GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE
- THIS SITE IS ZONED B-2 PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THE EXISTING TOPOGRAPHIC INFORMATION SHOWN HEREON HAS BEEN TAKEN FROM FIELD RUN TOPOGRAPHIC SURVEYS AT 2' INTERVALS PREPARED BY BENCHMARK
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE
- SYSTEM, HOWARD COUNTY MONUMENTS 24AC AND 0066 WERE USED FOR THIS PROJECT
- O. EXISTING UTILITIES SHOWN WERE LOCATED BY RECORD DRAWINGS AND FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITY AND SHALL ADJUST ALL UTILITIES AND RIM ELEVATIONS AS NEEDED TO MATCH THIS PLAN.
- . PER THE ACCOMPANYING LETTER PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., THERE ARE NO WETLANDS, OR ACCOMPANYING WETLANDS BUFFER WITHIN THE PROPOSED L.O.D. FOR THIS PROJECT. ACCORDING TO ON-SITE OBSERVATION AND AVAILABLE DATA, THERE ARE NO STREAMS, STREAM BUFFERS, OR 25% OR GREATER STEEP SLOPES WITH MORE THAN 20,000 SF OF CONTIGUOUS AREA LOCATED WITHIN THE PROJECT LIMIT OF DISTURBANCE.
- 2. THERE ARE NO CEMETERIES OR HISTORIC STRUCTURES LOCATED ON THIS SITE.

FOR SEWER AND CONTR.#71-W FOR WATER. THE DRAINAGE AREA IS "LITTLE PATUXENT".

- 13. THERE ARE EXISTING STRUCTURES LOCATED WITHIN THE LIMIT OF DISTURBANCE FOR THIS PROJECT TO BE REMOVED AND REPLACED AS SHOWN ON THESE PLANS
- UDY FOR THIS PROJECT WAS PREPARED BY THE MARS GROUP, DATED SEPTEMBER 20, 2020.
- MEETING DURING THE COVID-19 STATE OF EMERGENCY, WAS APPROVED ON SEPTEMBER 15, 2020, SUBJECT TO THE FOLLOWING CONDITIONS: 1.) THE ALTERNATIVE COMPLIANCE PETITION WILL REMAIN VALID AS LONG AS THE HOWARD COUNTY STATE OF EMERGENCY IS IN EFFECT 2.) THE PETITIONER MUST COMPLY WITH THE DEPARTMENT OF PLANNING AND ZONING'S VIRTUAL PRESUBMISSION MEETING GUIDELINES FOR
- THE REQUIRED PRE-SUBMISSION COMMUNITY MEETING WAS HELD VIRTUALLY ON OCTOBER 13, 2020, HOSTED BY BENCHMARK ENGINEERING, INC.
- 40% THRESHOLD. THE PROPOSED DEVELOPMENT CONSISTS OF 12,550 SF OF EX IMPERVIOUS SURFACE WITHIN THE LIMIT OF DISTURBANCE. THERE WILL BE 6,258 SF OF NEW PERVIOUS SURFACES. THE ESD—SWM REQUIREMENT IS MET BY TAKING CREDIT FOR THE IMPERVIOUS AREA REDUCTION OF 5,010 SF AND USE OF AN APPROVED BMP TO SATISFY THE REMAINING 50% OF EXISTING IMPERVIOUS AREA PER RE-DEVELOPMENT CRITERIA. THE REMAINING OBLIGATION OF 1,265 SF IS PROVIDED ON-SITE VIA (M-6) MICRO-BIORETENTION. THE FACILITY SHALL BE PRIVATELY OWNED & MAINTAINED.
- 20. THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL HAVE BEEN ADDRESSED BY A CERTIFIED LANDSCAPING PLAN
 APPROVED WITHIN THIS PLAN SET. THE FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING SHALL BE POSTED AS PART OF THE DEVELOPER AGREEMENT IN THE AMOUNT OF \$9510.00 FOR 7 SHADE TREES, 15 SMALL/ORNAMENTAL TREES, 142 SHRUBS & 3 INTERNAL SHADE TREES.
- . THE SUBJECT PARCEL IS NOT LOCATED WITHIN THE BOUNDARIES OF THE 1998 BALTIMORE/WASHINGTON INTERNATIONAL AIRPORT (BWI), AIRPORT NOISE ZONE AS
- WITH SECTION 134.0 OF THE HOWARD COUNTY ZONING REGULATIONS. LIGHT FIXTURES SHALL BE SHIELDED LIGHTS PER SECTION 134.0.C.1 OF HOWARD COUNTY
- 23. KNOX BOX SHALL BE PLACED ON THE FRONT OF THE BUILDING NO MORE THAN 6' TO THE RIGHT OF THE MAIN ENTRANCE AT A HEIGHT OF 4-5'. IT SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSED (INTEGRATED WITH THE FIRE SYSTEM).
- 25. ANY DAMAGE TO THE SHA OR COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE, THERE IS NO CONSTRUCTION ACTIVITY ANTICIPATED WITHIN THE SHA R/W. THE CONTRACTOR SHALL OBTAIN A MUSINA MUSINA TO THE PROPOSED SIDEWALK REPAIRS WITHIN THE ROUTE 40 RIGHT-OF-WAY
- 27. HEALTH DEPARTMENT APPROVAL OF THIS SITE DEVELOPMENT PLAN DOES NOT ENSURE APPROVAL OF BUILDING PERMIT APPLICATIONS ASSOCIATED WITH THIS PLAN. PLANS FOR CERTAIN FACILITIES TO BE CONSTRUCTED WITHIN THE LIMITS DESCRIBED BY THIS PLAN WILL REQUIRE REVIEW AND APPROVAL BY THE HEALTH
 DEPARTMENT. SUCH FACILITIES MAY INCLUDE, BUT ARE NOT LIMITED TO, THOSE WHICH HAVE SWIMMING POOLS, OR THAT SELL PREPARED OR PACKAGED FOODS, OR
- 28. ENVIRONMENTAL CONCEPT PLAN, ECP-21-020, WAS APPROVED ON NOVEMBER 30, 2020.
- 29. THIS SITE DOES NOT ABUT A SCENIC ROAD.
- 30. APPLICABLE DEPARTMENT OF PLANNING AND ZONING FILE REFERENCES:
- a) THE R1-1 ("STOP") SIGN AND THE STREET NAME SIGN(SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED.
- b) THE TRAFFIC CONTROL DEVICES LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES. c) ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON
- TRAFFIC CONTROL DEVICES"(MdMUTCD). d) ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED (QUICK PUNCH), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE)—3' LONG. THE ÀNCHOR SHALL NOT EXTEND MORE THAT TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLL CAP SHALL BE MOUNTED ON TOP OF
- 32. THE PROPOSED COMMERCIAL REDEVELOPMENT WILL REQUIRE COMPLIANCE WITH FOREST CONSERVATION ACT. SINCE THERE ARE NO EXEMPTIONS FOR MINOR REDEVELOPMENT, SECTION 16.1202(b)(1)(xiii) ALLOWS FOR THE DEDUCTION OF THE EXISTING IMPERVIOUS SURFACE FROM THE GROSS SITE AREA TO DETERMINE THE NET TRACT AREA OF THE PROJECT. BY DEDUCTING THE PREVIOUSLY DEVELOPED IMPERVIOUS AREA, 0.88 ACRES, FROM THE GROSS AREA ON THE CURRENT FOREST CONSERVATION WORKSHEET, THE NET TRACT AREA BECOMES 0.22 ACRES, USING THIS AS THE NET TRACT AREA NO REFORESTATION OR AFFORESTATION OBLIGATION IS REQUIRED.
- 33. A NEW 4"WHC SHALL BE INSTALLED UNDER AN A.D.O. THE EXISTING 1"W BUILDING SERVICE CONNECTION SHALL BE ABANDONED AS SPECIFIED UNDER SECTION 10 15.03 OF THE STANDARD SPECIFICATIONS BY SCHEDULING A SHUTDOWN OF THE WATER MAIN, REMOVING THE EXISITING CORPORATION STOP, AND REPAIRING THE PIPE WITH A COUNTY APPROVED STAINLESS STEEL FULL—CIRCLE REPAIR CLAMP, SUCH AS FORD METER FS2, MUELLER 550, OR ROMAC SS2 SERIES.
- 34. THE FIRE DEPARTMENT CONNECTION (FDC) FOR FIRE PROTECTION SYSTEMS SHALL BE LOCATED:
- (I) ON THE SIDE OF THE STRUCTURE DISPLAYING THE ADDRESS CLEARLY VISIBLE TO THE RESPONDING UNITS (II) THE APPROPRIATE SIGN SHALL BE MOUNTED ON THE BUILDING'S WALL BETWEEN 8-12 FEET ABOVE THE FDC.
- (III) A FREE-STANDING FDC SHALL HAVE THE SIGN MOUNTED ON A POLE DIRECTLY BEHIND THE CONNECTION, APPROXIMATELY 6' HIGH. (IV) SIGNS SHALL HAVE A WHITE REFLECTIVE BACKGROUND WITH RED REFLECTIVE BORDER, RED REFLECTIVE LETTERS, AND A RED REFLECTIVE ARROW. THE BORDER
- SHALL HAVE A 3/8" STROKE. THE LETTERS SHALL BE 6" HIGH WITH A 1" STROKE. THE ARROW SHALL HAVE A STROKE NOTE LESS THAN 2". THE OVERALL (V) ANY OBSTRUCTION OR CONDITION THAT DETERS OR HINDERS ACCESS TO A FDC IS PROHIBITED. A MINIMUM CLEAR SPACE OF 15 FEET (7.5' ON ALL SIDES)

.10,000 SF (5,000sf 2-Story)

2. The ESDv Required for the (M-6) pratices is based on 75% of ESDv

..50 (5/1,000sf)

...11.0%

...5,000 SF (0.12 AC.)

PRESENT ZONING: B-2 LOCATION: TAX MAP 24 - GRID 02 - PARCEL 395 APPLICABLE DPZ FILE REFERENCES: ECP-21-020, SDP-85-211, SDP-84-237.

PROJECT BACKGROUND INFORMATION

PLAT #22168, PLAT #6378, PB #15-035 DEED REFERENCE: (L.18355 / F.00071) PROPOSED USE OF SITE: AMBULATORY HEALTH CARE FACILITY

PROPOSED WATER AND SEWER SYSTEMS: PUBLIC WATER & SEWER

21) FLOOR AREA (MEDICAL).

25) BUILDING COVERAGE AREA...

22) MAXIMUM NUMBER OF EMPLOYEES.

23) NUMBER OF PARKING SPACES REQUIRED ...

26) BUILDING PERCENTAGE OF GROSS AREA..

27) PROPOSED WATER AND SEWER SYSTEMS..

24) TOTAL NUMBER OF PARKING SPACES PROVIDED ...

SHALL BE MAINTAINED.

SITE DATA TABULATION			
1) TOTAL PROJECT AREA1.09	AC.±		
2) AREA OF 100-YR. FLOODPLAIN	AC.		
3) AREA OF MODERATE SLOPES (15%-24.999%)			
4) AREA OF EXISTING FOREST	AC.		
5) AREA OF ERODIBLE SOILS	AC.		
6) AREA OF WETLANDS (INCLUDING BUFFER)	AC.		
7) AREA OF STREAM BUFFER (OUTSIDE WETLANDS & BUFFER)0.00	AC.		
8) NET AREA OF SITE(S)1.09	AC.±		
9) NUMBER OF UNITS ALLOWED1			
10) NUMBER OF RESIDENTIAL UNITS PROPOSED0			
11) AREA OF PLAN SUBMISSION1.09	AC.±		
12) APPROXIMATE LIMIT OF DISTURBANCE	AC.±	(14,072	SF)
13) PRESENT ZONING DESIGNATIONB-2			
14) PROPOSED USES FOR THE SITE & STRUCTURESCOM	MERCIA	L (Medic	al)
15) MINIMUM LOT SIZEN/A			
16) OPEN SPACE REQUIREDN/A			
17) OPEN SPACE PROVIDED (CREDITED)	AC.		
18) OPEN SPACE PROVIDED (TOTAL)	AC.		
19) RECREATIONAL OPEN SPACE REQUIREDN/A			
20) RECREATIONAL OPEN SPACE PROVIDEDN/A			

Totals per individual Drainage Area 2,742 1,441 53% 0.52 1. The Pe required column is based on total site Pe calculation. The Rv is based on individual drainage area percent impervious (per DED)

inch = 40 ft

(IN FEET)

COMMERCIAL SITE DEVELOPMENT PLAN ROUTE 40 ACUTE CARE 10120 BALTIMORE NATIONAL PIKE

(PARCEL A, ELLICOTT INVESTMENTS, INC., PROPERTY / SDP-85-211)

STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE. N 587.389.550' E 1,351,173.252' ELEV.=429.369' CONCRETE BASE N 587,380.489' ELEV.=386.512'

STAMPED BRASS DISK SET ON TOP OF E 1,352,603.505

SOILS CLASSIFICATION SOILS DELINEATION **EXISTING CONTOURS** PROPOSED CONTOURS EXISTING STRUCTURE PROPOSED STRUCTURE

EX. C&G TO BE REMOVED ESD-SWM DRAINAGE AREA LIMIT OF DISTURBANCE

INLET PROTECTION SILT FENCE STOCKPILE TEMPORARY ASPHALT

EXISTING PERVIOUS AREA

PROPOSED PERVIOUS AREA SHEET INDEX

• • • • • • • •

TITLE SHEET EXISTING CONDITIONS PLAN SITE DEVELOPMENT AND GRADING PLAN SEDIMENT & EROSION CONTROL PLAN AND BUILDING ELEVATIONS SEDIMENT & EROSION CONTROL NOTES, AND DETAILS STORM DRAIN DRAINAGE AREA MAP, NOTES, AND DETAILS ESD-SWM DRAINAGE AREA MAPS, NOTES, AND DETAILS ESD-BMP NOTES, AND DETAILS LANDSCAPE PLAN, NOTES, AND DETAILS PHOTOMETRIC ANALYSIS PLAN FOREST CONSERVATION PLAN, NOTES & DETAILS

DESCRIPTION

THIS SDP REPLACES SDP-85-211 BENCHMARK ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS ENGINEERING, INC

> (P) 410-465-6105 (F) 410-465-6644 WWW.BEI-CIVILENGINEERING.COM

were prepared or approved by me, and that I am a duly license rofessional engineer under the laws of the State of Maryland License No. 22390, Expiration Date: 6-30-2023.

CONTRACT PURCHASER: FIRST CALL MEDICAL CENTER LLC 5005 SIGNAL BELL LANE SUITE 200 CLARKSVILLE, MD 21029 443-615-1759

DRAFT: MCR

DESIGN: MCR

SCALE:

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIÉF, DIVISION OF LAND DEVELOPMENT 🕟

7.28.21

9-2-21

COMMERCIAL SITE DEVELOPMENT PLAN **ROUTE 40 ACUTE CARE** 10120 BALTIMORE NATIONAL PIKE (PARCEL A, ELLICOTT INVESTMENTS INC., PROPERTY / SDP-85-211 TAX MAP: 24 GRID: 02 PARCEL: 395

ZONED: B-2

ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

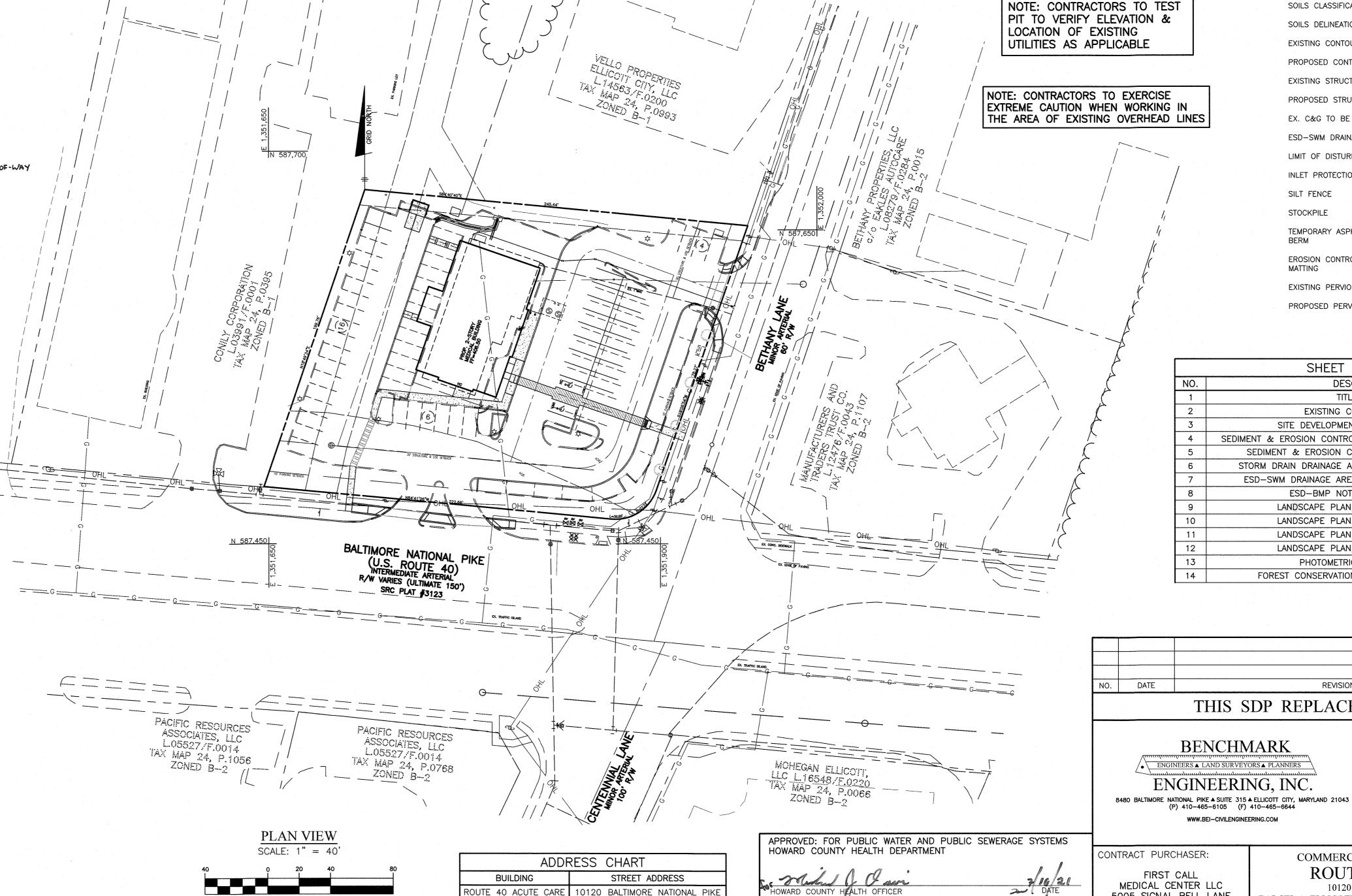
COVER SHEET

AS SHOWN

BEI PROJECT NO. 3012 JUNE, 2021

SDP-21-018

1 of 14



PERMIT INFORMATION CHART

SECTION/AREA:

02

TAX MAP:

24

PARCEL:

395

CENSUS TRACT

SUBDIVISION NAME:

L.18355

F.00071

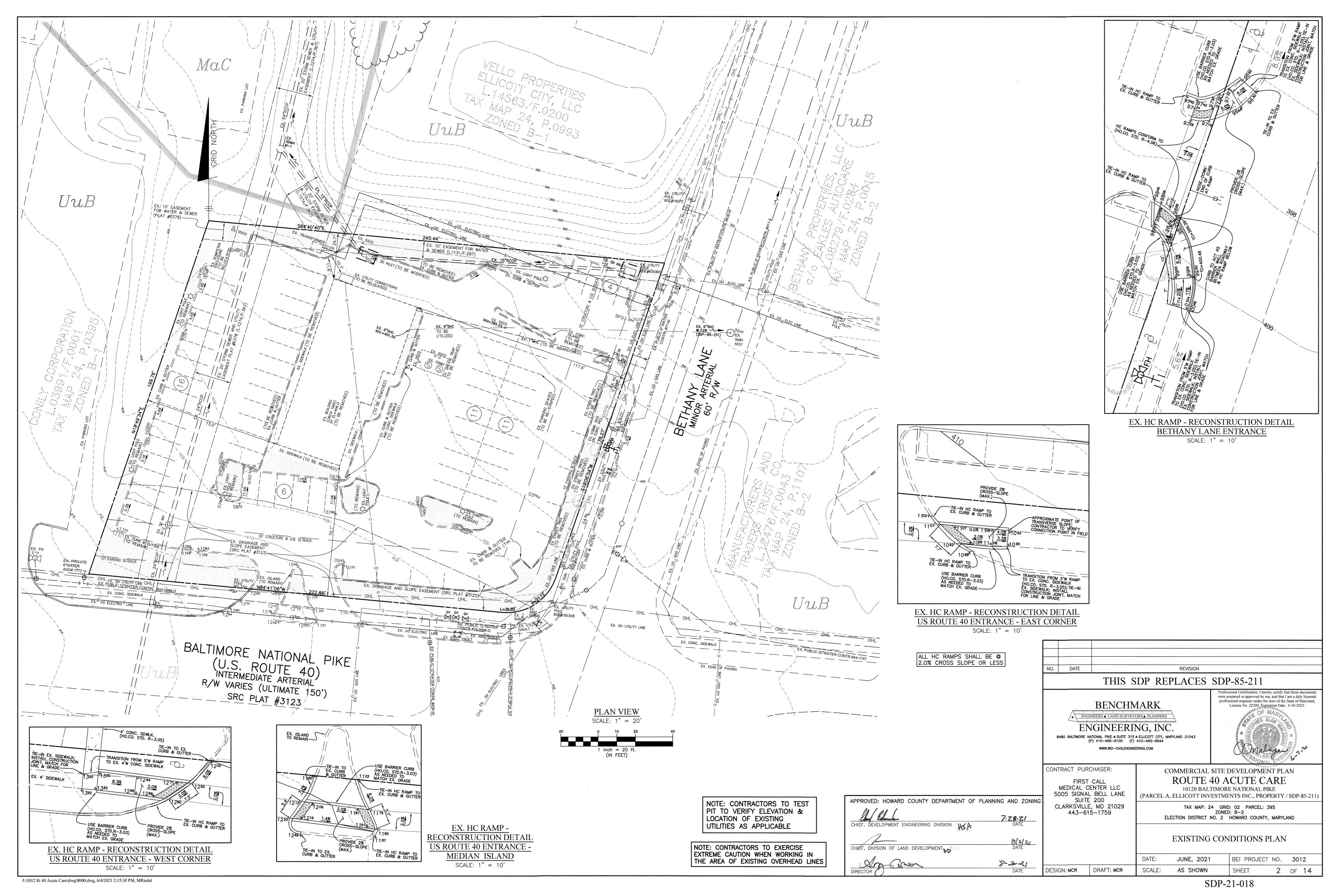
ROUTE 40 ACUTE CARE

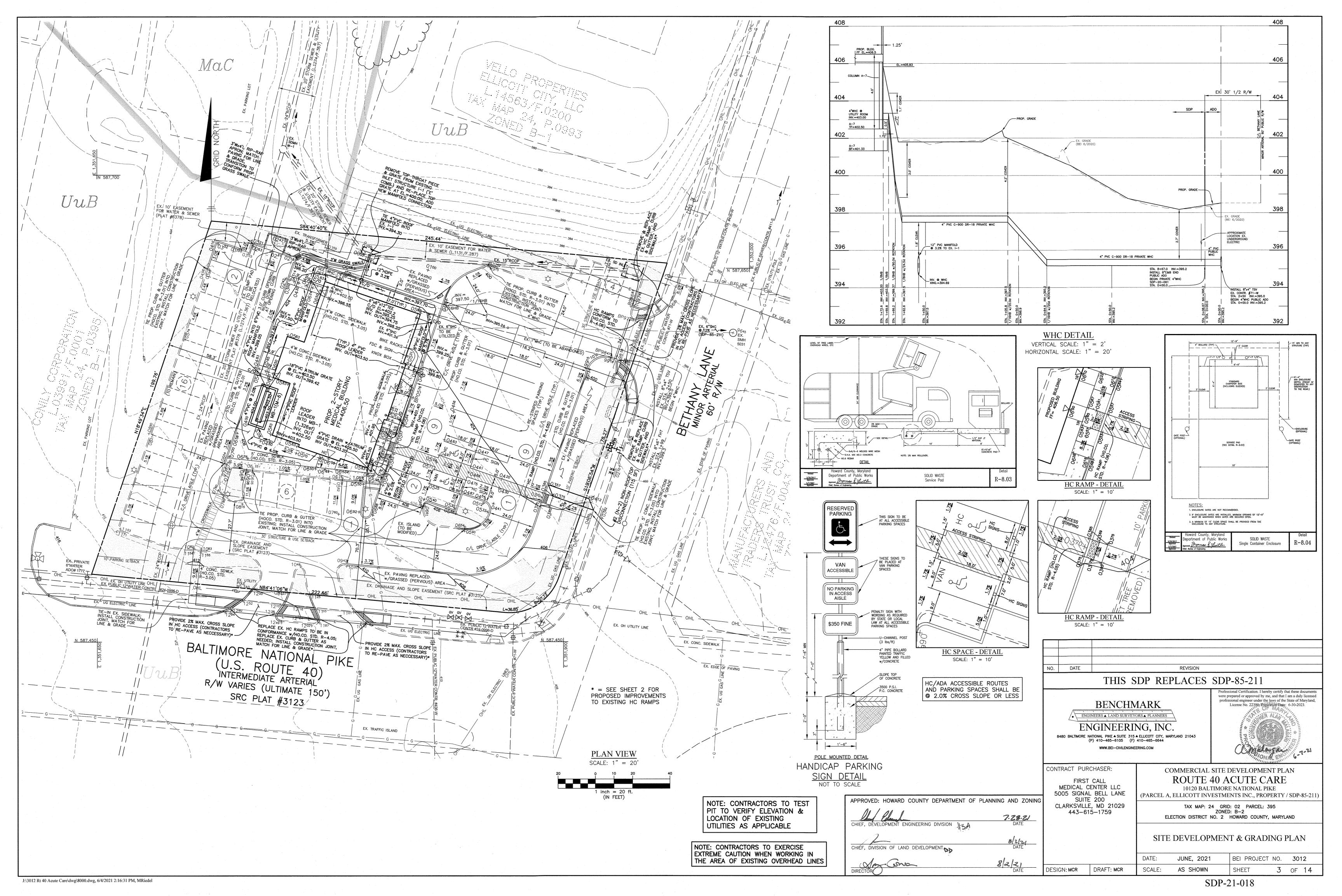
BLOCK |

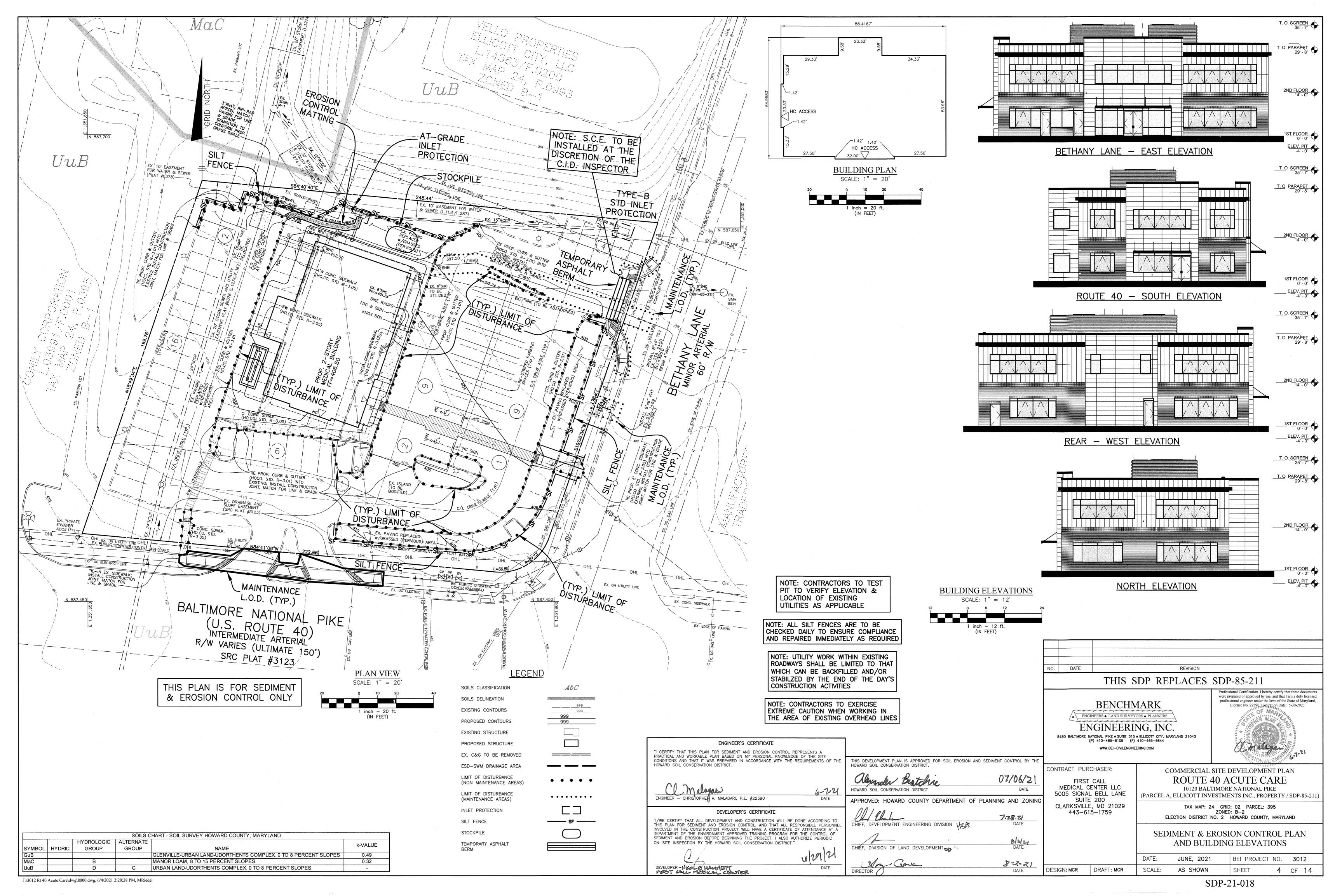
02

ZONE:

B-2







he 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 o the surface of all perimeter controls, slopes, and any disturbed area not under active grading A. Seeding

 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 beer tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.

b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws. c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less

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 i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries. ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact.

b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil. i. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after

ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and

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; P2O5 (phosphorous), 200 pounds per acre; K2O (potassium), 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

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

B. Mulching Mulch Materials (in order of preference)

2. Application

a. Straw consisting of thoroughly threshed wheat, rve, 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 dust Note: Use only sterile straw mulch in areas where one species of grass is desired b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state. i WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the

> uniformly spread slurry. ii. WCFM, including dye, must contain no germination or growth inhibiting iii. WCFM materials are to be manufactured and processed in such a

> manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed. fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings. iv. WCFM material must not contain elements or compounds at concentration levels that will be phyto-toxic

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

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 pe

acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pound of wood cellulose fiber per 100 gallons of water.

a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor

> 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. ii Synthetic hinders 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

mulch into the soil surface a minimum of 2 inches. This practice is most effective

Use of asphalt binders is strictly prohibited. iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to

the edges where wind catches mulch, such as in valleys and on crests of banks.

B-4-8 STANDARDS AND SPECIFICATIONS STOCKPILE AREA

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

and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading. 3. Runoff from the stockpile area must drain to a suitable sediment control practice

2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material

4. Access the stockpile area from the upgrade side. 5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging

concentrated flow in a non-erosive manner. 6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge. 7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.

8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting. Maintenance The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a

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.

Hardiness Zone (from Figure B.3)

Seed Misture (from Table B.3):

Rate (lb/ac.)

2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20

Seeding Dates

B-4-4 STANDARDS AND SPECIFICATIONS

To use fast growing vegetation that provides cover on disturbed soils Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan. 2. For sites having soil tests performed, use and show the recommended rates by the testing agency

3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

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 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 Summarv. 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 Guild, Section 342 - Critical Area Planting. c For sites having disturbed areas over 5 acres, use and show the rates recommended by the soil

in the Permanent Seeding Summary

which will receive a medium to high level of maintenance.

Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary The summary is to be placed on the plan. i. Kentucky Bluegrass: Full sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a

mixture by weight. 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

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 ½ to 3 pounds per 1000 square feet.

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)

(Hardiness Zones: 7a, 7b) d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 1/2 inches in

every 3 to 4 days depending on soil texture) until they are firmly established. This is not especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on

a. Class of turfgrass 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 % inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and 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

d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplante within this period must be approved by an agronomist or soil scientist prior to its installation.

 a. During periods of subsoil immediately prior to laying the sod. b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.

Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface. soil surface below the sod are thoroughly wet. Complete the operations of laving, tamping and

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

b. After the first week, sod watering is required as necessary to maintain adequate moisture content. the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless

H-5 STANDARDS AND SPECIFICATIONS

Definition Controlling the suspension of dust particles from construction activities

including health and traffic hazards.

Seeding and Mulching, and Section B-4-4 Temporary Stabilization. Mulch must be anchored to

prevent blowing. Vegetative Cover: See Section B-4-4 Temporary Stabilization

side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment that may produce the desired effect. 4. Irrigation: Sprinkle site with water until the surface is moist. Repeat as needed. The site must

aterial can be used to control air currents and soil blowing. 6. <u>Chemical Treatment</u>: Use of chemical treatment requires approval by the appropriate plan

Seeding

Depths

Fertilizer Rate

(10-20-20)

P2O5

Permanent Seeding Summary

	Plant Species	Seeding:	Depth 2/		TICCOTTTTCTTCC C	seeding Dates D	y Plant Hardines	ss Zone 3/
Plant Species		Seeding	Rate 1/ Seeding		Recommended S		Diamethandian	
			Table B.1: Te	emporary Seeding	for Site Stabi	lization		
				1/4 - 1/2 in	100 sf)	1000 sf)	1000 sf)	1000 sf)
9	Bluegrass, Kentucky	40	Mar 1 to May 15 Aug 1 to Oct 15	1/4 - 1/2 in	per acre (1.0 lb/	90 lb/ac (2 lb/	90 lb/ac 2 lb/	2 tons/ac (90lb/
	rescue, ran		Aug 1 to Oct 15	1/4-1/2111	45 pounds			

Plant Species	Depth			[
riant species	lb/ac	lb/1000 ft2	(inches)	5b and 6a	6b	7a and 7b	
Cool-Season Grasses							
Annual Ryegrass (Lólium perenne ssp. Multiflorum	40	1.0	0.5	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 31	Feb 15 to Apr 30; Aug 15 to Nov 3	
Barley (Hordeum vulgare)	96	2.2	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 31	Feb 15 to Apr 30; Aug 15 to Nov 3	
Oats (Avena sativa)	72	1.7	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 31	Feb 15 to Apr 30; Aug 15 to Nov 3	
Wheat (Triticum aestivum)	120	2.8	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 31	Feb 15 to Apr 30; Aug 15 to Nov 3	
Cereal Rye (Secale cereale)	112	2.8	1.0	Mar 15 to May 31; Aug 1 to Oct 31	Mar 1 to May 15; Aug 1 to Nov 15	Feb 15 to Apr 30; Aug 15 to Dec 1	
Warm-Season Grasses							
Foxtail Millet (Serataria italica)	30	0.7	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14	
Pearl Millet (Pennisetum glaucum	20	0.5	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14	

tested. Adjustments are usually not needed for the cool-season grasses. Seeding rates listed above are for temporary seedings, when planted alone. When planted as a nurse crop with permanent seed mixes, use 1/3 of the seeding rate listed above

for 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 permanent seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur very late fall beyond the seeding dates for other temporary seedings. 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 Oats are the recommended nurse crop for warm-season grasses.

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

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

<u>Criteria</u>

1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along

Soil tests are not required for Temporary Seeding.

B-4-5 STANDARDS AND SPECIFICATIONS

PERMANENT STABILIZATION

To stabilize disturbed soils with permanent vegetation. Criteria

1. General Use

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 2. Turfgrass Mixtures a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites

b. Select one or more of the species or mixtures listed below based on the site conditions or purpose.

minimum of three Kentucky Bluegrass Cultivars with each ranging from 10 to 35 percent of the total

Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5

Notes: Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland" Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program

Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15

diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty. e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2 to 1 inch

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

size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.

2. Sod Installation

c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and irrigating for any piece of sod within eight hours.

c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed by

FOR DUST CONTROL

To prevent blowing and movement of dust from exposed soil surfaces to reduce on and off-site damage

Conditions Where Practice Applies Areas subject to dust blowing and movement where on and off-site damage is likely without treatment. Specifications

Mulches: See Section B-4-2 Soil Preparation, Topsoiling, and Soil Amendments, Section B-4-3

: Till to roughen surface and bring clods to the surface. Begin plowing on windward

not be irrigated to the point that runoff occurs. 5. Barriers: Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar

> NOTE: CONTRACTORS TO TEST PIT TO VERIFY ELEVATION & LOCATION OF EXISTING UTILITIES AS APPLICABLE

NOTE: ALL SILT FENCES ARE TO BE CHECKED DAILY TO ENSURE COMPLIANCE AND REPAIRED IMMEDIATELY AS REQUIRED

NOTE: UTILITY WORK WITHIN EXISTING ROADWAYS SHALL BE LIMITED TO THAT WHICH CAN BE BACKFILLED AND/OR STABILZED BY THE END OF THE DAY'S CONSTRUCTION ACTIVITIES

NOTE: CONTRACTORS TO EXERCISE EXTREME CAUTION WHEN WORKING IN THE AREA OF EXISTING OVERHEAD LINES B-4 STANDARDS AND SPECIFICATIONS VEGETATIVE STABILIZATION

Using vegetation as cover to protect exposed soil from erosion. Purpose

To promote the establishment of vegetation on exposed soil. Conditions Where Practice Applies On all disturbed areas not stabilized by other methods. This specification is divided into sections on

stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary stabilization;

Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, reducing sediment loads and runoff to downstream areas. Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and

runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation increase organic matter content and improve the water holding capacity of the soil and subsequent plant Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to

within the root zone Sediment control practices must remain in place during grading, seedbed preparation, seeding, mulching, and vegetative establishment.

Adequate Vegetative Establishment Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season.

 Adequate vegetative stabilization requires 95 percent groundcover. 2. If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime, fertilizer, seedbed preparation, and seeding. 3. If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates 4. Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

> **B-4-1 STANDARDS AND SPECIFICATIONS** INCREMENTAL STABILIZATION

Establishment of vegetative cover on cut and fill slopes. To provide timely vegetative cover on cut and fill slopes as work progresses. Conditions Where Practice Applies Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

2 Construction sequence example (Refer to Figure B.1):

A. Incremental Stabilization - Cut Slopes 1. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all cut slopes as the work progresses.

> a. Construct and stabilize all temporary swales or dikes that will be used to convey runoff around the excavation. b. Perform Phase 1 excavation, prepare seedbed, and stabilize. c. Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as

d. Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary. Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

B. Incremental Stabilization - Fill Slopes 1. Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses. 2. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading

operation ceases as prescribed in the plans. 3. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner 4. Construction sequence example (Refer to Figure B.2): a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around

the fill. Construct silt fence on low side of fill unless other methods shown on the plans address this area. b. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner. c. Place Phase 1 fill, prepare seedbed, and stabilize.

e. Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as 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.

d. Place Phase 2 fill, prepare seedbed, and stabilize

To provide a suitable soil medium for vegetative growt

Where vegetative stabilization is to be established

B-4-2 STANDARDS AND SPECIFICATIONS SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS The process of preparing the soils to sustain adequate vegetative stabilization

 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

Conditions Where Practice Applies

Criteria

be tracked with ridges running parallel to the contour of the slope.

Apply fertilizer and lime as prescribed on the plans. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means. Permanent Stabilization a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:

Soil pH between 6.0 and 7.0. 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. Application of amendments or topsoil is required if on-site soils do not meet the above Graded areas must be maintained in a true and even grade as specified on the

approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment eaving 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

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 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

unnecessary on newly disturbed areas.

Topsoiling is limited to areas having 2:1 or flatter slopes where:

The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth. 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. The original soil to be vegetated contains material toxic to plant growth The soil is so acidic that treatment with limestone is not feasible. Areas having slopes steeper than 2:1 require special consideration and design.

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

can be found in the representative soil profile section in the Soil Survey published by

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 11/2 inches in diameter. b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.

Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil

Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy

scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil. Topsoil Application Erosion and sediment control practices must be maintained when applying topsoil Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.

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

warranty of the producer.

according to the applicable laws and must bear the name, trade name or trademark and

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

Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of

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), 410-3133-1855 after the future LOD and protected areas are marked clearly in the field. A minimum of 48 hours notice to CID must be given at the following stages: . 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 d. Prior to the removal or modification of sediment control practices.

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 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 glone can only be applied between the fall and spring seeding dates if the ground is frozen. ncremental 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 feet must be benched with stable outlet. All concentrated flow, steep slope, and highly erodible areas shall receive soi

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.

_____1.09___ Acres Total Area of Site: 0.32 Acres Area Disturbed (not including maintenance areas): Area to be roofed or paved (not including maintenance areas): Area to be vegetatively stabilized (not including maintenance areas): _______Acres ____ Cu Yds 900

Area Disturbed (including maintenance areas): Area to be roofed or paved (including maintenance areas): Area to be vegetatively stabilized (including maintenance areas): MAINTENANCE AREA DISTURBANCES ARE IMPROVEMENTS TO EXISTING INFRASTRUCTURE

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

 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 an=mount of last recorded • Brief description of project's status (e.g. percent complete) and/or current activities

 Identification of missing or improperly installed sediment controls Compliance status regarding the sequence of construction and stabilization requirements Monitoring/sampling • Maintenance and/or corrective action performed

can and shall be back filled and stabilized by the end of each work day, whichever is 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 revision may be allowed by the CID per the list of HSCD-approved field changes

9. Trenches for the construction of utilities is limited to three pipe lengths or that which

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

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

• Use III and IIIP October 1 - April 30 • Use IV March 1 - May 31

-UNDISTURBED EXTEND BOTH ENDS OF THE 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 SILT FENCE. CROSS SECTION 3 1/2 FT TYPICAL CROSS SECTION STEP 2 CONSTRUCTION SPECIFICATIONS CONSTRUCT BERM ON AN UNINTERRUPTED, CONTINUOUS GRAD INSTALL BERM TO CONFORM TO CROSS SECTION DIMENSIONS OF A UNIFORM HEIGHT OF 8 INCHES MINIMUM AND APPROXIMATE WIDTH OF 3½ FEET. . PROVIDE OUTLET PROTECTION AS REQUIRED ON PLAN. . COMPACT ASPHALT BERM REPAIR DAMAGED ASPHALT. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE UPON REMOVAL OF ASPHALT BERM, RETURN TO ORIGINAL CONDITIONS OR AS SPECIFIED ON APPROVED MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTRO U.S. DEPARTMENT OF AGRICULTURE 2011 PERMANENT SOIL STABILIZATION v10 = 3.10 fpsPSSMC- 1.5 lb/ft² DETAIL E-9-3 CURB INLET PROTECTION DETAIL E-9-2 AT-GRADE INLET PROTECTION MATTING CHANNEL APPLICATION AGIP CIP MAXIMUM DRAINAGE AREA = 1/4 ACRE — 2 FT MIN. LENGT OF 2 IN × 4 IN 2 IN x 4 IN WEIR-SANDBAG OR
OTHER APPROVE
ANCHORING MET 6 FT MAX. SPACING OF 1/2 TO 1/2 STONE 7 - 34 TO 11/2 IN STONE 2 IN x 4 IN ANCHORS, 2 FT MIN. LENGTH -2 IN x 4 IN SPACER CONSTRUCTION SPECIFICATIONS: USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS. -- 2 IN × 4 IN WEIR SECTION A-A PLAN / CUT AWAY VIEW LEDGE OF GUTTER PAN USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOKIC TO VEGETATION AND SEED GERMINATION AND NON-MUNICIOUS THE SKIN. IF PRESENT NETTING MUST BE EXTRIBED PLASTIC WITH A MUNICIPAL MUST OPENING OF 222 INCHES AND SEPTIONALLY SONDED OR SEWN ON 2 INCH CENTER'S ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL. -14 IN HARDWARE CLOTH CONSTRUCTION SPECIFICATIONS . USE NOMINAL 2 INCH x 4 INCH LUMBER SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MIRIMUM GALDE: OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND ISE A MIRIMUM OF 6 INCHES LOND. "T" SHAPED STAPLES MUST HAVE A MIRIMUM 8 INCH MAIN LEG, A MIRIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HAZD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LEDNIN, 1, AS INCH IN GROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS

CROSS SECTION

1. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.

CONSTRUCTION SPECIFICATIONS

SILT FENCE

ELEVATION

__36 IN MIN. FENCE POST LENGTH DRIVEN MIN. 16 IN INTO GROUND

FENCE POST 18 IN MIN.

ABOVE GROUND

16 IN MIN. HEIGHT OF WOVEN SLIT FILM GEOTEXTILE

DETAIL E-1

WOVEN SLIT FILM---

SEQUENCE OF CONSTRUCTION

PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SEEDING OFFRATIONS, UNLESS END OF WORKDAY STABILIZATION IS SECRIFIED ON THE APPROVED ENSION AND SEMBLET CONTROL PLAN.

UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WOR FROM CENTER OF CHANNEL OLTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SHIPPACE AND STRETCHING THE MATTING.

OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY ϵ Inches (minimum), with the upstream mat overlapping on top of the next downstream mat.

NERE INOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.

IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, O THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VIOLS WITH TOP SOIL OR GRANULAR MATERIAL AND LIFE COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.

ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE ONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.

DETAIL C-5 TEMPORARY ASPHALT BERM

NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF WORK

1. Hold on-site pre-construction meeting. Obtain Grading Permit. (Day 1) 2. Install Temporary Asphalt Berm and perimeter controls (Day 2-6)

3. Upon approval from the Howard County Sediment Control Inspector proceed to raze existing building, clear and grade within the perimeter. (Day 7-30) 4. Construct Proposed Building (Day 31-130)

applicable). 6. Install curb & gutter, and base paving. (Day 141-145)

7. Upon approval from the Howard County sediment control inspector,

remove remaining SEC devices and permanently stabilize the site. (Day

5. Install proposed ESD-BMP concurrent with the listed construction

activities, utilizing SEC as indicated on these plans (Day 131-140 as

PLACE CLEAN % TO 11/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL 2011 DETAIL E-9-1 STANDARD INLET PROTECTION -2 IN × 4 IN FRAMING TOP ELEVATION NOTCH ELEVATION WOVEN SLIT FILM 18 IN INTO GROUND -TYPE A TYPE B ISOMETRIC VIEW

DETAIL E-9-1 STANDARD INLET PROTECTION JSE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.

BACKFILL ARDUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.

DATE REVISION

BENCHMARK ● ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644 WWW.BEI-CIVILENGINEERING.COM

SECTION FOR TYPE A AND B



CONTRACT PURCHASER: COMMERCIAL SITE DEVELOPMENT PLAN **ROUTE 40 ACUTE CARE** FIRST CALL 10120 BALTIMORE NATIONAL PIKE (PARCEL A, ELLICOTT INVESTMENTS INC., PROPERTY / SDP-85-211 TAX MAP: 24 GRID: 02 PARCEL: 395 ZONED: B-2 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND SEDIMENT & EROSION CONTROL PLAN BEI PROJECT NO. 3012 DATE: JUNE, 2021 DRAFT: MCR SCALE: AS SHOWN ESIGN: MCR SHEET 5 of 14

For sandy soils, plant seeds at twice the depth listed above.

J:\3012 Rt 40 Acute Care\dwg\8000.dwg, 6/4/2021 2:28:59 PM, MRiedel

TEMPORARY STABLIZATION

and permanent stabilization Effects on Water Quality and Quantity

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 <u>2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL</u>, and revisions thereto.

stabilization matting (Sec. B-4-6).

Off-site waste/borrow area location: * IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY THE SPOIL/BORROW SITE AND NOTIFY AND GAIN APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR OF I SITE AND ITS GRADING PERMIT NUMBER AT THE TIME OF CONSTRUCTION. (EARTHWORK QUANTITIES ARE APPROXIMATE AND ARE FOR SEDIMENT & FROSION CONTROL PURPOSES ONLY, CONTRACTOR SHALL COMPUTE THEIR OWN EARTHWORK QUANTITIES TO THEIR SATISFACTION)

____0.06__ Acres ______0.05___ Acres (I:E UTILITY REPLACEMENT, HC RAMP UPGRADES, PAVING RE-SURFACING) THAT ARE NOT CONSIDERED WITHIN THE MDE RE-DEVELOPMENT SWM CRITERIA

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

• Evidence of sediment discharges Identification of plan deficiencies

Identification of sediment controls that require maintenance

• Use I and IP March 1 - June 15

• Other inspection items as required by the General Permit for Stormwater Associated with Construction Activities (NPDES, MDE).

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

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

16. A copy of this plan, the <u>2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL</u>, and associated permits shall be on—site and available

146-150)

HOWARD SOIL CONSERVATION DISTRICT. ENGINEER – CHRISTÖPHER A. MALAGARI, P.E. #22390 DATE

ENGINEER'S CERTIFICATE

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

DEVELOPER'S CERTIFICATE

/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A

HIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNE 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." DEVELOPER - NICOUS HAMMET FIRST CALL MEDICAL CENTER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 7. 28.21 CHIEF, DEVELOPMENT ENGINEERING DIVISION <u> 8/2/4</u> CHIEF, DIVISION OF LAND DEVELOPMENT 8-2.21

HOWARD SOIL CONSERVATION DISTRIC 07/06/2

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY TH

MEDICAL CENTER LLC 5005 SIGNAL BELL LANE SUITE 200 CLARKSVILLE, MD 21029 443-615-1759

USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEM GEOTEXTILE SECURELY TO LYPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.

SILT FENCE

USE WOOD POSTS 1 $\frac{1}{4}$ X 1 $\frac{1}{4}$ \pm $\frac{1}{16}$ Inch (Minimum) square cut of sound quality hardwood. As an alternative to wooden post use standard "t" or "u" section steel posts weighing not less than 1 pound per linear foot.

⊢----SF-----

EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AN COMPACT THE SOIL ON BOTH SIDES OF FABRIC.

WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.

ATTACH A CONTINUOUS PIECE OF % INCH GALVANIZED HARDWARE CLOTH, WITH A MINIMUM WIDTH O 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WER, EXTENDING IT 2 FEET BEYOND THROAT ON EACH SIDE. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING

2011

USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FFFT APART

DETAIL E-1

CONSTRUCTION SPECIFICATIONS

PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE OF THE SAME DIMENSIONS AS THE HARDWAR CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH TO THE 2x4 WEIR. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET LENGTH), EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD. FORM THE HARDWARE CLOTH AND THE GEOTEXTILE TO THE CONCRETE GUTTER AND FACE OF CURB TO SPAN THE INLET OPENING. COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN % TO 1% INCH STONE OR EQUIVALENT RECYCLED CONCRETE. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.

3. NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).

AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET

EXCAVATE COMPLETELY ARRUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVE I FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2X4 FRAME. SHOWN. STRETCH X INCH GALVANIZED HARDWARE CLOTH TIGHTLY ARDUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWAR

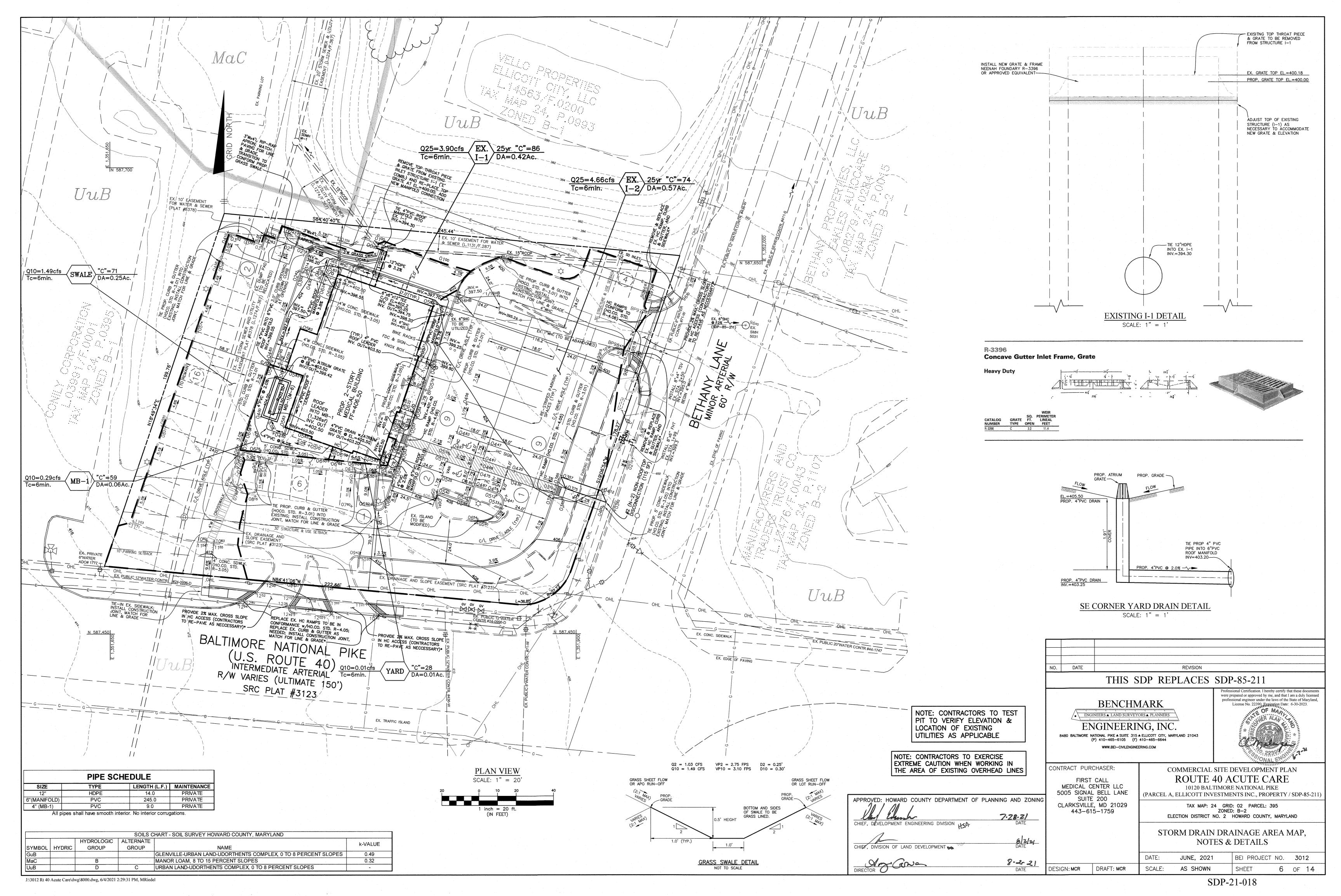
SDP-21-018

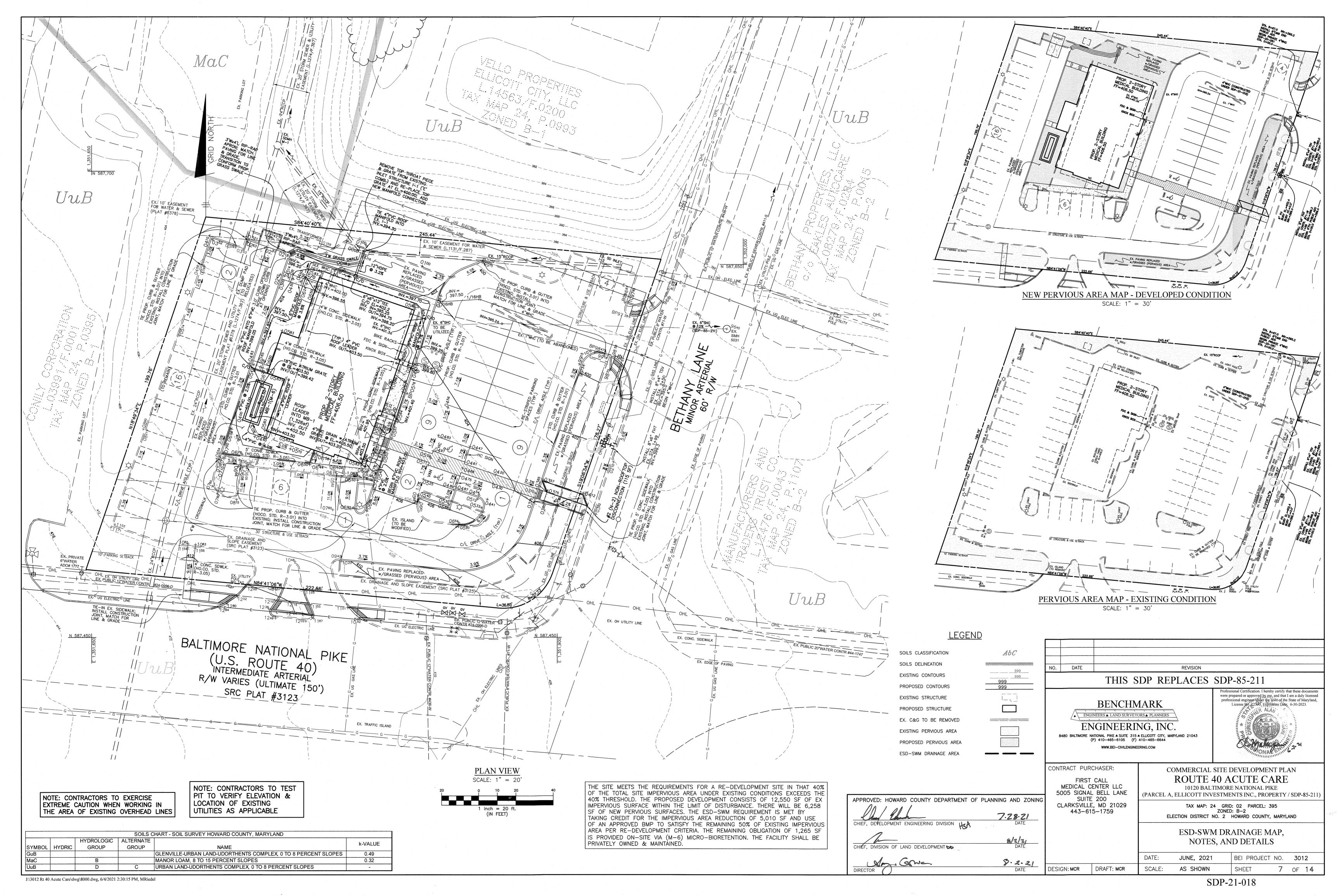
MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE
WATER MANAGEMENT ADMINISTRATION NATURAL RESOURCES CONSERVATION SERVICE 2011

STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEBIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGIN IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEDTEXTILE AND STONE.

2011

THIS SDP REPLACES SDP-85-211





CONSTRUCTION SPECIFICATIONS

B.4.C Specifications for Micro-Bioretention. Rain Gardens, Landscape Infiltration & Infiltration Berms 1. Material Specifications:

The allowable materials to be used in these practices are detailed in Table B.4.1.

2. Filtering Media or Planting Soil:

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro-bioretention practice that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:

- Soil Component Loamy Sand or Sandy Loam (USDA Soil Textural Classification)
- Organic Content Minimum 10% by dry weight (ASTM D 2974). In general, this can be met with a mixture of loamy and(60%-65%) and compost (35% to 40%) or sandy loam (30%), coarse sand (30%), and compost (40%).
- Clay Content Media shall have a clay content of less than 5%. • pH Range - Should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may be mixed into the soil to increase or

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated.

3. Compaction:

It is very important to minimize compaction of both the base of bioretention practices and the required backfill. When possible, use excavation hoes to remove original soil. If practices are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high-pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

Recommended plant material for micro-bioretention practices can be found in Appendix A, Section A.2.3.

5. Plant Installation:

Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2" to 3". Shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

6. Underdrains:

Underdrains should meet the following criteria:

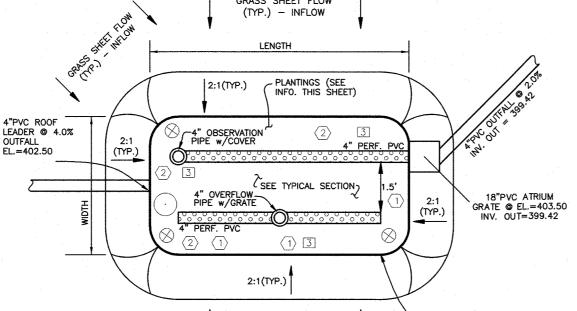
- Pipe- Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTMF 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4" rigid pipe (e.g., PVC or HDPE).
- Perforations If perforated pipe is used, perforations should be 3/6" diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with a 1/4" (No. 4 or 4x4) galvanized hardware cloth.
- Gravel The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain
- The main collector pipe shall be at a minimum 0.5% slope. A rigid, non-perforated observation well must be provided (one per every 1,0000 square feet) to provide a clean-out port and monitor
- performance of the filter A 4" layer of pea gravel (1/6" to 3/6" stone) shall be located between the filter media and underdrain to prevent migration of fines into the
- underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".

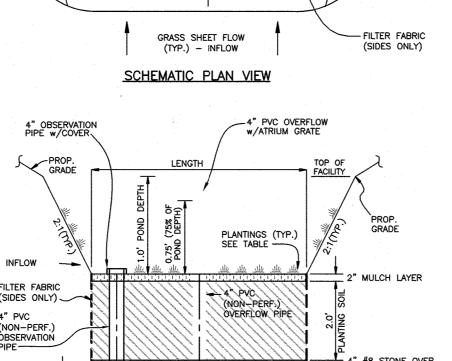
The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

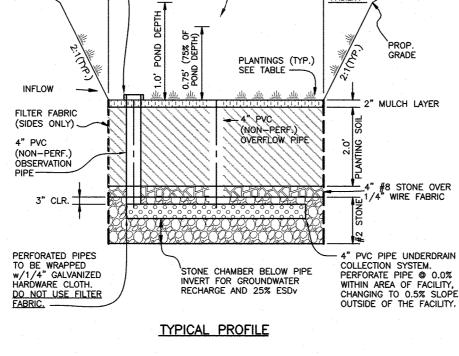
7. Miscellaneous:

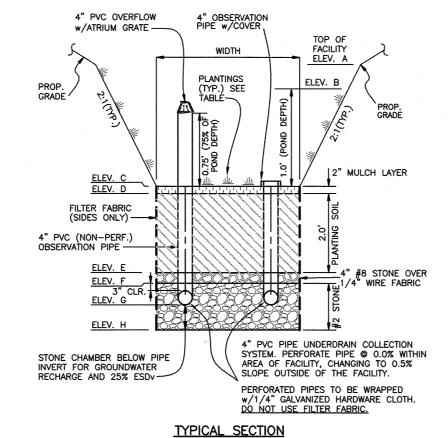
These practices may not be constructed until all contributing drainage area has been stabilized

MATERIA	LS & SPECIFICATIONS FO	R MICRO-BIC	RETENTION
MATERIAL	SPECIFICATION	SIZE	NOTES:
PLANTINGS	SEE APPENDIX A; TABLE A.4	N/A	PLANTINGS ARE SITE SPECIFIC
PLANTING SOIL (2.0' TO 4.0' DEEP)	LOAMY SAND 60-65% COMPOST 35-40% OR SANDY LOAM 30% COARSE SAND 30% & COMPOST 40%	N/A	USDA SOIL TYPES: LOAMY SAND OR SANDY LOAM; CLAY CONTENT <5%
ORGANIC CONTENT	MIN 10% BY DRY WEIGHT ASTM D 2974		
MULCH	SHREDDED HARDWOOD	N/A	AGED 6 MONTHS, MINIMUM, NO PINE OR WOOD CHIPS
GEOTEXTILE (CLASS "C")		N/A	PE TYPE 1 NONWOVEN
GEOTEXTILE (1/4" WIRE MESH)		1/4" WIRE MESH	1/4" WIRE MESH
UNDERDRAIN GRAVEL	AASHTO M-43	NO. 57 OR NO. 6 0.375" TO 0.750"	
UNDERDRAIN PIPING	F758, TYPE PS28 OR AASHTO M-278	4" TO 6" RIGID SCH.40 PVC, SDR35 OR HDPE	3/8" PERF. © 6" O/C, 4 HOLES PER ROW; MINIMUM OF 3" OF GRAVEL OVER PIPES, NOT NECESSARY UNDERNEATH PIPES. PIPE SHALL BE WRAPPED WITH 1/4-INCH GALVANIZED HARDWARE CLOTH
IMPERVIOUS LINER	ASTM-D-4833 (THICKNESS) ASTM-D-412 (TENSILE STRENGTH 1,100 LB., ELONGATION 200%) ASTM-D-624 (TEAR RESISTANCE - 150 LB./IN) ASTM-D-471 (WATER ADSORPTION: +8 TO -2% MASS)	30 MIL. THICK	LINER TO BE ULTRAVIOLET RESISTANT. A GEOTEXTILE FABRIC SHOULD BE USED TO PROTECT THE LINER FROM PUNCTURE.
GEOTEXTILE (BELOW IMPERV. LINER)	ASTM-D-4833 (PUNCTURE STRENGTH 125LB) ASTM-D-4632 (TENSILE STRENGTH 300 LB.)		

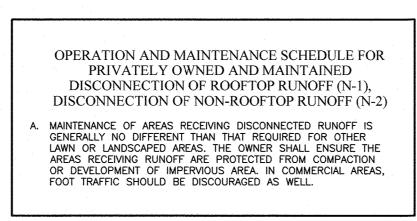








MICRO-BIORETENTION DETAILS NOT TO SCALE



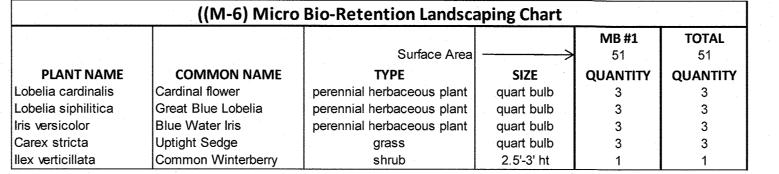
RE-DEVELOPMENT / ESD STORMWATER MANAGEMENT SUMMARY TABLE Required Provided equired Provided 2% DA? 2,512 1,326 PASS 128 38 Private 1.0 50 115 230 115 N/A 115 N/A 10 Private 1.0 10 1.0 0 2,742 1,441 53% 0.52 2,742 1,429 1.0 115

1. The Pe required column is based on total site Pe calculation. The Rv is based on individual drainage area percent impervious (per DED)

2. The ESDv Required for the (M-6) pratices is based on 75% of ESDv.

#2

			SOILS C	HART - SOIL SURVEY HOWARD COUNTY, MARYLAND	
		HYDROLOGIC	ALTERNATE		k-VALUE
SYMBOL	HYDRIC	GROUP	GROUP	NAME	K-VALUE
GuB				GLENVILLE-URBAN LAND-UDORTHENTS COMPLEX, 0 TO 8 PERCENT SLOPES	0.49
MaC		В		MANOR LOAM, 8 TO 15 PERCENT SLOPES	0.32
UuB		D	С	URBAN LAND-UDORTHENTS COMPLEX, 0 TO 8 PERCENT SLOPES	



(PLANTING SPECIES AND DENSITY CAN BE CHANGED OR SUBSTITUTED BY A LANDSCAPE ARCHITECT OR QUALIFIED DESIGNER)

MICRO-BIORETENTION (M-6) LANDSCAPE DATA

HYDROLOGIC ZONE 3 - REGULARLY INUNDATED SHORELINE FRINGE

(HIGH MARSH)
HYDROLOGIC CONDITION - 0" TO 1'-0" DEEP HARDINESS — TEMPERATE ZONE 66 (-5' TO 0')
SEE SHEET _ FOR SEQUENCE OF CONSTRUCTION

DESIGN MANUAL VOLUMES 1 & 2 FOR LANDSCAPE CONTRACTOR RESPONSIBILITIES, PRACTICES AND

OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

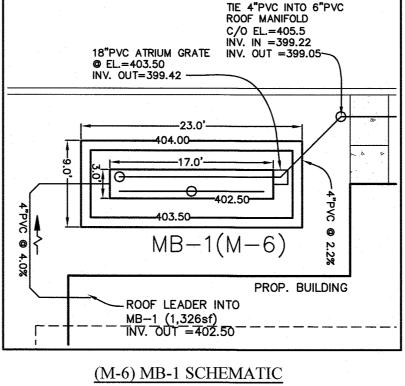
- A. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING, ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- B. THE OWNER SHALL PERFORM A PLANT INSPECTION IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- C. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- D. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

UNDERDRAIN, OVERFLOW AND OUTFALL NOTES

1. THE LAST CLEAN-OUT LOCATION WITHIN EACH MICRO-BIORETENTION FACILITY SHALL BE FITTED WITH A NON-CLOGGING SURFACE DRAIN (EXAMPLE: 4" ABS ROOF DRAIN W/CAST ALUMINUM DOME) AT THE POND SURFACE ELEVATION INDICATED IN THE CORRESPONDING TABLE ELEV. 2. 2. THE PVC WITHIN THE FACILITY SHALL BE PERFORATED.

3. THE UNDER-DRAIN AND PIPE TO OUTFALL SHALL BE INSTALLED TO A MINIMUM DEPTH OF 2' BELOW FINISHED GRADE AND SHALL MAINTAIN A MINIMUM 1% SLOPE AND MAINTAIN A MINIMUM OF 1' OF SEPARATION AT

MB-1	(M-6)
4	"PVC
Elevation A	404.00
Elevation B	403.50
Elevation C	402.50
Elevation D	402.33
Elevation E	400.33
Elevation F	400.00
Elevation G	399.42
Elevation H	396.98



MICROBIORETENTION PLANTING DATA

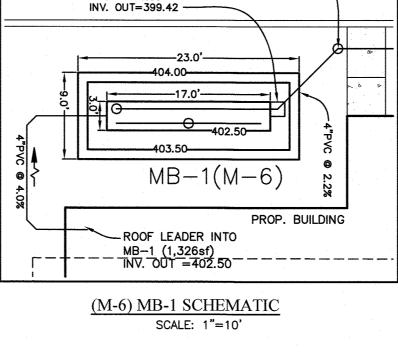
2. PLANTINGS ALONG THE PERIMETER (BERM) AREA OF THE

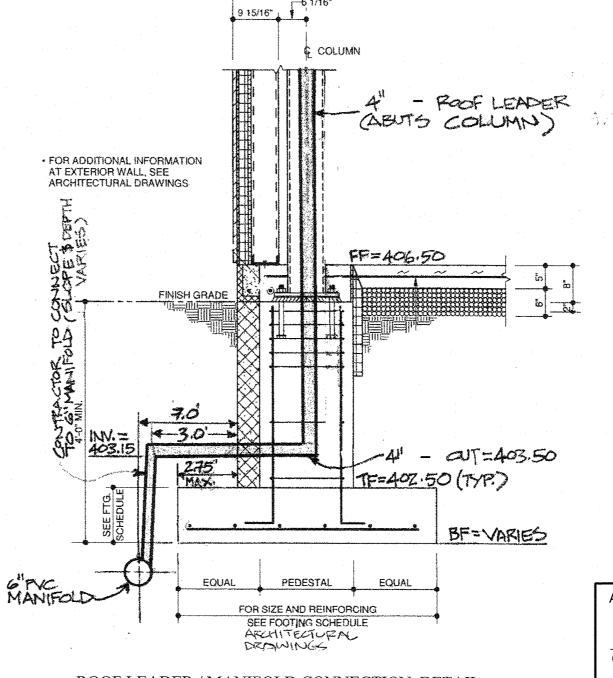
FACILITY ARE TO BE OF A LOW TO MEDIUM WATER TOLERANCE

3. AVOID PLANTINGS WITH EXCESSIVE ROOT MASS IN POND AREA OF THE MICRO-BIORETENTION NEAR O.B. PIPE AND UNDERDRAIN.

TO BE OF A MEDIUM TO HIGH WATER TOLERANCE

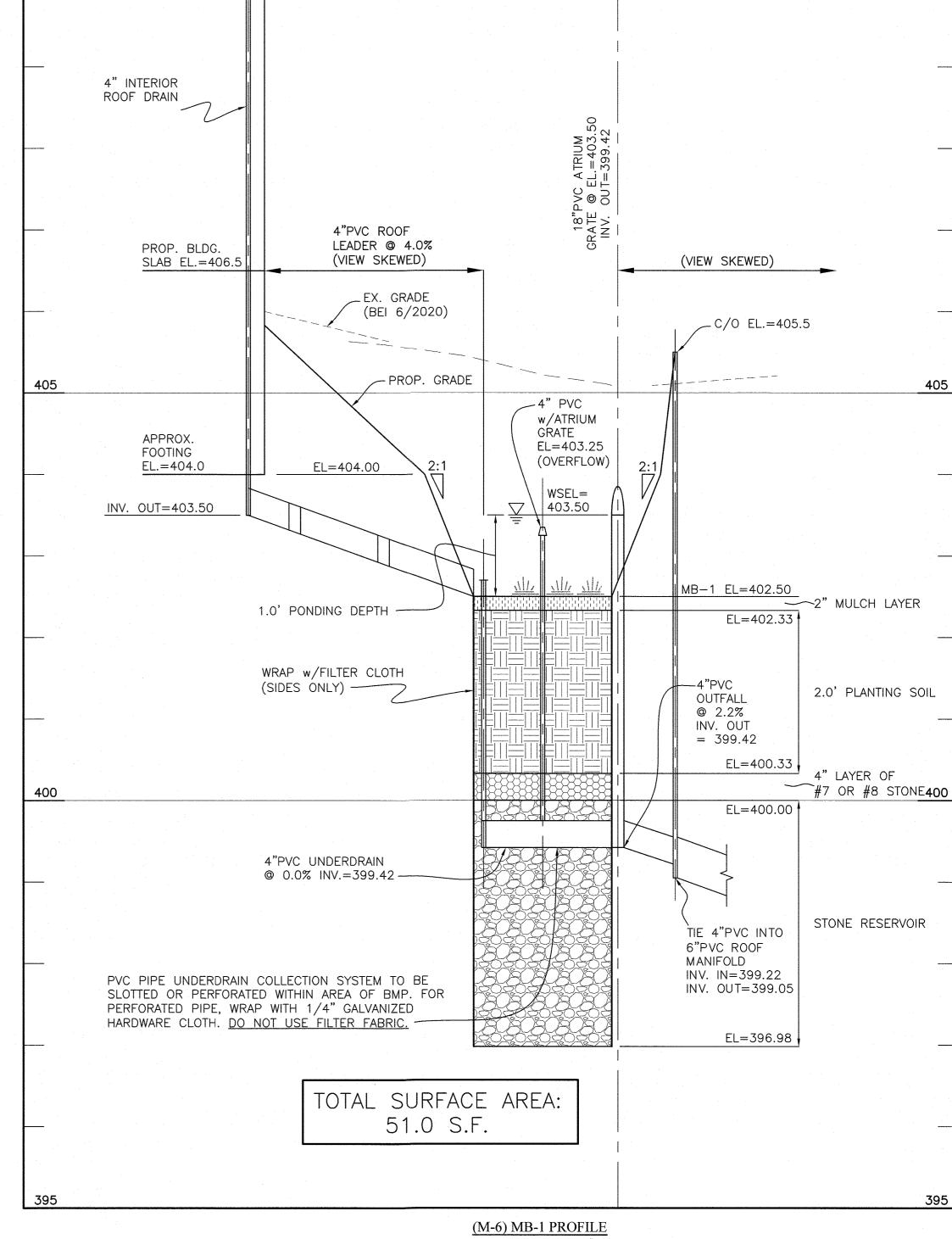
1. PLANTINGS WITHIN THE PONDING AREA OF THE FACILITY ARE





ROOF LEADER / MANIFOLD CONNECTION DETAIL

NOT TO SCALE



VERTICAL SCALE: 1"=1" HORIZONTAL SCALE: 1"=10'

DRAFT: MCR

DESIGN: MCR

SCALE:



FIRST CALL MEDICAL CENTER LLC 5005 SIGNAL BELL LANE APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING SUITE 200 CLARKSVILLE, MD 21029 443-615-1759 7.28.21 CHIEF, DEVELOPMENT ENGINEERING DIVISION

9-2-21

CHIEF, DIVISION OF LAND DEVELOPMENT PD

ROUTE 40 ACUTE CARE 10120 BALTIMORE NATIONAL PIKE (PARCEL A, ELLICOTT INVESTMENTS INC., PROPERTY / SDP-85-211 TAX MAP: 24 GRID: 02 PARCEL: 395

ZONED: B-2 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

SWM-BMP NOTES AND DETAILS DATE: JUNE, 2021 BEI PROJECT NO. 3012

> AS SHOWN SHEET SDP-21-018

8 of 14

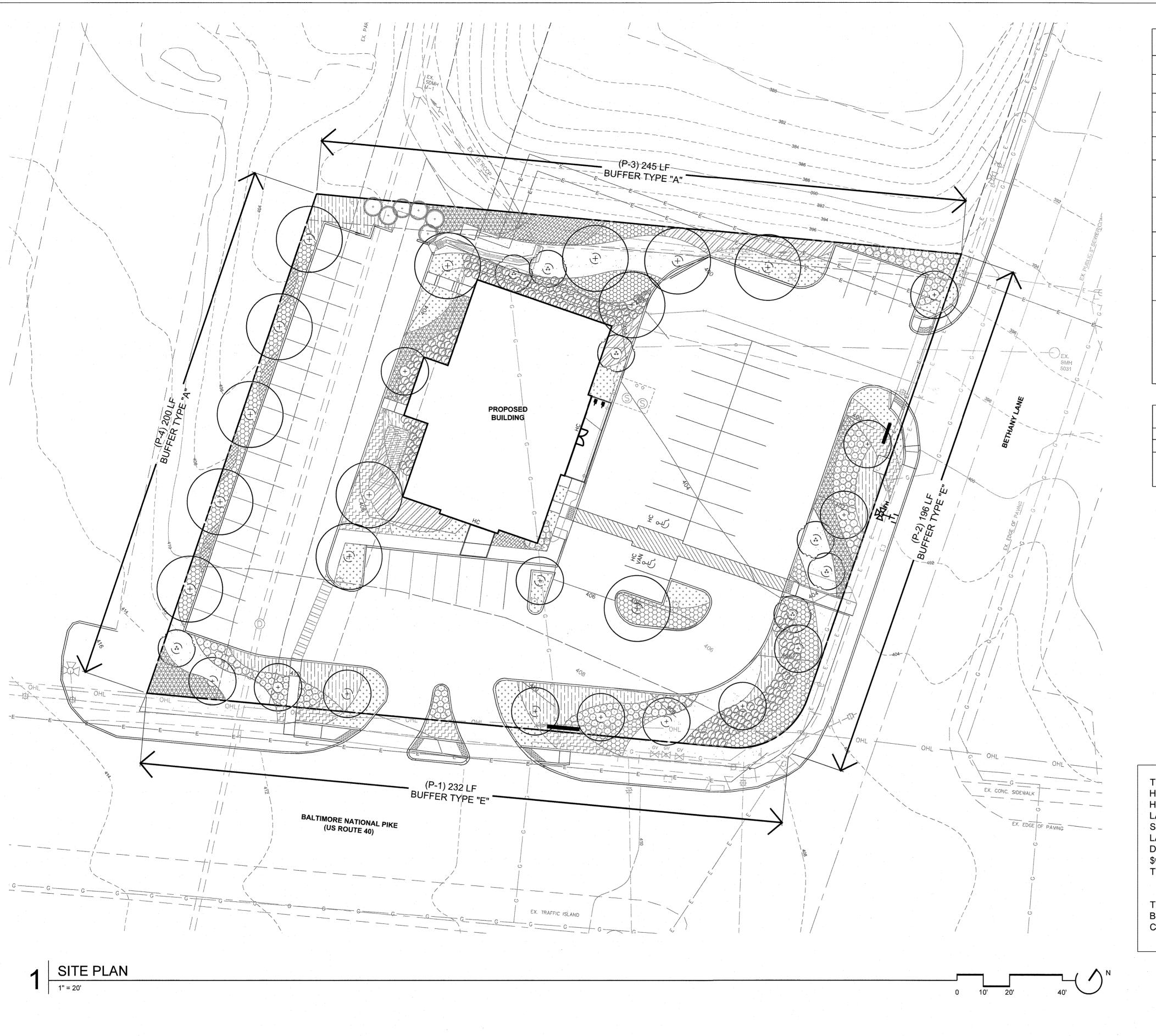
Practice

(M-6) Micro Bio-Retention

(N-2) Disconnection of Non-Rooftop Runoff

Totals per individual Drainage Area

Totals per Overall Site



SCHEDULE A PERIMETER LANDSCAPE EDGE						
CATEGORY	ADJACENT T	ADJACENT TO PERIMETER AND ROADWAYS				
PERIMETER	P-1	P-2	P-3	P-4		
Perimeter/Frontage Designation Landscape Type	E	E	А	А		
Linear Feet of Roadway Frontage/Perimeter	232 LF	196 LF	245 LF	200 LF		
Credit for Existing Vegetation (Yes, No, Linear Feet - Describe below if needed)	NO	NO	NO	NO		
Credit for Wall, Fence or Berm (Yes, No, Linear Feet - Describe below if needed)	NO	NO	NO	NO		
Subtotal (linear feet of perimeter - credits)	0	0	0	0		
Number of Plants Required Shade Trees Evergreen Trees Shrubs	1:40=6 0 1:4=58	1:40=5 0 1:4=49	1:60=4 0 0	1:60=3 0 0		
Number of Plants Provided Shade Trees Evergreen Trees Other Trees (2:1 Substitution) Shrubs (10:1 Substitution) Describe Plant Substitution Credits Below if needed	0 0 7 83	0 0 8 59	4 0 0 0	3 0 0 0		

50
3
3 -

PLANT SUBSTITUTION NOTES:

Small shade trees, ornamental trees, and shrubs have been substituted to achieve the shade tree planting requirements along perimeters P-1 & P-2 due to the existing overhead utility lines that run along Route 40 and Bethany Lane. Substitutions are as follows:

Perimeter P-1

6 small shade trees are substituted for 3 required shade trees. 1 Ornamental tree is substituted for 0.5 required shade trees. 25 shrubs are substituted for 2.5 required shade trees. Additional shrubs are provided along P-1 for screening purposes.

Perimeter P-2

5 small shade trees are substituted for 2.5 required shade trees. 3 ornamental trees are substituted for 1.5 required shade trees. 10 shrubs are substituted for 1 required shade tree. Additional shrubs are provided along P-2 for screening purposes.

THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL HAVE BEEN ADDRESSED BY A CERTIFIED LANDSCAPING PLAN APPROVED WITHIN THIS PLAN SET. THE FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING SHALL BE POSTED AS PART OF THE DEVELOPERS AGREEMENT IN THE AMOUNT OF \$9,510 FOR 7 SHADE TREES, 15 SMALL/ORNAMENTAL TREES, 142 SHRUBS & 3 INTERNAL SHADE TREES.

THE LANDSCAPING ALONG U.S. ROUTE 40 & BETHANY LANE RECEIVED BGE APPROVAL BY CORRESPONDENCE ON 12/12/2020.

> OWNER'S CERTIFICATE I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING. OWNER-NICOUE HAMMETTONICE FIRST COUNTRY

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING CHIEF, DEVELOPMENT ENGINEERING DIVISION CHIEF, DIVISION OF LAND DEVELOPMENT DESIGN: HT/KD | DRAFT: KD DIRECTOR

At the time of plant installation, all shrubs and trees listed and approved on the Landscape Plan, shall comply with the proper height requirement in accordance with the Howard County Landscape Manual. In addition, no substitutions or relocations of the required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviation from the approved Landscape Plan may result in denial or delay in the final release of the landscape plan until such time as all required materials are planted and/or revisions are made to the applicable plans

The owner, tenants, and/or their agents shall be responsible for maintenance of the required landscaping including both plant materials and berms, fences and walls. All plant materials shall be maintained in good growing condition, and when necessary, replaced with new materials to ensure continued compliance with applicable regulations. All other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.

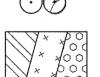
This plan has been prepared in accordance with Section 16.124 of the Howard County Code and Landscape Manual with a minimum of 21 shade trees, 0 evergreen trees and 107 shrubs.

PLANTING LEGEND.



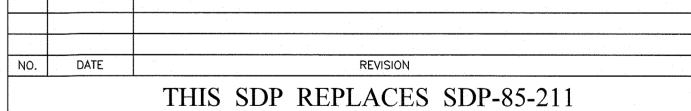
ORNAMENTAL TREE





PERENNIALS / ORNAMENTAL GRASSES / GROUNDCOVERS

EVERGREEN + DECIDUOUS SHRUB



BENCHMARK ● ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644

WWW.BEI-CIVILENGINEERING.COM

SCALE:

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed

CONTRACT PURCHAGER: FIRST CALL MEDICAL CENTER, LLC SOS SIGNAL BELL LAPE (PARCEL A, ELLICOTT INVESTMENTS INC., PROPERTY / SDP-85-211)

LARKSVILLE, MD ZIOZI

TAX MAP: 24 GRID: 02 PARCEL: 395 443-615-1759

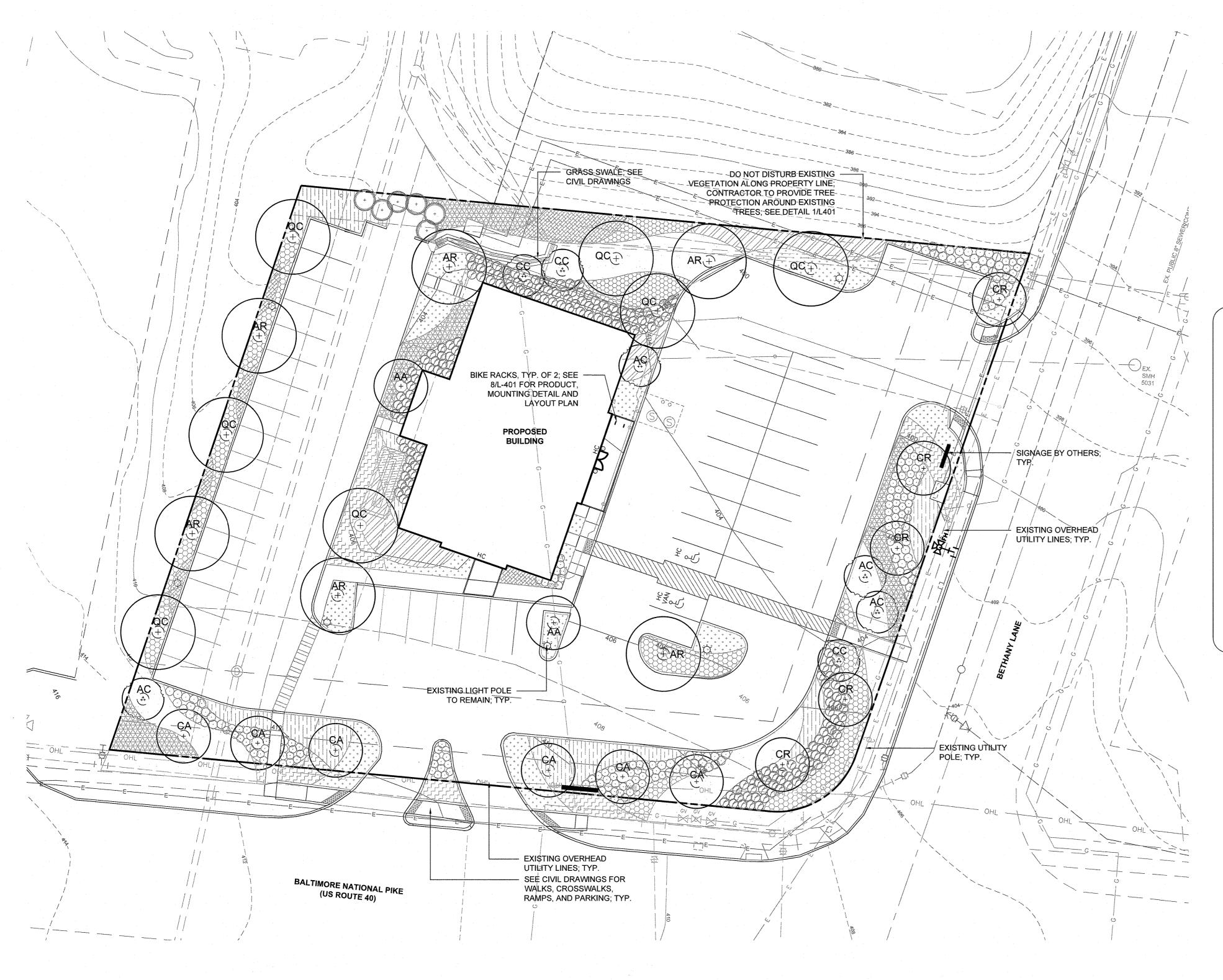
COMMERCIAL SITE DEVELOPMENT PLAN ROUTE 40 ACUTE CARE 10120 BALTIMORE NATIONAL PIKE

ZONED: B-2 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

L300 MINIMUM LANDSCAPE REQUIREMENTS DATE: JUNES 2021 BEI PROJECT NO. 3014

> AS SHOWN SHEET SOP-21-018

of 14



TREE PLANTING PLAN

PLANTING SCHEDULE (THIS SHEET ONLY) KEY BOTANICAL/COMMON NAME COMMENTS SIZE ROOT SHADE TREES Acer rubrum 'October Glory' / 2 1/2" Cal. Central Leader October Glory Red Maple Full Crown Acer rubrum 'Armstrong' / 2 1/2" Cal. Strong Central Leader Armstrong Red Maple Full Crown Carpinus caroliniana 2 1/2" Cal. Single Stem, Matched American Hornbeam Do Not Fall Dig Crataegus crus-galli var. inermis / 2 1/2" Cal. Single Stem, Matched Thornless Hawthorn Quercus coccinea/ 3" Cal. Strong Central Leader Do Not Fall Dig ORNAMENTAL TREES Multi-Stem 3 Cane Min.; 5 Cane Max Multi-Stem Cercis canadensis / 3 Cane Min.; 5 Cane Max.

GENERAL PLANTING NOTES:

- 1. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT TO
- COMPLETE ALL LANDSCAPE WORK AS SHOWN ON THE PLANS AND SPECIFICATIONS. 2. ALL PLANT MATERIALS SHALL CONFORM TO THE SIZES GIVEN IN THE PLANT LIST AND SHALL BE NURSERY GROWN IN ACCORDANCE WITH THE "AMERICAN STANDARD FOR NURSERY STOCK," LATEST EDITION. ANY PLANT MATERIAL EXHIBITING A SPINDLY OR LOP-SIDED HABIT OR ANY OTHER FEATURE THAT DETRACTS FROM ITS
- HEALTH OR APPEARANCE WILL BE REJECTED. 3. ALL PLANTING SHALL BE IN ACCORDANCE WITH STANDARD AMERICAN ASSOCIATION
- OF NURSERYMEN PROCEDURES AND SPECIFICATIONS. 4. CONTRACTOR SHALL VERIFY THE CORRECT LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE LANDSCAPED AREA PRIOR TO INSTALLATION OF ANY PLANT MATERIAL. IF CONDITIONS ARISE IN THE FIELD WHICH NECESSITATES SHIFTING OF THE PLANT MATERIAL, THE LANDSCAPE ARCHITECT IS TO BE CONSULTED PRIOR TO RELOCATION.
- 5. OBTAIN WRITTEN APPROVAL FROM LANDSCAPE ARCHITECT BEFORE MAKING ANY SUBSTITUTIONS OR CHANGES.
- 6. ALL PLANT BEDS AND TREE PITS SHALL HAVE A GRANULAR PRE-EMERGENT WEED CONTROL APPLIED PER MANUFACTURER'S RECOMMENDATIONS PRIOR TO
- PRECAUTIONS SHALL BE TAKEN TO AVOID DAMAGE TO EXISTING PLANTS, TURF AND STRUCTURES. ANY DAMAGED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS. ALL AREAS DISTURBED BY PLANTING OR GRADING OPERATIONS SHALL BE FINE GRADED AND SEEDED OR SODDED. ALL DEBRIS AND WASTE MATERIAL RESULTING FROM PLANTING OPERATIONS SHALL BE REMOVED FROM THE
- PROJECT AND CLEANED UP. 8. PLACE PLANTS FOR BEST APPEARANCE FOR REVIEW AND FINAL ORIENTATION BY
- LANDSCAPE ARCHITECT.
- 9. ALL PLANT BEDS SHALL BE CONTAINED WITH A 4" DEEP SPACED EDGE UNLESS
- OTHERWISE NOTED ON DRAWINGS.
- 10. ALL PLANT BEDS AND PLANTING AREAS TO BE MULCHED TO A DEPTH OF 2" UNLESS OTHERWISE NOTED ON DRAWINGS OR SPECIFICATIONS.

SOIL PREPARATION NOTES:

- 1. THESE NOTES SERVE AS A GENERAL GUIDE ONLY, PER CSI SPECIFICATION SECTION 329113 (SOIL PREPARATION); REFER TO STANDARD CSI SPECIFICATIONS SECTIONS 311000 (SITE CLEARING FOR TOPSOIL STRIPPING AND STOCKPILING) AND 329113 (SOIL PREPARATION) FOR DETAILED INSTRUCTIONS ON SITE CLEARING, EROSION CONTROL, SOIL STORAGE, TESTING, PRODUCTS AND EXECUTION PROCEDURES.
- THE CONTRACTOR SHALL ENGAGE A QUALIFIED TESTING AGENCY TO PERFORM PRECONSTRUCTION SOIL ANALYSIS ON EXISTING, ON-SITE SOIL AND IMPORTED SOIL. SOIL ANALYSIS/REPORT TO PROVIDE RECOMMENDATIONS ON: SOIL AMENDMENT, INCLUDING RECOMMENDATIONS FOR NITROGEN, PHOSPHORUS, AND POTASSIUM FERTILIZATION, AND FOR MICRONUTRIENTS; FERTILIZERS; SOIL-FERTILITY ANALYSIS ACCORDING TO SSSA NAPT SERA-6; AND ORGANIC MATTER CONTENT ACCORDING TO SSSA'S METHOD OF SOIL ANALYSIS PART 3 CHEMICAL METHODS. RECOMMENDATIONS TO BE PROVIDED IN WEIGHT PER 1000 SF FOR 6 INCH DEPTH OF SOIL.
- 3. SOIL MATERIALS TO BE DELIVERED PACKAGED IN ORIGINAL, UNOPENED CONTAINERS SHOWING WEIGHT, CERTIFIED ANALYSIS, NAME AND ADDRESS OF MANUFACTURER, AND COMPLIANCE WITH STATE AND FEDERAL LAWS IF APPLICABLE; APPROPRIATE CERTIFICATES TO ACCOMPANY DELIVERY OF BULK FERTILIZERS AND AMENDMENTS.
- 4. DO NOT DUMP/STORE BULK MATERIALS NEAR STRUCTURES, UTILITIES, PAVEMENT, OR EXISTING TURF OR PLANT AREAS; PROVIDE EROSION CONTROL MEASURES AS NEEDED.
- BASED ON SOIL AGENCY RECOMMENDATION, PROVIDE EITHER AMENDED ON-SITE SURFACE SOIL, OR IMPORTED MANUFACTURER SOIL CONSISTING OF MANUFACTURER'S BASIC SANDY LOAM ACCORDING TO USDA TEXTURES, BLENDED IN A FACILITY WITH SAND, STABILIZED ORGANIC SOIL AMENDMENTS, AND OTHER MATERIALS TO PRODUCE VIABLE PLANTING SOIL. SOIL MUST NOT CONTAIN ANY EXTRANEOUS MATERIALS THAT COULD BE HARMFUL TO PLANT GROWTH, NOR ANY STONES, ROOTS, POCKETS OF COURSE SAND, ETC., EXCEEDING 1 ½ INCHES IN ANY DIMENSION.
- 6. BLEND EITHER AMENDED ONSITE SOIL OR IMPORTED SOIL WITH LOOSE COMPACT TO SOIL RATIO OF 1:4 BY VOLUME.
- 7. APPLY INORGANIC AND ORGANIC SOIL AMENDMENTS AND FERTILIZERS PER
- RECOMMENDATION OF QUALIFIED SOIL TESTING AGENCY. 8. FOR EITHER PLACING AND MIXING PLANTING SOIL OVER EXPOSED SUBGRADE, OR PLACING MANUFACTURED PLANTING SOIL OVER EXPOSED SUBGRADE: TILL SUBGRADE TO A MINIMUM DEPTH OF 8 INCHES; APPLY HALF OF THICKNESS OF PLANTING SOIL OVER PREPARED, LOOSENED SUBGRADE, MIXING INTO TOP 4 INCHES OF SUBGRADE; SPREAD REMAINDER OF PLANTING SOIL TO TOTAL DEPTH INDICATED ON DRAWINGS, BUT NOT LESS THAN REQUIRED TO MEET FINISH GRADES AFTER NATURAL SETTLEMENT; COMPACT EACH LIFT OF PLANTING SOIL TO 75 TO 82 PERCENT OF MAXIMUM STANDARD PROCTOR DENSITY ACCORDING TO ASTM D698 EXCEPT WHERE DIFFERENT COMPACTON IS INDICATED ON DRAWINGS; GRADE PLANTING SOIL TO A SMOOTH, UNIFORM SURFACE
- AND FILL DEPRESSIONS TO MEET FINISH GRADES. 9. IDENTIFY PROTECTION ZONES ACCORDING TO SECTION 015639 (TEMPORARY TREE AND PLANT PROTECTION), AND PROHIBIT PRACTICES IN THESE AREAS SUCH AS STORAGE OF MATERIALS, PARKING VEHICLES OR EQUIPMENT, VEHICLE OR FOOT TRAFFIC, ERECTION OF STRUCTURES, IMPOUNDMENT OF WATER, AND EXCAVATION.

PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE; AND ROLL AND RAKE TO REMOVE RIDGES

- 10. IF PLANTING SOIL OR SUBGRADE IS OVERCOMPACTED, DISTURBED, OR CONTAMINATED BY FOREIGN OR DELETERIOUS MATERIALS OR LIQUIDS, REMOVE THE PLANTING SOIL AND CONTAMINATION AND RESTORE SUBGRADE AND REPLACE CONTAMINATED PLANTING SOIL WITH NEW PLANTING SOIL
- 11. PROTECT AREAS ADJACENT TO PLANTING SOIL PREPARATION AND PLACEMENT AREAS FROM CONTAMINATION. KEEP ADJACENT PAVING AND CONSTRUCTION CLEAN AND
- WORK AREA IN AN ORDERLY CONDITION. 12. REMOVE SURPLUS SOIL AND WASTE MATERIAL INCLUDING EXCESS SUBSOIL, UNSUITABLE MATERIALS, TRASH, AND DEBRIS AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY UNLESS OTHERWISE INDICATED.

OWNER'S CERTIFICATE I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING. OWNER-NIZOE HAMMETT FIRST LAW MEDICAL COUTER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING CHIEF, DEVELOPMENT ENGINEERING DIVISION CHIEF, DIVISION OF LAND DEVELOPMENT DESIGN: HT/KD DRAFT: KD

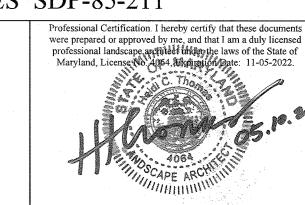
NO. DATE REVISION THIS SDP REPLACES SDP-85-211

BENCHMARK ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS

ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315 ▲ ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644

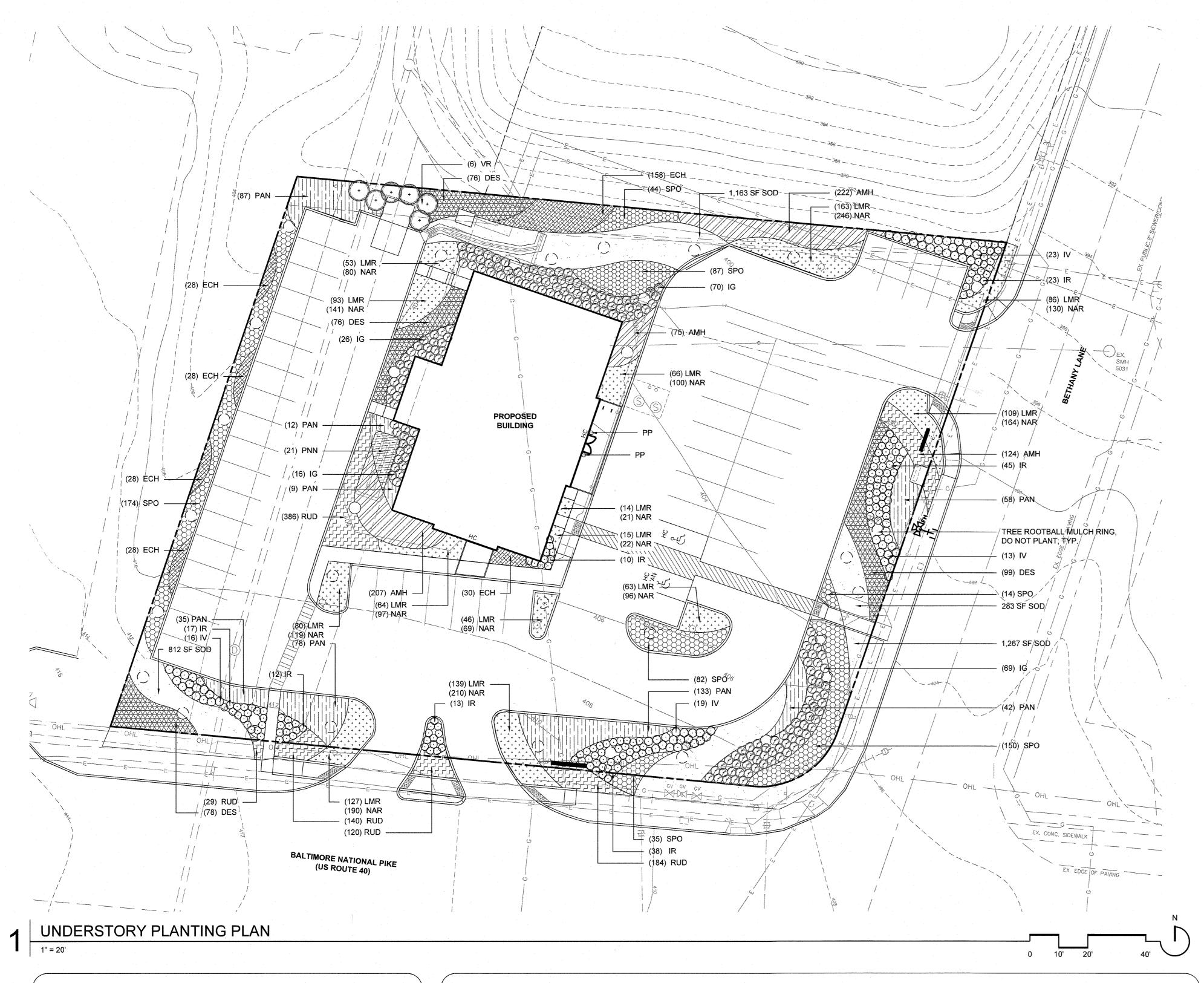
SCALE:

WWW.BEI-CIVILENGINEERING.COM



CONTRACT PURCHASER: COMMERCIAL SITE DEVELOPMENT PLAN ROUTE 40 ACUTE CARE FIRST CALL MEDICAL CENTER, UC 10120 BALTIMORE NATIONAL PIKE SOUS SKAPAL BELL LANE (PARCEL A, ELLICOTT INVESTMENTS INC., PROPERTY / SDP-85-211) 501TE 200 CLAPKSVILLE, MY ZIOB TAX MAP: 24 GRID: 02 PARCEL: 395 ZONED: B-2 443-615-1759 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND L301 TREE PLANTING PLAN JUNE 2021 BEI PROJECT NO. 3014

AS SHOWN



GENERAL PLANTING NOTES:

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PROJECT AND CLEANED UP.

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SOIL PREPARATION NOTES:

PER 1000 SF FOR 6 INCH DEPTH OF SOIL.

RATIO OF 1:4 BY VOLUME.

- THESE NOTES SERVE AS A GENERAL GUIDE ONLY, PER CSI SPECIFICATION SECTION 329113 8. FOR EITHER PLACING AND MIXING PLANTING SOIL OVER EXPOSED SUBGRADE, OR PLACING (SOIL PREPARATION); REFER TO STANDARD CSI SPECIFICATIONS SECTIONS 311000 (SITE CLEARING FOR TOPSOIL STRIPPING AND STOCKPILING) AND 329113 (SOIL PREPARATION) FOR DETAILED INSTRUCTIONS ON SITE CLEARING, EROSION CONTROL, SOIL STORAGE, TESTING, PRODUCTS AND EXECUTION PROCEDURES.
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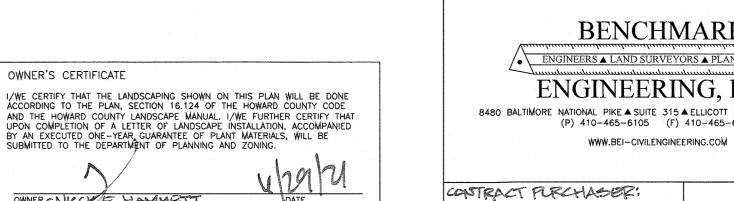
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MATERIALS, TRASH, AND DEBRIS AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY UNLESS OTHERWISE INDICATED.

QTY.	KEY	BOTANICAL/COMMON NAME	SIZE	ROOT	COMMENTS
SHRUBS					
184	IG	Ilex glabra ' Compacta' / Compact Inkberry	#3	Cont.	24" Spd.
74	IV .	llex verticillata 'Jim Dandy' / Jim Dandy Winterberry	#5	Cont.	30" Spd.
159	IR	Ilex verticillata 'Red Sprite' / Red Sprite Winterberry	#3	Cont.	24" Spd.
6	VR	Viburnum × rhytidophylloides 'Alleghany'/ Alleghany	#7	Cont.	24"-36"Ht.; Matche
ROUNDC	OVERS/P	ERENNIALS/ORNAMENTAL GRASSES			
628	AMH	Amsonia hubrichti / Threadleaf Bluestar	#1	Cont.	18" O.C.
426	DES	Deschampsia cespitosa 'Goldtau' / Tufted hairgrass	#1	Cont.	24" O.C.
300	ECH	Echinacea x Butterfly 'Orange Skipper'/ Coneflower	#1	Cont.	18" O.C.
1,103	LMR	Liriope muscari 'Royal Purple' Royal Purple Lilyturf	#1	Cont.	15" O.C.
1,700	NAR	Narcissus 'Oh Paris' Daffodil 'Oh Paris' Blend		Bulb	8" O.C.
454	PAN	Panicum virgatum 'Cape Breeze' / Cape Breeze Switchgrass	#1	Cont.	24" O.C.
21	PNN	Panicum virgatum 'Northwind' / Northwind Switchgrass	#1	Cont.	30" O.C.
859	RUD	Rudbeckia fulgida 'Little Goldstar' / Black-eyed Susan	#1	Cont.	12" O.C.
586	SPO	Sporobolus heterolepis Prarie Dropseed	#1	Cont.	24" O.C.
GROUNDC	OVERS/P	ERENNIALS/ORNAMENTAL GRASSES			
2	PP	2 Perennials and 1 Annual Per Pot//	4"	Cont.	See Details 7/I401

PLANTING SCHEDULE (THIS SHEET ONLY)



FIRST CALL MEDICAL CENTER, LLC SUITE 200 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING CLARKSVILLE, MD ZIOZE 443-615-1759 CHIEF, DEVELOPMENT ENGINEERING DIVISION CHIÉF, DIVISION OF LAND DEVELOPMENT

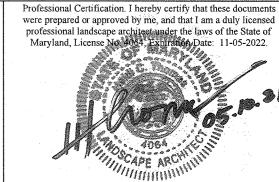
OWNER'S CERTIFICATE

NO. DATE REVISION THIS SDP REPLACES SDP-85-211

SCALE:

BENCHMARK ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE A SUITE 315 A ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644

DESIGN: HT/KD DRAFT: KD



COMMERCIAL SITE DEVELOPMENT PLAN ROUTE 40 ACUTE CARE 10120 BALTIMORE NATIONAL PIKE SCUS SIGNAL BELLIANE (PARCEL A, ELLICOTT INVESTMENTS INC., PROPERTY / SDP-85-211) TAX MAP: 24 GRID: 02 PARCEL: 395 ZONED: B-2 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

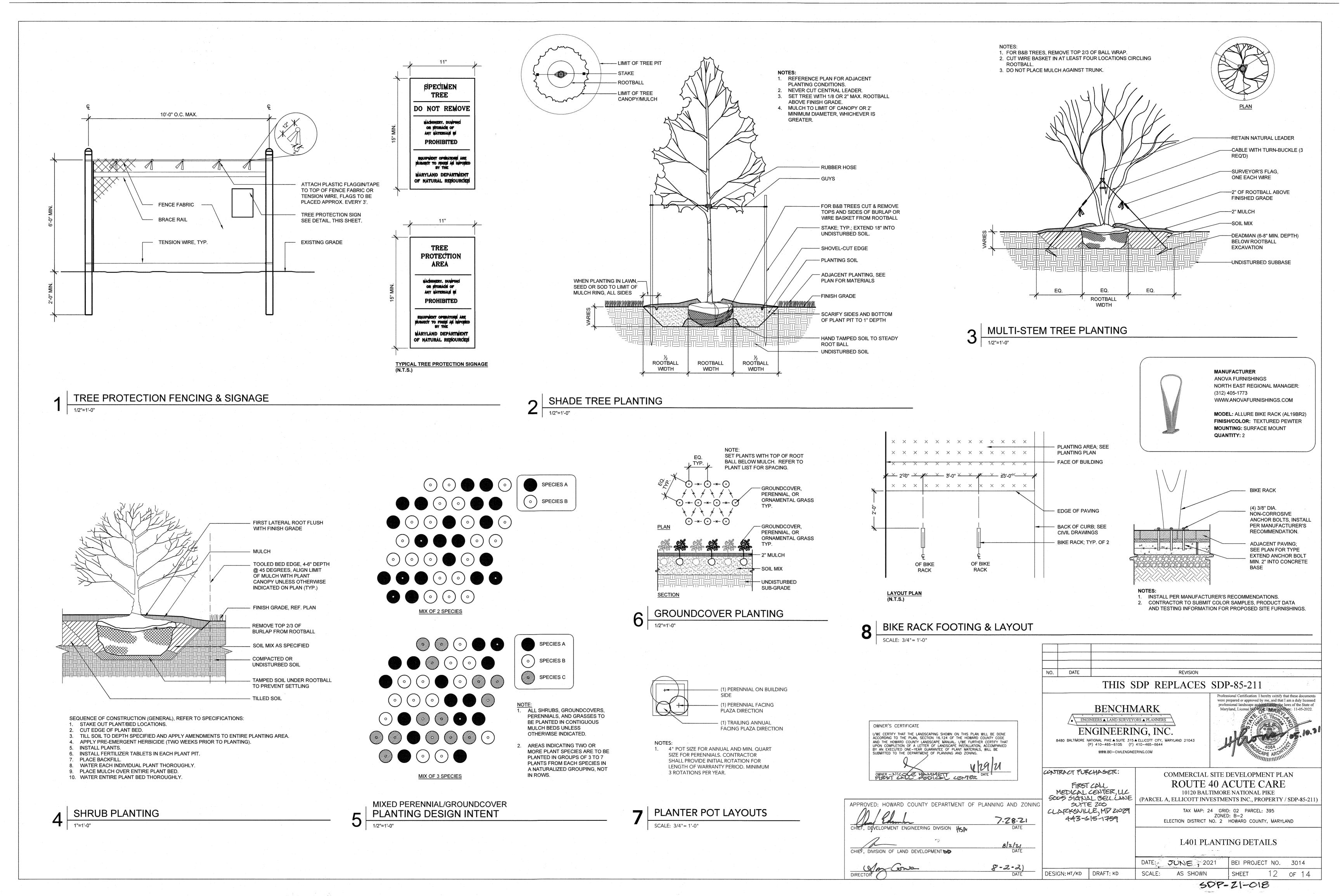
L302 UNDERSTORY PLANTING PLAN

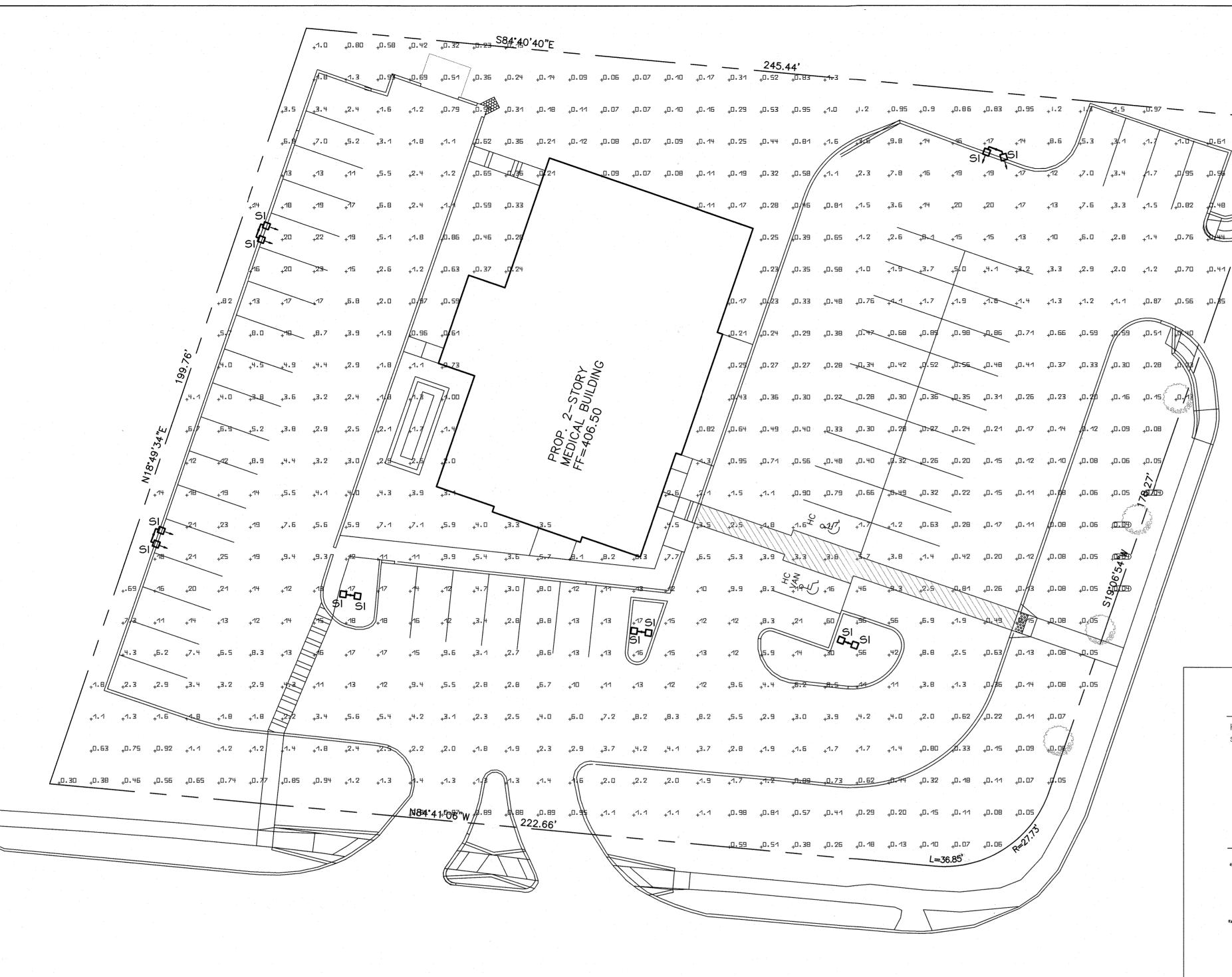
11 of 14

JUNE 2021

SDP-21-018

BEI PROJECT NO. 3014

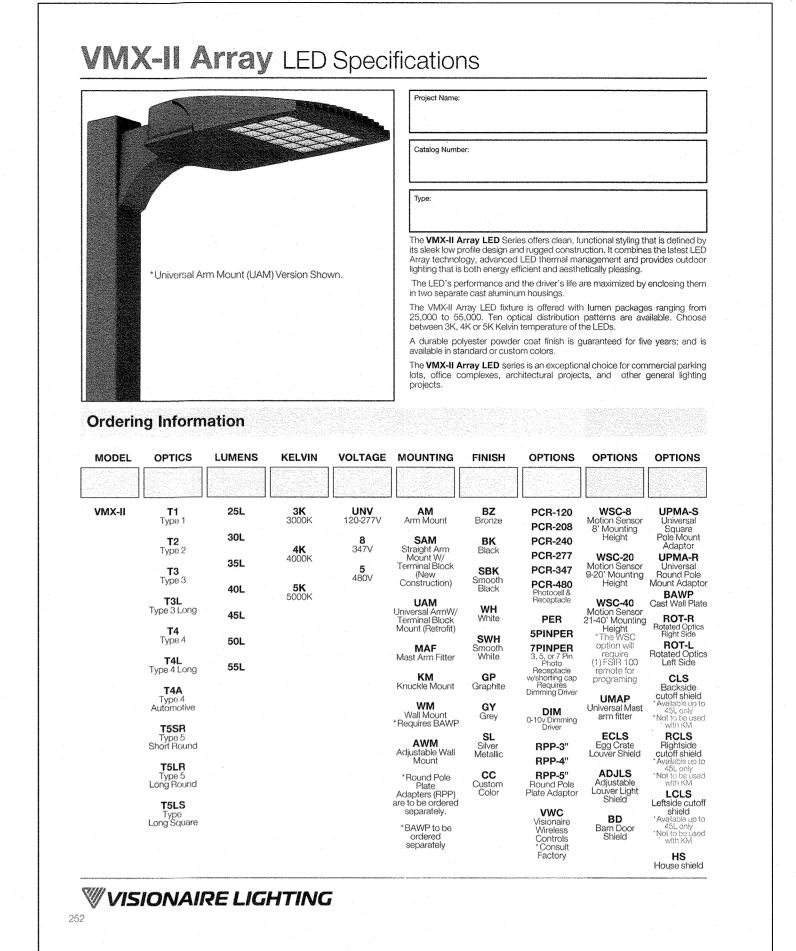


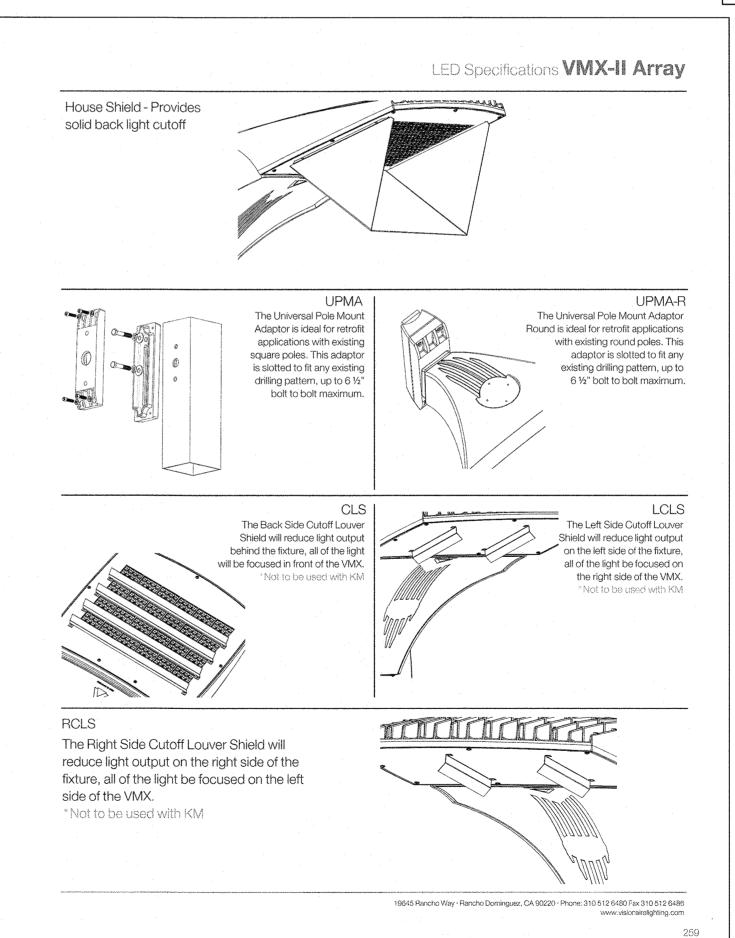


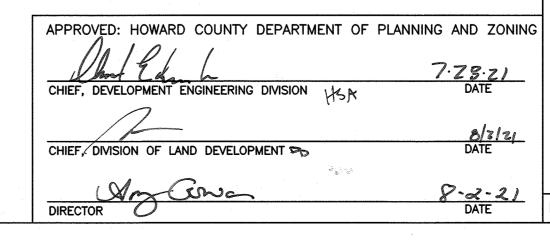
PHOTOMETRIC PLAN SCALE: 1/16"=1'-0"

Luminaire parts list								
Index	Manufacturer	DESCRIPTION	Item number		Luminous flux	Light loss factor	Connected load	Quantity
S1	VISIONAIRE Lighting	4000K, Type 4A LIGHT Distribution, REAR SIDE SHIELD AND PHOTOCELL	VMX-II T4A 25L 4K UNV UAM BK PCR-208 CLS		25241 lm	0.80	189.5 W	12

 #	Name	Parameter	Min	Max	Average	Mean/Min	Max/Min
 1	Calculation surface 1	Perpendicular illuminance	0.037 fc	60 fc	4.88 fc	130.7	1621









•	DATE	REVISION	
		THIS SDP REPLACES	SDP-85-211
8	ENGINE NA BALTIMORE NA	BENCHMARK INTERNAL LAND SURVEYORS & PLANNERS INTERNAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043 P) 410-465-6105 (F) 410-465-6644 WWW.BEI-CIVILENGINEERING.COM	Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No 1944 Expiration Date 3 (3 (1) - 3

CONTRACT PURCHASER:

FIRST CALL
MEDICAL CENTER LLC
5005 SIGNAL BELL LANE
SUITE 200
CLARKSVILLE, MD 21029
443-615-1759

DRAFT: MCR

COMMERCIAL SITE DEVELOPMENT PLAN
ROUTE 40 ACUTE CARE
10120 BALTIMORE NATIONAL PIKE
(PARCEL A, ELLICOTT INVESTMENTS INC., PROPERTY / SDP-85-211)

TAX MAP: 24 GRID: 02 PARCEL: 395

ZONED: B-2

ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

PHOTOMETRIC PLAN

JUNE 3, 2021

DATE:

SCALE:

AS SHOWN SHEET 13 OF 14

BEI PROJECT NO. 3014

SDP-21-018

