	SHEET INDEX								
SHEET	SHEET NO. DESCRIPTION								
1		TITLE SHEET							
2		EXISTING CONDITIONS PLAN							
3		SUPPLEMENTAL PLAN							
4		LANDSCAPE PLAN & DETAILS							
5		GRADING, SEDIMENT AND EROSION CONTROL PLAN							
6		SWM NOTES, DETAILS AND BORINGS							
7		SEDIMENT EROSION CONTROL NOTES AND DETAILS							
8		SEDIMENT EROSION CONTROL, TRAFFIC CONTROL							
9		SWM AND SEDIMENT CONTROL DRAINAGE AREA MAP							

LEGEND

EXISTING FENCE SPOT ELEVATION

EXISTING STORM DRAIN

EXISTING WATER LINE

EXISTING SEWER LINE

PROPOSED PAVING

PRIVATE UIC EASEMENT

LIMIT OF DISTURBANCE

DF/TP — DIVERSION FENCE/TREE PROTECTION FENCE

EXISTING DRAINAGE DIVIDE

PROPOSED ROOF LEADER

SPECIMEN TREE

CRITICAL ROOT ZONE

SITE ANALYSIS DATA CHART

C. PRESENT ZONING DESIGNATION = R-20

TOTAL AREA OF EXISTING FOREST

EXCLUDES EXISTING IMPERVIOUS

O. TOTAL AREA OF ERODIBLE SOILS

TOTAL AREA OF FOREST TO BE RETAINED

TOTAL GREEN OPEN AREA (PERVIOUS)

(SWM BASED ON LOD)

N. TOTAL IMPERVIOUS AREA

A. TOTAL AREA OF THIS SUBMISSION = 1.82 AC.±.

LIMIT OF DISTURBED AREA = 55,502 Sq.Ft. (1.27 Ac.±)

(PER 10/06/2013 COMPREHENSIVE ZONING PLAN)

PREVIOUS HOWARD COUNTY FILES: ECP-19-055

PROPOSED USE: RESIDENTIAL SINGLE FAMILY DETACHED

TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0 AC

TOTAL AREA OF SLOPES IN EXCESS OF 25% = 0 AC±

TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0 AC.±

TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0 AC. ±

TOTAL AREA OF LOTS / BUILDABLE PARCELS = 1.82 AC±

 $= 1.61 AC \pm$

 $= 0 AC \pm$

= 0.21 AC± (WITHIN LOD)

B-1 DENOTES SWM TEST BORING LOCATION

PROPOSED PERVIOUS PAVING

DENOTES EXISTING TREES TO REMAIN

SOIL LINES AND TYPES

EXISTING TREE LINE

PROPOSED TREE LINE

5T 3

PRIVATE DRAINAGE & UTILITY EASEMENT

EXISTING OVERHEAD WIRE

EXISTING CONTOUR 2' INTERVAL

EXISTING CONTOUR 10' INTERVAL PROPOSED CONTOUR 10' INTERVAL PROPOSED CONTOUR 2' INTERVAL

DESCRIPTION

SUPPLEMENTAL PLAN POPE PROPERTY

LOTS 1 THRU 3 A RESUBDIVISION OF EDWIN BASSLER PROPERTY - LOT 2 R-20 (RESIDENTIAL: SINGLE) DISTRICT TAX MAP No. 35 GRID No. 12 PARCEL NO. 179

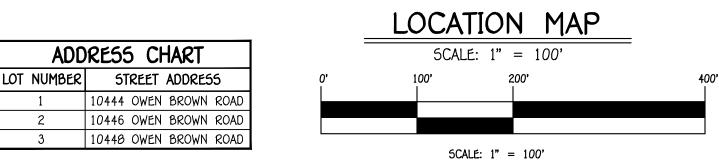
GENERAL NOTES CONTINUED

- 32. THIS PROJECT IS SUBJECT TO WP-23-038, AN ALTERNATIVE COMPLIANCE PURSUANT TO SECTIONS 16.144(r)(1)(iii) AND 16.104(a)(1) OF THE HOWARD COUNTY PLANNING, ZONING, AND SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, APPROVED ON DECEMBER 12, 2022, AND THE FOLLOWING CONDITIONS: 1. SUBMISSION OF THE PLAT AND SUPPLEMENTAL PLANS FOR THE CREATION OF THE PROPOSED 3 LOTS 2. INCLUDE THE ALTERNATIVE COMPLIANCE FILE NUMBER, REQUESTED SECTION, DECISION DATE, AND
- CONDITIONS OF APPROVAL ON THE PLAT, SUPPLEMENTAL PLAN, AND ALL SUBSEQUENT PLANS AS A
- 16.132(a)3iii.c. 16.134(a)(1)(ii). AND 16.135 OF THE PLANNING. ZONING. AND SUBDIVISIONS AND LAND DEVELOPMENT REGULATIONS, OB FEBRUARY 1, 2024 THE PLANNING AND ZONING DENIED THE REQUEST FOR ALTERNATIVE COMPLIANCE FOR SECTION 16.132(a)3iii.c. REGARDING ROAD IMPROVEMENTS ALONG OWEN BROWN ROAD. PLANNING AND ZONING FOUND THAT NO ACTION IS REQUIRED FOR SECTIONS 16.134(a)(1)(II) FOR SIDEWALK AND WALKWAY REQUIREMENTS, AND SECTION 16.135 FOR STREET LIGHTING. 4. APPROVAL OF A SITE DEVELOPMENT PLAN IS REQUIRED FOR THE DEVELOPMENT OF RESIDENTIAL LOTS WITHIN THIS SUBDIVISION PRIOR TO ISSUANCE OF ANY GRADING OR BUILDING PERMITS FOR NEW HOUSE CONSTRUCTION IN
- ACCORDANCE WITH SECTION 16.155 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS 5. OPEN SPACE REQUIREMENTS ARE PROVIDED BY A FEE-IN-LIEU PAYMENT OF \$3,000.00. 16. ANY EXISTING WELLS AND/OR SEPTIC SYSTEMS MUST BE PROPERLY ABANDONED AND NOTIFICATION OF SUCH
- SUBMITTED TO THE HOWARD COUNTY HEALTH DEPARTMENT. . SOILS INFORMATION IS TAKEN FROM NRCS WEB SOIL SURVEY
- 36. THERE ARE NO CREDITED STEEP SLOPES OF 25% OR GREATER ON-SITE. THERE ARE NO NON-CREDITED STEEP SLOPES PER SECTION 16.116(B)(1)(I) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. 9. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF T MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MdMUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE I O. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN
- MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. A GALVANIZED STEEL POLE
- 12. EXISTING UTILITIES WERE FIELD LOCATED. 43. A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY -BUREAU OF HIGHWAYS AT THE DEVELOPERS / OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION
- AT (410) 313-2430 FOR DETAILS AND COST ESTIMATE. 4. TRAFFIC CONTROL DEVICE LOCATION SHOWN ON THE PLANS IS APPROXIMATE AND MUST BE FIELD APPROVED I HOWARD COUNTY - TRAFFIC DIVISION (410) 313-2430 PRIOR TO INSTALLATION."
- 45. ON AUGUST 14, 2023 THE PLANNING DIRECTOR APPROVED A FEE-IN-LIEU PAYMENT FOR PROVIDING ROAD IMPROVEMENTS IN THE AMOUNT OF \$40,100,00
- 47. THE PRIVATE USE-IN-COMMON DRIVEWAY & UTILITY EASEMENT FOR THE BENEFIT OF LOTS 1 THRU 3, POPE PROPERTY AND LOTS 18 THRU 20, EDWIN BASSLER SUBDIVISIONS IS RECORDED WITH THE FINAL PLAT.

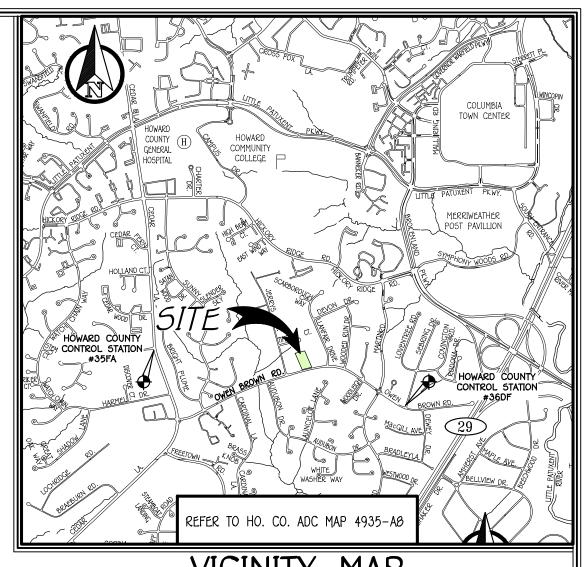
FOREST CONSERVATION WORKSHEET FOR POPE PROPERTY **Net Tract Area** A. Total (Gross) Tract Area Area within 100-year Floodplain Other Deductions (Identify: Net Tract Area **Land Use Category** Insert the number "1" under the appropriate land use (limit to only one entry) Resid. Resid. Inst./ Retail/Ind./ Mixed Use/ Rural LD Rural MD Suburban Linear Office PUD 0 0 1 0 0 E. Afforestation Threshold (Net Tract Area x Reforestation Threshold (Net Tract Area x **Existing Forest Cover** G. Existing Forest Cover within the Net Tract Area Area of Forest above Afforestation Threshold Area of Forest above Reforestation Threshold **Break Even Point** J. Break Even Point . Forest Clearing Permitted without Mitigation Proposed Forest Clearing Total Area of Forest to be Cleared Total Area of Forest to be Retained Planting Requirements Inside Watershed N. Reforestation for Clearing above the Reforestation Threshold Reforestation for Clearing below the Reforestation Threshold Credit for Retention above the Reforestation Threshold Total Reforestation Required Total Afforestation Required Total Reforestation and Afforestation Requirement 75% of Total Obligation (Retention + Planting) / Planting Required Onsite to meet 75% Obligation Planting Requirements Outside Watershed W. Total Planting within Development Site Watershed Total Afforestation Required Remaining Planting within Watershed for Reforestation Credit Z. Reforestation for Clearing above the Reforestation Threshold AA. Reforestation for Clearing below the Reforestation Threshold BB. Credit for Retention above the Reforestation Threshold CC. Total Reforestation Required

FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND





ADDRESS CHART



GEODETIC SURVEY CONTROL NO. 35FA GEODETIC SURVEY CONTROL NO. 36DF

N 558,122.36 E 1,349,924.206

N 559,266.116 E 1,344,682.707

GENERAL NOTES

- THE SUBJECT PROPERTY IS ZONED R-20 (PER 10/06/13 COMPREHENSIVE ZONING PLAN.) BOUNDARY IS BASED ON A FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS & CARTER ON OR ABOUT MAY, 2019.
- CONTOURS ARE BASED ON A TOPOGRAPHIC FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS AND CARTER, ON OR ABOUT MAY, 2019. COORDINATES BASED ON NAD'83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 30BA AND NO. 30BB:
 - HOWARD COUNTY MONUMENT NO. 35FA E 1,344,682.707 ELEV. 410.340 HOWARD COUNTY MONUMENT NO. 36DF N 550,122.360 E 1,349,924.206 ELEV. 392.348
- ALL AREAS ARE MORE OR LESS (+).
- . DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM)
- b. SURFACE SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING. . GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45 TURNING RADIUS.
- d. STRUCTURES (CULVERTS/BRIDGES) CAPABLE OF SUPPORTING 25 GROSS TONS (H 25 LOADING). e. DRAINAGE ELEMENTS – CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
- a. MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE.
- 6. NO CEMETERIES EXIST ON THE SUBJECT PROPERTY BASED ON VISUAL OBSERVATION OR LISTED IN AVAILABLE HOWARD COUNTY CEMETERY INVENTORY MAP
- 10/06/13 COMPREHENSIVE ZONING PLAN. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT.
- . THE FULL TRAFFIC STUDY FOR THIS PROJECT HAS BEEN PREPARED BY MARS GROUP. 12. A COMMUNITY MEETING WAS CONDUCTED ON JUNE 6, 2019 AT THE HCLS EAST COLUMBIA BRANCH LIBRARY FOR THE PURPOSE OF THE DEVELOPER TO PROVIDE INFORMATION TO THE COMMUNITY REGARDING THE PROPOSED RESIDENTIAL DEVELOPMENT AND TO ALLOW THE COMMUNITY TO ASK QUESTIONS AND TO MAKE COMMENTS, PER SECTION
- 16.128(D) OF THE SUBDIVISION REGULATIONS. 13. SUBDIVISION IS SUBJECT TO SECTION 108.0.E. OF THE ZONING REGULATIONS. AT LEAST 10% OF THE DWELLING UNITS SHALL BE MODERATE INCOME HOUSING UNITS (M.I.H.U. OR AN ALTERNATIVE COMPLIANCE WILL BE PROVIDED.THE DEVELOPER SHALL EXECUTE A M.I.H.U. AGREEMENT WITH THE DEPARTMENT OF HOUSING TO INDICATE HOW THE M.I.H.U REQUIREMENT WILL BE MET. THE M.I.H.U. AGREEMENT WILL BE RECORDED SIMULTANEOUSLY WITH THIS PLAT IN THE LAND RECORDS OFFICE OF HOWARD COUNTY, MARYLAND. THIS DEVELOPMENT WILL MEET M.I.H.U. ALTERNATIVE COMPLIANCE BY A PAYMENT OF A FEE-IN-LIEU TO THE DEPARTMENT OF HOUSING FOR EACH REQUIRED UNIT. MODERATE INCOME HOUSING UNIT (M.I.H.U.) TABULATION:
- a. M.I.H.U. REQUIRED = (2 LOT X 10%) = 0.2 M.I.H.U.b. M.I.H.U. PROPOSED = DEVELOPER WILL PURSUE ALTERNATIVE COMPLIANCE BY PAYING A FEE-IN-LIEU TO THE HOWARD COUNTY HOUSING DEPARTMENT FOR THE UNITS
- 14. NOISE STUDY IS NOT REQUIRED BECAUSE THE PROJECT DOES NOT FALL WITHIN THE GUIDELINES OF DESIGN MANUAL, VOLUME iii, ROADS BRIDGES, SECTION 5.2.F.2. 15. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE WETLANDS, STREAM(5) OR THEIR REQUIRED BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
- 16. THERE ARE NO WETLANDS, STREAMS OR THEIR BUFFERS LOCATED WITHIN THE BOUNDARY OF THIS SITE. 17. FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG PIPESTEM AND THE ROAD
- RIGHT-OF-WAY ONLY AND NOT ONTO THE FLAG OR PIPESTEM LOT DRIVEWAY. 16. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF
- 19. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS, BUREAU OF ENGINEERING, CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK.
- 20. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 40 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE. 21. THERE IS AN EXISTING DWELLING/STRUCTURE(S) LOCATED ON LOT 2 TO REMAIN. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLING ARE TO BE
- CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATION REQUIREMENTS.
- 22. THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED FOR THIS PROJECT.
- 23. WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18,1228 OF THE HOWARD COUNTY CODE.
- 24. EXISTING PUBLIC WATER IS BASED ON CONTR. NO. 435-W. 25. EXISTING PUBLIC SEWER IS BASED ON CONTR. NO. 20-3043.
- 26. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR: THE REQUIRED PERIMETER LANDSCAPING WILL BE POSTED AS PART OF THE DEVELOPERS AGREEMENT FOR THIS FINAL PLAN, IN THE AMOUNT OF \$5,100.00 BASED ON (11)
- SHADE TREES @ \$300.00 ea. AND (12) EVERGREENS @\$150.00 ea. 27. THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. THE FOREST CONSERVATION
- OBLIGATION FOR THIS SUBDIVISION WILL BE MET BY PROVIDING 0.60 ACRES FOREST RETENTION ON EMMANUEL UNITED METHODIST CHURCH SDP-15-067. A REDLINE FOR THIS DEBIT WILL BE PROVIDED PRIOR TO SIGNATURE OF THE PLAT ORIGINALS.
- 28. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE. 29. STORM WATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. THIS PLAN PROPOSES THE USE OF EIGHT
- (M-5) DRYWELLS AND (A-2) PEMEABLE PAVING FACILITIES. SWM DEVICES WILL BE OWNED AND MAINTAINED BY THE LOT OWNER WHERE THAT PARTICULAR DEVICE IS LOCATED. 30. THIS PROJECT IS CLASSIFIED AS RESIDENTIAL INFILL DEVELOPMENT AND IS SUBJECT TO SECTION 16.127 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT
- REGULATIONS. THE REGULATIONS STATE THAT THE REQUIRED FRONT YARD SETBACK SHALL BE ESTABLISHED AS THE AVERAGE OF THE EXISTING FRONT YARD SETBACKS OF THE BLOCK FACE AREA OR THE AREA WITHIN 500 FEET IN EITHER DIRECTION OF THE SUBJECT PROPERTY, WHICHEVER IS LESS. THE BLOCK FACE AREA CONSISTS OF THE AREA BETWEEN THE SUBJECT PROPERTY AND THE INTERSECTION OF ANY TWO STREETS MEASURED ALONG THE SIDE OF THE STREET THAT THE SUBJECT PROPERTY IS LOCATED. IN
- 31. THIS PROJECT IS SUBJECT TO WP-22-007 REGARDING FRONTAGE IMPROVEMENTS PURSUANT TO SECTIONS 16.132(a)3.ii.c.1, 16.134(a)(1)(ii) AND 16.135 OF THE PLANNING, ZONING, AND SUBDIVISION REGULATIONS; PLANNING AND ZONING DENIED THE REQUEST FOR ALTERNATIVE COMPLIANCE FOR SECTION 16.132(a)iii.c. REGARDING ROAD IMPROVEMENTS ALONG OWEN BROWN ROAD. PLANNING AND ZONING FOUND THAT NO ACTION IS REQUIRED FOR SECTIONS 16.134(a)(1)(iii) FOR SIDEWALK AND WALKWAY

THIS CASE THE AVERAGE SETBACK OF EXISTING HOUSES BETWEEN JERRYS DRIVE AND LLANFAIR DRIVE IS 54.5 FEET TO THE EXISTING RIGHT OF WAY

TITLE SHEET POPE PROPERTY LOTS 1 THRU 3

(10446 OWEN BROWN ROAD) TAX MAP NO.: 35 GRID NO.: 12 PARCEL NO.:179

ZONED R-20 PREVIOUS HOWARD COUNTY FILES: ECP-19-055 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: FEBRUARY, 2024

SHEET 1 OF 9

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 3/6/2024 Chief, Division potusionady Development (Hd) Edmondson 3/4/2024 Chief, Development Engineering Division

FISHER, COLLINS & CARTER, INC. ELLICOTT CITY, MARYLAND 21042

DD. Total Afforestation and Reforestation Requirement



PROFESSIONAL CERTIFICATION

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/25.

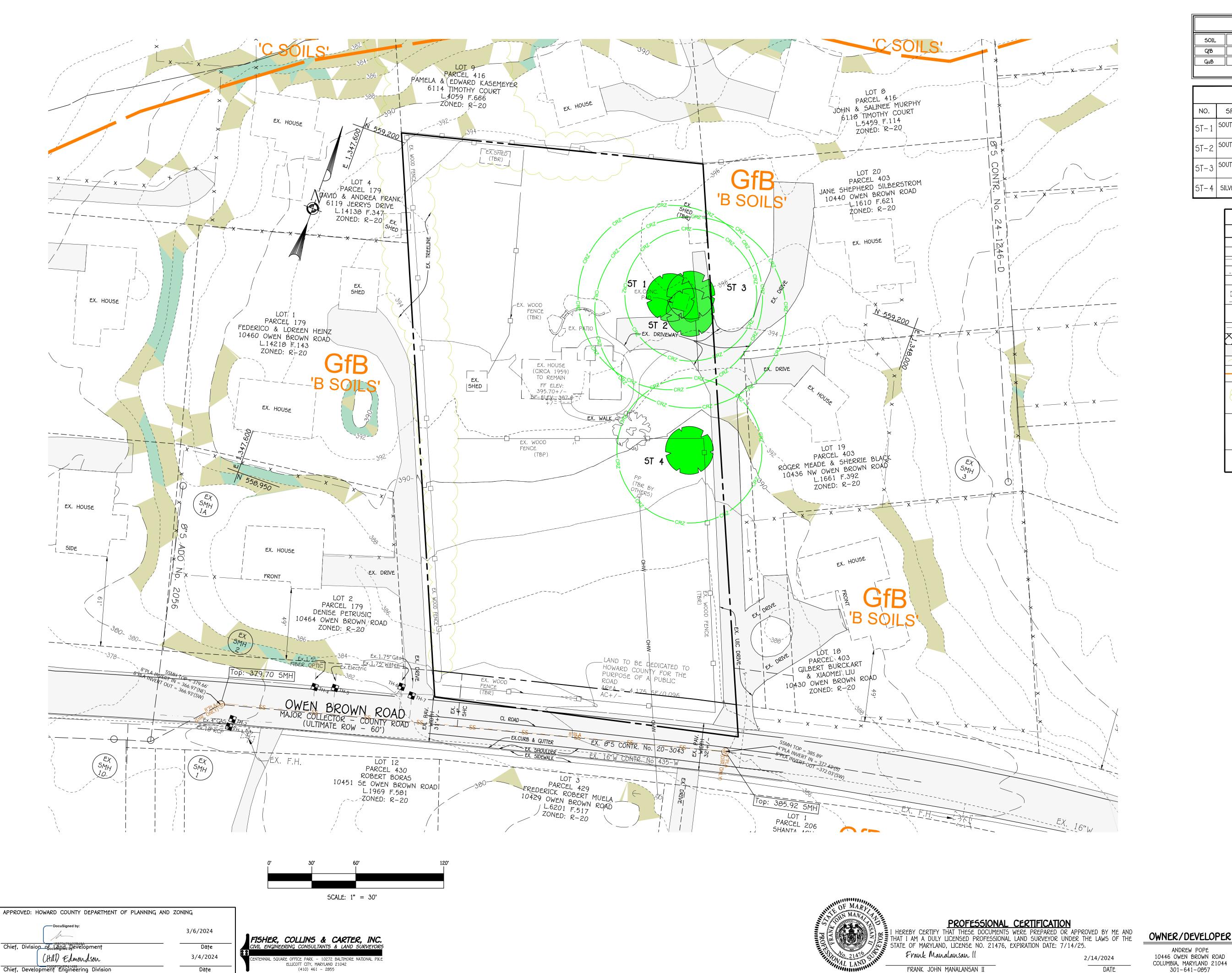
Frank Manalansan 1 FRANK JOHN MANALANSAN II

DATE

10446 OWEN BROWN ROAD COLUMBIA, MARYLAND 21044 301-641-0857

OWNER/DEVELOPER

ANDREW POPE



50IL5 LEGEND									
50IL	NAME	CLA55	'K'VALUE						
GfB	Gladstone-Urban land complex, 0 to 8 percent slopes	В	0.32						
Guß	Glenville—Urban land—Udorthents complex, 0 to 8 percent slopes	С	0.49						
	HOWARD COUNTY SOILS MAP	17; CLAR	KSVILLE NE						

	SPECIMEN TREE DATA								
NO.	5PECIE5	SIZE	CRZ	COMMENTS	TO BE REMOVED				
ST-1	SOUTHERN RED OAK	42"	63"	GOOD-IMPACTED BY EXISTING PAVING	NO				
ST-2	SOUTHERN RED OAK	43.5"	65.25"	GOOD-IMPACTED BY EXISTING PAVING	NO				
ST-3	SOUTHERN RED OAK	30"	45"	GOOD-IMPACTED BY EXISTING PAVING	NO				
ST-4	SILVER MAPLE	33"	49.5"	GOOD-IN HORSE PASTURE, MULTI-STEMMED	NO				

LEGEND						
5YMB0L	DESCRIPTION					
	EXISTING CONTOUR 2' INTERVAL					
<u> </u>	EXISTING CONTOUR 10' INTERVAL					
· · · · · · · · · · · · · · · · · · ·	EXISTING FENCE					
<u>18"_50</u>	EXISTING STORM DRAIN					
<u> </u>	EXISTING WELL					
EX. F.H.	EXISTING WATER LINE					
<u> </u>	EXISTING SEWER LINE					
OHW	EXISTING OVERHEAD WIRE					
	BUILDING AND DRIVES TO BE REMOVED					
///////	EXISTING PAVING					
~~~~	EXISTING TREE LINE					
GgB GgC	SOIL LINES AND TYPES					
	DENOTES EXISTING TREES TO REMAIN					
CRZ	SPECIMEN TREE					
St. St.	CRITICAL ROOT ZONE					
<b>⊕</b> B-1	DENOTES SWM TEST BORING LOCATION					

EXISTING CONDITIONS

## POPE PROPERTY LOTS 1 THRU 3

(10446 OWEN BROWN ROAD) TAX MAP NO.: 35 GRID NO.: 12 PARCEL NO.:179 ZONED R-20

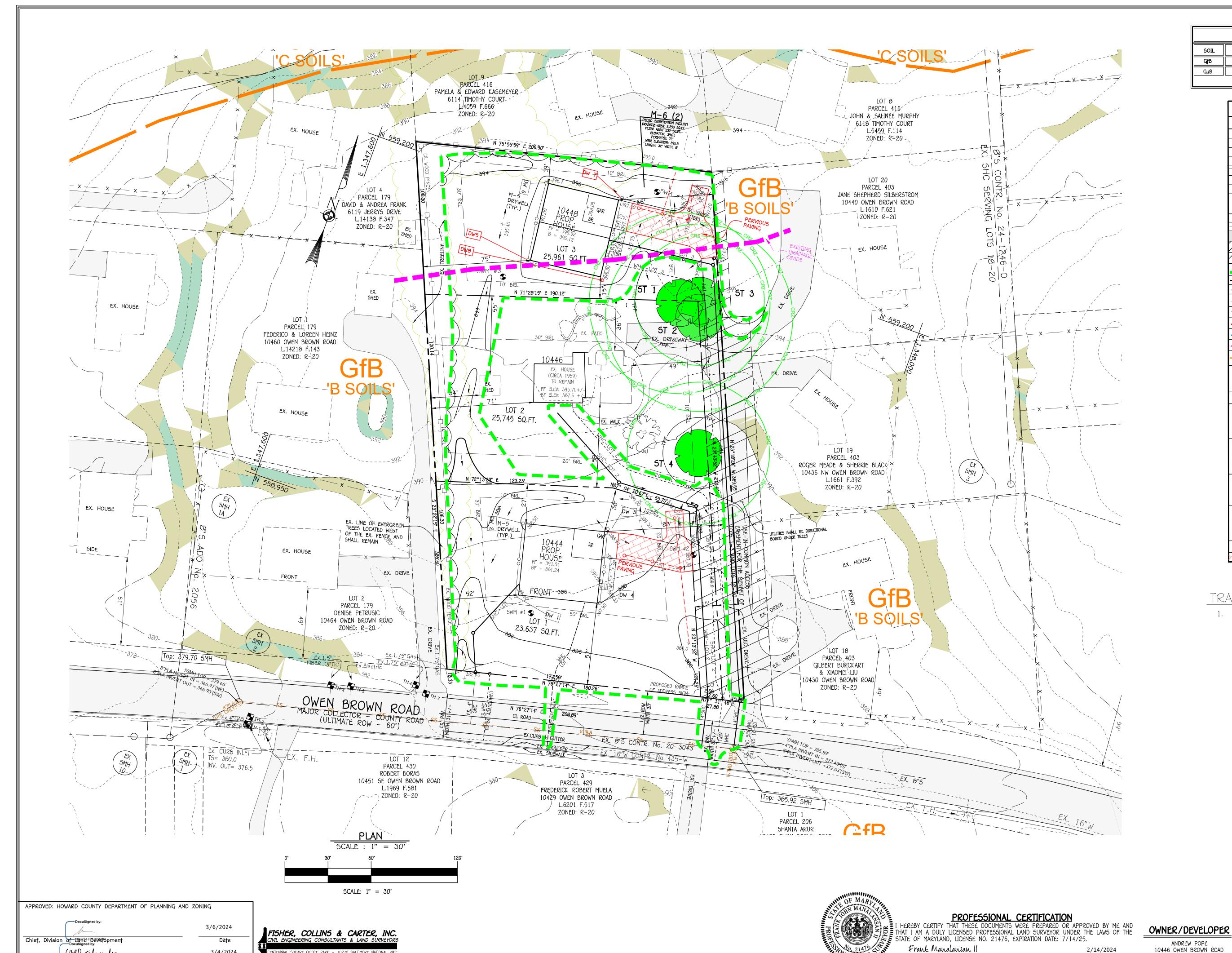
PREVIOUS HOWARD COUNTY FILES: ECP-19-055 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: FEBRUARY, 2024 SHEET 2 OF 9

CHAD Edmondson

Chief, Developme PAPFEM Meering Division

3/4/2024

QUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042



50IL5 LEGEND								
50IL	NAME	CLA55	'K'VALUE					
GfB	Gladstone-Urban land complex, 0 to 8 percent slopes	В	0.32					
Guß	Glenville—Urban land—Udorthents complex, 0 to 8 percent slopes	С	0.49					
	HOWARD COUNTY SOILS MAP	17; CLAR	KSVILLE NE					

	LEGEND
5YMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	EXISTING CONTOUR 10' INTERVAL
	PROPOSED CONTOUR 10' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
<b>→</b>	EXISTING FENCE
×448.5	SPOT ELEVATION
<u>18"_50</u> _	EXISTING STORM DRAIN
下一EX. F.H. 「本了 	EXISTING WATER LINE
<u>− 8"5</u> –	EXISTING SEWER LINE
OHW	EXISTING OVERHEAD WIRE
	EXISTING PAVING
	PRIVATE UIC EASEMENT
	PRIVATE DRAINAGE & UTILITY EASEMENT
LOD	LIMIT OF DISTURBANCE
55F/TP	SUPER SILT FENCE/TREE PROTECTION FENCE
—— DF/TP ——	DIVERSION FENCE/TREE PROTECTION FENCE
	EXISTING TREE LINE
~~~~	PROPOSED TREE LINE
	DRAINAGE DIVIDES TO MICRO-BIORETENTION
	AND BIOSWALE
	DRAINAGE DIVIDE TO DRYWELLS
	EXISTING DRAINAGE DIVIDE
GhB LoB	SOIL LINES AND TYPES
	BIO RETENTION FACILITY (F-6) OR (M-6) AS NOTED
00	PROPOSED ROOF LEADER
	DENOTES EXISTING TREES TO REMAIN
5T 3	SPECIMEN TREE
	—CRITICAL ROOT ZONE
⊕ B−1	DENOTES SWM TEST BORING LOCATION
TPF d d	TREE PROTECTION FENCING
	OVERFLOW PATHWAY
	1 - 1 - 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -

TRAFFIC CONTROL NOTES:

1. TRAFFIC CONTROL SHALL CONSIST OF A LANE CLOSURE AND FLAGGING OPERATION PER MOSHA STO DETAILS MD 104.02-02 & MD 104.02-10. SEE SHEET 8 OF 9 FOR DETAIL.

COLUMBIA, MARYLAND 21044

301-641-0857

DATE

FRANK JOHN MANALANSAN II

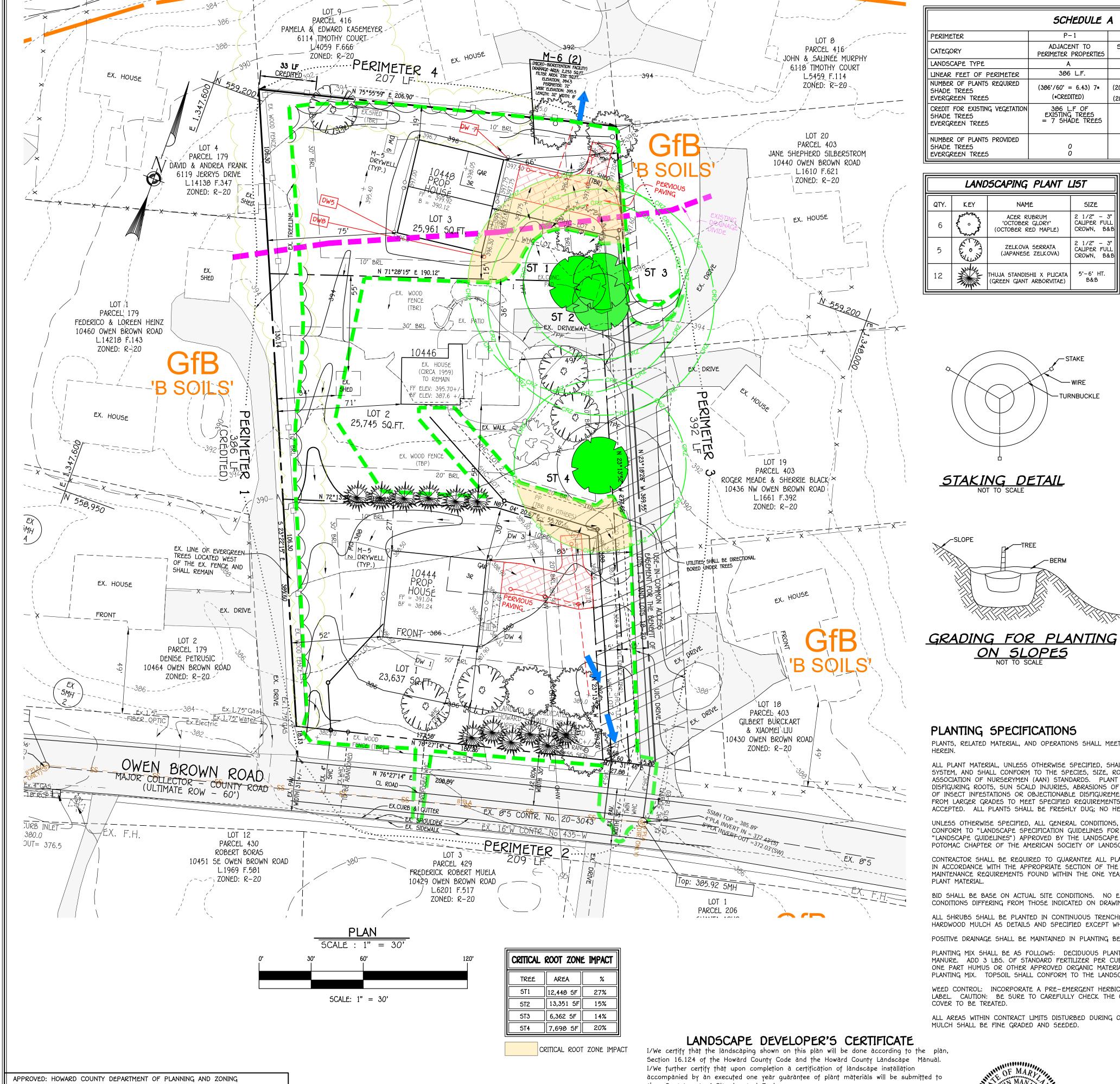
SUPPLEMENTAL PLAN

POPE PROPERTY LOTS 1 THRU 3

(10446 OWEN BROWN ROAD) TAX MAP NO.: 35 GRID NO.: 12 PARCEL NO.:179

ZONED R-20 PREVIOUS HOWARD COUNTY FILES: ECP-19-055 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: FEBRUARY, 2024

SHEET 3 OF 9 F-19-077



3/6/2024

Date

3/4/2024

Chief, Division of LIEFICH 478 @ VEN bypment

Chief, Developme神母神母神母ing Division

(HD) Edmondson

FISHER, COLLINS & CARTER, INC.

IVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

ELLICOTT CITY, MARYLAND 21042

(410) 461 - 2855

NNIAL SQUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIKE

SCHEDULE A - PERIMETER LANDSCAPE EDGE								
PERIMETER	P-1	P-2	P-3	P-4	TOTAL			
CATEGORY	ADJACENT TO PERIMETER PROPERTIES	SIDE ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES				
LANDSCAPE TYPE	Α	В	A	A				
LINEAR FEET OF PERIMETER	386 L.F.	209 L.F.	392 L.F.	207 L.F.				
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES	(306'/60' = 6.43) 7* (*CREDITED)	(209'/50' = 4.18) 5 (209'/40' = 5.2 - 6)	(392'/60' = 6.53) 7	(207/60' = 3.45) 4 0	23 6			
CREDIT FOR EXISTING VEGETATION SHADE TREES EVERGREEN TREES	306 L.F OF EXISTING TREES = 7 SHADE TREES	0 0	4 SPECIMEN TREES	33 LF OF EXISTING TREES = 1 SHADE TREE	12			
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES	0 0	5 6	3 0	3 0	11 6			

				ה
	LAND	SCAPING PLANT L	<i>15T</i>	
QTY.	KEY	NAME	SIZE	Λ.
6	A CONTRACTOR OF THE PROPERTY O	ACER RUBRUM 'OCTOBER GLORY' (OCTOBER RED MAPLE)	2 1/2" – 3" CALIPER FULL CROWN, B&B	2 PIECES OF
5	E. S.	ZELKOVA SERRATA (JAPANESE ZELKOVA)	2 1/2" – 3" CALIPER FULL CROWN, B&B	2 PIECES OF REINFORCED RUBBER HOSE DOUBLE #12 GALVANIZED 72 WIRE GUYS TWISTED
12	William Control	THUJA STANDISHII X PLICATA (GREEN GIANT ARBORVITAE)	5'-6' HT. B&B	2-2"X 2" OAK STAKES, (APPROX. 3 FEET) 1/2 OF TREE HEIGHT
•			ΓΑΚΕ WIRE NBUCKLE	REMOVE ANY COVERING FROM TOP OF BALL TOPSOIL MIXTURE EVERGREEN TREE PLANTING DETAIL NO SCALE
<u>5</u>		NG DETAIL T TO SCALE		DOUBLE STRAND OF 14 GAUGE GALVANIZED WIRE REMOVE BURLAP WRAP FROM AROUND TRUNK
	SLOPE	TREE		2"x 2" HARDWOOD STAKE SET OUTSIDE OF DISTURBED SOIL BURLAP AND ROPE CUT FROM TOP OF TREE BALL— LEAVE 1/8 DEPTH OF ROOT BALL ABOVE FINISHED GRADE 3" MULCH 2"-3" EARTH SAUCER

PLANTING SPECIFICATIONS

PLANTS, RELATED MATERIAL, AND OPERATIONS SHALL MEET THE DETAILED DESCRIPTION AS GIVEN ON THE PLANS AND AS DESCRIBED

COMPACTED SUBGRADE

EXTEND STAKE TO FIRM BEARING (MIN. 2'-6")

ALL PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE NURSERY GROWN, UNIFORMLY BRANCHED, HAVE A VIGOROUS ROOT SYSTEM, AND SHALL CONFORM TO THE SPECIES, SIZE, ROOT AND SHAPE SHOWN ON THE PLANT LIST AND THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, FREE FROM DEFECTS, DECAY, DISFIGURING ROOTS, SUN SCALD INJURIES, ABRASIONS OF THE BARK, PLANT DISEASE, INSECT PEST EGGS, BORERS AND ALL FORMS OF INSECT INFESTATIONS OR OBJECTIONABLE DISFIGUREMENTS. PLANT MATERIAL THAT IS WEAK OR WHICH HAS BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED. TREES WITH FORKED LEADERS WILL NOT BE ACCEPTED. ALL PLANTS SHALL BE FRESHLY DUG; NO HEALED-IN PLANTS FROM COLD STORAGE WILL BE ACCEPTED.

UNLESS OTHERWISE SPECIFIED, ALL GENERAL CONDITIONS, PLANTING OPERATIONS, DETAILS AND PLANTING SPECIFICATION SHALL CONFORM TO "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS", (HEREINAFTER "LANDSCAPE GUIDELINES") APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE POTOMAC CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECT, LATEST EDITION, INCLUDING ALL AGENDA.

IN ACCORDANCE WITH THE APPROPRIATE SECTION OF THE LANDSCAPE GUIDELINES CONTRACTOR'S ATTENTION IS DIRECTED TO THE MAINTENANCE REQUIREMENTS FOUND WITHIN THE ONE YEAR SPECIFICATIONS INCLUDING WATERING AND REPLACEMENT OF SPECIFIED PLANT MATERIAL.

CONTRACTOR SHALL BE REQUIRED TO GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE

BID SHALL BE BASE ON ACTUAL SITE CONDITIONS. NO EXTRA PAYMENT SHALL BE MADE FOR WORK ARISING FROM SITE CONDITIONS DIFFERING FROM THOSE INDICATED ON DRAWINGS AND SPECIFICATIONS

ALL SHRUBS SHALL BE PLANTED IN CONTINUOUS TRENCHES OR PREPARED PLANTING BEDS AND MULCHED WITH COMPOSTED HARDWOOD MULCH AS DETAILS AND SPECIFIED EXCEPT WHERE NOTED ON PLANS.

POSITIVE DRAINAGE SHALL BE MAINTAINED IN PLANTING BEDS 2 PERCENT SLOPE)

PLANTING MIX SHALL BE AS FOLLOWS: DECIDUOUS PLANTS - TWO PARTS TOPSOIL, ONE PART WELL-ROTTED COW OR HORSE MANURE. ADD 3 LBS. OF STANDARD FERTILIZER PER CUBIC YARD OF PLANTING MIX. EVERGREEN PLANTS - TWO PARTS TOPSOIL, ONE PART HUMUS OR OTHER APPROVED ORGANIC MATERIAL. ADD 3 LBS. OF EVERGREEN (ACIDIC) FERTILIZER PER CUBIC YARD OF PLANTING MIX. TOPSOIL SHALL CONFORM TO THE LANDSCAPE GUIDELINES.

WEED CONTROL: INCORPORATE A PRE-EMERGENT HERBICIDE INTO THE PLANTING BED FOLLOWING RECOMMENDED RATES ON THE LABEL. CAUTION: BE SURE TO CAREFULLY CHECK THE CHEMICAL USED TO ASSURE ITS ADAPTABILITY TO THE SPECIFIC GROUND COVER TO BE TREATED.

ALL AREAS WITHIN CONTRACT LIMITS DISTURBED DURING OR PRIOR TO CONSTRUCTION NOT DESIGNATED TO RECEIVE PLANTS AND MULCH SHALL BE FINE GRADED AND SEEDED.

2/14/2024

Section 16.124 of the Howard County Code and the Howard County Landscape Manual. accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

This plan has been prepared in accordance with the provision of Section 16.124 of the Howard County Code and Landscape Manual. Financial surety for the required landscaping will be posted as part of the developor's agreement.



PROFESSIONAL CERTIFICATION

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/25. Frank Manalansan 1

FRANK JOHN MANALANSAN II

2/14/2024 10446 OWEN BROWN ROAD COLUMBIA, MARYLAND 21044

TREE PLANTING DETAIL

	50IL5 LEGEND		
50IL	NAME	CLA55	'K'VALUE
GfB	Gladstone-Urban land complex, 0 to 8 percent slopes	В	0.32
GuB	Glenville—Urban land—Udorthents complex, 0 to 8 percent slopes	С	0.49
	HOWARD COUNTY SOILS MAP	17; CLAR	KSVILLE NE

LEGEND							
SYMBOL	DESCRIPTION						
	EXISTING CONTOUR 2' INTERVAL						
	EXISTING CONTOUR 10' INTERVAL						
	PROPOSED CONTOUR 10' INTERVAL						
	PROPOSED CONTOUR 2' INTERVAL						
· · · · · · · · · · · · · · · · · · ·	EXISTING FENCE						
× 448.5	SPOT ELEVATION						
<u>18"_50</u>	EXISTING STORM DRAIN						
EX. F.H.	EXISTING WATER LINE						
<u>8"5_</u>	EXISTING SEWER LINE						
OHW	EXISTING OVERHEAD WIRE						
	EXISTING PAVING						
	PRIVATE UIC EASEMENT						
	PRIVATE DRAINAGE & UTILITY EASEMENT						
LOD	LIMIT OF DISTURBANCE						
66E/TD	SUPER SILT FENCE/TREE PROTECTION FENCE						
	DIVERSION FENCE/TREE PROTECTION FENCE						
- 01 / 11							
	EXISTING TREE LINE						
~~~~	PROPOSED TREE LINE						
	DRAINAGE DIVIDES TO MICRO-BIORETENTION AND BIOSWALE						
	DRAINAGE DIVIDE TO DRYWELLS						
	EXISTING DRAINAGE DIVIDE						
<u>G</u> h <u>B</u>	SOIL LINES AND TYPES						
LoB	BIO RETENTION FACILITY  (F-6) OR (M-6)						
	A5 NOTED						
00	PROPOSED ROOF LEADER						
	DENOTES EXISTING TREES TO REMAIN						
5T 3	SPECIMEN TREE						
OR THE STATE OF TH	CRITICAL ROOT ZONE						
<b>₽</b> B-1	DENOTES SWM TEST BORING LOCATION						
TPF dd d.	TREE PROTECTION FENCING						
	OVERFLOW PATHWAY						
	PERVIOUS PAVING						
Whaterstone and	, Edito oo i ming						
The same of the sa	PROPOSED TREES						
PERIMETER XX XX LF	LANDSCAPE PERIMETER LABEL AND LEADER						
	CRITICAL ROOT ZONE IMPACT AREA						

## LANDSCAPE NOTES

OWNER/DEVELOPER

ANDREW POPE

301-641-0857

- 1. THE PERIMETER LANDSCAPE AND STREET TREE OBLIGATION IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL, A LANDSCAPE SURETY IN THE AMOUNT OF \$5,100.00 BASED ON 11 SHADE TREES @ \$300/SHADE TREE AND 12 EVERGREEN TREES @ \$150 SHALL BE BONDED AS PART OF THE DPW DEVELOPERS AGREEMENT.
- 2. AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
- 3. THE OWNER, TENANT, 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.
- 4. FOR ANY TREE DESIGNATED FOR PRESERVATION, FOR WHICH CREDIT IS GIVEN, BE REMOVED OR DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR IF THE TREE IS LISTED AS A PROHIBITED OR INVASIVE SPECIES ON THE DPZ TREE LIST IT SHOULD BE REPLACED WITH A RECOMMENDED TREE SPECIES WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE LANDSCAPE MANUAL."

LANDSCAPE PLAN AND DETAILS

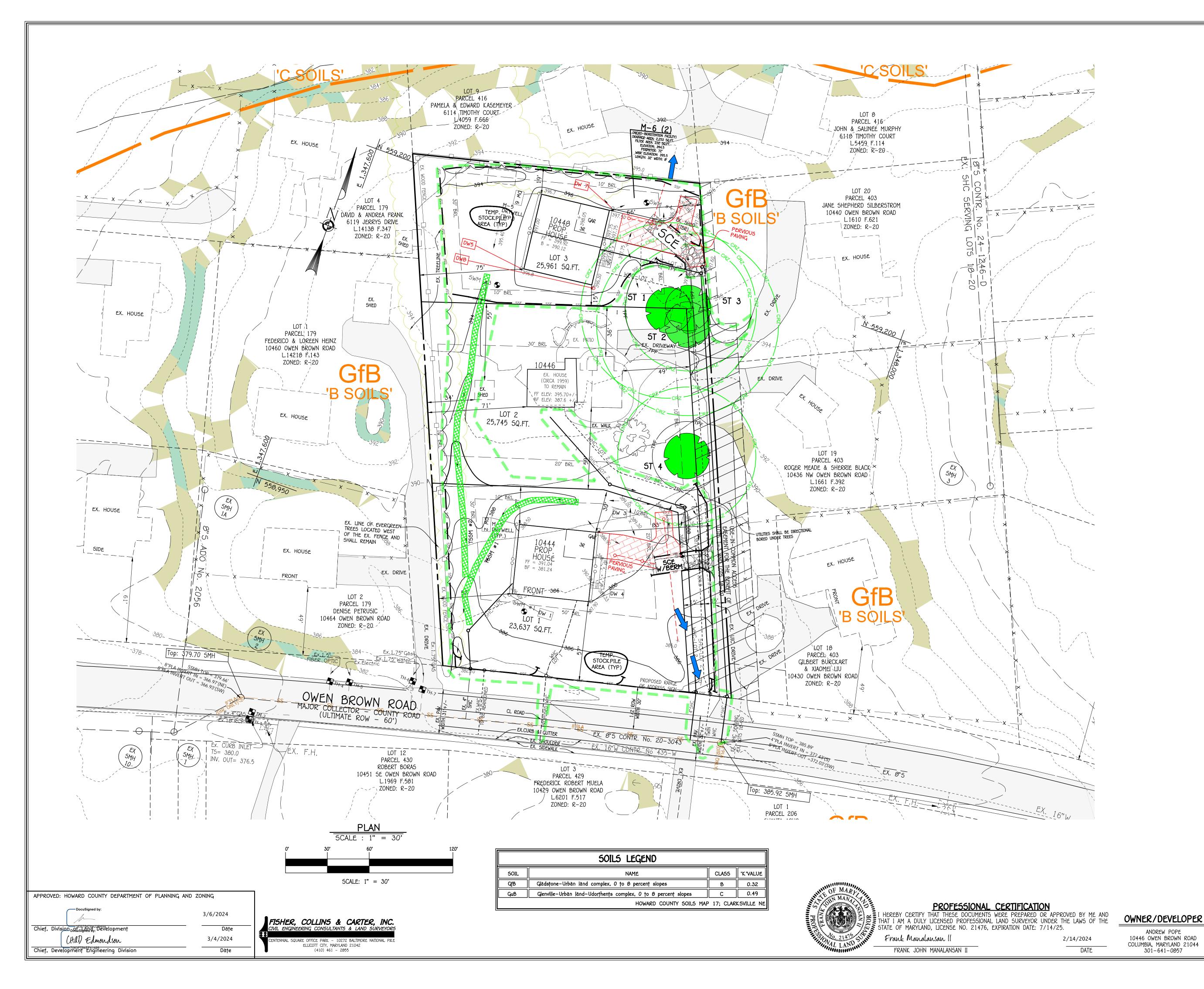
## POPE PROPERTY LOTS 1 THRU 3

ZONED R-20

(10446 OWEN BROWN ROAD) TAX MAP NO.: 35 GRID NO.: 12 PARCEL NO.:179

PREVIOUS HOWARD COUNTY FILES: ECP-19-055 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: FEBRUARY, 2024

SHEET 4 OF 9 F-19-077



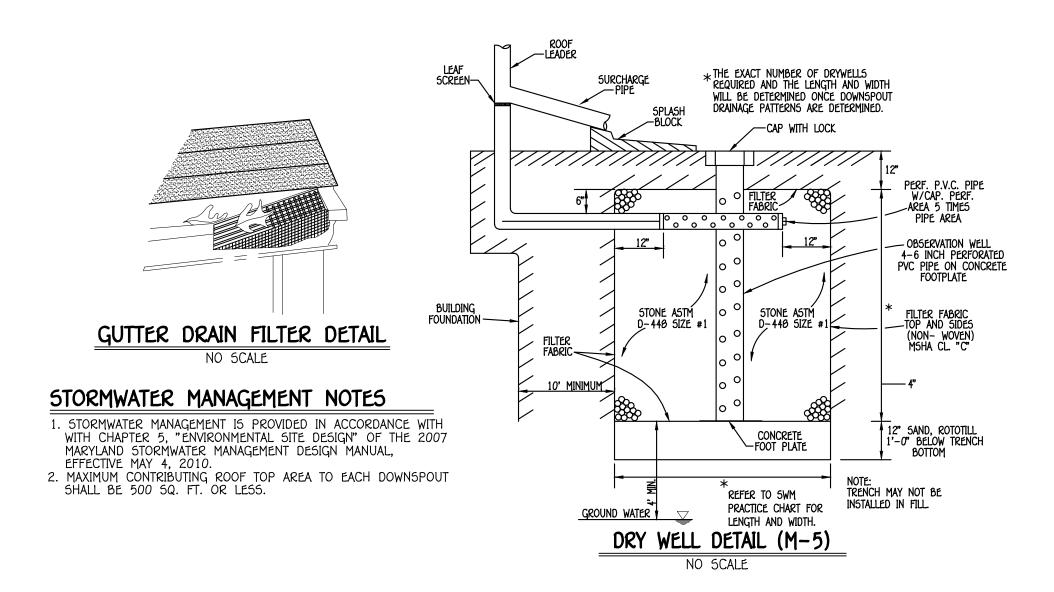
LEGEND **SYMBOL** DESCRIPTION EXISTING CONTOUR 2' INTERVAL -----EXISTING CONTOUR 10' INTERVAL PROPOSED CONTOUR 10' INTERVAL PROPOSED CONTOUR 2' INTERVAL EXISTING FENCE SPOT ELEVATION <u> 18" 50 </u> EXISTING STORM DRAIN 下**产EX. F.H.** EXISTING WATER LINE --L--- <u>8"W</u> EXISTING SEWER LINE EXISTING OVERHEAD WIRE EXISTING PAVING PROPOSED PAVING PRIVATE UIC EASEMENT PRIVATE DRAINAGE & UTILITY EASEMENT LIMIT OF DISTURBANCE — SSF/TP — SUPER SILT FENCE/TREE PROTECTION FENCE EARTH DIKE A.G.I.P AT-GRADE INLET PROTECTION CURB INLET PROTECTION EXISTING TREE LINE PROPOSED TREE LINE DRAINAGE DIVIDE SOIL LINES AND TYPES BIO RETENTION FACILITY (F-6) OR (M-6) AS NOTED PROPOSED ROOF LEADER DENOTES EXISTING TREES TO REMAIN 5T 3 SPECIMEN TREE CRITICAL ROOT ZONE B-1 DENOTES SWM TEST BORING LOCATION TREE PROTECTION FENCING OVERFLOW PATHWAY

GRADING, SEDIMENT AND EROSION CONTROL PLAN

## POPE PROPERTY LOTS 1 THRU 3

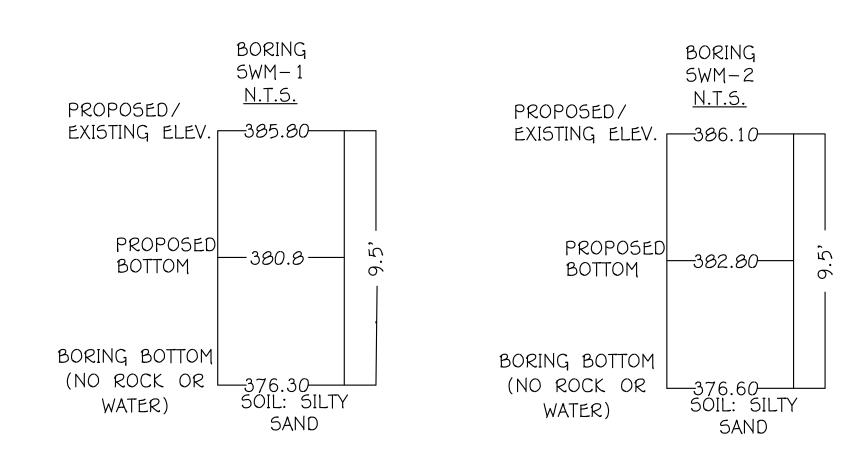
(10446 OWEN BROWN ROAD) TAX MAP NO.: 35 GRID NO.: 12 PARCEL NO.:179 ZONED R-20 PREVIOUS HOWARD COUNTY FILES: ECP-19-055

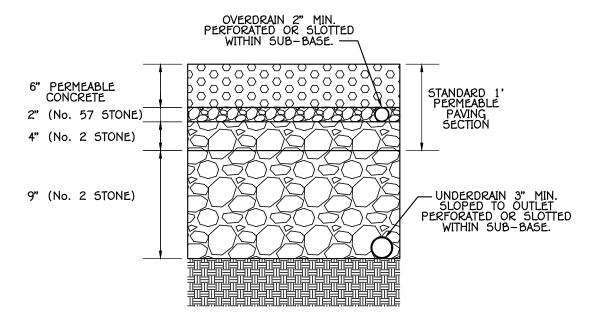
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: FEBRUARY, 2024 SHEET 5 OF 9 F-19-077



### OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

- A. THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT.
- B. THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO ENSURE TRENCH DRAINAGE. C. THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- D. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
- E. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- F. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED. THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.





TYPICAL SECTION - A-2 PERMEABLE SECTION w/ OVERDRAIN & UNDERDRAIN

(SEE CHART ABOVE FOR PAVEMENT THICKNESS)

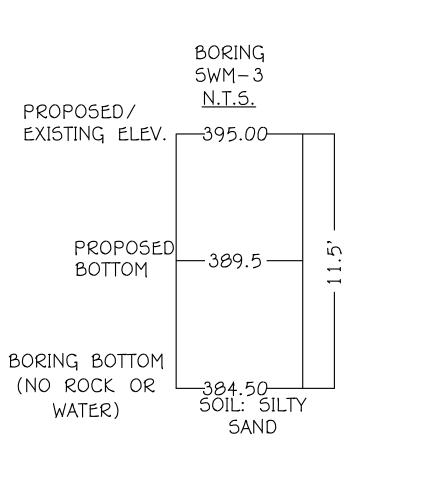
## OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED PERMEABLE PAVEMENT (A-2)

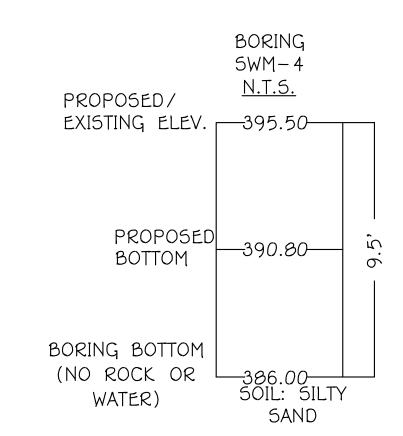
A. THE OWNER SHALL PERIODICALLY SWEEP (OR VACUUM POROUS CONCRETE PAVEMENT) THE PAVEMENT SURFACES TO REDUCE SEDIMENT ACCUMULATION AND INSURE CONTINUED SURFACE POROSITY. SWEEPING SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY WITH A COMMERCIAL CLEANING UNIT. WASHING OR COMPRESSED AIR UNITS SHOULD NOT BE USED TO PERFORM SURFACE CLEANING.

B. THE OWNER SHALL PERIODICALLY CLEAN DRAINAGE PIPES, INLETS, STONE EDGE DRAINS AND OTHER STRUCTURES WITHIN OR DRAINING TO THE SUBBASE.

C. THE OWNER SHALL USE DEICERS IN MODERATION. DEICERS SHOULD BE NON-TOXIC AND BE APPLIED EITHER AS CALCIUM MAGNESIUM ACETATE OR AS PRETREATED SALT.

D. THE OWNER SHALL ENSURE SNOW PLOWING IS PERFORMED CAREFULLY WITH BLADES SET ONE INCH ABOVE THE SURFACE. PLOWED SNOW PILES AND SNOWMELT SHOULD NOT BE DIRECTED TO PERMEABLE PAVEMENT.





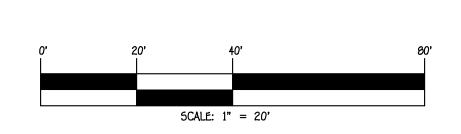
		STORMWATE	R MANA(	GEMENT	PRACTI	CE CHAR	PT TS			
LOT NO.	#DOWNSPOUTS PER DRYWELL	IMPERVIOUS AREA	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF STORAGE	AREA OF TREATMENT	BMP LABEL	DIMENSIONS OF DRYWELLS	PERMEABLE PAVEMENT (A-2) Y/N	DRY WELLS (M-5) Y/N
	2	688 5qF†	83 CuF†	96 CuF†	100%	100%	DW 1	10' X 6' X 4'	_	Y
LOT 1	2	688 5qF†	83 CuF†	96 CuF†	100%	100%	DW 2	10' X 6' X 4'	_	Y
LOT 1 10444	2	688 5qF†	83 CuF†	96 CuF†	100%	100%	DW 3	10' X 6' X 4'	_	Y
	2	688 SqF†	83 CuFt	96 CuF†	100%	100%	DW 4	10' X 6' X 4'	_	Y
	-	1,394 SqF†	243 CuF†	243 CuF†	-	100%	A-2 (1)	_	Y	_
	2	688 5qF†	83 CuF†	96 CuF†	100%	100%	DW 5	10' X 6' X 4'	_	Y
LOT 2	2	688 5qF†	83 CuF†	96 CuF†	100%	100%	DW 6	10' X 6' X 4'	_	Y
LOT 3 10448	2	688 SqF†	83 CuF†	96 CuF†	100%	100%	DW 7	10' X 6' X 4'	_	Y
	2	688 5qFt	83 CuFt	96 CuF†	100%	100%	DW 8	10' X 6' X 4'	_	Y
	_	1,713 5qF†	305 CuFt	305 CuF†	-	100%	A-2 (2)	_	Y	_

PERMEABLE PAVING CHART						
PERM. PAV. AREA NO.	DEPTH					
A-2(1)	1.75'					
A-2(2)	1.75'					

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 3/6/2024 Chief, Division of Land 1800 Pocusioned by: CHAD Edmondson 3/4/2024

Chief, Developmen Englished Pring Division

FISHER, COLLINS & CARTER, INC. ELLICOTT CITY, MARYLAND 21042





PROFESSIONAL CERTIFICATION HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/25.

2/14/2024

DATE

Frank Manalansan II FRANK JOHN MANALANSAN II OWNER/DEVELOPER ANDREW POPE 10446 OWEN BROWN ROAD COLUMBIA, MARYLAND 21044

301-641-0857

STORMWATER MANAGEMENT NOTES, DETAILS AND BORINGS POPE PROPERTY LOTS 1 THRU 3

(10446 OWEN BROWN ROAD) TAX MAP NO.: 35 GRID NO.: 12 PARCEL NO.:179 ZONED R-20

PREVIOUS HOWARD COUNTY FILES: ECP-19-055 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: FEBRUARY, 2024 SHEET 6 OF 9

#### SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)

#### A. SOIL PREPARATION

I. TEMPORARY STABILIZATION A. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.

B. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS. . 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:

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

IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.

#### V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.

B. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS. C. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES. D. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST. E. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THI SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE 501L IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

#### B. TOPSOILING

1 TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VECETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT. LOW NUTRIENT LEVELS. LOW PH. MATERIALS TOXIC TO PLANTS. AND/OR UNACCEPTABLE SOIL GRADATION. 2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.

3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE: A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH. B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR

FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS. C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.

D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE. 4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.

5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA: A. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 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. C. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

A. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.

B. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO Ø 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 C. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED

C. SOIL AMENDMENTS (FERTILIZER & 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 ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR PADEMARK AND WARRANTY OF THE PRODUCER 3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT 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 TOPSOIL

## DUST CONTROL

#### <u>DEFINITION</u> CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS. PURPOSE

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAMAGE, HEALTH HAZARDS AND IMPROVE TRAFFIC SAFETY.

CONDITIONS WHERE PRACTICE APPLIES THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT

NOTE:			
NOTE: PROPOSED HOUSES UNDER THIS PLAN.	CANNOT	BE	CONSTRUCTED

#### **SPECIFICATIONS** TEMPORARY METHODS

. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPEI OR TACKED TO PREVENT BLOWING. . VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER. 3. TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF THE SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12" APART, SPRING-TOOTHED HARROWS AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT

. IRRIGATION – THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL

THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW. 6. BARRIERS - SOLID BOARD FENCES SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALE DIKES AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CONTROLLING SOIL BLOWING. CURRENTS AND SOIL BLOWING. CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS

OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN 6. CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT. PERMANENT METHODS . PERMENENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATIVE COVER AND PERMANENT STABILIZATION

WITH SOD. EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

3. STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. TEMPORARY SEEDING NOTES (B-4-4)

TOPSOILING - COVERING WITH LESS EROSIVE SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.

## DEFINITION

TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS. PURPOSE

TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS. CONDITIONS WHERE PRACTICE APPLIES EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS.

FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED. CRITERIA SELECT ONE OR MORE OF THE SPECIES OR 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 WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS.

AND LIME RATES MUST BE PUT ON THE PLAN. 2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE ESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING. 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.

IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER

	TEMP	ORARY SEEDI	NG SUMM	ARY	
HARDINESS SEED MIXTU	ZONE (FROM FIGURE RE (FROM TABLE B.1)	FERTILIZER RATE (10-20-20)	LIME RATE		
SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS		
BARLEY	96		1"	436 LB/AC	2 TON5/AC
OAT5	72	3/1 - 5/15, 8/1 - 10/15	1"	(10 LB/ 1000 SF)	(90 LB/ 1000 SF)
RYE	112		1"	1000 317	1000 017

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Jane Development

Chief, Development Engineering Division

(Hdl) Edmondson

3/6/2024

3/4/2024

## PERMANENT SEEDING NOTES (B-4-5)

1. GENERAL USE A. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT

B. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES STREAM BANKS

HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.

OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 - CRITICAL AREA PLANTING. C. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY. D. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.

2. TURFGRASS MIXTURES A. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.

B. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT

SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN. I. KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35

PERCENT OF THE TOTAL 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.

TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED

MIXTURE INCLUDES; CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. one or more cultivars may be blended. V. 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 1/2 TO 3 POUNDS PER 1000 SQUARE FEET. SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND"

CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE C. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 58, 6A) CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B) SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15

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/ INCHES IN DIAMETER THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY

E. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH 1/2 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

 	CHMMAOV	

			PERMANENT	SEEDING	SUMMAR	?Y		
HARDINESS ZONE (FROM FIGURE B.3):6B SEED MIXTURE (FROM TABLE B.3):8					FERTILIZER RATE (10-20-20)			LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P ₂ 0 ₅	K ₂ 0	
8	TALL FESCUE	100	MAR. 1-MAY 15 AUG. 1-OCT. 15	1/4-1/2 IN.	45 LB5. PER ACRE (1.0 LB/ 1000 SF)	(2 LB/	90 LB/AC (2 LB/ 1000 SF)	2 TON5/AC (90 LB/ 1000 5F)

#### B. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

1. GENERAL SPECIFICATIONS

ACTIVE GRADING.

A. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR. B. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS TO 3/4 INCH, PLUS OR MINUS 1/4 INCH, AT THE TIME OF

UNEVEN ENDS WILL NOT BE ACCEPTABLE. C. STANDARD SIZE SECTIONS OF 500 MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION. D. SOD MUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OF WET) MAY ADVERSELY AFFECT ITS SURVIVAL E. SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPLANTED

WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION. SOD INSTALLATION A. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD. B. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND 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. C. WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. ROLL AND TAMP. PEG OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.

). WATER THE SON IMMENIATELY FOLLOWING ROLLING AND TAMPING LINTIL THE LINDERSIDE OF THE NEW SON PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING, AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS.

3. 500 MAINTENANCE A. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT WILTING. B. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT. C. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF MUST BE REMOVED BY

THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS

## STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE A.) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1). B.) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER

## B-4-8 STANDARDS AND SPECIFICATIONS

FOR STOCKPILE AREA A mound or pile of soil protected by appropriately designed erosion and sediment control measures. Purpose To provide a designated location for the temporary storage of soil that controls the potential for erosion,

sedimentation, and changes to drainage patterns. Conditions Where Practice Applies

Stockpile areas are utilized when it is necessary to salvage and store soil for later use. Criteria

1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan. 2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading. 3. Runoff from the stockpile area must drain to a suitable sediment control practice.

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

control practice must be used to intercept the discharge. 7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization. 8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable

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

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

THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

<u>PURPOSE</u>

TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

CONDITIONS WHERE PRACTICE APPLIES TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

A. SEEDING SPECIFICATIONS A. ALL SEED MUST MEET THE REQUIREMENT OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY, ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE

DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE B. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS. C. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN

FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED

ON THE CONTAINER. ADD FRESH 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 EFFECTIVE. D. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR

WEEDCONTROL 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.

1. 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 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 PLANTING.

II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN C. HYDROSFEDING: APPLY SEED UNIFORMLY WITH HYDROSFEDER (SLURRY INCLUDES SEED AND FERTILIZER). 1. 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; P20 (PHOSPHORUS), 200 POUNDS PER ACRE; K20 (POTASSIUM), 200 POUNDS PER ACRE.

HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.

II. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY

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

ANCHORING

1. MULCH MATERIALS (IN ORDER OF PREFERENCE) A. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED. B. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED

INTO UNIFORM FIBROUS PHYSICAL STATE. I. WCFM 15 TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN

APPROPRIATE COLOT TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY. II. WCFM. INCLUDING DYE. MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS. 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 BY 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 0.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.

2. APPLICATION

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 TO A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD

CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER. 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 UPON THE SIZE OF-STHE AREA AND EROSION HAZARD: I. A MULCH ANCHORING, TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR. II. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS

PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER. III. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR, OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID

BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS, USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED. IV. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4-15 FEET WIDE AND 300 TO 3,000 FEET LONG.

## HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

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

b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding any other earth disturbance or grading.

c. Prior to the start of another phase of construction or opening of another grading unit, d. Prior to the removal or modification of sediment control practices.

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

2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.

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

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

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

6. Site Analysis For Total Site Area:

Total Area of Site: 1.82+/- Acres LOD Total Area Disturbed: 1.31+/- Acres 0.21+/- Acres Area to be roofed or paved: Area to be vegetatively stabilized: 1.61+/- Acres 1,000 Cu.Yds.

1,000 Cu. Yds. N/A Offsite waste/borrow area location: ___

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

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

• Inspection type (routine, pre-storm event, during rain event)

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

 Evidence of sediment discharges Identification of plan deficiencies

• Identification of sediment controls that require maintenance Identification of missing or improperly installed sediment controls

• Compliance status regarding the sequence of construction and stabilization requirements Photographs Monitoring/sampling

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

9. Trenches for the construction of utilities is limited to three pipe lengths or that which can and shall be back-filled and stabilized by the end of each workday, whichever is shorter 10. Any major changes or revisions to the plan or sequence of construction must be reviewed and approved by

11. Disturbance shall not occur outside the L.O.D. A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage of 20 ac. per grading unit) at a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been

stabilized and approved by the HSCD. Unless otherwise specified and approved by the HSCD, no more than 30

acres cumulatively may be disturbed at a given time. 12. Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a

the HSCD prior to proceeding with construction. Minor revisions may allowed by the CID per the list of

sediment basin or other approved washout structure. 1.3 Topsoil shall be stockpiled and preserved on-site for redistribution onto final grade. 14. All Silt Fence and Super Silt Fence shall be placed on—the—contour, and be imbricated at 25' minimum

intervals, with lower ends cyrled uphill by 2' in elevation. 15. Stream channels must not be disturbed during the following restricted time periods

Use I and IP March 1 — June 15

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

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

## TABLE B.1 TEMPORARY SEEDING FOR SITE STABILIZATION

	'•		,,			
DI ANT COSCC	SEEC	DING RATE 1/	SEEDING DEPTH ² /	RECOMMENDED	SEEDING DATES BY PLANT HA	RDINESS ZONE ^{3/}
PLANT SPECS	LB./AC.	LB./1000 FT. ²	(1) (0) (1)	5b AND 6a	6Ь	7a AND 7b
COOL-SEASON GRASSES		•				
ANNUAL RYEGRASS (LOLIUM PERENNE SSP. MUTIFLORUM)	40	1.0	0.5	MAR. 15 TO MAY 31; AUG. 1 TO SEPT. 30	MAR. 1 TO MAY 15; AUG. 1 TO OCT. 15	FEB. 15 TO APR. 30; AUG. 15 TO NOV. 30
BARLEY (HORDEUM VULGARE)	96	2.2	1.0	MAR. 15 TO MAY 31; AUG. 1 TO SEPT. 30	MAR. 1 TO MAY 15; AUG. 1 TO OCT. 15	FEB. 15 TO APR. 30; AUG. 15 TO NOV. 30
OATS (AVENA SATIVA)	72	1.7	1.0	MAR. 15 TO MAY 31; AUG. 1 TO 5EPT. 30	MAR. 1 TO MAY 15; AUG. 1 TO OCT. 15	FEB. 15 TO APR. 30; AUG. 15 TO NOV. 30
WHEAT (TRITICUM AESTIVUM)	120	2.8	1.0	MAR. 15 TO MAY 31; AUG. 1 TO SEPT. 30	MAR. 1 TO MAY 15; AUG. 1 TO OCT. 15	FEB. 15 TO APR. 30; AUG. 15 TO NOV. 30
CEREAL RYE (SECALE CEREALE)	112	2.8	1.0	MAR. 15 TO MAY 31; AUG. 31 TO OCT. 31	MAR. 1 TO MAY 15; AUG. 1 TO NOV. 15	FEB. 15 TO APR. 30; AUG. 15 TO DEC. 15
WARM-SEASON GRASSES		•				
FOXTAIL MILLET (SETARIA ITALICA)	30	0.7	0.5	JUNE 1 TO JULY 31	MAY 16 TO JULY 31	MAY 1 TO AUGUST 14
PEARL MILLET (PENNISETUM GLAUCUM)	20	0.5	0.5	JUNE 1 TO JULY 31	MAY 16 TO JULY 31	MAY 1 TO AUGUST 14

1. SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY, AS 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 IN 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.

PROFESSIONAL CERTIFICATION HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/25.

Frank Manalansan II 2/14/2024 FRANK JOHN MANALANSAN II

ANDREW POPE 10446 OWEN BROWN ROAD COLUMBIA, MARYLAND 21044

301-641-0857

DATE

OWNER/DEVELOPER

SEDIMENT AND EROSION CONTROL NOTES AND DETAILS POPE PROPERTY LOTS 1 THRU 3

SEQUENCE OF CONSTRUCTION

2. NOTIFY "MISS UTILITY" AT LEAST 40 HOURS BEFORE BEGINNING ANY WORK AT

CONSTRUCTION/INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE

3. REQUEST A PRE-CONSTRUCTION MEETING WITH THE APPROPRIATE ENFORCEMENT

4. CLEAR AND GRUB AS NECESSARY FOR THE INSTALLATION OF PERIMETER CONTROLS.

5. COMMENCE INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE AND PERIMETER

6. OBTAIN APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR TO PROCEED. (1 DAY)

COMMENCE SITE GRADING TO PROPOSED SUB-GRADE, INSTALLATION OF UTILITIES,

7a. COMPLETE INSTALLATION OF PERMEABLE PAVEMENT FACILITIES AND DRYWELLS. ALL

9. AT COMPLETION OF ALL CONSTRUCTION WORK, CONTRACTOR SHALL PERMANENTLY

STABILIZE ANY DISTURBANCE. (1 DAY)
9. OBTAIN APPROVAL OF SEDIMENT CONTROL INSPECTOR PRIOR TO THE REMOVAL OF

10. NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE

CONTRIBUTING DRAINAGE AREAS SHALL BE STABILIZED PRIOR TO INSTALLATION OF

SEDIMENT CONTROLS. REMOVE ANY REMAINING SEDIMENT CONTROLS AND STABILIZE

ALL AREAS THAT ARE DISTURBED BY REMOVAL OF SEDIMENT CONTROLS. (3 DAYS)

1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF

STARTING WORK.

CONTROLS. (1 WEEKS)

SITE FEATURES, AND STRUCTURES.

AFTER EACH RAINFALL AND ON A DAILY BASIS.

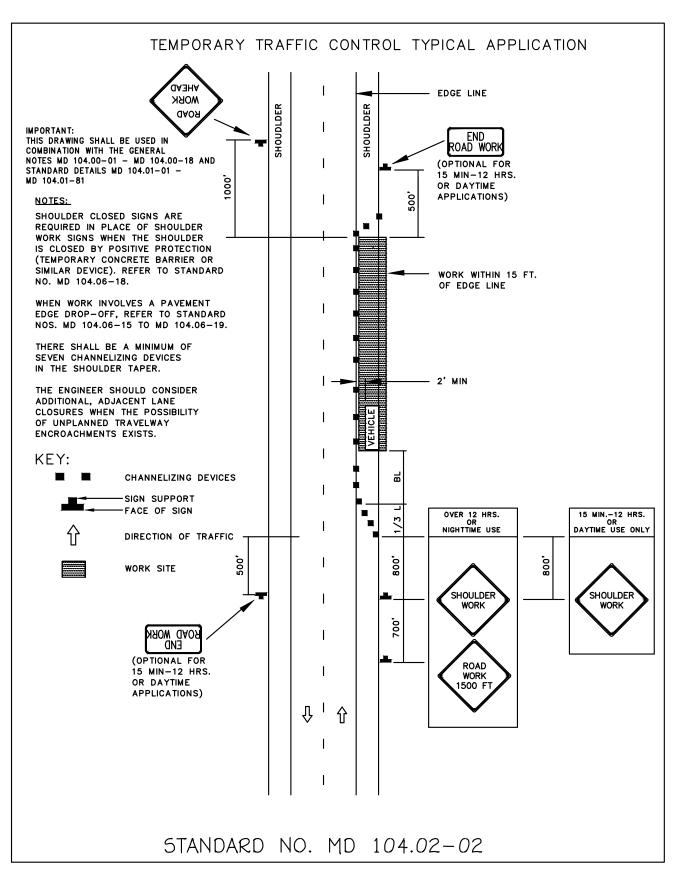
(10446 OWEN BROWN ROAD) TAX MAP NO.: 35 GRID NO.: 12 PARCEL NO.:179

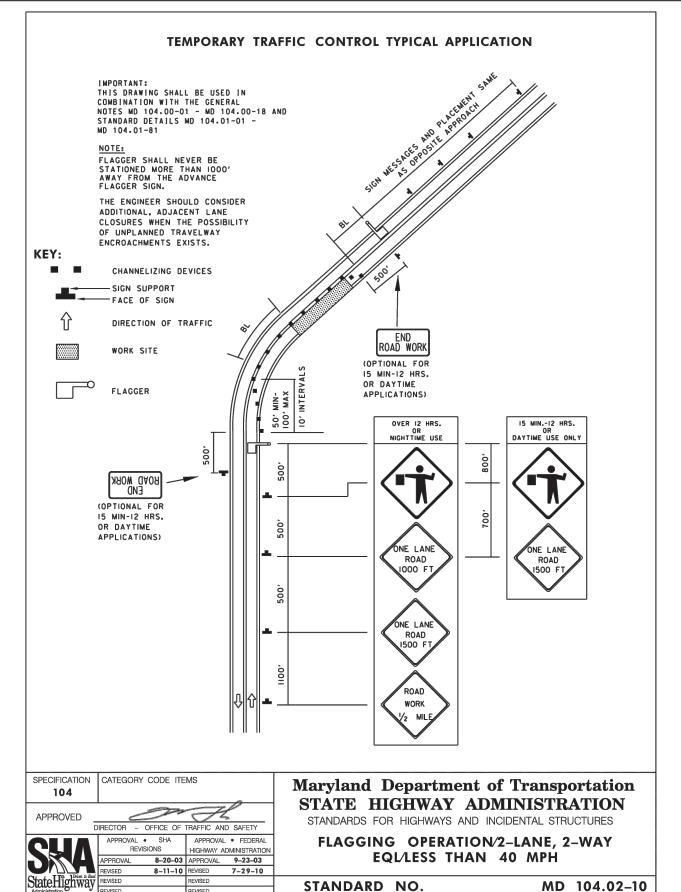
ZONED R-20 PREVIOUS HOWARD COUNTY FILES: ECP-19-055

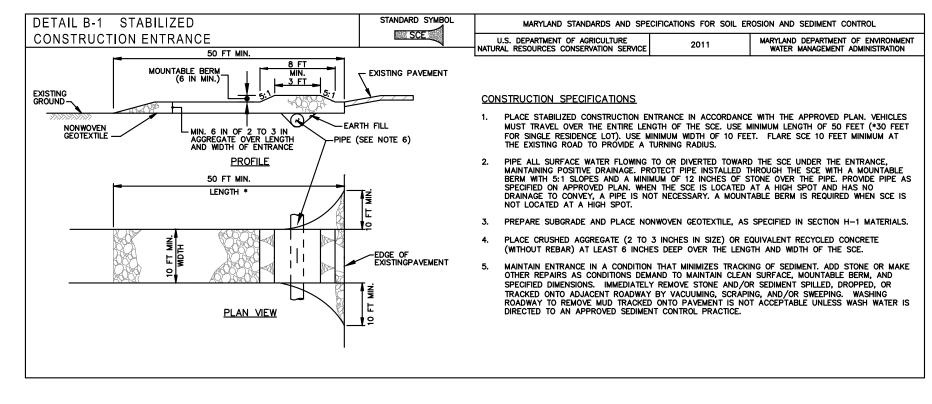
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: FEBRUARY, 2024 SHEET 7 OF 9

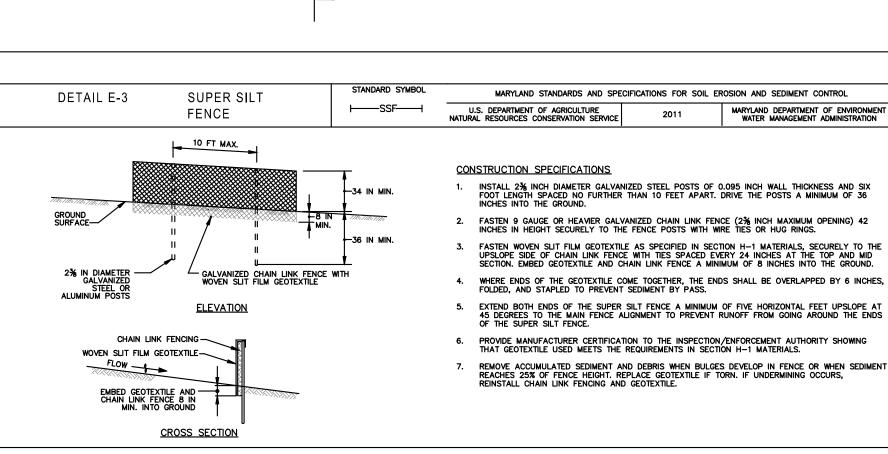
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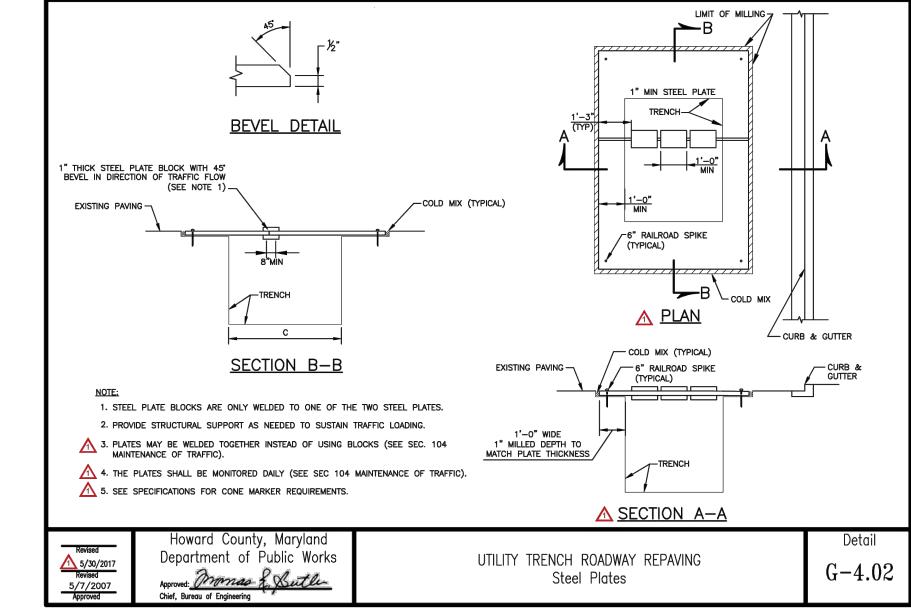
FISHER. COLLINS & CARTER. INC. VIL ENGINEERING CONSULTANTS & LAND SURVEYORS NNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042

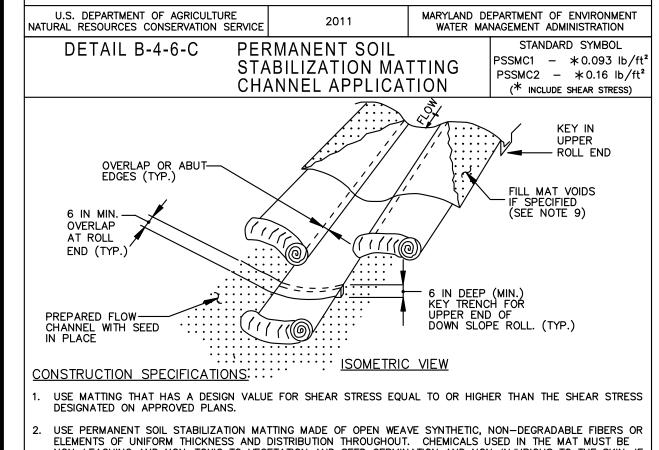












MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF

PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND

- SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 ½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM
- 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT
- PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL
- UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
- OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT. KEY IN THE TOP 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.
- 8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
- . IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
- 10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

> SEDIMENT AND EROSION CONTROL AND TRAFFIC CONTROL DETAILS

## POPE PROPERTY LOTS 1 THRU 3

(10446 OWEN BROWN ROAD) TAX MAP NO.: 35 GRID NO.: 12 PARCEL NO.:179 ZONED R-20

PREVIOUS HOWARD COUNTY FILES: ECP-19-055 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: FEBRUARY, 2024

PROFESSIONAL CERTIFICATION HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/25.

Frank Manalansan 1

2/14/2024

OWNER/DEVELOPER

10446 OWEN BROWN ROAD

COLUMBIA, MARYLAND 21044

301-641-0857

FRANK JOHN MANALANSAN II

CIVIL ENGINEERING CONSULTANTS & LAND SURVEYOR. ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2855

FISHER, COLLINS & CARTER, INC.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of the control of th

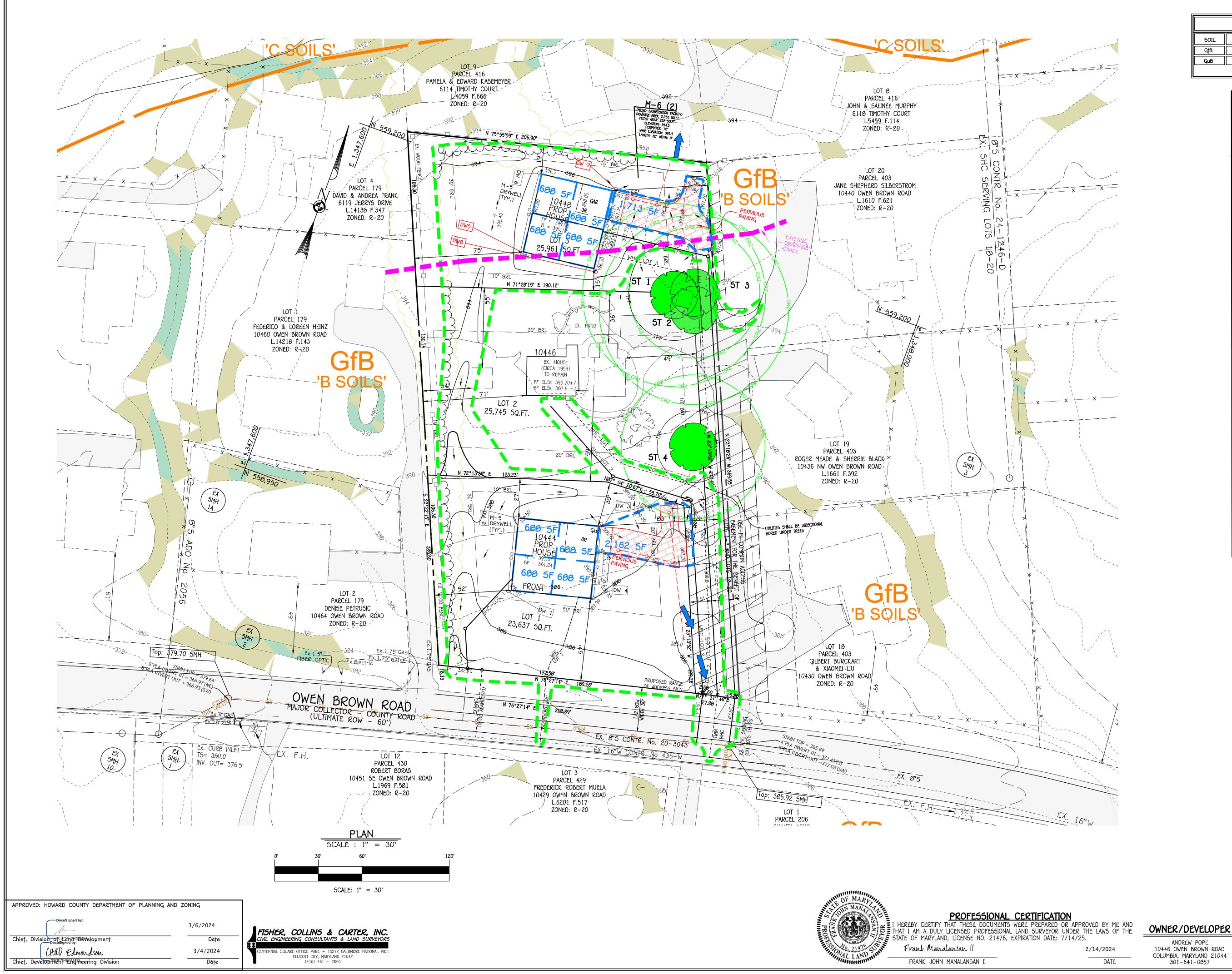
Chief, Development Engineering Division

(Hdl) Edmondson

3/6/2024

3/4/2024

SHEET 8 OF 9 F-19-*0*77



	50IL5 LEGEND		
50IL	NAME	CLA55	'K'VALUE
GfB	Gladstone-Urban land complex, 0 to 8 percent slopes	В	0.32
Guß	Glenville-Urban land-Udorthents complex, 0 to 8 percent slopes	С	0.49

	LEGEND
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	EXISTING CONTOUR 10' INTERVAL
	PROPOSED CONTOUR 10' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
	EXISTING FENCE
× 448.5	SPOT ELEVATION
18"_50	EXISTING STORM DRAIN
下 <b>EX. F.H.</b>	EXISTING WATER LINE
<u> </u>	EXISTING SEWER LINE
онw	EXISTING OVERHEAD WIRE
	EXISTING PAVING
	PRIVATE UIC EASEMENT
	,
	PRIVATE DRAINAGE & UTILITY EASEMENT
LOD	LIMIT OF DISTURBANCE
55F/TP	SUPER SILT FENCE/TREE PROTECTION FENCE
—— DF/TP ——	DIVERSION FENCE/TREE PROTECTION FENCE
~~~~	EXISTING TREE LINE
~~~~	PROPOSED TREE LINE
	DRAINAGE DIVIDES TO MICRO-BIORETENTION
	AND BIOSWALE
	DRAINAGE DIVIDE TO DRYWELLS
	EXISTING DRAINAGE DIVIDE
GhB LoB	SOIL LINES AND TYPES
	BIO RETENTION FACILITY  (F-6) OR (M-6)  AS NOTED
0	PROPOSED ROOF LEADER
	DENOTES EXISTING TREES TO REMAIN
5T 3 CRZ	SPECIMEN TREE
	COLLICAT GOOT ZON'S
The state of the s	CRITICAL ROOT ZONE
<b>⊕</b> B-1	DENOTES SWM TEST BORING LOCATION
TPF	TREE PROTECTION FENCING
TPF	TREE PROTECTION FENCING  OVERFLOW PATHWAY

STORMWATER MANAGEMENT POPE PROPERTY LOTS 1 THRU 3

(10446 OWEN BROWN ROAD) TAX MAP NO.: 35 GRID NO.: 12 PARCEL NO.:179 ZONED R-20

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