

ENTRANCE WITH MOUNTABLE BERM PROPOSED SPOT ELEVATION

AND STAGING AREA

REMOVABLE PUMPING STATION

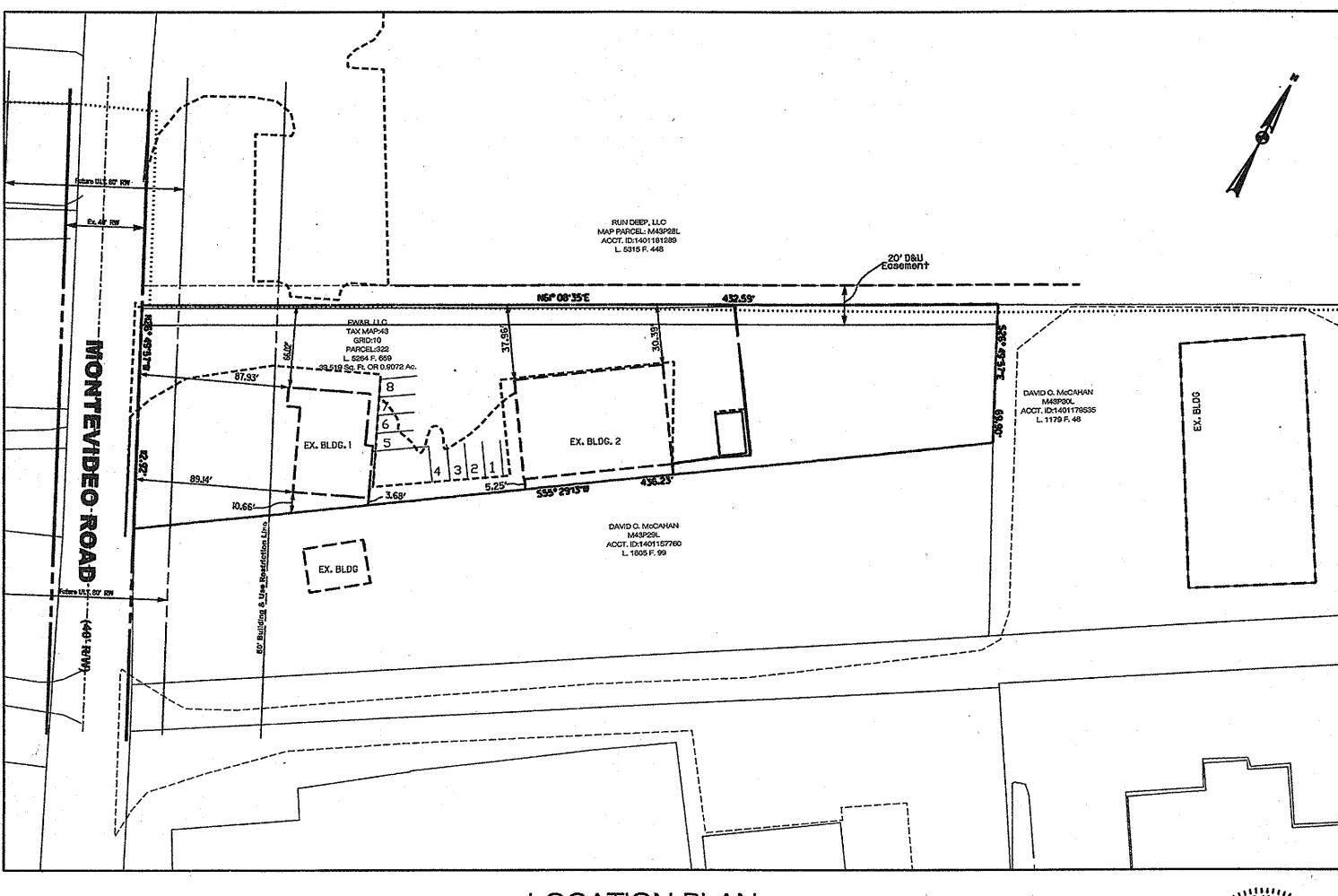
GABION INFLOW PROTECTION

TEMPORARY SWALE

AT GRADE INLET PROTECTION

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ß	SC-740 CHAMBER LAYOUT /SD PROFILES & DETAILS

EASTERN WATERPROOFING & RESTORATION MONTEVIDEO ROAD, JESSUP (01st) ELECTION DISTRICT HOWARD COUNTY, MARYLAND SITE DEVELOPMENT PLAN



LOCATION PLAN SCALE: 1" = 40'

REVISION

No.

a. Total Project Area: 39,508.92 S.F (0.907 acres).

SITE ANALYSIS DATA CHART

File Reference SDP 86-162 b. Area of Plan Submission: 30,000 S.F (0.69 acres). c. Limit of Disturbance Area: 11,440.57+/- S.F (0.2626 acres).

d. Present zoning M2 e. Existing floor space:

.\sht.1- Cover Sheet.dgn 12/10/2009 12:03:01 PM

Building # 1 Office 3,340 sq.ft Building # 2 Warehouse 3,750 sq.ft

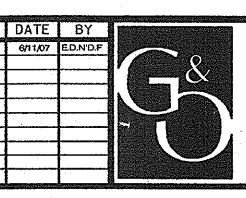
Volume of Excavation 324 CY Maximun No of Employees Office -13

Warehouse -2 h/i. Parking Calculations -Existing Warhouse (50'x75'): spaces required 7.5

Existing Office/.7 spaces per employer 2002 sq.ft = 9.10 spaces required Existing parking = 8 spaces Proposed Parking = 10 Spaces Total Parking = 18 Spaces

EASTERN WATERPROOFING & RESTORATION LLC

7175 MONTEVIDEO ROAD JESSUP MD Ph: 410-799-0900 Fax: 410-799-7453



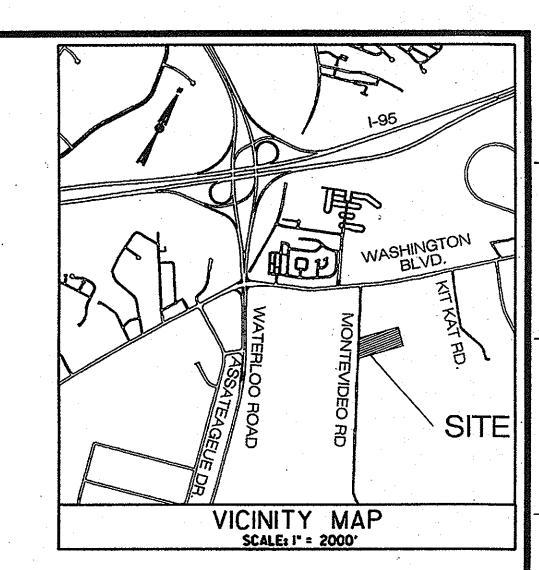
NOTE: "Financial surety for the required landscaping has been posted as part of the DPW developer's agreement in the amount of \$4,790.00 for 4 shade trees at \$300.00 each and for 359 linear feet of fencing at \$10.00 per linear foot."

GREENHORNE & O'MARA

THIS SITE IS EXEMPT FROM FOREST CONSERVATION PER SECTION 16.1202(b) OF THE HOWARD COUNTY CODE

CONSULTING ENGINEERS 6110 FROST PLACE LAUREL, MD 20707 PHONE: (301) 982-2800 FAX: (301) 220-2619 www.g-and-o.com

FLORIDA GEORGIA MARYLAND NORTH CAROLINA PENNSYLVANIA VIRGINIA WEST VIRGINIA



GENERAL NOTES

8. WATER AND SEWER FOR THIS PROJECT IS PUBLIC. 10. THIS PROPERTY IS WITHIN THE METROPOLITAN WATER AND SEWER DISTRICT.

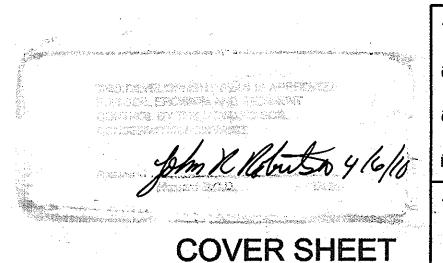
11. STORMWATER QUALITY CONTROL MANAGEMENT FOR THIS SITE PARCEL WAS PREVIOUSLY PROVIDED WITHIN THE SWM CONSTRUCTED AS PART OF SDP-86-162. WATER QUALITY VOLUME (WQV) AND RECHARGE VOLUME (Rev) IS BEING PROVIDED BY SAND FILTERS

AND RECHARGE CHAMBERS.

17. CONTRACTOR SHALL ADJUST ALL UTILITIES AND RIM ELEVATIONS AS NEEDED 18. ALL PROPOSED EXTERIOR LIGHTING SHALL BE DIRECTED/REFLECTED AWAY

FROM ALL ADJACENT PUBLIC ROADS AND RESIDENTIAL ZONING DISTRICTS IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS. 19. ALL LANDSCAPING REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL SECTION 16.1 24(b)(3)(ii) 20. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO CEMETERY LOCATIONS ON-SITE. 21. THE SUBJECT PROPERTY IS ZONED M-2 PER THE 2-2-2004 COMPREHENSIVE

ZONING PLAN. AND THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE 7-28-06. 22. PREVIOUS DEPARTMENT OF PLANNING AND ZONING REFERENCE NUMBERS INCLUDE: APPROVED: DEPARTMENT OF PLANNING AND ZONING



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

SDP- 09 - 013

ENGINEER'S CERTIFICATE PLEX HAPTEMPRIAM P.E. MO. REC & 35009

CNEGOLY D. CLASY

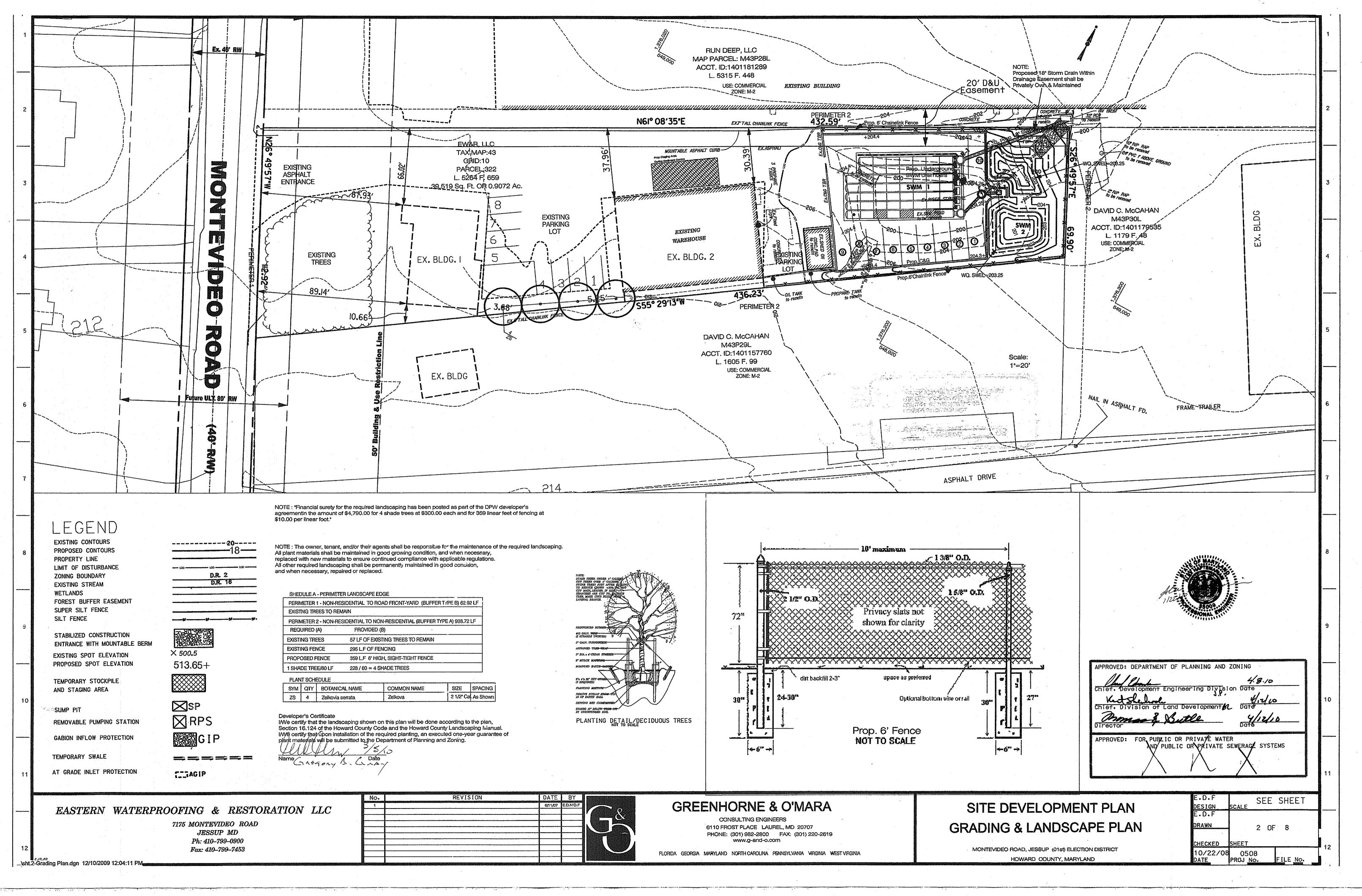
3/5/10

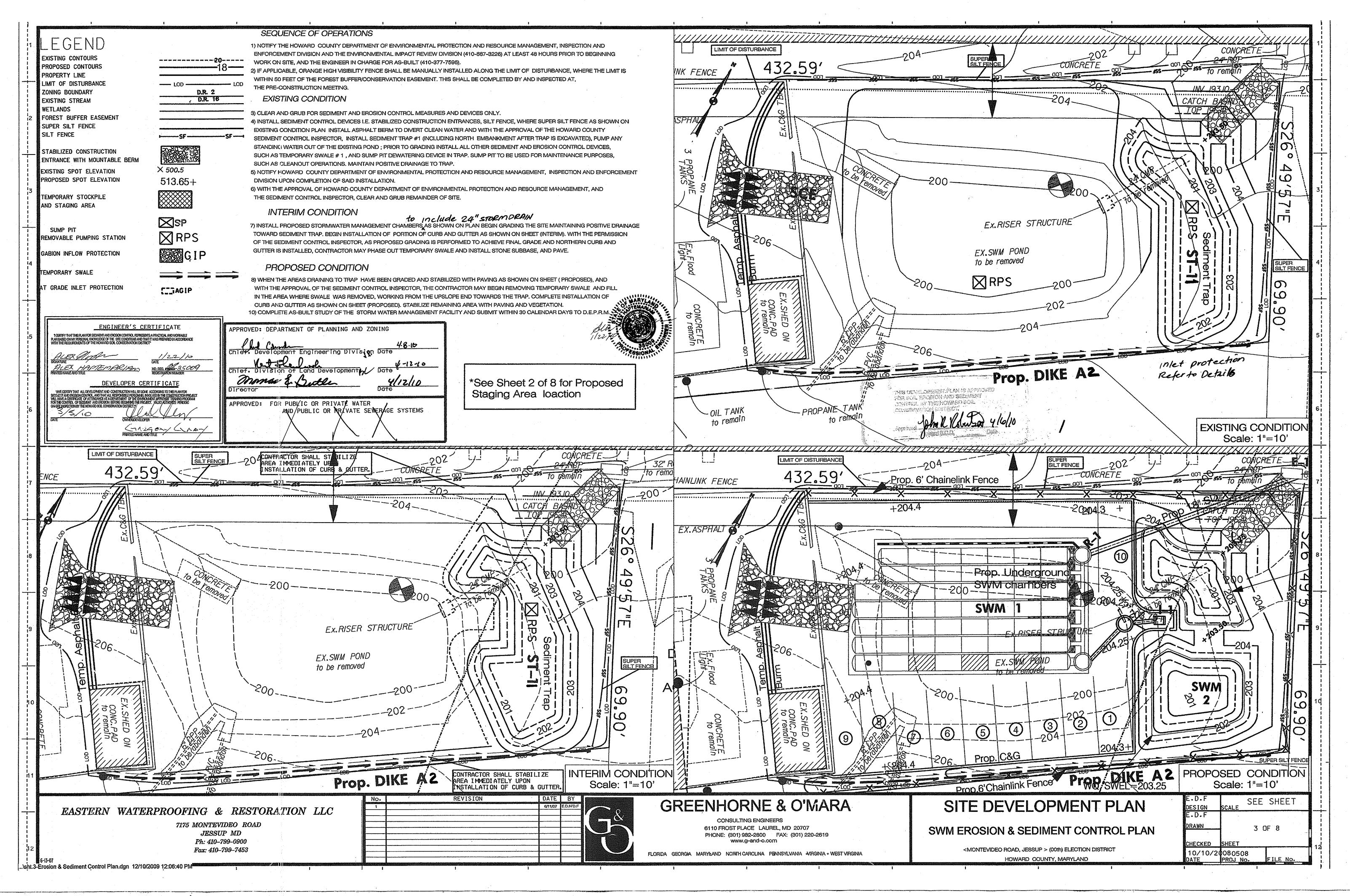
ADDRESS CHART STREET ADDRESS LOT/PARCEL NUMBER 7175 MONTEVIDEO ROAD PERMIT INFORMATION CHART 265 F 518 10 M-2

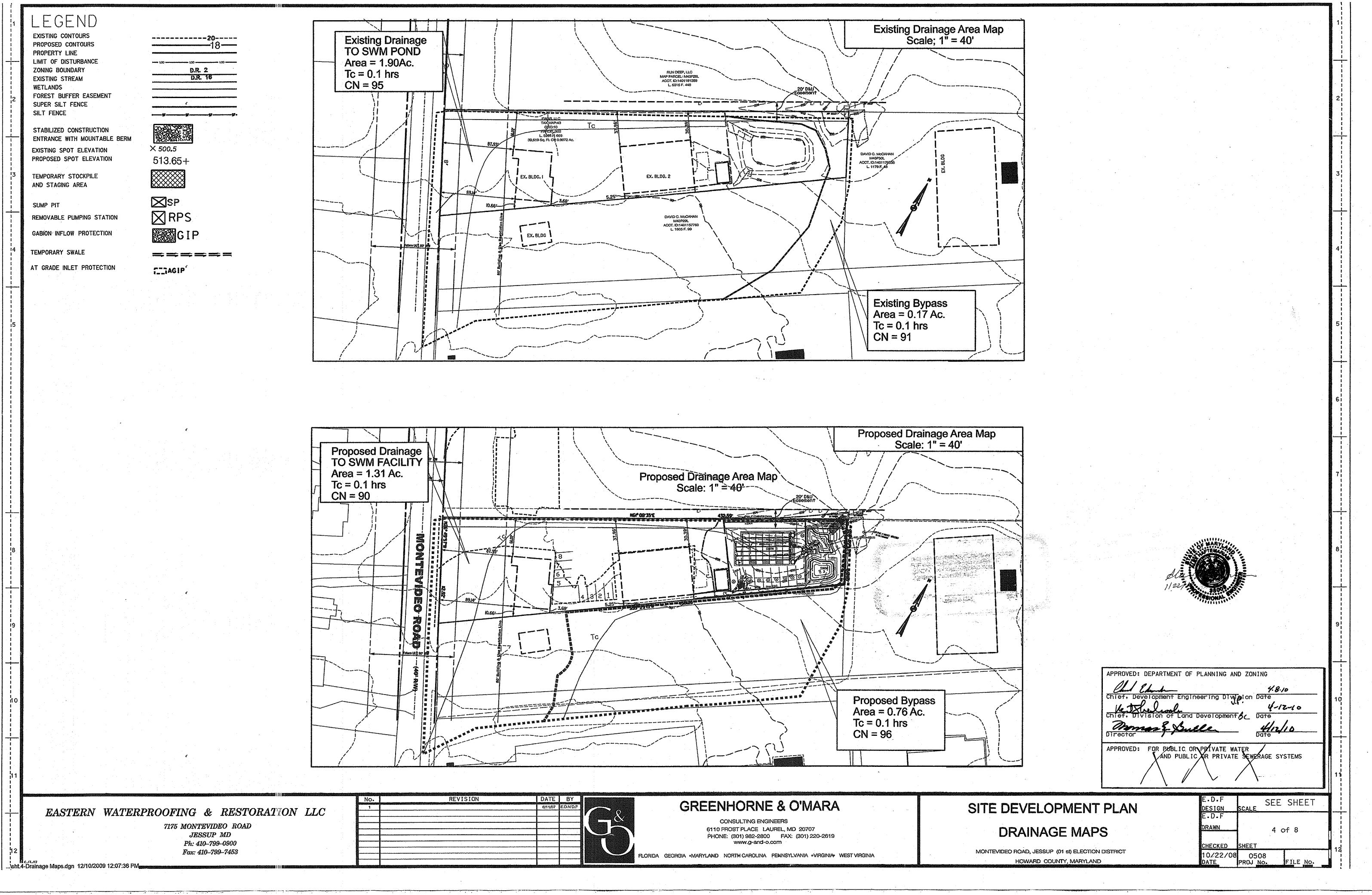
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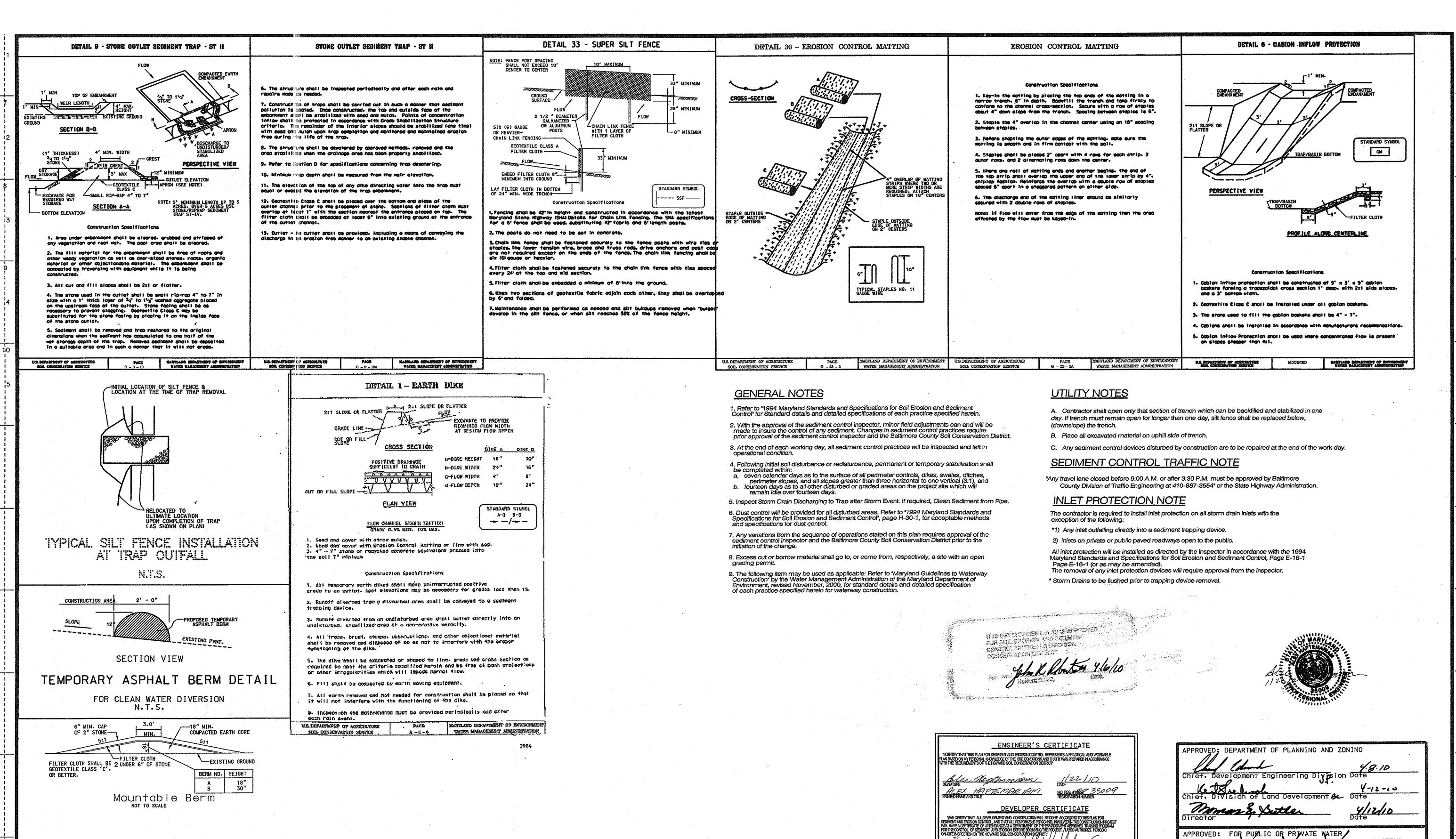
SEE SHEET SITE DEVELOPMENT PLAN 1 OF 8 **COVER SHEET** MONTEVIDEO ROAD, JESSUP (01st) ELECTION DISTRICT 0508 HOWARD COUNTY, MARYLAND

322





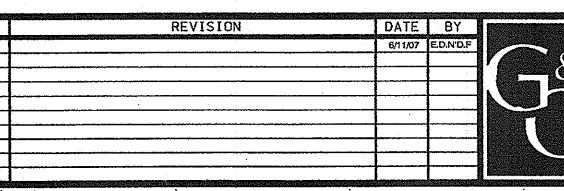




EASTERN WATERPROOFING & RESTORATION LLC

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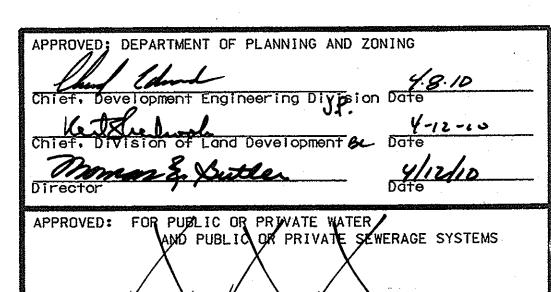
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SITE DEVELOPMENT PLAN

PRITED NAME AND TIME

SWM EROSION & SEDIMENT CONTROL DETAILS

E.D.F 5 OF 8 <MONTEVIDEO ROAD, JESSUP > (01st) ELECTION DISTRICT 10/22/08 0508 HOWARD COUNTY, MARYLAND

N.T.S

F. Mulch Specifications (in order of preference) STANDARDS AND SPECIFICATIONS FOR Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color, and shall no be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law. **VEGETATIVE STABILIZATION** II. Wood Cellulose Fiber Mulch (WCFM) SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS A. .WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state. WCFM shall 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 slumy. 1. Install erosion and sediment controls structures (either temporary or permanent) such as diversions grade stabilization structures, berms, waterways, or sediment control C. WCFM, including dye, shall contain no germination or growth inhibiting 2. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding. D. 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 growth of the seed grass seedings. Schedule required soil test to determine soil amendment composition and application rates for sites having disturbed area over 5 acres. B. Soil Amendments (Fertilizer and Lime Specifications) WCFM material shall contain no elements or compounds at conception levels that will be phyto-toxic. Soil test 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. F. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum. 2. 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 of the producer. NOTE: Only sterile straw mulch should be used in areas where one species of G. Mulching Seeded Areas
Mulch shall be applied to all seeded areas immediately after seeding. 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. I. If grading is completed outside of the seeding season, mulch season, mulch alone shall be applied as prescribed in this section and maintained until the seeding season returning and seeding can be performed in accordance with these specifications. II. 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 uniform loose depth of between 1" and 2". Mulch applied shall achieve an 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. 4. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable C. Seedbed Preparation Temporary Seeding III. 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. A. Seedbed preparation shall consist of loosening soil to a depth of 3-5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth but left in the roughened condition. Slopes areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope. H. 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: B. Apply fertilizer and lime as prescribed on the plans. I. 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. If used on sloping land, this practice should be used on the contour if possible. C. Incorporate lime and fertilizer into the top 3-5" of soil disking or other II. 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 mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. II. Permanent Seeding A. Minimum soil conditions required for permanent vegetative establishment III. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. The remainder of area should be appear uniform after binder application. Synthetic binders-such as Acrylic DLR (Agra-Tack), DCA-70, Ptreoset, Terra Tack At or other approved equal may used at rates recommended by the manufacturer to anchor mulch. 1. Soil pH shall be between 6.0 and 7.0 2. Soluble salts shall be less than 500 parts per million (PPM). 3. 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 lespedeza is to be planted then a sandy soil (<30% silt plus clay)</p> IV. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3000 feet long. SECTION II - TEMPORARY SEEDING: 4. Soil shall contain 1.5% minimum organic matter by weight. 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. 5. Soil must contain sufficient pore space to permit adequate root SECTION III - PERMANENT SEEDING: If these conditions cannot be met by soils on site, adding top soils is required in accordance with Section 21 Standard and Specification for Tonsoil Seeding grass and legumes to establish ground cover for a minimum period of one year on disturbed areas generally receiving low maintenance. B. 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 stots to prevent topsoil from sliding down a slope. To provide quick cover on disturbed areaa (2:1 grade or flatter). A. General Specifications Class of turfgrass shall be Maryland or Virginia State Certfied or Approved. Sod label shall be made availabe to the job foreman or inspector. C. Apply soil amendments per soil test or as included on the plans. D. 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 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 newly disturbed areas. ii. Sod shall be machine cut at a uniform soil thickness OF 3/4", plus or minus 1/4", at the time of culting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from stant and widths and lengths shall be 5 percent. Broken pads and torm or unavan and swill not be acceptable. and torn of uneven ends will not be acceptable. iii. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suppended vertically with a firm grasp on the upper 10 percent of the section. iv. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival. D. Seed Specifications v. Sod shall be harvested, delivered and installed within a period of 36 hours. Sod not transplanted within this period shall be approved by an agronomist or soil scientist prior to its installation. B. Sod Installation i. During periods of excessively high temperature or in areas having dry subsoil, the subsoil shall be lightly irrigated immediately prior to laying the sod. NOTE: Seed tags shall be made available to the inspector to verify type and rate of seed used. ii. The first row of sod shall be laid in a streight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying II. Inoculant the inoculant for treating legume seed in the seed mixtures shall be 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 inoculate as directed on package. Use four times the recommended rate when hydroseeding. iii. Wherever possible, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage on slopes and to ensure solid contact between sod roots and the underlying soil surface. NOTE: It is very important to keep inoculant as cool as possible until used. Temperature above 75-80 degree F, can weaken bacteria and make the inoculant less effective. E. Methods of Seeding iv. Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soll surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeder, or a cultipacker seeder. A. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following:
 1. nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen
 2. P205 (phosphorous): 200 lbs/acre
 3. K20 (potassium): 200lbs/acre In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4". Watering should be done during the heat of the day to prevent willing. ii. After the first week, sod watering is required as necessary to maintain adequate moisture content. B. 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. iii. The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2" and 3" unless otherwise specified. C. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption. SECTION V - TURFGRASS ESTABLISHMENT Areas where turigrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance. Areas to receive seed shall be tilled by disking or other approved methods to a depth of 2 to 4 inches, leveled and raked to prepare a proper seedbed. Stones and debris over 1Ainches in diameter shall be removed II. Dry Seeding: This includes use of conventional drop or broadcast spreaders. A. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent seeding Summaries or Tables 25 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact. The resulting seedbed shall be in such condition that future mowing of grasses will pose no difficulty. NOTE: 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. B. 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 A. Cultipacking seeders are required to bury the seed in such a fashion as to provide as at least 1/4 inch of soil covering. Seedbed must be firm after B. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

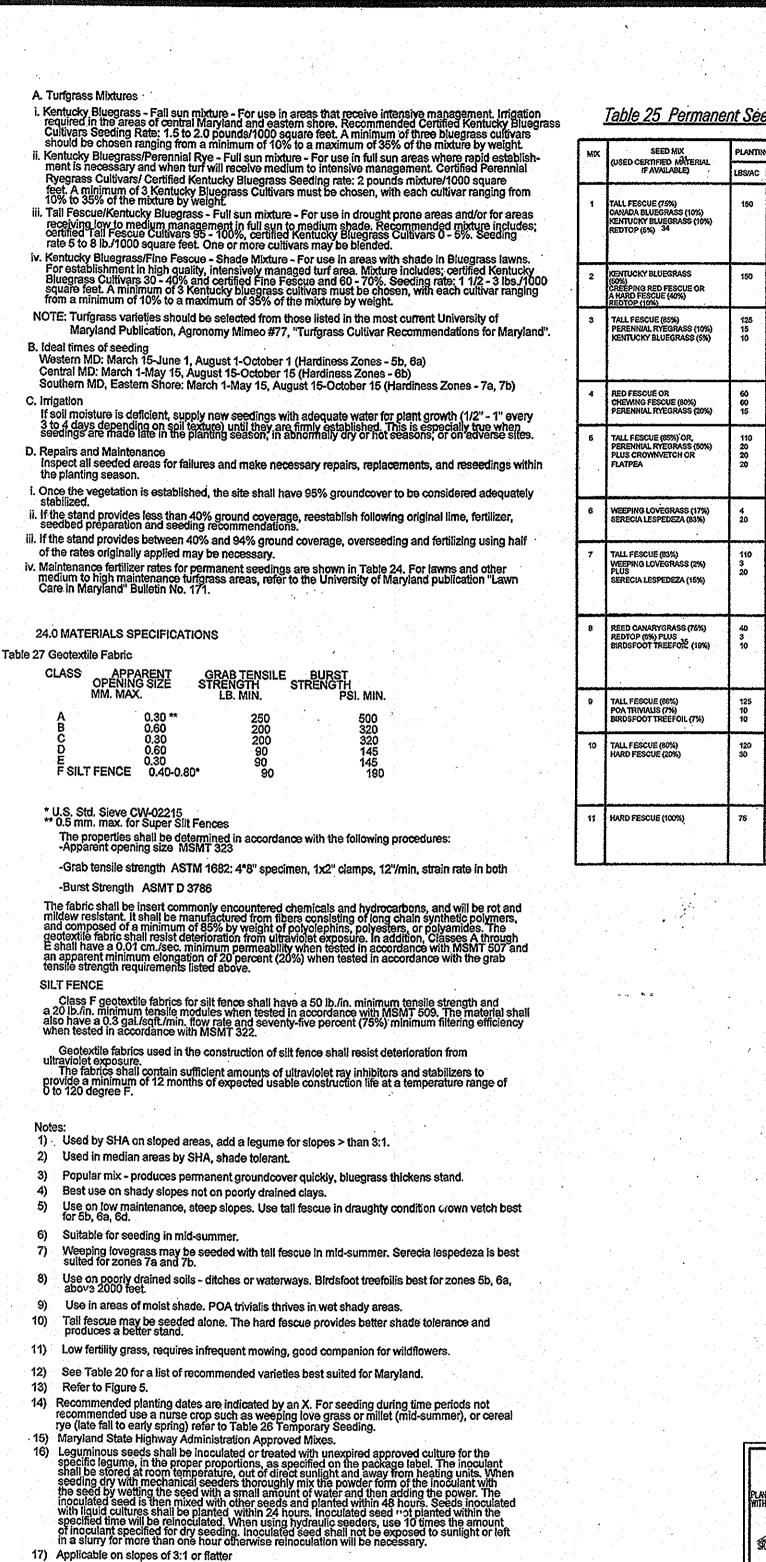


Table 25 Permanent Seeding for Low Maintenance Areas 3/1- 6/16- 5/16- 6/2- 8/1- 8/15- 8/15-5/15 8/1 8/14 7/31 -10/1 10/15 11/15 69 X X 65 X X 7a X X X X X X Sb X X X F 60 X X X 6b x X & X X 55 X X 6a X X 70 X X 6a X X X F 76 X X Sb X X X G 6e X X X 65 X X X 6b X X 7a X X
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Table 26 Temporary Seeding Rates, Depths, and Dates

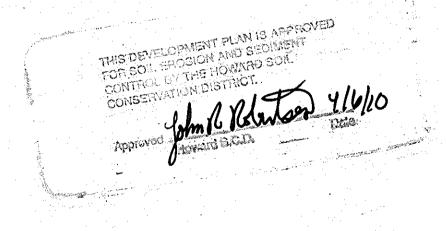
encerce	Manual de Companio de	ATTO	PLANTING		HARDINESS ZONES AÑO SEEDI		ING DATI	DATES ³⁸					
SPECIES	minimom seeding R	inimum seeding rates		7a and 7b		65		6a and 50					
	PER ACRE	LBS/1000 SQ FT	INCHES	2/1- 4/30	6/1- 8/14	8/15- 11/30	3/1- 4/30	5/1- 8/14	8/15- 11/15	3/15- 5/31	6/1- 7/31	8/1- 10/31	
CHOOSE ONE: BARLEY OATS RYE ³⁹	2.5 BU. (122 bs) 3.0 BU. (96 bs) 2.5 BU. (140 bs)	2.80 2.21 3.22	12 12 12	X X X	111	BY 10/15 X	x x x	111	BY 10/15 - X	X X X		BY 1011 X	
BARLEY OR RYE PLUS FOXTAIL MILLET ⁴⁰	150 lbs	3.45	1	×	×	10/15 X	×	X	10/15 X	×	×	10/1 X	
WEEPING LOVEGRASS 41	4 lbs	0.09	1/4-1/2	-	×	-	-	×	-	-	x	-	
ANNUAL RYEGRASS	50 lbs	1.15	1/4-1/2	x	-	11/1	x	•	19/1	x	-	8/15	
MILLET ⁴²	50 lbs	1.15	1/2	-	x	-		×	-	•	X	-	

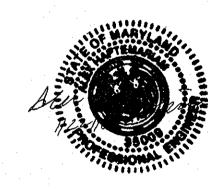
Permanent Seeding Summary

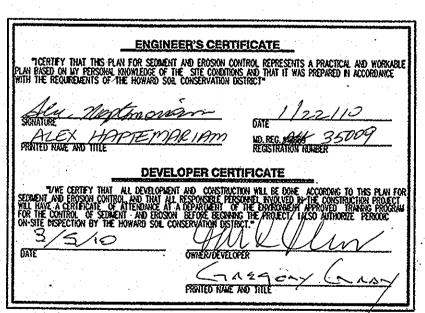
	SEED MIXTURE (HAI	FER	LIME RATE					
No.	SPECIES	APPLICATION RATE (B/HC)	SEEDING DATES	SEEDING DEPTHS	Ħ	P205	1620	
3	TALL FESCUE (85%) PERENNAL RYEGRASS (10%) KENTUCKY SLUEGRASS (5%)	125 15 10	3/1-6/15 8/15- 11/15	1/2*	90 %/2 <i>a</i> (2 %/ 1000 s/)	175 lb/ec (4 lb/ 1000 s/)	175 lb/sc (4 lb/ 1000 st)	2 tons/sc (100 ts/ - 1000 xt);

Temporary Seeding Summary

SEED MOCTURE Fro	(HARDINESS 2 m Table 26	FERMLIZER RATE (10-10-10)	LIME RATE		
SPECIES	APPLICATION RATE (b/ac)	SEEDING DATES	SEEDING DEPTHS	(10-10-10)	
RYE PLUS FOXTAIL MILLET	150	21-11/30	٣	600 Safec (15 Saff 000 sf)	2 tons/sp (100 to/1000 st)







Men	4.8.10
Chief, Development Engineering Division 1.1.	Date
Chief, Division of Land Development	4-12-10 Date
Momes & Suttle	4/12/10
Director	Date
APPROVED: FOR PUBLIC OF PRIVATE WATER	\ /
AND PUBLIC OR PRIVATE SEWERAGE SYSTEMS	

EASTERN WATERPROOFING & RESTORATION LLC

7175 MONTEVIDEO ROAD

JESSUP MD

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BY E.D.N'O.F

the permanent seeding mixture.

permanent seeding mix.

REVISION

21) Maryland State Highway Administration Temporary Seed Mix.

18) Refer to Figure A - Adopted from USDA, ARS Miscellaneous Publication #1475, January 1990.

20) May be used as a nurse crop for late fall/early winter permanent seedings, add 56 lbs/ac. to

23) May be used as a nurse crop for mid-summer permanent seedings. Add 10 lbs/ac. to the

19) Between fall and spring seeding dates, use mulch only if grounds is frozen and reseed when thawed.

22) May be used as a nurse crop for mid-summer permanent seedings. Add 2 lbs/ac. to permanent seed mix.

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FLORIDA GEORGIA MARYLAND • NORTH CAROLINA PENNSYLVANIA VIRGINIA WEST VIRGINIA

SITE DEVELOPMENT PLAN

SWM EROSION AND SEDIMENT CONTROL NOTES

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