SUPPLEMENTAL AND ROAD IMPROVEMENT PLANS ROCKBURN VIEW

LOTS 54 THRU 61, AND OPEN SPACE LOT 62 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

LEGEND

LIMITS OF EXISTING FOREST CONSERVATION EASEMENT PER

LIMITS OF FOREST CONSERVATION

EASEMENT AND OPEN SPACE TO BE DEDICATED TO HOWARD

RECREATION AND PARKS (956 SF

CONSERVATION EASEMENT TO BE

LIMITS OF EXISTING WETLAND PER

ABANDONED (3,974 SF / 0.09 Ac)

F-99-163 (PLAT 14505)

COUNTY DEPARTMENT OF

/ 0.02 Ac)

OWNER / DEVELOPER

DORSEY FAMILY HOMES, INC.

10717-B BIRMINGHAM WAY

WOODSTOCK, MARYLAND 21163

(410)465-7200

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

ENGINEER'S CERTIFICATE

DEVELOPERS CERTIFICATE

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNE

ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED

ROBERT DORSEY, JR., PRESIDENT, DORSEY FAMILY HOMES, INC.

CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

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

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM

UNDER THE LAWS OF THE STATE OF MARYLAND,

A DULY LICENSED PROFESSIONAL ENGINEER

LICENSE NO. 40091, EXP DATE 2/13/15,

JEFFREY SLOMAN, P.E.

BEGINNING THE PROJECT. HOWARD SOIL CONSERVATION DISTRICT IS AUTHORIZED

REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

JEFFREY SLOMAN, PE

PRINTED NAME OF ENGINEER

SIGNATURE OF DEVELOPER

PRINTED NAME OF DEVELOPER

to conquet periodic on—site inspection

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

CHIÉF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DEPARTMENT OF PLANNING AND ZONING

VICINITY MAP SCALE : 1"= 2000' ADC MAP 34 / GRID E1,

SHEET INDEX

SHEET NO.	TITLE
1	COVER SHEET
. 2	SUPPLEMENTAL, STORMWATER MANAGEMENT AND ROAD IMPROVEMENT PLAN
3	SUPPLEMENTAL AND LANDSCAPE PLAN
4	ROAD IMPROVEMENT AND STORMWATER MANAGEMENT SECTIONS AND DETAILS
5	ROAD IMPROVEMENT AND STORMWATER MANAGEMENT SECTIONS AND DETAILS
6	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

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						ST	ORMWATE	R MANA	GEMENT	PRACTIO	CES					
OT#	ADDRESS	GREEN ROOF	PERMEABLE PAVEMENTS A-2	REINFORCED TURF A-3	DISCONNECTION OF ROOFTOP RUNOFF N-1	DISCONNECTION OF NON-ROOFTOP RUNOFF N-2	SHEETFLOW TO CONSERVATION AREAS N-3	RAINWATER HARVESTING M-1	SUBMERGED GRAVEL WETLANDS M-2	LANDSCAPE INFILTRATION M-3	INFILTRATION BERMS M-4		MICRO- BIORETENTION M-6	RAIN GARDENS M-7	SWALES M-8	ENHANCED FILTERS M-9
		(Y/N)	(Y/N)	(Y/N)	(NUMBER)	(Y/N)	(Y/N)	(NUMBER)	(NUMBER)	(NUMBER)	(NUMBER)	(NUMBER)	(NUMBER)	(NUMBER)	(NUMBER)	(NUMBER)
54	6003 CULLINS WAY	N	N	N	2	N	N	0	0	0	0	0	1	0	0	0
55	6002 CULLINS WAY	N	N	N	0	N	N	0	0	0	0	0	1	0	0	0
56	6006 CULLINS WAY	N	N		1	Y	N	0	0	0	0	0	0	0	0	0
57	6007 CULLINS WAY	N	N	N	0	N	N	0	0	0	0	0	0	0	0	0
58	6010 CULLINS WAY	N	N	N	0	N	N	0	0	0	0	0	1	0	0	0
59	6011 CULLINS WAY	N	N ·	N	0	N	N	0	0	0	0	0	1	· · · O	0	0
60	6014 CULLINS WAY	N	N	N	0	N	N	0	0	0	0	0	1	0	0	0
61	6015 CULLINS WAY	N ·	N .	· N	0	N	N	0	0	0	0	0	1	0	0	0
S. 62		N	N.	N	0	N	N	0	0	. 0	0	0	0	0	0	0
D/W		N	N	N	0	Y	N	0	0	0	0	0	0	0	0	0

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
- 6. THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO INSURE 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.

LOCATION: TAX MAP: 37 PARCEL: 563 GRID 4 LOT 32

PROPOSED USE FOR SITE: RESIDENTIAL.

TOTAL GROSS SITE AREA: 3.53 AC.± AREA OF WETLAND BUFFER TO BE DEDICATED TO HOWARD COUNTY: 0.02 AC.±

TOTAL NET SITE AREA: 3.51 AC.± AREA OF 15-24.99% SLOPES: 0.42 AC.± (18,489 SF)

AREA OF >25% SLOPES: 0 LIMIT OF DISTURBED AREA: 2.96 AC.± (0.14 Ac OFFSITE)

TOTAL NUMBER OF UNITS: 8 (INCL. 1 EXISTING)
TYPE OF PROPOSED UNIT: SFD
DEED REFERENCE: 11401 / 00100 PREVIOUS DPZ FILE NUMBERS : S-97-006, P-98-16, F-99-163, PLAT 14503-14508

2. HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 37BA & 37BB STA. No. 37BA EL. 393.94 N 563785.6421 E 1376343.2088

- 3. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNCIL BILL 45-2003). DEVELOPMENT OR CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN. WAIVER PETITION OR BUILDING/GRADING PERMIT.
- 5. THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH 16.127 RESIDENTIAL INFILL DEVELOPMENT OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPERS OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH THE EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, BERMS, FENCES, SIMILAR HOUSING UNIT TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES.
- 6. PROJECT BOUNDARY IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT JANUARY, 2012 BY
- 7. TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN SURVEY PERFORMED ON OR ABOUT JANUARY, 2012 BY MILDENBERG,
- 8. FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAVE BEEN FULFILLED UNDER APPROVED PLAN F-99-163 AND AS SHOWN ON 9. THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
- 10. PER RECORDED PLAT 14503, APPROVED PLAN F-99-163, AND A SITE VERIFICATION IN FEBRUARY, 2012, NO WETLANDS EXIST ON
- 11. FINANCIAL SURETY FOR PERIMETER AND TRASH PAD SCREENING IN THE AMOUNT OF \$9,450 FOR 29 SHADE TREES, 3 EVERGREEN

AND 10 SHRUBS SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS SUBDIVISION, F-12-077.

- SECTION 16.121(a)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS ALLOWS FOR A MINIMUM LOT SIZE OF LESS THAN 20,000 SF IN THE R-20 ZONING DEPENDING ON THE OPEN SPACE PROVIDED. AN OPEN SPACE PERCENTAGE OF 30 PERCENT WAS PROVIDED IN THE ORIGINAL ROCKBURN VIEW SUBDIVISION (F-99-163, PLAT 14503) ALLOWING FOR A MINIMUM
- 13. 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.
- THE FINAL LANDSCAPE DESIGN WILL BE SHOWN ON THE SITE DEVELOPMENT PLAN FOR THE CONSTRUCTION OF HOUSES ON THESE LOTS PER THE 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 CERTIFICATES.
- 15. NO CEMETERIES EXIST ON SITE.
- 16. THIS PROPOSED SUBDIVISION WILL CONSIST OF SINGLE FAMILY DETACHED DWELLINGS. 17. 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 RESIDENCE, A WIDER WIDTH MAY BE REQUIRED IN
 - CERTAIN CASES-SEE NOTE BELOW). B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2").
 - C) GEOMETRY MAX. 15% 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.
 - A WAIVER TO SECTION 2.6.A. OF VOLUME III OF THE HOWARD COUNTY DESIGN MANUAL TO ALLOW A USE-IN-COMMON DRIVEWAY TO SERVE MORE THAN SIX (6) LOTS WAS GRANTED ON APRIL 10, 2012. AS A CONDITION OF THE WAIVER, THE USE-IN-COMMON
- DRIVEWAY SHALL HAVE A PAVEMENT WIDTH OF 22 FEET AND UTILIZE A "P-2" PAVING SECTION. 18. FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.
- 19. ALL EXISTING STRUCTURES ON SITE WILL BE REMOVED, UNLESS OTHERWISE NOTED.
- 20. PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED UNDER CONTRACT
- 21. STORMWATER MANAGEMENT IS PROVIDED VIA ROOFTOP, NON-ROOFTOP DISCONNECTIONS AND MICRO-BIORETENTION FACILITIES IN ACCORDANCE WITH THE 2000 MDE STORMWATER DESIGN MANUAL. ALL ESD PRACTICES WILL BE PRIVATELY OWNED AND MAINTAINED. PRIOR TO SIGNATURE APPROVAL OF THE FINAL PLAT OR SITE DEVELOPMENT PLAN, ' DEVELOPER WILL BE REQUIRED TO EXECUTE THE DECLARATION OF COVENANT AND/OR A DEVELOPER'S AGREEMENT FOR THE CONSTRUCTION OF THE STORMWATER MANAGEMENT PRACTICES AND A MAINTENANCE AGREEMENT FOR THE PRIVATELY OWNED
- AND MAINTAINED ESD PRACTICES (DISCONNECTIONS AND MICRO-BIORETENTION FACILITIES). 22. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS
- MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE. 23. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION
- AT (410)313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK 24. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- 25. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE
- 26. TRAFFIC CONTROL DEVICES
 - a) THE RI-1 ("STOP") SIGN AND THE STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED. b) THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-5752) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC
- ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MIMUTCD).
- d) ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH"), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-12" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- 27. 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.
- 28. THERE IS NO FLOODPLAIN ON THIS SITE. 29. THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, INC., DATED
- 30. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, OR PLACEMENT OF NEW PAVING OR STRUCTURES IS PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100—YEAR FLOODPLAIN. HORIZONTAL GEOMETRY OF THE MICRO-BIORETENTION MAY BE MODIFIED WHILE MAINTAINING SURFACE AREA.
- IMPROVEMENTS TO MONTGOMERY ROAD WILL INCLUDE THE CONSTRUCTION OF A 4' WIDE CONCRETE SIDEWALK, 2' WIDE CURB AND GUTTER, AND THE REMOVAL AND REPLACEMENT OF EXISTING PAVEMENT PER HOWARD COUNTY'S ROADWAY WIDENING DETAIL.
- 33. NO STEEP SLOPES THAT AVERAGE 25% OR GREATER OVER 10 VERTICAL FEET WITH A 20,000 SF OR GREATER ONSITE AND OFFSITE CONTIGUOUS AREA ARE LOCATED ON THIS SITE. WAIVER PETITION WP-12-123, A WAIVER TO SECTION 16.123(a)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, WAS GRANTED ON MARCH 5, 2012. WP-12-123 WAS GRANTED TO ALLOW ON-SITE GRADING PRIOR TO SUBDIVISION
- AND SITE DEVELOPMENT PLAN APPROVAL. WP-12-123 REQUIRES THAT THE APPLICANT / DEVELOPER APPLY FOR, AND OBTAIN ALL PERMITS FOR THE PROPOSED STOCKPILE AREA BY MARCH 5, 2013.
- THERE IS AN EXISTING DWELLING ON LOT 57 TO REMAIN. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLING ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATIONS REQUIREMENTS. 36. THERE ARE NO WETLANDS ON THIS SITE. 37. NO NOISE STUDY IS REQUIRED FOR THIS PROJECT.
- 38. A PRIVATE RANGE OF ADDRESS SIGN SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPER'S/OWNER'S EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-2430 FOR DETAILS AND COST
- 39. A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) PERMIT WILL BE REQUIRED FOR THE PROPOSED SEWER CONSTRUCTION ON ADJACENT OPEN SPACE LOT 16. A PERMIT HAS BEEN APPLIED FOR AND IS RECORDED AT MDE
- UNDER AUTHORIZATION NUMBER 12-NT-0347/201261349, APPROVAL DATE: OCTOBER 2, 2012
- 40. DEVELOPER WILL BE RESPONSIBLE FOR THE COST OF THE SCHOOL FLASHER RELOCATION CONTACT HOWARD COUNTY TRAFFIC (410-313-5752) FOR DETAILS.

1 of

STA. No. 37BB EL. 373.01 N 563663.4488 E 1378040.5059 4. SITE DEVELOPMENT PLAN APPROVAL BY THE DEPARTMENT OF PLANNING AND ZONING IS REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED FOR THE CONSTRUCTION OF RESIDENTIAL DWELLINGS ON THESE LOTS.

JUL engir gppr

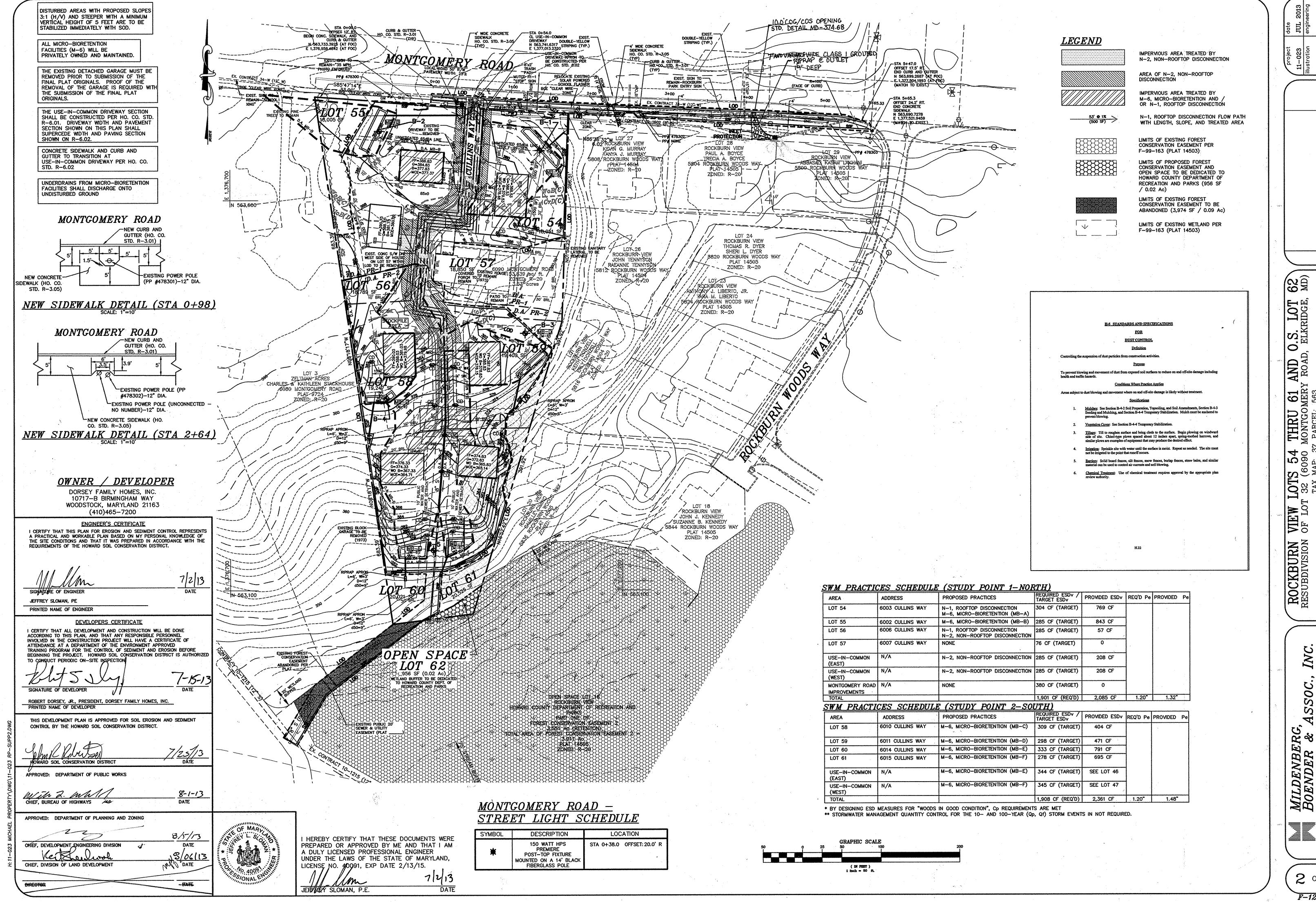
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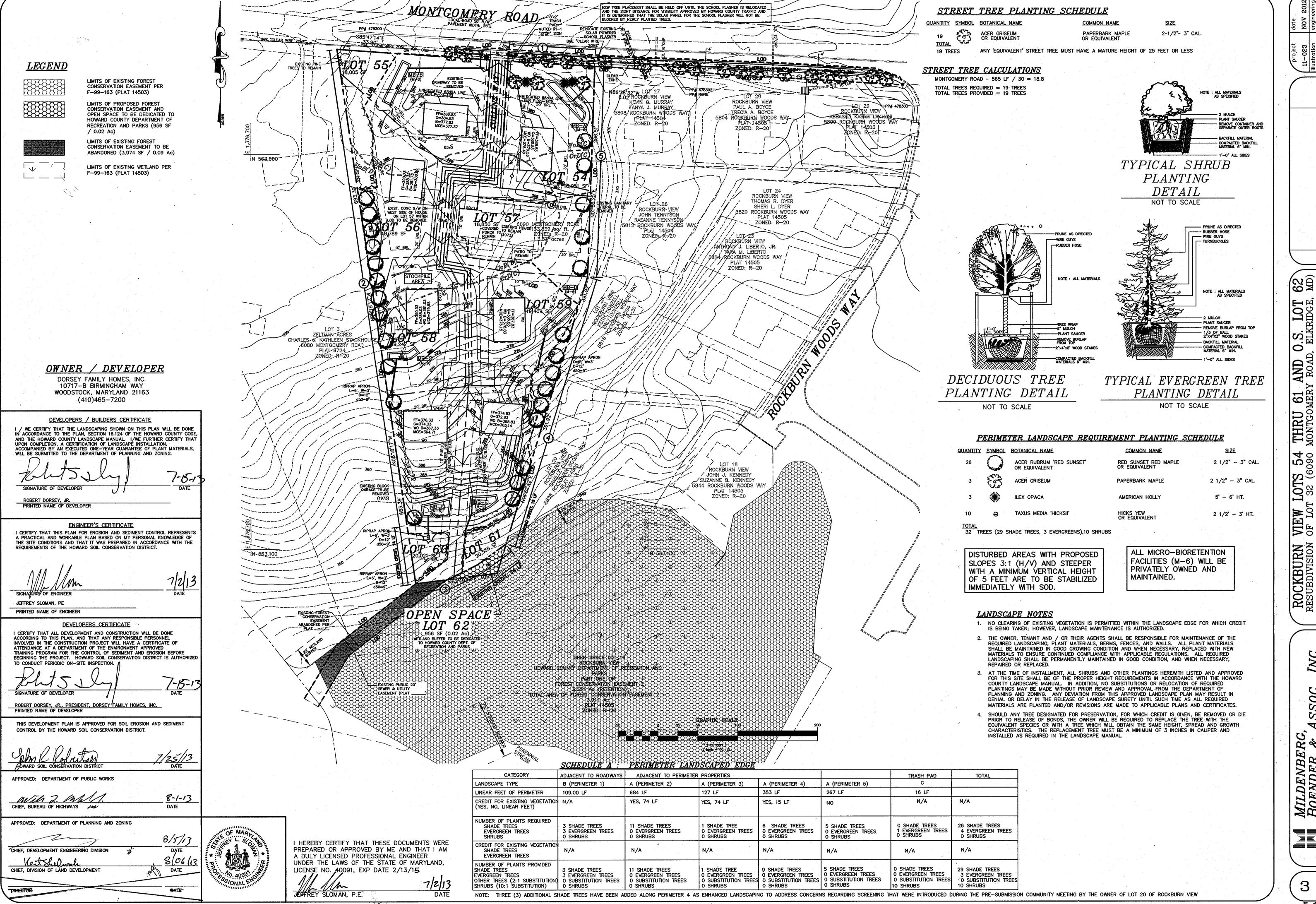
OUNTY, MARYLAND IMPROVEMENT PLAN

ROAD

MANAGEMENT

DISTRICT
STORMWATER

SUPPLEMENTAL,



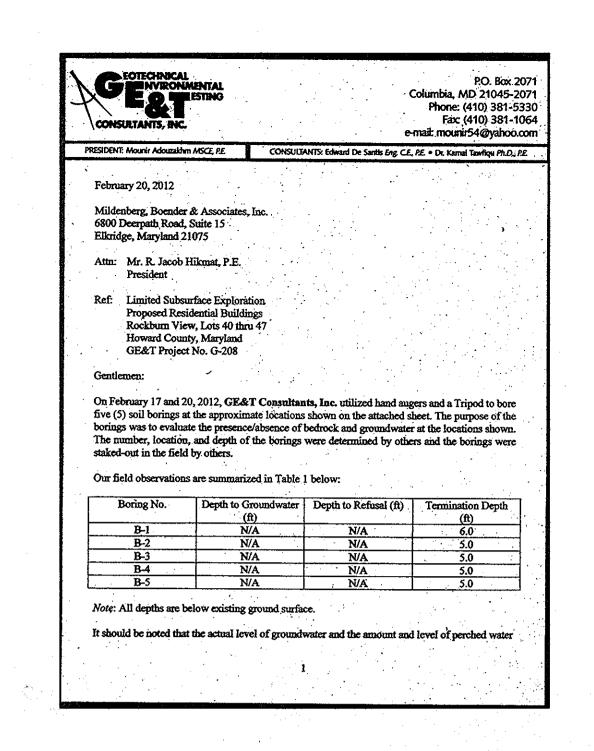
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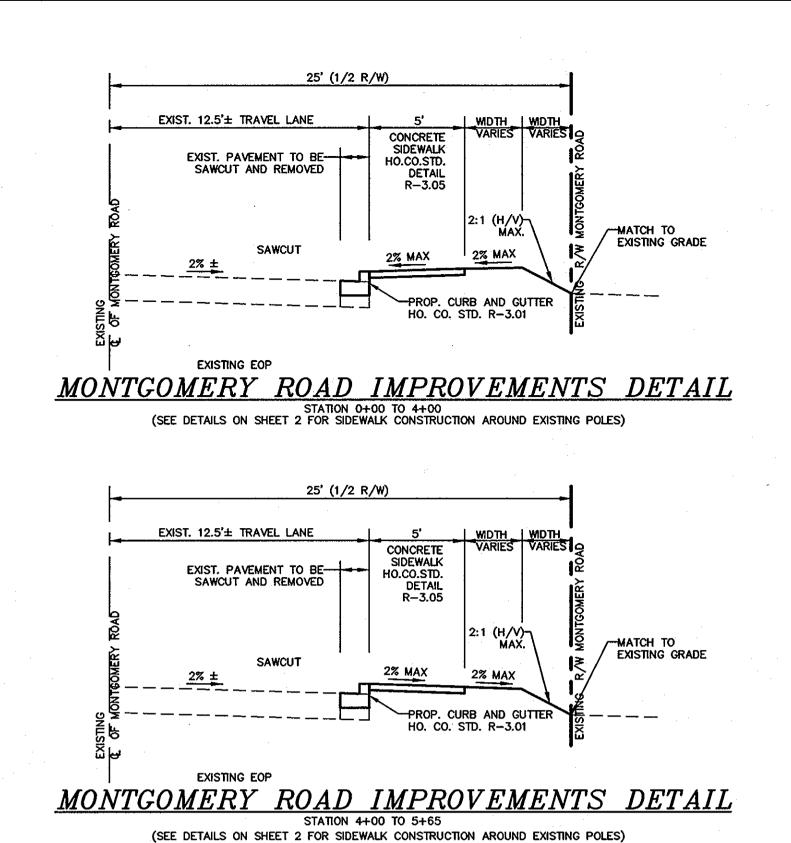
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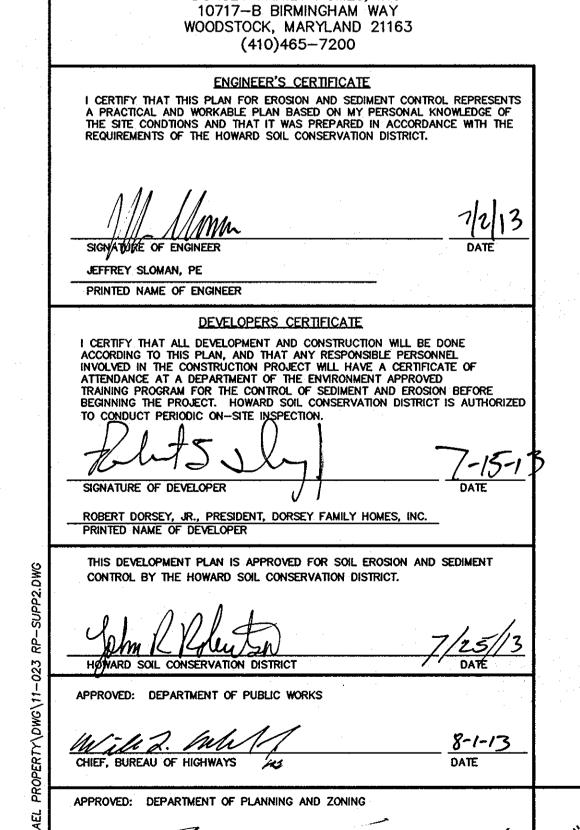
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3 of 6

F-12-077







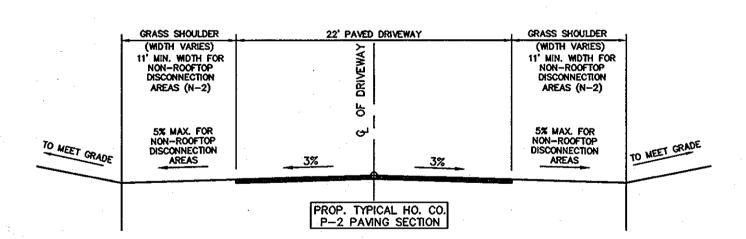
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CHIEF, DEVELOPMENT ENGINEERING DIVISION

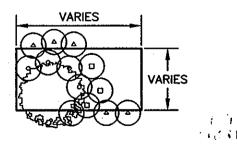
CHIEF, DIVISION OF LAND DEVELOPMENT

OWNER / DEVELOPER

DORSEY FAMILY HOMES, INC.

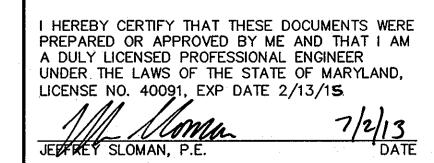


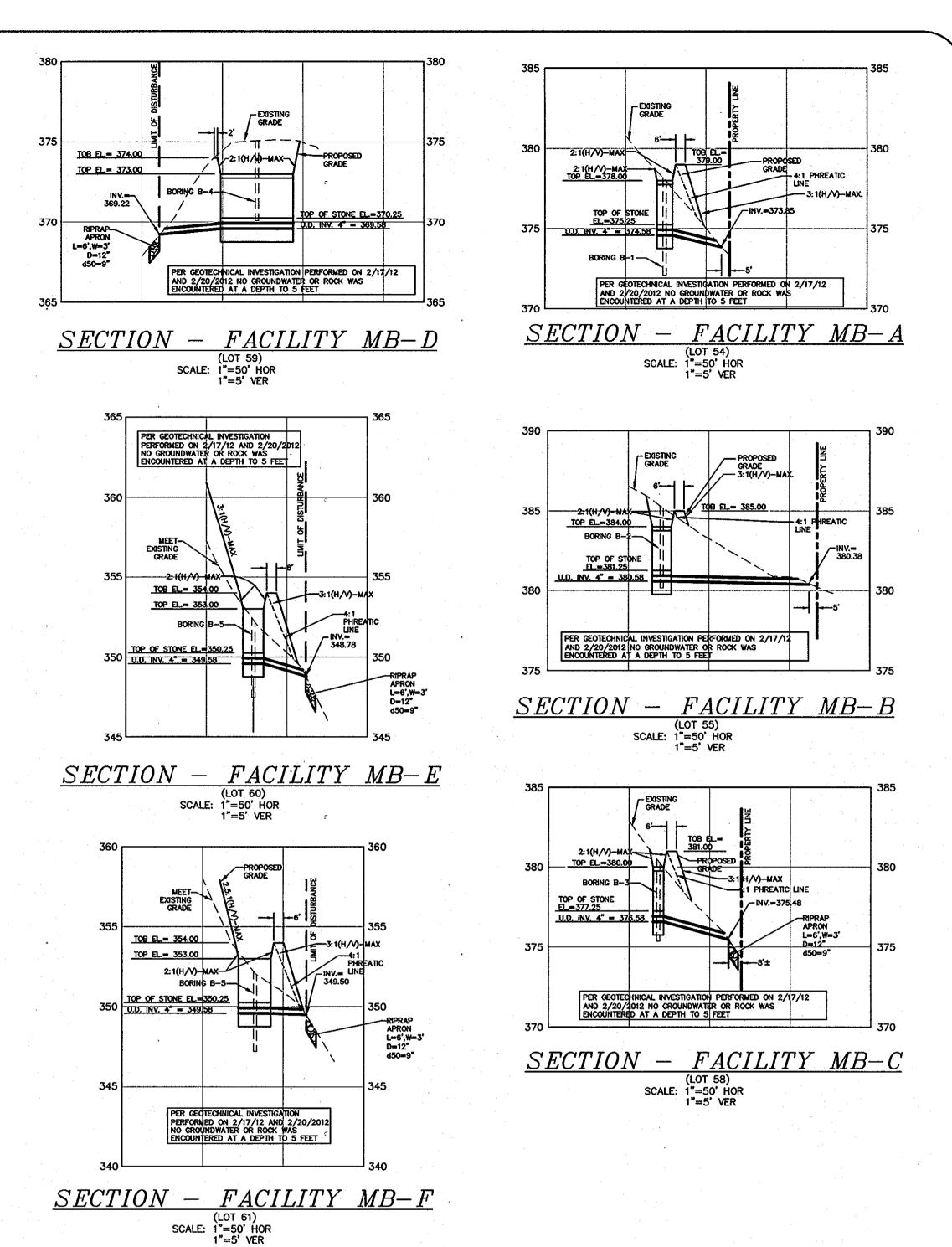
<u>USE-IN-COMMON DRIVEWAY CROSS SECTION</u>

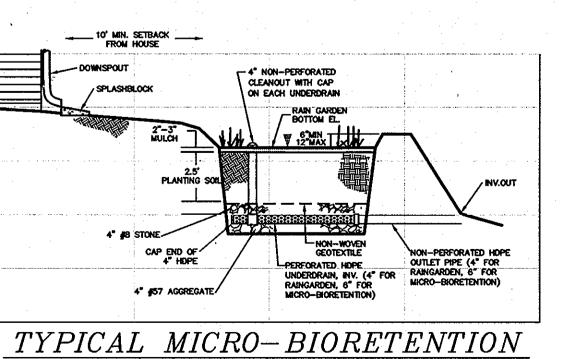


MICRO-BIORETENTION PLANTING DETAIL

		PLANT LI	<u>ST</u>	
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
1	0	ILEX GLABRA	INK BERRY	2' - 3' HT.
6	②	LOBELIA SIPHILITICA	GREAT BLUE LOBELIA	1 GAL CONTAINER
4	0	ONOCLEA SENSIBILIS	sensitive Fern	1 GAL CONTAINER
3	0	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER
DTAL: 13	PERENNIALS,	, 1 SHRUB		100







DETAILS NOT TO SCALE

SSOC.

62 MB MB

O.S. LOT, ELKRIDGE,

AND (ROAD,

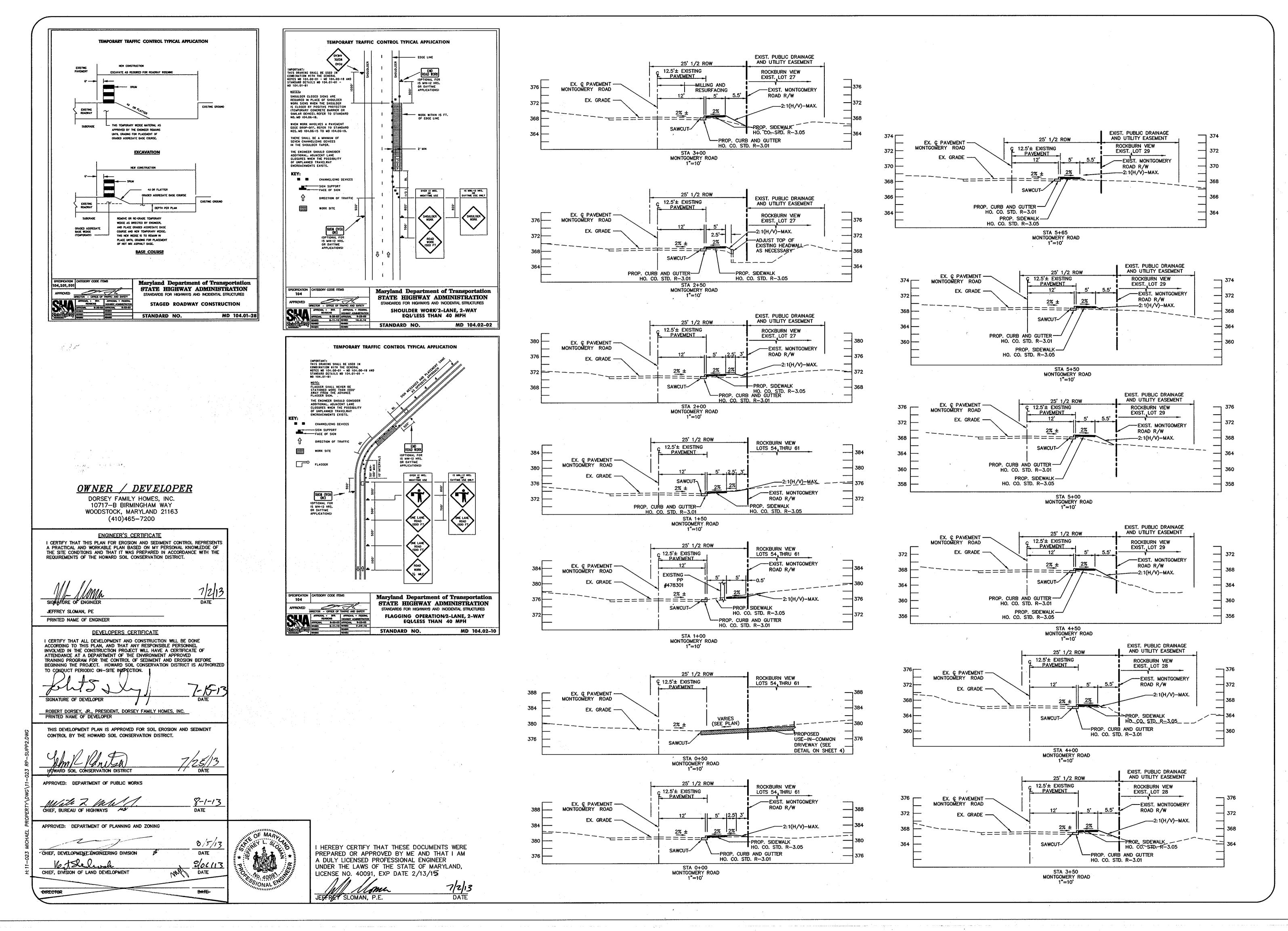
THRU 61 MONTGOMERY

10TS 32 (6 TAX M

ROCKBURN

PARCEL: 563 HOWAE MANAGEMENT

4 OF 6



ROCKBURN VIEW LOTS 54 THRU 61 AND O.S. LOT 62
RESUBDIVISION OF LOT 32 (6090 MONTGOMERY ROAD, ELKRIDGE, MD)
TAX MAP: 37 PARCEL: 563
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

MANAG

MILDENBERG,
BOENDER & ASSOC., INC.
Engineers Planners Surveyors
Engineers Planners Surveyors

5 of 6

HOWARD SOIL CONSERVATION DISTRICT

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

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

- SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES: 1) PREFERRED - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BÉFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY
 - 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.). ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE seeding. Harrow or disk into upper three inches of soil.

SEEDING - FOR THE PERIODS MARCH 1 THRU MAY 15, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE 1.4 LBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JUNE 15, SEED WITH 60 LBS. KENTUCKY 31 TALL FÉSCUE PER ACRE AND 2 LOBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) - 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) - USE SOD. OPTION (3) -SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONE/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING. 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED. SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, FOR NOT PREVIOUSLY LOOSENED.

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

SEEDING: FOR PERIODS MARCH 1 THRU MAY 15 AND FROM AUGUST 1 THRU NOVEMBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU NOVEMBER 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED. see Appendix A, Table A.4 loamy sand (60 - 65%) & Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes pe pei @ 28 days, normal weigh air-entrained; reinforcing to 28 day strength and shump test; all concrete design (cast-in-place 28 day strength and stramp test; all concrete design (cast-roof pro-cast) not sairing previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryl-design to include meeting ACI Code 300 R/85; vertical load [H-10 or H-20]; allowable horizontal loading (based on soil #10 are not acceptable. No calcium carbonated or dolomitic say as are acceptable. No "rock dust" can be used for sand

OWNER / DEVELOPER

DORSEY FAMILY HOMES, INC 10717-B BIRMINGHAM WAY WOODSTOCK, MARYLAND 21163 (410)465-7200

- 1		
ı	ENGINEER'S CERTIFICATE	
	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.	
	ML Moma 7/2/13	
	SIGNATURE OF ENGINEER DATE	
	JEFFREY SLOMAN, PE	ı
ļ	PRINTED NAME OF ENGINEER	
	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 TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. HOWARD SOIL CONSERVATION DISTRICT IS AUTHORIZED TO COMBUCT PERIODIC ON—SITE INSPECTION.	
	1-15-1	7
	SIGNATURE OF DEVELOPER / DATE	
ဋ	ROBERT DORSEY, JR., PRESIDENT, DORSEY FAMILY HOMES, INC. PRINTED NAME OF DEVELOPER	
RP-SUPP2.DWG	THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.	
ECP	John V. Ratus 1/25/13 HOWARD SOIL CONSERVATION DISTRICT DATE	
)23 MICHAEL PROPERTY\DWG\11—023	APPROVED: DEPARTMENT OF PUBLIC WORKS	
77\DW	Will 7. Well. 8-1-13	
PER	CHIEF, BUREAU OF HIGHWAYS AS DATE	
ğ.	APPROVED: DEPARTMENT OF PLANNING AND ZONING	T
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Z C	8/5/13	
22	CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE	١

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CHIEF. DIVISION OF LAND DEVELOPMENT

STANDARD SEDIMENT CONTROL NOTES

- 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,
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND
- SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THERETO. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
- B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC.52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 7) SITE ANALYSIS: N/A TOTAL AREA OF SITE: AREA DISTURBED: AREA TO BE ROOFED OR PAVED: AREA TO BE VEGITATIVELY STABILIZED TOTAL CU

TOTAL WASTE/BORROW AREA LOCATION: 1

- THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITIES MEASUREMENTS.
- 8) 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 HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. 10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER
- BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. 11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

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

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

CONDITIONS WHERE PRACTICE APPLIES

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
- a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE
- b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
- c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.

THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1
REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER

CONSTRUCTION AND MATERIAL SPECIFICATIONS

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATION. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- TOPSOIL SPECIFICATIONS SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING
- TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED Y THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CON-TRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2"
- TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSON-SON GRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
- WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS. GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING
- III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 - ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 - a. PH FOR TOPSOILS SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF
 - LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER. b. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 - c. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.

d. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO—TOXIC MATERIALS. NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL

SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL ii. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE

- STABILIZATION SECTION I VEGETATIVE STABILIZATION METHODS AND MATERIALS. V. TOPSOIL APPLICATION
- WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS,
- GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
- ii. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" — 8" HIGHER IN ELEVATION.
- iii. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
- iv. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER
- VI. ALTERNATIVE FOR PERMANENT SEEDING INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:

COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.

- COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
- a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
- b. COMPOSTED SLUDGE SHALL CONTAIN AT LEASE 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A Ph OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
- COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING. MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973. 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. 40091, EXP DATE 2/13/15

IFFEREY SLOMAN, P.

SEQUENCE OF CONSTRUCTION

. OBTAIN GRADING PERMIT (1 DAY) 2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AT LOCATION SHOWN (1 DAY) 3. CONSTRUCT SUPER SILT FENCES, DIVERSION FENCES AND CHECK DAMS. (1 DAY) 4. WITH PERMISSION OF INSPECTOR, BRING SITE TO GRADE. (40 DAYS) 5. CONSTRUCT MICRO-BIORETENTION FACILITIES (10 DAYS)

6. CONSTRUCT MONTGOMERY ROAD IMPROVEMENTS AS INDICATED. (7 DAYS) 7. WHEN ALL CONTRIBUTING DRAINAGE AREAS TO SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES (EXCEPT SILT FENCES AND SUPER SILT FENCES WHICH SHOULD BE USED FOR SDP-CONSTRUCTION OF THE HOUSES) AND STABILIZE REMAINING DISTURBED AREAS. (3 DAYS)

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1), DISCONNECTION OF NON-ROOFTOF RUNOFF (N-2)

MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE OWNER SHALL ENSURE THE AREAS RECEIVING RUNOFF ARE PROTECTED FROM FUTURE COMPACTION OF DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

- A. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- B. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
- C. MULCH' SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3

SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM

bioretention practice that may be harmful to plant growth, or prove a hindrance to the planting or

maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson

Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can be

met with a mixture of loamy sand (60%-65%) and compost (35% to 40%) or sandy loam

pH Range - Should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur)

There shall be at least one soil test per project. Each test shall consist of both the standard soil

required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be

It is very important to minimize compaction of both the base of bioretention practices and the

required backfill. When possible, use excavation hoes to remove original soil. If practices are

Appendix B.4. Construction Specifications for Environmental Site Design Practices

B.4.4

excavated using a loader, the contractor should use wide track or marsh track equipment, or light

equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires

with large lugs, or high-pressure tires will cause excessive compaction resulting in reduced

infiltration rates and is not acceptable. Compaction will significantly contribute to design

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling

soil profile through the 12 inch compaction zone. Substitute methods must be approved by the

engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand,

then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to

equipment within the bioretention basin. Heavy equipment can be used around the perimeter of

the basin to supply soils and sand. Grade bioretention materials with light equipment such as a

Recommended plant material for micro-bioretention practices can be found in Appendix A,

Compost is a better organic material source, is less likely to float, and should be placed in the

invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2"

to 3". Shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood

chips will float and move to the perimeter of the bioretention area during a storm event and are

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant

root ball should be planted so 1/8th of the ball is above final grade surface. The diameter of the

planting pit shall be at least six inches larger than the diameter of the planting ball. Set and

maintain the plant straight during the entire planting process. Thoroughly water ground bed

not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy

optional sand layer. Pump any ponded water before preparing (rototilling) base.

compact loader or a dozer/loader with marsh tracks.

operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the

test for pH, and additional tests of organic matter, and soluble salts. A textural analysis is

grass, or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:

Clay Content - Media shall have a clay content of less than 5%.

may be mixed into the soil to increase or decrease pH.

performed for each location where the topsoil was excavated.

3. Compaction

heavy equipment.

4. Plant Material

cover after installation.

Section A.2.3.

(30%), coarse sand (30%), and compost (40%).

-EARTH FIL PROFILE B.4.C Specifications for Micro-Bioretention. Rain Gardens, Landscape Infiltration & The allowable materials to be used in these practices are detailed in Table B.4.1. Filtering Media or Planting Soil PLAN VIEW The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro-

- MINIMUM LENGTH OF 50 FEET (30 FEET FOR SINGLE RESIDENCE LOT).
- MINIMUM WIDTH OF 10 FEET, FLARE SCE 10 FEET MINIMUM AT THE EXISTING PAVEMENT TO PROVIDE A TURNING RADRIS.
- PLACE GEOTEXTILE CLASS SE OVER THE EXISTING GROUND PRIOR TO PLACING STONE, (THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCE TO USE GEOTEXTILE.)

	NOT ECCATED AT A TROTT STOTE	
	LOCATE SCE AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR L SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH ORIENTATION OF THE SCE MAY VARY FROM A STRAIGHT LINE AND BE CURV DEPENDING ON THE TOPOGRAPHY AND RIGHT OF WAY. AVOID LOCATING ENTI POINT OF THE WORK AREA WHERE POSSIBLE.	'ED OR 'T' SHAPED
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ORIENTATION OF THE SCE MAY VARY FROM A STF DEPENDING ON THE TOPOGRAPHY AND RIGHT OF W POINT OF THE WORK AREA WHERE POSSIBLE.	RAIGHT LINE AND BE CURVED OR 'T' SHAPED AY. AVOID LOCATING ENTRANCES ALONG THE LOW
	TAB CAK EDACIAN AND CERNICUT CANTEAU
MARYLAND STANDARDS AND SPECIFICATIONS I	ON SOIL EROSION AND SECUMENT CONTROL
. U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	MARYLAND DEPARTMENT OF ENVIRONMEN WATER MANAGEMENT ADMINISTRATION

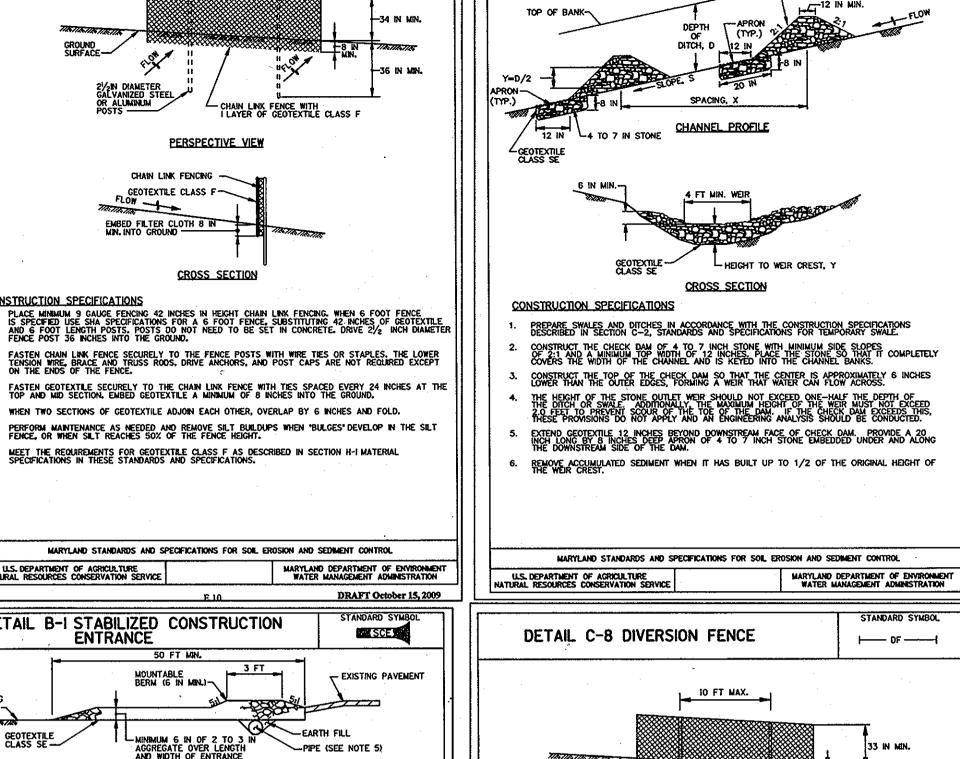
Appendix B.4. Construction Specifications for Environmental Site Design Practices Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only

legume plugs shall be planted following the non-grass ground cover planting specifications. The topsoil specifications provide enough organic material to adequately supply nutrients from nat cycling. The primary function of the bioretention structure is to improve water quality. Adding

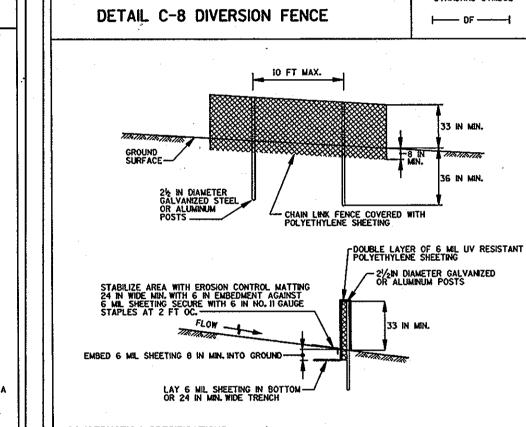
Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the

- Perforations If perforated pipe is used, perforations should be 1/8" diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with a 1/4" (No. 4 or 4x4) galvani hardware cloth.
- Gravel The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the
- The main collector pipe shall be at a minimum 0.5% slope.
- A rigid, non-perforated observation well must be provided (one per every 1,0000 square feet) to provide a clean-out port and monitor performance of the filter.
- to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".

These practices may not be constructed until all contributing drainage area has been stabilized



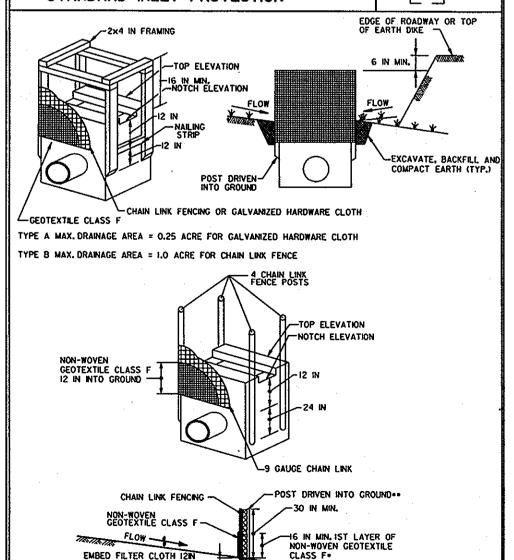
DETAIL D-2 STONE CHECK DAM

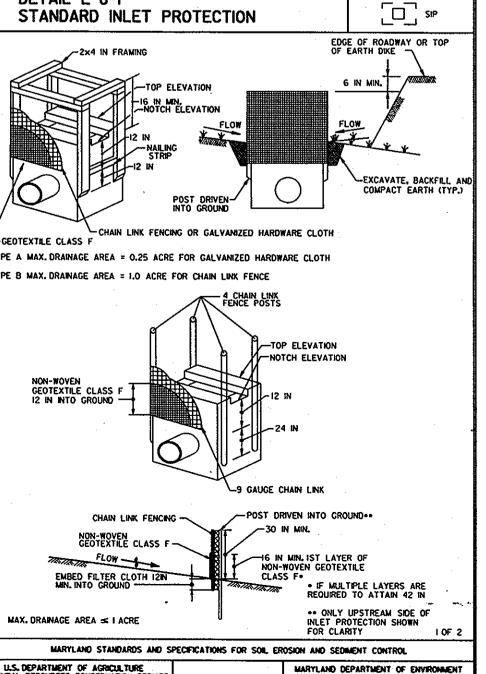


CONSTRUCTION SPECIFICATIONS

- USE 42 INCHES HIGH, NINE GAUGE OR HEAVIER CHAIN LINK FENCING. 2. POST SPACING NOT TO EXCEED ID FEET. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
- SECURE A DOUBLE LAYER OF 6 MIL UV RESISTANT (BLACK) POLYETHYLENE SHEETING TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION.
- . EMBED 6 MIL SHEETING A MINIMUM OF 8 INCHES INTO GROUND. 6. WHEN TWO SECTIONS OF 6 MIL SHEETING ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM FACING DOWNGRADE.
- PERFORM MAINTENANCE AS NEEDED.
- . MAXIMUM SLOPE ALONG FENCE 10%. 9. MAXIMUM DRAINAGE AREA 2 ACRES.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL DETAIL E-8-I





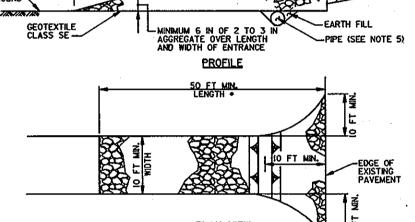
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MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND DEPARTMENT OF ENVIRONMEN WATER MANAGEMENT ADMINISTRATION DRAFT October 15, 2009 SCE S

STANDARD SYMBOL

-----SSF-------I

DETAIL B-I STABILIZED CONSTRUCTION ENTRANCE



DETAIL E-3 SUPER SILT FENCE

IO FT MAX.

PERSPECTIVE VIEW

CROSS SECTION

WHEN TWO SECTIONS OF GEOTEXTILE ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD.

MEET THE REQUIREMENTS FOR GEOTEXTILE CLASS F AS DESCRIBED IN SECTION H-I MATERIAL SPECIFICATIONS IN THESE STANDARDS AND SPECIFICATIONS.

GEOTEXTILE CLASS F

EMBED FILTER CLOTH 8 IN

TINTE

BELOW

CHAIN LINK FENCE WITH I LAYER OF GEOTEXTILE CLASS F

CONSTRUCTION SPECIFICATION

- PLACE CRUSHED AGGREGATE (2 TO 3 WICHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.

DRAFT October 15, 2009

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and

- Underdrains should meet the following criteria:

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square fee

of surface area).

- EXISTING PAVEMENT

.U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE

Stakes are to be equally spaced on the outside of the tree ball.

fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch a

- used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.
- Pipe- Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTMF 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4" rigid pipe (e.g.,

A 4" layer of pea gravel (1/4" to 1/4" stone) shall be located between the filter media and underdi

TANDARD SYMBOL

-4 TO 7 IN STONE CHECK DAM (TYP.

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