

SITE ANALYSIS

PROJECT BACKGROUND:
 LOCATION: ELLICOTT CITY, MD.; TAX MAP 24, BLOCK 4, PARCEL 77
 1ST ELECTION DISTRICT
 PRESENT ZONING: B-1
 SUBDIVISION: ARCADIA SQUARE
 DPZ REFERENCES: L1551/F.89, PLAT 15803, SDP-02-113, ZB-1044M, ZB-1094, ECP-13-034, *PLAT 22915*

SITE ANALYSIS:
 AREA OF SITE: 155,248 SF (3.564 AC.)
 AREA OF WETLANDS AND BUFFERS: 74,052 SF (1.70 AC.)
 AREA OF STREAMS AND BUFFERS: 47,916 SF (1.10 AC.)
 AREA OF 100 YEAR FLOODPLAIN: 43,174 SF (0.99 AC.)
 AREA OF EXISTING FOREST: 97,574 SF (2.24 AC.)
 AREA OF STEEP SLOPES (25% OR GREATER): 0 SF (0.00 AC.)
 AREA OF ERODIBLE SOILS: 0 SF (0.00 AC.)
 LIMIT OF DISTURBED AREA: 69,233 SF (1.58 AC.)
 GREEN OPEN AREA: 116,291 SF (2.67 AC.)
 AREA TO BE ROOFED OR PAVED: 38,957 SF (0.89 AC.)
 PROPOSED SITE USE: RESTAURANT, 5,000 SF (0.11 AC.)
 RETAIL 2,000 SF (0.05 AC.)
 TOTAL BUILDING COVERAGE: 7,142 SF (0.16 AC.) (4.51% OF SITE)
 AREA OF LANDSCAPE ISLAND: 1,321 SF (0.03 AC.) (0.85% OF SITE)
 AREA MANAGED BY ESD (THIS PLAN) 65,776 SF (1.51 AC.)
 IMPERVIOUS AREA: 42,253 SF (0.97 AC.)
 *GREEN AREA: 23,522 SF (0.54 AC.)
 CUT: 2833 CY FILL: 2143 CY

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE. ALL WORK AND MATERIALS SHALL COMPLY WITH O.S.H.A. STANDARDS.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
 MISS UTILITY 1-800-257-7777
 VERIZON TELEPHONE COMPANY 1-410-854-9281
 HOWARD COUNTY BUREAU OF UTILITIES 410-313-2366
 AT&T CABLE LOCATION DIVISION 1-800-363-3553
 B.G.E. CO. CONTRACTOR SERVICES 410-850-4620
 B.G.E. CO. UNDERGROUND DAMAGE CONTROL 410-787-4620
 STATE HIGHWAY ADMINISTRATION 410-531-5533
- 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.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM CONTROL DEVICES. ALL STREET AND REGULATORY SIGNING SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL PERFORATED (QUICK PUNCH) SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 5' 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.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHIC INFORMATION FROM HOWARD COUNTY GIS, COUNTY RECORDS, AND UTILITIES FROM PREVIOUSLY APPROVED SDP-02-113 AND CONTRACT DRAWINGS.
- THE PROPERTY LINES SHOWN HEREON IS BASED ON RECORD PLAT 15803.
- THE SUBJECT PROPERTY IS ZONED B-1 IN ACCORDANCE WITH THE 10/06/13 COMPREHENSIVE ZONING PLAN.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS 2484 AND 2485 WERE USED FOR THIS PROJECT.
- PUBLIC WATER AVAILABLE THROUGH CONTRACT NO. 113-W.
 PUBLIC SEWER AVAILABLE THROUGH CONTRACT NO. 24-4012-D AND 125-S.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS 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.
- STORMWATER MANAGEMENT FOR THIS PROJECT IS AN ENVIRONMENTAL SITE DESIGN UTILIZING MICRO-BREENTRATION FACILITIES AND PERMEABLE PAVEMENT (A-2) TO ACCOMMODATE THE TOTAL ESD VOLUME REQUIRED. SWM FACILITIES TO BE PRIVATELY OWNED AND MAINTAINED.
- THE LOOR FLOORING SHOWN PER THE CURRENT DIGITAL FLOOD INSURANCE RATE MAP APPROVED BY FEMA AND EFFECTIVE FOR COUNTY DEVELOPMENT RESTRICTIONS AS OF 05/06/13. EFFECTIVE FOR FLOOD INSURANCE REQUIREMENTS AS OF 11/06/13.
- THIS DRAWING SHOWS WETLANDS, STREAMS, BUFFERS, AND PREVIOUSLY APPROVED UNDER SDP-02-113. RE-CERTIFICATION OF WETLAND AND STREAM PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., DATED 01/31/13.
- THE FOREST STAND DELINEATION PREVIOUSLY PROVIDED UNDER SDP-02-113.
- THERE ARE NO STEEP SLOPES ON THIS SITE.
- BUILDINGS TO HAVE INSIDE WATER METER SETTINGS.
- THE PROPOSED BUILDINGS WILL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
- LANDSCAPING 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. NEPA-1 13.1.4
- A KNOX BOX IS REQUIRED TO BE PLACED ON THE FRONT OF THE BUILDING. SHALL BE PLACED TO THE RIGHT OF THE MAIN ENTRANCE AT A RANGE OF 4'-5" IN HEIGHT AND NO MORE THAN 6' LATERALLY FROM THE DOOR. ITS LOCATION IS SHOWN IN THESE PLANS. THE BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSSED (INTEGRATED WITH THE FIRE ALARM SYSTEM).
- FIRE LINES SHOULD BE PROVIDED ON 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.
- 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.
- 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.
- THE FOREST CONSERVATION OBLIGATION FOR THIS PROJECT HAS BEEN PREVIOUSLY SATISFIED UNDER SDP-02-113 WITH THE RETENTION OF 1.9 ACRES (0.9 CREDITED AND 1.0 NON-CREDITED) WHICH MEETS OR EXCEEDS THE BREAK-EVEN POINT OBLIGATION OF 0.9 ACRES FOR THIS SITE. A FOREST CONSERVATION SURETY IN THE AMOUNT OF \$7,841.00 WAS POSTED FOR THE RETENTION (PLAT 15803). THIS PLAN ABANDONS 0.05 ACRES OF THE EXISTING FOREST CONSERVATION RETENTION EASEMENT AND PROPOSES 0.06 ACRES OF RETENTION WITHIN A NEW FOREST CONSERVATION EASEMENT. NO ADDITIONAL SURETY IS REQUIRED.
- THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
- NO BARK THREATENED SPECIES WERE OBSERVED ON THE PROPERTY.
- THERE ARE NO SPECIMEN OR CHAMPION TREES WITHIN THE LOD.
- SEDMENT AND EROSION CONTROL WILL BE PROVIDED FOR THIS SITE.
- BALTIMORE NATIONAL PIKE IS NOT A SCENIC ROAD.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- ESTIMATES OF GARDENING 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 SOILS TO BE USED PRIOR TO CONSTRUCTION.
- THE GEOTECHNICAL ENGINEER TO CONFIRM PAVING SECTION PRIOR TO CONSTRUCTION. ALL PAVING TO BE MINIMUM HOWARD COUNTY STANDARD DETAIL P-2 UNLESS OTHERWISE NOTED.
- ALL CURB AND GUTTER TO BE HOWARD COUNTY STANDARD DETAIL R-3.01 UNLESS OTHERWISE NOTED.
- CONTRACTOR RESPONSIBLE TO CONSTRUCT ALL HANDICAP RAMPS AND HANDICAP ACCESS IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
- WHERE DRAINAGE FLOWS AWAY FROM CURB, CONTRACTOR TO REVERSE THE GUTTER PAN.
- ALL ELEVATIONS ARE TO FLOWLINE/BOTTOM OF CURB UNLESS OTHERWISE NOTED.
- ALL EXTERIOR LIGHTING REQUIREMENTS FOUND IN ZONING SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS. (DETAIL ON SHEET 3)
- ZONING LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME III (DETAIL ON SHEET 3) AND GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993).
- A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY TREE.
- ANY EXISTING STREET DESTROYED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY FOR THE LANDSCAPING IN THE AMOUNT OF \$9,900.00 FOR THE REQUIRED 19 SHADE TREES, 15 EVERGREENS, AND 5 SHRUBS SHALL BE POSTED WITH THE DEVELOPERS AGREEMENT FOR THIS SITE DEVELOPMENT PLAN.
- ALL STORM DRAIN PIPE BEDDING IS TO BE CLASS "C".
- TRASH AND RECYCLING COLLECTION TO BE PRIVATE.
- SOILAGE SHALL BE PROVIDED ON THE BUILDING IDENTIFYING THE BUILDING ADDRESS, AND EACH SUITE SEPARATED BY LETTER.
- THIS PLAN IS SUBJECT TO ZB-1094, A ZONING PETITION TO AMEND THE ZONING MAP OF HOWARD COUNTY TO RECLASSIFY THIS PARCEL FROM R-20 (RESIDENTIAL: SINGLE) DISTRICT TO B-1 (BUSINESS: LOCAL), GRANTED ON 03-19-2012.
- THE PROPOSED DISTURBANCE TO THE 100-YEAR FLOODPLAIN AND THE WETLAND BUFFER IS CONSIDERED A NECESSARY DISTURBANCE IN ACCORDANCE WITH SECTION 16.116(C) FOR THE CONSTRUCTION OF THE SHOWN STORM DRAIN, WHICH PROVIDES OUTFALL FOR THE ON-SITE STORMWATER MANAGEMENT FACILITIES AND STORM DRAIN. THE INTENT OF THE DESIGN IS TO EXTEND THE OUTFALL TO BE CLOSER TO THE STREAM, THEREFORE MINIMIZING THE POTENTIAL FOR FUTURE EROSION. THE EXISTING SITE GRADINGS DO NOT PROVIDE ENOUGH VERTICAL GRADE CHANGE IN ORDER TO PROPERLY OUTFALL THE FACILITIES. SEDIMENT CONTROL WILL BE PROVIDED FOR ALL CONSTRUCTION ACTIVITY.
- PERMITS DEPARTMENT APPROVAL OF THIS SITE DEVELOPMENT PLAN (SDP) DOES NOT ENSURE APPROVAL OF BUILDING PERMIT APPLICATIONS ASSOCIATED WITH THIS PLAN. PERMIT PLANS FOR CERTAIN FACILITIES TO BE CONSTRUCTED WITHIN THE LIMITS DESCRIBED BY THIS SDP WILL REQUIRE REVIEW AND APPROVAL BY THE HEALTH DEPARTMENT. SUCH FACILITIES MAY INCLUDE, BUT ARE NOT LIMITED TO, THOSE WHICH HAVE SWIMMING POOLS, OR THAT SELL PREPARED OR PACKAGED FOODS, OR THAT MAY HAVE EQUIPMENT THAT EMITS RADIATION.
- TRAFFIC IMPACT STUDY PREPARED BY TRAFFIC CONCEPTS, INC.; DATED NOVEMBER, 2012. APPROVED 11/18/2013.
- ANY WORK WITHIN THE SHA RIGHT OF WAY WILL REQUIRE A DISTRICT OFFICE PERMIT.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THIS PROJECT IS SUBJECT TO WP-14-058, APPROVED JANUARY 6, 2014; TO WAIVE SUBDIVISION SECTION 16.186(G)(1), TO ALLOW GRADING, REMOVAL OF VEGETATIVE COVER AND TREES, PAVING AND NEW STRUCTURES WITHIN 25 FEET OF A WETLAND FOR A PORTION OF A RECLAIMED LOT FOR THE PARKING LOT AREA. APPROVAL SUBJECT TO THE FOLLOWING CONDITIONS:
 A. THE PETITIONER SHALL OBTAIN STATE AUTHORIZATION OF ACTIVITIES PROPOSED IN THE WETLAND BUFFER.
 B. THE PETITIONER IS ADVISED THAT NO OBJECTION TO PROJECT OF THE WATER, THE PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF AN ACCESS PERMIT.
 C. A PARKING LOT NEARBY IS REQUIRED FOR THE EXPANSION OF THE PATIO.
- A PATIO OF NEARBY SIZE WILL BE REQUIRED FOR THE EXPANSION OF THE PATIO.
- SHA NOTICE TO CONTRACTOR:
 THE FOLLOWING STANDARDS CONSTRUCTION AND TEMPORARY TRAFFIC CONTROL ARE REQUIRED FOR THIS PROJECT:
 A) MD 104.04.01 - SHOULDER WORK/DIVIDED UNCON. GREATER THAN 40 MPH
 B) MD 374.68 - PRECAST OR CAST-IN-PLACE COGOGS OPENING FOR 8' CURBS 9' OR 10' ONLY

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 DATE: 8-14-14

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 County Health Officer
 DATE: 8/15/2014

SITE DEVELOPMENT PLAN

ARCADIA SQUARE

9525 BALTIMORE NATIONAL PIKE RESTAURANT AND RETAIL

L.1551 / F.89 (PLAT 15803)

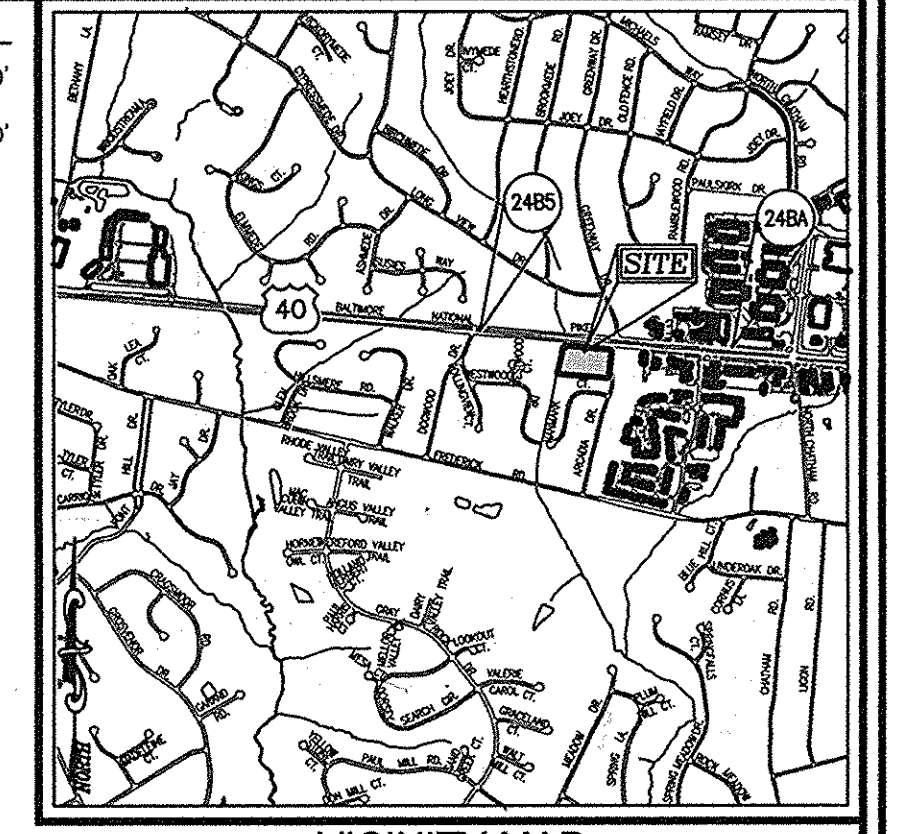
ADDRESS # 22915

BENCHMARKS

HOWARD COUNTY BENCHMARK 248A	N 586,783.2418	E 1,359,211.6588	ELEV: 385.660'
HOWARD COUNTY BENCHMARK 2485	N 586,956.2726	E 1,356,570.7844	ELEV: 390.170'

COORDINATE TABLE

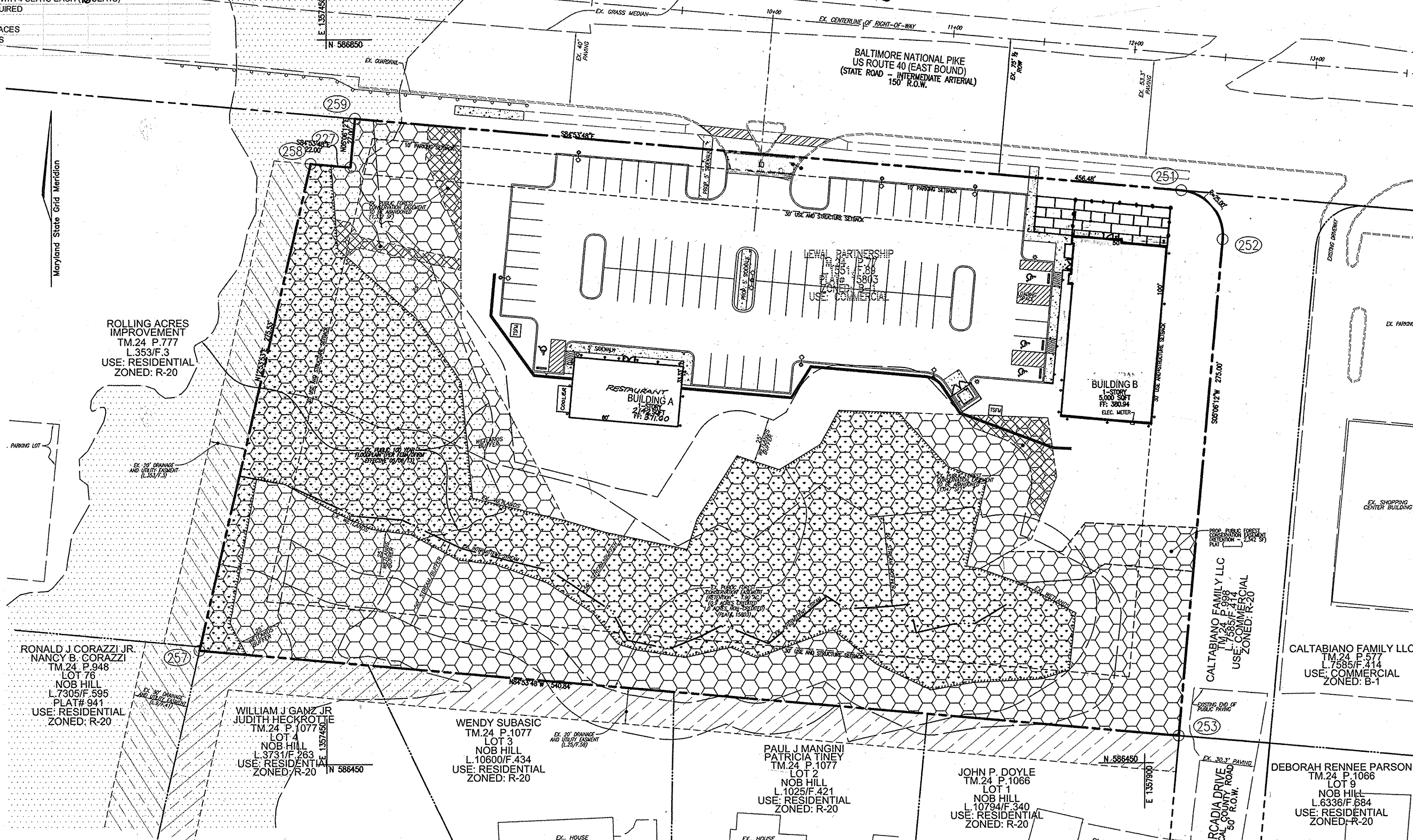
NO.	MORTH	EAST
221	586779.70	1357483.37
251	586766.01	1357920.43
252	586736.88	1357943.11
253	586464.97	1357918.85
257	586513.08	1357379.95
258	586781.66	1357441.45
259	586806.59	1357465.77



VICINITY MAP
 SCALE: 1"=2000'
 ADC MAP 11/GRID K8

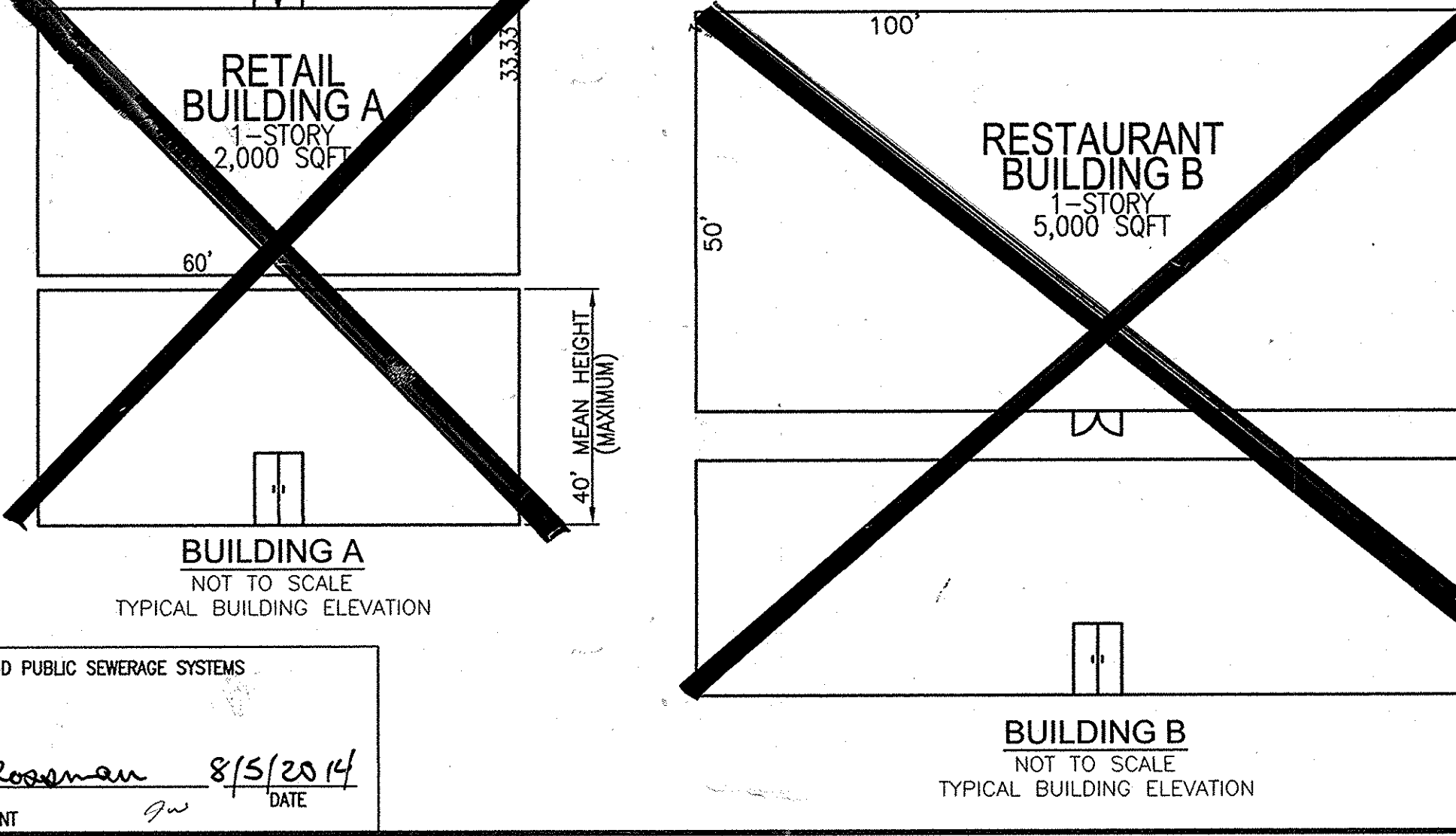
LEGEND

[Symbol]	PROPERTY LINE
[Symbol]	RIGHT-OF-WAY LINE
[Symbol]	ADJACENT PROPERTY LINE
[Symbol]	EXISTING CURB AND GUTTER
[Symbol]	PROPOSED CURB AND GUTTER
[Symbol]	PROPOSED SIDEWALK
[Symbol]	PROPOSED LANDSCAPE PAVERS
[Symbol]	PROPOSED PRIVATE LIGHTS
[Symbol]	EXISTING STREAM
[Symbol]	EXISTING STREAM BUFFER
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[Symbol]	EXISTING PUBLIC FOREST CONSERVATION EASEMENT (RETENTION PLAT # 15803)
[Symbol]	EXISTING PUBLIC FOREST CONSERVATION EASEMENT (TO BE ABANDONED)
[Symbol]	EXISTING DRAINAGE & UTILITY EASEMENTS (L. 353/F. 3) (L. 9/F. 41) (L. 25/F. 58)
[Symbol]	PROPOSED PUBLIC FOREST CONSERVATION EASEMENT (RETENTION PLAT # 15803)
[Symbol]	PROPOSED PUBLIC WATER AND UTILITY EASEMENT (PLAT # 15803)



BUILDING ELEVATION NOTE:
 1. FOR BUILDING A ELEVATION/FOOTPRINT, SEE SHEET 3.
 2. FOR BUILDING B ELEVATION/FOOTPRINT, SEE SHEET 2.

PLAN VIEW
 SCALE: 1"=40'



GENERAL NOTES (CONTINUED):
 66. THIS PROJECT IS SUBJECT TO BA-14-002A, APPROVED 6/22/14, TO REDUCE SETBACK AND USE SETBACK FROM A PUBLIC STREET RIGHT-OF-WAY FROM 20 FEET TO 10 FEET FOR AN OUTDOOR PATIO IN A B-1 (RESIDENTIAL SINGLE FAMILY) ZONING DISTRICT. APPROVAL GRANTED PROVIDED THAT:
 A. THE VARIANCE SHALL APPLY ONLY TO THE USES AND STRUCTURES DESCRIBED ON THE VARIANCE PLAN AND NOT TO ANY OTHER ACTIVITIES, USES, STRUCTURES OR ADDITIONS ON THE PROPERTY.
 B. THE PETITIONER SHALL OBTAIN ALL REQUIRED PERMITS.

PARKING TABULATION

PARKING REQUIRED	SPACES
BUILDING A (2,000 SF)	29 SPACES
BUILDING B (5,000 SF)	0 SPACES
UTILITIES (1,100 SF)	32 SPACES
BUILDING A (2,000 SF) @ 14 SPACES/1,000 SF	28 SPACES
BUILDING B (5,000 SF) @ 14 SPACES/1,000 SF	35 SPACES
UTILITIES (1,100 SF) @ 14 SPACES/1,000 SF	15 SPACES
BUILDING B RESTAURANT OUTDOOR SEATING (1,000 SF)	6 SPACES
PAVED PATIO AREA (1,536 SF)	81 SPACES
PATIO (1,099 SF)	6 SPACES
TOTAL PARKING PROVIDED	80 SPACES
LOADING SPACES PROVIDED	(INCLUDES 4 HG SPACES)
1,099 SF PATIO ACCOMMODATES 4 TABLES WITH 4 SEATS EACH	16 SEATS

ADDRESS CHART

BUILDING NO.	STREET ADDRESS
A	9535 BALTIMORE NATIONAL PIKE
B	9525 BALTIMORE NATIONAL PIKE

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NUMBER
ARCADIA SQUARE	-	PARCEL 77

PLAT OR L/F
 GRID NO. ZONING TAX MAP NO. ELECT. DIST. CENSUS TR.
 PLAT #15803 4 B-1 24 2ND 6023.06
 L.1551/F.89
 WATER CODE: F-06 SEWER CODE: 5754700

OWNER/DEVELOPER
 LEWAL PARTNERSHIP
 100 PAINTERS MILL ROAD
 SUITE 900
 OWINGS MILLS, MD 21117
 410-363-3434

NO AS-BUILT INFORMATION THIS SHEET

SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 12
SITE LAYOUT PLAN	2 OF 12
SITE DETAILS	3 OF 12
GRADING, SEDIMENT AND EROSION CONTROL PLAN; SOILS MAP	4 OF 12
SEDIMENT AND EROSION CONTROL NOTES AND DETAILS	5 OF 12
STORMWATER MANAGEMENT AND STORM DRAIN DRAINAGE AREA MAP	6 OF 12
STORM DRAIN PROFILES	7 OF 12
LANDSCAPE PLAN, NOTES AND DETAILS; FOREST CONSERVATION PLAN	8 OF 12
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RETAINING WALL PLAN AND DETAILS	10 OF 12
RETAINING WALL ELEVATIONS	11 OF 12
PHOTOMETRIC LIGHTING PLAN	12 OF 12

NO.	REVISION	DATE
1	REVISE PLAN TO MODIFY PROPOSED BUILDING USES, REVISE RETAINING WALL, MODIFY SIDEWALK, PARKING, AND WHIC AND SHC TO BUILDING A AND B	2/19/15
2	REVISE PLAN TO INCREASE PATIO SIZE	02/18/15
3	REVISE PLAN TO REMOVE PAVERS AT ENTRANCE, MODIFY USE OF BUREAU AND MINIMIZE WALL AT BLDG A	10/13/15

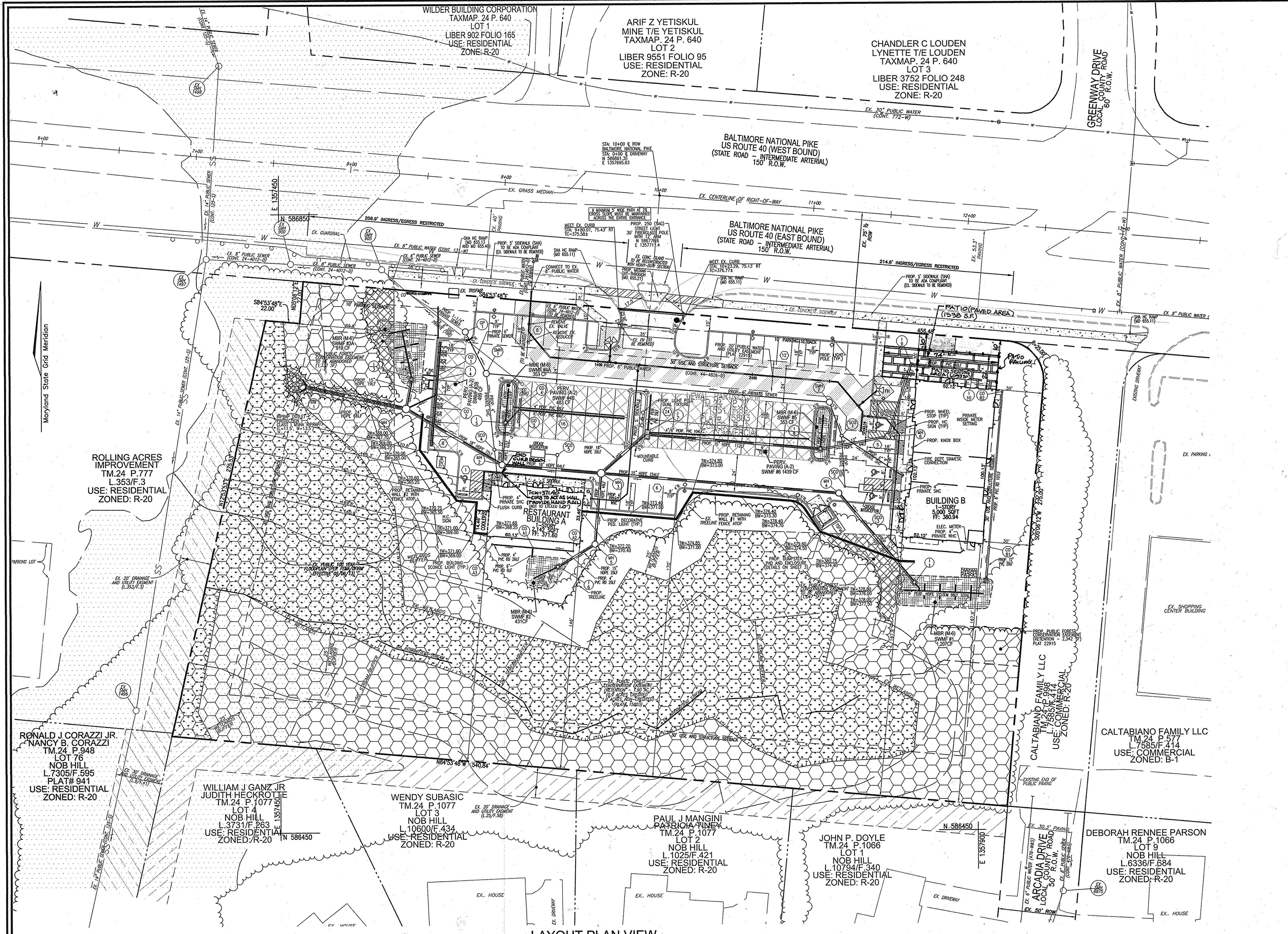
SITE DEVELOPMENT PLAN
COVER SHEET
ARCADIA SQUARE
 9525 BALTIMORE NATIONAL PIKE
 RESTAURANT AND RETAIL
 L.1551/F.89 (PLAT 15803)
 PARCEL 77
 ZONED: B-1
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.9961

PROFESSIONAL CERTIFICATE
 DESIGN BY: DZ
 DRAWN BY: DZ
 CHECKED BY: RHV
 DATE: JULY 2014
 SCALE: AS SHOWN
 W.O. NO.: 09-14

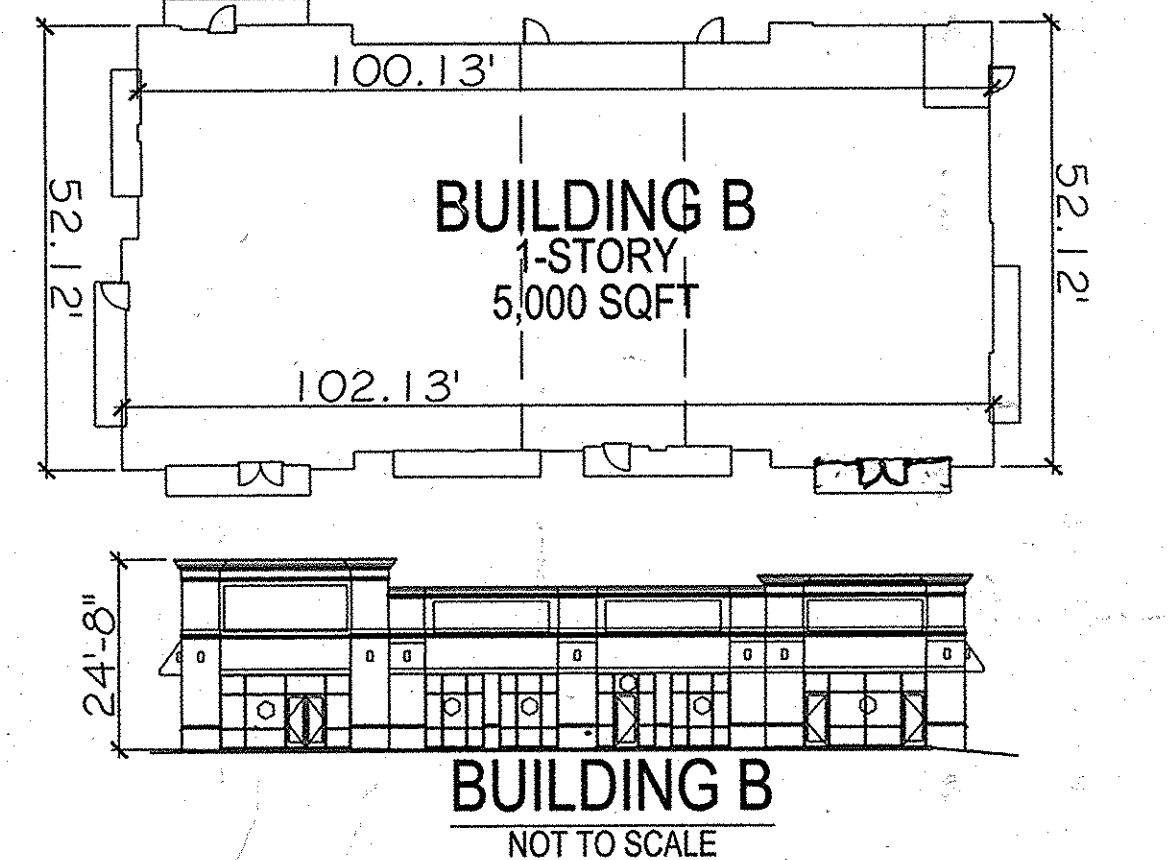
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. MY LICENSE NUMBER IS 16193. EXPIRATION DATE: 09-27-2014

1 SHEET OF 12



LEGEND

[Symbol]	PROPERTY LINE
[Symbol]	RIGHT-OF-WAY LINE
[Symbol]	ADJACENT PROPERTY LINE
[Symbol]	EXISTING CURB AND GUTTER
[Symbol]	EXISTING UTILITY POLE
[Symbol]	EXISTING LIGHT POLE
[Symbol]	EXISTING SIGN
[Symbol]	EXISTING SANITARY MANHOLE
[Symbol]	EXISTING SANITARY LINE
[Symbol]	EXISTING CLEANOUT
[Symbol]	EXISTING FIRE HYDRANT
[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING FENCE
[Symbol]	PROPOSED STORM DRAIN
[Symbol]	PROPOSED STORM DRAIN INLET
[Symbol]	PROPOSED CURB AND GUTTER
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[Symbol]	PROPOSED PERMEABLE PAVEMENT (A-2)
[Symbol]	PROPOSED MICRO BIOTRETENTION (M-6)



NO.	REVISION	DATE
3	REVISE PLAN TO REMOVE PAVERS AT ENTRANCE, MODIFY USE OF BLDG 'A' AND MINIMIZE WALL AT BUILDING 'A'	10/13/15
2	REVISE PLAN TO INCREASE SIZE OF PATIO	04/30/15
1	REVISE PLAN MODIFY PROPOSED USES, REVISE WALL, MODIFY SIDEWALK AND PARKING	01/20/14
	REVISE WHC & SHC TO BUILDINGS, ADD PATIO	

REVISED SITE DEVELOPMENT PLAN
SITE LAYOUT PLAN
ARCADIA SQUARE
9525 BALTIMORE NATIONAL PIKE
RESTAURANT AND RETAIL
L. 1551/F. 89 (PLAT 15803)

TAX MAP 24 BLOCK 4
2ND ELECTION DISTRICT
DPZ REF'S: SEE NOTES ON COVER

PARCEL 77
ZONED: B-1
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

DESIGN BY: DZ
DRAWN BY: DZ/KG
CHECKED BY: RHY
DATE: FEBRUARY 2015
SCALE: AS SHOWN
W.O. NO.: 09-14

PROFESSIONAL CERTIFICATE
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, EXPIRES DATE 09-27-2018

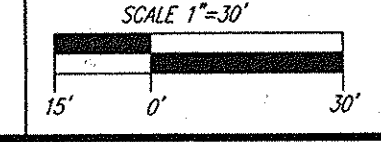
2 SHEET OF 12

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Edwards 2/27/15
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Katsuhiko 3-02-15
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mark K. Lough 3/2/15
DIRECTOR DATE

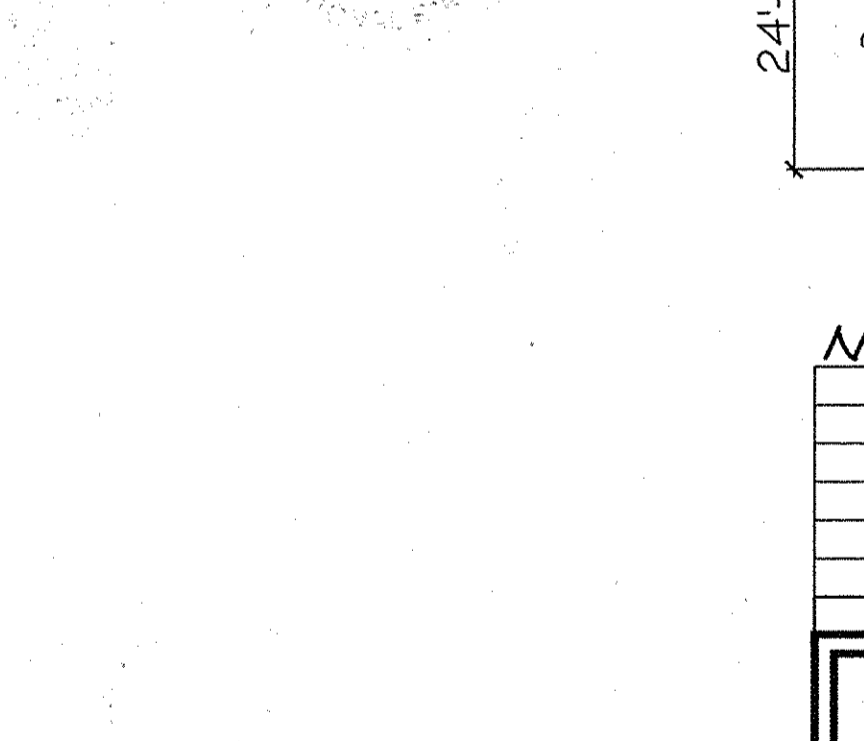
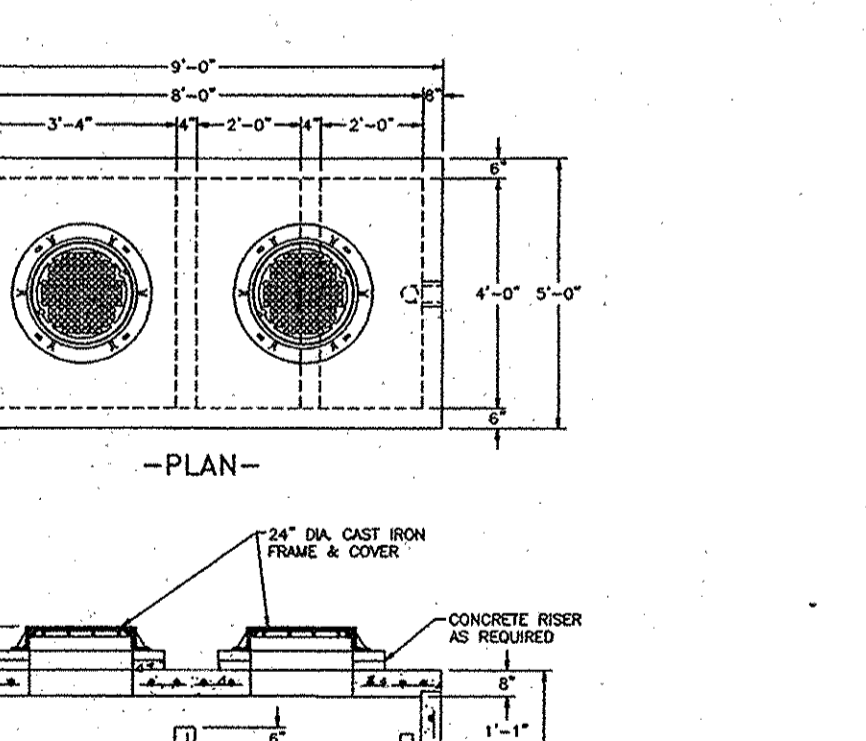
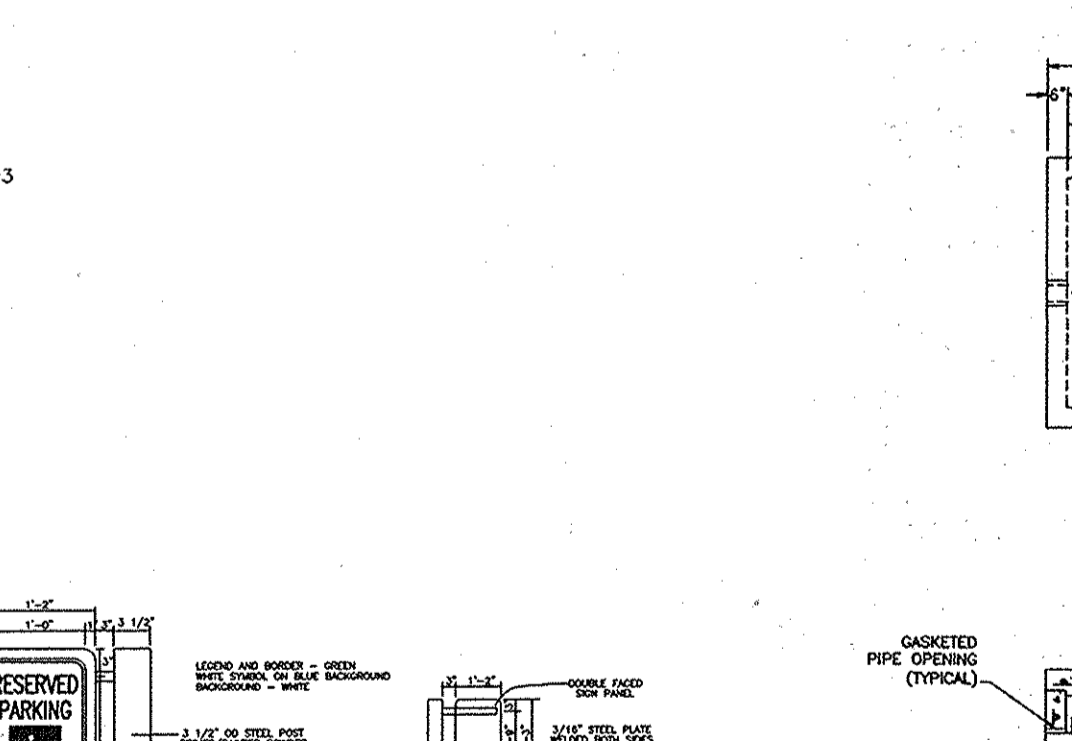
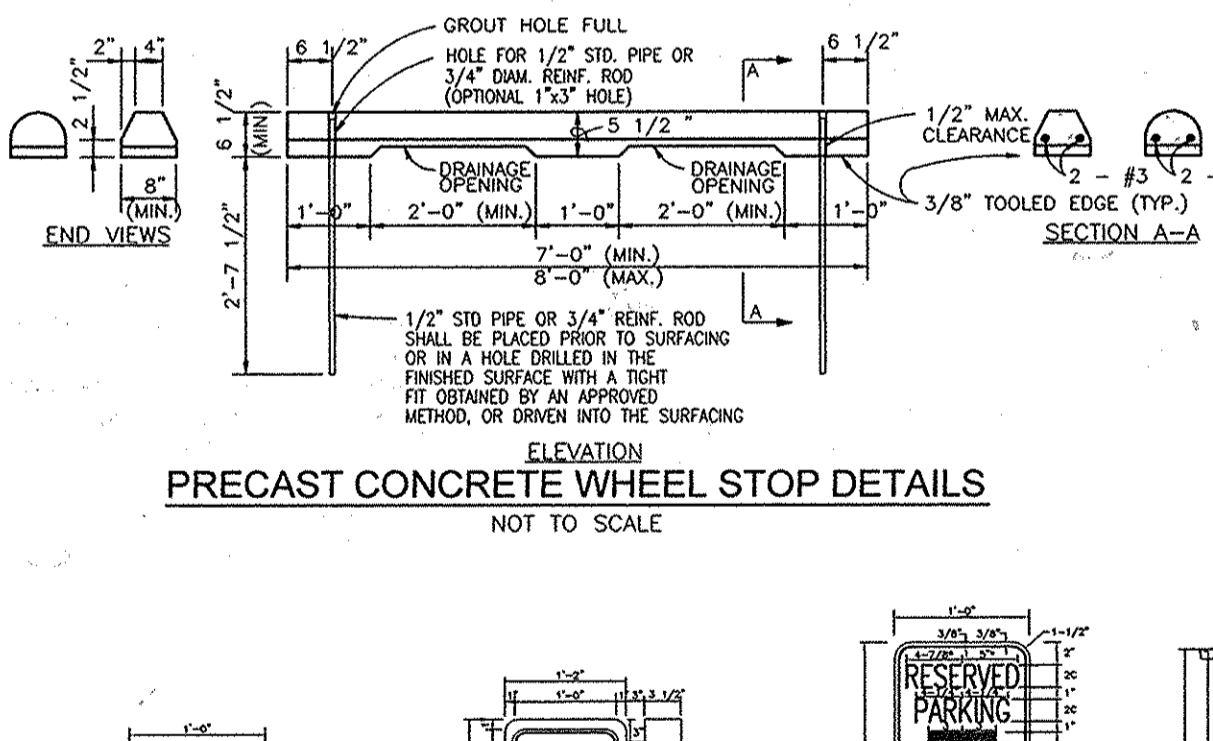
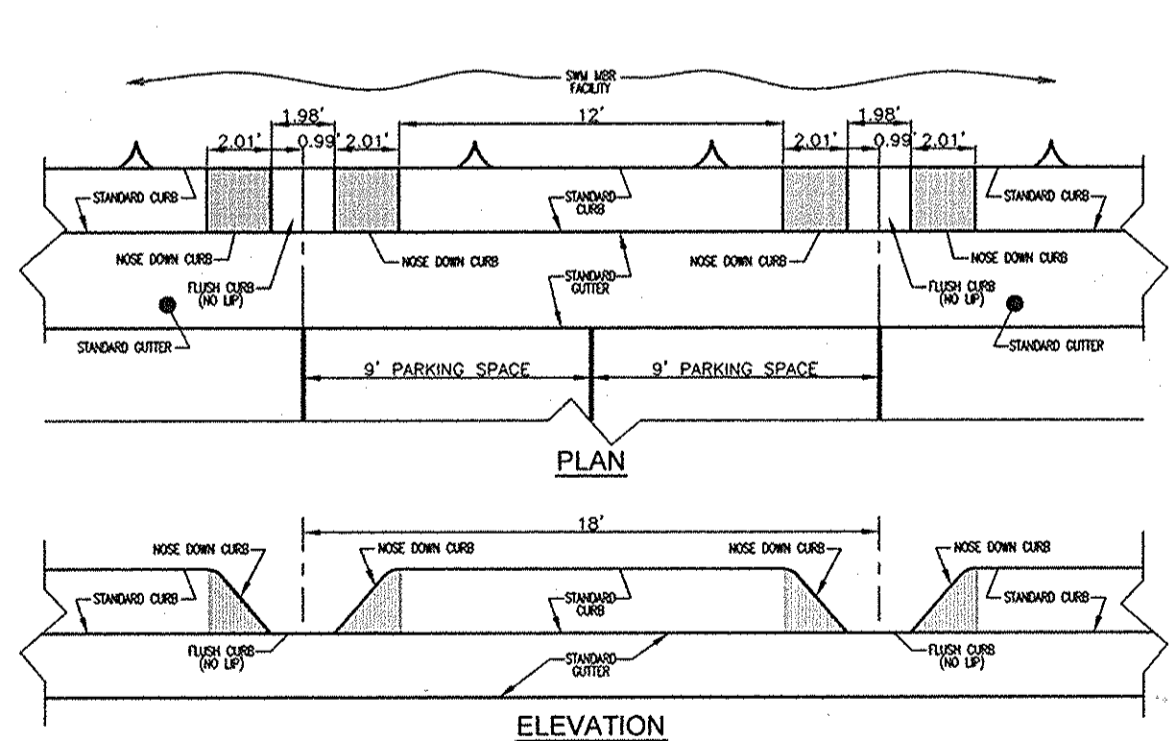
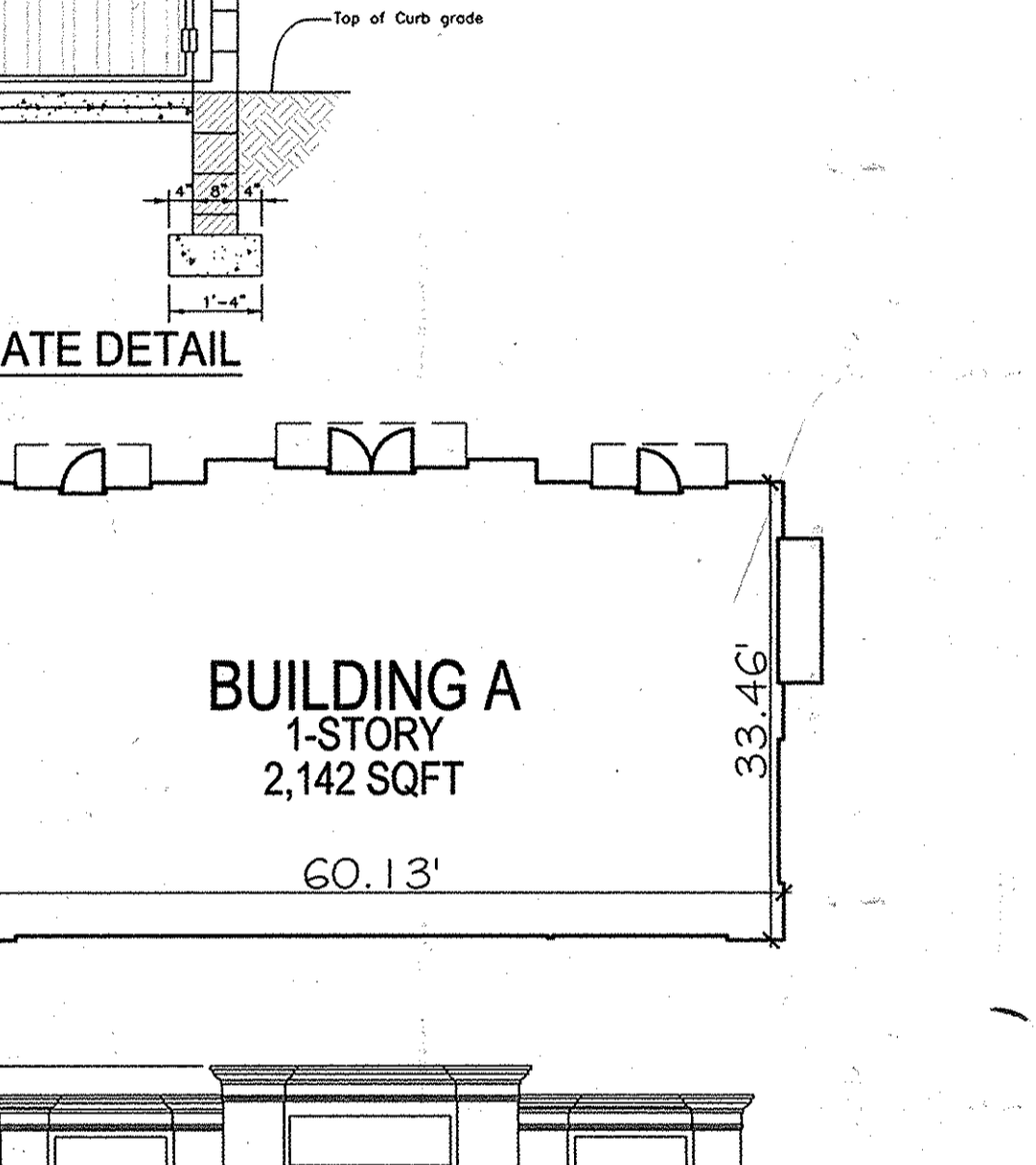
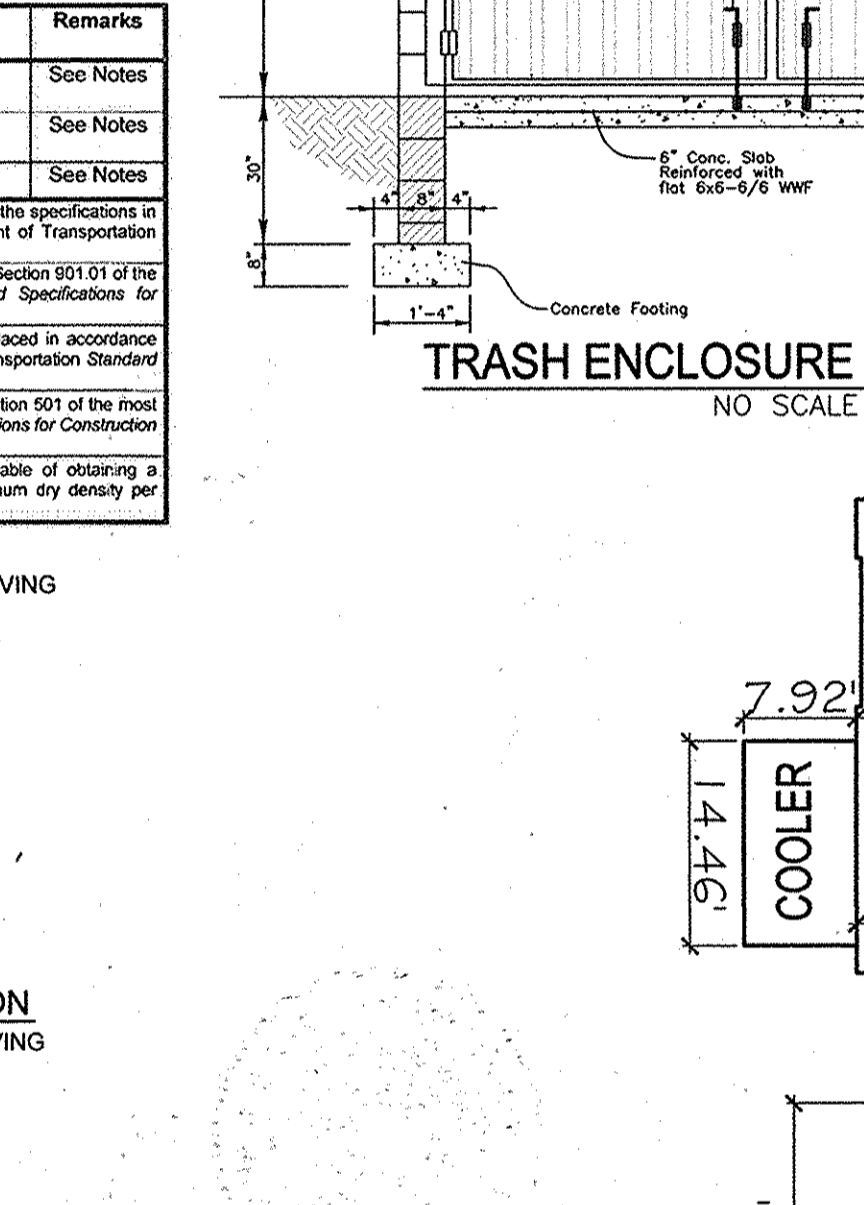
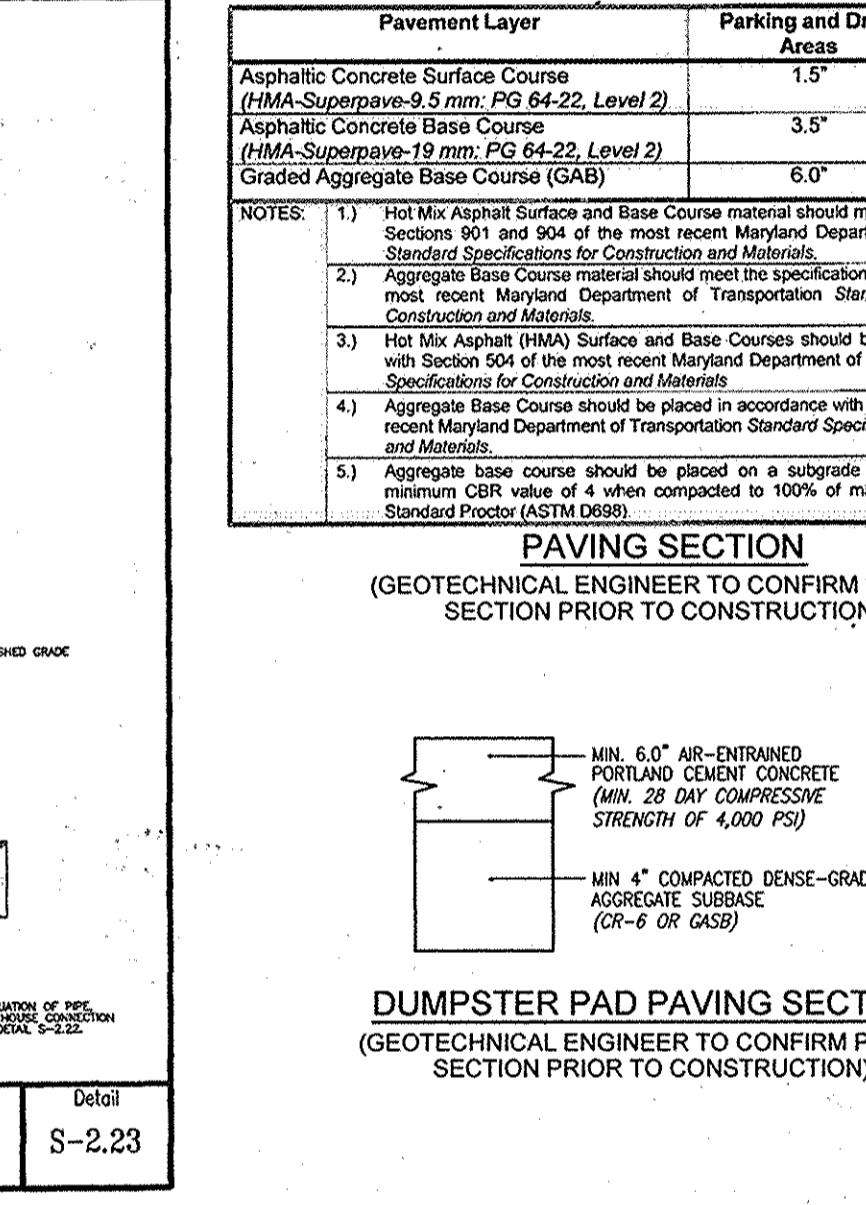
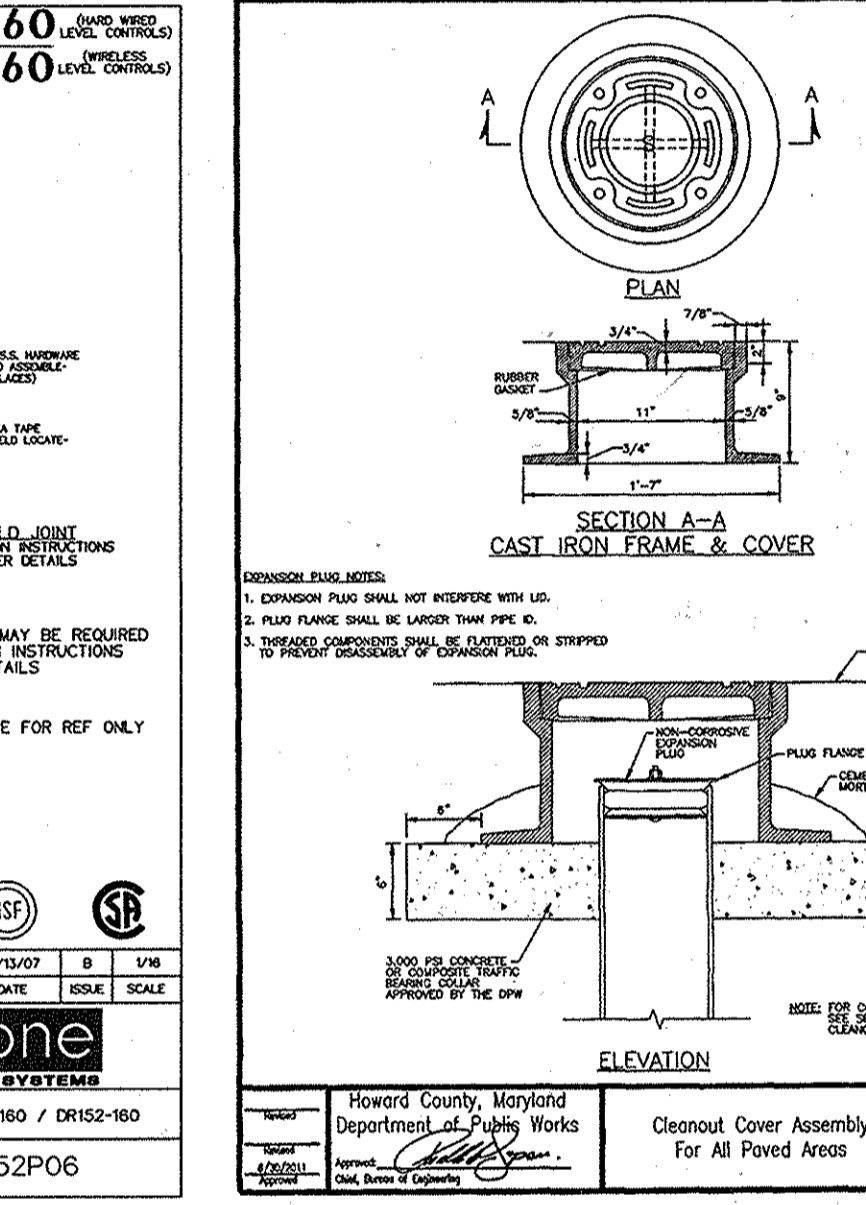
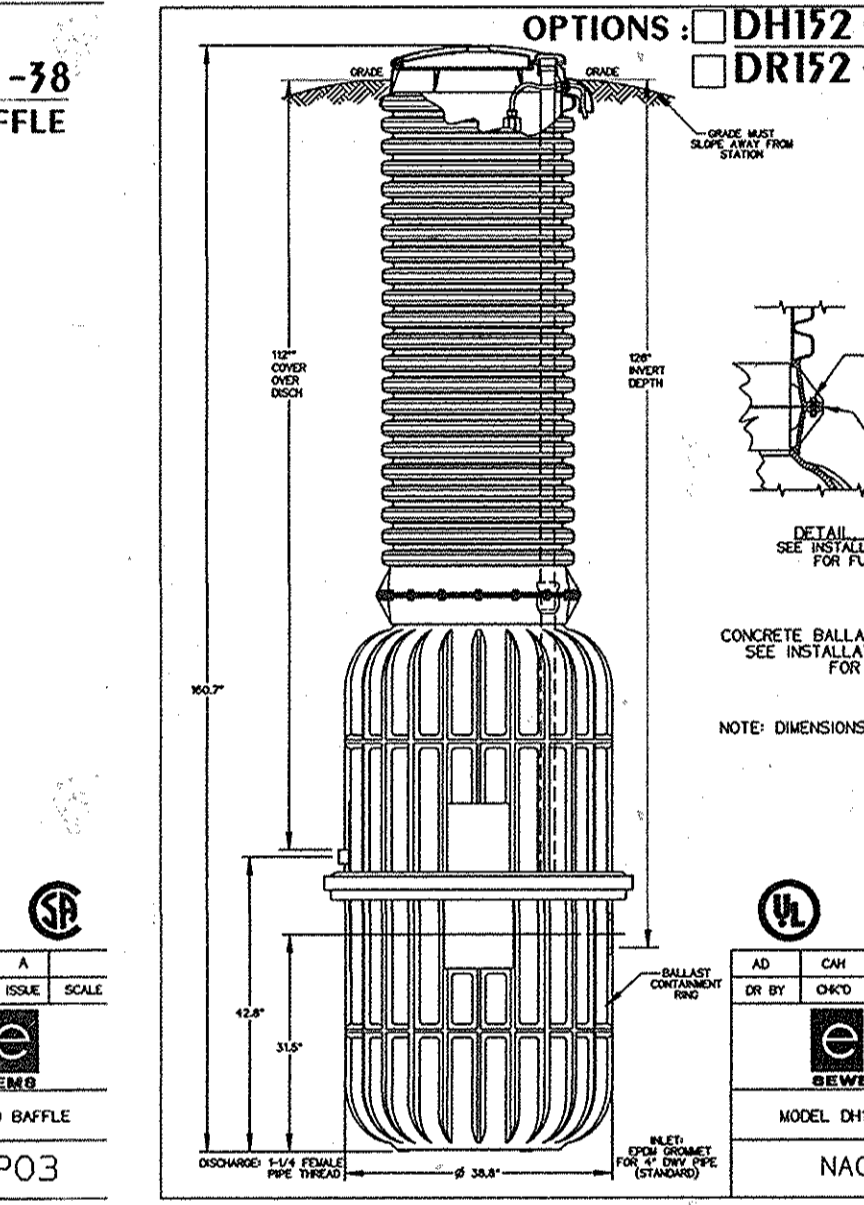
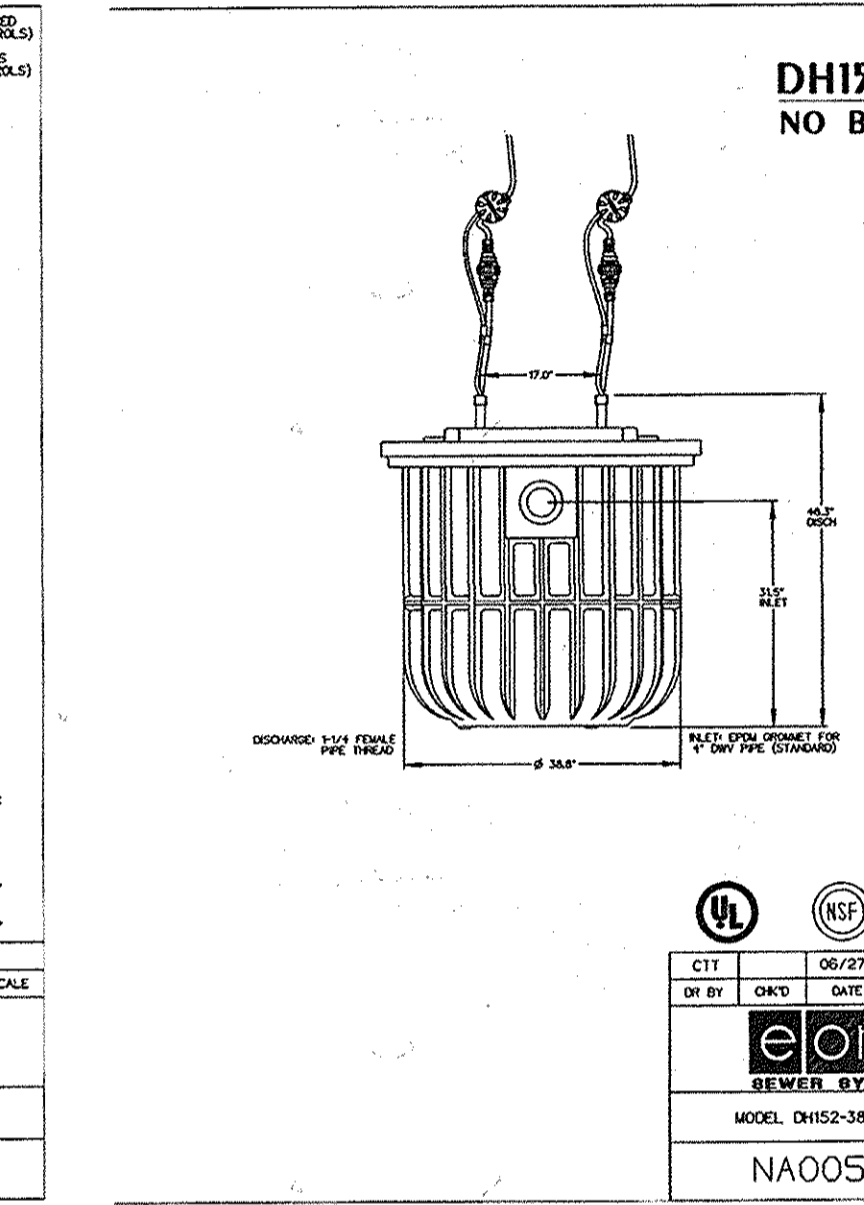
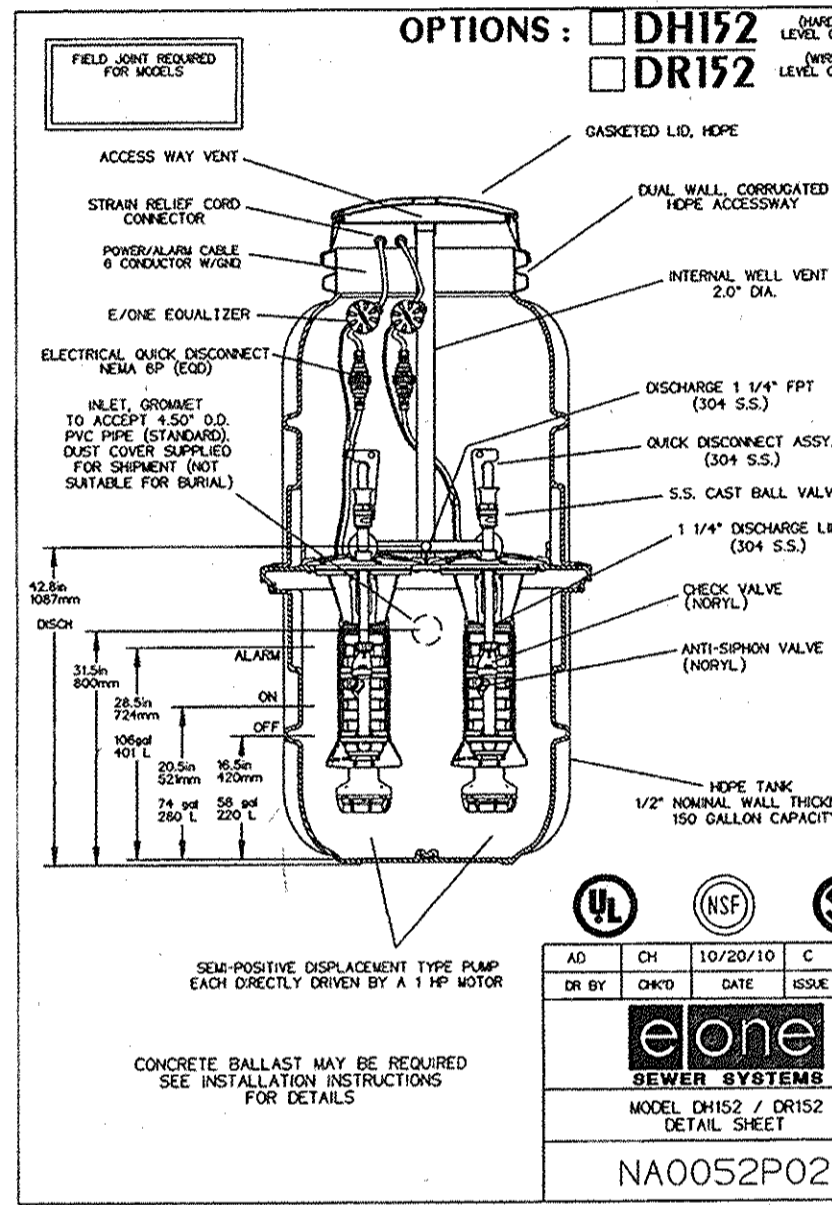
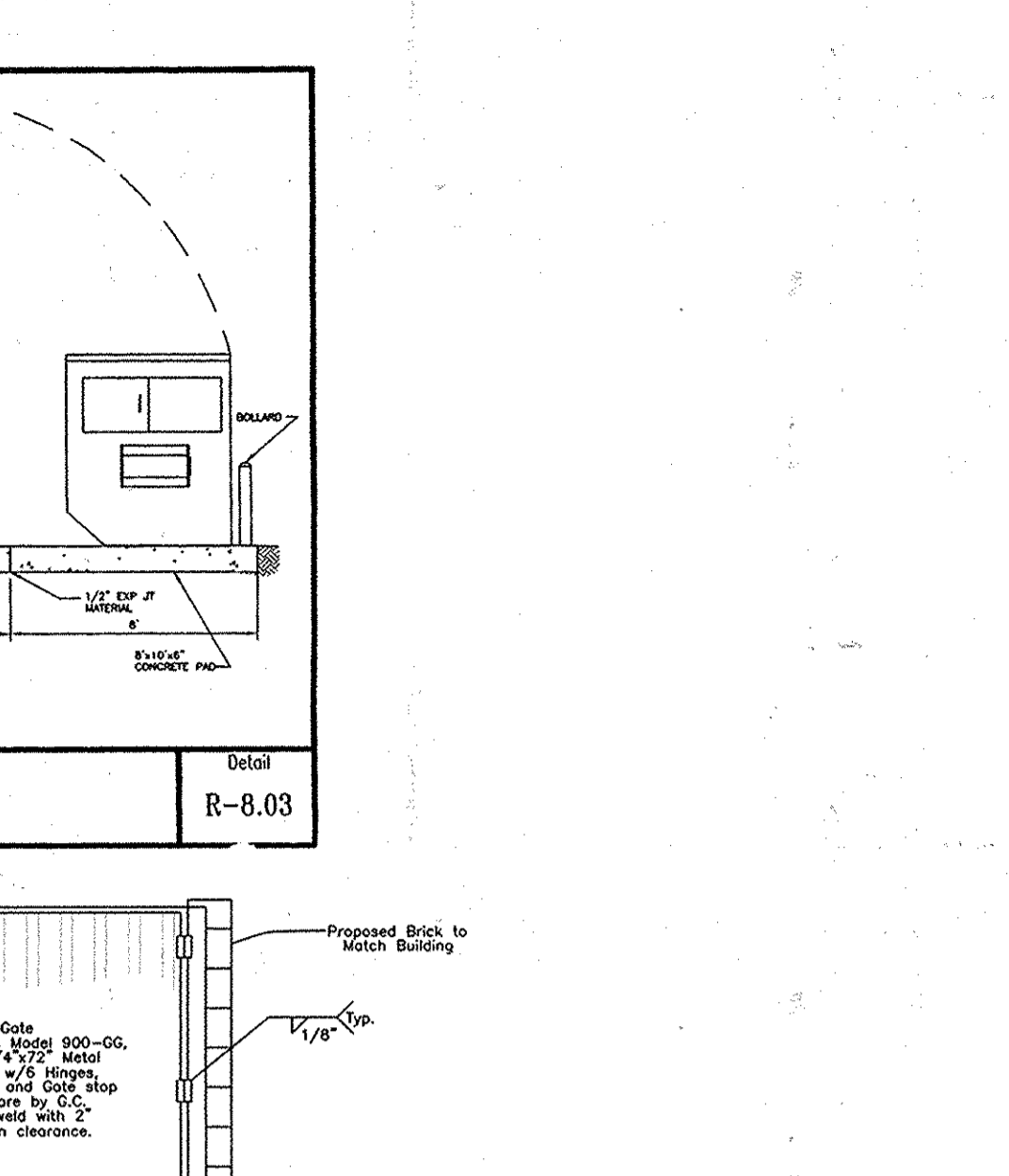
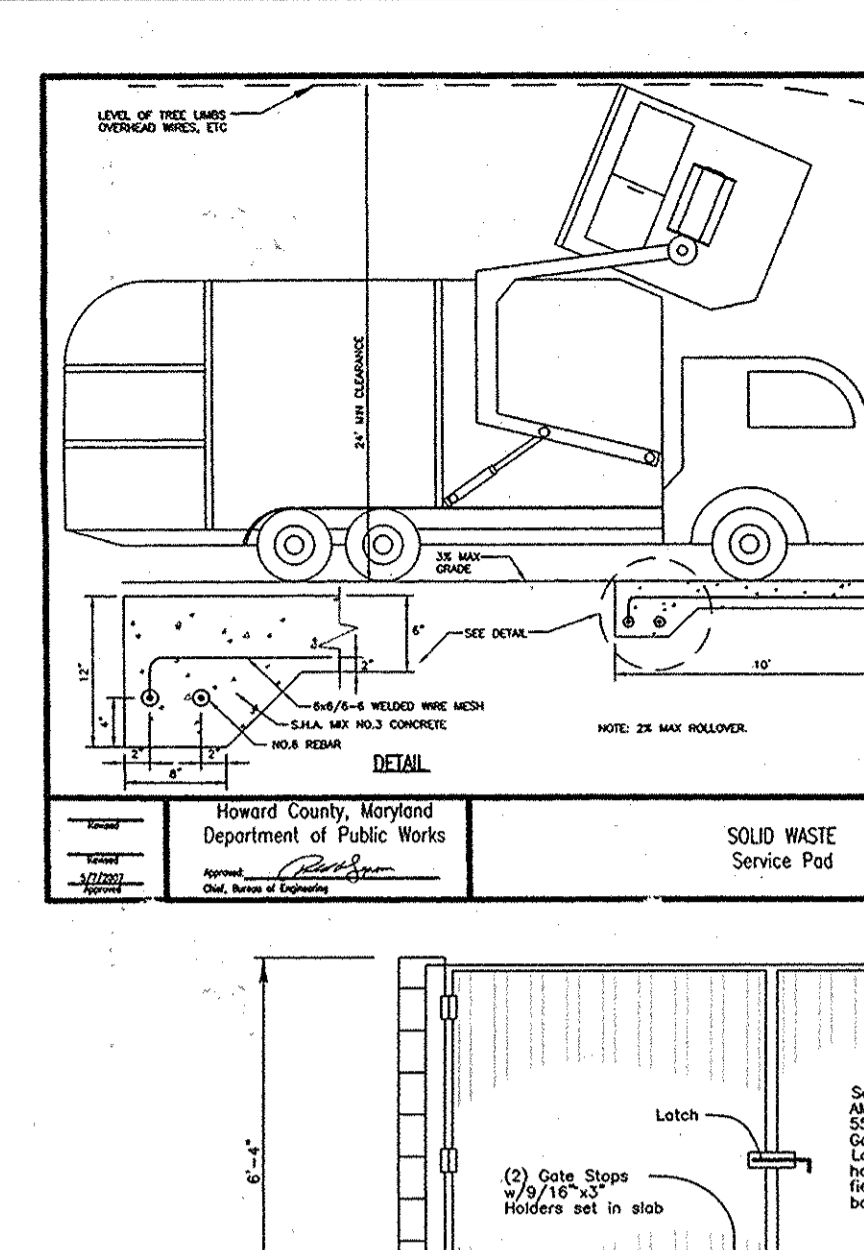
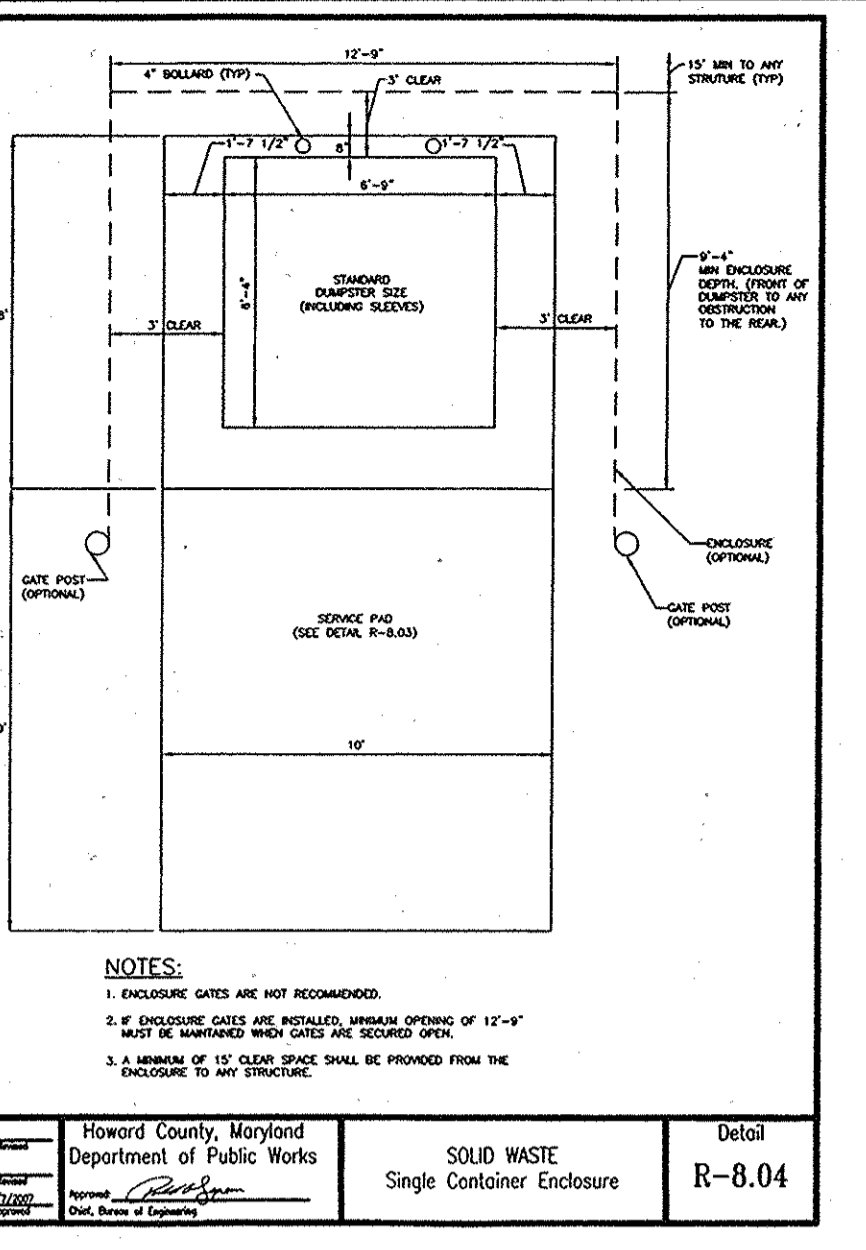
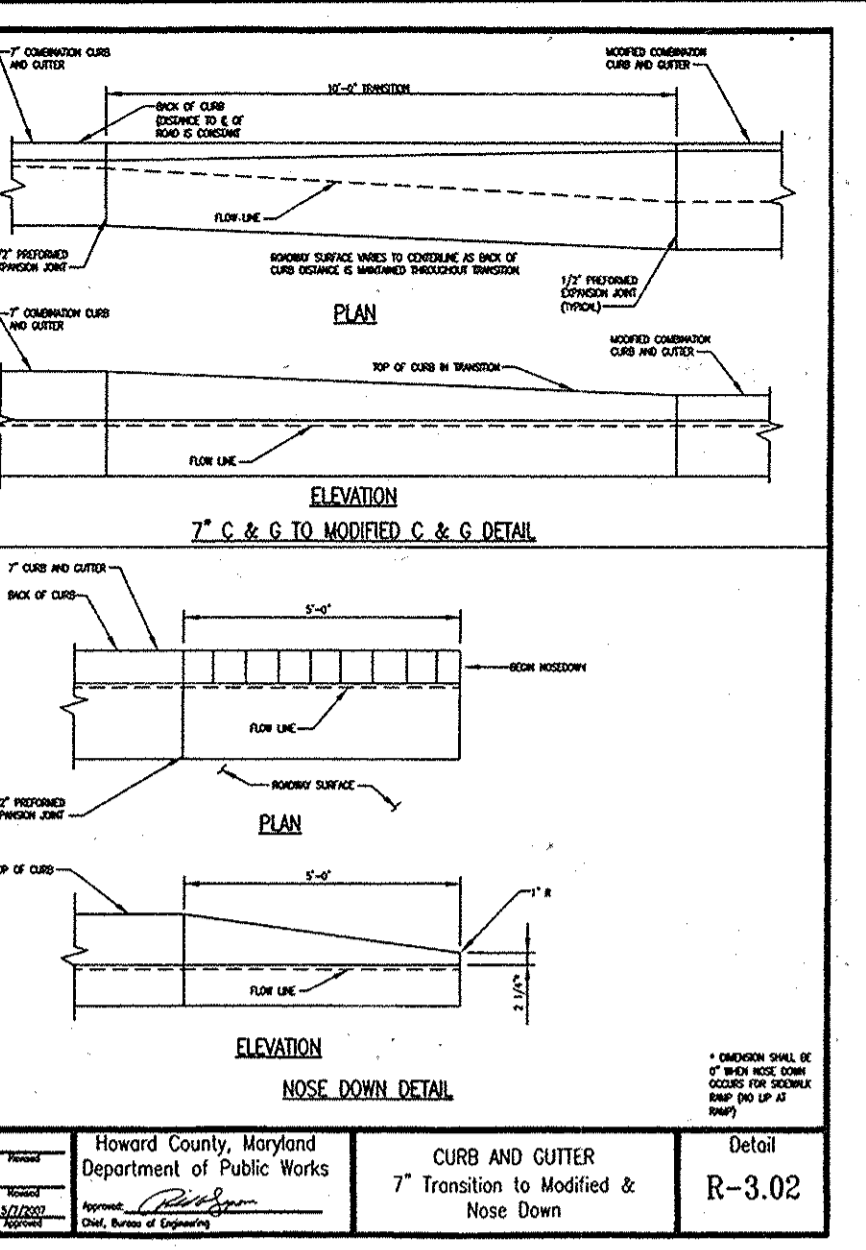
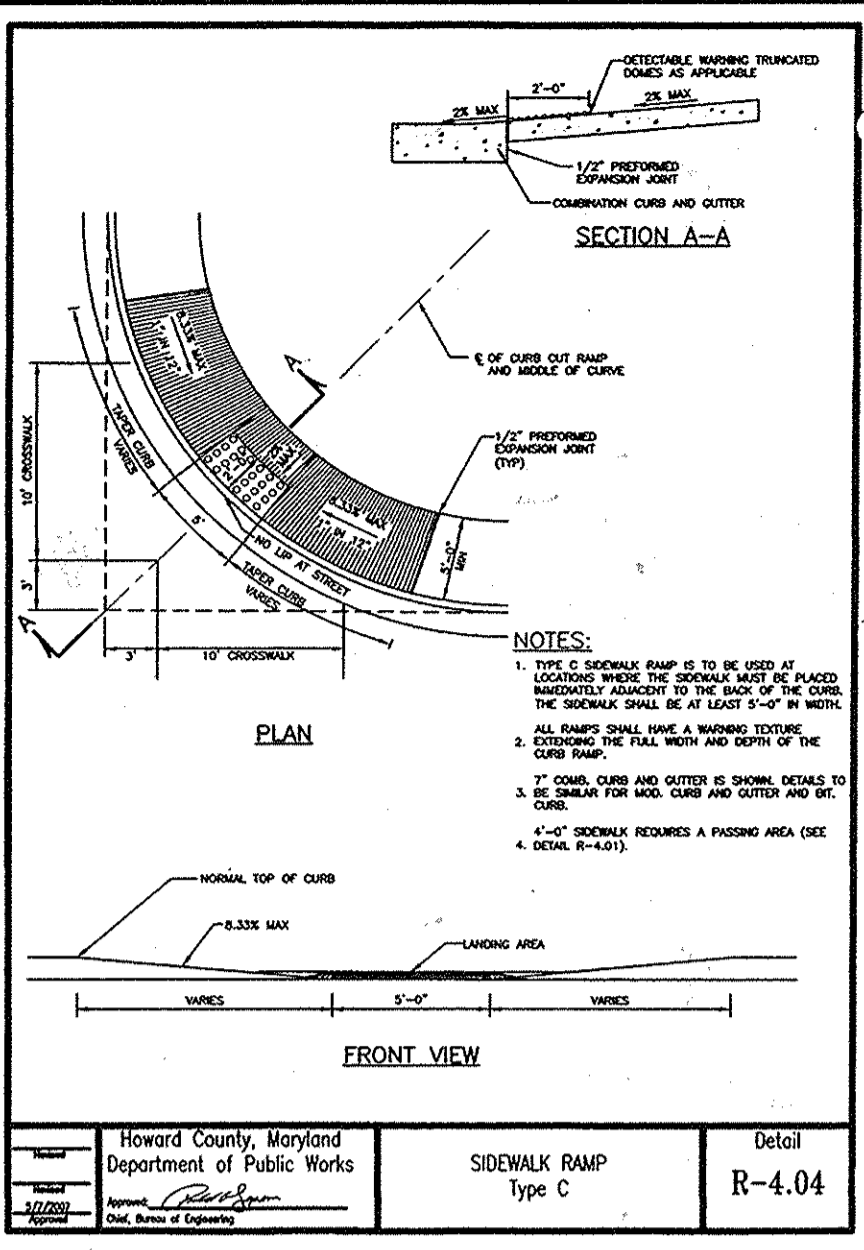
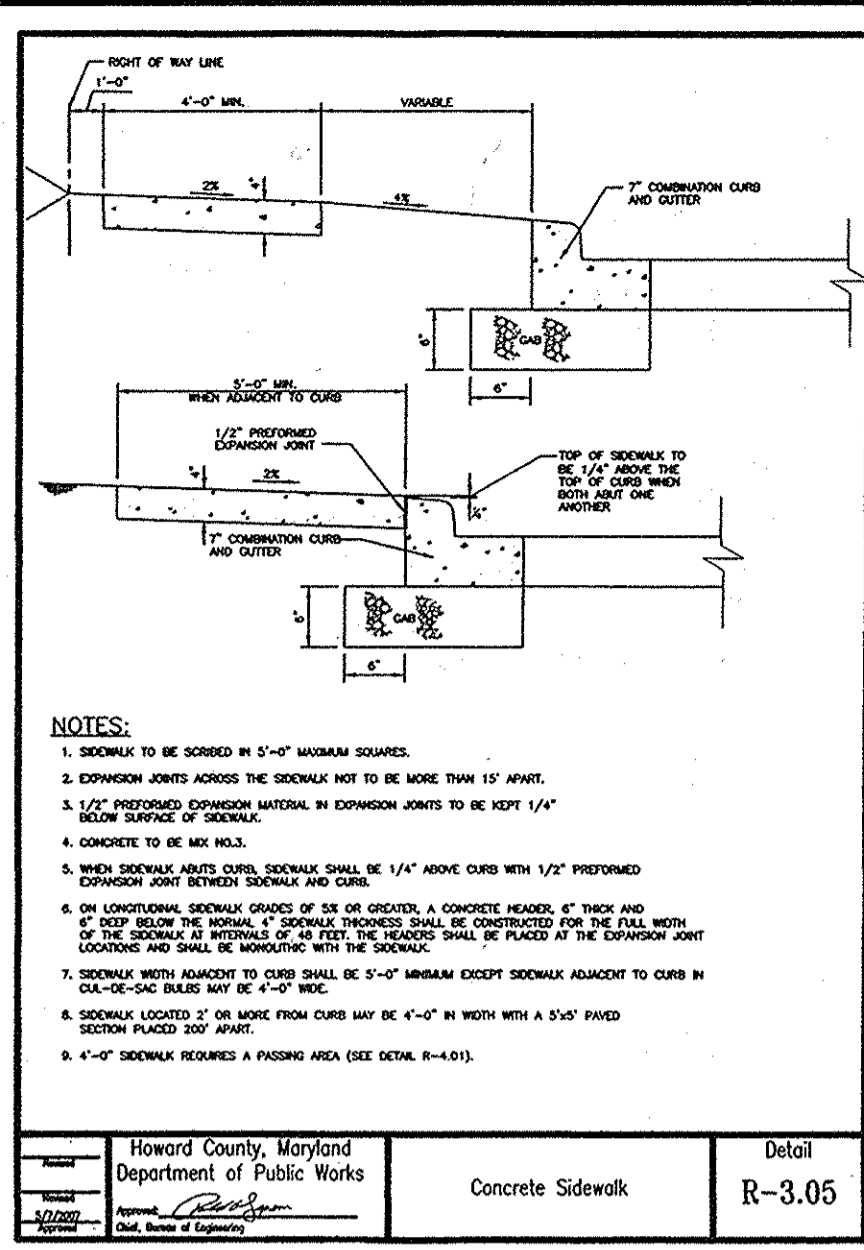
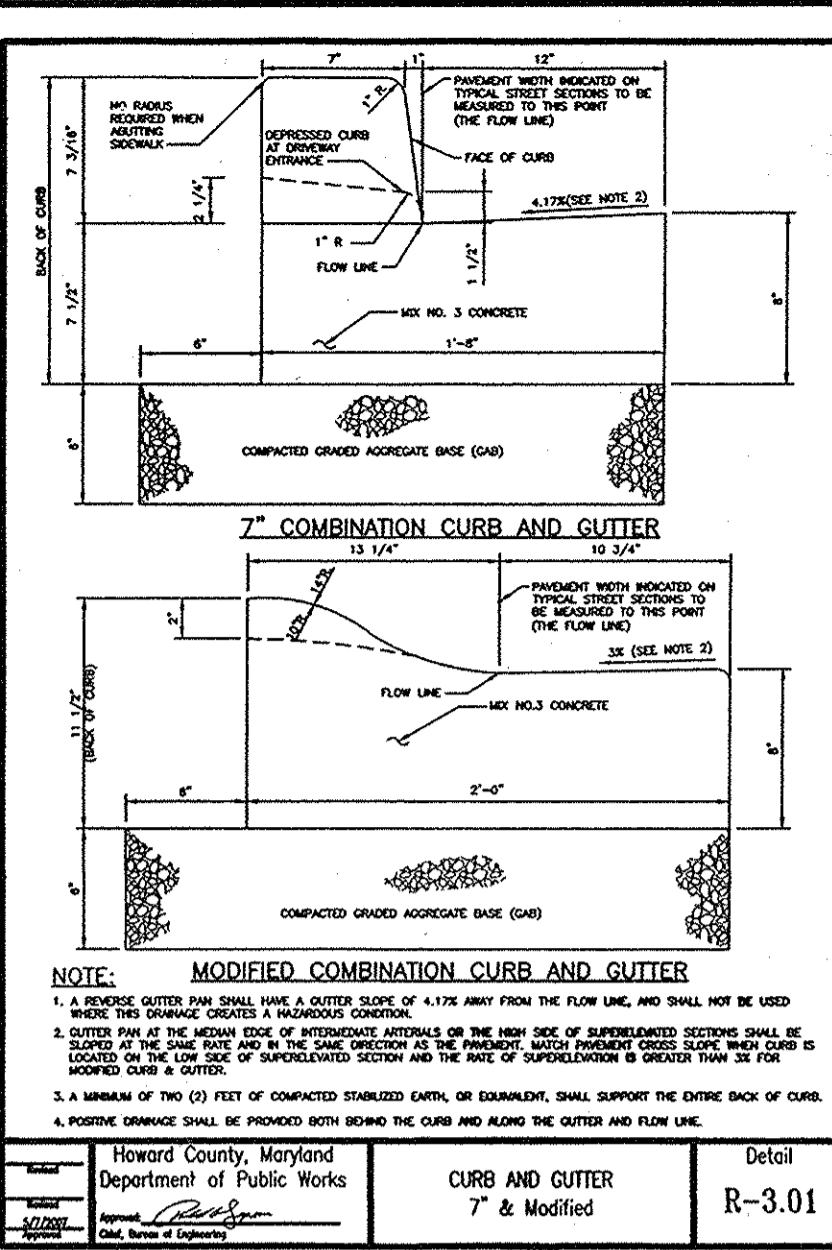


LAYOUT PLAN VIEW
SCALE: 1"=30'

NO AS-BUILT INFORMATION THIS SHEET

OWNER/DEVELOPER
LEWAL PARTNERSHIP
100 PAINTERS MILL ROAD
SUITE 900
OWINGS MILLS, MD 21117
410-363-3434

AS-BUILT 3/16/16



NO AS-BUILT INFORMATION THIS SHEET

NO.	REVISION	DATE
1	REVISE PLAN MODIFY PROPOSED USES, REVISE WALL, MODIFY SIDEWALK AND PARKING, REVISE W/C & S/C TO BUILDINGS, ADD PATH.	01/20/14

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division 2-29-15
 DATE

Chief, Division of Land Development 3-02-15
 DATE

Director 3/4/15
 DATE

HANDICAP PARKING SIGNS
(NOT TO SCALE)

1000 GALLON COMMERCIAL GREASE INTERCEPTOR
NO SCALE

BUILDING A
NOT TO SCALE

REVISOR SITE DEVELOPMENT PLAN

SITE DETAILS

ARCADIA SQUARE
 9525 BALTIMORE NATIONAL PIKE
 RESTAURANT AND RETAIL
 L15517/F.89 (PLAT 15803)

TAX MAP 24 BLOCK 4
 2ND ELECTION DISTRICT
 DPZ REF'S: SEE NOTES ON COVER

PARCEL 77
 ZONED: B-1
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

DESIGN BY: DZ
 DRAWN BY: DZ/KG
 CHECKED BY: RHY
 DATE: FEBRUARY 2015
 SCALE: AS SHOWN
 W.O. NO.: 09-14

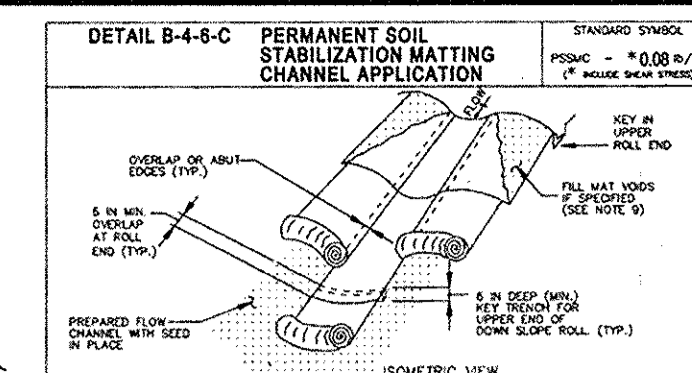
PROFESSIONAL CERTIFICATE

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. LICENSE NO. 18193. EXPIRATION DATE: 09-27-2018

3 SHEET OF 12

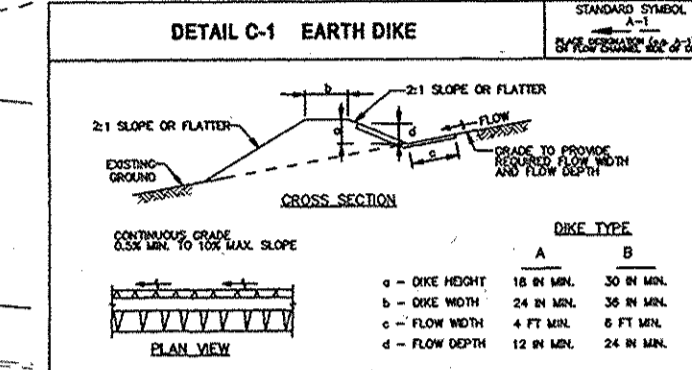
AS-BUILT 3/16/16

SDP-13-073



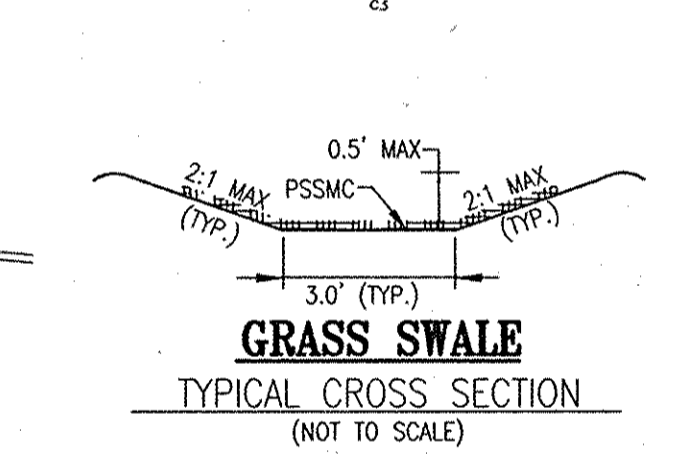
CONSTRUCTION SPECIFICATIONS:

- USE MATTING TO STABILIZE SOILS IN CHANNELS TO PREVENT EROSION AND TO MAINTAIN CHANNEL CROSS SECTION.
- USE MATTING TO STABILIZE SOILS IN CHANNELS TO PREVENT EROSION AND TO MAINTAIN CHANNEL CROSS SECTION.
- USE MATTING TO STABILIZE SOILS IN CHANNELS TO PREVENT EROSION AND TO MAINTAIN CHANNEL CROSS SECTION.
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- USE MATTING TO STABILIZE SOILS IN CHANNELS TO PREVENT EROSION AND TO MAINTAIN CHANNEL CROSS SECTION.



CONSTRUCTION SPECIFICATIONS:

- CONSTRUCT EARTH DIKE TO PREVENT FLOODING AND TO MAINTAIN CHANNEL CROSS SECTION.
- CONSTRUCT EARTH DIKE TO PREVENT FLOODING AND TO MAINTAIN CHANNEL CROSS SECTION.
- CONSTRUCT EARTH DIKE TO PREVENT FLOODING AND TO MAINTAIN CHANNEL CROSS SECTION.
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- CONSTRUCT EARTH DIKE TO PREVENT FLOODING AND TO MAINTAIN CHANNEL CROSS SECTION.



AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLAN AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

DATE: 3/16/16

LEGEND

[Symbol]	PROPERTY LINE
[Symbol]	RIGHT-OF-WAY LINE
[Symbol]	ADJACENT PROPERTY LINE
[Symbol]	EXISTING CURB AND GUTTER
[Symbol]	EXISTING UTILITY POLE
[Symbol]	EXISTING LIGHT POLE
[Symbol]	EXISTING SIGN
[Symbol]	EXISTING SANITARY MANHOLE
[Symbol]	EXISTING SANITARY LINE
[Symbol]	EXISTING CLEANOUT
[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING FENCE
[Symbol]	PROPOSED STORM DRAIN
[Symbol]	PROPOSED STORM DRAIN INLET
[Symbol]	PROPOSED CURB AND GUTTER
[Symbol]	PROPOSED SIDEWALK
[Symbol]	PROPOSED LANDSCAPE PAVERS
[Symbol]	PROPOSED PRIVATE LIGHTS
[Symbol]	EXISTING TREELINE
[Symbol]	PROPOSED TREELINE
[Symbol]	EXISTING STREAM
[Symbol]	EXISTING STREAM BUFFER
[Symbol]	EXISTING WETLANDS
[Symbol]	EXISTING WETLAND BUFFER
[Symbol]	EXISTING PUBLIC 100 YEAR FLOODPLAIN (PER FEMA/DFIRM EFFECTIVE 05/06/13)
[Symbol]	EXISTING PUBLIC FOREST CONSERVATION EASEMENT (RETENTION) (PLAT #115003)
[Symbol]	EXISTING PUBLIC FOREST CONSERVATION EASEMENT (TO BE ABANDONED)
[Symbol]	EXISTING DRAINAGE & UTILITY EASEMENTS (RETENTION) (PLAT #115003)
[Symbol]	EXISTING DRAINAGE & UTILITY EASEMENTS (TO BE ABANDONED)
[Symbol]	PROPOSED PUBLIC FOREST CONSERVATION EASEMENT (RETENTION) (PLAT #115003)
[Symbol]	PROPOSED PUBLIC FOREST CONSERVATION EASEMENT (TO BE ABANDONED)
[Symbol]	PROPOSED PUBLIC WATER AND UTILITY EASEMENT (PLAT #115003)
[Symbol]	PROPOSED PERMEABLE PAVEMENT (A-2)
[Symbol]	PROPOSED MICRO BIO-RETENTION (M-6)
[Symbol]	EXISTING 10' CONTOUR
[Symbol]	EXISTING 2' CONTOUR
[Symbol]	PROPOSED 10' CONTOUR
[Symbol]	PROPOSED 2' CONTOUR
[Symbol]	PROPOSED SPOT ELEVATION
[Symbol]	SOILS BOUNDARY
[Symbol]	PROPOSED SILT FENCE
[Symbol]	PROPOSED SUPER SILT FENCE
[Symbol]	PROPOSED LIMIT OF DISTURBANCE
[Symbol]	PROPOSED STABILIZED CONSTRUCTION ENTRANCE

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
 No. 16193
 Robert H. Vogel

STORMWATER MANAGEMENT FACILITIES TO BE PRIVATELY OWNED AND MAINTAINED

NO.	REVISION	DATE
3	REVISE PLAN TO REMOVE ROVERS AT ENTRANCE, MODIFY USE OF BLDG. 'B' AND MINIMIZE WALL AT BLDG. 'A'.	10/13/15
2	REVISE PLAN TO INCREASE SIZE OF PATIO	04/20/15
1	REVISE PLAN MODIFY PROPOSED USES, REVISE WALL, MODIFY SIDEWALK AND PARKING, REVISE WHC & SHC TO BUILDINGS, ADD PATIO.	01/20/14

REVISED SITE DEVELOPMENT PLAN
GRADING, SEDIMENT AND EROSION CONTROL PLAN; SOILS MAP

ARCADIA SQUARE
 9525 BALTIMORE NATIONAL PIKE
 RESTAURANT AND RETAIL
 L 1551/F.89 (PLAT 15803)

TAX MAP 24 BLOCK 4
 2ND ELECTION DISTRICT
 DPZ REF'S: SEE NOTES ON COVER

PARCEL 77
 ZONED: B-1
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

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 EXPIRATION DATE IS 06-27-2018.

DESIGN BY: [Signature] DZ
 DRAWN BY: [Signature] DZ/KG
 CHECKED BY: [Signature] RHV
 DATE: FEBRUARY 2015
 SCALE: AS SHOWN
 W.O. NO.: 09-14

4 SHEET OF 12

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 2/27/15
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 3-02-15
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 2/2/15
 DIRECTOR DATE

BY THE DEVELOPER:

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 2/16/15
 SIGNATURE OF DEVELOPER DATE

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 2/20/15
 SIGNATURE OF ENGINEER DATE

GRADING PLAN VIEW
 SCALE: 1"=30'

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

[Signature] 2/26/15
 HOWARD S.C.D. DATE

SOILS LEGEND

SYMBOL	NAME/DESCRIPTION	GROUP
BaA	BAILE SILT LOAM, 0 TO 3 PERCENT SLOPES	D
Co	CODDORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT SLOPES	C
GfB	GLADSTONE-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	B
UgF	UDORTHERN, HIGHWAY, 0 TO 85 PERCENT SLOPES	-

OWNER/DEVELOPER

LEWAL PARTNERSHIP
 100 PAINTERS MILL ROAD
 SUITE 900
 OWINGS MILLS, MD 21117
 410-363-3434

B-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS

DEFINITION THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

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

CRITERIA A. SOIL PREPARATION 1. TEMPORARY STABILIZATION... B. SOIL PREPARATION... C. SOIL PREPARATION...

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

DEFINITION THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

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

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

CRITERIA A. SEEDING 1. SPECIFICATIONS... B. SEED MIXTURES... C. SEED MIXTURES...

B-4-4 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

PURPOSE TO USE LONG-LEAF PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CRITERIA A. SEED MIXTURES 1. GENERAL USE... B. SEED MIXTURES... C. SEED MIXTURES...

GEOTECHNICAL EVALUATIONS AND RECOMMENDATIONS

Our findings suggest that the site can be developed for the proposed buildings utilizing conventional spread footings supported on natural soils, approved existing fill material or newly placed engineered fill and ground-supported slab construction.

The following recommendations have been developed on the basis of the previously described project characteristics and subsurface conditions.

5.1 General Site Preparation... 5.2 Filling, Placement and Compaction... 5.3 Foundations... 5.4 Ground-Supported Slabs... 5.5 Retaining Walls...

5.6 Pavement Subgrade Materials

All pavement subgrade areas should be prepared in accordance with the recommendations provided in Sections 5.1 and 5.2 of this report.

Based on the existing and proposed site grades, it appears that the pavement subgrades will be situated in a combination of both areas.

Assuming a minimum CBR value of 3 based on our experience with similar soils HCEA recommends the following pavement sections to be used at the site:

Table with 2 columns: Pavement Section, Thickness (inches). Rows include Light Duty Asphalt Pavement, Heavy Duty Asphalt Pavement, etc.

The light duty pavement sections were based on automobile traffic only while the heavy duty pavement sections were based on an estimated equivalent axle load (EAL) of 1.5x10^6 for a 15 year pavement design life.

It is recommended that testing be performed on representative samples of the proposed pavement subgrade materials during construction at the completion of grading operations to verify that the minimum CBR value of 3 will be present.

5.7 Retaining Walls The following parameters are presented to be used for design of the proposed retaining walls based on soil conditions encountered on the site:

Residual Soil Active Earth Pressure Coefficient (Ka): 0.33 Passive Earth Pressure Coefficient (Kp): 3.00

5.8 Stormwater Management Our findings indicate that the proposed building structures can be supported on spread footings bearing on firm natural soils, approved existing fill material or newly placed engineered fill.

Based on the assumed maximum structural loads, the maximum allowable settlement, and the general soil conditions which were encountered, the following design soil bearing capacity of 2500 psf is recommended.

Table with 3 columns: Soil Type, SPT (blows/ft), Recommended Depth of Foundation (ft). Rows include S-1, S-2, S-3, S-4, S-5.

All areas where foundations will be supported on structural fill, the structural fill should extend a sufficient distance laterally beyond the perimeter of footings.

To preclude punching shear failures, wall footings should be at least 18 inches wide and column footings should be at least 24 inches wide.

5.4 Ground-Supported Slabs Floor slabs should be supported on approved, firm natural soils, or on new compacted fill.

It is recommended that the slab be directly supported on a minimum 4-inch layer of clean granular materials such as washed sand, clean sand, and gravel, or compacted crushed stone.

5.5 Retaining Walls Adequate drainage should be provided at the site to minimize any increases in the moisture contents of the foundation soils.

5.6 Pavement Subgrade Materials All pavement subgrade areas should be prepared in accordance with the recommendations provided in Sections 5.1 and 5.2 of this report.

5.7 Retaining Walls The following parameters are presented to be used for design of the proposed retaining walls based on soil conditions encountered on the site.

Residual Soil Active Earth Pressure Coefficient (Ka): 0.33 Passive Earth Pressure Coefficient (Kp): 3.00

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Based on the assumed maximum structural loads, the maximum allowable settlement, and the general soil conditions which were encountered, the following design soil bearing capacity of 2500 psf is recommended.

5.9 Foundations Foundations should not be placed over any existing fill materials, should they be encountered, unless specifically approved in the field by the Geotechnical Engineer or his representative.

5.10 Ground-Supported Slabs Floor slabs should be supported on approved, firm natural soils, or on new compacted fill.

5.11 Retaining Walls Adequate drainage should be provided at the site to minimize any increases in the moisture contents of the foundation soils.

5.12 Pavement Subgrade Materials All pavement subgrade areas should be prepared in accordance with the recommendations provided in Sections 5.1 and 5.2 of this report.

5.13 Retaining Walls The following parameters are presented to be used for design of the proposed retaining walls based on soil conditions encountered on the site.

Residual Soil Active Earth Pressure Coefficient (Ka): 0.33 Passive Earth Pressure Coefficient (Kp): 3.00

5.14 Stormwater Management Our findings indicate that the proposed building structures can be supported on spread footings bearing on firm natural soils, approved existing fill material or newly placed engineered fill.

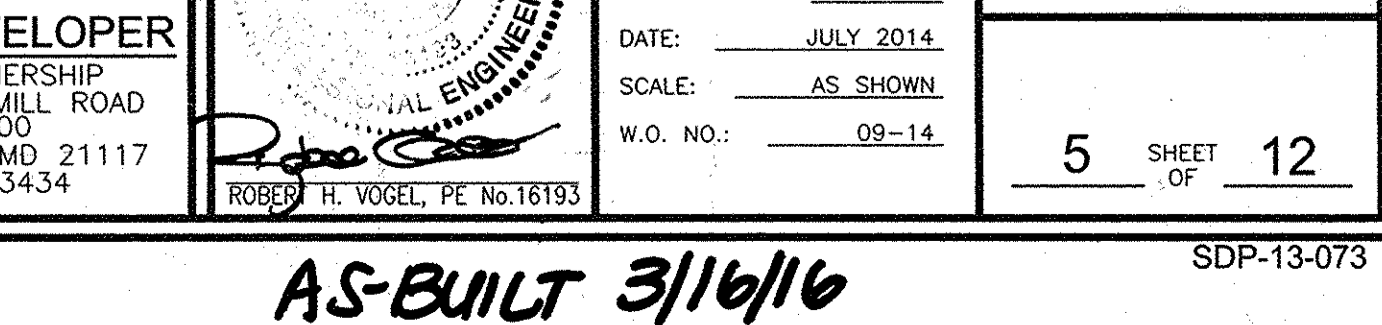
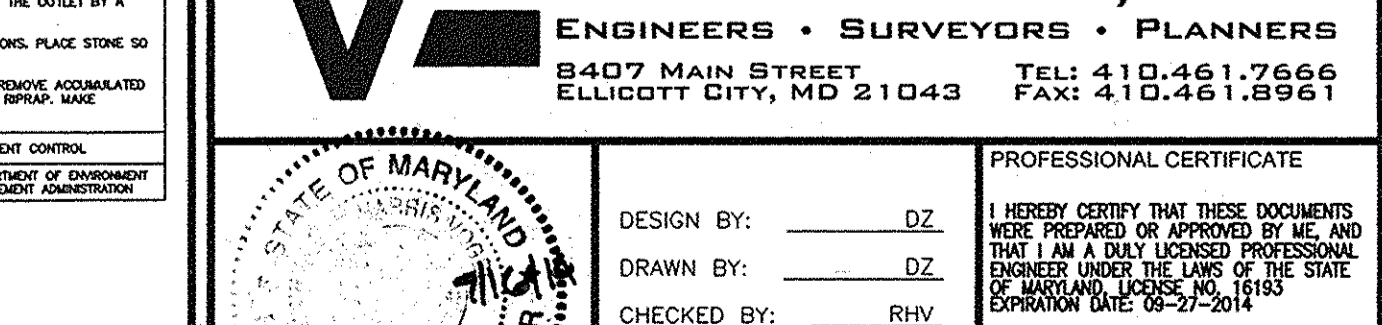
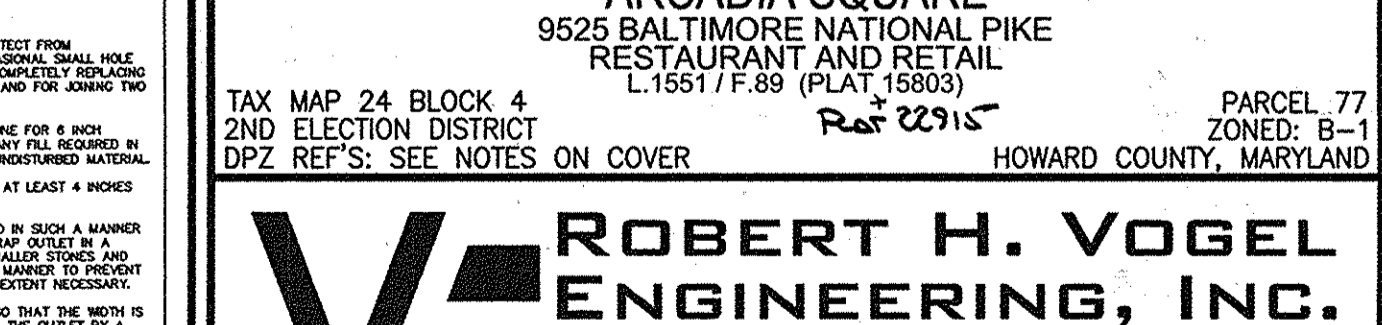
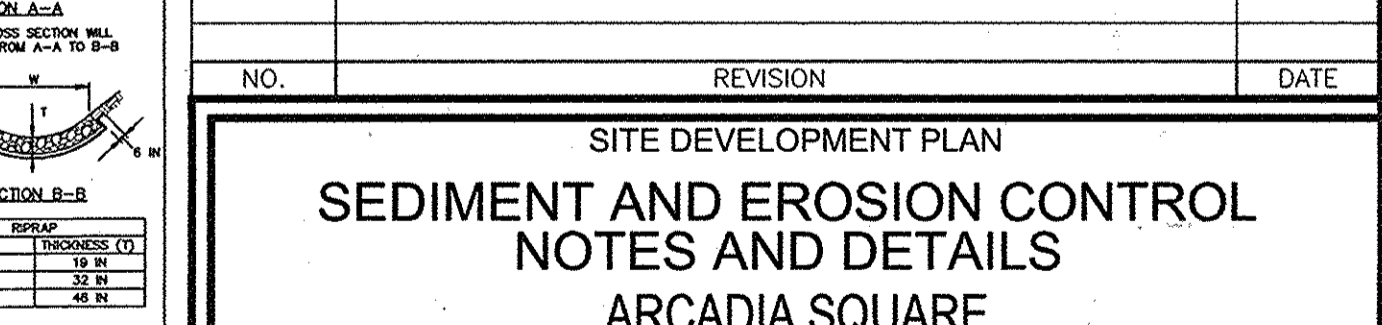
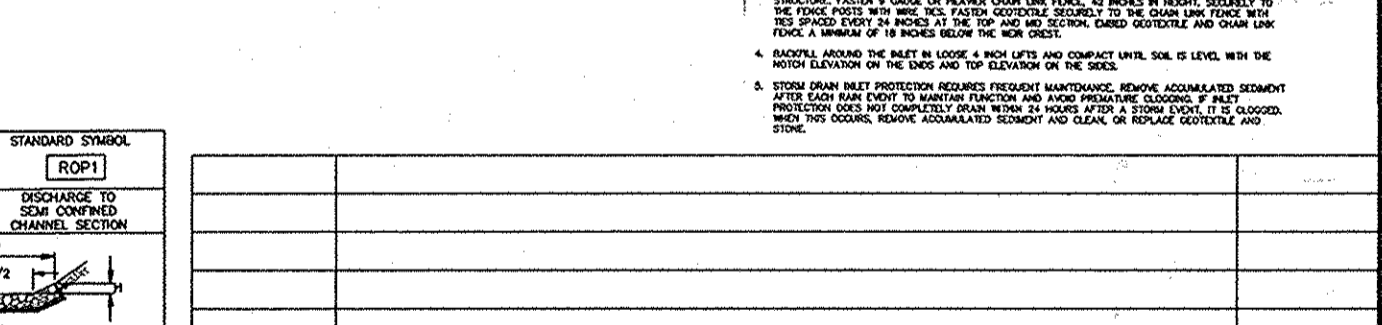
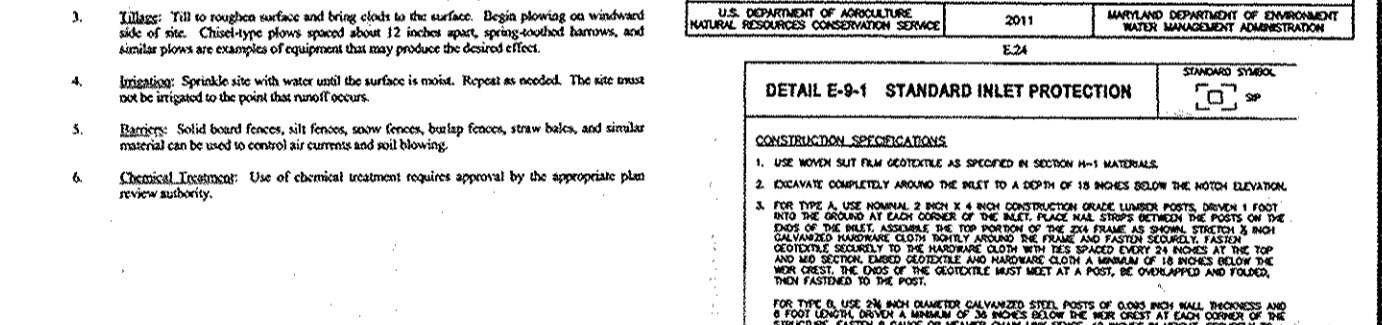
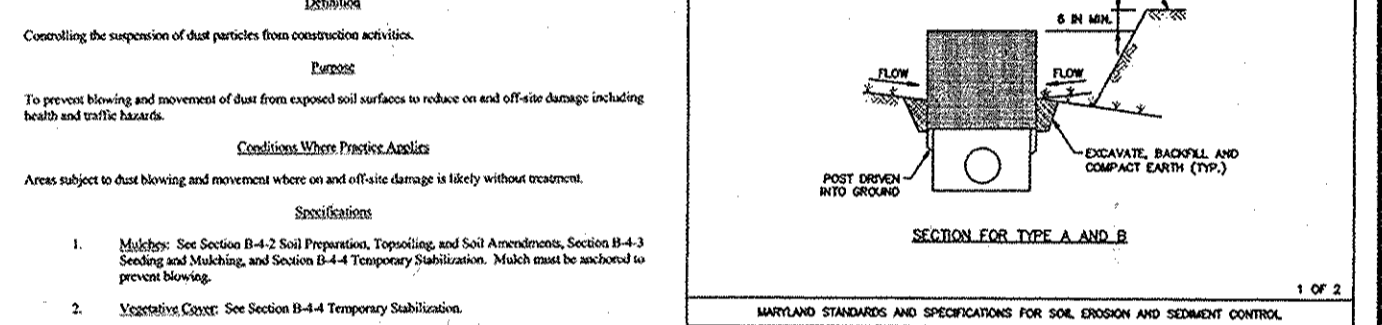
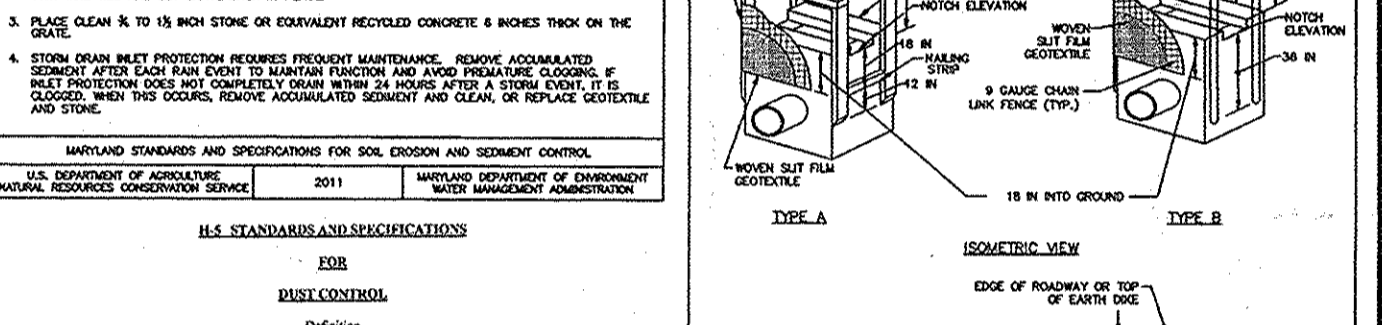
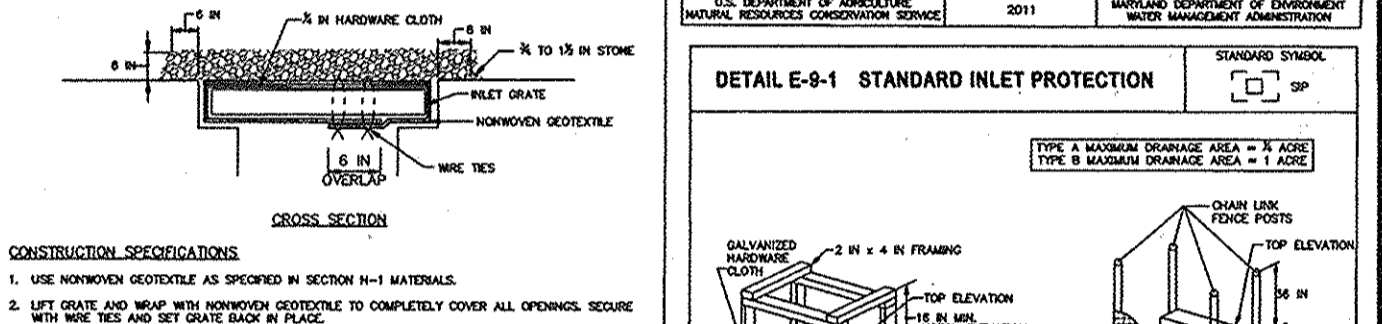
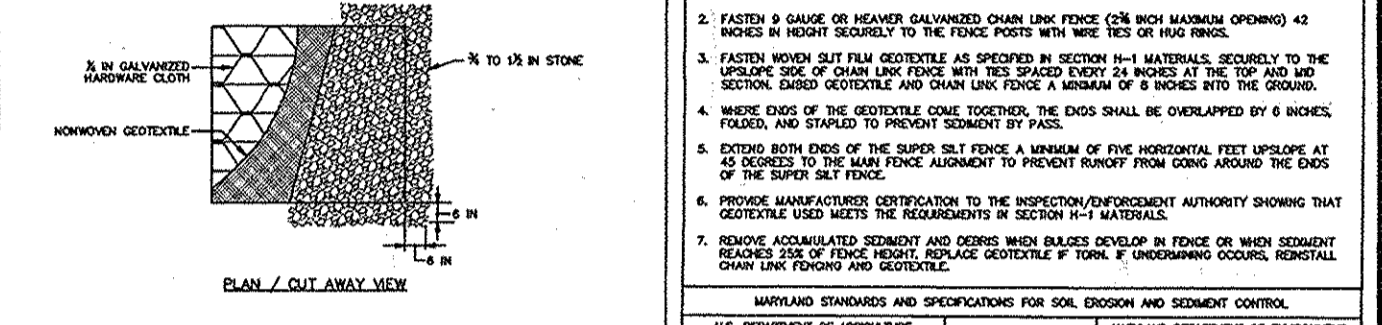
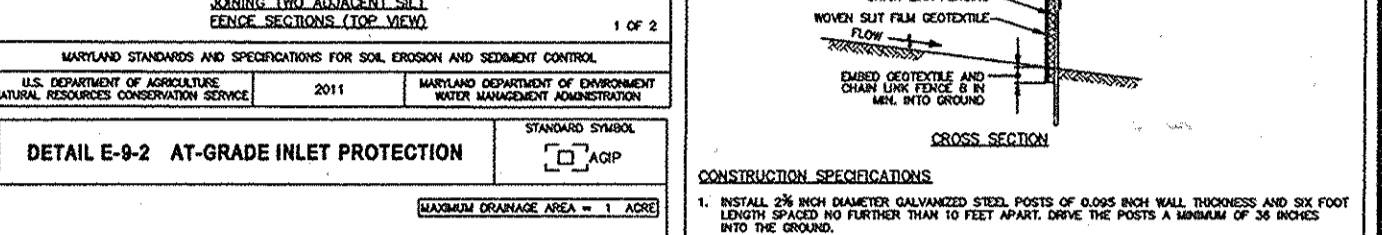
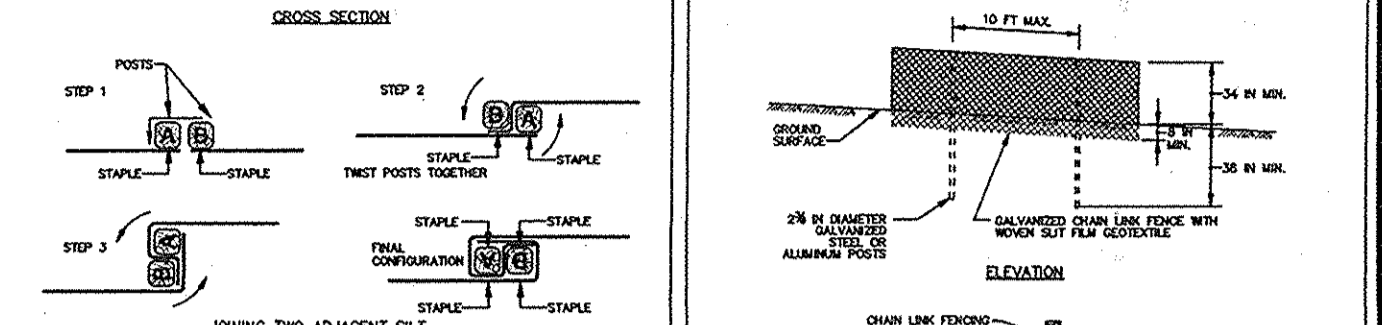
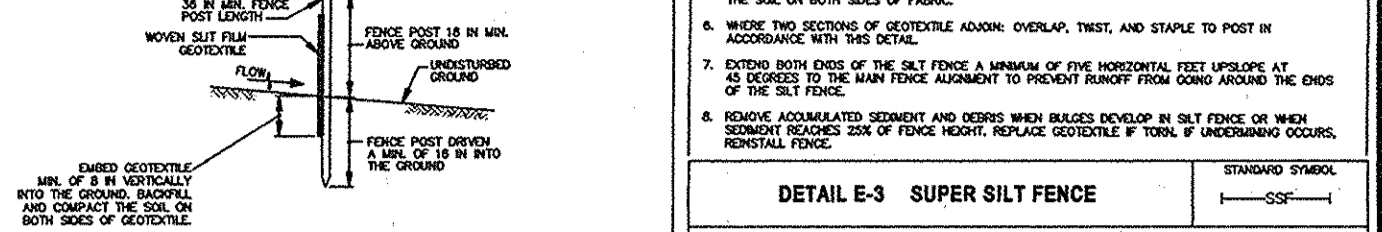
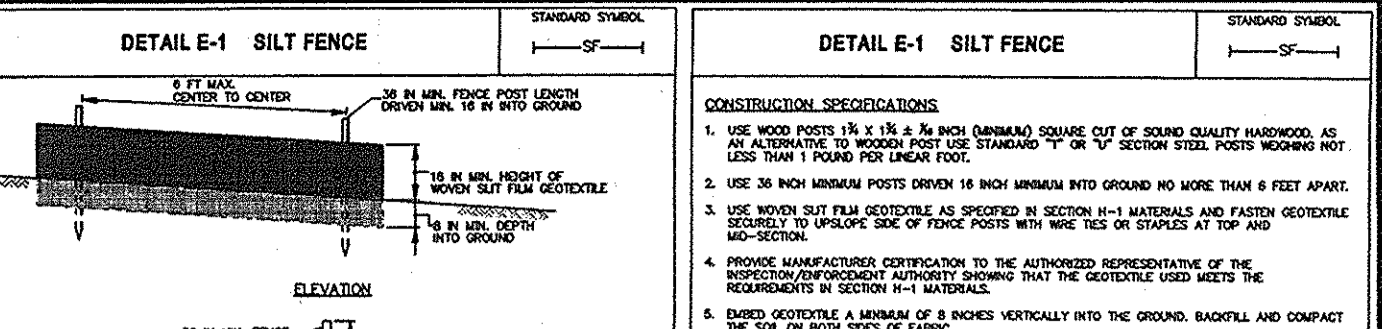
Based on the assumed maximum structural loads, the maximum allowable settlement, and the general soil conditions which were encountered, the following design soil bearing capacity of 2500 psf is recommended.

5.15 Foundations Foundations should not be placed over any existing fill materials, should they be encountered, unless specifically approved in the field by the Geotechnical Engineer or his representative.

5.16 Ground-Supported Slabs Floor slabs should be supported on approved, firm natural soils, or on new compacted fill.

5.17 Retaining Walls Adequate drainage should be provided at the site to minimize any increases in the moisture contents of the foundation soils.

5.18 Pavement Subgrade Materials All pavement subgrade areas should be prepared in accordance with the recommendations provided in Sections 5.1 and 5.2 of this report.



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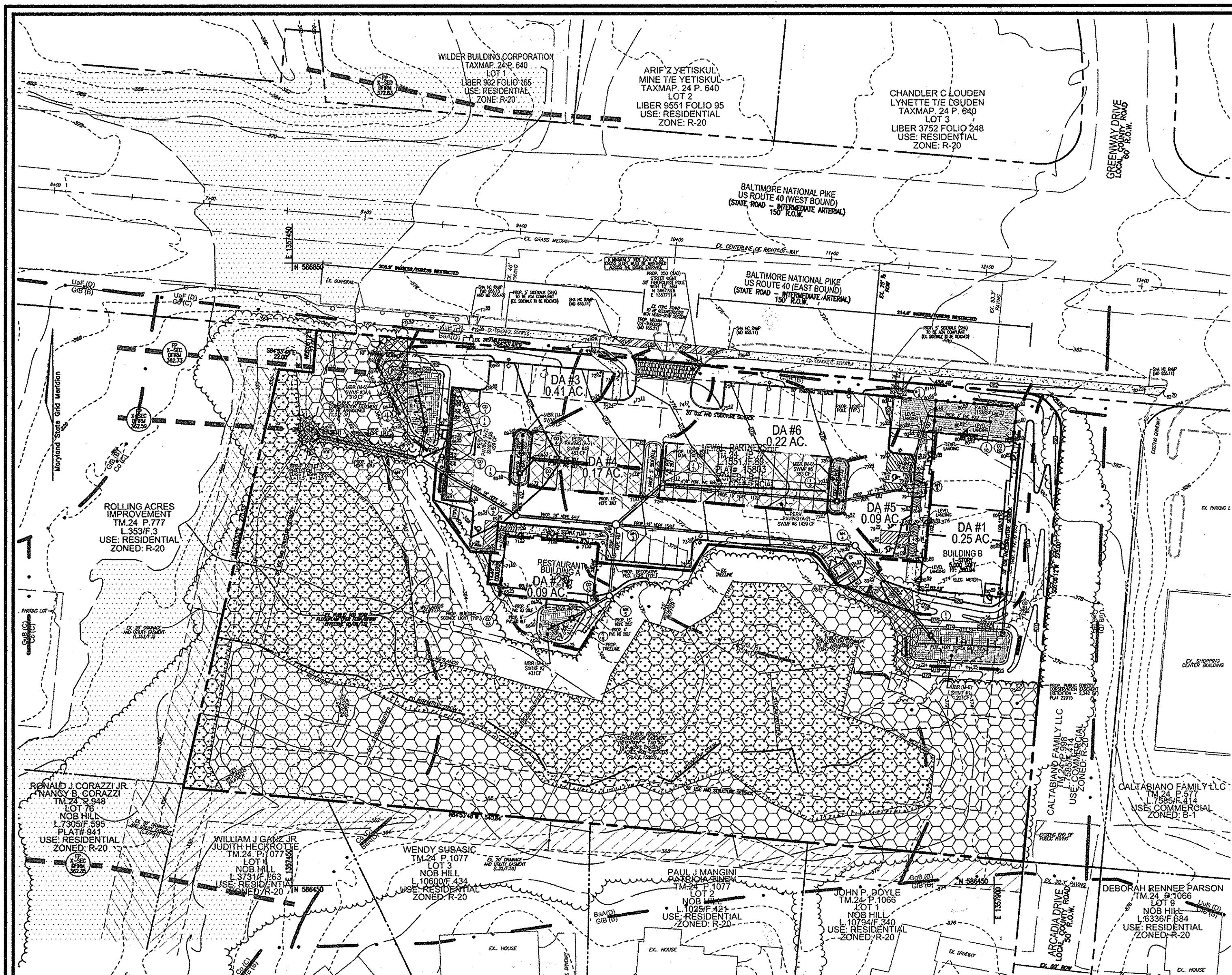
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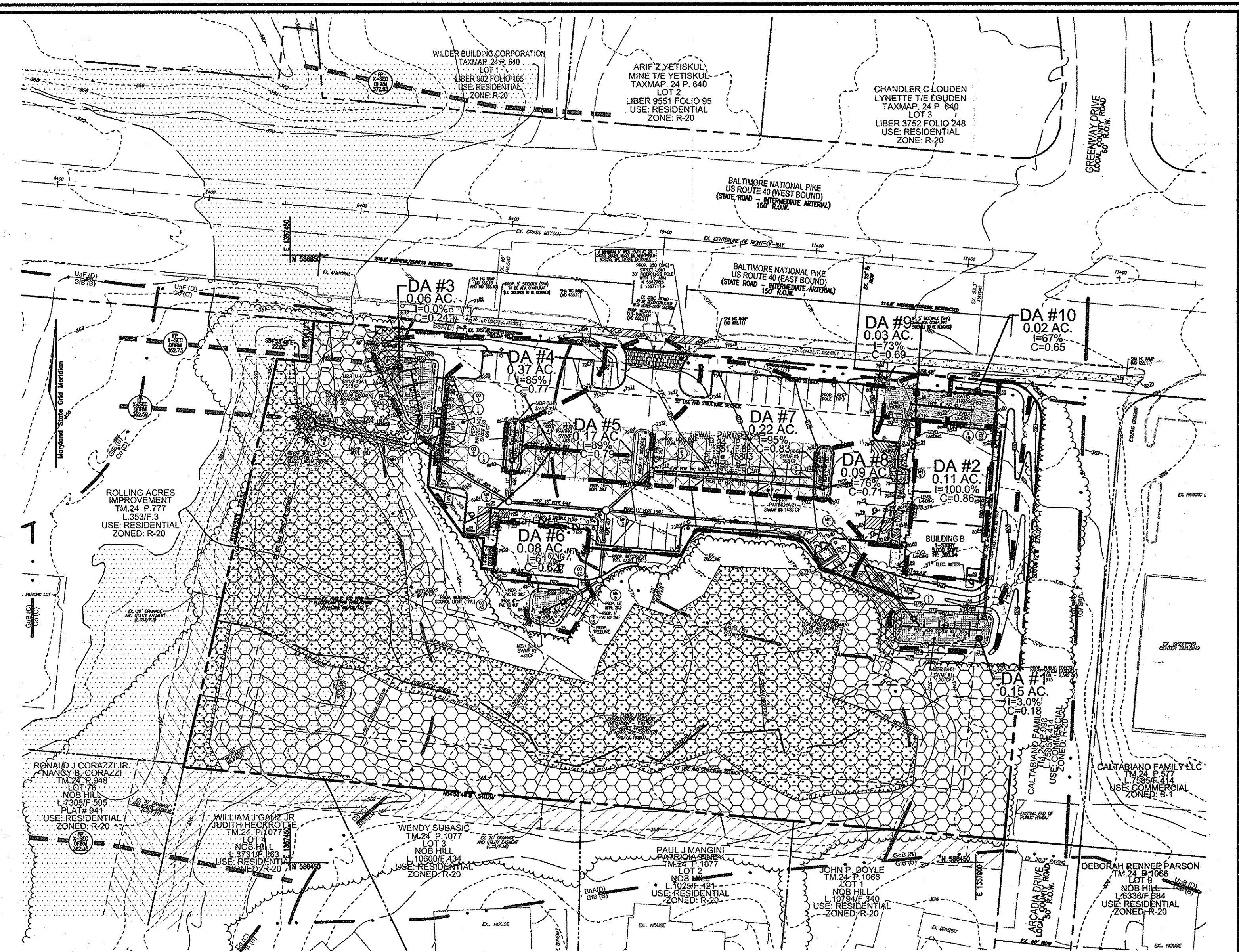
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SWM DRAINAGE AREA MAP
SCALE: 1"=50'

NOTE: THE PATIO SIZE UNDER REVISION #1 IS 285 SF. THE STORMWATER MANAGEMENT DESIGN/CALCULATIONS INCLUDE THE BUILDING 'B' PATIO AT ULTIMATE SIZE (1,538 SF), AS SHOWN ON THIS SHEET.



STORMDRAIN DRAINAGE AREA MAP
SCALE: 1"=50'

NOTE: THE PATIO SIZE UNDER REVISION #1 IS 285 SF. THE STORMWATER MANAGEMENT DESIGN/CALCULATIONS INCLUDE THE BUILDING 'B' PATIO AT ULTIMATE SIZE (1,538 SF), AS SHOWN ON THIS SHEET.

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING SANITARY MAINHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING FENCE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- PROPOSED CURB AND GUTTER
- PROPOSED SIDEWALK
- PROPOSED LANDSCAPE PAVERS
- PROPOSED PRIVATE LIGHTS
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING STREAM
- EXISTING STREAM BUFFER
- EXISTING WETLANDS
- EXISTING WETLAND BUFFER
- EXISTING PUBLIC 100 YEAR FLOODPLAIN (PER FEMA/OFIRM EFFECTIVE 05/06/13)
- EXISTING PUBLIC FOREST CONSERVATION EASEMENT (RETENTION) (PLAT #15803)
- EXISTING PUBLIC FOREST CONSERVATION EASEMENT (TO BE ABANDONED)
- EXISTING DRAINAGE & UTILITY EASEMENTS (L. 353/F. 3) (L. 9/F. 41) (L. 25/F. 58)
- PROPOSED PUBLIC FOREST CONSERVATION EASEMENT (RETENTION) (PLAT #)
- PROPOSED PUBLIC WATER AND UTILITY EASEMENT (PLAT #)
- PROPOSED PERMEABLE PAVEMENT (A-2)
- PROPOSED MICRO BIO-RETENTION (M-6)
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SPOT ELEVATION
- SOILS BOUNDARY
- PROPOSED SWM/STORMDRAIN DRAINAGE AREA

ARCADIA SQUARE
Pe= 1.93
ESDv=(PexRvxA)/12
Rv=0.05+0.009v
V=min(1.0',rainfall)
Vmax=1yr rainfall+2.6'

DA	% IMPERV	Rv	DA	ESDv	MINIMUM VOLUME REQ.	MAXIMUM VOLUME PROVIDED*	IMPERV AREA	GREEN AREA	
1	69	0.67	0.25	1187	655	1599	1207	0.17	
2	52	0.52	0.09	320	166	431	431	0.04	
3	75	0.72	0.41	2096	1086	2833	1418	0.31	
4	84	0.81	0.17	946	490	1275	836	0.14	
5	80	0.77	0.08	455	236	614	353	0.07	
6	95	0.90	0.22	1390	720	1873	1439	0.21	
TOTAL ESDv BY SUBAREA					6395	5684	0.95	0.28	

* Provided Volume is less than ESDv Require because Micro-bioretenion utilized in each subarea at the rate of 75%.

Volume provided in DA#3 includes MBR SWM#3A (919 CF) and Pervious Paving SWM#3B (207 CF) with 0.75 ft of additional stone under pervious paving (292 CF).

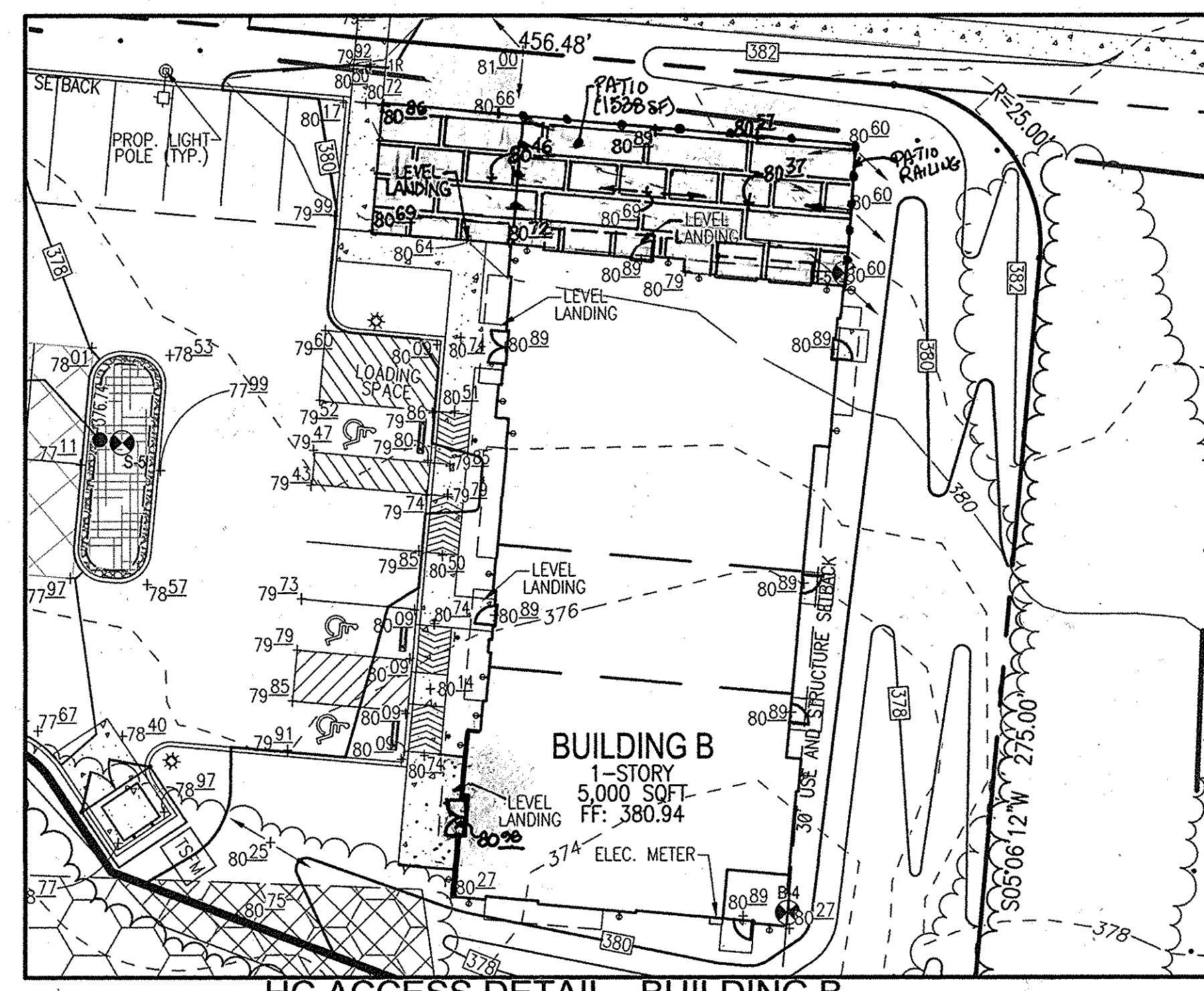
Volume provided in DA#4 includes MBR SWM#4A (553 CF) and Pervious Paving SWM#4B (483 CF).

Volume provided in DA#6 includes Pervious Paving SWM#6 (762 CF) with 0.50 ft of additional stone under pervious paving (677 CF).

ENVIRONMENTAL SITE DESIGN PRACTICE

DRAINAGE AREA #	AREA TREATED	FACILITY NUMBER	PERMEABLE PAVEMENT	ADD UNDER	LANDSCAPE PAVE	INFILTRATION	PERVIOUS SIDEWALK	BIO SWALE	GRAVEL TRENCH	MICRO BIO RETENTION	ADD UNDER MICRO BIO	ESDv VOLUME
1	11062	SWM#1	0	0	0	0	0	0	0	0	0	1207
SUBTOTAL 1			0	0	0	0	0	0	0	0	0	1207
2	3815	SWM#2	0	0	0	0	0	0	0	0	0	431
SUBTOTAL 2			0	0	0	0	0	0	0	0	0	431
3	18067	SWM#3B	0	0	0	0	0	0	0	0	0	919
		SWM#3A	207	292	0	0	0	0	0	0	0	499
SUBTOTAL 3			207	292	0	0	0	0	0	0	0	1418
4	7306	SWM#4B	0	0	0	0	0	0	0	0	0	353
		SWM#4A	483	0	0	0	0	0	0	0	0	483
SUBTOTAL 4			483	0	0	0	0	0	0	0	0	836
5	3678	SWM#5	0	0	0	0	0	0	0	0	0	353
SUBTOTAL 5			0	0	0	0	0	0	0	0	0	353
6	9564	SWM#6	762	677	0	0	0	0	0	0	0	1439
SUBTOTAL 6			762	677	0	0	0	0	0	0	0	1439
TOTALS:			1452	969	0	0	0	0	0	0	0	3263
											TOTAL ESDv PROVIDED	5684

TOTAL AREA 53492 SF
1.23 AC



HC ACCESS DETAIL - BUILDING B
SCALE: 1"=50' 1"=20'

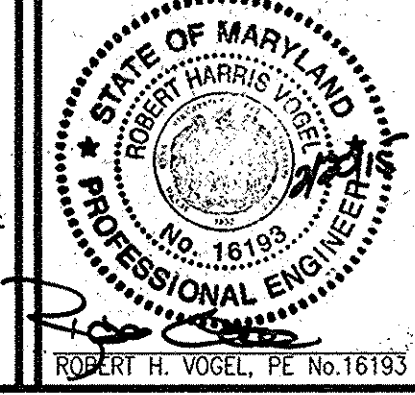
OWNER/DEVELOPER
LEWAL PARTNERSHIP
100 PAINTERS MILL ROAD
SUITE 900
OWINGS MILLS, MD 21117
410-363-3434

NO AS-BUILT INFORMATION THIS SHEET

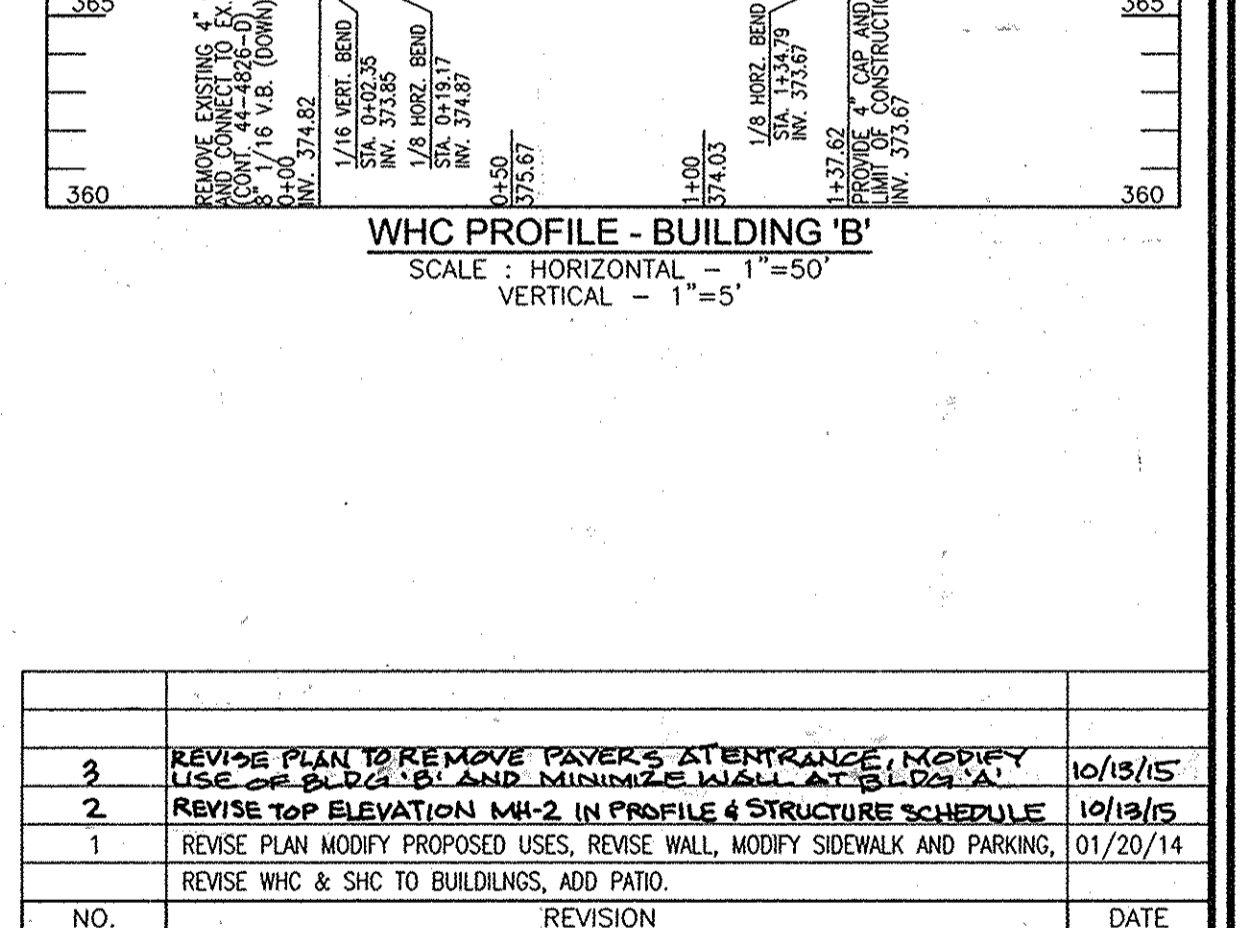
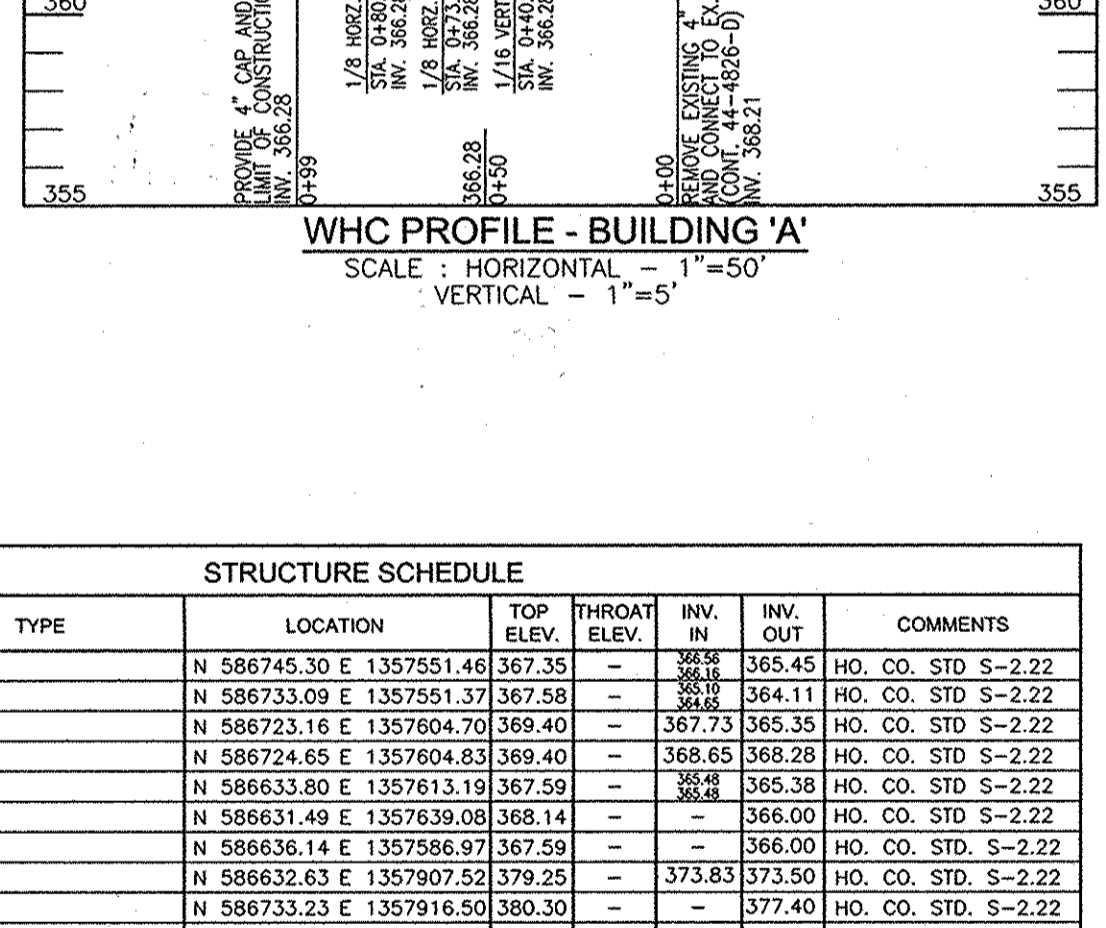
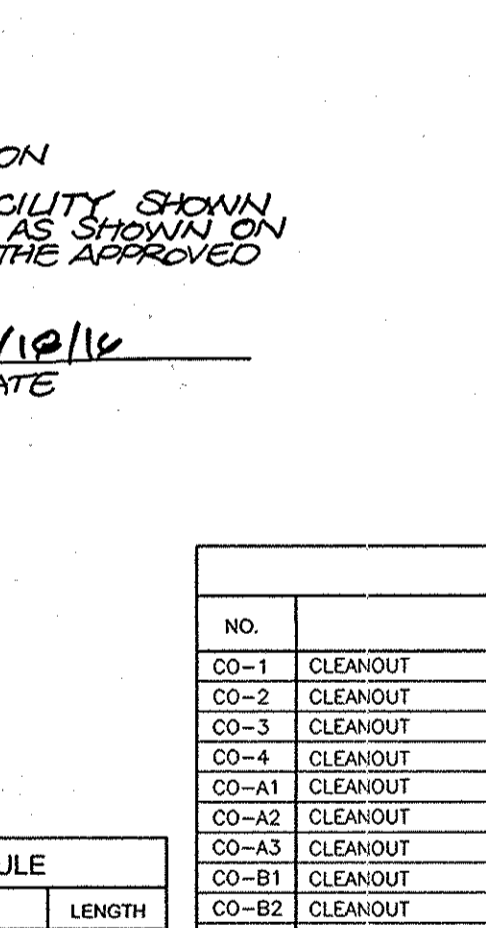
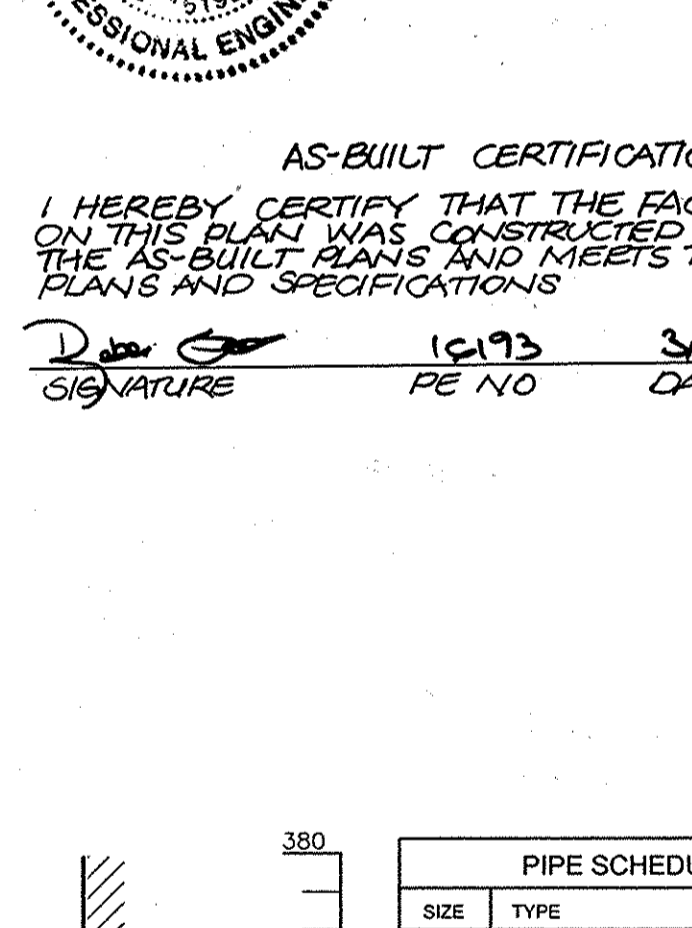
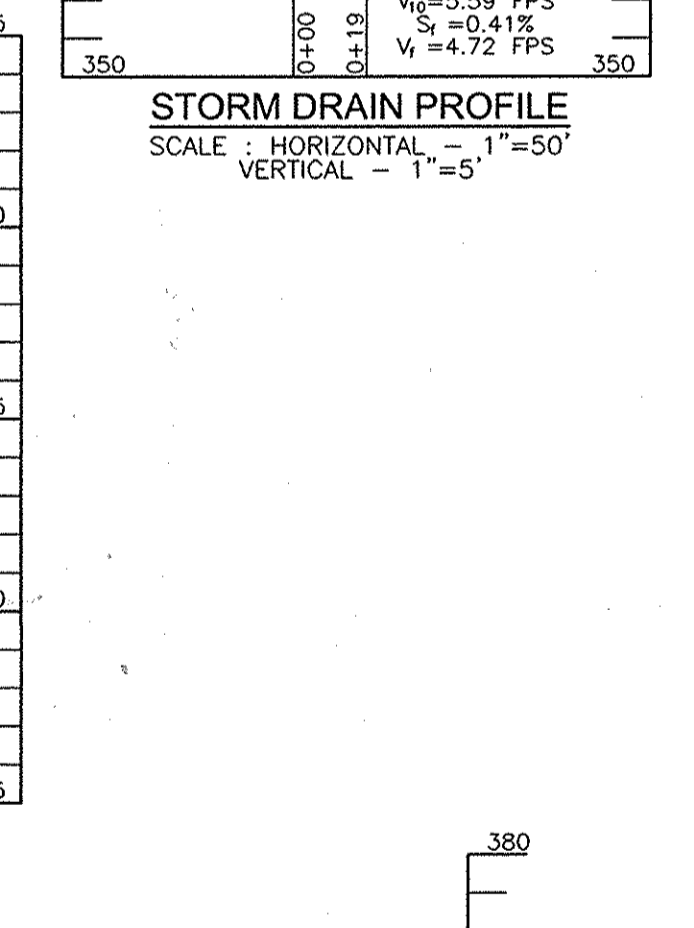
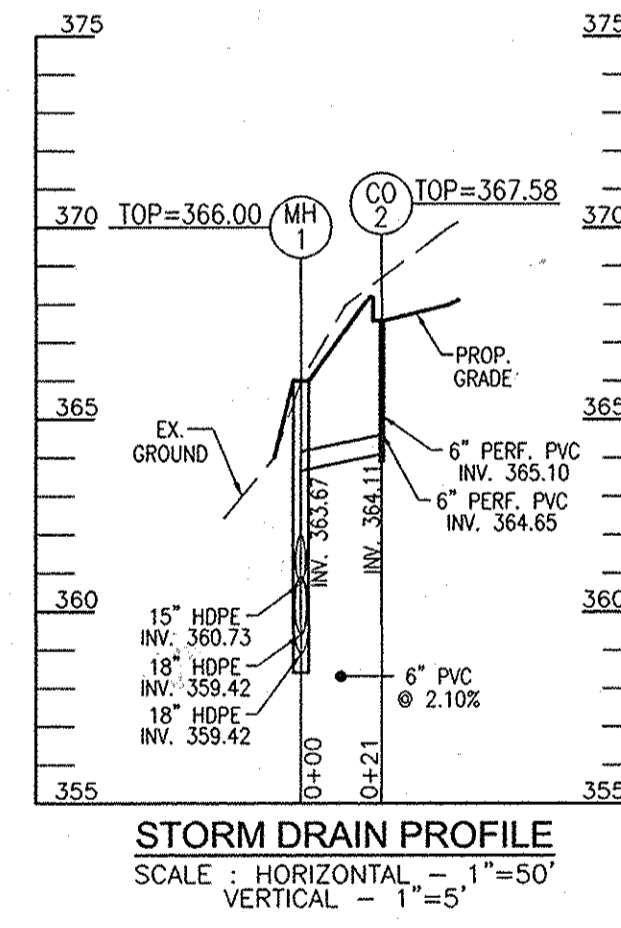
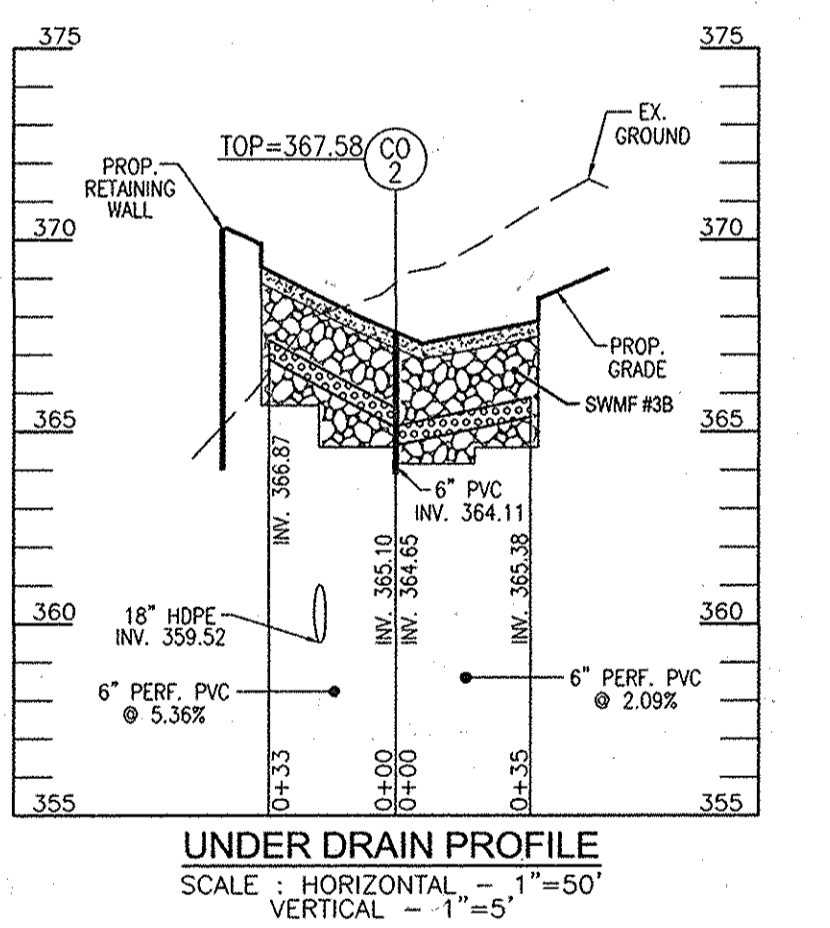
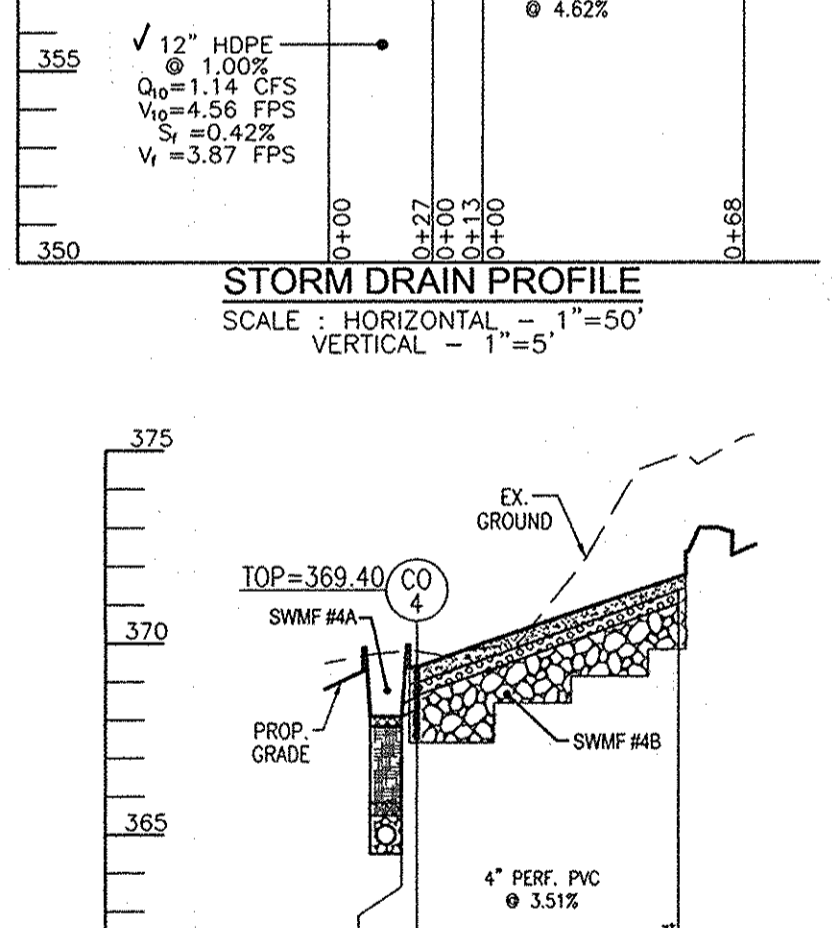
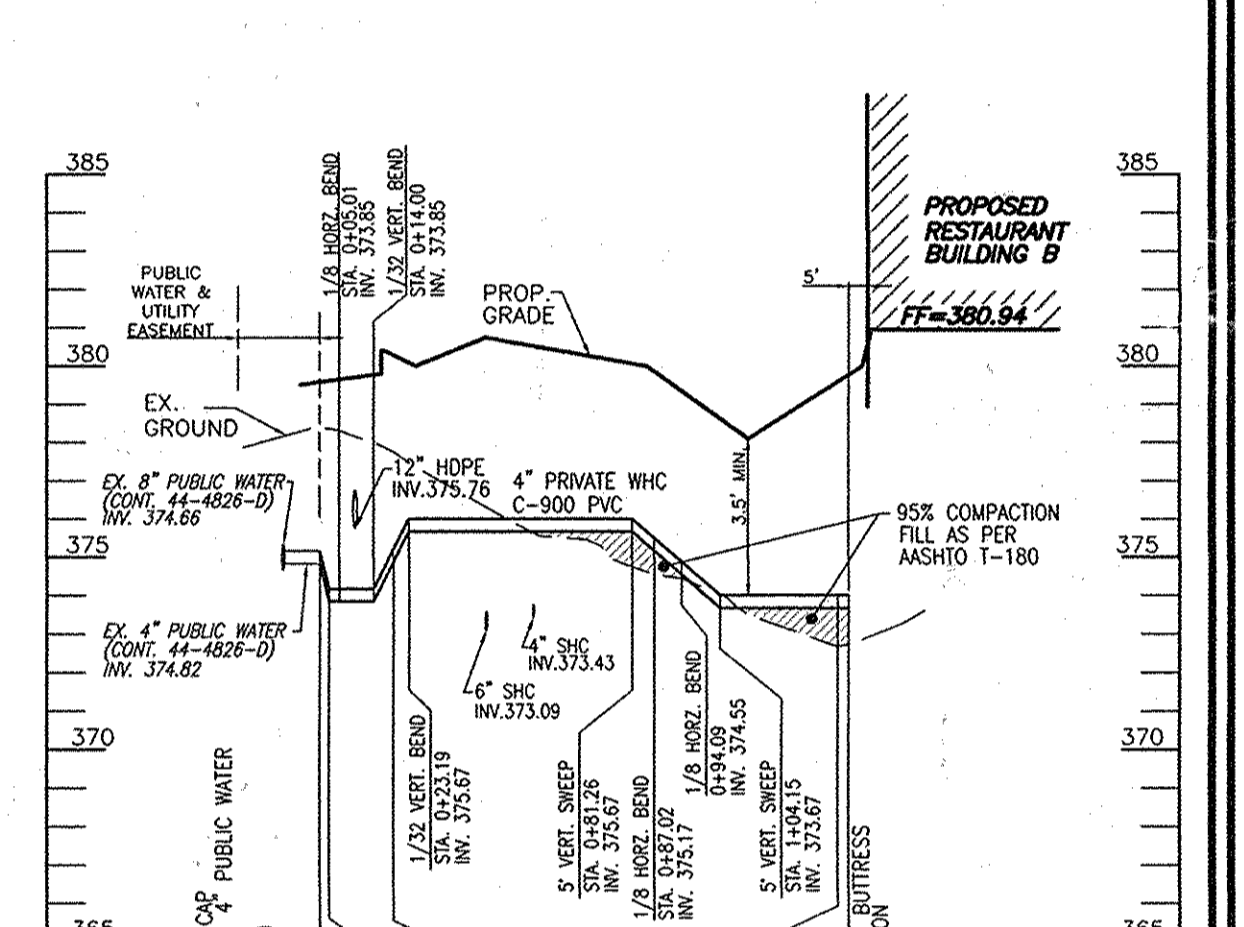
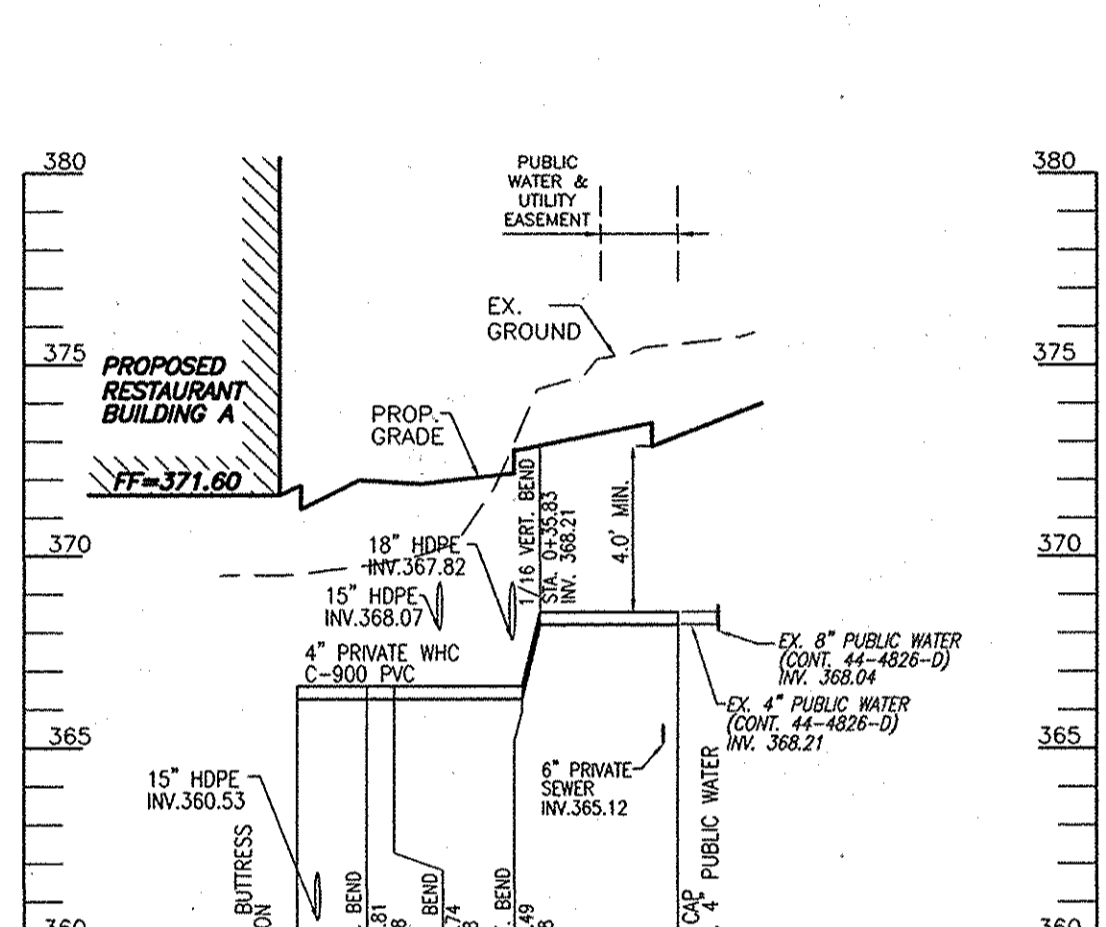
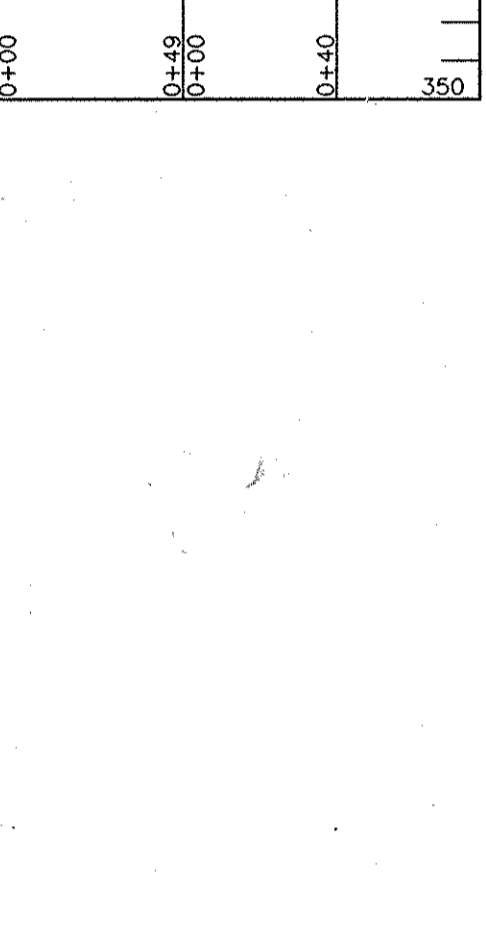
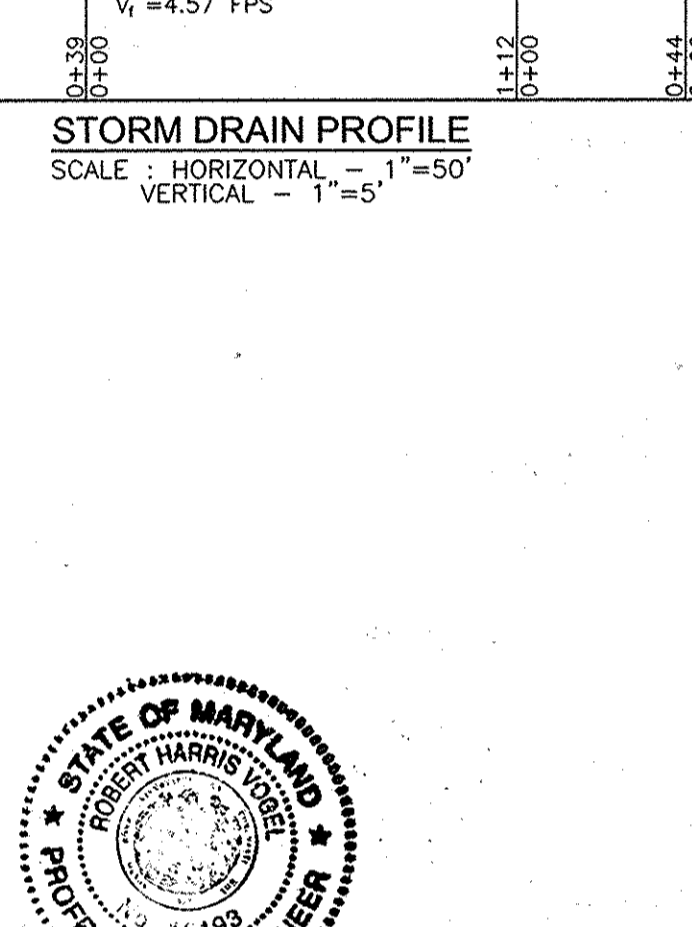
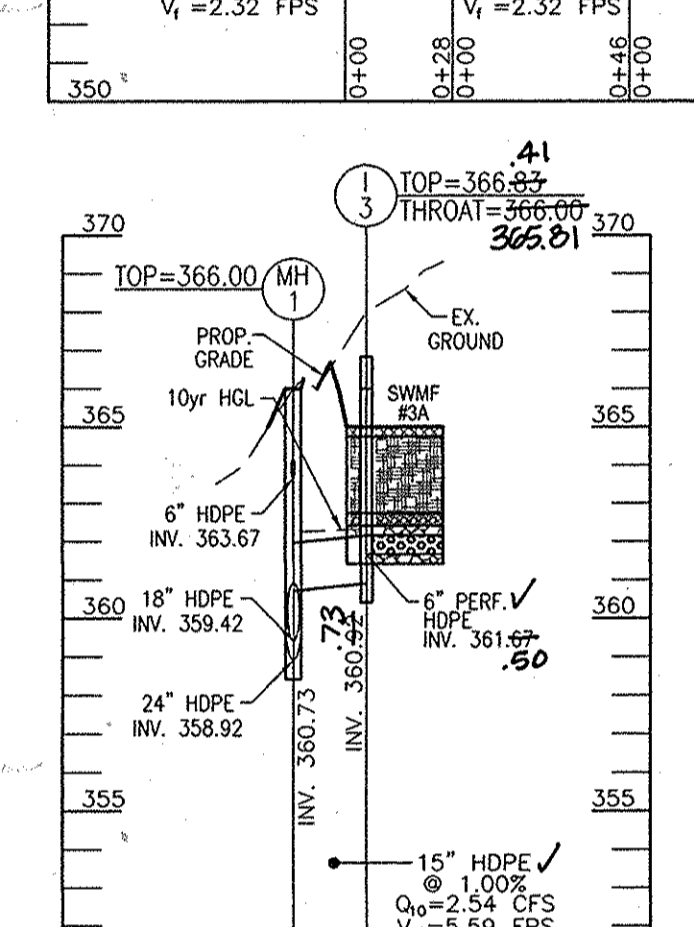
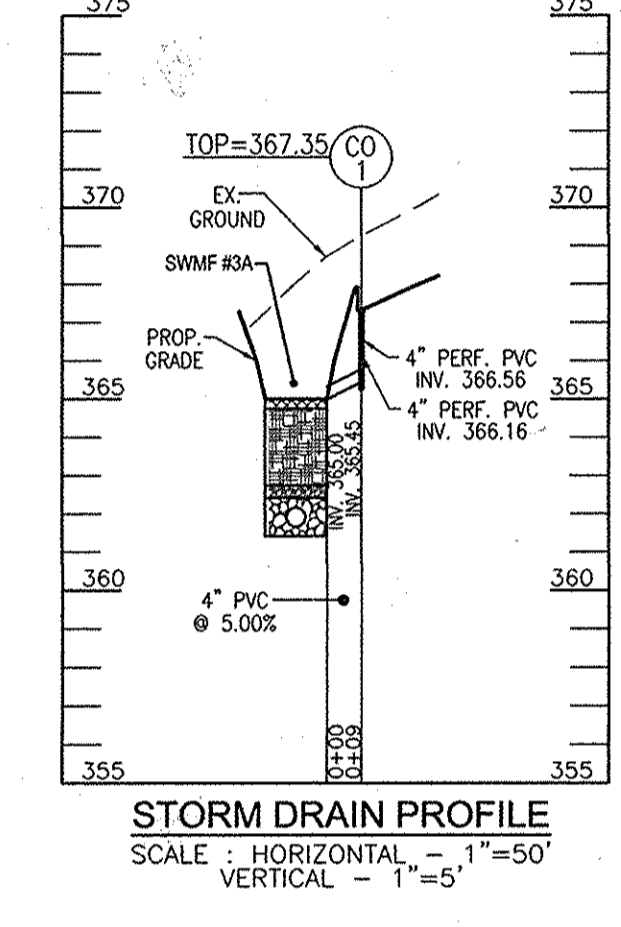
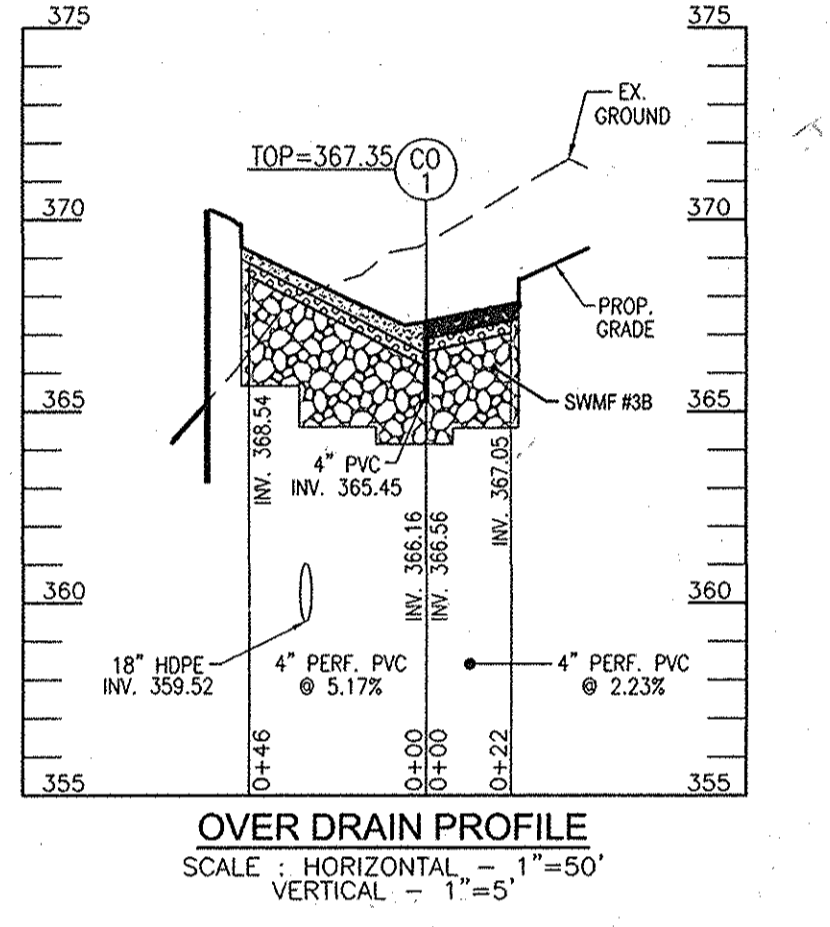
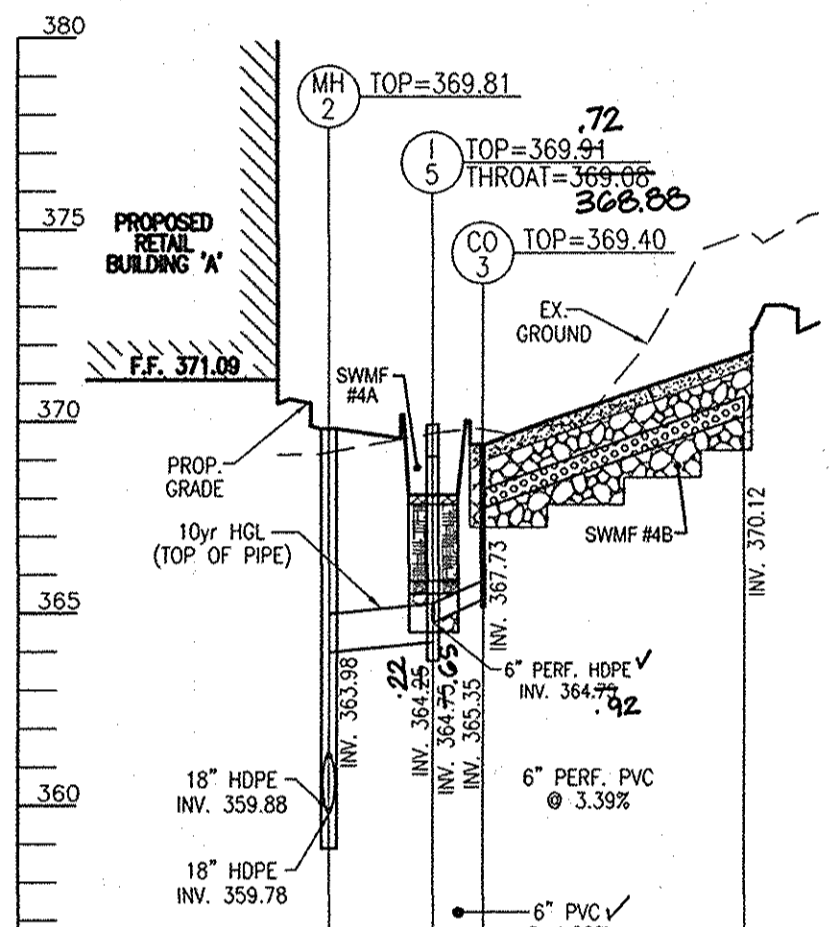
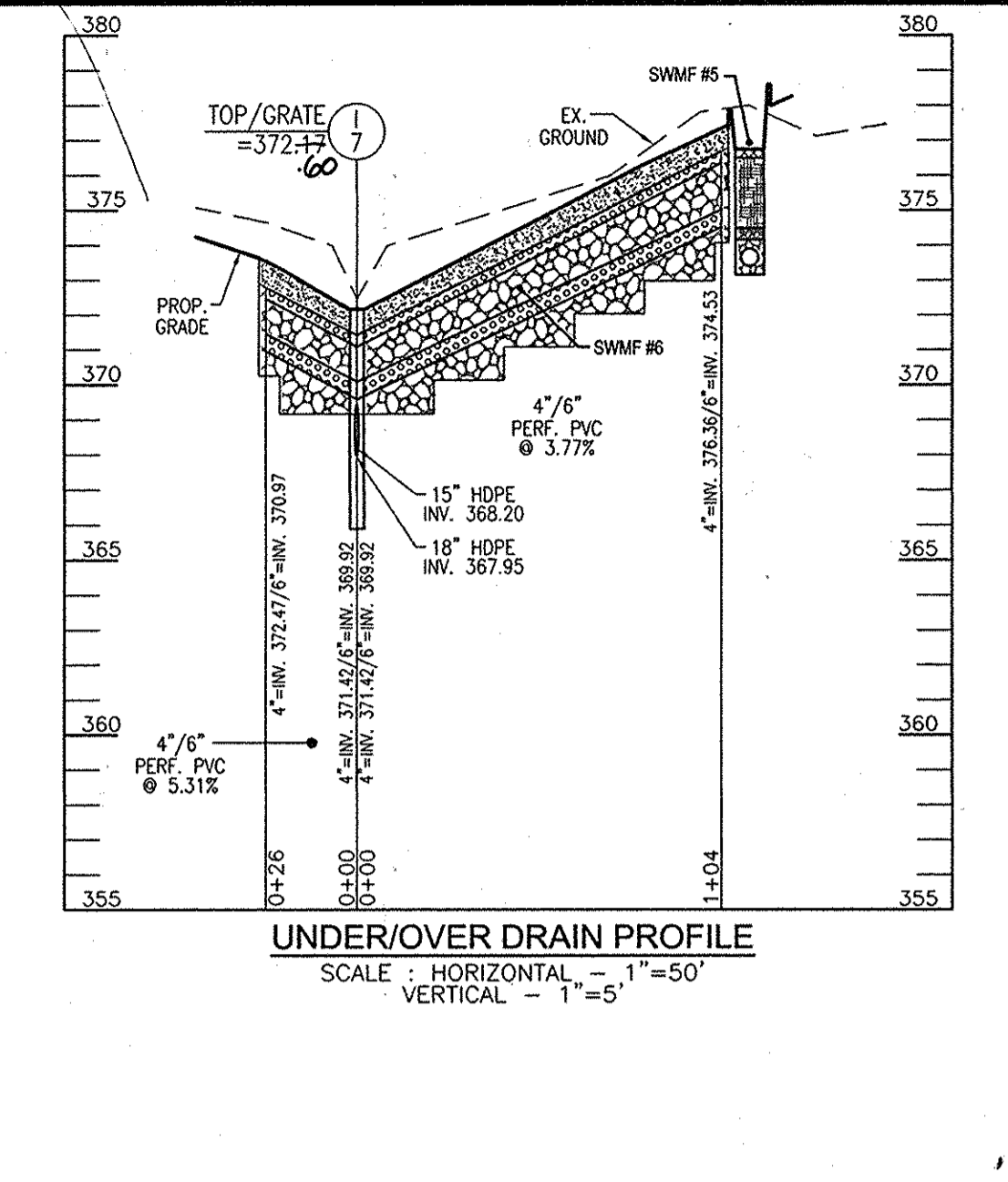
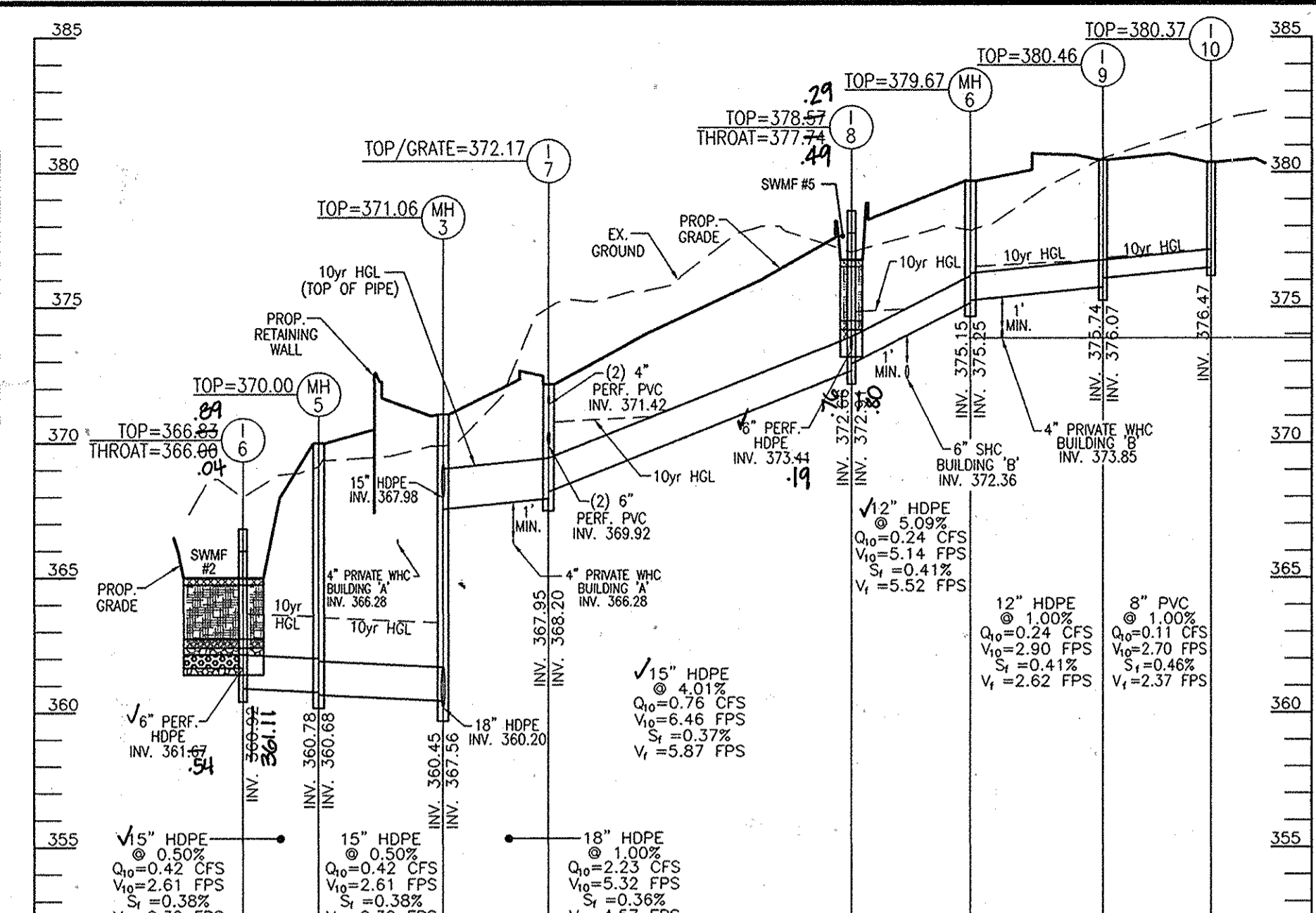
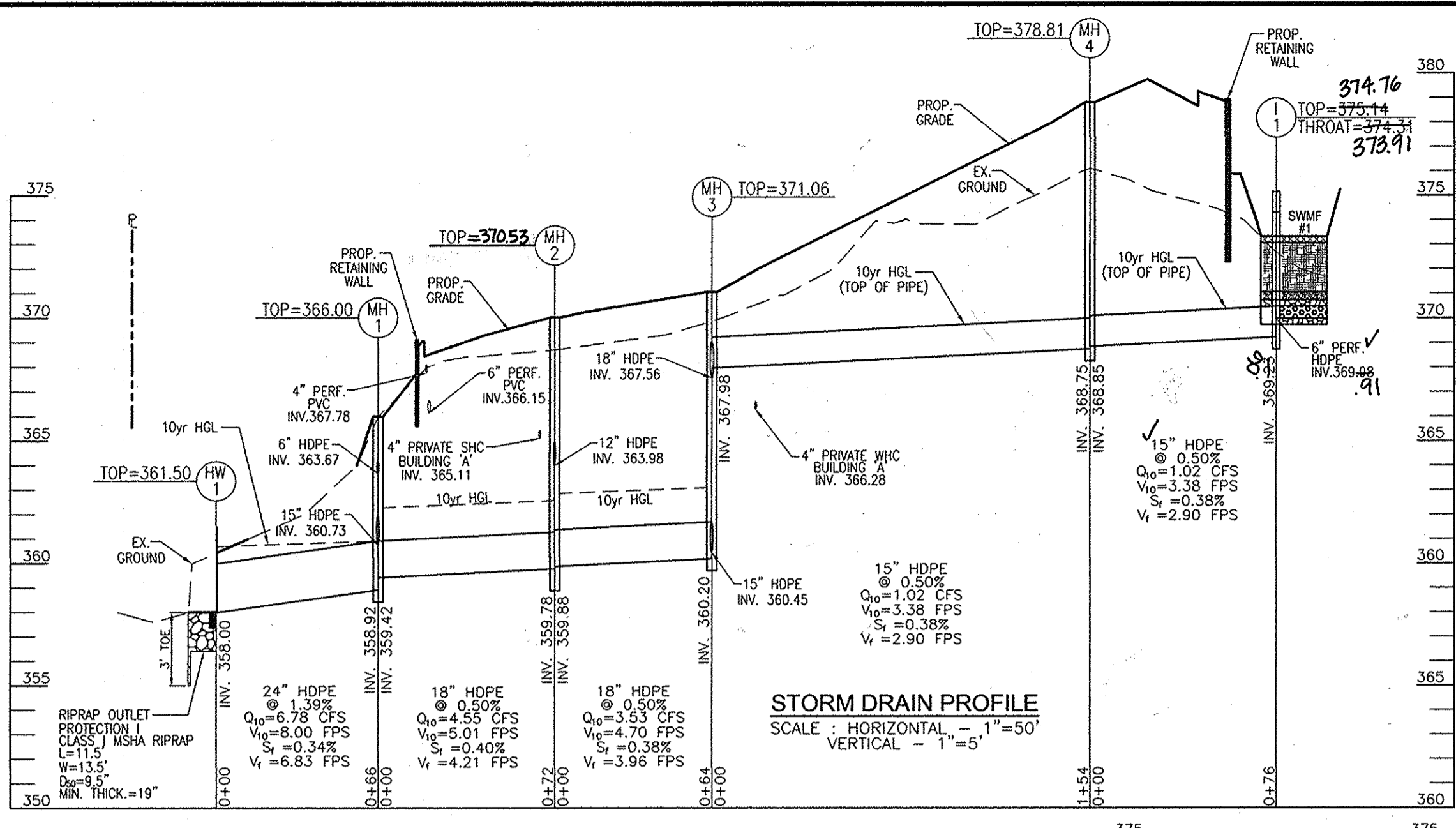
NO.	REVISION	DATE
2	REVISE PLAN TO INCREASE SIZE OF PATIO	04/20/15
1	REVISE PLAN MODIFY PROPOSED USES, REVISE WALL, MODIFY SIDEWALK AND PARKING, REVISE WHC & SHC TO BUILDINGS, ADD PATIO.	01/20/14

REVISED SITE DEVELOPMENT PLAN
STORMWATER MANAGEMENT AND STORM DRAIN DRAINAGE AREA MAP
ARCADIA SQUARE
9525 BALTIMORE NATIONAL PIKE
RESTAURANT AND RETAIL
L. 1551/F. 89 (PLAT 15803)
TAX MAP 24 BLOCK 4
2ND ELECTION DISTRICT
DPZ REF'S: SEE NOTES ON COVER
PARCEL 77
ZONED: B-1
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961



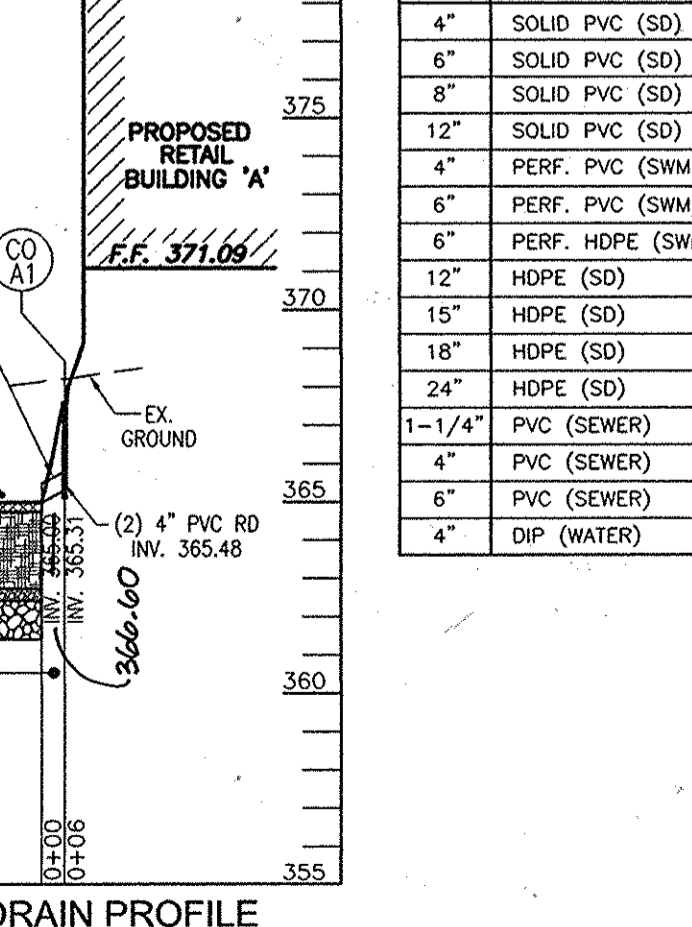
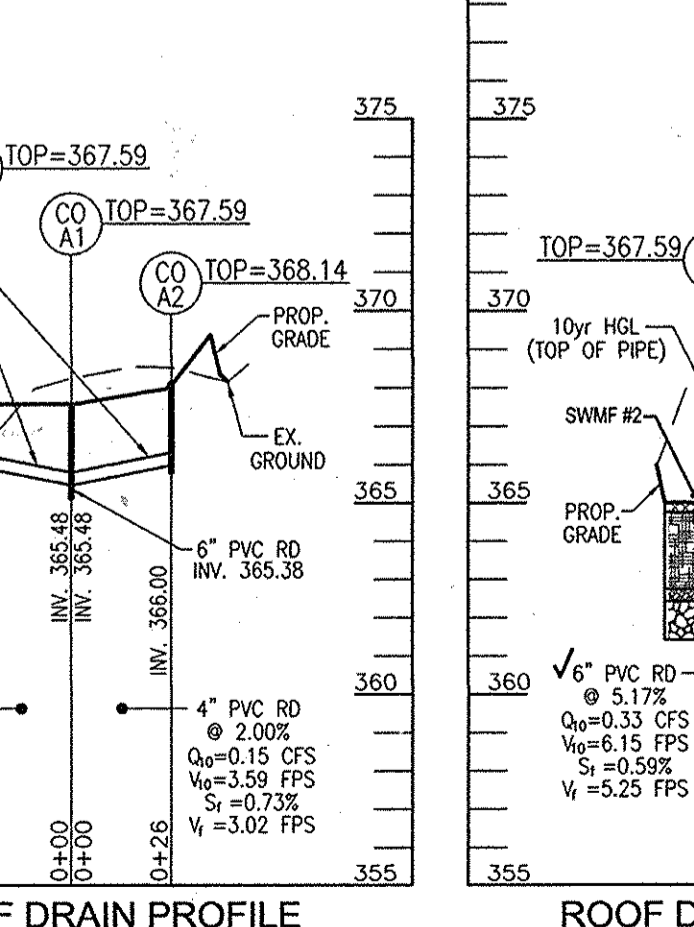
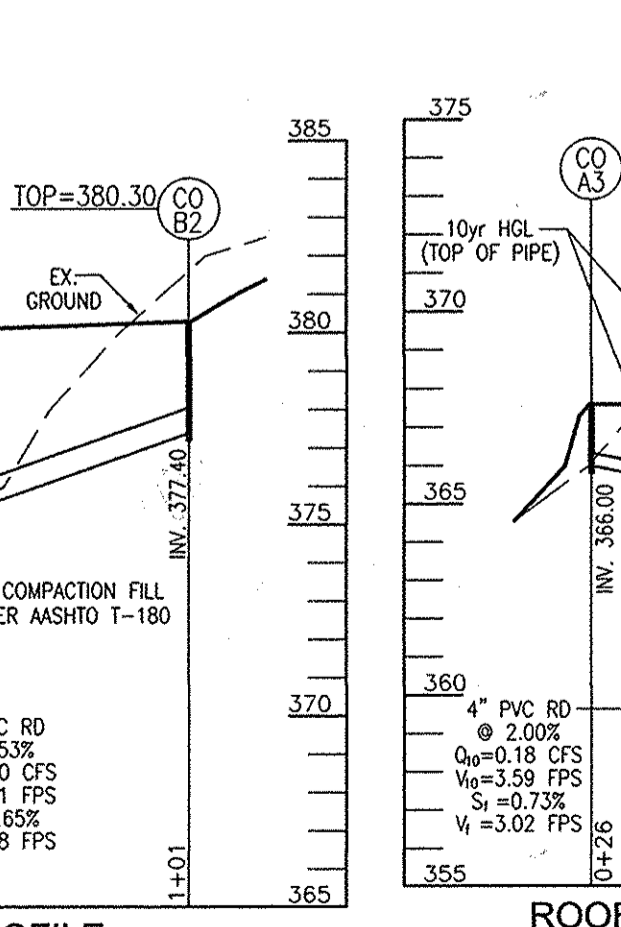
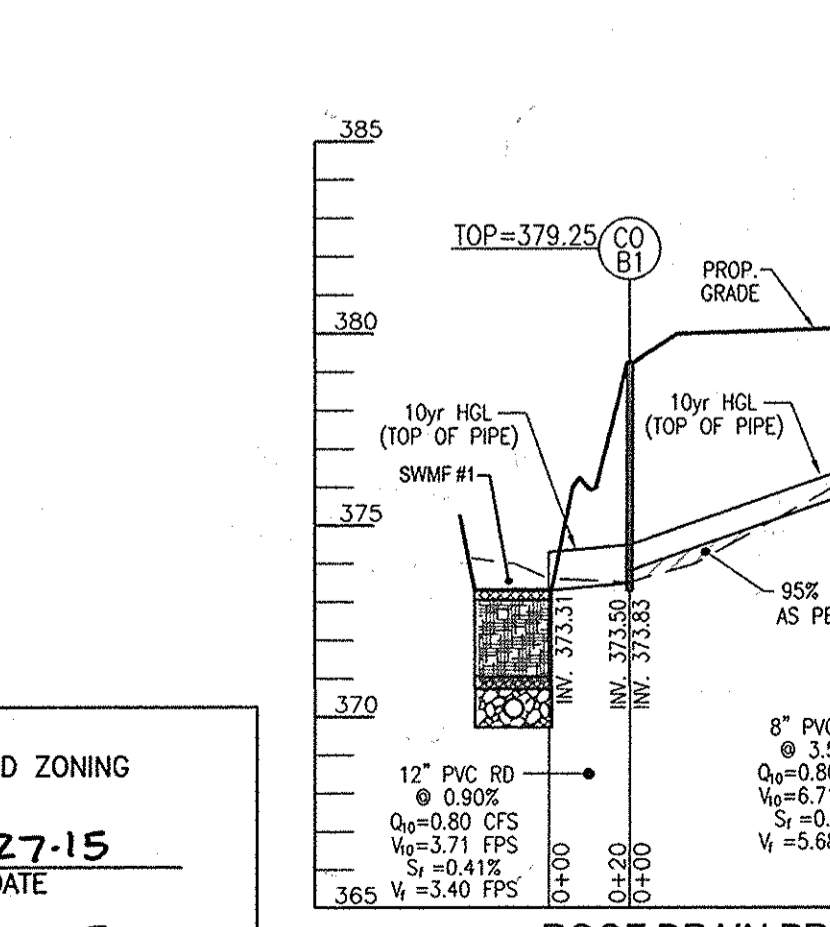
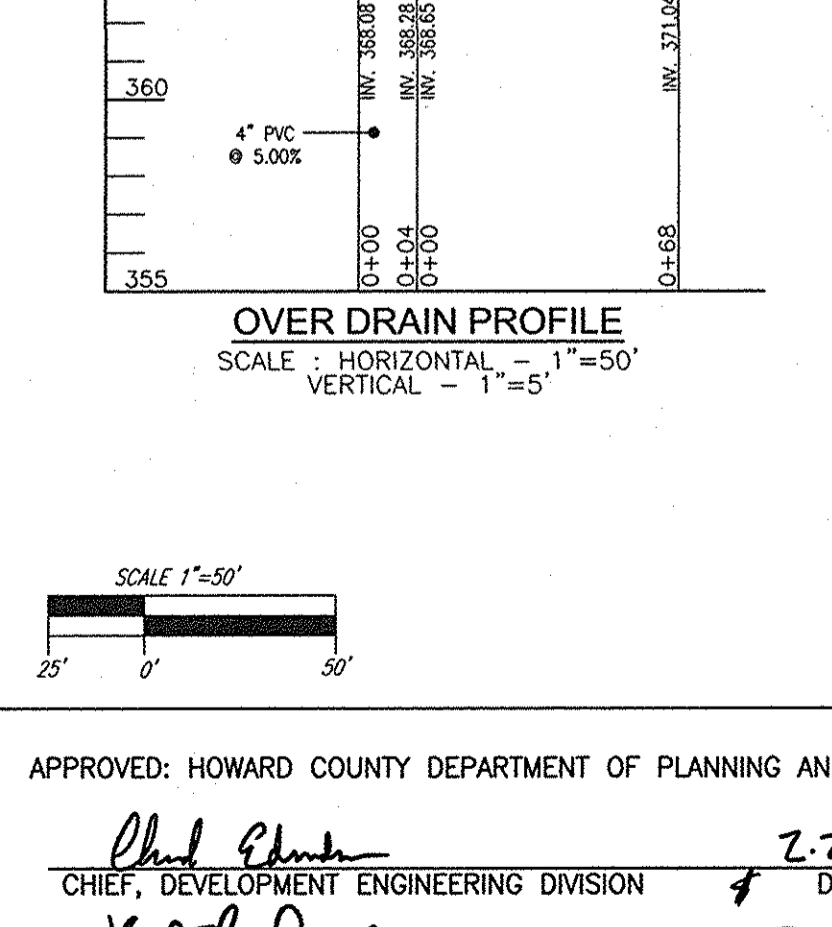
PROFESSIONAL CERTIFICATE
DESIGN BY: DZ
DRAWN BY: DZ/KG
CHECKED BY: RHW
DATE: FEBRUARY 2015
SCALE: AS SHOWN
W.O. NO.: 09-14
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 09-27-2018.
6 SHEET OF 12



AS-BUILT CERTIFICATION
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.
SIGNATURE: [Signature] PE NO: 16193 DATE: 3/16/16

STRUCTURE SCHEDULE							
NO.	TYPE	LOCATION	TOP ELEV.	THROAT ELEV.	INV. IN	INV. OUT	COMMENTS
CO-1	CLEANOUT	N 586745.30 E 1357551.48	367.35	367.35	365.45	365.45	HO. CO. STD. S-2-22
CO-2	CLEANOUT	N 586733.09 E 1357551.37	367.58	367.58	365.35	365.35	HO. CO. STD. S-2-22
CO-3	CLEANOUT	N 586724.65 E 1357604.83	369.40	369.40	368.65	368.28	HO. CO. STD. S-2-22
CO-4	CLEANOUT	N 586633.80 E 1357613.19	367.59	367.59	365.38	365.38	HO. CO. STD. S-2-22
CO-A1	CLEANOUT	N 586631.49 E 1357639.08	368.14	368.14	366.00	366.00	HO. CO. STD. S-2-22
CO-A2	CLEANOUT	N 586636.14 E 1357586.97	367.59	367.59	366.00	366.00	HO. CO. STD. S-2-22
CO-B1	CLEANOUT	N 586632.63 E 1357907.52	379.25	379.25	373.83	373.83	HO. CO. STD. S-2-22
CO-B2	CLEANOUT	N 586733.23 E 1357915.50	380.30	380.30	377.40	377.40	HO. CO. STD. S-2-22
HW-1	TYPE 'A' HEADWALL (24" HDPE)	N 586738.53 E 1357467.28	361.50	361.50	358.00	358.00	HO. CO. STD. D-5-11
I-1	TYPE 'D' INLET	N 586810.08 E 1357859.37	375.14	374.31	369.98	369.23	HO. CO. STD. D-4-10
I-2	TYPE 'D' INLET	N 586743.14 E 1357535.25	366.83	366.00	361.67	360.92	HO. CO. STD. D-4-10
I-3	TYPE 'D' INLET	N 586739.84 E 1357548.12	367.80	367.20	366.95	366.95	SHA STD. MD-374.68
I-4	TYPE 'D' INLET	N 586714.87 E 1357595.93	369.91	369.08	364.25	364.25	HO. CO. STD. D-4-10
I-5	TYPE 'D' INLET	N 586821.36 E 1357629.34	366.83	366.00	361.67	360.92	HO. CO. STD. D-4-10
I-6	TYPE 'D' INLET	N 586706.84 E 1357687.39	372.17	372.17	368.92	368.92	HO. CO. STD. D-4-35
I-7	DOUBLE TYPE 'S' INLET	N 586696.73 E 1357799.10	378.57	377.74	372.61	372.61	HO. CO. STD. D-4-10
I-8	TYPE 'D' INLET	N 586714.87 E 1357595.93	369.91	369.08	364.25	364.25	HO. CO. STD. D-4-10
I-9	NYLOPLAST 15" INLINE DRAIN	N 586751.51 E 1357857.89	380.46	380.46	373.37	373.37	NYLOPLAST 271540
I-10	NYLOPLAST 15" INLINE DRAIN	N 586747.52 E 1357897.83	380.37	380.37	376.47	376.47	NYLOPLAST 271540
MH-1	STANDARD 5' PRECAST MANHOLE	N 586724.10 E 1357531.73	366.00	366.00	358.92	358.92	HO. CO. STD. G-5-13
MH-2	STANDARD 4' PRECAST MANHOLE	N 586681.78 E 1357593.49	370.58	370.58	359.78	359.78	HO. CO. STD. G-5-12
MH-3	STANDARD 4' PRECAST MANHOLE	N 586681.78 E 1357657.42	371.06	371.06	360.20	360.20	HO. CO. STD. G-5-12
MH-4	STANDARD 4' PRECAST MANHOLE	N 586681.78 E 1357610.82	378.81	378.81	368.65	368.65	HO. CO. STD. G-5-12
MH-5	STANDARD 4' PRECAST MANHOLE	N 586633.80 E 1357613.19	367.59	367.59	360.60	360.60	HO. CO. STD. G-5-12
MH-6	STANDARD 4' PRECAST MANHOLE	N 586704.60 E 1357842.54	379.87	379.87	375.25	375.25	HO. CO. STD. G-5-12
EX. CO	EXISTING SANITARY CLEANOUT	N 586799.10 E 1357533.10	370.77	370.77	365.13	365.03	
GP-1	E-ONE SANITARY GRINDER PUMP	N 586773.77 E 1357570.17	369.75	369.75	359.25	360.32	MODEL DH-152-160
SCO-1	CLEANOUT	N 586705.15 E 1357812.80	378.40	378.40	372.14	372.14	HO. CO. STD. S-2-22
SCO-2	CLEANOUT	N 586672.24 E 1357814.82	379.15	379.15	372.66	372.66	HO. CO. STD. S-2-22
SCO-3	CLEANOUT	N 586699.86 E 1357841.44	380.03	380.03	373.37	373.37	HO. CO. STD. S-2-22
SCO-4	CLEANOUT	N 586693.33 E 1357598.64	369.66	369.66	362.02	362.02	HO. CO. STD. S-2-22
SCO-5	CLEANOUT	N 586663.71 E 1357629.22	370.35	370.35	365.02	364.92	HO. CO. STD. S-2-22
SMH-1	STANDARD 4' PRECAST MANHOLE	N 586673.73 E 1357583.58	368.77	368.77	360.85	360.85	HO. CO. STD. G-5-12
SMH-2	TYPE 'B' DROP MANHOLE	N 586706.84 E 1357687.39	372.17	372.17	371.68	368.49	HO. CO. STD. S-1-32

PIPE SCHEDULE		
SIZE	TYPE	LENGTH
4"	SOLID PVC (SD)	65 LF
6"	SOLID PVC (SD)	40 LF
8"	SOLID PVC (SD)	141 LF
12"	SOLID PVC (SD)	20 LF
4"	PERF. PVC (SWM)	266 LF
6"	PERF. PVC (SWM)	266 LF
6"	PERF. HDPE (SWM)	233 LF
12"	HDPE (SD)	120 LF
15"	HDPE (SD)	435 LF
18"	HDPE (SD)	175 LF
24"	HDPE (SD)	66 LF
1-1/4"	PVC (SEWER)	45 LF
6"	PVC (SEWER)	176 LF
6"	PVC (SEWER)	323 LF
4"	DIP (WATER)	242 LF



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 2.27.15
CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 3.02.15
CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] 3/16/16
DIRECTOR

NO.	REVISION	DATE
3	REVISE PLAN TO REMOVE PAVEMENT AT ENTRANCE, MODIFY USE OF BLDG 'B' AND MINIMIZE WALL AT BLDG 'A'	10/15/15
2	REVISE TOP ELEVATION MH-2 IN PROFILE & STRUCTURE SCHEDULE	10/15/15
1	REVISE PLAN MODIFY PROPOSED USES, REVISE WALL, MODIFY SIDEWALK AND PARKING	01/20/14
	REVISE WHC & SHC TO BUILDINGS, ADD PATIO.	

REVISED SITE DEVELOPMENT PLAN
STORM DRAIN PROFILES
ARCADIA SQUARE
9525 BALTIMORE NATIONAL PIKE
RESTAURANT AND RETAIL
L1551/F.89 (PLAT 15803)

TAX MAP 24 BLOCK 4
2ND ELECTION DISTRICT
DPZ REF'S: SEE NOTES ON COVER

PARCEL 77
ZONED: B-1
HOWARD COUNTY, MARYLAND

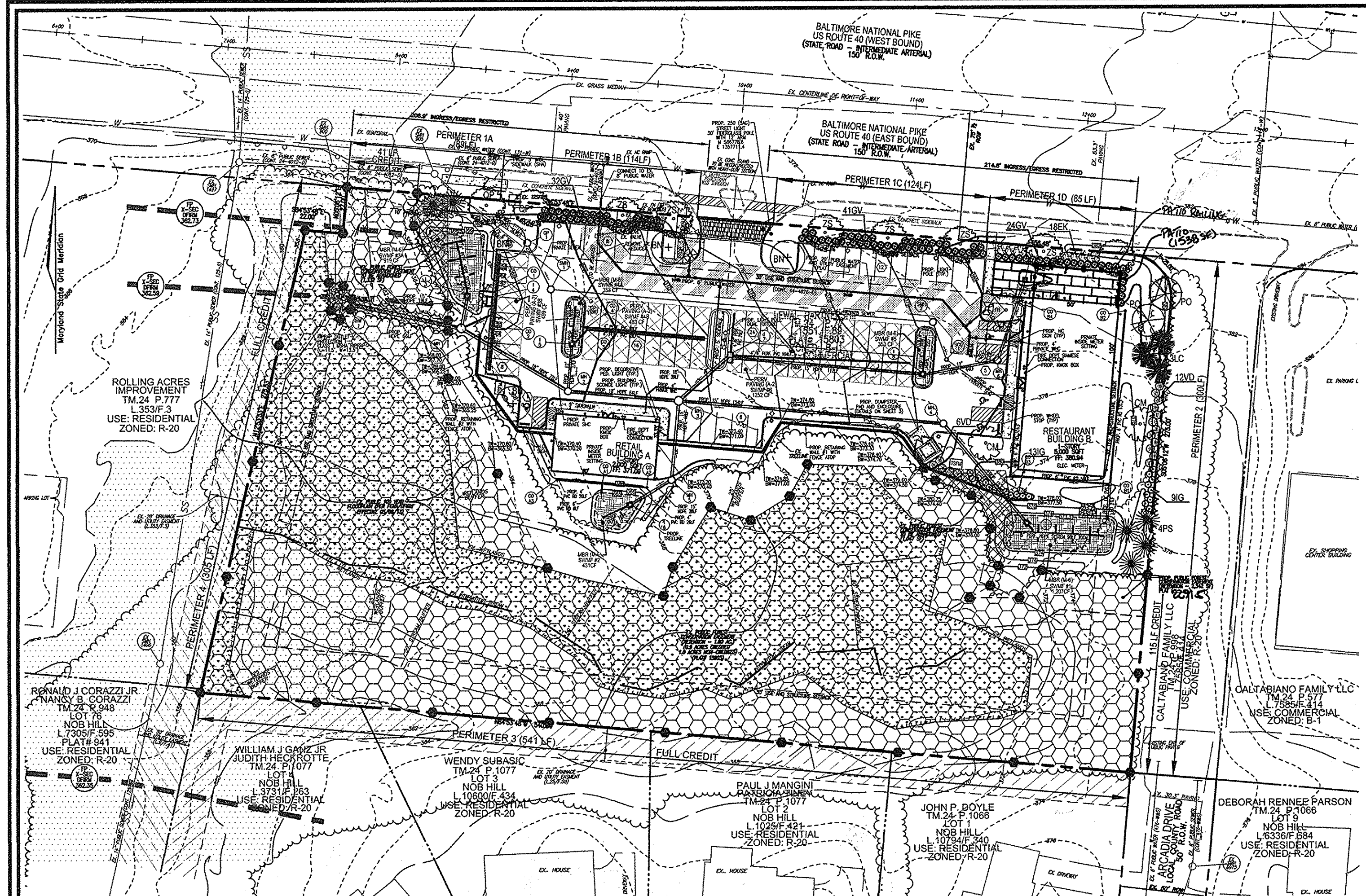
ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLCOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

DESIGN BY: [Signature] DZ
DRAWN BY: [Signature] DZ/KG
CHECKED BY: [Signature] RHV
DATE: FEBRUARY 2015
SCALE: AS SHOWN
W.O. NO.: 09-14

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

PROFESSIONAL CERTIFICATE

7 SHEET OF 12



LEGEND

	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	PROPOSED 10' CONTOUR
	PROPOSED 2' CONTOUR
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	EXISTING CURB AND GUTTER
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	EXISTING FENCE
	PROPOSED STORM DRAIN
	PROPOSED STORM DRAIN INLET
	PROPOSED CURB AND GUTTER
	PROPOSED SIDEWALK
	PROPOSED LANDSCAPE PAVERS
	PROPOSED PRIVATE LIGHT POLES
	EXISTING TREE LINE
	EXISTING STREAM
	EXISTING STREAM BUFFER
	EXISTING WETLANDS
	EXISTING WETLAND BUFFER
	EXISTING PUBLIC FOREST CONSERVATION EASEMENT
	EXISTING PUBLIC FOREST CONSERVATION EASEMENT (TO BE ABANDONED)
	EXISTING DRAINAGE & UTILITY EASEMENT
	PROPOSED PUBLIC FOREST CONSERVATION EASEMENT
	PROPOSED PUBLIC WATER AND UTILITY EASEMENT
	PROPOSED PERMEABLE PAVEMENT (A-2)
	PROPOSED MICRO BIO-RETENTION (M-6)
	PROPOSED SHADE TREES
	PROPOSED EVERGREEN TREES
	PROPOSED SHRUBS
	PROPOSED LANDSCAPE BUFFER
	FOREST CONSERVATION SIGN

SCHEDULE 'A' PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTIES AND ROWS				ADJACENT TO SUBSITES			
	1A	1B	1C	1D	2	3	4	C
PERIMETER/FRONTAGE DESIGNATION	B	E	IC	1D	2	3	4	C
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	89'	114'	124'	85'	300'	541'	305'	32'
CREDIT FOR EXISTING VEGETATION (YES/NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	YES/11'	NO/0	NO/0	NO/0	YES/115'	YES/241'	YES/305'	YES/305'
CREDIT FOR WALL, FENCE OR BERM (YES/NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO/0	NO/0	NO/0	NO/0	NO/0	NO/0	NO/0	NO/0
NUMBER OF PLANTS REQUIRED	48	1:40 3	1:40 3	1:50 2	185	5	5	1:40 1
SHADE TREES	1:40 2	1:40 2	1:40 3	1:40 3	1:60 5	1:20 2	1:20 2	1:20 2
EVERGREEN TREES	1:40 2	1:40 2	1:40 3	1:40 3	1:60 5	1:20 2	1:20 2	1:20 2
SHRUBS	1:40 2	1:40 2	1:40 3	1:40 3	1:60 5	1:20 2	1:20 2	1:20 2
NUMBER OF PLANTS PROVIDED	1	3	3	2	0**	0**	0**	0**
SHADE TREES	2	3	3	2	0**	0**	0**	0**
EVERGREEN TREES	2	3	3	2	0**	0**	0**	0**
SHRUBS (2:1 SUBSTITUTION)	2	3	3	2	0**	0**	0**	0**
TOTAL	10	12	12	7	0	0	0	0

** CREDITS MAY BE APPLIED IN CONSIDERATION OF EXISTING VEGETATION TO REMAIN.
** TO SHRUBS SUBSTITUTED FOR 1 SHADE TREE.

LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	CAT
ZS	7	ZELKOVA SEROTINA 'VILLAGE GREEN'	2 1/2"-3" CAL.	B & B
OP	2	QUERCUS PALustris	2 1/2"-3" CAL.	B & B
BN	4	BETULA NIGRA 'HERITAGE'	2 1/2"-3" CAL.	B & B
CM	3	CORNUS FLORIDA 'INDICA'	2 1/2"-3" CAL.	B & B
PO	2	PRUNUS X INCAMP 'OKAME'	2 1/2"-3" CAL.	B & B
PS	6	PRUNUS STROBUS	6"-8" HT.	B & B
LC	3	LUXURIA MICROPHYLLA 'GREEN VELVET'	6"-8" HT.	B & B
GV	99	GUYARDIA VIRENS 'PARIS LEVANDI'	2" - 2 1/2" HT.	B & B
IG	22	IRIS GERANIIFLORA 'COMPACTA'	2 1/2" - 3" HT.	B & B
VD	18	VIOLARIA DENTATA	2 1/2" - 3" HT.	B & B
EK	18	EUNYMALUS KUALITSCHOVICUS 'MANHATTAN'	2 1/2" - 3" HT.	B & B

SCHEDULE 'B' PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PROPOSED PARKING SPACES	80
NUMBER OF TREES REQUIRED (1/20 SPACES)	4
NUMBER OF TREES PROVIDED	4
SHADE TREES (2:1 SUBSTITUTION)	4
OTHER TREES (2:1 SUBSTITUTION)	0

SEQUENCE OF CONSTRUCTION-FOREST CONSERVATION

- PRECONSTRUCTION MEETING / SITE WALK WITH CONTRACTORS AND OTHER RESPONSIBLE PARTIES TO DEFINE PROTECTION MEASURES TO BE UTILIZED AND TO POINT OUT PARTICULAR TREES TO BE SAVED OR LESS OF RETENTION AREA.
- STAKE OUT LIMITS OF DISTURBANCE AND TREE PROTECTION FENCING LOCATIONS. 3. INSTALL TREE PROTECTION FENCING TO BE INSPECTED BY THE PROJECT ENGINEER OR THE PROJECT ECOLOGIST AND HOWARD COUNTY CID AND/OR DRP.
- PROCEED WITH TREE REMOVAL AND SITE IMPROVEMENTS AS PER APPROVED SEDIMENT CONTROL PLAN - TO BE INSPECTED BY HOWARD COUNTY CID AND/OR DRP.
- TEMPORARY TREE PROTECTION DEVICES SHALL BE REMOVED AFTER ALL FINISHED GRADING AND UTILITY CONSTRUCTION HAS OCCURRED AND WITH APPROVAL FROM THE HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

Forest Conservation Worksheet 2.2

Net Tract Area	A = 3.66
Total Tract Area	B = 0.62
Deductions	C = 2.94
Net Tract Area	A = 3.66
Deductions	B = 0.62
Net Tract Area	C = 2.94

Input the number "1" under the appropriate land use zoning and limit to only one entry.

ARA	MDR	IDA	HRD	MPD	CIA
0	0	1	0	0	0

D. Afforestation Threshold (Net Tract Area x 15%) D = 0.44
 E. Conservation Threshold (Net Tract Area x 20%) E = 0.59
 Existing Forest Cover
 F. Existing Forest Cover within the Net Tract Area F = 2.23
 G. Area of Forest Above Conservation Threshold G = 1.64
 Break Even Point
 H. Break Even Point H = 0.92
 I. Forest Clearing Permitted Without Mitigation I = 1.31
 Proposed Forest Clearing
 J. Total Area of Forest to be Cleared J = 0.52
 K. Total Area of Forest to be Retained K = 1.91
 Planting Requirements
 L. Reforestation for Clearing Above the Conservation Threshold L = 0.00
 M. Reforestation for Clearing Below the Conservation Threshold M = 0.00
 N. Credit for Retention above the Conservation Threshold N = 0.00
 O. Total Reforestation Required O = 0.00
 P. Total Reforestation Required P = 0.00
 Q. Total Afforestation Required Q = 0.00
 R. Total Planting Requirement R = 0.00

LANDSCAPE NOTES

- AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. ADDITIONAL SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DELAY IN THE RELEASE OF THE LANDSCAPE SURETY FUNDS. THE LANDSCAPE SURETY FUNDS WILL BE RELEASED UPON COMPLETION OF THE LANDSCAPE PLAN. 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 BERM, 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 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 SHALL BE RESPONSIBLE FOR REPLACING 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 BY THE HOWARD COUNTY LANDSCAPE MANUAL. THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL DURING THE CONSTRUCTION OF THE FINAL PLAN.
- PLANTINGS SHOWN HEREON ARE THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL DURING THE CONSTRUCTION OF THE FINAL PLAN.

GENERAL NOTES

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY FOR THE LANDSCAPING IN THE AMOUNT OF \$9,900.00 FOR THE REQUIRED 19 SHADE TREES, 15 EVERGREENS, AND 65 SHRUBS SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS SITE DEVELOPMENT PLAN.
- THE 100% FLOODPLAIN AND INSURANCE RATE MAP APPROVED BY FEMA AND EFFECTIVE FOR COUNTY DEVELOPMENT RESTRICTIONS AS OF 05/06/13, EFFECTIVE FOR FLOOD INSURANCE REQUIREMENTS AS OF 11/06/13.
- THIS SITE CONTAINS WETLANDS, WETLAND BUFFERS, STREAMS, AND STREAM BUFFERS, AND PREVIOUSLY APPROVED UNDER SDP-02-113. THE REQUIRED FLOODPLAIN AND INSURANCE RATE MAP APPROVED BY FEMA AND EFFECTIVE FOR COUNTY DEVELOPMENT RESTRICTIONS AS OF 05/06/13, EFFECTIVE FOR FLOOD INSURANCE REQUIREMENTS AS OF 11/06/13.
- NO GRADING, REMOVAL OF VEGETATION OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE WETLANDS, WETLANDS BUFFER, STREAM BANK BUFFER, OR FOREST CONSERVATION EASEMENTS.
- THE SUBJECT PROPERTY IS ZONED R-20 PER ORDINANCE 15.01.01. THE SUBJECT PROPERTY IS SUBJECT TO THE 2004 COMPREHENSIVE ZONING PLAN AND THE COMP. LITE ZONING REGULATIONS EFFECTIVE ON 7/28/06, AND IS SUBJECT TO THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/2/03 PER COUNCIL BILL 75-2003.
- THE PROPERTY LINES SHOWN HEREON ARE BASED ON RECORD PLAT 15803.
- THE EXISTING TOPOGRAPHIC INFORMATION FROM HOWARD COUNTY GIS, COUNTY RECORDS, AND UTILITIES FROM PREVIOUSLY APPROVED SDP-02-113 AND CONTRACT DRAWINGS.
- CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WETLANDS BUFFER, STREAM BANK BUFFER, AND FOREST CONSERVATION EASEMENTS.
- THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- THE REMOVAL OF TREES 30" OR GREATER DBH IS PROHIBITED WITHOUT COUNTY WAIVER APPROVAL.
- NO LANDSCAPING TO BE INSTALLED WITHIN ANY PUBLIC EASEMENT FOR WATER, SEWER, OR STORMDRAIN.
- THE FOREST CONSERVATION OBLIGATION FOR THIS PROJECT HAS BEEN PREVIOUSLY SATISFIED UNDER SDP-02-113 WITH THE RETENTION OF 1.9 ACRES (0.9 CREDITED AND 1.0 NON-CREDITED) WHICH MEETS OR EXCEEDS THE BREAK-EVEN POINT OBLIGATION OF \$7,841.00 WAS POSTED FOR THE RETENTION (PLAT 15803). THIS PLAN ABANDONS 0.05 ACRES OF THE EXISTING FOREST CONSERVATION EASEMENT AND PROPOSES 0.05 ACRES OF RETENTION WITHIN A NEW FOREST CONSERVATION EASEMENT. NO ADDITIONAL SURETY IS REQUIRED.
- 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, POINT OBLIGATION ACCESS PATH TO THE FIRE DEPARTMENT CONNECTION. NFPA-1 13.1.4.

FOREST CONSERVATION NOTES

PRE-CONSTRUCTION ACTIVITIES

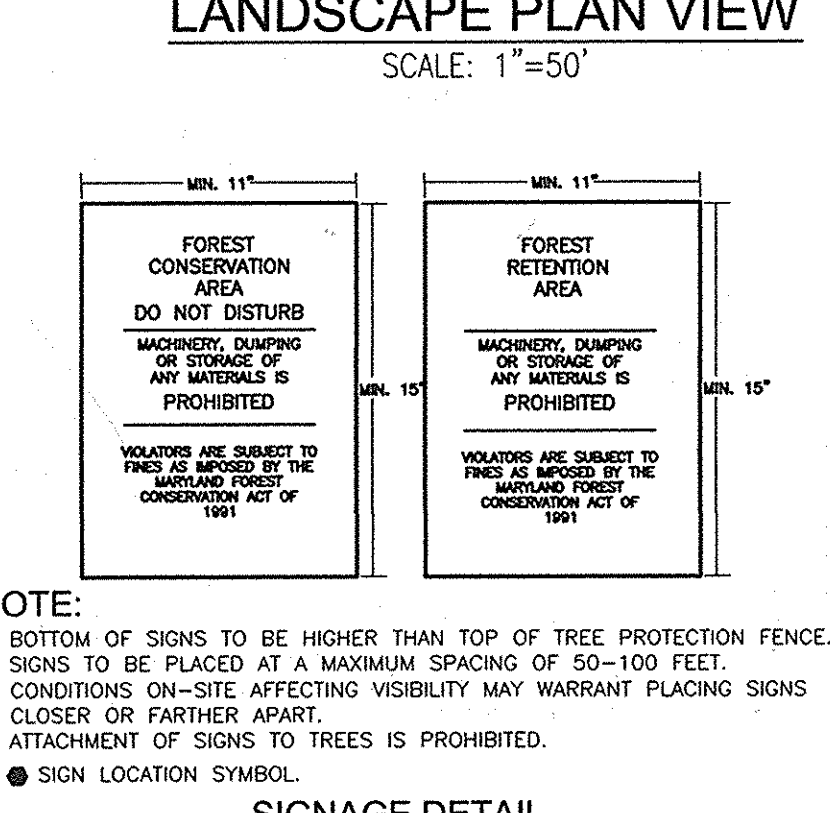
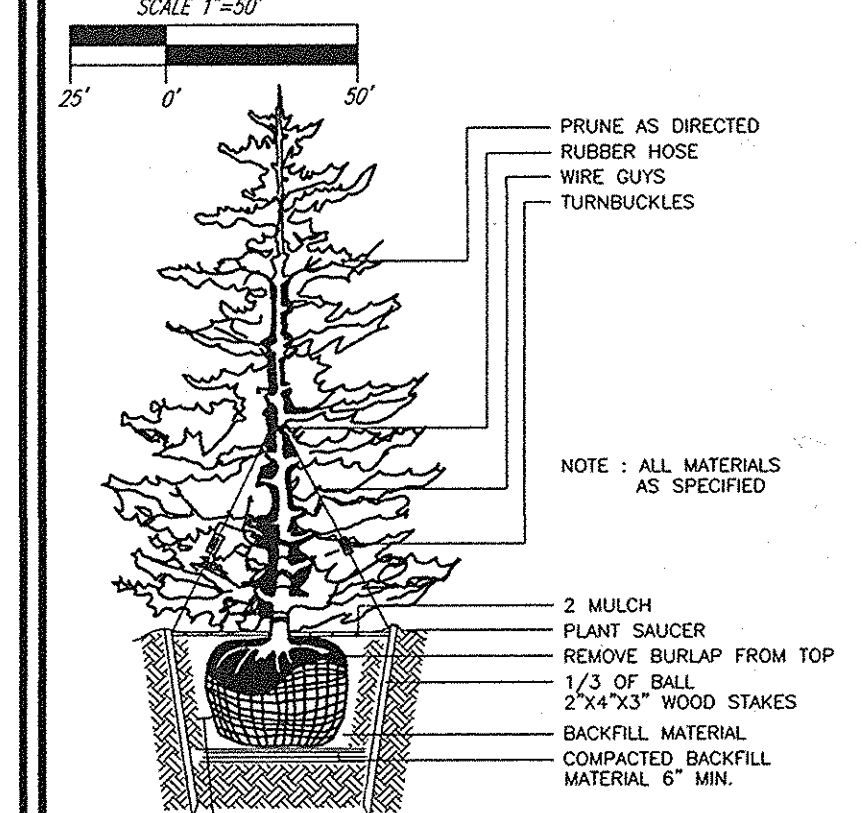
- PRIOR TO THE START OF ANY CONSTRUCTION DEFINE THE LIMITS OF DISTURBANCE AND THE SOIL PROTECTION ZONE (CRITICAL ROUTE AREA) FOR THE FOREST RETENTION AREAS. (SEE APPENDIX COUNTY FOREST CONSERVATION MARKING PLAN).
- PRIOR TO THE START OF ANY CONSTRUCTION (INCLUDING CLEARING) ADJACENT TO THE SOIL PROTECTION ZONE, INSTALL BLAZE ORANGE FENCE.
- INSTALL ALL FOREST CONSERVATION AREA SIGNS AS SHOWN ON THIS SDP.
- ALL SEDIMENT CONTROL DEVICES SHALL BE IN PLACE PRIOR TO CONSTRUCTION TO PREVENT SEDIMENT FROM ENTERING THE FOREST CONSERVATION AREAS. SUPER SILT FENCE SHALL BE INSTALLED ON THE UPHILL SIDE OF ALL FOREST RETENTION AREAS, AND ALSO IF THE LOT IS WITHIN 50 FEET OF LESS OF RETENTION AREA.
- ALL FENCING, BLAZE-ORANGE OR "SUPER" SILT, SHALL BE CLEANED AND MAINTAINED IN GOOD CONDITION AND PROMPTLY REPAIRED OR RESTORED AS SITUATION WARRANTS ON A REGULAR BASIS THROUGHOUT THE CONSTRUCTION PERIOD.
- A QUALIFIED TREE CARE EXPERT SHALL DETERMINE IF ROOT PRUNING IS REQUIRED ALONG THE LIMIT OF DISTURBANCE. ROOT PRUNE TREES AS REQUIRED, WATER ANY ROOT-PRUNED TREES IMMEDIATELY AFTER ROOT-PRUNING AND MONITOR FOR SIGNS OF STRESS DURING CONSTRUCTION.

CONSTRUCTION PHASE

- DURING CONSTRUCTION, MONITOR ANY UNAUTHORIZED USE OF FOREST RETENTION AREAS. ANY USE OF FOREST RETENTION AREAS FOR THE FOLLOWING ACTIVITIES OR OTHER INTRUSIONS SHALL BE A VIOLATION OF THE APPROVED FOREST CONSERVATION PLAN:
 - STORAGE OF EQUIPMENT AND MATERIALS
 - DISPOSAL OF CONSTRUCTION MATERIALS
 - WASHING OF EQUIPMENT, DISPOSAL OF WASTEWATER FROM CONCRETE OPERATIONS, ETC. - EMPLOYEE PARKING
 - TEMPORARY STRUCTURES SUCH AS TRAILERS, SANITARY FACILITIES, ETC.
 - ROOT INJURY
 - SOIL COMPACTION
 - DROUGHT CONDITIONS
- DURING CONSTRUCTION, INSPECT AND ENFORCE THE LIMITS OF DISTURBANCE AND REQUIRED PROTECTION MEASURES.
- IN THE EVENT OF DROUGHT TREES SHALL BE MONITORED FOR SIGNS OF STRESS AND WATERED AS NEEDED.
- ANY DAMAGES TO RETAINED TREES DUE TO CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT THE DIRECTION OF THE QUALIFIED PROFESSIONAL.
- FOREST CONSERVATION AREAS TO BE INSPECTED AND CERTIFIED FOR COMPLETION OF THE FOREST CONSERVATION PLAN REQUIREMENTS BY A QUALIFIED PROFESSIONAL.

POST-CONSTRUCTION ACTIVITIES

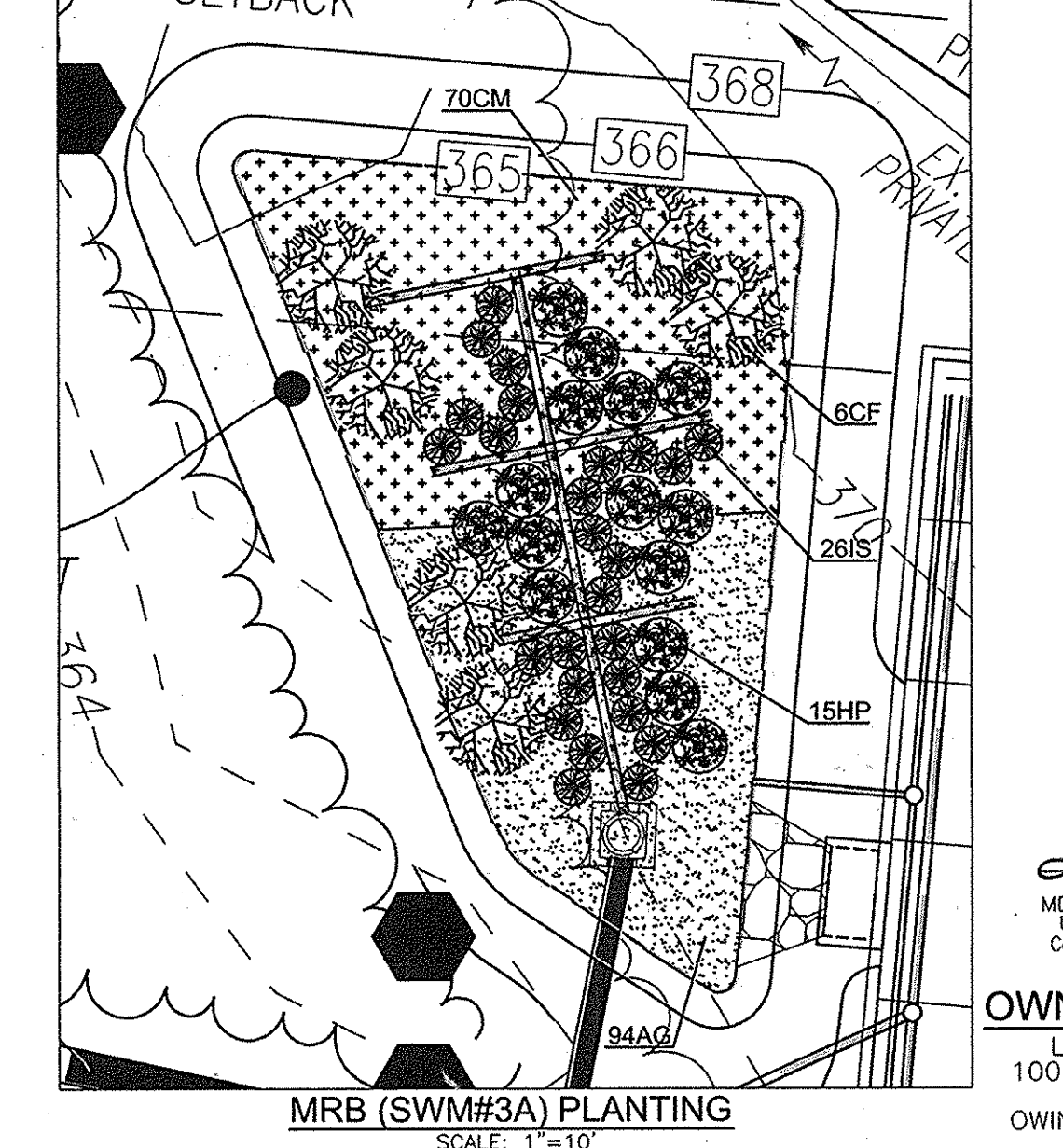
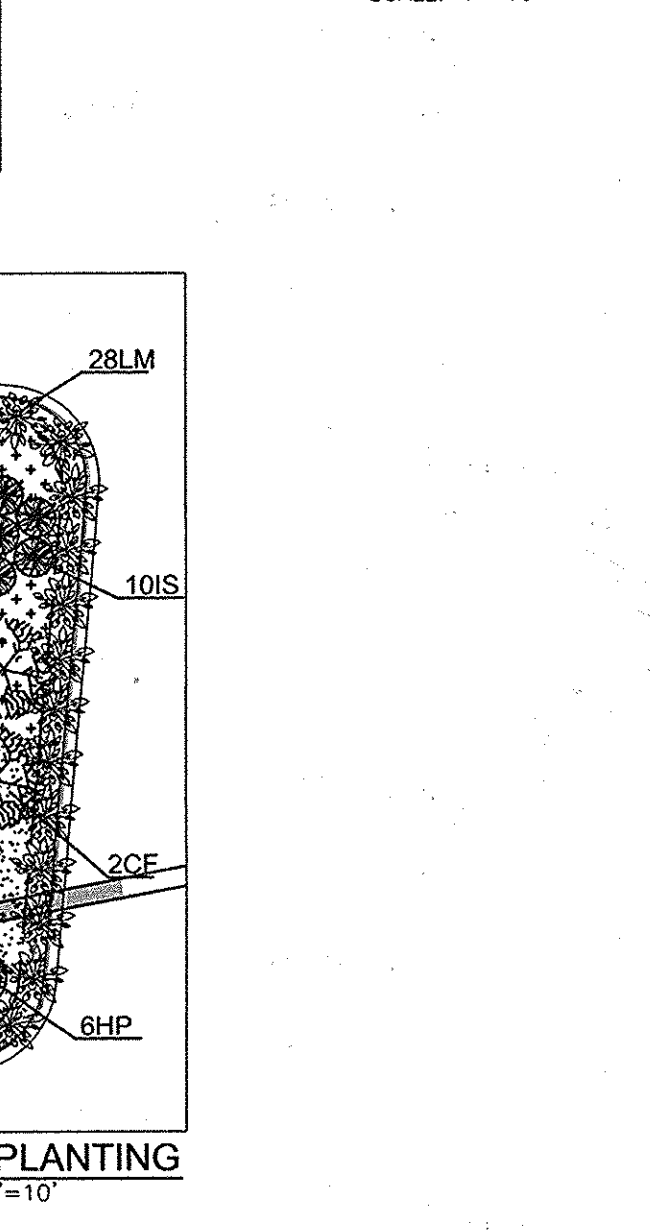
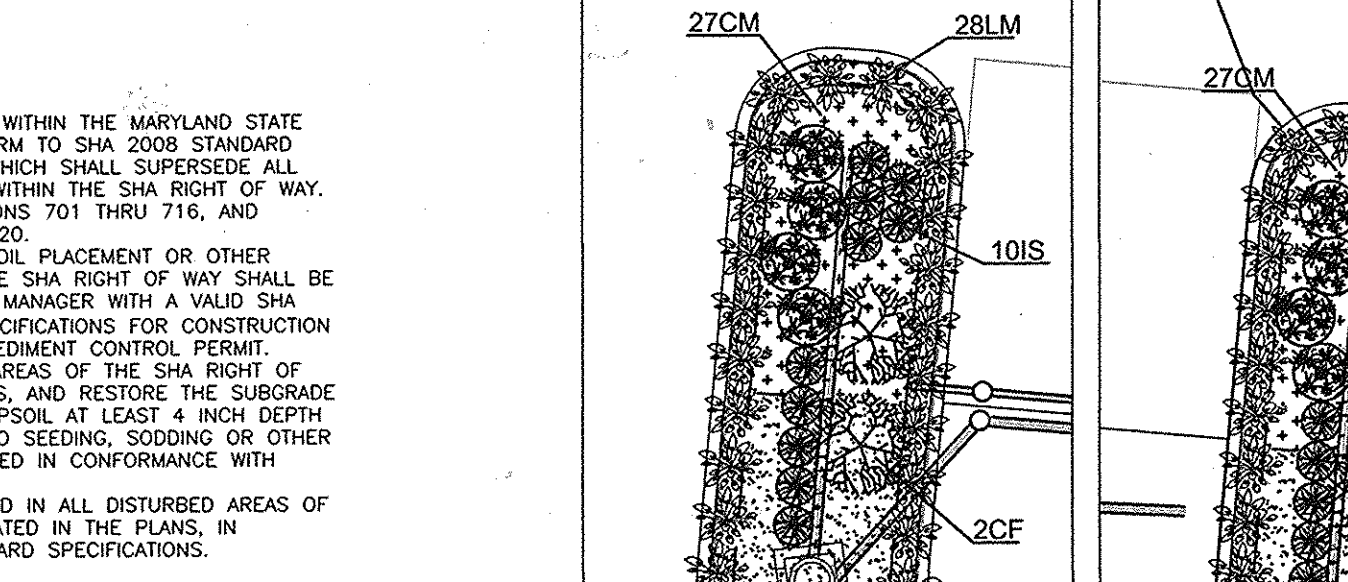
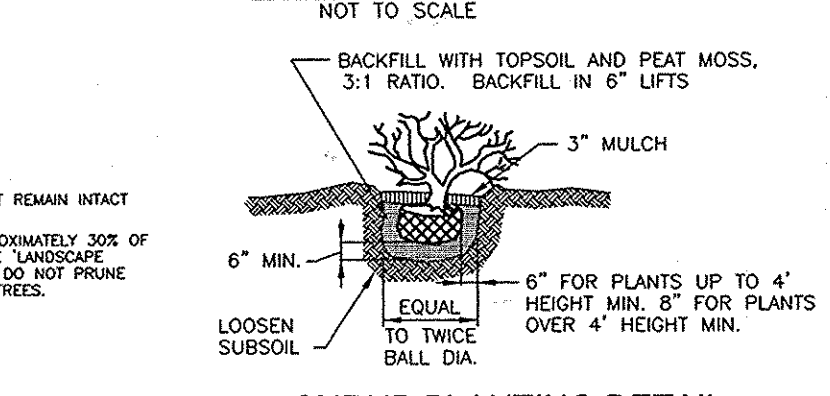
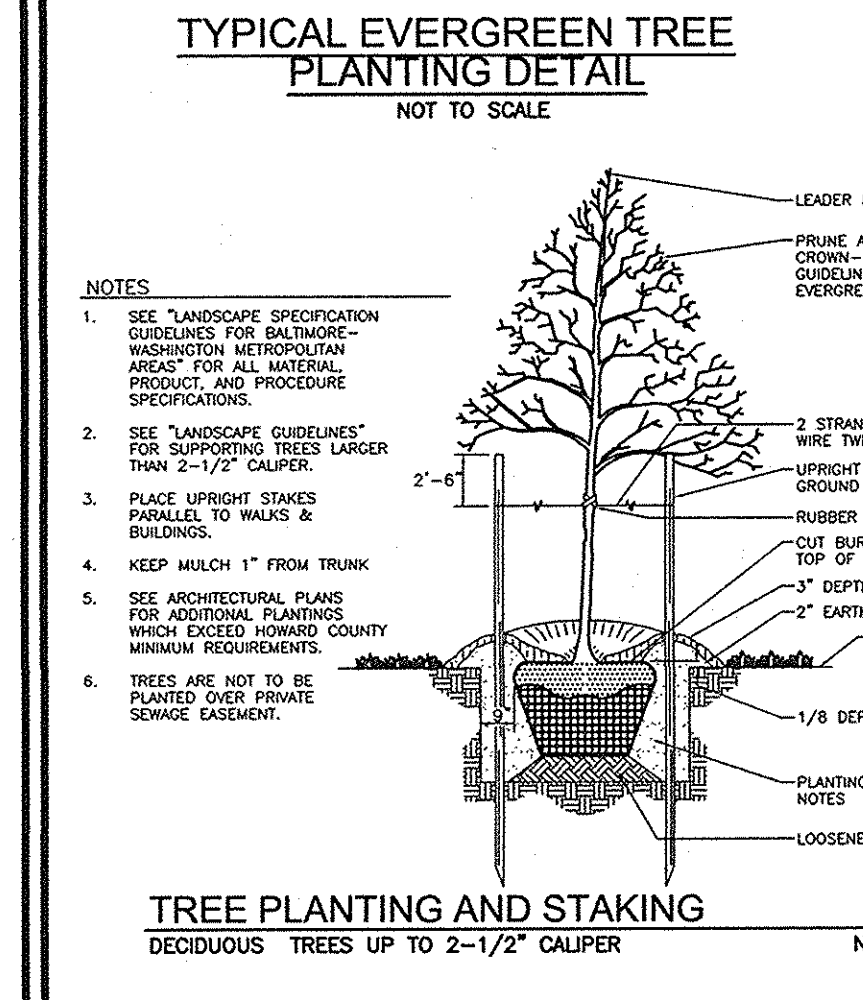
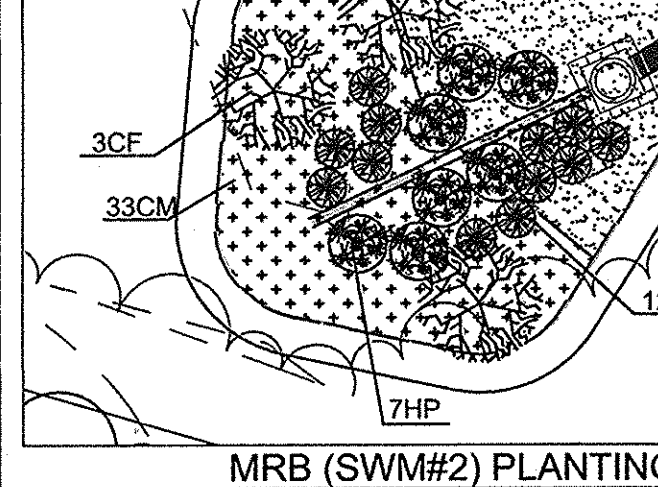
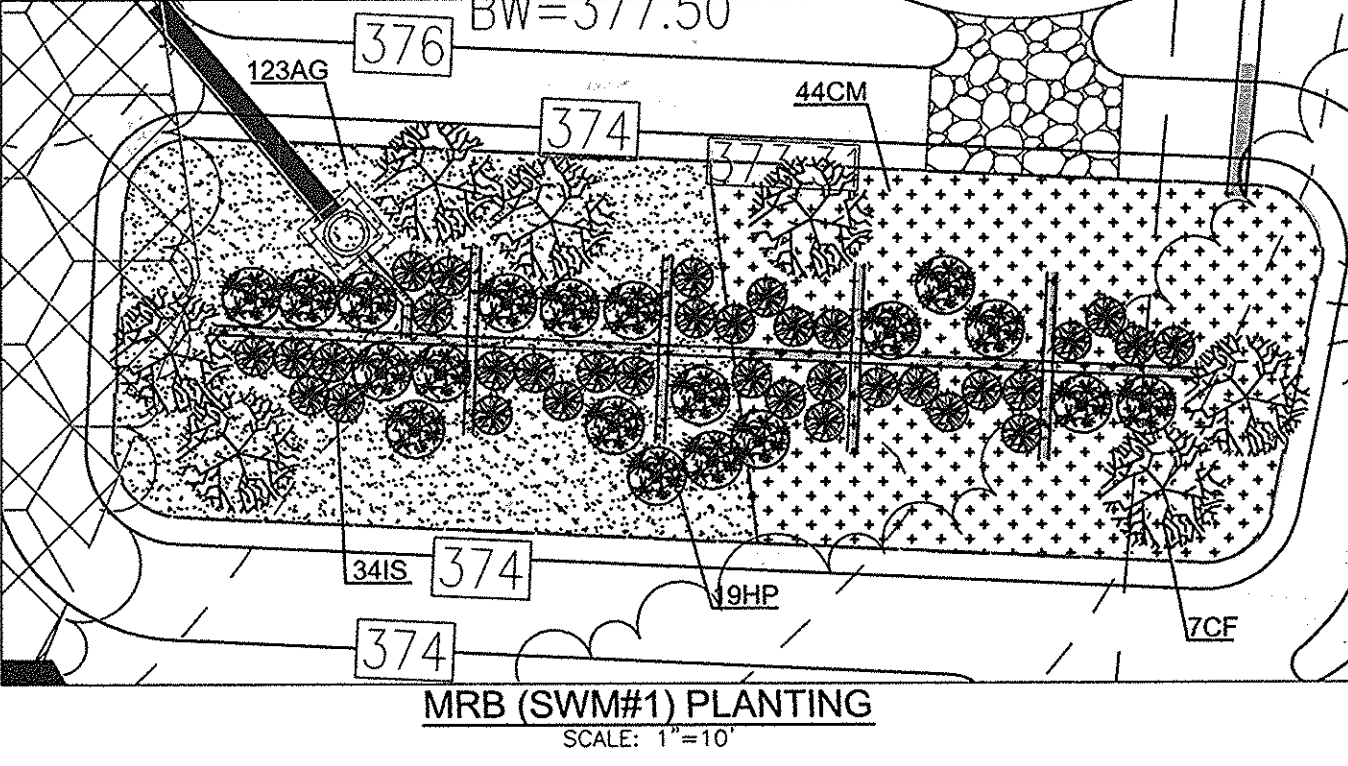
- POST-CONSTRUCTION ACTIVITIES TO BE PROVIDED FOR A MINIMUM OF 2 YEARS.
- INSPECTIONS SHALL BE CARRIED OUT AT THE BEGINNING AND END OF THE GROWING SEASON TO PINPOINT ANY PROBLEMS, MONITOR SURVIVAL RATES, AND VERIFY REMOVAL OF PROBLEM TREES TO ACHIEVE SURVIVAL RATES.
- CONSTRUCTION MANAGEMENT PROGRAMS FOR FOREST CONSERVATION AREAS MUST BE ESTABLISHED AND INCLUDE MAINTENANCE OF ALL FENCES, SIGNS AND OTHER DEVICES DELINEATING FOREST CONSERVATION AREAS, AS WELL AS THE FOLLOWING OTHER MEASURES:
 - ROOT PRUNING - CROWN REDUCTION OR PRUNING
 - WATERING
 - FERTILIZATION
 - MULCHING
 - PEST CONTROL
 - CONTROL OF UNDESIRABLE COMPETING SPECIES
 - THINNING AND PRUNING TO ENCOURAGE PROPER GROWTH
 - REPAIR OF TREE DAMAGES:
 - ROOT REPAIR
 - REMOVAL OF DEAD OR DAMAGED MATERIAL/LIMBS
 - SOIL AERATION
 - REMOVAL OF DEAD OR DYING TREES POSING AN IMMEDIATE SAFETY HAZARD
- AS PER THE SEDIMENT CONTROL PLAN, AND UNDER THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE TEMPORARY SEDIMENT CONTROL MEASURES AND FENCING. FOREST CONSERVATION SIGNS SHALL NOT BE REMOVED.
- AN INSPECTION SHALL TAKE PLACE AT THE END OF YEAR ONE OR BEFORE THE SECOND ENROLLING SEASON TO EVALUATE SURVIVAL RATES AND APPROPRIATE ACTIONS TAKEN TO ACHIEVE REQUIRED SURVIVAL RATES.
- AT THE CONCLUSION OF THE POST-CONSTRUCTION PERIOD, THE QUALIFIED PROFESSIONAL SHALL CERTIFY ALL FOREST CONSERVATION AREAS, SURVIVAL RATES DATA, VERIFY ALL PROTECTION MEASURES AND IN PLACE UPON INSPECTION BY LOCAL STATE PROJECT INSPECTOR APPROVAL. THE DEVELOPER SHALL BE RELEASED OF ALL SURETIES AND FUTURE OBLIGATIONS.
- EDUCATION MATERIAL MUST BE PROVIDED TO OWNERS AND/OR OCCUPANTS ABOUT PROPER USE OF FOREST CONSERVATION AREAS. SUCH EDUCATION MATERIAL SHOULD INCLUDE A PLAN LOCATING ALL PROTECTED AREAS ON-SITE AND A DESCRIPTION OF PERMITTED AND PROHIBITED ACTIVITIES WITHIN OR ACTIVITIES SUCH AREAS.



BIORETENTION PLANTING SCHEDULE

NO.	QTY	BIORETENTION PLANTING SCHEDULE	REMARKS
1	1207 SF	27	60
2	431 SF	10	23
3A	919 SF	21	47
4A	353 SF	8	46
5	353 SF	8	46
250	COMPARA MAJUS	1	12" O.C.
333	ADONIS GARDENS 'SOON'	1	12" O.C.

BIORETENTION AREAS ARE TO BE PLANTED BASED ON A MINIMUM DENSITY OF 1000 STEMS PER PLANTED ACRE (0.223 STEMS PER SQUARE FOOT).



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Date: 8-14-14

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.
 Date: 7/10/14

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Date: 8-15-14

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Date: 8-15-14

NO AS-BUILT INFORMATION THIS SHEET

NO.	REVISION	DATE
1	REVISE PLAN TO INCREASE SIZE OF PATIO	01/20/15

SITE DEVELOPMENT PLAN
LANDSCAPE PLAN, NOTES AND DETAILS; FOREST CONSERVATION PLAN
 ARCADIA SQUARE
 9525 BALTIMORE NATIONAL PIKE
 RESTAURANT AND RETAIL
 L1551/F.89 (PLAT 15803)
 2ND ELECTION DISTRICT
 DPZ REF'S: SEE NOTES ON COVER
 PARCEL 77
 ZONED: B-1
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET, MD 21043
 TEL: 410.461.7666
 ELLICOTT CITY, MD 21043
 FAX: 410.461.8961

OWNER/DEVELOPER
 LEWAL PARTNERSHIP
 100 PAINTERS MILL ROAD
 SUITE 900
 OWINGS MILLS, MD 21117
 410-363-3434

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 EXPIRATION DATE: 09-27-2014

DESIGN BY: DZ
 DRAWN BY: DV
 CHECKED BY: RHY
 DATE: JULY 2014
 SCALE: AS SHOWN
 W.O. NO.: 09-14

8 SHEET OF 12

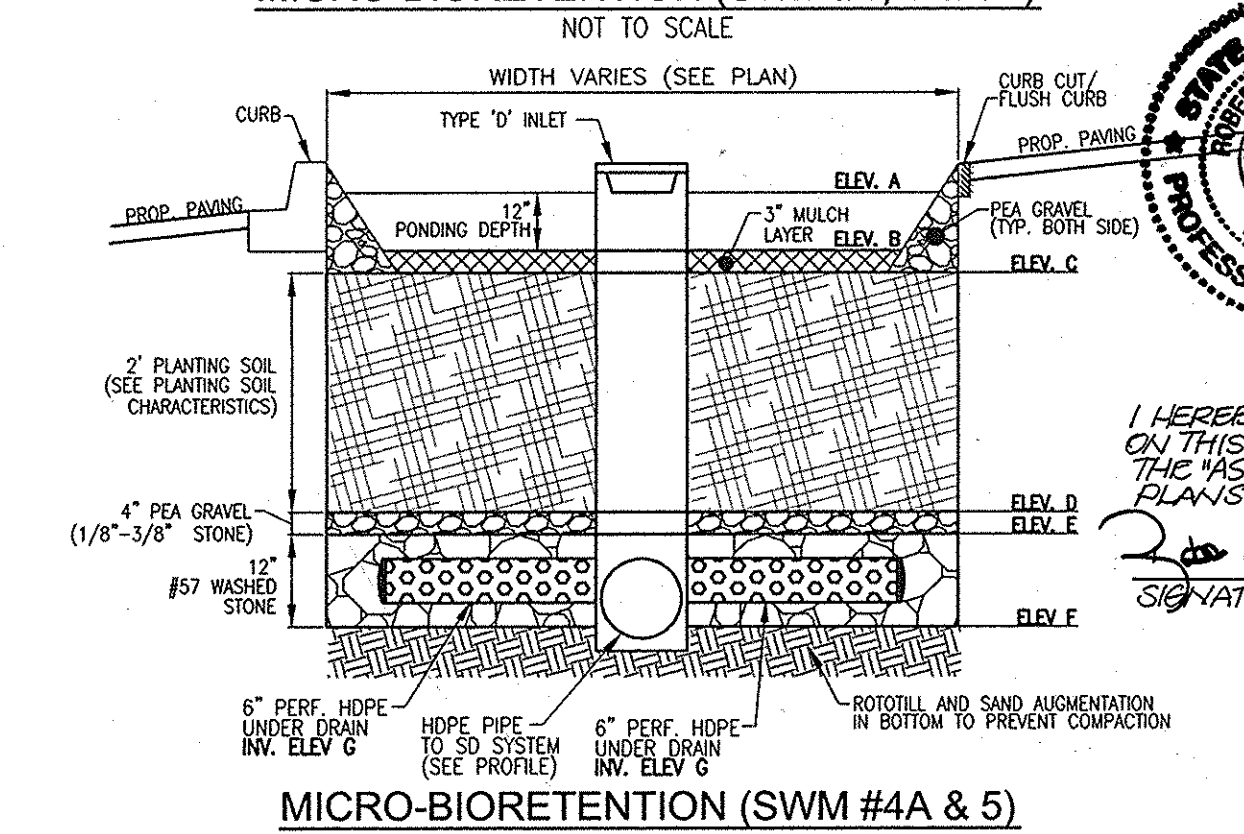
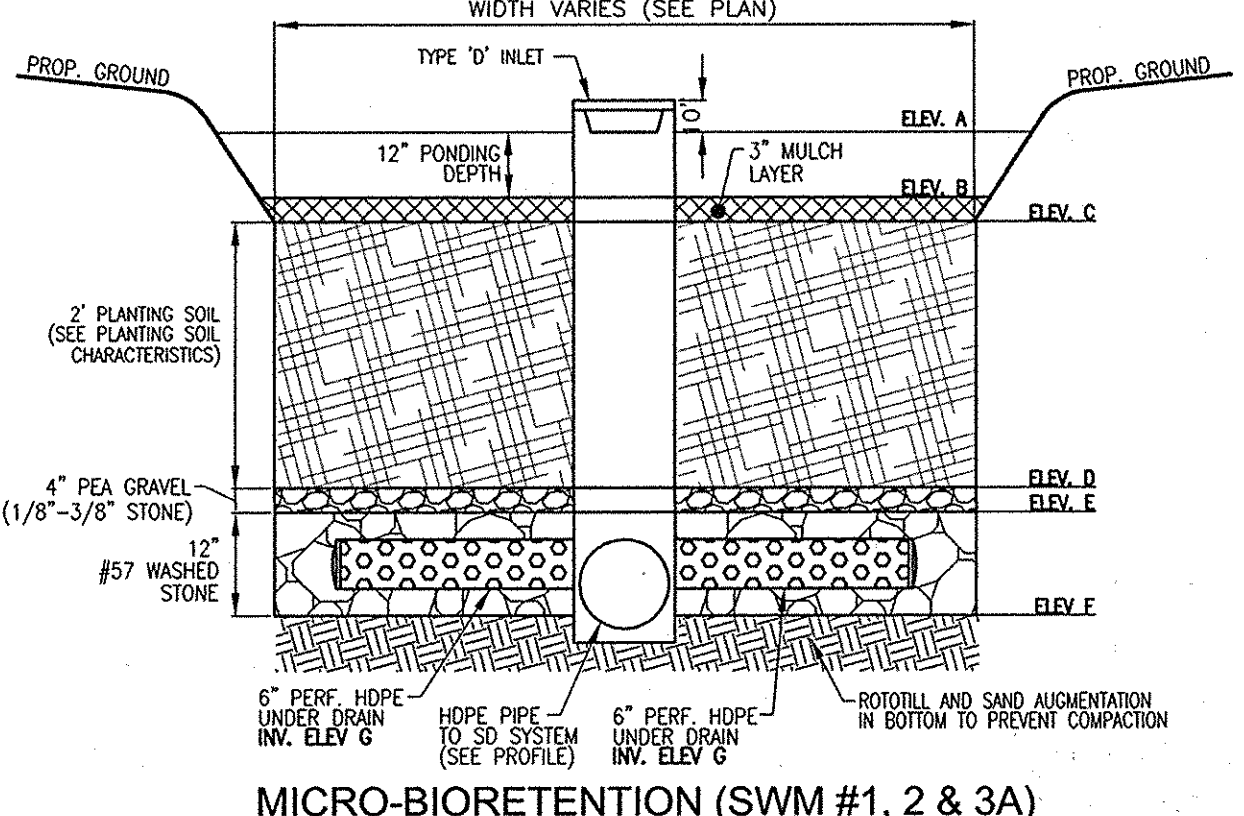
AS-BUILT 3/10/16

APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIOTRETION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BEAMS

- 1. MATERIAL SPECIFICATIONS**
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE LISTED IN TABLE B.4.1.
- 2. FILLING MEDIA OR PLANTING SOIL**
THE SOIL SHALL BE A UNIFORM MIX OF STONES, SANDS, SILTS, CLAYS OR OTHER SIMILAR SUBSTRATES NO LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTRATES SHALL BE USED OR MIXED WITH THE MICRO-BIOTRETION PRACTICE THAT WILL BE HARMFUL TO PLANT GROWTH, OR PROVIDE AN OBSTACLE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BODILY WASTE, QUACKERS, ANIMAL GRASS, OR OTHER NOxious WASTE AS SPECIFIED UNDER COAR (15.00.01.02).
THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:
• SOIL COMPONENT - LOAMY SAND OR SANDY LOAM (SOIL SAND TEXTURAL CLASSIFICATION).
• ORGANIC CONTENT - SHALL BE 1% TO 2% (AS TESTED).
• PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:
• SOIL COMPONENT - LOAMY SAND OR SANDY LOAM (SOIL SAND TEXTURAL CLASSIFICATION).
• ORGANIC CONTENT - SHALL BE 1% TO 2% (AS TESTED).
• PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:
• SOIL COMPONENT - LOAMY SAND OR SANDY LOAM (SOIL SAND TEXTURAL CLASSIFICATION).
• ORGANIC CONTENT - SHALL BE 1% TO 2% (AS TESTED).

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

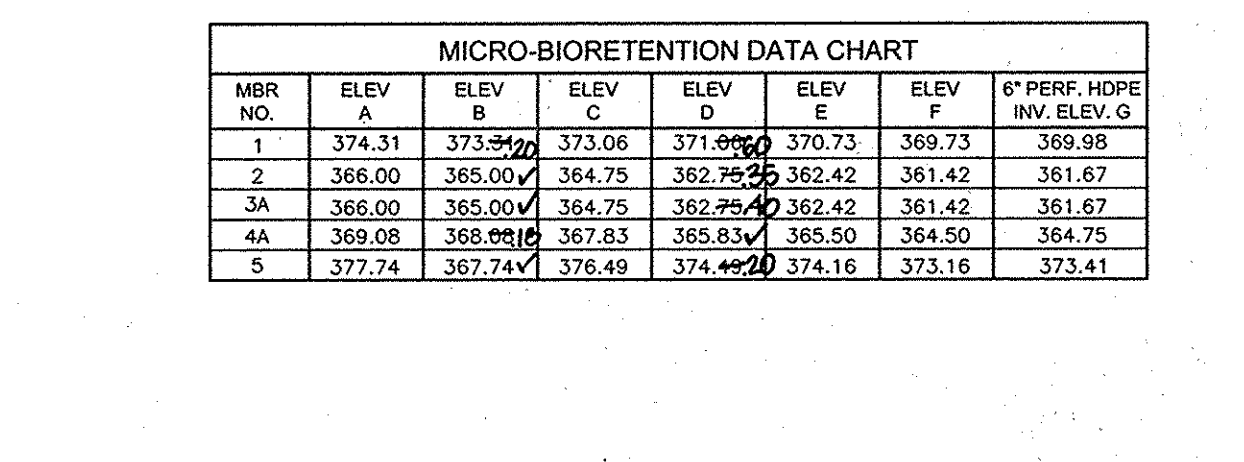
Material	Specification	Notes
Planting soil	see Appendix A, Table A.4	plantings are site-specific
Flanking soil (2" to 4" deep)	heavy sand (60-70%) & compost (30-40%)	USDA soil types loamy sand or sandy loam; clay content < 5%
Planting soil	sturdy loam (10%), coarse sand (10%) & compost (80%)	
Organic content	Min. 1% by dry weight (ASTM D-2974)	aged 6 months, minimum, on pile or wood chips
Mulch	Shredded hardwood	
Pipe gravel diaphragm	see Appendix A, Table A.4	
Curtain drain	ornamental stone: washed cobble	stone: 2" to 3"
Geotextile	AA-SHTO-M-43	PE Type 1 nonwoven
Gravel (underdrains and infiltration beams)	NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")	
Underdrain piping	7.75" Type PS 28 or AA-SHTO-M-78	1" to 6" rigid schedule 40 PVC or SDR35
Poured in place concrete (if required)	MSHA Min No. 3, f' = 3500 psi (28 day normal weight, air-entrained, conforming to most ASTM-613)	Slotted or perforated pipe, 3/8" perft. @ 6" on center. 4 holes per row; minimum of 2" of gravel over pipe; use necessary underdrain piping. Performed pipe shall be wrapped with 1/2-inch polypropylene fabric.
Sand	AA-SHTO-M-6 or ASTM-C-33	Sand substitutions with Dabase and Gypstone (AA-SHTO-M-10) are not acceptable. No calcium hypochlorite or chlorinated substitutions are acceptable. No "rock dust" can be used for sand.



MICROBIOTRETION NOTES:
1. ONLY THE SIDES OF MICROBIOTRETION ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE MICROBIOTRETION WILL CAUSE THE MBR TO FAIL AND THEREFORE SHALL NOT BE INSTALLED.
2. WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4\"/>

MICROBIOTRETION DATA CHART

MBR NO.	ELEV. B	ELEV. C	ELEV. D	ELEV. E	ELEV. F	6\"/>
1	374.31	373.30	373.06	371.80	370.73	369.98
2	368.00	365.00	364.75	362.75	362.42	361.67
3A	366.00	365.00	364.75	362.75	362.42	361.67
4A	369.08	368.00	367.83	365.83	365.50	364.75
5	377.74	367.74	376.49	374.49	373.16	373.41



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

- THE OWNER SHALL PERIODICALLY SWEEP OR VACUUM POROUS CONCRETE PAVEMENT SURFACES TO REDUCE SEDIMENT ACCUMULATION AND ENSURE CONTINUED SURFACE POROSITY. SWEEPING SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY WITH A COMMERCIAL SWEEPING UNIT, WASHING OR COMpressed AIR UNITS SHOULD NOT BE USED TO PERFORM SURFACE CLEANING.
- THE OWNER SHALL PERIODICALLY CLEAN DRAINAGE PIPES, INLETS, STONE EDGE DRAINS AND OTHER STRUCTURES WITHIN OR DRAINING TO THE SUBBASE.
- THE OWNER SHALL USE DECERS IN MODERATION. DECERS SHOULD BE NON-TOXIC AND BE APPLIED EITHER AS CALCIUM MAGNESIUM ACETATE OR AS PRETREATED SALT.
- THE OWNER SHALL ENSURE SNOW PLOWING IS PERFORMED CAREFULLY WITH BLADES SET ONE INCH ABOVE THE SURFACE. FLOWED SNOW PILES AND SNOWMELT SHOULD NOT BE DIRECTED TO PERMEABLE PAVEMENT.

3. COMPACTION
IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIOTRETION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE COMPACTORS TO REARME ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING LOADERS, THE COMPACTOR SHOULD USE THE TRACK OR WHEEL TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TIRE PRESS. USE OF EQUIPMENT WITH WARRIOR TRACKS OR WARRIOR TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SUFFICIENTLY CONTRIBUTE TO DESIGN FAILURE.
COMPACTION CAN BE ALLOWED AT THE BASE OF THE BIOTRETION FACILITY BY USING A PRIMARY TILTING OPERATION SUCH AS CHISEL POINT, RIPPER, OR SOLOIDOR. THESE TILTING OPERATIONS ARE TO ROTECTURE THE SOIL PROFILE THROUGHOUT THE 12\"/>

4. PLANT MATERIAL
RECOMMENDED PLANT MATERIAL FOR MICRO-BIOTRETION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.
5. PLANT INSTALLATION
CONCRETE IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLUAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SURROUNDING TO A UNIFORM THICKNESS OF 2\"/>

6. UNDERDRAINS
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:
• PIPE - SHOULD BE 4\"/>

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

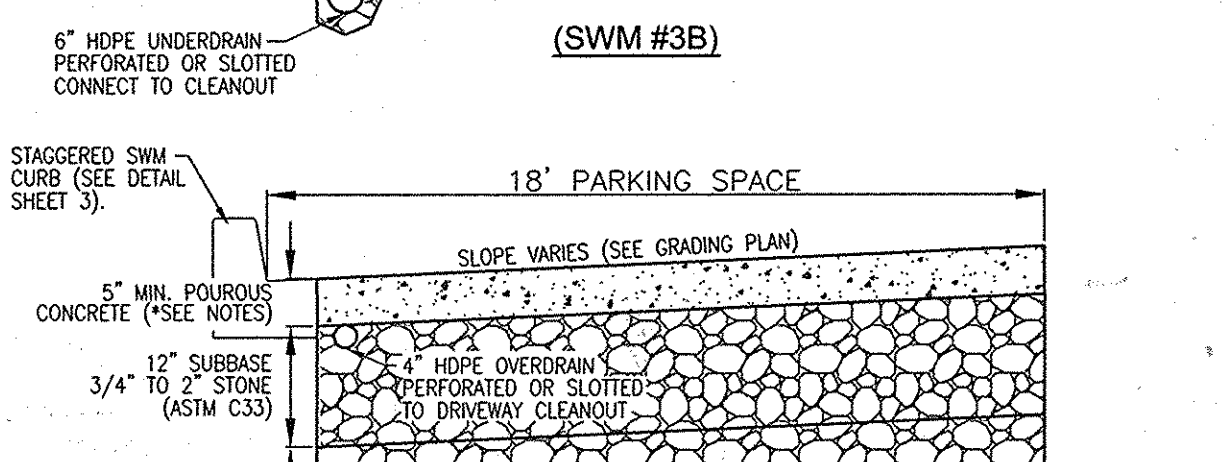
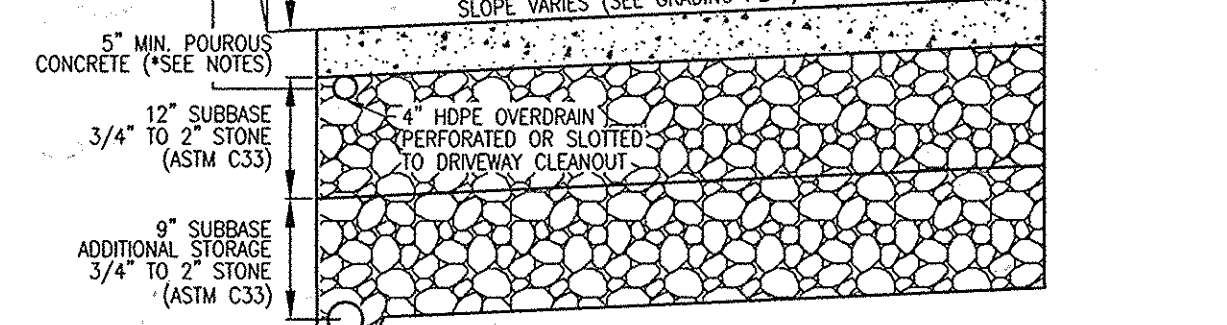
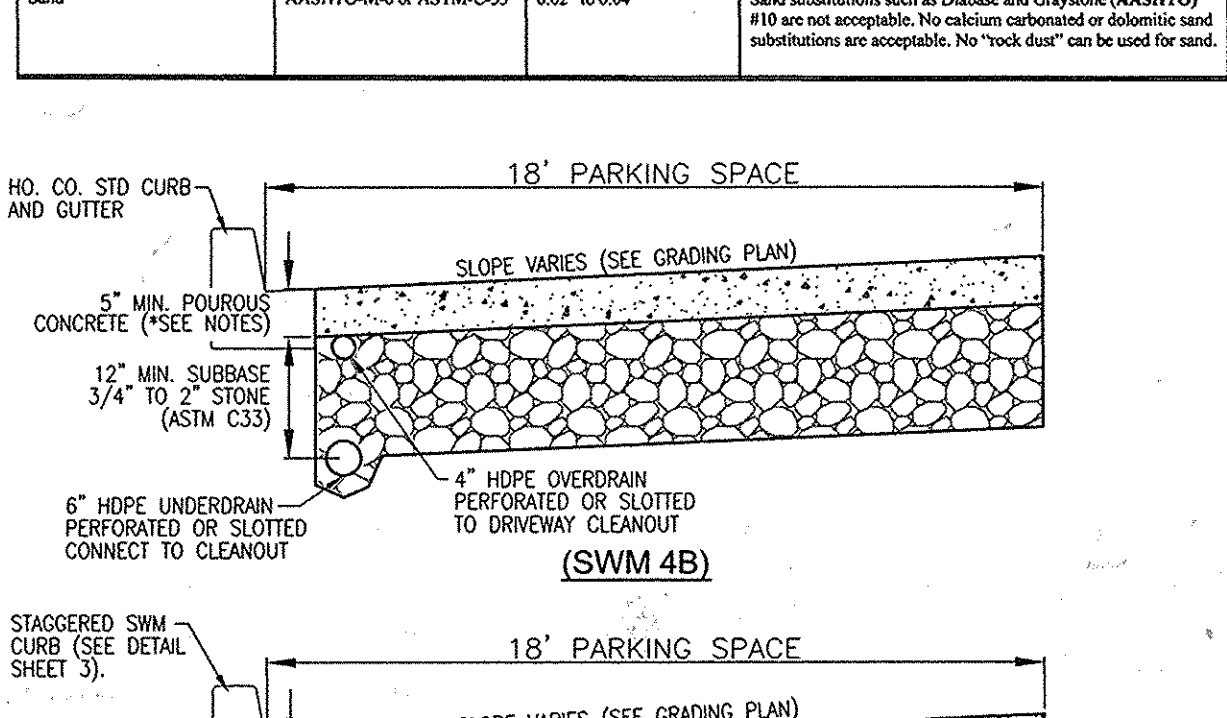
B.4.B SPECIFICATIONS FOR PERMEABLE PAVEMENTS & REINFORCED TURF
THESE SPECIFICATIONS INCLUDE INFORMATION ON ACCEPTABLE MATERIALS FOR TYPICAL APPLICATIONS AND ARE NOT EXCLUSIVE OR LIMITING. THE DESIGNER IS RESPONSIBLE FOR DEVELOPING SPECIFICATIONS FOR INDIVIDUAL PROJECTS AND SPECIFIC CONDITIONS.

1. PERVIOUS CONCRETE SPECIFICATIONS
DESIGN THICKNESS - PERVIOUS CONCRETE APPLICATIONS SHALL BE DESIGNED SO THAT THE THICKNESS OF THE CONCRETE SLAB SHALL SUPPORT THE TRAFFIC AND VEHICLE TYPES THAT WILL BE CARRIED. APPLICATIONS MAY BE DESIGNED USING EITHER STANDARD PAVEMENT PROCEDURES (E.G., ASHTO, ACI 325.9R, ACI 330R) OR USING STRUCTURAL VALUES DERIVED FROM FLEXIBLE PAVEMENT DESIGN PROCEDURES.
MIX & INSTALLATION - TRADITIONAL PORTLAND CEMENTS (ASTM C 150, C 1157) MAY BE USED IN PERVIOUS CONCRETE APPLICATIONS. PHOSPHORUS ADMIXTURES MAY ALSO BE USED. MATERIALS SHOULD BE TESTED (E.G., TRIAL BATCHING) PRIOR TO CONSTRUCTION SO THAT CRITICAL PROPERTIES (E.G., SETTLING TIME, RATE OF STRENGTH DEVELOPMENT, POROSITY, PERMEABILITY) CAN BE DETERMINED.
AGGREGATE - PERVIOUS CONCRETE CONTAINS A LIMITED FINE AGGREGATE CONTENT. COMMONLY USED GRADATIONS INCLUDE ASTM C 33 NO. 67 (3/4 IN. TO NO. 4), NO. 8 (3/8 IN. TO NO.16) AND NO. 89 (3/8 IN. TO NO.50) SIEVES. SINGLE-SIZED AGGREGATE (UP TO 1 INCH) MAY ALSO BE USED.
WATER CONTENT - WATER-TO-CEMENT RATIOS BETWEEN 0.27 AND 0.30 ARE USED ROUTINELY WITH PROPER INCLUSION OF CHEMICAL ADMIXTURES. WATER QUALITY SHOULD MEET ACI 30A. AS A GENERAL RULE, POTABLE WATER SHOULD BE USED ALTHOUGH RECYCLED CONCRETE PRODUCTION WATER MEETING ASTM C 94 OR ASHTO M 157 MAY ALSO BE USED.
ADMIXTURES - CHEMICAL ADMIXTURES (E.G., RETARDERS OR HYDRATION-STABILIZERS) ARE USED TO OBTAIN SPECIAL PROPERTIES IN PERVIOUS CONCRETE. USE OF ADMIXTURES SHOULD MEET ASTM C 494 (CHEMICAL ADMIXTURES) AND ASTM C 260 (AIR ENTRAINING ADMIXTURES) AND CLOSELY FOLLOW MANUFACTURER'S RECOMMENDATIONS. BASE COURSE - THE BASE COURSE SHALL BE ASHTO NO. 3 OR 4 COURSE AGGREGATE WITH AN ASSUMED OPEN PORE SPACE OF 30% (n=0.30).
2. PERMEABLE INTERLOCKING CONCRETE PAVEMENTS (PICP)
PAVER BLOCKS - BLOCKS SHOULD BE EITHER 3\"/>

3. REINFORCED TURF
REINFORCED GRASS PAVEMENT (RGP) - WHETHER USED WITH GRASS OR GRAVEL, THE RGP THICKNESS SHALL BE AT LEAST 1-3/4\"/>

OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3), MICRO-BIOTRETION (M-6), RAIN GARDENS (M-7), BIOTRETION 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 MATERIAL PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME II, 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 STAKES AND WIRES.
- 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 RAIN.



PERMEABLE CONCRETE PARKING SPACES
(FOR ELEVATIONS AND INVERTS, SEE PROFILES)
NOTE:
1. PAVEMENT CROSS SECTION TO BE CONFIRMED BY GEOTECHNICAL ENGINEER
2. POROUS CONCRETE SECTION TO CONFORM TO APPENDIX B.4.B (SPECIFICATIONS FOR PERMEABLE PAVEMENTS) AND DESIGNED BY THE PROJECT GEOTECHNICAL ENGINEER.
3. UNDERDRAINS/OVERDRAINS SHALL CONNECT INTO A TRAFFIC BEARING CLEANOUT AS SHOWN ON THE PLANS.

RECORD OF SOIL EXPLOATION

Project Name	Address/Location	Sheet No.	Date	Soil Type	Moisture	Specific Gravity	Unit Weight	Void Ratio	Porosity	Penetration	Remarks
ARCADIA SQUARE RESTAURANT AND RETAIL	1551 F.89 (PLAT 15803)	77	01/20/14	1	15.2	2.65	120.0	0.65	42.0	1.0	15.2
				2	15.2	2.65	120.0	0.65	42.0	1.0	15.2
				3	15.2	2.65	120.0	0.65	42.0	1.0	15.2
				4	15.2	2.65	120.0	0.65	42.0	1.0	15.2

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

- THE OWNER SHALL PERIODICALLY SWEEP OR VACUUM POROUS CONCRETE PAVEMENT SURFACES TO REDUCE SEDIMENT ACCUMULATION AND ENSURE CONTINUED SURFACE POROSITY. SWEEPING SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY WITH A COMMERCIAL SWEEPING UNIT, WASHING OR COMpressed AIR UNITS SHOULD NOT BE USED TO PERFORM SURFACE CLEANING.
- THE OWNER SHALL PERIODICALLY CLEAN DRAINAGE PIPES, INLETS, STONE EDGE DRAINS AND OTHER STRUCTURES WITHIN OR DRAINING TO THE SUBBASE.
- THE OWNER SHALL USE DECERS IN MODERATION. DECERS SHOULD BE NON-TOXIC AND BE APPLIED EITHER AS CALCIUM MAGNESIUM ACETATE OR AS PRETREATED SALT.
- THE OWNER SHALL ENSURE SNOW PLOWING IS PERFORMED CAREFULLY WITH BLADES SET ONE INCH ABOVE THE SURFACE. FLOWED SNOW PILES AND SNOWMELT SHOULD NOT BE DIRECTED TO PERMEABLE PAVEMENT.

MICROBIOTRETION DATA CHART

MBR NO.	ELEV. B	ELEV. C	ELEV. D	ELEV. E	ELEV. F	6\"/>
1	374.31	373.30	373.06	371.80	370.73	369.98
2	368.00	365.00	364.75	362.75	362.42	361.67
3A	366.00	365.00	364.75	362.75	362.42	361.67
4A	369.08	368.00	367.83	365.83	365.50	364.75
5	377.74	367.74	376.49	374.49	373.16	373.41

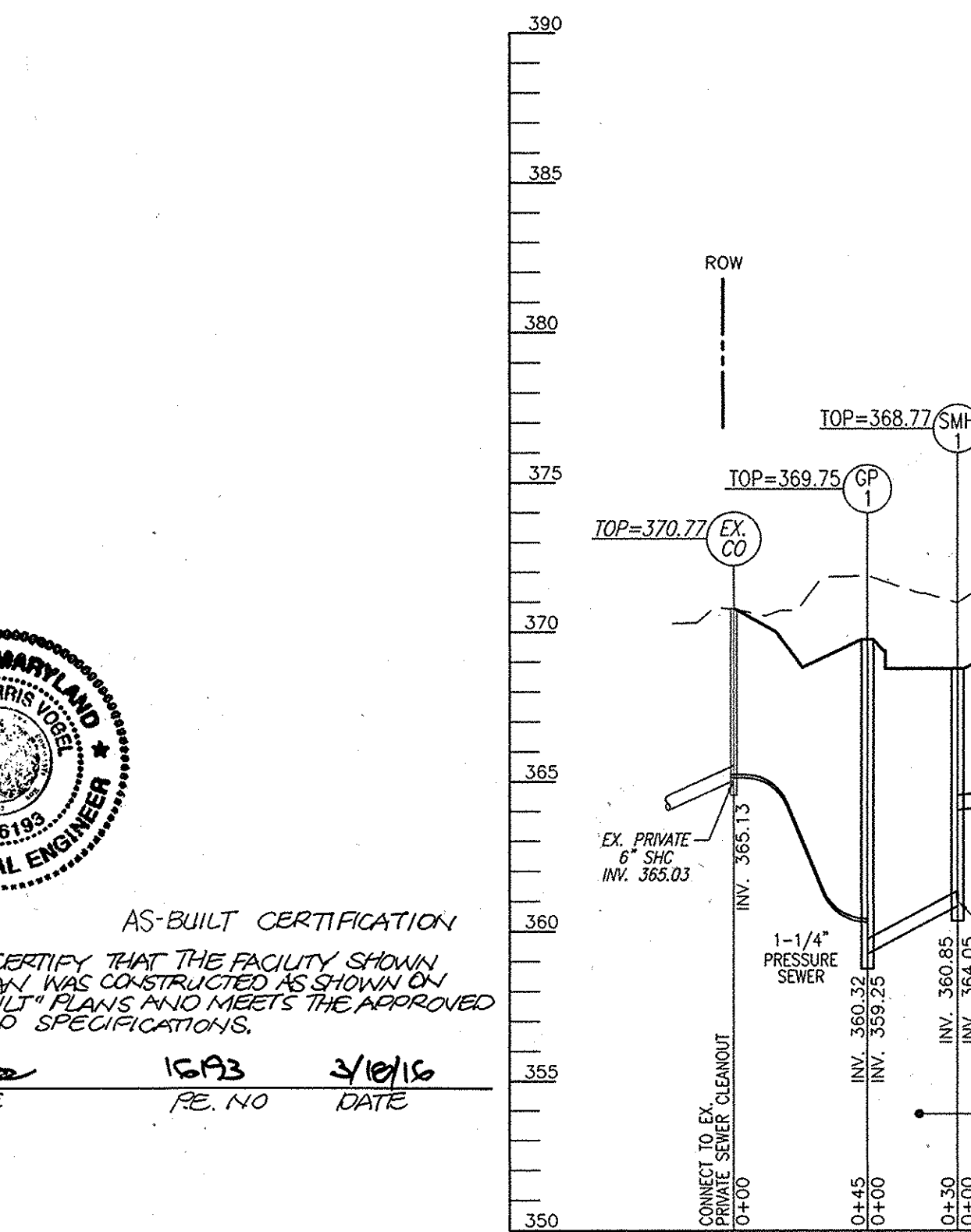
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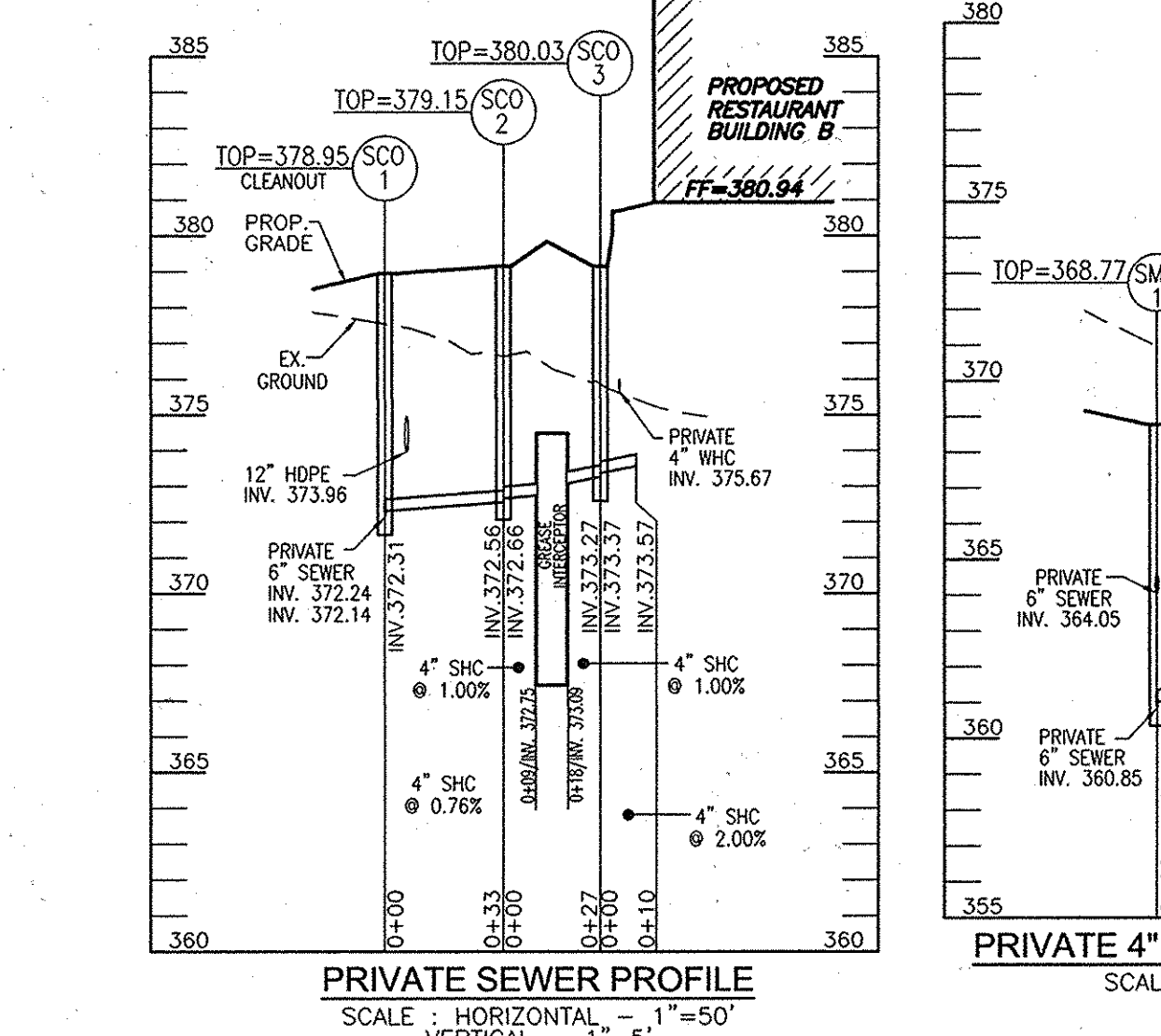
RECORD OF SOIL EXPLOATION

Project Name	Address/Location	Sheet No.	Date	Soil Type	Moisture	Specific Gravity	Unit Weight	Void Ratio	Porosity	Penetration	Remarks
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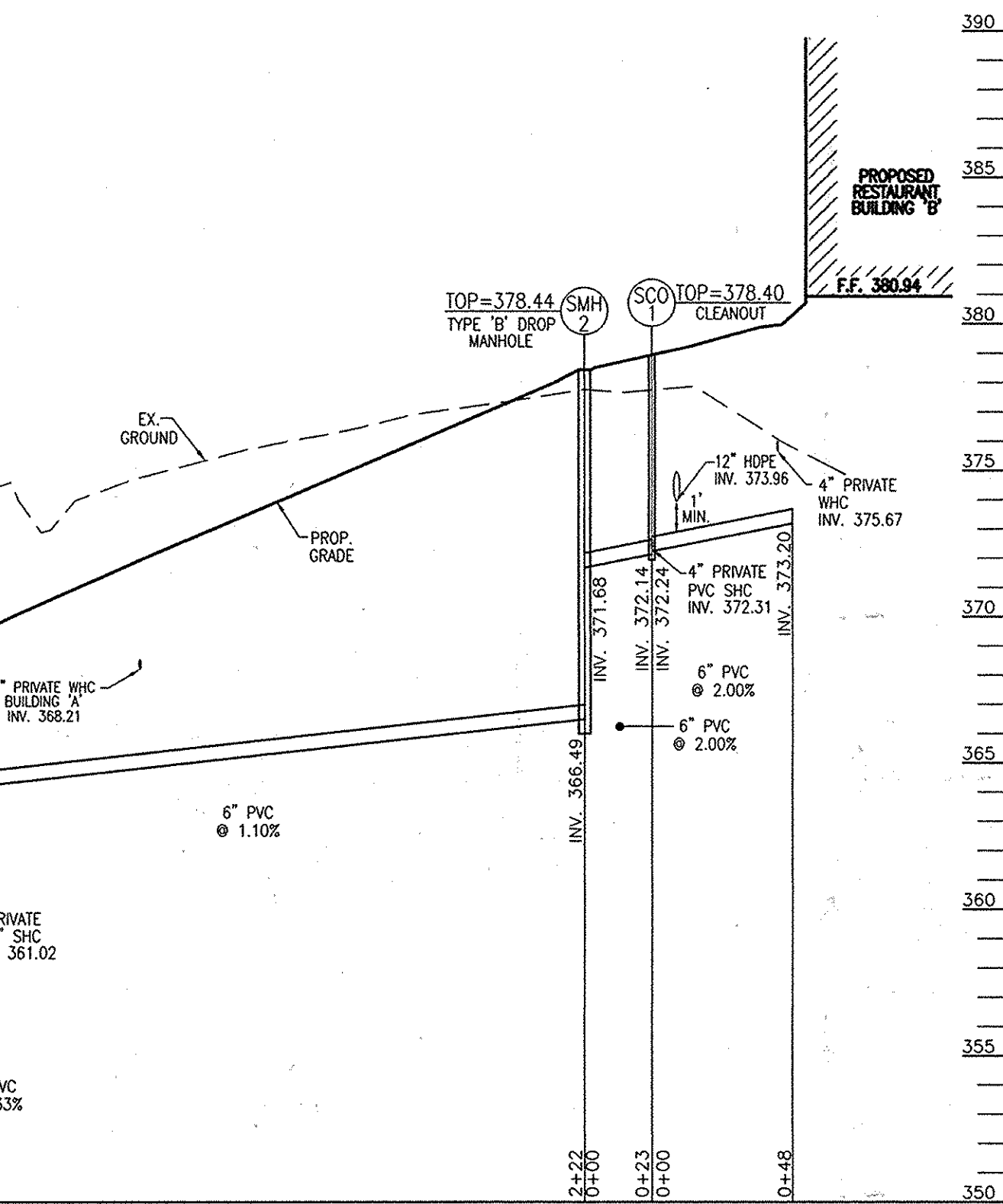
NOTE: THE PATIO SIZE UNDER REVISION #1 IS 285. THE STORMWATER MANAGEMENT DESIGN/CALCULATIONS INCLUDE THE BUILDING 'B' PATIO AT ULTIMATE SIZE (1,538 SF).



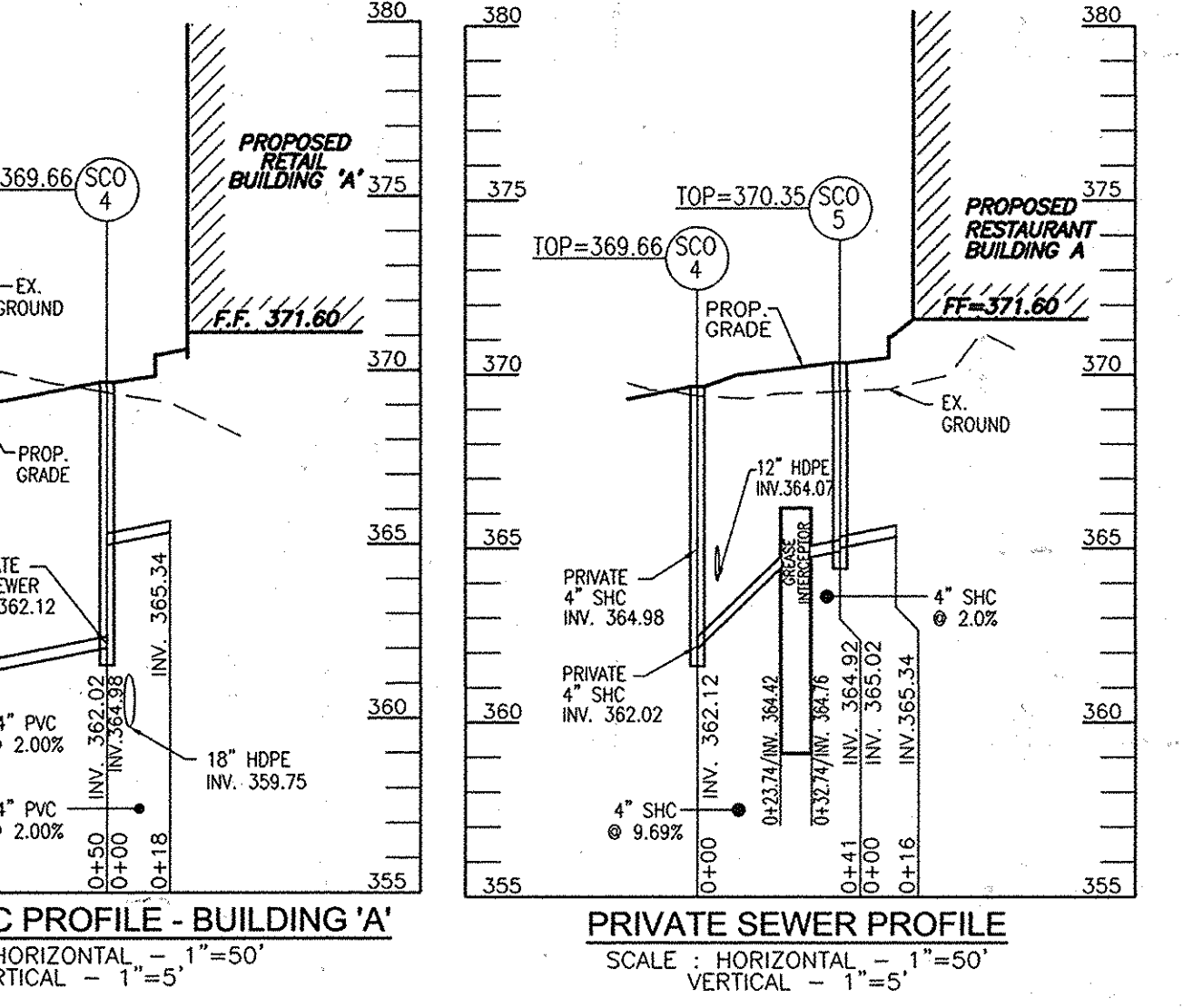
PRIVATE SEWER PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



PRIVATE 4\"/>



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



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

NO.	REVISION	DATE
1	REVISE PLAN MODIFY PROPOSED USES, REVISE WALL, MODIFY SIDEWALK AND PARKING, REVISE WHC & SHC TO BUILDINGS, ADD PATIO.	01/20/14

REVISED SITE DEVELOPMENT PLAN
SWM NOTES AND DETAILS; UTILITY PROFILES
ARCADIA SQUARE
9525 TIMMURE NATIONAL PIKE
RESTAURANT AND RETAIL
L1551 F.89 (PLAT 15803)
TAX MAP 24 BLOCK 4
2ND ELECTION DISTRICT
DPZ REF'S: SEE NOTES ON COVER
PARCEL 77
ZONED: B-1
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. MY LICENSE NUMBER IS 161893 AND MY EXPIRATION DATE IS 09-27-2018.
DESIGN BY: DZ
DRAWN BY: DZ/KG
CHECKED BY: RHV
DATE: FEBRUARY 2015
SCALE: AS SHOWN
W.O. NO.: 09-14
9 SHEET OF **12**

SPECIFICATIONS

MODULAR CONCRETE BLOCK RETAINING WALL

PART 1: GENERAL

1.01 Description

- Work shall consist of furnishing and construction of a Modular Retaining Wall System in accordance with these specifications and in reasonably close conformity with the lines, grades, design, and dimensions shown on the plans.
- Work includes preparing foundation soil, furnishing and installing leveling pad, unit drainage fill and backfill to the lines and grades shown on the construction drawings.
- Work includes furnishing and installing geogrid soil reinforcement of the type, size, location, and lengths designated on the construction drawings.

1.02 Delivery, Storage and Handling

- Contractor shall check all materials upon delivery to assure that the proper type, grade, color, and certification has been received.
- Contractor shall protect all materials from damage due to job site conditions and in accordance with manufacturer's recommendations. Damaged materials shall not be incorporated into the work.

PART 2: PRODUCTS

2.01 Modular Concrete Retaining Wall Units

- Modular concrete units shall conform to the following architectural requirements: face color - color may be specified by the Owner.

face finish - sculptured rock face in angular tri-planer or flat configuration. Other face finishes will not be allowed without written approval of Owner.

bond configuration - running with bonds nominally located at midpoint vertically adjacent units, in both straight and curved alignments.

exposed surfaces of units shall be free of chips, cracks or other imperfections when viewed from a distance of 10 feet under diffused lighting.

- Modular concrete materials shall conform to the requirements of ASTM C1372 - Standard Specifications for Segmental Retaining Wall Units.

- Modular concrete units shall conform to the following structural and geometric requirements measured in accordance with appropriate references:

compressive strength = 3000 psi minimum; absorption = 8% maximum (6% in northern states) for standard weight aggregates;

dimensional tolerances = ±1/8" from nominal unit dimensions not including rough split face, ±1/16"

unit height - top and bottom planes; unit size - 8" (H) x 18"

(W) x 12 (D) minimum;
unit weight - 75 lbs/unit minimum for standard weight aggregates;
inter-unit shear strength - 1000 pif minimum at 2 psi normal pressure; at 2 psi normal force.
geogrid/unit peak connection strength - 1000 pif minimum

- Modular concrete units shall conform to the following constructability requirements: (if applicable)

vertical setback = 1/8"± per course (near vertical) or 1"± per course per the design;
alignment and grid positioning mechanism - fiberglass pins, two per unit minimum;
maximum horizontal gap between erected units shall be - 1/2 inch.

2.02 Shear Connectors (if applicable)

- Shear connectors shall be 1/2 inch diameter thermoset isophthalic polyester resin-encased fiberglass reinforcement rods or equivalent to provide connection between vertically and horizontally adjacent units. Strength of shear connectors between vertical adjacent units shall be applicable over a design temperature of 10 degrees F to +100 degrees F. B. Shear connectors shall be capable of holding the geogrid in the proper design position during grid pre-tensioning and backfilling.

2.03 Base Leveling Pad Material

- Material shall consist of a compacted #57 crushed stone base as shown on the construction drawings.

2.04 Unit Drainage Fill

- Unit drainage fill shall consist of #57 crushed stone

2.05 Reinforced Backfill

- Reinforced backfill shall type SM, be free of debris and meet the following gradation tested in accordance with ASTM D-292 and meet other properties shown on the plan:

Sieve Size	Percent Passing
2 inch	100-75
3/4 inch	100-75
No. 40	0-60
No. 200	0-35

Plasticity Index (PI) <10 and Liquid Limit <35 per ASTM D-4318.

- Material can be site excavated soils where the above requirements can be met. Unsuitable soils for backfill (high plastic clays or organic soils) shall not be used in the

reinforced soil mass.

2.06 Geogrid Soil Reinforcement

- Geosynthetic reinforcement shall consist of geogrids manufactured specifically for soil reinforcement applications and shall be manufactured from high tenacity polyester yarn.

2.07 Drainage Pipe

- The drainage pipe shall be perforated corrugated HDPE pipe manufactured in accordance with ASTM D-1248.

PART 3 EXECUTION

3.01 Excavation

- Contractor shall excavate to the lines and grades shown on the construction drawings. Owner's representative shall be responsible for inspecting and approving the excavation prior to placement of leveling material or fill soils.

3.02 Base Leveling Pad

- Leveling pad material shall be placed to the lines and grades shown on the construction drawings, to a minimum thickness of 6 inches and extending laterally a minimum of 6" in front and behind the modular wall unit.

- Leveling pad shall be prepared to insure full contact to the base surface of the concrete units.

3.03 Modular Unit Installation

- First course of units shall be placed on the leveling pad at the appropriate line and grade. Alignment and level shall be checked in all directions and insure that all units are in full contact with the base and properly seated.

- Place the front of units side-by-side. Do not leave gaps between adjacent units. Layout of corners and curves shall be in accordance with manufacturer's recommendations.

- Install shear/connecting devices per manufacturer's recommendations.

- Place and compact drainage fill within and behind wall units. Place and compact backfill soil behind drainage fill. Follow wall erection and drainage fill closely with structure backfill.

- Maximum stacked vertical height of wall units, prior to unit drainage fill and backfill placement and compaction, shall not exceed three courses.

3.04 Structural Geogrid Installation

- Geogrid shall be oriented with the highest strength axis perpendicular to the wall alignment.

- Geogrid reinforcement shall be placed at the strengths, lengths, and elevations shown on the construction design drawings or as directed by the Engineer.

- The geogrid shall be laid horizontally on compacted backfill and attached to the modular wall units. Place the next course

of modular concrete units over the geogrid. The geogrid shall be pulled taut, and anchored prior to backfill placement on the geogrid.

- Geogrid reinforcements shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.

3.05 Reinforced Backfill Placement

- Reinforced backfill shall be placed, spread, and compacted in such a manner that minimizes the development of lifts in the geogrid and installation damage.

- Reinforced backfill shall be placed and compacted in lifts not to exceed 6 inches where hand compaction is used, or 8 - 10 inches where heavy compaction equipment is used. Lift thickness shall be decreased to achieve the required density as required.

- Reinforced backfill shall be compacted to 95% of the maximum density as determined by ASTM D698. The moisture content of the backfill material prior to and during compaction shall be uniformly distributed throughout each layer and shall be +3% to -3% of optimum.

- Only lightweight hand-operated equipment shall be allowed within 3 feet from the tail of the modular concrete unit.

- Tracked construction equipment shall not be operated directly upon the geogrid reinforcement. A minimum fill thickness of 6 inches is required prior to operation of tracked vehicles over the geogrid. Tracked vehicle turning should be kept to a minimum to prevent tracks from displacing the fill and damaging the geogrid.

- Rubber tired equipment may pass over geogrid reinforcement at slow speeds, less than 10 MPH. Sudden braking and sharp turning shall be avoided.

- At the end of each day's operation, the Contractor shall slope the last lift of reinforced backfill away from the wall units to direct runoff away from wall face. The Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.

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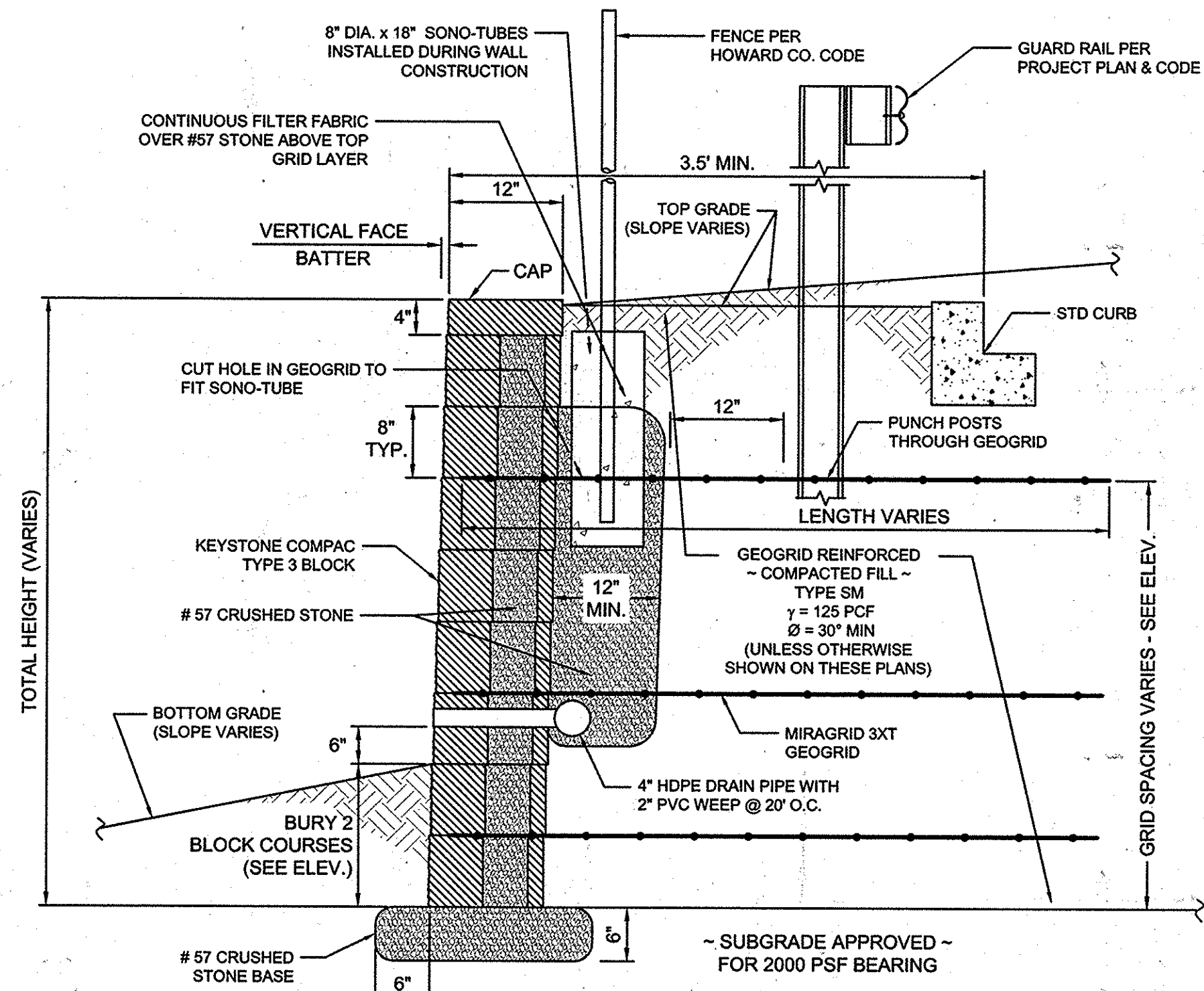
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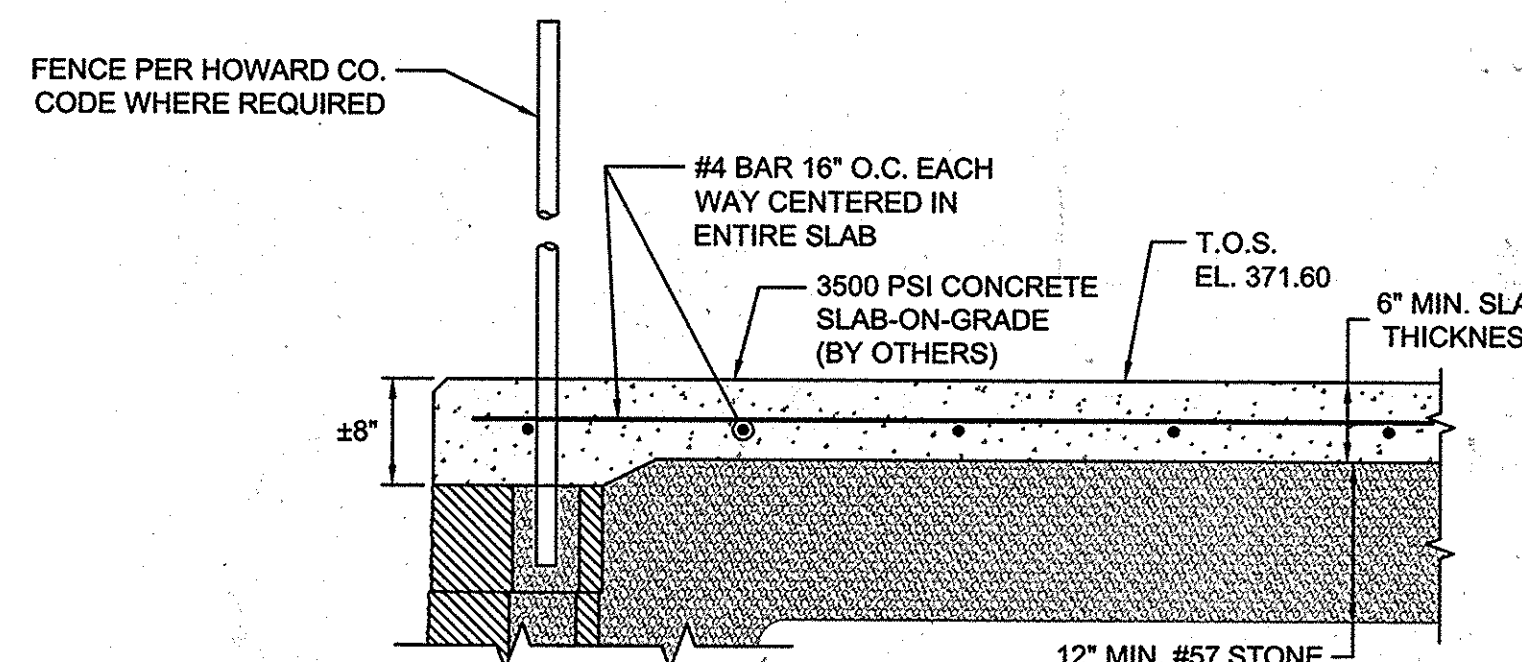
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NOTES:

- No trees shall be planted within 10 feet of the top of the retaining wall.
- Retaining walls shall only be constructed under the observation of a registered professional engineer and a (NICET, WACEL, or equiv.) certified soils technician.
- One soil boring shall be required every one hundred feet along the entire length of the wall. Copies of all boring reports shall be provided to the Howard County Inspector Prior to the start of construction.
- The required bearing pressure beneath the wall system shall be verified in the field by a certified soils technician. Testing documentation must be provided to the Howard County Inspector prior to start of construction. The required bearing test shall be the Dynamic Cone Penetrometer test ASTM STP-399.
- The suitability of fill material shall be confirmed by the on-site soils technician. Each 8' lift must be compacted to a minimum 95% standard proctor density and the testing report shall be made available to the Howard County Inspector upon completion of construction.
- Walls shall not be constructed on uncertified fill materials.
- Walls shall not be constructed within a Howard County right-of-way or easement.



TYPICAL WALL SECTION
N.T.S.



SLAB DETAIL
WALL #2 ALONG COOLER
N.T.S.

NO AS-BUILT INFORMATION THIS SHEET

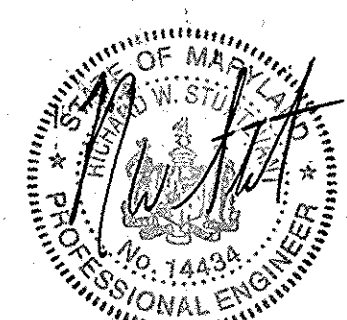
NO.	REVISION	DATE
1	REVISE PLAN MODIFY PROPOSED USES, REVISE WALL, MODIFY SIDEWALK AND PARKING, 01/20/14	
	REVISE WHC & SHC TO BUILDINGS, ADD PATIO.	

REVISED SITE DEVELOPMENT PLAN
RETAINING WALL PLAN AND DETAILS
ARCADIA SQUARE
9525 BALTIMORE NATIONAL PIKE
RESTAURANT AND RETAIL
L.15517/F.89 (PLAT 15803)

TAX MAP 24 BLOCK 4
2ND ELECTION DISTRICT
DPZ REF'S: SEE NOTES ON COVER

PARCEL 77
ZONED: B-1
HOWARD COUNTY, MARYLAND

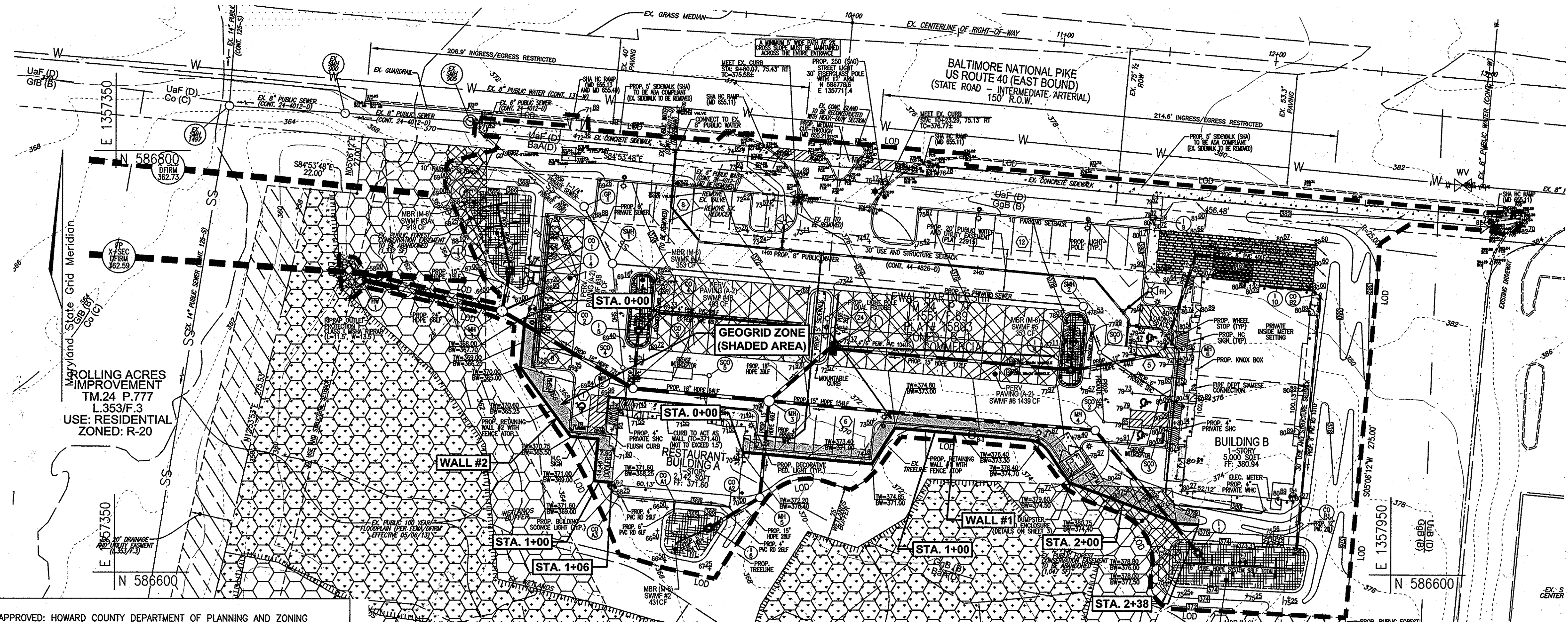
HILLIS-CARNES
ENGINEERING ASSOCIATES
10975 Guilford Road, Suite A Annapolis Junction, Maryland
(410) 880-4788 WWW.HGCEA.COM Fax: (410) 880-4098



DESIGN BY: AM
DRAWN BY: AM
CHECKED BY: RWS
DATE: FEBRUARY 2015
SCALE: AS SHOWN
HCEA NO.: 12470-A

PROFESSIONAL CERTIFICATE
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. 14434
EXPIRATION DATE 02-15-2015

10 SHEET OF 12



WALL LOCATION PLAN
1" = 30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

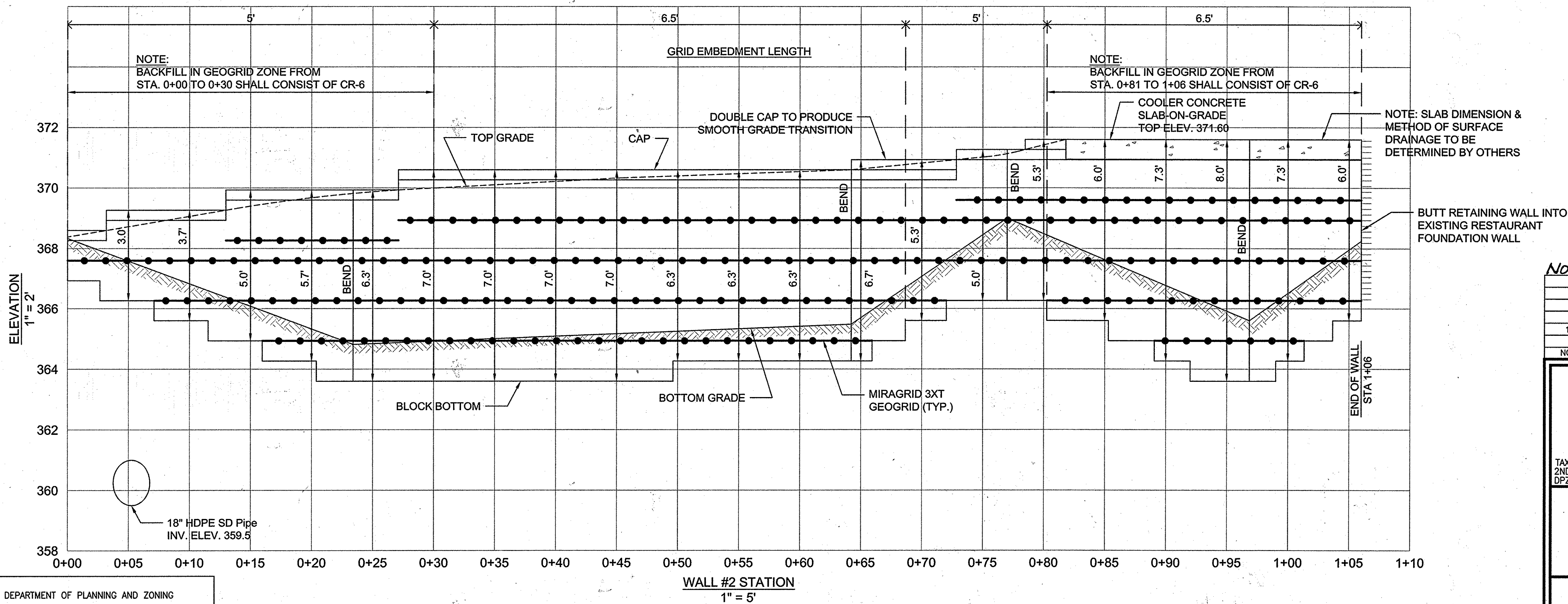
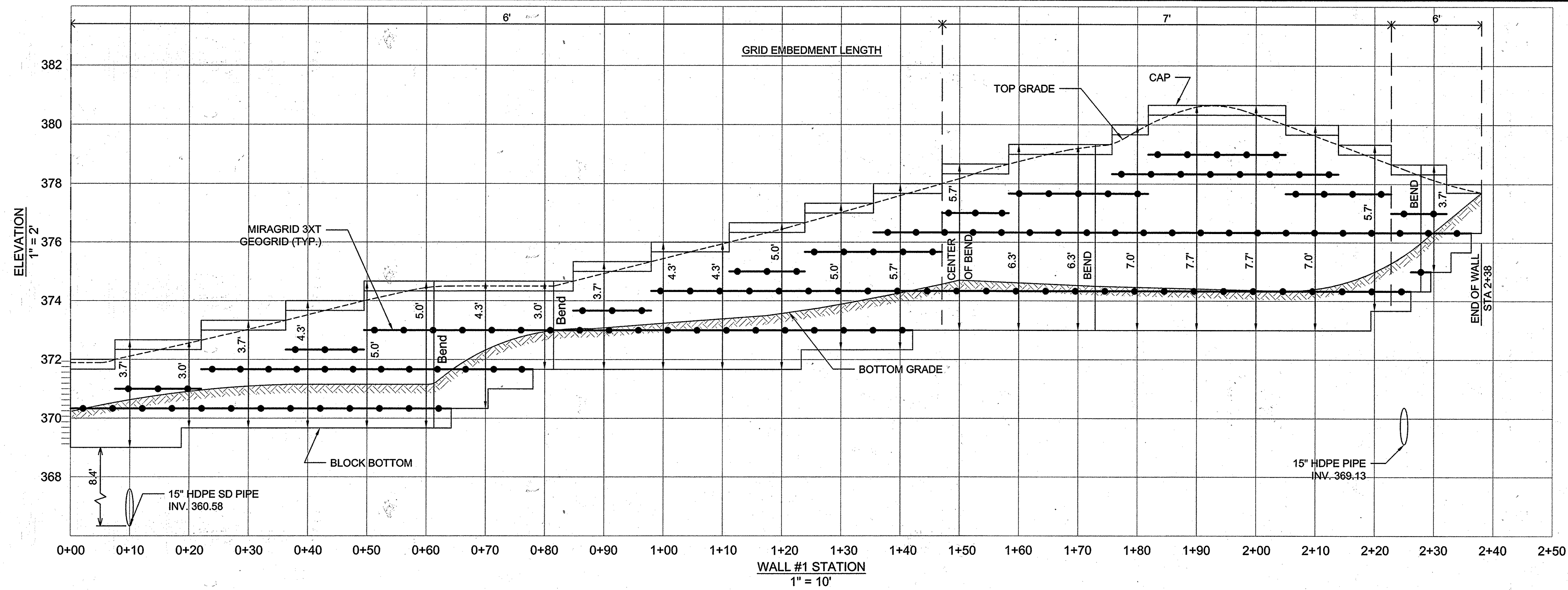
[Signature] 2/27/15
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 3-03-15
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 3/2/15
DIRECTOR DATE

OWNER/DEVELOPER
LEWAL PARTNERSHIP
100 PAINTERS MILL ROAD
SUITE 900
OWINGS MILLS, MD 21117
410-363-3434

AS-BUILT 3/10/16



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 2-27-15
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
 [Signature] 3-02-15
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 [Signature] 3/2/15
 DIRECTOR DATE

OWNER/DEVELOPER
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100 PAINTERS MILL ROAD
SUITE 900
OWINGS MILLS, MD 21117
410-363-3434

NO AS-BUILT INFORMATION THIS SHEET

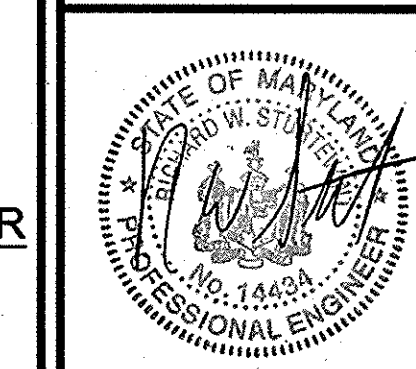
NO.	REVISION	DATE
1	REVISE PLAN MODIFY PROPOSED USES, REVISE WALL, MODIFY SIDEWALK AND PARKING, REVISE WHC & SHC TO BUILDINGS, ADD PATIO.	01/20/14

REVISED SITE DEVELOPMENT PLAN
RETAINING WALL ELEVATIONS
ARCADIA SQUARE
9525 BALTIMORE NATIONAL PIKE
RESTAURANT AND RETAIL
L1561 / F.89 (PLAT 15803)

TAX MAP 24 BLOCK 4
2ND ELECTION DISTRICT
DPZ REF'S: SEE NOTES ON COVER

PARCEL 77
ZONED: B-1
HOWARD COUNTY, MARYLAND

HILLIS-CARNES
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SCALE: AS SHOWN
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LICENSE NO. 14434
EXPIRATION DATE 05-13-2015

11 SHEET OF 12

AS-BUILT 3/16/16

SDP-13-073

