GENERAL NOTES LEGEND SOILS DATA TABLE SWM PRACTICE TABLE THE SUBJECT PROPERTY IS ZONED RR—DEO (PER 10/06/13 COMPREHENSIVE ZONING PLAN.) BOUNDARY IS BASED ON FIELD RUN SURVEY PERFORMED BY JNM ENGINEERING, INC. IN SEPTEMBER 2022. CONTOURS ARE BASED ON FIELD RUN SURVEY PERFORMED BY JNM ENGINEERING IN JANUARY 2023. PROPOSED FEATURES EXISTING FEATURES COORDINATES BASED ON NAD'83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL YDRIC K-FACTOR ERODIBLE PRACT. | IMP. AREA | TOTAL AREA | REQ. PE | REQ. ESDV | PROV. PE | PROV. ESDV | LOT YMBOL SOIL STATIONS NO. 33 AND NO. 21CB: EX. OVERHEAD a. HOWARD COUNTY MONUMENT NO. 34CD: N 561461.63 E 1323850.4 .050SF 33.5CF GgC Glenelg Loam, 8%-15% Slopes UTILITY & POLE . HOWARD COUNTY MONUMENT NO. 34FD N 560162.58 E 1325180.36 ,332SF 2,850SF STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. THIS PLAN PROPOSES THE USE OF N-1 ROOFTOP DISCONNECTION AND N-2 NON-ROOFTOP DISCONNECTIONS GmB Glenville silt loam, 3%-8% Slopes YES EX. TWO-FOOT CONTOURS · · · · · · · · · · · LIMITS OF DISTURBANCE 3.894SF 1736SF 147CF 147CF Glenville silt loam, 0%-3% Slopes YES 0.43 N-2 STORMWATER MANAGEMENT SHALL BE PRIVATELY OWNED AND MAINTAINED. GnB | Glenville-Baile silt loam, 0%-3% Slopes | YES 1,433SF 2,589SF 118CF 118CF 2\$3 EX. SPOT ELEVATION THIS PROPERTY WILL BE SERVED WITH PRIVATE WELL AND SEPTIC. THERE ARE NO STREAMS, WETLANDS, OR THEIR BUFFERS LOCATED WITHIN THE LIMITS OF THE PROPOSED LOTS. SITE PROP. SPOT ELEVATION - SOILS INFORMATION TAKEN FROM USDA WEB SOIL SURVEY WEBSITE 1,950SF 163CF 163CF N-2 3,902SF 7 LOTS 2, 3, AND PARCEL 160 LANDSCAPING FOR LOTS 2 AND 3 IS PROVIDED IN ACCORDANCE SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15% OR THOSE SOILS WITH A SOIL 2,000SF 159CF HSE I N-I 2,000SF 159CF USE-IN-COMMON ACCESS, DRAINAGE LANDSCAPE MANUAL. ERODIBILITY FACTOR "K" GREATER THAN 0.35 WITH A SLOPE GREATER THAN 5 PERCENT. 2,000SF 159CF 159CF 2,000SF PER SECTION 4.7.B. OF HOWARD COUNTY DESIGN MANUAL VOLUME III, COMPLETE STREETS AND BRIDGES, THIS SITE IS PROP. DOWNSPOUT EXEMPT FROM APFO REQUIREMENTS. NO TRAFFIC REPORT IS REQUIRED. LOTS 2 \$ 3 USE--IN-COMMON PROP. DIRECTION OF RUNOFF O. LAND DEDICATION TO HOWARD COUNTY FOR THE PURPOSES OF A PUBLIC ROAD 0.527 ACRES. ACCESS & UTILITY EASEMENT ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY SOILS BOUNDARY LINE PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE. 12. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION PROPOSED PAVING DIVISION AT (410)313-1880 AT LEAST FIVE(5) WORKING DAYS PRIOR TO THE START OF WORK. 3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION _____ // ____ // EX. FENCE 4. THIS PROJECT IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202(B)(I)(V), ---- BUILDING RESTRICTION LINE ____ EX. STORMDRAIN AN AGRICULTURAL PRESERVATION SUBDIVISION, UNLESS IT INVOLVS THE CLEARING OF 20,000SF OR GREATER OF FOREST VICINITY MAP ST-2 EX. SPECIMEN TREE . THERE ARE NO STEEP SLOPES OF 25% OR GREATER ON-SITE. . THERE IS AN EXISTING DWELLING LOCATED ON PARCEL 160 TO REMAIN. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLING ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATION REQUIREMENTS. SCALE: I"= 2000' . DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AD OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO LIMITS OF DISTURBANCE (LOD) HOWARD COUNTY ADC MAP II, GRID H5 INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS: WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE) SURVEY CONTROL: SURFACE -6" OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-11/2"MIN) POINT 34CD, N.561461.63 E.1323850.4 GEOMETRY - MAX. 15% GRADE, MAX 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS POINT 34FD, 560162.58, 1325180.36 STRUCTURE (CULVERTS/BRIDGES)- CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING) DRAINAGE ELEMENTS - SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN I FOOT DEPTH OVER DRIVEWAY SURFACE MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE . FLAG AND PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENCANCE ARE SWM PRACTICE CHART Limits of Field N PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY 19. The front yard setbacks for all lots have been established in accordance with section 16.127(c)(4)(ii) of the Howard County DISCONNECTION OF DISCONNECTION OF SHEETFLOW TO DRYWELL Land Development Regulations. OT ADDRESS ROOFTOP RUNOFF NON-ROOFTOP CONSERVATION (M-5)20. In accordance with section 16.121(A)(2) of the Howard County subdivision and land development regulations, this project is AREA (N-3) RUNOFF (N-2) exempt from open space requirements. 6015 TEN OAKS RD YES YES . This project (child lots) is exempt from moderate Income Housing Unit requirements. 22. This plat is subject to section 15.514(b) of the agricultural preservation program. (H0-90-19-E). On July 26, 2021 the Howard County Agricultural Preservation Board granted an approval to release up to three (3) one acre child lots from the 3 6019 TEN OAKS RD YES YES Agricultural Preservation Easement subject to the following conditions: a. Filing of a letter of understanding for each lot to permit the release of the lot. b. Preparation, execution, and recordation of an ammended deed of easement reflecting the actual release of the lots. SHEET INDEX c. Repayment of \$6,000.00 for each of the one acre lots released (\$12,000). 6005 Ten Oaks d. Obtain all appropriate county and state permits and approvals. 23. Trash and recycling shall be collected at the shared driveway access within 5—feet of the public right—of—way of Ten Oaks DESCRIPTION SHEET NO 24. Traffic control devices, markings, and signing shall be in accordance with the latest edition of the manual of the Manual of COVER SHEET-SUPPLEMENTAL PLAN Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any SEDIMENT CONTROL NOTES AND DETAILS 25. A design manual waiver to the Howard County Design Manual Volume IV, standard detail R—1.11 was submitted and SITE NOTES AND ACCESS IMPROVEMENTS PLAN approved on April 3, 2024 to reduce the required road frontage improvements to include a 5-foot wide shoulder instead of the required 8—foot shoulder. The waiver was approved subject to providing a full depth saw cut at the edge of the existing through lane and widening with the P-4 paving section in accordance with the Design Manual Volume III. After further evaluation, the Howard County DPW approved eliminating the required road frontage improvements subject to OWNER / DEVELOPER CERTIFICATION providing a 30-foot half roadway dedication along the entire frontage of Ten Oaks Road instead of limiting the frontage improvements to just the frontage of lots 2 and 3. SITE ANALYSIS DATA SHEET I/We hereby certify that all clearing, grading, construction, and or development will be done pursuant to this plan and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural TOTAL PROJECT AREA (SUBDIVISON): 2.14 ACRES± Resources approved training program for the control of sediment and erosion before AREA OF PLAN SUBMISSION: beginning the project. AREA OF WETANDS & BUFFER: DocuSigned by: AREA OF STREAM BUFFER:) ACRES There AREA OF FLOODPLAIN:) ACRES Relocated AREA OF FOREST:) ACRES Electric to Printed Name & Title ___75DE9351E14D414...Signature AREA OF STEEP SLOPES 15% \$ > 0 ACRES Transformer ERODIBLE SOILS: ACRES LIMIT OF DISTURBED AREA: PROP. USE OF SITE: SF RESIDENTIAL PROPOSED IMPERVIOUS AREA: 0.25 ACRES PROPOSED GREEN OPEN AREA: 1.12 ACRES DESIGN CERTIFICATION PRESENT ZONING DESIGNATION: RR-DEO OPEN SPACE REQUIREMENT: 0 ACRES TOTAL NUMBER OF UNITS ALLOWED: I hereby certify that this plan has been prepared in accordance with the "2011 Lot B PROPOSED TOTAL NUMBER OF UNITS PROPOSED: Maryland Standards and Specification for Soil Erosion and Sediment Control," and also SEWAGĖ DISPOSAL DPZ FILE REFERENCE: F-99-099, ECP-23-042 in accordance with required Howard Soil Conservation District Requirements. /AREA/:(10,050 SF) MD ROUTE 32 S81°15'15"E 54.04 SEWAGE DISPOSAL All proposed septic force Lot 2 ÁREA (10,183 SF) mains shall be installed and stabilized the same day. 43,560SF ZONING DATA ZONING: RR-DEO MIN. LOT AREA = 40.000 SQ ET MIN. LOT WIDTH AT B.R.L. = 100 FTS07'07'38"E 46.97\ FRONT BRL (From a collector or arterial street R/W) = 75 FT FRONT = 50 FTREAR BRL = 30 FTSIDE BRL = 10 FT 49,689SF N64*58'01"W 25.00~ Parcel 160 _ _ Limits of 97.01 ACRES Disturbance 59,667sf 1°12'35"E 121.10 OWNERS: FREDERICK LEWIS TRUSTEE ETAL > AREA OF SUBDIVISION 6005 TEN OAKS ROAD CLARKSVILLE, MD 21029 LOTS 2 AND 3 443-794-8447 TEN OAKS ROAD NEERI (1,050 SF)-NOTE: EXISTING UTILITY LOCATIONS ARE APPROXIMATE. Non-Rooftop Disconnect THEY ARE BASED UPON AVAILABLE RECORDS AND ARE SHOWN TO THE BEST OF OUR ABILITY. ALL UTILITY LOCATIONS PROPERTY INSET MA MUST BE FIELD VERIFIED. Non Rooftop APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR 7/30/2024 APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF CHIEF, BUREAU OF HIGHWAYS THIS DEVELOPMENT IS APPROVED FOR SOIL AND EROSION SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. 4/20/24 APPROVED: DA5 Olexander Bratchie 7/30/2024 (3,902 SF) Non Rooftop LEWIS PROPERTY SUBDIVISION DATE Disconnect DEPARTMENT OF PLANNING & ZONING APPROVED: A SUBDIVISION OF 6005 TEN OAKS ROAD, GRID II PARCEL 160, TAX MAP 34, ELECT. DISTRICT 5 CHAD Edmondson 7/30/2024 (2,589 SF) DA3 ZONING RC, CURRENT DEED 16877/327, 97.01 ACRES CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE Non Rooftop (3,894 SF) 🚆 Disconnect 7/30/2024 Non Rooftop GRAPHIC SCALE 1 INCH = 40 FEET of 3 PROPOSED SWM D.A.M. (SEE PLAN FOR DA 6) Disconnect SUPPLIMENTAL PLAN CHIEF, DIVISION OF LAND DEVELOPMENT DATE Scale: 1"=40' F-24-028

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

To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies Where vegetative stabilization is to be established.

A. Soil Preparation . Temporary Stabilization

a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.

b. Apply fertilizer and lime as prescribed on the plans. c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.

2. Permanent Stabilization

a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:

i. Soil pH between 6.0 and 7.0.

ii. Soluble salts less than 500 parts per million (ppm). iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a

sandy soil (less than 30 percent silt plus clay) would be acceptable. iv. Soil contains 1.5 percent minimum organic matter by weight.

v. Soil contains sufficient pore space to permit adequate root penetration.

b. Application of amendments or topsoil is required if on—site soils do not meet the above conditions. c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a

depth of 3 to 5 inches. d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.

e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil aradation. 2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by

3. Topsoiling is limited to areas having 2:1 or flatter slopes where: a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth. b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and

plant nutrients. c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible. 4. Areas having slopes steeper than 2:1 require special consideration and design.

5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:

a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other

materials larger than 1½ inches in diameter. b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified. c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist

and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

a. Erosion and sediment control practices must be maintained when applying topsoil.

b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions

c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

. Soil Amendments (Fertilizer and Lime Specifications) 1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.

2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer. 3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at

STANDARD SYMBOL

least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve. 4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.

5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

The application of seed and mulch to establish vegetative cover.

To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

A. Seeding

1. Specifications a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to

verify type of seed and seeding rate. b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.

c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh noculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

a. Dry Seeding: This includes use of conventional drop or broadcast spreaders. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site—specific seeding summaries.

ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact. b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.

:. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer). i. If fertilizer is being applied at the time of seeding, the application rates should not exceed

the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P205 (phosphorous), 200 pounds per acre; K20 (potassium), 200 pounds per acre.

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

iii. Mix seed and fertilizer on site and seed immediately and without interruption. iv. When hydroseeding do not incorporate seed into the soil.

available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

1. Mulch Materials (in order of preference) a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired. b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose

processed into a uniform fibrous physical state. i. WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.

. WCFM, including dye, must contain no germination or growth inhibiting factors. . WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter—like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings. iv. WCFM material must not contain elements or compounds at concentration levels that will be phyto-toxic.

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

a. Apply mulch to all seeded areas immediately after seeding. b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre. c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

1. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard: . A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.

ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. iii. Synthetic binders such as Acrylic DLR (Agro—Tack), DCA—70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited. iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually

Table B.1: Temporary Seeding for Site Stabilization Seeding Rate 1/ Recommended Seeding Dates by Plant Hardiness Zone 3/ lb/ac | lb/1000 ft² | (inches) 5b and 6a 6b 7a and 7b l-Season Grasses 0.5 Mar 15 to May 31; Aug 1 to Sep 30 Mar 15 to May 31; Aug 1 to Sep 30 Mar 1 to May 15; Aug Feb 15 to Apr 30; Au sarley (Hordeum vulgare) Mar 15 to May 31; Aug 1 to Sep 30 Mar 1 to May 15; Aug Feb 15 to Apr 30; Au 1.0 Mar 15 to May 31; Aug 1 to Oct 31 Mar 1 to May 15; Aug Feb 15 to Apr 30; A ereal Rve (Secale cereale) 112 2.8 May 16 to Jul 31 May 1 to Aug 1-0.5 Jun 1 to Jul 31 May 16 to Jul 31 May 1 to Aug 14 earl Millet (Pennisetum glaucum)

Seeding rates for the warm-season grasses are in pounds of Pure Live Seed (PLS). Actual planting rates shall be adjusted to reflect percent seed germination and purity, a

or barley, oats, and wheat. For smaller-seeded grasses (annual ryegrass, pearl millet, foxtail millet), do not exceed more than 5% (by weight) of the overall permane. seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur in very late fall beyond the seeding dates for other temporary seed. Cereal rye has allelopathic properties that inhibit the germination and growth of other plants. If it must be used as a nurse crop, seed at 1/3 of the rate listed above.

STANDARD SYMBOL

3/ The planting dates listed are averages for each Zone and may require adjustment to reflect local conditions, especially near the boundaries of the zone

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

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

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

1. The stockpile location and all related sediment control practices must be clearly indicated on the

erosion and sediment control plan. 2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance μ with Section B-3 Land Gradina. 3. Runoff from the stockpile area must drain to a suitable sediment control practice. 4. Access the stockpile area from the upgrade side.

5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner. 6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment

control practice must be used to intercept the discharge. 7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as

Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization. 8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

1. A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1855 after the future LOD and protected areas are marked clearly in the field. A minimum of 48 hour notice to CID must be given at the following stages:

a. Prior to the start of earth disturbance, b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading, c. Prior to the start of another phase of construction or opening of another grading unit,

d. Prior to the removal or modification of sediment control practices.

Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made. Other related state and federal permits shall be referenced, to ensure coordination and to avoid conflicts with this plan.

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 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and

3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization is required within three (3 calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and seven (7) calendar days as to all other disturbed areas on the project site except for those areas under active grading.

4. All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for topsoil (Sec. B-4-2), permanent seeding (Sec. B-4-5), temporary seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization with mulch alone can only be applied between the fall and spring seeding dates if the ground is frozen. Incremental stabilization (Sec. B—4—1)specifications shall be enforced in areas with >15 of cut and/or fill. Stockpiles (Sec. B-4-8) in excess of 20 ft. must be benched with stable outlet. All concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization matting (Sec. B—4—6).

5. All sediment control structures are to remain in place, and are to be maintained in operative condition until permission for their removal has been obtained from the CID.

6. Site Analysis: Total Area of Site: ____2.14 ___ Acres
Area Disturbed: ____1.37 ___ Acres
Area to be roofed or paved: ____0.25 ___ Area to be roofed or paved: _____0.25____ Acres
Area to be vegetatively stabilized: _____1.12____ Acres Total Cut: _____200_____ Cu. Yds.
Total Fill: _____200_____ Cu. Yd ____<u>200</u>___ Cu. Yds. Offsite waste/borrow area location: _____

7. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

8. Additional sediment control must be provided, if deemed necessary by the CID. The site and all controls shall be inspected by the contractor weekly; and the next day after each rain event. A written report by the contractor, made available upon request, is part of every inspection and should include:

Inspection date Inspection type (routine, pre-storm event, during rain event) Name and title of inspector

Weather information (current conditions as well as time and amount of last recorded precipitation) Brief description of project's status (e.g., percent complete) and/or current activities

Evidence of sediment discharges Identification of plan deficiencies

Identification of sediment controls that require maintenance ldentification of missina or improperly installed sediment control

Compliance status regarding the sequence of construction and stabilization requirements Photographs

Monitoring/sampling Maintenance and/or corrective action performed Other inspection items as required by the General Permit for Stormwater Associated with

Construction Activities (NPDES, MDE) 9. Trenches for the construction of utilities is limited to three pipe lengths or that which can and shall be back-filled and

stabilized by the end of each workday, whichever is shorter. 10. Any major changes or revisions to the plan or sequence of construction must be reviewed and approved by the HSCD prior to proceeding with construction. Minor revisions may allowed by the CID per the list of HSCD—approved field changes.

11. Disturbance shall not occur outside the L.O.D. A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage of 20 ac. per grading unit) at a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the CID. Unless otherwise specified and approved by the HSCD, no more than 30 acres cumulatively may be disturbed at a given time.

12. Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure.

13. Topsoil shall be stockpiled and preserved on—site for redistribution onto final grade.

14. All Silt Fence and Super Silt Fence shall be placed on—the—contour, and be imbricated at 25' minimum intervals, with lower ends curled uphill by 2' in elevation.

15. Stream channels must not be disturbed during the following restricted time periods (inclusive): Use I and IP March 1 — June 15 Use III and IIIP October 1 — April 30 Use IV March 1 - May 31

STANDARD SYMBOL

⊢----SF------

16. A copy of this plan, the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and associated permits shall be on-site and available when the site is active.

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OF APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE O MARYLAND, LICENSE NO. 46791, EXPIRATION 6/07/2025.

Registration Number

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

To stabilize disturbed soils with permanent vegetation.

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

Conditions Where Practice Applies Exposed soils where ground cover is needed for 6 months or more.

A. Seed Mixtures

1. General Use

a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan. b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting. c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.

d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.

2. Turfgrass Mixtures

mixture by weight.

a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.

b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan. i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square féet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total

ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade.

Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended. iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes;

Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: $1\frac{1}{2}$ to 3 pounds per 1000 square feet.

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

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

c. Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)

Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)

Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)

d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1½ inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty. e. If soil moisture is deficient, supply new seedings with adequate water for plant growth ($\frac{1}{2}$ to 1

inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

Permanent Seeding Summary Hardiness Zone (from Figure B.3): Fertilizer Rate (10-20-20)

Seed Mixture (from Table B.3): No. | Species | Application | Rate Seeding Seeding N P₂0₅ K_2^0 (lb/ac) Dates Depths 100 90lbs 2 tons Tall Fescue Seed per acre (90 lb/ 1000sf) 1000sf)

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

1. General Specifications a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to

the job foreman and inspector. b. Sod must be machine cut at a uniform soil thickness of ? inch, plus or minus ¼ inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable.

c. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section. d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may

Lime Rate

adversely affect its survival. e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation.

a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to

laying the sod. b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightl wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots. c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil

d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.

3. Sod Maintenance a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day

b. After the first week, sod watering is required as necessary to maintain adequate moisture c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed

by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless

SEQUENCE OF CONSTRUCTION

1. NOTIFY HOWARD COUNTY'S SEDIMENT CONTROL INSPECTOR AT 410-313-1855 AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION (1 DAY) 2. THE GENERAL CONTRACTOR SHALL NOT COMMENCE ANY LAND DISTURBING ACTIVITIES PRIOR TO OBTAINING A GRADING PERMIT (1 DAY).

3. THE CONTRACT SHALL HOLD A PRE CONSTRUCTION MEETING WITH THE CONSTRUCTION MANAGER AND THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR PRIOR TO COMMENCING AND LAND DISTURBING ACTIVITIES. NO CONSTRUCTION TO BEGIN UNTIL ALL MATERIALS NEEDED TO BUILD SEDIMENT CONTROL MEASURES ARE ON SITE (1 DAY). 4. ALL AREAS WHICH ARE TO BE DISTURBED SHALL BE CLEARLY MARKED IN THE FIELD PRIOR TO CONSTRUCTION. DISTURBED AREAS WITHIN THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED SHALL BE PERMANENTLY OR TEMPORARILY STABILIZED WITHIN:

A. THREE CALENDAR DAYS ON SLOPES GREATER THAN 3:1, ALL WATERWAYS AND TO THE SURFACE OF ALL PERIMETER CONTROLS. B. SEVEN CALENDAR DAYS ON ALL OTHER DISTURBED OR GRADED AREAS OF THE PROJECT. 5. CLEAR FOR AND INSTALL SUPER SILT FENCE AND STOCKPILE AREA AS SHOWN ON THE APPROVED SEDIMENT AND EROSION CONTROL PLANS. (1 DAY)

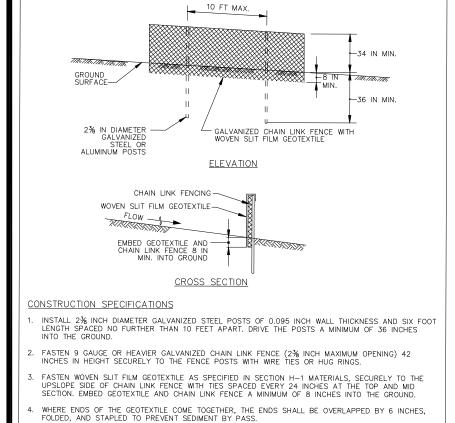
6. WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR ROUGH GRADE THE SITE AND INSTALL BASED COURSE FOR ENTRANCE IMPROVEMENTS. (1 7. CONSTRUCT ROADWAY IMPROVEMENTS (2-WEEKS)

8. AFTER THE SITE IS FULLY STABILIZED AND ONLY AFTER THE APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL

9. NOTIFY THE HOWARD COUNTY OFFICE OF LICENSES AND PERMITS FOR FINAL INSPECTION OF THE COMPLETED PROJECT.

LEWIS PROPERTY SUBDIVISION

A SUBDIVISION OF 6005 TEN OAKS ROAD, GRID II PARCEL 160, TAX MAP 34, ELECT. DISTRICT 5 ZONING RC, CURRENT DEED 16877/327, 97.01 ACRES

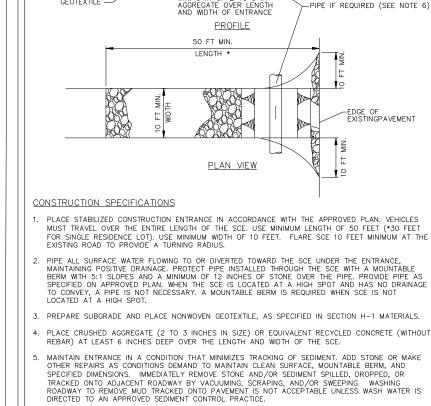


5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.

3. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

DETAIL E-3 SUPER SILT FENCE



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

DETAIL B-1 STABILIZED CONSTRUCTION

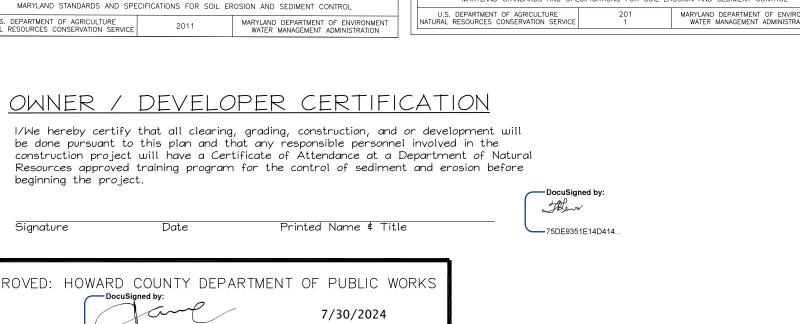
ENTRANCE

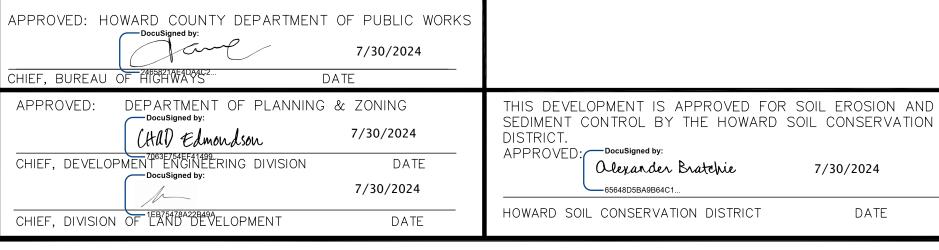
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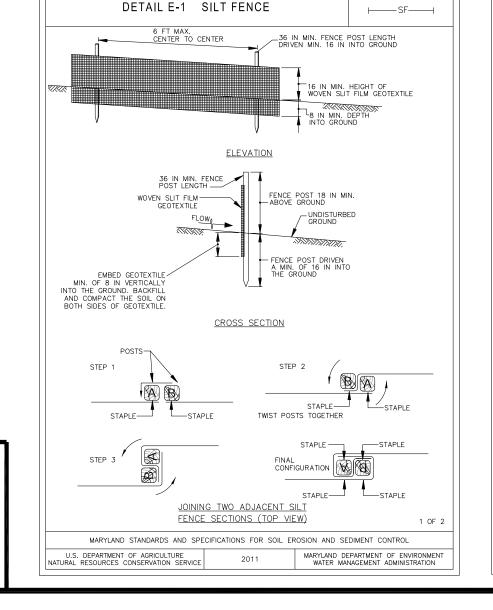
- EXISTING PAVEMENT

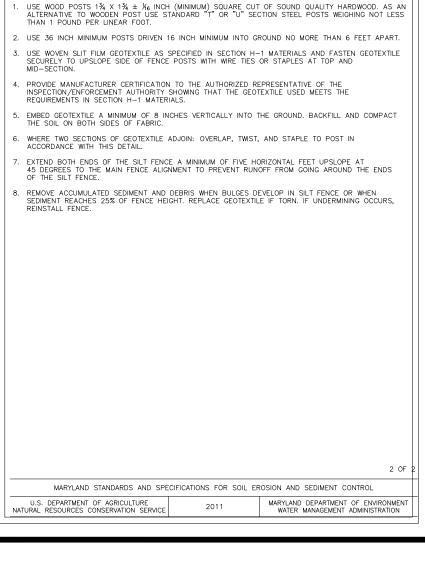
-EARTH FILL

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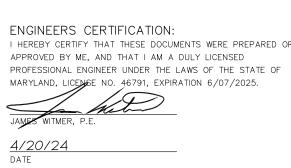








DETAIL E-1 SILT FENCE



DESIGN CERTIFICATION I hereby certify that this plan has been prepared in accordance with the "2011 Maryland Standards and Specification for Soil Erosion and Sediment Control," and also in accordance with required Howard Soil Conservation District Requirements.

SUPPLIMENTAL PLAN SEDIMENT CONTROL NOTES AND DETAILS



H-24-028

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

7/30/2024

7/30/2024

DATE

DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

(HD) Edmondson

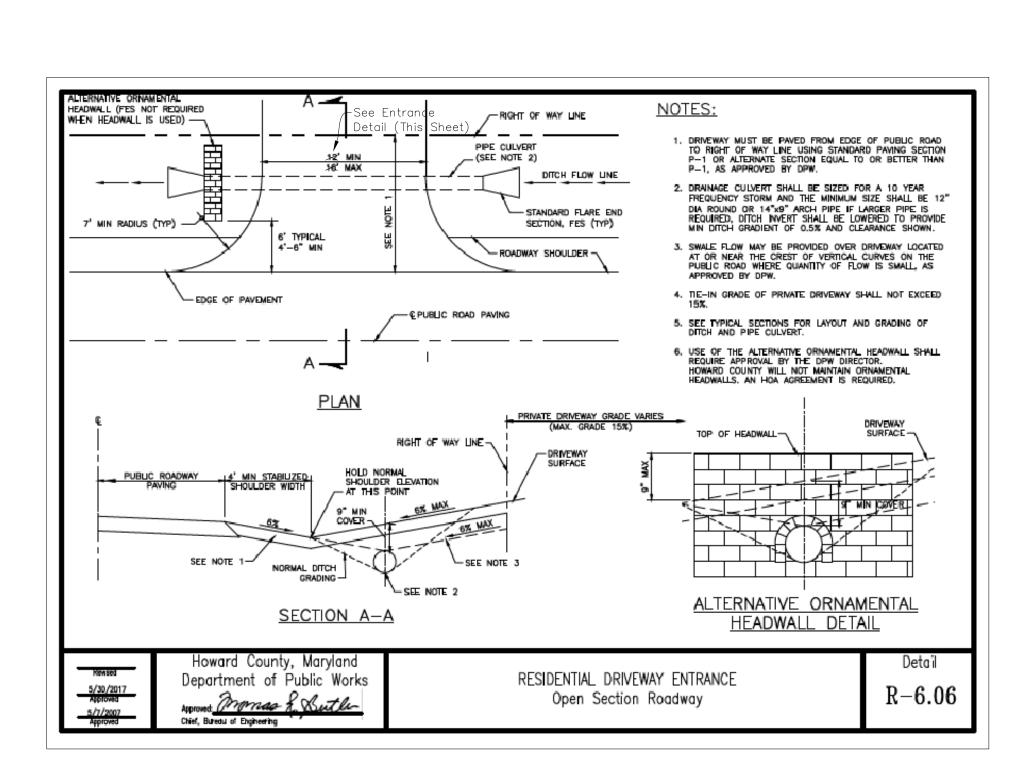
CHIEF, BUREAU OF HIGHWAYS

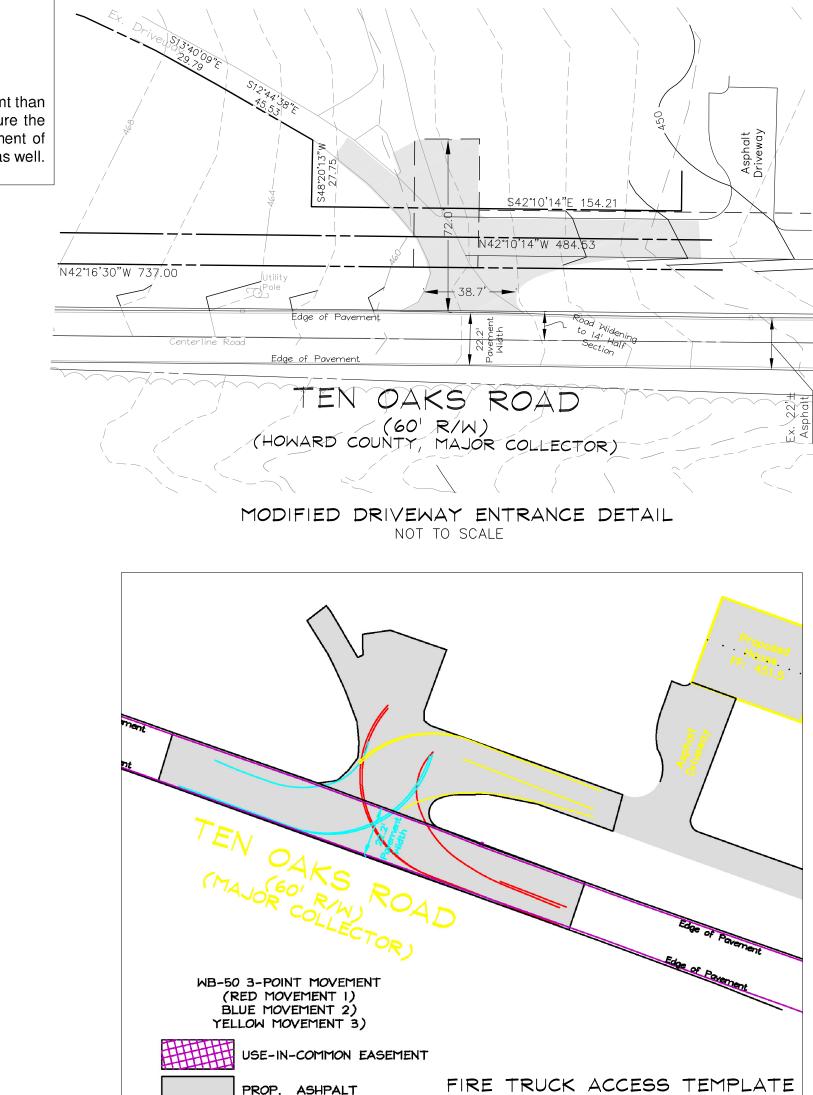
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CHIEF, DIVISION OF LAND DEVELOPMENT

[OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1), DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)]

Maintenance of areas receiving disconnected runoff is generally no different than that required for other lawn or landscaped areas. The Owner shall ensure the areas receiving runoff are protected from future compaction or development of impervious area. In commercial areas, foot traffic should be discouraged as well.





PROP. ASHPALT

ENGINEERS CERTIFICATION:
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE O MARYLAND, LICENSE NO. 46791, EXPIRATION 6/07/2025.

LEWIS PROPERTY SUBDIVISION

A SUBDIVISION OF 6005 TEN OAKS ROAD, GRID II PARCEL 160, TAX MAP 34, ELECT. DISTRICT 5 ZONING RC, CURRENT DEED 16877/327, 97.01 ACRES

NOT TO SCALE

SITE NOTES AND ACCESS IMPROVEMENTS PLAN

3 of 3