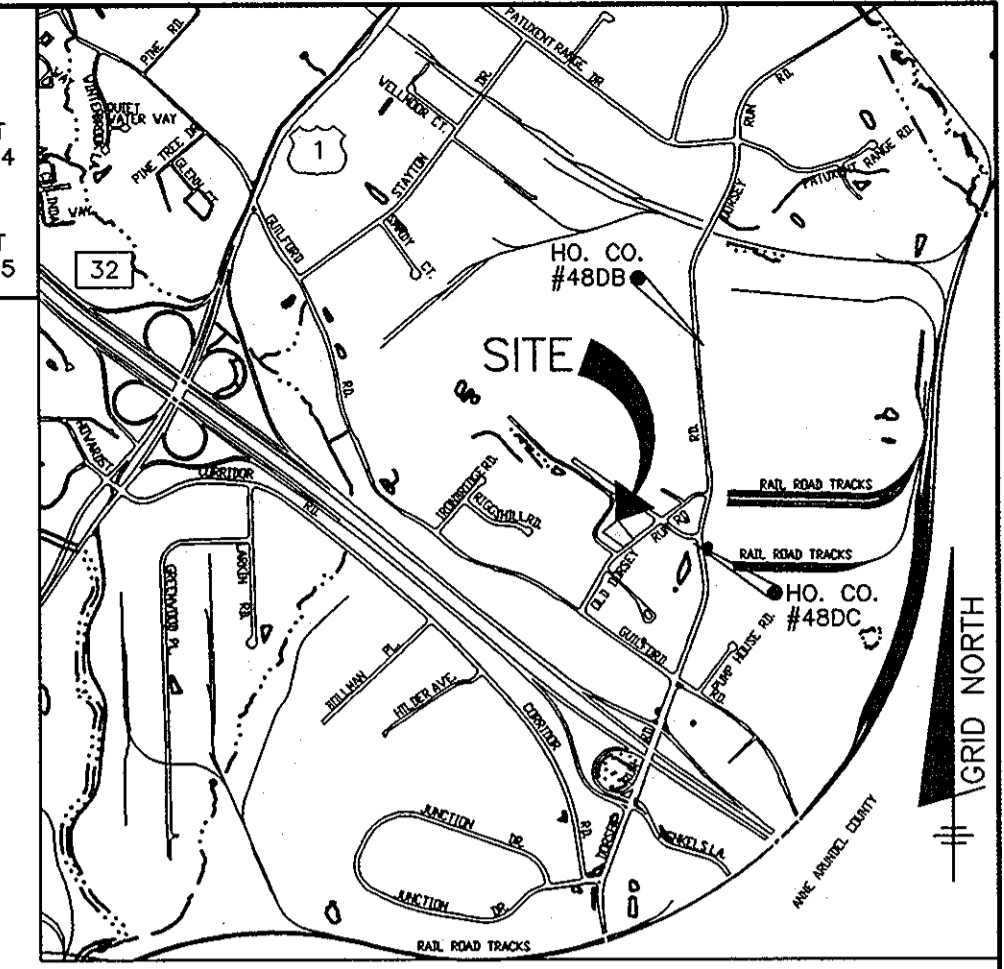


BENCH MARKS--(NAD'83)

HO. CO. #48DB	ELEV. 238.836
STANDARD DISC ON CONC. MONUMENT	N 536,575.7003 E 1,371,005.7944
HO. CO. #48DC	ELEV. 209.014
STANDARD DISC ON CONC. MONUMENT	N 534,290.4821 E 1,371,119.4255



ADC MAP 5054 GRID C9
VICINITY MAP
SCALE: 1" = 2000'

DESIGN NARRATIVE:

THE SITE WAS ANALYZED AS WOODS IN GOOD CONDITION AND A TARGET RCN WAS DETERMINED. A TARGET RAINFALL DEPTH TREATMENT (P₆) WAS DETERMINED BASED ON THE MEASURED IMPERVIOUS AREAS AND HSG TYPES. THE TARGET P₆ FOR THIS SITE IS 2.1 INCHES. THE TARGET P₆ WAS TREATED USING ENVIRONMENTAL SITE DESIGN PRACTICES AS OUTLINED IN CHAPTER 5 OF THE 2000 MARYLAND STORMWATER DESIGN MANUAL, AS AMENDED BY MARYLAND'S STORMWATER MANAGEMENT ACT OF 2007. THE SELECTED TREATMENT METHOD IS MICRO-BIORETENTION.

THIS SITE HAS NO SENSITIVE ENVIRONMENTAL FEATURES. TO PROTECT NATURAL RESOURCES IN GENERAL, IT IS IMPORTANT TO MINIMIZE AND ADEQUATELY TREAT THE STORMWATER RUNOFF. THE DESIGN INCORPORATES ADEQUATE TREATMENT AND STORAGE IN ORDER TO CREATE THE LEAST POSSIBLE STORMWATER RUNOFF. THE RUNOFF WILL BE TREATED ON-SITE USING APPROVED METHODS. OUTFALLS GENERALLY CORRESPOND WITH THE NATURAL DRAINAGE PATTERNS FOR THE SITE.

SEDIMENT AND EROSION CONTROLS HAVE BEEN DESIGNED BASED ON THE CURRENT MARYLAND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. EROSION CONTROLS WILL BE USED TO PREVENT RUNOFF CONTAINING UNACCEPTABLE LEVELS OF TSS FROM LEAVING THE SITE AND ENTERING THE STORM DRAINS DURING THE CONSTRUCTION. IT WILL BE THE OBLIGATION OF THE CONTRACTOR TO INSTALL, INSPECT AND MAINTAIN THESE PRACTICES.

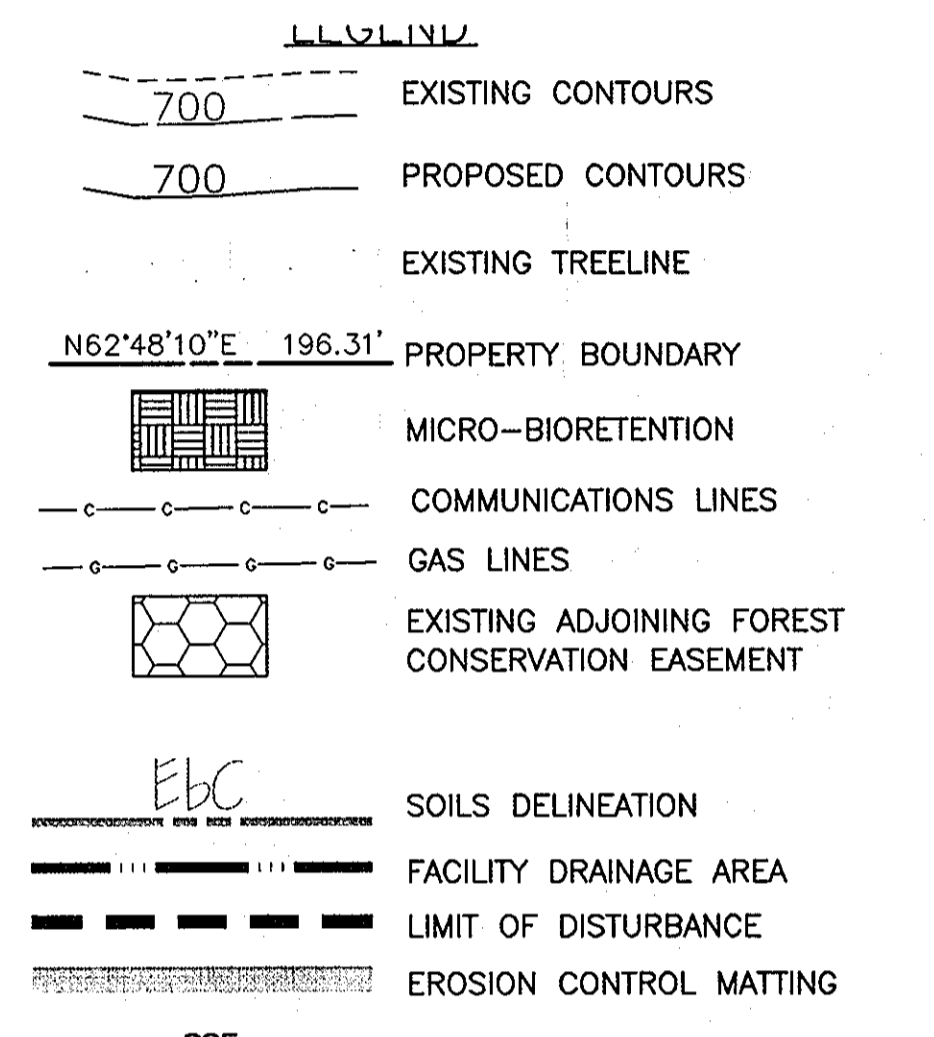
THE TARGET P₆ FOR THIS SITE IS 2.1 INCHES. BY USING ENVIRONMENTAL SITE DESIGN PRACTICES AS OUTLINED IN CHAPTER 5 OF THE 2000 MARYLAND STORMWATER DESIGN MANUAL AS AMENDED BY MARYLAND STORMWATER MANAGEMENT ACT OF 2007, FULL TREATMENT OF THE TARGET P₆ OF 2.1 WAS ACHIEVED FOR THE ON-SITE FACILITIES.

NO TREATMENT IS PROPOSED FOR THE NEW IMPROVEMENTS ALONG OLD DORSEY ROAD, AS THERE IS NO LOCATION WHERE THE DRAINAGE CAN BE CAPTURED. STORAGE VOLUMES MEETING 75% OF THE ON-SITE ESDV ARE PROVIDED WITHIN THE ON-SITE FACILITIES, PROVIDING MITIGATION FOR QUANTITY RUNOFF. A MINIMUM AMOUNT OF SEDIMENT SETTLING MAY BE EXPECTED IN THE SWALE BETWEEN THE DECELERATION LANE AND THE EXISTING INLET. WE BELIEVE THIS REPRESENTS TREATMENT TO THE MAXIMUM EXTENT PRACTICABLE.

DRAINAGE AREA MB-1 EXCEEDS THE DRAINAGE AREA SIZE FOR MICRO-BIORETENTION FACILITIES BY APPROXIMATELY 20%. THIS FACILITY WILL BE DESIGNED INCORPORATING CHAPTER 3 BIORETENTION DESIGN CRITERIA AS COORDINATED WITH HOWARD COUNTY AT THE SITE DEVELOPMENT PLAN PHASE.

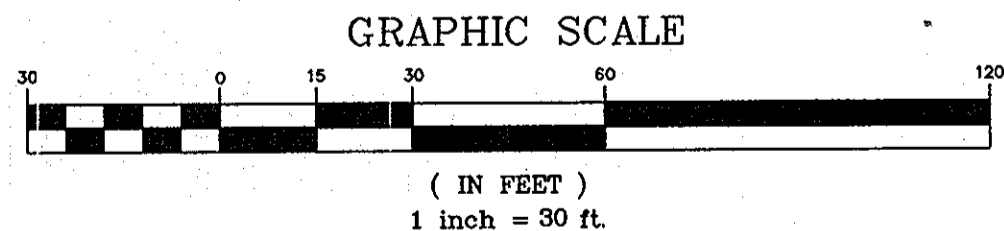
GENERAL NOTES

- SUBJECT PROPERTY ZONED M-2 PER THE 2-2-04 COMPREHENSIVE ZONING PLAN AND THE COMP LITE ZONING AMENDMENTS EFFECTIVE 7-28-06.
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS EFFECTIVE APRIL 13, 2004.
- PROJECT BOUNDARY AND TOPOGRAPHY ARE BASED ON FIELD BOUNDARY SURVEY AND TOPO PERFORMED BY BENCHMARK ENGINEERING, INC., DATED DECEMBER, 2011.
- EXISTING OFF-SITE TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY GIS.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. #48DB AND #48DC WERE USED FOR THIS PROJECT.
- EXISTING UTILITIES SHOWN HAVE BEEN TAKEN FROM CONTRACT DRAWINGS AND FIELD SURVEYED LOCATIONS. IF NECESSARY, CONTRACTOR SHALL ADJUST ANY OR ALL STRUCTURE TOP ELEVATIONS TO MATCH PROPOSED GRADES.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM, OR THEIR REQUIRED BUFFERS UNLESS DEEMED NECESSARY BY THE DEPARTMENT OF PLANNING AND ZONING.
- NO 100-YEAR FLOODPLAIN IS LOCATED WITHIN THE PROJECT BOUNDARIES.
- THERE IS AN EXISTING STRUCTURE LOCATED ON THIS SITE TO BE REMOVED.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO CEMETERIES LOCATED ON THIS SITE.
- A NOISE STUDY IS NOT REQUIRED FOR THIS DEVELOPMENT.
- THIS SITE IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- WATER AND SEWER ARE PUBLIC. THE PUBLIC CONNECTIONS WILL BE MADE TO FACILITIES CONSTRUCTED UNDER SEWER CONTRACT NUMBER 20-3236 AND WATER CONTRACT 670-W. THE DRAINAGE AREA IS "LITTLE PATUXENT".
- THE FOREST CONSERVATION ACT OBLIGATION FOR THIS PROJECT WILL BE MET BY PAYMENT OF FEE-IN-LIEU.
- THERE ARE NO PREVIOUS DPZ FILES FOR THIS SITE.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION AND/OR SITE DEVELOPMENT PLAN.
- REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION AND/OR SITE DEVELOPMENT PLAN STAGES. THEREFORE, THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS (INCLUDING THOSE THAT MAY ALTER OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES.



SITE ANALYSIS DATA/TABULATION

A) TOTAL PROJECT AREA.....	1.00± AC.
B) AREA OF WETLANDS AND BUFFER.....	0.00 AC.
C) AREA OF 100-YR. FLOODPLAIN.....	0.00 AC.
D) AREA OF FOREST.....	0.00 AC.
E) AREA OF STEEP SLOPES 25% OF GREATER.....	0.00 AC.
F) ERODIBLE SOILS.....	0.00 AC.
G) LIMIT OF DISTURBED AREA.....	1.00± AC.
H) PROPOSED SITE USE.....CONTRACTOR'S OFFICE AND STORAGE FACILITY	
I) GREEN OPEN AREA.....	0.28± AC.
J) IMPERVIOUS COVER.....	72%



8594 OLD DORSEY RUN ROAD

Determine ESD Implementation Goals

HSG	RCN	Area (ft ²)	Percent
A	38	5,720	13%
B	55	30,889	71%
C	70	0	0%
D	77	6,976	16%
Target RCN	58	43,585	

Determine Target P₆ Using Table 5.3

HSG	Target P ₆	% Impervious: 72%
A	2.2	
B	2.2	
C	1.8	
D	1.8	
Weighted P ₆	2.1	

* See graphical determination in SWM report.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 2/29/12
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 2/29/12
CHIEF, DEVELOPMENT ENGINEERING DIVISION

SOILS LEGEND

MAP SYMBOL	SOIL GROUP	SOIL TYPE
SrC	B	SASSAFRAS AND CROOM SOIL, 5 TO 10 PERCENT SLOPES
Ebc	A	EVEBORO LOAMY SAND, 2 TO 10 PERCENT SLOPES
URD	D	URBAN LAND - UDORTHENTS COMPLEX, 0 TO 15 PERCENT SLOPES

TAKEN FROM HOWARD COUNTY SOILS SURVEY, ISSUED MAY 2008, MAP NO. 25

SHEET INDEX

NO.	DESCRIPTION
1	ENVIRONMENTAL CONCEPT PLAN
2	SEDIMENT AND EROSION CONTROL PLANS

NO. DATE REVISION

BENCHMARK ENGINEERING, INC.
ENGINEERS & LAND SURVEYORS & PLANNERS
8400 BALTIMORE NATIONAL PIKE & SUITE 418 & ELLICOTT CITY, MARYLAND 21104
(P) 410-485-4105 (F) 410-485-8644
60 THOMAS JOHNSON DRIVE & FREDERICK, MARYLAND 21702
(P) 301-371-3505 (F) 301-371-3506
WWW.BEI-CIVILENGINEERING.COM

Professional Certification. 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. 28376, Expiration Date: 1/1/2013

5/29/2012

OWNER/DEVELOPER:
L&R BUILDINGS, LLC
11404 GALT AVENUE
SILVER SPRING, MD 20902
ATT: LUIS RIVERA
240-372-2283

8594 OLD DORSEY RUN ROAD
TAX MAP: 48, GRID: 14, PARCEL: 22
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

ENVIRONMENTAL CONCEPT PLAN

DATE: FEBRUARY, 2012
JUNE, 2012 PROJECT NO. 2437

DESIGN: AAM DRAFT: AAM CHECK: JC SCALE: AS SHOWN SHEET 1 OF 2

ECP-12-041

SEDIMENT CONTROL NOTES

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (313-1850).
- 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 SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL, REVISIONS THERE TO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTRIBUTION, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, 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 DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOO (SEC. 54). TEMPORARY SEEDING (SEC. 52) AND MULCHING (SEC. 53). 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 PERMANENT FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA OF SITE	1.00	ACRES
AREA DISTURBED	1.00	ACRES
AREA TO BE ROOFED OR PAVED	0.72	ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.28	ACRES
TOTAL CUT	*	CY
TOTAL FILL	*	CY

* TOTAL CUT AND FILL WILL BE CALCULATED WHEN THE FINAL SITE DESIGN IS DONE.
- 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.
- 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.
- 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.

TEMPORARY SEEDBED PREPARATIONS

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

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

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

SEEDING: FOR PERIOD MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOO.

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 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FT. OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

PERMANENT SEEDBED PREPARATIONS

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

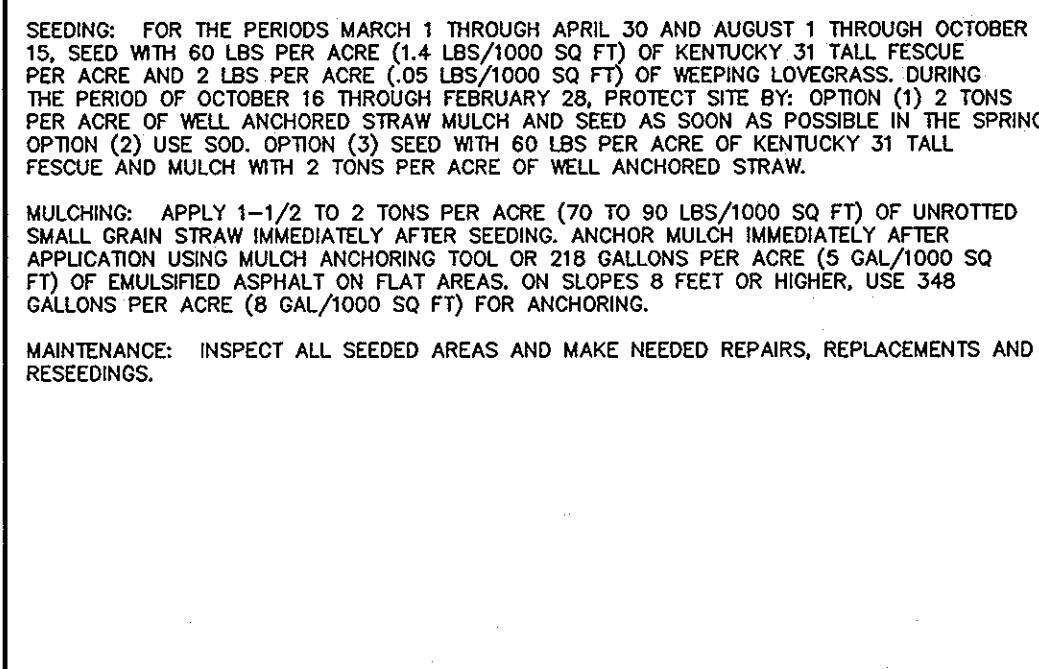
SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 800 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0-0 UREA-FORM FERTILIZER (8 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 DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30 AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000 SQ FT) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH 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 SOO, OPTION (3) SEED WITH 60 LBS PER ACRE OF KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF 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 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.



SOILS LEGEND

MAP SYMBOL	SOIL GROUP	SOIL TYPE
SrC	A	SASSAFRAS AND CROOM SOIL, 5 TO 10 PERCENT SLOPES
Ebc	A	EVESSBORO LOAMY SAND, 2 TO 10 PERCENT SLOPES
Uhd	D	URBAN LAND - UODURTHS COMPLEX, 0 TO 15 PERCENT SLOPES

TAKEN FROM HOWARD COUNTY SOIL SURVEY, ISSUED MAY 2008, MAP NO. 25

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Jeff Seidman 8/29/12 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

John DeWitt 8/30/12 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

TOPSOIL SPECIFICATIONS

Topsoil salvaged from the existing site may be used provided that it meets the standards set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

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 by the appropriate approval authority. Topsoil shall not be a mixture of contrasting texture 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" in diameter.
- Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nutgrass, poison ivy, hickory, 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 and worked into the soil in conjunction with tillage operations as described in the following procedures.

For sites having disturbed areas under 5 acres:

- Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

For sites having disturbed areas over 5 acres:

- On soil meeting Topsoil specifications, obtain test results indicating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - Organic content or topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No seed or soil 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 phytotoxic 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 topsoil.

Topsoil Application

- When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, earth dikes, slope sill fence and sediment traps and basins.
- Grades on the areas to be topsoiled, which have been previously established, shall be maintained, about 4" higher in elevation.
- Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that seeding or sodding 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.
- 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 grading and seedbed preparation.

Alternative for Permanent Seeding - Instead of applying the full amount of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

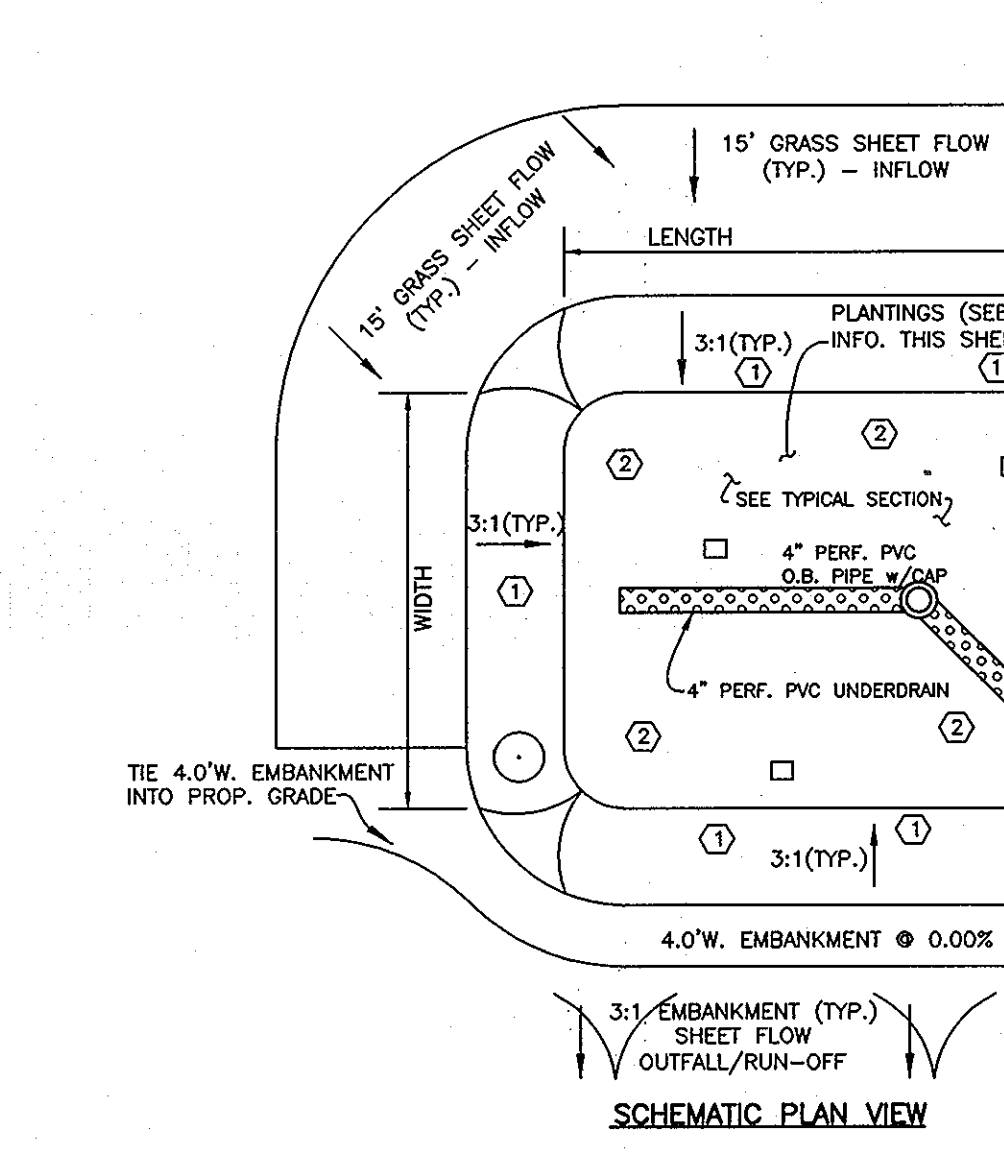
- Composted Sludge Material for use as a soil conditioner for sites having distributed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
 - Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of application) under the Maryland Department of the Environment under COMAR 26.04.06.
 - Composted sludge shall contain at least 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 applied at a rate of 1 ton/1,000 square feet.
- 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.

Reference: Guidelines Specifications, Soil Preparation and Sodding, MD-PA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institute, Revised 1973.

SEQUENCE OF CONSTRUCTION

NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF CONSTRUCTION

- OBTAIN GRADING PERMIT. (DAY 1)
- INSTALL STABILIZED CONSTRUCTION ENTRANCE AND SUPER SILT FENCES. (DAY 2-4)
- UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, BRING SITE TO GRADE AND STABILIZE IN ACCORDANCE WITH TEMPORARY SEEDBED NOTES. UTILIZE DUST CONTROL METHODS. (DAY 5-20)
- UNINSTALL UTILITIES, FINAL GRADE AND PAVE DRIVEWAY. (DAY 21-30)
- WHEN CONTRIBUTING AREAS TO BIORETENTION FACILITIES ARE STABILIZED, INSTALL PLANTING SOIL, EROSION CONTROL MATTING AND PERMANENT SEEDING. (DAY 31-36)
- UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES, AND STABILIZED DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDBED NOTES. (DAY 37-40)



30.0 DUST CONTROL

Definition
Controlling dust blowing and movement on construction sites and roads.

Purpose
To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

Conditions Where Practice Applies
This practice is applicable to areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

Specifications

Temporary Methods

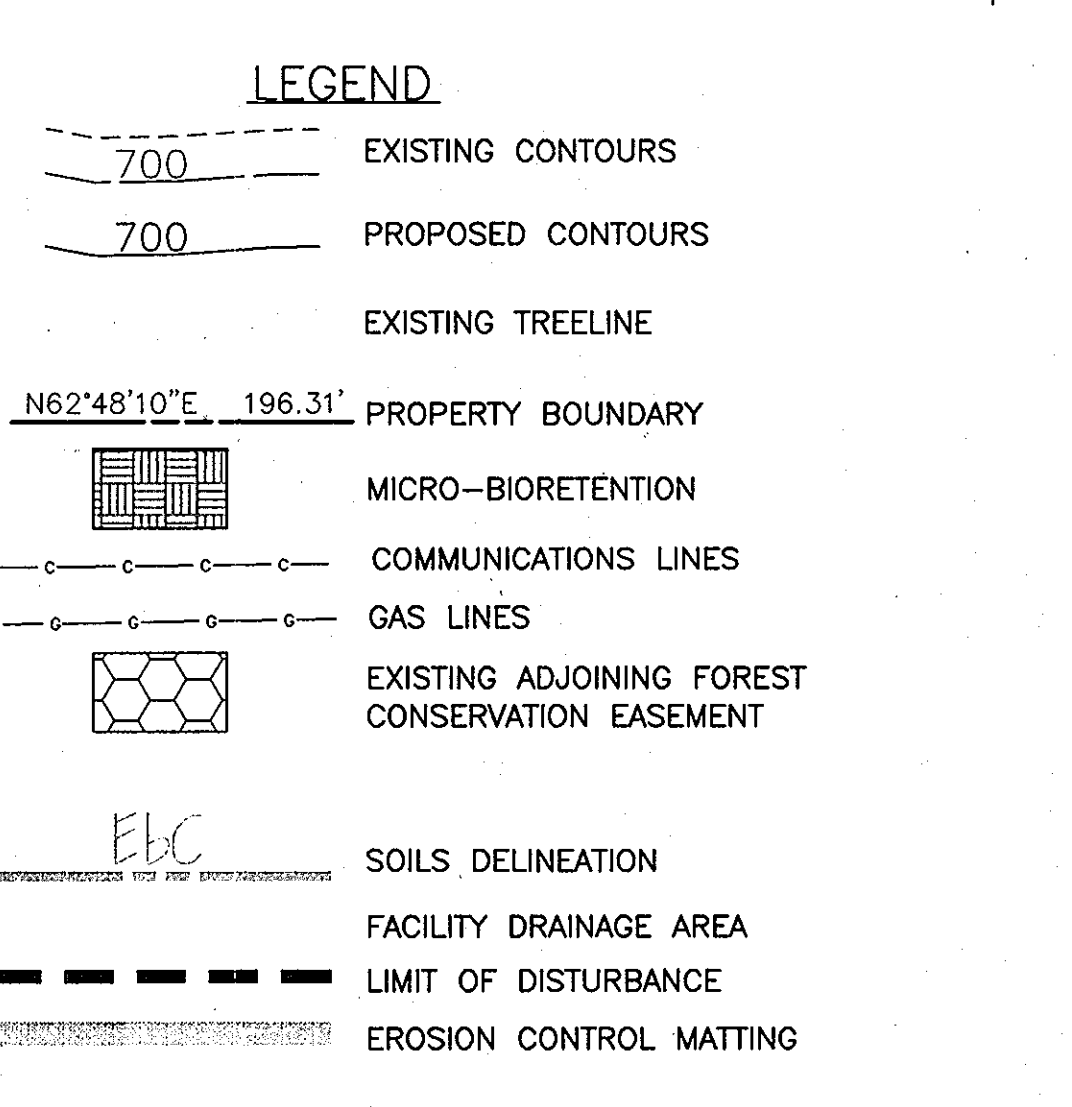
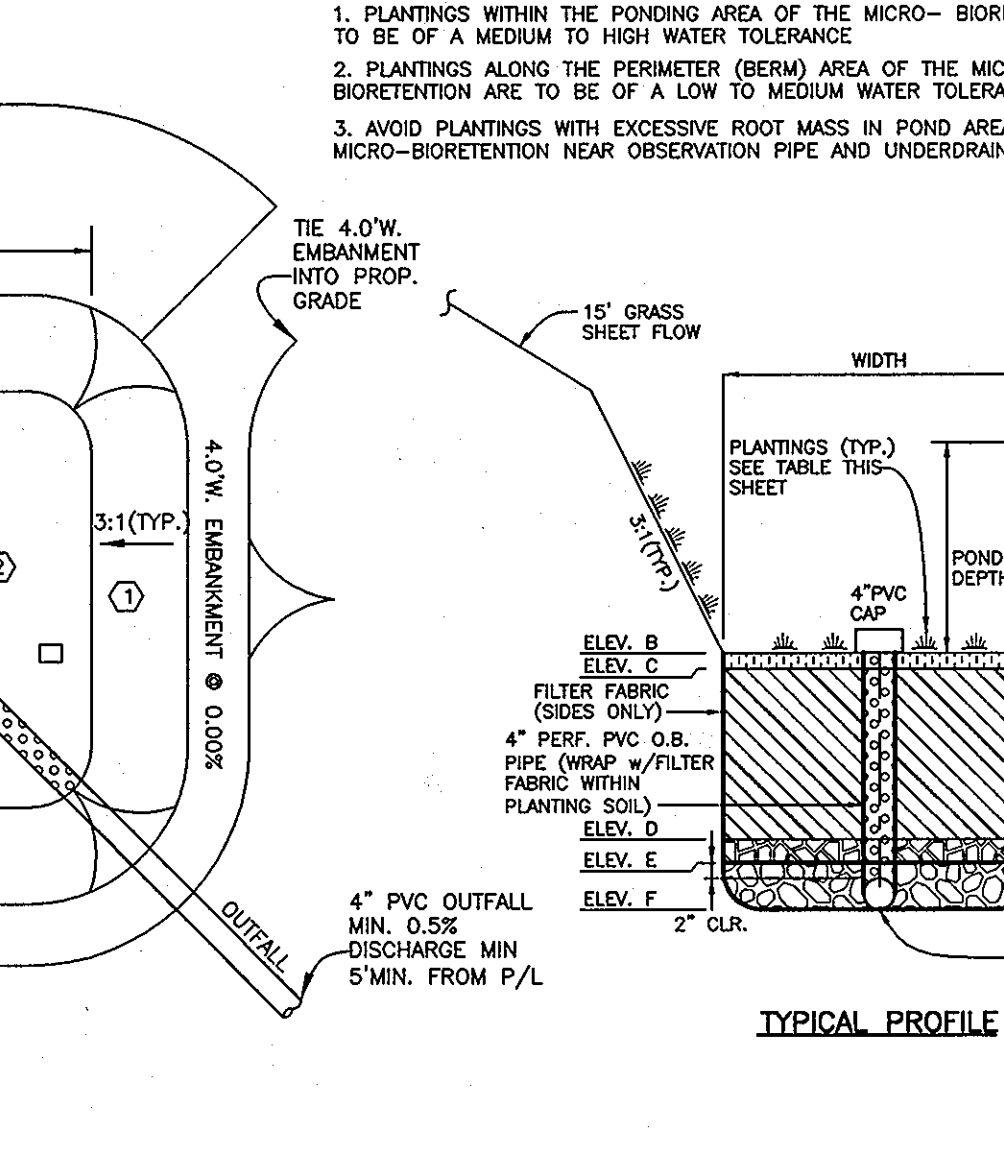
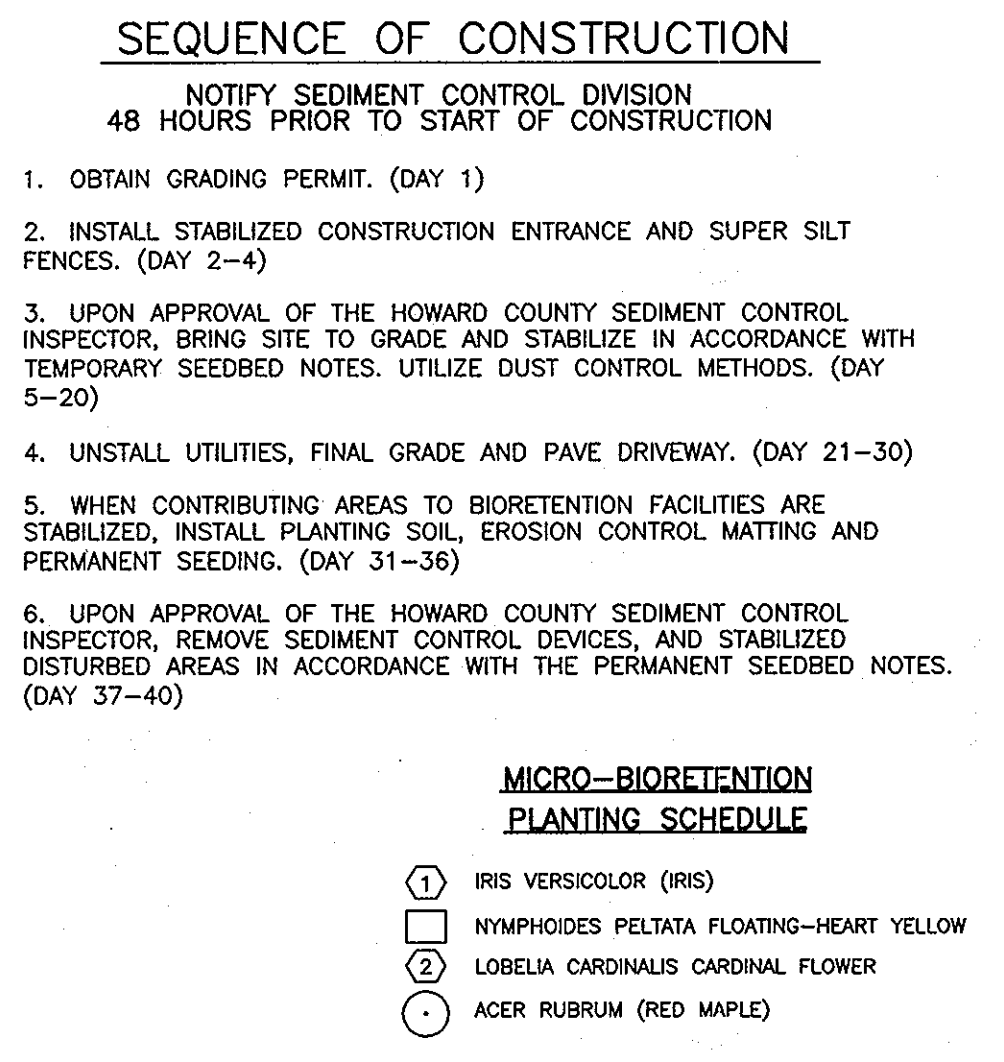
- Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or trolled to prevent blowing.
- Vegetative Cover - See standards for temporary vegetative cover.
- Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12' apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.
- Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.
- Barriers - Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.
- Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.

Permanent Methods

- Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
- Topping - Covering with less erodible soil materials. See standards for topping.
- Stone - Cover surface with crushed stone or coarse gravel.

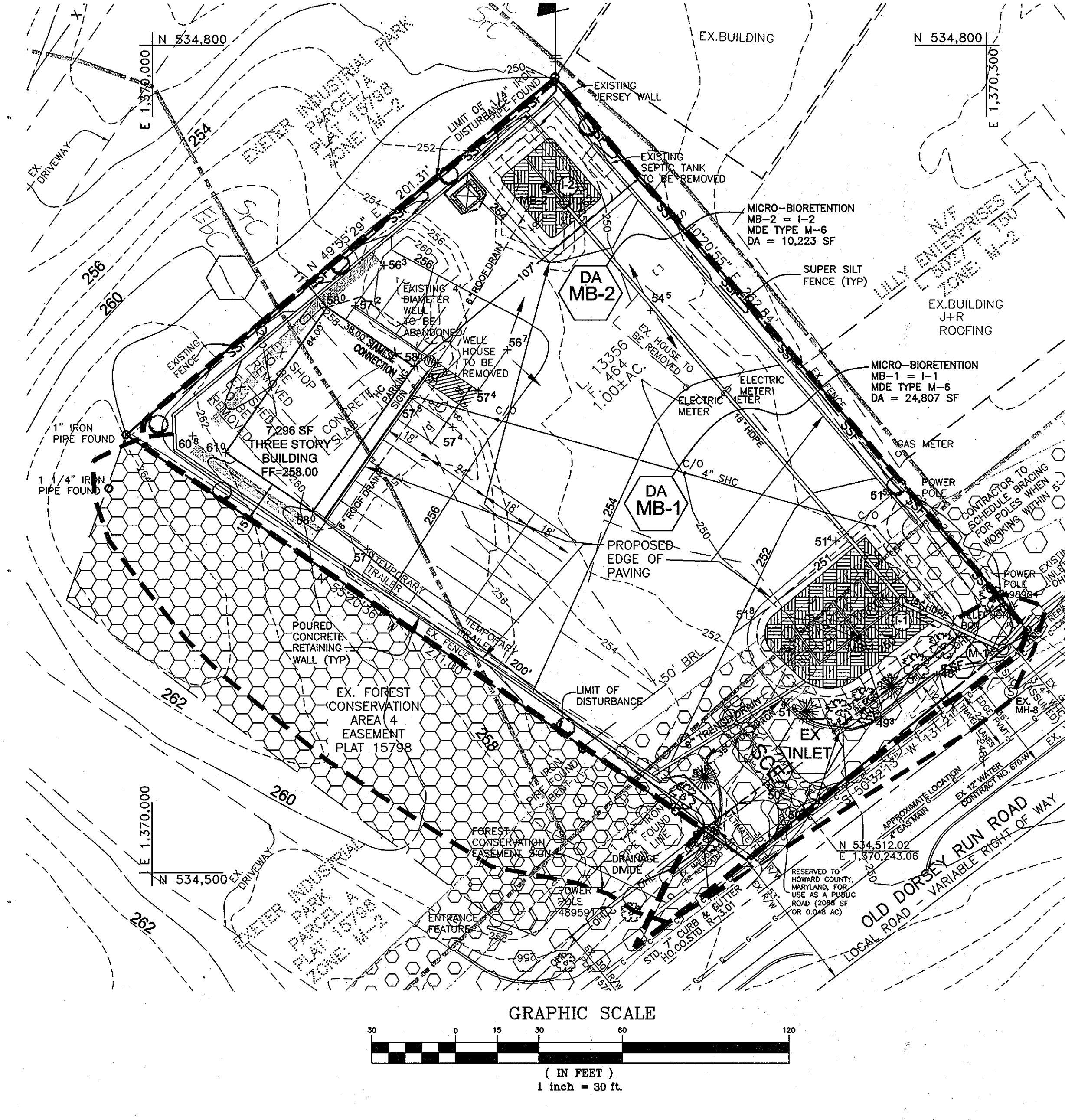
References

- Agriculture Handbook 346. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.
- Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA-ARS.



MATERIALS & SPECIFICATIONS FOR MICRO-BIORETENTION

MATERIAL	SPECIFICATION	SIZE	NOTES:
PLANTINGS	SEE TABLE A.4	N/A	PLANTINGS ARE SITE SPECIFIC
PLANTING SOIL	LOAMY SAND 60-65% COMPOST 35-40% OR SANDY LOAM 30% COARSE SAND 30% & COMPOST 40%	N/A	USDA SOIL TYPES: LOAMY SAND OR SANDY LOAM; CLAY CONTENT <5%
MULCH CONTENT	SHREDDED HARDWOOD	N/A	AGED 6 MONTHS, MINIMUM, NO PINE OR WOOD CHIPS
GEOTEXTILE (CLASS C)	1/4" WIRE MESH	1/4" WIRE MESH	PE TYPE I NONWOVEN
UNDERDRAIN GRVEL	AASHTO M-43	NO. 57 OR NO. 6	3/8" TO 0.75"
UNDERDRAIN PIPING	F758, TYPE PS28 OR AASHTO M-278	4" TO 6" RIGID GRAVEL OVER PIPES, NOT NECESSARY UNDERNEATH PIPES. PIPE SHALL BE WRAPPED WITH 1/4"-THICK GALVANIZED HARDWARE CLOTH	



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

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. 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.
- THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

NO. DATE REVISION

BENCHMARK ENGINEERING, INC.
 ENGINEERS & LAND SURVEYORS & PLANNERS

8480 BALTIMORE NATIONAL PIKE SUITE 418 & ELLIOTT CITY, MARYLAND 21043
 (301) 410-4800 (301) 410-6654
 60 THOMAS JOHNSON DRIVE ARDENBORO, MARYLAND 21702
 (301) 371-3505 (301) 371-3508
 WWW.BC-ENR.COM

Professional Certification. 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. 28376 Expiration Date: 1/1/2013

8/29/12

OWNER/DEVELOPER:
 L&R BUILDINGS, LLC
 11404 GALT AVENUE
 SILVER SPRING, MD 20902
 ATT: LUIS RIVERA
 240-372-2283

8594 OLD DORSEY RUN ROAD

TAX MAP: 48, GRID: 14, PARCEL: 22
 6TH ELECTON DISTRICT
 HOWARD COUNTY, MARYLAND

SEDIMENT AND EROSION CONTROL PLAN

DATE: FEBRUARY 2012
 JUNE 2012
 PROJECT NO. 2437

DESIGN: AAM DRAFT: AAM CHECK: JC SCALE: 1" = 30' SHEET 2 OF 2

ECP-12-041