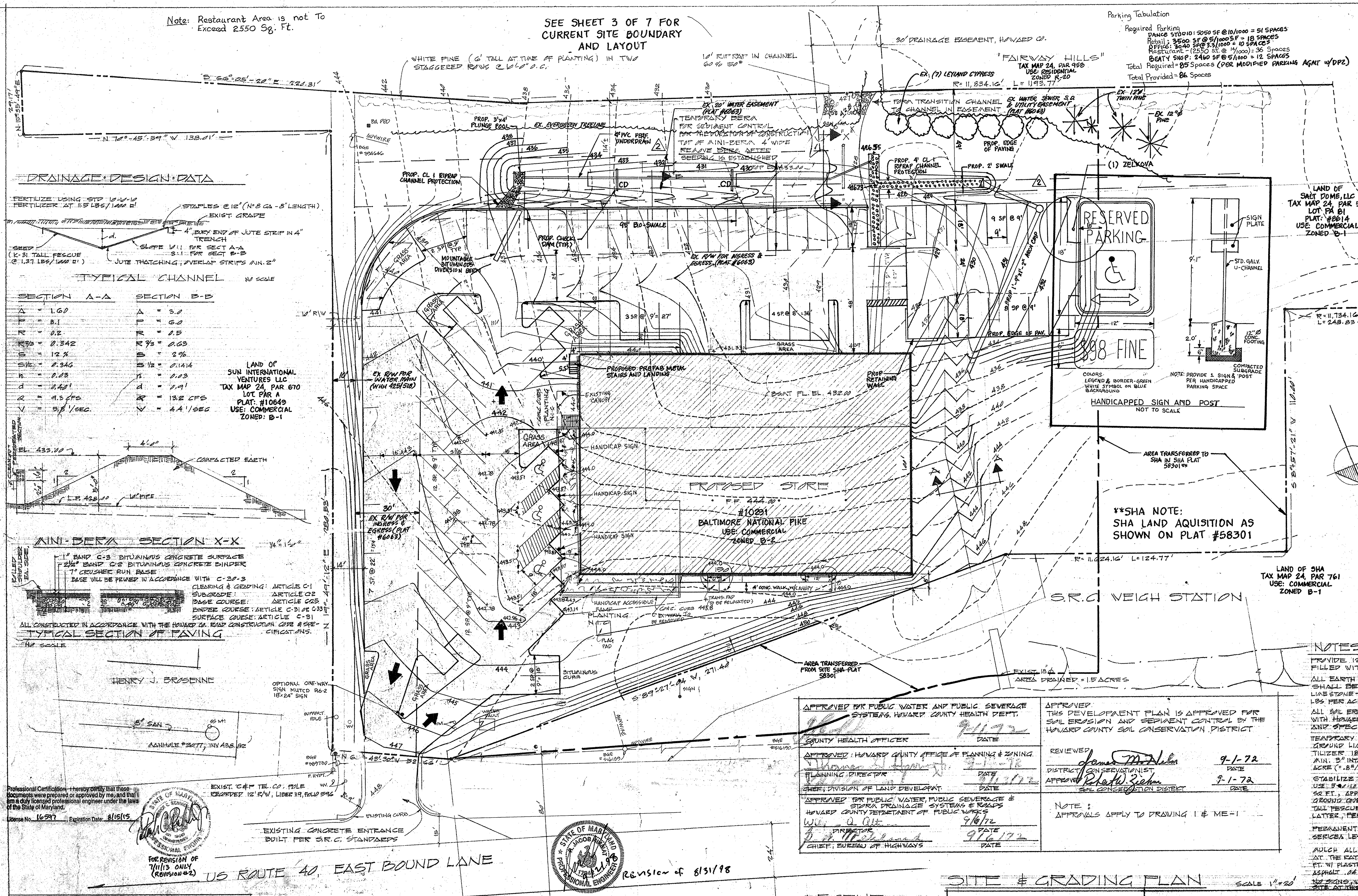
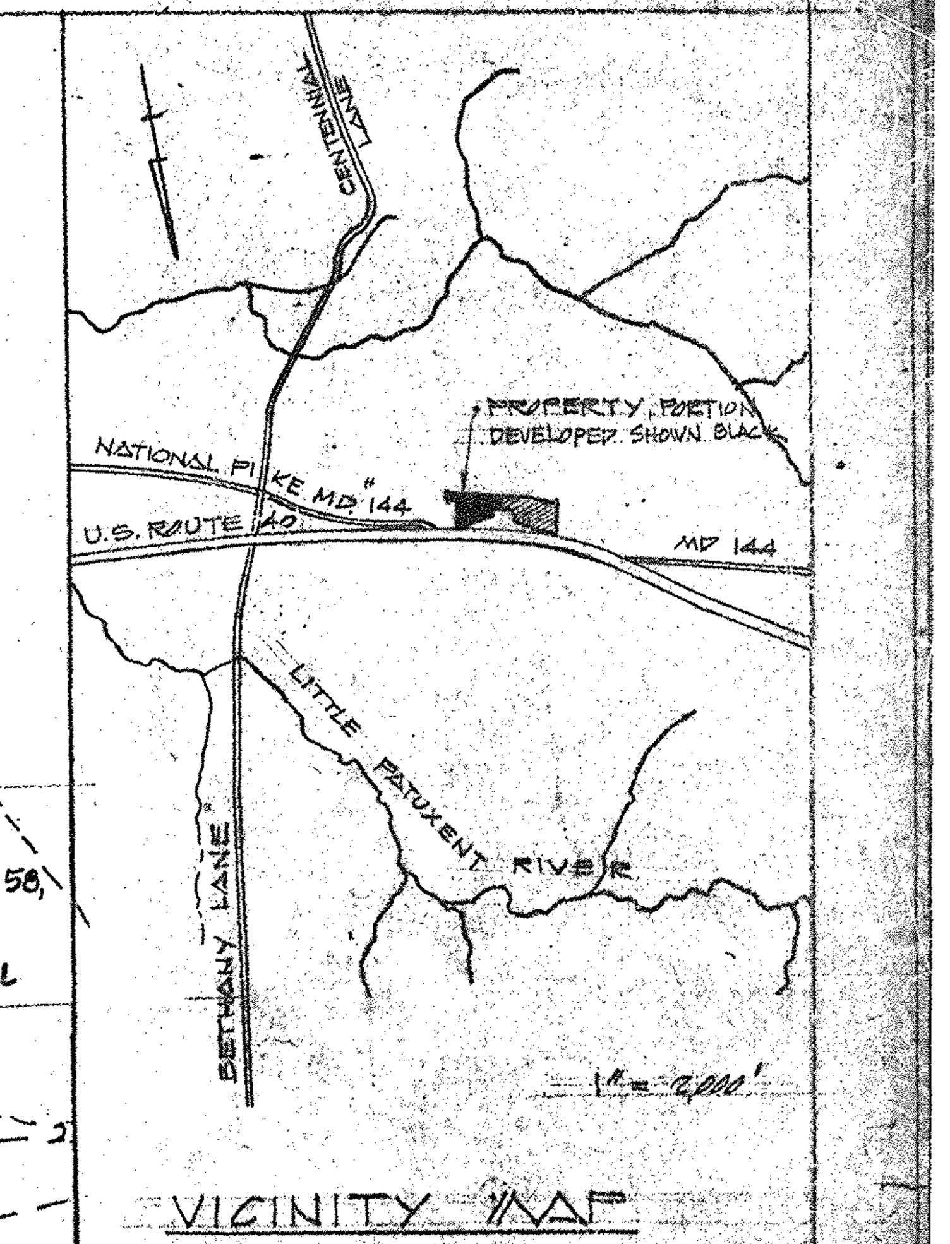
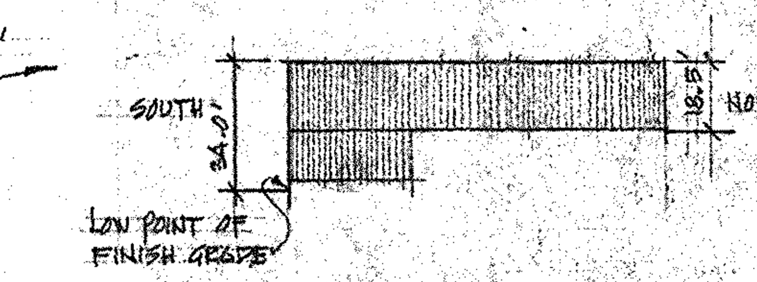






DATA

AREA OF PARCEL	2.33 ACRES
AREA OF PROPOSED DEVELOPMENT	0.31 ACRES
ZONING	B-2
FLOOR AREA	
FIRST FLOOR	13,560 SQ. FT.
GROUND FLOOR	3,050 SQ. FT.
ALT. #1 (IF USED) ADDITIONAL	2,110 SQ. FT.
TOTAL	16,610 SQ. FT.

SITE & GRADING INFORMATION TAKEN FROM TOPOGRAPHIC SURVEY BY PURDUM & JESHKE, DATED AUG. 2, 1968. DRAINAGE DESIGN COMPUTATIONS SUPPLIED BY PURDUM & JESHKE, 24 PARK AVE., ELLICOTT CITY

NOTES

PROVIDE 12" DIA. X 12" DP HOLES AT DOWNSPOUTS, FILLED WITH CRUSHED STONE.

ALL EARTH SURFACES DISTURBED BY THIS PROJECT SHALL BE SEEDED. SEED BED PREPARATION: GROUND LIMESTONE - 1 TON PER ACRE, 10-10-10 FERTILIZER - 1,000 LBS PER ACRE. FALL SEEDING BEFORE NOV. 1.

ALL SOIL EROSION AND SEDIMENT CONTROL TO BE IN ACCORD WITH HOWARD SOIL CONSERVATION DISTRICT STANDARDS AND SPECIFICATIONS.

TEMPORARY BERM IS TO RECEIVE TEMPORARY SEEDING: GROUND LIMESTONE 46 LBS PER 1,000 SQ FT., 10-10-10 FERTILIZER 18.4 LBS PER 1,000 SQ. FT., DISK LIME & FERTILIZER MIN. 3" INTO SOIL. SEED W/ ITALIAN RYEGRASS 35 LBS PER ACRE (=.8#/1000 SQ. FT.)

STABILIZE 2:1 SLOPED AREAS W/ GROUND COVER. USE 5-10-10 FERTILIZER & ORGANIC SUPPLEMENT AT 3 LBS PER 100 SQ. FT., APPLY LIME TO SUIT PLANT SELECTED, ESTABLISH GROUND COVER W/ CROWNVETCH AND INOCULATED KENTUCKY 31 TALL FESCUE AT THE RATE OF 15 LBS AND 40 LBS FOR THE LATTER, PER ACRE RESPECTIVELY.

PERMANENT SEEDING: WEEPING LOVEGRASS 4 LBS & SERICEA LESPEDEZA (SCARIFIED) 20 LBS PER ACRE.

MULCH ALL AREAS W/ UNWEATHERED SMALL GRAIN STRAW AT THE RATE OF 1½ TON PER ACRE. USE 150 LBS/1,000 SQ. FT. W/ PLASTIC MULCH NETTING FOR 2:1 SLOPES. EMULSIFIED ASPHALT .04 GAL/SQ. YD. TIE-DOWN ON ALL OTHER AREAS.

NO SIGNS, WALLS OR FENCES TO BE CONSTRUCTED ON THIS SITE AT THIS TIME.

APPROVED FOR PUBLIC WATER AND PUBLIC SEVERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPT. COUNTY HEALTH OFFICER — DATE 9-11-72	APPROVED: THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING. PLANNING DIRECTOR — DATE; CHIEF, DIVISION OF LAND DEVELOPMT. — DATE	REVIEWED James McNelm, DISTRICT CONSERVATIONIST — DATE 9-1-72; APPROVED Robert W. Ziehm, SOIL CONSERVATION DISTRICT — DATE 9-1-72
APPROVED FOR PUBLIC WATER, PUBLIC SEVERAGE & STORM DRAINAGE SYSTEMS & ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. DIRECTOR — DATE 9/6/72; CHIEF, BUREAU OF HIGHWAYS — DATE 9/6/72	NOTE: APPROVALS APPLY TO DRAWING 1 & ME-1

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. 16597 Expiration Date: 8/15/15

I CERTIFY THAT THIS PLAN MEETS THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT FOR SEDIMENT & EROSION CONTROL. George Rabinek, ARCHITECT — DATE 4/7/72

I CERTIFY THAT THIS SITE WILL BE DEVELOPED IN ACCORD WITH THIS PLAN FOR SEDIMENT AND EROSION CONTROL. R. David Long, OWNER — DATE 8/25/72

name	no.	description	date
CND	2	ADD PRE-FAB METAL STAIRS/LANDING, PARKING & SWM	07-11-13
RCJ	1	REVISE GRADING, PARKING LAYOUT, HANDICAP ACCESS	8-31-98

VANMAR ASSOCIATES, INC. ENGINEERS · SURVEYORS · PLANNERS 310 SOUTH MAIN STREET P.O. BOX 328 MT. AIRY, MD. 21771 (301) 829-2890 (301) 831-5015 (410) 549-2751

2/3/98 REVISED PARKING AREA & STRIPING, REVISED SHC LOCATION AND UPDATE PARKING TABULATION

SITE & GRADING PLAN

SCALE 1" = 20'

LEGEND
- 100 EXIST. CONTOURS
- 100 FINISH CONTOURS
- +100 NEW SPOT ELEVATIONS

GEORGE RABINEK A.I.A. ARCHITECT
3804 ARBUTUS AVE, BALTIMORE, MD
TELEPHONE 484-1733

PROPOSED NOVELTY STORE FOR
MR R. DAVID LONG AGENT
OWNER: MARIE N. LONG
ADDRESS: 8862 C TOWN-CTRY BL., ELLICOTT CITY, MD.
PROPERTY LOCATION: U.S. RT. 40, HOWARD COUNTY
SECOND ELECTION DISTRICT, TAX MAP #24, PARCEL #58

DATE: 4-20-72, 6-9-72

SDP 72-95

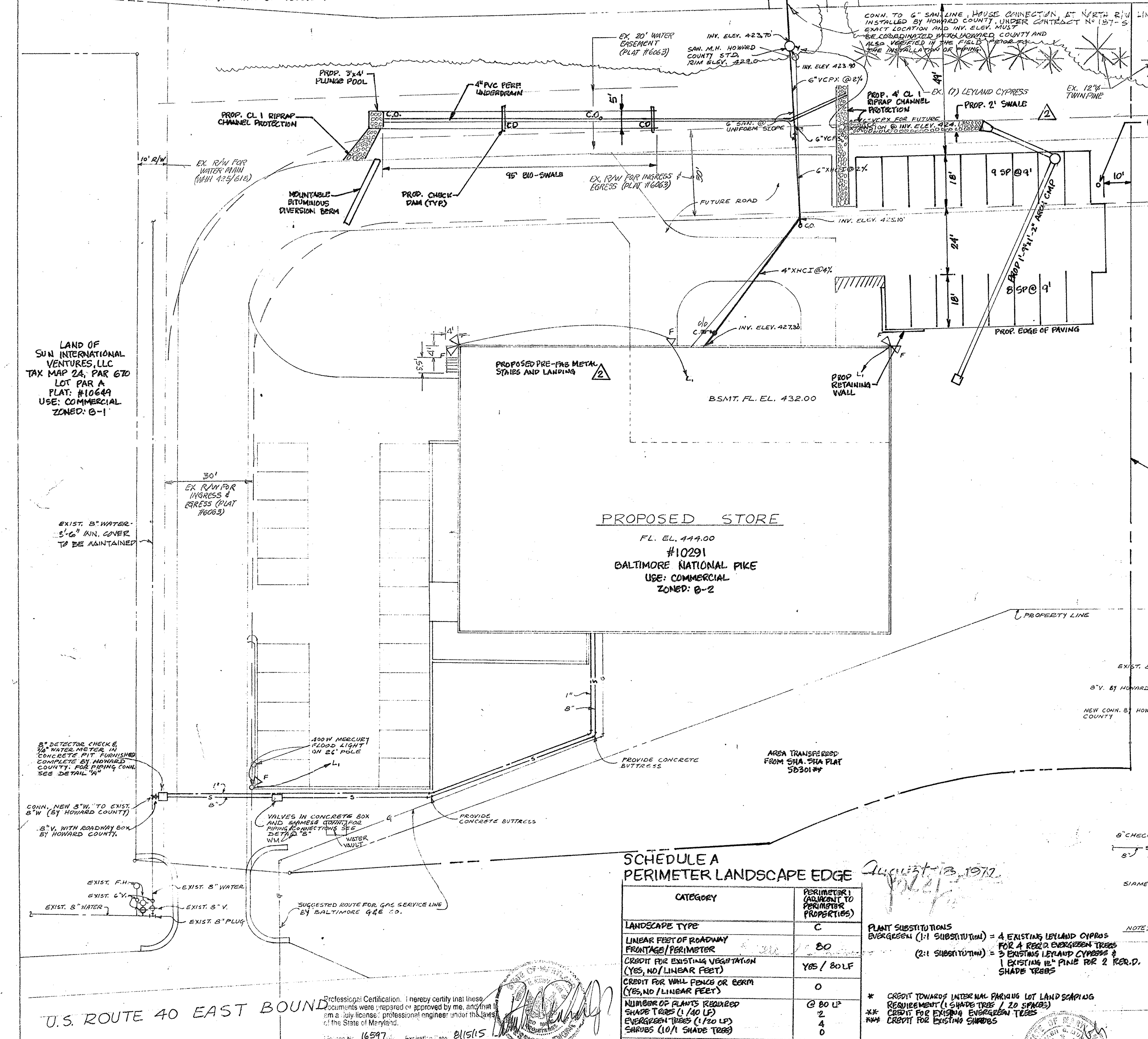
FOREST CONSERVATION GENERAL NOTE

THIS PROJECT COMPLIES WITH THE REGULATIONS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION WITH AN OBLIGATION APPLIED TO 13,600-SF OF SITE DISTURBANCE. THE TOTAL REFORESTATION/AFFORESTATION REQUIRED IS 0.05-AC (2,178 S.F.). A FEE-IN-LIEU PAYMENT OF $1,633.50 (2,178 S.F. x $0.75/SF) WILL BE ACCESSED. THIS OBLIGATION IS TO FULFILL THE CHANGES UNDER REDLINE REVISION #2.

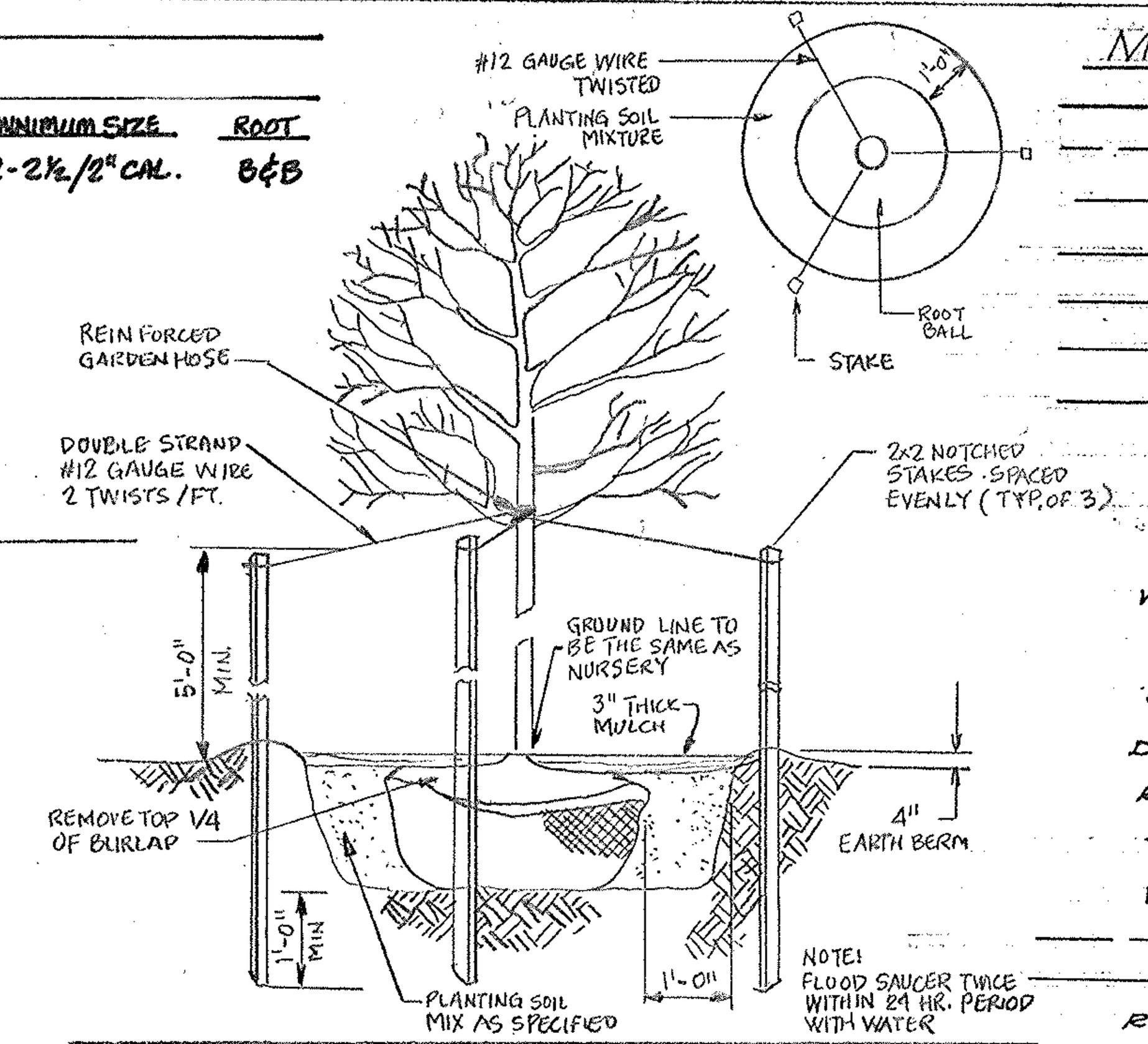
LANDSCAPE SURETY NOTE

SURETY FOR LANDSCAPING SHALL BE POSTED WITH THE GRADING PERMIT IN THE AMOUNT OF $300.00.

SEE SHEET 3 OF 7 FOR CURRENT SITE BOUNDARY AND LAYOUT



DECIDUOUS TREE PLANTING DETAIL



NOT TO SCALE

LAND OF SALT DOME LLC
TAX MAP 24, PAR 58, LOT PA B1
PLAT: #8614
USE: COMMERCIAL
ZONED: B-1

PLANT LIST

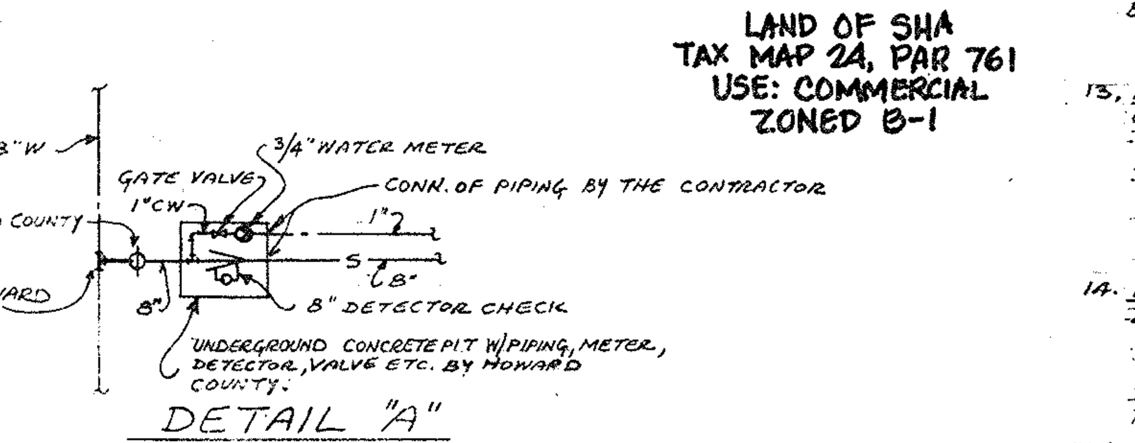
QUANTITY	BOTANICAL NAME/COMMON NAME	MINIMUM SIZE	ROOT
1	ZELKOVA SERRATA 'VILLAGE GREEN' / VILLAGE GREEN ZELKOVA	2-2½/2" CAL.	B&B

MECHANICAL LEGEND

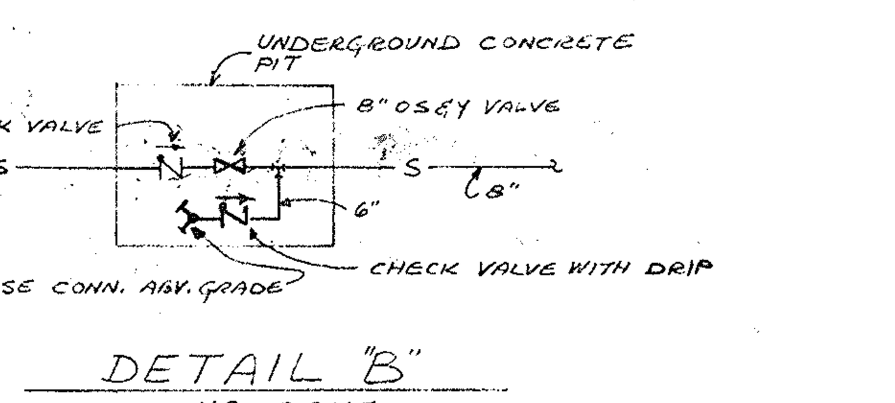
Symbol	Description
(line)	SANITARY SOIL OR WASTE; SAN.
(line)	SANITARY VENT; V.P.
(line)	CLEANOUT; LINE; FLUSH; C.O.
(line)	COLD WATER; C.W.
(line)	HOT WATER; H.W.
G	GAS
(symbol)	GATE VALVE; GAS COCK
C.O.	CLEANOUT
F.E.	FIRE EXTINGUISHER
V.P.	VENT PIPE
V.T.R.	VENT THRU ROOF
Ⓣ Ⓣs	LOW VOLTAGE THERMOSTAT; "S"-DENOTES SUB BASE
GR.	GRILLE
DIFF.	DIFFUSER
REG.	REGISTER
T.V.	TURNING VANES
V.D.	VOLUME DAMPER
(line)	FOUNDATION DRAINAGE
S	SPRINKLER LINE
R.A.C.	ROOFTOP HEATING & AIR CONDITIONING UNIT
E.F.	EXHAUST FAN
U.H.	GAS FIRED UNIT HEATER
H.B.	HOSE BIBB
W.H.	WALL HYDRANT
W.P.	WASTE PIPE

MECHANICAL SPECIFICATIONS

1. SCOPE: THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY FOR THE COMPLETE INSTALLATION OF THE MECHANICAL WORK AS SHOWN ON THE CONTRACT DRAWINGS AND AS HEREINAFTER SPECIFIED. ALL WORK SHALL BE IN CONFORMANCE WITH ALL CONTRACT DOCUMENTS.
2. EXAMINATION OF SITE: THE CONTRACTOR SHALL INSPECT THE SITE AND OBSERVE THE CONDITIONS UNDER WHICH THE WORK WILL BE DONE OR OTHER CIRCUMSTANCES WHICH MAY AFFECT HIS WORK. NO ALLOWANCE WILL BE MADE SUBSEQUENTLY IN THIS CONNECTION FOR ANY ERROR OR NEGLIGENCE ON THE CONTRACTORS PART.
3. REGULATIONS, CODE REQUIREMENTS AND PERMITS: ALL WORK SHALL CONFORM WITH THE LATEST EDITIONS OF THE APPLICABLE REGULATIONS, CODES AND STANDARDS OF THE FOLLOWING: ASHRAE, NFPA, NEC, AGA, HOWARD COUNTY BUILDING CODE, PLUMBING CODE AND HEALTH DEPT. REGULATIONS, MD. FIRE UNDERWRITERS RATING BUREAU AND THE UTILITY CO. REGULATIONS. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS.
4. MATERIALS AND WORKMANSHIP: ALL MATERIALS SHALL BE NEW AND ALL WORK SHALL BE PERFORMED IN WORKMANLIKE MANNER AND IN ACCORDANCE WITH THE BEST PRACTICE OF THE TRADE INVOLVED.
5. GUARANTEE: THE CONTRACTOR SHALL GUARANTEE THE MECHANICAL WORK TO BE FREE FROM DEFECT FOR A PERIOD OF ONE(1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER. DURING THE GUARANTEE PERIOD THE CONTRACTOR SHALL MAKE ALL NECESSARY ADJUSTMENTS TO HIS WORK TO INSURE EFFICIENT AND PROPER OPERATION OF THE SYSTEMS.
6. SHOP DRAWINGS AND MATERIAL LIST: COMPLETE SHOP DRAWINGS AND MATERIAL LISTS SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE ARCHITECT. NO WORK SHALL BE FABRICATED OR ORDERED BY THE CONTRACTOR UNTIL APPROVED BY THE ARCHITECT.
7. OR EQUAL: MATERIAL AND EQUIPMENT SPECIFIED ARE THE MINIMUM QUALITY THAT WILL BE ACCEPTED. SIMILAR PRODUCTS OF OTHER MANUFACTURER EQUAL IN APPEARANCE, QUALITY AND PERFORMANCE MAY BE SUBMITTED FOR CONSIDERATIONS.
8. ELECTRICAL WORK: ALL POWER WIRING SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL CONTROL WIRING SHALL BE FURNISHED BY THE CONTROL CONTRACTOR IN ACCORDANCE WITH THE ELECT. SPECIFICATIONS AND N.E.C. CODE.
9. PIPING MATERIALS: SANITARY SOIL, WASTE AND VENT PIPING UNDERGROUND WITHIN THE BLDG. AND UP TO 10' OUTSIDE THE BUILDING AND ELSEWHERE AS INDICATED: EXTRA HEAVY CAST IRON SOIL PIPE AND FITTINGS ANSI A40.1, 2" MINIMUM SIZE. SANITARY PIPING 10' BEYOND THE BLDG. UNLESS INDICATED OTHERWISE: VITRIFIED CLAY PIPE AND FITTING, EXTRA STRENGTH ASTM C-200. SANITARY SOIL, WASTE AND VENT PIPING ABV. FLOOR (EXCEPT BASEMENT): SCHEDULE 40 GALVANIZED STEEL PIPE ASTM A120, WITH GALV. CAST IRON RECESSED FITTINGS ON WASTE AND VENT PIPING, ANSI B16.12 (SCREWED TYPE). FOUNDATION DRAIN PIPING: UNGLAZED AGRICULTURAL TILE ASTM C4, WITH 1/2" OPEN JOINTS COVERED WITH COPPER FLY SCREEN WITH GRAVEL EXTENDING 6" BELOW AND ABOVE THE TILE. ALTERNATE MATERIAL MAY BE ACCEPTABLE. INTERIOR DOMESTIC COLD AND HOT WATER PIPING (ABV. FLOOR): COPPER TUBING TYPE "L", HARD TEMPER, ASTM B88 WITH WROUGHT COPPER SOLDER JOINT FITTINGS ANSI B16.22. COLD WATER PIPING LOCATED UNDERGROUND: COPPER TUBING TYPE "K" SOFT TEMPER. UNDERGROUND SPRINKLER LINE: CAST IRON PRESSURE PIPE CLASS 150, THICKNESS 22 WITH CAST IRON PRESSURE FITTINGS, ANSI A-21.9 OR ANSI-B WITH MECHANICAL JOINTS ANSI A21.11. AT THE CONTRACTOR'S OPTION JOINTS MAY BE U.S. PIPE AND FOUNDRY CO. "LOK-TYTON", ALL CONFORMED WITH THE APPLICABLE CODES. SPRINKLER PIPING ABOVE FLOOR: SCHEDULE 40 BLACK STEEL PIPE ASTM A120 WITH BLACK MALLEABLE OR WROUGHT IRON SCREWED FITTINGS ANSI B16.3. GAS PIPING: SCHEDULE 40 BLACK STEEL PIPE ASTM-120 WITH GALV. MALLEABLE OR WROUGHT IRON SCREWED FITTINGS.
10. PIPING JOINTS: NO DIRECT WELDED, SOLDERED OR BRAZED CONNECTION SHALL BE MADE TO EQUIPMENT, AND ALL CHANGES IN DIRECTION OF PIPING SHALL BE MADE WITH FITTINGS. SOLDERED JOINTS: 95-5 TIN-LEAD SOLDER AND NON CORROSIVE PASTE FLUX. JOINTS IN CAST IRON SOIL PIPE: OAKUM AND MOLTEN LEAD AT LEAST 1" THICK. PREMOLDED NEOPRENE JOINTS ASTM C564 MAY BE USED AS AN OPTION AS RECOMMENDED BY THE MANUFACTURER. SCREWED JOINTS: SHALL BE MADE WITH JOINT COMPOUND APPLIED TO THE MALE THREAD ONLY. SCREWED THREADS SHALL CONFORM TO ANSI B2.1. JOINTS IN VITRIFIED CLAY PIPE: SHALL BE MADE WITH PREMOLDED JOINTS MATERIALS ASTM C425 TYPE 3, ASSEMBLED IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. JOINTS IN C.I. PRESSURE PIPE SHALL BE MECHANICAL JOINTS ANSI A21.11 AND ALL ELBOWS TEES ETC. SHALL BE PROVIDED WITH CONCRETE BUTTRESS AND ANCHORS. CONNECTIONS BETWEEN FERROUS PIPING AND COPPER TUBING SHALL BE MADE WITH DI-ELECTRIC FITTINGS. JOINTS IN GAS PIPING SHALL BE MADE USING GASKET SHELLAC IN ACCORDANCE WITH BG&E CO. REGULATIONS.
11. VALVES: WATER PIPING: GATE VALVES-NIBCO No. S 135; GLOBE VALVES NIBCO No. S-235 W; CHECK VALVES-NIBCO NO. 433. GAS PIPING: GAS COCKS-CRANE CO. NO. 1228. SPRINKLER SYSTEM: OS&Y GATE VALVES, CHECK VALVE, ALARM CHECK VALVE ETC. REFER TO SPECS. FOR SPRINKLER SYSTEM. ALL VALVES SHALL BE LOCATED TO PERMIT EASE OF ACCESS AND OPERATION.
12. SPECIALTIES: CLEANOUT IN WALL: JOSAM Y-130 BB; CLEANOUT IN FLOOR: JOSAM Y-400XFB; WALL HYDRANT: JOSAM 1400N, 3/4" SIZE WITH WATTS REGULATOR VACUUM BREAKER; INTERIOR HOSE BIBB: CRANE CO. NO. 117 WITH WATTS REGULATOR CO. VACUUM BREAKER. TEMP.-PRESSURE RELIEF VALVE: WATTS REGULATOR CO., ASME.
13. PIPE SUPPORTS: PIPING SHALL BE SUPPORTED IN AN APPROVED MANNER WITH PIPE HANGERS AS MANUFACTURED BY GRINNELL, CARPENTER AND PATTERSON OR FEE AND MASON. PERFORATED STRAP WIRE OR OTHER MAKESHIFT DEVICES WILL NOT BE PERMITTED. PIPE COVERING PROTECTIVE SADDLES SHALL BE PROVIDED FOR ALL COVERED PIPING. SADDLES SHALL BE FABRICATED OF CURVED STEEL PLATES WITH TURNED-UP EDGES. PIPE HANGER SHALL BE OF THE PROPER TYPE, AND SHALL HAVE PROPER ROD DIAMETER. HANGER SPACING SHALL BE: FOR 1/2" & 3/4" PIPING - 6'; FOR 1" TO 1½" PIPING - 8'; FOR 2" & 3" PIPING - 10'; FOR 4" AND LARGER - 12'. CAST IRON SOIL PIPE SHALL BE SUPPORTED AT EACH HUB OR BELL. HANGERS SHALL BE PROVIDED ON ALL PIPING AT CHANGES IN DIRECTION REGARDLESS OF THE ABOVE SPACINGS. VERTICAL PIPING ON WALLS SHALL BE SUPPORTED WITH WALL BRACKETS. MIN. HANGERS ROD SIZE: 1/2" TO 2" - 3/8" ROD; 2½" AND 3" - 1/2" ROD; 4" AND 5" - 5/8" ROD; 6" - 3/4" ROD.
14. EXCAVATION, BACKFILL AND COMPACTION: ALL EXCAVATION, BACKFILL & COMPACTION SHALL CONFORM WITH HOWARD COUNTY REGULATION AND AS SPECIFIED UNDER THE ARCHITECTURAL SECTION. BANK OF TRENCHES SHALL BE KEPT NEATLY VERTICAL AS POSSIBLE AND PROPERLY SHEATED AND BRACED AS REQUIRED. WHERE PIPING IS INSTALLED IN FILL PROPER COMPACTION OF THE FILL SHALL BE MADE. ALL TESTS OF UTILITY LINES SHALL BE PERFORMED PRIOR TO BACKFILL. TRENCH DEPTH SHALL BE EXCAVATED TO THE INDICATED ELEVATION. THE GRADES IN THE VICINITY OF THE EXCAVATIONS SHALL BE ARRANGED TO PREVENT SURFACE WATER FROM ENTERING THE TRENCH. BACKFILL SHALL BE FREE OF LARGE STONES, CLODS, ROOTS OR OTHER ORGANIC MATERIALS. PROVIDE BARRICADES AND LIGHTS FOR ALL EXCAVATIONS TO PREVENT INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT.
15. SPRINKLER SYSTEM: A COMPLETE SPRINKLER SYSTEM SHALL BE INSTALLED IN THE ENTIRE BUILDING FOR ORDINARY HAZARD, BY A QUALIFIED SPRINKLER CONTRACTOR. THE SPRINKLER SYSTEM SHALL BE DESIGNED AND INSTALLED IN STRICT CONFORMANCE WITH NFPA-13, MARYLAND FIRE UNDERWRITERS RATING BUREAU, THE INSURANCE CO. REQUIREMENTS, AND OTHER AUTHORITIES HAVING JURISDICTION OVER THIS WORK. IT WILL BE THE COMPLETE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR TO SELECT AND SIZE ALL SPRINKLER HEADS, PIPING, VALVES ETC. INSIDE AND OUTSIDE THE BUILDING INCLUDING THE FIRE DEP. CONN. PIT & COVER PLATE. THE SPRINKLER CONTRACTOR SHALL OBTAIN AN APPROVAL BY MARYLAND FIRE UNDERWRITERS RATING BUREAU FOR HIS LAYOUT OF THE SPRINKLER SYSTEM PRIOR TO PROCEEDING WITH HIS WORK. PENDANT SPRINKLER HEADS TO BE USED IN FINISHED CEILINGS AND UPRIGHT HEADS WHERE PIPING EXPOSED.
16. DUCTWORK: GALVANIZED STEEL. UP TO 12" SIZE - 26 GUAGE; 12" AND LARGER 24 GUAGE. ERECTED IN COMPLIANCE WITH SMACNA AND NFPA-90A IN FIRST CLASS WORKMANLIKE MANNER, GENERALLY SMOOTH INSIDE AND AIRTIGHT AND PROPERLY SUPPORTED FROM STEEL JOISTS AND ABOVE ROOF. PROVIDE TURNING VANES WHERE INDICATED. FLEXIBLE DUCT CONNECTIONS SHALL BE NEOPRENE GLASS CLOTH NON FLAMMEABLE, NFPA APPROVED. DUCTS SHALL BE SUPPORTED FROM ROOF JOISTS BY MEANS OF STRUCTURAL SHAPES OR FLAT BARS. THE USE OF WIRE WILL NOT BE PERMITTED. WHERE DUCTWORK PASS THRU WALL THE ANNULAR SPACE BETWEEN DUCT AND WALL SHALL BE FILLED WITH INCOMBUSTABLE INHERT MATERIAL. FOR DUCT LINING OPTION REFER TO INSULATION.
17. GAS VENTS (UNIT HEATERS AND WATER HEATER): METALBESTUS, OR EQUAL TYPE "B", AGA APPROVED, COMPLETE WITH STORM COLLAR, FLASHING AND BELMONT CAP, ALL PROPERLY SUPPORTED.
18. GRILLES, REGISTERS AND DIFFUSERS (TUTTLE & BAILEY): SUPPLY DIFFUSERS: ME, SQUARE NECK WITH M-7 VOLUME DAMPER (FOR FULLY RECESSED LIGHTING FIXTURES. SAME WITH "M-1" EXTENDED FRAME FOR SURFACE MOUNTED LIGHTING FIXTURES. EXHAUST REGISTERS: A-77D. RETURN GRILLES: T-70D.
19. INSULATION: COLD AND HOT WATER PIPING IN THE BLDG.: 1/2" THICK FIBERGLASS LOW PRESS. PIPE INSULATION WITH UNIVERSAL JACKET. VALVES AND FITTINGS: PREMOLDED PIPE FITTINGS OF EQUAL THICKNESS. JACKET AND ALL JOINTS OF INSULATION SHALL BE VAPOR SEALED. SUPPLY AND RETURN AIR DUCTWORK ABOVE CEILING: 1" THICK OWENS CORNING, ALUMINUM FACED FLEXIBLE, VAPOR SEALED DUCT INSULATION 3/4 PCF DENSITY WITH ALL JOINTS SEALED WITH VAPOR BARRIER MASTIC FLAME RESISTANT TAPE. SUPPLY AND RETURN DUCTWORK ABOVE ROOF: 1½" RIGID BOARD INSULATION, TYPE 704, 4.2 PCF WITH FRK JACKET. INSULATION WEATHER PROOFED, FINISHED WITH TWO 1/8" THICK COAT OF NON FLAMMABLE MASTIC REINFORCED WITH GLASS CLOTH AND WITH ALL JOINTS LAPPED 2". AT THE CONTRACTOR OPTION, DUCTS MAY BE LINED WITH 1" THICK DUCT LINER WITH NEOPRENE COATING ON THE INSIDE PROPERLY ATTACHED. IN ADDITION OUTSIDE OF DUCT WILL RECIEVE WEATHER PROOF MASTIC JACKETING COVER. DUCT SIZE DENOTES THE CLEAR INSIDE DIMENSIONS. INSULATION SHALL BE INSTALLED IN COMPLETE CONFORMANCE WITH THE MANUFACTURER RECOMMENDATIONS.
20. TEMPERATURE CONTROL: THERMOSTATS W & W/O SWITCH BASE FURNISHED WITH RAC UNIT AND UNIT HEATERS. THE CONTRACTOR SHALL INSTALL SAME WITH ALL RELATED CONTROL WIRING ETC. TO COMPLETE THE INSTALLATION OF THE CONTROL SYSTEM. CONTROL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE ELECT. SPECS. AND NEC REGULATIONS. TRANSFORMERS FOR THE CONTROL SYSTEMS FURNISHED WITH THE EQUIPMENT. FURNISH AND INSTALL FIRESTAT IN THE RETURN AIR TO TO STOP RAC UNIT UPON A RISE IN TEMPERATURE ABOVE 125°F. RAC UNIT CONTROLS SHALL OPERATE THE UNIT AT "HEATING" OR "COOLING" POSITIONS WITH "FAN" OR "AUTOMATIC" AS SELECTED. UNIT HEATER FAN AND GAS VALVE SHALL BE CYCLE BY RELATED THERMOSTAT TO MAINTAIN SPACE TEMPERATURE WHEN SET TO THE "HEAT" POSITION. WHEN SET TO THE "FAN" POSITION GAS VALVE IS SHUT AND THE FAN RUN CONTINUOUSLY. EXHAUST FAN EF-3 SHALL BE ELECT. INTERLOCKED WITH THE MOTORIZED LOUVER. WHEN MANUALY STARTED (ONLY IN SUMMER TIME) THE LOUVER SHALL OPEN AND WHEN MANUALLY STOPED LOUVER SHALL CLOSE.
21. TESTING: PIPING SHALL BE TESTED NOT LESS THAN SIX HOURS WITH NO PRESS. DROP AS FOLLOWS: DOMESTIC WATER AND SPRINKLER LINES: 150 PSI (AIR); GAS PIPING: 50 PSI (AIR); SANITARY: 10' HEAD ABOVE FIXTURE, USING WATER. ALL GAS PIPING SHALL HAVE EACH JOINT PROOVING TIGHT BY SWABBING WITH SOAP SOLUTION OR BY OTHER APPROVED MEANS.
22. BALANCING: THE AIR SYSTEM OF RAC UNIT SHALL BE BALANCED AND ADJUSTED TO WITHIN 10% OF CAPACITY SHOWN ON THE DWG. ADJUST DIFF. DAMPER FAN SPEED ETC.
23. OPERATING INSTRUCTIONS: THE OWNER SHALL BE INSTRUCTED HOW TO OPERATE AND MAINTAIN THE HEATING & A.C. AND EXHAUST SYSTEMS AND EQUIPMENT.
24. STERILIZING: DOMESTIC WATER SHALL BE DISINFECTED AND CLEANED BEFORE BEING PLACED IN SERVICE WITH CHLORINE GAS AND WATER MIXTURE IN ACCORDANCE WITH THE BEST RECOMMENDED STANDARD PRACTICE AND HEALTH DEPARTMENT REGULATIONS.



DETAIL "A"
NO SCALE



DETAIL "B"
NO SCALE

NOTE: ALL WORK TO BE ACCOMPLISHED BY THE SPRINKLER CONTRACTOR.

SCHEDULE A
PERIMETER LANDSCAPE EDGE

CATEGORY	PERIMETER 1 (ADJACENT TO PERIMETER PROPERTIES)
LANDSCAPE TYPE	C
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	80
CREDIT FOR EXISTING VEGETATION (YES, NO/LINEAR FEET)	YES / 80 LF
CREDIT FOR WALL FENCE OR BERM (YES, NO / LINEAR FEET)	0
NUMBER OF PLANTS REQUIRED SHADE TREES (1/40 LF) EVERGREEN TREES (1/20 LF) SHRUBS (10/1 SHADE TREE)	@ 80 LF 2 4 0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES SHRUBS	 1* 8** 0 0

August 13, 1972

PLANT SUBSTITUTIONS
EVERGREEN (1:1 SUBSTITUTION) = 4 EXISTING LEYLAND CYPROS FOR 4 REQ'D EVERGREEN TREES
(2:1 SUBSTITUTION) = 3 EXISTING LEYLAND CYPRESS & 1 EXISTING 12" PINE FOR 2 REQ.D. SHADE TREES

* CREDIT TOWARDS INTERNAL PARKING LOT LANDSCAPING REQUIREMENT (1 SHADE TREE / 20 SPACES)
** CREDIT FOR EXISTING EVERGREEN TREES
*** CREDIT FOR EXISTING SHRUBS

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. 16597 Expiration Date 8/15/15

FOR REVISION OF 7/11/13 ONLY (REVISION #2)

SITE PLAN

SCALE: 1"=20'

NOTES:
1. THE CONTRACTOR SHALL VERIFY BY FIELD CHECK EXACT LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AND NEW CONNECTIONS TO SAME PRIOR TO PROCEEDING WITH WORK.
2. WATER AND SPRINKLER SERVICE LINES SHALL HAVE MINIMUM 3'-6" COVER FROM FINISH GRADE.
3. OUTSIDE UTILITIES SHALL BE INSTALLED IN COMPLETE CONFORMANCE WITH HOWARD COUNTY CODE REGULATIONS, BY A QUALIFIED CONTRACTOR.
4. SPRINKLER SYSTEM PIPING AND VALVES M.H. ETC. SHALL BE COMPLETE AND CONFORM WITH NFPA-13, MARYLAND FIRE UNDERWRITERS' RATING BUREAU AND OTHER AUTHORITIES HAVING JURISDICTION OVER THIS WORK.

VANMAR ASSOCIATES, INC.
ENGINEERS · SURVEYORS · PLANNERS
310 SOUTH MAIN STREET P.O. BOX 328 MT. AIRY, MD. 21771
(301) 829-2890 (301) 831-5015 (410) 549-2751

2/3/98 REVISED PARKING AREA & STRIPING, REVISED SHC LOCATION AND UPDATE PARKING TABULATIONS

NAME	NO.	DESCRIPTION	DATE
CMD	2	ADD PRE-FAB METAL STAIRS/LANDING, PARK & SWM	7/11/13

NOVELTY STORE FOR MR R. DAVID LONG
U.S. RT. 40 HOWARD COUNTY
GEORGE RABINEK — ARCHITECT
ZVI GRODZINSKY — MECHANICAL ENGINEER

ARCHITECTURAL REGISTRATION BOARD 2417-A STATE OF MARYLAND

DATE: 4-20-1972
6-9-1972
SHEET 2 OF 7
ME-1

SDP 72-92

CONSTRUCTION SPECIFICATIONS

All stormwater management facilities shall be constructed in accordance with Baltimore County's "Standard Specifications and Details for Construction", (1985) and the N.R.C.S. Maryland "Standards and specifications for Ponds". (MD-378, 2000).
These specifications are appropriate to all ponds within the scope of the standard practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

SITE PREPARATION

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment. Areas to be covered by the pond or reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25 foot radius around the inlet structure shall be cleared. All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

EARTH FILL

A. MATERIAL
The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment shall conform to Unified Soil Classification GC, SC, CH, or CL. and must have at least 30% passing #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a Geotechnical Engineer. Such special designs must have construction supervised by a Geotechnical Engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

B. PLACEMENT
Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

C. COMPACTION
The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out. The minimum required density shall not be less than 95% of maximum dry density with a moisture content within +/- 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO method T-99 (Standard Proctor).

CUT OFF TRENCH AND IMPERVIOUS CORE

The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill material for the core trench shall be compacted with equipment, rollers or hand tampers to assure maximum density and minimum permeability.

EMBANKMENT CORE

The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

STRUCTURE BACKFILL

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of the structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi; 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill) zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

PIPE CONDUITS

All pipes shall be circular in cross section. All perforated pipes shall have a minimum of 3.31 square inches of opening per square foot of pipe surface (ex. 30 3/8 inch holes per square foot). Perforations are to be uniformly spaced around the full periphery of the pipe. Any holes blocked or partially blocked by bituminous coating shall be opened prior to installation.

A.REINFORCED CONCRETE PIPE — All of the following criteria shall apply for reinforced concrete pipe:
1.Materials — Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ATSM C-361.
2.Bedding — Reinforced concrete pipe conduits shall be laid in a concrete bedding/cradle for their entire length. This bedding/cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50% of its outside diameter with a minimum thickness of 6 inches or d/4 whichever is greater. Where a concrete cradle is not needed for structural purposes, flowable fill may be used as described in the "Structure Backfill" section of this standard. Gravel bedding is not permitted.
3.Laying pipe — Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 4 feet of the riser.
4.Backfilling shall conform to "Structure Backfill".
5.Connections — All connections (to anti-seep collars, riser, etc.) shall be watertight.
6.Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

B.PLASTIC PIPE — All of the following criteria shall apply for plastic pipe:
1.Materials — PVC pipe shall be PVC-1120 or PVC-1220 conforming to astm D-1785 or ASTM D-2241. Corrugated high density polyethylene (HDPE) pipe, couplings and fittings shall conform to following: 4"-10" inch pipe shall meet the requirements of AASHTO M252 Type S, and 12" through 24" inch shall meet the requirements of AASHTO M294 Type S.
2.Joints and connections to anti-seep collars shall be completely watertight.
3.Bedding — the pipe shall be firmly and uniformly bedded throughout its entire length Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4.Backfilling shall conform to "Structure Backfill".
5.Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

C.DRAINAGE DIAPHRAGMS — When a drainage diaphragm is used, a registered professional engineer will supervise the design and construction inspection.

D.CONCRETE — Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

CARE OF WATER DURING CONSTRUCTION
All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

STABILIZATION All borrow areas shall be graded to provide drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing, mulching or sodding in accordance with the MD SCS. Standard and Specifications for Critical Area Planting (MD 342) or as shown on the accompanying drawings.

A.SOD

1.Specifications — Sod shall be "K-31" Tall Fescue or Kentucky Bluegrass/Red Fescue mixture or approved equal. Class of turfgrass sod shall be Maryland or Virginia state certified or approved sod.

2.Site Preparation — Where soil is acidic or composed of heavy clays, ground limestone shall be spread at the rate of 100 lbs./1000 sq. ft. In all soils 5-10-5 fertilizer or approved equal shall be applied at the rate of 30 lbs/1000 sq.ft. Fertilizer shall be uniformly applied and mixed into the top 3" of soil with the required lime. Slow release nitrogen, at the rate of 3.5 lbs/1000 sq. ft., shall be applied to the prepared soil immediately prior to sod installation. This material shall be approximately one-third immediately available and two-thirds water insoluble nitrogen. Urea formaldehyde (UF) and isobutylidene (IBDU) meet these standards.

3.Sod Installation — The first row of sod shall be laid in a straight line with subsequent rows place parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Insure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots. On sloping areas where erosion may be a problem, sod shall be laid with long edges parallel to the contour and with staggered joints. Secure the sod by tamping and pegging or other approved methods. As sodding is completed in any one section, the entire area shall be rolled or tamped to insure solid contact of roots with the soil surface. Sod shall be watered immediately after rolling or tamping until the underside of the new sod pad and solid surface below the sod are thoroughly wet. The operation of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

B.SEEDING

Seeding Mix, fertilizing and mulching shall be as follows:
50% Kenblue Kentucky Bluegrass
40% Pennlawn Creeping Red Fescue
10% Streaker Redtop
Applied at a rate of 150 pounds per acre.
(or)
Rebel II Tall Fescue (125 pounds per acre)
Pennfine Perennial Ryegrass (15 pounds per acre)
Kenblue Kentucky Bluegrass (10 pounds per acre)
— FOR AREAS OTHER THAN SPECIFIED BIORETENTION AREA
(or)
Pennlawn Creeping Red Fescue (70 pounds per acre)
Aurora Hard Fescue (50 pounds per acre)
Common White Clover (6 pounds per acre)
Winter Rye (45 pounds per acre)
(or)
70% Forager Tall Fescue
30% Chemung Crown Vetch Inoculated
Applied at a rate of 55 lbs/acre Optimum Planting date March 1 st — April 30th

EROSION AND SEDIMENT CONTROL

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized, as shown on these plans and as set forth in the latest "Standards & Specifications for Soil Erosion and Sediment Control in Developing Areas" of the Soil Conservation Service of Maryland, Baltimore County Soil Conservation District, as amended.

FENCING

Fencing shall be 42" high chain fence constructed in accordance with the latest Maryland State Highway Administration Standard Details 615.02 and 615.03. The specifications for a 6'-0" fence shall be used, substituting 42" fabric and 6'-8" line posts. Gate shall be constructed in accordance with State Highway Administration Standard Detail 692.01 with 42" fabric. Fabric for fence and gate shall conform to ASSHTO Designation M181-74. Dark vinyl coating is required for the fence posts and wire fabric in accordance with the Landscape Manual adopted by Resolution 56-90, October 1, 1990.

FILTER CLOTH

1.All filter cloth shall conform to the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment control, or the latest edition.

ROCK RIPRAP

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration standard specifications for construction and materials, Section 901. The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks Uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation Standard Specifications for Construction and Materials, Section 921.09.

GABIONS

All gabions shall be PVC coated woven wire baskets. Stone shall be 4 to 7 inches. (class IV gabions).

CONSTRUCTION INSPECTION BY DESIGNATED ENGINEERS

The construction of the pond and embankment, and certification that the pond and embankment have been built in accordance with the plans shall be under the supervision of a Registered Professional Engineer. The engineer shall be notified sufficiently in advance of construction in order that arrangements can be made for
(1)inspection of pipe trench and bedding,
(2)inspection of riser and anti-seep collars and,
(3)Supervision of embankment construction and compaction testing. The engineer shall direct the handling of water during construction, minor changes not affecting the integrity of the dam in order to compensate for unusual soil conditions, and the removal and replacement of defective fill.

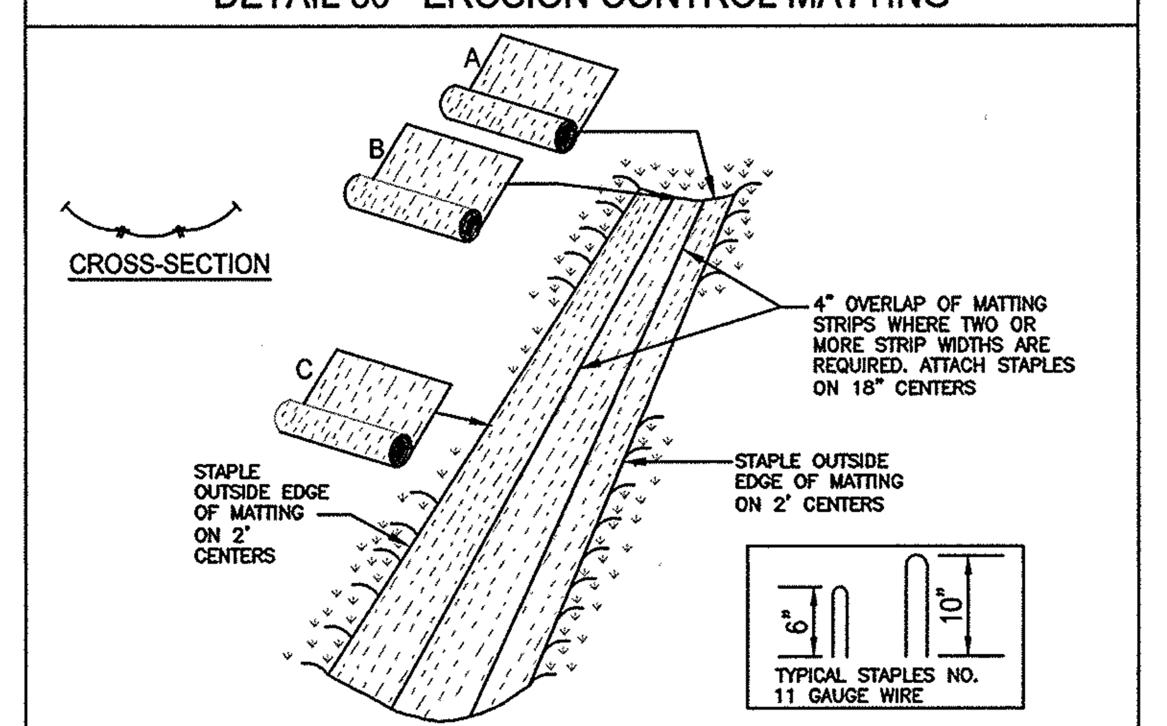
INSPECTION

The contractor shall notify the engineer at least 5 working days prior to starting any work shown on these plans so that stormwater management pond may be inspected during construction.

REFERENCES

Unless otherwise noted, all materials and construction practices shall conform to the following:
1.The Baltimore County, Maryland, Department of Public Works Standard Specifications for Construction Material 2000; ERRATA & ADDENDA
2."Standard Specifications for Construction and Materials", 2000, of the Maryland State Highway Administration, as amended.
3"Standards and Specifications, Pond," code 378, January 2000 of the Natural Resources Conservation Service of Maryland,

DETAIL 30 - EROSION CONTROL MATTING

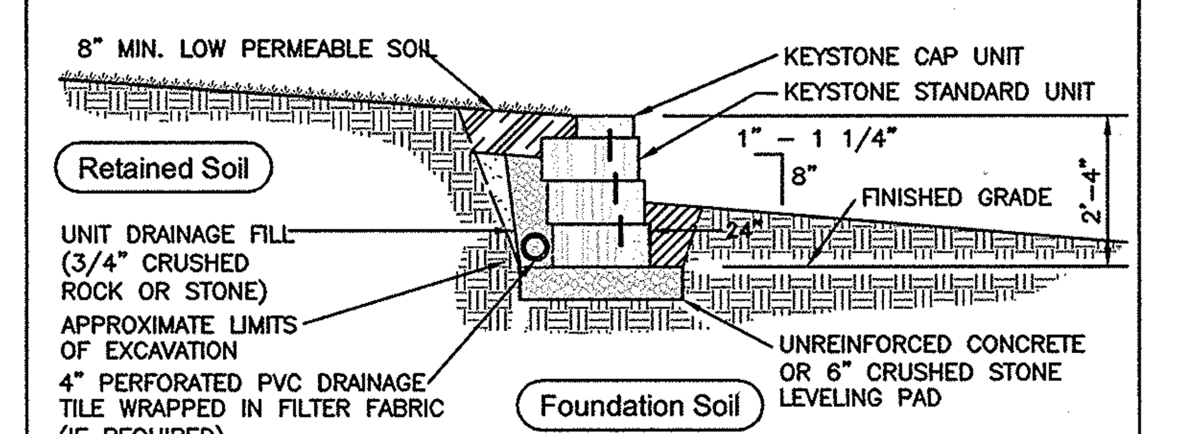


CONSTRUCTION SPECIFICATIONS

1. KEY-IN THE MATTING BY PLACING THE TOP ENDS OF THE MATTING IN A NARROW TRENCH, 6" IN DEPTH. BACKFILL THE TRENCH AND TAMP FIRMLY TO CONFORM TO THE CHANNEL CROSS-SECTION. SECURE WITH A ROW OF STAPLES ABOUT 4" DOWN SLOPE FROM THE TRENCH. SPACING BETWEEN STAPLES IS 6".
2. STAPLE THE 4" OVERLAP IN THE CHANNEL CENTER USING AN 18" SPACING BETWEEN STAPLES.
3. BEFORE STAPLING THE OUTER EDGES OF THE MATTING, MAKE SURE THE MATTING IS SMOOTH AND IN FIRM CONTACT WITH THE SOIL.
4. STAPLES SHALL BE PLACED 2' APART WITH 4 ROWS FOR EACH STRIP, 2 OUTER ROWS, AND 2 ALTERNATING ROWS DOWN THE CENTER.
5. WHERE ONE ROLL OF MATTING ENDS AND ANOTHER BEGINS, THE END OF THE TOP STRIP SHALL OVERLAP THE UPPER END OF THE LOWER STRIP BY 4", SHIPLAP FASHION. REINFORCE THE OVERLAP WITH A DOUBLE ROW OF STAPLES SPACED 6" APART IN A STAGGERED PATTERN ON EITHER SIDE.
6. THE DISCHARGE END OF THE MATTING LINER SHOULD BE SIMILARLY SECURED WITH 2 DOUBLE ROWS OF STAPLES.

NOTE: IF FLOW WILL ENTER FROM THE EDGE OF THE MATTING THEN THE AREA EFFECTED BY THE FLOW MUST BE KEYED-IN.

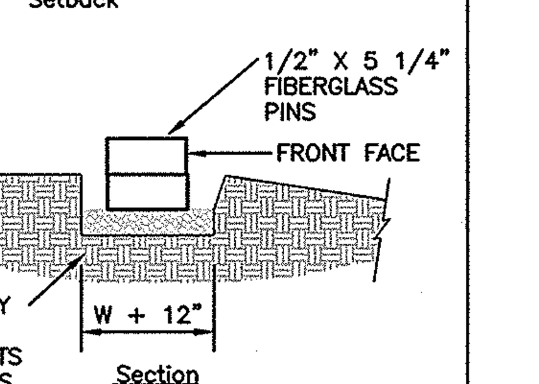
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G-22-2, 2A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



TYPICAL GRAVITY WALL SECTION
Standard Unit — 1" Setback
NTS

NOTES:
1. THE PROPOSED CONSTRUCTION OF THE RETAINING WALL SHALL BE PERFORMED UNDER THE OBSERVATION OF A MARYLAND REGISTERED PROFESSIONAL ENGINEER
2. THE LEVELING PAD IS TO BE CONSTRUCTED OF CRUSHED STONE OR 2000 PSI ± UNREINFORCED CONCRETE.
3. SECURE ALL CAP UNITS WITH KEYSTONE KAPSEAL OR EQUAL.

FOUNDATION SOILS MUST BE EXAMINED BY THE SOILS ENGINEER TO ASSURE THE ACTUAL FOUNDATION SOIL STRENGTH MEETS OR EXCEEDS ASSUMED DESIGN STRENGTHS.



LEVELING PAD DETAIL
NTS

RETAINING WALL SECTION

NOT TO SCALE

B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDENS, LANDSCAPE INFILTRATION & INFILTRATION BERMS

1. MATERIAL SPECIFICATIONS
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.

2. FILTERING MEDIA OR PLANTING SOIL
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-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 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:
• SOIL COMPONENT — LOAMY SAND OR SANDY LOAM (USDA SOIL TEXTURAL CLASSIFICATION)
• 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 (30%), COARSE SAND (30%), AND COMPOST (40%).
• CLAY CONTENT — MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%.
• pH RANGE — SHOULD BE BETWEEN 5.5 — 7.0. AMENDMENTS (E.G. LIME, IRON SULFATE PLUS SULFUR) MAY BE MIXED INTO THE SOIL TO INCREASE OR DECREASE pH.
THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.

3. COMPACTION
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.4.5 SUPP. 1 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 FAILURE.
COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE 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 HEAVY EQUIPMENT.
ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE.
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 FINAL GRADE.
WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY 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 COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

4. PLANT MATERIAL
RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.

5. PLANT INSTALLATION
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 NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.
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 COVER AFTER INSTALLATION. APPENDIX B.4. CONSTRUCTION SPECIFICATIONS FOR ENVIRONMENTAL SITE DESIGN PRACTICES SUPP. 1 B.4.6
TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.
GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND 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 NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

6. UNDERDRAINS
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:
• 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., PVC OR HDPE).
• PERFORATIONS — IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE ⅜" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A ¼" (NO. 4 OR 4X4) GALVANIZED HARDWARE CLOTH.
• GRAVEL — THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.
• 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.
• A 4" LAYER OF PEA GRAVEL (1/8" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".
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-FEET OF SURFACE AREA).

7. MISCELLANEOUS
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

MAINTENANCE AND INSPECTION SCHEDULE

THESE MAINTENANCE ITEMS SHOULD BE PERFORMED BY THE OWNER AND AT THE OWNER'S EXPENSE:

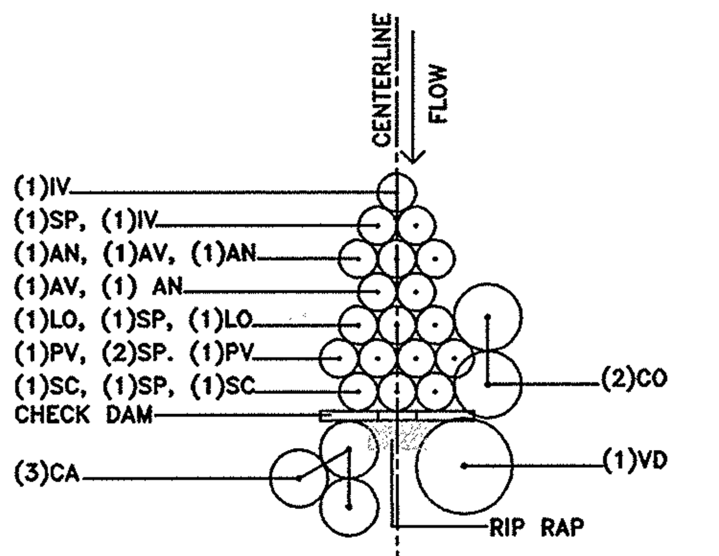
1. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE 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.
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.
3. 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.
4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.
5. REMOVE LITTER AND DEBRIS.
6. INSPECT CLEANOUTS. NO WATER SHOULD BE VISIBLE 72 HOURS AFTER RAINFALLS. IF WATER IS VISIBLE, UNDERDRAIN MAY BE CLOGGED AND SHOULD BE CLEANED OUT WITH STANDARD PLUMBING EQUIPMENT.
7. IF WATER IS STANDING IN THE FACILITY FOR SIGNIFICANTLY LONGER THAN 72 HOURS AND THERE IS NO WATER VISIBLE IN THE CLEANOUTS, THE FILTER MATERIAL MAY BE CLOGGED. THE AREA MUST BE EXCAVATED AND REBUILT IN ACCORDANCE WITH THESE PLANS.

SWM BIO-SWALE FACILITIES PLANT LIST

QUANTITY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	CONDITION	COMMENT
SHRUBS							
4	CO	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	12-18" HT	9' O.C.		
6	CA	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	12-18" HT	9' O.C.	CONT.	
2	VD	VIBURNUM DENTATUM	ARROWWOOD	12-18" HT	9' O.C.		
12							
HERBACEOUS EMERGENT							
3	AN (S)	ASTER NOVIBELGII	NEW YORK ASTER	1 GAL	II	CONT	
2	AV (S)	ANDROPOGAN VIRGINICUS	BROOM SEDGE	1 GAL	18" O.C.	CONT	
2	IV (S)	IRIS VERSICOLOR	BLUE WATER IRIS	1 GAL	18" O.C.	CONT	
2	LO (S)	LEARMIS ORYXOIDES	RICE CATGRASS		2' O.C.	BR/PP	
2	PV (S)	PANICUM VIRGATUM	SWITCHGRASS		18" O.C.	BR/PP	
2	SC (S)	SCIRPUS CYPERINUS	WOOL GRASS	1 GAL	2' O.C.	CONT	
5	SP (P)	SCRIPUS PUNGENA	COMMON THREE-SQUARE		4' O.C.	BR/PP	6" MIN. WATER DEPTH
18							

NOTE: PRIMARY (P) SPECIES SHOULD CONSIST OF 25% OF THE PLANT SPECIES INSTALLED.
A MINIMUM OF FOUR (4) SECONDARY (S) SPECIES SHOULD BE ESTABLISHED IN THE PLANTING AREA.

B&B	BALLED & BURLAPPED
BR	BARE ROOT PLANT
CONT.	CONTAINER
HT	HEIGHT
II	IRREGULAR INTERVALS THROUGHOUT PLANTING AREAS.
O.C.	ON CENTER
PP	PEAT POT
QT.	QUART
GAL	GALLON

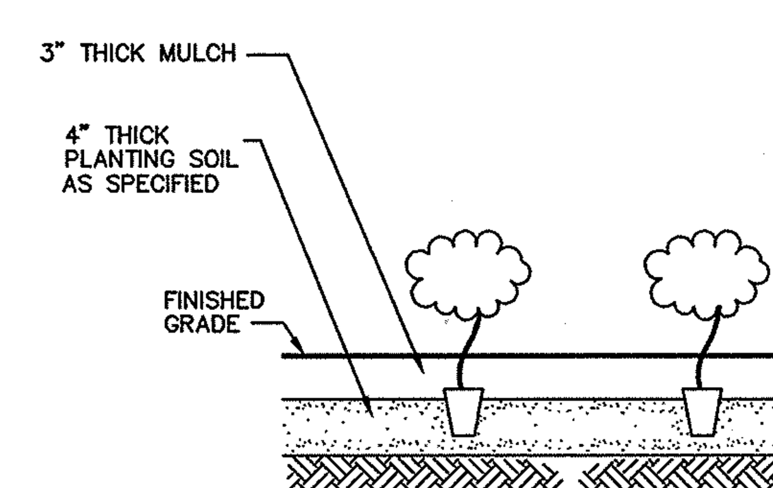


BIO-SWALE LANDSCAPING DETAIL

SCALE: 1" = 10'

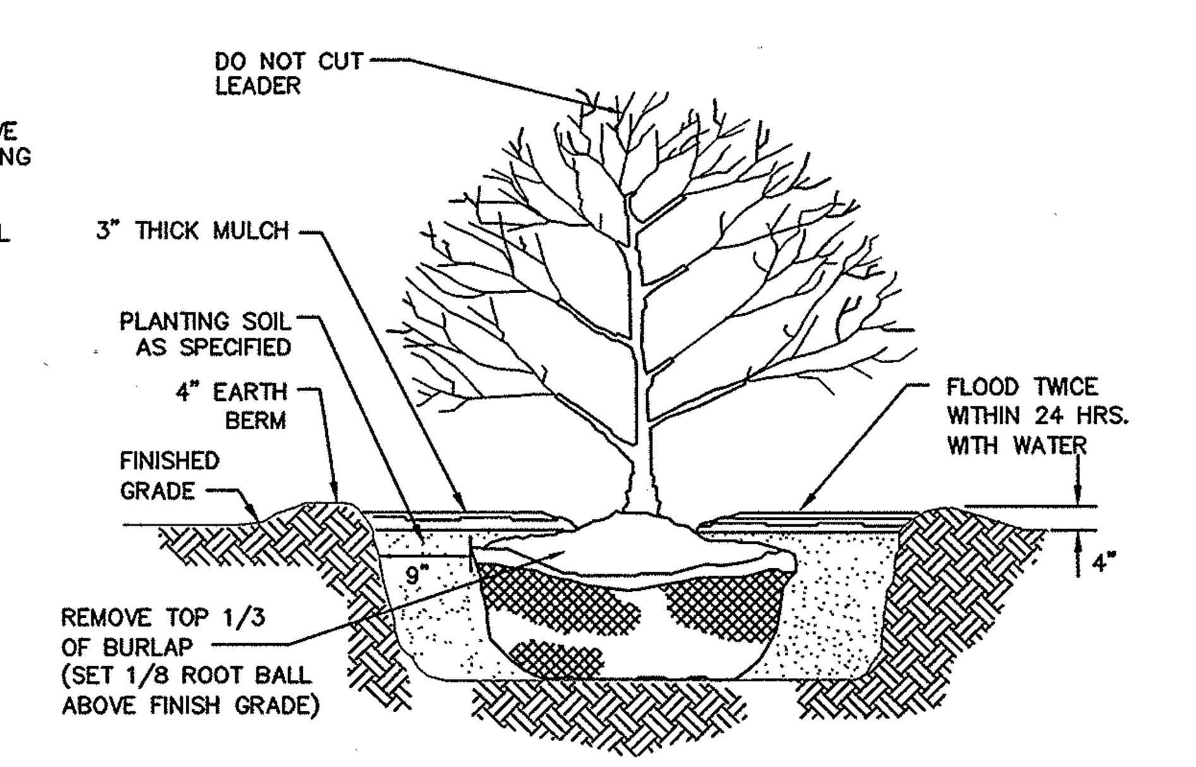
NOTE:
PRUNE ONLY TO CORRECT OR IMPROVE FORM OR TO REMOVE DEAD, CONFLICTING OR DAMAGED BRANCHES.

SEE SPECIFICATIONS FOR ALL MATERIAL AND ADDITIONAL REQUIREMENTS.



GROUNDCOVER PLANTING DETAIL

NOT TO SCALE



NOTE:
SHRUBS SHALL BE PLANTED IN TILLED, MULCHED BEDS WHICH HAVE BEEN AMENDED WITH EITHER PEAT MOSS OR COMPOSTED LEAF MOLD.

SHRUB PLANTING DETAIL

NOT TO SCALE

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 NUMBER 16597, EXPIRATION DATE: 08-15-2015

DESIGN AND DRAWINGS ARE BASED ON MARYLAND COORDINATE SYSTEM (MCS).
HORIZONTAL — NAD 83/91.
VERTICAL — NAVD 88.

ADDRESS CHART	
Lot/Parcel #	Street Addresses
58 PAR A	10291 BALTIMORE NATIONAL PIKE

PERMIT INFORMATION CHART

Subdivision Name			Section/Area		Lot/Parcel No.
MARIE N. LONG PROPERTY			N.A.		58 PAR A
PLAT #	Grid #	Zoning	Tax Map No.	Election District	Census Tract
6063	1	B-2	24	2	-
Water Code			Sewer Code		
--			--		

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division	Date 10.1.14
Chief, Division of Land Development	Date 10-06-14
Director	Date 10/7/14

Richardson Engineering, LLC
30 East Padonia Road, Suite 500
Timonium, Maryland 21093
Phone: 410-560-1502 Fax: 443-901-1208

STATE OF MARYLAND — PATRICK C. RICHARDSON — NO. 16597 — REGISTERED PROFESSIONAL ENGINEER
Engineer — Date 7/24/14

OWNERS/DEVELOPER
OWNER:
10291 BALTIMORE NATIONAL PIKE LLC
17500 FREDERICK ROAD
MT. AIRY, MD 21771
DEVELOPER:
10291 BALTIMORE NATIONAL PIKE LLC
17500 FREDERICK ROAD
MT. AIRY, MD 21771

NOVELTY STORE
10291 BALTIMORE NATIONAL PIKE
REVISED SITE DEVELOPMENT PLAN
SWM NOTES (SDP 72-095)
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

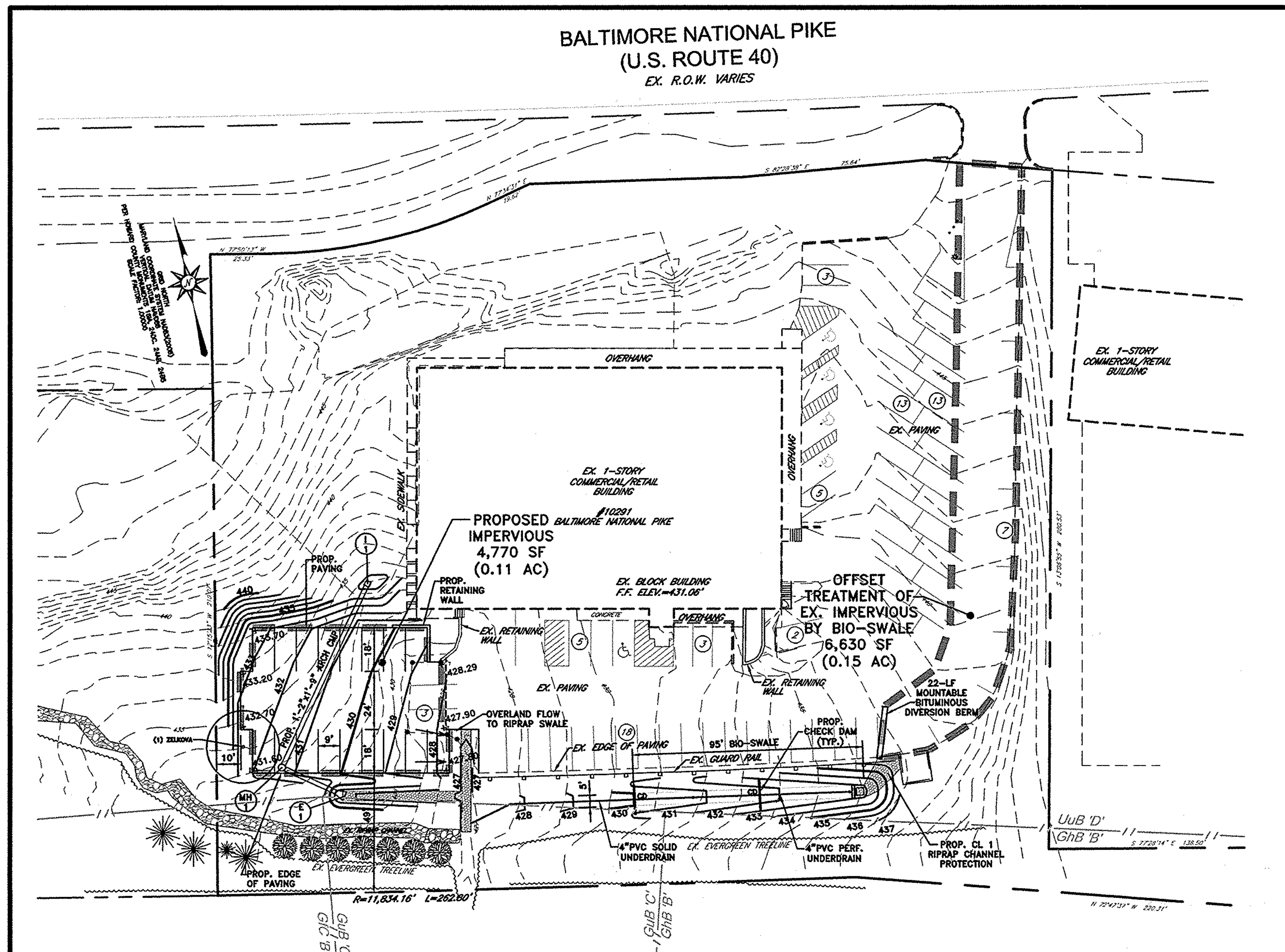
DATE	REVISION	BY
7/24/14	ADDITIONAL SHEETS FOR SWM	RENG

DRAWING COMPLETED 09-09-13

DESIGNED BY: BTK	SCALE: AS SHOWN	TAX MAP 24 GRID 1	ADC MAP 11 GRID F7	JOB # 12004	SHEET
DRAWN BY: BTK	DEED REF. 6277/93	PARCEL 58 PAR A	PLAT REF. 6063	FILES D:\JOBS\2012\12004\DRAWINGS\12004sdp-swm5-6.dwg	NO. 7 OF 7
CHECKED BY: PCR					

SDP-72-095

G:\Jobs\Jobs2012\12004-10291 Balto National Pike\Drawings\12004sdp-redline6-7.dwg, 7/28/2014 11:36:16 AM, RengPlotSettingMylar.pc3



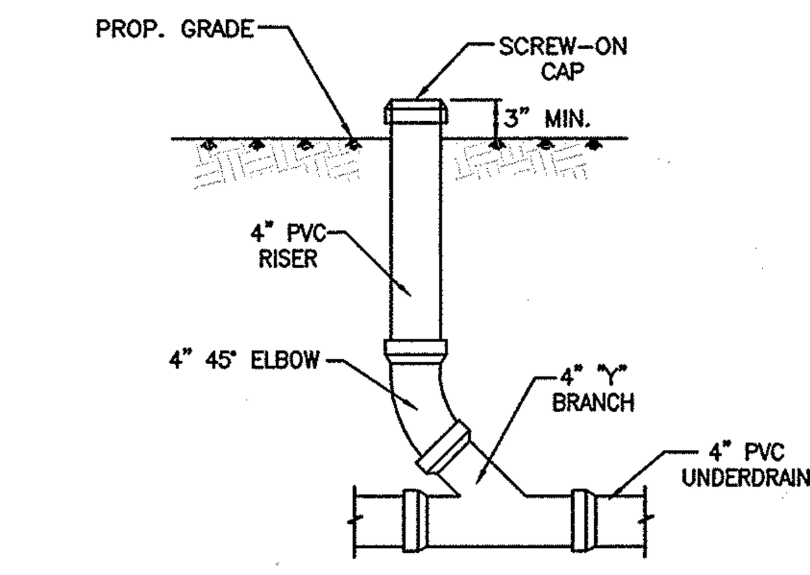
DRAINAGE AREA MAP

SCALE: 1" = 40'

TABLE B.4.1 MATERIALS SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDENS & LANSCAPE INFILTRATION

MATERIAL	SPECIFICATION/TEST METHOD	SIZE	NOTES
PLANTINGS	SEE APPENDIX A, TABLE A.4	N/A	PLANTINGS ARE SITE SPECIFIC
PLANTING SOIL (2' TO 4' DEEP)	LOAMY SAND (60–65%) & COMPOST (35–40%) OR SANDY LOAM (30%) COURSE SAND (30%) COMPOST (40%)	N/A	USDA SOIL TYPES LOAMY SAND OR SANDY LOAM; CLAY CONTENT < 5%
ORGANIC CONTENT	MIN. 10% BY DRY WEIGHT (ASTM D 2974)		
MULCH	SHREDDED HARDWOOD		AGED 6 MONTHS, MINIMUM; NO PINE OR WOOD CHIPS
PEA GRAVEL DIAPHRAM	PEA GRAVEL: ASTM D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
GEOTEXTILE		N/A	PE TYPE 1 NONWOVEN
GRAVEL (UNDERDRAINS & INFILTRATION BERMS)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" TO 3/4")	
UNDERDRAIN PIPING	F758, TYPE PS 28 OR AASHTO M-278	4" TO 6" RIGID SCHEDULE 40 PVC OR SDR35	SLOTTED OR PERFORATED PIPE; 3/8" PERF. @ 6" ON CENTER, 4 HOLES PER ROW; MINIMUM OF 3" OF GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES. PERFORATED PIPE SHALL BE WRAPPED WITH 1/4" GALVANIZED HARDWIRE CLOTH.
CAST-IN-PLACE CONCRETE (IF REQUIRED)	MSHA MIX NO. 3, f'c=3500 PSI @ 28 DAYS, NORMAL WEIGHT, AIR-ENTRAINED; REINFORCING TO MEET ASTM-615-60	N/A	ON-SITE TESING OF POURED-IN-PLACE CONCRETE REQUIRED: 28 DAY STRENGTH & SLUMP TEST; ALL CONCRETE DESIGN (CAST-IN-PLACE OR PRE-CAST) NOT USING PREVIOUSLY APPROVED STATE OR LOCAL STANDARDS REQUIRES DESIGN DRAWINGS SEALED & APPROVED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MARYLAND, – DESIGN TO INCLUDE MEETING ACI CODE 350.R/89; VERTICAL LOADING (H-10 OR H-20); ALLOWABLE HORIZONTAL LOADING (BASED ON SOIL PRESSURES); AND ANALYSIS OF POTENTIAL CRACKING.
SAND	AASHTO-M-6 OR ASTM-C-33	0.02" TO 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE (AASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND

THE SIMPLIFIED ECP APPROVAL GRANTED ON JULY 11, 2013



CLEANOUT DETAIL

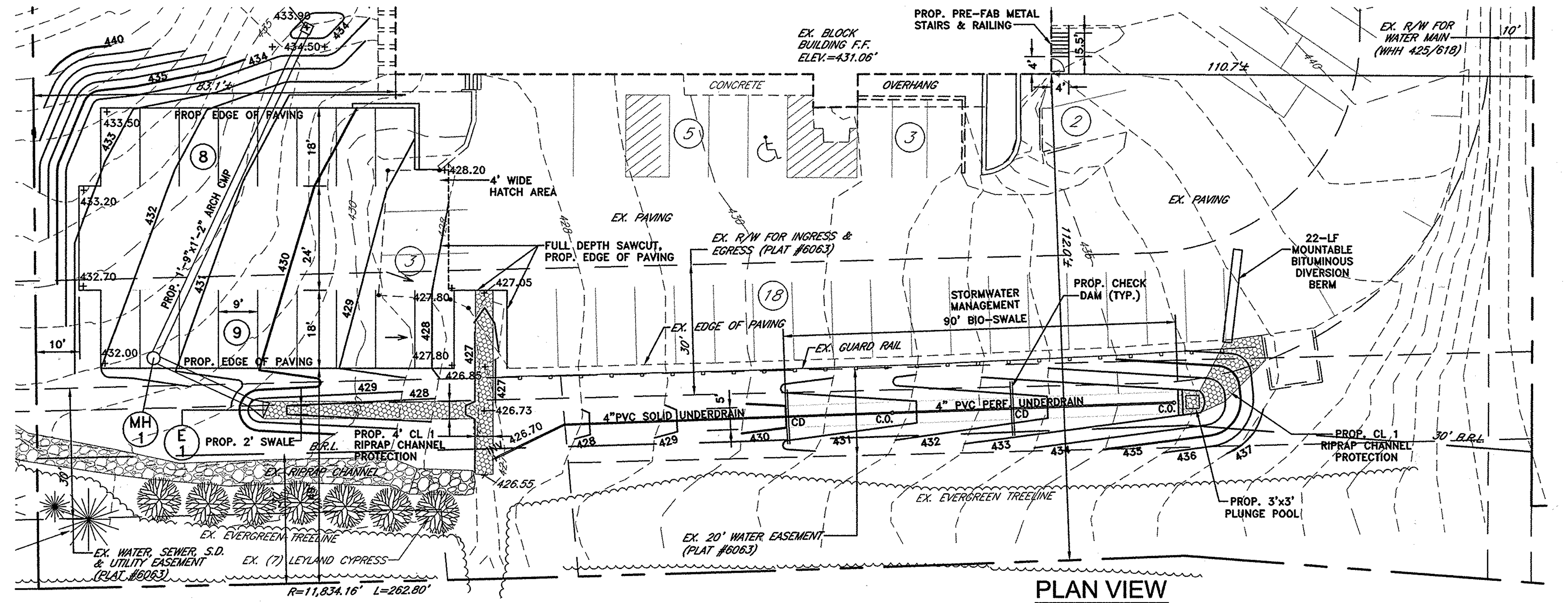
SCALE: 1/16" = 1"

ENVIRONMENTAL NOTES

1. WATERSHED: PATUXANT RIVER
2. THE SITE DOES NOT LIE WITHIN THE CHESAPEAKE BAY CRITICAL AREA.
3. NO FLOODPLAINS OR WETLANDS EXIST ON SITE.
4. HYDROLOGIC SOIL GROUP
   UuB – 'D' SOILS
   GuB – 'C' SOILS
   GfC & GhB – 'B' SOILS
5. PROPOSED IMPROVEMENTS WILL ADD APPROXIMATELY 4,770 SF OF IMPERVIOUS AREA.
6. THIS PROJECT COMPLIES WITH THE REGULATIONS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION WITH AN OBLIGATION APPLIED TO 13,600-SF OF SITE DISTURBANCE. THE TOTAL REFORESTATION/AFFORESTATION REQUIRED IS 0.05-AC (2,178 S.F.). A FEE-IN-LIEU PAYMENT OF $1,633.50 (2,178 S.F.x $0.75/SF) WILL BE ACCESSED. THIS OBLIGATION IS TO FULFILL THE CHANGES UNDER REDLINE REVISION #2.

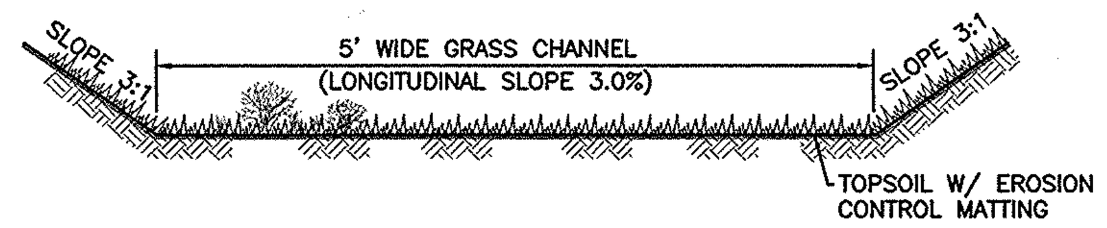
SITE ANALYSIS DATA CHART

1. SITE AREA.......... 2.33 AC
2. AREA OF WETLAND AND WETLAND BUFFERS..... 0.0 AC
3. AREA OF FLOODPLAIN.......... 0.0 AC
4. AREA OF FOREST.......... 0.12 AC
5. AREA OF STEEP SLOPES 15% AND GREATER.... 0.09 AC
6. AREA OF STEEP SLOPES 25% AND GREATER.... 0.09 AC
7. LIMIT OF DISTURBANCE.......... 0.31 AC
8. GREEN OPEN AREA.......... 0.56 AC
9. PROPOSED IMPERVIOUS AREA.......... 0.11 AC
10. PROPOSED/EXISTING USE OF THE SITE.......... COMMERCIAL



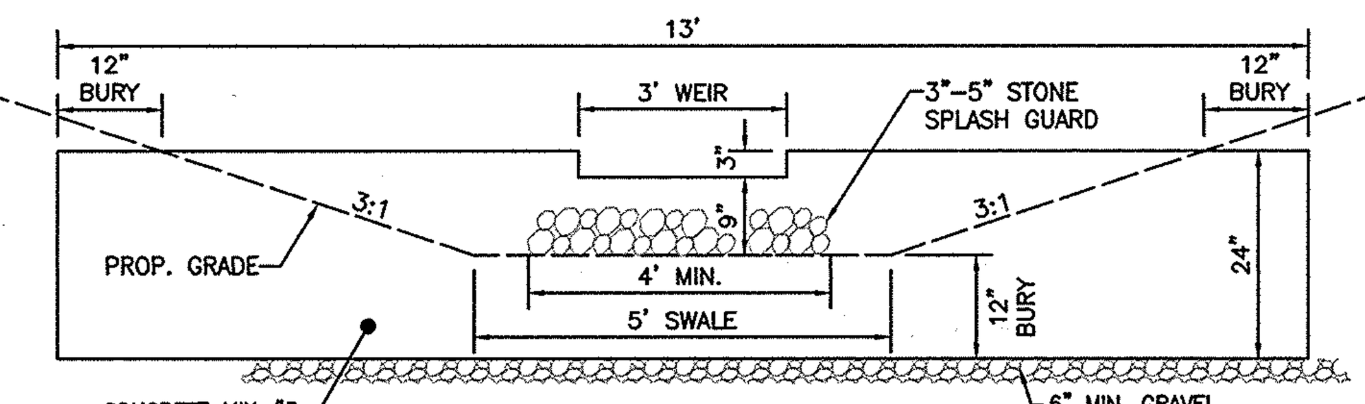
PLAN VIEW

SCALE: 1" = 20'



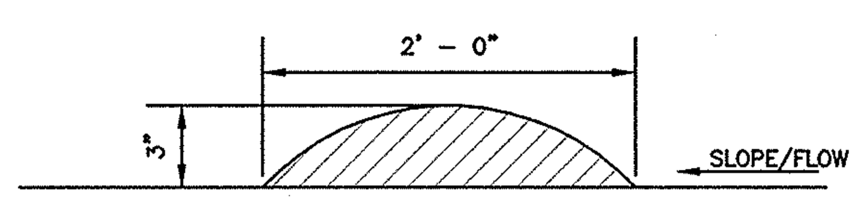
GRASS CHANNEL SECTION

SCALE: 3/4" = 1'



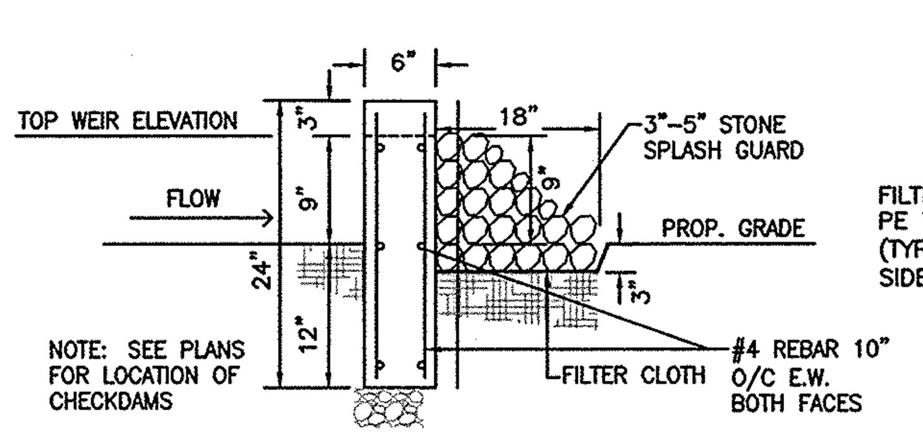
CHECKDAM SECTION A-A

SCALE: 1/2" = 1'



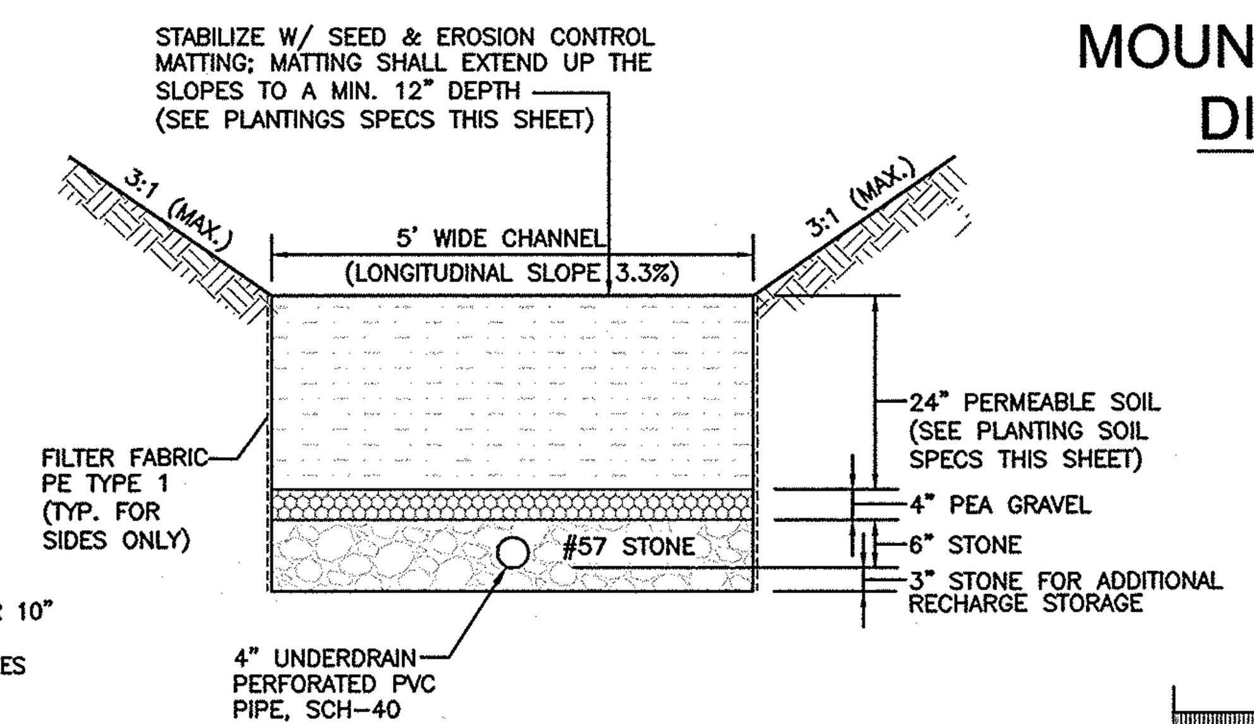
MOUNTABLE BITUMINOUS DIVERSION BERM

NOT TO SCALE



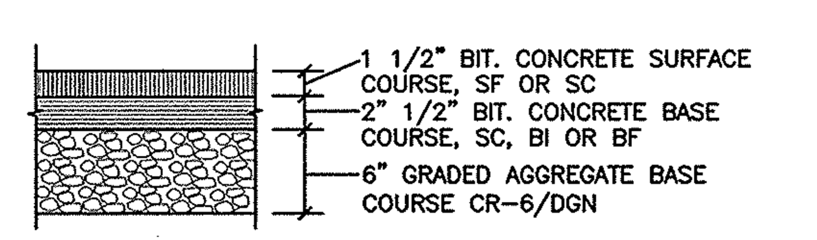
CHECKDAM SECTION 'B-B'

SCALE: 3/4" = 1'



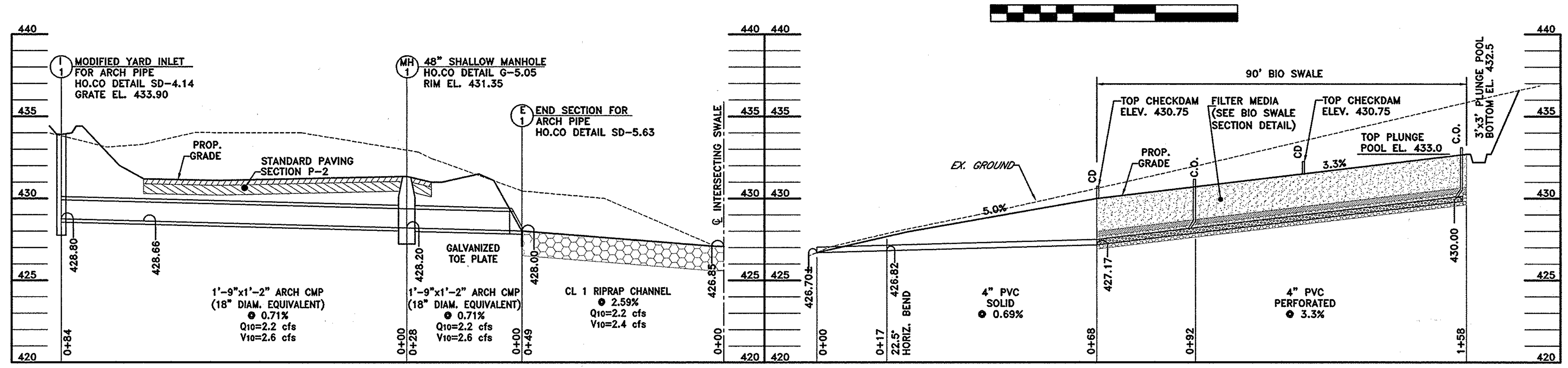
SWALE SECTION 'C-C'

SCALE: 1/2" = 1'



P-2 PAVING SECTION

NOT TO SCALE



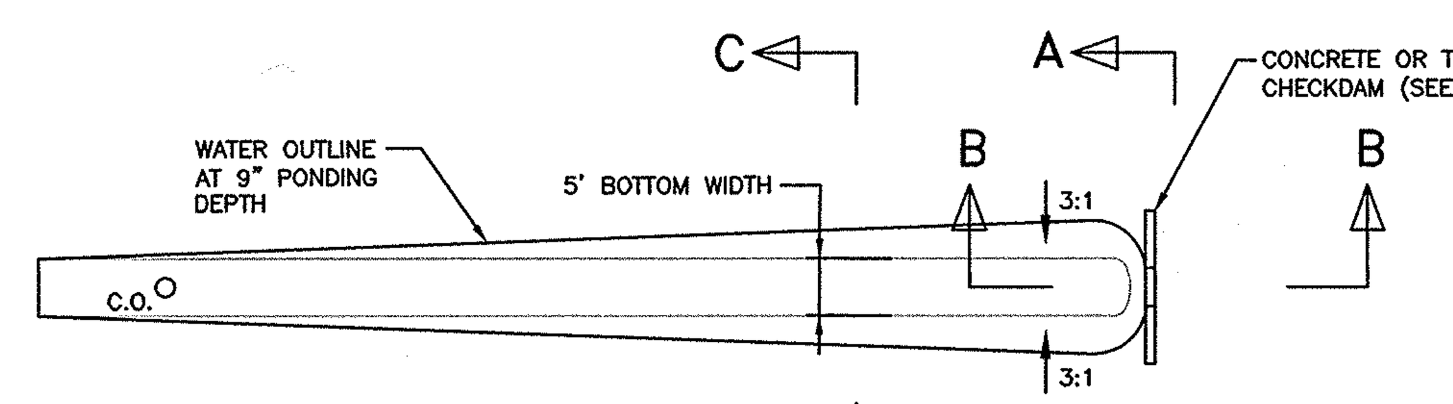
STORM DRAIN PROFILE

SCALE: H: 1" = 20'
V: 1" = 5'

BIO SWALE PROFILE

SCALE: H: 1" = 20'
V: 1" = 5'

LIMIT OF DISTURBANCE = 13,600 SF (0.31 AC.)



PLAN

BIO-SWALE & CHECKDAM DETAIL

NOT TO SCALE

SCALE: 1/16" = 1'

STRUCTURE SCHEDULE

NO.	TYPE	DESIGN Q (10-YR)	INVERT IN	INVERT IN	TOP OF RIM	REMARKS
I-1	YARD INLET SD-4.14	2.2	NA	428.80	433.90	N 587464.75 E 1349557.76
MH-1	48" SHALLOW MH G-5.05	2.2	428.20	428.20	431.35	N 587398.55 E 1349506.51
E-1	END SECTION SD-5.63	2.2	NA	428.00	NA	N 587381.14 E 1349529.07

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HORIZONTAL – NAD 83/91.
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Lot/Parcel #	Street Addresses
58 PAR A	10291 BALTIMORE NATIONAL PIKE

PERMIT INFORMATION CHART

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PLAT #	Grid #	Zoning	Tax Map No.	Election District	Census Tract
6063	1	B-2	24	2	–
Water Code			Sewer Code		
--			--		

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[signature]	10 · 1 · 14
Chief, Development Engineering Division	Date
[signature]	10-06-14
Chief, Division of Land Development	Date
[signature]	10/7/14
Director	Date

Richardson Engineering, LLC
30 East Padonia Road, Suite 500
Timonium, Maryland 21093
Phone: 410-560-1502 Fax: 443-901-1208

STATE OF MARYLAND · PATRICK C. RICHARDSON, JR · NO. 16597 · REGISTERED PROFESSIONAL ENGINEER

Engineer — Date 7/24/14

OWNERS/DEVELOPER

OWNER:
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MT. AIRY, MD 21771
DEVELOPER:
10291 BALTIMORE NATIONAL PIKE LLC
17500 FREDERICK ROAD
MT. AIRY, MD 21771

NOVELTY STORE
10291 BALTIMORE NATIONAL PIKE
REVISED SITE DEVELOPMENT PLAN
SWM PLAN & PROFILE (SDP 72-095)
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

DATE	REVISION	BY
7/24/14	ADDITIONAL SHEETS FOR SWM	RENG

DRAWING COMPLETED 09-09-13

DESIGNED BY: BTK	SCALE AS SHOWN	TAX MAP 24 GRID 1 PARCEL 58 PAR A	ADC MAP 11 GRID F7	JOB # 12004	SHEET NO. 6 OF 7
DRAWN BY: BTK	DEED REF. 6277/93		PLAT REF. 6063	FILES D:\JOBS\2012\12004\DRAWINGS\12004sdp-swm5-6.dwg	
CHECKED BY: PCR					

SDP-72-095

B-4-2 STANDARDS AND SPECIFICATIONS

SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

Definition

The process of preparing the soils to sustain adequate vegetative stabilization.

Purpose

To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies

Where vegetative stabilization is to be established.

Criteria

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.
      b. Apply fertilizer and lime as prescribed on the plans.
      c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
   2. Permanent Stabilization
      a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
      i. Soil pH between 6.0 and 7.0.
      ii. Soluble salts less than 500 parts per million (ppm).
      iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
         iv. Soil contains 1.5 percent minimum organic matter by weight.
         v. Soil contains sufficient pore space to permit adequate root penetration.
      b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
      c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.
      d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
      e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects 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 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.

B. Topsoiling
   1. 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 moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
   2. Topsoil salvaged from an existing site may be used provided it meets the 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 USDA-NRCS.
   3. Topsoiling is limited to areas having 2:1 or flatter slopes where:
      a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
      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.
      d. The soil is so acidic that treatment with limestone is not feasible.
   4. Areas having slopes steeper than 2:1 require special consideration and design.
   5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
      a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2 inches in diameter.
      b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
      c. 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.
   6. Topsoil Application
      a. Erosion and sediment control practices must be maintained when applying topsoil.
      b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
      c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

C. Soil Amendments (Fertilizer and Lime Specifications)
   1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
   2. 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 warranty of the producer.
   3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve.
   4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
   5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

B-4-3 STANDARDS AND SPECIFICATIONS

SEEDING AND MULCHING

Definition

The application of seed and mulch to establish vegetative cover.

Purpose

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.

A. Seeding
   1. Specifications
      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 inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken 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 dissipation of phyto-toxic materials.
   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 contact.
      b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
         i. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
         ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.

B-4-3 STANDARDS AND SPECIFICATIONS continued

   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; P_2O_5 (phosphorous), 200 pounds per acre; K_2O (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 anyone 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.

B. Mulching
   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 be phyto-toxic.
         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.
   2. Application
      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.
      c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
   3. Anchoring
      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 into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.
         ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
         iii. 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. **Use 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 feet long.

B-4-4 STANDARDS AND SPECIFICATIONS

TEMPORARY STABILIZATION

Definition

To stabilize disturbed soils with vegetation for up to 6 months.

Purpose

To use fast growing vegetation that provides cover on disturbed soils.

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.

Criteria

1. 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 below 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 fertilizer and lime rates must be put on the plan.
2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

TEMPORARY SEEDING SUMMARY

Hardiness Zone (from Figure B.3): 7a Seed Mixture (from Table B.1):					FERTILIZER RATE (10-20-20)	LIME RATE
No.	SPECIES	APPLICATION RATE (Lbs/Ac)	SEEDING DATE	SEEDING DEPTH		
	BARLEY	96 Lbs/Ac 2.2 Lbs/1,000 Sq Ft	Feb 15 to Apr 30; Aug 15 to Nov 30	1 INCH	436 Lbs/Ac 10 Lbs/ 1,000 Sq Ft	2 Tons/Ac 90 Lbs/ 1,000 Sq Ft
	OATS	72 Lbs/Ac 1.65 Lbs/1,000 Sq Ft	Feb 15 to Apr 30; Aug 15 to Nov 30	1 INCH		
	CEREAL RYE	112 Lbs/Ac 2.57 Lbs/1,000 Sq Ft	Feb 15 to Apr 30; Aug 15 to Dec15	1 INCH		
	ANNUAL RYEGRASS	40 Lbs/Ac 0.92 Lbs/1,000 Sq Ft	Feb 15 to Apr 30; Aug 15 to Nov 30	1/2 INCH		
	PEARL MILLET	20 Lbs/Ac 0.46 Lbs/1,000 Sq Ft	May 1 to Aug 14	1/2 INCH		

B-4-5 STANDARDS AND SPECIFICATIONS

PERMANENT STABILIZATION

Definition

To stabilize disturbed soils with permanent vegetation.

Purpose

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for 6 months or more.

Criteria

A. Seed Mixtures
   1. General Use
      a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
      b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
      c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.
      d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary .
   2. Turfgrass Mixtures
      a. Areas where turf grass may be desired 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 or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
      i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
         ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun area where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
         iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
         IV. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.

         Notes: Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

         Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

      c. Ideal Times of Seeding for Turf Grass Mixtures

         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 Zones: 7a,7b)

      d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 1\2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.
      e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (1\2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

PERMANENT SEEDING SUMMARY

Hardiness Zone (from Figure B.3): 7a Seed Mixture (from Table B.1): 1, 6 & 9					FERTILIZER RATE (10-20-20)			LIME RATE
No.	SPECIES	APPLICATION RATE (Lbs/Ac)	*SEEDING DATE	SEEDING DEPTH	N	P205	K20	
1	SWITCH GRASS CREEPING RED FESCUE PARTRIDGE PEA	10 Lbs/Ac 0.23 Lbs/1,000 Sq Ft 15 Lbs/Ac 0.34 Lbs/1,000 Sq Ft 4 Lbs/Ac 0.09 Lbs/1,000 Sq Ft	Feb 15 to Apr 30; May 1 to May 31	1/2 IN	45 lbs/ac (1.0 lb/ 1,000 sf)	90 lbs/ac (2.0 lb/ 1,000 sf)	90 lbs/ac (2.0 lb/ 1,000 sf)	2 tons/ac (90 lbs/ 1,000 sf)
6	TALL FESCUE PERENNIAL BLUEGRASS WHITE CLOVER	40 Lbs/Ac 0.92 Lbs/1,000 Sq Ft 25 Lbs/Ac 0.57 Lbs/1,000 Sq Ft 5 Lbs/Ac 0.11 Lbs/1,000 Sq Ft	Feb 15 to Apr 30; Aug 15 to Oct 31	1/2 IN				
9	TALL FESCUE KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	60 Lbs/Ac 1.38 Lbs/1,000 Sq Ft 40 Lbs/Ac 0.92 Lbs/1,000 Sq Ft 20 Lbs/Ac 0.46 Lbs/1,000 Sq Ft	Feb 15 to Apr 30; Aug 15 to Oct 31	1/2 IN				

*Between May 1 and August 14, add 3.5lls per acre of Foxtail or Pearl Millet to seed mixture No. 6 and 6.0lbs per acre of Foxtail or Pearl Millet to seed mixture No. 9.

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).
   1. General Specifications
      a. Class of turf grass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector.
      b. Sod must be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable.
      c. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
      d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
      e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation.
   2. Sod Installation
      a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod.
      b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
      c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.
      d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.
   3. Sod Maintenance
      a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting.
      b. After the first week, sod watering is required as necessary to maintain adequate moisture content.
      c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

B-4-1 STANDARDS AND SPECIFICATIONS

INCREMENTAL STABILIZATION

Definition

Establishment of vegetative cover on cut and fill slopes.

Purpose

To provide timely vegetative cover on cut and fill slopes as work progresses.

Conditions Where Practice Applies

Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

Criteria

A. Incremental Stabilization - Cut Slopes
   1. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all cut slopes as the work progresses.
   2. Construction sequence example (Refer to Figure B.I):
      a. Construct and stabilize all temporary swales or dikes that will be used to convey runoff around the excavation.
      b. Perform Phase 1 excavation, prepare seedbed, and stabilize.
      c. Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as necessary.
      d. Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.

   Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

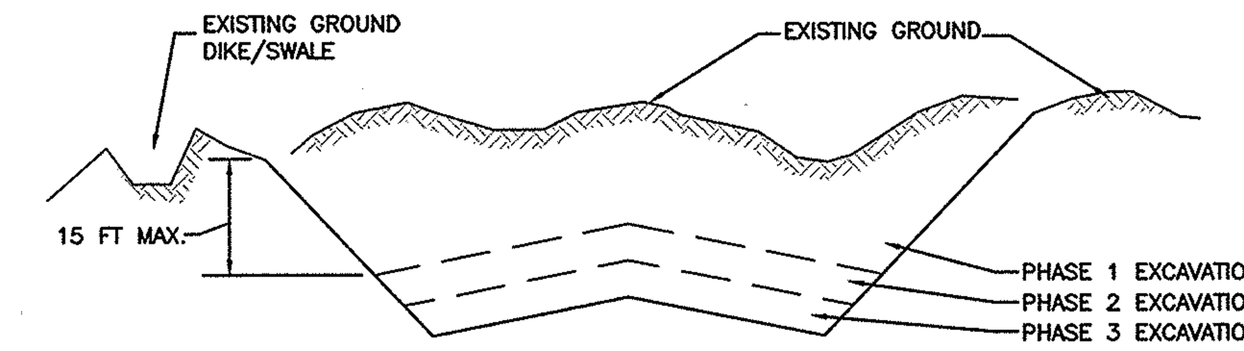


Figure B.I: Incremental Stabilization - Cut

B. Incremental Stabilization - Fill Slopes
   1. Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses.
   2. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading operation ceases as prescribed in the plans.
   3. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
   4. Construction sequence example (Refer to Figure B.2):
      a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fill. Construct silt fence on low side of fill unless other methods shown on the plans address this area.
      b. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
      c. Place Phase 1 fill, prepare seedbed, and stabilize.
      d. Place Phase 2 fill, prepare seedbed, and stabilize.
      e. Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

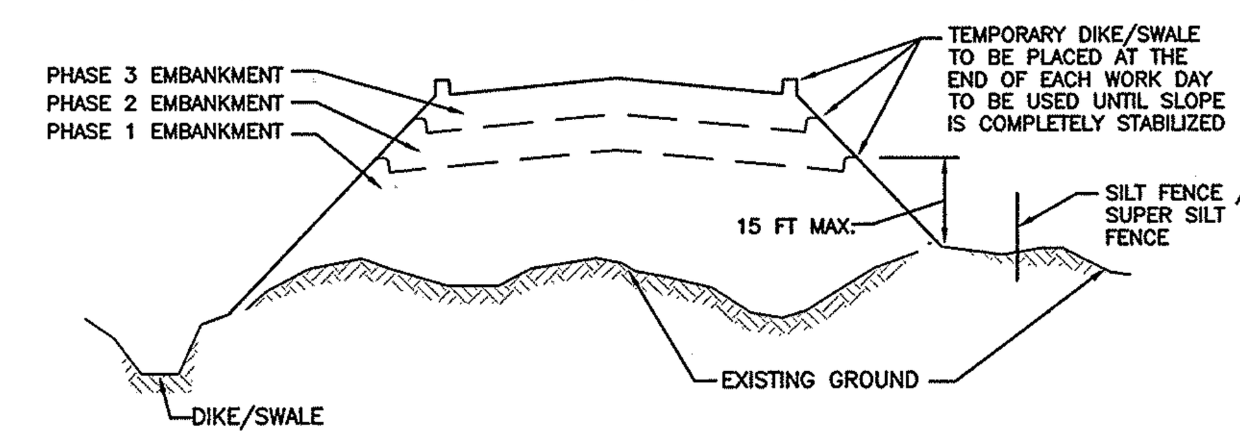


Figure B.2: Incremental Stabilization - Fill

B-4-8 STANDARDS AND SPECIFICATIONS

STOCKPILE AREA

Definition

A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

Purpose

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.

Criteria

1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.
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 device 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. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary 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 be covered with impermeable sheeting.

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 a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

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

[signature] 10/2/14

SOIL CONSERVATION DISTRICT — DATE

ADDRESS CHART	
Lot/Parcel #	Street Addresses
58 PAR A	10291 BALTIMORE NATIONAL PIKE

PERMIT INFORMATION CHART

Subdivision Name			Section/Area		Lot/Parcel No.
MARIE N. LONG PROPERTY			N.A.		58 PAR A
PLAT #	Grid #	Zoning	Tax Map No.	Election District	Census Tract
6063	1	B-2	24	2	-
Water Code			Sewer Code		
--			--		

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 NUMBER 16597, EXPIRATION DATE: 08-15-2015

DESIGN AND DRAWINGS ARE BASED ON MARYLAND COORDINATE SYSTEM (MCS).
HORIZONTAL - NAD 83/91.
VERTICAL - NAVD 88.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[signature]	10.1.14
Chief, Development Engineering Division	Date
[signature]	10-06-14
Chief, Division of Land Development	Date
[signature]	10/7/14
Director	Date

Richardson Engineering, LLC
30 East Padonia Road, Suite 500
Timonium, Maryland 21093
Phone: 410-560-1502 Fax: 443-901-1208

STATE OF MARYLAND — PATRICK C. RICHARDSON — NO. 16597 — REGISTERED PROFESSIONAL ENGINEER

Engineer — Date 7/24/14

OWNERS/DEVELOPER

OWNER:
10291 BALTIMORE NATIONAL PIKE LLC
17500 FREDERICK ROAD
MT. AIRY, MD 21771
DEVELOPER:
10291 BALTIMORE NATIONAL PIKE LLC
17500 FREDERICK ROAD
MT. AIRY, MD 21771

NOVELTY STORE
10291 BALTIMORE NATIONAL PIKE
REVISED SITE DEVELOPMENT PLAN
ESC NOTES (SDP 72-095)
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

DATE	REVISION	BY
7/24/14	ADDITIONAL SHEETS FOR SWM	RENG

DRAWING COMPLETED 09-09-13

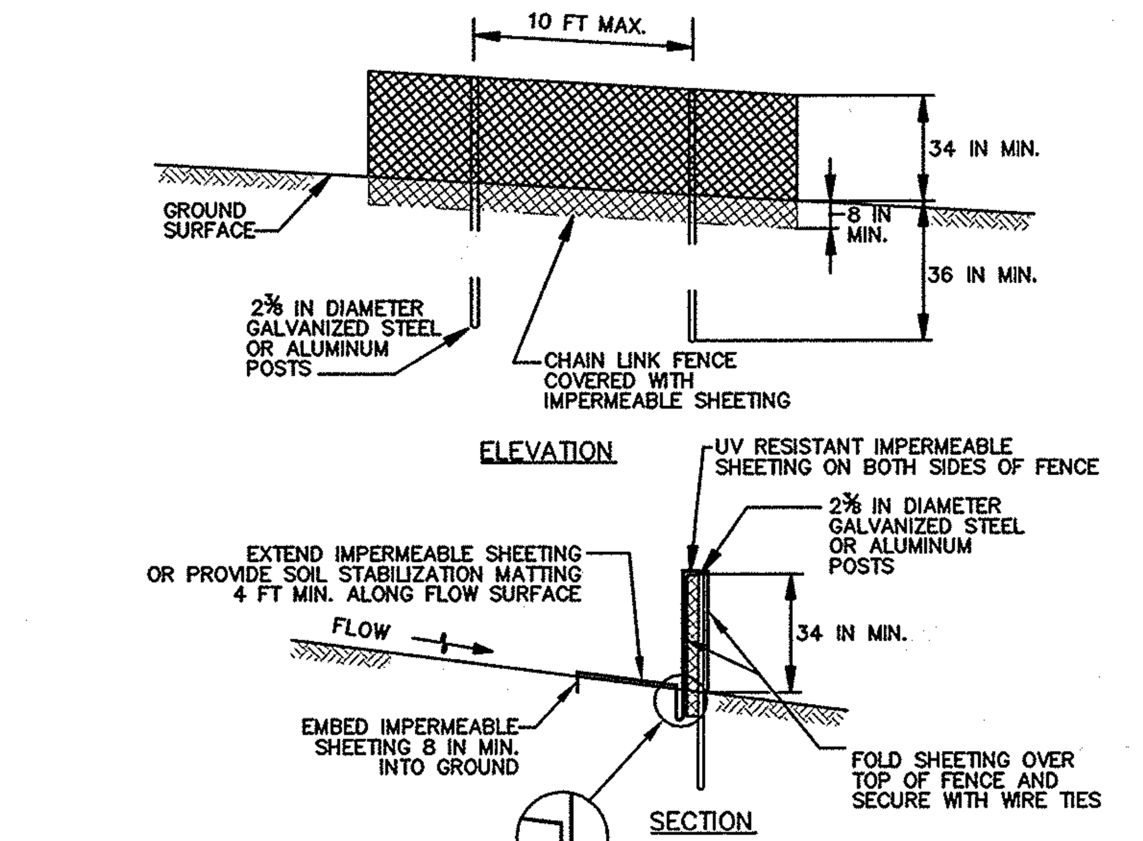
DESIGNED BY: BTK	SCALE: AS SHOWN	TAX MAP 24 GRID 1 PARCEL 58 PAR A	ADC MAP 11 GRID F7	JOB # 12004	SHEET NO. 5 OF 7
DRAWN BY: BTK	DEED REF. 6277/93		PLAT REF. 6063	FILES D:\JOBS\2012\12004\DRAWINGS\12004sdp-esc3-4.dwg	
CHECKED BY: PCR					

SDP-72-095

DETAIL C-9 DIVERSION FENCE

STANDARD SYMBOL: ——DF——

MAXIMUM DRAINAGE AREA = 2 ACRES



CONSTRUCTION SPECIFICATIONS

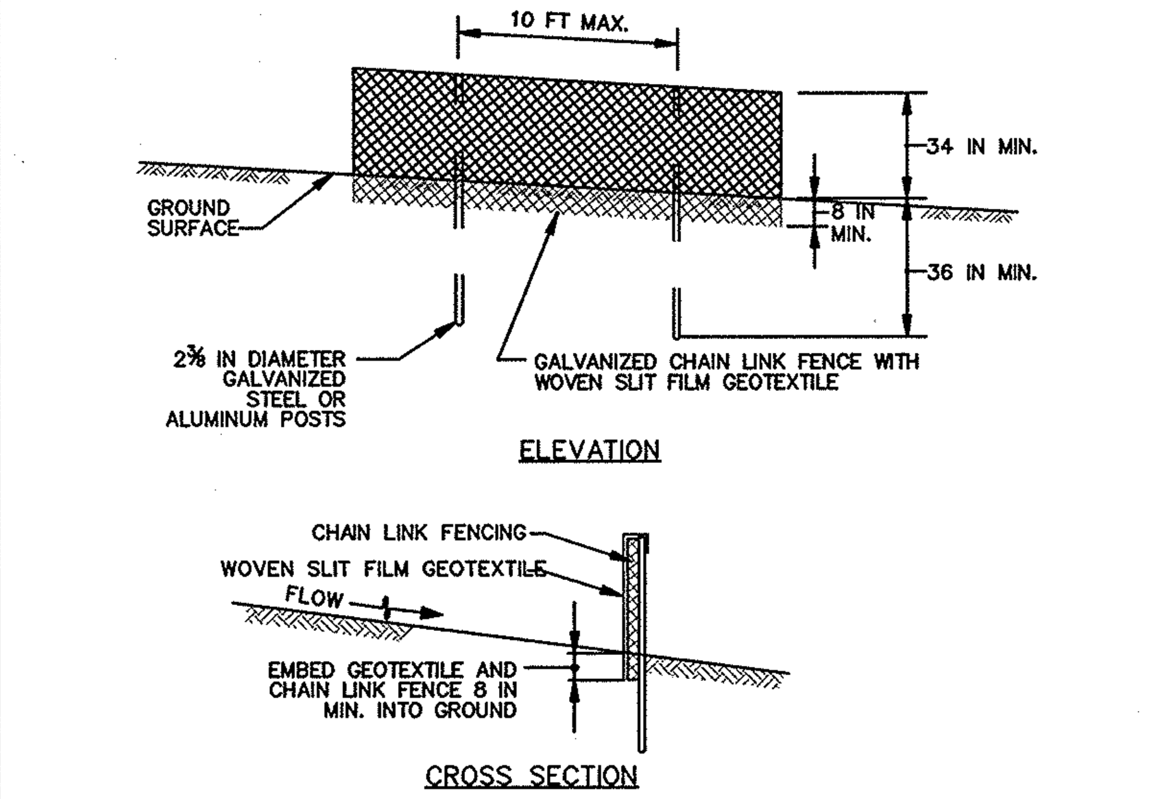
1. USE 42 INCH HIGH, 9 GAUGE OR THICKER CHAIN LINK FENCING (2⅜ INCH MAXIMUM OPENING).
2. USE 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
3. FASTEN CHAIN LINK FENCE SECURELY TO THE FENCE POSTS WITH WIRE TIES.
4. SECURE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT TOP, MID SECTION, AND BELOW GROUND SURFACE.
5. EXTEND SHEETING A MINIMUM OF 4 FEET ALONG FLOW SURFACE AND EMBED END A MINIMUM OF 8 INCHES INTO GROUND. SOIL STABILIZATION MATTING MAY BE USED IN LIEU OF IMPERMEABLE SHEETING ALONG FLOW SURFACE.
6. WHEN TWO SECTIONS OF SHEETING ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM FACING DOWNGRADE.
7. KEEP FLOW SURFACE ALONG DIVERSION FENCE AND POINT OF DISCHARGE FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE. REPLACE IMPERMEABLE SHEETING IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-3 SUPER SILT FENCE

STANDARD SYMBOL: ——SSF——



CONSTRUCTION SPECIFICATIONS

1. INSTALL 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

H-1 STANDARDS & SPECIFICATIONS FOR MATERIALS

Table H.1: Geotextile Fabrics

PROPERTY	TEST METHOD	WOVEN SLIT FILM GEOTEXTILE MD	CD	WOVEN MONOFILAMANT GEOTEXTILE MD	CD	NONWOVEN GEOTEXTILE MD	CD
		MINIMUM AVERAGE ROLL VALUE[1]					
GRAB TENSILE STRENGTH	ASTM D-4632	200 lb	200lb	370 lb	250lb	200 lb	200lb
GRAB TENSILE ELONGATION	ASTM D-4632	15%	10%	15%	15%	50%	50%
TRAPAZOIDAL TEAR STRENGTH	ASTM D-4533	75 lb	75 lb	100 lb	60 lb	80 lb	80 lb
PUNCTURE STRENGTH	ASTM D-6241	450 lb		900 lb		450 lb	
APPARENT OPENING SIZE[2]	ASTM D-4751	U.S. Seive 30 (0.59 mm)		U.S. Seive 70 (0.21 mm)		U.S. Seive 70 (0.21 mm)	
PERMITTIVITY	ASTM D-4491	0.05 sec^{-1}		0.28 sec^{-1}		1.1 sec^{-1}	
ULTRAVIOLET RESISTANCE RETAILED AT 500 HOURS	ASTM D-4355	70% strength		70% strength		70% strength	

[1] ALL NUMERIC VALUES EXCEPT APPARENT OPENING SIZE (AOS) REPRESENT MINIMUM AVERAGE ROLL VALUES (MARV).
MARV IS CALCULATED AS THE TYPICAL MINUS TWO STANDARDS DEVIATIONS. MD IS MACHINE DIRECTION; CD IS CROSS DIRECTION.

[2] VALUES FOR AOS REPRESENT THE AVERAGE MAXIMUM OPENING.

GEOTEXTILES MUST BE EVALUATED BY THE NATIONAL TRANSPORTATION PRODUCT EVALUATION PROGRAM (NTPEP) AND CONFORM TO THE VALUES IN TABLE H.1.

THE GEOTEXTILE MUST BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS AND MUST BE ROT AND MILDEW RESISTANT. THE GEOTEXTILE MUST BE MANUFACTURES FROM FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS AND COMPOSED OF A MINIMUM OF 95 PERCENT BY WEIGHT OF POLYOLEFINS OR POLYESTERS, AND FORMED INTO A STABLE NETWORK SO THE FILAMENTS OR YARNS RETAIN THEIR DIMENSIONAL STABILITY RELATIVE TO EACH OTHER, INCLUDING SELVAGES.

WHEN MORE THAN ONE SECTION OF GEOTEXTILE IS NECESSARY, OVERLAP THE SECTIONS BY AT LEAST ONE FOOT. THE GEOTEXTILE MUST BE PULLED TAUT OVER THE APPLIED SURFACE. EQUIPMENT MUST NOT RUN OVER THE EXPOSED FABRIC. WHEN PLACING RIPRAP ON GEOTEXTILE, DO NOT EXCEED A ONE FOOT DROP HEIGHT.

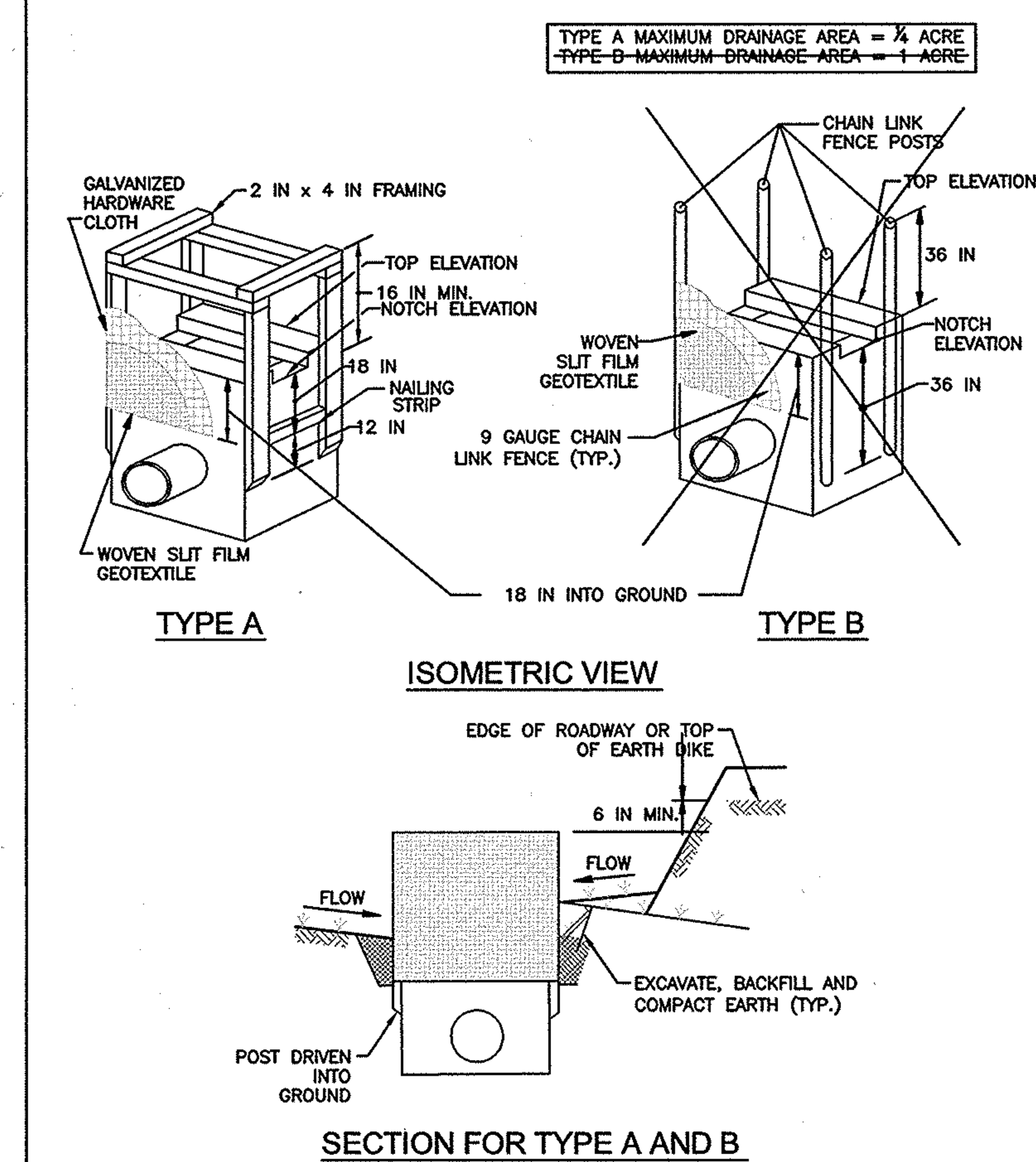
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL: SIP

TYPE A MAXIMUM DRAINAGE AREA = ¼ ACRE
~~TYPE B MAXIMUM DRAINAGE AREA = 1 ACRE~~



1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL: SIP

CONSTRUCTION SPECIFICATIONS

1. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
2. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
3. FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2X4 FRAME AS SHOWN. STRETCH ½ INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED TO THE POST.

   FOR TYPE B, USE 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND 6 FOOT LENGTH, DRIVEN A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. FASTEN 9 GAUGE OR HEAVIER CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH WIRE TIES. FASTEN GEOTEXTILE SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE WEIR CREST.
4. BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
5. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

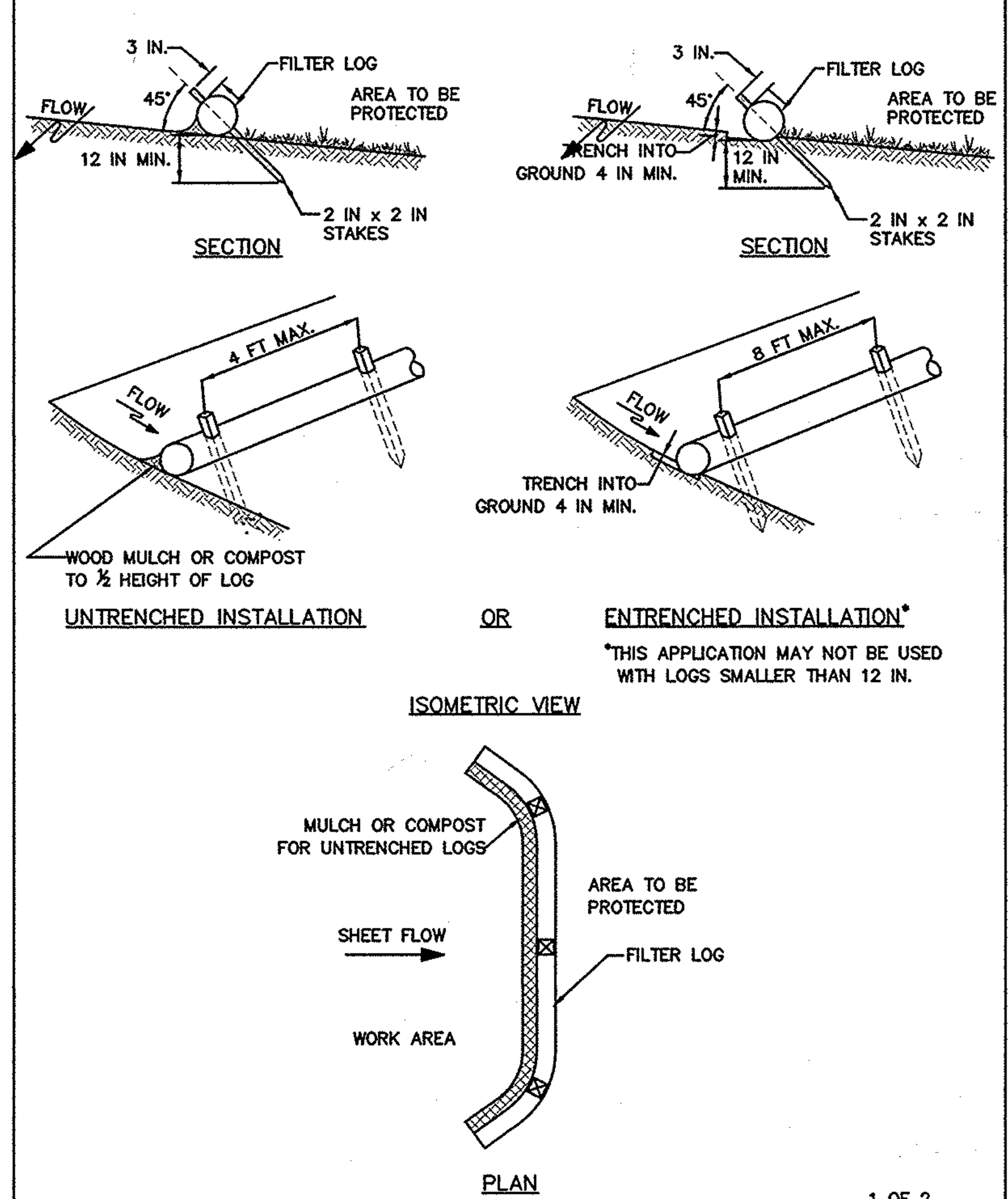
2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-6 FILTER LOG

STANDARD SYMBOL: ——FL-18——
DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG.



1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-6 FILTER LOG

STANDARD SYMBOL: ——FL-18——
DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG.

CONSTRUCTION SPECIFICATIONS

1. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF FILTER LOG.
2. FILL LOG NETTING UNIFORMLY WITH COMPOST (IN ACCORDANCE WITH SECTION H-1 MATERIALS), OR OTHER APPROVED BIODEGRADABLE MATERIAL TO DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
3. INSTALL FILTER LOGS PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "J" SHAPE AT EACH END TO PREVENT BYPASS.
4. FOR UNTRENCHED INSTALLATION BLOW OR HAND PLACE MULCH OR COMPOST ON UPHILL SIDE OF THE SLOPE ALONG LOG.
5. STAKE FILTER LOG EVERY 4 FEET OR CLOSER ALONG ENTIRE LENGTH OF LOG OR TRENCH LOG INTO GROUND A MINIMUM OF 4 INCHES AND STAKE LOG EVERY 8 FEET OR CLOSER.
6. USE STAKES WITH A MINIMUM NOMINAL CROSS SECTION OF 2X2 INCH AND OF SUFFICIENT LENGTH TO ATTAIN A MINIMUM OF 12 INCHES INTO THE GROUND AND 3 INCHES PROTRUDING ABOVE LOG.
7. WHEN MORE THAN ONE LOG IS NEEDED, OVERLAP ENDS 12 INCHES MINIMUM AND STAKE.
8. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF ½ THE EXPOSED HEIGHT OF LOG AND REPLACE MULCH. REPLACE FILTER LOG IF TORN. REINSTALL FILTER LOG IF UNDERMINING OR DISLODGING OCCURS. REPLACE CLOGGED FILTER LOGS. FOR PERMANENT APPLICATIONS, ESTABLISH AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

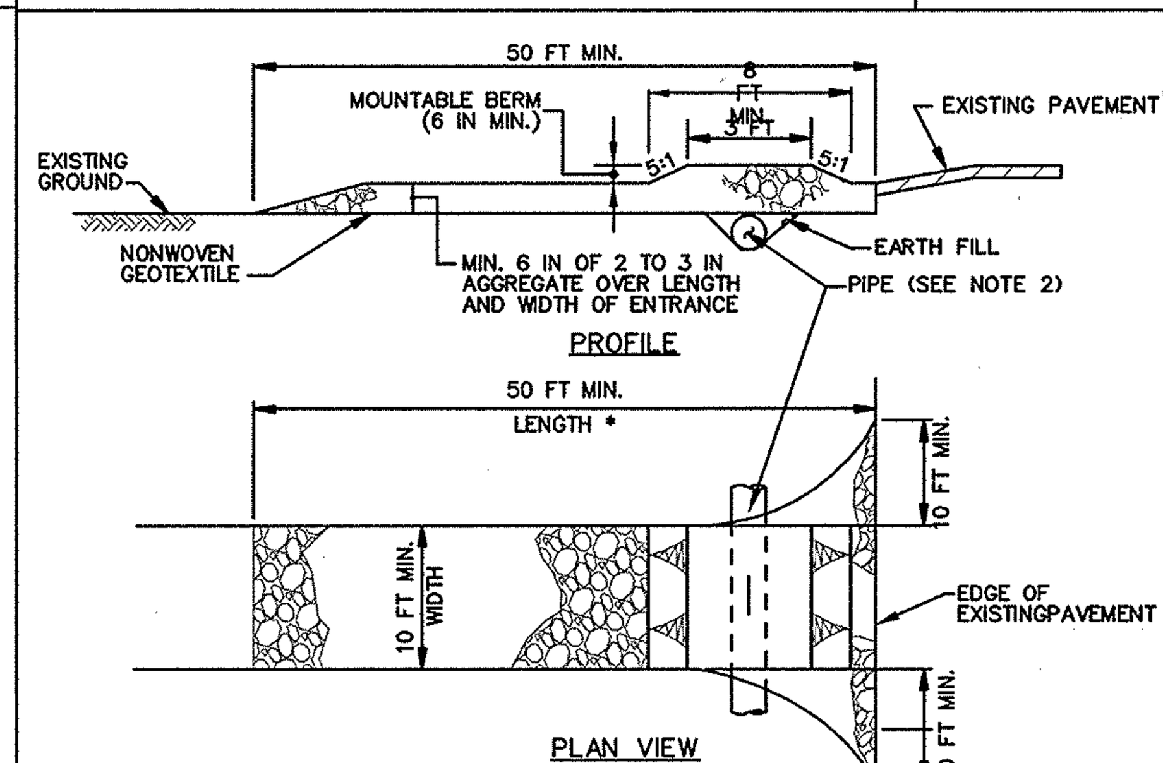
2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE



CONSTRUCTION SPECIFICATIONS

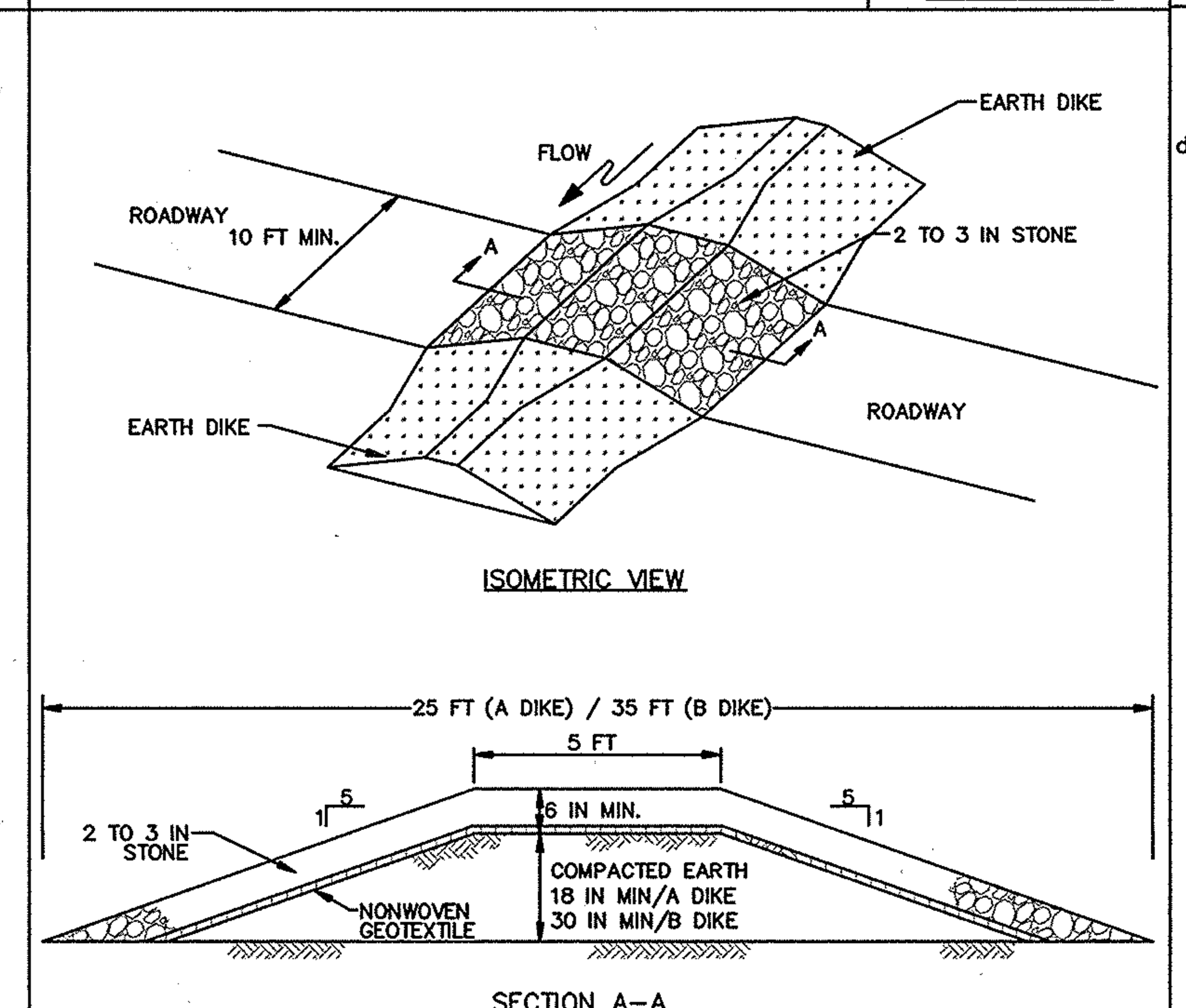
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL C-8 MOUNTABLE BERM

STANDARD SYMBOL: MB



CONSTRUCTION SPECIFICATIONS

1. USE MINIMUM WIDTH OF 10 FEET TO ALLOW FOR VEHICULAR PASSAGE.
2. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE EARTH MOUND PRIOR TO PLACING STONE.
3. PLACE 2 TO 3 INCH STONE OR EQUIVALENT RECYCLED CONCRETE AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE MOUNTABLE BERM.
4. MAINTAIN LINE, GRADE, AND CROSS SECTION. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN SPECIFIED DIMENSIONS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE.

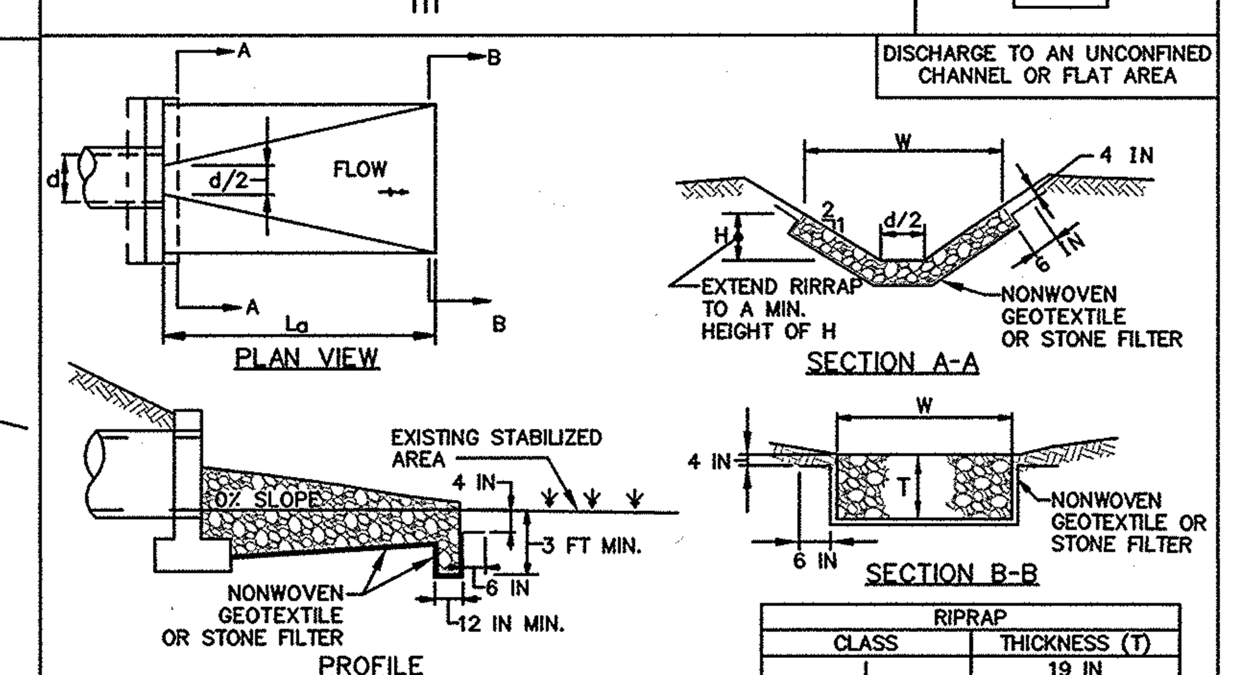
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL D-4-1-C ROCK OUTLET PROTECTION III

STANDARD SYMBOL: ROPIII

DISCHARGE TO AN UNCONFINED CHANNEL OR FLAT AREA



RIPRAP	
CLASS	THICKNESS (T)
I	19 IN
II	32 IN
III	46 IN

CONSTRUCTION SPECIFICATIONS

1. RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
2. USE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
3. PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (⅜ TO 1½ INCH MINIMUM STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
4. EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF RIPRAP.
5. CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
6. WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
7. CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
8. MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND RIPRAP DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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

[signature] 10/2/14
SOIL CONSERVATION DISTRICT DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

	Date
[signature] Chief, Development Engineering Division	10·1·14
[signature] Chief, Division of Land Development	10-06-14
[signature] Director	10/7/14

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 NUMBER 16597, EXPIRATION DATE: 08-15-2015

DESIGN AND DRAWINGS ARE BASED ON MARYLAND COORDINATE SYSTEM (MCS).
HORIZONTAL – NAD 83/91.
VERTICAL – NAVD 88.

ADDRESS CHART	
Lot/Parcel #	Street Addresses
58 PAR A	10291 BALTIMORE NATIONAL PIKE

PERMIT INFORMATION CHART

Subdivision Name	Section/Area	Lot/Parcel No.
MARIE N. LONG PROPERTY	N.A.	58 PAR A

PLAT #	Grid #	Zoning	Tax Map No.	Election District	Census Tract
6063	1	B-2	24	2	–

Water Code	Sewer Code
--	--

Richardson Engineering, LLC
30 East Padonia Road, Suite 500
Timonium, Maryland 21093
Phone: 410-560-1502 Fax: 443-901-1208

Engineer [seal: STATE OF MARYLAND, PATRICK C. RICHARDSON, JR., NO. 16597, REGISTERED PROFESSIONAL ENGINEER] Date 7/24/14

OWNERS/DEVELOPER
OWNER:
10291 BALTIMORE NATIONAL PIKE LLC
17500 FREDERICK ROAD
MT. AIRY, MD 21771
DEVELOPER:
10291 BALTIMORE NATIONAL PIKE LLC
17500 FREDERICK ROAD
MT. AIRY, MD 21771

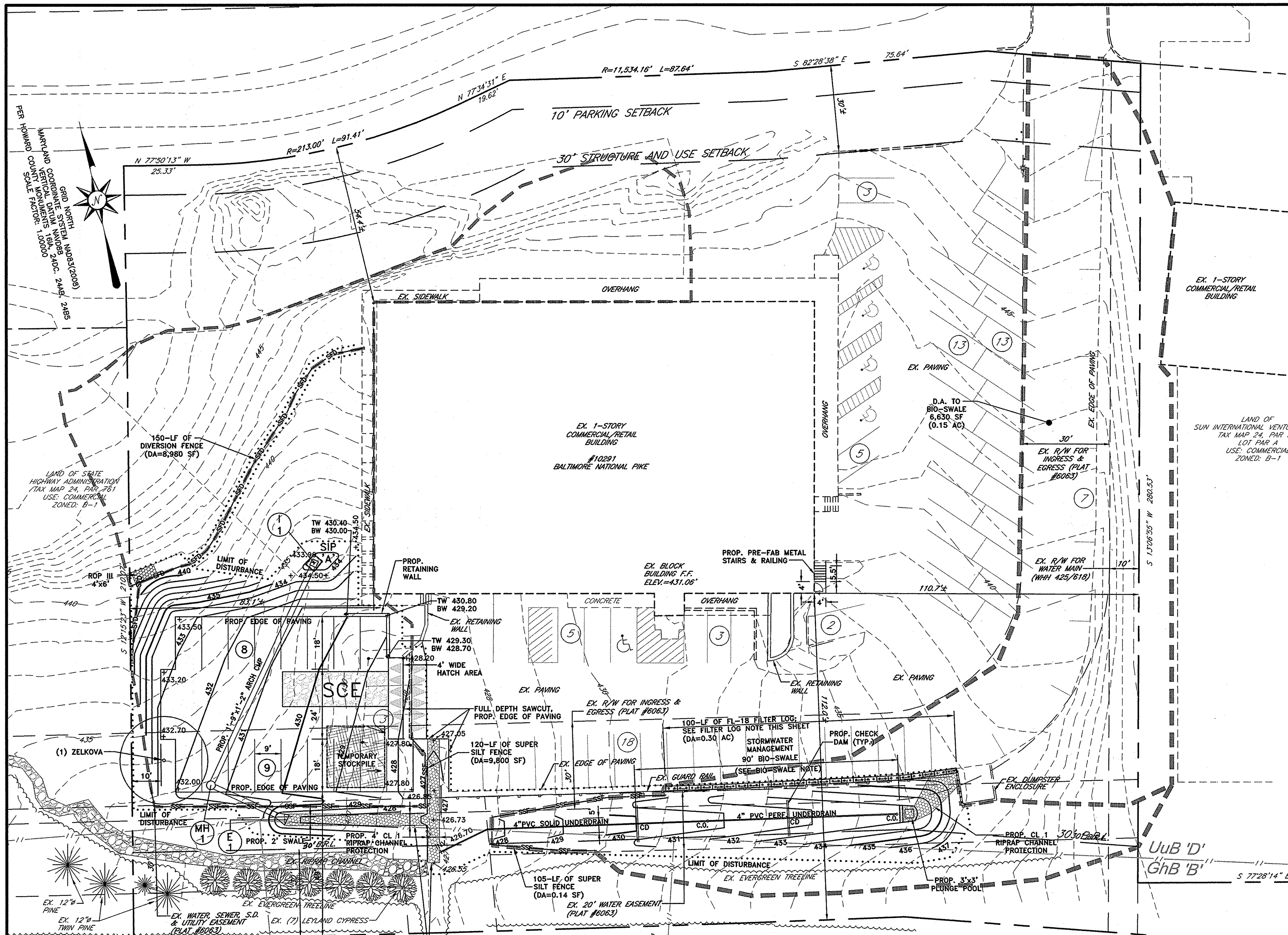
NOVELTY STORE
10291 BALTIMORE NATIONAL PIKE
REVISED SITE DEVELOPMENT PLAN
ESC DETAILS (SDP 72-095)
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DATE	REVISION	BY
7/24/14	ADDITIONAL SHEETS FOR SWM	RENG

DRAWING COMPLETED 09-09-13

DESIGNED BY: BTK	SCALE AS SHOWN	TAX MAP 24 GRID 1 PARCEL 58 PAR A	ADC MAP 11 GRID F7	JOB # 12004	SHEET NO. 4 OF 7
DRAWN BY: BTK	DEED REF. 6277/93		PLAT REF. 6063	FILES D:\JOBS\2012\12004\DRAWINGS\12004sdp-esc3-4.dwg	
CHECKED BY: PCR					

SDP-72-095



FILTER LOG NOTE:
FILTER LOGS SHALL BE PLACED TO KEEP RUNOFF ON PAVED SURFACE, OUT OF BIO-SWALE, UNTIL THE SWALE IS PERMANENTLY STABILIZED WITH ESTABLISHED VEGETATION.

BIO-SWALE NOTE:
1) ONCE THE SITE IS STABILIZED WITH ESTABLISH VEGETATION, GRADE FOR AND INSTALL ALL PERTINENT FEATURES ASSOCIATED WITH THE STORMWATER BIO-SWALE (SEQ. OF CONSTRUCTION STEP #5).
FOR DETAILED CONSTRUCTION, SEE APPROVED STOMWATER PLANS SHEET 6/7 OF 7. IMMEDIATE STABILIZATION MAY BE ACHIEVED BY USE OF SOD.
2) CHECK DAMS SHALL NOT BE USED FOR SEDIMENT CONTROL.

ESC LEGEND

- STABLIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM
- SSF — SUPER SILT FENCE
- SFD — FENCE DIVERSION
- TEMPORARY STOCKPILE
- ROP III — ROCK OUTLET PROTECTION
- SIP — STANDARD INLET PROTECTION
- FILTER LOG

THE SIMPLIFIED ECP APPROVAL GRANTED ON JULY 11, 2013

PLAN VIEW

SCALE: 1" = 20'

0' 20' 40' 60'

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

John R Robertson
SOIL CONSERVATION DISTRICT — DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division	Date 10.1.14
Chief, Division of Land Development	Date 10-06-14
Director	Date 10/7/14

GENERAL NOTES

1. SITE ADDRESS:
   10291 BALTIMORE NATIONAL PIKE
   ELLICOTT CITY, MD 21042
2. OWNER:
   10291 BALTIMORE NATIONAL PIKE LLC
   17500 FREDERICK ROAD
   MT. AIRY, MD 21771
3. DEVELOPER:
   10291 BALTIMORE NATIONAL PIKE LLC
   17500 FREDERICK ROAD
   MT. AIRY, MD 21771
4. PRESENT ZONING: B-2
5. TAX MAP 0024 GRID 0001 PARCEL 0058
6. ACCOUNT NUMBER: 226413
7. ADC MAP: 11-F7
8. SITE AREA: 2.332 AC.
9. DEED REF: 6277/93
10. EXISTING BUILDING AREA: 16,600 Sq.Ft.
11. SETBACKS FOR B-2 ZONE:
    REQUIRED SETBACK FROM PUBLIC R-O-W IS 30 FEET.
    REQUIRED PARKING SETBACK FROM PUBLIC R-O-W IS 10 FEET. THE PROVIDED IS 30 FEET.
    REQUIRED SETBACK FROM RESIDENTIAL ZONING DISTRICTS IS 30 FEET.
12. CONTACT PERSON: RICK RICHARDSON
    RICHARDSON ENGINEERING, LLC
    30 EAST PADONIA ROAD, SUITE 500
    TIMONIUM, MARYLAND 21093
    410-560-1502 EXT. 112
13. EASEMENT NOTE:
    A. TO THE BEST KNOWLEDGE OF THE REDLINE DESIGNER, THERE IS NO WATER LINE OR OTHER PIPE BURIED UNDERNEATH THE EX. 20' WATER EASEMENT (PLAT #6063).
    B. THE LAND AQUISITION FOR THE EASEMENT WAS NEVER DEEDED.
14. PARKING NOTE:
    THE DEPARTMENT OF PLANNING AND ZONING HAS APPROVED THE PARKING STUDY PREPARED BY RICHARDSON ENGINEERING, INC. DATED NOVEMBER 7, 2012 TO REDUCE THE PROVIDED PARKING FROM THE REQUIRED 103 SPACES TO 86 SPACES. THE OWNER/MANAGEMENT OF THIS PROPERTY SHALL MONITOR THE PARKING SPACES FOR THIS PROJECT AND RESOLVE ANY PARKING INADEQUACIES SHOULD THEY ARISE.

BIO-SWALE STORMWATER NOTE

1) ONCE THE SITE IS STABILIZED WITH ESTABLISH VEGETATION, GRADE FOR AND INSTALL ALL PERTINENT FEATURES ASSOCIATED WITH THE STORMWATER BIO-SWALE (SEQ. OF CONSTRUCTION STEP #5).
FOR DETAILED CONSTRUCTION, SEE APPROVED STOMWATER PLANS SHEET 6/7 OF 7. IMMEDIATE STABILIZATION MAY BE ACHIEVED BY USE OF SOD.
2) CHECK DAMS SHALL NOT BE USED FOR SEDIMENT CONTROL.

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 NUMBER 16597, EXPIRATION DATE: 08-15-2015

DESIGN AND DRAWINGS ARE BASED ON MARYLAND COORDINATE SYSTEM (MCS).
HORIZONTAL – NAD 83/91.
VERTICAL – NAVD 88.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT AND NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES & PERMITS AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBANCE @ 410-313-2455.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, DIVERSION FENCE, RIPRAP OUTLET PROTECTION, SUPER SILT FENCE AND FILTER LOG AT LOCATIONS SHOWN ON PLAN. (3 DAYS)
3. UPON RECEIVING NOTIFICATION TO PROCEED FROM THE INSPECTOR, BEGIN SITE GRADING INCLUDING ROUGH GRADING FOR THE BIO-SWALE FACILITY (DO NOT EXCAVATE FOR FILTER MEDIA AT THIS STAGE). INSTALL STORM DRAIN AND STRUCTURES FROM I-1 TO E-1. ONCE I-1 INSTALLATION IS COMPLETE, INSTALL STANDARD INLET PROTECTION, TYPE 'A'. (15 DAYS)
4. BEGIN PARKING LOT CONSTRUCTION. INSTALL STONE AND BASE COURSE. (30 DAYS)
5. FINE GRADE AND PERMANENTLY STABILIZE ONCE FINISHED GRADES HAVE BEEN ACHIEVED. (NOTE: CUT MATERIAL SHALL BE PLACED IN TEMPORARY STOCKPILE AREA OR HAULED OFF-SITE IMMEDIATELY.) ONCE VEGETATION HAS BE ESTABLISHED, BEGIN INSTALLATION OF BIO-SWALE COMPONENTS INCLUDING UNDERDRAIN, FILTER MEDIA, CHECK DAMS AND RIPRAP CHANNEL PROTECTION. PERMANENTLY STABILIZE. (30 DAYS)
6. INSTALL SURFACE PAVING. (2 DAYS)
7. FINE GRADE REMAINING AREAS AND PROVIDE PERMANENT STABILIZATION. (2 DAYS)
8. WITH PERMANENT STABILIZATION ESTABLISHED AND WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR REMOVE ANY REMAINING SEDIMENT CONTROL AND STABILIZE AREAS DISTURBED AS PART OF THE REMOVAL. (2 DAYS)

STABILIZATION NOTE

TEMPORARY OR PERMANENT STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR WITHIN THE TIME FRAMES REQUIRED BY THE 2011 STANDARD AND SPECIFICATIONS, WHICHEVER IS MORE RESTRICTIVE.

STANDARD SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3: 1, B) 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC.B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
5. 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.
6. SITE ANALYSIS:

TOTAL AREA OF SITE	2.33 AC
AREA DISTURBED	0.31 AC
AREA TO BE ROOFED OR PAVED	0.11 AC
AREA TO BE VEGETATIVELY STABILIZED	0.20 AC
TOTAL CUT	810 CY
TOTAL FILL	10 CY
OFFSITE WASTE/BORROW AREA LOCATION	TBD

7. ANY SEDIMENT CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
9. 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.
10. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
11. ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
12. 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 BE STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

DAILY STABILIZATION NOTE:

FOR RIPRAP OUTFALLS (WHERE THE INSTALLATION OF CONTROLS WOULD BE MINIMAL); CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE STABILIZED BY THE END OF THE WORK DAY. STABILIZATION SHALL BE AS FOLLOWS:

1) FOR OUTFALLS, THE APPLICATION OF STONE AND CONCRETE (LEVEL SPREADER).
2) FOR VEGETATED AREAS,
   a) PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES, CHANNELS OR SWALES.
   b) PERMANENT SEED AND MULCH FOR ALL OTHER AREAS. ANY AREAS WHICH CANNOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWNSLOPE SIDE (SEE UTILITY NOTE).

UTILITY NOTE

1. CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY.
2. PLACE ALL EXCAVATED MATERIAL ON THE UPHILL SIDE OF THE TRENCH.
3. ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE REPAIRED IMMEDIATLY.

LIMIT OF DISTURBANCE = 13,600 SF (0.31 AC.)

ADDRESS CHART	
Lot/Parcel #	Street Addresses
58 PAR A	10291 BALTIMORE NATIONAL PIKE

PERMIT INFORMATION CHART

Subdivision Name			Section/Area		Lot/Parcel No.
MARIE N. LONG PROPERTY			N.A.		58 PAR A
PLAT #	Grid #	Zoning	Tax Map No.	Election District	Census Tract
6063	1	B-2	24	2	–
Water Code: --			Sewer Code: --		

Richardson Engineering, LLC
30 East Padonia Road, Suite 500
Timonium, Maryland 21093
Phone: 410-560-1502 Fax: 443-901-1208

STATE OF MARYLAND — PATRICK C. RICHARDSON, JR — NO. 16597 — REGISTERED PROFESSIONAL ENGINEER
Engineer — Date 7/24/14

OWNERS/DEVELOPER
OWNER:
10291 BALTIMORE NATIONAL PIKE LLC
17500 FREDERICK ROAD
MT. AIRY, MD 21771
DEVELOPER:
10291 BALTIMORE NATIONAL PIKE LLC
17500 FREDERICK ROAD
MT. AIRY, MD 21771

NOVELTY STORE
10291 BALTIMORE NATIONAL PIKE
REVISED SITE DEVELOPMENT PLAN
ESC PLAN (SDP 72-095)
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

DATE	REVISION	BY
7/24/14	ADDITIONAL SHEETS FOR SWM	RENG

DRAWING COMPLETED 09-09-13

DESIGNED BY: BTK
DRAWN BY: BTK
CHECKED BY: PCR

SCALE	TAX MAP	ADC MAP	JOB #	SHEET
AS SHOWN	24, GRID 1	ADC MAP 11 GRID F7	12004	NO. 3
DEED REF. 6277/93	PARCEL 58 PAR A	PLAT REF. 6063	FILES D:\JOBS\2012\12004\DRAWINGS\12004sdp-esc3-4.dwg	OF 7

SDP-72-095