STREET SIGN CHART							
STREET NAME	STATION	OFFSET	POSTED SIGN	SIGN CODE			
£ 'A'	0+48	26' L	STOP	R1-1			
£ .8.	0+59	32' L	STOP & NO LEFT TURN	R1-1 & R3-2L			
£ 'B'	0+62	3' L	KEEP RIGHT	R4-7			
£ 'B'	0+5	6' L	KEEP RIGHT	R4-7			
£ 'A'	0+34	15' L	DO NOT ENTER	R5-1			

	Р	RIVATE	STREET LIGHT CHART		
STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE		
	* N 539,804 E 828,132		100-WATT "TRADITIONAIRE" H.P.S. VAPOR COLONIAL		
£ 'A'		9,799 8,263	POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.		
enderige de de la completa de la co	<del>X</del> 0+32	17' R			
	1+63	15' R	100-WATT "TRADITIONAIRE" H.P.S. VAPOR COLONIAL		
£ .C.	3+36	28' R	POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.		
	4+25	16' R			
,O, 3	<del>X</del> 1+67	16' L	100-WATT "TRADITIONAIRE" H.P.S. VAPOR COLONIAL POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.		

DENOTES LIGHTS THAT ARE TO CONTAIN SHIELDS AS NEEDED TO PROTECT THE ADJOINING

577°30'08"E 67.25'

(50UTH)

PARCEL 'A'

ZONING: PEC

589°57'25"W 550.00'

ZONING:P5C

8/10/22

3/15/13

DATE

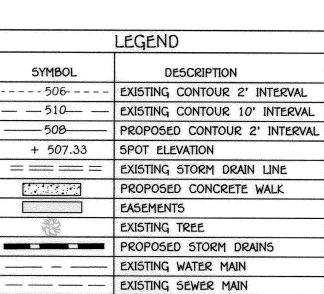
 $AREA = 6.391 AC. \pm$ 

ZONED R-20

STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
MARRIOTTSVILLE ROAD	2+00	63' R	250-WATT H.P.S. VAPOR SAG FIXTURE MOUNTED AT 30 FEET ON A BRONZE FIBERGLASS POLE USING A 12' ARM.
MARRIOTTSVILLE ROAD	3+35	54' R	250-WATT H.P.S. VAPOR SAG FIXTURE MOUNTED AT 30 FEET ON A BRONZE FIBERGLASS POLE USING A 12' ARM.

ZONED R-20

ZONED PSC



PROPOSED SEWER MAIN PROPOSED TREES EXISTING TREE LINE PROPOSED TREE LINE

# SITE DEVELOPMENT PLAN WAVERLY CORPORATE CENTER

PARCEL 'A', PLAT No. 17415 ZONED: PEC

TAX MAP No. 10 GRID No. 22 TAX MAP No. 16 GRID No. PARCEL No. 324, 325 & 327



VICINITY MAP 5CALE: 1" = 2000'

THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PARKING SI	PACE TAB	ULATION
COMMERCIAL	PARKING REQUIRED	PARKING PROVIDED
SHOPPING CENTER: 19,242 NET 5Q. FT.+730 SQ.FT. DECK @ 6 SP. PER 1000	120 115 SPACES	157 SPACES
	120 -115-5PACE5	157 SPACES TO

THE PURPOSE OF THIS REDLINE IS CHANGE THE SOUTH BUILDING FROM OFFICE SPACE TO RETAIL SPACE AND REVISE PARKING

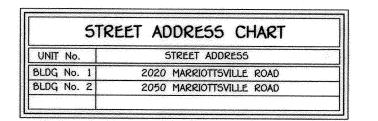
AS-BUILT CERTIFICATION

hereby certify, by my seal, that to the best of my knowledge and belief the the facilities shown on the plan was constructed

as shown on this "AS-BUILT" plan meet the approved plans and  $\Lambda$ 

ALDO MICHAEL VITUCCI #20748

THE PURPOSE OF THIS REDLINE IS ADD HANDICAP PARKING SPACE AND REVISE THE BUILDING ARCHITECTURE.



### GENERAL NOTES:

- 1. THIS PLAN IS SUBJECT TO THE AMENDED 5TH EDITION OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, COUNCIL BILL 45-2003.
- 2. THE SUBJECT PROPERTY IS ZONED PEC PER 10/06/2013 COMPREHENSIVE ZONING PLAN. PREVIOUS DPZ FILE NUMBERS 5-94-07, F-05-51, WP-05-32. 5DP-04-126 (MASS GRADING PLAN), WP-07-126, AA-07-017, F-07-032, F-00-002 & WP-12-110.
- 3. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST (5) FIVE WORKING DAYS PRIOR TO THE START OF
- 4. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- 5. BOUNDARY SURVEY PERFORMED BY FISHER, COLLINS AND CARTER, INC. ON OR ABOUT JULY, 2001.
- 6. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 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.
- 7. HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON THE FOLLOWING HOWARD COUNTY GEODETIC CONTROL STATIONS: M. HOWARD COUNTY MONUMENT 16E1 - (N 593,250.9322 E 1,340,192.7110 ELEV. )
- √ HOWARD COUNTY MONUMENT 1012 (N 601,060.1777 E 1,345,336.7580 ELEV. ) 6. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- 9. CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT EASEMENT LINE PRIOR TO CONSTRUCTION.
- 10. STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY AND MARYLAND 378 SPECIFICATIONS. RECHARGE VOLUME WILL BE PROVIDED THROUGH WATER QUALITY AND CHANNEL PROTECTION VOLUME WILL BE PROVIDED BY B.M.P. NO. 1; TYPE - EXTENDED DETENTION DRY POND FACILITY PRIVATELY OWNED AND MAINTAINED BY H.O.A. AND CONSTRUCTED UNDER 5DP-04-126.
- 11. THIS SITE WILL UTILIZE PUBLIC WATER AND PRIVATE SEWER. THE ON-SITE WATER MAIN IS PUBLIC, AND WAS CONSTRUCTED UNDER CONTRACT Nos. 20-4060-D & 44-3400. THE EXISTING UTILITIES SHOWN HEREON WERE DERIVED FROM AVAILABLE PUBLIC RECORDS. THE CONTRACTOR MUST DIG TEST PITS BY HAND AT ALL UTILITY CROSSINGS AND CONNECTION POINTS TO VERIFY THE EXACT LOCATION.
- A. TOTAL AREA OF PARCEL 'A': 6.391 AC. ± E. OPEN SPACE REQUIRED (25% OF PEC) = 6,391 x .25 = 1.60 AC. B. LIMIT OF DISTURBED AREA: 3.80 AC. D. OPEN SPACE PROVIDED = 2.17 AC. + OF FLOODPLAIN AND FCE EASEMENTS.
- C. PRESENT ZONING: PEC
- D. BUILDING COVERAGE OF SITE: 0.37 AC. ±
- 13. PROPOSED USE FOR SITE AND STRUCTURES: OFFICE AND SHOPPING CENTER

### 14. PARKING REQUIRMENTS:

- NO. OF SPACES REQUIRED: 115 SPACES FOR SHOPPING CENTER NO. OF SPACES PROVIDED: 157 SPACES (SEE PARKING SPACE TABULATION, THIS SHEET)
- 15. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND
- SPECIFICATIONS IF APPLICABLE.
- 16. THE TRAFFIC STUDY REQUIRED FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP DATED SEPTEMBER, 2006 AND APPROVED ON AS PART OF THE APFO MITIGATION PLAN (F-07-032). THE REDUCTION IN OFFICE SPACE AND CHANGE IN USE TO SHOPPING CENTER WAS EVALUATED UNDER REDLINE #3 AND #1 FOR APFO AND WAS FOUND TO BE ACCEPTABLE.
- 17. THERE ARE NO HISTORIC STRUCTURES LOCATED ON THIS SITE.
- 18. THERE ARE NO CEMETERIES ON-SITE OR ON ANY ADJOINING PROPERTIES.
- 19. REFER TO THE MD. S.H.A. MANUAL ON UNIFORM TRAFFIC CONTROL (M.U.T.C.D.) FOR ROAD WIDENING WORK.
- 20. THERE ARE NO WETLANDS WITHIN THE LIMITS OF DISTURBANCE "PER A SIGNED AND SEALED WETLANDS CERTIFICATION PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., DATED MARCH 31, 2004." HOWEVER, THERE IS A WETLAND AND 25' WETLAND BUFFER, 75' STREAM BUFFER, FLOODPLAIN AND RETENTION FOREST CONSERVATION EASEMENT LOCATED ELSEWHERE ON THIS SITE.
- 21. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED. ALL UNITS ARE ALIGNED SO THAT THE FRONT OF THE UNIT FACES OUTWARD TOWARDS THE EXISTING ROADWAYS.
- 22. THE FOREST CONSERVATION REQUIREMENTS FOR THIS PLAN HAVE BEEN MET UNDER SDP-04-126 & F-05-051 BY THE CREATION OF AN ON-SITE 1.17 ACRE RETENTION FOREST CONSERVATION EASEMENT AND A FEE-IN-LIEU PAYMENT OF \$16,988.40 TO THE HOWARD COUNTY FOREST CONSERVATION FUND FOR 0.78 ACRE OF REFORESTATION. SURETY IN THE AMOUNT OF \$10,193.04 FOR THE 1.17 ACRE ON-SITE RETENTION FOREST CONSERVATION EASEMENT HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR SDP-04-126.
- 23. A. REFUSE COLLECTION TO BE PROVIDED BY PRIVATE CONTRACTOR. THERE WILL BE INTERNAL TRASH COLLECTION WITHIN THE CONDOMINIUM BUILDINGS TO BE REMOVED BY A PRIVATE JANITORIAL SERVICE FOR CURBSIDE PICK-UP. B. SNOW REMOVAL AND ROAD MAINTENANCE TO BE PRIVATE.
- 24. "SIGN POSTS" ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST
- 25. "THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THEPROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE
- AND THE LANDSCAPE MANUAL". FINANCIAL SURETY FOR THE 87 REQUIRED LANDSCAPE TREES & 239 SHRUBS HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$26,070.00.
- A. NORTH BUILDING No. 1 1 STORY
  - SHOPPING CENTER 112,830 SQ.FT. A STORAGE - TENANT
- FIRST FLOOR = SECOND FLOOR (MEZZANINE) = 286 SQ.FT. 13,086 SQ.FT TOTAL AREA =
- B. SOUTH BUILDING No. 2 2 STORY BASEMENT =
  - STORAGE AND MECHANICAL ONLY FIRST FLOOR = 6,412 SQ.FT. SHOPPING CENTER + 780 SQ. FT. DECK
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT. 28. STREET LIGHT PLACEMENT AND TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993)
- AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)". A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE. ALL OUTDOOR LIGHTING SHALL COMPLY WITH THE REQUIREMENTS OF ZONING SECTION 134. ALL PROPOSED IGHTING SHALL BE LOCATED AND ORIENTED TO HAVE NO ADVERSE IMPACT/EFFECT ON THE ADJACENT RESIDENTIALLY ZONED PROPERTIES AND PUBLIC
- 29. EXISTING TOPOGRAPHY AND FEATURES WERE DERIVED FROM SURVEY BY FISHER, COLLINS AND CARTER INC. AND HARFORD AERIAL SURVEYS INC. WITH MAX. 2' CONTOUR INTERVALS DATED JULY 6, 2001.
- 30. THE PREVIOUS WETLANDS REPORT PREPARED BY EXPLORATION RESEARCH, INC. DATED 9-5-91 HAS BEEN RE-CERTIFIED UNDER 5-06-013 BY ECO-SCIENCE PROFESSIONALS, INC. DATED APRIL, 2006.
- 31. THE EXISTING FLOODPLAIN AREA DELINEATED ON THESE PLANS WAS APPROVED ON THE 5 95-07 SET OF PLANS
- 32. PLAN IS SUBJECT TO WAIVER PETITION WP-07-126. ON JULY 20. 2007, HOWARD COUNTY APPROVED A WAIVER FROM SECTION 16.119.f.1 TO PERMIT VEHICULAR ACCESS TO TWO VEHICULAR ACCESS RESTRICTED ROADS (ROUTE 99 - MINOR ARTERIAL AND MARRIOTTSVILLE ROAD -INTERMEDIATE ARTERIAL), INCLUDING THE HIGHER CLASSIFICATION VEHICULAR ACCESS RESTRICTED MARRIOTTSVILLE ROAD.
- 33. PLAN IS SUBJECT TO ADMINISTRATIVE ADJUSTMENT No. AA 07-017. THE HEARING WAS CONDUCTED ON JULY 10, 2007 AND THE AA WAS GRANTED ON JULY 27, 2007 TO REDUCE THE 75 FOOT STRUCTURE AND USE SETBACK TO 60 FEET FOR PARKING USES AS DEPICTED ON THE AA PLAN AND THAT A TYPE D LANDSCAPE BUFFER BE PLACED ALONG THE WEST SIDE OF THE PARKING AREA.
- 34. THE "LOADING AREAS" REQUIRED PER ZONING SECTIONS 115.D, 116.D AND 133.F FOR THIS SMALL SITE WILL BE PROVIDED BY MEANS OF EARLY
- MORNING HOUR DELIVERIES ONLY, THEREFORE, NO DESIGNATED LOADING ZONES ARE SHOWN ON THIS PLAN. 35. PLAN IS SUBJECT TO WAIVER PETITION WP-12-110. ON JANUARY 13, 2012 HOWARD COUNTY APPROVED A WAIVER FROM SECTION 16.156
- (0)(2) TO REACTIVATE THIS PLAN. SECTION 16.156(0)(1)(i) AND SECTION 16.156 (0)(1)(ii) TO GRANT AN EXTENSION OF TIME TO APPLY FOR ALL BUILDING PERMITS 36. THIS PLAN IS SUBJECT TO PREVIOUSLY RECORDED RECORD PLATS #17415-17417 WHICH WERE RECORDED IN 2005. THE REVISED
- PLATS #19761-79763 WERE RECORDED IN 2008.
- 37. IN ACCORDANCE WITH AMENDMENT No. 21 OF THE WAVERLY WOODS MASTER DECLARATION (L. 15490, F. 048), THIS PROPERTY IS PART OF THE WAVERLY WOODS GROWTH AREA AND P.E.C. ZONING. 38. THIS PLAN IS SUBJECT TO ALTERNATIVE COMPLIANCE WP-18-013 TO WAIVE SECTION 16.156 (0)(1) AND 16.156 (0)(2) OF THE HOWARD COUNTY
- SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO RE-ACTIVATE THIS PLAN. THIS REQUEST WAS APPROVED ON 9/6/17 SUBJECT TO THE
- 1) APPLY FOR A BUILDING PERMIT OF BUILDING No. 2 BY 9/5/18. 2) AMEND TO EXTEND THE DEVELOPER'S AGREEMENT WITH DPW-R.E.S. DIVISION.

	APPROVED: DE	PARTMENT OF	PLANNIN	IG AN	D ZON	ING				Π
-	Director - Department of Planning and Zoning  8/3/20 Date								3/2020 Dațe	
	Ghief, Division of Land Development Date									
	Chief, Development Engineering Division Date									
	SUBDIVISION NAME WAVERLY CORPORATE CENTER					CTION/	/AREA LOT/PARCEL No - 'A'			
	PLAT NO.	BLOCK NO.	ZONE		TAX/2	ZONE	ELEC.	DIST.	CENSUS TR.	
	19761-19763 22+0 PEC					& 16	31	-d	6030.00	
	WATER CODE			5	EWER	CODE				
		K02			- 41	,	599200	0		

REVISE D-I PERIMETER LANDSCAPING REVISE SOUTH BLDG., REMOVE OFFICE SPACE & TO RETAIL SPACE REVISE BLDG. No. 2 & ADD ONE (1) HDCP. SPACE 6/7/18 FISHER, COLLINS & CARTER, INC. REVISE SOUTH BUILDING, REMOVE OFFICE SPACE, 3/25/20 REVISE TO RETAIL SPACE & REVISE PARKING TABULATION REVISE PARKING TABULATION TO ELIMINATE 1 PARKING SPACE 6/7/18 FLLICOTT CITY, MARYLAND 2104? ADDED DISPLAY SIGN, PARKING SPACES & DUMPSTER PAD 9/30/14 REMOVE THE POR ZONING ADDED 2ND STORY MEZZANINE TO BUILDING NO. 1

ADD 65' x 12' DECK & GREASE TRAP TO BLDG. No. 2

REVISED BLDG. NO. 1, PARKING AND DUMPSTER LOCATION



THE INSTRUMENTS THAT WERE USED IN PERFORMING THIS

AS-BUILT SURVEY: 10 SECOND ROBOTIC TOTAL STATION AND

OWNER/DEVELOPER WAVERLY WOODS DEVELOPMENT CORPORATION c/o LAND DESIGN AND DEVELOPMENT, INC. 5300 DORSEY HALL DRIVE, SUITE 102 ELLICOTT CITY, MARYLAND 21042 (443) 367-0422

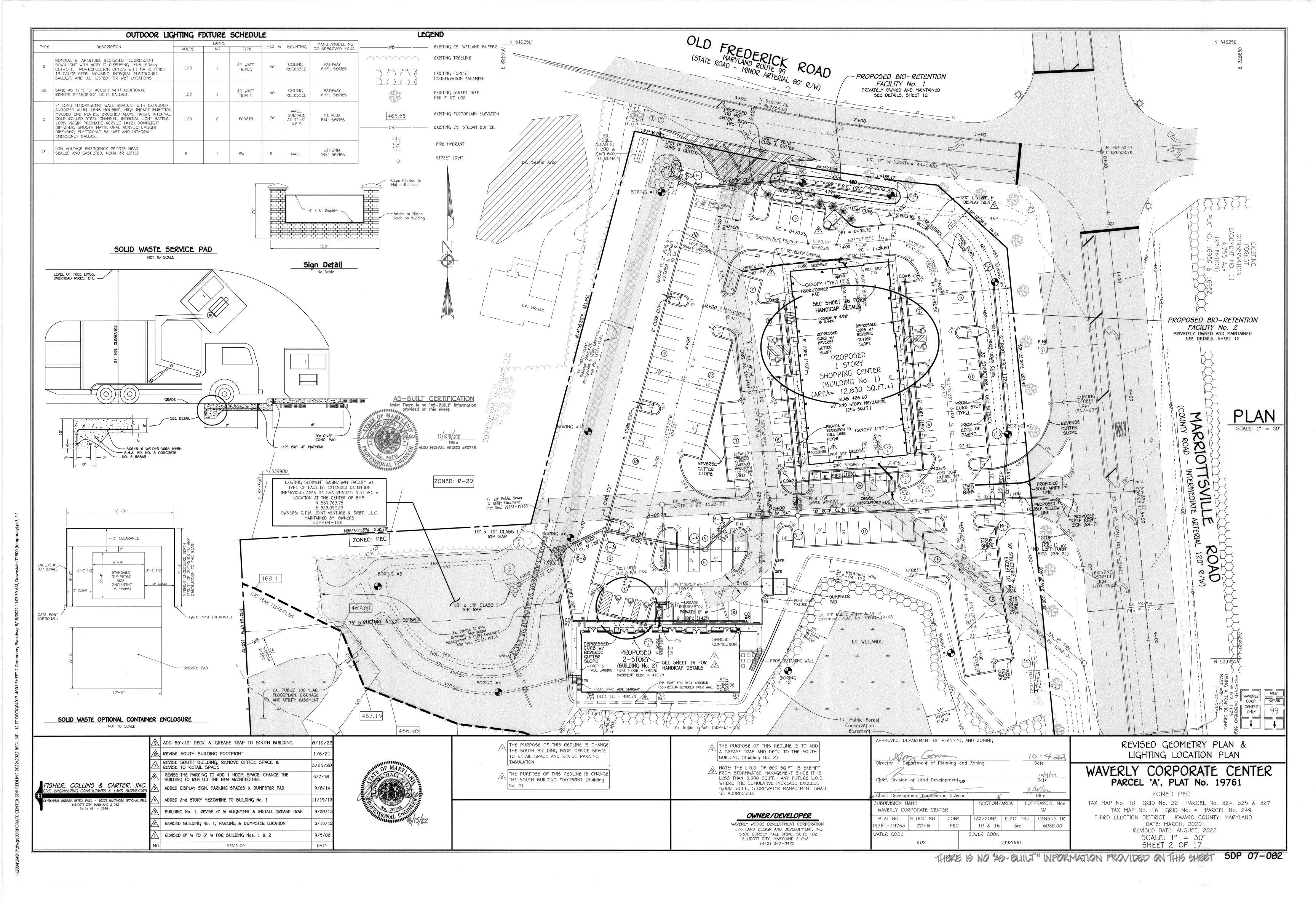
WAVERLY CORPORATE CENTER

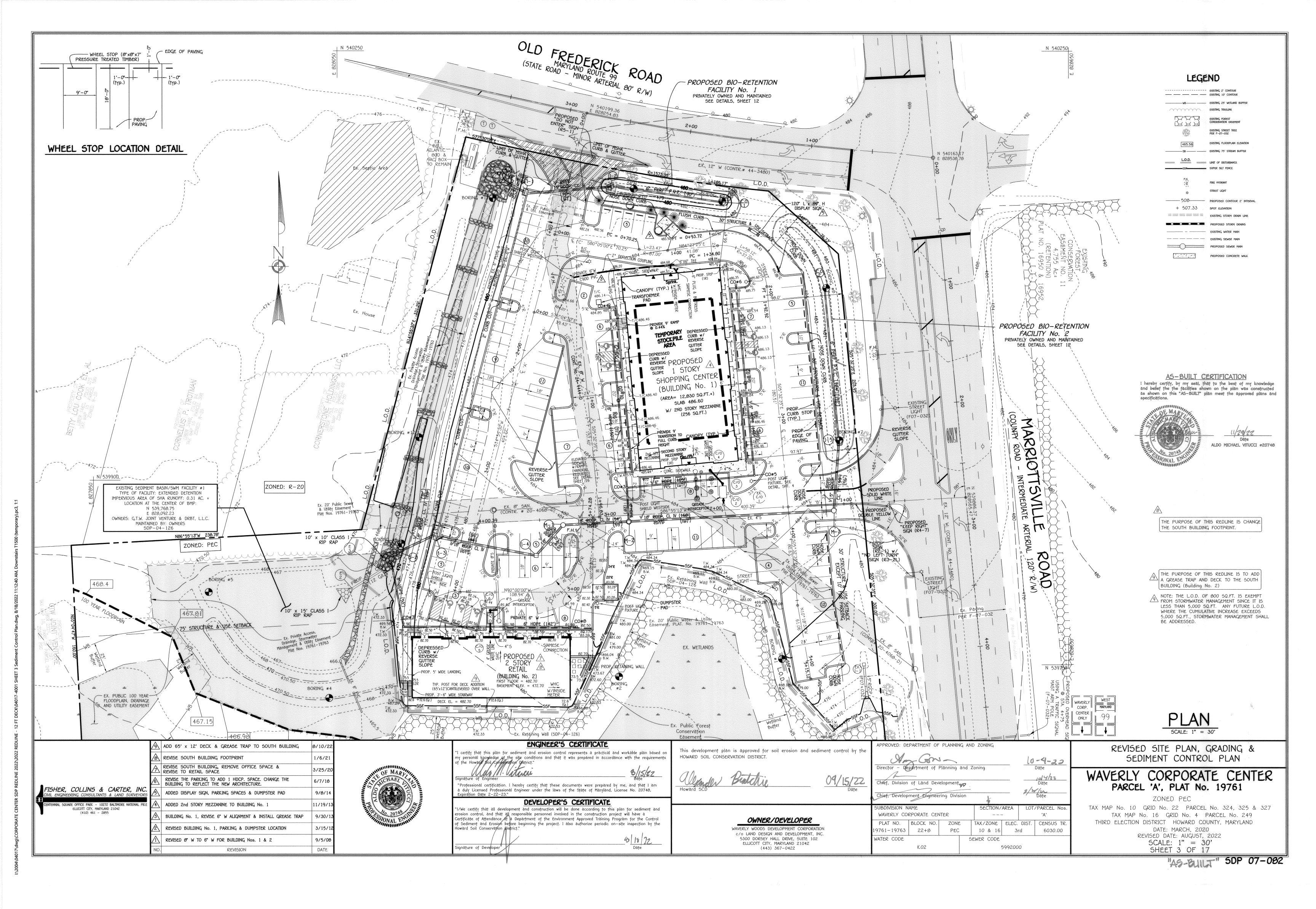
PARCEL 'A', PLAT No. 17415 ZONED PEC TAX MAP No. 10 GRID No. 22 PARCEL No. 324, 325 & 327

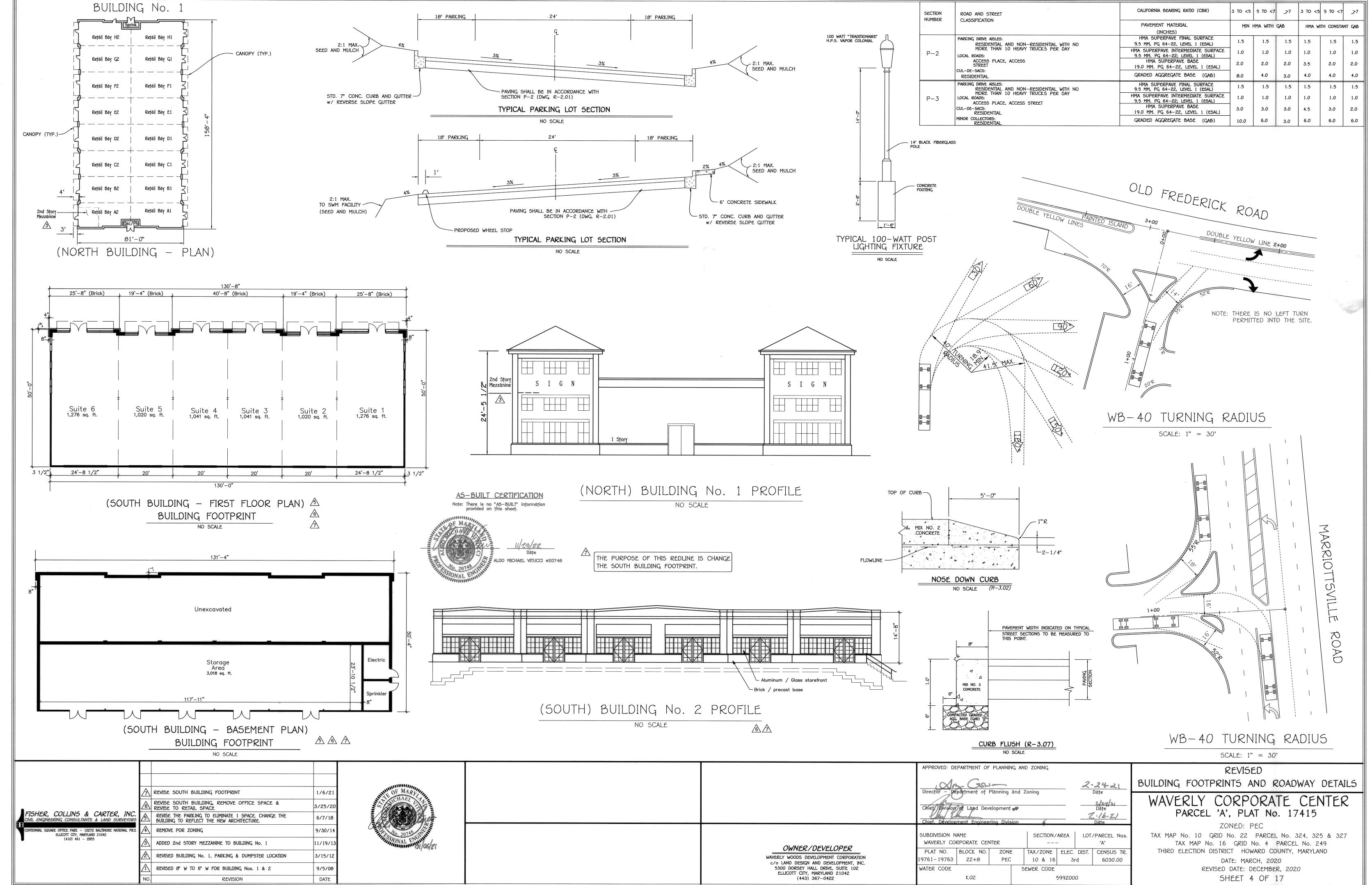
TAX MAP No. 16 GRID No. 4 PARCEL No. 249 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND DATE: MARCH, 2020

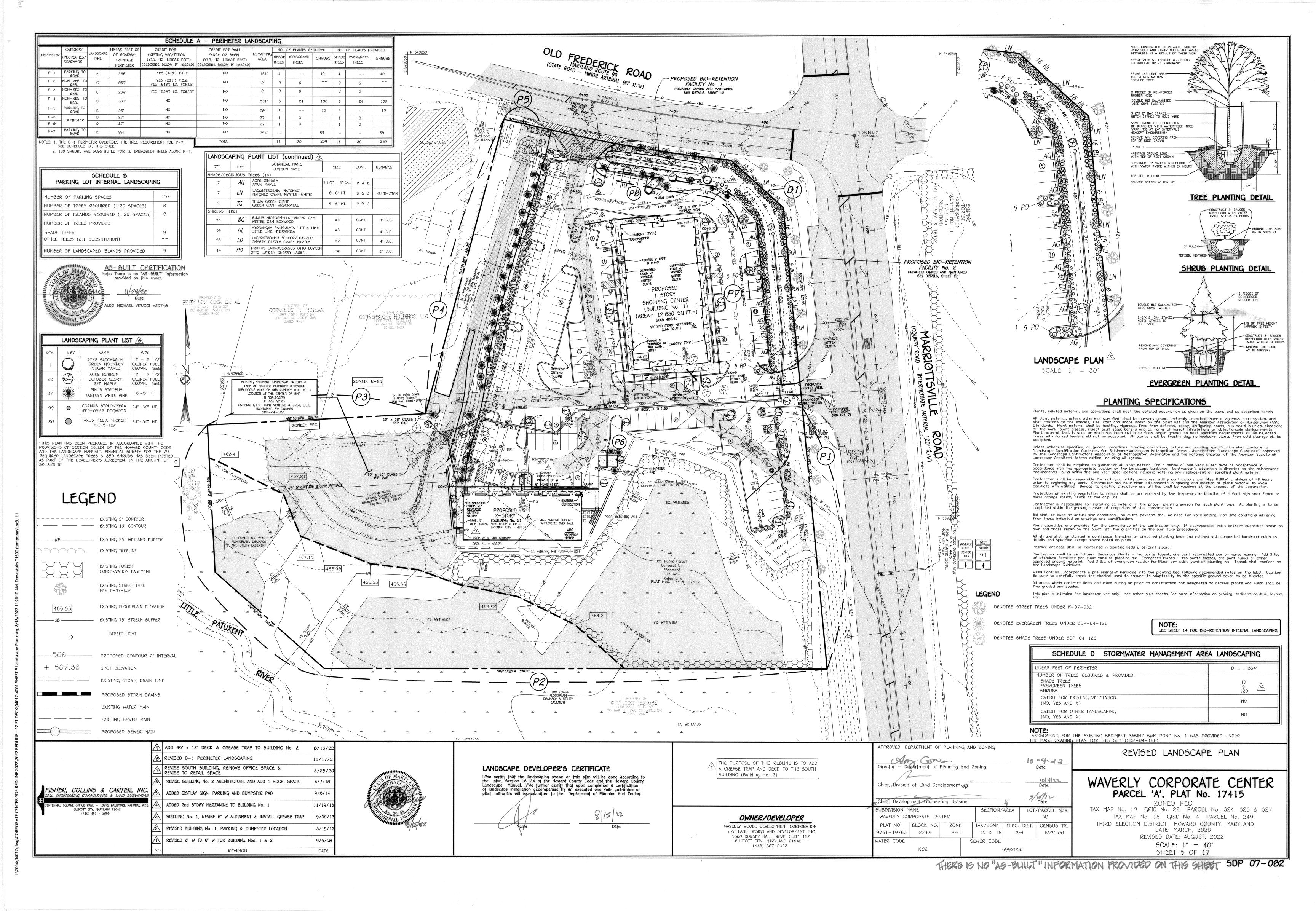
REVISED TITLE SHEET

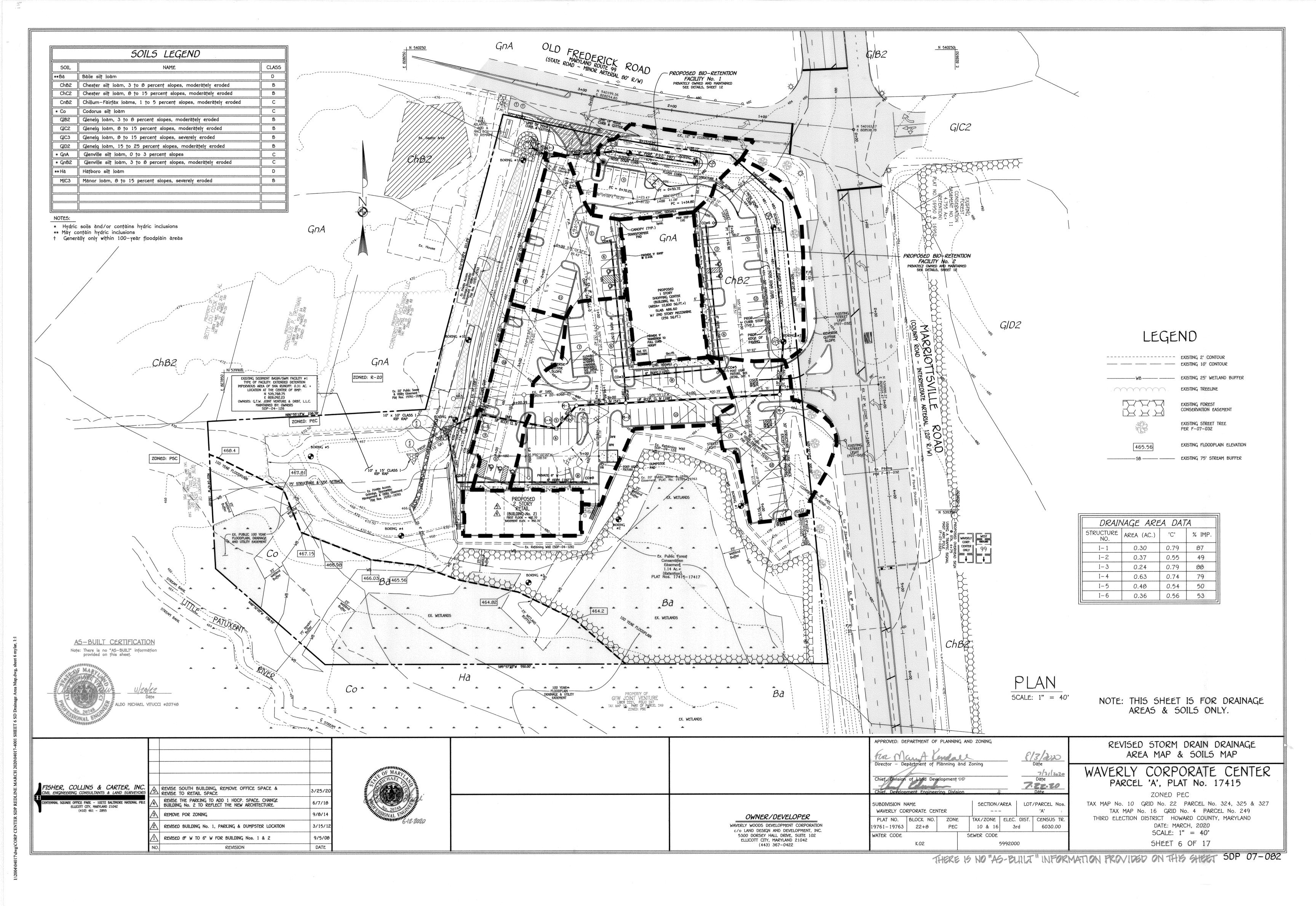
SHEET 1 OF 17

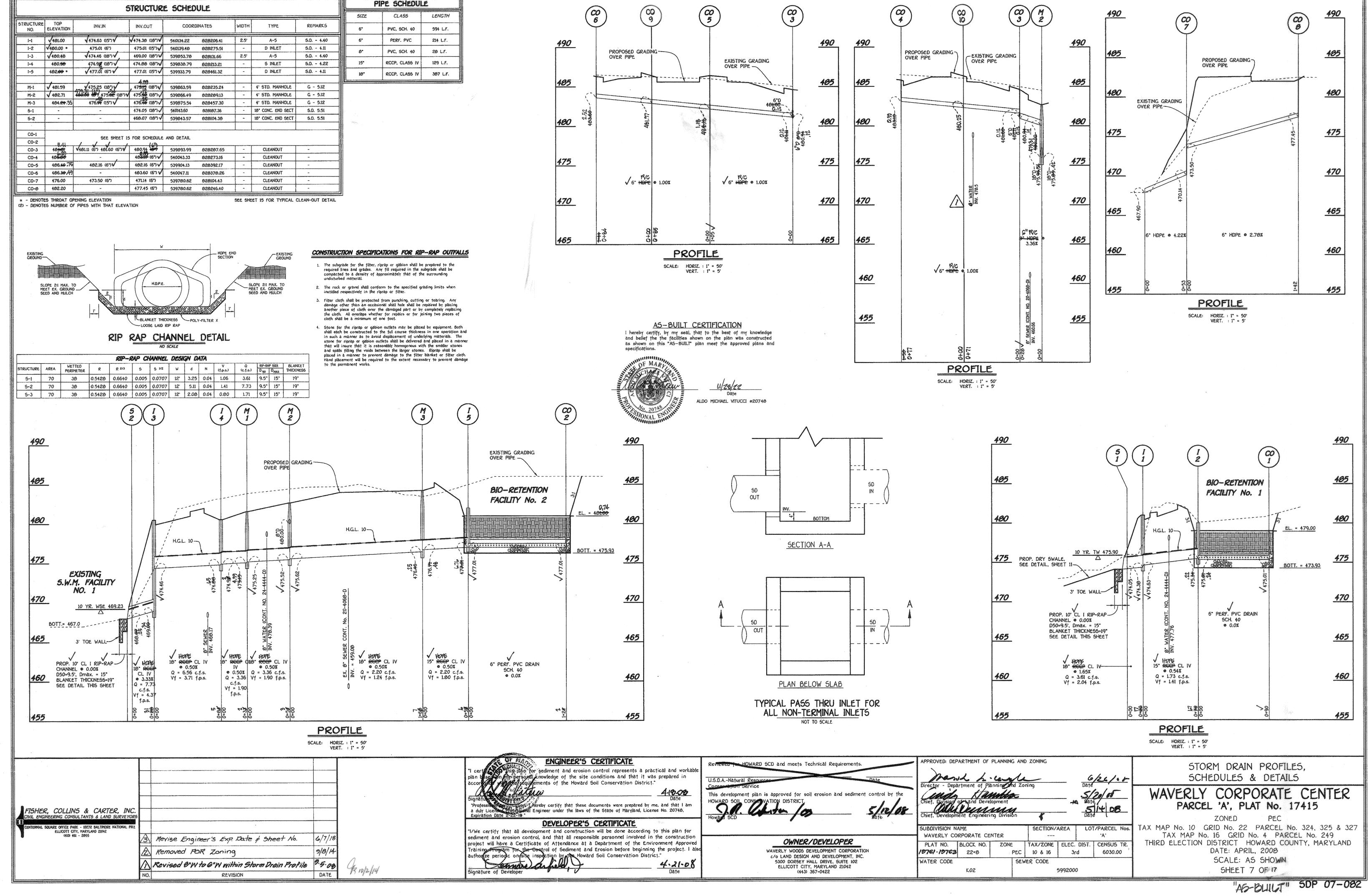


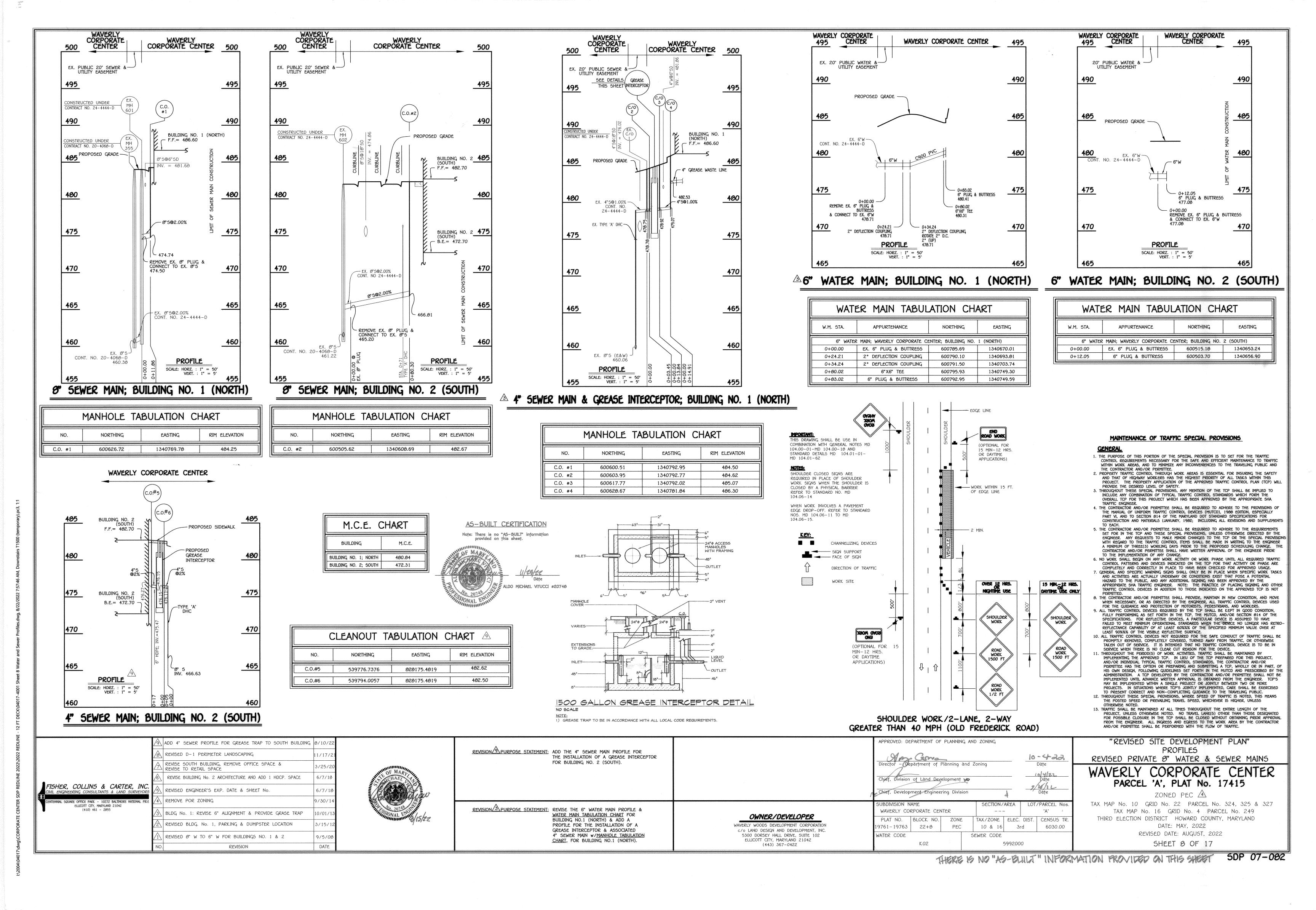












Using vegetation as cover for barren soil to protect it from forces that cause erosion.

**PURPOSE** Vegetative stabilization specifications 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 run-off to downstream areas, and improving wildlife habitat and visual resources.

CONDITIONS WHERE PRACTICE APPLIES This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration O(up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc.

EFFECTS ON WATER QUALITY AND QUANTITY 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. Vegetation over time will increase groapic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce 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 devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS A. Site Preparation

Install erosion and sediment control structures (either temporary of permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually

iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres. 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 over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses . Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a \*100 mesh sieve and 98-100% will pass through a \*20 mesh sieve. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

Seedbed Preparation a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows of rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges

rupping parallel to the contour of the slope. Apply fertilizer and lime as prescribed on the plans. c. In corporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

Permanent Seeding

Minimum soil conditions required for permanent vegetative establishment:

1. Soil pH shall be between 6.0 and 7.0. Soluble salts shall be less than 500 parts per million (ppm. The soil shall contain less than 40% clay, but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedezas is to be planted, then a sandy soil (<30% silt plus clay) would be acceptable.

Soil shall contain 1.5% minimum organic matter by weight. Soil must contain sufficient pore space to permit adequate root penetration If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.

Apply soil amendments as per soil test or as included on the plans.

Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on Seed Specifications

All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job. Note: Seed tags shall be made available to the inspector to verify type and rate of seed used. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than

the date indicated on the container. Add fresh inoculant as directed on 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°-80° F. can weaken bacteria and make the inoculant less effective. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen; P205 (phosphorous); 200 lbs/ac; K20 (potassium): 200 lbs/ac.

Lime - use only ground agricultural limestone, (Up to 3 tons per acre may be applied by hydroseeding). Normally not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.

Seed and fertilizer shall be mixed on site and seeding shall be done immediately and ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.

Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Teed spread ary shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting. Where practical, seed should be applied in two directions perpendicular to each other.

Apply half the seeding rate in each direction. Mulch Specifications (In order of preference)

Straw shall consist of thoroughly threshed wheat, rre or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.

Wood Cellulose Fiber Mulch (WCFM) WCFM shall consist of specially prepared wood cellulose processed into a uniform

fibrous physical state. WCFM, including dye, shall contain no germination or growth inhibiting factors. WCFM materials shall 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 shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic.

f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

Note: Only sterile straw mulch should be used in areas where one species of grass is desired. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding. If grading is completed outside of the seeding season, mulch along shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch

shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre. i. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs.

of wood cellulose fiber per 100 gallons of water.

Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of 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 two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. It used on sloping land, this practice should be used on the contour if possible.

Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area should be appear uniform after binder application. Synthetic binders – such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.

Lightweight plastic netting may be stapled over the mulch according to manufacturer's recom-

mendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes

I Incremental Stabilization - Cut Slopes

shall be excavated and stabilized in equal increments not to exceed 1 ii. Construction sequence (Refer to Figure 3 below):

a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
b. Perform Phase 1 excavation, dress, and stabilize.

Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as necessary. Perform final phase excavation, dress and stabilize. Overseed previously seeded

Note: Once excavation has beaun 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 int he operation of completing the operation out of the seeding season will necessitate the application of temporary stabilization. Incremental Stabilization of Embankments - Fill Slopes

Embankments shall be constructed in lifts as prescribed on the plans.

ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15", or when the grading operation ceases as prescribed in the plans.

iii. At the end of each day, femporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.

Construction sequence: Refer to Figure 4 (below).

Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct slope silt fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area. Place Phase 1 embankment, dress and stabilize.

Place Phase 2 embankment dress and stabilize Place final phase embankment, dress and stabilize. Overseed previously seeded areas as necessary.

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization. SECTION 2 - TEMPORARY SEEDING

Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, Permanent Seeding is required. A. Seed mixtures - Temporary Seeding

. Select one or more of the species or mixtures listed in Table 26 for the appropriate Plant Hardiness Zone (from Figure 5) 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 plans and completed then Table 26 must be put on the plans

ii. For sites having soil tests performed, the rates shown on this table shall be deleted and the rates recommended by the testing agency shall be written in Soil tests are not required for Temporary Seeding.

5	eed Mixture (Hardiness Zone . From Table 26	Fertilizer Rate	Lime Rate			
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	(10-10-10)	Enne Raje
1	RYE	140	3/15 - 5/31, 8/1 - 10/31	1" - 2"	600 lb/ac	2 tons/ac
2	BARLEY OR RYE PLUS FOXTAIL MILLOT	150	6/1 - 7/31	1"	(15 lb/1000sf)	(100 lb/1000s

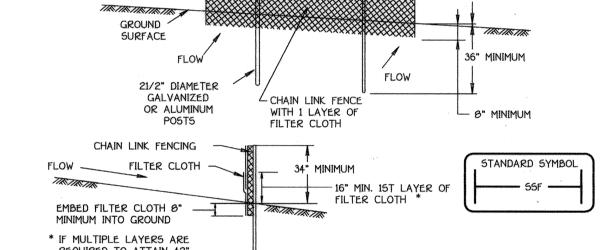
SECTION 3 - PERMANENT SEEDING Seeding grass and legumes to establish groung cover for a minimum of one year on disturbed areas generally receiving low maintenance. A. Seed mixtures - Permanent Seeding

. Select one or more of the species or mixtures listed in Table 25 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Permanent Seeding Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 26. If this summary is not pur on the construction plans and completed, then Table 25 must be put on the plans. Additional planting specifications for exceptional sites such as shorelines, streambanks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-SCS Techinical Field Office Guide, Section - Critical Area Planting. For special lawn maintenance areas, see Sections IV Sod and V Turfgrass. ii. For sites having disturbed area over 5 areas, the rates shown on this table shall be deleted and the

rates recommended by the soil testing agency shall be written in. iii. For areas receiving low maintenance, apply ureaform fertilizer (46-0-0) at 3 1/2 lbs/1000 sq. ft. (150 lbs/ac), in addition to the above soil amendments shown in the table below, to be performed at

	Seed Mixture (Hardiness Zone From Table 25	<u>6a</u> )				Fertilizer R (10-20-20)	2ate	Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P205	K20	100,10
1	TALL FESCUE (05%) KENTUCKY BLUEGRASS (5%) PERENNIAL RYEGRASS (10%)	125 15 10	3/15 - 6/1, 8/1 - 10/1	1" - 2"	(2.0 lb/	175 lb/ac (4 lb/	(4 lb/	2 tons/ac
2	TALL FESCUE (80%) HARD FESCUE (20%)	120 30	3/15 - 6/1, 8/1 - 10/1	1" - 2"	1000sf)	1000sf)	1000sf)	1000sf)

### SUPER SILT FENCE NOTE: FENCE POST SPACING 10' MAXIMUM SHALL NOT EXCEED 10' ---- CENTER TO CENTER 34" MINIMUM



REQUIRED TO ATTAIN 42" Construction Specifications 1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length

2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.

3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.

Steepness

10 - 20%

20 - 33%

33 - 50%

50% +

9/30/14

DATE

0 - 10:1

5:1 - 3:

2:1 +

4. Filter cloth shall be embedded a minimum of 8" into the ground. 5. When two sections of filter cloth adjoin each other, they shall be overlapped

6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height 7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Tensile Strenath Test: MSMT 509 50 lbs/in (min.) Tensile Modulus 20 lbs/in (min.) Test: MSMT 509 0.3 gal/ft /minuté (max.) Test: MSMT 322 Filtering Efficiency 75% (min.) Test: MSMT 322

> Design Criteria Silt Fence Length (maximum (maximum)

> > 1,000 feet

500 feet

250 feet

anature of Developer

Unlimited

200 feet

100 feet

100 feet

50 feet

### TOPSOIL SPECIFICATIONS

V. Topsoil Application

lime application rate.

Definition Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation. Conditions Where Practice Applies

I. This practice is limited to areas having 2:1 or flatter slopes a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth b. The soil material is so shallow that the rooting zone is not deep

and plant growth. c. The original soil to be vegetated contains material toxic to plant d. The soil is so acidic that treatment with limestone is not feasible.

enough to support plants or furnish continuing supplies of moisture

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications 1. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

II. Topsoil Specifications - Soil to be used as topsoil must meet the

Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% b volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter. ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at a rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres: Place topsoil (if required) and apply soil amendments as specified in 10.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials. III. For sites having disturbed areas over 5 acres:

On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following: a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher. b. Organic content of topsoil shall be not less than 1.5 percent by weight.

c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.

d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials. Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil. Place topsoil (if required) and apply soil amendments as specified in 10.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation. iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets. iv. Topsoil shall not be placed while the topsoil or subsoil is in a

When topsoiling maintain peeded erosion and sediment control

frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation. VI. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: Composted Sludge Material for use as a soil conditioner for

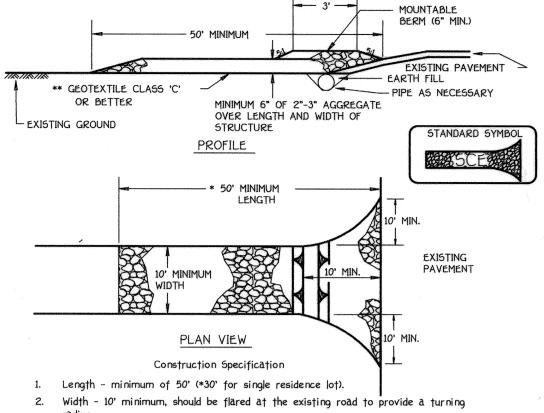
sites having disturbed areas over 5 acres shall be tested to prescribe

applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal

amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements. a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) bt the Maryland Department of the Environment under COMAR 26.04.06.

b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Composted sludge shall be applied at a rate of 1 ton/1,000 iv. Composted sludge shall be amended with a potassium fertilizer

### STABILIZED CONSTRUCTION ENTRANCE



3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. \*\*The plan approval authority may not require single family

residences to use aeotextile. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the

Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized

6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

according to the amount of runoff to be conveyed. A 6" minimum will be required.

A5-BUILT CERTIFICATION

Note: There is no "A5-BUILT" information

ALDO MICHAEL VITUCCI #20748

provided on this sheet

## BLAZE ORANGE PLASTIC MESH MINIMUM 2" STEEL "U" CHANNEL OR 2" x 2" TIMBER 6' IN LENGTH HIGHLY VISIABLE FLAGGING LUMBER FOR CROSS BACKING MAXIMUM & FEE

FOREST PROTECTION DEVICE ONLY.
RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE. ROOT DAMAGE SHOULD BE AVOIDED.
PROTECTIVE SIGNAGE MAY ALSO BE USED.
DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION DETAIL

NOT TO SCALE

### SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT

2. INSTALL SEDIMENT CONTROL FEATURES INCLUDING INSPECTION OF EXISTING BASIN AND SUPER SILT FENCE AS INDICATED ON PLAN. THEN PROCEED TO INSTALL THE S.W.M. DEVICES AS SHOWN ON THE PLANS.

3. GRADE THE REMAINING SITE TO SUB-GRADE AS INDICATED BY THE PROPOSED CONTOURS SHOWN ON THIS PLAN, SEE SPECIFICATIONS FOR

COMPACTION REQUIREMENTS. 4 WEEKS

4. INSTALL STORM DRAIN AND UTILITIES PER PLAN. INSTALL BASE COURSE PAYING. 3 WEEKS 5. CONSTRUCT OFFICE BUILDINGS.

6. INSTALL SURFACE PAVING COARSE. 2 DAYS 7. UPON COMPLETION OF GRADING ALL DISTURBED AREAS SHALL BE

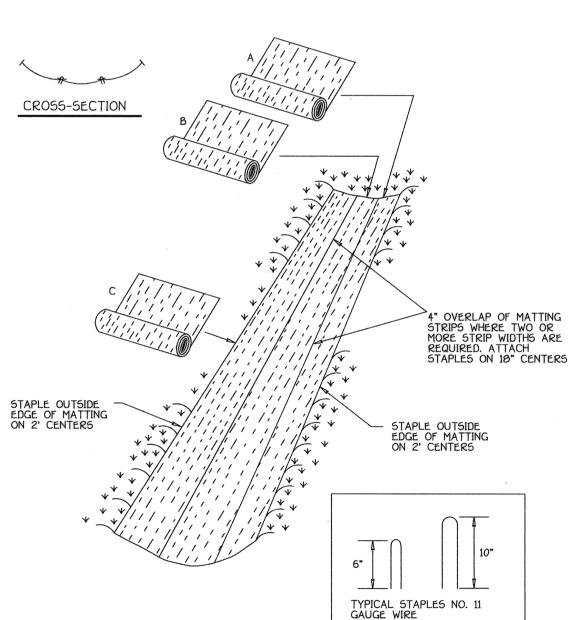
STABILIZED IMMEDIATELY WITH TEMPORARY SEEDING. THE HAUL ROADS WILL BE FINE GRADED AND STABILIZED WITH TEMPORARY SEEDING.

WHEN THE CONTRIBUTING AREAS TO THE SEDIMENT CONTROL 2 DAYS DEVICES HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR THE DEVICES MAY BE

REMOVED AND THESE DISTURBED AREAS STABILIZED

9. NOTIFY HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS FOR FINAL INSPECTION

### **EROSION CONTROL MATTING**



EROSION CONTROL MATTING

Construction Specifications

1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".

2. Staple the 4" overlap in the channel center using an 18" spacing between staples.

Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.

Staples shall be placed 2' apart with 4 rows for each strip. 2 outer rows, and 2 alternating rows down the center. Where one roll of matting ends and another begins, the end of

the top strip shall overlap the upper end of the lower strip by 4" shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.

6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF SPECTIONS, LISCENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY

SEDIMENT CONTROL NOTES

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

3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:

a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE

4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN 5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN

ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7) SITE ANALYSIS: TOTAL AREA OF SITE 6.391 ACRES AREA DISTURBED AREA TO BE ROOFED OR PAVED 2.36 ACRES AREA TO BE VEGETATIVELY STABILIZED 1.44 ACRES ONSITE BORROW AREA LOCATION N/A CU.YDS.

8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE. 9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR RADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

FISHER, COLLINS & CARTER, INC VIL ENGINEERING CONSULTANTS & LAND SURVEYOR ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2855 Revised Engineer's Exp. Date & Sheet No.

REMOVE POR ZANING

REVISION

ENGINEER'S CERTIFICATE that this plan for sediment and erosion control represents a practical and workable n my personal knowledge of the site conditions and that it was prepared in nce with the requirements of the Howard Soil Conservation District." Thereby certify that these documents were prepared by me. and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 20748, Expiration Date 2-22-19 DEVELOPER'S CERTIFICATE

/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved raining Program for the Control of Sediment and Erosion before beginning the project. I al uthorize periodic on-site inspection by the Howard Soil Conservation District." 4-21-00

Reviewed for HOWARD SCD and meets Technical Requirements U.S.D.A.-Natural Resour This development plan is approved for soil erosion and sediment control by

OWNER/DEVELOPER WAVERLY WOODS DEVELOPMENT CORPORATION c/o LAND DESIGN AND DEVELOPMENT, INC. 5300 DORSEY HALL DRIVE SUITE 102 ELLICOTT CITY, MARYLAND 21042 (443) 367-0422

PPROVED: DEPARTMENT OF PLANNING AND ZONING 6/26/6A mul. 12.64 UBDIVISION NAME SECTION/AREA LOT/PARCEL N WAVERLY CORPORATE CENTER PLAT NO. | BLOCK NO. | ZONE TAX/ZONE | ELEC. DIST. CENSUS TR 19761-19763 PEC 22+8 10 & 16 WATER CODE SEWER CODE

SEDIMENT CONTROL NOTES AND DETAILS WAVERLY CORPORATE CENTER

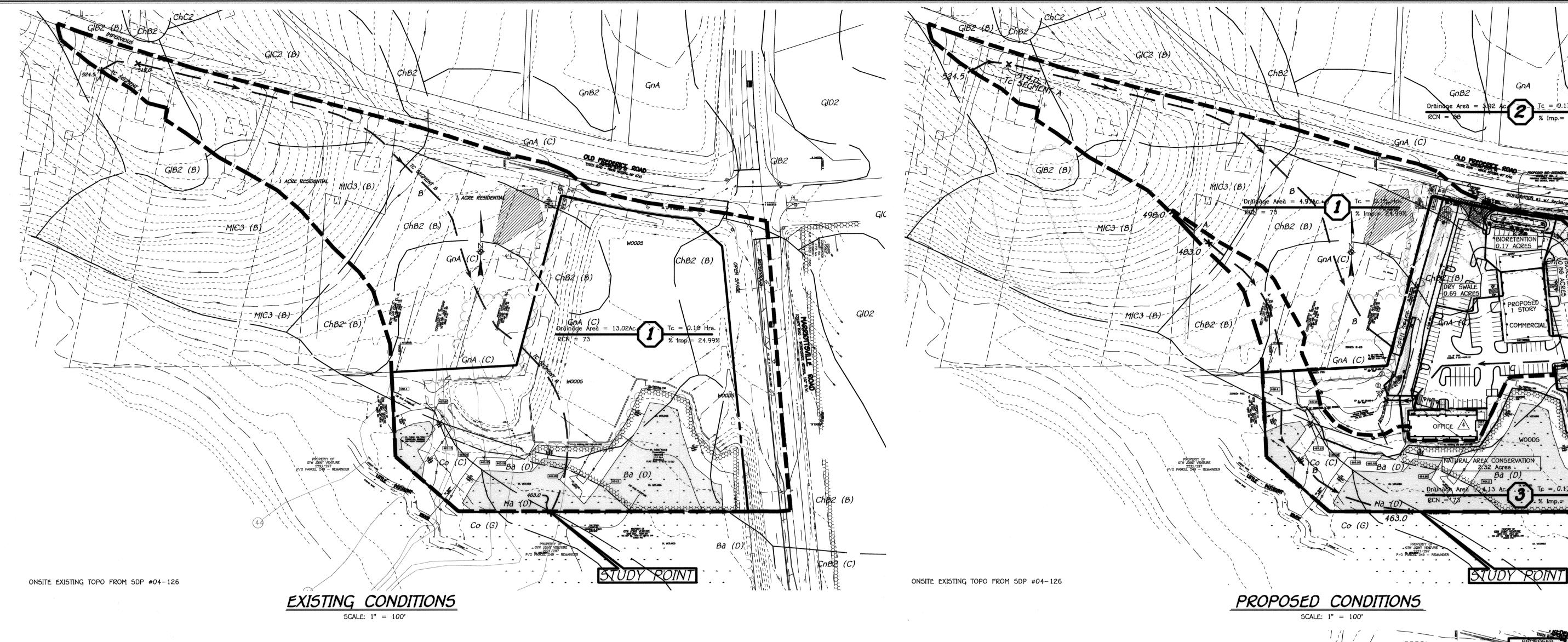
PARCEL 'A', PLAT No. 17415 ZONED: PEC A TAX MAP No. 10 GRID No. 22 PARCEL No. 324, 325 & 327 TAX MAP No. 16 GRID No. 4 PARCEL No. 249

> DATE: APRIL, 2008 SCALE: AS SHOWN

THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET SDP 07-082

SHEET 9 OF 17



SOIL	NAME	CLA55
**Ba	Baile silt loam	D
ChB2	Chester silt loam, 3 to 0 percent slopes, moderately eroded	В
ChC2	Chester silt loam, 8 to 15 percent slopes, moderately eroded	В
CnB2	Chillum—Fairfax loams, 1 to 5 percent slopes, moderately eroded	С
* Co	Codorus silt loam	С
GIB2	Glenelg loam, 3 to 8 percent slopes, moderately eroded	В
GIC2	Glenelg loam, 8 to 15 percent slopes, moderately eroded	В
GIC3	Glenelg loam, 8 to 15 percent slopes, severely eroded	В
GID2	Glenelg loam, 15 to 25 percent slopes, moderately eroded	В
* GnA	Glenville silt loam, 0 to 3 percent slopes	
* GnB2	Glenville silt loam, 3 to 8 percent slopes, moderately eroded	С
** Ha	Hatboro silt loam	0
MIC3	Manor loam, 8 to 15 percent slopes, severely eroded	В

- Hydric soils and/or contains hydric inclusions
- \*\* May contain hydric inclusions
- t Generally only within 100-year floodplain areas

LEGEND					
SYMBOL	DESCRIPTION				
	EXISTING CONTOUR 2' INTERVAL				
	EXISTING CONTOUR 10' INTERVAL				
	PROPOSED CONTOUR 2' INTERVAL				
	PROPOSED CONTOUR 10' INTERVAL				
+ 624	SPOT ELEVATION				
MM.	EXISTING TREE LINE				
$\cdots$	LIMIT OF CLEARING				
GnA (C)	SOILS TYPE (HGL)				
	DRAINAGE AREA LIMITS				
→×	TIME OF CONCENTRATION PATH				



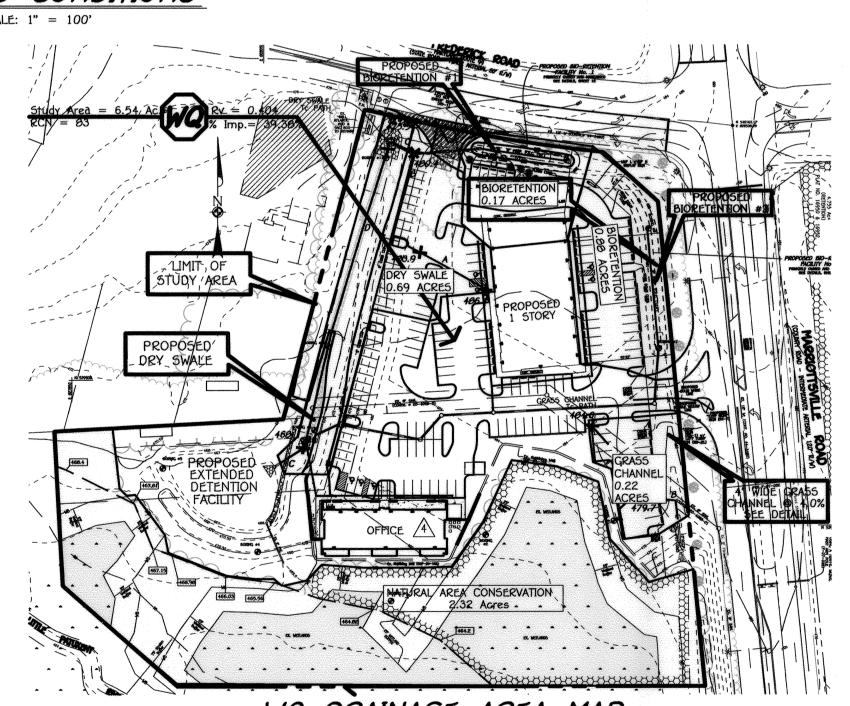


NOTE: THIS SHEET IS FOR SWM DRAINAGE AREAS ONLY.

ALDO MICHAEL VITUCCI #20748

DISC	HARGE	SUMM!	ARY
A	T STUD	Y POINT	•
	1-YEAR	10-YEAR	100-YEAR
EXISTING	7.7 cfs	35.9 cfs	62.6 cfs
PROPOSED	3.3 cfs	45.5 cfs	74.7 cfs
MANAGEMENT	REQUIRED:	Cpv / 1-YEA	R

SWM REQUIRE	MENTS	5UMM	ARY
Rev VOLUME	Rev AREA	WQv	Сру
REQUIREMENT 0.033 ac/ft	0.306 ac	0.220 ac/ft	0.440 ac/ft
LESS CREDITS 0.010 ac/ft	0.120 ac	0.113 ac/ft	N/A
REQUIREMENT 0.023 ac/ft	0.266 ac	0.107 ac/ff	0.440 ac/ft
PROV'D ED FACILITY N/A	N/A	N/A	0.483 ac/ft
PROV'D BIO #10.006 ac/ft	N/A	0.020 ac/ft	N/A
PROV'D BIO #2 0.017 ac/ft	N/A	0.055 ac/ff	N/A
PROV'D DRY SWALE N/A	N/A	0.033 ac/ft	N/A
TOTAL PROV'D 0.023 ac/ft	N/A	0.100 ac/ft	0.403 ac/ft



WQ DRAINAGE AREA MAP

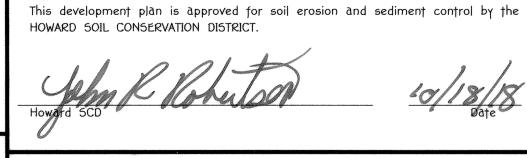
5CALE: 1" = 100"

DESIGN BY: †es DRAWN BY: TSA CHECKED BY:			
FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042	<u></u>	REVISE THE PARKING TO ADD 1 HDCP. PARKING SPACE. REVISE BUILDING No. 2 TO REFLECT THE NEW ARCHITECTURE.	6/7/18
(410) 461 - 2055 T. E. SCOTT & ASSOCIATES, INC.	<u>/</u> 3\	REMOVE POR ZONING	9/8/14
128 COCKEYSVILLE ROAD, SUITE 300 Phone: 410.458.2851 HUNT VALLEY MARYLAND 21030 Fax: 443.289.0216 tes@MdSWM.com	<u> </u>	REVISED BUILDING No. 1, PARKING & DUMPSTER LOCATION	3/15/12
name.	$\Lambda$	REVISED 8" W TO 6" W FOR BUILDING Nos. 1 & 2	9/5/08
	NO.	REVISION	DATE



ENGINEER'S CERTIFICATE	- Committee of the Comm
ertify that this plan for sediment and erosion control represents a practical and work personal knowledge of the site conditions and that it was prepared in accordance wi	
he Howard Soil Conservation District."	7/23/19
ature of Engineer	Date /
rofessional certification. I hereby certify that these documents were prepared by me, duly Licensed Professional Engineer under the laws of the State of Maryland, License biration Date 2—22—19."	

DEVELOPER'S CERTIFICATE "I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all 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



OWNER/DEVELOPER WAVERLY WOODS DEVELOPMENT CORPORATION c/o LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
(443) 367-0422

	APPROVED: DEPARTMENT OF PLANNING AND ZONING						
	Director - De Chief, Division Chief, Develop	of Land Dev	relopment Do	Zoning	· ·	11-9	Date Date Date
Conference of the second of	SUBDIVISION NAME WAVERLY CORPORATE CENTER			SECTION/AREA		LOT/PARCEL Nos.	
	PLAT NO. 19761–19763	BLOCK NO. 22+8	ZONE PEC	TAX/ZONE 10 & 16	ELEC.	DIST. d	CENSUS TR. 6030.00

SEWER CODE

WATER CODE

K02

**REVISED** SWM OVERALL DRAINAGE AREA MAPS

## WAVERLY CORPORATE CENTER PARCEL 'A', PLAT No. 17415

ZONED PEC

TAX MAP No. 10 GRID No. 22 PARCEL No. 324, 325 & 327 TAX MAP No. 16 GRID No. 4 PARCEL No. 249 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND DATE: JUNE, 2018 SCALE: AS SHOWN SHEET 10 OF 17

Signature	the experience and a major and the foliage construction of the foliage depleted and account as the space and audience	P.E. No.

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Relieve Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

### OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED BIORETENTION FACILITIES

- Annual maintenance of plant material, mulch layer, and soil layer is required. Maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation. Maintenance will also address dead material and pruning.
- 2. Schedule of plant inspection will be twice a year in spring and fall. This inspection will include removal of dead and diseased vegetation considered beyond treatment.
- 3. Mulch shall be inspected each spring. Remove previous mulch layer before applying new layer.
- 4. Soil erosion to be addressed on an as-needed basis, minimum once a month and after heavy storm events.

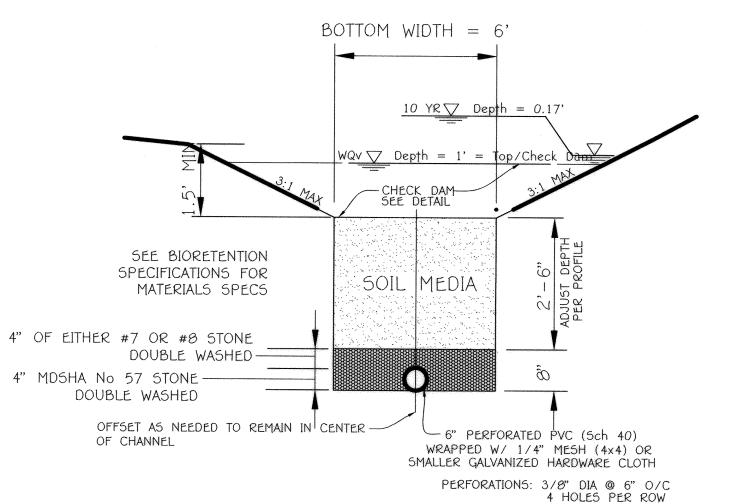
### OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED OPEN CHANNEL SYSTEMS

- A. The open channel system shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the facility is functioning properly.
- B. The open channel shall be mowed a minimum of as needed during the growing season to maintain a maximum grass height of less than 6 inches.
- C. Debris and litter shall be removed during regular moving operations and as needed.
- E. Remove silt in the open channel system when it exceeds 25% of the original wav.
- D. Visible signs of erosion in tire open channel system shall he re aired as soon as it is noticed.

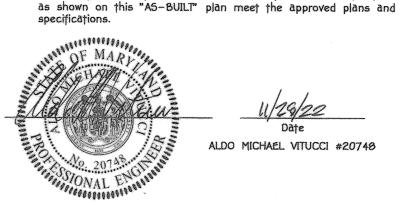
### DRY SWALE #1 FACILITY SUMMARY

MANAGEMENT PROVIDED: WQV

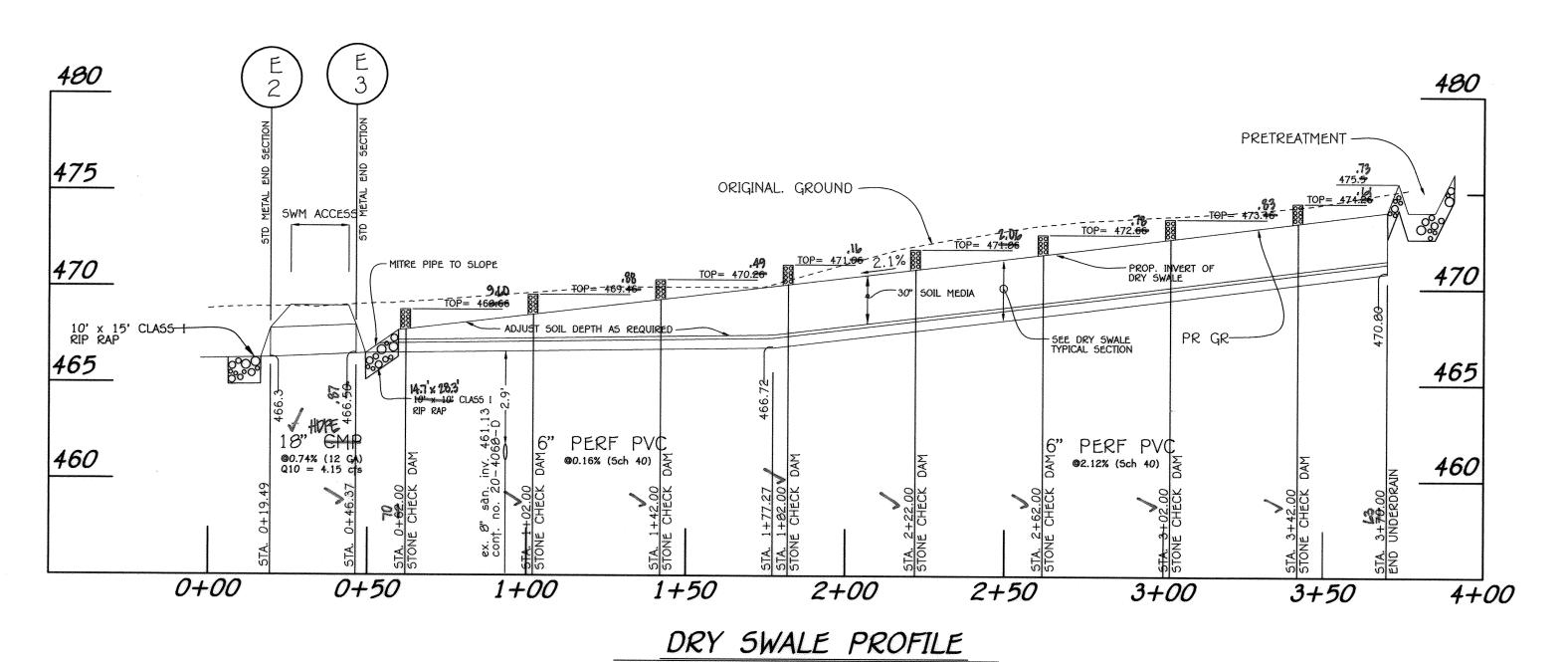
10 YEAR Storage (ac. ft.) 0.033 Watershed Little Patuxent Structure Type Dry Swale (0-1)Structure Classification LOW HAZARD A - NON-378, NO EMBANKMENT Structure Location Storage Height Product Watershed Area to Facility N/A 0.98 Ac. Minimum Top Width Provided N/A Freeboard Required Above 10 Year 0.25 foot 0.32 foot Freeboard Provided Above 10 Year FACILITY WILL BE PRIVATELY OWNED AND MAINTAINED.



AS-BUILT CERTIFICATION I hereby certify, by my seal, that to the best of my knowledge and belief the the facilities shown on the plan was constructed



### TYPICAL DRY SWALE SECTION NOT TO SCALE



- (") MORING #5 CESS TURN-ARQUND OFFICE DRY SWALE PLAN

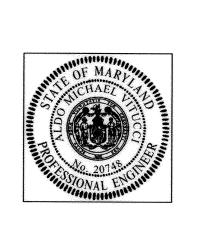
BOLLARDS

SEE DETAIL

234 of PRETREATMEN

DRAWN BY: TSA CHECKED BY: CJC FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS QUARE OFFICE PARK - 10272 BALTIMORE NATIONAL P ELLICOTT CITY, MARYLAND 21042 T. E. SCOTT & ASSOCIATES, IN tes@MdSWM.com

REVISE THE PARKING TO ELIMINATE 1 SPACE. CHANGE THE BUILDING TO REFLECT THE NEW ARCHITECTURE. 6/7/18 REVISED PARKING & REMOVED THE POR ZONING 9/8/14 REVISED BUILDING No. 1, PARKING & DUMPSTER LOCATION 3/15/12 REVISION DATE



ENGINEER'S CERTIFICATE certify that this plan for sediment and erosion control represents a practical and workable plan based o ny personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District." ignature of Enginee Professional certification. I hereby certify that these documents were prepared by me, and that I am 1 duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 20748, DEVELOPER'S CERTIFICATE /We certify that all development and construction will be done according to this plan for sediment and

rosion control, and that all 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 Signature of Developer

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

> OWNER/DEVELOPER WAVERLY WOODS DEVELOPMENT CORPORATION c/o LAND DESIGN AND DEVELOPMENT, INC. 5300 DORSEY HALL DRIVE, SUITE 102 ELLICOTT CITY, MARYLAND 21042 (443) 367-0422

11-9-18 4-07-18 10.30.18 OT/PARCEL Nos WAVERLY CORPORATE CENTER PLAT NO. BLOCK NO. ZONE TAX/ZONE | ELEC. DIST. | CENSUS TR 19761-19763 22+8 10 & 16 3rd 6030.00

SEWER CODE

5992000

WATER CODE

K02

320 LF

DRY SWALE

CHECK DAM-40' O/C

SEE DETAIL

10' x 10' CLASS RIP RAP -

SEE SECTION

1

SITE DEVELOPMENT PLAN SWM DRY SWALE PLAN & DETAILS

5CALE: 1" = 30'

### WAVERLY CORPORATE CENTER PARCEL 'A', PLAT No. 17415

ZONED PEC A

TAX MAP No. 10 GRID No. 22 PARCEL No. 324, 325 & 327 TAX MAP No. 16 GRID No. 4 PARCEL No. 249 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND DATE: JUNE, 2018 SCALE: AS SHOWN

> SHEET 11 OF 17 "46-BUILT" 5DP 07-082

REVISED

Soil shall have a sandy loam, loamy sand, or loam texture per USDA Use of equipment with narrow tracks or narrow tires, rubber tires with textural triangle. Maximum clay content shall be <5%. Soil mixture shall large lugs, or high pressure tires will cause excessive compaction be 50-60% sand; 20-30% leaf compost; and 20-30% topsoil. The soil resulting in reducing infiltration rates and storage volumes and is not shall be a uniform mix, free of stones, stumps, roots, or other similar acceptable. Compaction will significantly contribute to design failure. objects larger than two inches. No other materials or substances should Compaction can be alleviated at the base of the bioretention facility by be mixed or dumped within the bioretention soil that may be harmful to using a primary tilling operation such as a Chisel Plow. Ripper. or plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil must be free of plant or seed material of through the 12 inch compaction zone. Substitute methods must be non-native, invasive species, or noxious weeds.

Planting soil for bioretention areas must be tested prior to installation for PH and organic matter. The soil should meet the following criteria (Landscape Contractors Association, 1986).

### PH Range: 5.5 - 6.5 Organic Matter: 1.5 - 3.0%

Soil preparation can be performed onsite or offsite and transported to the facility location when ready for installation. Prior to transport, the soil mix should be certified as meeting the criteria established for the soil medium and approved by the site inspector.

Soil preparation can be accomplished by thoroughly mixing soil components, amendments and additives, as needed utilizing a backhoe or preferable to allow natural settlement to occur with the help of rain front-end loader.

Placement of the planting soil in the bioretention area should be after scarifying the invert area of the proposed facility and installing the underdrain and/or recharge area (if applicable), in lifts of 12 to 18 inches and lightly compacted. Minimal compaction effort can be applied to the soil by tamping with a bucket from a dozer or backhoe. Lifts are The mulch layer shall consist of either a standard landscape fine not to be compacted but are performed in order to reduce the possibility of excessive settlement. Installation of soils must be done in may be either aged or fresh to maximize nitrogen and metal uptake by a manner that will ensure adequate filtration.

Avoid over compaction by allowing time for natural compaction and settlement. No additional manual compaction of soil is necessary. Rake soil material as needed to level out. Overfill above the proposed surface invert to accommodate natural settlement to proper grade. Depending upon the soil material, up to 20% natural compaction may occur. For facilities designed with a liner, no scarification of the invert area is

It is very important to minimize compaction of both the base of the bioretention area and the required backfill. When possible, use excavation GEOTEXTILE hoes to remove original soil. If bioretention areas are excavated using a Geotextile fabric should meet ASTM D-751 (puncture strength - 125 or light equipment with turf-type tires.

Subsoiler. These tilling operations are to refracture the soil profile approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before back filling the facility and placement of underdrain. Pump any ponded water before preparing (rototilling) base.

When back filling the bioretention facility, do not use heavy equipment Sieve analysis, PH, and organic matter tests shall be performed for each within the bioretention basin. Heavy equipment can be used around the perimeter of the basin \( \alpha \) (\( \text{Am} \) (\( \text{DY} \) supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

In order to speed up the natural compaction process, presoaking the placed soil may be performed. Significant settlement can occur after the first presoak, and additional settlement may occur subsequent to the initial wetting. If time and construction scheduling permits, it is events to presoak the soil medium.

Areas should be mulched once trees and shrubs have been planted. Any ground cover specified as plugs may be installed once mulch has been

shredded hardwood mulch (preferred) or hardwood chips. The mulch the facility. Mulch shall be free of weed seeds, soil, roots, or any other substance not consisting of either bole or branch wood and bark. The mulch should be uniformly applied approximately 2 to 3 inches in depth. Mulch applied any deeper than three inches reduces proper oxygen and carbon dioxide cycling between the soil and the atmosphere, and keeps plant roots from making good contact with the soil.

### Sand shall be clean and free of deleterious materials, meeting AASHTO

M-6 or ASTM C-33 with grain size of 0.02" - 0.04". MDSHA C-33 sand is acceptable.

loader, the contractor should use wide track or marsh track equipment, LB), ASTM D-1117 (Mullen burst strength - 400 PSI), and ASTM D-1682 (Tensile strength - 300 LB). Fabric should have 0.08" thick E.O.S. of #80 sieve, and maintain 125 GPM per SQ. FT. flow rate.

### FILTER BED AREA PER PLAN 10 YR ✓ E|:#1-481.00 #2-483.00 WQV ✓ EL:#1-480.00 #2-482.00 L:#1-479.00 #2-481.00 3" SAND FILTER LAYER -SOIL MEDIA EL:#1-476.25 #2 478.25 No 7 STONE-MDSHA No 57 STONE-DOUBLE WASHED EL:#1-475.01 EL:#2-477.01 RECHARGE VOLUME MDSHA No 57 STONE EL:#1-473.93 DOUBLE WASHED EL:#2-475.93 -6" PERFORATED PVC (5ch 40)

4 HOLES PER ROW WRAP PIPE WITH 1/4" MESH (4X4) OR SMALLER GALVANIZED HARDWARE CLOTH

PERFORATIONS: 3/8"DIA @ 6" O/C

### TYPICAL BIORETENTION (F-6) SECTION

FISHER, COLLINS & CARTER, INC. A Revised Engineer's Exp. Date & Sheet No. 3 Removed POR Zonina 9/8/14 T. E. SCOTT & ASSOCIATES, INC REVISED BLDG. No. 1, PARKING, AND DUMPSTER LOCATION 3/15/12 REVISED 8" W TO 6" W FOR BUILDINGS NO. 1 & 2 9/5/08 DATE REVISION

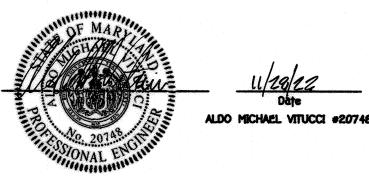
AS-BUILT CERTIFICATION

I Hereby Certify That The Facility Shown On This Plan Was Constructed As Shown On The "As—Built" Plans And Meets The Approved Plans And

Signature

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Relieve Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted

> A5-BUILT CERTIFICATION I hereby certify, by my seal, that to the best of my knowledge and belief the the facilities shown on the plan was constructed as shown on this "AS-BUILT" plan meet the approved plans and



### BIO-RETENTION (F-6) #1 FACILITY SUMMARY

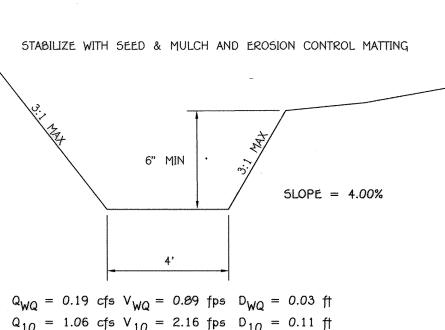
— Andrews and the second secon	Rev	WQv	10 YEAR
Water Surface Elevation	475.58	480.00	481.00
Storage (ac. ft.)	0.006	0.020	N/A
Watershed Structure Type			le Patuxent ntion (F-6)
Structure Classification Structure Location Storage Height Product Watershed Area to Facility	LOW HAZARD	A - Non-378	Excavated Urban N/A 0.31 Ac.
Minimum Top Width Provided Maximum Height of Fill Freeboard Required Above 10 Year Freeboard Provided Above 10 Year		N/A -	10.0 feet Excavated 1 foot foot

FACILITY WILL BE PRIVATELY OWNED AND MAINTAINED. MANAGEMENT PROVIDED: Rev / WQV

### BIO-RETENTION (F-6) #2 FACILITY SUMMARY

	Rev	WQV	10 YEAR
Water Surface Elevation	477.58	482.00	483.00
Storage (ac. ft.)	0.017	0.055	N/A
Watershed Structure Type			le Patuxent ntion (F-6)
Structure Classification Structure Location Storage Height Product Watershed Area to Facility	LOW HA	AZARD A - Non-378	Excavated Urban N/A 0.88 Ac.
Minimum Top Width Provided Maximum Height of Fill Freeboard Required Above 10 Year Freeboard Provided Above 10 Year			Excavated Excavated 1 foot foot
FACILITY WILL BE PRIVATELY OWNED	AND MAINTA	INED.	

MANAGEMENT PROVIDED: Rev / WQV



ENGINEER'S CERTIFICATE

DEVELOPER'S CERTIFICATE

am for the Control of Sediment and Erosion before beginning the project. I also

I/We certify that all development and construction will be done according to this plan for

ediment and erosion control, and that all responsible personnel involved in the construction

roject will have a Certificate of Attendance at a Department of the Environment Approved

of the Howard Soil Conservation District."

edge of the site conditions and that it was prepared in

certify that these documents were prepared by me, and that I ar

ingineer under the laws of the State of Maryland, License No. 20748,

GRASS CHANNEL DETAIL NOT TO SCALE

BIO-RETENTION #1 & #2, GRASS CHANNEL PLAN Note: This Sheet Is For SWM Only. 5CALE: 1" = 30' APPROVED: DEPARTMENT OF PLANNING AND ZONING evelopment plan is approved for soil erosion and sediment control by CONSERVATION DISTRICT. Date Date Howard SCD UBDIVISION NAME SECTION/AREA LOT/PARCEL Nos. OWNER/DEVELOPER WAVERLY CORPORATE CENTER PLAT NO. | BLOCK NO. | ZONE TAX/ZONE | ELEC. DIST. | CENSUS TR. c/o LAND DESIGN AND DEVELOPMENT, INC 5300 DORSEY HALL DRIVE, SUITE 102 19761-19763 PEC 10 & 16 6030.00 22+8 3rd ELLICOTT CITY, MARYLAND 21042 (443) 367-0422 WATER CODE SEWER CODE SCALE: 1" = 30' SHEET 12 OF 17 K02 5992000

BORING/#2

BIORETENTION (F-6)

OLD FREDERICK ROAD

(STATE ROAD - MINOR ARTERIAL 80' R/W)

FC.O. TOP ELEV 480.00

5

CREST ELEV 480.00

FILTER-BED LIMITS

CONC. SIDEWALK

PROPOSED

1 STORY

SHOPPING CENTER

FIE 13

@ ELEV 479.0

FACILITY #

I RIPRAP ® N28E

CLASS I

REVISED SWM BIO-RETENTION AND GRASS CHANNEL PLAN & DETAILS

### WAVERLY CORPORATE CENTER PARCEL 'A', PLAT No. 17415

SEE DETAIL THIS SHEET

TAX MAP No. 10 GRID No. 22 PARCEL No. 324, 325 & 327 TAX MAP No. 16 GRID No. 4 PARCEL No. 249 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND DATE: APRIL, 2008 REVISED DATE: MARCH, 2012

"AS-BUILT" 5DP 07-082

N 5402501

MARRIO -

TTSVILL INTERMEDIATE

120° R/

BIORETENTION (F-6)

FACILITY #2

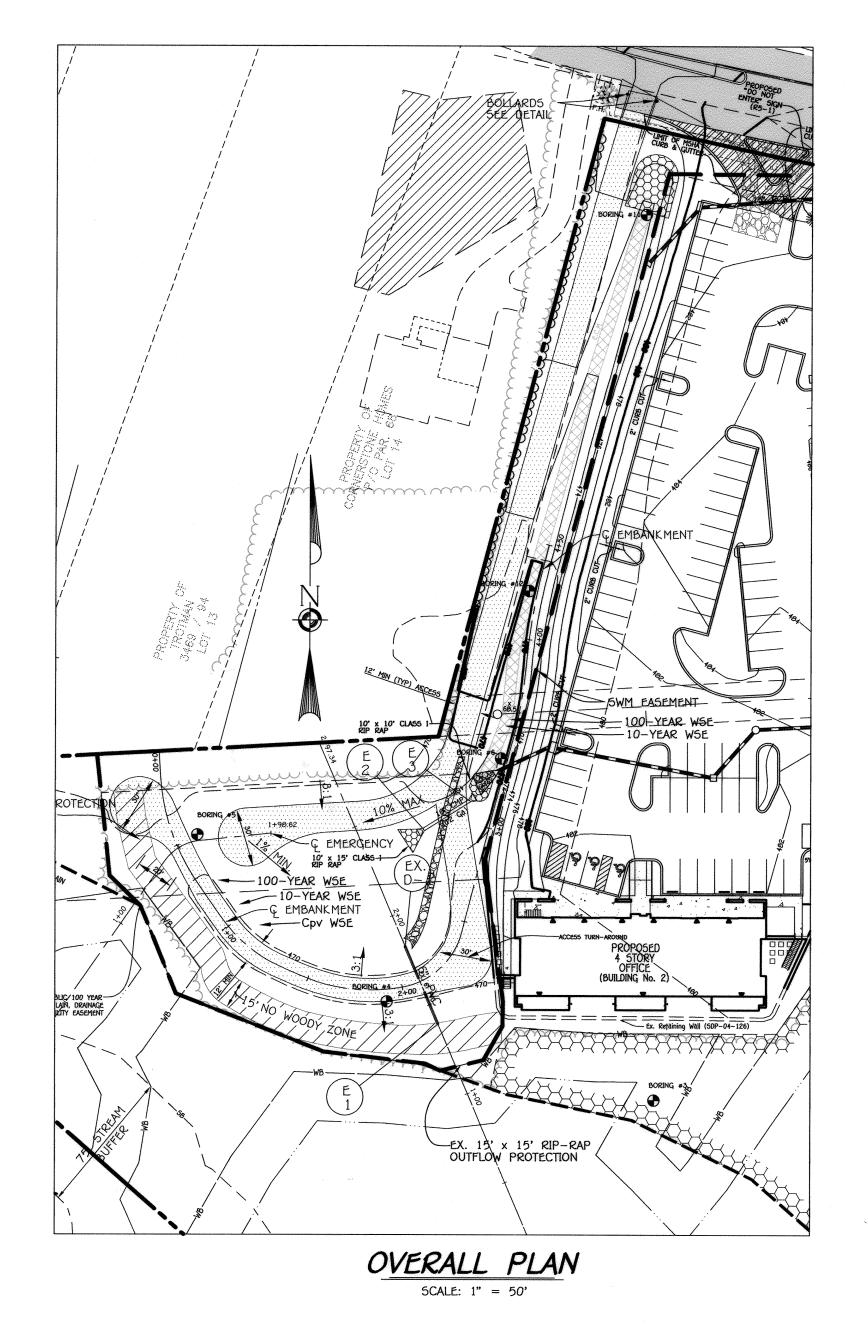
FILTER BED LIMITS

CREST ELEV 482.00

DRAWN BY: TSA

CHECKED BY: CJC

128 COCKEYSVILLE HOAD, SUITE 300 HUNT VALLEY, MARYLAND 21030

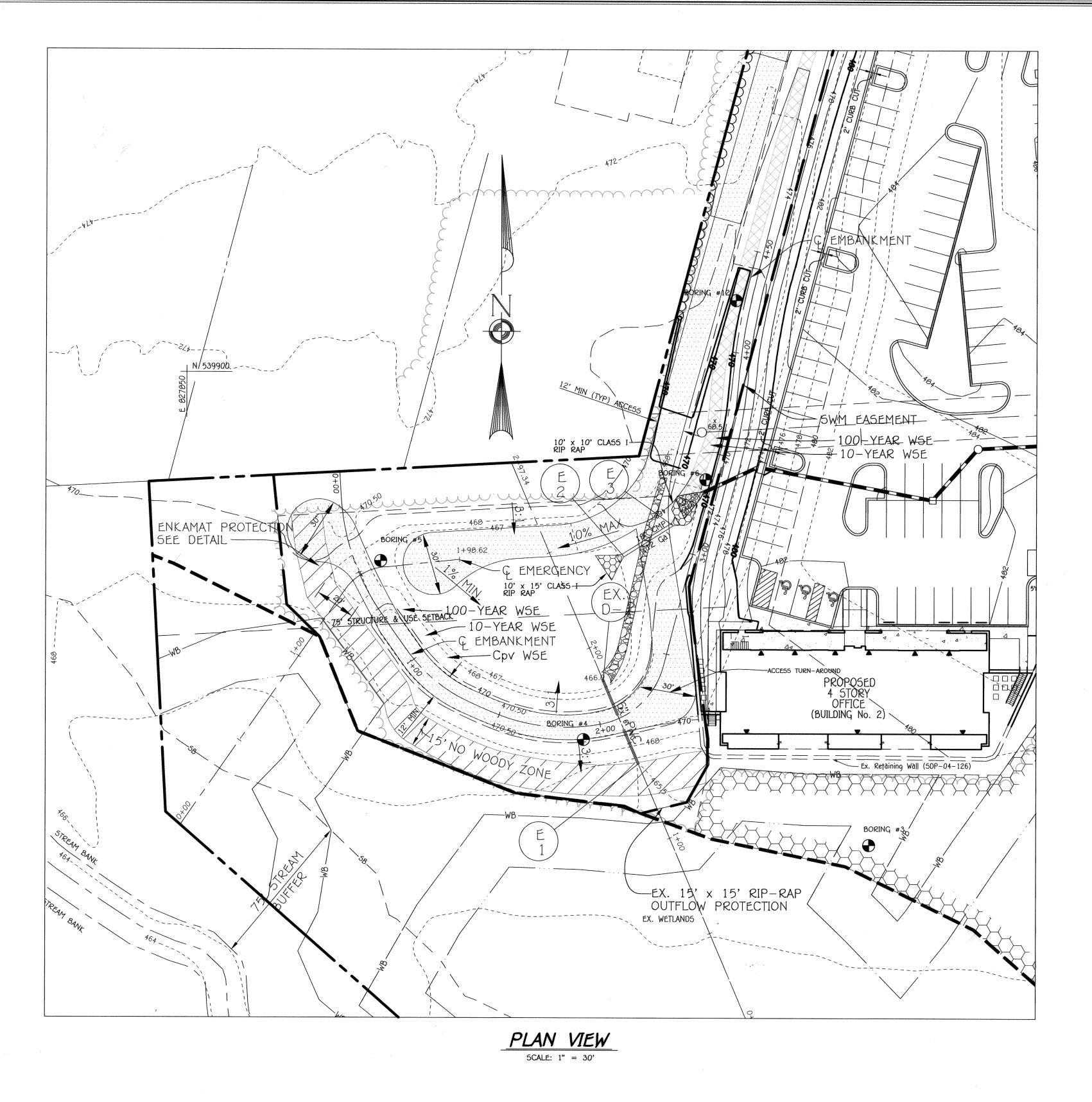


REVISE THE PARKING TO ADD 1 HDCP. SPACE. CHANGE BUILDING No. 2 TO REFLECT THE NEW ARCHITECTURE.

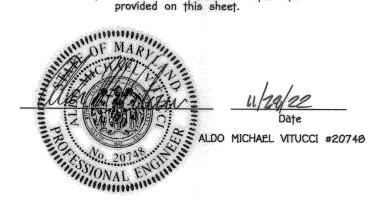
REVISED BUILDING No. 1, PARKING & DUMPSTER LOCATION

REVISION

REMOVED POR ZONING



AS-BUILT CERTIFICATION



### FACILITY SUMMARY

	1-YEAR	10 YEAR	100 YEAR
Developed Outflow (cfs)	0.15	33.1	52.9
Water Surface Elevation	468.54	469.23	469.46
Storage (ac. ft.)	0.483	0.625	0.692
Watershed Structure Type		Litt Extended Detention	le Patuxent on Dry Pond
Structure Classification Structure Location Storage Height Product Watershed Area to Facility		LOW HAZARD A	<ul> <li>Non-378</li> <li>Urban</li> <li>3.42 ac/ff</li> <li>8.89 Ac.</li> </ul>
Minimum Top Width Provided Maximum Height of Fill Freeboard Required Above 10 Year Freeboard Provided Above 10 Year			12.0 feet 3.91 feet 1 foot 1.27 foot

FACILITY WILL BE PRIVATELY OWNED AND MAINTAINED. MANAGEMENT PROVIDED: Cpv / 1-Year SEE BIORETENTION AND DRY SWALE FACILITIES FOR Rev & WQV MANAGEMENT

NOTE: THIS SHEET IS FOR SWM ONLY

DRAWN BY: TSA CHECKED BY: CJC F15HER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS NNAL SQUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIKE T. E. SCOTT & ASSOCIATES, INC tes@MdSWM.com

6/7/18 9/8/14 3/15/12

DATE

ENGINEER'S CERTIFICATE "I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Consentation District." "Professional certification. I hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 20748, Expiration Date 2—22—19."

Signature of Developer

DEVELOPER'S CERTIFICATE 'I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all 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." This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT. OWNER/DEVELOPER

SUBDIVISION NAME WAVERLY WOODS DEVELOPMENT CORPORATION 19761-19763 c/o LAND DESIGN AND DEVELOPMENT, INC. 5300 DORSEY HALL DRIVE, SUITE 102 WATER CODE ELLICOTT CITY, MARYLAND 21042 (443) 367-0422

K02

APPROVED: DEPARTMENT OF PLANNING AND ZONING 11-9-18 11.07.18 40.30.18 OT/PARCEL Nos. WAVERLY CORPORATE CENTER PLAT NO. BLOCK NO. ZONE TAX/ZONE | ELEC. DIST. | CENSUS TR PEC 22+8 10 & 16 3rd 6030.00 SEWER CODE

REVISED EXISTING SWM FACILITY No. 1 MODIFICATION PLAN

### WAVERLY CORPORATE CENTER PARCEL 'A', PLAT No. 17415

ZONED PEC 2 TAX MAP No. 10 GRID No. 22 PARCEL No. 324, 325 & 327 TAX MAP No. 16 GRID No. 4 PARCEL No. 249 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND DATE: JUNE, 2018

SCALE: AS SHOWN

SHEET 13 OF 17

