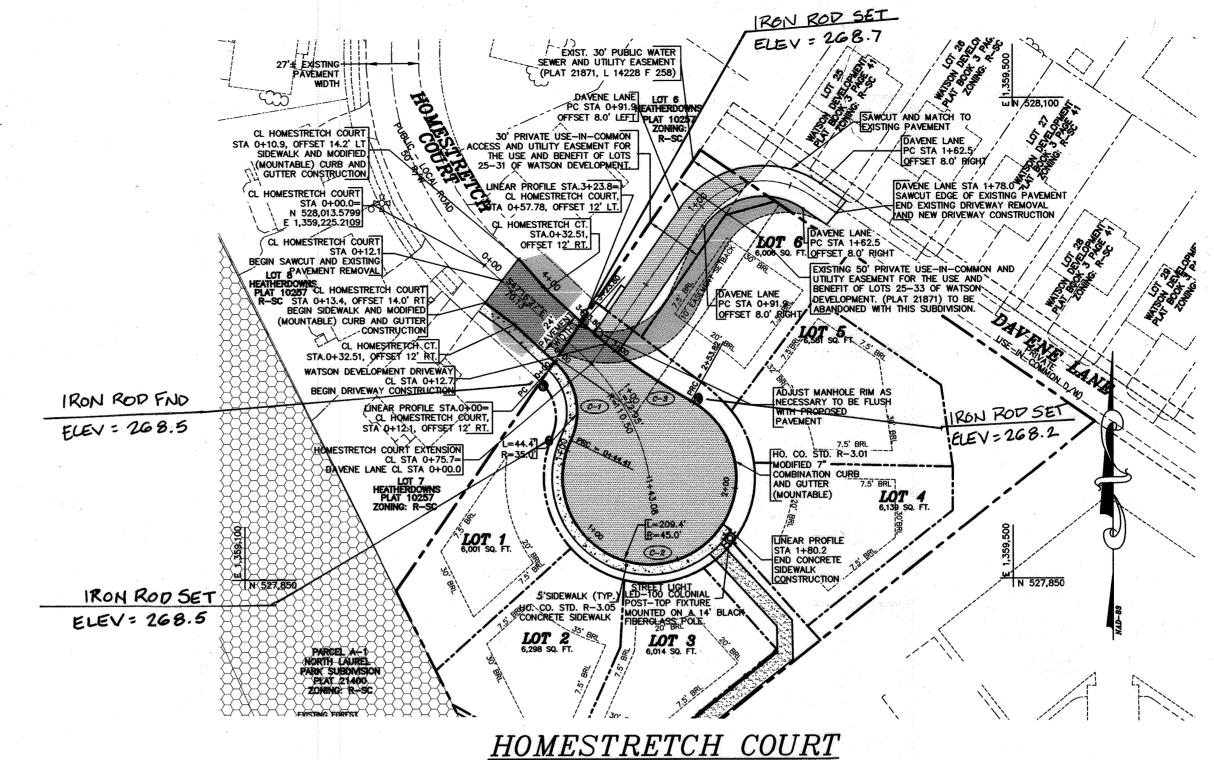
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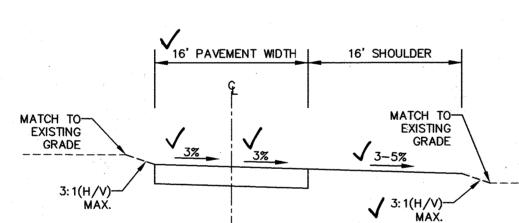


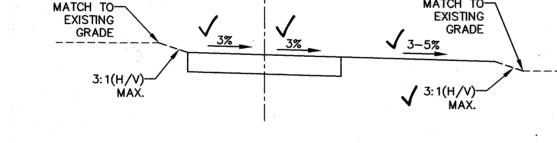


CURVE DATA 25.00 70"26'33" S12'03'11"E 245'39'14" 92.43 N80°20'29"E 235.81 55.00 21.08

12"06'03"

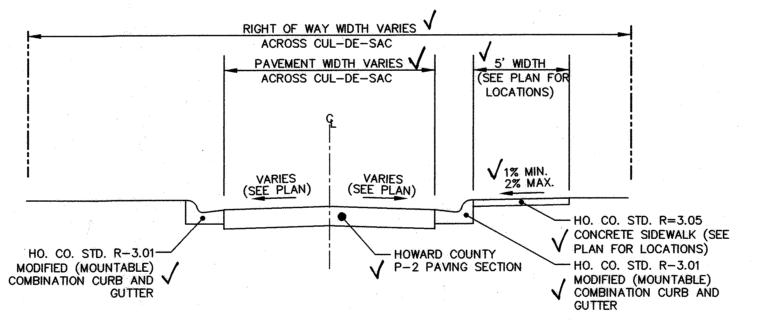
1 inch = 50 ft.





TYPICAL SECTION - WATSON

DEVELOPMENT COMMON DRIVEWAY



TYPICAL SECTION - HOMESTRETCH COURT EXTENSION

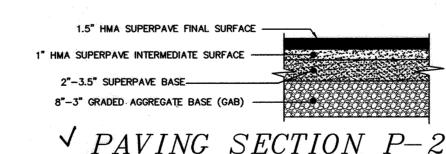
NOT TO SCALE

C2

21.12

100.00





NOTE: DEPTH OF SUPERPAVE BASE AND GRADED AGGREGATE BASE DEPEND ON CBR.

ASPHALT PATH
NOT TO SCALE

<u>DEVELOPER</u>

<u>OWNER</u> JENMAR HOMES AT WHISKEY BOTTOM, LLC 3403 OLD POST DRIVE BALTIMORE, MD. 21208

LEGEND

PROPOSED PAVEMENT

EXISTING PAVEMENT

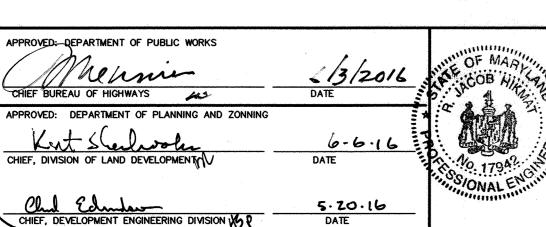
PROPOSED PUBLIC DRAINAGE AND UTILITY EASEMENT

PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT

TO BE REMOVED

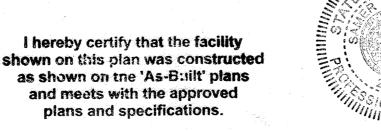
EXISTING FOREST CONSERVATION EASEMENT

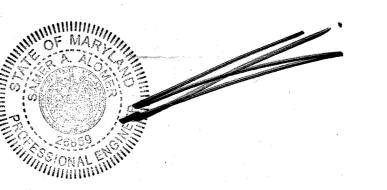
JENMAR HOMES, INC. 3403 OLD POST DRIVE BALTIMORE, MD. 21208

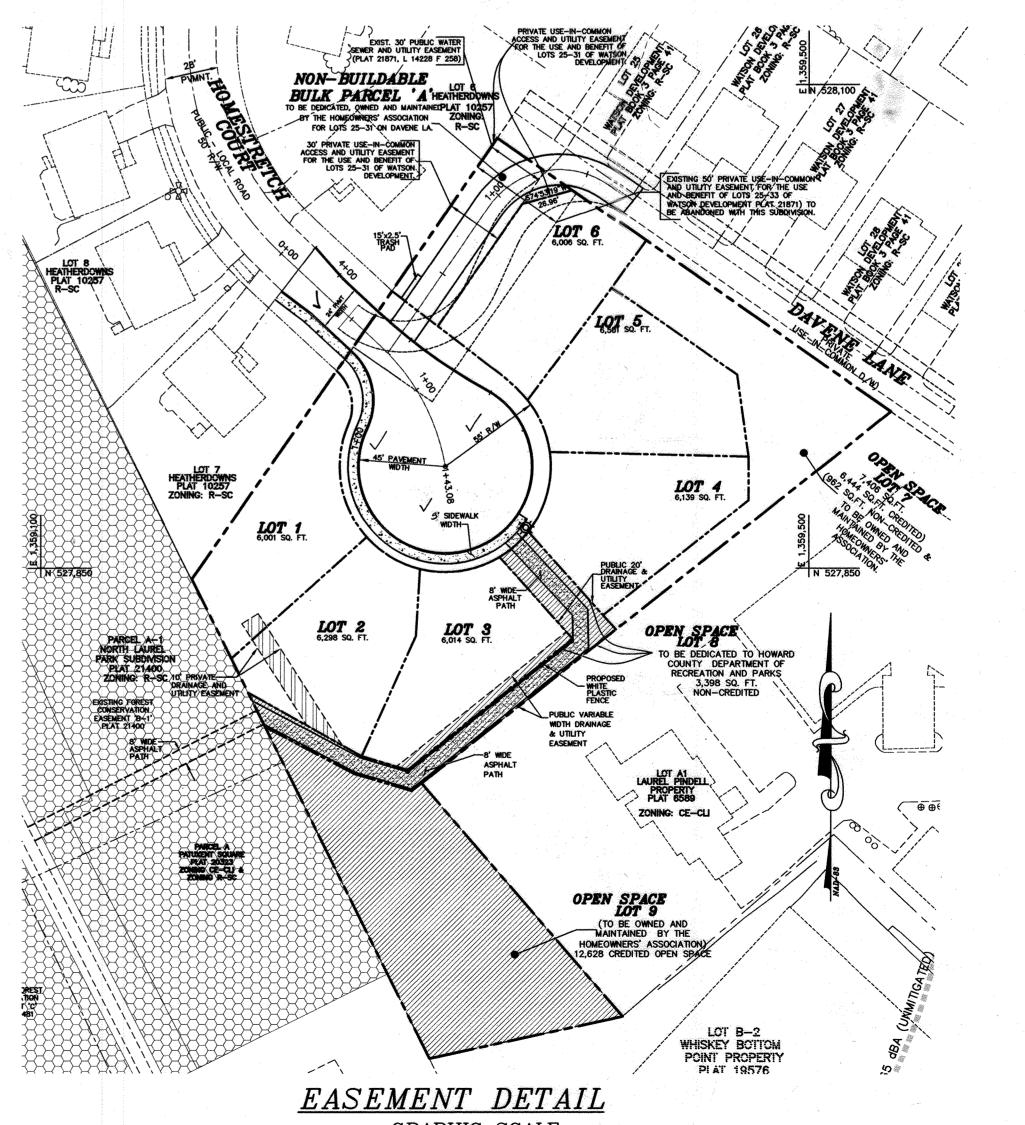


I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP DATE 09/03/16

4114116 R. JAZOB HIKMAT P.E.







GRAPHIC SCALE (IN FEET) 1 inch = 50 ft.

MILDENBERG, BOENDER & A

INC.

ASSOC.,

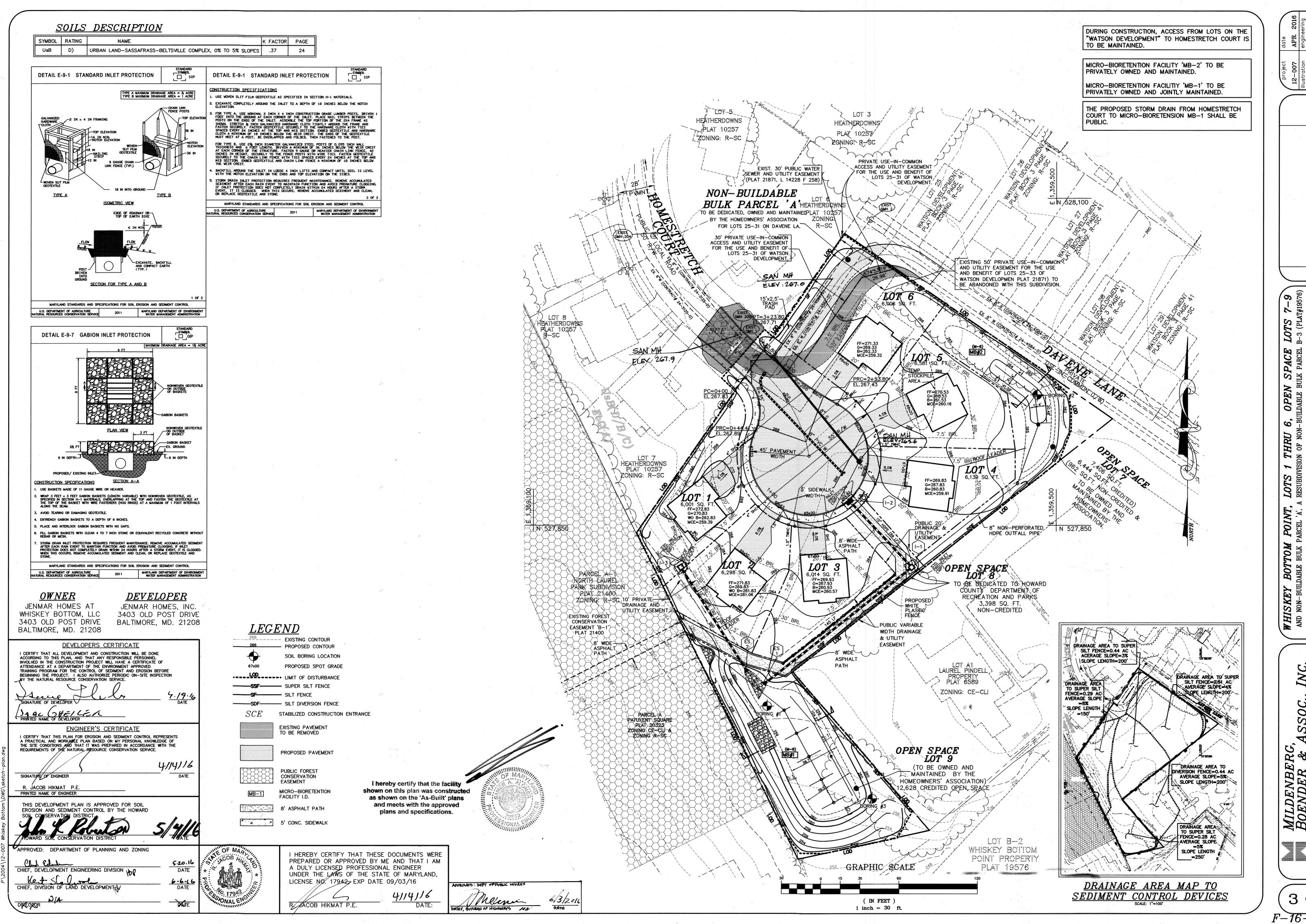
L B-3 (

OPEN ILDABLE

6, N-B

THISKEY
NON-BUILDA

2 of 7

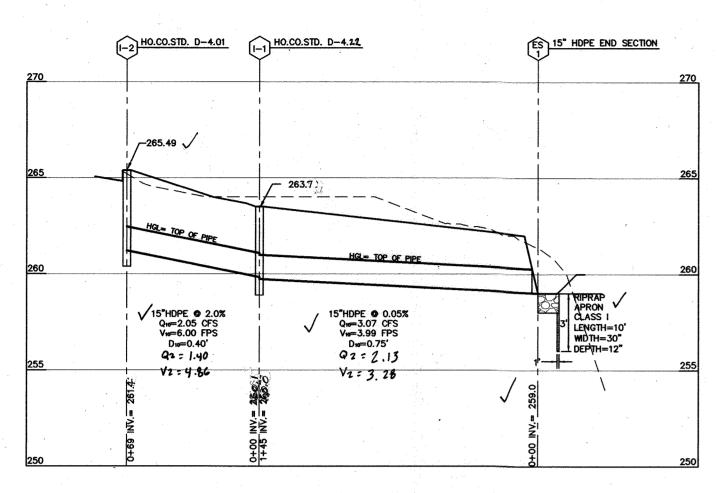


Summerors. V

3 of 7



SYMBOL	RATING	NAME	K FACTOR	PAGE
UsB	D)	URBAN LAND-SASSAFRASS-BELTSVILLE COMPLEX, 0% TO 5% SLOPES	.37	24



12"HDPE @ 0.05% Qw=0.38 CFS Vw=2.31 FPS Dw=0.26' Q 2 = 0.27

STORM DRAIN PROFILE I-3 TO ES-2

SCALE: HOR. 1"=50'
VER. 1"=5'

STRUCTURE SCHEDULE

NO.	LOCATION*	TOP**	INV. IN	INV. OUT	COMMENTS
ES-1	N 527,729.9; E 1,359,278.3	_	259.00 ✓		15" HDPE END SECTION
ES-2	N 527,741.8; E 1,359,261.6	- 1	25 8.7 0		√12" HDPE END SECTION
I – 1	N 527,817.8; E 1,359,389.5	263. 7 0	259.83	260.0	INLET TYPE \$ (HO. CO. STD D-4.22)
I-2	HOME STRETCH CT. L.P. STA. 2+86.18, OFFSET 0.43'	265.49 🗸		261.4	TYPE A-5 INLET (HO. CO. STD D-4.01)
I-3	N 527,817.8; E 1,359,213.4	261. 8 0		259.8	TYPES INLET (HO. CO. STD D-4.22)

STORM DRAIN PROFILE

VER. 1"=5'

I-1 TO ES-1

SCALE: HOR. 1"=50"

PIPE SCHEDULE

QUANTITY	PIPE SIZE	
90 LF	12" HDPE	٦
214 LF	15" HDPE	٦

HO.CO.STD. D-4.14

<u>OWNER</u>

JENMAR HOMES AT WHISKEY BOTTOM, LLC 3403 OLD POST DRIVE BALTIMORE, MD. 21208

APPROVED: DEPT OF PUBLIC WORKS

R. JACOB HIKMAT P.E. PRINTED NAME OF ENGINEER

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL

EROSION AND SEDIMENT CONTROL BY THE HOWARD

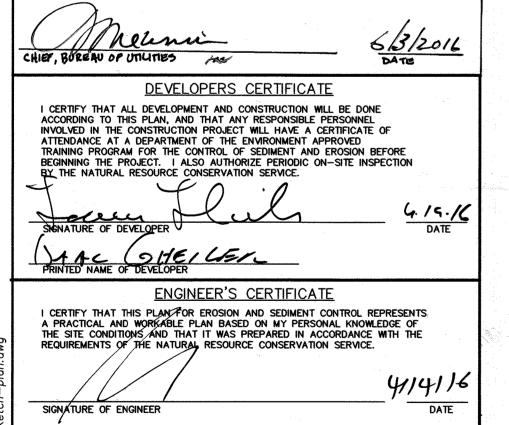
APPROVED: DEPARTMENT OF PLANNING AND ZONING

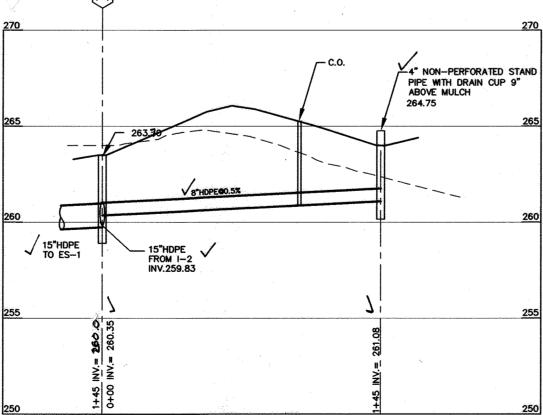
Chief, DEVELOPMENT ENGINEERING DIVISION 168

CHIEF, DIVISION OF LAND DEVELOPMENTS

DEVELOPER

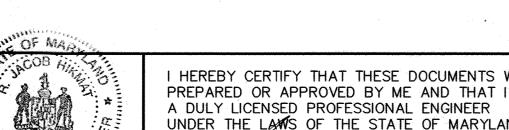
JENMAR HOMES, INC. 3403 OLD POST DRIVE BALTIMORE, MD. 21208





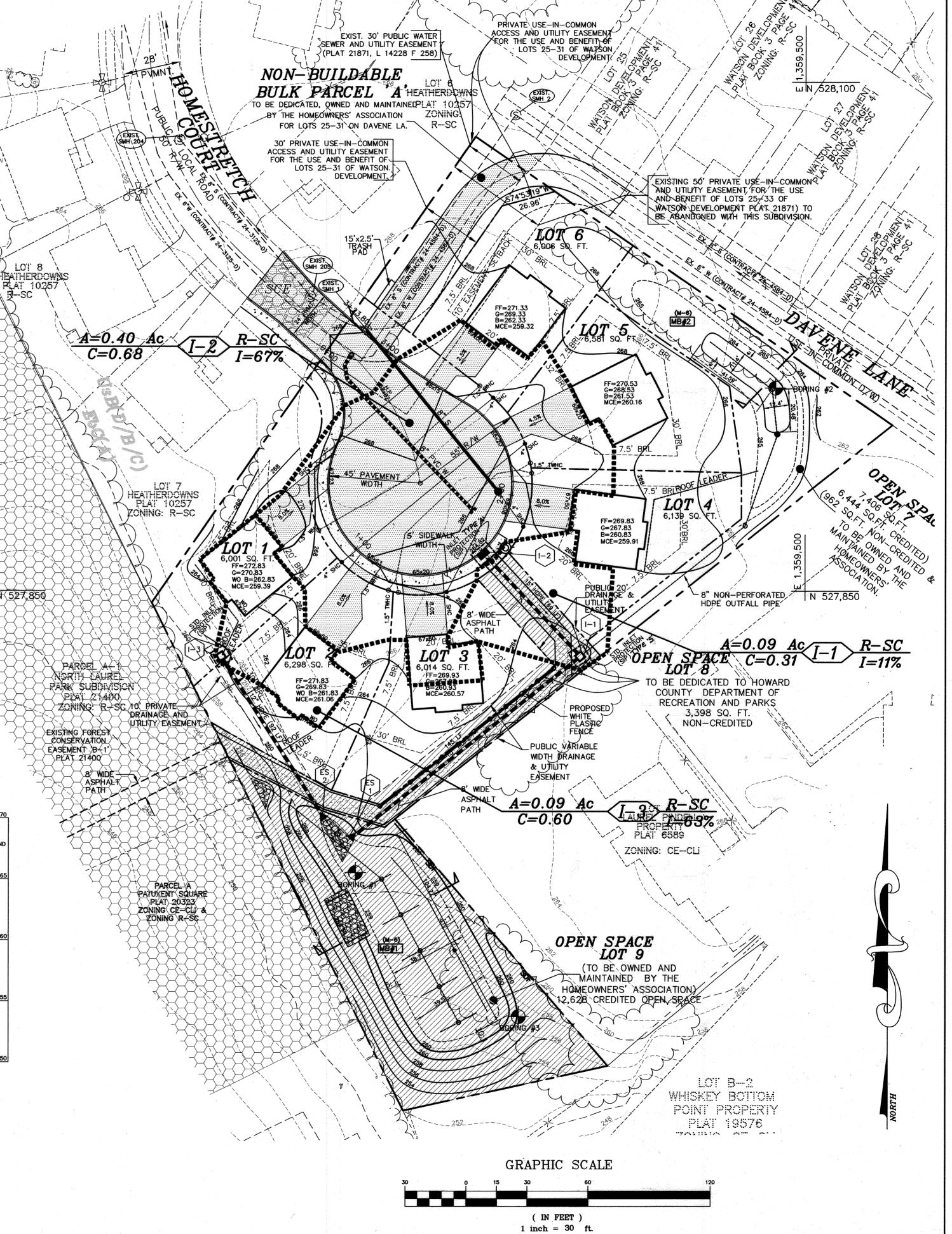
STORM DRAIN PROFILE MB-2 TO I-1SCALE: HOR. 1"=50" VER. 1"=5"

I hereby certify that the facility shown on this plan was constructed as shown on the 'As-Built' plans and meets with the approved plans and specifications.



HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO/17942 EXP DATE 09/03/16

4114116 R. JACOB HIKMAT P.E.



PARCEI ...

SKEY

Surveyors

4 of 7

F - 16 - 040

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. CONDITIONS WHERE PRACTICE APPLIES WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

A. SOIL PREPARATION 1. TEMPORARY STABILIZATION

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. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.

INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER

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

V. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE

RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE 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 SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN

MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE

TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY

THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE

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

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 TEXTURE SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSI FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1½ INCHES IN DIAMETER. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM

HICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OF 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 THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS) 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

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.

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

ENGINEER'S CERTIFICATE

REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE.

DEVELOPERS CERTIFICATE

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE

INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF

TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT

CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

Kent She Dwale

CHIEF, DIVISION OF LAND DEVELOPMENT

PPROVED: DEPARTMENT OF PUBLIC WORKS

Melene

CHIEF, BUREAU OF HIGHWAYS

BEGINNING THE PROJECT. HOWARD SOIL CONSERVATION DISTRICT IS AUTHORIZED

ACCORDING TO THIS PLAN. AND THAT ANY RESPONSIBLE PERSONNEL

ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED

SIGNATURE OF ENGINEER

PRINTED NAME OF ENGINEER

SIGNATURE OF DEVELOPER

TO CONDUCT PERIODIC ON-SITE INSPECTION.

R. JACOB HIKMAT, P.E.

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS

THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE

A PRACTICAL AND WORKARIE PLAN BASED ON MY PERSONAL KNOW FORE OF

(B-4-3) STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

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 GRADING CRITERIA

1. SPECIFICATION: a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT 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 GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS. 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. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP

MEAKEN BACTERIA AND MAKE THE 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

2. APPLICATION

a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS I. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.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 . 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 RATE IN

c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer). 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; P2 05 (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.

1. MULCH MATERIALS (IN ORDER OF PREFERENCE)

a. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, 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 STATE. 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 FACTORS. 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 WITH 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

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. b. 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 A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.

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: I. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH NTO 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 FIRER PER 100 CALLONS OF WATER

. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (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. LISE OF ASPHALT BINDERS IS STRICTLY PROHIBITED

IV. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 (B-4-4) STANDARDS AND SPECIFICATIONS FOR <u>TEMPORARY STABILIZATION</u>

TO STABILIZE DISTURBED SOIL WITH VEGETATION FOR UP TO 6 MONTHS

TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURB SOIL.

CONDITIONS WHERE PRACTICE APPLIES

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.

 SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B-1 PLUS FORTELIZER AND LIME RATES MUST BE PUT ON

FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMENTED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING

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.1b, AND MAINTAIN UNTIL THE NEXT SEEDING SEASON. (B-4-5) STANDARDS AND SPECIFICATIONS FOR

TO STABILIZE DISTURBED SOIL WITH PERMANENT VEGETATION.

PERMANENT STABILIZATION

TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER OF DISTURBED CONDITIONS WHERE PRACTICE APPLIES EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CRITERIA

A. SELECT ONE OR MORE OF THE SPIECES OF MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED IN THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY.

B. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DINES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD GUIDE, SECTION 342-CRITICAL AREA PLANTING. FOR SITES HAVING DISTURBAD AREA OVER 5 ACRES, USE AND SHOW RATES RECOMMENDED BY THE

D. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FROM FERTILIZED (40-0-01) AT 3 1/2 POUNDS PER 1000 S.F. (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.

AREAS WHERE TURFGRASS MAY BE DESIRE INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE. B. SELECT ONE OR MORE OF THE SPECIES OF MIXTURES LISTED BELOW BASED ON THE SITE

CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLOCATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIV MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASRERN SHORE RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS SEEDING RETA: 1.5 TO 2.0 POUNDS PER 1000 S.F

CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT. KENTUCKY BLUEGRASS/PERENIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY ABD WHEN TURF WILL RECEIVE MEDIUM TO INTENSUVE MANAGEMENT. CERTIFIED PERENIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDINGRATE: 2 POUNDS MIXTURE PER 1000 S.F. SHOOSE A MINIMUM OF THREE

KENTUCKYBLUEGRASS CULTIVARS EITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT III. TALL FESCUE/KENTUCKY BLUEGRASS: FULL MIXTURE: FOR USE IN DROUGHT AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 65 TO 100 PERCENT, CERTIFIED KENTLICKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 PERCENT PER 1000 S.F. ONE OF

MORE CULTIVARS MAY BE BLENDED. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TIRF AREA.
MIXTURE INCLUDES; CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCANT AND CERTIFIES FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATES 1 1/2 TO 3 POUNDS PER 1000 S.F. IDEAL TIMES OF SEEDING FOR TURE GRASS MIXTURE

WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5B,6A) CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B) SOUTHERN MD. EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15

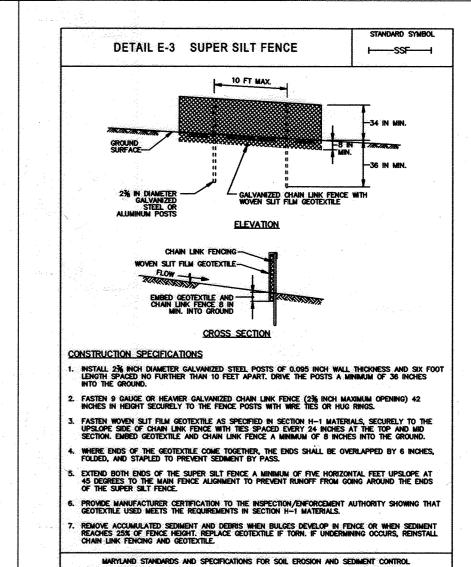
(HARDINESS ZONE: 7A, 7B) TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED, REMOVE STONE AND DEBRIS OVER 1.5 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE

IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH 0.5 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,

PLAN VIEW . 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 BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE PROVIDE PIPE AS SPECIFED ON APPROVED PLAN, WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAG TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT. MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTRO DEPARTMENT OF AGRICULTURE 2011 MARYLAND DEPARTMENT OF ENVIRONMEN
RESOURCES CONSERVATION SERVICE 2011 DETAIL E-1 SILT FENCE

DETAIL B-1 STABILIZED CONSTRUCTION

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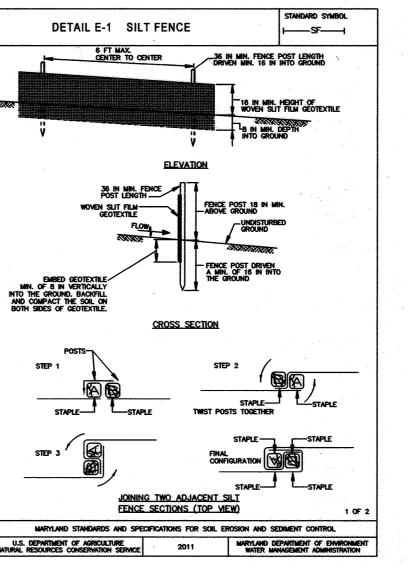
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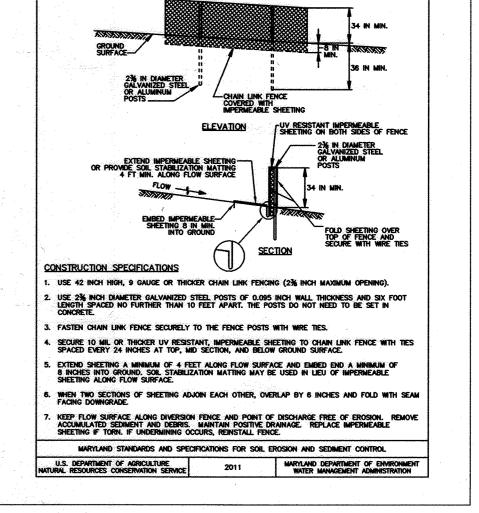
2011

MARYLAND DEPARTMENT OF ENVIRONMEN
WATER MANAGEMENT ADMINISTRATION

├--- DF ------|

DETAIL C-9 DIVERSION FENCE





IN ABNORMALLY DRY OR HOT SEASON, OR ON ADVERSE SITES. (B-4-8) STANDARDS AND SPECIFICATION FOR STOCKPILE AREA A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES. 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 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

3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE. 4. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE 5. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVISE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING

CONCENTRATED FLOW IN A NON-EROSIVE MANNER. 6. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.

7. STOCKPILE MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-I INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.

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 COVERED WITH IMPERMEABLE

MAINTENANCE
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 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

EROSION AND SEDIMENT CONTROL NOTES

ALL SEDIMENT CONTROL OPERATIONS ARE TO BE DONE IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY VOLUME IV DESIGN MANUAL AND THE STANDARDS AND SPECIFICATIONS FOR SEDIMENT CONTROL IN DEVELOPING AREAS. 2. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF

3. ALL EXCAVATED MATERIALS SHALL BE STOCKPILED ON THE UPGRADE SIDE OF THE MAIN TRENCH.

4. EXCAVATION AND BACKFILL SHALL BE LIMITED TO THAT WHICH CAN BE STABILIZED WITHIN ONE 5. IMMEDIATELY FOLLOWING BACKFILL OF THE SEWER TRENCH, ALL DISTURBED AREAS ARE TO BE

STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION AND SEEDING NOTES SHOWN

THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO ENSURE THAT ALL DEVICES ARE IN

7. ALL SEDIMENT CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

SEQUENCE OF CONSTRUCTION OBTAIN GRADING PERMIT (1 DAY)

PERFORM CLEARING AND GRUBBING AS NECESSARY FOR THE INSTALLATION OF PERIMETER CONTROLS (5 DAYS) 3. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AT

CONSTRUCT PERIMETER CONTROLS: SILT FENCES (SF), SUPER SILT FENCES (SSF) AND DIVERSION FENCE (DF) AS SHOWN ON PLAN (5 DAYS).

9. CONSTRUCT STORM DRAIN SYSTEM (10 DAYS). 10. INSTALL INLETS PROTECTIONS FOR INLET I-2 INSTALL GABION INLET PROTECTON MDE STD. E-9-7-, FOR INLETS

I-1 AND I-3 INSTALL STANDARD INLET PROTECTION MDE STD. E-9-1. (1 DAY). 11. CONSTRUCT PUBLIC WATER AND SEWER MAINS

12. CONSTRUCT PUBLIC ROAD AND 8' ASPHALT PATHWAY 13. REMOVE INLET PROTECTION FROM i-2. (1 DAY)

14. SEED AND MULCH DISTURBED AREA (1 DAY) WITH THE APPROVAL OF SEDIMENT CONTROL INSPECTOR REMOVE DIVERSION FENCE FROM OPEN SPACE LOT 7.

TEMPORARY SEEDING FOR SITE STABILIZATION RATE RECOMMENDED SEEDING DATED BY PLANT HARDINESS ZONE PLANT SPECIES LB/AC LB/ (INCHES, 5B AND 6A 7A AND 7B COOL SEASON GRASSES ANNUAL RYEGRAS MAR 15 TO MAY 31 MAR 1 TO MAY 15: 0.5 (LOLIUM PERENNE SSP. MULTIFLORUM AUG 1 TO SEP 30 AUG 1 TO OCT 15 AUG 15 TO NOV 3 MAR 1 TO MAY 15: FEB.15 TO APR 30 0.5 96 | 2.2 (HORDEUM VULGARE) AUG 1 TO SEP 30 AUG 1 TO OCT 15 AUG 15 TO NOV 30 MAR 1 TO MAY 15 FEB.15 TO APR 30 MAR 15 TO MAY 3 (AVENA SATIVA) AUG 1 TO SEP 30 AUG 1 TO OCT 15 AUG 15 TO NOV 3 MAR 15 TO MAY 31: MAR 1 TO MAY 15; FFB.15 TO APR 30 AUG 1 TO SEP 30 (TRITICUM AESTIVUM AUG 1 TO OCT 15 AUG 15 TO NOV 30 CEREAL RYE MAR 15 TO MAY 3 MAR 1 TO MAY 15 FFR 15 TO APR 30 0.5 (SECALE ITALICA) AUG 1 TO OCT 31 AUG 1 TO OCT 15 AUG 15 TO DEC 15 WARM SEASON GRASSES FOXTAIL MILLET 30 | 0.7 | 0.5 JUN 1 TO JUL 31 MAY 16 TO JUL 31 MAY 1 TO AUG 14 (SETARIA ITALICA PEARL MILLET 0.5 JUN 1 TO JUL 31 MAY 16 TO JUL 31 MAY 1 TO AUG 14 (PENNISETUM GLAUCUM

		ZONE (FROM F TURE (FROM T	IGURE B.3): 6b ABLE B.3): 8		F	ERTILIZER RATE (10-20-20)		
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P ₂ O ₅	K₂Ó	LIME RATE
1	TALL FESCUE	100	MARCH 1-MAY 15 AUG 15-OCT 15	1/4"-1/2"	45 LBS. PER ACRE (1 LB./1000 SF)	90 LBS. PER ACRE (2 LB./1000 SF)	90 LBS. PER ACRE (2 LB./1000 SF)	2 TONS / AC (90 LBS / 10 SF)

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6/3/2016

INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN

EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS

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 5 INCHES. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

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 CONCERN HAVE LOW

TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.

THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND

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

CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN

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

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.

STANDARD SEDIMENT CONTROL NOTES

1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC 8. WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:

PRIOR TO THE START OF EARTH DISTURBANCE UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS. BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.

PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER

PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS

ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY

STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL

PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION

WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15' OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6).

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

SITE ANALYSIS: TOTAL AREA OF SITE: AREA DISTURBED: ____ACRES AREA TO BE ROOFED OR PAVED: ___0.55_____ACRES AREA TO BE VEGETATIVE STABILIZED: __1.14____ ACRES ___3,000_____ CU. YDS. TOTAL FILL: _3.000_ __CU. YDS. OFFSITE WASTE/BORROW AREA LOCATION:

> 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 NØ. 17942, EXP DATE 9/3/16.

5/3/16 DATE:

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

BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR

WEEKLY: AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE

CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE: -INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT) -NAME AND TITLE OF INSPECTOR -WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF

LAST RECORDED PRECIPITATION) -BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR **CURRENT ACTIVITIES** -EVIDENCE OF SEDIMENT DISCHARGES -IDENTIFICATION OF PLAN DEFICIENCIES -IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE -IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS

-COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS -PHOTOGRAPHS -MONITORING/SAMPLING -MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED

WHICHEVER IS SHORTER.

-OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE). TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT

10. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION, MINOR REVISIONS MAY ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED FIELD CHANGES. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING 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

WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY,

STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE CID, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME 12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES

MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.

13. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL 14. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE

IMBERICATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN

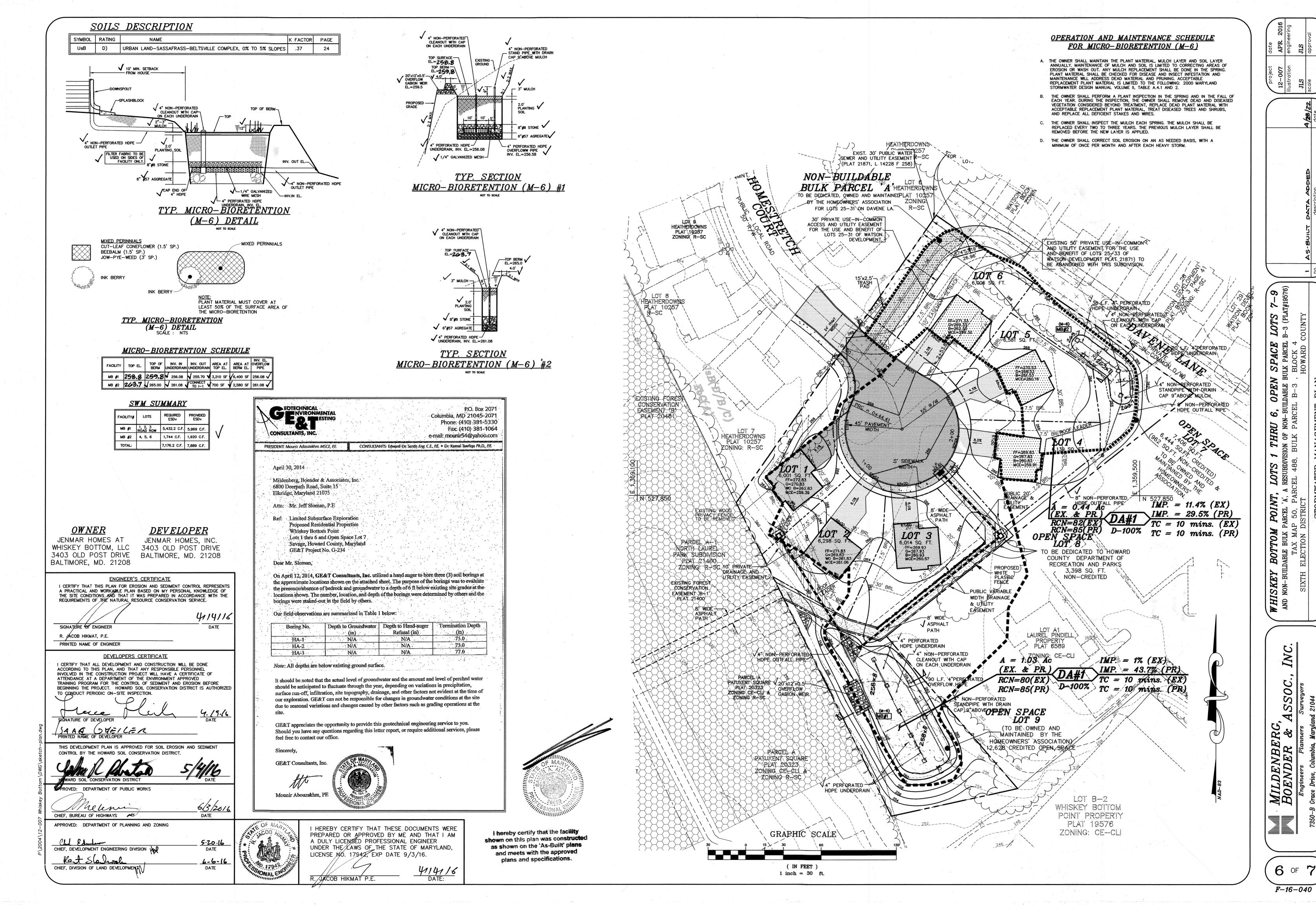
15. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE): USE I AND IP MARCH 1 - JUNE 15 USE III AND IIIP OCTOBER 1 - APRIL 30 USE IV MARCH 1 - MAY 31

16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL OWNER / DEVELOPER EROSION AND SEDIMENT CONTROL AND ASSOCIATED PERMITS SHALL BE ON-SITE AND JENMAR HOMES, INC. AVAILABLE WHEN THE SITE IS ACTIVE. 3403 OLD POST DRIVE BALTIMORE, MD. 21208

LOCATION INDICATED (1 DAY). CLEAR AND GRUB SITE (5 DAYS). 6. GRADE SITE AS SHOWN ON PLAN (10 DAYS). RELOCATE PART OF THE EXISTING DAVINE LANE AS SHOWN ON PLAN (10 DAYS) 8. CONSTRUCT MICROBIORETENTION #1.3#2

THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

LEAVE IN PLACE THE REMAINING SEDIMENT CONTROL DEVICES FOR FUTURE CONSTRUCTION OF THE HOUSES (SDP STAGE).



SOC.

MANAGEMENT

2

FOREST CONSERVATION WORKSHEET NET TRACT AREA: A. Total tract area... (1.16 AC FROM RESIDENTIAL PORTION OF WATSON DEVELOPMENT) 3. Area within 100 year floodplair C. Area to remain in agricultural production . D. Net tract area..

LAND USE CATEGORY: (from table 3.2.1, page 40, Manual) Input the number "1" under the appropriate land usezoning, and limit to only one entry.

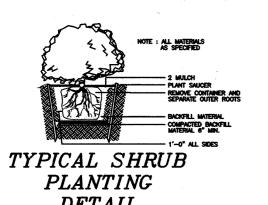
. 15% x D =0.43 ...20% x D =0.58 . Afforestation Threshold. F. Conservation Threshold.. EXISTING FOREST COVER:

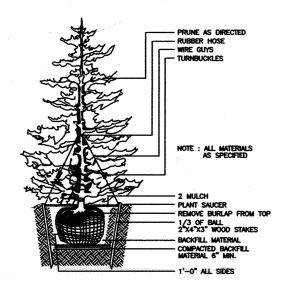
G. Existing forest cover (excluding floodplain)...
H. Area of forest above afforestaion threshold I. Area of forest above conservation threshold BREAK EVEN POINT: J. Forest retention above threshold with no mitigation... K. Clearing permitted without mitigation..

PROPOSED FOREST CLEARING: L. Total area of forest to be cleared. M. Total area of forest to be retained.. PLANTING REQUIREMENTS:

N. Reforestation for clearing above conservation threshold... P. Reforestation for clearing below conservation threshold... ...=0.00 Q. Credit for retention above conservation threshold.. ..=0.00 . Total reforestation required... ..=0.00 S. Total afforestation required... ...=0.43 T. Total reforestation and afforestation required.. ..=0.43

FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION WILL BE FULFILLED BY PAYMENT OF FEE-IN-LIEU IN THE AMOUNT OF \$14,048.10 FOR 0.43 ACRES OF REFORESTATION.





TYPICAL EVERGREEN TREE PLANTING DETAIL



DEVELOPER

JENMAR HOMES, INC.

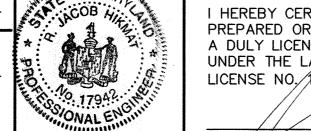
5.20.16

<u>OWNER</u> JENMAR HOMES AT WHISKEY BOTTOM, LLC

CHIEF. DEVELOPMENT ENGINEERING DIVISION

3403 OLD POST DRIVE 3403 OLD POST DRIVE BALTIMORE, MD. 21208 BALTIMORE, MD. 21208 APPROVED: DEPARTMENT OF PUBLIC WORKS 6/3/2016 // helime

CHIEF BUREAU OF HIGHWAYS APPROVED: DEPARTMENT OF PLANNING AND ZONNING Kat Sterlisohn CHIEF, DIVISION OF LAND DEVELOPMENT Chil Edunder



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. 17942, EXP DATE 09/03/16

41416 R. JACOB HIKMAT P.E.

LANDSCAPE NOTES

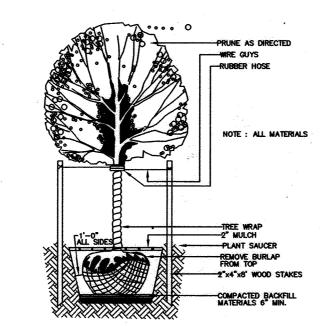
1. NO CLEARING OF EXISTING VEGETATION IS PERMITTED WITHIN THE LANDSCAPE EDGE FOR WHICH

CREDIT IS BEING TAKEN; HOWEVER, LANDSCAPE MAINTENANCE IS AUTHORIZED 2. THE OWNER, TENANT AND / OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, PLANT MATERIALS, BERMS, FENCES, AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

3. AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND

4. SHOULD ANY TREE DESIGNATED FOR PRESERVATION, FOR WHICH CREDIT IS GIVEN, BE REMOVED OR DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE LANDSCAPE MANUAL.

5. LANDSCAPING FOR LOTS 1 THRU 6 IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A LANDSCAPE SURETY FOR THE REQUIRED LANDSCAPING IN THE AMOUNT OF \$7,800.00 (21 SHADE TREES, 2 EVERGREEN TREES AND 4 ORNAMENTAL TREES) WILL BE POSTED AT THE SITE DEVELOPMET STAGE.



DECIDUOUS TREE PLANTING DETAIL NOT TO SCALE

STREET TREE CALCULATIONS

PERIMETER LENGTH PLANTING REQUIREMENT TREES REQUIRED TREES PROVIDED STREET NAME HOMESTRETCH 1 TREE / 40 L.F.

STREET TREE PLANTING SCHEDULE

QUANTITY SYMBOL BOTANICAL NAME **COMMON NAME** SIZE PRUNUS SARGENTII SARGENT CHERRY 2 1/2" - 3" CAL.

TOTAL 9 STREET TREES

PERIMETER TREE PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	<u>SIZE</u>
21	0	ACER RUBRUM 'RED SUNSET' (SHADE)	RED MAPLE	2 1/2" - 3" CAL.
4	0	CIRCIS CANADENIS (SUBSTITUTION)	EASTERN REDBUD	2 1/2" - 3" CAL.
2	**	ILEX OPACA (IO) (EVERGREEN)	AMERICAN HOLLY	5' - 6' HT.
20	0	TAXUS MEDIA 'HICKSII' (TM) (SHRUBS)	HICKS YEW	2 1/2' - 3' HT.
TOTAL		(5.11.555)	·	

21 SHADE TREES, 4 SUBSTITUTION TREES, 2 EVERGREENS, 20 SHRUBS

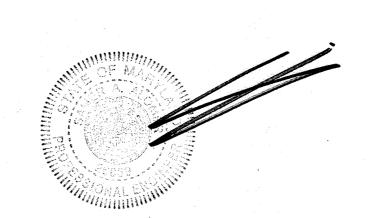
DEVELOPER'S/OWNER'S CERTIFICATE

WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE

ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE, AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION,

ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS,



THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

(IN FEET) SCHEDULE A: PERIMETER LANDSCAPED EDGE 1 inch = 30 ft.CATEGORY ADJACENT TO PERIMETER PROPERTIES LANDSCAPE TYPE A (PERIMETER 1) A (PERIMETER 2) (PERIMETER 4) A (PERIMETER 5) A (PERIMETER 6) A (PERIMETER 7) C (TRASH PAD) TOTAL LINEAR FEET OF PERIMETER 278.6 LF 132.5 LF 96.5 LF 249.3 LF 312.3 LF 160.0 LF 102.9 LF 20 LF CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) CREDIT FOR WALL, FENCE, OR BERM NO (YES, NO, LINEAR FEET) NUMBER OF PLANTS REQUIRED SHADE TREES SHADE TREES 5 SHADE TREES 2 SHADE TREES 2 SHADE TREES 5 SHADE TREES SHADE TREES 2 SHADE TREES SHADE TREE SHADE TREES O EVERGREEN TREES 0 EVERGREEN TREES EVERGREEN TREES O EVERGREEN TREES O EVERGREEN TREES 2 EVERGREEN TREES O EVERGREEN TREES O EVERGREEN TREES 1 EVERGREEN TREES EVERGREEN TREES 0 SHRUBS 0 SHRUBS 0 SHRUBS SHRUBS SHRUBS 0 SHRUBS 0 SHRUBS 0 SHRUBS 0 SHRUBS SHRUBS O SHADE TREES NUMBER OF PLANTS PROVIDED 5 SHADE TREES 2 SHADE TREES 4 SHADE TREES O SHADE TREES SHADE TREES 5 SHADE TREES SHADE TREES 2 SHADE TREES O EVERGREEN TREES 2 EVERGREEN TREES O EVERGREEN TREES 2 EVERGREEN TREES SHADE TREES 4 SUBSTITUTION TREES (2:1) EVERGREEN TREES O SUBSTITUTION TREES (2:1) O SUBSTITUTION TREES (2:1) O SUBSTITUTION TREES (2:1) O SUBSTITUTION TREES (2:1 4 SUBSTITUTION TREES (2:1 0 SHRUBS 0 SHRUBS 0 SHRUBS SHRUBS 0 SHRUBS 0 SHRUBS 0 SHRUBS 20 SHRUBS 20 SHRUBS 0 SHRUBS

PRIVATE USE-IN-COMMON ACCESS AND UTILITY EASEMENT EXIST. 30' PUBLIC WATER FOR THE USE AND BENEFITH OF SEWER AND UTILITY EASEMENT LOTS 25-31 OF WATSON, √(PLAT 21871, L 14228 F 258) DEVELOPMENT! NON-BUILDABLE BULK PARCEL A HEATHERDOWN шN /528,100 TO BE DEDICATED, OWNED AND MAINTAINED AT 1015 BY THE HOMEOWNERS' ASSOCIATION ZONING FOR LOTS 25-31 ON DAVENE LA. 30' PRIVATE USE-IN-COMMON ACCESS AND UTILITY EASEMENT FOR THE USE AND BENEFIT OF LOTS 25-31 OF WATSON. DEVELOPMENT. EXISTING 50' PRIVATE USE-IN-COMMON AND UTILITY EASEMENT, FOR THE USE AND BENEFIT OF LOTS 25-33 OF WATSON DEVELOPMENT PLAT 21871) TO BE ABANDONED WITH THIS SUBDIVISION. LOT 7
HEATHERDOWNS
PLAT 10257 ZONING: R-SC/ FF=269.83 G=267.83 B=260.83 NON-PERFORATED ADPÉ OUTFALL PIPE LOT /FF=269.93 G=267.93 B=260.93 MCE=260.57 PARK SUBINIVISION COUNTY DEPARTMENT OF ~2!XX_2:\4\M\ 3,398 SQ. FT. DRAINAGE AND NON-CREDITED EXISTING FOREST EASEMENT '8-1'
PLAT 21400 WIDTH DRAINAGE EASEMENT **ASPHALT** LAURĒL PĪNDELL PROPERIY PLAT 6589 ZONING: CE-CLI PATUKENT SQUARE
PLAT 20323
ZONING CE-CLU &
ZONING R-SC LOT 9 (TO BE OWNED AND MAINTAINED BY THE HOMEOWNERS' ASSOCIATION 2.628 CREDITED OPEN SPACE EXISTING FOREST CONSERVATION EASEMENT 'C 101-3-2 WHISKEY BOTTON POWE PROPERIN 65 PLAT 19576 ZONING: CE-CLI

7 OF 7

F-16-040

SOC.