ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD.

. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING /

CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST 48 HOURS PRIOR TO THE START OF WORK.

4. A) IF REQUIRED, ANY RI-I ("STOP") SIGN OR THE STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED. B) THE TRAFFIC CONTROL DEVICE 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

C) ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MDMUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT. D) ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTEI ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH" TYPE), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THEANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.

PROJECT BACKGROUND:

PROPERTY IS ZONED R-SA-8 PER ZB-II22M FIFTH ELECTION DISTRICT ELECTION DISTRICT

AREA OF BUILDABLE LOTS: PARCEL 'A': 8.7 AC.

APPLICABLE DPZ FILE REFERENCES: ZB-1109, ZB-1122M, WP-21-027 and GP-21-071; ECP-21-016, WP-21-041, F-21-052, SDP-04-094 and F-22-022

6. TOPOGRAPHIC SURVEY WAS PERFORMED IN JULY, 2020 BY GLW.

7. COORDINATES ARE BASED ON NAD '83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATION NUMBERS: 46AA AND 46BF

8. THE EXISTING UTILITIES SHOWN HEREIN WERE DERIVED FROM AVAILABLE PUBLIC RECORDS. THE CONTRACTOR MUST DIG TEST PITS BY HAND AT ALL UTILITY CROSSINGS AND CONNECTION POINTS TO VERIFY EXACT LOCATION.

9. SPOT ELEVATIONS SHOWN FOR CURB ARE BOTTOM OF CURB UNLESS OTHERWISE NOTED.

IO. ALL PLAN DIMENSIONS ARE TO THE FACE OF BUILDING OR CURB UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIAL BETWEEN ITEMS UNLESS NOTED OTHERWISE. CURB RADII ARE 5' UNLESS NOTED OTHERWISE.

THE CEMETERY INVENTORY MAP DOES NOT SHOW ANY CEMETERIES ON SITE OR IN THE VICINITY

12. THE SCENIC ROADS MAP DOES NOT INDICATE ANY SCENIC ROADS ABUTTING THE SITE OR IN THE VICINITY.

3. THE FIISTORIC SITES MAP DOES NOT SHOW ANY HISTORICAL SITES WITHIN THE PROJECT LIMITS.

14. THE GEO-TECHNICAL REPORT WAS PROVIDED BY GEO-TECHNOLOGY ASSOCIATES, INC. DATED **OCTOBER 21. 2020**

I5. A NOISE STUDY WAS PROVIDED BY POLYSONICS ACOUSTICS & TECHNOLOGY CONSULTING DATED OCTOBER 12, 2020. THE 65 DBA NOISE LINE ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS, AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPT OF HOUSING AND URBAN DEVELOPMENT. THE NOISE STUDY WAS PREPARED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF VOLUME III OF THE HOWARD COUNTY DESIGN MANUAL. IN ACCORDANCE WITH THOSE REGULATIONS, THE 65 DBA CONTOUR SHOWN ON THE PLANS IS FROM THE TRAFFIC NOISE FROM MD ROUTE 216. MITIGATION OF ANY ADDITIONAL NOISE GENERATED FROM THE MECHANICAL EQUIPMENT SERVING THE GROCERY STORE ON THE NORTH SIDE OF ROUTE 216, WOULD BE THE RESPONSIBILITY OF THE GROCERY STORE TO THE EXTENT IT EXCEEDS THE ALLOWABLE LEVELS PER THE ZONING REGULATIONS. THE 65 DBA NOISE LINE FROM TRAFFIC NOISE DOES NOT IMPACT ANY OF THE UNITS OR THEIR CURTILLAGE.

THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY GEO-TECHNOLOGY ASSOCIATES, INC., DATED OCTOBER 1, 2020 AND APPROVED WITH ECP-21-016 ON FEBRUARY 3, 2021. THERE ARE NO STREAMS, WETLANDS, OR BUFFERS WITHIN THE LIMITS OF THE SITE.

. SOILS DATA WAS TAKEN FROM THE SOIL SURVEY OF HOWARD COUNTY, MARYLAND ISSUED MARCH, 2008

18. A TRAFFIC REPORT WAS PROVIDED BY THE TRAFFIC GROUP, DATED MARCH, 2021. BASED UPON THE DATA AND ANALYSES PRESENTED IN THIS STUDY, THE PROPOSED DEVELOPMENT OF THE GATES AT MAPLE LAWN CAN BE ACCOMMODATED BY THE SURROUNDING ROAD SYSTEM. THE RESULTS OF THE CAPACITY ANALYSES FOR THE STUDY INTERSECTIONS FOR ITING, BACKGROUND, AND TOTAL FUTURE TRAFFIC VOLUMES SHOW THAT ACCEPTABLE LEVELS OF SERVICE CAN BE MAINTAINED AT ALL INTERSECTIONS INCLUDED IN THIS STUDY. THEREFORE, THE PROPOSED DEVELOPMENT SATISFIES HOWARD COUNTY ADEQUATE ROAD FACILITIES TEST EVALUATION REQUIREMENTS

I9. BOUNDARY INFORMATION IS FROM BOUNDARY SURVEYS BY GUTSCHICK, LITTLE, AND WEBER, P.A., DATED JULY, 2020

20. A FOREST STAND DELINEATION LETTER DATED OCT. I, 2020 WAS FILED WITH ECP-2I-016 THAT VERIFIED THAT THERE ARE NO FOREST OR SPECIMEN TREES ON THE SITE

NO GRADING. REMOVAL OF VEGETATIVE COVER OR TREES, OR PLACEMENT OF NEW STRUCTURES IS PERMITTED WITHIN LIMITS OF WETLANDS, STREAMS OR THEIR REQUIRED BUFFERS, OR IOO YEAR FLOODPLAIN AREAS, UNLESS PERMITTED UNDER AN APPROVED WAIVER PETITION OR DETERMINED TO BE ECCENTIAL OR NECESSARY BY DPZ

23. THE PROJECT IS WITHIN THE METROPOLITAN DISTRICT. WATER SERVICE IS PUBLIC AND SEWER SERVICE IS PUBLIC (CONTR. #24-5179-D)

24. FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION ACT. THERE ARE 4 FCEs (all are afforestation, 2 are on-site and 2 are off-site. The off-site easements are on the adjoining property) FOR THIS PROJECT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED. THE TOTAL FOREST CONSERVATION SURETY FOR THIS PROJECT IS \$28,425.50 (of which \$15,295.50 is for on-site afforestation \$13,130.00 for the off-site afforestation). FOR ADDITIONAL FOREST CONSERVATION INFORMATION FOR THIS PROJECT ARE ON SHEETS 24-26.

25. ALL OUTDOOR LIGHTING SHALL COMPLY WITH SECTION 134 OF THE ZONING REGULATIONS. 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 RESIDENTIAL DEVELOPMENTS (JUNE 1993)." A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY TREE

26. TRASH COLLECTION, SNOW REMOVAL, AND ROAD MAINTENANCE WILL BE PROVIDED BY THE CONDOMINIUM ASSOCIATION.

27. THE REQUIRED LANDSCAPE BUFFER PLANTINGS ARE PROVIDED IN ACCORDANCE WITH SECTION 16.124 AND THE HOWARD COUNTY LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$58,500.00 HAS BEEN POSED WITH THE DEVELOPERS AGREEMENT FOR THE REQUIRED PLANTING SHOWN ON SEE SHEETS 24, 25 AND 37.

28. MINIMUM BUILDING SETBACK RESTRICTIONS FROM PUBLIC ROADS AND PROPERTY LINES SHALL BE PROVIDED IN ACCORDANCE WITH THE ZB-1122 M

29 APPROVAL OF THIS SITE DEVELOPMENT PLAN (SDP) DOES NOT ENSURE APPROVAL OF BUILDING PERMIT APPLICATIONS ASSOCIATED WITH THIS PLAN.

30. STORMWATER MANAGEMENT FOR THIS SITE WILL BE PROVIDED IN ACCORDANCE WITH CHAPTER 5 OF THE MDE STORMWATER DESIGN MANUAL. BASED ON TABLE 5.3, THIS SITE HAS A TARGET PE OF 1.8". IN ORDER TO FULFILL THE STORMWATER MANAGEMENT REQUIREMENTS A COMBINATION OF DRY WELLS (M-5), MICRO-BIORETENTION (M-6). AND BIORETENTION (F-6) WILL BE USED. ALL FACILITIES WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.

31. A PRE-SUBMISSION COMMUNITY MEETING WAS HELD FOR THIS PROJECT ON 12/3/18 AT EMMANUEL UNITED METHODIST CHURCH IN COMPLIANCE WITH SECTION 16.128 OF THE AMENDED 5TH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.

DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE

FOLLOWING MINIMUM REQUIREMENTS WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE)

SURFACE - 6" OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1 1/2" MIN) GEOMETRY - MAX, 15% GRADE, MAX 10% GRADE CHANGE AND MIN, 45' TURNING RADIUS

STRUCTURE (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING DRAINAGE ELEMENTS - SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN I FOOT DEPTH OVER DRIVEWAY SURFACE.

MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE

33. IN ACCORDANCE WITH SECTION 128.0.A.I OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES, OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK, A SETBACK FROM A PROJECT BOUNDARY, A SETBACK FROM A DIFFERENT ZONING DISTRICT, OR A REQUIRED DISTANCE BETWEEN BUILDINGS. SEE SEC. 128.O.A.I FOR OTHERS EXCEPTIONS.

34. ANY DAMAGE TO THE ADJACENT COUNTY OR STATE OWNED RIGHT-OF-WAY AND PROPERTY SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

35. PRIOR TO RECORDATION OF THE PLAT, ALL EXISTING STRUCTURES SHALL BE REMOVED AND THE EXISTING WELL AND SEPTIC SHALL BE ABANDONED AND DOCUMENTATION SUBMITTED

36. AGE RESTRICTED ADULT HOUSING AND A MAXIMUM BUILDING LENGTH OF 240 FEET WAS APPROVED WITH ZB-1122M PER SECTION 100.0.G.2.q.

MP-21-041, A WAIVER REQUEST FROM SUBDIVISION SECTION 16.1209(B)(2), REQUIRING 75% ON-SITE FOREST CONSERVATION PLANTING WAS APPROVED ON FEBRUARY 10, 2021 UNDER THE FOLLOWING CONDITIONS: .) AT LEAST 0.70 ACRES OF AFFORESTATION MUST BE PROVIDED ON THE GATES AT MAPLE LAWN SITE AS SHOWN ON THE ENVIRONMENTAL CONCEPT PLAN EXHIBIT SUBMITTED WITH THIS PETITION. THE AFFORESTATION MUST BE PROVIDED IN ACCORDANCE WITH THE FOREST CONSERVATION REGULATIONS AND FOREST CONSERVATION MANUAL 2.) THE ON-SITE FOREST CONSERVATION EASEMENT AREAS MUST BE PLANTED WITH A MIXTURE OF LARGER STOCK PLANTINGS (I TO 3 GALLON AND I" AND 2" CALIPER) IN ACCORDANCE WITH THE STANDARDS IN THE FOREST CONSERVATION MANUAL 3.) THE APPLICANT MUST SATISFY THE REMAINING 0.60 ACRES OF AFFORESTATION BY PURCHASING CREDITS FROM AN ESTABLISHED FOREST MITIGATION BANK AND/OR FULFILLING THIS OBLIGATION BY PLANTING AT A SUITABLE OFF-SITE LOCATION, PREFERABLE WITHIN HIGH-PRIORITY LOCATIONS, TO BE APPROVED BY THIS DEPARTMENT DURING THE FINAL

4.) AN AGREEMENT AND AN EASEMENT FOR ACCESS AND MAINTENANCE MUST BE PREPARED, SIGNED AND EXECUTED BETWEEN THE APPLICANT AND HOWARD COUNTY FOR THE RELOCATED DRIVEWAY ONTO THE SUBJECT SITE (GATES AT MAPLE LAWN). THIS AGREEMENT/EASEMENT MUST BE RECORDED WITH THE FINAL PLAT AND REFERENCED ON ALL SUBDIVISION AND SITE PLANS FOR THIS PROJECT

THIS SITE CONTAINS AGE RESTRICTED ADULT HOUSING. UNIVERSAL DESIGN STANDARDS MUST BE INCORPORATED. THE AGE RESTRICTIONS ARE TO BE ENFORCED MONITORED BY THE HOA OR CONDOMINIUM ASSOCIATION. THE REQUIRED HOA/CONDOMINIUM DOCUMENTS AND COVENANTS ARE TO BE REVIEWED BY THE OFFICE OF LAW FOR LEGAL SUFFICIENCY AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY. THERE WILL BE A NO-STEP ACCESS FROM THE GARAGE INTO EACH UNIT.

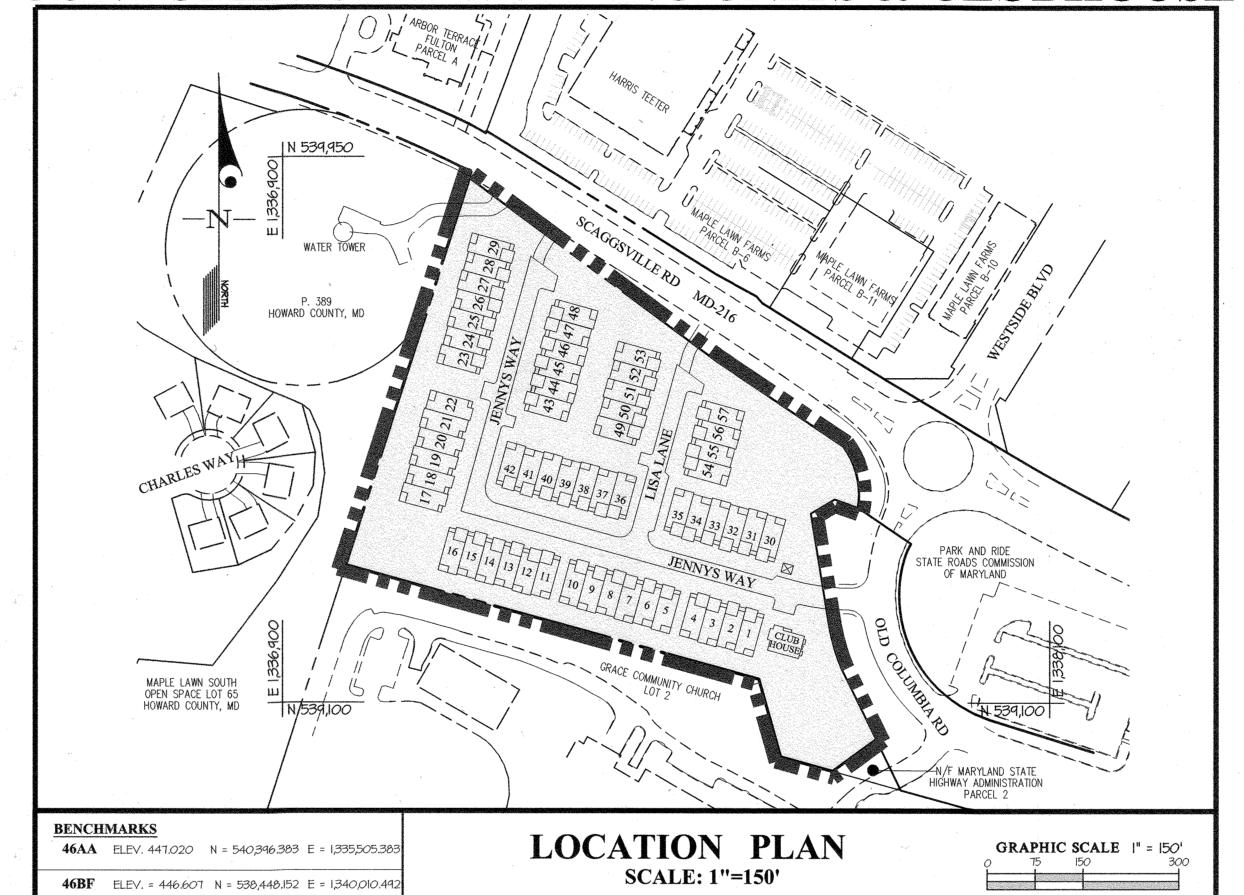
PER SECTION 3.105(C)(I)(I), A RESIDENTIAL UNIT WITH A GARAGE, CARPORT, OR DRIVEWAY SHALL FEATURE A DEDICATED ELECTRIC LINE OF SUFFICIENT VOLTAGE SO THAT AN ELECTRIC VEHICLE CHARGING STATION MAY BE ADDED IN THE FUTURE.

THE DEVELOPER, AT THEIR EXPENSE, WILL REBUILD THE WATER TOWER (PARCEL 389) DRIVEWAY ENTRANCE IN A NEW LOCATION THAT PROVIDES BETTER SIGHT DISTANCE AND A FULL MOVEMENT ENTRANCE. THE NEW DRIVEWAY WILL BE OWNED AND MAINTAINED BY HOWARD COUNTY. THE REBUILT DRIVEWAY WILL BE APPROX. 20' WIDE, 125' LONG AND P-3 PAVEMENT. SEE PLANS FOR MORE INFORMATION. DO NOT CONSTRUCT DRIVEWAY WITHOUT FINAL APPROVAL FROM DPW

SITE DEVELOPMENT PLAN GATES AT MAPLE LAWN

PARCEL A

57 AGE-RESTRICTED ADULT TOWNHOUSE CONDOMINIUM DWELLING UNITS & CLUBHOUSE



41. ON AUGUST 17, 2020, THE ZONING BOARD OF HOWARD COUNTY, AT THE REQUEST OF THE PETITIONER, FOUND A MISTAKE IN THE COMPREHENSIVE ZONING DETERMINATION THAT THE PROPERTY BE ZONED RR-DEO, AND GRANTED THE PETITIONER'S REQUEST FOR REZONING OF THE 8.78 ACRE SUBJECT PROPERTY FROM THE RR-DEO TO THE R-SA- 8, AND GRANTED APPROVAL OF THE PROPOSED DOCUMENTED SITE PLAN AS REQUESTED BY THE PETITIONER THE PETITIONER AGREES THAT IT WILL I. PLANT LANDSCAPE MATERIALS BETWEEN THE CHURCH AND THE DEVELOPMENT, AS WELL AS IN THE DIRECTION FACING SOUTH MAPLE LAWN TO MITIGATE THE NOISE COMING FROM THE CHURCH. CONTRIBUTE FINANCIALLY TO MOVING THE SIGN FOR THE CHURCH ALLOW THE FIBER OPTIC CABLE TO EXTEND THROUGH THE PETITIONER'S PROPERTY TO THE CHURCH TO PROVIDE HIGH SPEED INTERNET

42. THIS PROJECT WAS APPROVED UNDER A 'SITE PLAN ZONING PETITION' FOR AGE-RESTRICTED ADULT HOUSING, PER SECTION 100.G.2.G. OF THE ZONING

43. ON SEPTEMBER 23, 2020 AND PURSUANT TO SECTION 16.104, THE DIRECTOR OF THE DEPARTMENT OF PLANNING AND ZONING, APPROVED A FOR ALTERNATIVE COMPLIANCE, MP-21-027, WITH RESPECT TO SECTION 16.155(A)(2)(11) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO ALLOW A GP (GP-21-071) BE USED IN PLACE OF AN SDP IN ORDER FOR THIS SITE BE USED AS A TEMPORARY STOCKPILE AREA FOR THE EXCESS DIRT BEING REMOVED AS PART OF THE CONSTRUCTION AT THE JOHNS HOPKINS LABORATORY, APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS: I. THE DECLARATION OF INTENT (DOI) FOR CLEARING LESS THAN 20,000 SQUARE FEET OF FOREST, MUST BE SUBMITTED TO THE DIVISION OF LAND DEVELOPMENTPRIOR TO THE SIGNING OF THE GP. 2. THE APPLICANT SHALL COMPLY WITH ALL APPLICABLE COUNTY AND STATE REGULATIONS AND OBTAIN ALL NECESSARY PERMITS FROM THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS.

44. ALL EXISTING STRUCTURES ON SITE TO BE REMOVED PRIOR TO RECORDATION OF THE PLAT.

UNITS WILL BE PROVIDED BY A PRIVATE ON-SITE PUMP

45. IN ACCORDANCE WITH SECTION 16.121(D) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, THE OPEN SPACE REQUIREMENT FOR THIS CONDOMINIUM DEVELOPMENT SHALL BE SATISFIED BY THE DESIGNATION OF AN OPEN AREA ON THIS SITE DEVELOPMENT PLAN; THE DESIGNATED OPEN SPACE AREA NEED NOT TO BE A SEPARATE LOT, BUT IN ALL OTHER RESPECTS SHALL CONFORM TO OPEN SPACE REQUIREMENTS

46. THE 20' EMERGENCY EGRESS DRIVES WILL BE CONSTRUCTED BY THIS PLAN AND OWNED AND MAINTAINED BY THE CONDOMINIUM ASSOCIATION. THE FIRE DEPARTMENT WILL HAVE THE RIGHT TO ENFORCE NO PARKING RESTRICTIONS. 47. ON JULY 23, 2021 DMW2-22-001, A WAIVER TO HOWARD COUNTY DESIGN MANUAL VOLUME II - WATER AND SEWER, SECTION 4.3.B.3.B. AND 4.5.E. WAS APPROVED. THIS WAIVER ALLOWS GRAVITY SEWER SERVICE TO BE PROVIDED FOR THE FIRST FLOOR ONLY. BASEMENT SEWER SERVICE FOR THESE

48. IN AN EMAIL DATED SEPTEMBER 3, 2021, THE ADJACENT GRACE CHURCH PROPERTY OWNERS AGREED TO ALLOW A 5 FOOT NOISE FENCE IN LIEU OF THE NOISE BERM MENTIONED IN THE ZB-1122M DECISION AND ORDER.

SITE ANALYSIS DATA CHART

A. TOTAL PROJECT AREA: 8.7 AC.

D. USE: AGE-RESTRICTED ADULT HOUSING

E. TOTAL NUMBER OF UNITS ALLOWED: 57 (ZB-1122M)

COMMUNITY BUILDING SF PROVIDED: 1,960 SF

J. OPEN SPACE REQUIRED (25%): 2.18 AC.

K. OPEN SPACE PROVIDED: 2.45 AC (SEE NOTE 45)

RESIDENTIAL PARKING ANALYSIS

A. PARKING REQUIRED: 2 SPACES PER LOT + 0.3 SPACES PER LOT FOR VISITOR PARKING 57 UNITS X 2 SPACES = 114 ON LOT PARKING SPACES 57 UNITS X 0.3 SPACES = 18 ADDITIONAL PARKING SPACES

ITI SPACES PROVIDED ON-STREET PARKING = IT SPACES PROVIDED TOTAL: 188 SPACES PROVIDED

BULK REQUIREMENTS (ZB-1122M)

FOR UNITS WITH GARAGES

. ZONING: R-SA-8

F. TOTAL NUMBER OF UNITS PROPOSED: 57

COMMUNITY BUILDING SF REQUIRED (20 SF/UNIT): 1,140 SF

.. REC. OPEN SPACE REQUIRED: N/A

PARKING PROVIDED:

3 SPACES PER UNIT (I GARAGE & 2 DRIVEWAY) X 57 UNITS =

MIN. SETBACK OF STRUCTURE AND USE: FROM PUBLIC ROW. FROM NON-RESIDENTIAL USES OR OPEN SPACE FROM INTERIOR ROADWAY & DRIVEWAY

MIN. DISTANCES BETWEEN SINGLE-FAMILY ATTACHED BUILDINGS FACE TO FACE... FACE TO SIDE / REAR TO SIDE SIDE TO SIDE... . 15 FEET REAR TO REAR.. REAR TO FACE... 100 FEET MAXIMUM BUILDING HEIGHT.

B. LIMIT OF DISTURBED AREA: 9.7 AC.

G. APPLICABLE DPZ FILE REFERENCES: ZB-1109M, ZB-1122M,

GP-21-071, ECP-21-016, WP-21-027, WP-21-041, F-21-052,

SINGLE FAMILY ATTACHED (57 UNITS) TOTAL: 132 SPACES REQUIRED

TOTAL NUMBER OF LOTS/UNITS PROPOSED NUMBER OF MIHU REQUIRED (10% PER ZB-II22M) NUMBER OF MIHU PROVIDED ON-SITE (EXEMPT FROM APFO ALLOCATIONS)

MODERATE INCOME HOUSING UNIT (MIHU)

APPLICATION EXEMPTIONS TRACKING

NUMBER OF APFO ALLOCATIONS REQUIRED* (REMAINING LOTS/UNITS) MIHU FEE-IN-LIEU (INDICATE LOT/UNIT NUMBERS)

PER SECTION 13.402C.(a)(2) ** I EXISTING ALLOCATION ON PARCEL 282

DEVELOPMENT NAME: DISTRICT/AREA LOTS GATES AT MAPLE LAWN PARCEL-A * MIHU REQUIREMENT WILL BE PROVIDED BY A FEE-IN-LIEU TAX MAP GRID TAX PARCELS CENSUS TRA 25986-25988 R-SA-8 6051.02 COVER SHEET G. L. W. FILE No. GATES AT MAPLE LAWN PARCEL A TAX MAP - GRIL A RESUBDIVISION OF PARCEL 282 & SRC Plat No. 59938 Parcels 1 & 3 46 - 3L: 18909 F; 397, L: 19769, F: 001 HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING 21022 Land Developmen hièf, Development Engineering Division 💉 DESIGNED E

3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20866 | GLWPA.COM PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4186

DRAWN B DATE REVISION

MLT MAPLE LAWN LLC 1202 SHADY CREEK RD MARRIOTTSVILLE, MD 21104

BY APP'R

PULTE GROUP 9302 LEE HIGHWAY SUITE 1000 FAIRFAX, VA 22031 PH.: 703-934-9367 ATTN.: DON HUGHES

PREPARED FOR:

PROFESSIONAL CERTIFICATION HEREBY CERTIFY THAT THESE PLANS 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. 12975 EXPIRATION DATE: MAY 26, 2022

ELECTION DISTRICT No. 5

PN: 25986-25988

46AA ELEV. 447.020 N = 540,396,383 E = 1,335,505,383 ELEV. = 446.607 N = 538,448.152 E = 1,340,010.492

18. SEDIMENT CONTROL PLAN

20. SEDIMENT CONTROL DETAILS

21. SEDIMENT CONTROL DETAILS

22. SEDIMENT CONTROL DETAILS

28. RETAINING WALL DETAILS

29. RETAINING WALL DETAILS

19. SEDIMENT CONTROL PLAN PHASE 2

23. SEDIMENT CONTROL DRAINAGE AREA MAP

25. LANDSCAPE DETAILS, NOTES & SCHEDULES

26. FOREST CONSERVATION CHARTS, DETAILS

STREET ADDRESS

8062

8064

24. AFFORESTATION & LANDSCAPE PLAN

SHEET INDEX

COVER SHEET 2. SITE DEVELOPMENT PLAN . SITE DEVELOPMENT PLAN 4. SITE DETAILS WALL GRADING DETAILS . SITE DETAILS

PRIVATE ROAD PROFILES 8. PAVING AND CURB PLAN 9. UTILITY PLAN 10. STORM DRAIN DRAINAGE AREA MAP 27. PLANT COUNT DIAGRAMS STORM DRAIN PROFILES 12. STORM DRAIN PROFILES

14. ESD DRAINAGE AREA MAP 15. ESD DETAILS 16. ESD DETAILS 17. ESD DETAILS

MANAGEMENT

INFORMATION CHART

(M-5) DRY WELLS

(F-6) BIORETENTION

CONDO ASSOCIATION.

---- 400 --- EXISTING CONTOUR

EXISTING STORM DRAIN

STRUCTURE NUMBER

PROPOSED CURB AND GUTTER

FOREST CONSERVATION EASEMENT

CENTERLINE OF STREAM

STEEP SLOPES 25%+

PROPOSED EASEMENTS

PROPOSED STREET LIGHT

PROPOSED RETAINING WALL

EXISTING BUILDING

TO BE REMOVED

SOIL BOUNDARY

GnA SOIL TYPE

- OHW - OHW EXISTING OVERHEAD WIRES

65U UNMITIGATED 65 dBA NOISE

LIMIT OF DISTURBANCE

-EXISTING UTILITY POLES

LINE FROM TRAFFIC NOISE (SEE

T.B.R.

PROPOSED BUILDING -PROPOSED DRIVEWAY

(PER 16.108.b.55)

SETBACK LINE

----- EXISTING EDGE OF PAVEMENT

--- FP--- FP --- IOO YEAR FLOODPLAIN

----- WB ------ WETLAND BUFFER

PROPOSED STORM DRAIN

PROPOSED SANITARY SEWER (PRIVATE)

---- PROPOSED WATER HOUSE CONNECTION

(M-6) MICRO-BIORETENTION

ALL FACILITIES ARE PRIVATELY

OWNED AND MAINTAINED BY THE

13. PRIVATE SEWER PROFILES 30. RETAINING WALL DETAILS 31. RETAINING WALL DETAILS 32. SIGNING AND STRIPING PLAN 33. MOT PHASE 34. MOT PHASE 2 35. MOT PHASE 3 36. MOT PHASE 4 37 MOT PHASE 38. MOT PHASE 6 39. MOT PHASE 7

ADDRESS CHART

STREET ADDRESS COMMUNITY BLDG. 8001 JENNYS WAY 8069 JENNYS WAY MAIL PAVILION 8004 8006

8007 8008 8010 8011 8012 8014 8017 8018 8020 802 8022 8023 8024 8025 8026 8029 8028 8031 42 8030 8033 8054 8035 8056 8037 8*0*58 8039 8060

8047 8049 8101 LISA LANE 805 8103 22 8053 8105 8057 52 8107 8059 8109 8100 806 8063 8102 8104 8065 8067 57 8106

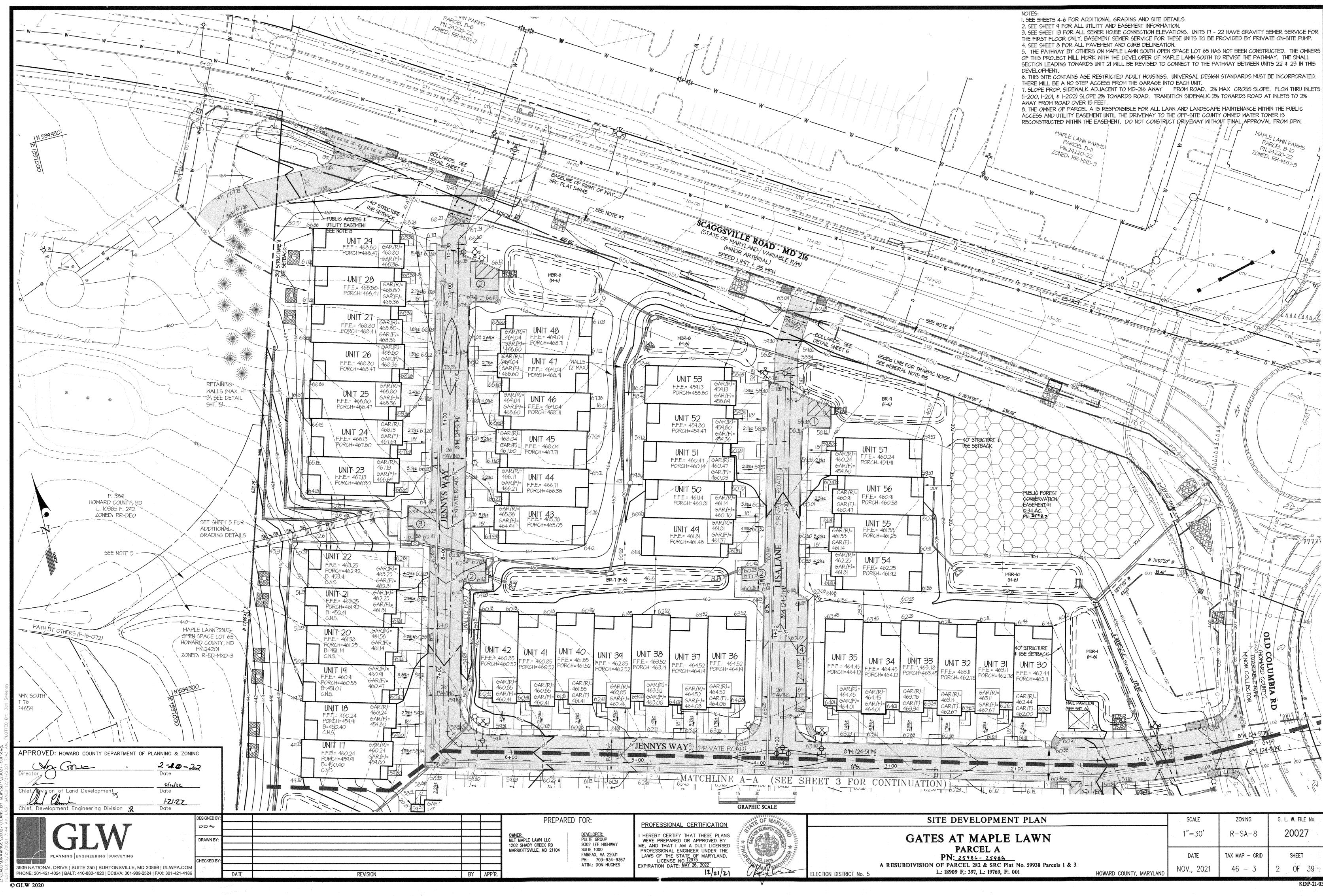
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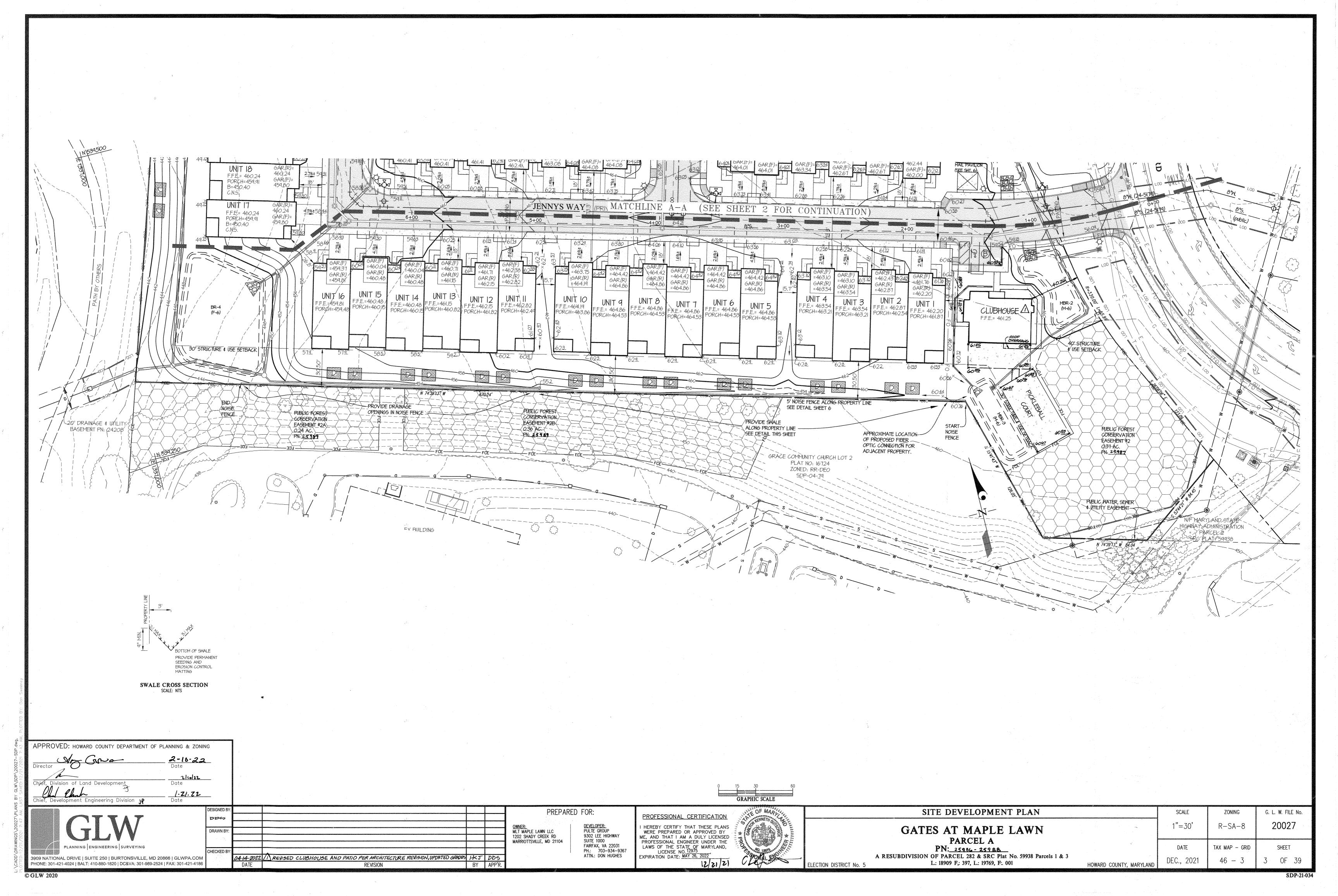
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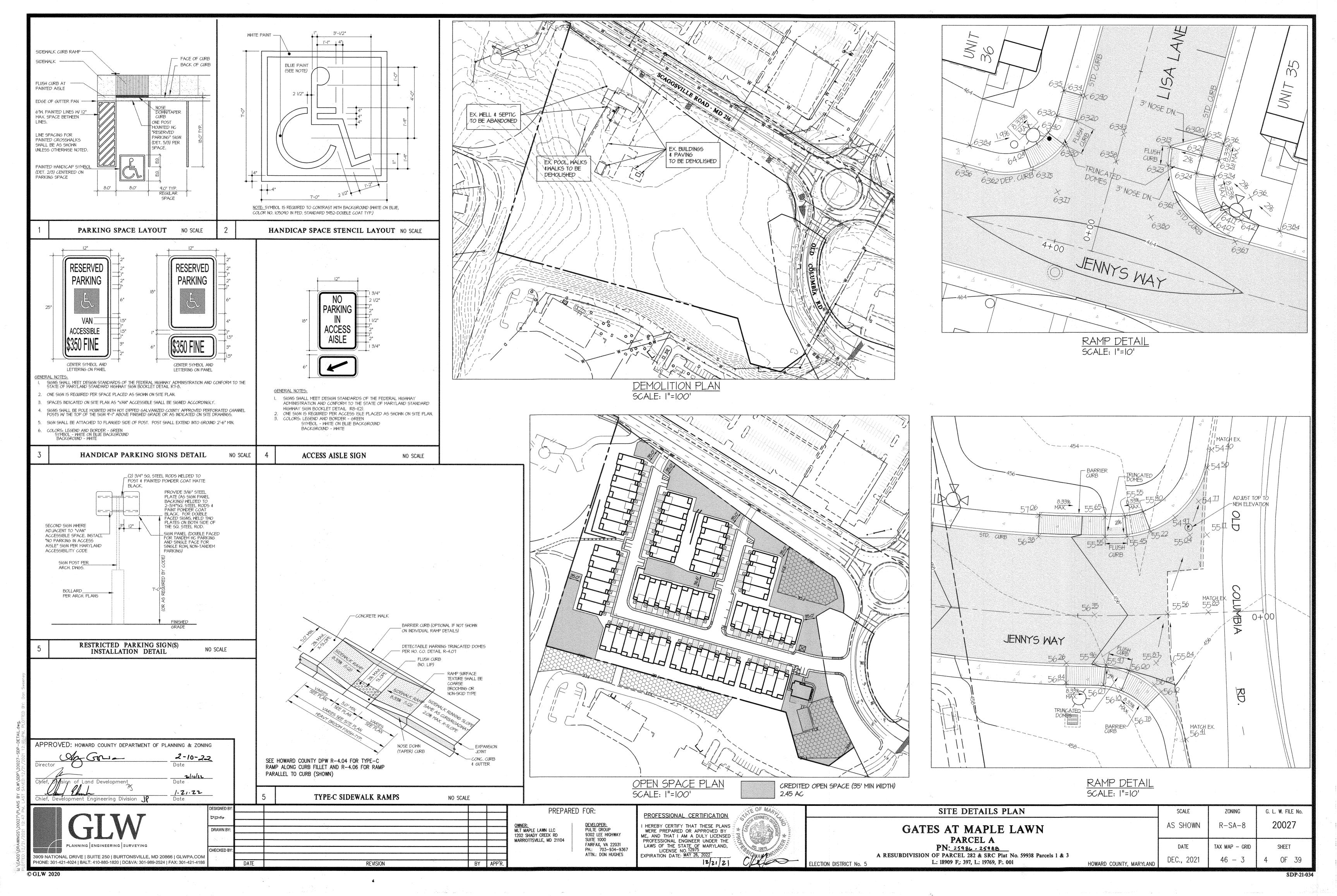
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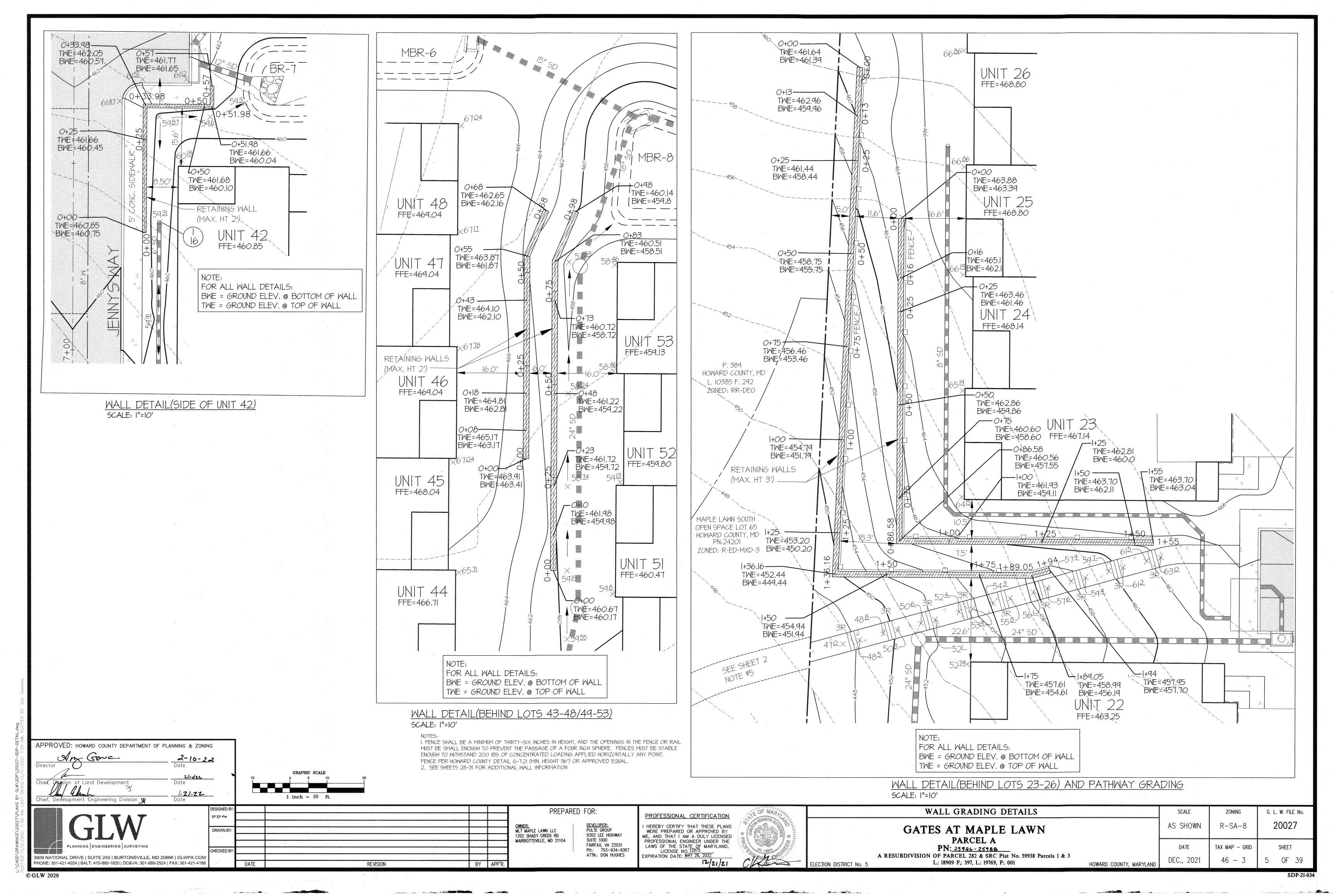
WATER CODE: SEWER CODE:

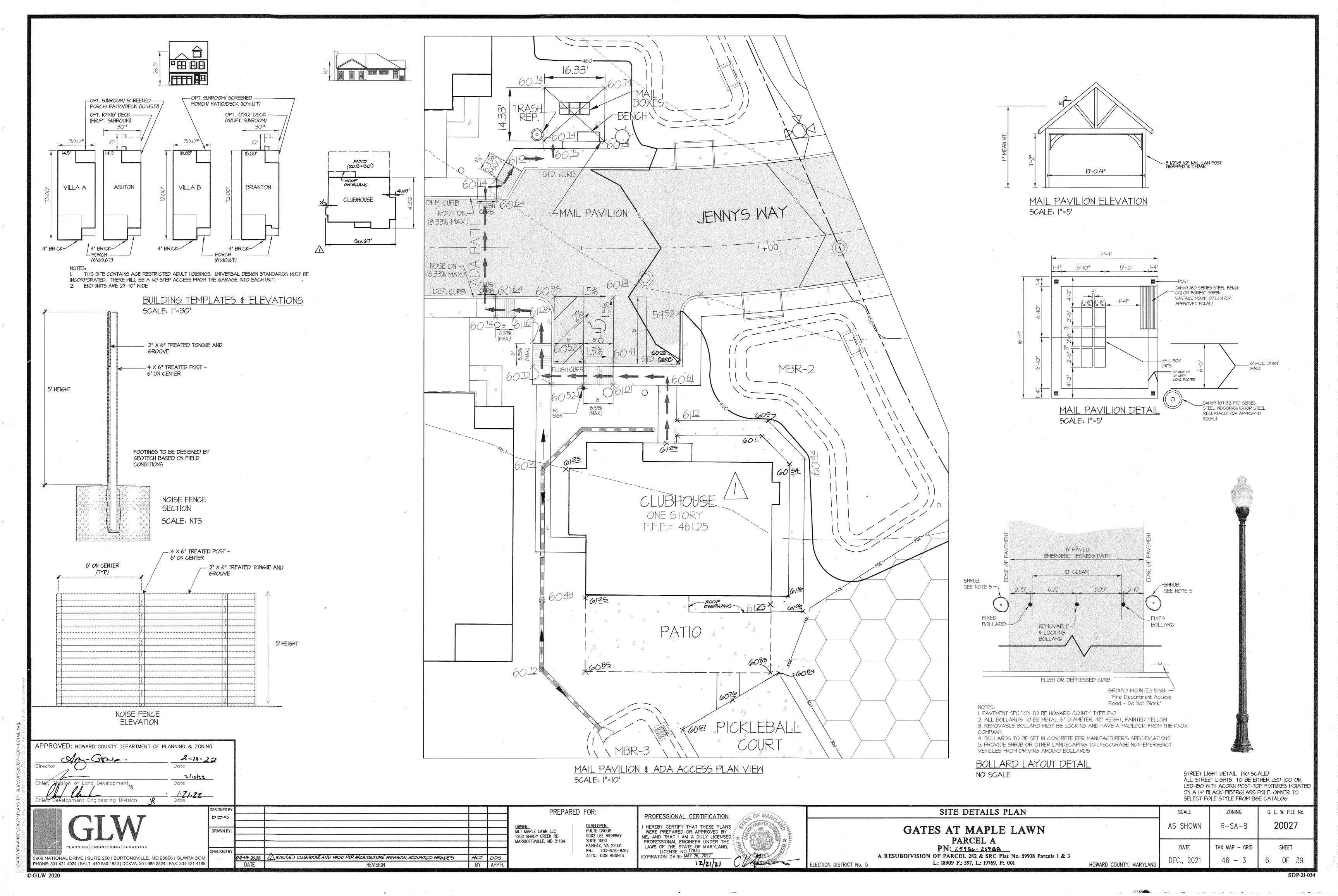
PERMIT INFORMATION CHART

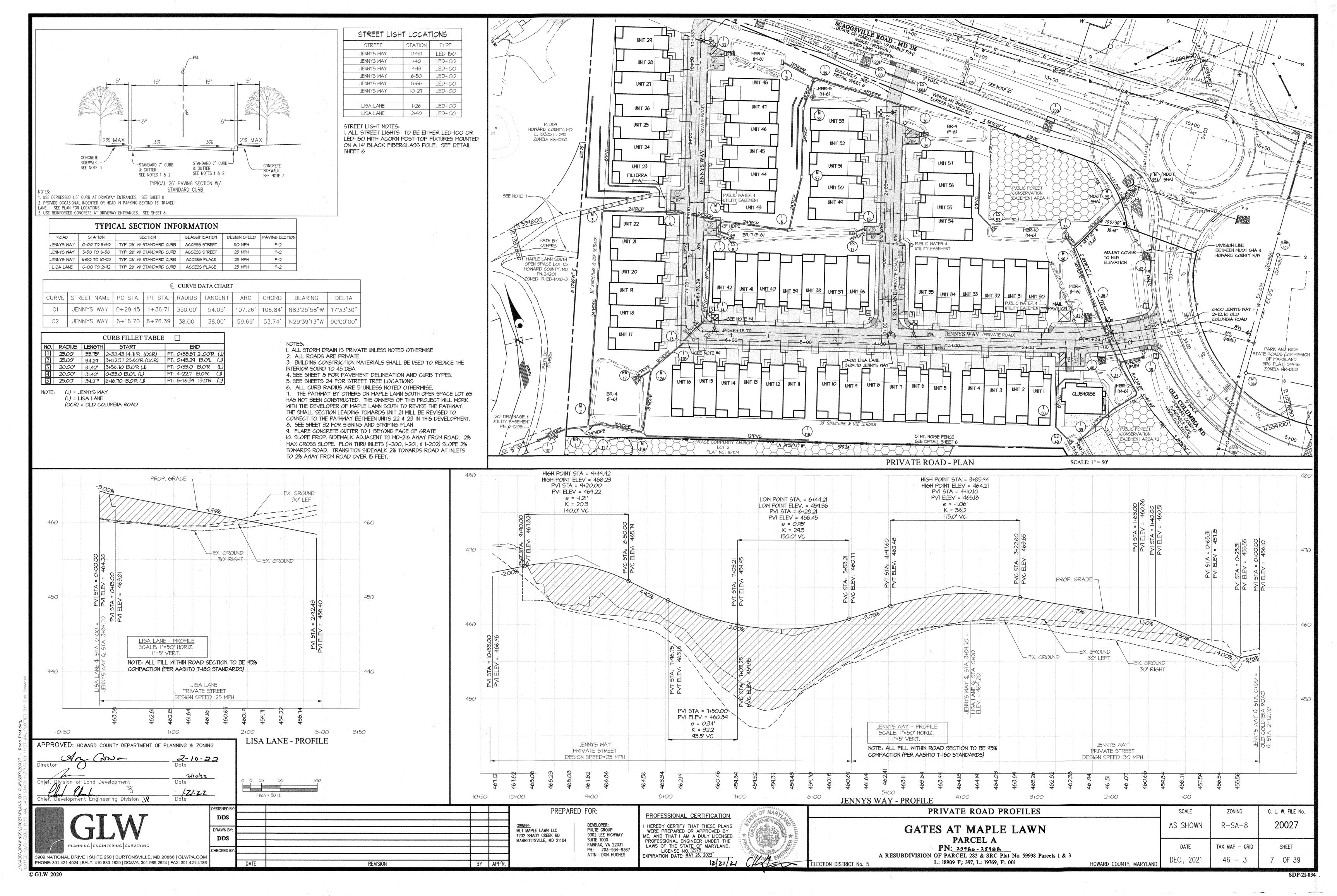


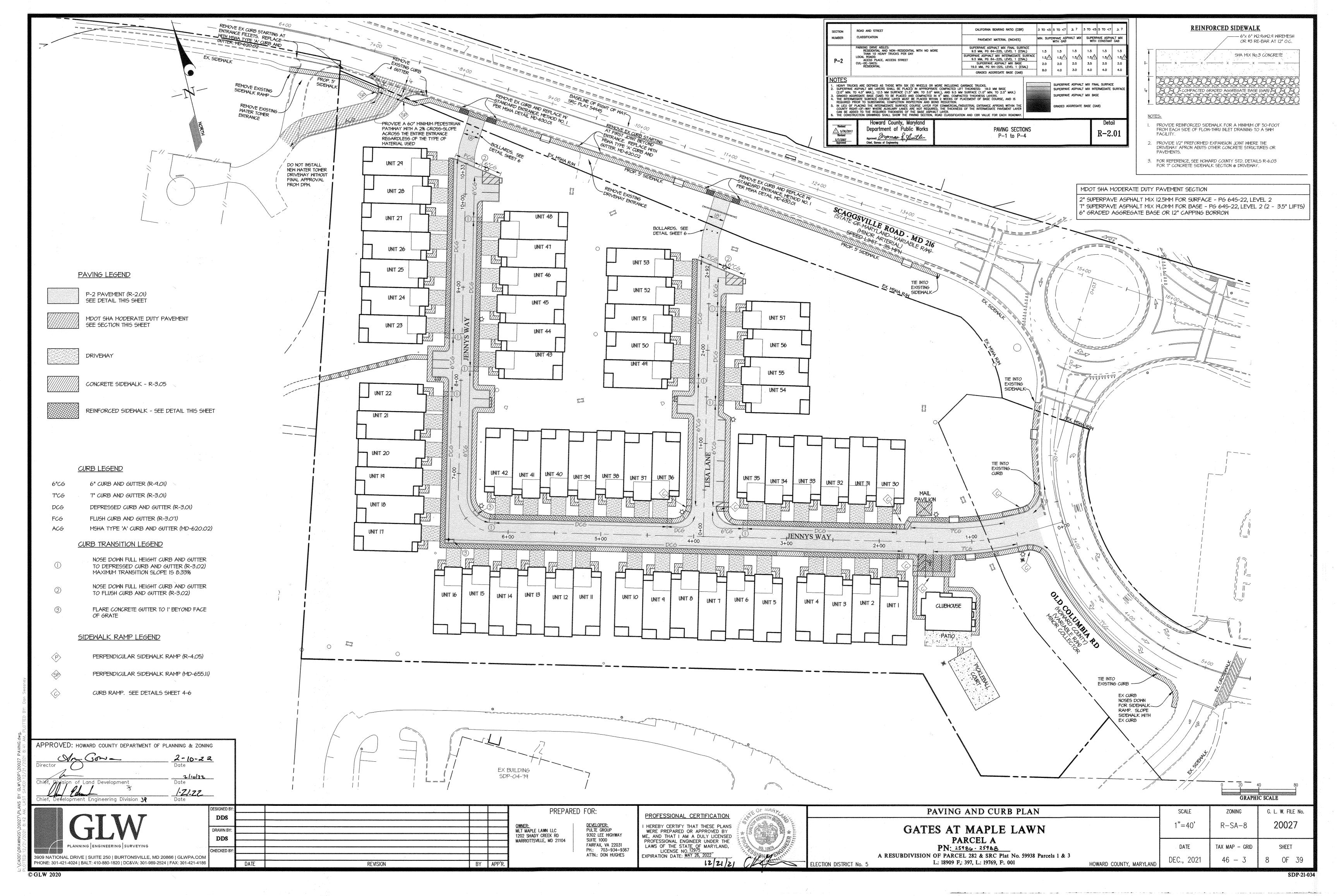


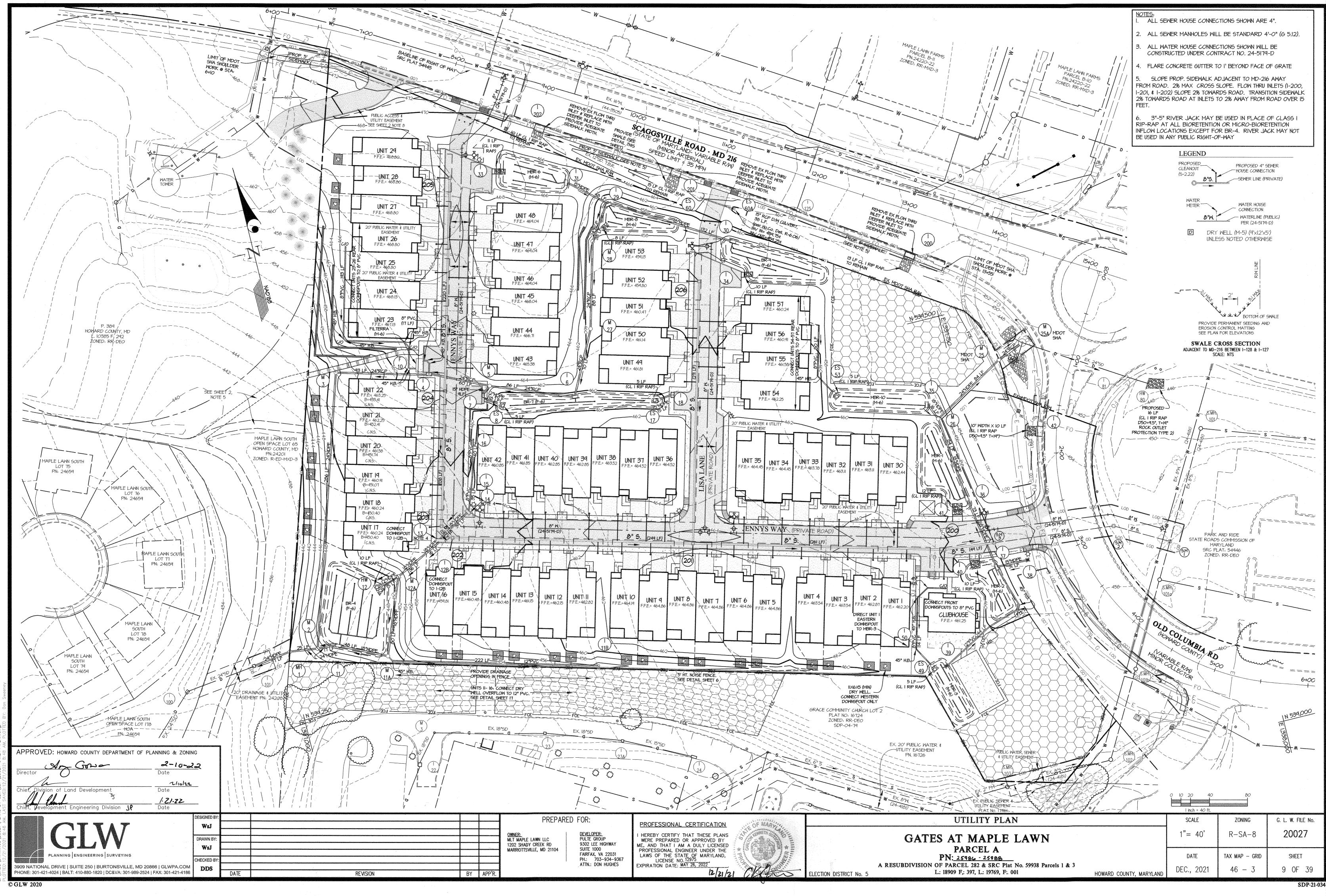


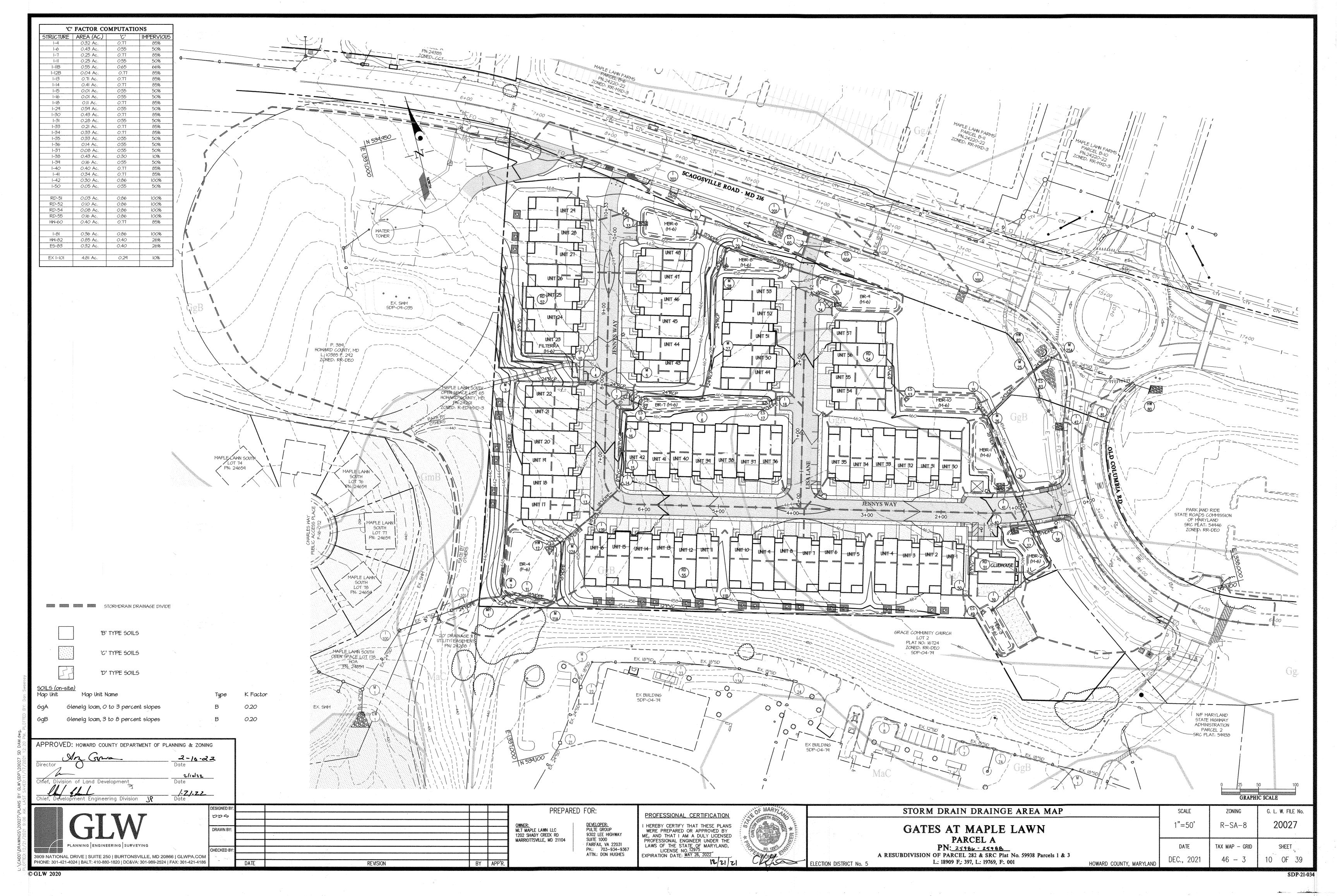


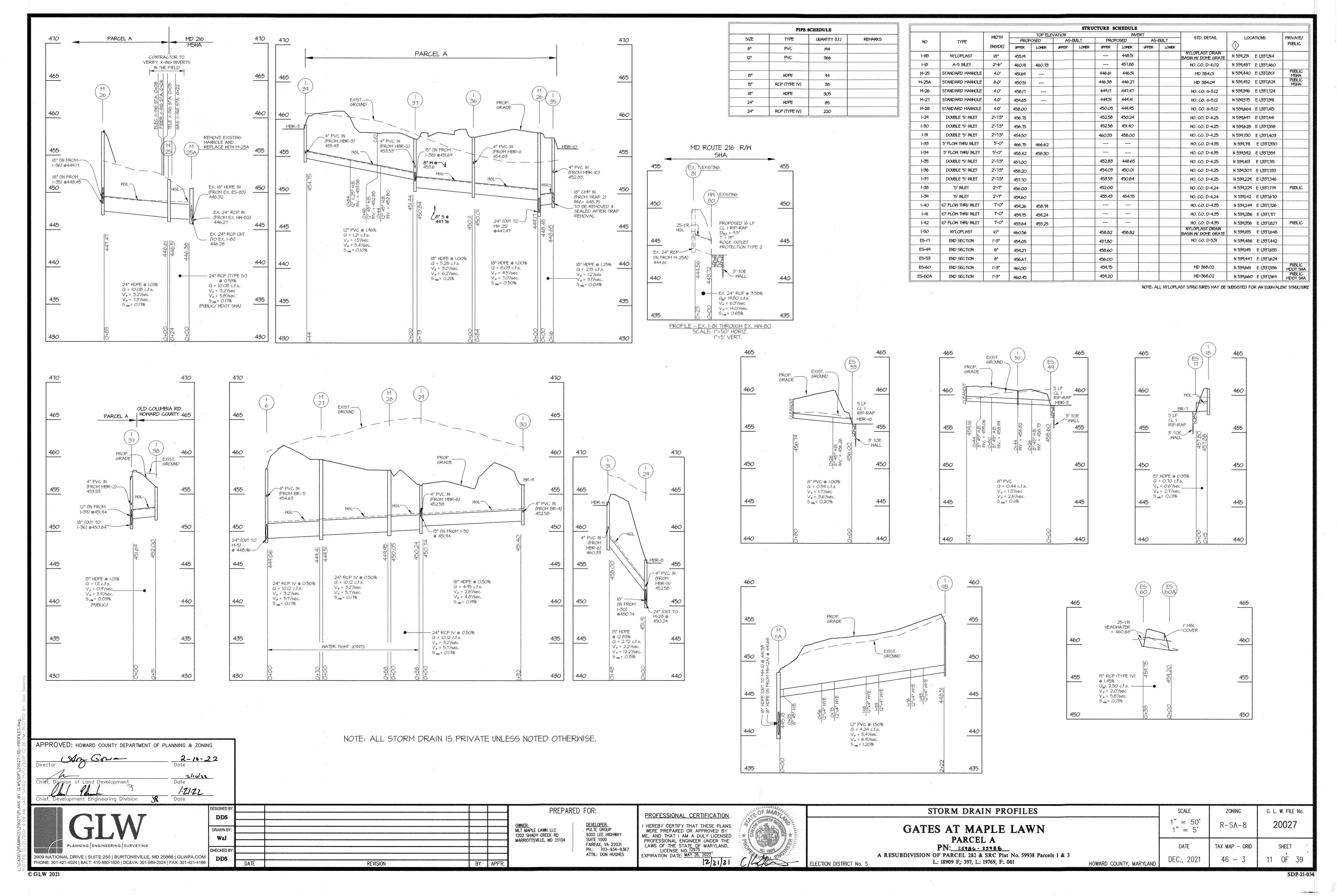


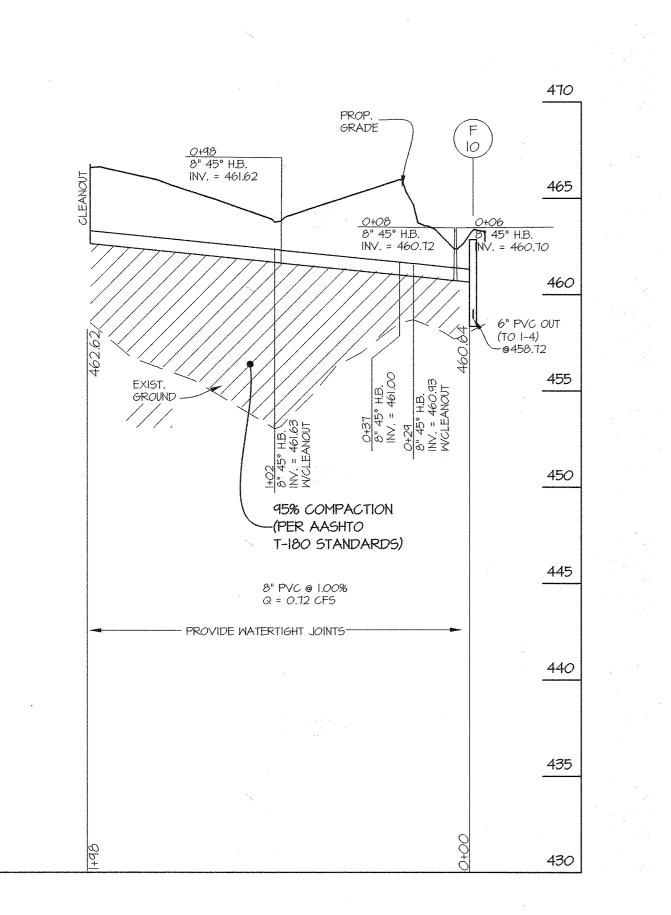


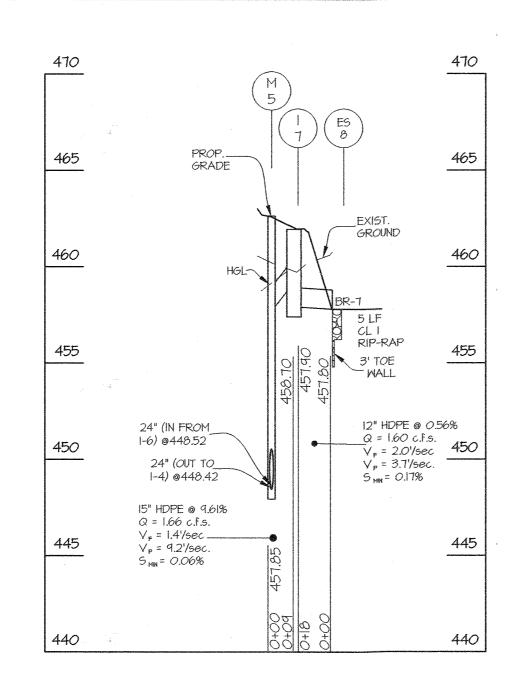








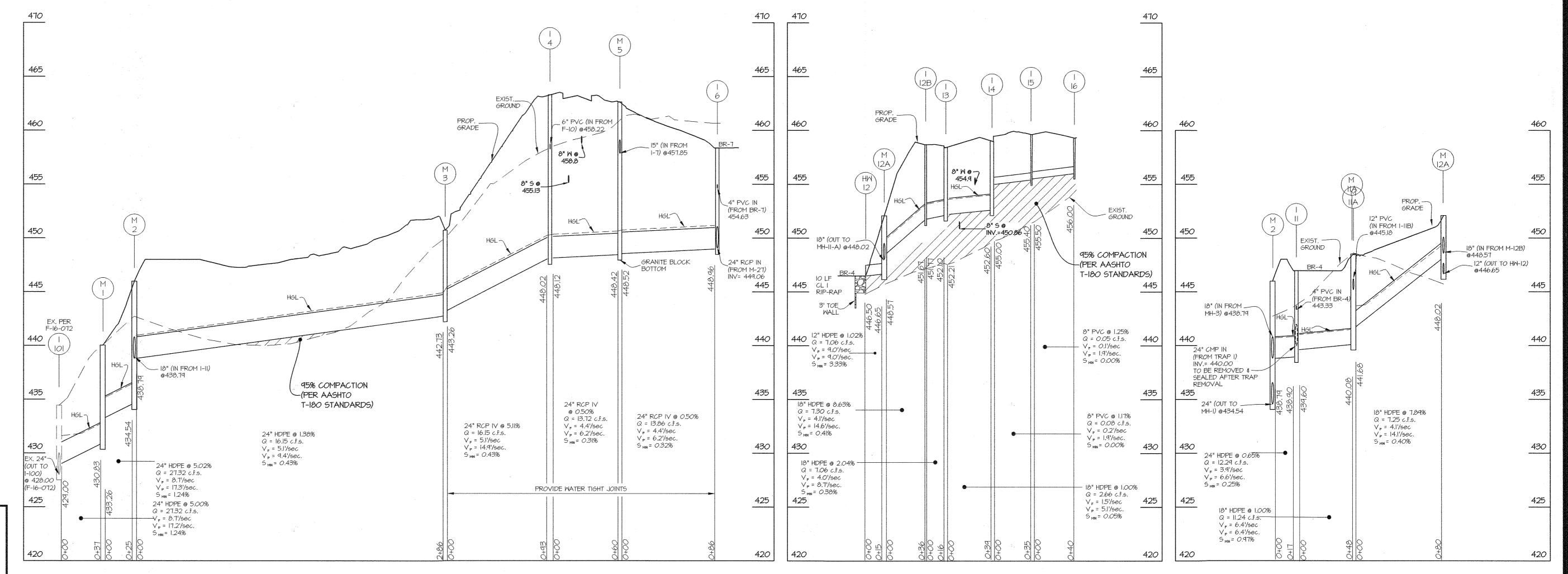


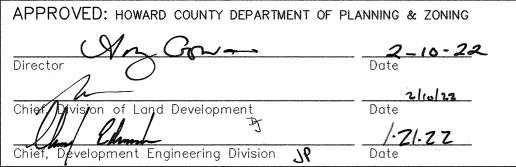


PIPE SCHEDULE						
SIZE	TYPE	QUANTITY (I.F.)	REMARKS			
8"	PVC	290				
12"	HDPE	33				
15"	HDPE	q				
18"	HDPE	219				
24"	HDPE	365				
24*	RCP (TYPE IV)	239				

						STRU	CTURE SC	CHEDULE					
-		MIDTH		TOP ELE	400000000000000000000000000000000000000	D. 111 —		INVE			STD. DETAIL	LOCATIONS	PRIVATE/
NO	TYPE	(INSIDE)	PROP		UPPER	BUILT LOWER	UPPER	LOWER	UPPER	BUILT		$\langle i \rangle$	PUBLIC
		,,	UPPER	LOWER	UPPER	LONER			UPPER	LOWER	110 60 6 510		
M-I	STANDARD MANHOLE	4.0'	440.00				433.26	430.83			Ho. co. 6-5.12	N 539,323 E 1,337,002	PUBLIC
M-2	STANDARD MANHOLE	4.0'	446.00				438.79	434.54			HO. CO. 6-5,12	N 539,319 E 1,337,031	
M-3	STANDARD MANHOLE	4.0'	450.51				443.26	442.73			HO. CO. G-5.12	N 539,596 E 1,337,120	
1-4	COG-5 INLET	4'-0"	463.33	463.17			458.22	448.02			MD-374.5I	N 539,573 E 1,337,215	
M-5	STANDARD MANHOLE	4.0'	462.59			-	457.85	448.42			HO. CO. 6-5.12	N 539,543 E 1,337,274	
1-6	DOUBLE 'S' INLET	2'-7.5"	458.80				454.63	448.96			HO. CO. D-4.25	N 539,510 E 1,337,358	1
1-7	A-IO INLET	3'-0 "	462.20	461.62	3		458.70	457.90			Ho. Co. D-4.03	N 539,532 E 1,337,262	
1-11	DOUBLE 'S' INLET	3'-75"	447.50			-	443.33	438.90			HO. CO. D-4.25	N 539,317 E 1,337,053	
M-IIA	STANDARD MANHOLE	4.0'	448.60			-	441.68	440.08			HO. CO. 6-5.12	N 539,294 E 1,337,101	
M-I2A	STANDARD MANHOLE	4.0'	452.00				448.57	446.65			HO. CO. G-5.12	N 534,372 E 1,337,132	
I-I2B	NYLOPLAST	18"	458.93				451.77	451.67			NYLOPLAST DRAIN BASIN W/ DOME GRATE	N 539,389 E 1,337,167	
I-I3	TRIPLE 'S' INLET	2'-9 1/8"	458.53	458.34		-	452.20	452.10			MD-374.08	N 539,348 E 1,337,185	
1-14	DOUBLE 'S' INLET	2'-7.5"	458.97				455.00	452.60			HO. CO. D-4.25	N 539,420 E 1,337,219	
I-I5	NYLOPLAST	12"	459.63	-			455.50	455.40			NYLOPLAST DRAIN BASIN W DOME GRATE	N 539,455 E 1,331,233	
1-16	NYLOPLAST	12"	459.31				456.00				NYLOPLAST DRAIN BASIN W DOME GRATE	N 539,493 E 1,337,243	
-52											*		
F-10	FILTERRA	8'-0"	463.09	463.73			460.64	458.72			SEE DETAIL SHEET 17	N 539,581 E 1,337,211	
HW-I2	HEADWALL	2'-8"	449.00				446.50				HO. CO. D-5.11	N 539,367 E 1,337,115	
E5-8	END SECTION	12"	458.80				457.80			_	HO. CO. D-5.51	N 534,522 E 1,337,280	
1-200	10' FLOW THRU INLET	7'-0"	455.56	455.19							MD-374.68	N 539,571 E 1,337,737	PUBLIC MDOT SHA
1-201	10' FLOW THRU INLET	7'-0"	465.05	464.72							MD-374.68	N 539,714 E 1,337,519	PUBLIC MDOT SHA
1-202	10' FLOW THRU INLET	7'-0"	469.25	468.97							MD-374.68	N 539,795 E 1,337,391	PUBLIC MDOT SHA

NOTE: ALL NYLOPLAST STRUCTURES MAY BE SUBSISTED FOR AN EQUIVALENT STRUCTURE





NOTE: ALL STORM DRAIN IS PRIVATE UNLESS NOTED OTHERWISE.



DRAWN BY: WsJ CHECKED BY 3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20866 | GLWPA.COM DDS PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4186

DDS DATE REVISION BY APP'R.

OWNER: MLT MAPLE LAWN LLC 1202 SHADY CREEK RD MARRIOTTSVILLE, MD 21104

PREPARED FOR:

DEVELOPER: PULTE GROUP 9302 LEE HIGHWAY SUITE 1000 FAIRFAX, VA 22031 PH.: 703-934-9367 ATTN.: DON HUGHES

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE PLANS 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. 12975

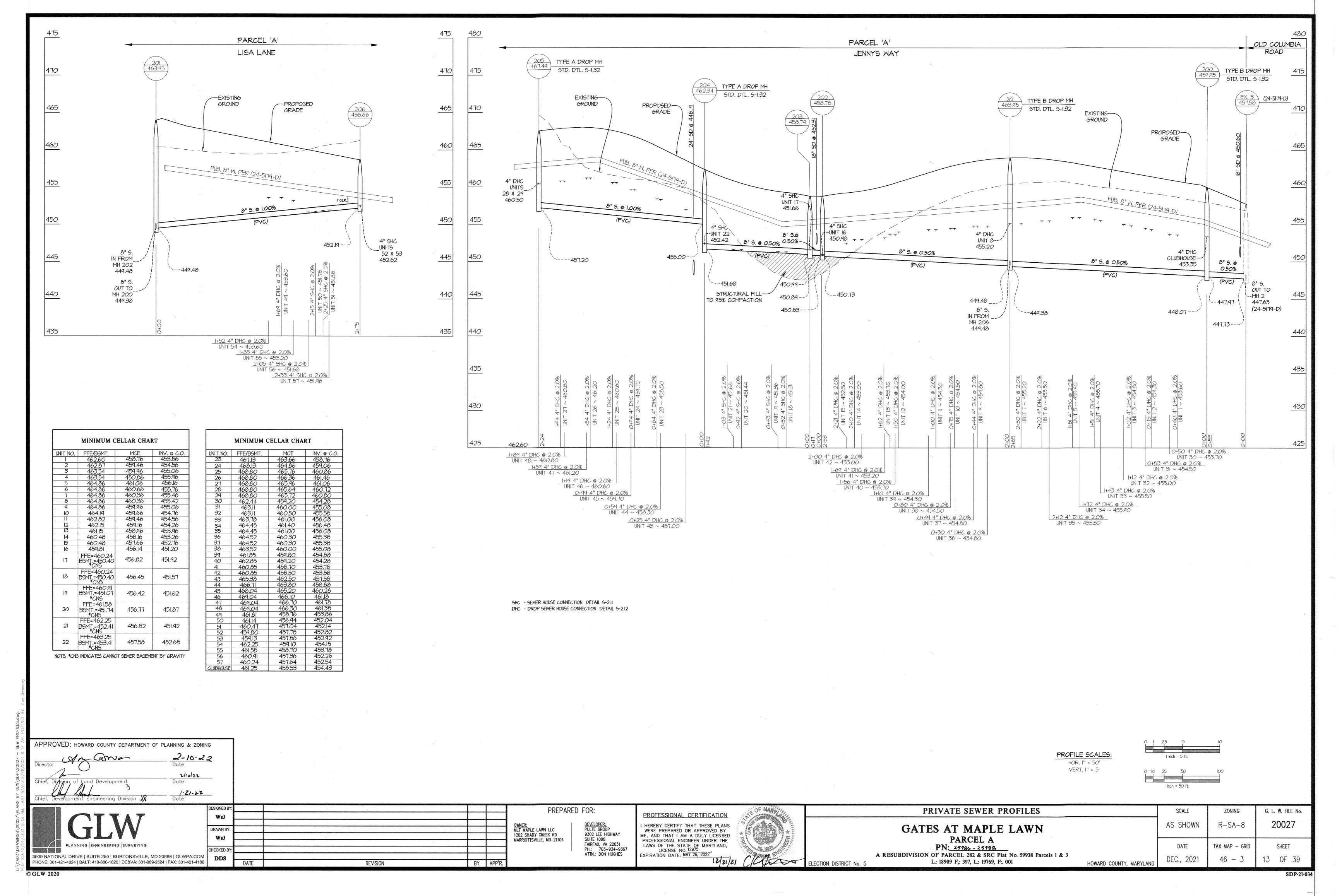
EXPIRATION DATE: MAY 26, 2022

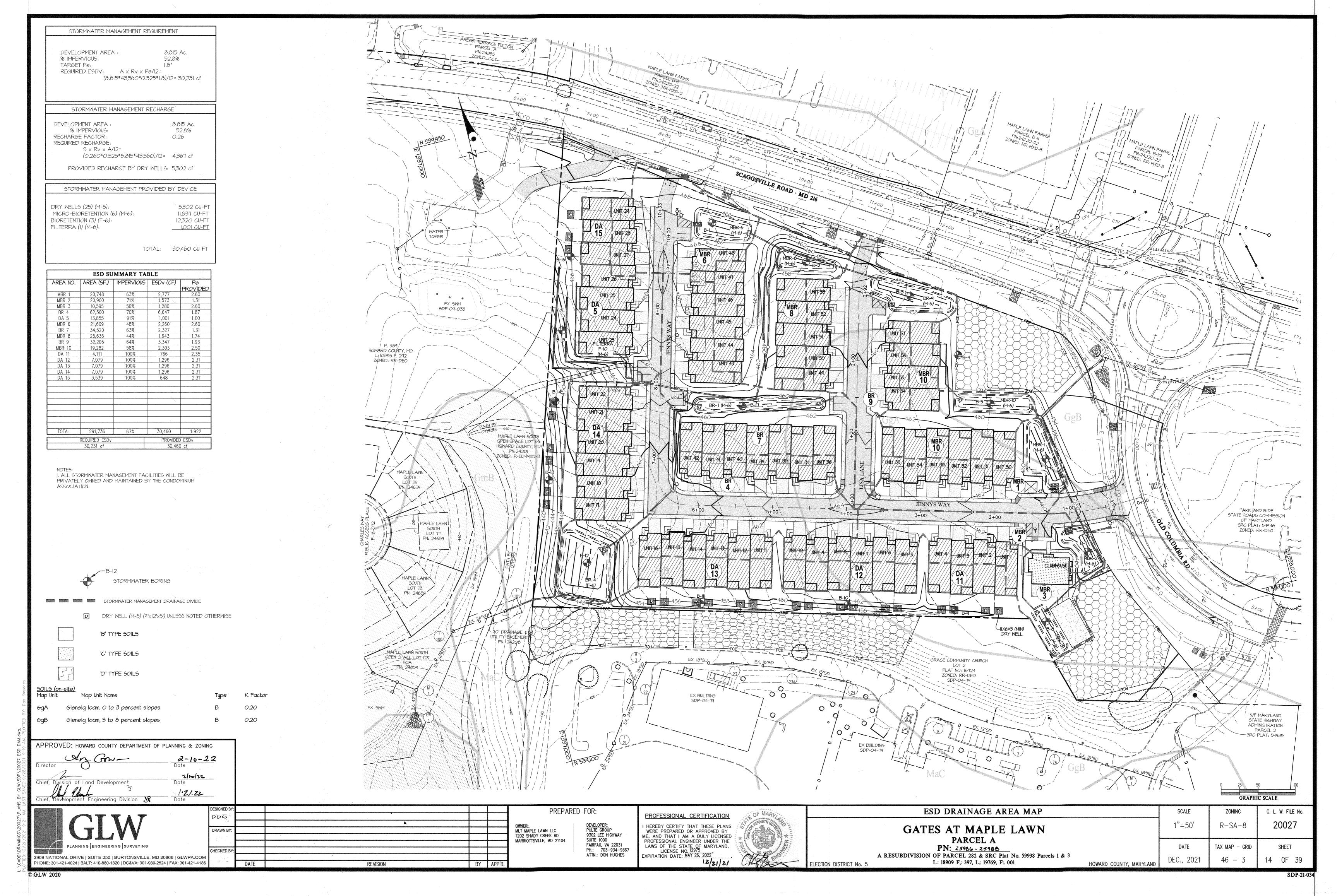


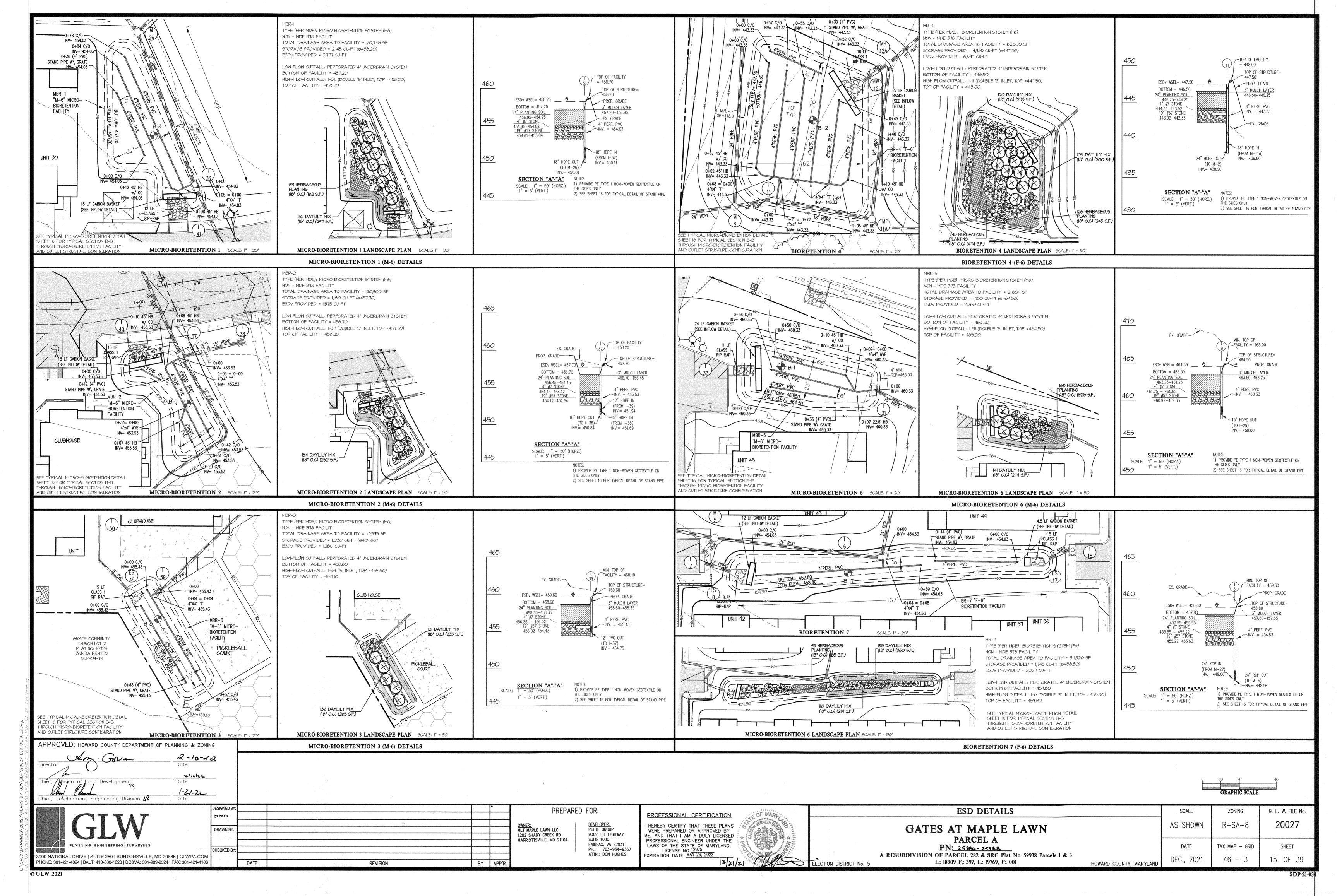
ELECTION DISTRICT No. 5

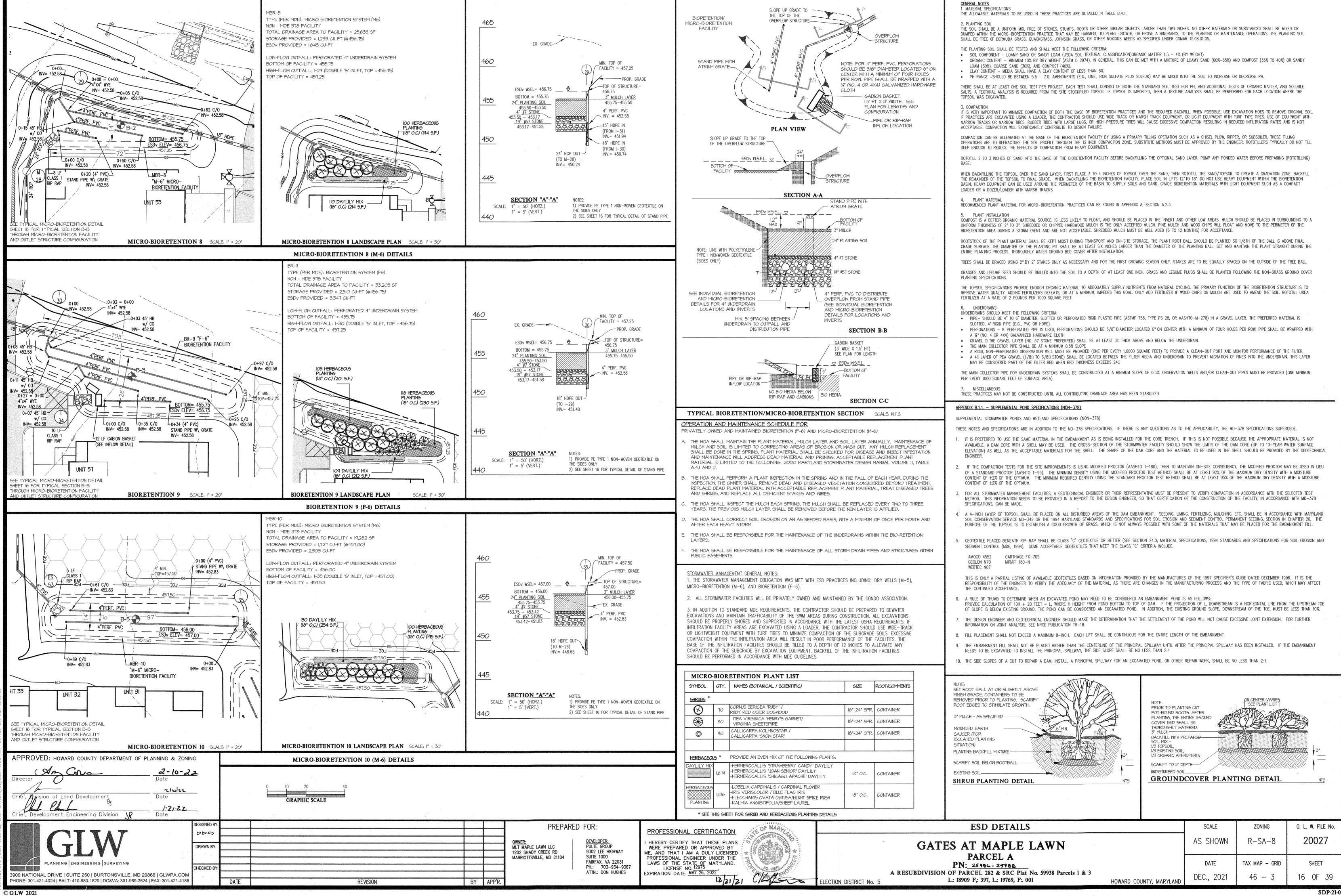
STORM DRAIN PROFILES GATES AT MAPLE LAWN PARCEL A PN: 25986 - 25988 A RESUBDIVISION OF PARCEL 282 & SRC Plat No. 59938 Parcels 1 & 3 L.: 18909 F,: 397, L.: 19769, F.: 001

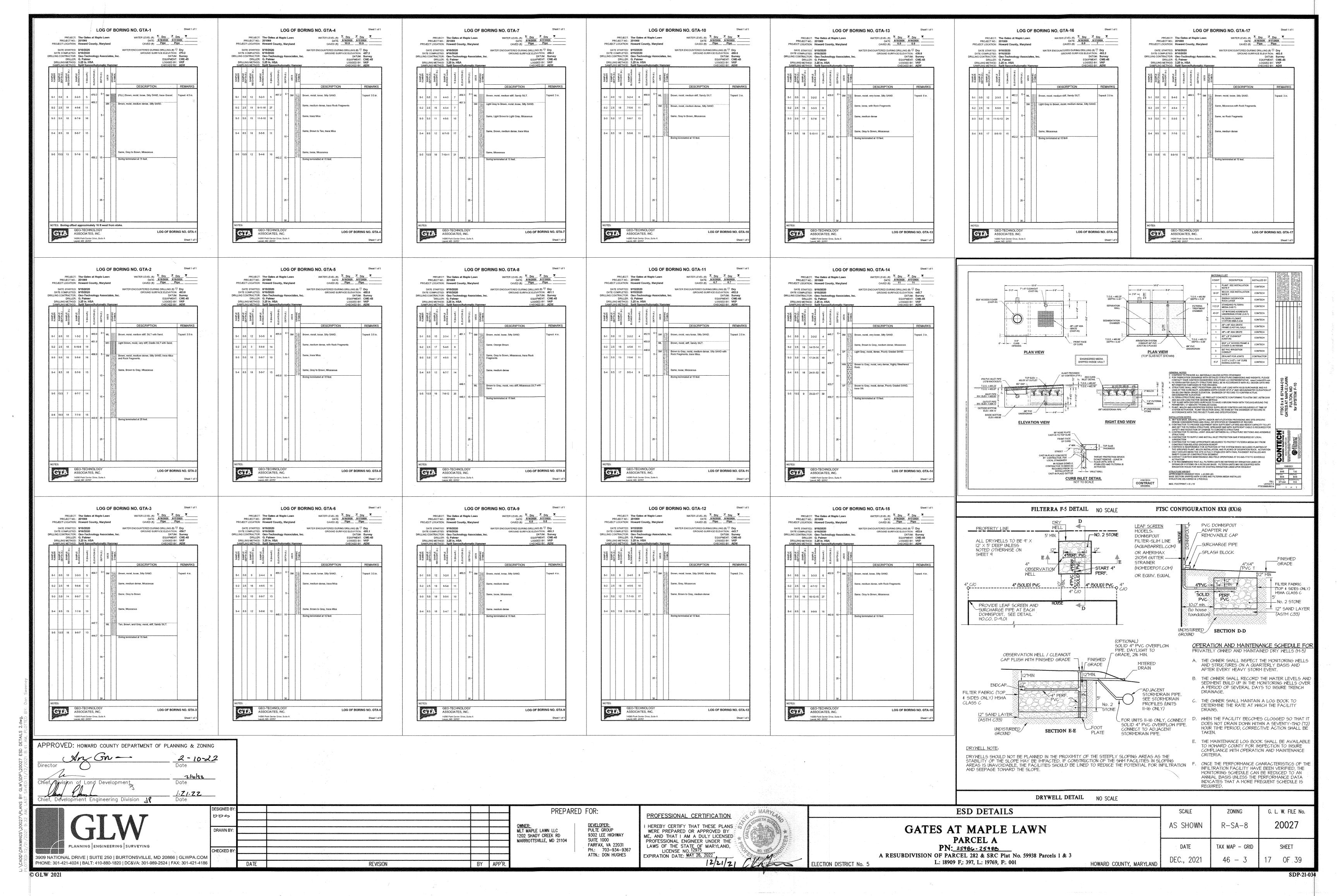
SCALE G. L. W. FILE No. 1" = 50'20027 R-SA-8 1" = 5' SHEET DATE TAX MAP - GRID 12 OF 39 46 - 3 HOWARD COUNTY, MARYLAND

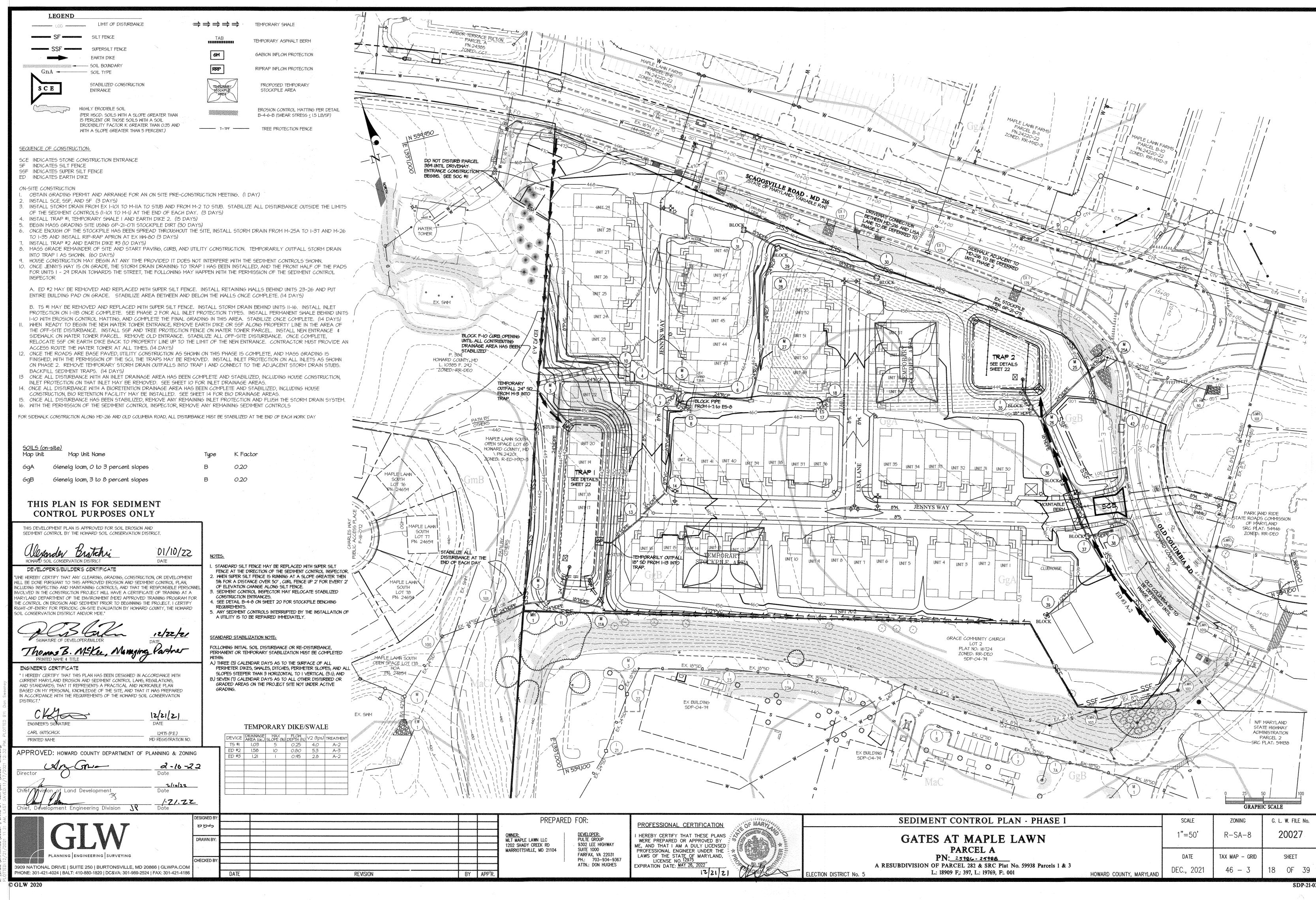


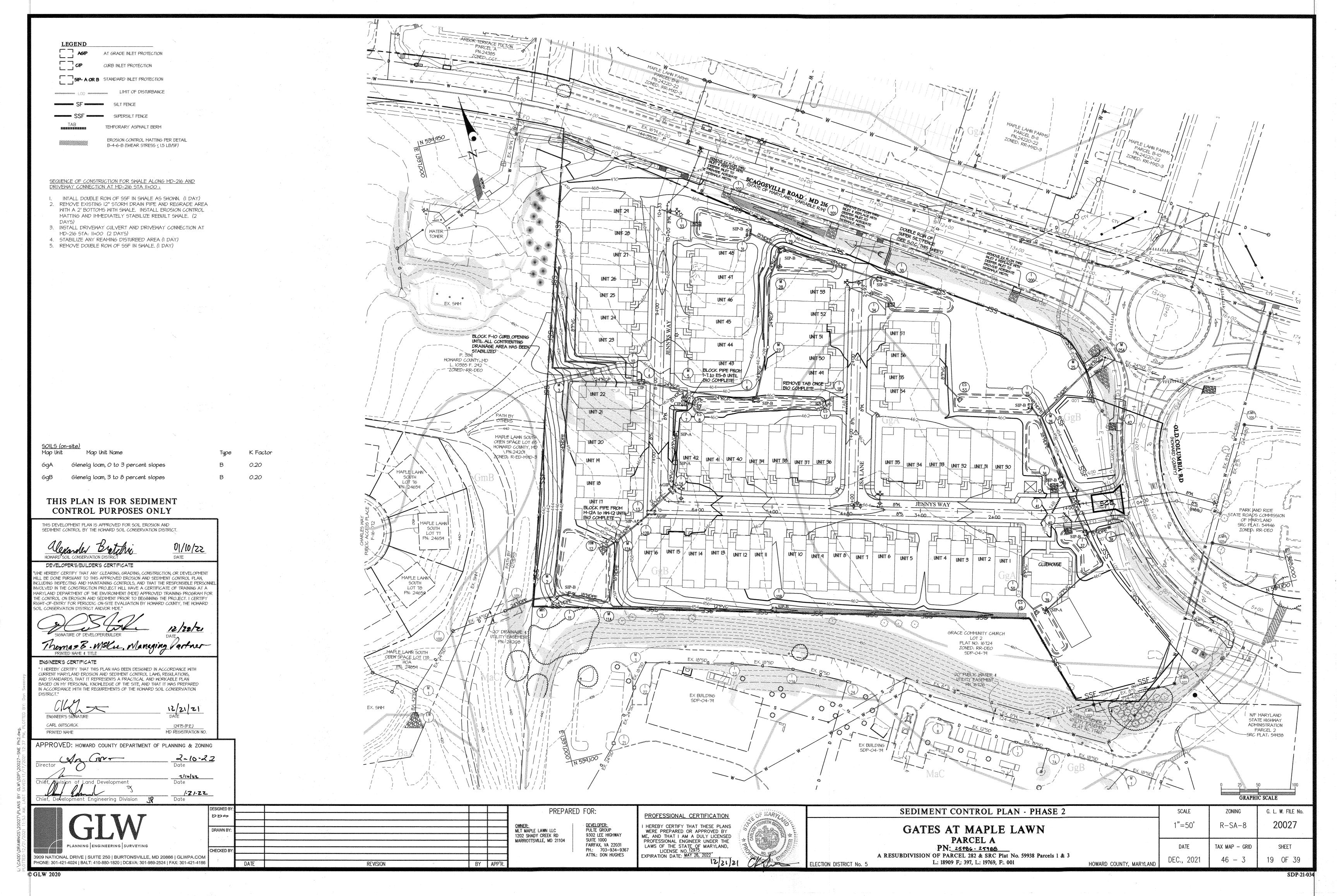












<u>DEFINITION</u>
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION. TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES
WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

. SOIL PREPARATION TEMPORARY STABILIZATION

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 T 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 I. SOIL PH BETWEEN 6.0 AND 7.0.

II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).

III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE

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

SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.

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 CONDITIONS. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN

APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL

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 FOLIPMENT TO ROUGHEN HE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL O 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.

TOPSOILING

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 GRADATION. 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. 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.

AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.

THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH

THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:

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 1.5 INCHES IN DIAMETER

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 ACRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL. TOPSOIL APPLICATION

TEROSION 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 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 SEEDRED PREPARATION

SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

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 TRADEMARK AND WARRANTY OF THE

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 AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE

H-5 STANDARDS AND SPECIFICATIONS FOR DUST CONTROL

CONTROLLING THE SUSPENSION OF DUST PARTICLES FROM CONSTRUCTION ACTIVITIES.

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES TO REDUCE ON AND OFF-SITE DAMAGE INCLUDING

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 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. TILLAGE: TILL TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE, BEGIN PLOWING ON WINDWARD 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.

IRRIGATION: SPRINKLE SITE WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. THE SITE MUST NOT BE IRRIGATED TO THE POINT THAT RUNOFF OCCURS. BARRIERS: SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. CHEMICAL TREATMENT: USE OF CHEMICAL TREATMENT REQUIRES APPROVAL BY THE APPROPRIATE PLAN REVIEW AUTHORITY

2-10-22

2/10/22

1-27-22

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

DEFINITION

THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

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

AREA NOT UNDER ACTIVE GRADING

CONDITIONS WHERE PRACTICE APPLIES TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED

CRITERIA

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 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. SEE TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY

. 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. 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 TH RECOMMENDED RATE WHEN HYDROSEEDING, NOTE: IT IS VERY IMPORTANT KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOV 5 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE

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

APPLICATION

a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST 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. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED

b. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND 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. APPLY SEED IN TWO DIRECTIONS. PERPENDICULAR TO EACH OTHER.

APPLY HALF THE SEEDING RATE IN EACH DIRECTION.

AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL

HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER). i. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN: P205 (PHOSPHOROUS) 200 POUNDS PER ACRE: K20 (POTASSIUM), 200 POUNDS PER ACRE. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PEI ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING iii. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT

iv. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING

. MULCH MATERIALS (IN ORDER OF PREFERENCE)

g. 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 MUI CH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED . WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED

WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURR WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH

WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE

INHIBITING FACTORS.
WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS

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:

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.

APPLICATION

APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING. 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 TH

DIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

DEVELOPER'S/BUILDER'S CERTIFICATE

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 THE AREA AND FROSION HAZARD: A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.

WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-7 PETROSET, TERRA TAX II, TERRA 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. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALL AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT

RAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAININ

NILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN.

INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE

OUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF

ROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE

PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

DEFINITION TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS

<u>PURPOSE</u> 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.

SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDINESS ZON (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES. SEFDING 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. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY SOIL TESTS ARE

NOT REQUIRED FOR TEMPORARY SEFDING 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.

TEMPORARY SEEDING SUMMARY

	HARDINESS 2	רבסדונוסבס					
	SEED MIXTUR	RE:			FERTILIZER RATE	LIME	
No.	SPECIES	APPLICATION RATE (lb/ac.)	SEEDING DATES	SEEDING DEPTHS	(10-10-10)	RATE	
1	ANNUAL RYEGRASS	40 lb/ac	Mar. 1 to May 15, Aug. 1 to Oct. 15	0.5 INCHES	436 lb./ac. (10 lb./	/ac. 2 tons/ac ./ (90 lb./	
2	PEARL MILLET	20 lb/ac	May 16 to July 31	0.5 INCHES	1,000 sf)	1,000 sf)	

SEDIMENT CONTROL NOTES

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 HOURS NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES: A. PRIOR TO THE START OF EARTH DISTURBANCE

B. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT

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 NSPÈCTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND

O AVOID CONFLICTS WITH THIS PLAN ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE T BE IN CONFORMANCE WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL"

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED A. 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

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 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).

B. 7 CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE

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.

SITE ANALYSIS:

AND REVISIONS THERETO.

TOTAL AREA OF SITE 8.7± AC AREA DISTURBED 9.7± AC AREA TO BE ROOFED OR PAVED 4.6± AC AREA TO BE VEGETATIVELY STABILIZED : 5.1± A(TOTAL CUT 30,000 ± CY TOTAL FILL 30,000 ± CY OFF-SITE WASTE/BORROW AREA LOCATION

ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE

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 SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE

IDENTIFICATION OF PLAN DEFICIENCIE

IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS **PHOTOGRAPHS**

MONITORING/SAMPLING

INSPECTION DATE

MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE).

TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS HIMITED TO 3 PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND

STABILIZED BY THE END OF EACH WORK DAY, WHICHEVER IS SHORTER. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY HSCD

PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY BE ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED FIELD CHANGES. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE LOD. 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 BE STABILITED AND

APPROVED BY CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD, NO MORE THAN 30 ACRES CUMULATIVELY MAY WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.

5. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.

I. ÉALL SILT FENCE AND SUPÉR SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBRICATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.

. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE): - USF I AND IP MARCH 1 - JUNE 15 - USE III AND IIIP OCTOBER 1 - APRII 30 - USE IV MARCH 1 - MAY 31

6. 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 THIS SITE IS ACTIVE.

ENGINEER'S CERTIFICATE

PRINTED NAME

" I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION

12/21/21 CARL GUTSCHICK

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION

. SEED MIXTURES

TURFGRASS MIXTURES

TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED

CONDITIONS WHERE PRACTICE APPLIES

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE

CRITERIA

a. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN." ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNE 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. 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.

- a. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE
- 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.
 - 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 33 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.

iii. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR

FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES; CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED. iv. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS

CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 11/2 TO 3 POUNDS PER 1000 SQUARE FEET. SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND

CHOOSE CERTIFIED MATERIAL, CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CUITIVAR PURITY. THE

LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA, MIXTURE INCLUDES:

CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINI IDEAL TIMES OF SEEDING FOR TURE 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) <u>SOUTHERN MD, EASTERN SHORE</u>: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A

PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND"

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

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.

DEDMANENT CEEDING CHMMADY

		PERMI	ANENI SEEDING SUMM	MARY			
HAF	RDINESS ZONE: 6b				FERTILIZER		DELLA DIVO
MIX No.	SPECIES	APPLICATION RATE	SEEDING DATES	SEEDING DEPTHS	RATE (10-20-20)	LIME RATE	REMARKS
4	Deertongue (Dichanthelium clandistinum) Creeping Red Fescue Virginia Wide Rye (Elymus virginicus) or Canada Wild Rye (Elymus canadensis)	15 lb/ac 20 lb/ac 5 lb/ac	Mar. 1 to May 15 May 16 to Jun 15*		1.0 lb/1000 s.f. (45 lb/acre)		See notes 1 & 2.
8	Tall Fescue blend of at least 3 cultivars (see note#3)	100 lb/ac	Mar. 1 to May 15, Aug. 15 to Oct. 15	1/4 - 1/2 IN.	1.0 lb/1000 s.f. (45 lb/acre)		See notes 1, 3 & 4

1. The planting dates listed are average for the hardiness zone indicated. These dates may require adjustment to reflect local conditions, especially near the boundaries of the zones. When seeding toward the end of the listed planting dates, or when conditions are expected to be less than optimal, provide Temporary Seeding and plant together with the permanent seeding mix. Additional planting dates during which supplemental watering may be needed to ensure plant establishment are shown with an asterisk (*).

Use Virginia wild rye on moist, shady area. Use Canada wild rye on dry area. Use Tall Fescue cultivars listed as "proven" in the most current University of Maryland TT-77 bulletin. 4. For residential lawns, areas adjacent thereto and recreation areas, use a Tall Fescue blend (Mix#8).

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

GENERAL SPECIFICATIONS

 CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS 1/4 INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH. BROKEN PADS AND

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

a. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE

WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.

SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD b. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSPOUENT ROWS PLACED PARALLEL TO IT AND TIGHTL WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.

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 SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS

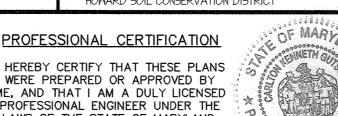
AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTEN

WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING

SOD MAINTENANCE a. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT WILTING

c. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF MUST BE REMOVED Y THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLES

CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.



THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT

A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.

DETAIL B-1 STABILIZED CONSTRUCTION

MOUNTABLE BERM (6 IN MIN.)

PROFILE

PLAN VIEW

. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.

PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSTIVE DRAINAGE, PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTAILE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE, PROVIDE PIPE A: SPECIFED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINA' TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.

PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIA

REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.

DETAIL E-1 SILT FENCE

WOVEN SUT FILM ----

PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOU

MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, PROPPED, OR

TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAFING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

2011

ELEVATION

CROSS SECTION

JOINING TWO ADJACENT SILT

FENCE SECTIONS (TOP VIEW)

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

ENTRANCE

NONWOVEN CEDTEXTILE

SCE

STANDARD SYMBO

⊢----SF-----

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

STEP 2

STAPLE-

-UNDISTURBED

16 IN MIN. HEIGHT OF WOVEN SLIT FILM GEOTEXTILE

-EARTH FILL

-- PIPE (SEE NOTE 6)

TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGES TO DRAINAGE PATTERNS.

B-4-8 STANDARDS AND SPECIFICATIONS FOR

STOCKPILE AREA

CONDITIONS WHERE PRACTICE APPLIES STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE.

THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND 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. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE

CRITERIA

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-FROSIVE MANNER WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD

MUST BE KEPT FREE OF EROSION. IF THE VERTICAL HEIGHT OF A STOCKPILE EXCEEDS 20 FEET FOR 2:1 SLOPES, 30 FEET FOR 3:1

SLOPES, OR 40 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TÉMPORARY STABILIZATION.
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 E STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH ECTION B-4 VEGETATIVE STABILIZATION. SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN A 2:1 RATIO. THE STOCKPILE AREA

MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSITIVE DRAINAGE. KEEP EARTH DIKE AND POINT OF DISCHARGE FREE OF EROSION, AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WIT SECTION B-4 VEGETATIVE STABILIZATION. UPON REMOVAL OF EARTH DIKE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS OF REMOVAL STABLIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON APPROVED PLAN. MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL FROSION AND SEDIMENT CONTROL STANDARD SYMBO DETAIL C-5 TEMPORARY ASPHALT BERM ____ TAB _____

CROSS SECTION

CONSTRUCTION SPECIFICATIONS CONSTRUCT BERM ON AN UNINTERRUPTED, CONTINUOUS GRADE. INSTALL BERM TO CONFORM TO CROSS SECTION DIMENSIONS OF A UNIFORM HEIGHT OF 8 INCHES MINIMUM AND APPROXIMATE WIDTH OF $3\mbox{\ensuremath{\mathbb{Z}}}$ FEET.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011

3. PROVIDE OUTLET PROTECTION AS REQUIRED ON PLAN. 4. 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 APPROVE

WHEN SUPER SILT FENCE IS RUNNING AT A SLOPE GREATER THAN 5% FOR A DISTANCE OVER 50', CURL FENCE UP 2' FOR EVERY 2' OF ELEVATION CHANGE ALONG SILT FENCE.

. SEDIMENT CONTROL INSPECTOR MAY RELOCATE STABILIZED CONSTRUCTION ENTRANCES. . SEE DETAIL B-4-8 ON THIS SHEET FOR STOCKPILE BENCHING REQUIREMENTS.

4. ANY SEDIMENT CONTROL INTERRUPTED BY THE INSTALLATION OF A STORM DRAIN IS TO BE REPAIRED IMMEDIATELY

. THE STANDARD SEDIMENT CONTROL PLAN MAY NOT BE USED TO OBTAIN GRADING PERMITS FOR THIS PROJECT.

6. IF PERMANENT SEEDING IS NEEDED OUTSIDE OF RECOMMENDED SEEDING DATES, USE THE APPROPRIATE TEMPORARY SEEDING MIX AND RESEED ONCE INSIDE OF RECOMMENDED PERMANENT SEEDING DATES. STANDARD STABILIZATION NOTE:

DETAIL D-4-1-C ROCK OUTLET PROTECTION III

L12 IN MIN.

USE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE, PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.

PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (% TO 1½ INCH MINIMUM STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHE AT SIDES OF RIPRAP.

. WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.

CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SCITHAT IT BLENDS IN WITH EXISTING GROUND.

MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATE SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND RIPRAP DISLODGED RIPRAP. MAINCESSARY REPAIRS IMMERIATELY

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL FROSION AND SEDIMENT CONTRO

DETAIL E-1 SILT FENCE

ONSTRUCTION SPECIFICATION:

U.S. DEPARTMENT OF AGRICULTURE

U.S. DEPARTMENT OF AGRICULTURE 2011 MARYLAND DEPARTMENT OF ENVIRONMEN
BRAL RESOURCES CONSERVATION SERVICE 2011 WATER MANAGEMENT ADMINISTRATION

USE WOOD POSTS 1¾ X 1½ ± ½ INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NI LESS THAN 1 POUND PER LINEAR FOOT.

USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APAR

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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011

PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORGEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

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

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

FLOW

PROFILE

RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS

ONSTRUCTION SPECIFICATIONS

PLAN VIEW

ROPIII

CHANNEL OR FLAT AREA

SECTION A-A

- W

SECTION B-B

RIPRAP THICKNESS (T)

|-----SF------|

DETAIL E-3 SUPER SILT FENCE

WOVEN SLIT FILM GEOTEXTILE-

EMBED GEOTEXTILE AND -CHAIN LINK FENCE 8 IN MIN. INTO GROUND

FLOW

GROUND SURFACE

CONSTRUCTION SPECIFICATIONS

10 FT MAX.

ELEVATION

CROSS SECTION

INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0,095 INCH WALL THICKNESS AND SIX FOLENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.

FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2% INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.

FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.

WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.

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

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

2011

SEED WITH STRAW MULCH AND TACK. (NOT ALLOWED FOR CLEAR WATER DIVERSION.)

4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE PRESSED INTO SOIL A MINIMUM OF 7 INCHES AND FLUSH WITH GROUND.

REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF EARTHDIKE.

. STABILIZE EARTH DIKE WITHIN THREE DAYS OF INSTALLATION, STABILIZE FLOW CHANNEL FOR CLEAR WATER DIVERSION WITHIN 24 HOURS OF INSTALLATION.

. EXCAVATE OR SHAPE EARTH DIKE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.

DETAIL C-1 EARTH DIKE

A-2/8-2 SEED WITH SOIL STABILIZATION MATTING OR LINE WITH SOO.

5. PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.

CONTINUOUS GRADE 0.5% MIN. TO 10% MAX. SLOPE

h A A A A A A A

PLAN VIEW

FLOW CHANNEL STABILIZATION

CONSTRUCTION SPECIFICATIONS

A-3/B-3

3. COMPACT FILL.

CROSS SECTION

GALVANIZED CHAIN LINK FENCE WITH WOVEN SLIT FILM GEOTEXTILE

-----SSF-----

-36 IN MIN.

PLACE DESIGNATION (e.g. A-ON FLOW CHANNEL SIDE OF

DIKE TYPE

a - DIKE HEIGHT 18 IN MIN. 30 IN MIN.

b - DIKE WIDTH 24 IN MIN. 36 IN MIN.

c - FLOW WIDTH 4 FT MIN. 6 FT MIN.

d - FLOW DEPTH 12 IN MIN. 24 IN MIN.

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:

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 I VERTICAL (3:1); AND B.) SEVEN (1) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY TEMPORARY STOCKPILE GRADING PLAN G. L. W. FILE No. 20027 AS SHOWN GATES AT MAPLE LAWN PARCEL A TAX MAP - GRID PN: 25986 - 25988 A RESUBDIVISION OF PARCEL 282 & SRC Plat No. 59938 Parcels 1 & 3 DEC., 2021 46 – 3 L.: 18909 F.: 397, L.: 19769, F.: 001 HOWARD COUNTY, MARYLAND

PLANNING ENGINEERING SURVEYING

3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20866 | GLWPA.COM PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4186

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

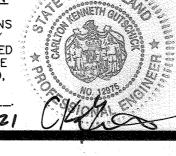
DDS DRAWN BY DDS CHECKED E CKG REVISION DATE

MLT MAPLE LAWN LLC 1202 SHADY CREEK RD MARRIOTTSVILLE, MD 21104 BY APP'R

PULTE GROUP 9302 LEE HIGHWAY SUITE 1000 FAIRFAX, VA 22031 PH.: 703-934-9367 ATTN.: DON HUGHES

MD REGISTRATION NO.

HEREBY CERTIFY THAT THESE PLANS 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. 12975 EXPIRATION DATE: MAY 26, 2022



ELECTION DISTRICT No. 5

SHEET 20 OF 39

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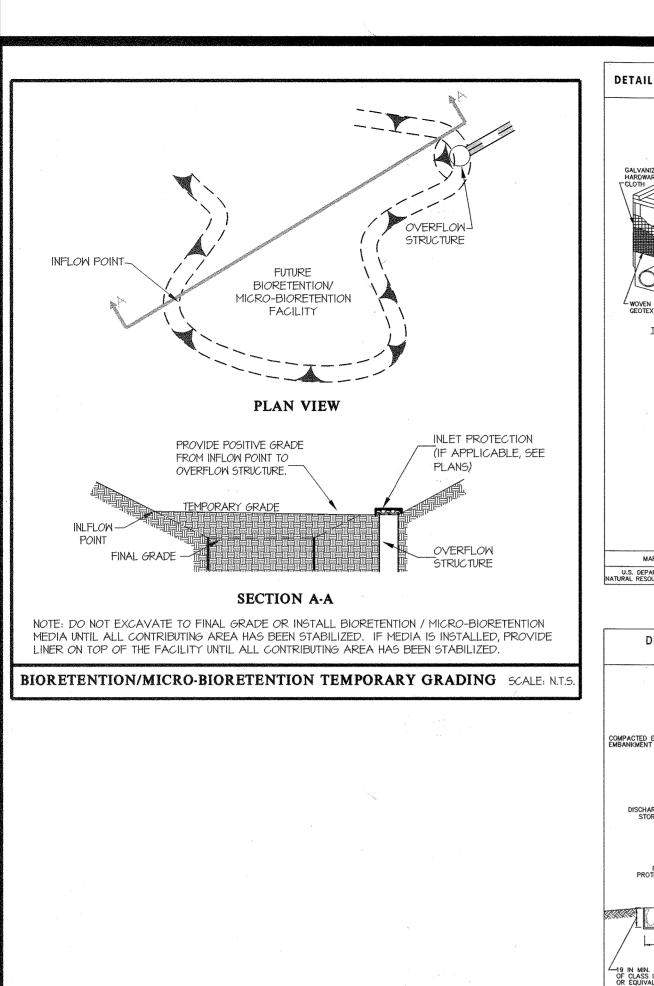
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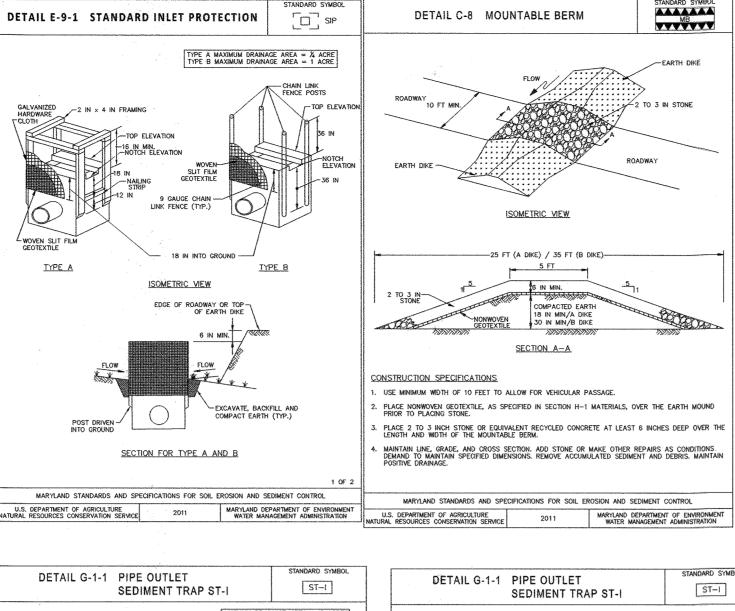
MARYLAND DEPARTMENT OF ENVIRONMEN
WATER MANAGEMENT ADMINISTRATION

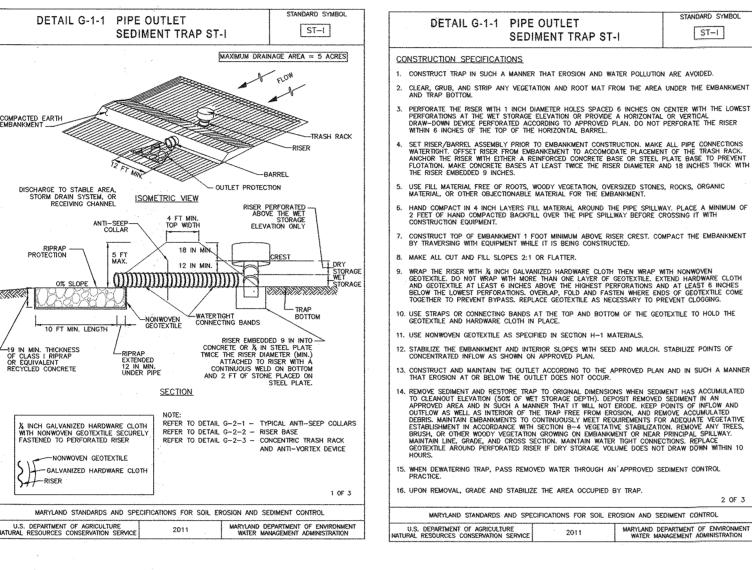
, Development Engineering Division

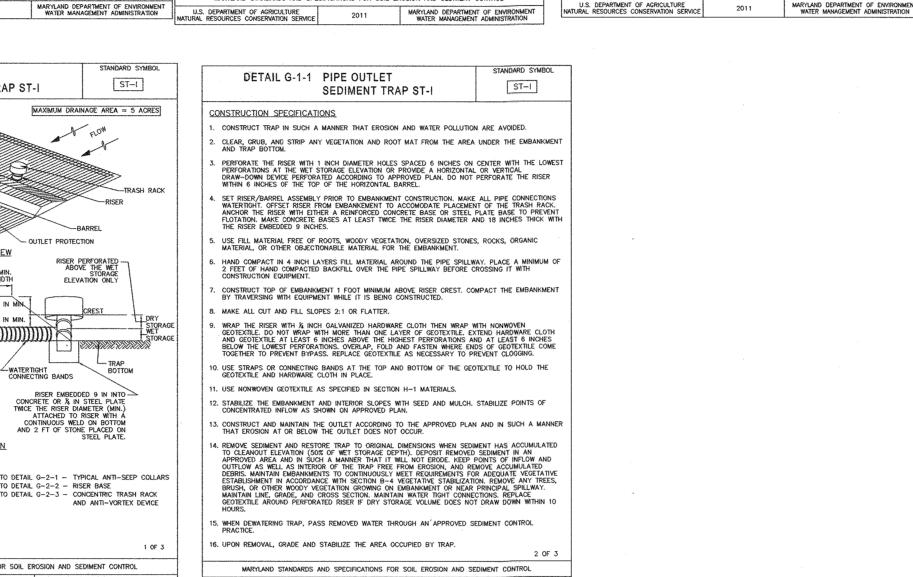
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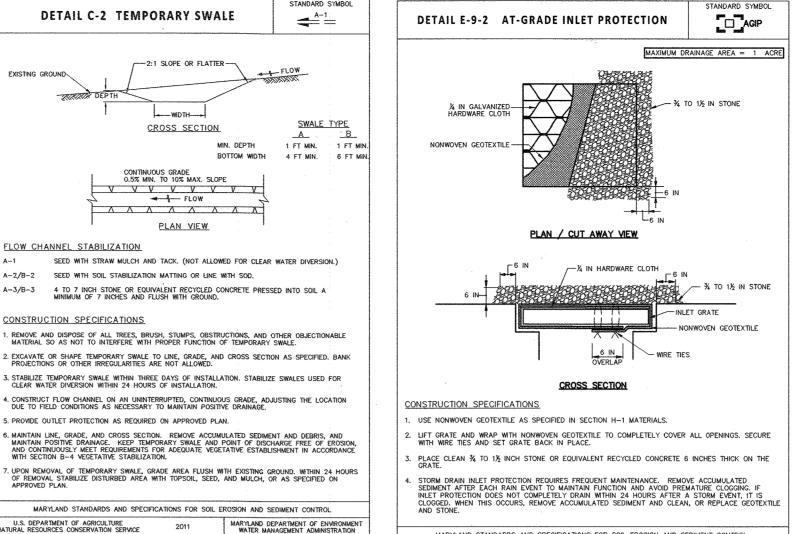
DATE











MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

DETAIL E-9-3 CURB INLET PROTECTION 2 IN × 4 IN WEIR-6 FT MAX, SPACING OF 34 TO 11/2 STONE 7 2 IN x 4 IN ANCHORS, 2 FT MIN. LENGTH ∠2 IN × 4 IN WEIR SECTION A-A ∠EDGE OF GUTTER PAN CONSTRUCTION SPECIFICATIONS . USE NOMINAL 2 INCH x 4 INCH LUMBER 2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. . NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART). ATTACH A CONTINUOUS PIECE OF % INCH GALVANIZED HARDWARE CLOTH, WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING IT 2 FEET BEYOND THROAT ON EACH SIDE. 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. . INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET 2. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. 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 GEOTEXTILE AND STONE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING 2-10-22 <u>Aliolzz</u> Date

1.21.22 Development Engineering Division

3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20866 | GLWPA.COM

DDS DRAWN BY: **DDS** CHECKED BY PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4186 REVISION

'I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN,

INCLUDING INSPECTING AND MAINTAINING CONTROLS. AND THAT THE RESPONSIBLE

PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF

PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE

PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD

RAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING

DEVELOPER'S/BUILDER'S CERTIFICATE

COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

ENGINEER'S CERTIFICATE

PRINTED NAME

" I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION

<u>OWNER:</u> MLT MAPLE LAWN LLC

1202 SHADY CREEK RD

MARRIOTTSVILLE, MD 21104

CARL GUTSCHICK

DEVELOPER: PULTE GROUP

SUITE 1000

9302 LEE HIGHWAY

FAIRFAX, VA 22031

PH.: 703-934-9367

ATTN .: DON HUGHES

PREPARED FOR:

STABILIZATION MATTING CHANNEL APPLICATION

: ISOMETRIC VIEW

USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.

2. USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE 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.

3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "I" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 % INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "I" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MANN LEG, A MINIMUM 1 HOCH 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 THE BOTTOM.

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

. 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.

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

D. 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

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.

CONSTRUCTION SPECIFICATIONS:

CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

PROFESSIONAL CERTIFICATION

HEREBY CERTIFY THAT THESE PLANS

WERE PREPARED OR APPROVED BY

ME. AND THAT I AM A DULY LICENSED

PROFESSIONAL ENGINEER UNDER THE

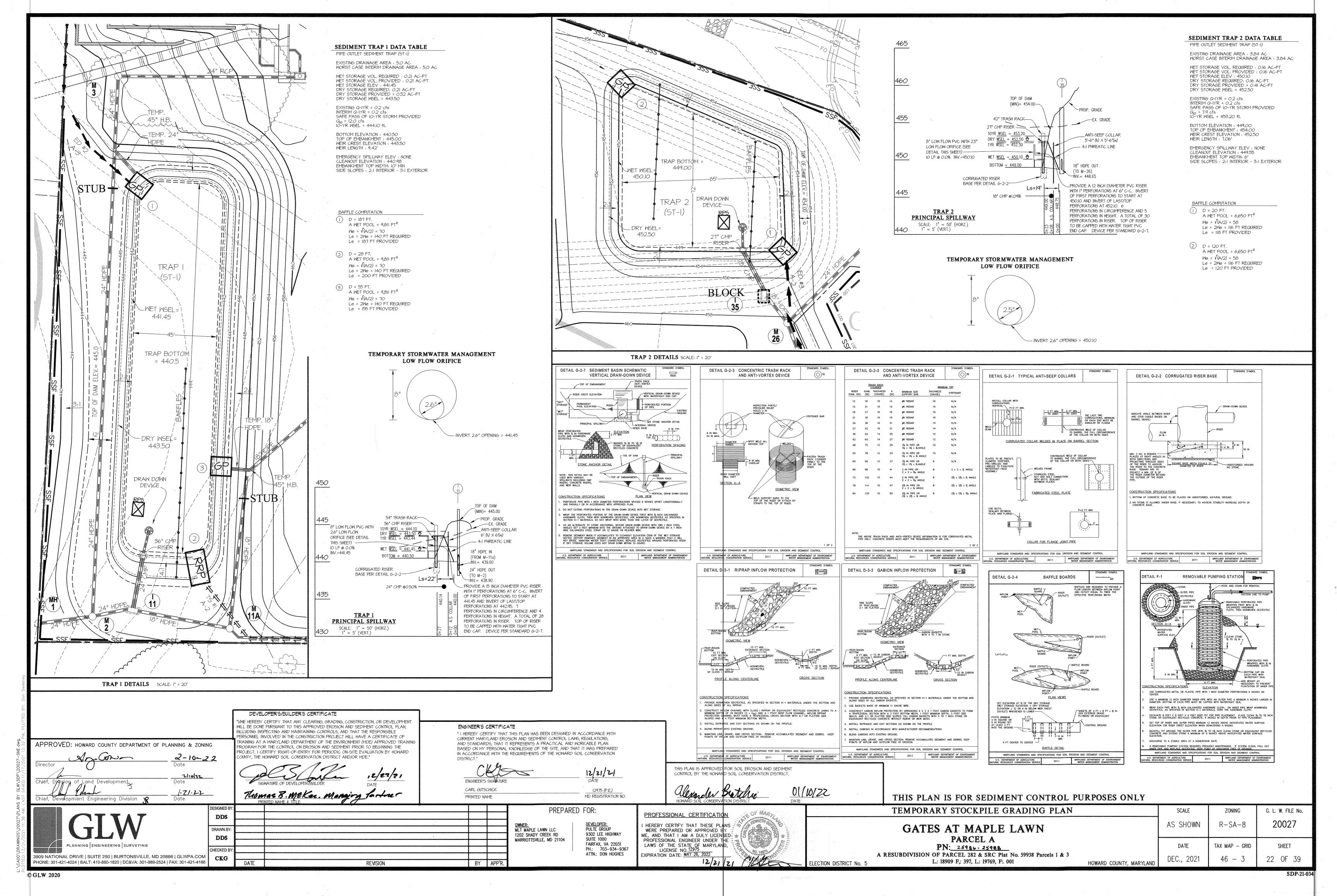
LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975 EXPIRATION DATE: MAY 26, 2022

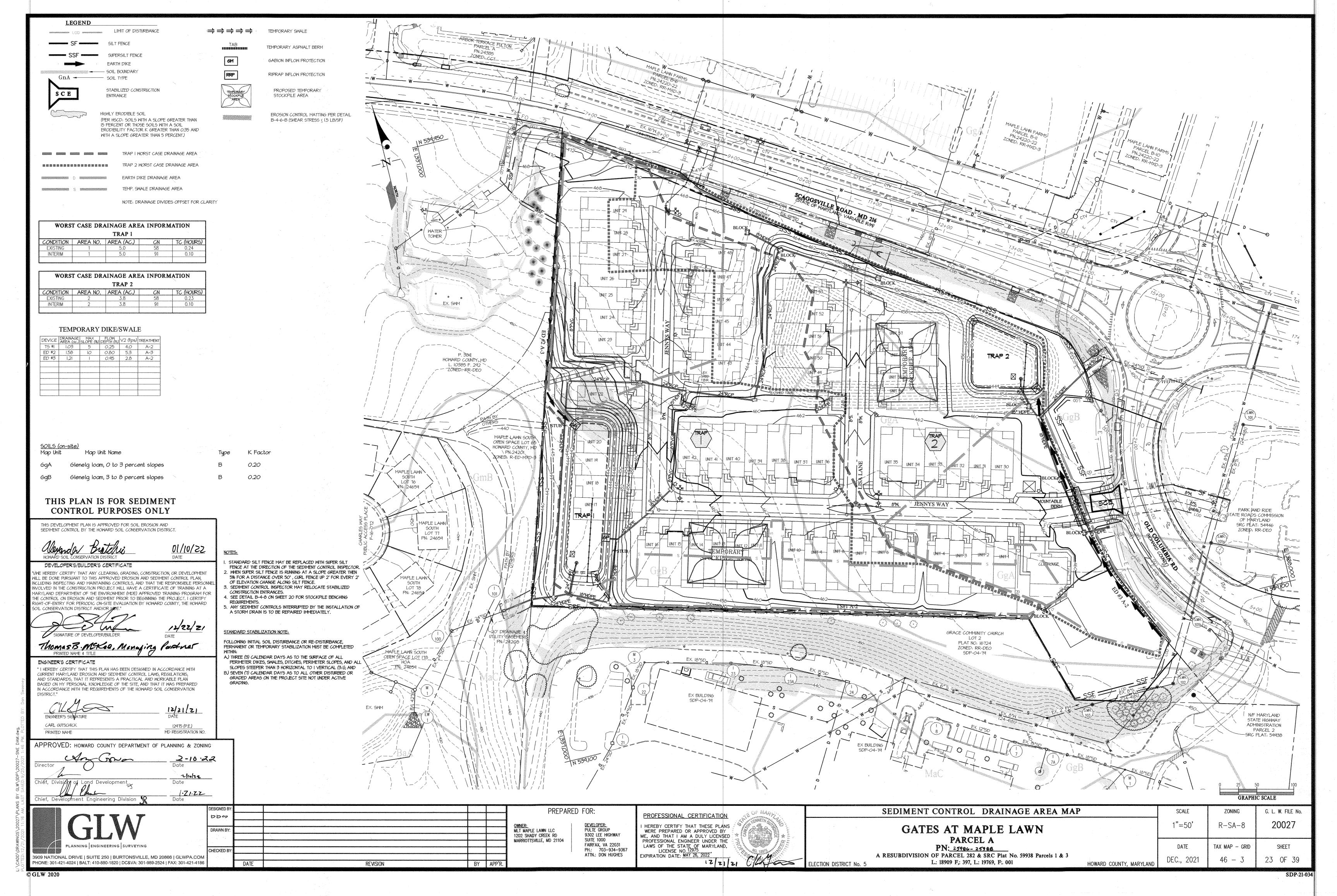
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT

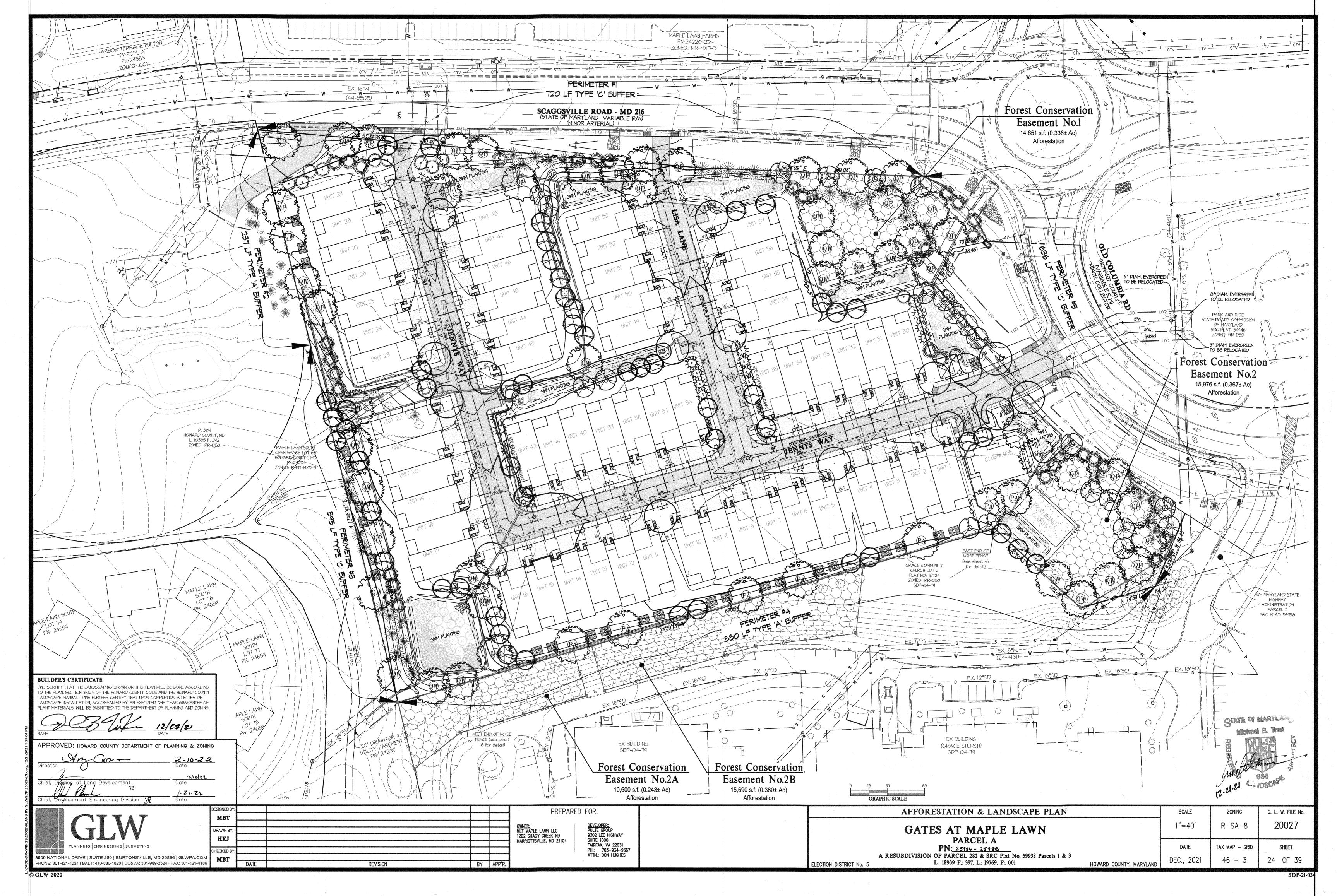
THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY TEMPORARY STOCKPILE GRADING PLAN G. L. W. FILE No. 20027 AS SHOWN R-SA-8 GATES AT MAPLE LAWN PARCEL A SHEET DATE TAX MAP - GRID PN: 25986 - 25988 A RESUBDIVISION OF PARCEL 282 & SRC Plat No. 59938 Parcels 1 & 3 21 OF 39 46 - 3 L.: 18909 F,: 397, L.: 19769, F.: 001 HOWARD COUNTY, MARYLAND

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ELECTION DISTRICT No. 5







SPECIFICATIONS: PLANT MATERIALS AND PLANTING METHODS

THE LANDSCAPE CONTRACTOR SHALL FURNISH AND INSTALL AND/OR DIG, BALL, BURLAP AND TRANSPLANT ALL OF THE PLANT MATERIALS CALLED FOR ON DRAWINGS AND/OR LISTED IN THE PLANT

PLANT NAMES USED IN THE PLANT SCHEDULE SHALL CONFORM WITH "AAN" STANDARDS.

- ALL PLANT MATERIAL SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK" LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (HERE-AFTER REFERRED TO AS AAN STANDARDS). ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, SHALL HAVE A NORMAL HABIT OF GROWTH AND SHALL BE FIRST QUALITY, SOUND, VIGOROUS, WELL-BRANCHED AND WITH HEALTHY, WELL-FURNISHED ROOT SYSTEMS. THEY SHALL BE FREE OF DISEASE,
- ALL PLANTS SHALL BE NURSERY GROWN AND SHALL HAVE BEEN GROWN UNDER THE SAME CLIMATE CONDITIONS AS THE LOCATION OF THIS PROJECT FOR AT LEAST TWO YEARS BEFORE PLANTING. NEITHER HEELED-IN PLANTS NOR PLANTS FROM COLD STORAGE WILL BE ACCEPTED.
- PLANT MEASUREMENTS:
 ALL PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED IN THE PLANT SCHEDULE.
 - A. CALIPER MEASUREMENTS SHALL BE TAKEN SIX INCHES (6") ABOVE GRADE FOR TREES UP TO FOUR-INCH (4") CALIPER AND TWELVE (12") ABOVE GRADE FOR TREES GREATER THAN FOUR INCHES (4") IN CALIPER.
 - B. MINIMUM BRANCHING HEIGHT FOR ALL SHADE TREES SHALL BE SIX FEET (6'), MAXIMUM EIGHT FEET (8'). C. CALIPER, HEIGHT, SPREAD AND SIZE OF BALL SHALL BE GENERALLY AS FOLLOWS:

CALIPER	HEIGHT	SPREAD	SIZE OF BALL
2" - 2.5"	12'-14'	5'-6'	28" DIAMETER
3" - 3.5"	14'-16'	6'-8'	32" DIAMETER
3.5"- 4"	14'-16'	8'-10'	36" DIAMETER
4" - 4.5"	16'-18'	8'-10'	40" DIAMETER
4.5"- 5"	16'-17'	10'-12'	44" DIAMETER
5" - 5.5"	16'-20'	10'-12'	48" DIAMETER
			÷ - 11 1 4 12-

5.5"- 6" 18'-20' 12'-14' 52" DIAMETER ALL PLANT MATERIAL SHALL GENERALLY AVERAGE THE MEDIAN FOR THE SIZE RANGES INDICATED ABOVE AS

. INDICATED IN THE "AAN" STANDARDS. <u>PLANT IDENTIFICATION:</u>
LEGIBLE LABELS SHALL BE ATTACHED TO ALL SHADE TREES, MINOR TREES, SPECIMEN SHRUBS AND BUNDLES OR BOXES OF OTHER PLANT MATERIAL GIVING THE BOTANICAL AND COMMON NAMES, SIZE AND QUANTITY OF

THE OWNER MAY REQUEST, AT LEAST TEN (IO) DAYS PRIOR TO THE INSTALLATION OF ANY PROPOSED PLANT MATERIAL, TO INSPECT ALL PROPOSED PLANT MATERIAL AT THE SOURCE OF ORIGIN.

EACH. EACH SHIPMENT OF PLANTS SHALL BEAR CERTIFICATES OF INSPECTION AS REQUIRED BY FEDERAL,

- B. PLANTING METHODS:
 ALL PROPOSED PLANT MATERIALS THAT MEET THE SPECIFICATIONS IN SECTION A ARE TO BE PLANTED IN ACCORDANCE WITH THE FOLLOWING METHODS DURING THE PROPER PLANTING SEASONS
- PLANTING SEASONS:
 THE PLANTING OF DECIDUOUS TREES, SHRUBS AND VINES SHALL BE FROM MARCH IST TO JUNE 15TH AND FROM SEPTEMBER 15TH TO DECEMBER 15TH. PLANTING OF DECIDUOUS MATERIAL MAY BE CONTINUED DURING THE WINTER MONTHS PROVIDING THERE IS NO FROST IN THE GROUND AND FROST-FREE TOPSOIL PLANTING MIXTURES ARE USED

THE PLANTING OF EVERGREEN MATERIAL SHALL BE FROM MARCH 15TH TO JUNE 15TH AND FROM AUGUST 15TH TO DECEMBER IST. NO PLANTING SHALL BE DONE WHEN THE GROUND IS FROZEN OR EXCESSIVELY MOIST. NO FROZEN OR WET TOPSOIL SHALL BE USED AT ANY TIME.

- ALL PLANT MATERIAL SHALL BE DUG, BALLED AND BURLAPPED (B&B) IN ACCORDANCE WITH THE "AAN STANDARDS"
- EXCAVATION OF PLANT PITS:
 THE LANDSCAPING CONTRACTOR SHALL EXCAVATE ALL PLANT PITS, VINE PITS, HEDGE TRENCHES
- AND SHRUB BEDS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: A. LOCATIONS OF ALL PROPOSED PLANT MATERIAL SHALL BE STAKED AND APPROVED IN THE
- FIELD BY THE LANDSCAPE ARCHITECT BEFORE ANY OF THE PROPOSED PLANT MATERIAL IS INSTALLED BY THE LANDSCAPE CONTRACTOR. B. ALL PITS SHALL BE GENERALLY CIRCULAR IN OUTLINE, VERTICAL SIDES; DEPTH SHALL NOT BE LESS THAN 6" DEEPER THAN THE ROOT BALL, DIAMETER SHALL NOT BE LESS THAN TWO TIMES THE
- DIAMETER OF THE ROOT BALL AS SET FORTH IN THE FOLLOWING SCHEDULE. C. IF AREAS ARE DESIGNATED AS SHRUB BEDS OR HEDGE TRENCHES, THEY SHALL BE EXCAVATED TO AT LEAST 18" DEPTH MINIMUM. AREAS DESIGNATED FOR GROUND COVERS AND VINES SHALL
- BE EXCAVATED TO AT LEAST 12" IN DEPTH MINIMUM.

D. DIAMETER AND DEPTH OF TREE PITS SHALL GENERALLY BE AS FOLLOWS:

AMETER AND DEP	TH OF TR	REE PITS	SHALL GE	NERALLY BE AS F	0
PLANT SIZE	ROOT	BALL	PIT DIA.	PIT DEPTH	
2" - 2.5"CAL.	28"		56"	24"	
3" - 3.5"CAL.	32"	× 10	64"	28"	
3.5"- 4" CAL.	36"		72"	32"	
4" - 4.5"CAL.	40"		80"	36"	
4.5"- 5" CAL.	44"		88"	40"	
5" - 5.5"CAL.	48"		96"	44"	
5.5"- 6" CAL.	52"		104"	48"	

ADJACENT TO

TYPE A

NONE

NONE

4 (1:60)

0

17 COMMON SURFACE SPACES

4 ORN.=2 SHADE TREES

SIDE OF STRUCTURE (SFA ADJ. TO OTHER

SCHEDULE-A: PERIMETER LANDSCAPE EDGE

USE SITUATION

LANDSCAPE BUFFER TYPE

ROADWAY/ PERIMETER FRONTAGE/BLD

(YES, NO; LINEAR FEET; DESCRIBE

CREDIT FOR WALL, FENCE OR BERM

MES. NO. LINEAR FEET, DESCRIBE

NUMBER OF PLANTS REQUIRED

NUMBER OF PLANTS PROVIDED

EVERGREEN TREES

SUBSTITUTIONS MADE

NUMBER OF PARKING SPACES

(I PER IO RES. SPACES)

NUMBER OF SHADE TREES REQUIRED

NUMBER OF SHADE TREES PROVIDED

OTHER TREES (2:1 SUBSTITUTION)

ORNAMENTALS

SHRUBS

EVERGREEN TREES

ORNAMENTALS

BELOW IF NEEDED)

BELOW IF NEEDED)

#1

ADJACENT TO

TO ROADWAY)

ROADWAY (SFA

TYPE C

NONE

N/A

18 (1:40)

36 (1:20)

38

6 ORN.=3 SHADE TREES

2 EVGs.=I SHADE TREE

SCHEDULE-B: PARKING LOT INTERNAL LANDSCAPING

A 20 % COMPACTION FIGURE OF THESOIL TO BE REMOVED IS ASSUMED AND WILL BE ALLOWED IN CALCULATION OF EXTRA TOPSOIL. THE TABULATED PIT SIZES ARE FOR PURPOSES OF UNIFORM CALCULATION AND SHALL NOT OVERRIDE THE SPECIFIED DEPTHS BELOW THE BOTTOMS OF THE

PERIMETER PROPERTIES ROADWAY (SFA TO SFE

ADJACENT TO

TYPE C

NONE

NONE

10 (1:40)

20 (1:20)

8 ORN.=4 SHADE TREES

ADJACENT TO

PERIMETER PROPERTI

(SFA ADJ. TO OTHER

TYPE A

NONE

NONE

15 (1:60)

8 ORN.=4 SHADE TREES

NUMBER OF DWELLING UNITS

NUMBER OF SHRUBS REQUIRED

NUMBER OF TREES PROVIDED

SHADE TREES

NUMBER OF TREES REQUIRED (I per SFA)

OTHER TREES (2:1 substitutions with

ornamental or evergreen trees)

ADJACENT TO

ROADWAY)

ROADWAY (SFA SIDE

OF STRUCTURE TO

TYPE C

NONE

NONE

16 (1:40)

32 (1:20)

12 ORN. = 6 SHADE TREES 2 ORN =1 SHADE TREE

SCHEDULE-C: RESIDENTIAL INTERNAL LANDSCAPING

Note: Due to limited space to plant near the building, shrubs are planted near each unit; however, the

shade and most of the ornamental trees are planted elsewhere in the community.

- STAKING, GUYING AND WRAPPING:
 ALL PLANT MATERIAL SHALL BE STAKED OR GUYED, AND WRAPPED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS
- A. STAKES: SHALL BE SOUND WOOD 2" X 2" ROUGH SAWN OAK OR SIMILAR DURABLE WOODS, OR LENGTHS, MINIMUM 7'-0" FOR MAJOR TREES AND 5'-O" MINIMUM FOR MINOR TREES.
- B. WIRE AND CABLE: WIRE SHALL BE #10 GA. GALVANIZED OR BETHANIZED ANNEALED STEEL WIRE. FOR TREES OVER 3" CALIPER, PROVIDE 5/16" TURN BUCKLES, EYE AND EYE WITH 4" TAKE-UP. FOR TREES OVER 5" CALIPER, PROVIDE 3/16", 7 STRAND CABLE CADMIUM PLATED STEEL, WITH GALVANIZED "EYE" THIMBLES OF WIRE AND HOSE ON TREES UP TO 3" IN CALIPER.
- C. HOSE: SHALL BE NEW, 2 PLY REINFORCED RUBBER HOSE, MINIMUM 1/2" I.D. "PLASTIC LOCK TIES" OR "PAUL'S TREES BRACES" MAY BE USED IN PLACE OF WIRE AND HOSE ON TREES UP TO 3" IN CALIPER.
- D. ALL TREES UNDER 3" IN CALIPER ARE TO BE PLANTED AND STAKED IN ACCORDANCE WITH THE ATTACHED PLANTING DETAILS. 5. PLANT PRUNING, EDGING AND MULCHING:

 A. EACH TREE, SHRUB OR VINE SHALL BE PRUNED IN AN APPROPRIATE MANNER TO ITS PARTICULAR REQUIREMENTS, IN ACCORDANCE
- WITH ACCEPTED STANDARD PRACTICE. BROKEN OR BRUISED BRANCHES SHALL BE REMOVED WITH CLEAN CUTS FLUSH WITH THE ADJACENT TRUNK OR BRANCHES. ALL CUTS OVER I" IN DIAMETER SHALL BE PAINTED WITH AN APPROVED ANTISEPTIC TREE WOUND
- B. ALL TRENCHES AND SHRUB BEDS SHALL BE EDGED AND CULTIVATED TO THE LINES SHOWN ON THE DRAWING. THE AREAS AROUND ISOLATED PLANTS SHALL BE EDGED AND CULTIVATED TO THE FULL DIAMETER OF THE PIT. SOD WHICH HAS BEEN REMOVED AND STACKED SHALL BE USED TO TRIM THE EDGES OF ALL EXCAVATED AREAS TO THE NEAT LINES OF THE PLANT PIT SAUCERS, THE EDGES OF SHRUB AREAS, HEDGE TRENCHES AND VINE POCKETS.
- C. AFTER CULTIVATION, ALL PLANT MATERIALS SHALL BE MULCHED WITH A 3" LAYER OF FINE, SHREDDED PINE BARK, PEAT MOSS, OR ANOTHER APPROVED MATERIAL OVER THE ENTIRE AREA OF THE BED OR SAUCER.
- PLANT INSPECTION AND ACCEPTANCE:
 THE DESIGN REVIEW COMMITTEE SHALL BE RESPONSIBLE FOR INSPECTING ALL PLANTING PROJECTS ON A PERIODIC BASIS TO ASSURE THAT ALL WORK IS PROCEEDING IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS,
- PLANT GUARANTEE:
 ALL PLANT MATERIAL SHALL BE GUARANTEED FOR THE DURATION OF ONE FULL GROWING SEASON, AFTER FINAL INSPECTION AND ACCEPTANCE OF THE WORK IN THE PLANTING PROJECT. PLANTS SHALL BE ALIVE AND IN SATISFACTORY GROWING CONDITION AT THE
- A. FOR THIS PURPOSE, THE "GROWING SEASON" SHALL BE THAT PERIOD BETWEEN THE END OF THE "SPRING" PLANTING SEASON, AND THE COMMENCEMENT OF THE "FALL" PLANTING SEASON.
- B. GUARANTEE FOR PLANTING PERFORMED AFTER THE SPECIFIED END OF THE "SPRING" PLANTING BEASON, SHALL BE EXTENDED THROUGH THE END OF THE NEXT FOLLOWING "SPRING" PLANTING SEASON.

ALL SODDING SHALL BE IN ACCORDANCE TO THE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" LATEST EDITION, APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS.

ALL SOD SHALL BE STRONGLY ROOTED SOD, NOT LESS THAN TWO YEARS OLD AND FREE OF WEEDS AND UNDESIRABLE NATIVE GRASSES. PROVIDE ONLY SOD CAPABLE OF GROWTH DEVELOPMENT WHEN PLANTED AND IN STRIPS NOT MORE THAN 18" WIDE X 4" LONG, PROVIDE SOD COMPOSED PRINCIPALLY OF IMPROVED STRAIN KENTUCKY BLUEGRASS, SUCH AS, COLUMBIA, VICTA, OR ESCORT

ADJACENT TO

ROADWAY)

OF STRUCTURE TO

ROADWAY (SFA SIDE

TYPE C

NONE

2 (1:40)

4 (1:20)

2 ORN = I SHADE TREE

IO SHRUBS=1 SHADE TREES | IO SHRUBS=1 SHADE TREES | IO SHRUBS=1 SHADE TREES

UNIT 42

ADJACENT TO

ROADWAY)

ROADWAY (SFA SIDE

TYPE C

NONE

NONE

2 (1:40)

4 (1:20)

2 ORN = I SHADE TREE

OF STRUCTURE TO

UNIT 35

ROADWAY (SFA SIDE

TYPE C

NONE

NONE

2 (1:40)

4 (1:20)

57 SINGLE FAMILY ATTACHED UNITS

14 SHADE TREES (see note below)

29 ORNAMENTAL TREES (as 2:1 substitution) and

285 SHRUBS (as 10:1 substitution) FOR 43 SHADE

57 SHADE TREES

O SHRUBS

OF STRUCTURE TO

ADJACENT TO

ROADWAY)

LANDSCAPE NOTES

TAKE PRECEDENCE.

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE & THE HOWARD COUNTY LANDSCAPE MANUAL.
- CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST (5) FIVE DAYS BEFORE STARTING WORK. ALL GENERAL NOTES, ESPECIALLY THOSE REGARDING UTILITIES, ON SHEET NO.
- FIELD VERIFY UNDERGROUND UTILITY LOCATIONS AND EXISTING CONDITIONS BEFORE STARTING PLANTING WORK. CONTACT CONSTRUCTION MANAGER OR OWNER IF ANY RELOCATIONS ARE REQUIRED
- PLANT QUANTITIES SHOWN ON THE PLANT LIST ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON THE PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL
- ALL PLANT MATERIAL SHALL BE FULL, HEAVY, WELL FORMED, SYMMETRICAL, AND CONFORM TO THE A.A.N. SPECIFICATIONS. IN ADDITION, ALL REQUIRED PLANTING FOR THE LANDSCAPE ISLANDS IN THE PARKING LOT SHALL CONFORM TO THE HOWARD COUNTY LANDSCAPE MANUAL. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THIS PLAN. SEE THIS SHEET FOR PLANTING DETAILS.
- NO SUBSTITUTION SHALL BE MADE WITHOUT PRIOR APPROVAL FROM HOWARD COUNTY
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BUT NOT OTHERWISE PLANTED, PAVED, OR MULCHED SHALL BE SODDED OR SEEDED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATION. A MINIMUM OF 4" OF TOPSOIL SHALL BE PROVIDED TO ALL PLANTING AREAS.
- THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING IF HE/SHE ENCOUNTERS SOIL DRAINAGE CONDITIONS THAT MAY BE DETRIMENTAL TO THE GROWTH OF THE PLANTS.
- ALL EXPOSED EARTH WITHIN THE LIMITS OF PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD MULCH PER THE PLANTING DETAILS.
- DO NOT PLANT WITHIN THE PUBLIC WATER, SEWER AND UTILITY EASEMENT.

DPZ AND THE OWNER OR HIS REPRESENTATIVE.

- VERIFY THE LOCATION AND DEPTH OF THE COMMUNICATION LINE(S) WITHIN THE AT&T R/W PRIOR TO ANY PLANTING WITHIN THIS R/W. THE CONTRACTOR SHALL CONTACT GLW FOR ANY NECESSARY RELOCATION OF PLANT MATERIALS.
- THE SCHEDULES ON THIS SHEET ARE PROVIDED FOR LANDSCAPE SURETY CALCULATION PURPOSES. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT. SEE THE TABULATION ON THIS SHEET FOR THE SURETY AMOUNT.
- TO REQUEST A LANDSCAPE INSPECTION TO OBTAIN THE RELEASE OF THE POSTED LANDSCAPE SURETY, SUBMIT A WRITTEN REQUEST OF LANDSCAPE INSPECTION, ALONG WITH A COPY OF THE ONE YEAR LANDSCAPE PLANT WARRANTY, TO THE DIVISION OF LAND DEVELOPMENT, HO. CO. DEPT. OF PLANNING AND ZONING.
- THE OWNER, TENANT, AND THEIR RESPECTIVE AGENTS, IF ANY, SHALL JOINTLY AND SEVERALLY BE RESPONSIBLE FOR THE MAINTENANCE OF THE REQUIRED LANDSCAPING. ALL REQUIRED PLANTINGS SHALL BE MAINTAINED IN GOOD GROWING CONDITION AND, WHENEVER NECESSARY, REPLACED WITH COMPARABLE NEW PLANT MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS.
- AT THE TIME OF INSTALLATION, ALL PLANTS 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 AL REQUIRED MATERIALS ARE PLANTED OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
- 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.

BUFFER TYPE	SHADE TREES/LF	EVG. TREES/LF	SHRUBS/LF	
B	1:50	1:40	0	
Č	1:40	1:20	0 .	
D .	1:60	1:10	0	••
Ē	1:40	0	1:4	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

BUILDER'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 A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF

PRIVATE STREET TREE REQUIREMENTS

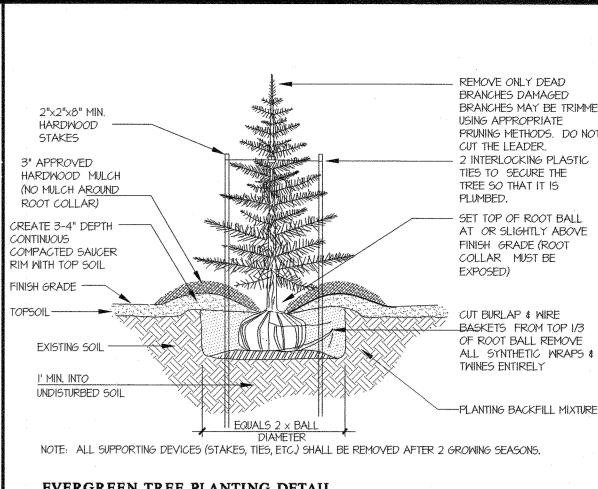
PRIVATE STREET T	REE CHART						
ROAD NAME	CURB LENGTH (linear feet to be planted)	TREES REQUIRED (at 1 Tree/40 LF)	TREES PROVIDED	TREES BOTANICAL & COMMON NAMES		SIZE	REMARKS
Jennys Way	439	11	q qui	ACER RUBRUM'AUTUMN BLAZE'/ AUTUM BLAZE RED MAPLE	2 1/	2-3" CAL.	B&B, Full Crow w/single leade
Lisa Lane	228	6	l 6	ACER RUBRUM'AUTUMN BLAZE'/ AUTUM BLAZE RED MAPLE	2 1/	2-3" CAL.	B&B, Full Crow w/single lead

Notes: 1. The linear feet of curb length to be planted is for both sides of the roadway except segments with driveways to the SFA units and within 30-ft of intersections. The private street tree obligations for the portion of Jennys Way with perpendicular parking spaces will be satisfied by internal parking lot landscaping (Schedule-C).

2. Street trees may not be planted within 5' of a drain inlet structure, 5' of an open space access strip (if applicable), or 10' of a driveway.

DO NOT CUT CENTRAL LEADER, REMOVE ANY DEAD OR DAMAGED BRANCHES BY APPROPRIATE PRUNING METHODS. 2"X2"X8" MIN 3/8" DIA, REINFORCED BLACK HARDWOOD STAKES RUBBER HOSE, INTERLOCKED. POSITION ABOVE FIRST SET OF BRANCHES TO SECURE THE TREE SC APPROVED HARDWOOD THAT IT IS PLUMBED. MULCH (NO MULCH AROUND 2 STRANDS 14-GA GALV, WIRE ROOT COLLAR) -TWISTED (PLASTIC TIES MAY BE USED INSTEAD OF WIRE & RUBBER CREATE 3-4" DEPTH CONTINUOUS HOSE) SET TOP OF ROOT BALL AT OR COMPACTED SAUCER SLIGHTLY ABOVE FINISH GRADE (NO RIM WITH TOP SOIL MORE THAN 3"). FINISH GRADE CUT BURLAP & WIRE BASKETS FROM TOP 1/3 OF ROOT BALL REMOVE ALI SYNTHETIC WRAPS & TWINES ENTIRELY - PLANTING BACKFILL MIXTURE EXISTING SOIL COMPACT SOIL MIX BELOW BALL UNDISTURBED SOIL PITCH AWAY FROM BALL TO PERIMETER OF PLANTING PIT. EQUALS 2 x BALL IOTE: ALL SUPPORTING DEVICES (STAKES, WIRES, ETC.) SHALL BE REMOVED AFTER 2 GROWING SEASONS. DECIDUOUS TREE PLANTING DETAIL FOR PLANTING MATERIAL UP TO 3 1/2" CALIPER

SET ROOT BALL AT OR SLIGHTLY ABOVE FINISH GRADE, CONTAINERS TO BE REMOVED PRIOR TO PLANTING. SCARIFY ROOT EDGES TO STIMULATE GROWTH. 3" MULCH - AS SPECIFIED MOUNDED EARTH SAUCER (FOR ISOLATED PLANTING SITUATION PLANTING BACKFILL MIXTURE SCARIFY SOIL BELOW ROOTBALL EXISTING SOIL-SHRUB PLANTING DETAIL



EVERGREEN TREE PLANTING DETAIL

PRIOR TO PLANTING CUT POT-BOUND ROOTS, AFTER PLANTING, THE ENTIRE GROUND COVER BED SHALL BE THOROUGHLY WATERED BACKFILL WITH PREPARE /3 TOPSOIL 1/3 ORGANIC AMENDMENTS SCARIFY TO 3" DEPTH-UNDISTURBED SOIL.

PLANT LIST

GROUNDCOVER PLANTING DETAIL

QUANT.

SIZE

2 1/2-3" CAL

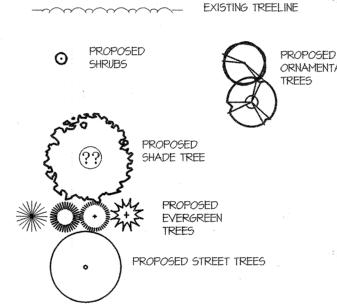
2 1/2-3" CAL

2 1/2-3" CAL

2 1/2-3" CAL B&B (Private Street Tree

ROOT/COMMENTS

PLANTING LEGEND



TABULATION OF LANDSCAPE & PRIVATE STREET TREES FOR REQUIRED LANDSCAPE SURETY										
	SCHDA	SCHDB	SCHDC	STREET TREES	TOTAL					
TOTAL SHADE TREES REQUIRED	69	2	57	17	145					
TOTAL EVGRN, TREES REQUIRED	100	0	0	0	100					
TOTAL SHRUBS REQUIRED	0	0	0	0	0					

SURETY REQUIRED FOR 145 SHADE TREES AT \$300/TREE SURETY REQUIRED FOR 100 EVERGREEN TREES AT \$150/TREE SURETY REQUIRED FOR O SHRUBS AT \$30/SHRUB

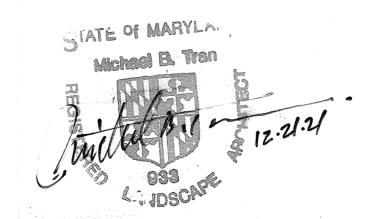
TOTAL LANDSCAPE SURETY REQUIRED TO BE POSTED WITH WITH THE DPW PSWM AGREEMENT.

ORNAMENTAL

SIGN (SEE SHEET 26)

\$ 15,000.00

DEVELOPER AGREEMENT. THE STORMWATER MANAGEMENT PLANTING (shown on sheets 15 & 16) IS BONDED SEPARATELY



EVERGREEN TRE	<u> </u>			
	ILEX OPACA / AMERICAN HOLLY	33	6-8' HT.	B&B, INTACT LEADER
X+.Z	ILEX X NELLIE R, STEVENS/NELLIE R. STEVENS HOLLY	15		
Winning + William	PICEA OMORIKA/ SERBIAN SPRUCE	12		
**************************************	PINUS STROBUS / EASTERN WHITE PINE	42	4	\ \
ORNAMENTAL TRE	<u> </u>			в и са поменя по на при
0	LAGERSTROEMIA INDICA VAR / CRAPE MYRTLE VAR.: 'Catawba', 'Red Rocket', 'Sioux', 'Coral Magic'	51	8-10' HT.	B&B, MULTI-STEM W 4' MIN. CLEAR TRUNK. PLANT A MIX VARIETY
	CERCIS CANADENSIS / EASTERN REDBUD	22	2 - 2 1/2" CAL 8-10' HT.	B&B, TREE FORM W/ 4' MIN. CLEAR TRUNK
SHRUBS (CHOOSE	FROM THE FOLLOWING)			Esta de Carlos de Ca Carlos de Carlos de Carlo
0	CARYOPTERIS CLANDONENSIS/'DARK KNIGHT' BLUE BEARD COTONEASTER DAMMERII 'CORAL BEAUTY'/ CORAL BEAUTY COTONEASTER COTONEASTER HORIZONTALIS 'TOM THUMB' / TOM THUMB COTONEASTER JUNIPERUS HORIZONTALIS VAR. / JUNIPER VAR.: 'BAR HARBOR', 'ANDORRA', 'WILLTONI BLUE RUG'	315	24" MIN. SPR.	CONTAINER
	DEUTZIA GRACILIS/ SLENDER DEUTIZIA ILEX CRENATA 'HELLEI' / DWARF JAPANESE HOLLY ILEX GLABRA 'COMPACTA' / DWARF INKBERRY MAHONIA AQUIFOLIUM / OREGON GRAPE HOLLY BUXUS SEMPERVIRENS 'SUFFRUTICOSA' / DWARF ENGLISH BOXWOOD			
OPTIONAL PERMA	NENT GROUND COVER & HERBACEOUS PLANTING			
	HEMEROCALLIS 'JOAN SENIOR' DAYLILY HERMEROCALLIS 'STRAWBERRY CANDY' DAYLILY HEMEROCALLIS 'CHERRY CHEEKS' DAYLILY LIRIOPE MUSCARI VAR. LAVANDULA X INTERMEDIA 'PROVENCE' LAVENDER ECHINACEA PURPUREA 'MAXIMA / EHCHINACEA MONARDA DIDYMA / BEE BALM CROCOSMIA LICIFER/MONTBRETIA DIGITALIS PURPUREA / FOXGLOVE RUDBECKIA HIRTA 'AUTUMN COLOR'/ BLACK-EYED SUSAN		12-18" O.C.	CONTAINER
	OTHER AS SELECTED & APPROVED BY THE MAJORITY OF ADJACENT RESIDE	NTS		
			Land to the same of the same o	

SYMBOL

SHADE TREES

NAMES (BOTANICAL / SCIENTIFIC)

QUERCUS PHELLOS / WILLOW OAK

PLATANUS ACERIFOLIA / LONDON PLANETREE

ACER RUBRUM 'AUTUMN BLAZE'/ AUTUMN BLAZE RED MAPLE

QUERCUS PALUSTRIS/ PIN OAK

- SUBSTITUTION FOR DIFFERENT TYPE OF PLANT MATERIALS ARE AS FOLLOWS: 2 ORNAMENTALS OF 2 EVERGREENS FOR I SHADE TREE Or IO SHRUBS FOR I SHADE TREE OR EVERGREEN TREE.
- 2. FOR STORMWATER MANAGEMENT (SWM) PLANTING, SEE SHEETS 15 &16.
- 3. SEE SHEET 26 FOR THE AFFORESTATION PLANTING SCHEDULES

Development Engineering Division

2-10-22

211955

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3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20866 | GLWPA.COM PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4186

DDS DRAWN BY: HKJ REVISION BY APP'R.

MLT MAPLE LAWN LLC 1202 SHADY CREEK RD MARRIOTTSVILLE, MD 21104 DEVELOPER: PULTE GROUP 9302 LEE HIGHWAY SUITE 1000 FAIRFAX, VA 22031 PH.: 703-934-9367 ATTN.: DON HUGHES

PREPARED FOR:

ELECTION DISTRICT No. 5

LANDSCAPE DETAILS, NOTES & SCHEDULES SCALE G. L. W. FILE No. 20027 1"=30' R-SA-8GATES AT MAPLE LAWN PARCEL A SHEET TAX MAP - GRID PN: 25486 - 25988 A RESUBDIVISION OF PARCEL 282 & SRC Plat No. 59938 Parcels 1 & 3 OF 39 DEC., 2021 25 L: 18909 F,: 397, L: 19769, F: 001 HOWARD COUNTY, MARYLAND

GENERAL NOTES

- THIS AFFORESTAION PLAN IS PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF SUBTITLE 12 "FOREST CONSERVATION" OF THE HOWARD COUNTY CODE
- IMPLEMENTATION OF THIS PLAN MUST BE PERFORMED BY A CONTRACTOR THAT IS KNOWLEDGEABLE AND EXPERIENCED IN AFFORESTATION/REFORESTATION TECHNIQUES AND PRACTICES.
- INVOLVES ACTIVITIES NECESSARY TO ENSURE SURVIVAL AND GROWTH OF THE CONSERVATION AREA. TWO INSPECTIONS PER YEAR BY A QUALIFIED PROFESSIONAL AT BEGINNING AND END OF THE GROWING SEASON, ARE RECOMMENDED IN ORDER TO TAKE REMEDIAL STEPS AS NECESSARY. IF, AFTER ONE YEAR, THE POSSIBILITY EXISTS THAT THE ORIGINAL PLANTING (IF APPLICABLE) WILL NOT MEET SURVIVAL RATE STANDARDS, THE APPLICANT MAY CHOOSE TO ESTABLISH REINFORCEMENT PLANTINGS.
- AT THE END OF THE POST-CONSTRUCTION MANAGEMENT AND PROTECTION PERIOD, CERTIFICATION BY A QUALIFIED CONSULTANT WILL BE REQUIRED BEFORE TO THE OWNER CAN BE RELEASED FROM HIS/HER FOREST CONSERVATION OBLIGATION TO THE ADMINISTRATOR OF THE HOWARD COUNTY FOREST CONSERVATION
- THE DEVELOPER/BUILDER SHALL (IN WRITING) NOTIFY ALL PROPERTY (CONDO) OWNERS OF THIS DEVELOPMENT OF THE EXISTENCE OF FOREST CONSERVATION AREAS AND THAT DISTURBANCE TO THE FOREST CONSERVATION AREAS OR THE REMOVAL OF FOREST CONSERVATION SIGNAGE IS PROHIBITED.
- REFORESTATION/AFFORESTATION TREE PLANTINGS SHOULD BE INSTALLED IN A CURVILINEAR PATTERN TO FACILITATE MAINTENANCE BUT AVOID A GRID APPEARANCE. EACH SPECIES OF TREE SHALL BE DISTRIBUTED EVENLY WITHIN EACH FOREST CONSERVATION EASEMENT AREA.
- THE FOREST CONSERVATION EASEMENTS SHALL BE RECORDED (ON THE CORRESPONDING PLAT FOR F-21-052 and F-22-022) TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- 8. WP-21-041 WAS APPROVED ON FEBRUARY 4, 2021 TO SECTION 16.1209(B)(2) OF THE COUNTY CODE 75% ON-SITE PLANTING OBLIGATION. SEE NOTE 37 ON SHEET-1.

FOREST CONSERVATION PROGRAM SEQUENCE

- OBTAIN ALL NECESSARY PERMITS.
- 2. STAKEOUT LIMITS OF DISTURBANCE.
- 3. FIELD MEETING TO REVIEW AND VERIFY LIMIT OF DISTURBANCE FOR THE SITE GRADING AND
- 4. COMMENCE SITE CONSTRUCTION.
- PREPARE SITE SOIL BY MULCHING AND REMOVAL OF TRASH AND WEEDS INCLUDING AN APPLICATION OF HERBICIDES TO CONTROL NOXIOUS WEEDS AND INVASIVE SPECIES WHEN APPLICABLE PRIOR TO PLANTING IN THE FOREST CONSERVATION EASEMENT AREAS.
- INSTALL FOREST PLANTING AND IMMEDIATELY POST FOREST CONSERVATION SIGNS ALONG THE
- INSPECTION AND CERTIFICATION FOR THE RELEASE OF THE CONSTRUCTION PERIOD OBLIGATIONS; START OF POST-CONSTRUCTION MANAGEMENT PERIOD.
- POST-CONSTRUCTION MANAGEMENT FOR A PERIOD OF 3 YEARS (MIN.).
- FINAL INSPECTION AND CERTIFICATION FOR THE RELEASE OF THE OWNER'S FOREST

CONSTRUCTION PERIOD PROTECTION PROGRAM

- FOREST PROTECTION DEVICES AND SIGNS (SEE DETAILS) SHALL BE INSTALLED IMMEDIATELY FOLLOWING THE AFFORESTATION PLANTING. THE PROTECTION DEVICES AND SIGNS SHALL BE MAINTAINED DURING THE ENTIRE CONSTRUCTION PERIOD. NONE OF THE DEVICES SHALL BE ANCHORED OR ATTACHED IN ANY WAY ANY TREES.
- EQUIPMENT, VEHICLES AND BUILDING MATERIALS SHALL NOT BE WITHIN THE PROTECTED FCE AREA. ACTIVITIES STRICTLY TO IMPLEMENT ANY REFORESTATION PLANTING AND MAINTENANCE (I.E. WATERING, FERTILIZING THINNING, PRUNING, REMOVAL OF DEAD AND DISEASED TREES & INVASIVE PLANTS WHERE NECESSARY, ETC.) OF THE CONSERVATION AREA ARE PERMITTED. CLEARING FOR THE PURPOSE OF SODDING OR PLANTING GRASS IS NOT PERMITTED WITHIN THE FOREST CONSERVATION AREAS ONCE THEY'RE ESTABLISHED.
- AT THE END OF THE CONSTRUCTION PERIOD, THE DESIGNATED QUALIFIED PROFESSIONAL SHALL CONVEY TO THE ADMINISTRATOR OF THE HOWARD COUNTY FOREST CONSERVATION PROGRAM CERTIFICATION THAT ALL FOREST RETENTION AREAS HAVE BEEN PRESERVED. ALL REFORESTATION AND/OR AFFORESTATION PLANTINGS HAVE BEEN INSTALLED AS REQUIRED I E FOREST CONSERVATION PLAN. AND THAT ALL PROTECTION MEASURES REQUIRED FOR THE POST-CONSTRUCTION PERIOD HAVE BEEN INSTALLED. UPON REVIEW OF THE FINAL CERTIFICATION DOCUMENT FOR COMPLETENESS AND ACCURACY, THE PROGRAM COORDINATOR WILL NOTIFY THE OWNER OF THE RELEASE FROM THE CONSTRUCTION PERIOD OBLIGATIONS. THE 3-YEAR (MIN.) POST-CONSTRUCTION MANAGEMENT AND PROTECTION PERIOD THEN

FOREST CONSERVATION NARRATIVE

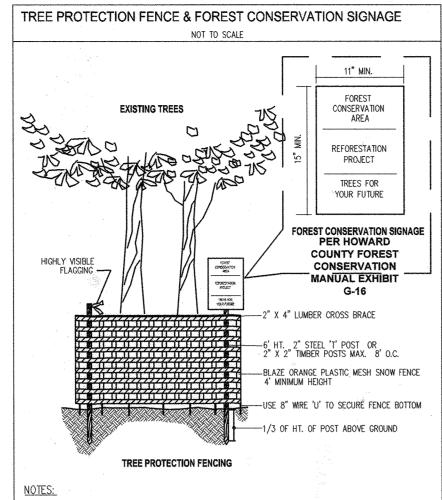
THIS 8.7 ACRE SITE DOES NOT HAVE A FOREST OR OTHER ENVIRONMENTAL FEATURES TO QUALIFY AS A PRIORITY AREA FOR AFFORESTATION PLANTING. THE FOREST CONSERVATION OBLIGATION FOR THIS SITE IS PLANTING UP TO THE 15% AFFORESTATION THRESHOLD WHICH IS 1.3± ACRES (0.15 x 8.7). TWO FOREST CONSERVATION EASEMENTS ARE ESTABLISHED TO PROVIDE A TOTAL OF 0.71± AC. OF ON-SITE AFFORESTATION. THE REMAINING OBLIGATION OF 0.6± AC. OF FOREST PLANTING OBLIGATION FOR THIS PROJECT IS APPROVED UNDER WP-21-041 TO BE FULFILLED OFF-SITE. THE OFFSITE LOCATION IS ON THE ADJOINING GRACE CHURCH PROPERTY.

FOREST CONSERVATION SURETY CALCULATIONS

379,006 s.f. or 8.701 acres SITE AREA (gross & net) x 0.15 (afforestation threshold for this project) 56,851 s.f. (or 1.305 ac) Afforestation Obligation x \$0.50/s.f. Afforestation Surety Rate

\$28,425.50 TOTAL FOREST CONSERVATION SURETY REQUIRED (\$15,295.50 for the on-site afforested FCEs and \$13,130.00 for an off-site afforested FCEs on the adjoining Grace Community Church Property)

	2-10-22
Director	Date
	2/10/22
Chief, Division of Land Development	Date
Stand Chambo	1.21.22
Chief, Development Engineering Division 💥	Date



THE TREE PROTECTION FENCING SHOWN ON THESE PLANS IS TEMPORARY AND SHALL REMAIN IN PLACE DURING CONSTRUCTION ACTIVITY, BUT THE FOREST CONSERVATION SIGNAGE IS PERMANENT AND SHALL REMAIN IN PLACE AROUND THE FOREST CONSERVATION EASEMENTS AFTER THE REMOVAL OF THE TREE PROTECTION FENCING. FOREST CONSERVATION SIGNS SHALL BE INSTALLED ALONG THE PERIMETER OF THE

ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.

CONSERVATION EASEMENT AT 50' TO 100' APART.

FOREST CONSERVATION POST-CONSTRUCTION MANAGEMENT

MANY OF THE PROTECTION AND MANAGEMENT PRACTICES FOR THE CONSTRUCTION PERIOD MUST BE CONTINUED FOR AT LEAST 2 GROWING SEASONS FOLLOWING OFFICIAL NOTIFICATION OF COMPLETION OF THE DEVELOPMENT (OR A SPECIFIC PHASE OF THE OVERALL DEVELOPMENT IF PHASING HAS BEEN APPROVED). THE RESPONSIBILITY TO MEET THE SURVIVAL STANDARDS REQUIRES ADEQUATE WATERING, REPLANTING, THINNING OR OTHER APPROPRIATE MEASURES. ALSO, INAPPROPRIATE USES OR INTRUSIONS MUST NOT OCCUR, A RESPONSIBILITY THAT REQUIRES THE KNOWLEDGE AND COOPERATION OF THE NEW OCCUPANTS OF THE DEVELOPMENT.

MINIMUM TWO GROWING SEASON POST-CONSTRUCTION MANAGEMENT PROGRAM

A POST-CONSTRUCTION MANAGEMENT PROGRAM MUST BE APPROVED AS PART OF THE ORIGINAL FOREST CONSERVATION PLAN AND REMAIN IN EFFECT FOR A MINIMUM OF TWO GROWING SEASONS. A LONGER PERIOD MAY BE REQUIRED FOR SPECIFIC STRATEGIES (E.G. NATURAL REGENERATION NEAR HIGH USE AREAS WHOSE LONG-TERM VIABILITY MAY TAKE LONGER TO CONFIRM.)

IMPLEMENTATION OF THE POST-CONSTRUCTION MANAGEMENT PROGRAM MUST BE SUPERVISED BY A QUALIFIED PROFESSIONAL WHO SHOULD INSPECT THE STATUS OF ALL FOREST RETENTION, REFORESTATION AND AFFORESTATION AREAS AT SPECIFIED TIMES DURING THE LIFE OF THE POST CONSTRUCTION AGREEMENT AND WHO MUST CERTIFY THAT THE REQUIRED SURVIVAL RATES HAVE BEEN ACHIEVED IN ACCORDANCE WITH THE AGREEMENT PRIOR TO RELEASE OF BONDS.

MANAGEMENT OF RETAINED OR NEW PLANTINGS, REPLACEMENT OF DEAD OR DAMAGED MATERIAL WHEN NECESSARY, EDUCATION OF NEW OCCUPANTS OF THE DEVELOPMENT AND FINAL INSPECTION AND RELEASE OF DEVELOPER FROM ADDITIONAL RESPONSIBILITIES.

INSPECTIONS SHOULD BE CARRIED OUT AT THE BEGINNING AND END OF THE GROWING SEASON TO PINPOINT ANY PROBLEMS, MONITOR SURVIVAL RATES, AND SPECIFY REMEDIAL ACTIONS NEEDED TO CORRECT EXISTING PROBLEMS. APPENDIX J HAS AN EXAMPLE OF AN INSPECTION REPORT CHECKLIST. MANAGEMENT OF FOREST CONSERVATION AREAS

POST CONSTRUCTION MANAGEMENT INCLUDES: MAINTENANCE OF ALL FENCES, SIGNS OR OTHER DEVICES DELINEATING FOREST CONSERVATION AREAS AND OTHER MEASURES. SUCH OTHER MEASURES INCLUDE: NEEDED WATERING; REMOVAL OF DEAD OR DAMAGED MATERIAL AND CONTROL OF UNDESIRABLE COMPETING SPECIES; THINNING OR PRUNING TO ENCOURAGE PROPER GROWTH; FERTILIZING, IF NECESSARY; AND CONTROL OF PESTS. SPECIFIC PRACTICES WILL DEPEND ON THE WEATHER PREVAILING DURING THE POST CONSTRUCTION PERIOD, THE TYPES OF PLANT MATERIAL AND PLANTING METHODS USED, AND SPECIFIC SITE CONDITIONS SUCH AS PROXIMITY TO HIGH USE AREAS. IT IS THE RESPONSIBILITY OF THE POST—CONSTRUCTION PLAN SUPERVISOR TO TAKE APPROPRIATE ACTIONS AS NEEDED. THIS MANUAL, THEREFORE, DOES NOT CITE REQUIRED MEASURES. SURVIVAL SUCCESS, NOT FULFILLMENT OF A GIVEN SERIES OF TASKS, WILL BE THE MEASURE OF CONFORMANCE TO THE NEEDS OF THE POST—CONSTRUCTION PROGRAM.

NEWLY PLANTED TREES, WHETHER THEY ARE SEEDLINGS OR 4" CALIPER TRANSPLANTS, HAVE BASIC NEEDS. SOME OF THESE NEEDS CAN BE MET BY NATURE ALONE; OTHERS MAY REQUIRE HUMAN INTERVENTION. (THE THREE MOST LIKELY CAUSES OF DEATH FOR NEWLY PLANTED TREES ARE INTERVENTION, (THE THREE MUST LIKELT CAUSES OF DEATH FOR NEWLI FLANTED TRACES AND DROUGHT, COMPETING VEGETATION AND DEER.) THE BASIC MAINTENANCE REGIME SHOULD BE DETERMINED BY ON—SITE ENVIRONMENTAL CONDITIONS, STRUCTURE AND NUTRIENT CONTENT OF SOIL, AND RAINFALL, UNDERSTANDING THESE FACTORS AND THE SPECIFIC NEEDS OF THE SPECIES AND SIZE OF PLANTS USED WILL RESULT IN A HEALTHY FORESTED AREA AT THE END OF THE MAINTENANCE PERIOD. APPENDIX H. CONTAINS GUIDELINE SPECIFICATIONS FOR MAINTENANCE OF FOREST CONSERVATION AREAS AND FOCUSES ON THE FOLLOWING CRITICAL NEEDS:

• CONTROL OF COMPETING VEGETATION
• PROTECTION FROM PESTS, DISEASES AND MECHANICAL INJURY.

REPLACEMENT OF PLANT MATERIAL

·TRUNK HEALTH

AN INSPECTION SHALL TAKE PLACE AT THE END OF YEAR ONE OR BEFORE THE SECOND GROWING SEASON TO EVALUATE SURVIVAL RATES WITH REFERENCE TO THE SURVIVAL REQUIRED AT THE END OF THE TWO YEAR PERIOD. THIS IS AN OPPORTUNITY TO AVOID THE PENALTY FOR VIOLATING SURVIVAL RATE STANDARDS. THIS INSPECTION SHOULD ESTIMATE SURVIVAL POTENTIAL BASED ON THE FOLLOWING: • VIGOR AND THREAT OF COMPETING VEGETATION (I.E. IF SEEDLINGS ARE FREE TO GROW) · GROWTH RATE · CROWN DEVELOPMENT

IF, AFTER ONE YEAR, THE POSSIBILITY EXISTS THAT THE ORIGINAL PLANTING WILL NOT MEET SURVIVAL STANDARDS, THE APPLICANT MAY CHOOSE TO ESTABLISH REINFORCEMENT PLANTINGS. IF PLANT MORTALITY OF REFORESTATION OR AFFORESTATION EXCEEDS 10% OF PLANTED MATERIAL AT THE END OF THE FIRST GROWING SEASON, SUCH MATERIAL SHOULD BE REPLACED TO BRING THE TOTAL NUMBER OF TREES TO 90% OF THE ORIGINAL TOTAL. SUCH MATERIAL SHALL BE INSTALLED BY THE BEGINNING OF THE SECOND GROWING SEASON, SURVIVAL RATE DROPS BELOW 75%, SUCH MATERIAL AS NEEDED TO GUARANTEE AN 75% SURVIVAL RATE BY THE END OF THE THIRD CROWING SEASON, SHALL BE INSTALLED. OF THE THIRD GROWING SEASON SHALL BE INSTALLED.

EDUCATION OF NEW OCCUPANTS

THE OCCUPANTS OF A NEW DEVELOPMENT, WHETHER OWNERS OR TENANTS, MUST AVOID ACTIVITIES THAT DESTROY OR DEGRADE PROTECTED FOREST RESOURCES. THE POST—CONSTRUCTION MANAGEMENT PROGRAM MUST THEREFORE INCLUDE STEPS TO EDUCATE THE NEW OCCUPANTS ABOUT THE PROPER USE OF FOREST CONSERVATION AREAS, ABOUT THE NEED FOR THE DEVELOPER TO CARRY OUT THE POSTCONSTRUCTION MANAGEMENT PROGRAM, AND THE EVENTUAL TRANSFER OF LONG-TERM RESPONSIBILITIES TO THE OWNERS OR OCCUPANTS. SUCH EDUCATIONAL MATERIAL SHOULD INCLUDE A PLAN LOCATING ALL PROTECTED AREAS ON THE SITE AND A DESCRIPTION OF PERMITTED AND PROHIBITED ACTIVITIES WITHIN OR AFFECTING SUCH AREAS. THE FORMAT AND METHOD OF CONVEYING SUCH INFORMATION IS LEFT TO THE DISCRETION OF THE DEVELOPER.

FINAL INSPECTION AND RELEASE OF OBLIGATIONS

AT THE END OF THE POST-CONSTRUCTION MANAGEMENT AND PROTECTION PERIOD, THE DESIGNATED RESPONSIBLE PROFESSIONAL SHALL CONVEY TO THE DEPARTMENT OFPLANNING AND ZONING CERTIFICATION THAT ALL FOREST CONSERVATION AREAS HAVE REMAINED INTACT OR HAVE BEEN RESTORED TO THE APPROPRIATE CONDITION, THAT THE STIPULATED SURVIVAL RATES HAVE BEEN

ACHIEVED, AND THAT ANY PERMANENT PROTECTION MEASURES REQUIRED BY THE PLAN ARE IN PLACE. UPON REVIEW OF THE FINAL CERTIFICATION DOCUMENT FOR COMPLETENESS AND ACCURACY, COUNTY WILL NOTIFY THE DEVELOPER OF RELEASE OF SURETY AND ALL FUTURE OBLIGATIONS. THE DEVELOPER'S LAST OFFICIAL RESPONSIBILITY WILL BE TO TRANSMIT A COPY OF THIS NOTIFICATION TO THE OWNER(S) OF THE PROPERTY(IES). SUCH TRANSMITTAL WILL SERVE AS OFFICIAL NOTICE TO OWNERS OF THEIR ASSUMPTION OF FULL RESPONSIBILITY FOR ALL FUTURE FOREST CONSERVATION

Forest Conservation Plant Quantity Schedule										
Forest Planting Location No.	FCE-1 on-site	FCE-2 on-site	FCE-2A off-site	FCE-2B off-site	Total					
AREA TO BE PLANTED (in acres)	0.336	0.367	0.243	0.360	1.307					
BASE QUANTITY OF 2" CAL. TREES REQUIRED (at 100/ac.)	34	37	25	36	132					
CREDIT FOR LANDSCAPE TREES (minimum of 2 1/2" cal.)	7 (20% max.)	7 (20% max.)	0	0	14					
REQUIRED TREE QUANTITY TO BE PLANTED					•					
A. 2" caliper trees (at 100/acre)	27	30	25	36	118					
B. 1" caliper trees (at 200/acre)		N/A see no	ote-2		0					

Net Tract Area

1. FCE-1&2 are onsite. FCE-2A & 2B are located (off-site) on the adjoining Grace Community Church property (Lot 2, PN 16724-16729). 2. WP -21-041 requires afforestation planting to be mixture of larger stock plantiings (1 to 3 gallon and 1-and 2-inch caliper). The large trees (2" caliper) will be planted at the 4 FCEs for this project. Provide a double row of trees along the edge of the Forest Conservation Easement adjacent to buildings.

Forest Conservation Plant List								
Forest Conservation Easement	FCE-1 on-site	FCE-2 on-site	FCE-2A off-site	FCE-2B off-site	Total			
Plant Name (Botanical /Common)	Plant Size	Qunatity to Plant						
Cercis canadensis / Eastern Redbud	2" cal.			5	8	13		
Quercus palustris / Pin Oak	2" cal.		-	5	9	14		
Robinia pseudoacacia / Black Locust	2" cal.	11	11	5	10	37		
Tilia americana/American Linden	2" cal.	9	11			20		
llex opaca/American Holly	2" cal.			5	5	10		
Juniperus virginiana/Eastern Redcedar	2" cal.	7	8	5	4	24		
TOTAL	2" cal.	27	30	25	36	118		

FOREST CONSERVATION WORKSHEET FOR DPZ file SDP-21-034

Α.	,) Tract Area of						A =	8.
В.	Area within 1	00-year Flood	plain					B =	0.0
C.	Other Deduc	tions (Identify:	Section 16.1	202(b)(1)(x	iii) exempt are	as)	C =	0.0
D.	Net Tract Are	ea	444				_	$D_i =$	8.
	d Use Catego	-							
Inse	ert the number	"1" under the	appropriate lan	d use (limit	to only one e	ntry)			
	Resid.	Resid.	Resid.	Inst./	Retail/Ind./	Mixed Use/			
	Rural LD	Rural MD	Suburban	Linear	Office	PUD			
	0	0	1	0	0	0			
E.	Afforestation	Threshold	(Net Tract Area x 15%)	E =	1,	
F.	Reforestation	Threshold		(Net Tract /	∖rea x	20%)	F=	1.
Exi	sting Forest C	over							
G.	Existing Fore	est Cover with	n the Net Trac	t Area				G =	0.
			station Thresh					H =	0.

G. H. I.	Existing Forest Cover within the Net Tract Area Area of Forest above Afforestation Threshold Area of Forest above Reforestation Threshold	G = H = I = _	0.0 0.0 0.0
Brea J. K.	k Even Point Break Even Point Forest Clearing Permitted without Mitigation	J= K=	0.0
Prop L. M.	Total Area of Forest to be Cleared (on net tract) Total Area of Forest to be Retained (on net tract)	L = _	0.0 0.0
Plan	ting Requirements Inside Watershed		
N.	Reforestation for Clearing above the Reforestation Threshold	N = _	0.0
P	Reforestation for Clearing below the Reforestation Threshold	P=_	0.0
Q.	Credit for Retention above the Reforestation Threshold	Q = _	0.0
R.	Total Reforestation Required	R = _	0.0
S.	Total Afforestation Required	S = _	1.3
T	Total Reforestation and Afforestation Requirement	T= _	1.3
U	75% of Total Obligation (Retention + Planting)	U= _	1.0
٧	Planting Required Onsite to meet 75% Obligation	V= _	1.0
Plan	ting Requirements Outside Watershed		en al en elemente glorige der auch en en en en eine en en en
W.	Total Planting within Development Site Watershed	W=	1.3
Χ	Total Afforestation Required	X=	0.0
Υ.	Remaining Planting within Watershed for Reforestation Credit	Y= _	0.0
Z.	Reforestation for Clearing above the Reforestation Threshold	Z=	0.0
AA.	Reforestation for Clearing below the Reforestation Threshold	AA=	0.0
BB.	Credit for Retention above the Reforestation Threshold	BB=	0.0
CC.	Total Reforestation Required	CC=	0.0
DD.	Total Afforestation and Reforestation Requirement	DD=	0.0
a the part test is through a			

PUBLIC ACCESS & -UTILITY EASEMENT FOR THE BENEFIT OF PARCEL 389 SCAGGSVILLE ROAD - MD RTE 216 (STATE OF MARYLAND - VARIABLE R/W MINOR ARTERIAL) N/ MARYLAND STATE HIGHWAY "GATES AT MAPLE "MAPLE LAWN" ADMINISTRATION PARCEL 2 LAWN" SHA/SRC PLAT No.59938 WATER TOWER PARCEL-A ZONED: R-SA-8 HOWARD COUNTY, MD F-21-052 ZONED: RR-DEO PN. 25984 \ZONED: R-SA-8 LOT 1 "GRACE COMMUNITY CHURCH" PLAT No. 16725 SDP-04-079 ZONED: RR-DEO EX. PUBLIC SEWER, WATER & UTILITY -20' PUBLIC SEWER, EASEMENT PER WATER & UTILITY PLAT No. 17461 EASEMENT PER PLAT No. 17461 THESE TWO OFF-SITE FCES ARE CREATED UNDER F-22-022, PN 25989 "GRACE COMMUNITY CHURCH" PLAT No. 16725 SDP-04-079 ZONED: RR-DEO "St. FRANCIS OF ASSISI SUBDIVISION" PLAT No. 10126 ZONED: RR-DEO EX. FOREST CONSERVATION -DEVELOPMENT PLAN IN-PROGRESS UNDER EASEMENT 1 PER F-18-047 AS "FULTON HILL" PLAT Nos. 16724-16729 OPEN SPACE LOT 65 "MAPLE LAWN SOUTH" PLAT Nos. 24202 & 24208 ZONED: R-ED-MXD-3 APPROXIMATE LIMIT OF 100' FLOOD PLAIN PLAT Nos. 16724-16729 PERENNIAL STREAM BUFFER PER PLAT Nos. 16724-16729 APPROX. CL STREAM PER PLAT Nos. 16724-16729 "SCAGGSVILLE KNOLLS" PLAT No. 19024 ZONED: RR-DEO "SUBDIVISION OF ALBIN F. AND SARAH E APPROXIMATE LIMIT PAYNE PROPERTY NEAR BURTONSVILLE" OF 100' FLOOD PLAIN PLAT BOOK RHM 5, PLAT No.67 PER PLAT Nos. ZONED: RR-DEO 16724-16729 PAUL T. LEWS, ET AL L. 9669 F.128 TAX PARCEL 37

> OVERALL ON-SITE & OFF-SITE FOREST CONSERVATION EASEMENTS LOCATION PLAN SCALE: 1'' = 200'

FOR CLARITY, THE ABOVE OVERALL PLAN OF PARCEL-A AND THE ADJOINING LOT-2 IS LIMITED TO SHOWING EXISTING EASEMENTS AND ENCUMBRANCES FROM RECORD PLATS AS NOTED. FOR OTHER SITE FEATURES ON PARCEL-A, SEE THE OTHER SHEETS IN THIS PLAN SET. FOR OTHER SITE FEATURES ON THE GRACE COMMUNITY CHURCH PROPERTY THAT ARE NOT SHOWN IN THIS PLAN SET, SEE SDP-04-079.

FOREST CONSERVATION CHARTS, DETAILS & NOTES G. L. W. FILE No. SCALE 20027 AS SHOWN GATES AT MAPLE LAWN PARCEL A SHEET TAX MAP - GRID PN: 25986 - 25988 A RESUBDIVISION OF PARCEL 282 & SRC Plat No. 59938 Parcels 1 & 3 DEC., 2021 26 OF 39 L: 18909 F.: 397, L: 19769, F: 001 HOWARD COUNTY, MARYLAND

PLANNING ENGINEERING SURVEYING

3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20866 | GLWPA.COM PHONE: 301-421-4024 | BALT: 410-880-1820 | DC&VA: 301-989-2524 | FAX: 301-421-4186

DESIGNED B DDS DRAWN BY HKJ CHECKED BY MBT BY APP'R DATE REVISION

MLT MAPLE LAWN LLC 1202 SHADY CREEK RD MARRIOTTSVILLE, MD 21104

Date: Aug 2021

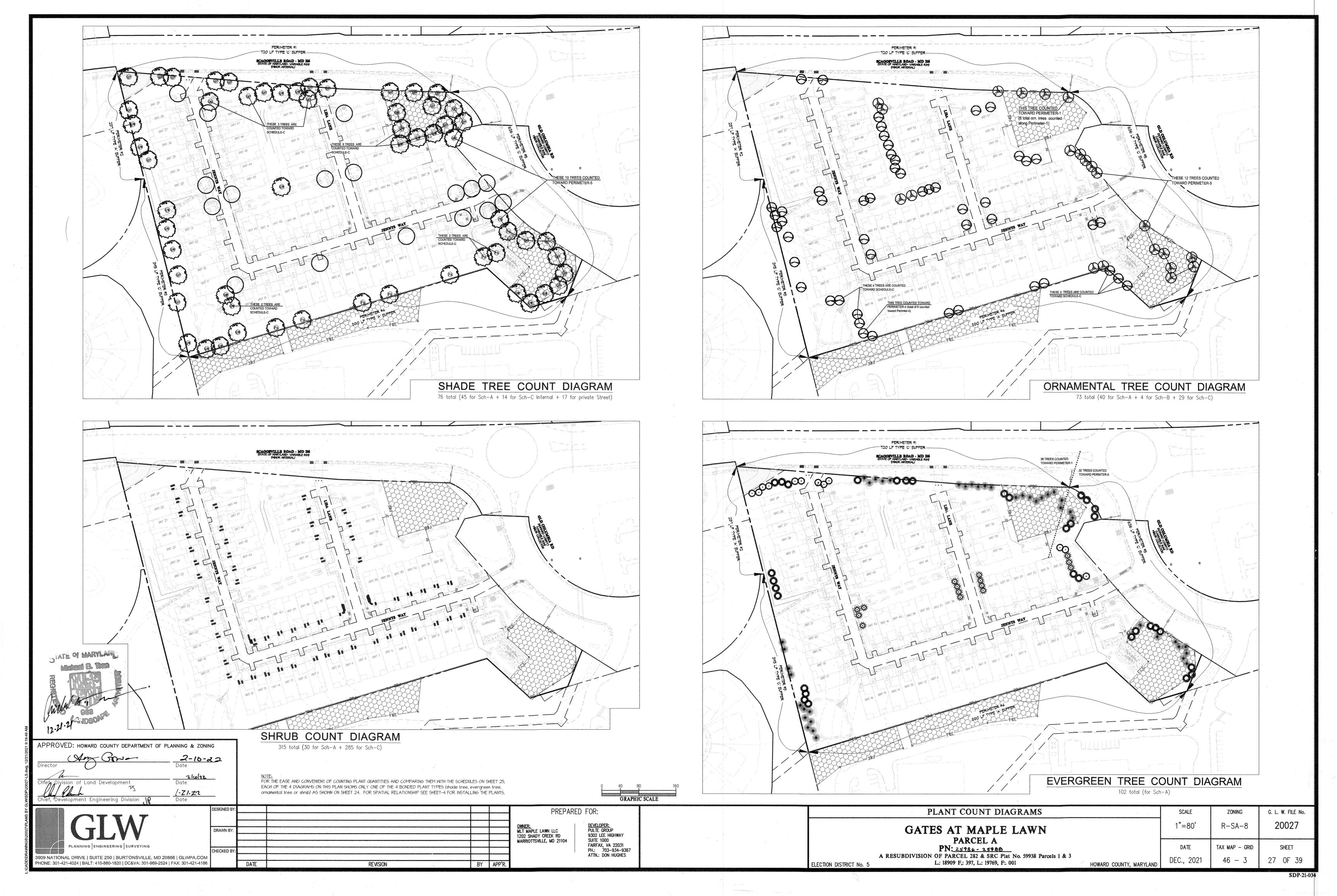
DEVELOPER: PULTE GROUP 9302 LEE HIGHWAY SUITE 1000 FAIRFAX, VA 22031 PH.: 703-934-9367 ATTN.: DON HUGHES

PREPARED FOR:

ELECTION DISTRICT No. 5

SDP-21-034

ZONED: RR-DEO



SEGMENTAL RETAINING WALL SPECIFICATIONS

PART 1 - GENERAL

1.1 WORK INCLUDES

FURNISHING AND INSTALLING SEGMENTAL RETAINING WALL UNITS, GEOGRID REINFORCEMENT, WALL FILL, AND BACKFILL TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS AND AS SPECIFIED HEREIN. THE CONTRACT ALSO INCLUDES FURNISHING AND INSTALLING ALL APPURTENANT MATERIALS, EQUIPMENT, AND LABOR REQUIRED FOR CONSTRUCTION OF THE GEOGRID REINFORCED SEGMENTAL RETAINING WALL. ALL EXISTING AND PROPOSED CONSTRUCTION AND SITE GRADING INFORMATION WAS REFERENCED FROM THE PLAN ENTITLED WALL GRADING DETAILS - GATES AT MAPLE LAWN, DATED MARCH, 2021, PREPARED BY GUTSCHICK, LITTLE AND WEBER, P.A. SOIL DESIGN PARAMETERS ARE BASED ON THE SUBSURFACE DATA BY PRESENTED IN THE REPORT OF GEOTECHNICAL EXPLORATION, DATED OCTOBER 6, 2020, PREPARED BY GTA, AND SHOULD BE VERIFIED DURING CONSTRUCTION.

1.2 REFERENCE STANDARDS

- ASTM C90 STANDARD SPECIFICATION FOR LOADBEARING CONCRETE MASONRY UNITS B. ASTM C1262 - STANDARD TEST METHOD FOR EVALUATING THE FREEZE-THAW DURABILITY OF DRY-CAST SEGMENTAL RETAINING WALL
- ASTM C1372 STANDARD SPECIFICATION FOR DRY-CASE SEGMENTAL RETAINING WALL UNITS D. ASTM D698 - STANDARD TEST METHODS FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT E. ASTM D2487 - STANDARD PRACTICE FOR CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES (UNIFIED SOIL CLASSIFICATION
- ASTM D3034 SPECIFICATION FOR POLYVINYL CHLORIDE (PVC) PIPE ASTM STP399 - VANE SHEAR AND CONE PENETRATION RESISTANCE TESTING OF IN-SITU SOILS
- 2018 INTERNATIONAL BUILDING CODE NATIONAL CONCRETE MASONRY ASSOCIATE DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS, MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION (SHA) STANDARD SPECIFICATION FOR CONSTRUCTION PART 3 - EXECUTION
- 1.3 DELIVERY, STORAGE AND HANDLING

AND MATERIALS, JULY 2018

- CONTRACTOR SHALL CHECK THE MATERIALS UPON DELIVERY TO ENSURE THAT PROPER MATERIAL HAS BEEN RECEIVED. B. CONTRACTOR SHALL PREVENT EXCESSIVE MUD, WET CEMENT, EPOXY, AND LIKE MATERIALS WHICH MAY AFFIX THEMSELVES, FROM COMING IN CONTACT WITH THE MATERIALS.
- GEOGRIDS SHALL BE STORED ABOVE -20° F CONTRACTOR SHALL PROTECT THE MATERIALS FROM DAMAGE. DAMAGED MATERIAL SHALL NOT BE INCORPORATED INTO THE REINFORCED RETAINING WALL
- 1.4 SUBMITTALS/CERTIFICATION
- A. IF REQUESTED BY GTA OR THE OWNER, CONTRACTOR SHALL SUBMIT QUALIFICATIONS AND DOCUMENTATION OF PRIOR EXPERIENCE TO SHOW THE NECESSARY SKILL AND EXPERIENCE. PRIOR EXPERIENCE SHALL INCLUDE RETAINING WALL CONSTRUCTION OF SIMILAR SIZE/TYPE TO THOSE SHOWN ON THIS PLAN (MINIMUM THREE PROJECTS IN THE LAST FIVE YEARS).
- CONTRACTOR SHALL SUBMIT MANUFACTURER'S CATALOG FOR THE PROPOSED MATERIALS TO GTA FOR APPROVAL A MINIMUM OF SEVEN DAYS BEFORE START OF CONSTRUCTION.
- C. IF REQUESTED BY GTA OR THE OWNER, CONTRACTOR SHALL SUBMIT SAMPLES OF PROPOSED MATERIALS TO GTA A MINIMUM OF SEVEN DAYS BEFORE START OF CONSTRUCTION.
- D. MATERIALS SHALL BE TRANSPORTED TO THE SITE ONLY AFTER APPROVAL OF THE PROPOSED MATERIAL BY GTA.

PART 2 - PRODUCTS

2.1 DEFINITIONS

- CONCRETE UNITS ARE DRY-STACKED, CONCRETE MASONRY UNITS THAT FORM THE FACE OF THE RETAINING WALL. CAP UNITS ARE CONCRETE MASONRY UNITS PLACED ON THE TOP COURSE OF THE CONCRETE UNITS,
- LEVELING PAD IS A COMPACTED, AGGREGATE LAYER SUPPORTING THE BOTTOM CONCRETE UNITS. FIBERGLASS CONNECTION PINS ARE PLACED BETWEEN SUCCESSIVE CONCRETE UNIT COURSES TO CONNECT CONCRETE UNITS AND SECURE GEOGRID TO THE CONCRETE UNITS.
- GEOGRID IS A HIGH-DENSITY POLYETHYLENE, POLYESTER, OR POLYPROPYLENE GRID, SPECIFICALLY FABRICATED FOR USE AS A SOIL GRAVEL FILL IS DRAINAGE AGGREGATE THAT IS PLACED WITHIN AND IMMEDIATELY BEHIND THE CONCRETE UNITS.
- REINFORCED BACKFILL IS COMPACTED, STRUCTURAL FILL PLACED BEHIND THE CONCRETE UNITS, EXTENDING THE FULL LENGTH OF
- CONTROLLED FILL IS COMPACTED, STRUCTURAL FILL PLACED BEHIND THE REINFORCED BACKFILL AND/OR SUPPORTING THE LEVELING PAD AND REINFORCED BACKFILL.
- LOW-PERMEABILITY SOIL IS A LAYER OF COMPACTED, LOW-PERMEABILITY SOIL FILL PLANNED AT THE GROUND SURFACE, EXTENDING FROM JUST BEHIND THE CAP UNIT TO THE BACK OF THE REINFORCED BACKFILL ZONE. DRAINAGE PIPE IS PVC OR HDPE PIPING PLACED BEHIND AND/OR THROUGH THE CONCRETE UNITS TO FACILITATE DRAINAGE OF
- WATER FROM BEHIND THE RETAINING WALL. FILTER FABRIC IS A NON-WOVEN, POLYPROPYLENE GEOTEXTILE USED TO PROVIDE SEPARATION BETWEEN GRAVEL FILL AND

A. CONCRETE UNITS

2.2 MATERIALS

- . CONCRETE UNITS SHALL BE KEYSTONE COMPAC III RETAINING WALL UNITS. SUBSTITUTION OF OTHER CONCRETE UNITS OF SIMILAR 3.5 GEOGRID INSTALLATION SIZE AND WEIGHT MAY BE ALLOWED WITH THE PRIOR APPROVAL OF GTA AND THE OWNER.
- 2. CONCRETE WALL UNITS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI, IN ACCORDANCE WITH ASTM C90. THE CONCRETE SHALL HAVE ADEQUATE FREEZE/THAW PROTECTION, WITH A MAXIMUM MOISTURE ABSORPTION OF 8 PERCENT. 3. CONCRETE UNIT MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C1372.
- 4. CONCRETE UNITS SHALL PASS 100 FREEZE/THAW CYCLES IN WATER WITH LESS THAN 1% WEIGHT LOSS IN ACCORDANCE WITH 5. CONCRETE UNITS SHALL HAVE ANGLED SIDES AND BE CAPABLE OF ATTAINING THE REQUIRED CONCAVE AND CONVEX ALIGNMENT
- 6. EXTERIOR CONCRETE UNIT DIMENSIONS MAY VARY. CONCRETE UNITS SHALL HAVE A MINIMUM OF ONE SQUARE FOOT OF FACE
- . Concrete units shall be interlocked with non-corrosive reinforced fiberglass pins. 8. CONCRETE UNITS SHALL BE INTERLOCKED AS TO PROVIDE A NOMINAL 1-1/8-INCH OF SETBACK PER COURSE.

B. CAP UNITS

- 1. CAP UNITS SHALL BE KEYSTONE CAP UNITS. SUBSTITUTION OF OTHER CAP UNITS OF SIMILAR SIZE AND WEIGHT MAY BE ALLOWED WITH THE PRIOR APPROVAL OF GTA.
- 2. CAP UNITS SHALL CONFORM TO THE REQUIREMENTS STATED IN NOTES 2.2.A.2 AND 2.2.A.5.

- 1. LEVELING PAD MATERIALS SHALL CONSIST OF COMPACTED, FREE-DRAINING, COARSE AGGREGATES MEETING THE REQUIREMENTS OF MARYLAND SHA NO. 57 STONE.
- 2. LEVELING PAD SHALL BE A MINIMUM OF 6 INCHES DEEP AND 24 INCHES WIDE.

D. FIBERGLASS CONNECTION PINS

- 1. FIBERGLASS CONNECTING PINS SHALL BE THERMOSET, ISOPTHALIC, POLYESTER RESIN PULTRUDED, REINFORCEMENT RODS, 1/2
- PINS SHOULD HAVE A MINIMUM FLEXURAL STRENGTH OF 128,000 PSI AND SHORT BEAM SHEAR OF 6,400 PSI. FOR SUBSTITUTE CONCRETE UNITS, USE OF OTHER COMPATIBLE CONNECTOR SYSTEMS MAY BE ALLOWED WITH THE PRIOR

APPROVAL OF GTA. E. GEOGRID

- 1. GEOGRID SHALL BE MIRAGRID 03XT MANUFACTURED BY TENCATE GEOSYNTHETICS AMERICAS. EQUIVALENT MATERIALS MAY BE
- SUBSTITUTED WITH PRIOR APPROVAL OF GTA. 2. THE GEOGRID SHALL HAVE A MINIMUM LONG TERM DESIGN STRENGTH (LTDS) OF 2,104 POUNDS PER FOOT. LTDS IS DEFINED AS

- THE ULTIMATE STRENGTH DIVIDED BY REDUCTION FACTORS FOR CREEP, DURABILITY, AND INSTALLATION DAMAGE.
- F. GRAVEL FILL

1. GRAVEL FILL SHALL CONSIST OF CLEAN, 1 INCH MINUS CRUSHED STONE OR CRUSHED GRAVEL WITH 100 PERCENT PASSING THE 1-INCH SIEVE, 75 TO 100 PERCENT PASSING THE 3/4-INCH SIEVE, 0 TO 10 PERCENT PASSING THE NO. 4 SIEVE, AND 0 TO 5 PERCENT PASSING THE NO. 50 SIEVE.

G. REINFORCED BACKFILL

- 1. REINFORCED BACKFILL SOILS SHALL BE NON-PLASTIC SOIL MEETING THE REQUIREMENTS OF AASHTO A-2-4 OR MORE GRANULAR. IF ADEQUATE QUANTITIES ARE NOT AVAILABLE ON-SITE, MATERIALS MEETING THESE REQUIREMENTS WILL NEED TO BE IMPORTED.
- 2. REINFORCED BACKFILL SHALL BE PLACED IN MAXIMUM 8-INCH LIFTS AND COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698.

2-10-22

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H. CONTROLLED FILL

- 1. CONTROLLED FILLS TO BE PLACED OUTSIDE OF THE REINFORCED BACKFILL ZONE SHALL CONSIST OF ON-SITE OR BORROW SOILS
- MEETING THE REQUIREMENT OF AASHTO A-4 OR MORE GRANULAR. 2. CONTROLLED FILLS SHALL BE PLACED IN MAXIMUM 8—INCH LIFTS AND COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698, OR HIGHER IF REQUIRED BY THE GEOTECHNICAL REPORT.
- LOW-PERMEABILITY SOIL
- LOW-PERMEABILITY SOILS TO BE PLACED AT THE TOP OF THE WALL, WHERE SPECIFIED, SHALL CONSIST OF SANDY, SILTY OR CLAYEY SOILS MEETING THE UNIFIED SOILS CLASSIFICATION SYSTEM CRITERIA FOR ML, CL, SM, OR SC, WITH A MINIMUM OF 25%

J. DRAINAGE PIPE

- 1. THE DRAINAGE PIPES SHALL BE PERFORATED OR SLOTTED PVC PIPE MANUFACTURED IN ACCORDANCE WITH ASTM D3034
- 1. FILTER FABRIC SHALL BE NON-WOVEN, POLYPROPYLENE GEOTEXTILE MIRAFI 140N MANUFACTURED BY TENCATE GEOSYNTHETICS AMERICAS OR TERRATEX NO4.5 MANUFACTURED BY HANES GEO COMPONENTS. EQUIVALENT MATERIALS MAY BE SUBSTITUTED WITH

3.1 EXCAVATION

- A. THE CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. UNDER NO CIRCUMSTANCES SHALL THE EXCAVATION LINES AND GRADES BE EXCEEDED, EXCEPT WITH OWNER'S APPROVAL. THE CONTRACTOR SHALL PROTECT THE EXCAVATION FROM SLOUGHING BY PLACING A MEMBRANE OVER THE FACE OF THE EXCAVATION. PRIOR TO RETAINING WALL CONSTRUCTION AND THE PLACEMENT OF FILL, ALL TOPSOIL SHALL BE STRIPPED AND REMOVED FROM
- C. EXCAVATIONS SHALL BE SLOPED OR OTHERWISE SUPPORTED IN ACCORDANCE WITH OCCUPATION SAFETY AND HEALTH ADMINISTRATION (OSHA) AND OTHER STATE AND LOCAL REGULATIONS.
- 3.2 FOUNDATION SUBGRADE PREPARATION
- FOUNDATION SOIL SHALL BE EXCAVATED AS REQUIRED FOR INSTALLATION OF THE LEVELING PAD, GEOGRID, AND OTHER ELEMENTS AS SHOWN ON THE CONSTRUCTION DRAWINGS.
- FOUNDATION SOIL SHALL BE EXAMINED BY THE TESTING AGENCY TO ENSURE THAT THE ACTUAL FOUNDATION SOIL STRENGTH MEETS OR EXCEEDS ASSUMED DESIGN STRENGTH. SOILS NOT MEETING REQUIRED STRENGTH SHALL BE REMOVED AND REPLACED WITH CONTROLLED FILL, MEETING THE MATERIAL AND COMPACTION REQUIREMENTS STATED IN NOTE 2.2H.
- THE ALLOWABLE BEARING PRESSURE FOR NATURAL AND CONTROLLED FILL SOILS SHALL BE AS SPECIFIED IN PART THE EXPOSED FOUNDATION SUBGRADE SHALL BE PROOFROLLED WITH A LOADED DUMP TRUCK. ANY SOFT OR UNSTABLE AREAS IDENTIFIED DURING THIS EVALUATION SHALL BE OVEREXCAVATED AND BACKFILLED WITH CONTROLLED FILL
- E. ANY FILLS REQUIRED TO ESTABLISH SLOPING SURFACES IN FRONT OF THE WALLS SHALL CONSIST OF CONTROLLED FILL MEETING THE REQUIREMENTS STATED IN NOTE 2.2H AND SHALL BE TESTED BY THE TESTING AGENCY.

- THE LEVELING PAD SHALL BE PLACED AS SHOWN ON THE CONSTRUCTION DRAWINGS WITH A MINIMUM THICKNESS OF 6 INCHES. B. LEVELING PAD MATERIALS SHALL BE PLACED ON A SUBGRADE PREPARED AS DESCRIBED IN SECTION 3.2 AND APPROVED BY THE TESTING AGENCY.
- C. LEVELING PAD SHALL BE PREPARED TO ENSURE COMPLETE CONTACT OF RETAINING WALL UNIT WITH BASE, GAPS SHALL NOT BE

3.4 UNIT INSTALLATION

- FIRST COURSE OF CONCRETE UNITS SHALL BE PLACED ON THE LEVELING PAD. THE CONCRETE UNITS SHALL BE CHECKED FOR LEVEL AND ALIGNMENT. THE FIRST COURSE IS THE MOST IMPORTANT TO PROVIDE ACCURATE AND ACCEPTABLE RESULTS.
- ENSURE THAT CONCRETE UNITS ARE IN FULL CONTACT WITH THE LEVELING PAD. CONCRETE UNITS SHALL BE PLACED SIDE BY SIDE FOR FULL LENGTH OF WALL ALIGNMENT. ALIGNMENT MAY BE DONE BY MEANS OF A STRING LINE OR OFFSET FROM BASE LINE.
- INSTALL FIBERGLASS CONNECTING PINS. AT THE END OF EACH COURSE WHERE THE WALL CHANGES ELEVATION, UNITS SHALL BE TURNED INTO THE BACKFILL. UNITS SHOULD BE LAID AS TO CREATE THE MINIMUM RADIUS POSSIBLE. CONCRETE UNITS SHALL BE EMBEDDED BELOW FINAL BOTTOM-OF-WALL GRADES TO THE MINIMUM EMBEDMENT DEPTHS SHOWN ON THE WALL PROFILES. ONLY THE FRONT FACE OF THE
- UNITS SHOULD BE VISIBLE FROM THE SIDE OF THE WALL F. LAY UP EACH COURSE OF CONCRETE UNITS. INSERT FIBERGLASS CONNECTING PIN INTO THE REAR SLOT OF THE LOWER CONCRETE UNIT AND INTO THE RECEIVING HOLE OF THE UPPER CONCRETE UNIT. REPEAT PROCEDURE TO THE EXTENT OF WALL HEIGHT.
- G. FILL CONCRETE UNIT VOIDS WITH GRAVEL FILL. CAP UNITS SHALL BE INSTALLED AND BONDED WITH CONSTRUCTION ADHESIVE OR EPOXY CEMENT AS REQUIRED BY MANUFACTURER. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE FOR THE BACK OF THE RETAINING WALL DURING CONSTRUCTION.

- ALL UTILITIES IN THE VICINITY OF ANY RETAINING WALL OR GEOGRID SHALL BE INSTALLED AND PROPERLY BACKFILLED PRIOR TO PLACING THE GEOGRID OR CONSTRUCTING THE WALL.
- B. THE GEOGRID SHALL BE LAID HORIZONTALLY ON COMPACTED REINFORCED BACKFILL, CONNECTED TO THE CONCRETE UNITS. HOOK GEOGRID OVER THE FIBERGLASS CONNECTING PIN, PULL TAUT, AND ANCHOR BEFORE REINFORCED BACKFILL IS PLACED ON THE
- C. SLACK IN THE GEOGRID AT THE WALL UNIT CONNECTIONS SHALL BE REMOVED IN A MANNER, AND TO SUCH A DEGREE, AS APPROVED BY THE TESTING AGENCY.
- D. GEOGRID SHALL BE LAID AT THE PROPER ELEVATION AND ORIENTATION AS SHOWN ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE TESTING AGENCY.
- ADDITIONAL GEOGRID IS REQUIRED IN WALL CURVES OR BENDS AS SHOWN ON THE TYPICAL DETAILS.
- CORRECT ORIENTATION (ROLL DIRECTION) OF THE GEOGRID SHALL BE VERIFIED BY THE CONTRACTOR. GEOGRID SHALL BE SECURED IN PLACE WITH STAPLES, PINS, SAND BAGS, OR BACKFILL AS REQUIRED BY FILL PROPERTIES, FILL PLACEMENT PROCEDURES, OR WEATHER CONDITIONS, OR AS DIRECTED BY THE TESTING AGENCY.
- UNIAXIAL GEOGRID DOES NOT NEED TO BE OVERLAPPED IN THE ACROSS THE ROLL DIRECTION, EXCEPT TO CONTAIN THE FILL AT
- THE SLOPE FACE WHEN WRAP-AROUND FACING IS USED. UNIAXIAL GRID SHOULD BE OVERLAPPED 48" IN THE ROLLED DIRECTION. 2. LAYER OF SOIL A MINIMUM OF 4 INCHES IN THICKNESS SHOULD BE SPREAD BETWEEN UNIAXIAL GEOGRID LAYERS IN THE AREA TO BE OVERLAPPED, OR AS DIRECTED.

3.6 FILL PLACEMENT

- REINFORCED BACKFILL AND CONTROLLED FILL SHALL BE PLACED AND COMPACTED AS DESCRIBED IN SECTION 2.2 AND IN ACCORDANCE WITH APPLICABLE COUNTY REQUIREMENTS. B. REINFORCED BACKFILL SHALL BE PLACED, SPREAD, AND COMPACTED IN SUCH A MANNER THAT MINIMIZES THE DEVELOPMENT OF
- WRINKLES IN AND/OR MOVEMENT OF THE GEOGRID. ONLY HAND-OPERATED COMPACTION EQUIPMENT SHALL BE ALLOWED WITHIN 4 FEET OF THE WALL FACE.
- REINFORCED BACKFILL SHALL BE PLACED FROM THE WALL OUTWARD TO ENSURE THAT THE GEOGRID REMAINS TAUT. TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED BEHIND OR ABOVE THE WALL.
- RUBBER-TIRED EQUIPMENT MAY PASS OVER THE GEOGRID REINFORCEMENT AT SLOW SPEEDS, LESS THAN 10 MPH. SUDDEN
- BRAKING AND SHARP TURNING SHALL BE AVOIDED. G. PLACE FILTER FABRIC BETWEEN THE GRAVEL FILL AND THE REINFORCED BACKFILL AS SHOWN ON PLANS. THE FILTER FABRIC SHALL
- BE EMBEDDED A MINIMUM OF TWO FEET INTO THE REINFORCED FILL. H. THE FINISHED SLOPING SURFACE ON THE TOE SIDE OF RETAINING WALLS SHALL BE PROTECTED BY INSTALLING THE PERMANENT
- EROSION CONTROL BLANKET AND LOAMING AND SEEDING IN ACCORDANCE WITH PROJECT REQUIREMENTS.

- A. GRAVEL FILL SHALL BE PLACED BEHIND THE CONCRETE UNITS TO THE LIMITS SHOWN. THE GRAVEL FILL SHALL EXTEND MINIMUM 12 INCHES BEHIND THE BACK OF THE CONCRETE UNITS. INCREASED GRAVEL FILL THICKNESS IS REQUIRED IN CURVES AND CORNERS AS SHOWN ON THE TYPICAL DETAILS.
- PLACE FILTER FABRIC BEHIND THE GRAVEL FILL AS DESCRIBED IN SECTION 3.6. POSITIVE DRAINAGE SHALL BE MAINTAINED DURING AND AFTER CONSTRUCTION. REINFORCED BACKFILL THAT BECOME WET DURING
- CONSTRUCTION SHALL BE DRIED AND RECOMPACTED, OR REMOVED AND REPLACED WITH NEW REINFORCED BACKFILL INSTALL THE PERFORATED DRAINAGE PIPES AND LATERAL DRAINAGE PIPES INCREMENTALLY ALONG WITH THE INSTALLATION OF CONCRETE UNITS AND PLACEMENT OF REINFORCED BACKFILL.

PART 4 - CONSTRUCTION OBSERVATION AND TESTING

- A. THE RETAINING WALLS SHALL ONLY BE CONSTRUCTED UNDER THE OBSERVATION OF GTA TO CONFIRM THAT THE SOILS AND MATERIALS USED DURING CONSTRUCTION MEET THE REQUIREMENTS SPECIFIED HEREIN. IF GTA IS NOT CONTRACTED TO PROVIDE CONSTRUCTION OBSERVATION AND TESTING SERVICES DURING WALL CONSTRUCTION, GTA IS RELIEVED OF ALL RESPONSIBILITY FOR
- B. THE REQUIRED BEARING PRESSURE BENEATH THE FOOTING OF THE WALL SHALL BE VERIFIED IN THE FIELD BY A CERTIFIED SOILS TECHNICIAN. TESTING DOCUMENTATION MUST BE PROVIDED TO GTA PRIOR TO THE START OF WALL CONSTRUCTION. THE REQUIRED
- TEST PROCEDURE SHALL BE THE DYNAMIC CONE PENETROMETER (DCP) TEST ASTM STP399. C. THE SUITABILITY OF FILL MATERIAL SHALL BE CONFIRMED BY THE 'ON-SITE TESTING AGENCY REPRESENTATIVE.

PART 5 - DESIGN CRITERIA

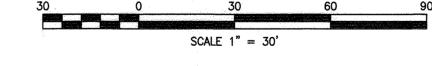
- A. REQUIRED MINIMUM ALLOWABLE FOUNDATION BEARING PRESSURE IS 2,000 PSF.
- INTERNAL FRICTION ANGLE FOR REINFORCED SOIL = 30 DEGREES. MOIST UNIT WEIGHT FOR REINFORCED SOIL = 120 PCF.
- FOUNDATION AND RETAINED SOIL INTERNAL FRICTION ANGLE = 28 DEGREES AND COHESION = 0 PSF.
- FOUNDATION AND RETAINED SOIL MOIST UNIT WEIGHT = 120 PCF. RETAINING WALLS ARE NOT DESIGNED TO RESIST HYDROSTATIC PRESSURE.



RETAINING WALL LOCATION PLAN

SCALE: 1" = 30'

BASE IMAGE WAS ADAPTED FROM THE PLAN ENTITLED <u>SITE DEVELOPMENT PLAN — GATES AT MAPLE LAWN PARCEL A</u>, DATED JANUARY, 2021, PREPARED BY GUTSCHICK, LITTLE AND WEBER, P.A. (ORIGINAL SCALE: 1"=30").



Legend



Identification and approximate location of Standard Penetration Test (SPT) borings performed by GTA in September 2020.

Identification and approximate location of SPT borings performed by Earth Engineering Incorporated (EEI) in February of 2020.

1-21.22 **GEO-TECHNOLOGY ASSOCIATES, INC** (410) 792-9446 or (301) 470-4470

WWW.GTAENG.COM

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100-

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

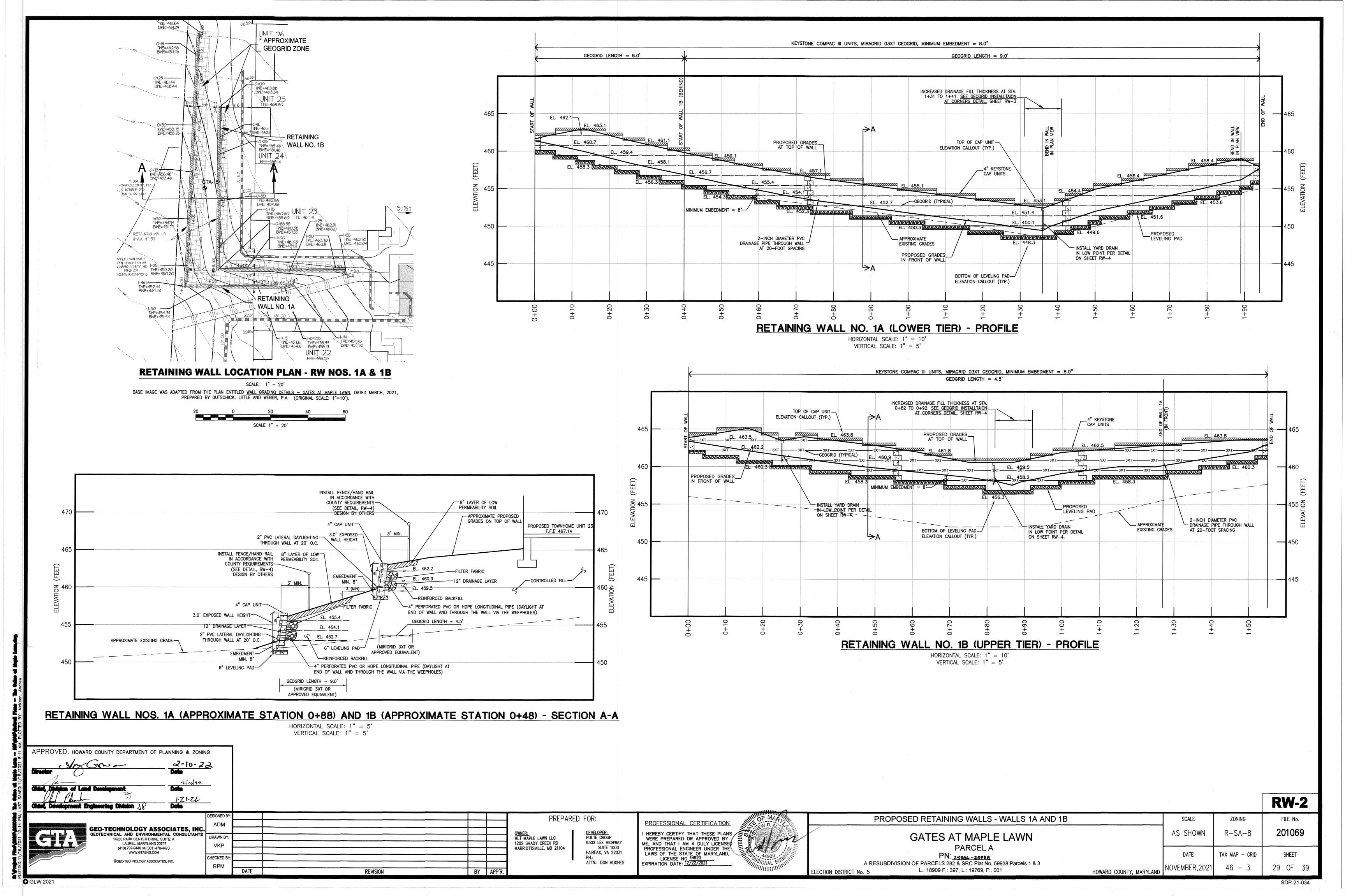
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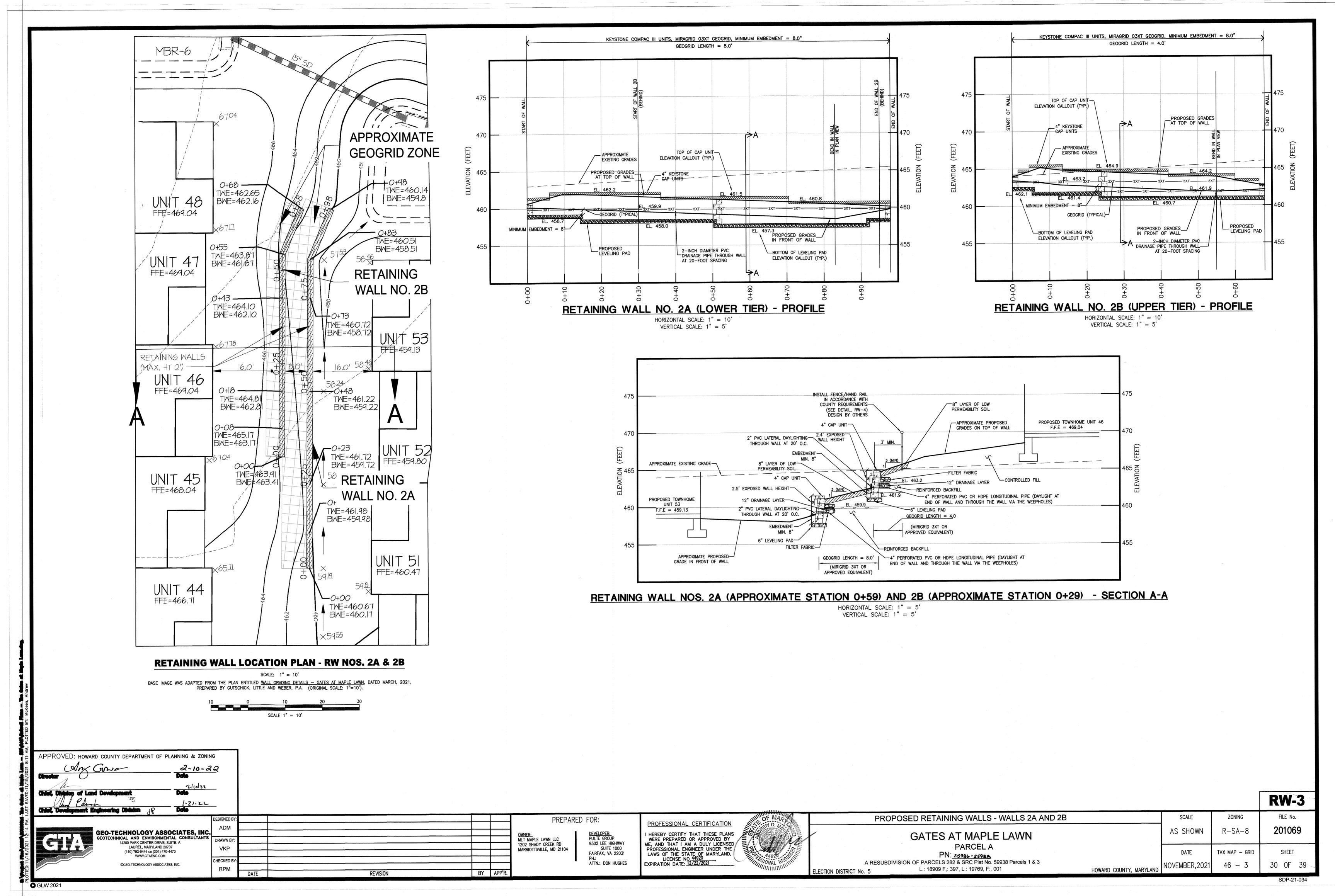
PREPARED FOR: PROFESSIONAL CERTIFICATION <u>DEVELOPER:</u> PULTE GROUP 9302 LEE HIGHWAY SUITE 1000 LICENSE NO. 44920
EXPIRATION DATE: 12/22/2021 FAIRFAX, VA 22031 ATTN.: DON HUGHES

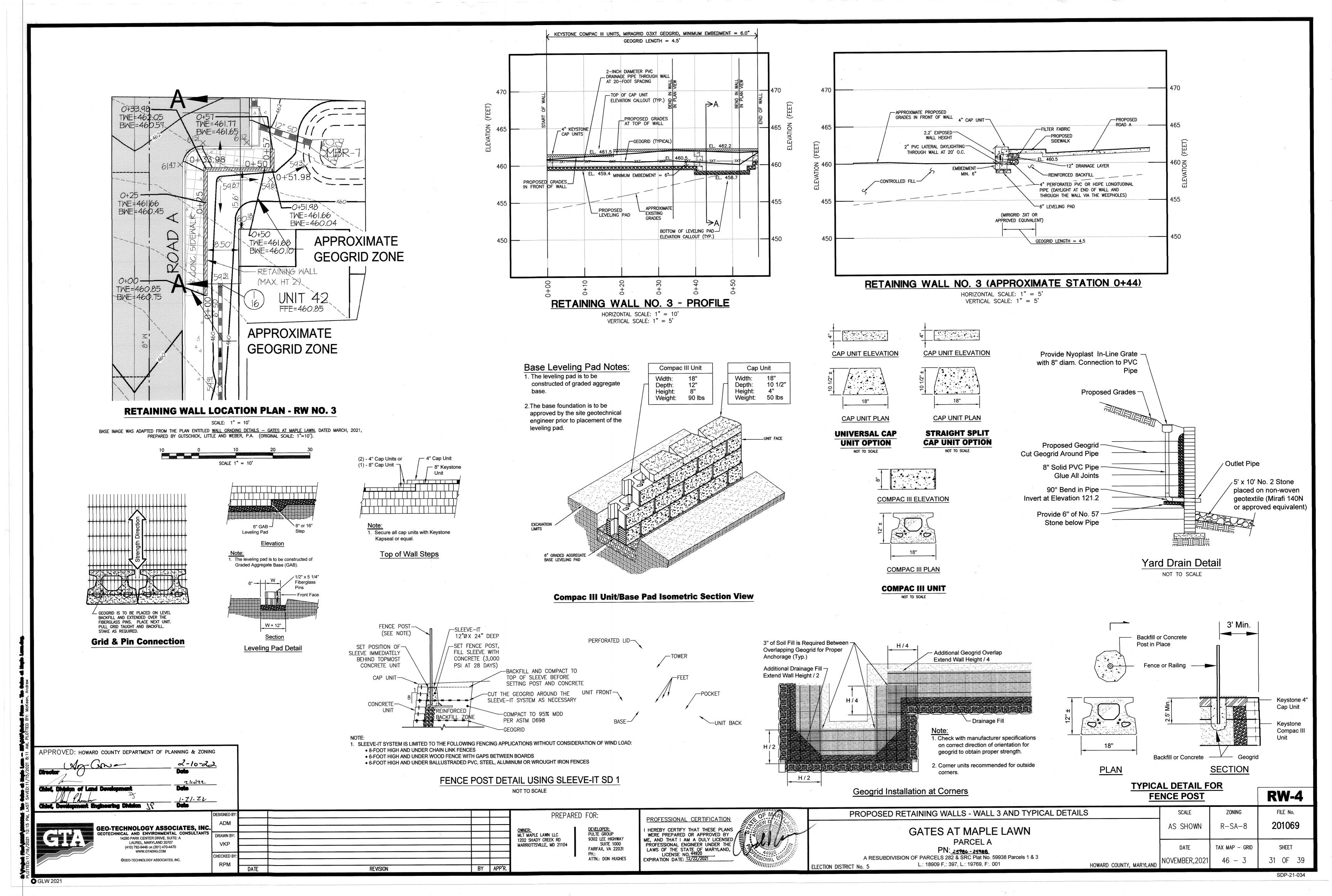
HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE

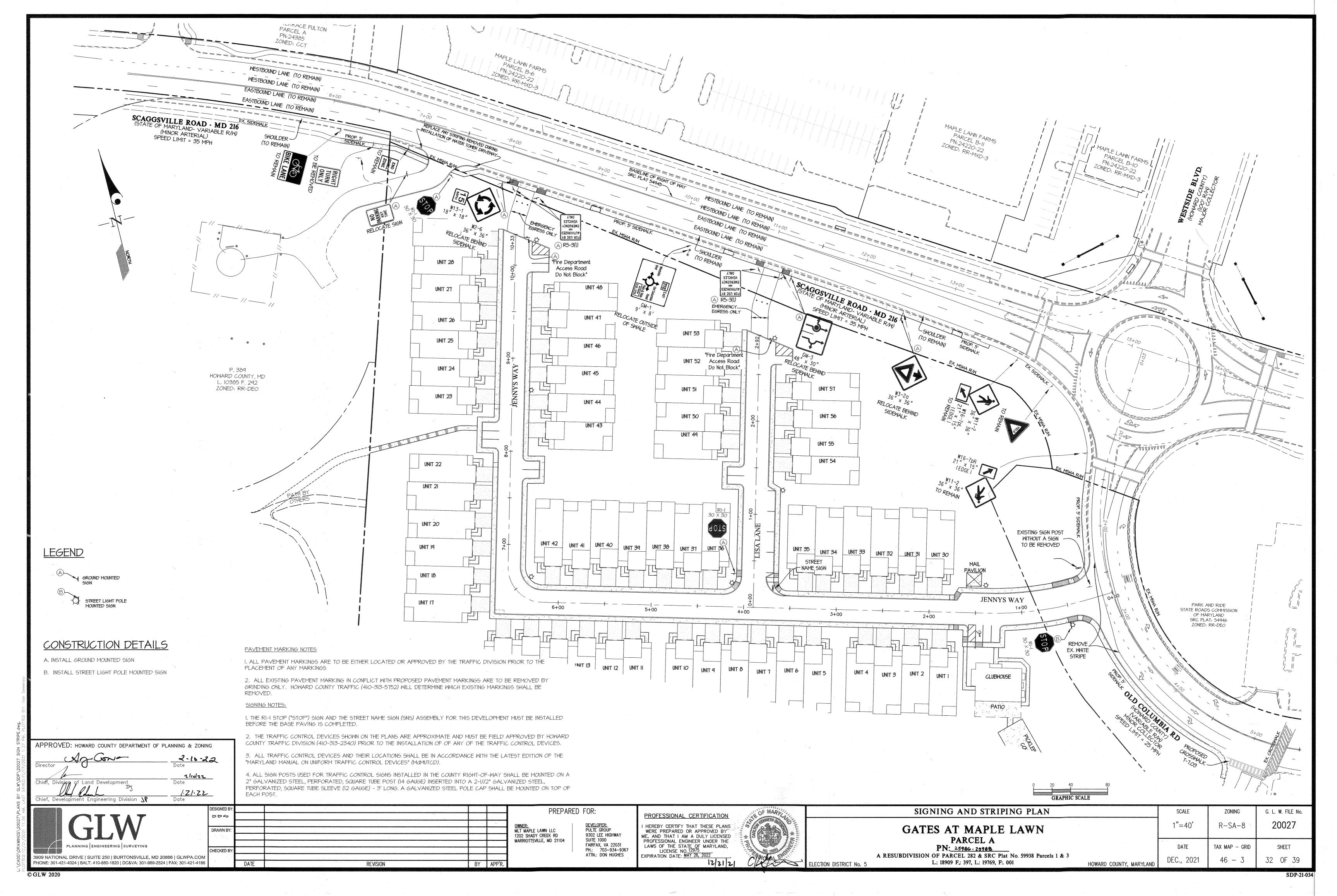
RW-1 PROPOSED RETAINING WALLS - PLAN AND GENERAL NOTES FILE No. 201069 AS SHOWN R-SA-8 **GATES AT MAPLE LAWN** PARCEL A PN: 25986-25988 A RESUBDIVISION OF PARCELS 282 & SRC Plat No. 59938 Parcels 1 & 3 28 OF 39 NOVEMBER,202 L.: 18909 F,: 397, L.: 19769, F:. 001 ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND

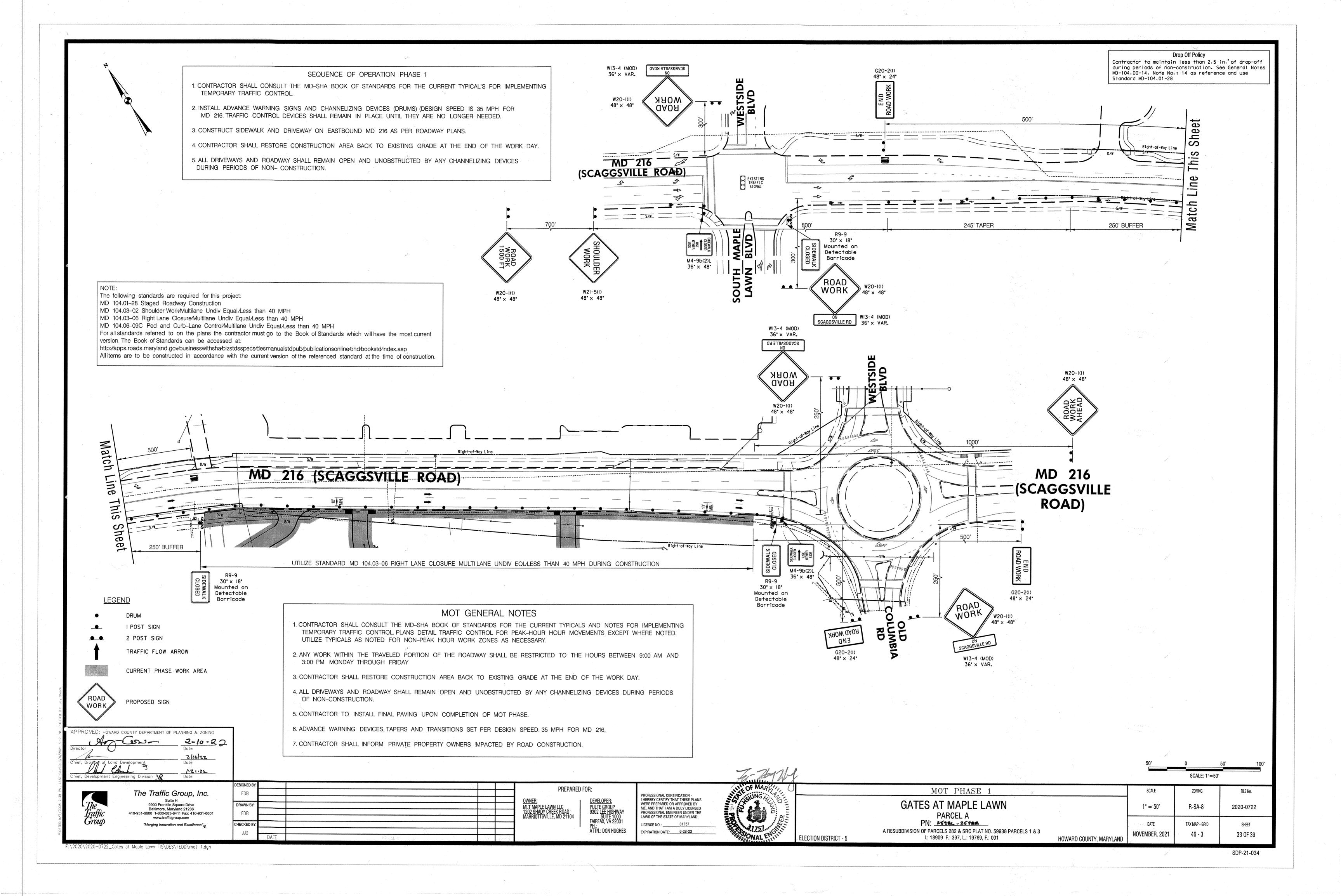
GLW 2021

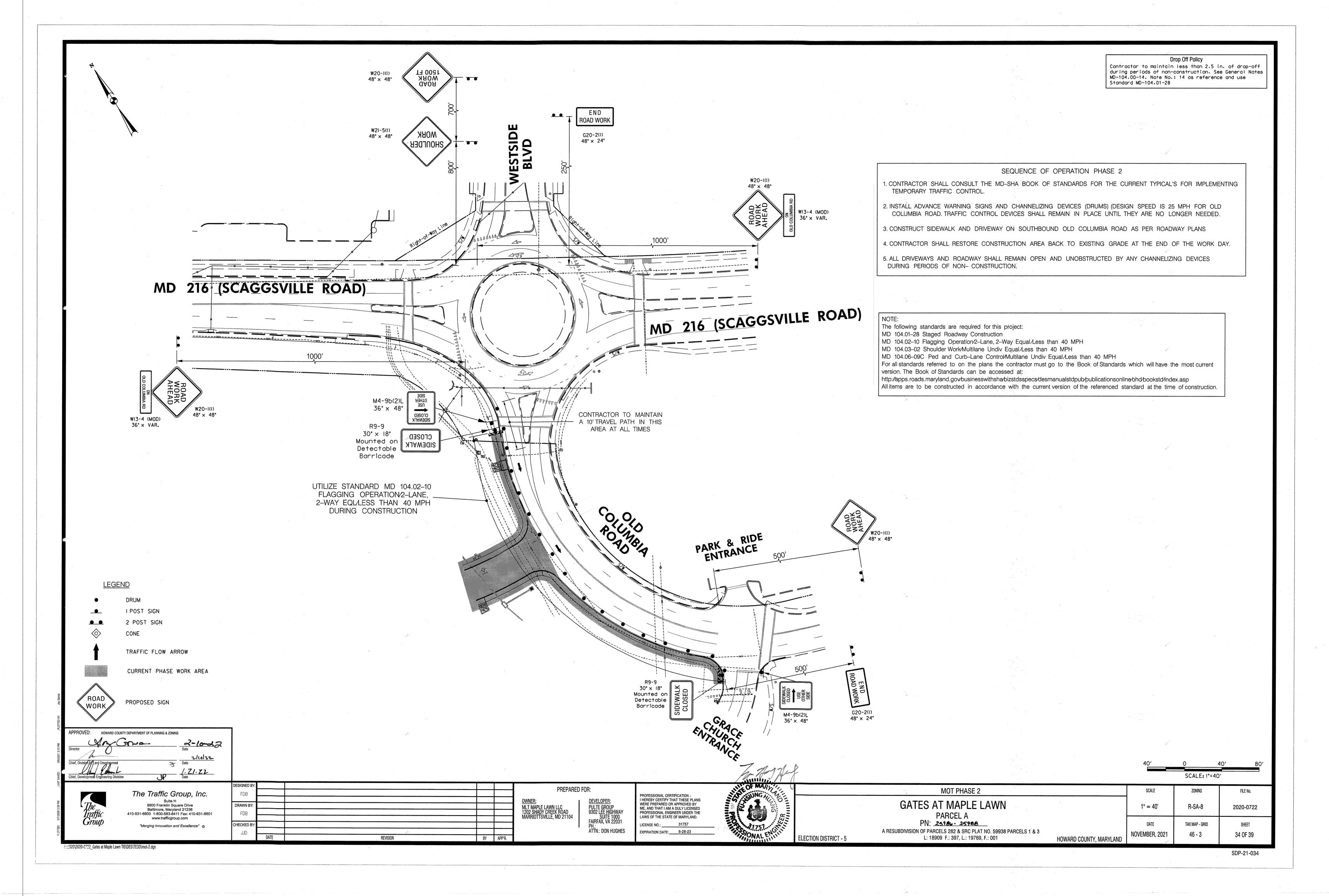


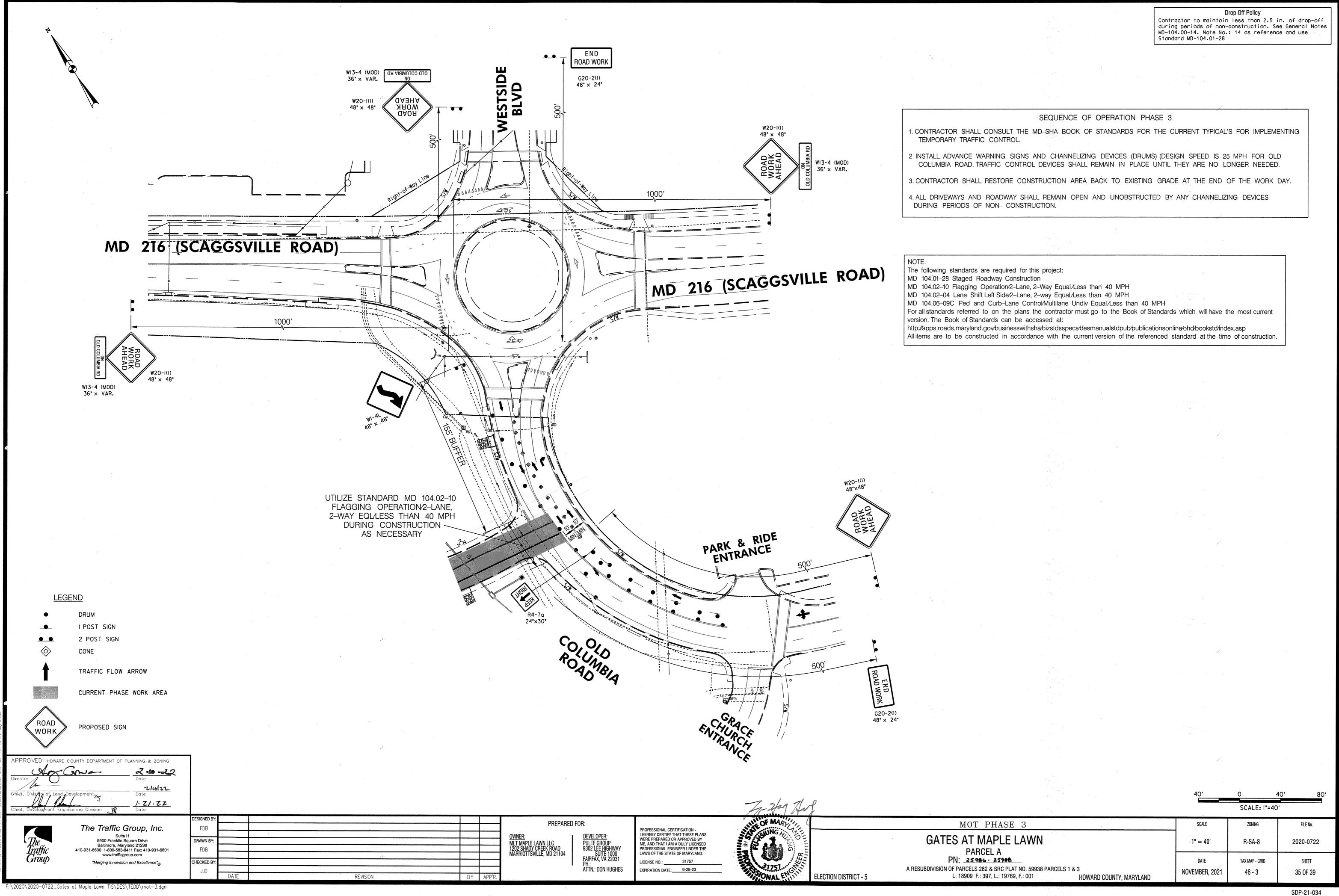


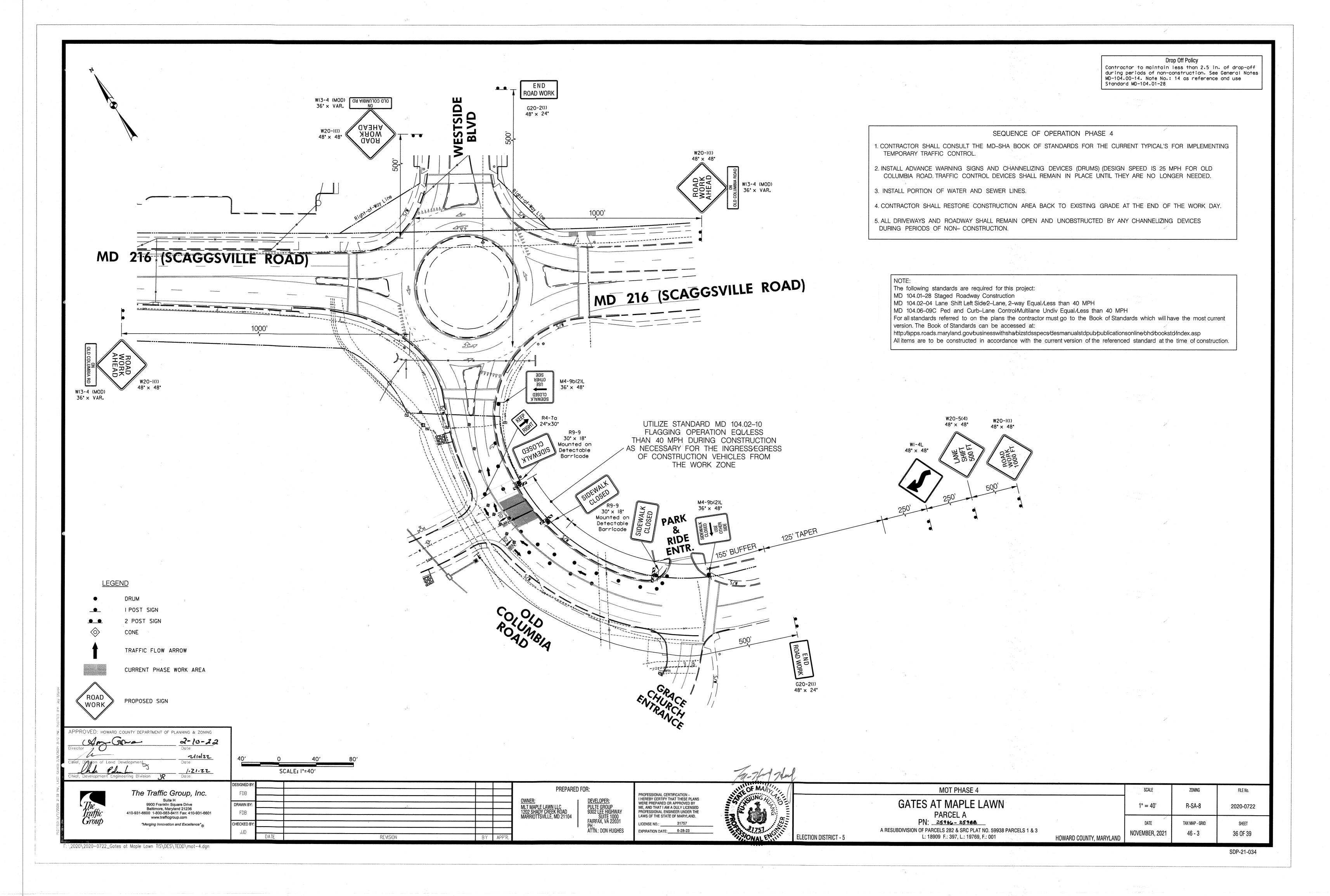












Contractor to maintain less than 2.5 in. of drop-off during periods of non-construction. See General Notes MD-104.00-14. Note No.: 14 as reference and use Standard MD-104.01-28 **ROAD WORK** OFD COFNWBIV BD (DOM) 4-61W 36" × SAR. NO G20-2(I) 48" × 24" SEQUENCE OF OPERATION PHASE 5 1. CONTRACTOR SHALL CONSULT THE MD-SHA BOOK OF STANDARDS FOR THE CURRENT TYPICAL'S FOR IMPLEMENTING TEMPORARY TRAFFIC CONTROL. 2. INSTALL ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES (DRUMS) (DESIGN SPEED IS 25 MPH FOR OLD COLUMBIA ROAD. TRAFFIC CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THEY ARE NO LONGER NEEDED. W20-I(I) 48" x 48" 3. INSTALL FINAL PORTION OF WATER AND SEWER LINES. 4. CONTRACTOR SHALL RESTORE CONSTRUCTION AREA BACK TO EXISTING GRADE AT THE END OF THE WORK DAY. 5. ALL DRIVEWAYS AND ROADWAY SHALL REMAIN OPEN AND UNOBSTRUCTED BY ANY CHANNELIZING DEVICES DURING PERIODS OF NON- CONSTRUCTION. MD 216 (SCAGGSVILLE ROAD) MD 216 (SCAGGSVILLE ROAD) The following standards are required for this project: MD 104.01-28 Staged Roadway Construction MD 104.02-10 Flagging Operation 2-Lane, 2-Way Equal/Less than 40 MPH MD 104.06-09C Ped and Curb-Lane Control/Multilane Undiv Equal/Less than 40 MPH For all standards referred to on the plans the contractor must go to the Book of Standards which will have the most current version. The Book of Standards can be accessed at: http://apps.roads.maryland.gov/businesswithsha/bizstdsspecs/desmanualstdpub/publicationsonline/ohd/bookstd/index.asp All items are to be constructed in accordance with the current version of the referenced standard at the time of construction. WI3-4 (MOD) 36" x 48" UTILIZE STANDARD MD 104.02-10 30° × 18° FLAGGING OPERATION EQL/LESS THAN 40 MPH DURING CONSTRUCTION OF CONSTRUCTION VEHICLES FROM THE WORK ZONE 30" x 18" Mounted on Detectable Barricade <u>LEGEND</u> I POST SIGN 2 POST SIGN TRAFFIC FLOW ARROW CURRENT PHASE WORK AREA PROPOSED SIGN APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING 2-10-22 1.71.22 Date SCALE: 1"=40' MOT PHASE 5 The Traffic Group, Inc. SCALE ZONING FILE No. PROFESSIONAL CERTIFICATION -I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY Suite H 9900 Franklin Square Drive GATES AT MAPLE LAWN 1" = 40' ME, AND THAT I AM A DULY LICENSED 2020-0722 Baltimore, Maryland 21236 410-931-6600 1-800-583-8411 Fax: 410-931-6601 PARCEL A www.trafficgroup.com LAWS OF THE STATE OF MARYLAND. PN: 25986 - 25988 CHECKED BY: ATTN.: DON HUGHES EXPIRATION DATE: 6-28-23 A RESUBDIVISION OF PARCELS 282 & SRC PLAT NO. 59938 PARCELS 1 & 3 MOVEMBER, 2021 REVISION L: 18909 F.: 397, L.: 19769, F.: 001 **ELECTION DISTRICT - 5** HOWARD COUNTY, MARYLAND SDP-021-034

