

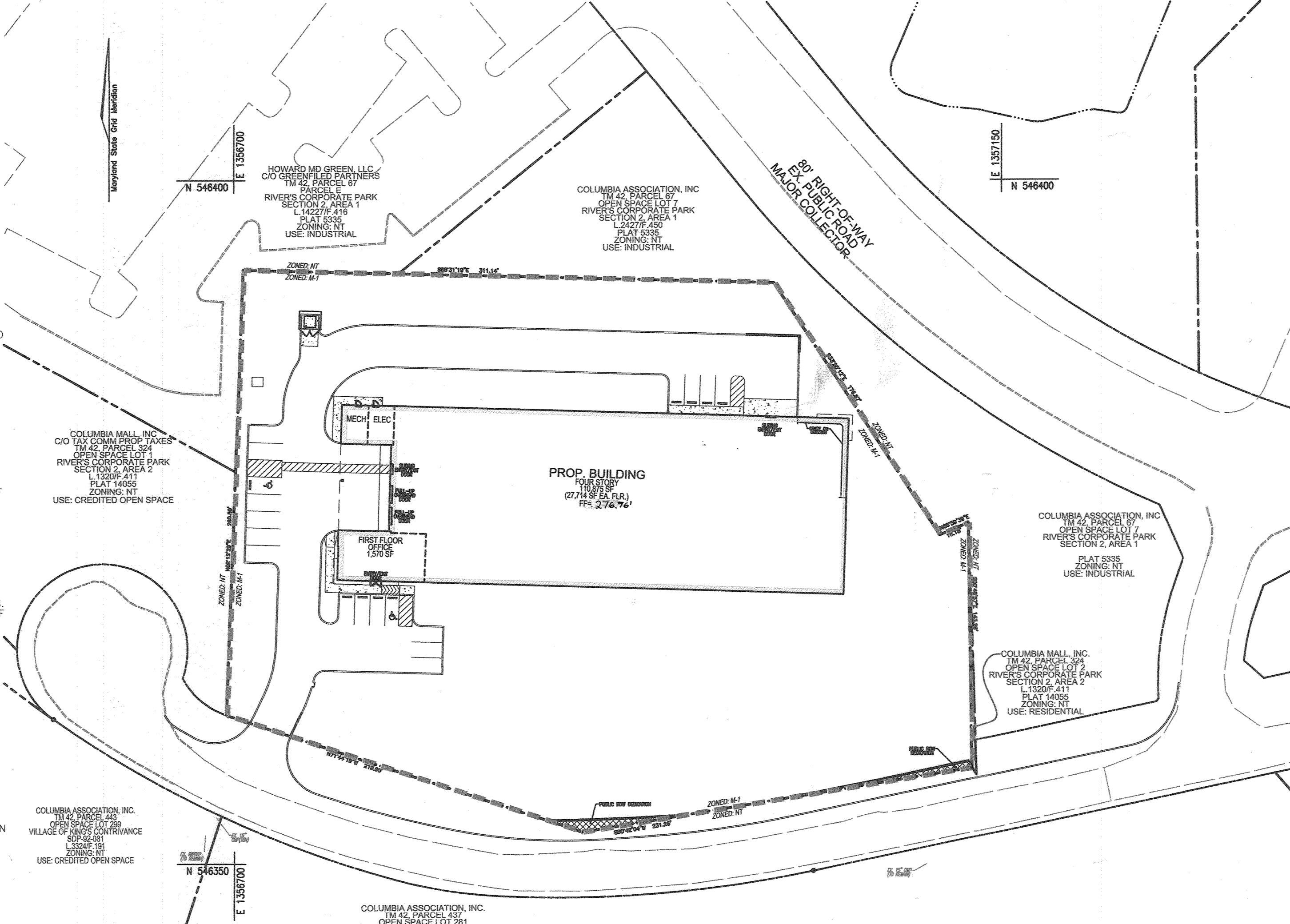
GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY STANDARDS AND SPECIFICATIONS. ALL WORK AND MATERIALS SHALL COMPLY WITH O.S.H.A. STANDARDS.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
- VERIZON: 1-800-251-7777
- MISS UTILITY: 1-800-743-0033
- BUREAU OF UTILITIES: 410-313-4900
- AT&T: 1-800-251-1133
- B.G.&E. (CONSTRUCTION SERVICES): 410-637-8713
- B.G.&E. (EMERGENCY): 410-685-0123
- STATE HIGHWAY ADMINISTRATION: 410-313-3633
- COLONIAL PIPELINE CO.: 410-795-1390
4. SITE ANALYSIS:
 - TOTAL PARCEL AREA: 2.73 AC.
 - PRESENT ZONING: M-1
 - USE OF STRUCTURE: SELF-STORAGE FACILITY
 - TOTAL BUILDING COVERAGE: 27,714 SF (0.64 AC. OR 24.54% OF GROSS AREA)
 - BUILDING FLOOR AREAS (USE IS SAME FOR EACH FLOOR):
 - 1ST-4TH FLOOR AREA (EACH FLOOR): 27,714 SF
 - PAVED PARKING LOT/AREA ON SITE: 19,833 SF (0.45 AC. OR 16.48% OF GROSS AREA)
 - AREA OF LANDSCAPE ISLAND: 5,355 SF (0.12 AC. OR 4.40% OF GROSS AREA)
 - AREA OF WETLAND AND BUFFERS: 0.00 AC.
 - AREA OF STREAM AND BUFFERS: 0.00 AC.
 - AREA OF EXISTING FOREST: 1.94 AC.
 - AREA OF NICKS/WALD/HSCD STEEP SLOPES (20% OR GREATER): 0.00 AC.
 - AREA OF STEEP SLOPES (25% OR GREATER): 0.00 AC.
 - AREA OF ERODIBLE SOILS: 1.32 AC.
 - AREA OF FLOODPLAIN: 0.58 AC.
 - LIMIT OF DISTURBED AREA: 3.11 AC
 - CUT: 9,930 CY FILL: 3,936 CY
- PROJECT BACKGROUND:
 - LOCATION: COLUMBIA, MD.; TAX MAP 42, BLOCK 15, PARCEL 28
 - ZONING: M-1
 - SUBDIVISION: N/A
 - SECTION/AREA: N/A
 - SITE AREA: 2.73 AC.
 - DATE: 11/17/17
 - PIFZ REFERENCES: L 12349/F.421, L 116990/F.43, P-82-002, ECP-17-016
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- TRAFFIC CONTROL DEVICES:
 - A. THE R1-1 SIGN AND 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 TRAFFIC CONTROL DEVICES.
 - 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 (MUTCD).
 - D. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT OF WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL PERFORATED, SQUARE TUBE POST (1 1/2" GAUGE) INSERTED IN TO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (1 1/2" GAUGE) 3' LONG. THE ANCHOR 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.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOIL TEST PRIOR TO CONSTRUCTION.
- COORDINATES AND ELEVATIONS ARE BASED ON MARYLAND COORDINATE SYSTEM - NAD83(1991) AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 0016 AND 42EA.
- THE PROPERTY LINES SHOWN HEREON IS BASED ON A FIELD-RUN BOUNDARY SURVEY PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC. DATED APRIL 11, 2016.
- EXISTING TOPOGRAPHY SHOWN HEREON IS TAKEN FROM BOTH A FIELD-RUN TOPOGRAPHIC SURVEY WITH 2-FOOT CONTOUR INTERVALS PREPARED BY ROBERT H. VOGEL ENGINEERING, INC. DATED APRIL 11, 2016; AND FEBRUARY 24, 2017.
- SUPPLEMENTAL TOPOGRAPHY FROM HOWARD COUNTY GIS.
- THE SUBJECT PROPERTY IS ZONED M-1 IN ACCORDANCE WITH THE 10/06/13 COMPREHENSIVE ZONING PLAN.
- THIS PROJECT IS SUBJECT TO COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. DEVELOPMENT OR CONSTRUCTION ON THIS PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT APPLICATIONS.
- GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, INC., DATED NOVEMBER 7, 2016.
- TRAFFIC IMPACT ANALYSIS PREPARED BY THE TRAFFIC GROUP, DATED DECEMBER 21, 2016; APPROVED 05/23/17.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THE GEOTECHNICAL ENGINEER TO CONFIRM PAVING SECTION PRIOR TO CONSTRUCTION (GEOTECHNICAL RECOMMENDATIONS ON SHEET 3).
- ALL CURB AND GUTTER TO BE HOWARD COUNTY STANDARD DETAIL 3.01 UNLESS OTHERWISE NOTED (SEE DETAIL, SHEET 3).
- WHERE DRAINAGE FLOWS AWAY FROM CURB, CONTRACTOR TO REVERSE THE GUTTER PAN.
- ALL ELEVATIONS ARE TO FLOWLINE/BOTTOM OF CURB UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- CONTRACTOR RESPONSIBLE FOR CONSTRUCTING ALL HANDICAP RAMPS AND HANDICAP ACCESS IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
- ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 3500 P.S.I.
- ALL STORMDRAIN PIPE BEDDING IS TO BE CLASS 'C', AS REQUIRED BY AASHTO-180.
- THE PROPOSED BUILDING TO HAVE ROOF LEADERS WHICH COLLECT INTO A ROOF DRAIN SYSTEM, WHICH EMPIES INTO THE STORMWATER MANAGEMENT FACILITY BEFORE ULTIMATELY ENTERING THE STORM DRAIN SYSTEM.
- PUBLIC SEWER AVAILABLE THROUGH CONT. 20-3095 AND PUBLIC WATER AVAILABLE THROUGH CONT. 24-1012-D.
- OLD GUILFORD ROAD IS CLASSIFIED AS A LOCAL ROAD AND GUILFORD ROAD CLASSIFIED AS MAJOR COLLECTOR.
- THE ENVIRONMENTAL REPORT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., DATED OCTOBER 3, 2016.
- THERE IS NO STEEP SLOPES, WETLANDS, STREAMS, AND THEIR BUFFERS, SPECIMEN OR CHAMPION TREES WITHIN THE LIMITS OF DISTURBANCE.
- THERE IS A 100-YEAR FLOODPLAIN WHICH CROSSES THROUGH THE SOUTHEAST CORNER OF THE PROPERTY. THE FLOODPLAIN IS SHOWN ON THESE PLANS IS PER THE MAY 6, 2013 FEMA DIGITAL FLOOD INSURANCE RATE MAP (DFIRM).
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE, AND THE LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR THIS SITE DEVELOPMENT PLAN IN THE AMOUNT OF \$10,950.00 FOR THE REQUIRED 26 SHADE TREES, 17 EVERGREEN TREES, AND 29 SHRUBS.
- THE FOREST CONSERVATION OBLIGATION FOR THIS PROJECT IS 0.98 ACRES OF REFORESTATION, WHICH SHALL BE SATISFIED BY THE PURCHASE OF FOREST PLANTING IN AN OFF-SITE FOREST MITIGATION BANK (PROPERTY OF CATTAL MEADOWS, LLC; SDP-16-027).
- ANY EXISTING STREET TREES OUTSIDE OF THE LIMITS OF DISTURBANCE WHICH ARE DAMAGED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR.
- THERE ARE NO BURIAL GROUNDS, CEMETERIES OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT.
- THE PROPOSED BUILDINGS WILL HAVE AN INSIDE METER SETTING. THE BUILDINGS WILL ALSO HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
- A KNOX BOX IS REQUIRED TO BE PLACED ON THE FRONT OF EACH BUILDING. IT SHALL BE PLACED TO THE RIGHT OF THE MAIN ENTRANCE AT A RANGE OF 4-5' IN HEIGHT AND NO MORE THAN 6' LATEROALLY FROM THE DOOR. ITS LOCATION IS SHOWN ON THESE PLANS. THE BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSED (INTEGRATED WITH THE FIRE ALARM SYSTEM).
- LANDSCAPING IS NOT PERMITTED WITHIN 7-1/2' OF EACH SIDE OF THE FIRE DEPARTMENT CONNECTION. PROVIDE A CLEAR UNOBSTRUCTED ACCESS PATH TO THE FIRE DEPARTMENT CONNECTION. AFR-1 131.4
- FIRE LANES HAVE BEEN PROVIDED IN THIS SITE TO ALLOW EMERGENCY VEHICLE ACCESS. EITHER FIRE LANE SIGNAGE SHOULD BE INSTALLED, OR THE CURBS SHOULD BE PAINTED IN RED AND STENCILED TO IDENTIFY THE ROAD AS A FIRE LANE.
- SIGNAGE SHALL BE PROVIDED ON EACH BUILDING IDENTIFYING THE BUILDING ADDRESS.
- TRASH COLLECTION AND RECYCLABLES TO BE PRIVATE.
- THERE IS AN EXISTING STRUCTURE (HOUSE) THAT SHALL BE REMOVED.
- STORMWATER MANAGEMENT FOR THIS PROJECT IS PROVIDED BY THE USE OF MICRO-SCALE PRACTICES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA. MICRO-SCALE PRACTICES INCLUDE 4 MICRO-BIORETENTION FACILITIES. THESE FACILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED.
- IF ANY WELL OR SEPTIC COMPONENTS ARE FOUND DURING ANY STAGE OF THE DEMOLITION OR CONSTRUCTION THEY MUST BE PROPERLY ABANDONED WITH DOCUMENTATION OF THE ABANDONMENT SUBMITTED TO THE HEALTH DEPT.
- NO PARKING SHALL BE ALONG THE CURB OF EITHER SIDE OF THE PROPERTY'S DRIVEWAY ENTRANCE AISLE. CONTRACTOR TO PROVIDE SIGNAGE ON BOTH SIDES OF THE ENTRANCE DRIVE TO THIS PROPERTY.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME II (2006). SECTION 4.4. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS, AND 100-YEAR FLOODPLAIN.

SITE DEVELOPMENT PLAN

GUILFORD SELF STORAGE

9201 OLD GUILFORD ROAD



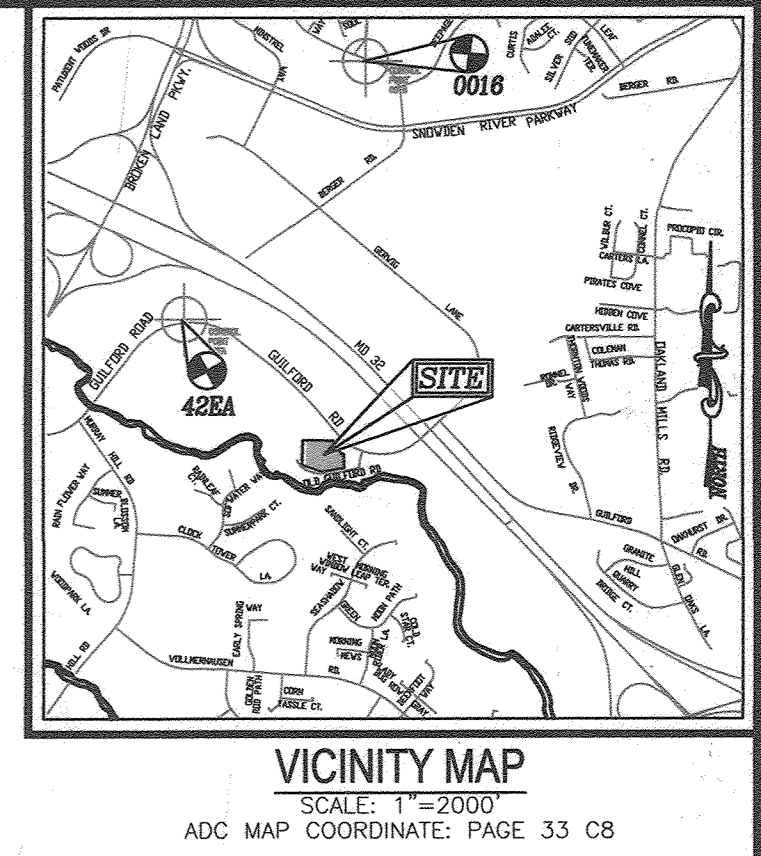
BENCHMARKS

BENCHMARK NO. 1: HOWARD COUNTY CONTROL #0016
N. 550279.375, E. 1357329.021 ELEV. = 358.894

BENCHMARK NO. 2: HOWARD COUNTY CONTROL #42EA
N. 547603.659, E. 1355440.285 ELEV. = 312.512

LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING TREETRINE
- PROPOSED TREETRINE
- EXISTING CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING FENCE
- PROPOSED CURB
- PROPOSED SIDEWALK



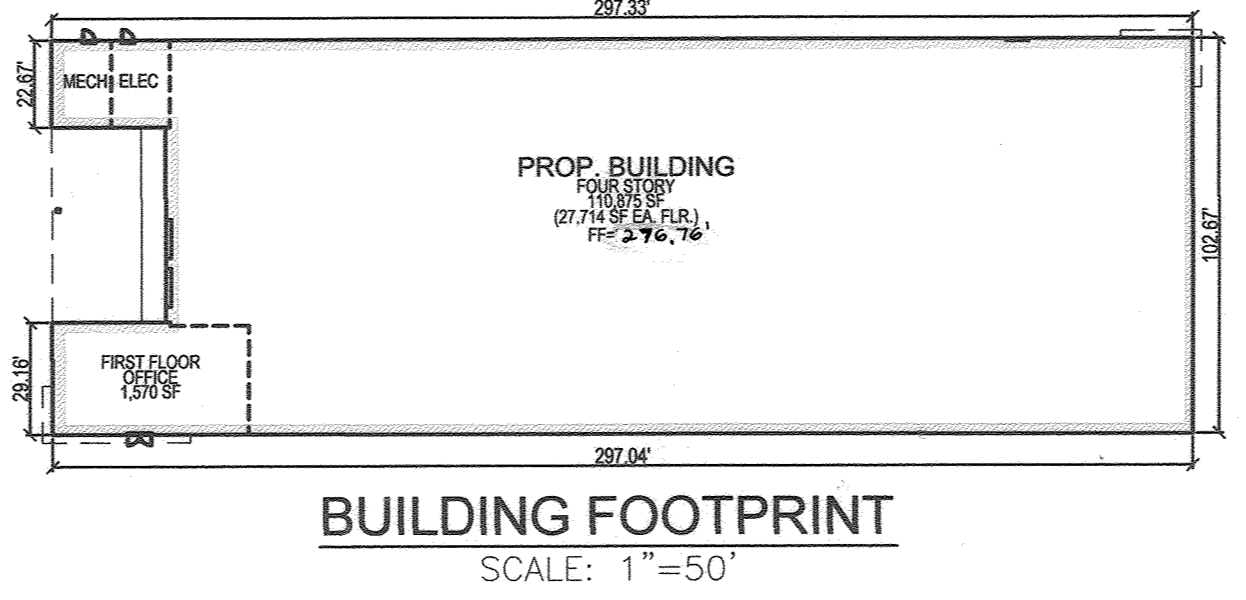
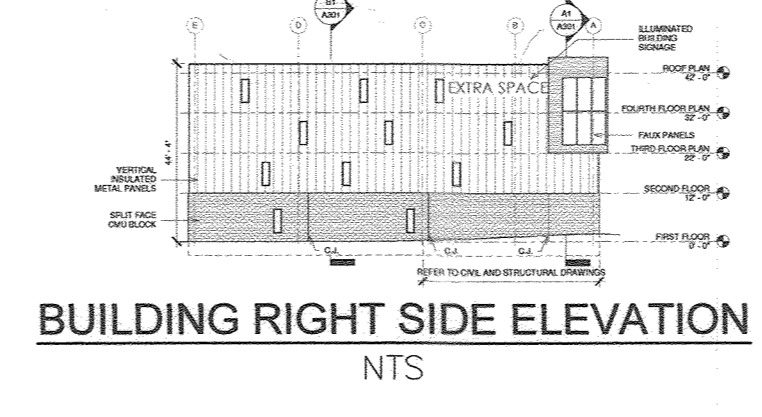
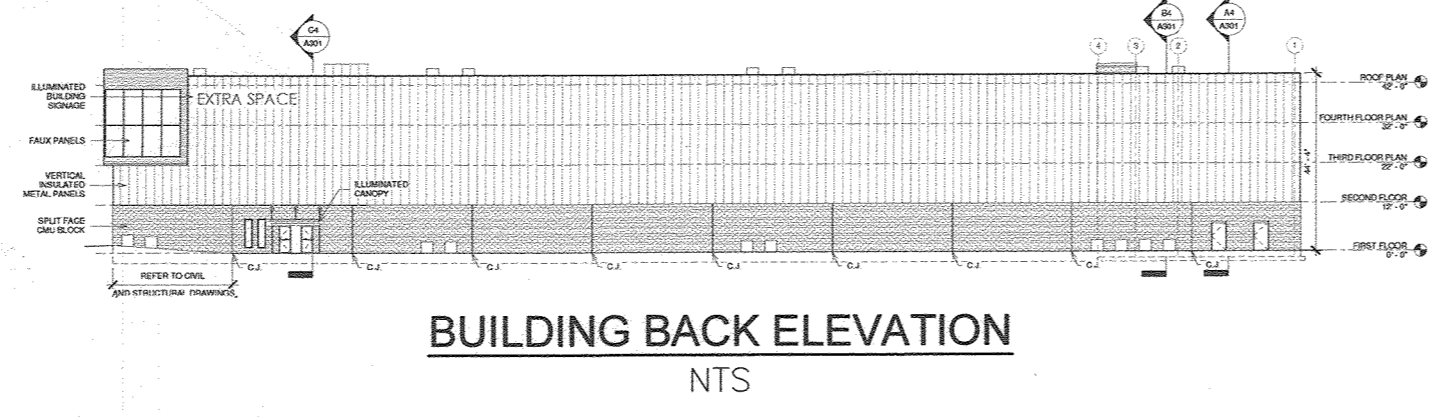
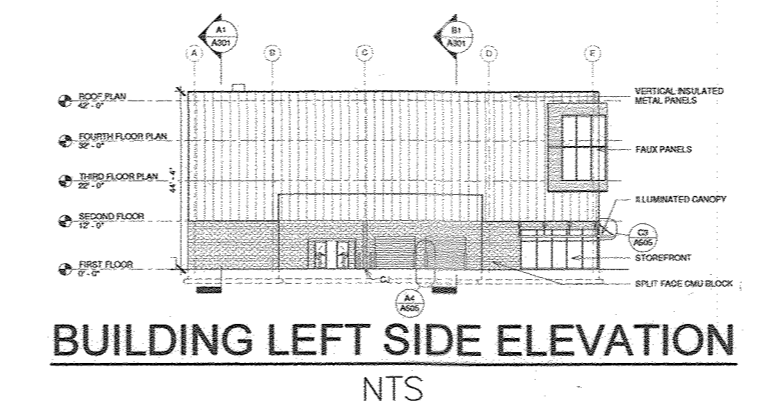
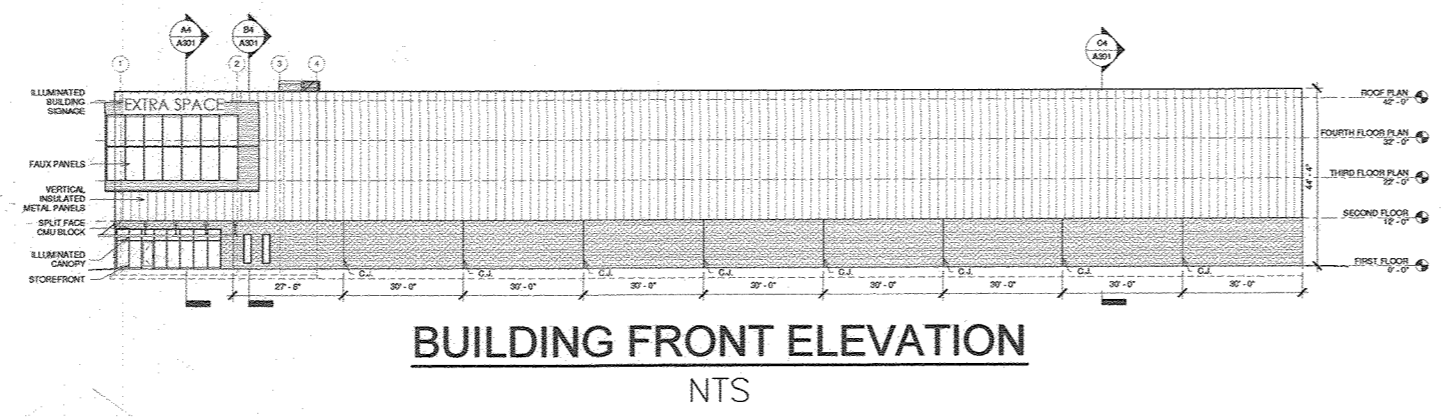
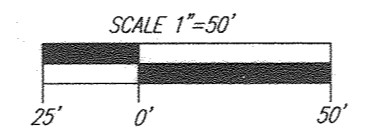
SHEET INDEX

DESCRIPTION	SHEET NO.
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STORMWATER MANAGEMENT INFORMATION

LOT/PARCEL #	FACILITY NAME & NUMBER	PRACTICE TYPE (QUANTITY)	PUBIC	PRIVATE	MAINTAINANCE BY	MISC.
Parcel 28	MBR #1	M-6 Micro-Bioretenion		X	Owner	
Parcel 28	MBR #2	M-6 Micro-Bioretenion		X	Owner	
Parcel 28	MBR #3	M-6 Micro-Bioretenion		X	Owner	
Parcel 28	MBR #4	M-6 Micro-Bioretenion		X	Owner	

LOCATION MAP
SCALE: 1"=50'



PARKING TABULATION

PROPOSED BUILDING (1,570 SF - OFFICE AREA)	REQUIRED:
4 SPACES PER 1000 SF	7 SPACES
TOTAL PARKING SPACES REQUIRED:	7 SPACES
TOTAL PARKING SPACES PROVIDED:	18 SPACES
	INCLUDING 2 HANDICAP SPACE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT

DATE: 11/17/17

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 12-4-17

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 12-4-17

DIRECTOR



AS-BUILT CERTIFICATION FOR PSWM

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

OWNER/DEVELOPER
9201 GUILFORD PROPERTIES LLC
2711 MOORES VALLEY DR
BALTIMORE, MD. 21209
C/O EUGENE POVERNI
(410) 861-2408

DATE: 11-24-20

NO.	REVISION	DATE
3	REVISE PLAN TO SHOW AS-BUILT CONDITIONS FOR THE PROPOSED ROAD IMPROVEMENTS INCLUDING A SECTION OF WHAT WAS CONSTRUCTED	6-16-20
2	REVISE PLAN TO REDUCE THE GUILFORD ROAD IMPROVEMENTS TO 24' AND REMOVE A PORTION OF THE EXISTING ROAD, EXTEND STORM DRAIN OUTFALLS AND PREPARE SHOULDER FOR PATHWAY	09-19-18
1	REVISE PLAN TO RAISE THE BUILDING UP ONE FOOT, REALIGN SEWER TO AVOID B&E LINE, REVISE ASSOCIATED UTILITIES	06-06-18

SITE DEVELOPMENT PLAN

COVER SHEET

GUILFORD SELF STORAGE
SELF STORAGE FACILITY
9201 OLD GUILFORD ROAD

TAX MAP 42 GRID 15
6TH ELECTION DISTRICT

ZONED: M-1
L 12349/F.421

PARCEL 28
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS

8407 MAIN STREET
ELLCOTT CITY, MD 21043

TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHW/DZE
DRAWN BY: DZE/KG
CHECKED BY: RHW
DATE: AUGUST 2017
SCALE: AS SHOWN
W.O. NO.: 16-06

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2018

1 SHEET OF 8

NO AS-BUILT INFORMATION THIS SHEET

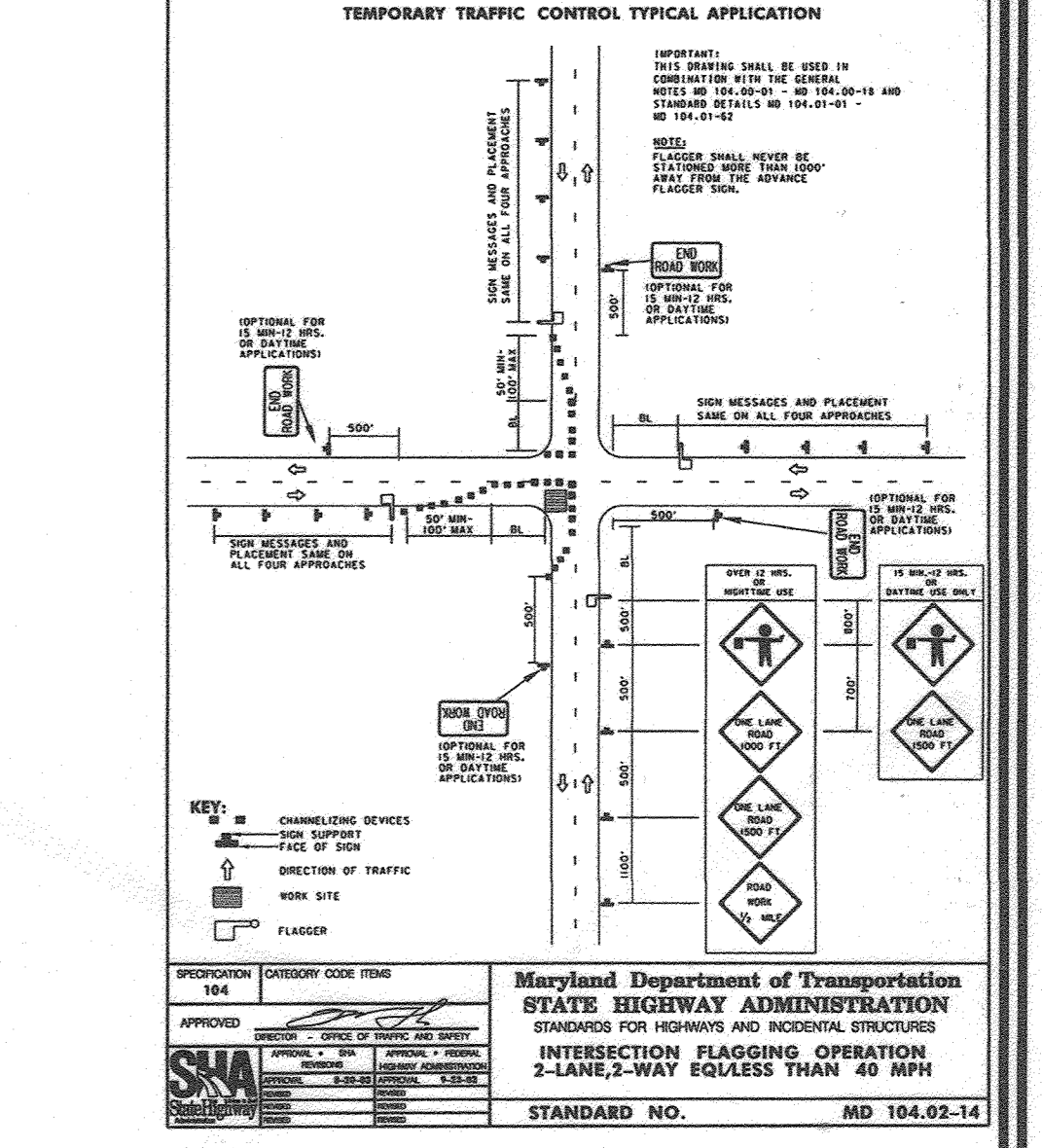
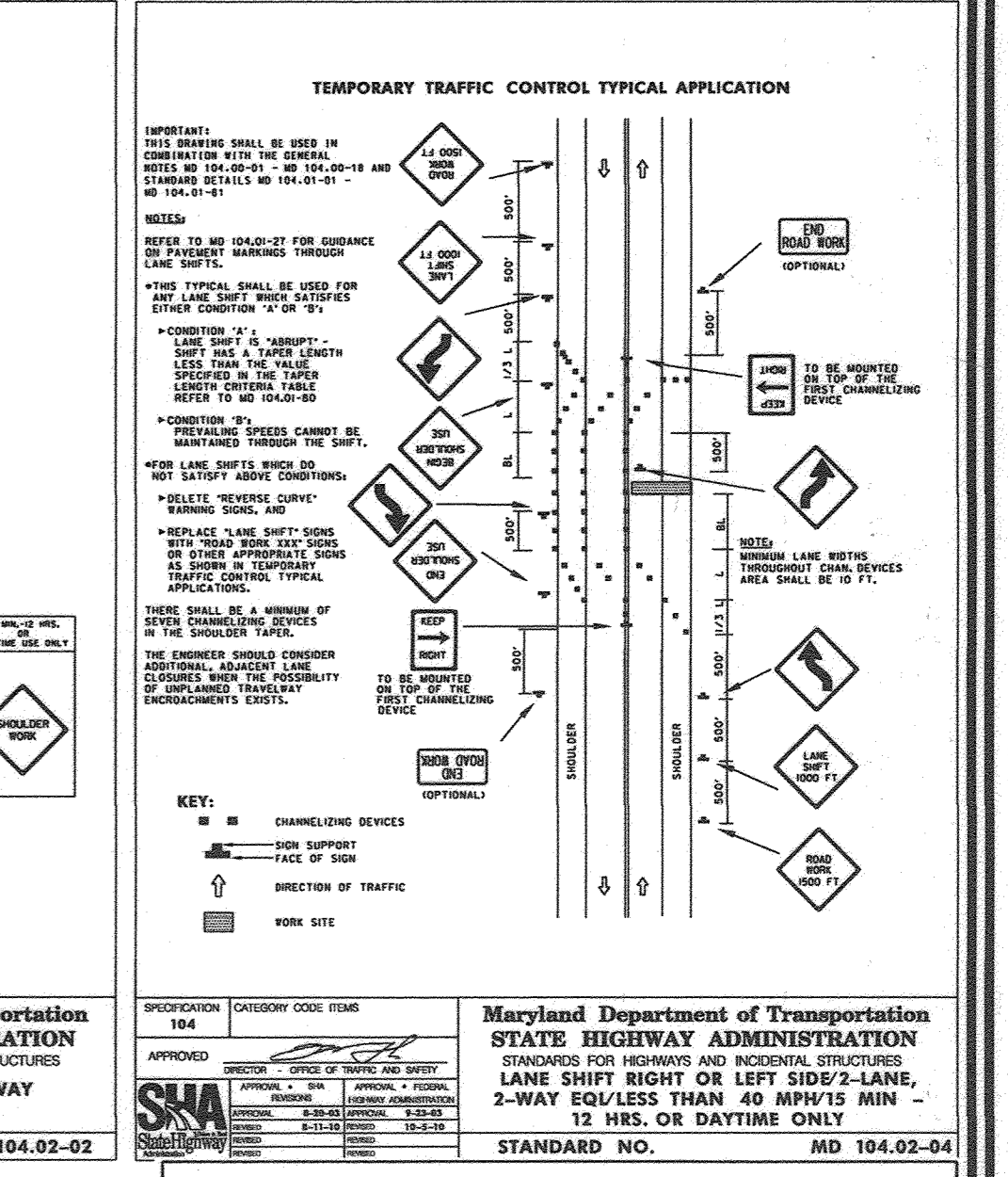
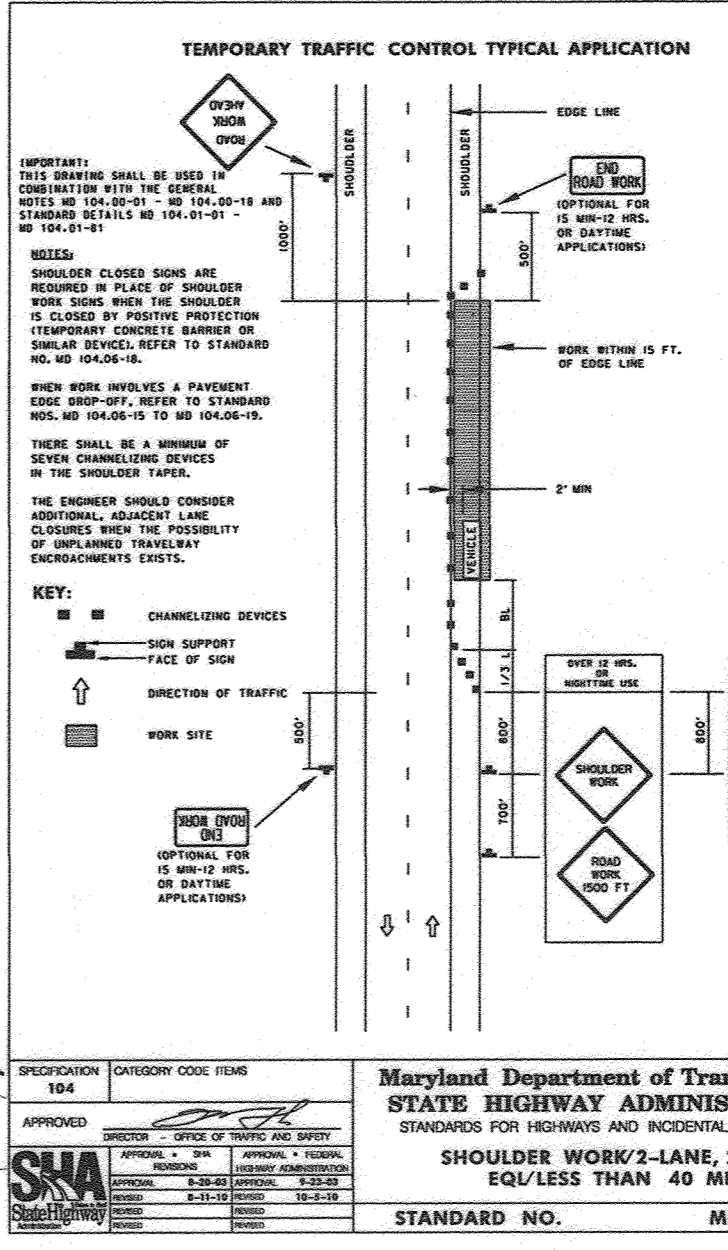
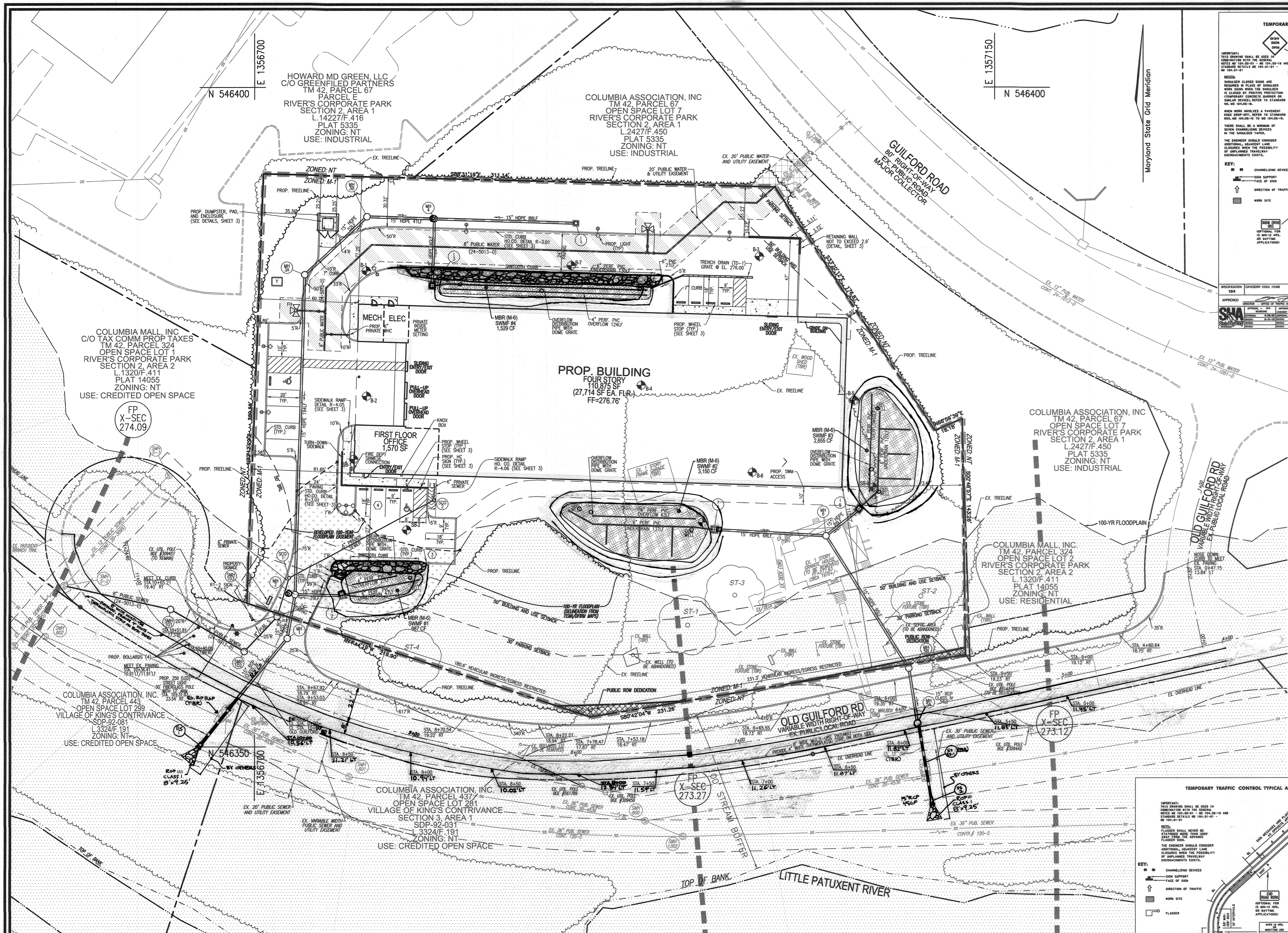
ADDRESS CHART

BUILDING NO.	STREET ADDRESS
9201	OLD GUILFORD ROAD

PERMIT INFORMATION CHART

PLAT OR L/F	GRID NO.	ZONING	TAX MAP NO.	ELECT. DIST.	CENSUS TR.
L12349/F.421	15	M-1	42	6TH	606804

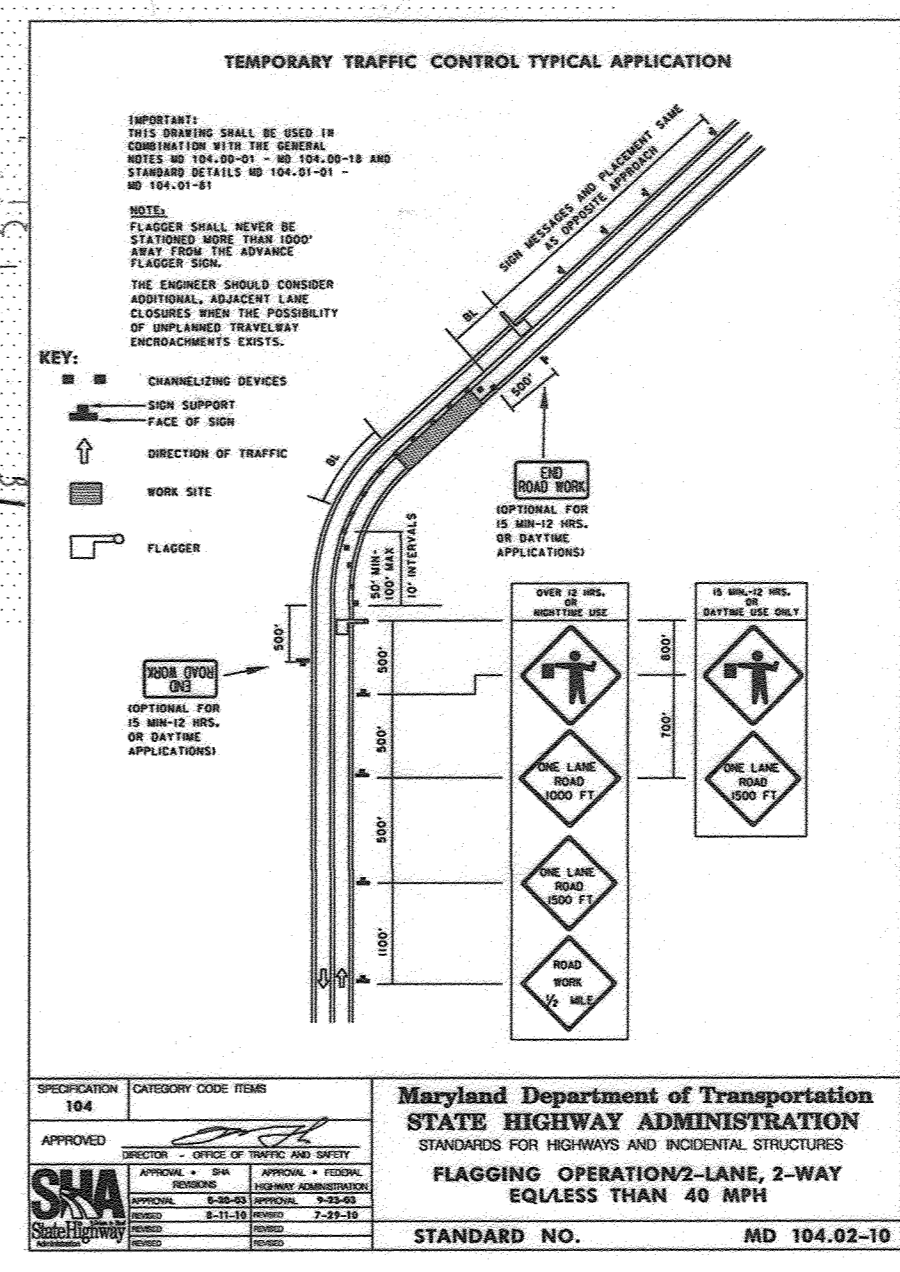
AS-BUILT JANUARY, 2020



TRAFFIC CONTROL NOTE:
BARRELS SHALL BE PROVIDED TO PROTECT TO PATHWAY DURING CONSTRUCTION

OWNER/DEVELOPER
9201 GUILFORD PROPERTIES LLC
2711 MOORES VALLEY DR
BALTIMORE, MD 21209
C/O EUGENE POVERNI
(410) 861-2408

3	REVISE PLAN TO SHOW AS-BUILT CONDITIONS FOR THE PROPOSED ROAD IMPROVEMENTS INCLUDING A SECTION OF WHAT WAS CONSTRUCTED	6-16-20
2	REVISE PLAN TO INCLUDE THE OLD GUILFORD ROAD IMPROVEMENTS TO 24' AND REPAIR A PORTION OF THE EXISTING ROAD, BUMPED STORM DRAIN OPENINGS AND REPAIR SHOULDER FOR PARKWAY	09-19-19
1	REVISE PLAN TO RAISE THE BUILDING UP ONE FOOT; REALIGN SEWER TO AVOID BGE LINE, REVISE ASSOCIATED UTILITIES.	06-06-18
NO.	REVISION	DATE



LEGEND:

	PROPERTY LINE		ZONING LINE
	RIGHT-OF-WAY LINE		PUBLIC ROW DEDICATION
	ADJACENT PROPERTY LINE		EX. 20' PUBLIC WATER AND UTILITY EASEMENT
	EXISTING FENCE		250' (LED) STREET LIGHT
	EXISTING TREE		30' FIBERGLASS POLE WITH 12' ARM
	PROPOSED STORMDRAIN		SITE LIGHTING (LED)
	PROPOSED STORMDRAIN INLET		
	PROPOSED CURB		
	PROPOSED SIDEWALK		
	MICRO-BIORETENTION		
	LIMITS OF FLOODPLAIN		
	PROPOSED PUBLIC WATER & UTILITY EASEMENT		
	EXISTING CURB AND GUTTER		
	EXISTING UTILITY POLE		
	EXISTING MAILBOX		
	EXISTING SIGN		
	EXISTING SANITARY MANHOLE		
	EXISTING SANITARY LINE		
	EXISTING CLEANOUT		

SITE LAYOUT PLAN
SCALE: 1"=30'

AS-BUILT CERTIFICATION FOR PSWM
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

DATE: 11-24-20
P.E. # 16193

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DATE: 8-20-18
DATE: 8-29-18
DATE: 8-29-18

REVISED SITE DEVELOPMENT PLAN

SITE LAYOUT PLAN

GUILFORD SELF STORAGE
SELF-STORAGE FACILITY
9201 OLD GUILFORD ROAD
ZONED: M-1
L 12349/F 421

TAX MAP 42, GRID 15
6TH ELECTION DISTRICT

PARCEL 28
HOWARD COUNTY, MARYLAND

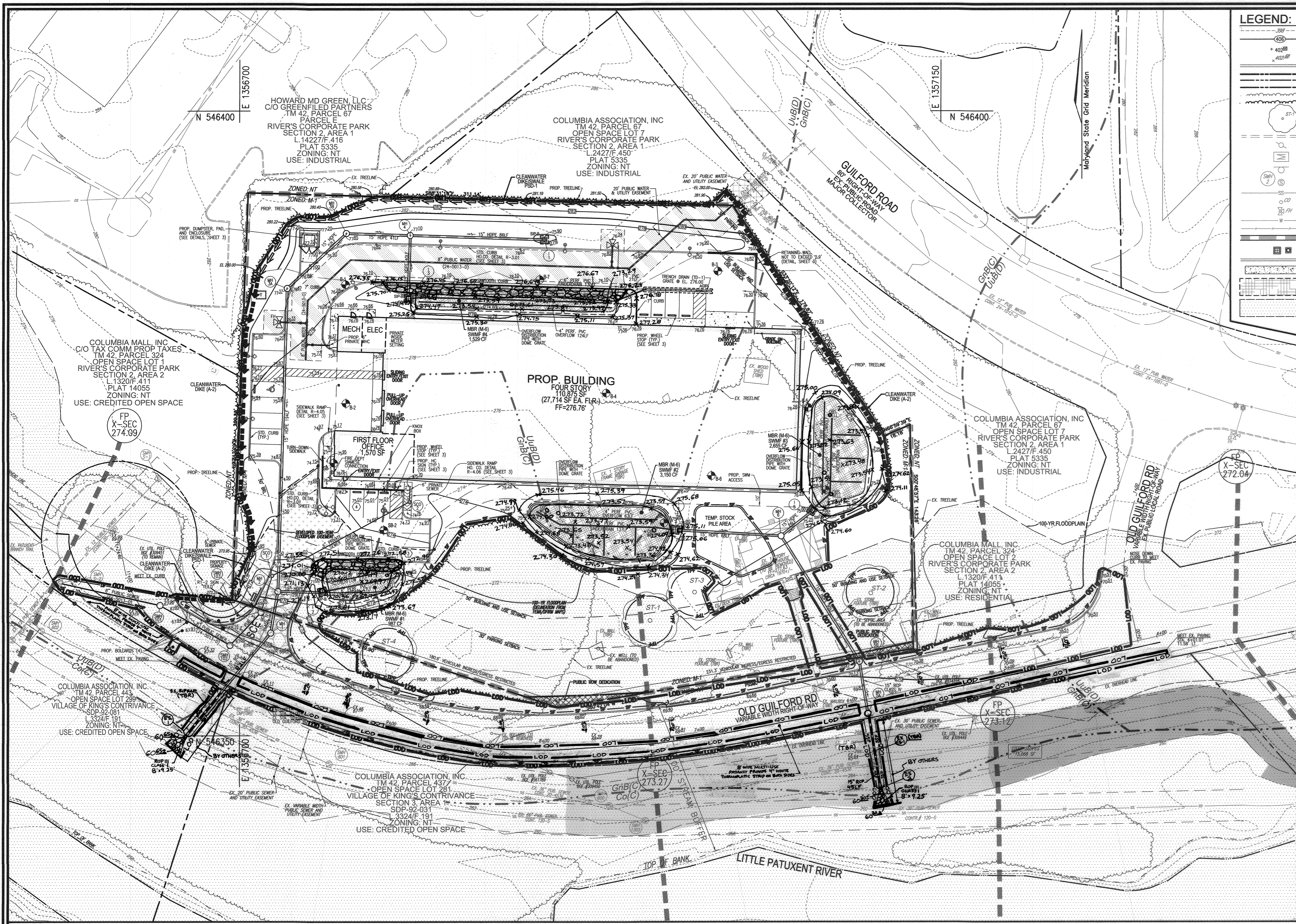
ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8427 MAIN STREET
BALDWIN CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
DESIGN BY: RHW/DZE
DRAWN BY: DZE/KG
CHECKED BY: RHW
DATE: JULY 2018
SCALE: AS SHOWN
W.O. NO.: 16-06

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. MY LICENSE NO. IS 16193. EXPIRATION DATE: 09-27-2018

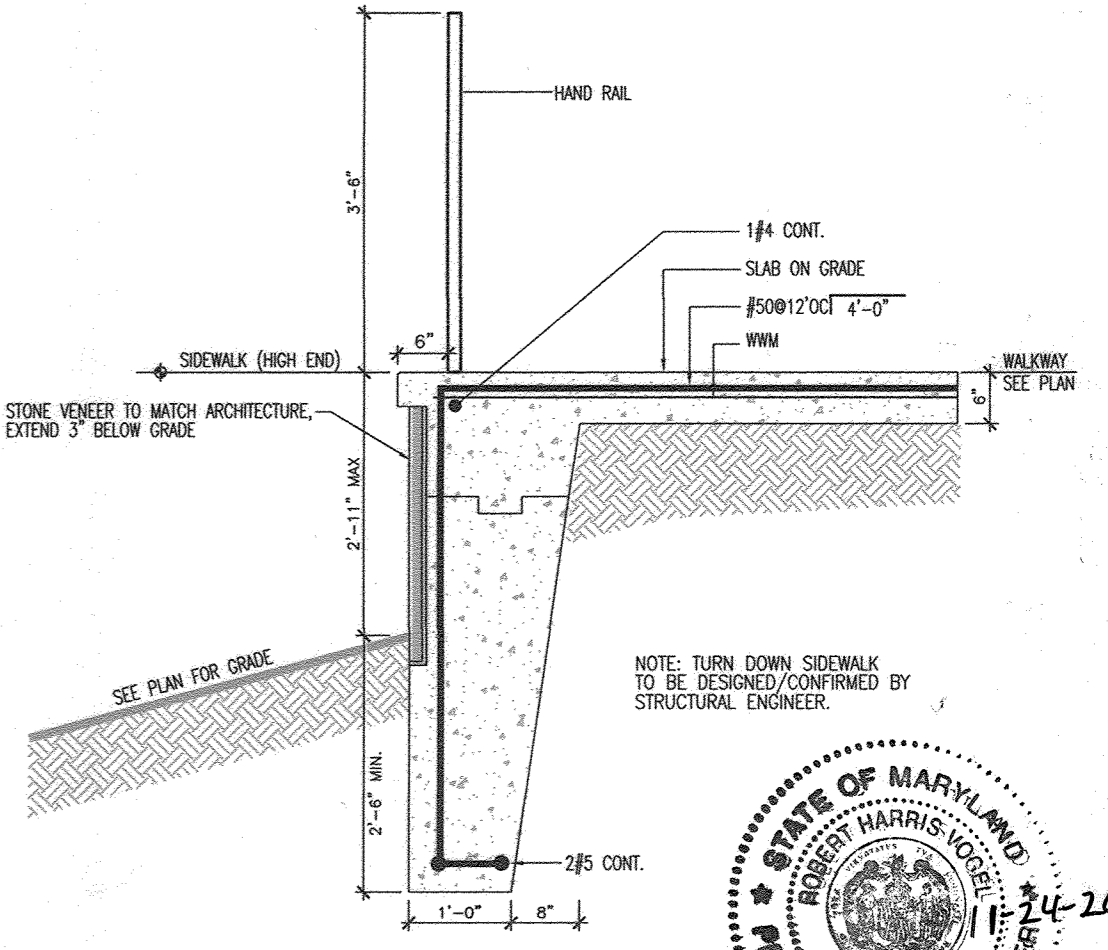
2 SHEET OF 8

AS-BUILT JANUARY, 2020



LEGEND:

	EXISTING CONTOUR		PROPOSED PUBLIC WATER & UTILITY EASEMENT
	PROPOSED SPOT ELEVATION		ZONING LINE
	EXISTING SPOT ELEVATION		PUBLIC ROW DEDICATION
	PROPOSED CURB AND GUTTER		EX. 20' PUBLIC WATER AND UTILITY EASEMENT
	PROPERTY LINE		SOILS BOUNDARY
	ADJACENT PROPERTY LINE		MODERATE SLOPES (1% - 24.99%)
	EXISTING TREE LINE		STEEP SLOPE (>25%)
	PROPOSED TREE LINE		SILT FENCE
	EXISTING SPECIMEN TREE		SILT FENCE ON PAVEMENT
	EXISTING CURB AND GUTTER		DIVERSION FENCE
	EXISTING UTILITY POLE		CLEAN WATER DIKE/SWALE
	EXISTING MAILBOX		CLEAN WATER DIKE (A-2)
	EXISTING SIGN		LIMIT OF DISTURBANCE
	EXISTING SANITARY MANHOLE		CURB INLET PROTECTION
	EXISTING SANITARY LINE		AT GRADE INLET PROTECTION
	EXISTING CLEANOUT		STABILIZED CONSTRUCTION ENTRANCE
	EXISTING FIRE HYDRANT		250 LED STREET LIGHT
	EXISTING WATER LINE		FIBER GLASS POLE WITH 12' ARM SITE LIGHTING (LED)
	EXISTING FENCE		
	PROPOSED STORMDRAIN		
	PROPOSED STORMDRAIN INLET		
	PROPOSED CURB		
	PROPOSED SIDEWALK		
	MICRO-BIORETENTION		
	LIMITS OF FLOODPLAIN		



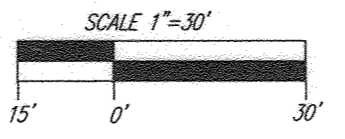
TURN DOWN SIDEWALK AS-BUILT CERTIFICATE DETAIL

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

OWNER/DEVELOPER	9201 GUILFORD PROPERTIES LLC 2711 MOORES VALLEY DR BALTIMORE, MD 21209 C/O EUGENE GOVERN (410) 861-2408
P.E. NAME	16193
P.E. #	11-24-20
DATE	

3	REVISE PLAN TO SHOW AS-BUILT CONDITIONS FOR THE PROPOSED ROAD IMPROVEMENTS INCLUDING A SECTION OF WHAT WAS CONSTRUCTED	6-16-20
2	REVISE PLAN TO REDUCE THE GULLIED ROAD IMPROVEMENTS TO 2' AND REMOVE A PORTION OF THE EXISTING ROAD, EXTEND STORM DRAIN OUTFALLS AND PREPARE SHOULDER FOR PARTWAY	04-19-18
1	REVISE PLAN TO RAISE THE BUILDING UP ONE FOOT; REALIGN SEWER TO AVOID BGE LINE, REVISE ASSOCIATED UTILITIES.	06-06-18

GRADING PLAN
SCALE: 1"=30'



SOILS LEGEND

HOWARD COUNTY SOILS MAP #24

SYMBOL	NAME / DESCRIPTION	GROUP	K FACTOR	ERODIBLE	ACREAGE
GhB	GLENVILLE-BALE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	0.43	YES	1.32
UvB	URBAN LAND - UDORTMENTS COMPLEX, 0 TO 8 PERCENT SLOPES	D	0.28	NO	1.44

SOILS NOTE:
HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Chamberlain 8-20-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION / DATE

Robert H. Vogel 8-29-18
CHIEF, DIVISION OF LAND DEVELOPMENT / DATE

William J. Griffin 8-29-18
DIRECTOR / DATE

OWNER/DEVELOPER CERTIFICATION:
I/WE 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 ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING 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 COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

Robert H. Vogel 07/17/18
OWNER/DEVELOPER'S SIGNATURE / DATE

Sue R. Rasmussen
PRINTED NAME & TITLE

DESIGN CERTIFICATION:
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 DISTRICT.

Robert H. Vogel 7/20/18
DESIGNER'S SIGNATURE / DATE

ROBERT H. VOGEL
PRINTED NAME

MD REGISTRATION NO. 16193
P.E. R.L.S. OR R.L.A. (circle one)

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John L. Peterson 7/31/18
HOWARD S.C.D. / DATE

REVISED SITE DEVELOPMENT PLAN
GRADING, SEDIMENT AND EROSION CONTROL PLAN; SOILS MAP
GUILFORD SELF STORAGE
SELF-STORAGE FACILITY
9201 OLD GUILFORD ROAD
ZONED: M-1
L 12349/F 421

TAX MAP 42 GRID 15
6TH ELECTION DISTRICT

PARCEL 28
HOWARD COUNTY, MARYLAND

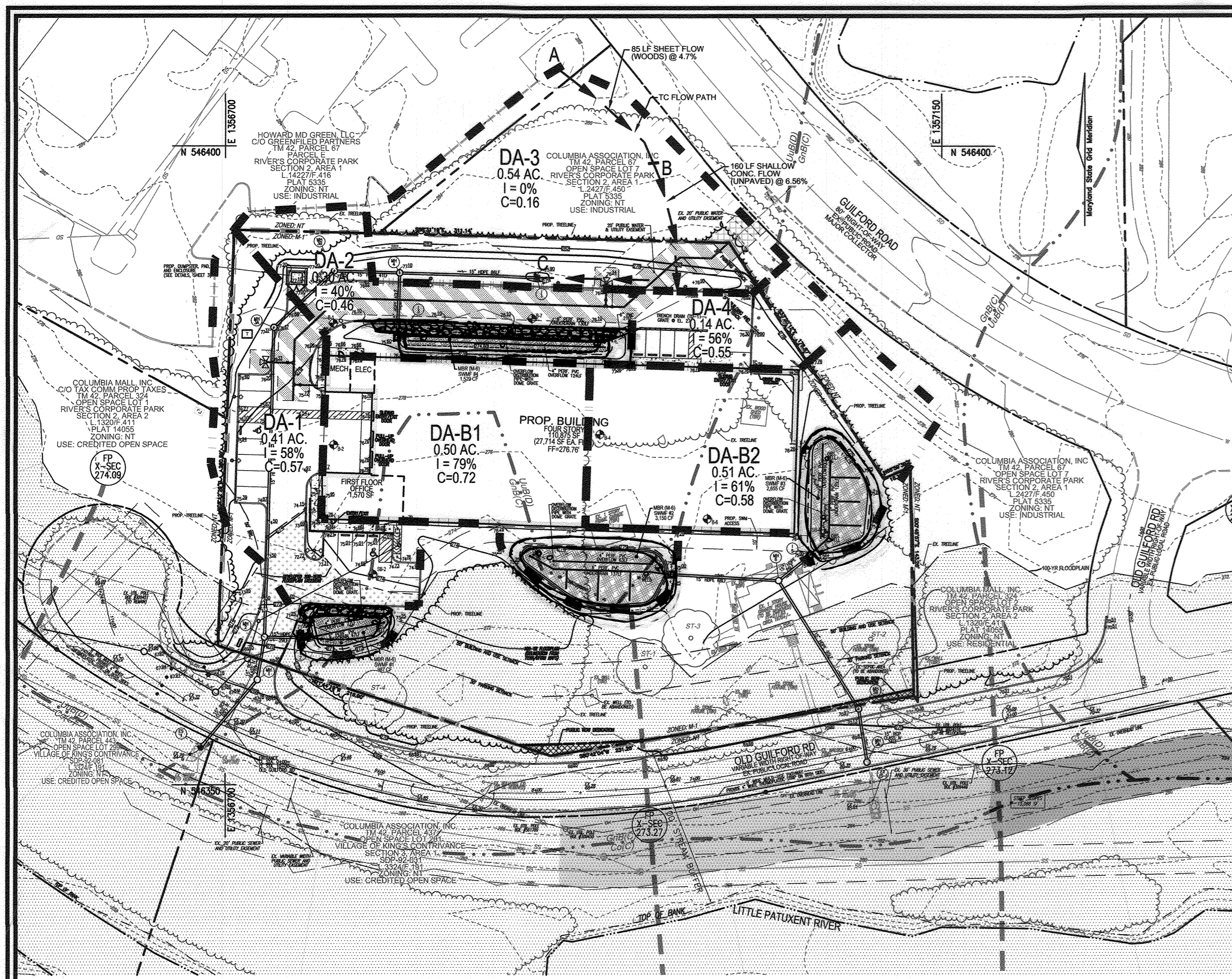
ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLCOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8966

PROFESSIONAL CERTIFICATE

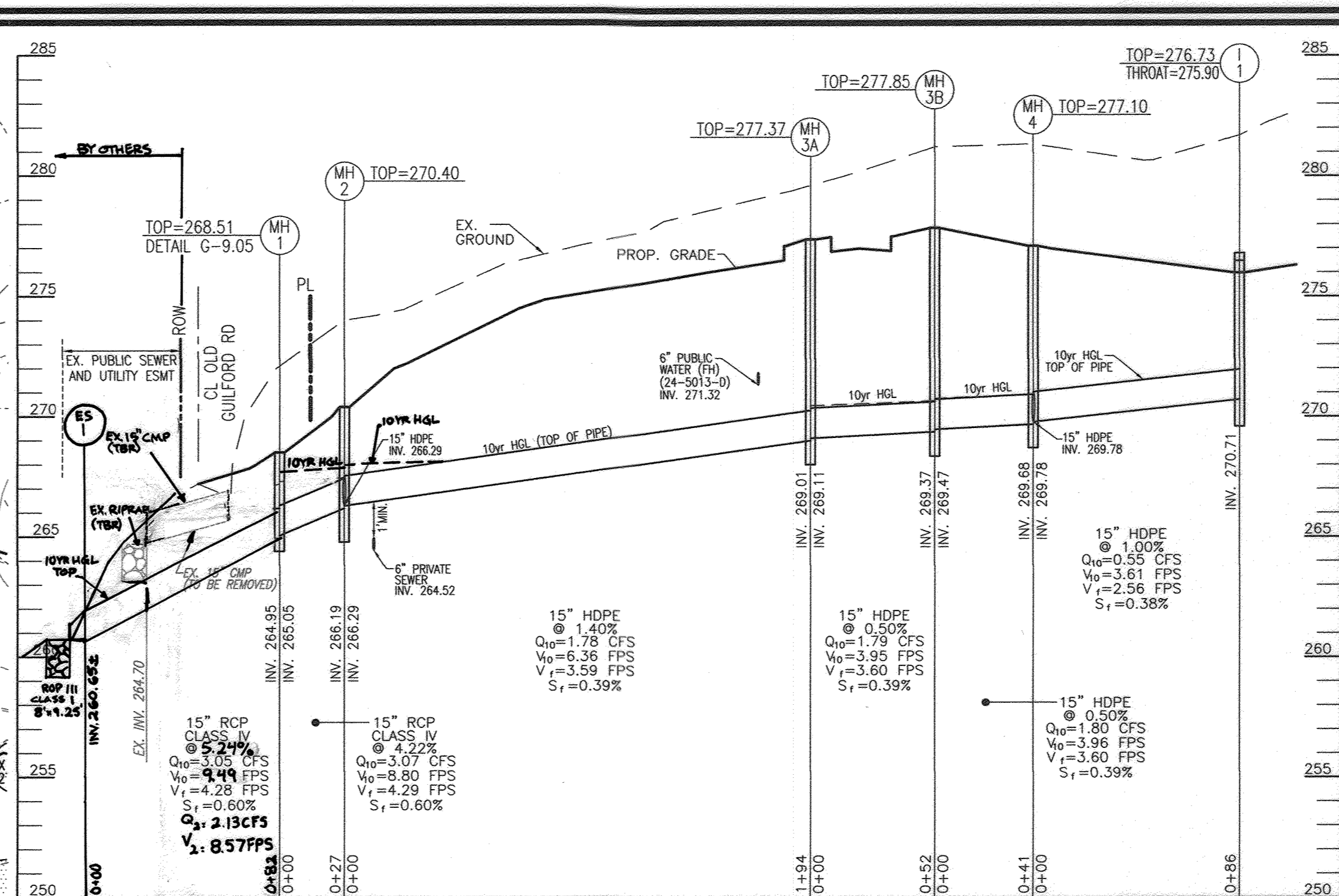
DESIGN BY: RHW/DZE
DRAWN BY: DZE/KC
CHECKED BY: RHW
DATE: JULY 2018
SCALE: AS SHOWN
W.O. NO.: 16-06

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A QUALY LICENSED PROFESSIONAL ENGINEER UNDER THE JURISDICTION OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 08-27-2019.

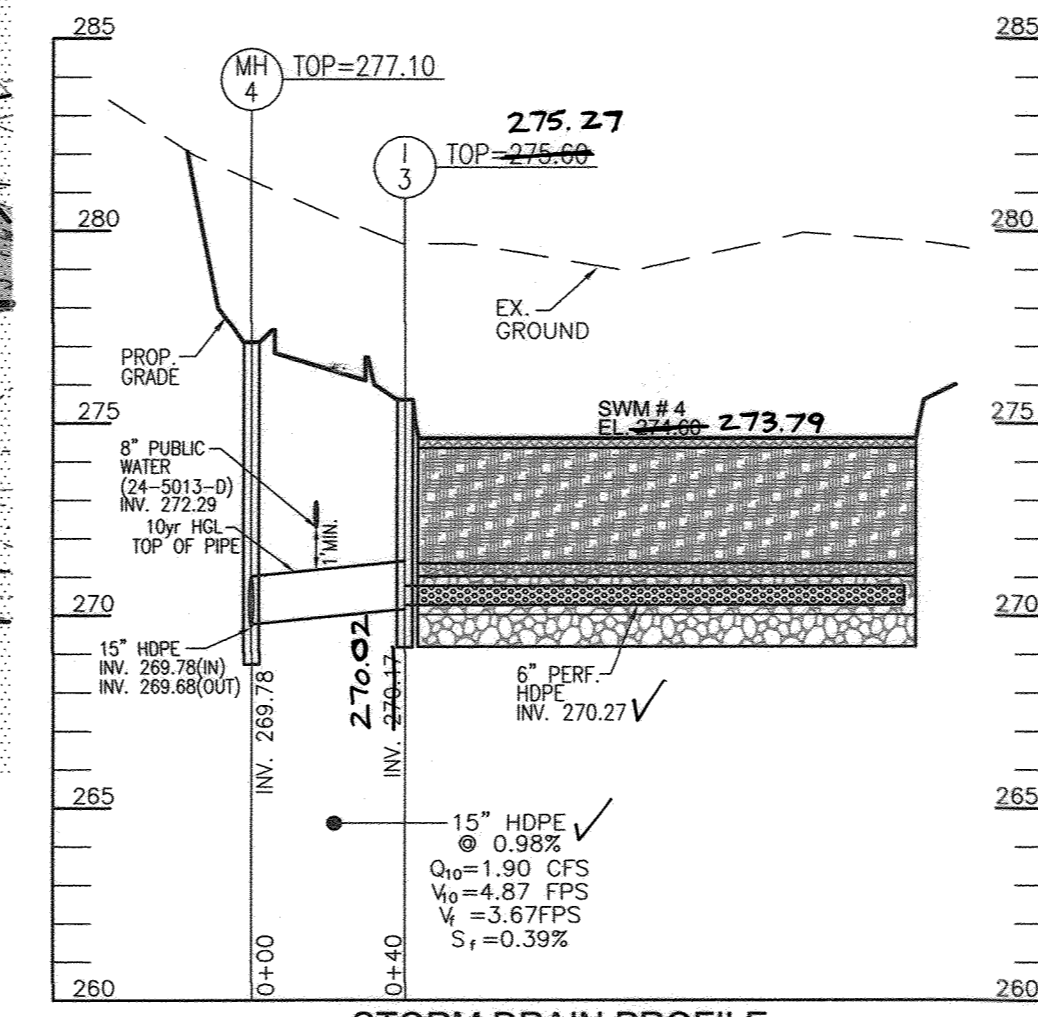
4 SHEET OF 8



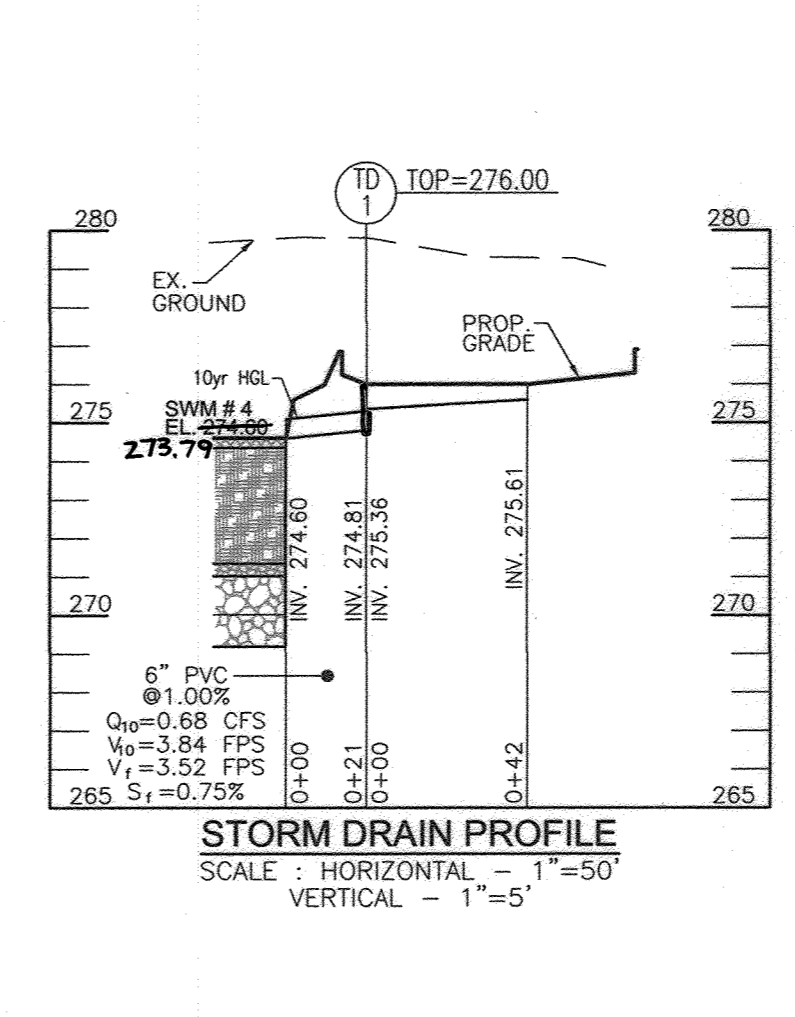
STORMDRAIN DRAINAGE AREA PLAN
SCALE: 1"=50'



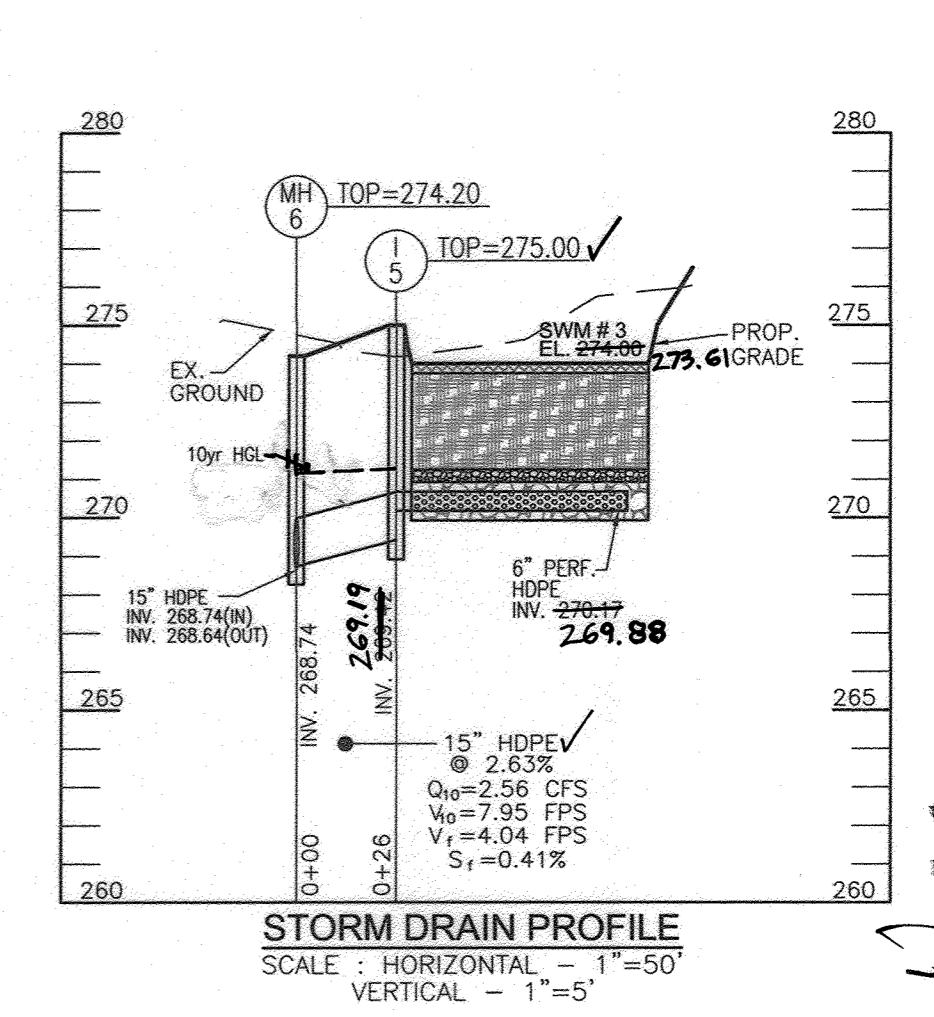
STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



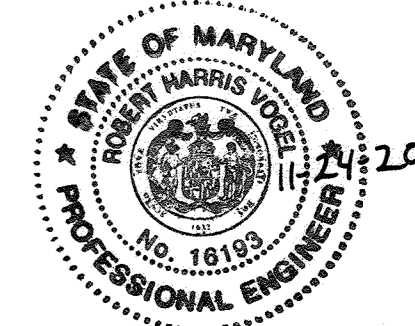
STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING SPECIMEN TREE
- EXISTING CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING FENCE
- PROPOSED STORMDRAIN
- PROPOSED STORMDRAIN INLET
- PROPOSED CURB
- PROPOSED SIDEWALK
- MICRO-BIoretention
- LIMITS OF FLOODPLAIN
- PROPOSED PUBLIC WATER & UTILITY EASEMENT
- M1B2
- M1D3
- SOILS BOUNDARY
- MODERATE SLOPES (1% - 24.99%)
- STEEP SLOPE (>25%)
- ZONED: NT
- ZONED: M-1
- ZONING LINE
- PUBLIC ROW DEDICATION
- EX. 20' PUBLIC WATER AND UTILITY EASEMENT



AS-BUILT CERTIFICATION FOR PSWM

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND EXHIBITS WITHIN THE APPROVED PLANS AND SPECIFICATIONS. I HAVE THEREAFTER TAKEN THE CONTRIBUTING DRAINAGE AREA IS SUBSEQUENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWMA FACILITY.

DATE: 11-24-20
P.E. # 16193

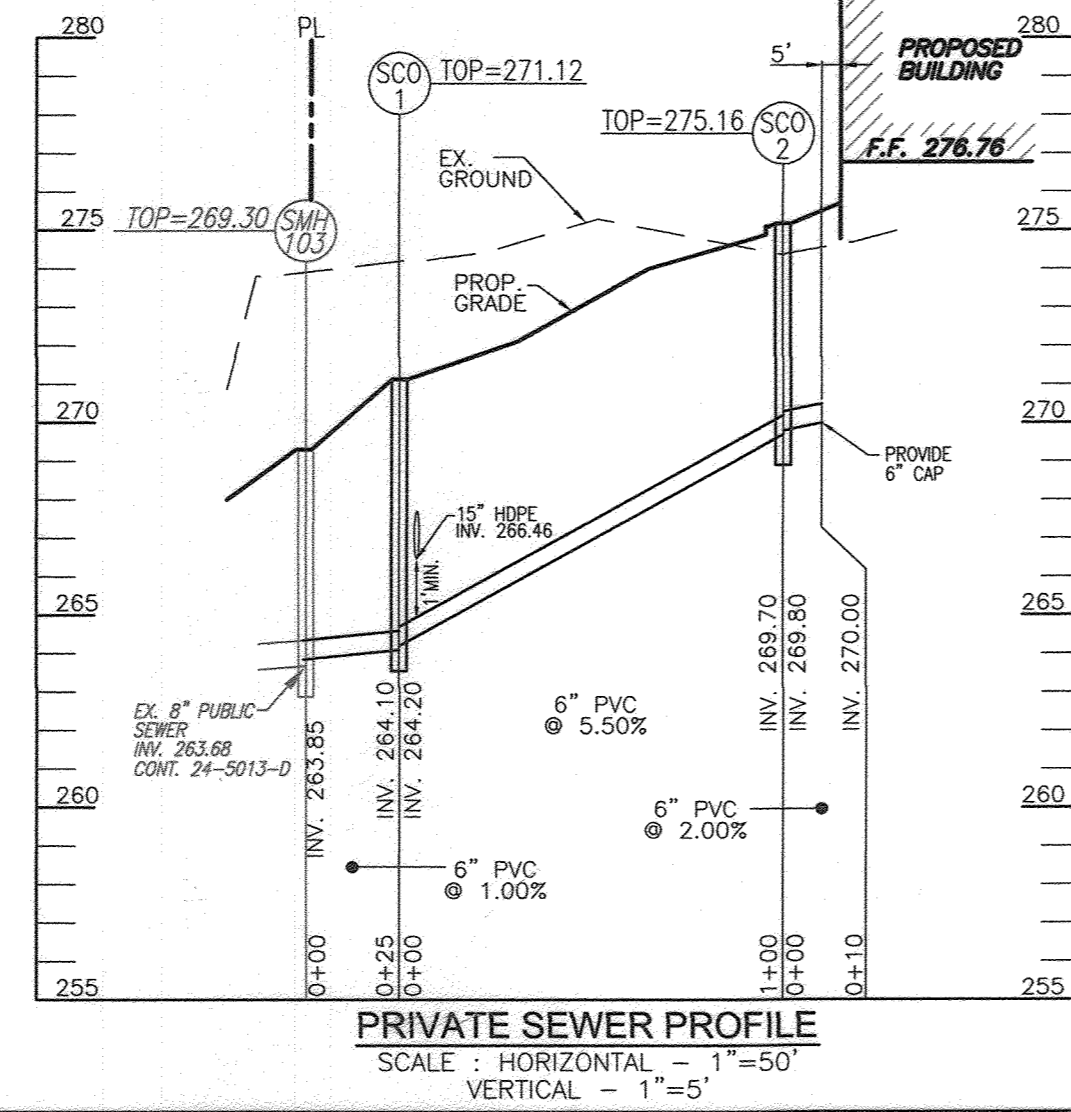
OWNER/DEVELOPER
9201 GUILFORD PROPERTIES LLC
2711 MOORES VALLEY DR
BALTIMORE, MD 21209
C/O EUGENE POVERNI
(410) 861-2408

STRUCTURE SCHEDULE							
NO.	TYPE	LOCATION	TOP ELEV.	THROAT ELEV.	INV. IN	INV. OUT	COMMENTS
I-1	"D" INLET	N 546317.8 E 1356895.5	276.73	275.90	270.71	270.71	HO. CO. STD. D-4.11
I-2	"S" INLET	N 546092.3 E 1356753.3	276.73	276.73	266.57	266.57	HO. CO. STD. D-4.22
I-3	"S" INLET	N 546280.1 E 1356808.1	270.27	270.27	270.27	270.27	HO. CO. STD. D-4.22
I-4	"S" INLET	N 546131.9 E 1356979.7	275.00	267.27	267.27	267.27	HO. CO. STD. D-4.22
I-5	"S" INLET	N 546144.2 E 1357067.5	275.00	267.27	267.27	267.27	HO. CO. STD. D-4.22
MH-1	4'-0" BRICK MANHOLE	N 546065.8 E 1356720.0	268.51	268.51	268.05	264.95	HO. CO. STD. G-9.05
MH-2	4'-0" STANDARD PRECAST MANHOLE	N 546092.4 E 1356724.7	270.40	269.29	266.19	266.19	HO. CO. STD. G-5.12
MH-3A	4'-0" STANDARD PRECAST MANHOLE	N 546286.4 E 1356730.5	277.37	269.11	269.01	269.01	HO. CO. STD. G-5.12
MH-3B	4'-0" STANDARD PRECAST MANHOLE	N 546321.8 E 1356768.4	277.85	269.47	269.37	269.37	HO. CO. STD. G-5.12
MH-4	4'-0" STANDARD PRECAST MANHOLE	N 546320.5 E 1356809.4	277.10	269.78	269.68	269.68	HO. CO. STD. G-5.12
MH-5A	4'-0" STANDARD PRECAST MANHOLE	N 546014.3 E 1357103.4	269.41	266.67	266.57	266.57	HO. CO. STD. G-5.12
MH-5B	4'-0" STANDARD PRECAST MANHOLE	N 546047.6 E 1357097.9	270.97	267.42	267.32	267.32	HO. CO. STD. G-5.12
MH-6	4'-0" STANDARD PRECAST MANHOLE	N 546127.9 E 1357047.6	274.20	268.74	268.64	268.64	HO. CO. STD. G-5.12
TR-1	ACO TRENCH DRAIN (SLOPED CHANNEL)	N 546285.9 E 1356960.5	276.00	275.61	273.81	273.81	KLASSIKDRAIN K1-K5
ES-1	15" CONC. END SECTION	N 546102.5 E 1356721.0	271.12	260.65	260.65	260.65	HO. CO. STD. D-5.51
SCO-1	CLEANOUT	N 546140.5 E 1356808.9	275.16	264.20	264.10	264.10	HO. CO. STD. S-2.22
SCO-2	CLEANOUT	N 546149.9 E 1356808.9	275.16	269.80	269.70	269.70	HO. CO. STD. S-2.22

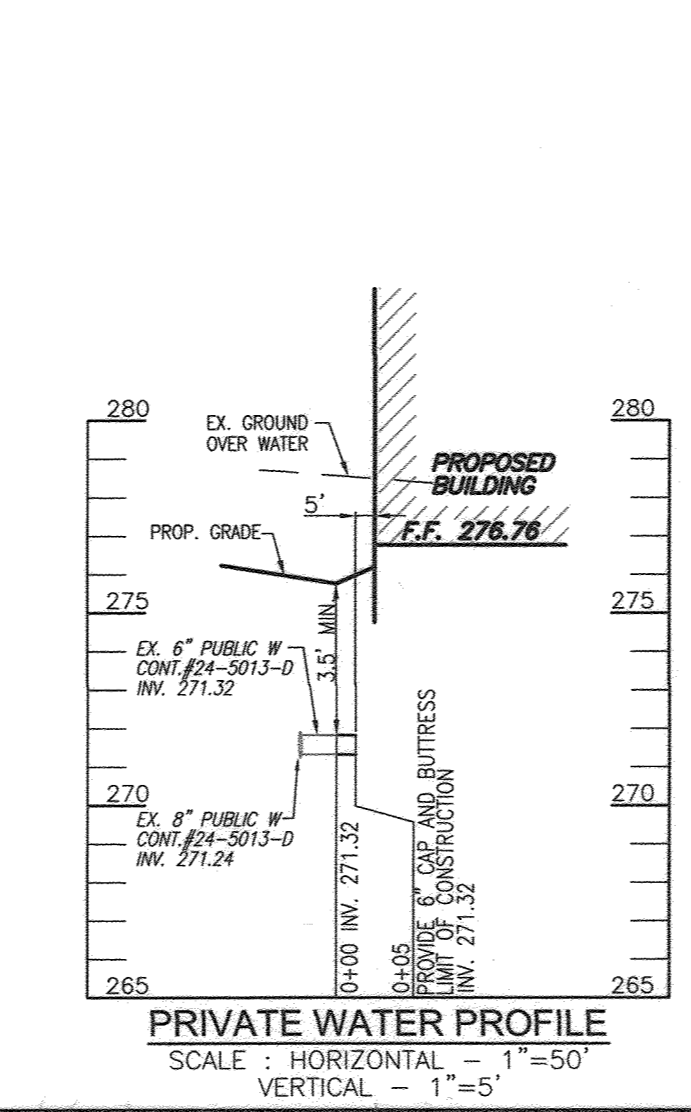
NOTE: 1. TOP ELEVATIONS ARE AT CENTER TOP OF MANHOLE FOR TYPE "D" INLET, AND TOP OF MANHOLE COVER FOR PRECAST MANHOLES.
2. FOR TOP SLAB SLOPES SEE GRADING PLAN.
3. SEE ARCHITECTURAL PLANS FOR DOWNSPOUT AND ROOF DRAIN DETAILS.
4. ALL CUSTOM AND NON-STANDARD STRUCTURES TO BE DESIGNED BY A QUALIFIED STRUCTURAL ENGINEER.

ES-2 15" CONC. END SECTION N 545941.8 E 1357110.7 - - 260.32 260.30 HO. CO. STD. D-5.51

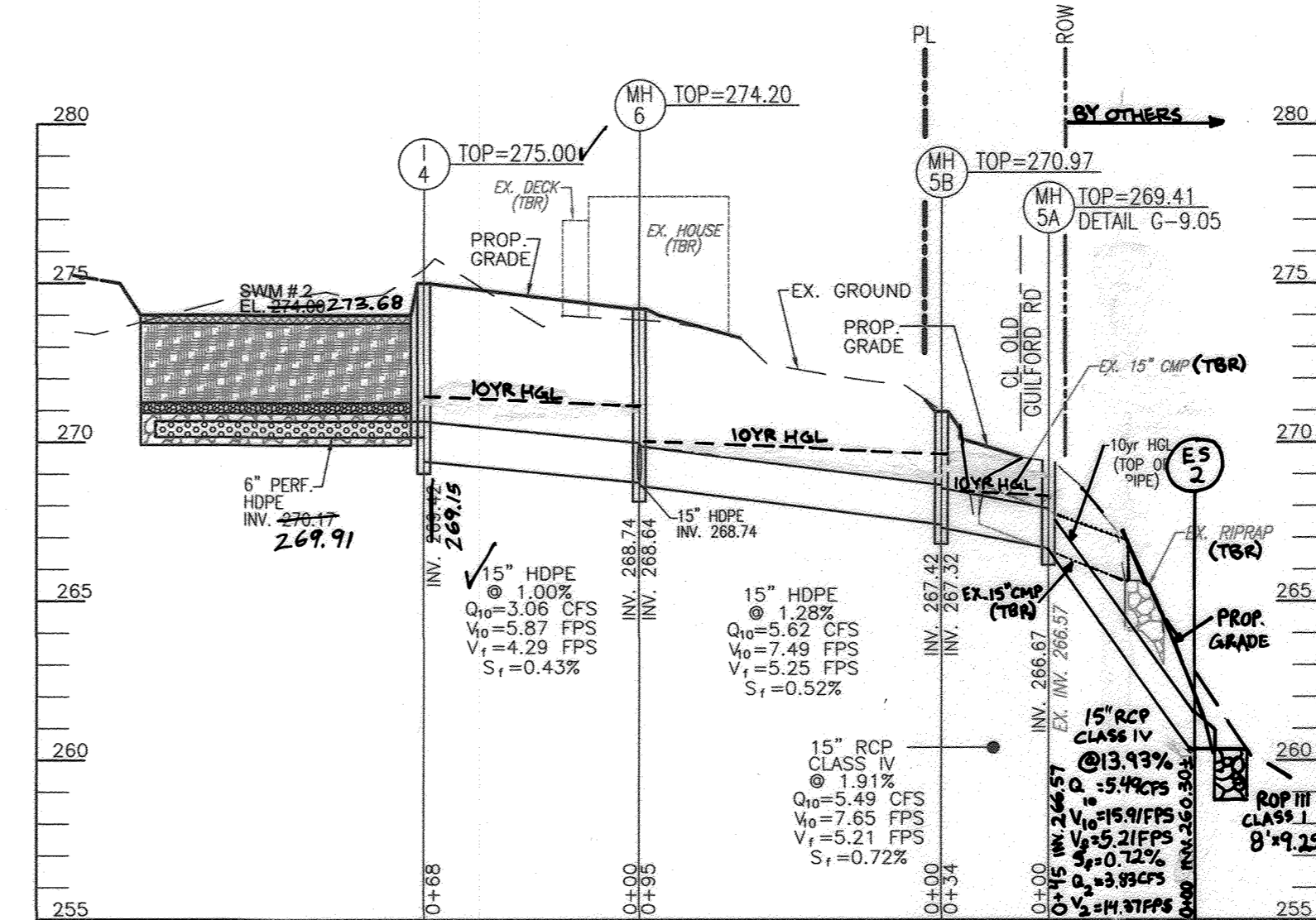
PIPE SCHEDULE		
SIZE	TYPE	LENGTH
6"	DIP (WATER)	5 LF
6"	PVC (SEWER)	135 LF
4"	PERF. PVC (SWM)	337 LF
6"	PERF. PVC (SWM)	434 LF
6"	SOLID PVC (SD)	21 LF
15"	HDPE (SD)	631 LF
15"	RCP CLASS IV (SD)	188 LF



PRIVATE SEWER PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



PRIVATE WATER PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 8-20-18
 DATE: 8-29-18
 DATE: 8-29-18

NO.	REVISION	DATE
2	REVISE PLAN TO REDUCE THE GUILFORD ROAD IMPROVEMENTS TO 24' AND REMOVE A SECTION OF THE EXISTING ROAD, EXTEND STORM DRAIN OUTFALLS AND PREPARE SHOULDER FOR PATHWAY	09-19-18
1	REVISE PLAN TO RAISE THE BUILDING UP ONE FOOT; REALIGN SEWER TO AVOID BGE LINE, REVISE ASSOCIATED UTILITIES.	06-06-18

REVISED SITE DEVELOPMENT PLAN
STORM DRAIN DRAINAGE AREA MAP AND UTILITY PROFILES
 GUILFORD SELF STORAGE
 SELF-STORAGE FACILITY
 9201 OLD GUILFORD ROAD
 ZONED: M-1
 L12349F421
 HOWARD COUNTY, MARYLAND
 TAX MAP 42 GRID 15
 6TH ELECTION DISTRICT
 PARCEL 28

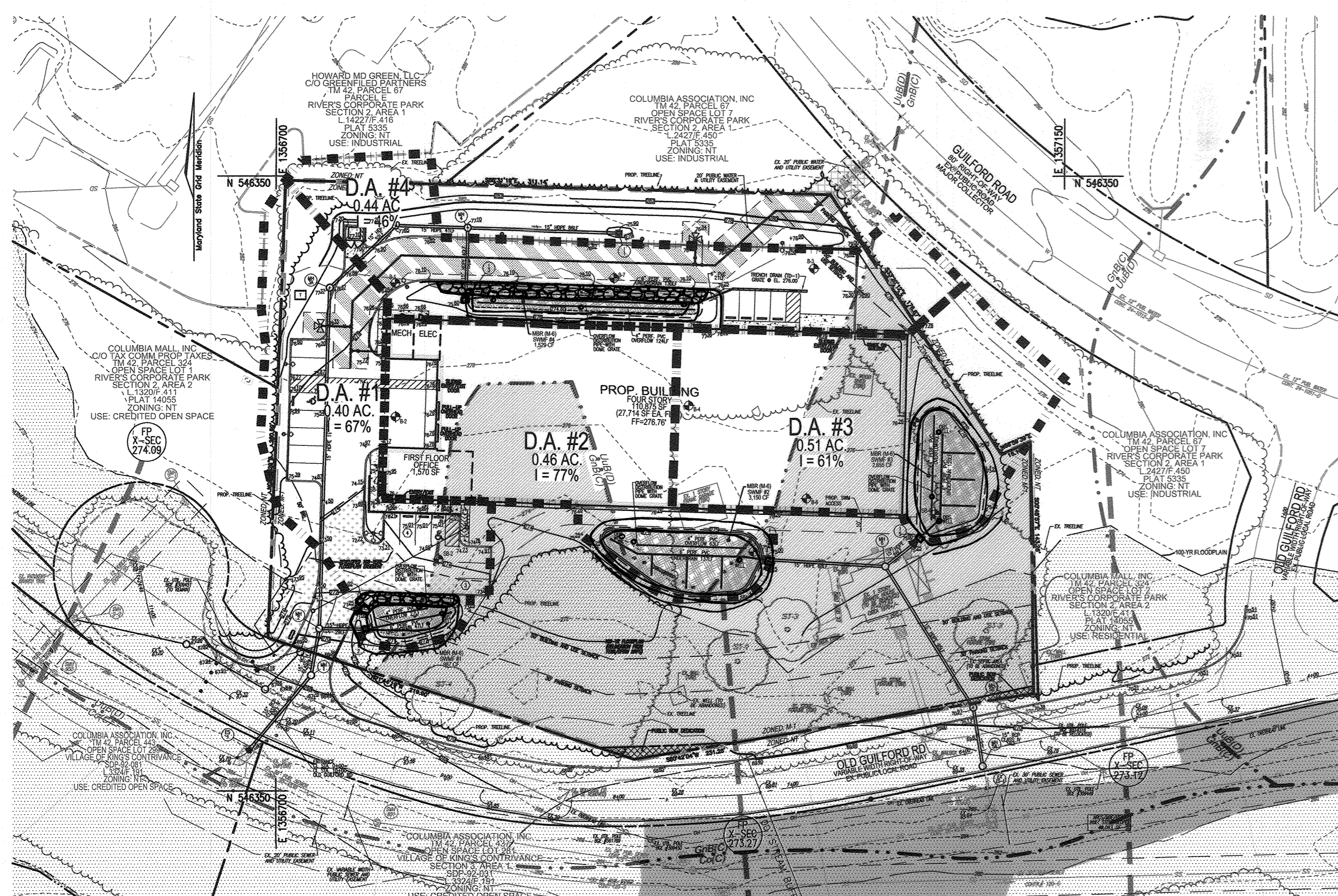
ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.6666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
 DESIGN BY: RHW/DZE
 DRAWN BY: DZE/KG
 CHECKED BY: RHW
 DATE: JULY 2018
 SCALE: AS SHOWN
 W.O. NO.: 16-06

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15193, EXPIRATION DATE: 06-27-2019

6 SHEET OF 8

AS-BUILT JANUARY, 2020



Appendix B.4. Construction Specifications for Environmental Site Design Practices

Table B.4.1 Materials Specifications for Micro-Bioretenation, Rain Gardens & Landscape Infiltration-

Material	Specification	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil (2" to 4" deep)	loamy sand (60 - 65%) & compost (35 - 40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2922)	n/a	aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel: ASTM-D-448	NO. 8 OR NO. 9 (1/8" to 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile	n/a	n/a	PE Type 1 nonwovens
Gravel (underdrains and infiltration basins)	AASHTO M-43	NO. 57 OR NO. 6 (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underdrain pipes. Perforated pipe shall be wrapped with 1/4-inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; f'c = 3500 psi @ 28 days normal weight, air-entrained; reinforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer (licensed in the State of Maryland - design to include meeting ACT Code 550.8.99, vertical loading (H-10 or H-20); allowable horizontal loading (based on soil pressure); and analysis of potential cracking
Sand	AASHTO M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Gypstone (AASHTO) #10 are not acceptable. No calcium carbonate or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3), MICRO-BIORETENTION (M-5), RAIN GARDENS (M-7), BIORETENTION SWALE (M-8), AND ENHANCED FILTERS (M-9)

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD PLANTS. PLANTING REPLACEMENT SHALL BE LIMITED TO THE FOLLOWING: 2000 HERRLUND STORMWATER DESIGN MANUAL, VOLUME 8, TABLE A.4.1 AND 2.
- THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAMES AND WIPES.
- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

Pe= 1.80
 ESDv=(PexRvxA)/12
 Rv=0.05+0.009h
 Vmin=L*0.7 rainfall
 Vmax=1yr rainfall*2.6'

DA % IMPERV	Rv	DA REQ	ESDv VOLUME	MINIMUM VOLUME	MAXIMUM VOLUME	TOTAL VOL PROVIDED	SWM PRACTICE	SURFACE AREA (SF)	DEPTH (FT)	ESDv VOLUME	REV STONE (CF)	REV STONE (FT)	AREA SF	PERV AREA	IMP AREA
1	67	0.65	0.40	1,710	950	2,470	987	740	1.0	387	463	0.83	17,464	5,768	11,695
2	77	0.74	0.46	2,244	1,247	3,242	3,150	2,362	1.0	3,150	1,476	0.83	20,144	4,639	15,505
3	61	0.60	0.51	1,984	1,102	2,866	2,655	1,991	1.0	2,655	1,244	0.83	22,113	8,645	13,468
4	46	0.46	0.44	1,320	733	1,907	1,529	1,147	1.0	1,529	717	0.83	19,146	10,432	8,714
TOTAL ESDv BY SUBAREA							9938			8,321	Total ESDv Provided		78,867	29,484	49,383
										8,297	Total ESDv Required		1.81	0.68	1.13

APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BERMS

1. MATERIAL SPECIFICATIONS
 THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.

2. FILTERING MEDIA OR PLANTING SOIL
 THE MEDIA SHALL BE A UNIFORM FIN SIZE OF 30 MESH. STAMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES, NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH OR CAUSE CLOGGING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF HERBICIDES, PESTICIDES, QUINACRYLS, PHTHALATES, OR OTHER HAZARDOUS MATERIALS AS SPECIFIED UNDER COMAR 15.06.01.06. THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:
 • SOIL COMPOSITION - LOAMY SAND OR SANDY LOAM (USDA SOIL TEXTURAL CLASSIFICATION).
 • ORGANIC CONTENT - MINIMUM 10% BY DRY WEIGHT (ASTM D 2922). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60%-65%) AND COMPOST (35% TO 40%) OR SANDY LOAM (30%), COARSE SAND (30%) AND COMPOST (40%).
 • CLAY CONTENT - MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%.
 • PH BARS - SHOULD BE BETWEEN 4.5 - 7.0. ADJUSTMENTS (E.G. LIME, ROWN SULFATE PLUS SULFUR) MAY BE MADE IN TO THE SOIL TO INCREASE OR DECREASE PH.
 THESE SHALL BE AT LEAST ONE SOIL PER PRACTICE. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH AND ADDITIONAL TESTS OF ORGANIC MATTER AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL IF TOPSOIL IS MIXED WITH THE MEDIA. A TEXTURAL ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.

3. COMPACTION
 IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL WHEN POSSIBLE. USE EXCAVATION WIPES TO REMOVE ORIGINAL SOIL PRACTICES ARE ENHANCED UNDER LOADING. THE CONTRACTOR SHOULD USE WIDE TRACK OR MEDIUM TRACK EQUIPMENT OR LIGHT EQUIPMENT WITH TIRE TYPE TRACKS. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LOGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO REGION FAILURE.
 COMPACTION CAN BE ALLEVATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO RESTRUCTURE THE SOIL PROFILE THROUGHOUT THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.
 ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY POUNDED WATER BEFORE PREPARING (ROTOTILLING) BASE. WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINISH GRADE. WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH WAREH TRUCKS.

4. PLANT MATERIAL
 RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION 2.3.

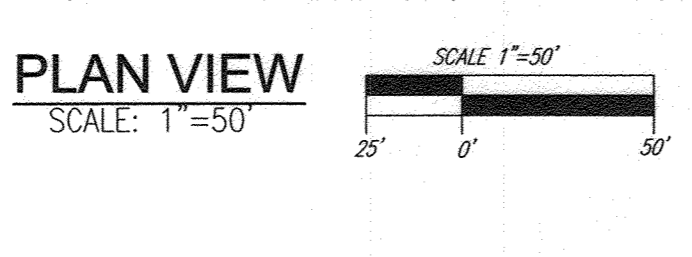
5. PLANT INSTALLATION
 COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INNER AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SUBSEQUENT TO A UNIFORM THICKNESS OF 2" TO 3". SUBSOILED OR CHISEL HARROWED MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. MULCH MUST BE WELL KEPT IN PLACE AND NOT ALLOWED TO MOVE. MULCH SHOULD BE PLACED IN THE BIORETENTION FACILITY. THE MULCH SHALL BE KEPT MOST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DEPTH OF THE PLANTING PIT SHALL BE AT LEAST 30 INCHES FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE SPACED AT THE PERIMETER OF THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION. TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE SPACED AT THE PERIMETER OF THE ENTIRE PLANTING PROCESS. GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUS SHALL BE PLANTED FOLLOWING THE NON-GRASS COVER PLANTING SPECIFICATIONS.
 THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS, PESTICIDES, OR A MINIMAL AMOUNTS OF THIS SOIL ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

6. UNDERDRAINS
 UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:
 • PIPE - SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F58, TYPE PS 28, OR AASHTO-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G. PVC OF GRADE).
 • PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 6W) GALVANIZED HARDWARE CLOTH.
 • GRAVEL - THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.
 • A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,000 SQUARE FEET) TO PROVIDE A CLEAN-OUT POINT AND MONITOR PERFORMANCE OF THE FILTER.
 • A 4" LAYER OF PEA GRAVEL (1/8" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT FIBER MATS IN THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".
 THIS MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.2% OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

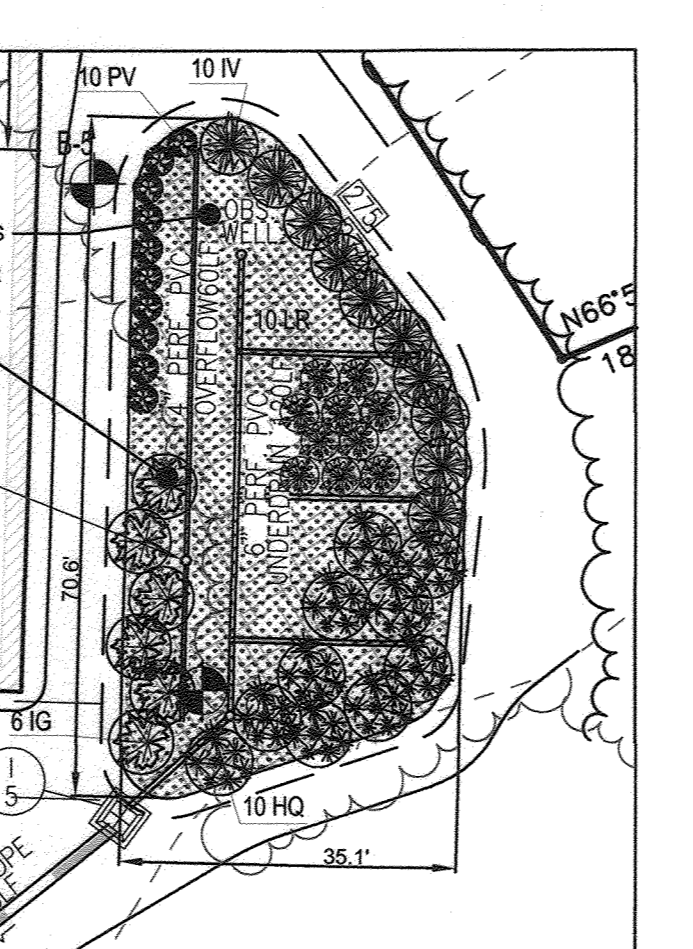
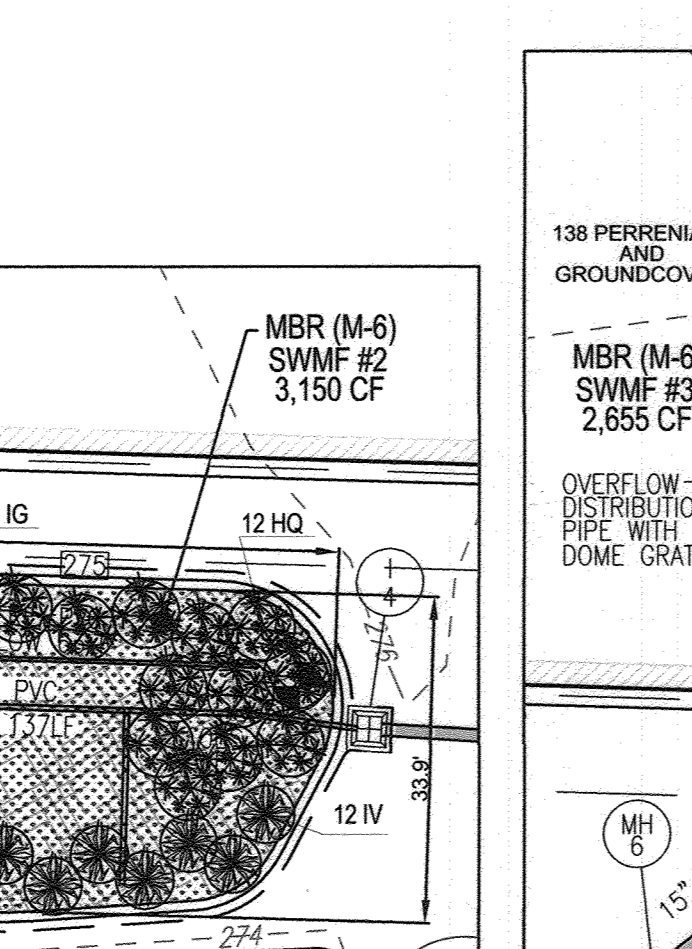
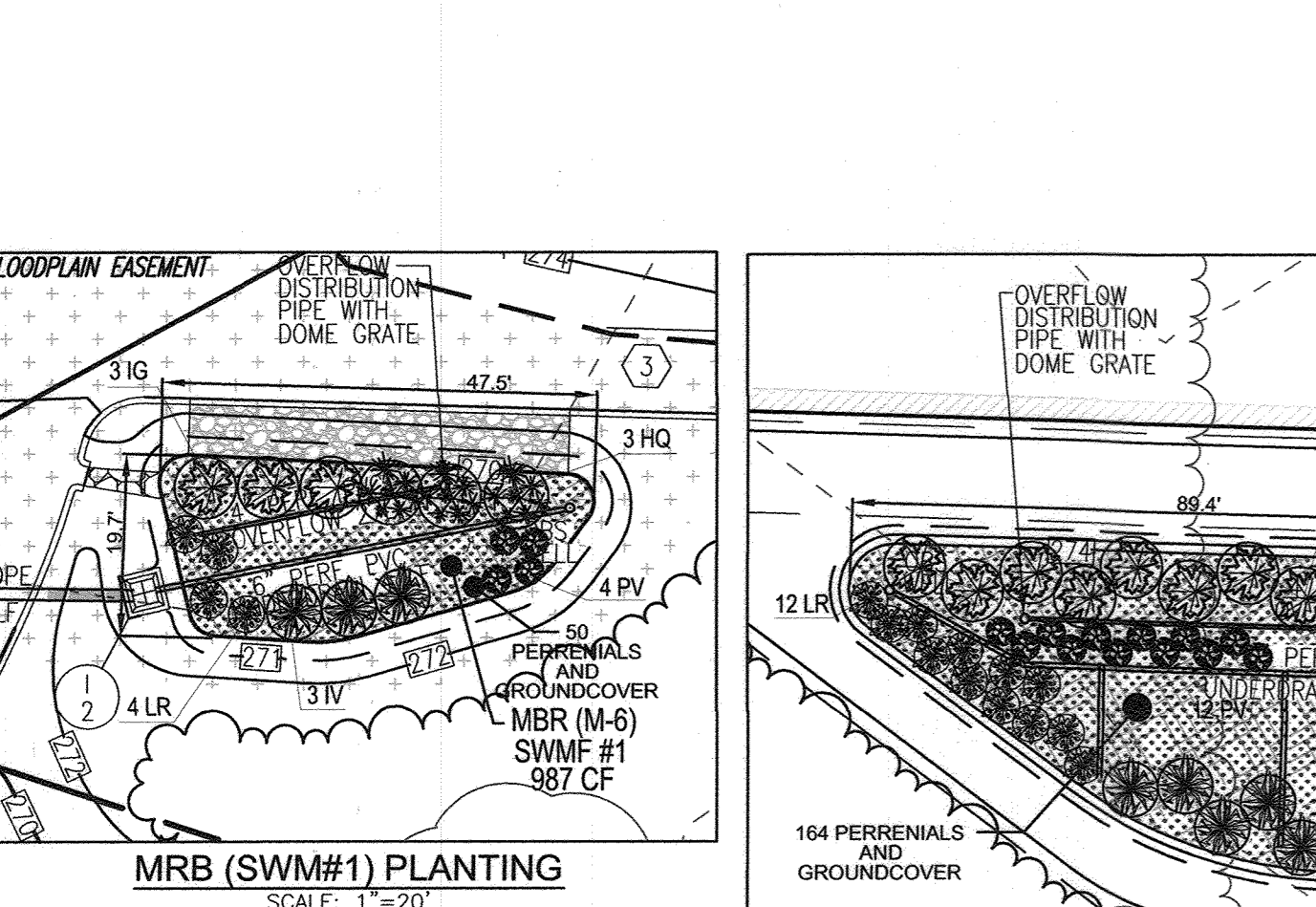
7. MISCELLANEOUS
 THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

SOILS LEGEND
 HOWARD COUNTY SOILS MAP #24

SYMBOL	NAME / DESCRIPTION	GROUP	K FACTOR	ERODIBLE	ACREAGE
GMB	GLENNVILLE-BALLS SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	0.43	YES	1.32
U1B	URBAN LAND - URBAN/INDUSTRIAL COMPLEX, 0 TO 8 PERCENT SLOPES	D	0.28	NO	1.44



SOILS NOTE:
 HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.



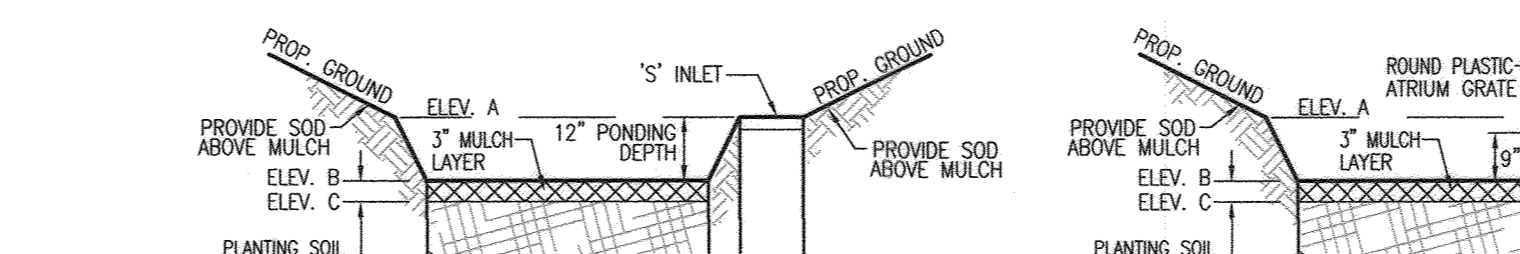
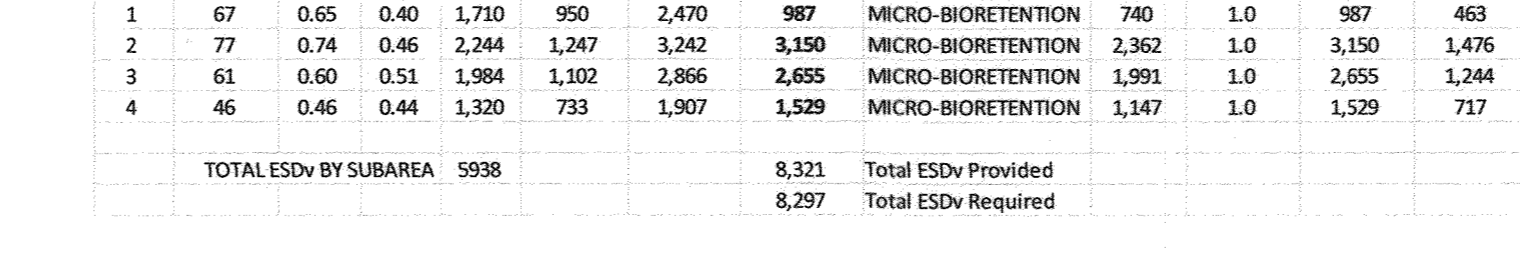
BIORETENTION PLANTING SCHEDULE (SHRUB/ORNAMENTAL GRASSES)

LEGEND	QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
IG	21	ILEX GLABRA 'SHAMROCK' / INKBERRY HOLLEY	1 GALLON	
IV	31	ITEA VIRGINICA 'HENRY'S GARNETT' / VIRGINIA SWEETSPICE	1 GALLON	
HQ	31	HYDRANGEA QUERCIFOLIA / OAKLEAF HYDRANGEA	1 GALLON	
LR	32	LEUCOTHED RACEMOSA / FETTERBUSH	1 GAL.	
PV	32	PANICUM VIRGATUM SWITCHGRASS	1 GAL.	

BIORETENTION PERENNIALS/GROUND COVER PLANTING SCHEDULE

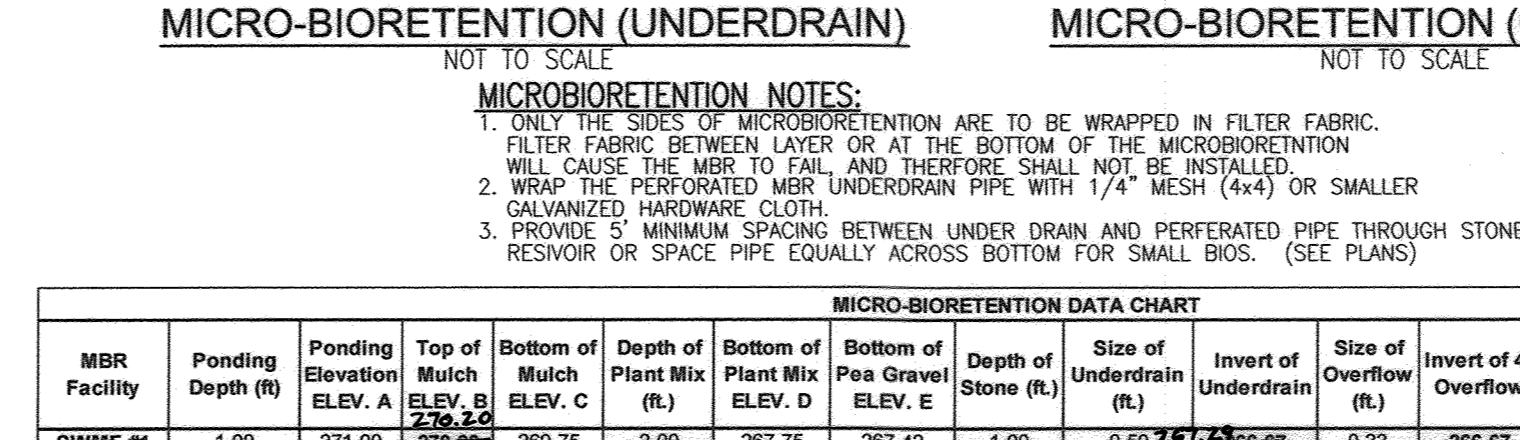
LEGEND	QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
	216	BAPTISIA AUSTRALIS FALSE INDIGO	4" POT	12"-15" O.C. FOR SIDES AND BOTTOM OF MBR. MIX ALL VARIETIES IN A NATURALIZED RANDOM PATTERN THROUGHOUT PLANT IN GROUPS OF NO LESS THAN 9 PLANTS PER CLUMP
	216	ACORUS GRAMINEUS 'OGON' GOLDEN VARIEGATED SWEET FLAG	1 OT.	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 8-20-18
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 8-29-18
 DIRECTOR



MICRO-BIORETENTION DATA CHART

MBR Facility	Ponding Depth (ft)	Ponding Match ELEV. D	Top of Match ELEV. B	Bottom of Match ELEV. C	Depth of Plant Mix ELEV. D	Bottom of Plant Mix ELEV. E	Depth of Pea Gravel ELEV. F	Size of Underdrain (ft)	Invert of Underdrain	Size of Overflow (ft)	Invert of Overflow	Bottom of Stone ELEV. F	Depth of REV Stone (ft)	Bottom of REV Stone ELEV. G
SWMF #1	1.00	271.00	269.75	2.00	267.75	267.42	1.00	0.50	270.92	0.33	266.67	266.34	0.83	265.50
SWMF #2	1.00	275.00	273.75	2.50	271.25	270.92	1.00	0.50	270.92	0.33	270.59	269.92	0.83	269.09
SWMF #3	1.00	275.00	273.75	2.50	271.25	270.92	1.00	0.50	270.92	0.33	270.59	269.92	0.83	269.09
SWMF #4	1.00	275.00	273.75	2.50	271.25	270.92	1.00	0.50	270.92	0.33	270.59	269.92	0.83	269.09



ENVIRONMENTAL SITE DESIGN PRACTICE

DRAINAGE AREA #	AREA TREATED	FACILITY NUMBER	PERMEABLE PAVEMENT	LANDSCAPE INFILTRATION	PERVIOUS SWALE	GRASS TRENCH	MICRO BIO RETENTION	ESDv VOLUME
1	17,464	SWMF1	0	0	0	0	0	987
		SUBTOTAL	0	0	0	0	0	987
2	20,144	SWMF2	0	0	0	0	0	3,150
		SUBTOTAL	0	0	0	0	0	3,150
3	22,113	SWMF3	0	0	0	0	0	2,655
		SUBTOTAL	0	0	0	0	0	2,655
4	19,146	SWMF4	0	0	0	0	0	1,529
		SUBTOTAL	0	0	0	0	0	1,529
TOTALS:								8,321

AS-BUILT CERTIFICATION FOR PSWM

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

DATE: 11-24-20
 NAME: [Signature]
 PROFESSIONAL ENGINEER

REVISIONS

NO.	REVISION	DATE
1	REVISE PLAN TO RAISE THE BUILDING UP ONE FOOT; REALIGN SEWER TO AVOID BGE LINE, REVISE ASSOCIATED UTILITIES.	06-06-18

REVISED SITE DEVELOPMENT PLAN

STORMWATER MANAGEMENT DRAINAGE AREA MAP; SWM DETAILS

GUILFORD SELF STORAGE SELF-STORAGE FACILITY
 9201 OLD GUILFORD ROAD
 ZONED: M-1
 L12349/F421
 HOWARD COUNTY, MARYLAND

TAX MAP 42 GRID 15
 6TH ELECTION DISTRICT

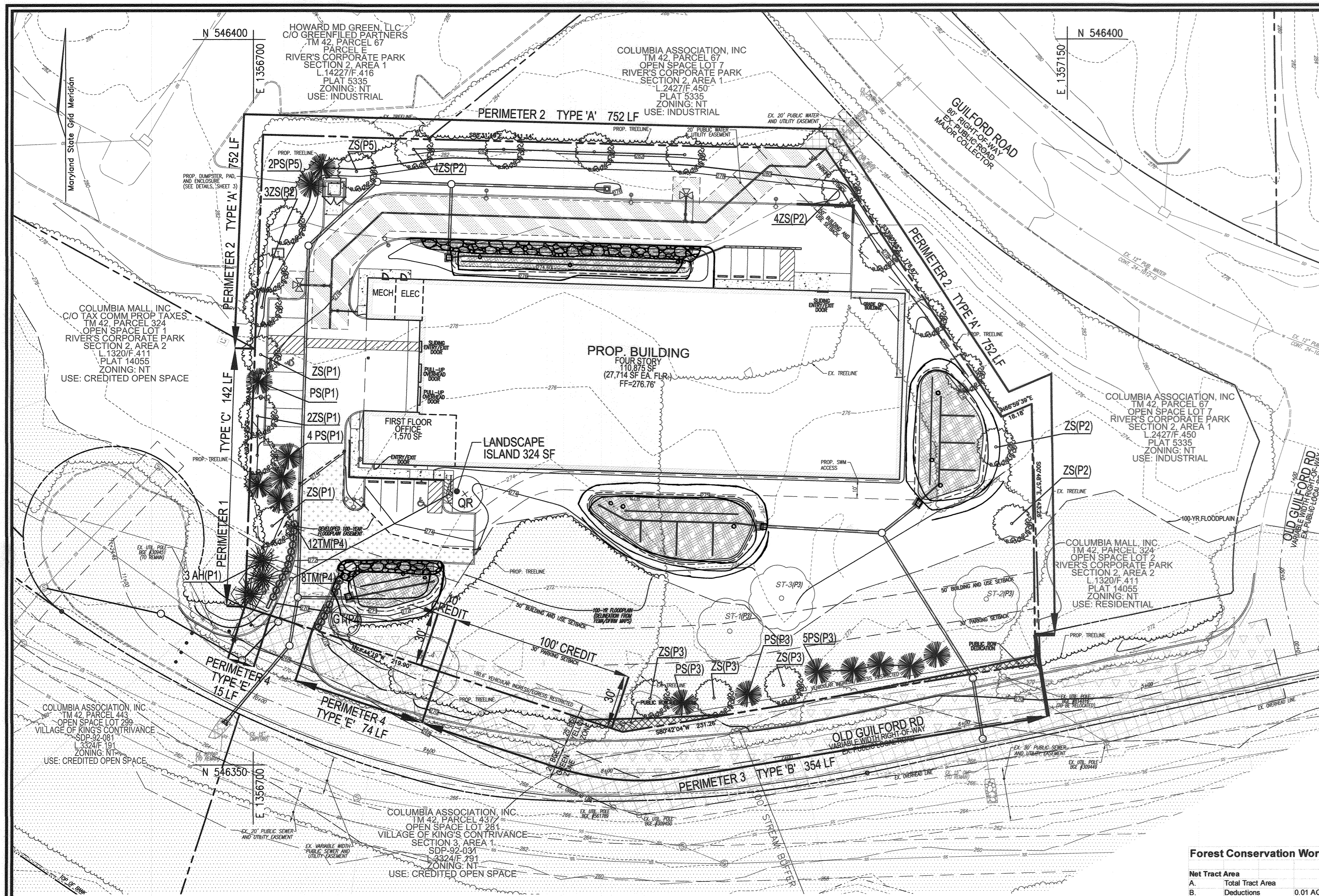
ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELICOTT CITY, MD 21043
 TEL: 410.461.7966
 FAX: 410.461.9961

DESIGN BY: RHW/DZE
 DRAWN BY: DZE/KG
 CHECKED BY: RHW
 DATE: JULY 2018
 SCALE: AS SHOWN
 W.O. NO.: 16-06

1. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 06-27-2018.

7 SHEET OF 8

AS-BUILT JANUARY, 2020 SDP-17-044



SCHEDULE 'B'
PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	19
NUMBER OF TREES REQUIRED (1/20 SPACES)	1
NUMBER OF TREES PROVIDED	1
SHADE TREES	1
OTHER TREES (2:1 SUBSTITUTION)	-
SHRUBS (10:1 SUBSTITUTION)	-

SCHEDULE 'A'
PERIMETER LANDSCAPE EDGE

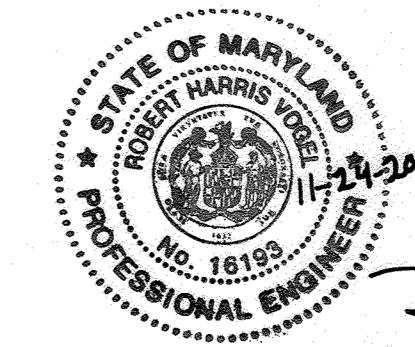
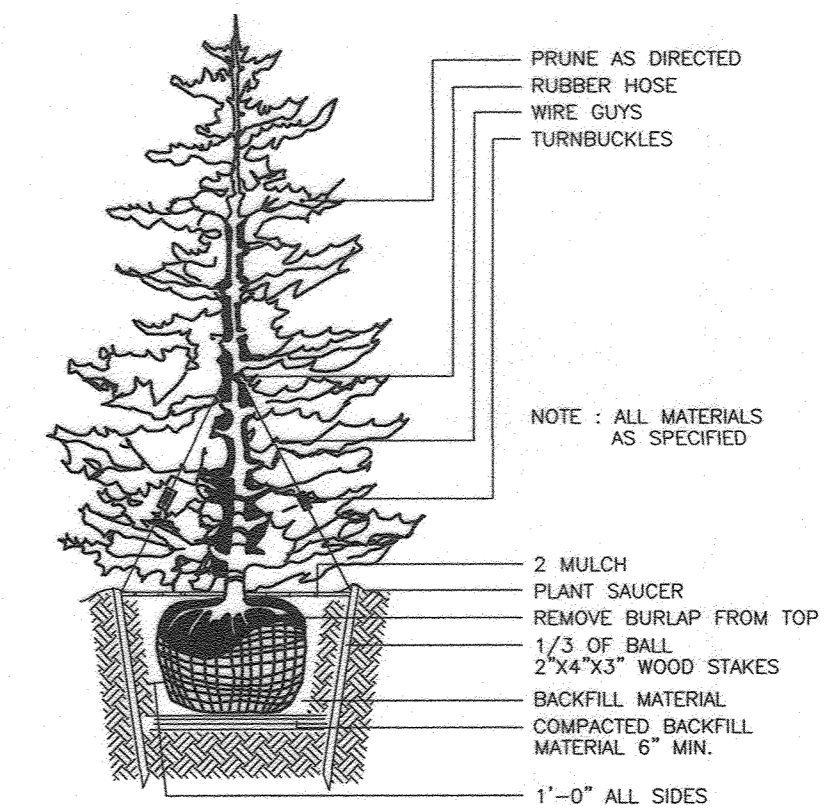
CATEGORY	ADJACENT TO PERIMETER PROPERTIES AND ROADWAYS					AMOUNT TO NUMBER
	1	2	3	4	5	
PERIMETER/FRONTAGE DESIGNATION	C	A	B	E	C	
LINEAR FEET OF ROADWAY	142	752	354	89	35	
FRONTAGE/PERIMETER						
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	YES 10' 3 TREES	YES NO	NO	
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	
NUMBER OF PLANTS REQUIRED	1:40 4	1:50 13	25:4 79	1:40 2	1:40 1	26
SHADE TREES	1:20 8	-	1:40 7	1:20 2	-	20
EVERGREEN TREES	-	-	-	-	-	-
SHRUBS	-	-	-	-	-	-
NUMBER OF PLANTS PROVIDED	4	13	3*	2**	1	23
SHADE TREES	8	-	7	-	2	17
OTHER TREES (2:1 SUBSTITUTION)	-	-	-	-	-	-
SHRUBS (10:1 SUBSTITUTION)	-	-	-	-	-	-
DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	-	-	-	-	-	20

LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	CAT
QR	1	QUERCUS RUBRA NORTHERN RED OAK	2 1/2"-3" CAL.	B & B
ZS	22	ZELKOVA SERBATA VILAGE GREEN VILAGE GREEN JAPANESE ZELKOVA	2 1/2"-3" CAL.	B & B
GT	1	GLEDETISIA TRACANTHOS F. BERMIS 'IMPOOLE' IMPERIAL HONEY LOCUST (BGE ZONE)	1.5"-2" CAL.	B & B
PS	14	PRUNUS SIBIRICA EASTERN WHITE PINE	6"-8" HT.	B & B
AH	3	AMERICAN HOLLY (BGE ZONE)	5"-6" HT.	B & B
TM	20	TAXIS MEDIA 'DENSIFORMIS' DENSIFORMIS YEW	2 1/2"-3" HT.	B & B

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED CURB AND GUTTER
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING SPECIMEN TREE
- EXISTING CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING FENCE
- PROPOSED STORMDRAIN
- PROPOSED STORMDRAIN INLET
- PROPOSED CURB
- PROPOSED SIDEWALK
- MICRO-BIORETENTION
- LIMITS OF FLOODPLAIN
- PROPOSED PUBLIC WATER & UTILITY EASEMENT
- SOILS BOUNDARY
- ZONING LINE
- PUBLIC ROW DEDICATION
- EX. 20' PUBLIC WATER AND UTILITY EASEMENT
- PROPOSED SHADE TREE
- PROPOSED EVERGREEN TREE
- PROPOSED SHRUB
- LANDSCAPE PERIMETER
- BGE "GREEN ZONE" TREE HEIGHT LIMITED (TREE HEIGHT 25' MAX.)
- BGE "YELLOW ZONE" TREE HEIGHT LIMITED (TREE HT. LIMITED BY DISTANCE)
- 250 (LED) STREET LIGHT 30' FIBERGLASS POLE WITH 12' ARM SITE LIGHTING (LED)



AS-BUILT CERTIFICATION FOR PSWM

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

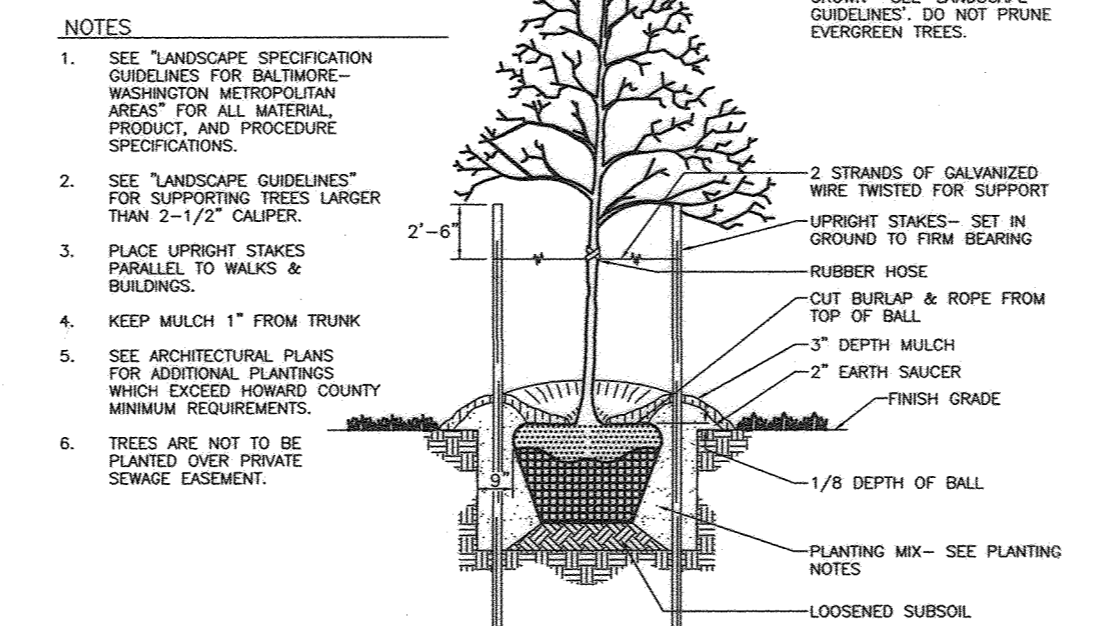
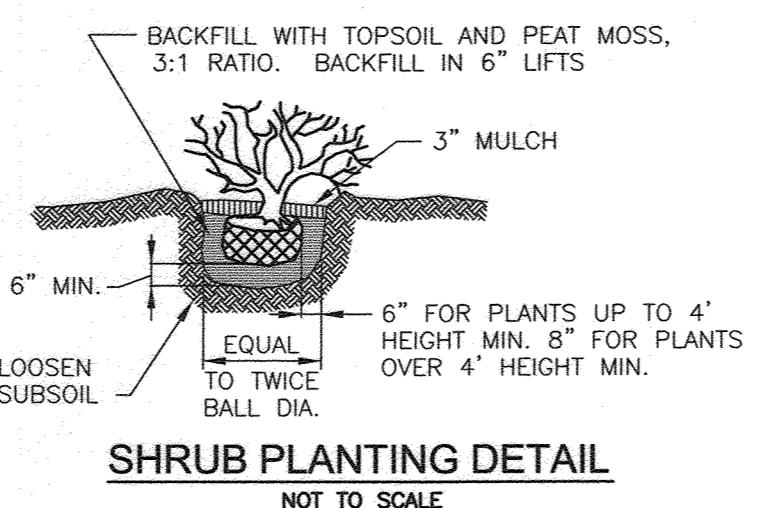
DATE: 11-24-20
P.E. NAME: [Signature]
OWNER/DEVELOPER: 9201 GUILFORD PROPERTIES LLC, 2711 MOORES VALLEY DR, BALTIMORE, MD 21209, C/O EUGENE POVERNI (410) 861-2408

GENERAL NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. THE REQUIRED PARKING AND PERIMETER TREES AND PERIMETER LANDSCAPING WILL BE BONDED PER THIS SUBMISSION.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSSED AS PART OF THE DEVELOPER'S AGREEMENT FOR THIS SITE DEVELOPMENT PLAN IN THE AMOUNT OF \$10,950.00 FOR THE REQUIRED 26 SHADE TREES, 17 EVERGREEN TREES, AND 20 SHRUBS.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. DEVELOPMENT OR CONSTRUCTION OF THE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION, OR BUILDING AND GRADING PERMITS.
- THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- NO LANDSCAPING TO BE INSTALLED WITH ANY PUBLIC EASEMENT FOR WATER, SEWER, OR STORMDRAIN.
- ANY EXISTING STREET TREES DAMAGED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR.
- LANDSCAPING IS NOT PERMITTED WITHIN 7.5' ON EACH SIDE OF THE FIRE DEPARTMENT CONNECTION. PROVIDE A CLEAR, UNOBSTRUCTED ACCESS PATH TO THE FIRE DEPARTMENT CONNECTION. NFPA-1 13.1.4

LANDSCAPE NOTES

- AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN WILL RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
- 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.
- SHOULD ANY TREE DESIGNATED FOR PRESERVATION FOR WHICH LANDSCAPING CREDIT IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD, AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE HOWARD COUNTY LANDSCAPE MANUAL.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS.
- TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO DIGGING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.



Forest Conservation Worksheet 2.2

Net Tract Area						
A. Total Tract Area						A = 2.73
B. Deductions	0.01 AC. ROW DED & 0.56 FLOODPLAIN					B = 0.57
C. Net Tract Area						C = 2.16
Land Use Category	Input the number "1" under the appropriate land use zoning, and limit to only one entry					
	ARA	MDR	IDA	HDR	MPD	CIA
	0	0	0	0	0	1
D. Afforestation Threshold (Net Tract Area x 15%)						D = 0.32
E. Conservation Threshold (Net Tract Area x 15%)						E = 0.32
Existing Forest Cover	Area of Forest Cover within the Net Tract Area					
F. Existing Forest Cover within the Net Tract Area						F = 1.67
G. Area of Forest Above Conservation Threshold						G = 1.35
Break Even Point	Area of Forest to be Retained					
H. Break Even Point						H = 0.59
I. Forest Clearing Permitted Without Mitigation						I = 1.08
Proposed Forest Clearing	Total Area of Forest to be Cleared					
J. Total Area of Forest to be Cleared						J = 1.67
K. Total Area of Forest to be Retained						K = 0.00
Planting Requirements	Reforestation for Clearing Above the Conservation Threshold					
L. Reforestation for Clearing Above the Conservation Threshold						L = 0.34
M. Reforestation for Clearing Below the Conservation Threshold						M = 0.65
N. Credit for Retention above the Conservation Threshold						N = 0.00
P. Total Reforestation Required						P = 0.98
Q. Total Afforestation Required						Q = 0.00
R. Total Planting Requirement						R = 0.98

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 8-20-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 8-29-18
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 8-29-18
DIRECTOR DATE

DEVELOPER'S/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 CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

[Signature] 07/17/2018
SIGNATURE OF DEVELOPER DATE

REVISED SITE DEVELOPMENT PLAN

LANDSCAPE AND FOREST CONSERVATION PLAN

GUILFORD SELF STORAGE SELF-STORAGE FACILITY
9201 OLD GUILFORD ROAD
ZONED: M-1
L12349/F 421

TAX MAP 42 GRID 15
6TH ELECTION DISTRICT

PARCEL 28
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET, ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.5961

DESIGN BY: RHW/DZE
DRAWN BY: DZE/KG
CHECKED BY: RHW
DATE: JULY 2018
SCALE: AS SHOWN
W.O. NO.: 16-06

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. MY LICENSE NO. IS 16193. EXPIRATION DATE: 09-29-2023

8 SHEET OF 8

AS-BUILT JANUARY, 2020