

STANDARD DRAWING LEGEND		
FOR ENTIRE PLAN SET (NOT TO SCALE)		
EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
---	ONSITE PROPERTY LINE / P.O.W. 1/4" = 100'	---
---	NEIGHBORING PROPERTY LINE / INTERIOR PARCEL LINE	---
---	EASEMENT LINE	---
---	SETBACK LINE	---
---	CURB AND GUTTER	---
---	SPILL CURB TRANSITION CURB	---
---	DEPRESSED CURB AND GUTTER	---
---	UTILITY POLE WITH LIGHT	---
---	POLE LIGHT	---
---	TRAFFIC LIGHT	---
---	UTILITY POLE	---
---	TYPICAL LIGHT	---
---	ACORN LIGHT	---
---	TYPICAL SIGN	---
---	PARKING COUNTS	---
---	CONTOUR LINE	---
---	SPOT ELEVATIONS	---
---	SANITARY LABEL	---
---	STORM LABEL	---
---	FLOOD PLAIN LINE	---
---	UNDERGROUND WATER LINE	---
---	UNDERGROUND ELECTRIC LINE	---
---	UNDERGROUND GAS LINE	---
---	OVERHEAD WIRE	---
---	UNDERGROUND TELEPHONE LINE	---
---	UNDERGROUND CABLE LINE	---
---	STORM SEWER	---
---	SANITARY SEWER MAIN	---
---	HYDRANT	---
---	SANITARY MANHOLE	---
---	STORM MANHOLE	---
---	WATER METER	---
---	WATER VALVE	---
---	GAS VALVE	---
---	GAS METER	---
---	TYPICAL END SECTION	---
---	HEADWALL OR ENDWALL	---
---	YARD INLET	---
---	CURB INLET	---
---	CLEAN OUT	---
---	ELECTRIC MANHOLE	---
---	TELEPHONE MANHOLE	---
---	ELECTRIC BOX	---
---	ELECTRIC PEDESTAL	---
---	MONITORING WELL	---
---	TEST PIT	---
---	BENCHMARK	---
---	BORING	---
---	STEEP SLOPES (>25%)	---

APPROVED: DEPARTMENT OF PLANNING AND ZONING

K. Schell 8-26-16
 CHIEF, DIVISION OF LAND DEVELOPMENT

Chad Clendenen 8-24-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

D. McNeil 8-26-16
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

GENERAL NOTE:
 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE PERMITS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT. THAT A MAJOR DUE DILIGENCE CONSTRUCTION SHALL BE MAINTAINED THROUGHOUT THE PROJECT. THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION FAILURE BY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND ALL CONFORMANCE WITH ALL REGULATIONS AND CODES.

ADDRESS CHART/STORMWATER MANAGEMENT PRACTICES		
LOT	ADDRESS	FACILITY TYPE & NUMBER
203	9803 SOAPSTONE TRAIL	DRYWELLS (IMDE M-5)
204	9807 SOAPSTONE TRAIL	DRYWELLS (IMDE M-5)
205	9811 SOAPSTONE TRAIL	DRYWELLS (IMDE M-5)
206	9815 SOAPSTONE TRAIL	DRYWELLS (IMDE M-5)
207	9819 SOAPSTONE TRAIL	DRYWELLS (IMDE M-5)
208	9823 SOAPSTONE TRAIL	DRYWELLS (IMDE M-5)
209	9827 SOAPSTONE TRAIL	DRYWELLS (IMDE M-5)
210	9831 SOAPSTONE TRAIL	DRYWELLS (IMDE M-5)
211	2419 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
212	2423 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
213	2427 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
214	2431 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
215	2435 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
216	2439 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
217	2443 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
218	2447 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
219	2451 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
220	2455 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
221	2459 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
222	2463 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
223	2467 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
224	2471 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
225	2475 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
226	2479 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
227	2483 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
228	2487 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
229	2491 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
230	2495 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
231	2499 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
232	2503 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
233	2507 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
234	2511 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
235	2515 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
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248	2567 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
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251	2579 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
252	2583 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
253	2587 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
254	2591 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
255	2595 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
256	2599 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
257	2603 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
258	2607 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
259	2611 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
260	2615 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
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266	2639 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
267	2643 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
268	2647 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
269	2651 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
270	2655 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)
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285	2715 VALLEY VIEW TRAIL	DRYWELLS (IMDE M-5)

UTILITIES:
 THE FOLLOWING COMPANIES WERE NOTIFIED BY DELMARVA MISS UTILITY SYSTEM (1-800-257-7777) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST. SERIAL NUMBER(S): 12499559

UTILITY COMPANY	PHONE NUMBER
VERIZON - LAMBERT CABLE	(410) 536-0070
BGE ELECTRIC-USIC	(800) 778-9140
BGE GAS-USIC	(800) 778-9140
COMCAST-FIBER/UTILITIES	(410) 536-0070
HOWARD COUNTY WATER/SEWER	(410) 313-4882
COMCAST/UTILITIES	(410) 536-0070
COLONIAL PIPELINE	(878) 762-2403
AT&T TRANSMISSION	(800) 252-1133
QWEST GOVERNMENT SERVICES	(703) 464-7592

OPEN SPACE CHART		
LOT No.	OWNER	PURPOSE
196	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	OPEN SPACE*
197	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	OPEN SPACE*
198	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	OPEN SPACE*
199	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	OPEN SPACE*
200	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	OPEN SPACE*
201	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	OPEN SPACE*
202	HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	OPEN SPACE*

FOR THE CREATION OF FOREST CONSERVATION EASEMENTS, THE PROTECTION OF STEEP SLOPES, STREAMS, WETLAND, STORMWATER MANAGEMENT, AND THEIR ASSOCIATED BUFFERS, AND THE CREATION OF RECREATIONAL OPEN SPACE.

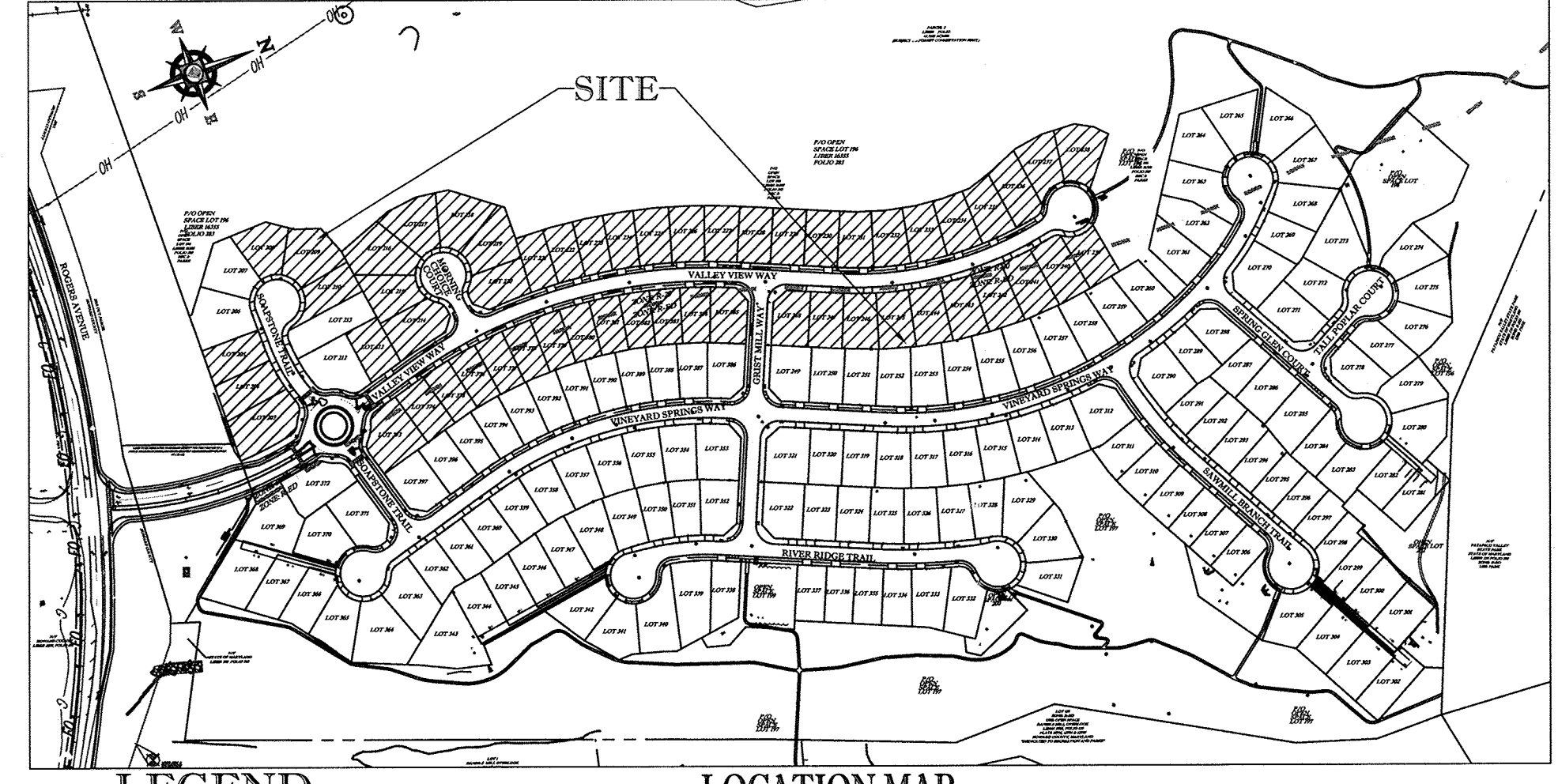
LOT INFORMATION			
LOT TYPE	LOTS	MINIMUM LOT SIZE	MIN LOT WIDTH AT FRONT BRL
SINGLE FAMILY DETACHED	203-205, 208-210, 213-248, & 373-385	6,000 SQUARE FEET	50'

SINGLE FAMILY DETACHED PARKING ANALYSIS

NUMBER OF SINGLE DETACHED LOTS FOR THIS SDP = 55
 REQUIRED PARKING @ 2.5 SPACES PER SFD LOT = 138
 PER SECTION 133.0 D.2 A OF THE ZONING REGULATIONS
 TOTAL REQUIRED SPACES = 138 SPACES
 PARKING PROVIDED
 55 SPACES/UNIT (2 GARAGE & 2 DRIVEWAY SPACES) = 220 SPACES

PHASE II SITE DEVELOPMENT PLANS FOR ESTATES AT PATAPSCO PARK BUILDABLE LOTS 203-205, 208-210, 213-248 & 373-385

LOCATION OF SITE
 ROGERS AVENUE
 ZONING: R-ED AND R-20, 2ND ELECTION DISTRICT
 TAX MAP 17, GRID 5, 6, 11 & 12
 HOWARD COUNTY, MARYLAND



GENERAL NOTES (cont.)

47. TRASH PAD MAINTENANCE AND LANDSCAPE SCREENING SHALL BE THE RESPONSIBILITY OF THE LOT OWNERS WHICH ACCESS ONTO THE APPLICABLE SHARED DRIVEWAYS AND SHALL BE MADE A PART OF THE USE-IN-COMMON MAINTENANCE AGREEMENTS. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS WILL NOT BE RESPONSIBLE FOR UPKEEP.

48. IMPACT TO THE STREAM, WETLANDS AND THE WETLAND BUFFER IN THE VICINITY OF LOTS 308 & 309 WAS DETERMINED TO BE A NECESSARY DISTURBANCE BY THE DIVISION LAND DEVELOPMENT ON SEPTEMBER 23, 2014.

49. THE DEVELOPER AND THE DEPARTMENT OF PUBLIC WORKS HAVE REACHED AN AGREEMENT TO COMPLETE AN UPGRADE TO THE PUMP STATION. A DEVELOPER'S AGREEMENT WILL BE REQUIRED FOR THE PUMP STATION UPGRADE TO THE OFFSITE PUMP STATION LOCATED AT 5916 DORSEY SPRING COURT.

50. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, IN A LETTER DATED JANUARY 21, 2015, APPROVED A WAIVER REQUEST OF THE REQUIREMENTS OF SECTION 4.3 B.3 AND 4.5 FOR LOTS 283 THROUGH 288, LOTS 273 THROUGH 276, 300, AND 304 (NO BASEMENT GRAVITY SERVICE). AS A RESULT OF TOPOGRAPHY CAUSING DEPTHS OF SEWER IN EXCESS OF 20 FEET, BASEMENT SEWER SERVICE CANNOT BE PROVIDED TO THESE PROPOSED LOTS. FOR THESE LOTS, GRAVITY SEWER SERVICE TO BE PROVIDED TO FIRST FLOOR ONLY. BASEMENT SERVICE TO BE PROVIDED BY CRAVING ON SITE PUMP. THE APPROVAL AND INSPECTION OF ON-SITE PUMPING UNITS INCLUDES THE DEPARTMENT OF INSPECTION, LICENSES AND PERMITS (DIP).

51. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, IN A LETTER DATED JANUARY 21, 2015, APPROVED A WAIVER REQUEST OF THE REQUIREMENTS OF SECTION 3.3 B.5 (DEPTH OF COVER OVER WATER MAINS). THE WAIVER REQUEST TO ALLOW AN INCREASED DEPTH OF COVER OVER THE WATER MAIN CROSSING IN THE FOREST CONSERVATION EASEMENT, BETWEEN STATION 12+23 AND STATION 14+00 OF WATERLINE E-2, TO TEN (10) FEET IS APPROVED WITH THE FOLLOWING LIMITATIONS:
 * DR-14, C-300 PVC PIPE, WITH RESTRAINED JOINTS, SHALL BE USED BETWEEN STATION 13+08 AND STATION 14+20.
 * THE MAXIMUM COVER WITHIN THE LIMITS DESCRIBED ABOVE SHALL NOT EXCEED TEN (10) FEET.

52. ANY DAMAGE TO THE ADJACENT COUNTY-OWNED RIGHT-OF-WAY AND PROPERTY SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

53. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 18 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES, OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.

54. WATER METERS ARE TO BE PROVIDED IN OUTSIDE VAULTS.

55. ANY FURTHER DEVELOPMENT WILL REQUIRE UPGRADES TO THE OLD FREDERICK ROAD PUMP STATION OR APPROVAL FROM HOWARD COUNTY TO PROVIDE WITH DEVELOPMENT.

56. FOREST CONSERVATION REQUIREMENTS PER SECTION 18.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION HAVE BEEN FULFILLED BY RETENTION OF EXISTING FOREST IN THE AMOUNT OF 12.8 ACRES, 1.8 ACRES FOR REFORESTATION FOR A TOTAL SURETY AMOUNT OF \$39,204.00 (76,408 X .50) WHICH IS PART OF THE DEVELOPER'S AGREEMENT FOR THIS FINAL PLAN, F-14-124. THE REMAINING FOREST CONSERVATION REQUIREMENT OF 10.2 ACRES HAS BEEN MET BY PAYMENT OF FEE-IN-LIEU TO THE FOREST CONSERVATION FUND IN THE AMOUNT OF \$33,204.00 (444,312 X .75). THE AREA OF SHA FOREST CONSERVATION EASEMENT IS NOT UTILIZED IN FULFILLMENT OF FOREST CONSERVATION OBLIGATION FOR THIS SUBDIVISION.

GENERAL NOTES (cont.)

36. RESERVATION OF PUBLIC UTILITY AND FOREST CONSERVATION EASEMENTS SHOWN ON THIS PLAN FOR WATER, SEWER, STORM DRAINAGE, OTHER PUBLIC UTILITIES AND FOREST CONSERVATION (DESIGNATED AS FOREST CONSERVATION AREA), LOCATED IN, ON, OVER AND THROUGH LOTS/PARCELS, ANY CONVEYANCES OF THE FORESAID LOTS/PARCELS SHALL BE SUBJECT TO THE EASEMENTS HEREIN RESERVED. WHETHER OR NOT EXPRESSLY STATED IN THE DEED(S) CONVEYING SAID LOTS/PARCELS, DEVELOPER SHALL EXECUTE AND DELIVER DEEDS FOR THE EASEMENTS HEREIN RESERVED TO HOWARD COUNTY WITH A METES AND BOUNDS DESCRIPTION OF THE FOREST CONSERVATION AREA UPON COMPLETION OF THE PUBLIC UTILITIES AND THEIR ACCEPTANCE BY HOWARD COUNTY, AND IN THE CASE OF THE FOREST CONSERVATION EASEMENT(S), UPON COMPLETION OF THE DEVELOPER'S OBLIGATIONS UNDER THE FOREST CONSERVATION INSTALLATION AND MAINTENANCE AGREEMENT EXECUTED BY THE DEVELOPER AND THE COUNTY, AND THE RELEASE OF DEVELOPER'S SURETY POSTED WITH SAID AGREEMENT. THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED(S) OF EASEMENT IN THE LAND RECORDS OF HOWARD COUNTY.

37. GRAZING AND DISTURBANCE OF ENVIRONMENTAL FEATURES AS APPLICABLE FOR OUTLAW LOCATIONS AND/OR UTILITY CONSTRUCTION IS CONSIDERED ESSENTIAL DISTURBANCE. NO OTHER GRADING, DISTURBANCE OR VEGETATIVE REMOVAL IS PERMITTED IN WETLANDS, STREAMS, THEIR BUFFERS, FLOOD PLAIN OR FOREST CONSERVATION EASEMENT AREAS.

38. THIS PROJECT IS SUBJECT TO PLANNING BOARD CASE NO. 403, WHICH WAS APPROVED ON FEBRUARY 28, 2014.

39. A PRE-SUBMISSION COMMUNITY MEETING WAS HELD ON OCTOBER 2, 2012.

40. LANDSCAPING FOR THIS DEVELOPMENT HAS BEEN PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. PERIMETER LANDSCAPE SURETY HAS BEEN POSTED BY THE DEVELOPER AS PART OF THE DEVELOPER'S AGREEMENT, F-14-124. PERIMETER STREET SIDE AND TRASH PAD SCREENING SHALL BE AS SHOWN ON LANDSCAPE PLAN SHEETS OF THE ROAD CONSTRUCTION DRAWINGS FOR F-14-124.

41. ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T-150.

42. A HOMEOWNERS ASSOCIATION HAS BEEN ESTABLISHED FOR THE RESIDENTS OF THIS SUBDIVISION AND PROTECTIVE COVENANTS AND COVENANTS GOVERNING THE MAINTENANCE OF THE COMMUNITY OWNED OPEN SPACE LOTS ARE RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, IN LIBER 16344 FOLIO 467.

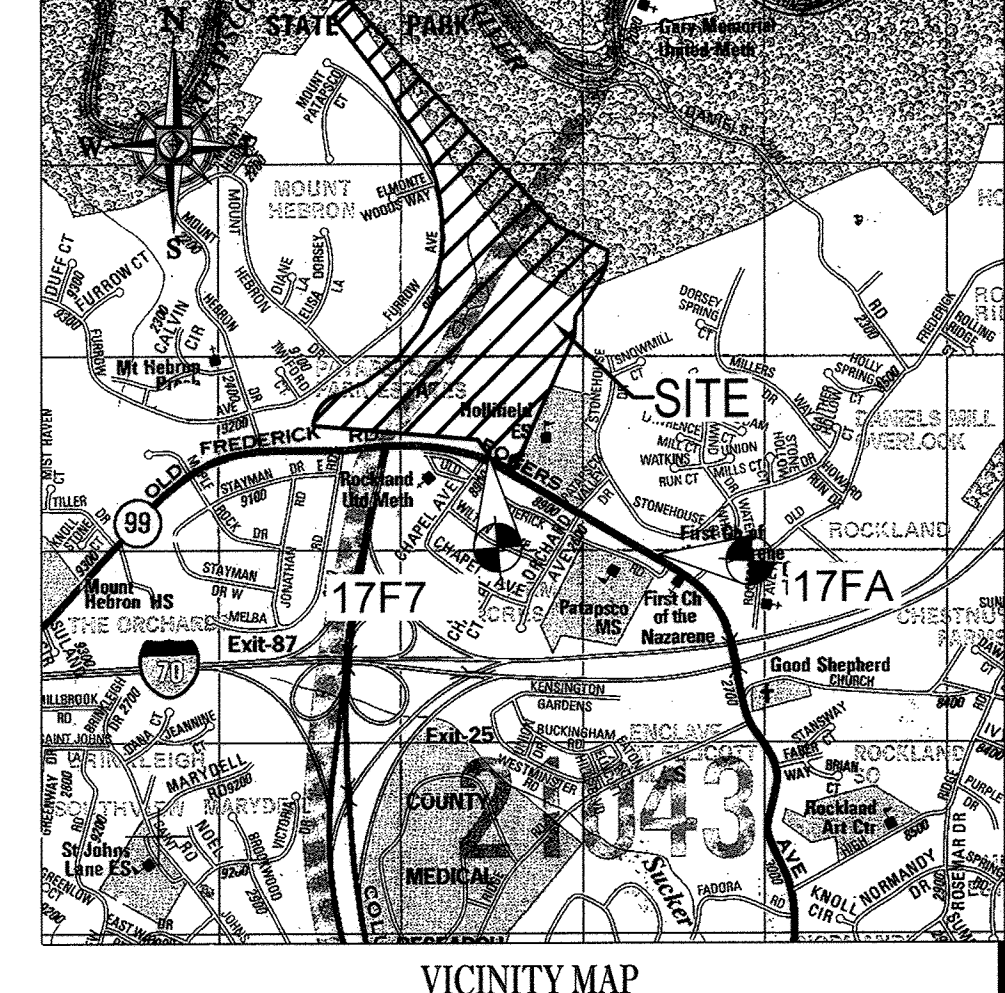
43. THE SHARED DRIVEWAY ACCESS AND MAINTENANCE OBLIGATION AGREEMENTS FOR THE 16 DRIVEWAYS WHICH SERVE LOTS 281 & 282, 289, 304, 343, 348, AND 369, 369 WAS RECORDED IN THE LAND RECORDS OF HOWARD COUNTY SIMULTANEOUSLY WITH THE SUBDIVISION PLAN (F-14-124).

44. RETAINING WALLS LOCATED IN SETBACK AREAS ON INDIVIDUAL LOTS WHERE APPLICABLE WILL NOT EXCEED 3' IN HEIGHT AND WILL BE CONSTRUCTED UNDER THE SITE DEVELOPMENT PLANS. RETAINING WALLS SHALL BE CONSTRUCTED UNDER THESE FINAL ROAD CONSTRUCTION DRAWINGS IF LOCATED ON OPEN SPACE LOTS (F-14-124).

45. THE MARYLAND DEPARTMENT OF ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION HAS ISSUED A LETTER OF AUTHORIZATION (TRACKING NO. 13-AT-315520130976) FOR NON-TIDAL WETLANDS DISTURBANCE ASSOCIATED WITH THE PROPOSED STREAM CROSSING WITHIN THESE PLANS.

46. USE-IN-COMMON AGREEMENT(S) ARE REQUIRED BETWEEN THE OWNERS OF LOTS 281 & 282, 299, 304, 343, 348, AND 369, 369 RESPECTIVELY, COVERING THE MAINTENANCE OF TRASH PADS AND ASSOCIATED LANDSCAPE SCREENING RECORDED UNDER F-14-124.

BENCHMARK	
GEODETIC SURVEY CONTROL - 17FA	ELEV. 476.721' N 594.948 426 E 1,364.626 770
GEODETIC SURVEY CONTROL - 17FF	ELEV. 469.396' N 595.829 688 E 1,363.088 330



VICINITY MAP
 COPYRIGHT ADG THE MAP PEOPLE
 PERMIT USE NO. 03502153-5
 SCALE: 1"=2000'
 ADG MAP COORDINATES: 505258

- GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT 410-313-1800 AT LEAST 48 HOURS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
 - ALL TRAFFIC CONTROL SIGNS SHALL BE PLACED IN FRONT OF TREE LOCATIONS FOR MAXIMUM SIGHT VISIBILITY. NO TREE CAN BE INSTALLED WITHIN 30' OF ANY STOP SIGN (APPROACH) DIRECTION, WHERE SIGNS NEED TO BE PLACED BEHIND THE SIDEWALK. ADDITIONAL SPACING BETWEEN TREES MAY BE REQUIRED AT THE LOCATION.
 - NO STRUCTURES INCLUDING BUT NOT LIMITED TO DECKS AND THEIR SUPPORTS SHALL BE LOCATED WITHIN DRAINAGE EASEMENTS AND/OR DRYWELLS. NO STRUCTURES CAN BE LOCATED WITHIN 10' OF A PUBLIC WATERSEWER.
 - EXISTING TOPOGRAPHIC CONTOURS BASED ON BOUNDARY BY BEN DYER & TOPOGRAPHIC SURVEY PERFORMED BY AERO-METRIC, DATED 1/25/09.
 - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM. HORIZONTAL AND VERTICAL CONTROL DATUM ARE BASED ON HOWARD COUNTY MONUMENT NOS. 17FA AND 1777 WHICH WERE USED FOR THIS PROJECT.
 HOWARD COUNTY MONUMENT NO. 17FA ELEV. = 476.72'
 HOWARD COUNTY MONUMENT NO. 1777 ELEV. = 469.40'
 - WATER IS PUBLIC (CONTRACT NO. 14-4893-D)
 - SEWER IS PUBLIC (CONTRACT NO. 14-4893-D)
 - STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS, WATER QUALITY AND RECHARGE VOLUMES WILL BE PROVIDED BY MICRO-BIORETENTION FACILITIES, BIORETENTION FACILITIES, INFILTRATION FACILITIES, AND DRY WELLS (ON LOT) TO MEET MORE REQUIREMENTS. FACILITIES TREATING ONLY AREAS FROM PRIVATE PROPERTY WILL BE OWNED AND MAINTAINED BY PROPERTY OWNERS AND HOA. FACILITIES TREATING AREAS WITHIN PUBLIC ROW WILL BE PLACED IN EASEMENTS AND WILL BE MAINTAINED BY BOTH HOWARD COUNTY AND PROPERTY OWNERS/HOA. HOWARD COUNTY WILL MAINTAIN PIPES AND PROPERTY OWNERS/HOA WILL MAINTAIN FACILITY SURFACES. THE HOA WILL BE RESPONSIBLE TO MAINTAIN THE TWO (2) INFILTRATION FACILITIES.
 - EXISTING UTILITIES ARE BASED ON THE AERIAL SURVEY AND FIELD SURVEY BY BEN DYER ASSOCIATES, DATED FEBRUARY 2012, AND MEETS THE REQUIREMENTS FOR "OBVIOUSLY NOT CRITICAL" STUDY.
 - THE FLOODPLAIN STUDY FOR THIS PROJECT WAS PREPARED BY BEN DYER ASSOCIATES, DATED FEBRUARY 2012, AND MEETS THE REQUIREMENTS FOR "OBVIOUSLY NOT CRITICAL" STUDY.
 - THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY BEN DYER ASSOCIATES, DATED DECEMBER, 2012.
 - THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, DATED APRIL 23, 2013.
 - THE NOISE STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP, DATED SEPTEMBER 24, 2012.
 - A FOREST STAND DELINEATION REPORT WAS COMPLETED BY BEN DYER ASSOCIATES, INC., DATED DECEMBER 2011.
 - THE SUBSURFACE EXPLORATION REPORT FOR THIS PROJECT WAS PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, INC., DATED MARCH 2012.
 - THE SUBJECT PROPERTY IS ZONED R-20 & R-ED PER THE FEBRUARY 4, 2004 COMPREHENSIVE ZONING PLAN, AND THE JULY 28, 2006 COMPREHENSIVE LITE ZONING REGULATION. THE SUBJECT LOTS ARE LOCATED IN THE R-20 ZONED PORTION OF THIS SUBDIVISION.
 - THE R-20 ZONED PORTION OF THE SITE WILL BE DEVELOPED IN ACCORDANCE WITH "R-20" ZONING REGULATIONS PER SECTION 108.0.3 TO RECEIVE AT LEAST ONE DENSITY SENSING UNIT TO QUALIFY TO USE THE R-20 REGULATIONS.
 - IN ACCORDANCE WITH SECTION 108.0.2 OF THE HOWARD COUNTY ZONING REGULATIONS, THE APPLICANT HAS TRANSFERRED ONE DEVELOPMENT RIGHT FROM A SENDING PARCEL IN ORDER TO DEVELOP THE ENTIRE R-20 ZONING PORTION UNDER THE R-20 BULK REGULATIONS AS WELL AS TO GAIN ONE ADDITIONAL DEVELOPMENT LOT. THE DEVELOPMENT RIGHT WAS SENT BY FILE #2640 (DPZ FILE NO. F-14-124) FROM THE CURTIS PROPERTY.
 - SITE DATA (OVERALL SUBDIVISION):
 A. GROSS AREA OF TRACT = 122.78 AC.
 B. AREA OF FLOODPLAIN = 7.18 AC. (INCLUDES FP IN SHA FLOODPLAIN (0.93 ACRES OUTSIDE OF SHA FC EASEMENT))
 C. AREA OF 25% OR GREATER SLOPES OUTSIDE FLOODPLAIN = 16.00 AC.
 D. NET AREA OF TRACT = 99.64 AC.
 E. NUMBER OF LOTS PERMITTED: 199 LOTS (NET AVERAGE X 2)
 F. NUMBER OF LOTS IMPORTED: 1 LOT
 G. TOTAL NUMBER OF LOTS PERMITTED: 200 LOTS
 H. REQUIRED OPEN SPACE (BASED ON 8,000 S.F. LOTS) = 61.40 AC.
 I. PROVIDED OPEN SPACE = 77.415 AC. (LOTS 196-202)
 J. REQUIRED RECREATIONAL OPEN SPACE = 300 S.F. PER 1,000 S.F. OF GROSS AREA = 58,500 S.F. (1.34 AC.)
 K. PROVIDED RECREATIONAL OPEN SPACE = 70,550 S.F.
 L. ONSITE DISTURBANCE = 50.89 AC.
 M. OFFSITE DISTURBANCE = 4.74 AC.
 - AREA OF PROPOSED BUILDABLE LOTS = 35.813 AC. AREA OF PROPOSED BUILDING LOTS FOR THIS SUBMISSION = 9.75 AC.
 - NUMBER OF LOTS: 55 (THIS PHASE)
 A. BUILDABLE = 55
 B. OPEN SPACE = 0
 - PRIOR CASE NUMBERS ASSOCIATED WITH THIS PROJECT INCLUDE ECP-13-029, SP-13-012, WP-13-165, PB 403, F-14-124, F-16-051, AND F-14-124(5).
 - THIS PROPERTY IS LOCATED INSIDE OF THE METROPOLITAN DISTRICT.
 - NO CEMETERIES, GRAVE SITES, OR HISTORIC STRUCTURES EXIST WITHIN THIS SUBDIVISION.
 - THE FOLLOWING DESIGN MANUAL WAIVERS HAVE BEEN APPROVED FOR THIS PROPERTY:
 * VOL. III SECTION 2.5.6 INTERSECTION VERTICAL ALIGNMENT: WAIVER OF MAXIMUM ALLOWABLE LANDING GRADE AT THE SITE ENTRANCE TO ALLOW ROAD TO DROP QUICKLY AND MATCH ON-SITE GRADES. APPROVED MAY 30, 2013.
 * VOL. III SECTION 2.5.6 INTERSECTION VERTICAL ALIGNMENT: WAIVER OF MAXIMUM ALLOWABLE LANDING GRADE FOR ROAD AT INTERSECTIONS WITH ROAD A AND ROAD B. STEEPENING THE ROAD GRADE SHORTENS THE LENGTH AND THEREBY AVOIDS EXTENDING THE ROAD INTO ENVIRONMENTALLY SENSITIVE AREAS. APPROVED MAY 30, 2013.
 - THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND DEVELOPMENT REGULATIONS PER PUBLIC BILL NO. 75-203. DEVELOPMENT OR CONSTRUCTION ON THIS PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WETLANDS DELINEATION REPORT OR BUILDING GRADING PERMIT APPLICATIONS.
 - WAIVER REQUEST WP-13-165 WAS APPROVED SEPTEMBER 16, 2013 FOR THE FOLLOWING:
 * THE REMOVAL OF 38 OF 146 SPRUCE TREES (SECTION 16.1205 (A)(4-5&7))
 * IMPACTS TO FLOODPLAIN (SECTION 16.1205 (A)(4-5&7))
 - PRELIMINARY EQUIVALENT SKETCH PLAN (SP-13-012) APPROVAL DATE: FEBRUARY 28, 2014 (PLANNING BOARD DECISION)
 - DRYWELL SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 a. WIDTH - 1

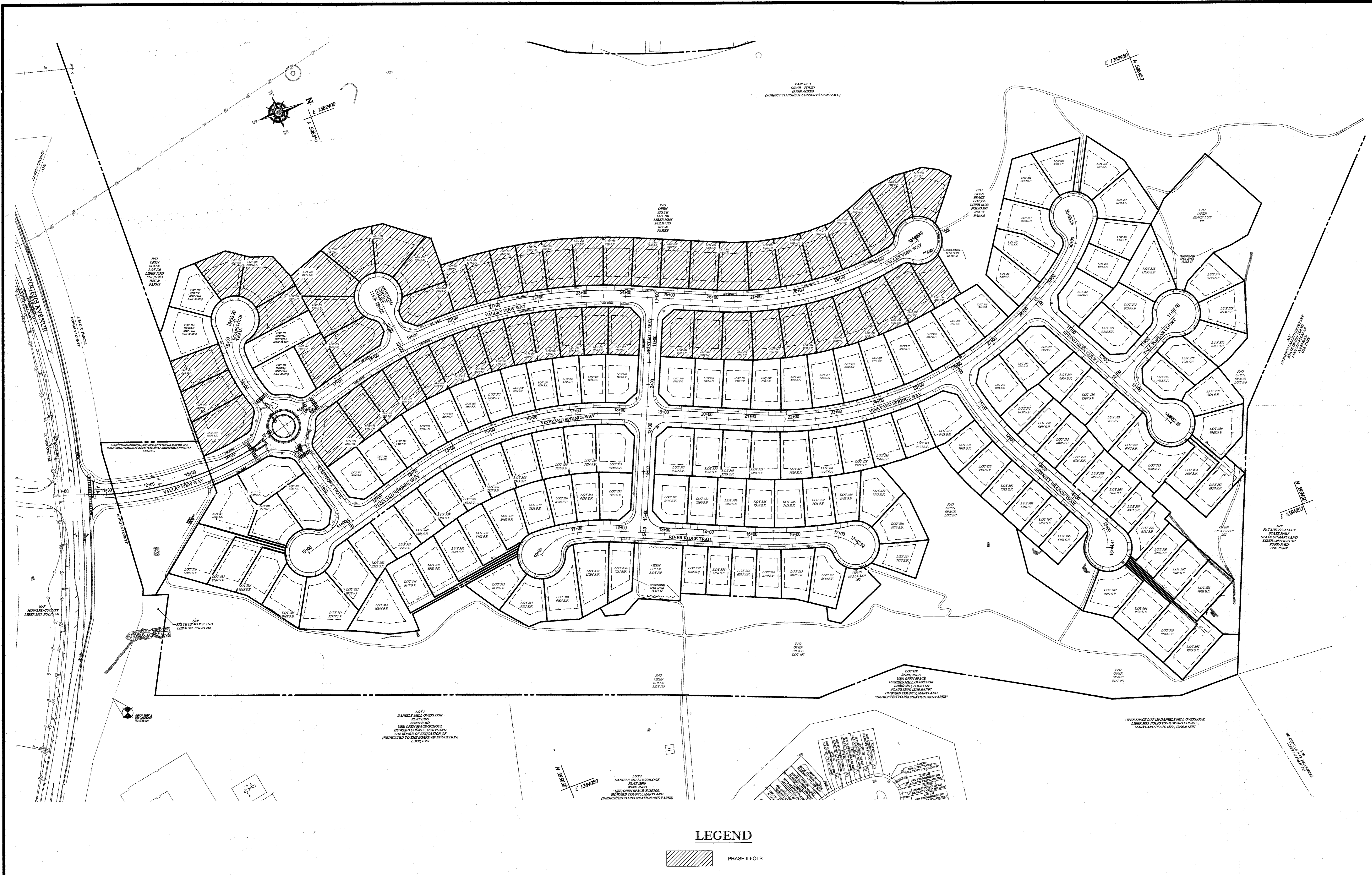


ESTATES AT PATAPSCO PARK
PHASE II LOT MATRIX

LOT NO.	GENERIC FOOTPRINT 'A' (CASTLETON, WILLWOOD, MAPLEVALLEY, AND MELROSE) VICTORIA FALLS							GENERIC FOOTPRINT 'C' (OBERLIN TERRACE, PARKER, SPRINGHAVEN, BATEMAN AND TORINO) (W/ 3 CAR GARAGE) VENICE (W/ 3 CAR GARAGE), VICTORIA FALLS			GENERIC FOOTPRINT 'D' (TORINO, MILAN, ROME, AND HAYWORTH) VENICE, GENOVA			GENERIC FOOTPRINT 'E' (OBERLIN TERRACE, MILAN, AND BATEMAN) VICTORIA FALLS			
	BASE	A1 GAR. EXT.	A2 SUN. RM.	A3 GATH. EXT.	A4 SUN. RM.	A5 SUN. RM.	A6 SUN. RM.	A7 CAFE BAY	BASE	SUN/ MORNING RM.	C1 4' FAMILY RM. EXT.	BASE	SUN/ MORNING RM.	BASE	SUN/ MORNING RM.	BASE	SUN/ MORNING RM.
203																	
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SHC TABLE

LOT	FF ELEV.	CELLAR ELEV.	INV. @ MAN.	SHC LENGTH TO ROW (FT)	SHC SLOPE WITHIN ROW	INVERT @ ROW	SHC SLOPE WITHIN LOT	MAX. SHC LENGTH (FT)	2.50 FT BELOW CELLAR	MIN. CELLAR ELEV. (MCE)	CONNECTION TYPE
203	456.50	446.66	437.19	30.26	4.0%	438.40	4.0%	116.80	2.50	445.56	STD SHC
204	456.50	446.66	437.19	30.26	4.0%	438.40	4.0%	100.34	2.50	445.47	STD SHC
205	456.50	446.66	437.19	31.67	3.0%	439.52	3.5%	86.30	2.50	445.11	STD SHC
206	457.00	447.16	437.69	36.30	2.0%	440.26	2.5%	78.50	2.50	445.31	STD SHC
207	457.00	447.16	437.69	36.30	2.0%	440.26	2.5%	86.50	2.50	445.26	STD SHC
208	457.14	447.30	437.83	31.11	2.0%	440.55	2.0%	83.80	2.50	445.00	STD SHC
209	449.49	439.65	431.21	28.71	4.0%	432.38	4.0%	82.60	2.50	438.16	STD SHC
210	447.39	437.55	427.39	32.00	4.0%	438.67	4.0%	104.00	2.50	438.33	STD SHC
211	447.00	437.16	427.64	37.94	4.0%	439.96	4.0%	78.50	2.50	435.80	STD SHC
212	448.38	438.54	427.90	35.60	4.0%	439.12	4.0%	104.30	2.50	436.80	STD SHC
213	447.84	438.00	427.90	47.50	4.0%	440.26	4.0%	81.00	2.50	441.00	STD SHC
214	447.00	437.16	427.64	44.70	4.5%	439.15	4.5%	82.00	2.50	438.10	STD SHC
215	446.77	436.93	427.75	48.32	4.0%	439.88	5.0%	79.40	2.50	436.15	STD SHC
216	446.77	436.93	427.75	48.32	4.0%	439.88	5.0%	100.00	2.50	435.79	STD SHC
217	443.97	434.13	425.16	27.40	3.5%	436.12	4.0%	84.80	2.50	432.01	STD SHC
218	443.57	433.73	424.80	31.70	4.0%	436.07	4.0%	84.80	2.50	431.96	STD SHC
219	443.68	433.82	424.42	32.06	4.0%	435.70	4.0%	84.80	2.50	431.59	STD SHC
220	442.85	433.01	423.92	30.49	+0%	425.14	4.0%	84.80	2.50	431.03	STD SHC
221	441.57	421.73	422.57	33.50	4.0%	426.05	4.0%	84.80	2.50	429.80	STD SHC
222	440.00	430.16	421.06	33.00	3.5%	422.22	3.5%	84.80	2.50	427.68	STD SHC
223	439.49	429.65	419.87	31.16	3.0%	420.90	5.0%	84.80	2.50	427.54	STD SHC
224	437.04	427.20	418.55	34.50	2.0%	419.24	3.5%	84.80	2.50	424.71	STD SHC
225	437.04	427.20	418.55	34.50	5.0%	416.62	5.0%	84.80	2.50	423.36	DROP TYPE A
226	437.60	427.76	415.23	31.50	5.0%	416.81	5.0%	84.80	2.50	423.55	DROP TYPE A
227	438.41	428.57	415.62	28.50	5.0%	417.07	5.0%	85.00	2.50	423.62	DROP TYPE A
228	438.12	428.28	415.62	32.17	5.0%	417.58	5.0%	84.80	2.50	424.32	DROP TYPE A
229	438.12	428.28	415.62	32.17	5.0%	417.58	5.0%	85.70	2.50	424.75	DROP TYPE A
230	438.48	428.64	417.07	31.50	5.0%	418.67	5.0%	85.50	2.50	425.44	DROP TYPE A
231	437.97	428.13	417.39	28.50	5.0%	418.83	5.0%	86.50	2.50	425.78	STD SHC
232	436.82	426.98	417.67	31.00	3.0%	418.60	3.0%	100.00	2.50	424.60	STD SHC
233	435.51	425.67	417.97	35.40	2.0%	419.28	2.0%	83.00	2.50	423.44	STD SHC
234	434.93	425.09	418.24	31.80	2.0%	418.88	2.0%	88.40	2.50	423.94	STD SHC
235	435.00	425.16	418.09	37.30	2.5%	419.62	2.5%	75.50	2.50	423.42	STD SHC
236	436.82	426.98	417.67	31.00	3.0%	418.60	3.0%	84.80	2.50	423.36	STD SHC
237	435.51	425.67	417.97	35.40	2.0%	419.28	2.0%	83.00	2.50	423.44	STD SHC
238	434.93	425.09	418.24	31.80	2.0%	418.88	2.0%	88.40	2.50	423.94	STD SHC
239	435.00	425.16	418.09	37.30	2.5%	419.62	2.5%	75.50	2.50	423.42	STD SHC
240	436.82	426.98	417.67	31.00	3.0%	418.60	3.0%	84.80	2.50	423.36	STD SHC
241	437.50	427.66	417.44	22.50	4.5%	419.47	4.5%	97.00	2.50	425.33	STD SHC
242	438.23	428.39	417.13	20.50	5.0%	419.18	5.0%	93.80	2.50	425.37	DROP TYPE A
243	438.87	429.03	416.72	22.40							



BOHLER ENGINEERING

CORPORATE OFFICE
 100 W. WASHINGTON ST.
 SUITE 200
 WASHINGTON, PA 15388

CIVIL & CONSULTING ENGINEERS
 SURVEYORS
 PROJECT MANAGERS
 ENVIRONMENTAL CONSULTANTS
 LANDSCAPE ARCHITECTS

OFFICES:
 SOUTH BRITAIN, WA
 TOWSON, MD
 CHALMERS, PA
 HARRISBURG, PA
 PITTSBURGH, PA
 WASHINGTON, PA
 WILKES BARRE, PA
 YORK, PA

REVISIONS

REV	DATE	COMMENT	BY

BOHLER ENGINEERING

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE OF VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE: CALL 811 (TOLL FREE 1-800-448-4848) (PA 1-800-242-1778) (DC 1-800-257-7777) (VA 1-800-662-7001) (MD 1-800-251-7777) (DE 1-800-282-8555)

PROJECT No: MD152012
 DRAWN BY: JMA
 CHECKED BY: JMA
 DATE: 6/24/16
 SCALE: 1"=100'
 CAD.D.: OVE

PROJECT: **SITE DEVELOPMENT PLANS (PHASE II)** FOR **ESTATES AT PATASCO PARK**
 SINGLE FAMILY DETACH UNITS
 BUILDABLE LOTS 203-205, 208-210, 213-248 & 373-385
 PLAT NOS. 23596 - 23609
 LOCATION OF SITE: **ROGERS AVENUE HOWARD COUNTY**

BOHLER ENGINEERING

901 DULANEY VALLEY ROAD, SUITE 801
 TOWSON, MARYLAND 21284
 Phone: (410) 821-7900
 Fax: (410) 821-7987
 www.BohlerEngineering.com

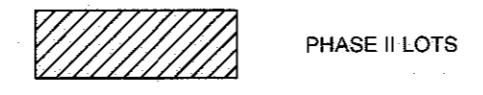
B. BRONOWSKI

PROFESSIONAL ENGINEER
 LICENSE NO. 40895
 EXPIRATION DATE: 7/31/2017

SHEET TITLE: **OVERALL PLAN**

SHEET NUMBER: **5 of 19**

LEGEND



APPROVED DEPARTMENT OF PLANNING AND ZONING

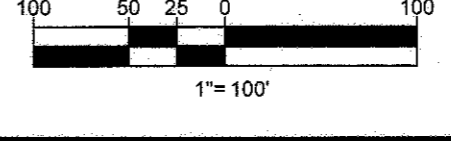
Kathleen... 8-26-16
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad... 8-21-16
 CHIEF DEVELOPMENT ENGINEERING DIVISION DATE

Val... 8-26-16
 DIRECTOR - DEPARTMENT OF PLANNING AND ZONING DATE

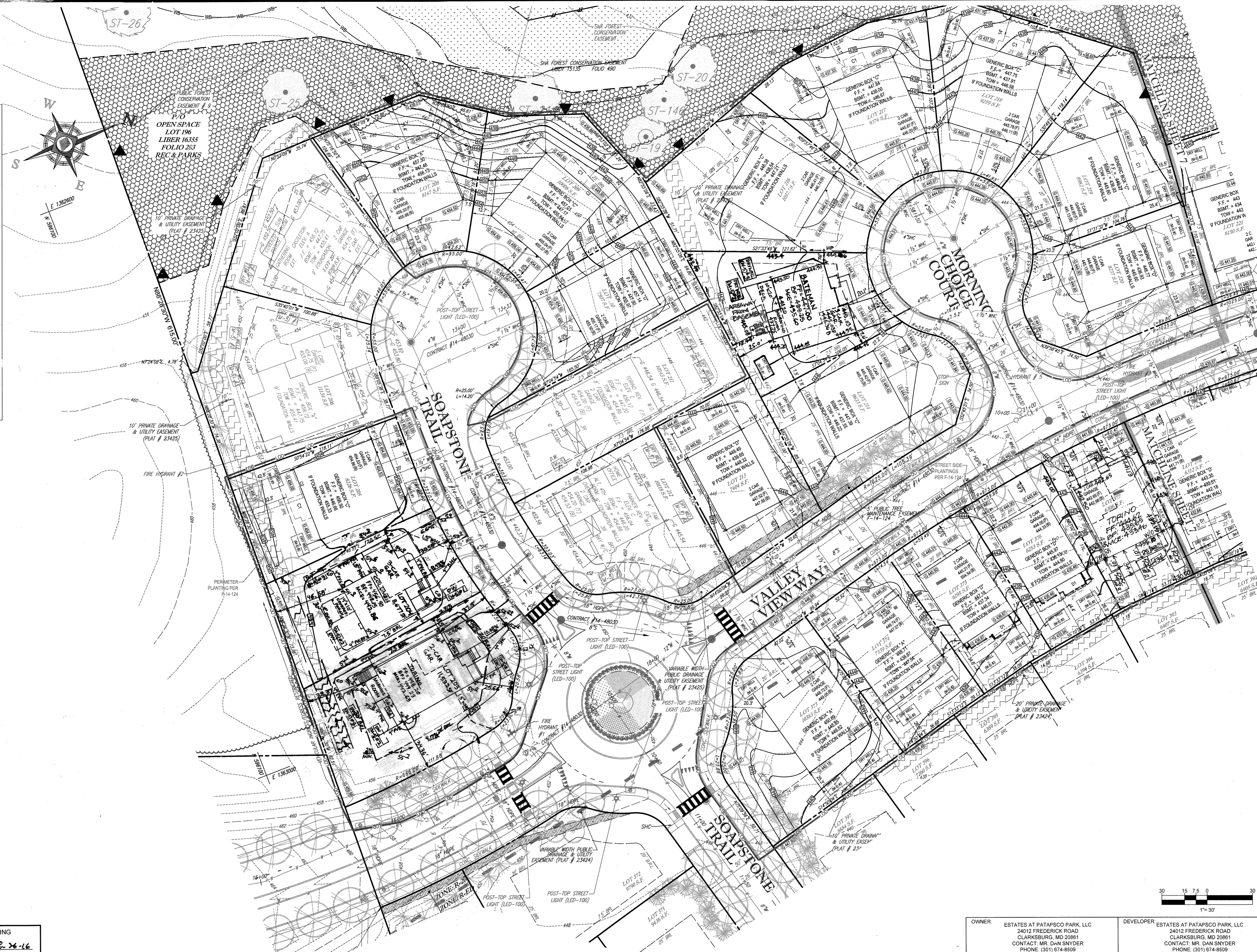
GENERAL NOTE:
 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL, STATE AND FEDERAL CODES.

OWNER: ESTATES AT PATASCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20881 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509	DEVELOPER: ESTATES AT PATASCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20881 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509
PERMIT INFORMATION CHART	
SUBDIVISION NAME: ESTATES AT PATASCO PARK	SECTION/AREA: NA
PLAT # OR L.F.: #23421	GRID # 5.6, 11, 12
PREVIOUS FILE NO.: SP-13-012 ECP-13-029 WP-13-165 PB CASE NO. 403 E-14-124 CONT.# 10-3500 (FORCE MAIN)	PLATS 23421 TO 23438 F-18-051 SDP-16-019
LOT/PARCEL NO.: 203-205, 208-210, 213-248, & 373-385	TAX MAP NO.: 17
ELECT. DISTR.: 2ND	CENSUS TRACT: 62100
PROFESSIONAL CERTIFICATION I, BRANON R. ROWE, 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. 40895, EXPIRATION DATE: 7/31/2017.	



LEGEND

- PROPERTY LINE
- WETLAND BUFFER LIMITS
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TREE PROTECTION FENCE
- FOREST CONSERVATION EASEMENT
- REFORESTATION AREA
- PREVIOUSLY RECORDED FOREST CONSERVATION EASEMENT
- FOREST RETENTION AREA
- WETLANDS
- STEEP SLOPES 15-25%
- STEEP SLOPES >25%
- FOREST CONSERVATION SIGNAGE
- SPECIMEN TREE (TO REMAIN)



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Kate Seligson 9-26-16
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Paul Edinger 9-24-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Valerie Kelly 8-26-16
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHOULD FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPROPRIATE CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE WORK AS SHOWN BY THE DRAWINGS AND ALL CODES/ORDINANCES WITH LOCAL REGULATIONS AND CODES.

NOTE: FOR GENERIC BOX FORMATS, SEE "HOUSE TYPES" ON SHEET 3 AND 4.

OWNER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20881 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509	DEVELOPER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20881 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509
PERMIT INFORMATION CHART	
SUBDIVISION NAME: ESTATES AT PATAPSCO PARK	SECTION/ARC: NA
PLAT # OR L.P.: #23421	GRD # 5, 6, 11, 12
PREVIOUS FILE NO: SP-13-012 EOP-13-029 WP-13-165 PB CASE NO. 403 F-14-124 CONT # 10-3500 (FORCE MAIN)	PLATS 23421 TO 23436 F-16-051 PLATS 23596 - 23609 SDP-16-019
LOT/PARCEL NO. 203-205, 208-210, 213-248, & 373-385	
ZONING: R-20 & R-ED	TAX MAP NO.: 17
ELECT. DISTR.: 2ND	CENSUS TRACT: 82100
PROFESSIONAL CERTIFICATION I, BRANDON R. ROWE, 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. 40808, EXPIRATION DATE: 7/31/2017.	

BOHLER ENGINEERING

CORPORATE OFFICE: SOUTHROCK, VA
OFFICES: BOWEN, MD; TOWSON, MD; CLARKSBURG, MD; CHARLOTTESVILLE, VA; PHILADELPHIA, PA

CIVIL & CONSULTING ENGINEERS
SURVEYORS
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS

REVISIONS

REV	DATE	COMMENT	BY
2	11/17/16	REVISE HOUSE TYPE RVE	
3	4/28/17	ADD BATHROOM LOT 205 RVE	
4	4/16/17	REVISE PERFORAN	
5	6/27/17	REVISE LOT 377 RVE	
6	9-4-18	REVISE THE HOUSE TYPE ON LOT 204 AND ADD 5 HOUSE TYPES	
7	3-15-19	REVISE PLAN TO REVISE THE HOUSE TYPE, GARDENS AND PORCH LOCATIONS ON LOT 205	RHV
8	9-28-19	REVISE HOUSE TYPE AND GARDENS ON LOT 204 AND ADD 5 HOUSE TYPES	RHV

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE OF VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL-811 (TOLL FREE 1-800-245-4848) OR (VA) 1-800-245-1779; (DC) 1-800-257-7777; (VA) 1-800-552-7001; (MD) 1-800-267-7777; (DE) 1-800-257-8855

PROJECT NO.:	MD152013
DRAWN BY:	AVG
CHECKED BY:	JMA
DATE:	6/24/16
SCALE:	1" = 30'
CAD L.D.:	SS2

PROJECT: **SITE DEVELOPMENT PLANS (PHASE II)** FOR **ESTATES AT PATAPSCO PARK**

SINGLE FAMILY DETACH UNITS
BUILDABLE LOTS 203-205,
208-210, 213-248 & 373-385
PLAT NOS. 23596 - 23609

LOCATION OF SITE
ROGERS AVENUE
HOWARD COUNTY

BOHLER ENGINEERING

901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21284
Phone: (410) 821-7900
Fax: (410) 821-7987
www.BohlerEngineering.com

B.R. ROWE

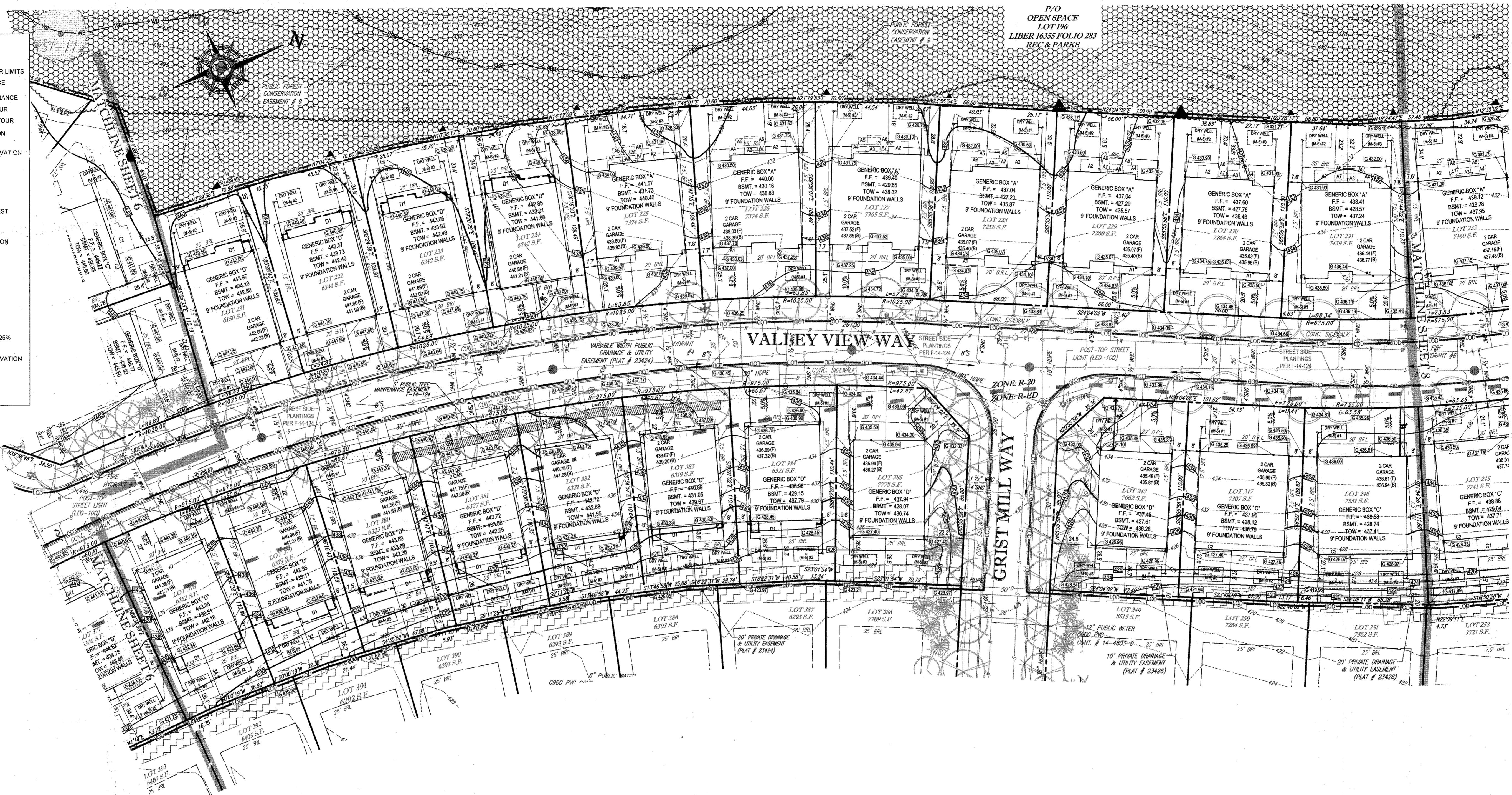
PROFESSIONAL ENGINEER
LICENSE NO. 40808, EXPIRATION DATE: 7/31/2017

SHEET TITLE: **SITE DEVELOPMENT PLAN**

SHEET NUMBER: **6 of 19**

LEGEND

- PROPERTY LINE
- WETLAND BUFFER LIMITS
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TREE PROTECTION FENCE
- FOREST CONSERVATION EASEMENT
- REFORESTATION AREA
- PREVIOUSLY RECORDED FOREST CONSERVATION EASEMENT
- FOREST RETENTION AREA
- WETLANDS
- STEEP SLOPES 15-25%
- STEEP SLOPES >25%
- FOREST CONSERVATION SIGNAGE
- SPECIMEN TREE (TO REMAIN)



P/O
OPEN SPACE
LOT 196
LIBER 16355 FOLIO 283
REC & PARKS

BOHLER ENGINEERING

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PORTLAND, OR
SAN ANTONIO, TX
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PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS

CIVIL & CONSULTING ENGINEERS
SURVEYORS
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS

REVISIONS

REV	DATE	COMMENT	BY
2	11/17/16	REVISE HOUSE TYPE D RVE	RVE

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MD: 1-800-245-4848 (PA 1-800-245-1777) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DC 1-800-282-8569)

PROJECT No.	MD152013
DRAWN BY	AVG
CHECKED BY	JMA
DATE	6/24/16
SCALE	1" = 30'
CAD I.D.	SSZ

SITE DEVELOPMENT PLANS (PHASE II)
FOR
ESTATES AT PATAPSCO PARK
SINGLE FAMILY DETACH UNITS
BUILDABLE LOTS 203-205,
208-210, 213-248 & 373-385
PLAT NOS. 23596 - 23609

LOCATION OF SITE
ROGERS AVENUE
HOWARD COUNTY

BOHLER ENGINEERING

901 DULANEY VALLEY ROAD,
SUITE 901
TOWSON, MARYLAND 21284
Phone: (410) 821-7900
Fax: (410) 821-7987
www.BohlerEngineering.com

B.R. ROWE

PROFESSIONAL ENGINEER

STATE OF MARYLAND

10909

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 8-26-16
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

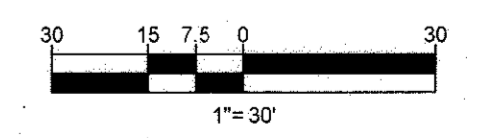
[Signature] 8-24-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 8-26-16
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK. BEFORE THE INITIATION OF CONSTRUCTION, THE CONTRACTOR SHOULD CONDUCT A VISUAL CHECK OF THE PROJECT SITE TO VERIFY THE ACCURACY OF THE INFORMATION SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS SHOWN ON THESE DRAWINGS AND TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL GOVERNMENT AND AGENCIES.

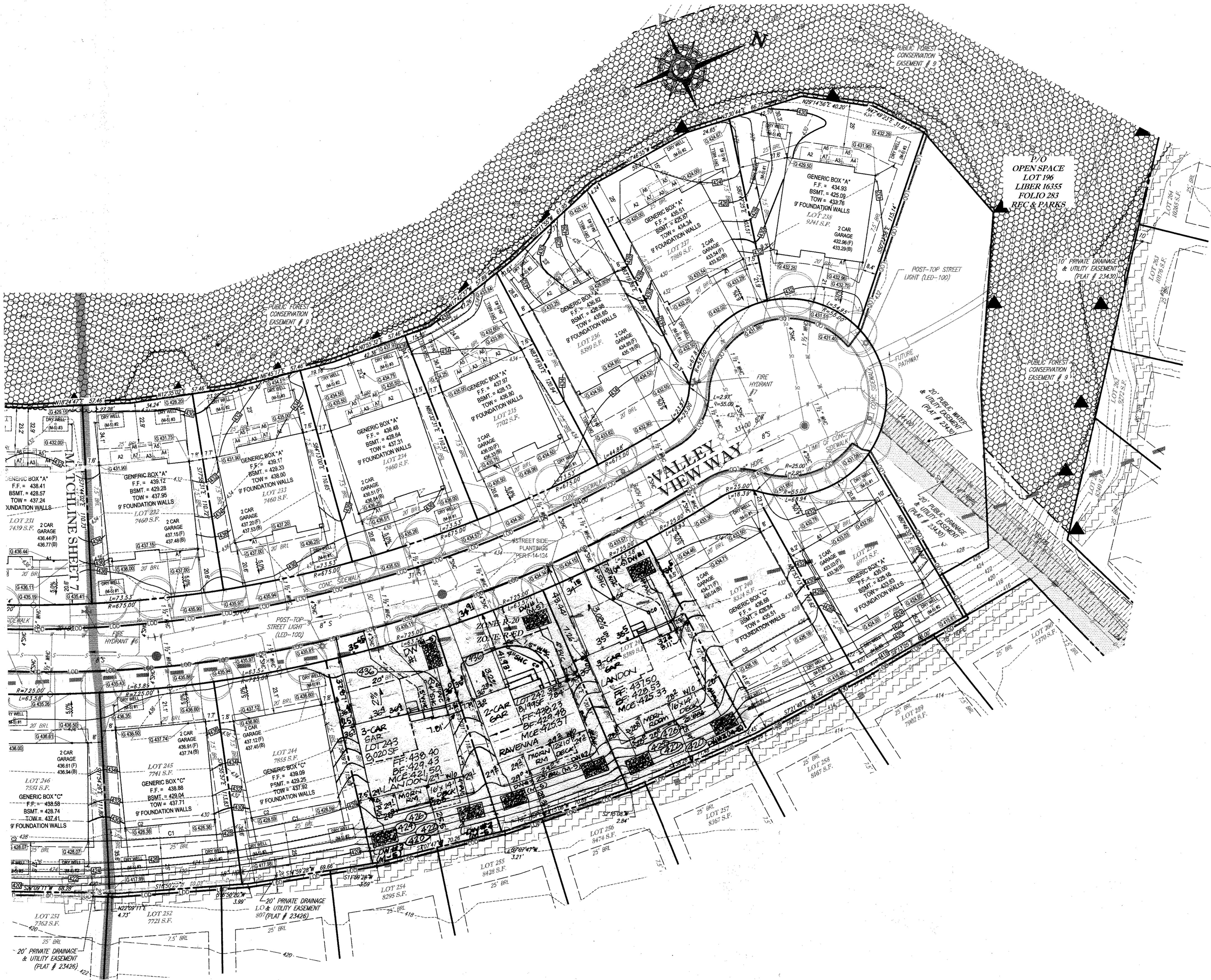
NOTE: FOR GENERIC BOX FORMATS,
SEE "HOUSE TYPES" ON SHEET 3 AND 4.

OWNER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20861 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509	DEVELOPER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20861 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509	
PERMIT INFORMATION CHART		
SUBDIVISION NAME: ESTATES AT PATAPSCO PARK	SECTION/AREA: NA	LOT/PARCEL NO.: 203-205, 208-210, 213-248, & 373-385
PLAT # OR L.P.: #23421	GRD # 5.6, 11, 12	ZONING: R-20 & R-ED
PREVIOUS FILE NO.: SP-13-012 ECP-13-029 WP-13-169 PB CASE NO. 403 F-14-124 CONT # 10-3500 (FORCE MAIN)	PLATS 23421 TO 23436 F-10-051 PLATS 23596 - 23609 SDP-16-019	PROFESSIONAL CERTIFICATION I, BRANDON R. ROWE, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 40808, EXPIRATION DATE: 7/31/2017



SHEET TITLE
SITE DEVELOPMENT PLAN

SHEET NUMBER
7 of 19



LEGEND

- PROPERTY LINE
- WETLAND BUFFER LIMITS
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TREE PROTECTION FENCE
- FOREST CONSERVATION EASEMENT
- REFORESTATION AREA
- PREVIOUSLY RECORDED FOREST CONSERVATION EASEMENT
- FOREST RETENTION AREA
- WETLANDS
- STEEP SLOPES 15-25%
- STEEP SLOPES >25%
- FOREST CONSERVATION SIGNAGE
- SPECIMEN TREE (TO REMAIN)

BOHLER ENGINEERING

CORPORATE OFFICE:
 100 W. HIGHWAY 101
 SOUTHBOURGH, MA
 PROJECT MANAGERS:
 ALBANY, NY
 ENVIRONMENTAL CONSULTANTS:
 CHALCOTE, PA
 LANDSCAPE ARCHITECTS:
 TAMPA, FL

CIVIL & CONSULTING ENGINEERS
 SURVEYORS

PHILADELPHIA, PA
 WASHINGTON, VA
 WILMINGTON, DE
 PHILADELPHIA, PA
 TAMPA, FL

REVISIONS

REV	DATE	COMMENT	BY
3	9/18/17	ADD LANDON AND RAVENNA HOUSE TYPE AND GARAGE TOES 241, 242, 243	JMA

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL: 811
 (WV 1-800-245-4848) (PA 1-800-242-1773) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8009)

PROJECT No.:	MD152013
DRAWN BY:	AVG
CHECKED BY:	JMA
DATE:	6/24/16
SCALE:	1" = 30'
CAD I.D.:	SS2

PROJECT: **SITE DEVELOPMENT PLANS (PHASE II) FOR**

ESTATES AT PATAPSCO PARK

SINGLE FAMILY DETACH UNITS
 BUILDABLE LOTS 203-205
 208-210, 213-248 & 373-385
 PLAT Nos. 23596 - 23609

LOCATION OF SITE
 ROGERS AVENUE
 HOWARD COUNTY

BOHLER ENGINEERING

901 DULANEY VALLEY ROAD,
 SUITE 801
 TOWSON, MARYLAND 21284
 Phone: (410) 821-7900
 Fax: (410) 821-7997
 www.BohlerEngineering.com

SHEET TITLE:
SITE DEVELOPMENT PLAN

SHEET NUMBER:
8 of 19

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Kurt Cadogan 8-26-16
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

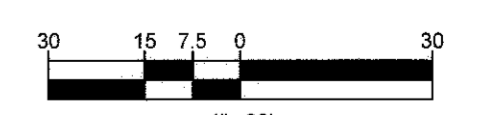
Oliver Johnson 8-24-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Valdis J. P. [Signature] 8-26-16
 DIRECTOR - DEPARTMENT OF PLANNING AND ZONING DATE

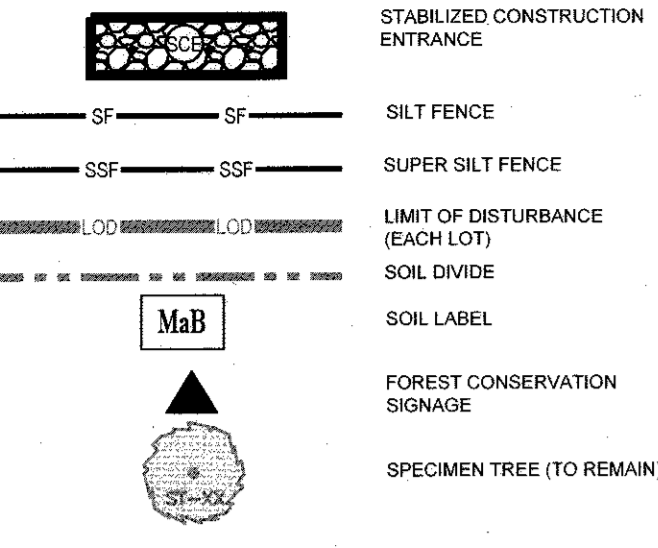
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT. WORK SHOULD BE STOPPED IMMEDIATELY IN THE EVENT OF A DISCREPANCY OR CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCY OR CONFLICT IMMEDIATELY. FAILURE TO DO SO SHALL BE CONSIDERED AS ACCEPTANCE OF THE WORK AS SHOWN ON THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

NOTE: FOR GENERIC BOX FORMATS, SEE "HOUSE TYPES" ON SHEET 3 AND 4.

OWNER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20861 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509	DEVELOPER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20861 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509
PERMIT INFORMATION CHART	
SUBDIVISION NAME: ESTATES AT PATAPSCO PARK	SECTION/AREA: N/A
PLAT # OR L.F.: #23421	GRID # 5.6, 11, 12
PREVIOUS FILE NO.: SP-13-012 ECP-13-029 WP-13-105 PB CASE NO. 403 F-14-124 CONT # 10-3500 (FOUR MAIN)	PLATS 23421 TO 23436 F-16-051 PLATS 23596 - 23609 SDP-16-019
TAX MAP NO.: 17	ELECT DISTR: 2ND
CENSUS TRACT: 602100	
PROFESSIONAL CERTIFICATION I, BRANDON R. ROWE, 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. 40808, EXPIRATION DATE: 7/31/2017	



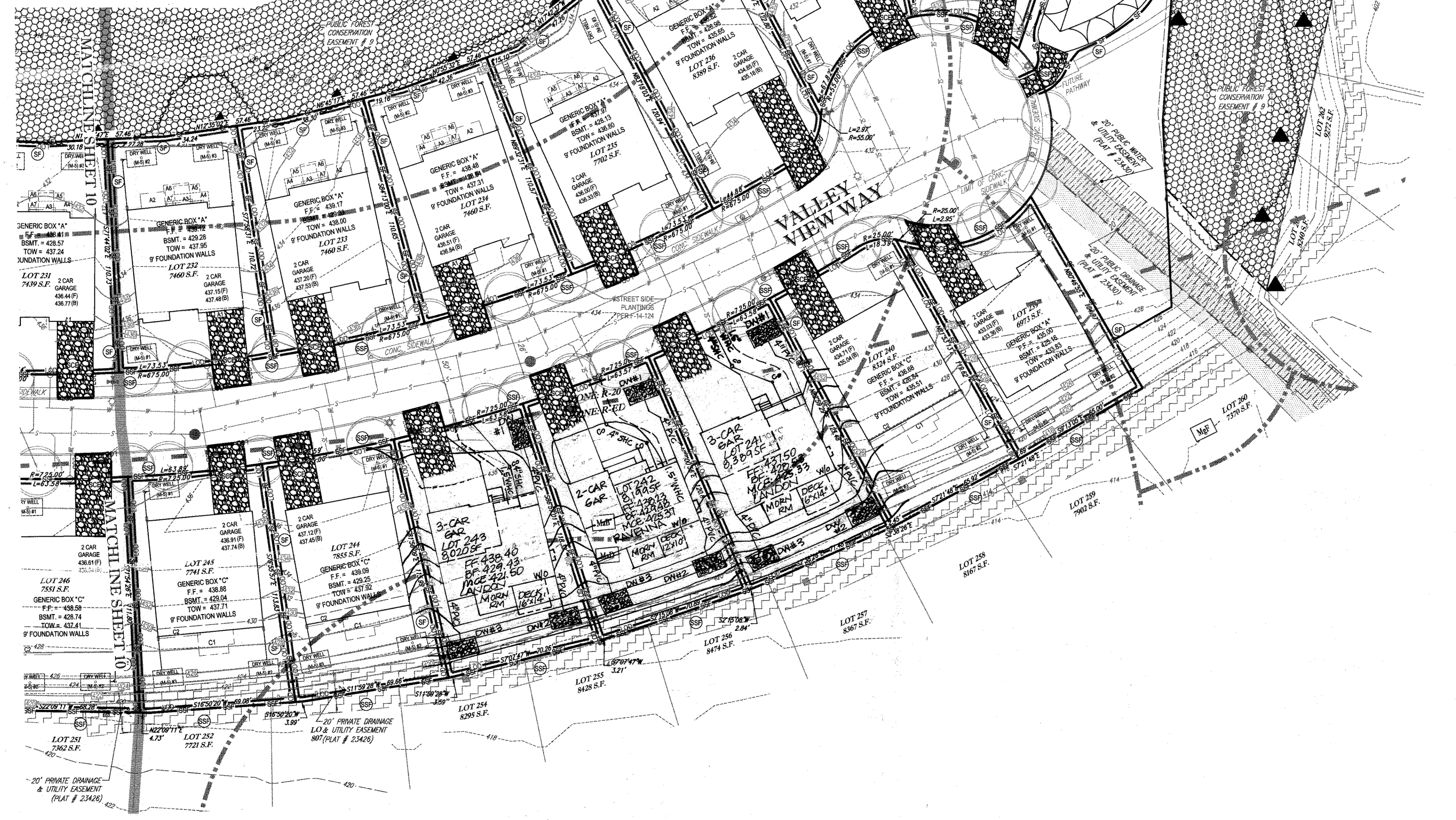
EROSION AND SEDIMENT CONTROL LEGEND



SOILS				
SYMBOL	DESCRIPTION	K-FACTOR	HYDRIC	HYDROLOGIC GROUP
Gbb	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	0.37	YES	C
Gnb	GLENVILLE-BAILE SILT LOAM, 0 TO 8 PERCENT SLOPES	0.37	YES	C
Mac	MANOR SILT LOAM, 8 TO 15 PERCENT SLOPES	0.24	NO	B

EROSION AND SEDIMENT CONTROL NOTES:

- CONTRACTOR TO ACCOUNT FOR BASEMENT CUT BY LOWERING ELEVATIONS OF LOTS AS REQUIRED. GENERAL GRADING DESIGN SHOULD REMAIN THE SAME. LOTS SHOULD BE BROUGHT TO FINAL GRADE AFTER SDP APPROVAL WHEN HOUSES ARE BUILT AND CUT IN BASEMENTS IS AVAILABLE.
- REFER TO SHEETS 12 & 13 FOR SEQUENCE OF CONSTRUCTION, SEDIMENT CONTROL NOTES, AND SEDIMENT CONTROL DETAILS.
- ALL PROPOSED WORK OUTSIDE OF PERIMETER CONTROLS SHALL BE PERMANENTLY STABILIZED AT THE END OF EACH WORK DAY.
- PROPOSED SILT FENCE IS TO BE CHANGED TO SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
- EITHER TEMPORARY OR PERMANENT SEEDING IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE TIME FRAMES REQUIRED BY THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, WHICHEVER IS MORE RESTRICTIVE.
- CONTRACTOR TO INSTALL STABILIZATION MATTING IN ALL SWALES AND ON ALL SLOPES 3:1 OR GREATER.
- SHOULD THE STOCKPILE EXCEED 15 FT. IN HEIGHT, IT MUST BE BENCHED.
- LOTS SHALL BE PERMANENTLY STABILIZED AS SOON AS REASONABLY POSSIBLE TO HELP PREVENT SEDIMENTATION TO SWAN FACILITIES.



BENCHMARK NOTE:

THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM. HORIZONTAL AND VERTICAL CONTROL DATUM ARE BASED ON HOWARD COUNTY MONUMENT NOS. 17-F7 AND 17-FA WHICH WERE USED FOR THIS PROJECT.

HOWARD COUNTY MONUMENT NO. 17-F7 ELEV. = 469.389
HOWARD COUNTY MONUMENT NO. 17-FA ELEV. = 476.721

EROSION AND SEDIMENT CONTROL QUANTITIES:

TOTAL FOR ALL 58 LOTS
LIMIT OF DISTURBANCE: 9.0 AC.
SILT FENCE: 8,770 LF
SUPER SILT FENCE: 4,901 LF
EARTHWORK: 43,900 CY CUT
44,900 CY FILL
0 CY EXPORT

EXCESS SOIL MATERIAL WILL BE STOCKPILED ON-SITE
STABILIZED CONSTRUCTION ENTRANCE: 55 EA

SOIL MATERIAL SHALL BE DISCARDED AT A SITE WITH AN ACTIVE GRADING PERMIT AND APPROVED SEDIMENT CONTROL PLAN. BORROW MATERIAL SHALL BE OBTAINED FROM AN APPROVED SITE WITH AN ACTIVE GRADING PERMIT AND AN APPROVED SEDIMENT CONTROL PLAN.

EARTH QUANTITIES LISTED ABOVE ARE FOR SEDIMENT CONTROL USE ONLY. CONTRACTOR SHALL NOT RELY ON THESE FIGURES FOR ESTIMATING AND BIDDING PURPOSES.

BOHLER ENGINEERING

CORPORATE OFFICE:
1000 WASHINGTON ST.
FREDERICK, MD 21704

PROJECT MANAGERS:
TOWSON, MD
ALEXANDRIA, VA
CHAMBERS, MD
CLARKSBURG, MD
FARMERSVILLE, VA
HARRISBURG, PA
HAGERSTOWN, MD
LANSING, MI
LITTLE ROCK, AR
MARTINSBURG, WV
ROCKVILLE, MD
SCHAUBER, VA
TIMPSON, VA
WARRINGTON, VA
WINDY HILL, VA

CIVIL & CONSULTING ENGINEERS
SURVEYORS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS

REVISIONS

REV	DATE	COMMENT	BY
3	9/18/17	ADD LAKEMOND RAVENNA HOUSE TYPES, REVISE HOUSE TYPES, REVISE HOUSE TYPES, REVISE HOUSE TYPES	RV

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL: 811

(WV 1-800-245-4849) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-262-8859)

PROJECT No. MD152013
DRAWN BY: JMA
CHECKED BY: JMA
DATE: 6/24/16
SCALE: 1" = 30'
CAD 1/D: SSZ

PROJECT: SITE DEVELOPMENT PLANS (PHASE II) FOR ESTATES AT PATAPSCO PARK

SINGLE FAMILY DETACH UNITS
BUILDABLE LOTS 203-205
208-210, 213-248 & 373-385
PLAT NOS. 23596 - 23609

LOCATION OF SITE
ROGERS AVENUE
HOWARD COUNTY

BOHLER ENGINEERING

901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21284
Phone: (410) 821-7900
Fax: (410) 821-7987
www.BohlerEngineering.com

B.R. ROWE

PROFESSIONAL ENGINEER
LICENSE NO. 40808
EXPIRATION DATE 7/31/16

EROSION AND SEDIMENT CONTROL PLAN

SHEET NUMBER: 11 of 19

NOTE:
SEE SHEET 19 OF 19 FOR ADDITIONAL INFORMATION ON SEDIMENT CONTROL AND TEMPORARY STORMWATER MANAGEMENT MEASURES FROM FINAL ROAD CONSTRUCTION PLANS (F-14-124).

NOTE: SEE SHEETS 14-18 FOR STORMWATER MANAGEMENT FACILITIES THAT WILL SERVE INDIVIDUAL LOTS.

- NOTES:**
- TEMPORARY SWM IS PROVIDED UNDER F-14-124.
 - IF HOUSE CONSTRUCTION IS CONCURRENT WITH ROAD CONSTRUCTION, COORDINATE THE WORK ON THESE PLANS WITH F-14-124.
 - NO STOCKPILE WILL BE PERMITTED ON LOTS BEING DEVELOPED UNDER THIS SITE DEVELOPMENT PLAN.
 - SEEDING AND STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR IN COMPLIANCE WITH THE STANDARD SEEDING AND STABILIZATION NOTES WHICHEVER IS MORE RESTRICTIVE.
 - FOR SEQUENCE OF CONSTRUCTION FOR EACH LOT, SEE SHEET 13, EROSION AND SEDIMENT CONTROL NOTES & DETAILS.
 - CONTRACTOR SHALL MAINTAIN PERIMETER SEDIMENT CONTROL AT ALL TIMES AND IN THE EVENT OF SEDIMENT/DEBRIS LEAVING A DISTURBED BUILDING SITE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FLUSHING/CLEANING OF STORM DRAIN SYSTEM OF SEDIMENT/DEBRIS AND AT THE REQUEST OF THE SEDIMENT CONTROL INSPECTOR.

EROSION AND SEDIMENT CONTROL UTILITY INSTALLATION NOTES:

- CONTRACTOR SHALL OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWN-SLOPE OF) TRENCH.
- PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.
- CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PROTECT RECREATION AREAS AT ALL TIMES DURING UNDERGROUND UTILITY CONSTRUCTION.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Kate Leland 8-26-16
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Phil Johnson 8-24-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

William J. Davis 8-26-16
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT. WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPROPRIATE CODES, THE CONTRACTOR'S RESPONSIBILITY IS TO NOTIFY THE PROJECT ENGINEER IMMEDIATELY BY WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY FOR THE CONTRACTOR'S COMPLIANCE WITH THE DRAWINGS AND SPECIFICATIONS AND ANY CONSEQUENCES THEREOF.

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

John M. Robertson 7/19/16
HOWARD SCD DATE

ENGINEER'S CERTIFICATE
I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.

Brandon R. Rowe 6/30/16
SIGNATURE OF ENGINEER DATE
BRANDON R. ROWE, P.E.

ESTATES AT PATAPSCO PARK
55 SINGLE FAMILY DETACHED UNITS

DEVELOPER'S CERTIFICATE
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY CONSERVATION DISTRICT.

Dan Snyder 7/11/16
SIGNATURE OF DEVELOPER DATE
DAN SNYDER, PROJECT MANAGER

OWNER: ESTATES AT PATAPSCO PARK, LLC
24012 FREDERICK ROAD
CLARKSBURG, MD 20861
CONTACT: MR. DAN SNYDER
PHONE: (301) 674-8509

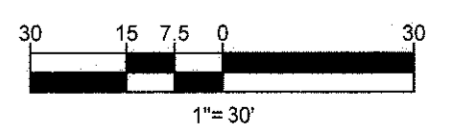
DEVELOPER: ESTATES AT PATAPSCO PARK, LLC
24012 FREDERICK ROAD
CLARKSBURG, MD 20861
CONTACT: MR. DAN SNYDER
PHONE: (301) 674-8509

PERMIT INFORMATION CHART

SUBDIVISION NAME:	SECTION/AREA:	LOT/PARCEL NO.:
ESTATES AT PATAPSCO PARK	NA	203-205, 208-210, 213-248, & 373-385
PLAT # OR L.F. #:	GRID # & S. 11. 12	ZONING R-20 & R-8D
PREVIOUS FILE NO.:	SP-13-012	TAX MAP NO. 17
	ECP-13-029	
	WP-13-165	PLATS 23421 TO 23436
	PB CASE NO. 403	PLATS 23596 - 23609
	F-14-124	SDP-16-019
		COINT. # 10-3500 (FORCE MAIN)

ELECT. DIST. NO. 2ND
CENSUS TRACT: 602100

PROFESSIONAL CERTIFICATION
I, BRANDON R. ROWE, 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. 40808, EXPIRATION DATE: 7/31/2017



B-4 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

DEFINITION
USING VEGETATION AS COVER TO PROTECT EXPOSED SOIL FROM EROSION.

PURPOSE
TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL.

CONDITIONS WHERE PRACTICE APPLIES
ON ALL DISTURBED AREAS NOT STABILIZED BY OTHER METHODS, THIS SPECIFICATION IS DIVIDED INTO SECTIONS ON INCREMENTAL STABILIZATION; SOIL PREPARATION, SOIL AMENDMENTS AND TOPSOILING; SEEDING AND MULCHING; TEMPORARY STABILIZATION, AND PERMANENT STABILIZATION.

EFFECTS ON WATER QUALITY AND QUANTITY
STABILIZATION PRACTICES ARE USED TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL. WHEN SOIL IS STABILIZED WITH VEGETATION, THE SOIL IS LESS LIKELY TO ERODE AND MORE LIKELY TO ALLOW INFILTRATION OF RAINFALL, THEREBY REDUCING SEDIMENT LOADS AND RUNOFF TO DOWNSTREAM AREAS. PLANTING VEGETATION IN DISTURBED AREAS WILL HAVE AN EFFECT ON THE WATER BUDGET, ESPECIALLY ON VOLUMES AND RATES OF RUNOFF. INFILTRATION, EVAPORATION, TRANSPIRATION, PERCOLATION, AND GROUNDWATER RECHARGE, OVER TIME, VEGETATION WILL INCREASE ORGANIC MATTER CONTENT AND IMPROVE THE WATER HOLDING CAPACITY OF THE SOIL AND SUBSEQUENT PLANT GROWTH. VEGETATION WILL HELP PROTECT THE MOVEMENT OF SEDIMENT, NUTRIENTS, AND OTHER CHEMICALS CARRIED BY RUNOFF TO RECEIVING WATERS. PLANTS WILL ALSO HELP PROTECT GROUNDWATER SUPPLIES BY ASSIMILATING THOSE SUBSTANCES PRESENT WITHIN THE ROOT ZONE. SEDIMENT CONTROL PRACTICES MUST REMAIN IN PLACE DURING GRADING, SEEDING PREPARATION, SEEDING, MULCHING, AND VEGETATIVE ESTABLISHMENT.

ADEQUATE VEGETATIVE ESTABLISHMENT
INSPECT SEEDING AREAS FOR VEGETATIVE ESTABLISHMENT AND MAKE NECESSARY REPAIRS, REPLACEMENTS, AND RESEEDINGS WITHIN THE PLANTING SEASON.
1. ADEQUATE VEGETATIVE STABILIZATION REQUIRES 95 PERCENT GROUND COVER.
2. IF AN AREA HAS LESS THAN 40 PERCENT GROUND COVER, REESTABLISH FOLLOWING THE ORIGINAL RECOMMENDATIONS FOR LIME, FERTILIZER, SEEDING PREPARATION, AND SEEDING.
3. IF AN AREA HAS BETWEEN 40 AND 94 PERCENT GROUND COVER, OVER SEED AND FERTILIZE USING HALF OF THE RATES ORIGINALLY SPECIFIED.
4. MAINTENANCE FERTILIZER RATES FOR PERMANENT SEEDING ARE SHOWN IN TABLE B.6.

B-4-1 STANDARDS AND SPECIFICATIONS FOR 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**
- INCREMENTAL STABILIZATION - CUT SLOPES**
 - 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.
 - CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.1):
 - CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO CONVEY RUNOFF AROUND THE EXCAVATION.
 - PERFORM PHASE 1 EXCAVATION, PREPARE SEEDBED, AND STABILIZE.
 - PERFORM PHASE 2 EXCAVATION, PREPARE SEEDBED, AND STABILIZE. OVERSEED PHASE 1 AREAS AS NECESSARY.
 - PERFORM FINAL PHASE EXCAVATION, PREPARE SEEDBED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDBED 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.

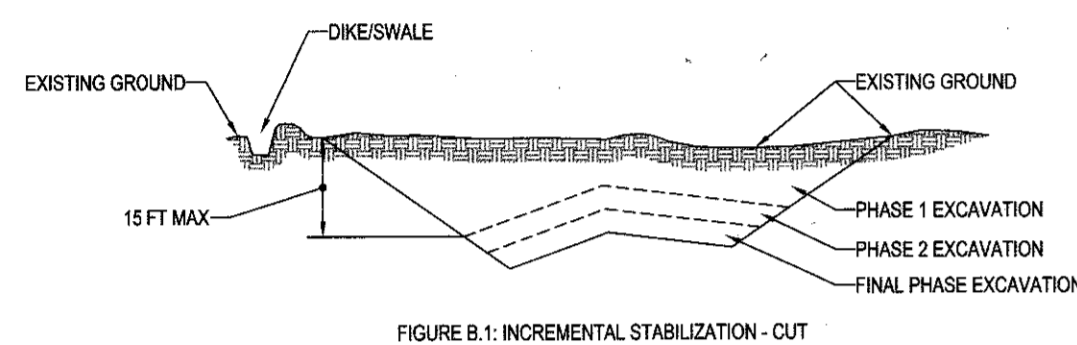


FIGURE B.1: INCREMENTAL STABILIZATION - CUT

- INCREMENTAL STABILIZATION - FILL SLOPES**
 - 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.
 - STABILIZE SLOPES IMMEDIATELY WHEN THE VERTICAL HEIGHT OF A LIFT REACHES 15 FEET, OR WHEN THE GRADING OPERATION CEASES AS PRESCRIBED IN THE PLANS.
 - AT THE END OF EACH DAY, INSTALL TEMPORARY WATER CONVEYANCE PRACTICES, AS NECESSARY, TO INTERCEPT SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER.
 - CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.2):
 - 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.
 - AT THE END OF EACH DAY, INSTALL TEMPORARY WATER CONVEYANCE PRACTICES, AS NECESSARY, TO INTERCEPT SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER.
 - PLACE PHASE 1 FILL, PREPARE SEEDBED, AND STABILIZE.
 - PLACE PHASE 2 FILL, PREPARE SEEDBED, AND STABILIZE.
 - PLACE FINAL PHASE FILL, PREPARE SEEDBED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDBED 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.

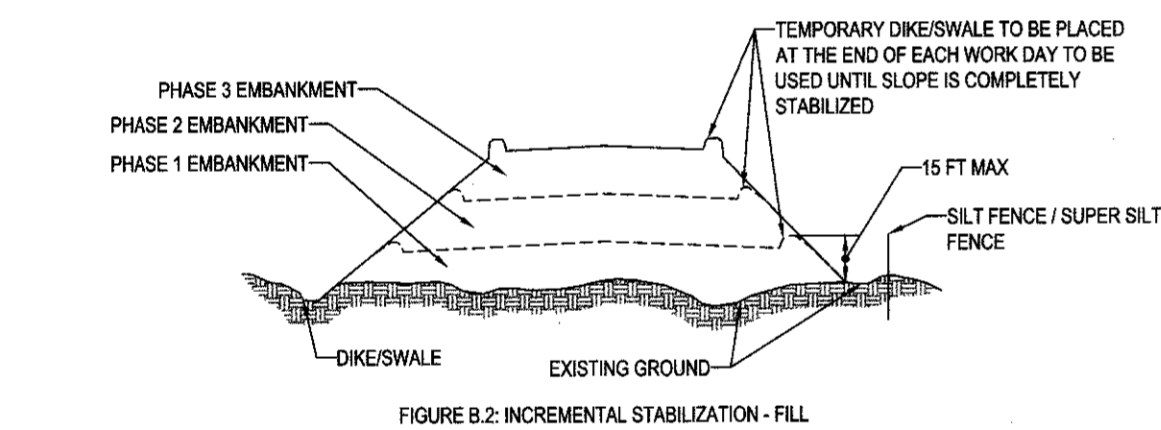


FIGURE B.2: INCREMENTAL STABILIZATION - FILL

B-4-2 STANDARDS AND SPECIFICATIONS FOR 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**
- SOIL PREPARATION**
 - TEMPORARY STABILIZATION
 - 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 REVERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
 - APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
 - INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
 - PERMANENT STABILIZATION
 - A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
 - SOIL PH BETWEEN 6.0 AND 7.0.
 - SOIL SALTS LESS THAN 500 PARTS PER MILLION (PPM).
 - 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 FLOWGRASS WILL BE PLANTED, THEN A SANDY SOIL, LESS THAN 30 PERCENT SILT PLUS CLAY, WOULD BE ACCEPTABLE.
 - SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
 - SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
 - APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
 - GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
 - APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
 - 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 FRABLE. SEEDING LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.
 - TOPSOILING**
 - 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.
 - TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THE STANDARDS AND 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.
 - TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - THE TEXTURE OF THE EXPOSED SUBSOIL/UNDERLAYER MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - THE SOIL MATERIAL IS SO SMALL THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
 - AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
 - TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
 - TOPSOIL MUST BE 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 SANDS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DIAMETER.
 - TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERBERIS GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEED, POISON IVY, THISLE, OR OTHERS AS SPECIFIED.
 - 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 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.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development
 Chief, Department of Engineering Division
 Director, Department of Planning and Zoning

DATE: 8-26-16
 DATE: 8-24-16
 DATE: 8-26-16

GENERAL NOTE:
 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT. WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.

- TOPSOIL APPLICATION**
 - EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
 - UNIFORMLY DISTRIBUTE TOPSOIL IN A 3 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 1/4 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 AS THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 - TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING PRACTICES.
- SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)**
 - SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
 - FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE OR BRAND, AND WARRANTY OF THE PRODUCER.
 - LIME MATERIALS MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 80 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE. 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.
 - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (2000-4000 POUNDS PER 1000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

B-4-3 STANDARDS AND SPECIFICATIONS FOR 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.

- CRITERIA**
- SEEDING**
 - SPECIFICATIONS
 - 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.
 - 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 THAW'S.
 - INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURE 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 KILL BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
 - SEED OR SEED MIXTURE MUST 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 DISPERSION OF PHYTO-TOXIC MATERIALS.
 - APPLICATION
 - DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
 - 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.
 - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDBED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
 - DRILL OR CULTRACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
 - CULTRACKER SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBEDS MUST BE FIRM AFTER PLANTING.
 - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
 - HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
 - IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES MUST NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P2O5 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.
 - LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING. NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BLUNT OR HYDRATED LIME WHEN HYDROSEEDING.
 - MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
 - WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.
 - MULCHING
 - MULCH MATERIALS (IN ORDER OF PREFERENCE)
 - 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, MOLLY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
 - WOOD CELLULOSE FIBER MULCH (WFCM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
 - WFCM 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.
 - WFCM INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
 - WFCM 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 BUTTER-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.
 - WFCM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
 - WFCM 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 18 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.
 - APPLY MULCH TO ALL SEEDBED AREAS IMMEDIATELY AFTER SEEDING.
 - WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDBED 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 TO PROTECT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
 - WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - ANCHORING
 - 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:
 - 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 SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
 - 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.
 - SYNTHETIC BINDERS SUCH AS ACRYLIC POLYMER (AKRO-TACK), DCA-70, PETSOSSET, TERRA TALL, TERRA TALL X, TERRA TACK OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVY AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
 - 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.

TEMPORARY SEEDING SUMMARY					
HARDINESS ZONE (from Figure B.3): ZONE 6B					
SEED MIXTURE (from Table B.3)					
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)
COOL SEASON GRASSES					
1	ANNUAL RYEGRASS	40	3/1 - 5/15	0.5"	
2	BARLEY	96	3/1 - 5/15	1"	
3	OATS	72	3/1 - 5/15	1"	436 LB/AC (10 LB/1000 SF)
4	WHEAT	120	3/1 - 5/15	1"	2 TONS/AC (90 LB/1000 SF)
5	CERIAL RYE	112	3/1 - 5/15	1"	
WARM SEASON GRASSES					
6	FOXTAIL MILLET	30	5/16 - 7/31	0.5"	436 LB/AC (10 LB/1000 SF)
7	PEARL MILLET	20	5/16 - 7/31	0.5"	2 TONS/AC (90 LB/1000 SF)

B-4-4 STANDARDS AND SPECIFICATIONS FOR PERMANENT 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**
- SELECT ONE OR MORE OF THE SPECIES OR 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.
 - FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
 - WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.1.9 AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

B-4-5 STANDARDS AND SPECIFICATIONS FOR 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.

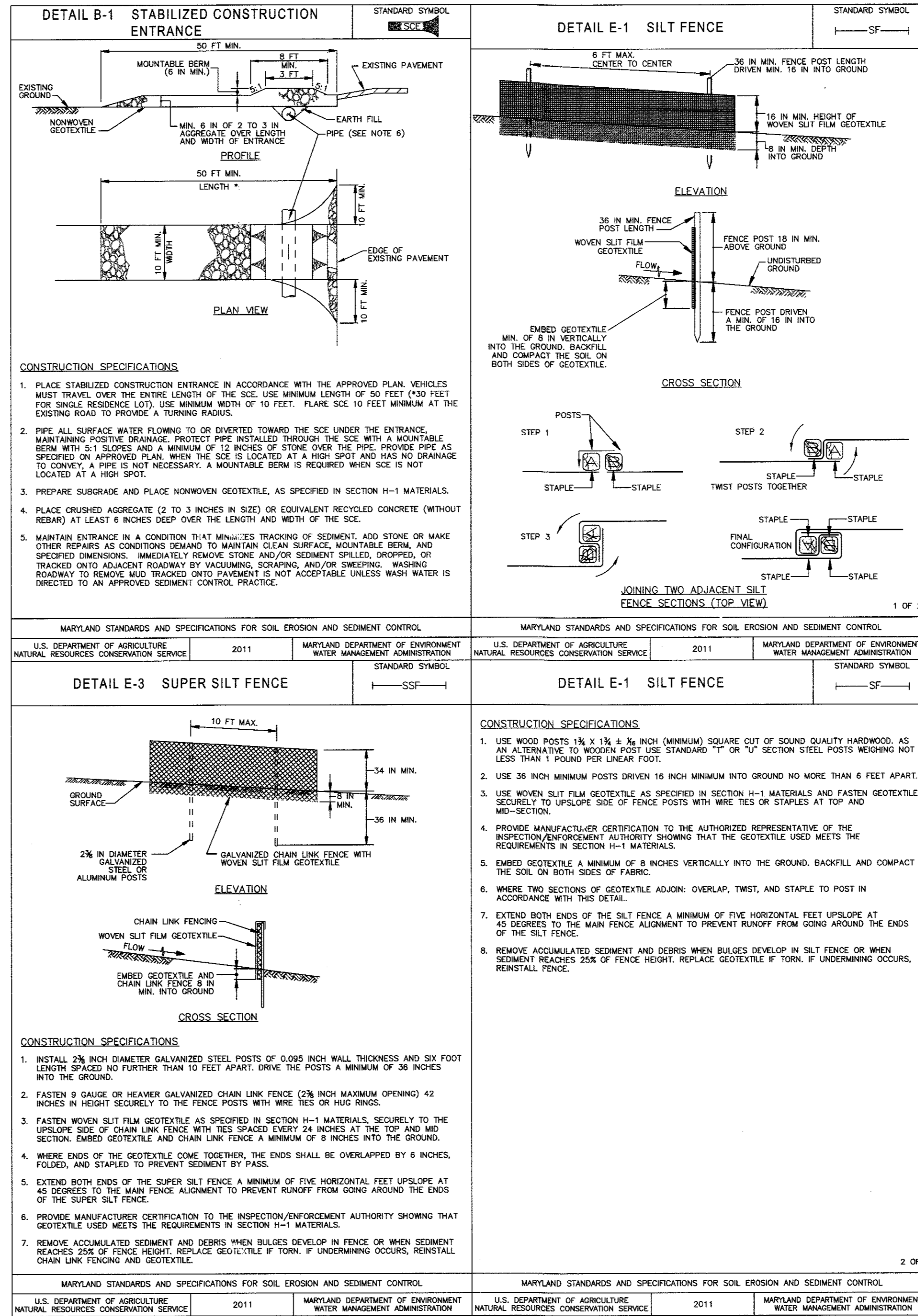
- CRITERIA**
- SEED MIXTURES**
 - GENERAL USE
 - SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 - 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.
 - FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
 - FOR AREAS RECEIVING LOW MAINTENANCE, APPLY URFA 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.
 - TURFGRASS MIXTURES
 - AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
 - 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.
 - 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.
 - KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS 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.
 - FALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MAINTENANCE. IRRIGATION IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 5 TO 5 PERCENT. SEEDING RATE: 6 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
 - KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 20 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.
 - IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES: WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 6B, 7A)
 - CENTRAL MD: MARCH 15 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B)
 - SOUTHERN MD, EASTERN SHORE: MARCH 10 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7B)
 - TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES. LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1 1/2 INCHES IN DIAMETER. THE RESULTING MIXTURE MUST BE SUCH THAT FUTURE MOVING OF GRASSES WILL PROCEED WITHOUT DIFFICULTY.
 - 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 OVERSEED SITES.

PERMANENT SEEDING SUMMARY					
HARDINESS ZONE (from Figure B.3): ZONE 6B					
SEED MIXTURE (from Table B.3)					
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)
9	TALL FESCUE	60	3/1 - 5/15	1/4" - 1/2"	
9	KENTUCKY BLUEGRASS	20	8/15 - 10/31	1/4" - 1/2"	
9	PERENNIAL RYE GRASS	20	8/15 - 10/31	1/4" - 1/2"	
5	HARD FESCUE	20	3/1 - 5/15	1/4" - 1/2"	45 LB/AC (1.0 LB/1000 SF)
5	PERENNIAL RYE GRASS	10	8/1 - 10/15	1/4" - 1/2"	90 LB/AC (2 LB/1000 SF)
5	FLAT PEA	15	8/1 - 10/15	1/4" - 1/2"	90 LB/AC (2 LB/1000 SF)
1	SWITCH GRASS	10			2 TONS/AC (90 LB/1000 SF)
1	CREeping RED FESCUE	15	3/1 - 5/15	1/4" - 1/2"</	

**HOWARD SOIL CONSERVATION DISTRICT
STANDARD SEDIMENT CONTROL NOTES**

- A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE L.O.D. AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:
 - PRIOR TO THE START OF EARTH DISTURBANCE.
 - UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
 - PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT.
 - PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES, OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1), AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. 9-4-1) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15 OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATING (SEC. B-4-4).
- 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 CID.
- SITE ANALYSIS

TOTAL AREA OF SITE:	9.9 ACRES
AREA TO BE ROOFED OR PAVED:	12.5 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	0.30 ACRES
TOTAL CUT:	3,125 CU. YDS. (INCLUDES GRADING FOR 4 LOTS)
TOTAL FILL:	3,125 CU. YDS. (INCLUDES GRADING FOR 4 LOTS)
OFFSITE WASTE/BORROW AREA LOCATION:	N/A (EXCESS SOIL REMAINING WILL BE STOCKPILED)
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY, AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:
 - INSPECTION DATE
 - INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT)
 - NAME AND TITLE OF INSPECTOR
 - WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION)
 - BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES
 - EVIDENCE OF SEDIMENT DISCHARGES
 - IDENTIFICATION OF PLAN DEFICIENCIES
 - IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE
 - COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS
 - PHOTOGRAPHS
 - MONITORING/SAMPLING
 - MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED
 - OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE).
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
- ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED FIELD CHANGES.
- DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE CID, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
- WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.
- TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.
- ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBRICATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.
- STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE):
 - USE I AND II: MARCH 1 - JUNE 15
 - USE III AND IIIA: OCTOBER 1 - APRIL 30
 - USE IV: MARCH 1 - MAY 31
- A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.



SEQUENCE OF CONSTRUCTION

- NOTIFY HOWARD COUNTY'S SEDIMENT CONTROL INSPECTOR AT 410-313-1855 AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION (1 DAY)
- APPLY FOR A GRADING PERMIT AND SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. OBTAIN GRADING PERMIT FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR AT THE MEETING. (1 DAY)
- FOR EACH LOT UNDER GOING CONSTRUCTION, INSTALL THE STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE AND SUPER SILT FENCE. UPGRADE OR INSTALL ADDITIONAL SEDIMENT CONTROL MEASURES AS DIRECTED BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. (1 DAY)
- EXCAVATE AND GRADE THE SITE FOR HOUSE CONSTRUCTION. PROVIDE DUST CONTROL AS NECESSARY. (2 DAYS)
- CONSTRUCT FOUNDATION, INSTALL UTILITY CONNECTIONS, BUILD THE HOUSE AND INSTALL THE DRYWELLS. (3-4 MONTHS)
- NOTE: ONCE THE ROOF, GUTTER AND DOWNSPOUTS ARE INSTALLED, PIPE THEM TO THE DRYWELLS. A REGULAR IMPERVIOUS (NON-POROUS) DRIVEWAY MAY BE INSTALLED AT ANY TIME DURING HOUSE CONSTRUCTION.
- AS EACH HOUSE NEARS COMPLETION, FINE GRADE THE LOT, INSTALL PLANT MATERIALS AND STABILIZE ALL BARE DIRT AREA WITH PERMANENT SEEDING OR WITH SOIL.
- ONCE THE AREA DRAINING TO THE SEDIMENT CONTROL MEASURES HAVE BEEN STABILIZED, OBTAIN PERMISSION FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR TO REMOVE THE SEDIMENT CONTROL ITEMS. (1/2 DAY)
- OBTAIN INSPECTION FOR RELEASE OF SURETY (FOR GRADING AND LANDSCAPING). (1/2 DAY)
- OBTAIN USE AND OCCUPANCY PERMIT FOR SETTLEMENT.

NOTE:
TEMPORARY SWM IS PROVIDED UNDER F-14-124.

B-1-7 STANDARDS AND SPECIFICATIONS FOR HEAVY USE AREA PROTECTION

DEFINITION
THE STABILIZATION OF AREAS FREQUENTLY AND INTENSIVELY USED BY SURFACING WITH SUITABLE MATERIALS (E.G., MULCH AND AGGREGATE).

PURPOSE
TO PROVIDE A STABLE, NON-ERODING SURFACE FOR AREAS FREQUENTLY USED AND TO IMPROVE THE WATER QUALITY FROM THE RUNOFF OF THESE AREAS.

CONDITIONS WHERE PRACTICE APPLIES
THIS PRACTICE APPLIES TO INTENSIVELY USED AREAS (E.G., EQUIPMENT AND MATERIAL STORAGE, STAGING AREAS, HEAVILY USED TRAVEL LANES).

CRITERIA

- A MINIMUM 4-INCH BASE COURSE OF CRUSHED STONE OR OTHER SUITABLE MATERIALS INCLUDING WOOD CHIPS OVER NONWOVEN GEOTEXTILE SHOULD BE PROVIDED AS SPECIFIED IN SECTION H-1 MATERIALS.
- SELECT THE STABILIZING MATERIAL BASED ON THE INTENDED USE, DESIRED MAINTENANCE FREQUENCY, AND RUNOFF CONTROL.
- THE TRANSPORT OF SEDIMENTS, NUTRIENTS, OILS, CHEMICALS, PARTICULATE MATTER ASSOCIATED WITH VEHICULAR TRAFFIC AND EQUIPMENT, AND MATERIAL STORAGE NEEDS TO BE CONSIDERED IN THE SELECTION OF MATERIAL. ADDITIONAL CONTROL MEASURES MAY BE NECESSARY TO CONTROL SOME OF THESE POTENTIAL POLLUTANTS.
- SURFACE EROSION CAN BE A PROBLEM ON LARGE HEAVY USE AREAS. IN THESE SITUATIONS, MEASURES TO REDUCE THE FLOW LENGTH OF RUNOFF OR EROSION VELOCITIES NEED TO BE CONSIDERED.

MAINTENANCE
THE HEAVY USE AREAS MUST BE MAINTAINED IN A CONDITION THAT MINIMIZES EROSION. THIS MAY REQUIRE ADDING SUITABLE MATERIAL, AS SPECIFIED ON THE APPROVED PLANS, TO MAINTAIN A CLEAN SURFACE.

B-1-8 STANDARDS AND SPECIFICATIONS FOR 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

- THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
- THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NO STEEPER THAN 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.
- RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.
- ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE.
- CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.
- WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.
- STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 5/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.
- 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 4 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

8-26-16
DATE

8-24-16
DATE

8-26-16
DATE

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT. WORK SHOULD BE STOPPED IMMEDIATELY IF THE CONTRACTOR FINDS A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS ORDERED BY THE ENGINEER AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

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

John L. Valentin 7/19/16
HOWARD SCD DATE

OWNER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20861 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509	DEVELOPER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20861 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509
PERMIT INFORMATION CHART	
SUBDIVISION NAME: ESTATES AT PATAPSCO PARK	SECTION AREA: NA
PLAT # OR U/F: #23421	GRD # 5, 6, 11, 12
PREVIOUS FILE NO: SP-13-012	PLATS 23421 TO 23436
ECOP-13-029	F-16-051
WP-13-165	PLATS 23596 - 23609
PE CASE NO. 403	SDP-16-019
F-14-124	
CONTR. NO. 10-3500 (FORC. MAIN)	

PROFESSIONAL CERTIFICATION
BRANDON R. ROWE, 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. 49938, EXPIRATION DATE: 7/31/2017.

BOHLER ENGINEERING

CORPORATE OFFICE:
WARREN, NJ

OFFICES:
BOULDER, CO
BOZEMAN, MT
CHICAGO, IL
DENVER, CO
FORT LAUDERDALE, FL
PHILADELPHIA, PA

DEPARTMENTS:
SURVEYORS
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE OF VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL:

(WV) 1-800-245-4348; (PA) 1-800-242-1778; (DC) 1-800-267-7777; (VA) 1-800-445-7001; (MD) 1-800-257-7777; (DE) 1-800-328-8669

PROJECT No: MD152013
DRAWN BY: AVG
CHECKED BY: JMA
DATE: 6/24/16
SCALE: AS SHOWN
CAD ID: CV2

SITE DEVELOPMENT PLANS (PHASE II) FOR ESTATES AT PATAPSCO PARK

SINGLE FAMILY DETACH UNITS BUILDABLE LOTS 203-205, 208-210, 213-248 & 373-385
PLAT NO. 23596 - 23609

LOCATION OF SITE
ROGERS AVENUE
HOWARD COUNTY

BOHLER ENGINEERING

901 DULANEY VALLEY ROAD, SUITE 901
TOWSON, MARYLAND 21284
Phone: (410) 821-7900
Fax: (410) 821-7987
www.BohlerEngineering.com

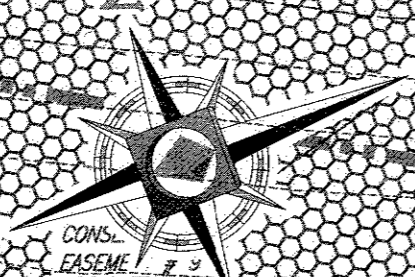
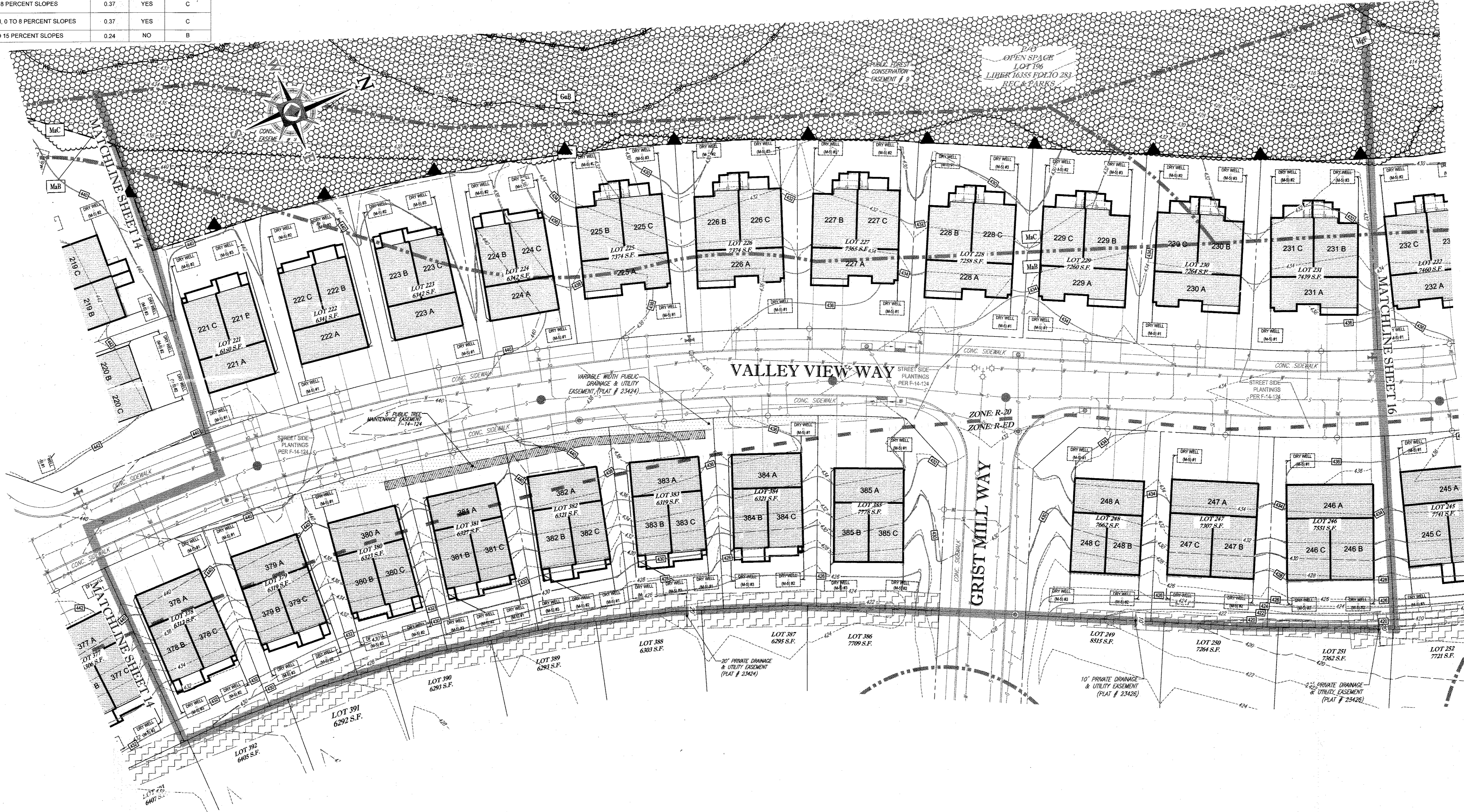
BRANDON R. ROWE

PROFESSIONAL ENGINEER
LICENSE NO. 49938
EXPIRES 7/31/2017

SEDIMENT CONTROL NOTES & DETAILS

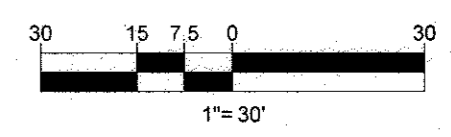
SHEET NUMBER: 13 of 19

SOILS				
SYMBOL	DESCRIPTION	KFACTOR	HYDRIC	HYDROLOGIC GROUP
GbB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	0.37	YES	C
GnB	GLENVILLE-BAILE SILT LOAM, 0 TO 8 PERCENT SLOPES	0.37	YES	C
MaC	MANOR SILT LOAM, 8 TO 15 PERCENT SLOPES	0.24	NO	B



LEGEND

	IMPERVIOUS AREA
	PERVIOUS AREA
	DRAINAGE AREA DIVIDE
	206 A DRAINAGE AREA LABEL
	SOIL DIVIDE
	SOIL LABEL



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Kathleen 8-26-16
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad 8-24-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Valerie 8-26-16
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

SITE AREA (LOD) = 9.00 AC.
 TARGET P_e = 1.20"
 % IMPERVIOUS = 29.6% AVG.
 TARGET ESD_v = 33,962.5 CU. FT.
 PROVIDED ESD_v = 34,520.6 CU. FT.

NOTE:
 SWM FOR DRIVEWAYS FOR LOTS 203-232, 245-248, AND 373-385 WILL BE PROVIDED IN UNDERGROUND INFILTRATION FACILITY # 1 ON LOT 199. THIS FACILITY WAS BUILT UNDER F-14-124.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT. WORK SHOULD BE STOPPED IMMEDIATELY IF THE CONTRACTOR FINDS A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD BY WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE WORK AS SET FORTH BY THE DRAWINGS AND ALL APPLICABLE CODES AND REGULATIONS.

OWNER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20851 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509		DEVELOPER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20861 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509	
PERMIT INFORMATION CHART			
SUBDIVISION NAME: ESTATES AT PATAPSCO PARK	SECTION/AREA: NA	LOT/PARCEL NO.: 203-205, 208-210, 213-248, & 373-385	
PLAT # OR L.F.: #23421	GRID # S, E, 11, 12	ZONING: R-20 & R-ED	TAX MAP NO.: 17
PREVIOUS FILE NO.: SP-13-012 EPP-13-029 WP-13-165 PB CASE NO. 403 F-14-124 CONT # 10-3500 (FORCE MAIN)	PLATS 23421 TO 23436 F-16-051 PLATS 23596 - 23609 SDP-16-019	ELECT. DIST. 2ND CENSUS TRACT: 602100	
PROFESSIONAL CERTIFICATION			
<small>I, BRANDON R. ROWE, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 40868, EXPIRATION DATE: 7/31/2017</small>			

BOHLER ENGINEERING

CORPORATE OFFICE: WARRING, NJ
 OFFICES: BOWLING GREEN, OH; CHARLOTTE, NC; CHICAGO, IL; CLARKSBURG, MD; CLARKSBURG, VA; FORT LAUDERDALE, FL; HUNTSVILLE, AL; PITTSBURGH, PA; RICHMOND, VA; WASHINGTON, DC; WASHINGTON, VA

SURVEYORS
 PROJECT MANAGERS
 ENVIRONMENTAL CONSULTANTS
 LANDSCAPE ARCHITECTS

CIVIL & CONSULTING ENGINEERS

REVISIONS

REV	DATE	COMMENT	BY
2	11/17/16	REVISE HOUSE TYPE 'D'	RVE

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE OF VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL: 811 (WV 1-800-245-4848) (PA 1-800-245-1779) (DC 1-800-257-7777) (VA 1-800-452-7091) (MD 1-800-257-7777) (DE 1-800-282-8565)

PROJECT No.	MD152013
DRAWN BY:	AVG
CHECKED BY:	JMA
DATE:	6/24/16
SCALE:	1" = 30'
CAD I.D.:	DA2

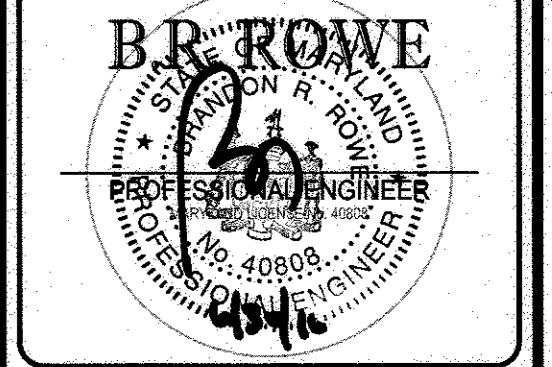
PROJECT: SITE DEVELOPMENT PLANS (PHASE II) FOR ESTATES AT PATAPSCO PARK

SINGLE FAMILY DETACH UNITS
 BUILDABLE LOTS 203-205, 208-210, 213-248 & 373-385
 PLAT NOS. 23596 - 23609

LOCATION OF SITE
 ROGERS AVENUE
 HOWARD COUNTY

BOHLER ENGINEERING

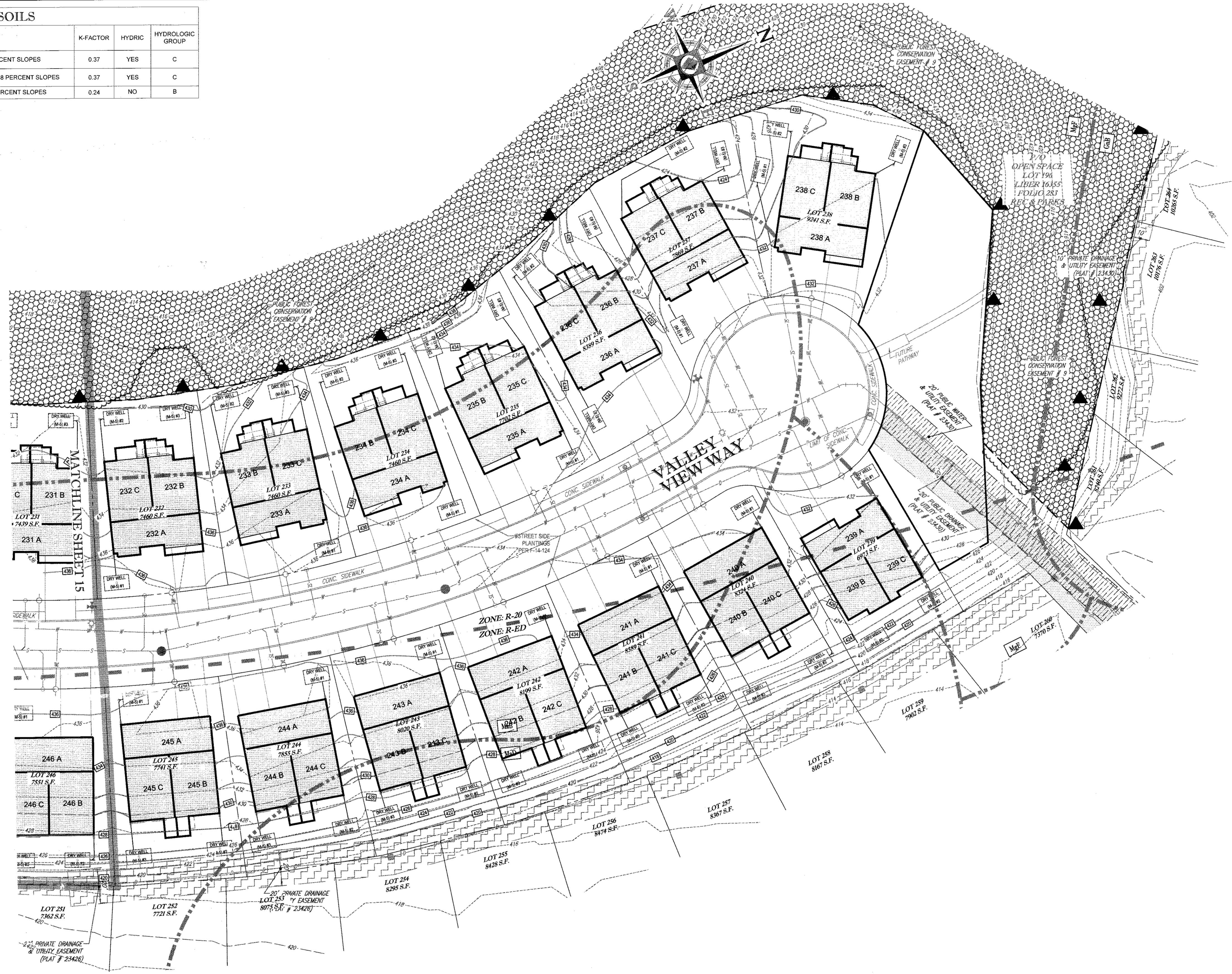
901 DULANEY VALLEY ROAD, SUITE 901
 TOWSON, MARYLAND 21284
 Phone: (410) 821-7900
 Fax: (410) 821-7987
 www.BohlerEngineering.com



SHEET TITLE: **STORM DRAIN AND STORMWATER MANAGEMENT DRAINAGE AREA MAP**

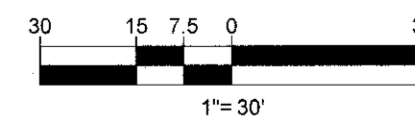
SHEET NUMBER: **15 of 19**

SOILS				
SYMBOL	DESCRIPTION	K-FACTOR	HYDRIC	HYDROLOGIC GROUP
GbB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	0.37	YES	C
GnB	GLENVILLE-BAILE SILT LOAM, 0 TO 8 PERCENT SLOPES	0.37	YES	C
MaC	MANOR SILT LOAM, 8 TO 15 PERCENT SLOPES	0.24	NO	B



LEGEND

	IMPERVIOUS AREA
	PERVIOUS AREA
	DRAINAGE AREA DIVIDE
	DRAINAGE AREA LABEL
	SOIL DIVIDE
	SOIL LABEL



APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kate L. ... 8-26-16
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
Bob ... 8-24-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Val ... 8-26-16
 DIRECTOR - DEPARTMENT OF PLANNING AND ZONING DATE

GENERAL NOTE:
 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND ALL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

SITE AREA (LOD) = 9.00 AC.
 TARGET P₁₀ = 1.50"
 % IMPERVIOUS = 29.6% AVG.
 TARGET ESD_v = 33,962.5 CU. FT.
 PROVIDED ESD_v = 34,520.9 CU. FT.

- NOTE:**
- SWM FOR DRIVEWAYS FOR LOTS 233-244 WILL BE PROVIDED IN UNDERGROUND INFILTRATION FACILITY # 2 ON LOT 199. THIS FACILITY WAS BUILT UNDER F-14-124.
 - SWM FOR DRIVEWAYS FOR LOTS 232 & 245 WILL BE PROVIDED IN UNDERGROUND INFILTRATION FACILITY # 1 ON LOT 199. THIS FACILITY WAS BUILT UNDER F-14-124.

OWNER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20881 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509	DEVELOPER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20881 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509
PERMIT INFORMATION CHART	
SUBDIVISION NAME: ESTATES AT PATAPSCO PARK	SECTION/AREA: NA
PLAT # OR L/F: #23421	GRD # 5, 6, 11, 12
PREVIOUS FILE NO.:	SP-13-012 ECP-13-029 WP-13-16F PB CASE NO. 403 F-14-124 CONT.# 10-30-01 (FORCE MAIN)
TAX MAP NO. 17	SECTION/AREA: NA
ELECT. DISTR. 2ND	PLATS 23421 TO 23436 F-16-051 PLATS 23596 - 23609 SDP-16-019
CENSUS TRACT: 802100	LOT/PARCEL NO.: 203-205, 208-210, 213-246, & 373-385
PROFESSIONAL CERTIFICATION I, BRANCON R. ROWE, 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. 48988, EXPIRATION DATE: 7/31/17.	

BOHLER ENGINEERING

CORPORATE OFFICE:
 WAREHOUSING: 1000 W. ...
 SURVEYORS: ...
 PROJECT MANAGERS: ...
 ENVIRONMENTAL CONSULTANTS: ...
 LANDSCAPE ARCHITECTS: ...

REVISIONS

REV	DATE	COMMENT	BY

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE OF VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL: 311
 (WV 1-800-245-4848) (PA 1-800-242-1778) (DC 1-800-257-7777) (VA 1-800-552-7801) (MD 1-800-257-7777) (DE 1-800-283-8569)

PROJECT No: MD152013
 DRAWN BY: AVG
 CHECKED BY: JMA
 DATE: 6/24/16
 SCALE: 1" = 30'
 CAD I.D.: DA2

SITE DEVELOPMENT PLANS (PHASE II)
 FOR
ESTATES AT PATAPSCO PARK
 SINGLE FAMILY DETACH UNITS
 BUILDABLE LOTS 203-205,
 208-210, 213-248 & 373-385
 PLAT NOs. 23596 - 23609
 LOCATION OF SITE
 ROGERS AVENUE
 HOWARD COUNTY

BOHLER ENGINEERING

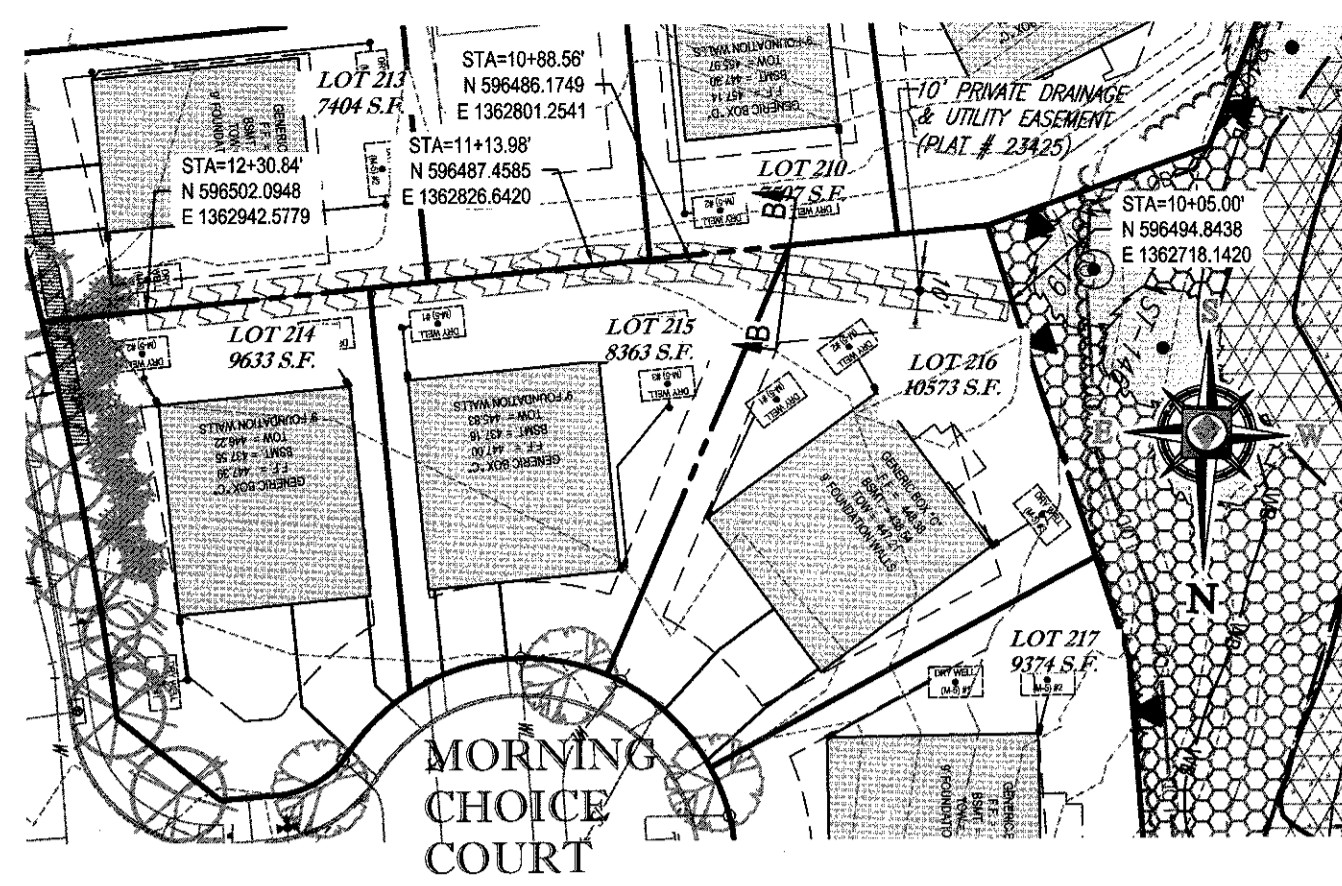
901 DULANEY VALLEY ROAD,
 SUITE 801
 TOWSON, MARYLAND 21284
 Phone: (410) 821-7900
 Fax: (410) 821-7987
 www.BohlerEngineering.com

B.R. ROWE

PROFESSIONAL ENGINEER
 LICENSE NO. 48988
 EXPIRATION DATE: 7/31/17

SHEET TITLE:
STORM DRAIN AND STORMWATER MANAGEMENT DRAINAGE AREA MAP

SHEET NUMBER:
16 of 19



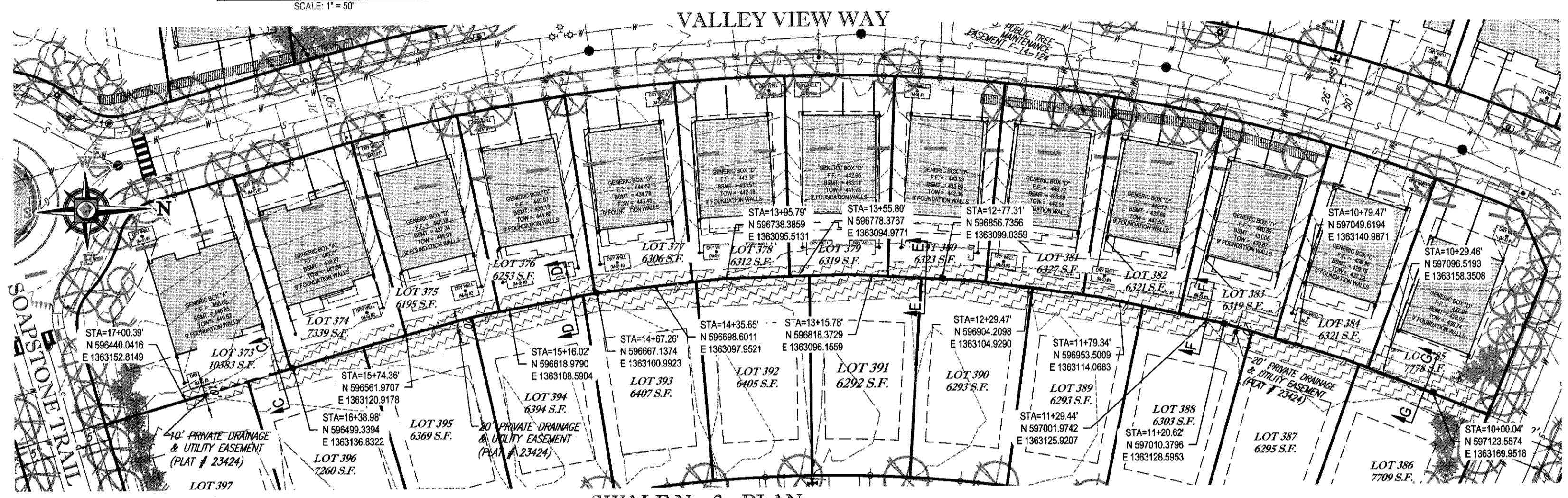
SWALE No. 2 - PLAN
SCALE 1" = 50'

DRY WELL CONSTRUCTION SPECIFICATIONS

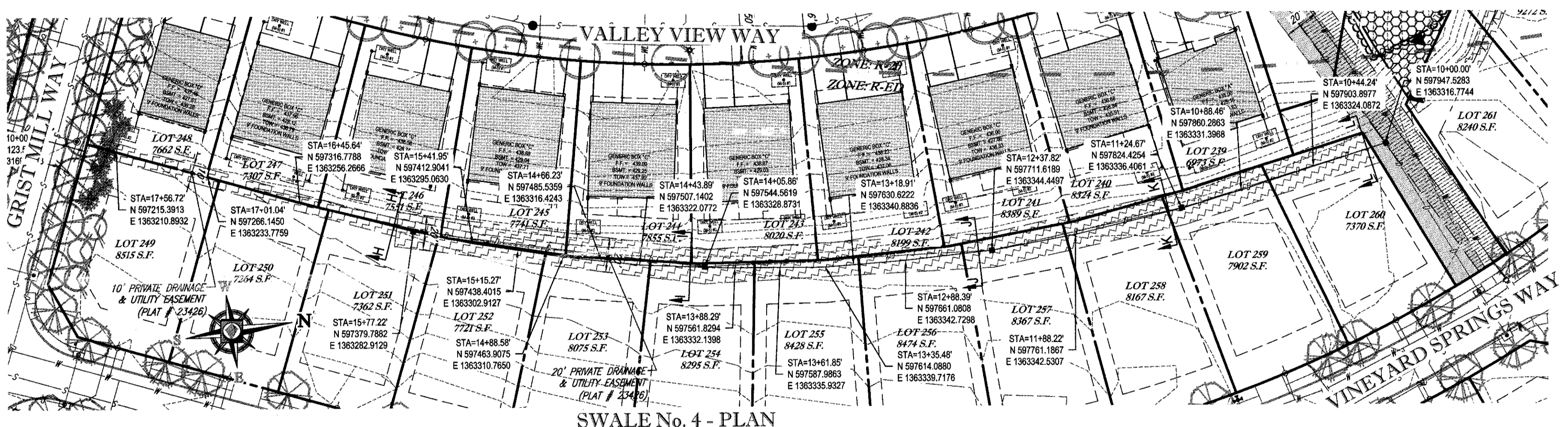
- REGULAR INSPECTIONS SHALL BE DURING THE FOLLOWING STAGES OF CONSTRUCTION:
- DURING EXCAVATION TO SUBGRADE
 - DURING PLACEMENT OF BACKFILL AND PERFORATED INLET PIPE AND OBSERVATION WELL
 - DURING PLACEMENT OF GEOTEXTILES AND ALL FILTER MEDIA
 - DURING CONSTRUCTION OF THE ADJACENT CONVEYANCE
 - UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED DRY WELLS

- PRIVATELY OWNED PRACTICES SHALL HAVE A MAINTENANCE PLAN AND SHALL BE PROTECTED BY EASEMENT, DEED RESTRICTION, ORDINANCE, OR OTHER LEGAL MEASURES PREVENTING ITS NEGLIGENCE, ADVERSE ALTERATION, AND REMOVAL.
- DRY WELLS SHALL BE INSPECTED AND CLEANED ANNUALLY BY THE OWNER. THIS INCLUDES GUTTERS, DOWNSPOUTS, AND ALL FILTERS.
- PONDING, STANDING WATER, OR ALGAL GROWTH ON THE TOP OF A DRY WELL MAY INDICATE FAILURE DUE TO SEDIMENTATION IN THE GRAVEL MEDIA. IF WATER PONDING FOR MORE THAN 48 HOURS AFTER A MAJOR STORM OR MORE THAN SIX INCHES OF SEDIMENT HAS ACCUMULATED, THE GRAVEL MEDIA SHOULD BE EXCAVATED AND REPLACED.

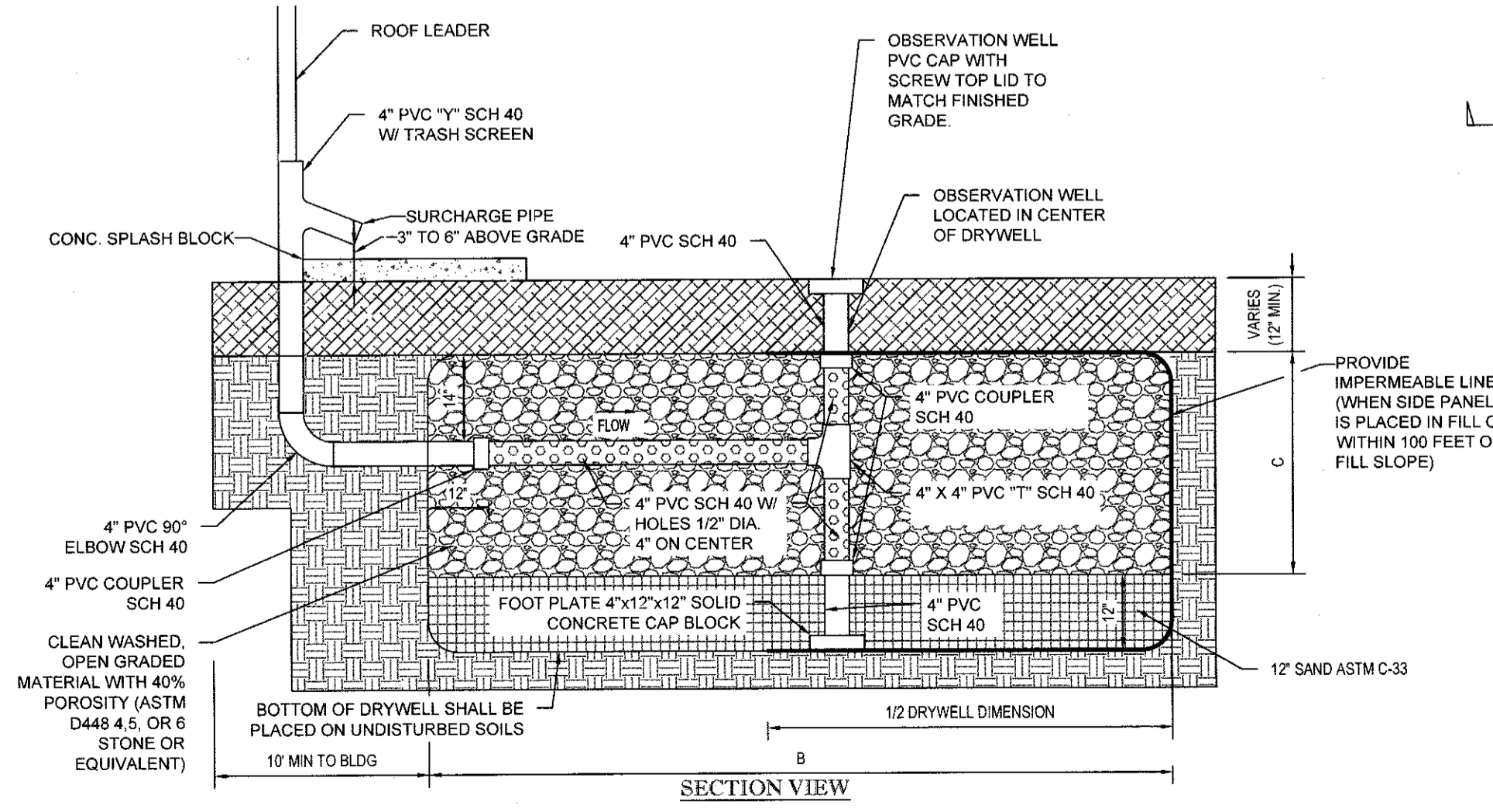


SWALE No. 3 - PLAN
SCALE 1" = 50'

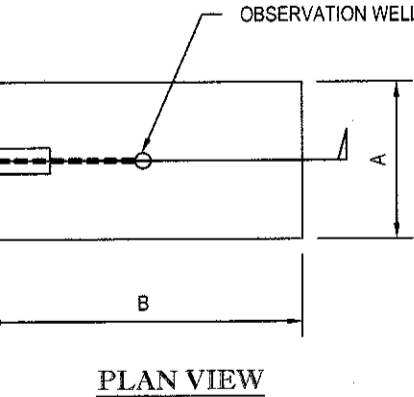


SWALE No. 4 - PLAN
SCALE 1" = 50'

- NOTES:**
- FROM THE DOWNSPOUT TO THE DRYWELL THE DRAIN PIPE MUST BE AT LEAST 8" BELOW GRADE.
 - NONWOVEN GEOTEXTILE FABRIC TO BE INSTALLED ON TOP AND SIDES ONLY. THESE GEOTEXTILES ARE AVAILABLE IN FINKSBURG @ E&G DISTRIBUTORS 2601 EMORY RD. BLDG 8, 865-744-5001. ANY EQUIVALENT GEOTEXTILE IS ACCEPTABLE.
 - DRYWELL BOTTOM TO BE INSTALLED AS LEVEL AS POSSIBLE AND IN UNDISTURBED SOILS.
 - WHEN TOP OF DRYWELL IS PLACED IN FILL WITHIN 100' OF SLOPES 15% OR GREATER, AN IMPERMEABLE LINER SHALL BE PROVIDED ON THE STEEP SLOPE SIDE OF THE FACILITY AS SHOWN ABOVE.
 - ALL ROOF DRAINS LEADING TO A DRYWELL FACILITY SHALL HAVE A GUTTER DRAIN FILTER.
 - CONSTRUCTION OF A DRYWELL SHALL BE PERFORMED WITH A LIGHTWEIGHT WIDE-TRACKED EQUIPMENT TO MINIMIZE DISTURBANCE AND COMPACTION.
 - TEMPORARY SWM IS PROVIDED UNDER F-14-124.



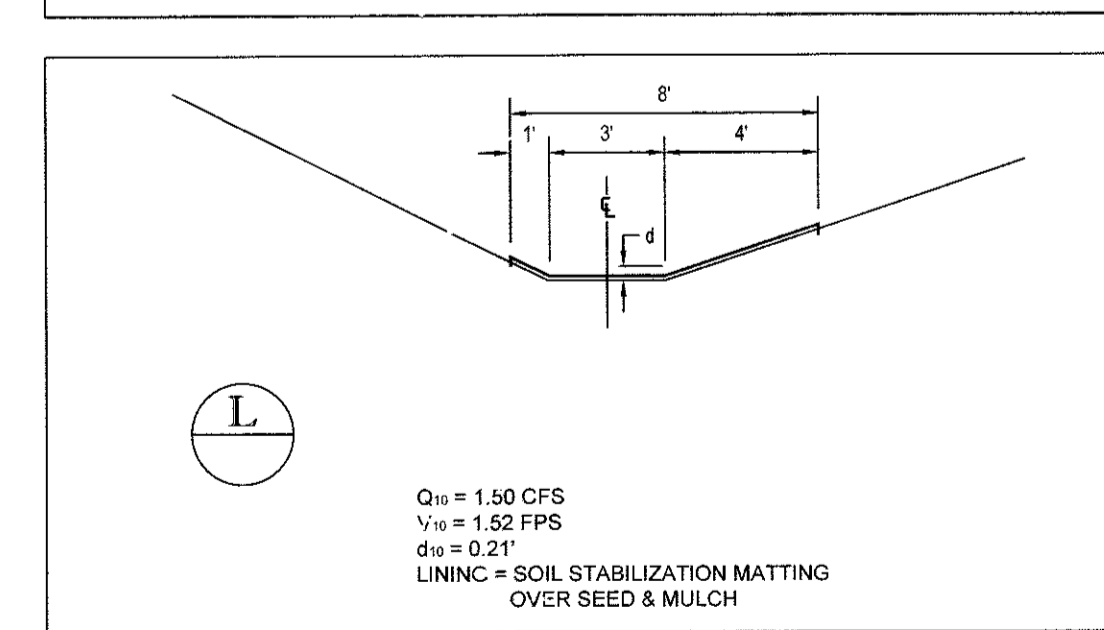
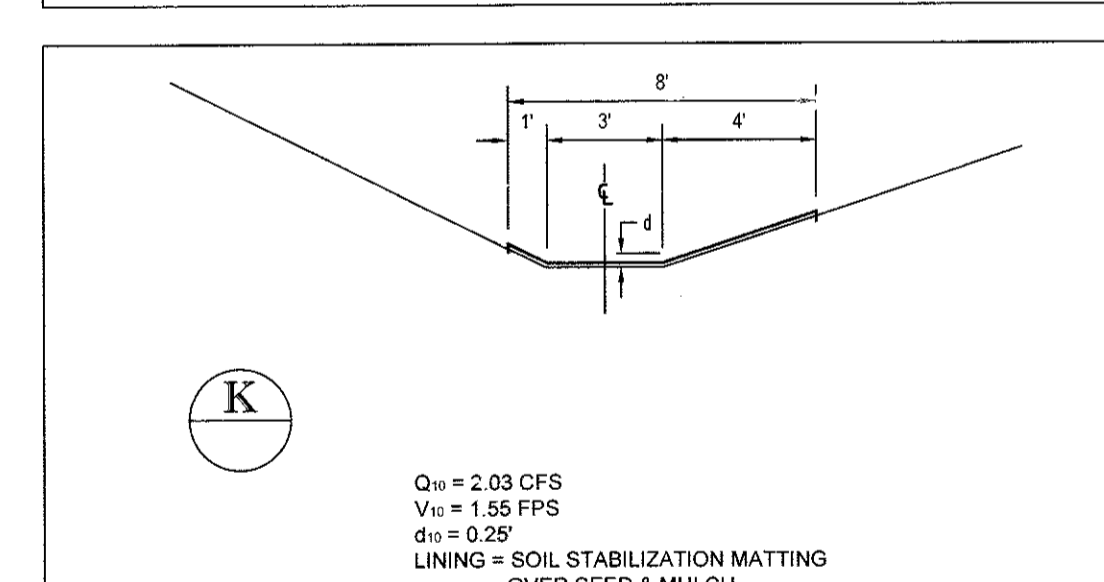
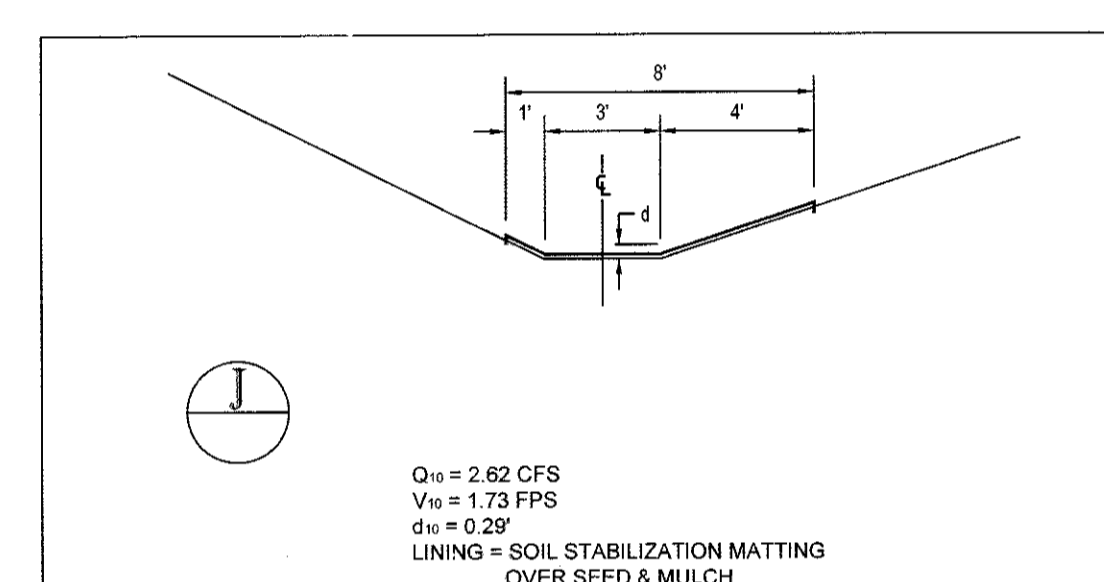
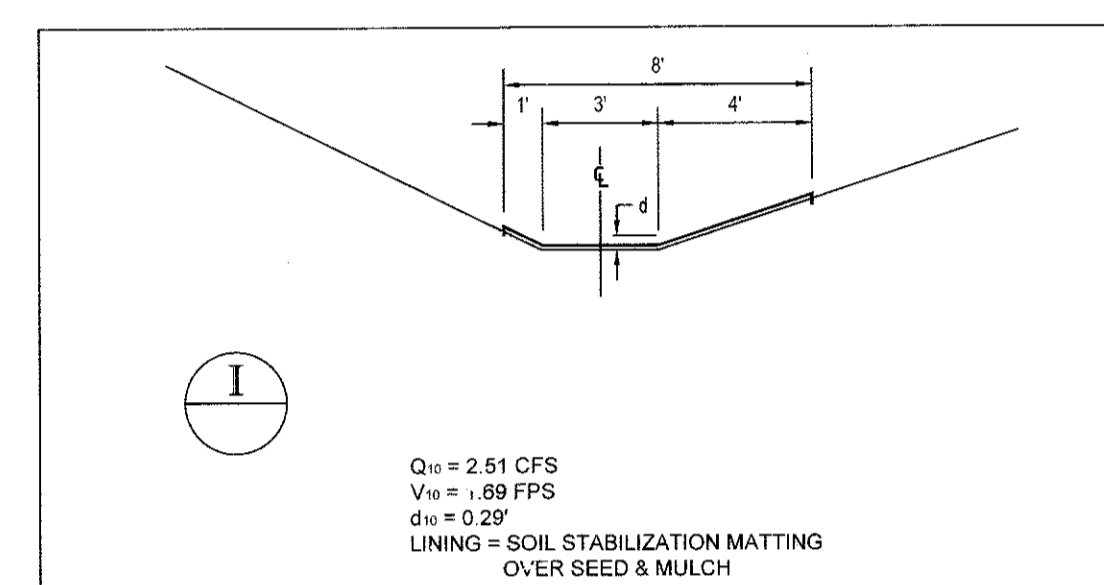
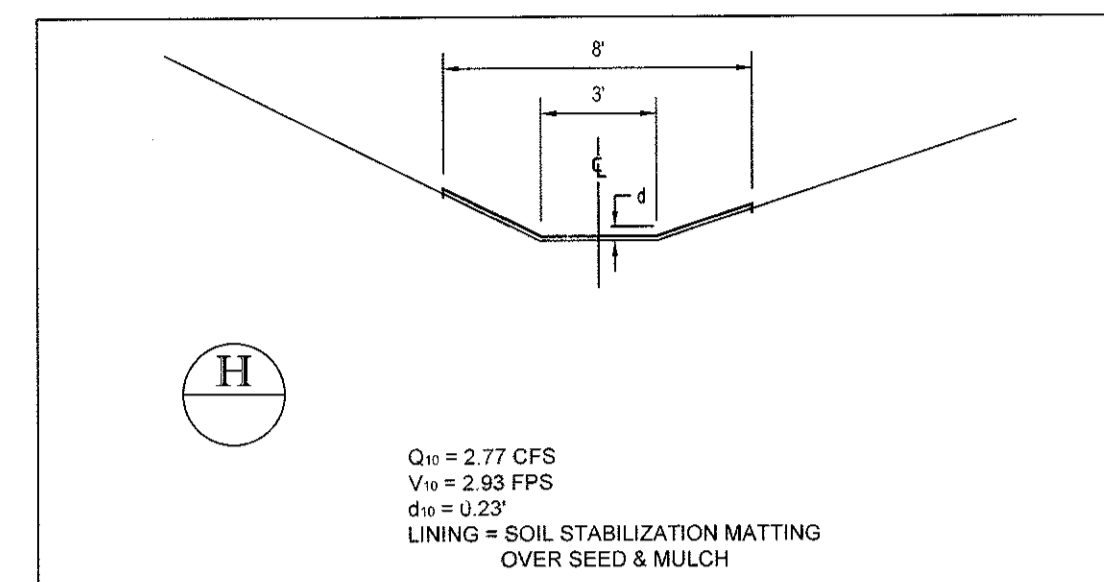
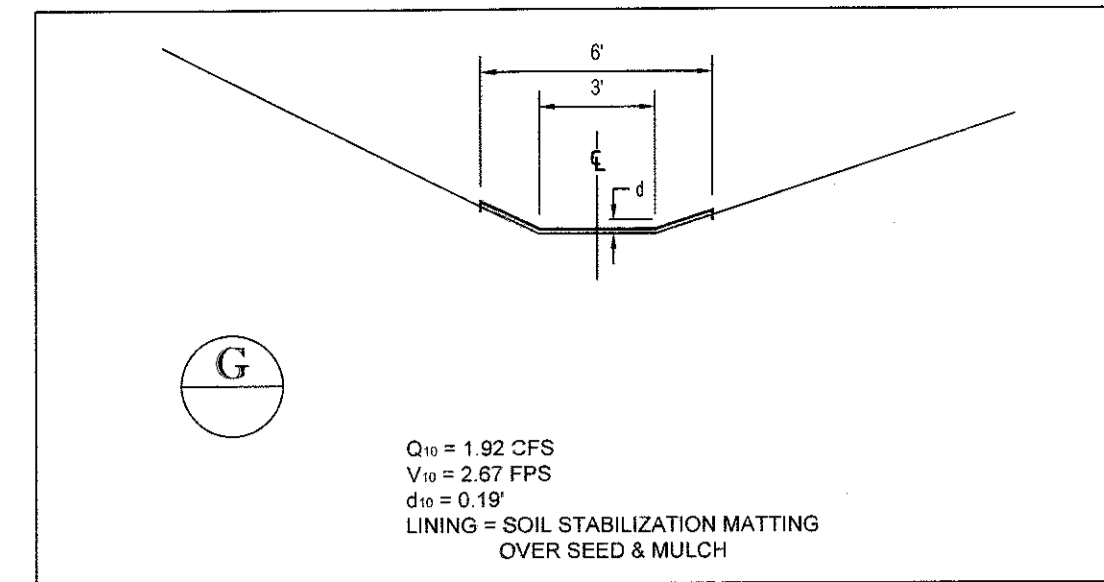
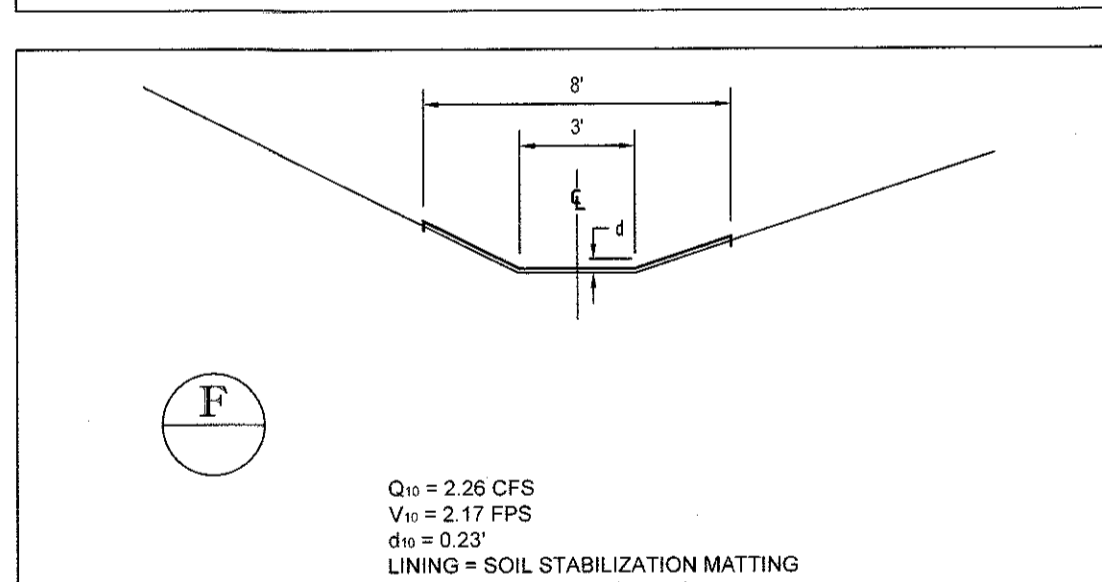
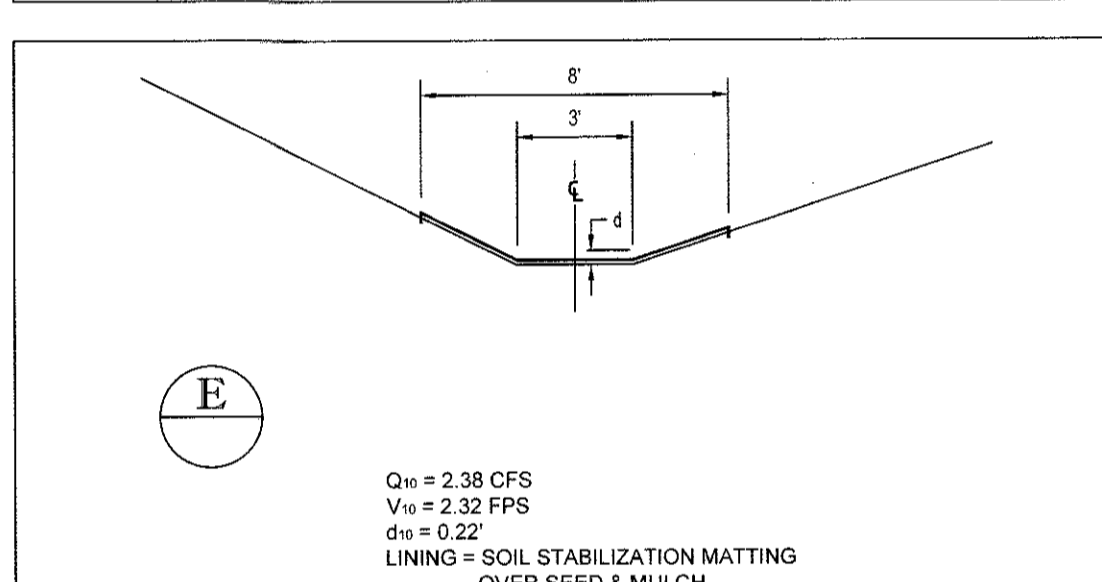
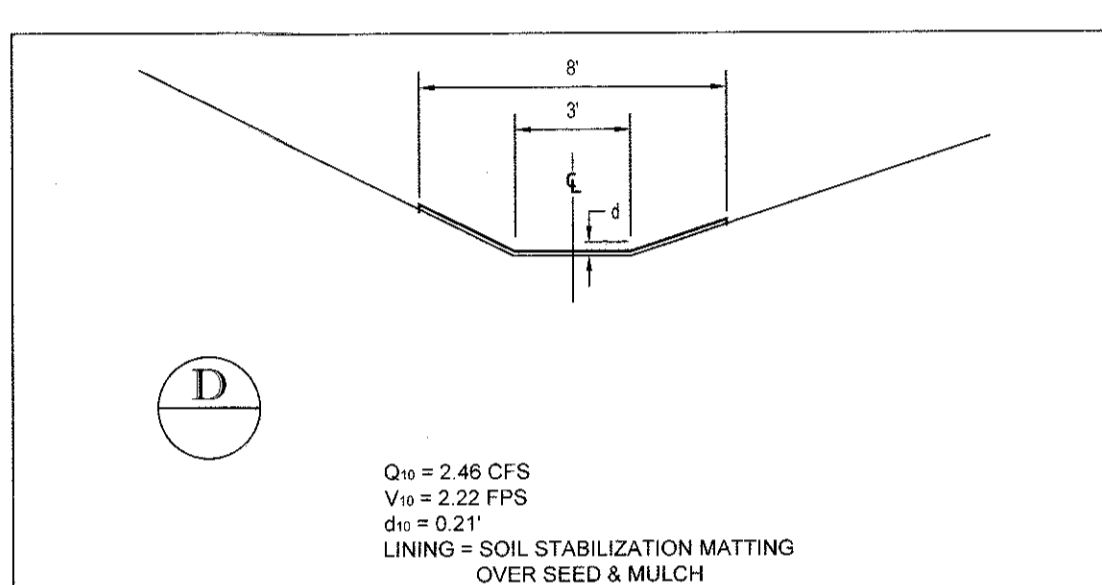
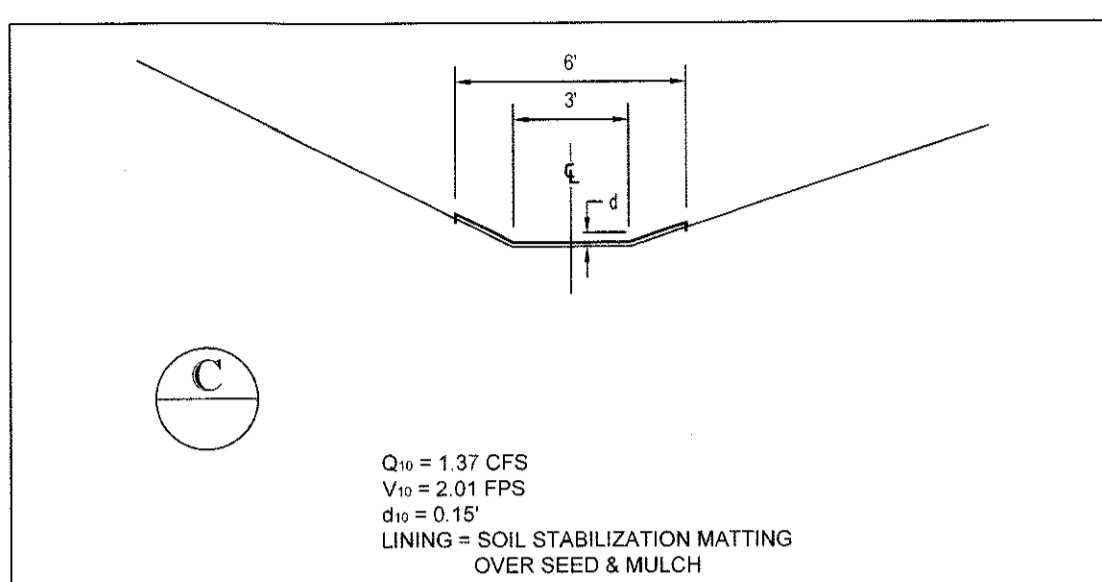
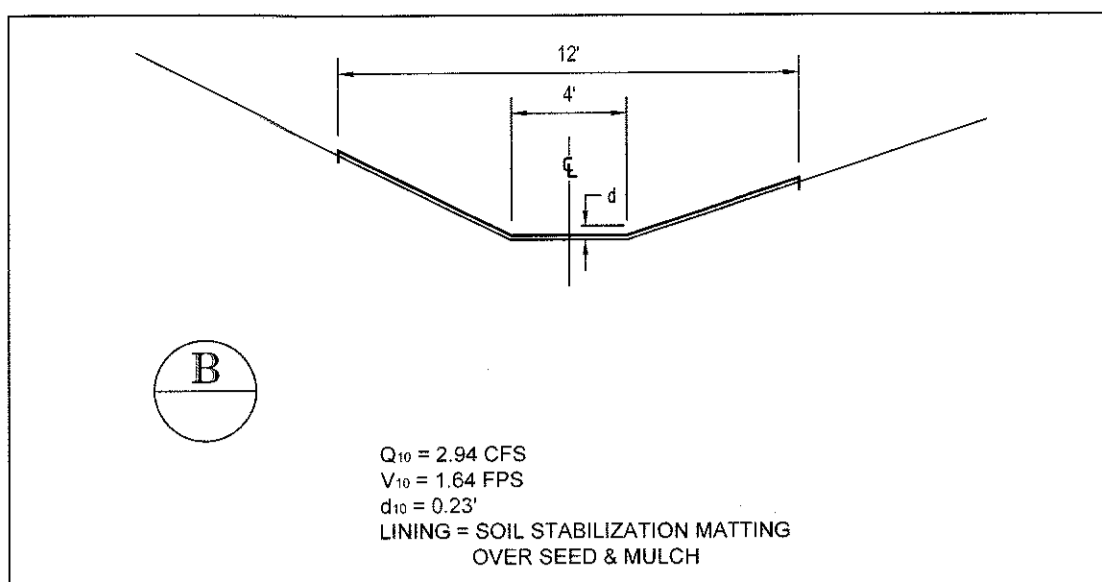
STANDARD DRYWELL SECTION
NOT TO SCALE



PLAN VIEW

DRYWELL NO.	DRYWELL DIMENSIONS			DRYWELL ESDV PROVIDED (CUBIC FOOT)
	A	B	C	
#1	8.00'	14.00'	4.67'	209.20
#2	8.00'	14.00'	4.67'	209.20
#3	8.00'	14.00'	4.67'	209.20
LOT # 385	6.00'	18.00'	4.67'	209.20

* DRYWELLS #2 & #3 FOR LOT # 385 HAVE DIFFERENT DIMENSIONS DUE TO THE PROXIMITY OF THE 20' PRIVATE DRAINAGE & UTILITY EASEMENT.



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

DEVELOPER'S CERTIFICATE
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

OWNER:	ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20881 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509	DEVELOPER:	ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20881 CONTACT: MR. DAN SNYDER PHONE: (301) 674-8509
SUBDIVISION NAME: ESTATES AT PATAPSCO PARK		PERMIT INFORMATION CHART	
PLAT # OR L.F. #23421	GRD # 5.6.11.2	SECTION/AREA: NA	LOT/PARCEL NO.: 203-205, 206-210, 213-248, & 373-385
PREVIOUS FILE NO.:	SP-13-012 ECP-13-029 WP-13-165 PB CASE NO. 403 F-14-124 CONT.# 10-3500 (FORCE MAIN)	PLATS 23421 TO 23436 F-16-051 PLATS 23596 - 23609 SDP-16-019	PROFESSIONAL CERTIFICATION I, BRANDON R. ROWE, 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. 48988, EXPIRATION DATE: 7/30/17.

BOHLER ENGINEERING
CONSULTING OFFICE:
1000 W. MARKET ST.
SURVEYORS
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS

OFFICES:
BOWIE, MD
TOWSON, MD
FARMERSVILLE, MD
CHICAGO, IL
TAMPA, FL
PHILADELPHIA, PA

REVISIONS

REV	DATE	COMMENT	BY

BOHLER ENGINEERING
THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE OF VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE: CALL: (800) 257-7777 (DC: 1-800-257-7777) (VA: 1-800-257-7777) (MD: 1-800-257-7777) (DE: 1-800-257-7777)

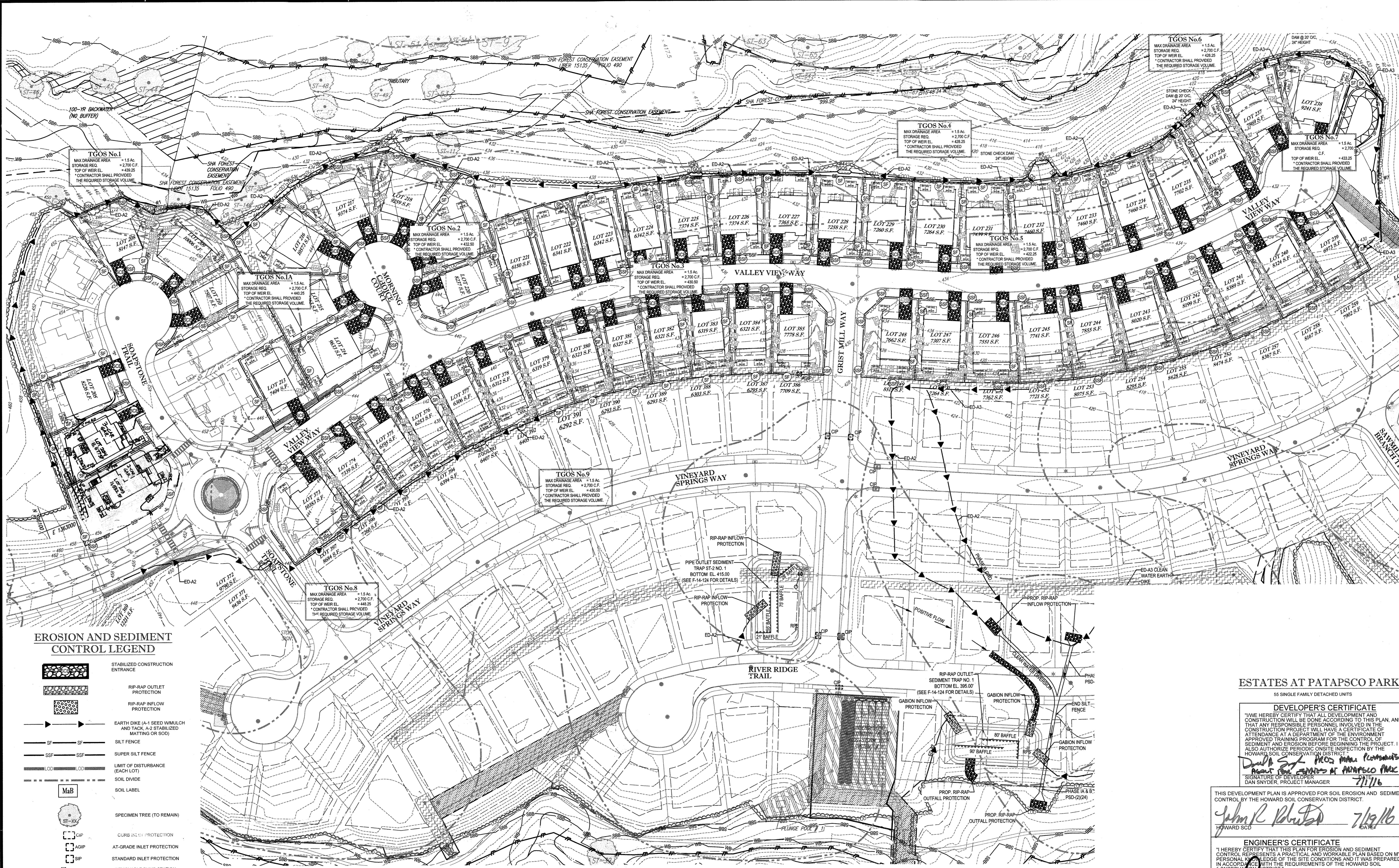
PROJECT NO: MD152013
AVG: JMA
DRAWN BY: JMA
DATE: 6/24/16
SCALE: AS SHOWN
CAD I.D.: SM2

PROJECT: SITE DEVELOPMENT PLANS (PHASE II) FOR ESTATES AT PATAPSCO PARK
SINGLE FAMILY DETACH UNITS BUILDABLE LOTS 203-205, 208-210, 213-248 & 373-385 PLAT NOS. 23596 - 23609
LOCATION OF SITE: ROGERS AVENUE HOWARD COUNTY

BOHLER ENGINEERING
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21284
Phone: (410) 821-7900
Fax: (410) 821-7987
www.BohlerEngineering.com

B. R. ROWE
PROFESSIONAL ENGINEER
No. 40869
EXPIRES 7/31/17

SHEET TITLE: STORMWATER MANAGEMENT NOTES & DETAILS
SHEET NUMBER: 18 of 19



EROSION AND SEDIMENT CONTROL LEGEND

- STABILIZED CONSTRUCTION ENTRANCE
- RIP-RAP OUTLET PROTECTION
- RIP-RAP INFLOW PROTECTION
- EARTH DIKE (A-1 SEED WIMULCH AND TACK, A-2 STABILIZED MATTING OR SOD)
- SILT FENCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE (EACH LOT)
- SOIL DIVIDE
- SOIL LABEL
- SPECIMEN TREE (TO REMAIN)
- CURB INLET PROTECTION
- AT-GRADE INLET PROTECTION
- STANDARD INLET PROTECTION
- REMOVABLE PUMP STATION
- PIPE SLOPE DRAIN (CLEAR WATER DIVERSION)
- TEMPORARY GABION OUTLET STRUCTURE

- NOTES**
- SEE FINAL ROAD CONSTRUCTION, GRADING AND STORMWATER MANAGEMENT PLANS FOR ESTATES AT PATAPSCO PARK (F-14-124) FOR MORE INFORMATION ON THE OVERALL PHASED EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING PIPE OUTLET SEDIMENT TRAP NO. 1, RIP-RAP OUTLET SEDIMENT TRAP NO. 1, AND TEMPORARY GABION OUTLET STRUCTURES 1 THROUGH 9.
 - THE CONTRACTOR AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR, MAY RELOCATE PHASE ONE PERIMETER SEDIMENT CONTROL MEASURES (EARTH DIKES AND/OR TEMP. GABION OUTLET STRUCTURES) TO ALLOW FOR THE INDIVIDUAL LOT SEDIMENT CONTROL MEASURES TO BE INSTALLED.
 - TEMPORARY STORMWATER MANAGEMENT IS PROVIDED UNDER THE FINAL ROAD CONSTRUCTION PLAN (F-14-124). PIPE OUTLET SEDIMENT TRAP NO. 1, RIP-RAP OUTLET SEDIMENT TRAP NO. 1, TEMPORARY GABION OUTLET STRUCTURES 1 THROUGH 9, THE SITE DEVELOPMENT PLAN PHASE II PLANS ALSO PROVIDE PERIMETER SEDIMENT CONTROL MEASURES FOR EACH LOT.

THIS PLAN IS FOR INFORMATION PURPOSES ONLY

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 DATE: 8-26-16
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 8-24-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 8-26-16
 DIRECTOR - DEPARTMENT OF PLANNING AND ZONING

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT. WORK SHOULD BE STOPPED IMMEDIATELY IF THE CONTRACTOR DISCOVERS ANY DISCREPANCIES OR OMISSIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS SHOWN BY THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPLICABLE AGENCIES.

DEVELOPER'S CERTIFICATE
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature of Developer: Dan Snyder, Project Manager
 Date: 7/19/16

ENGINEER'S CERTIFICATE
 I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature of Engineer: Brandon R. Rowe, P.E.
 Date: 6/23/16

OWNER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20881 CONTACT: MR. DAN SNYDER PHONE: (301) 874-8509	DEVELOPER: ESTATES AT PATAPSCO PARK, LLC 24012 FREDERICK ROAD CLARKSBURG, MD 20881 CONTACT: MR. DAN SNYDER PHONE: (301) 874-8509
PERMIT INFORMATION CHART	
SUBDIVISION NAME: ESTATES AT PATAPSCO PARK	SECTION/AREA: NA
PLAT # OR L.F.: #23421	GRID # 5.8, 11.2
PREVIOUS FILE NO.: SP-13-012 ECP-19-029 WP-13-165 PB CASE NO. 403 F-14-124 CONT # 10-3500 (FORCE MAIN)	PLATS 23421 TO 23436 F-16-051 PLATG 23596 - 23609 SDP-16-019
LOT/PARCEL NO.: 203-205, 208-210, 213-248, & 373-385	
ZONING: R-20 & R-20	
TAX MAP NO.: 17	
ELECT. DISTRICT: 2ND	
CENSUS TRACT: 602100	

BOHLER ENGINEERING
 CIVIL & CONSULTING ENGINEERS
 SURVEYORS
 PROJECT MANAGERS
 ENVIRONMENTAL CONSULTANTS
 LANDSCAPE ARCHITECTS

OFFICES:
 WARREN, NJ
 BOWNE, MD
 SOUTHBRIDGE, MA
 EDENKOVAMA, VA
 CENTER VALLEY, PA
 TAMPA, FL
 PHILADELPHIA, PA

REVISIONS

REV	DATE	COMMENT	BY
6	9-4-18	REVISE THE HOUSE TYPE ON LOT 203, THE GRADING ON LOT 204 AND ADD 5 HOUSE TYPES.	RVC
7	3-15-19	REVISE PLAN TO REVISE THE HOUSE TYPE, GRADING AND DRIVEWAY LOCATION ON LOT 203.	RVC
8	9-23-19	REVISE HOUSE TYPE AND GRADING ON LOT 205.	RHV

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE OF VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, AND DELAWARE CALL: 811
 1-800-245-4549 (PA) 1-800-245-7789 (DC) 1-800-257-7777 (VA) 1-800-552-7001 (MD) 1-800-257-7777 (DE) 1-800-252-8555

PROJECT NO.: MD152013
 DRAWN BY: AVS
 CHECKED BY: JMA
 DATE: 6/24/16
 SCALE: 1" = 60'
 CAD I.D.: EA2

PROJECT: **SITE DEVELOPMENT PLANS (PHASE II) FOR ESTATES AT PATAPSCO PARK**
 SINGLE FAMILY DETACH UNITS BUILDABLE LOTS 203-205, 208-210, 213-248 & 373-385
 PLAT NOS. 23596 - 23609
 LOCATION OF SITE: ROGERS AVENUE HOWARD COUNTY

BOHLER ENGINEERING
 901 DULANEY VALLEY ROAD, SUITE 801
 TOWSON, MARYLAND 21284
 Phone: (410) 821-7900
 Fax: (410) 821-7987
 www.BohlerEngineering.com

BRANDE ROWE
 PROFESSIONAL ENGINEERING
 1000 W. BROADWAY, SUITE 100
 PHILADELPHIA, PA 19101
 License No. 40886
 Professional Engineering

SHEET TITLE: **PHASE I - EROSION & SEDIMENT CONTROL (F-14-124) / TEMPORARY STORMWATER MANAGEMENT OVERALL PLAN**
 SHEET NUMBER: **19 of 19**
 SDP-16-050