

SITE DEVELOPMENT PLAN

SHEPPARD PRATT HEALTH SYSTEM ELKRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY

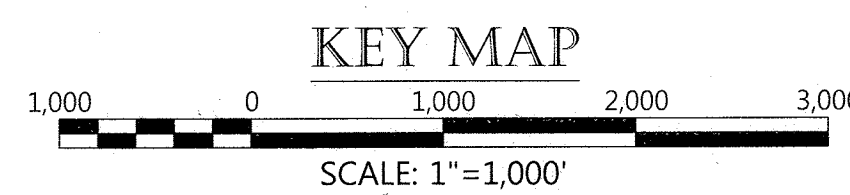
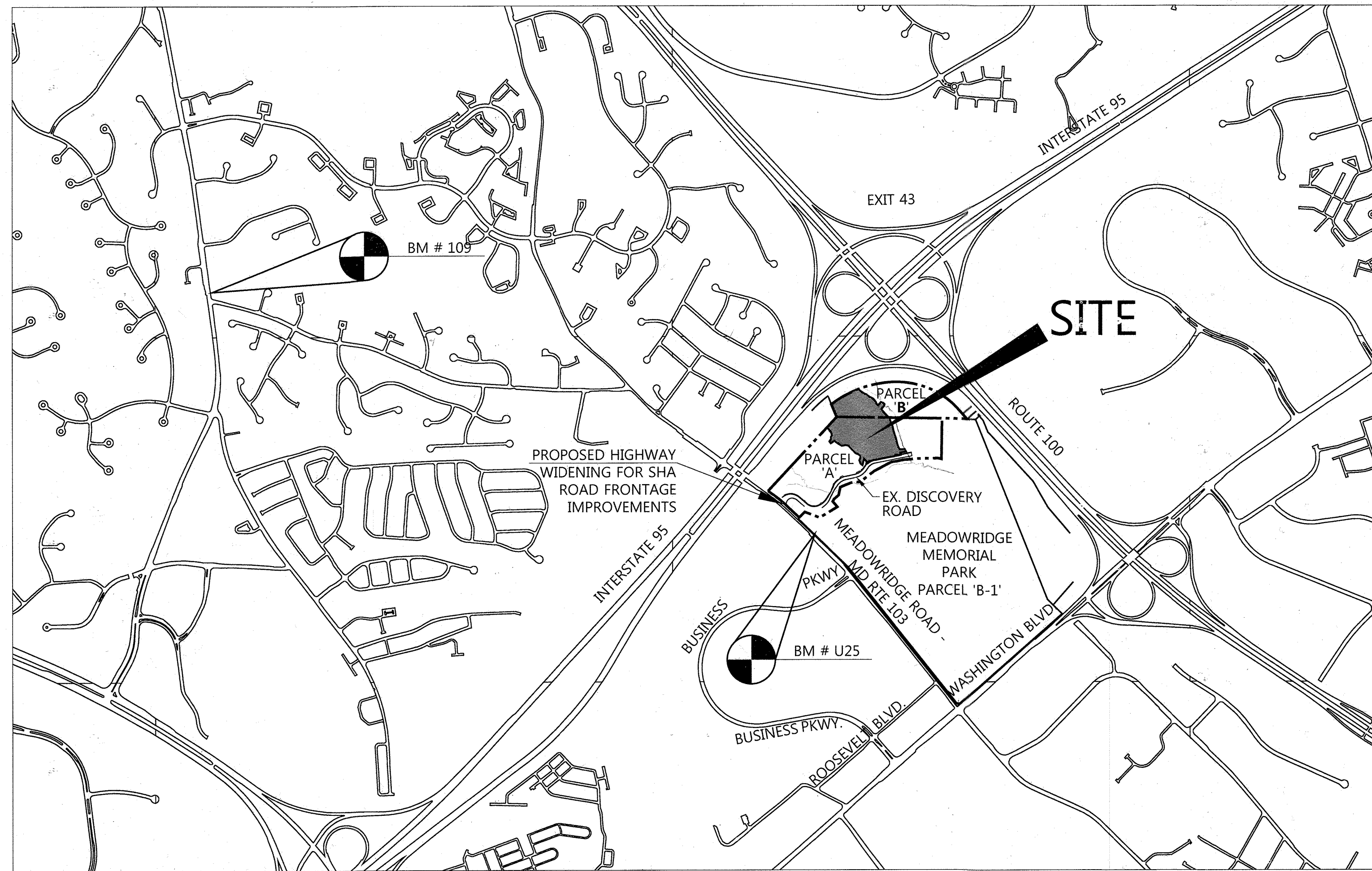
CORRIDOR 95 BUSINESS PARK SUBDIVISION

PARCEL A & B

SDP-18-033

HOWARD COUNTY

MARYLAND



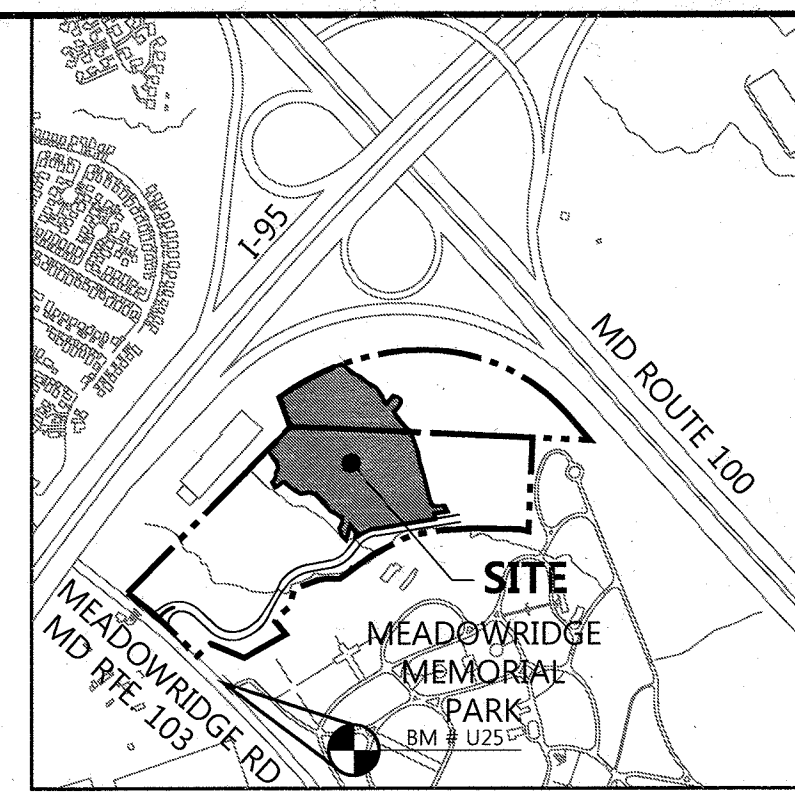
BENCHMARKS

BM# J109 ELEVATION - 348.04
NAD 83
THE DISK IS SET IN A CONCRETE MONUMENT PROJECTING TEN CENTIMETERS AND THE DISK IS STAMPED J109 1965 USG AND G5
N 557,526.35 E 1,370,661.99

BM# U25 ELEVATION - 215.39
NAD 83
THE DISK IS SET IN A ROUND CONCRETE POST PROJECTING SIX INCHES AND THE DISK IS STAMPED U25 1957
N 554,701.88 E 1,377,647.62

NOTE: HORIZONTAL AND VERTICAL DATUMS BASED ON (NAD 83 & NAVD 88) MARYLAND STATE COORDINATE SYSTEM AS PROJECTED BY NATIONAL GEODETIC SURVEY MONUMENT CONTROL STATIONS.

NOTE: REFER TO KEY MAP ON THIS SHEET FOR LOCATION OF BENCHMARK J109.



VICINITY MAP

SCALE 1"=1000'
HOWARD COUNTY ADC MAP
NUMBER 17, GRID NO. A10

SITE ANALYSIS DATA CHART

1. GENERAL SITE DATA
 - a. ADMIN. BLDG. ADDRESS: 7200 SUMMIT ROCK DRIVE, ELKRIDGE MD 21075
 - b. HOSPITAL BLDG. ADDRESS: 7220 SUMMIT ROCK DRIVE, ELKRIDGE MD 21075
 - c. PRESENT ZONING: M-1
 - d. APPLICABLE DPZ FILE REFERENCES: SDP-08-082, ECF-17-064, F-06-09, F-10-203, WF-05-084, WF-05-084, WF-09-212, SDP-08-082, 14-4576-D, ECF-17-064, F-10-102
 - e. PROPOSED USE: MEDICAL - 155,109 SQ FT
 - f. EXISTING USE: VACANT
 - g. PROPOSED WATER: PUBLIC
 - h. PROPOSED SEWER: PRIVATE
 - i. ANY OTHER RELEVANT INFORMATION: N/A
 - j. AREA OF STEEP SLOPES 15% AND GREATER: 0.15 AC.
 - k. AREA OF ERODIBLE SOILS: 2.28 AC.
2. AREA TABULATION
 - a. TOTAL SITE AREA: 39.55 AC.
 - b. TOTAL LIMIT OF DISTURBED AREA: 10.59 AC.
 - c. ON-SITE LIMIT OF DISTURBED AREA: 10.59 AC.
 - d. OFF-SITE LIMIT OF DISTURBED AREA: 0.00 AC.
 - e. TOTAL IMPERVIOUS AREA: 6.16 AC.
 - f. BUILDING COVERAGE OF SITE: 89,180 SQ FT
 - g. TOTAL PROJECT AREA: 10.60 AC.
 - h. AREA OF PLAN SUBMISSION: 10.60 AC.
 - i. FLOOR AREA FOR EACH LEVEL OF THE BUILDING: 155,109 SQ FT
 1. FIRST FLOOR: 57,910 SQ FT
 2. SECOND: 55,561 SQ FT
 3. ROOF: 442 SQ FT
3. PARKING SPACE DATA WITHIN LOD
 - a. TOTAL NUMBER OF PARKING SPACES REQUIRED: 255 (3BED x 85 BEDS)
 - b. TOTAL NUMBER OF PARKING SPACES PROVIDED: 274
 - c. SEE GENERAL NOTE #37
4. THERE ARE REGULATED STREAMS, WETLANDS, 100 YEAR FLOODPLAINS, ASSOCIATED BUFFERS AND STEEP SLOPES ON OR ADJACENT TO THE SITE. ON MARCH 13, 2018, PER SECTION 16.16(i), THE PLANNING DIRECTOR APPROVED THE FOLLOWING ENVIRONMENTAL IMPACTS AS NECESSARY DISTURBANCES: +1.2550 SW/1+0.25 AC OF PERMANENT STREAM BUFFER IMPACTS AND +1.470 SW/1+0.55 LF OF TEMPORARY STREAM IMPACTS ASSOCIATED WITH FOUR (4) PROPOSED STORMWATER MANAGEMENT OUTFALLS.
5. DURING CONSTRUCTION THIS PLAN SHALL MEET THE 2011 STANDARDS & SPECIFICATIONS FOR SOIL EROSION & SEDIMENT CONTROL.
6. THIS IS AN INTEGRATED DEVELOPING EXISTING PARCELS 'A' AND 'B' AND PER SECTION 12B.0A(i), INTERNAL ZONING STRUCTURE AND USE SETBACKS FROM LOT LINES INTERNAL TO THE DEVELOPMENT DO NOT APPLY BECAUSE NO MERGING OF PARCELS 'A' AND 'B' IS PROPOSED WITH THIS DEVELOPMENT.

PURPOSE STATEMENT FOR REDLINE REVISION NO. 2
THE PURPOSE OF THIS REDLINE REVISION IS TO PROVIDE PLAN UPDATES AS A RESULT OF CHANGES DURING THE CONSTRUCTION OF THIS PROJECT RANGING FROM BUT NOT LIMITED TO: SIDEWALK ADA RAMPS, CURB & GUTTER, CONCRETE PROTECTION BOLLARDS, RETAINING WALLS, FIRE LANE PAVING MATERIAL MODIFICATIONS, STORM DRAINAGE ADDITIONS AND DETECTABLE WARNING DOME PANELS.

PURPOSE STATEMENT FOR REDLINE REVISION NO. 1
THE PURPOSE OF THIS REDLINE REVISION IS TO REMOVE CONTAINMENT WALLS AROUND ALL SWM FACILITIES EXCEPT FOR MBS AND GRADE 3:1 SLOPES. REPLACE CONTECH ENGINEERED SOLUTIONS MANUFACTURED UNDERGROUND SWM VAULTS WITH OLDCASTLE PRECAST, INC. MANUFACTURED UNDERGROUND WALL SYSTEMS. ADD NEW SWM SHEET 25A. REVISE GRADING AND STORM DRAINAGE TO PROVIDE POSITIVE DRAINAGE AWAY FROM LOADING DOCK. UPDATE SEDIMENT CONTROLS PER ABOVE MENTIONED CHANGES.

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3	3	BUILDING ELEVATIONS - 2
4	4	LOCATION PLAN
5	5	ACCESSIBLE ROUTE PLAN
6	6	SITE PLAN - 1
7	7	SITE PLAN - 2
8	8	GRADING PLAN - 1
9	9	GRADING PLAN - 2
10	10	GRADING PLAN - 3
11	11	SITE DETAILS
12	12	STORM DRAIN DRAINAGE AREA MAP
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14	14	UTILITY PLAN - 2
15	15	STORM DRAIN PROFILES - 1
16	16	STORM DRAIN PROFILES - 2
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19	19	PRIVATE UTILITY PROFILES
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22	22	STORMWATER MANAGEMENT PLAN - 2
23	23	STORMWATER MANAGEMENT PLAN - 3
24	24	STORMWATER MANAGEMENT PLAN - 4
25	25	STORMFILTER WQV STORMWATER MANAGEMENT PLAN
26	26	STORMWATER MANAGEMENT DETAILS & INSPECTION & MAINTENANCE GUIDELINES
27	27	STORMWATER MANAGEMENT SOIL BORINGS - 1
28	28	STORMWATER MANAGEMENT SOIL BORINGS - 2
29	29	SEDIMENT AND EROSION CONTROL OVERALL
30	30	SEDIMENT AND EROSION CONTROL PLAN - 1
31	31	SEDIMENT AND EROSION CONTROL PLAN - 2
32	32	SEDIMENT AND EROSION CONTROL EXISTING CONDITIONS DRAINAGE AREA MAP
33	33	SEDIMENT AND EROSION CONTROL PROPOSED CONDITIONS DRAINAGE AREA MAP
34	34	SEDIMENT AND EROSION CONTROL DETAILS
35	35	SEDIMENT AND EROSION CONTROL DETAILS
36	36	SEDIMENT AND EROSION CONTROL SPECIFICATIONS
37	37	LANDSCAPING & HARDSCAPE KEY SHEET
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44	44	LANDSCAPE PLANTING PLAN-TREES
45	45	LANDSCAPE ENLARGEMENT PLANS - UNDERSTORY
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BGE GAS TRANSMISSION LINE NOTE

BEFORE TEST FITTING OR CONSTRUCTION, CONTACTING MISS UTILITY AND WAITING FOR RESPONSES FROM ALL PARTIES IS REQUIRED. THIS WILL TRIGGER A BGE 'DIG ALERT', WHERE BGE REQUIRES AN ON-SITE MEETING WITH BGE DAMAGE PREVENTION. BGE DP WILL CONTACT THE PERSON LISTED ON THE MISS UTILITY TICKET. BGE DP WILL REVIEW SAFE DIGGING PROCEDURES. THIS WILL INCLUDE A PROHIBITION ON USING ANY MECHANIZED EQUIPMENT TO EXCAVATE OR DO ANY GRADING WITHIN 18' OF THE MISS UTILITY MARKS. DURING ANY GROUND DISTURBANCE (EXCAVATION/GRADING) WITHIN 10 FEET OF THE TRANSMISSION LINE, BGE DP WILL HAVE A PERSON ON SITE TO STANDBY.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-8860 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
3. THE SUBJECT PROPERTIES ARE ZONED M-1 AS PER THE HOWARD COUNTY ZONING MAPS EFFECTIVE OCTOBER 6, 2018 AND THE MOST RECENT HOWARD COUNTY ZONING REGULATIONS ADOPTED ON OCTOBER 6, 2013 (WITH SUPPLEMENTS EFFECTIVE BEFORE AND UP TO SEPT 13, 2017).
4. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
5. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
6. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
7. EXISTING TOPOGRAPHIC INFORMATION HEREON REFLECTS THE RESULT OF A TOPOGRAPHIC SURVEY PREPARED BY DMW INC. ON JUNE 2017 & GW3 ON DEC 2007. SUPPLEMENTED BY HOWARD COUNTY GIS.
8. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS BM# J109 & U25 WERE USED FOR THIS PROJECT.
9. OFFSITE WATER & SEWER IS PUBLIC. CONTRACT NO. 14-4576-D
10. ON-SITE WATER IS PUBLIC (CONTRACT NO. 14-5048-D) AND ON-SITE SEWER IS PRIVATE.
11. PROPOSED STORMWATER MANAGEMENT LEVEL OF CONTROL WILL BE (ESD) ENVIRONMENTAL SITE DESIGN TO THE MOST EXTENT PRACTICAL WITH THE SAFE PASSAGE OF THE 2, 10 AND 100-YEAR FREQUENCY STORMS. PROVIDED SWM IS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME I, CHAPTER 5; REVISED MAY 3RD, 2010. (MO6) MICRO-BIORIENTATION AND CONTECH FILTERVA WQV FACILITIES WILL BE USED TO TREAT AND MANAGE STORMWATER RUNOFF. SWM FACILITIES WILL BE OWNED MAINTAINED.
12. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF A 2.0 FOOT PROTECTIVE COVER OVER ALL UTILITIES DURING CONSTRUCTION.
13. ALL EXTERIOR LIGHT FIXTURES SHALL BE ORIENTED TO DIRECT LIGHT INWARD AND DOWNWARD AND AWAY FROM ALL ADJOINING RESIDENTIAL PROPERTIES AND PUBLIC ROADS IN ACCORDANCE WITH SECTION 134.0.C OF THE HOWARD COUNTY ZONING REGULATIONS.
14. THE SITE HAS BEEN DESIGNED TO BE IN CONFORMANCE WITH ADA REGULATIONS 28 CFR PART 36, REVISED SEPTEMBER 15, 2010. HANDICAP PARKING DETAILS AND SIGNAGE SHALL BE IN ACCORDANCE WITH ADAAG (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES) AND COMAR (CODE OF MARYLAND REGULATIONS) SECTION 5.02.02.
15. ANY DAMAGE TO THE COUNTY OWNED RIGHT-OF-WAY SHALL BE CORRECTED AT THE CONTRACTORS EXPENSE.
16. ALL SIDEWALKS SHALL BE CROSS SLOPED AT 1/4 INCH PER FOOT.

17. TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01.
18. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS OR MSHA STANDARDS AS SPECIFIED ON THE STRUCTURE.
19. ALL MATERIALS AND CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PROPERTY WHICH MAY OCCUR AS A RESULT OF NEGLIGENCE DURING THE EXECUTION OF WORK.
21. ELECTRIC, GAS, CABLE, TELEPHONE AND LIGHTING LINES ARE DESIGNED BY OTHERS.
22. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
23. MDE PERMIT MODIFICATION DATED 04/25/18 (08-NI-3066/20080842) AUTHORIZED A WETLAND RE-DELINEATION AND STREAM IMPACTS FOR FOUR (4) STORMWATER MANAGEMENT OUTFALLS. ALL OTHER WETLANDS AND STREAMS SHOWN HEREON WERE DELINEATED BY ECO-SCIENCE PROFESSIONALS, INC. AND ALONG WITH THEIR BUFFERS, ARE SHOWN AS APPROVED ON SDP-08-082, AND RECORDED ON PLATS 22381 THROUGH 22389. PRIOR TO GRADING PERMIT APPLICATION, ALL MDE PERMITS MUST BE OBTAINED. ALL EASEMENTS, WETLANDS, AND BUFFERS AS SHOWN ARE CONSISTENT WITH THE O'S ONLY PLAT # 24679-24695.
24. FLOODPLAIN SHOWN IS BASED ON FLOODPLAIN STUDY PREPARED BY GEORGE WILLIAM STEPHENS, JR. & ASSOCIATES, INC. IN 2008. THE FLOODPLAIN STUDY WAS APPROVED BY HOWARD COUNTY DEVELOPMENT ENGINEERING DIVISION ON NOVEMBER 19, 2009 DURING THE REVIEW OF SDP-08-082.
25. FOREST CONSERVATION ACT COMPLIANCE FOR THIS PROPERTY WAS APPROVED THROUGH A COMBINATION OF 5.10 AC OF ON-SITE RETENTION, 7.5 AC OF OFF-SITE REFORESTATION (BRIGHTON HILLS SUBDIVISION), AND A REFORESTATION FEE-IN-LIEU PAYMENT FOR 0.20 AC. PLEASE REFER TO # 24679-24685 FOR METES, BOUNDS, BEARINGS, AND DISTANCE INFORMATION FOR ALL FC EASEMENTS.
26. 0.20 AC OF REQUIRED FOREST CONSERVATION IS ADDRESSSED BY A FEE-IN-LIEU PAYMENT OF \$6,534.00 (\$0.75/SF - 8,712 SF*0.75=\$6,534.00).
27. THERE ARE NO KNOWN GRAVE SITES WITHIN THE PROJECT BOUNDARIES, SUBJECT TO THE REQUIREMENTS OF SECTION 16.130 OF THE HOWARD COUNTY CO. DG. GRAVE SITES ARE LOCATED ON THE ADJACENT PROPERTY PARCEL 'B' OWNED BY SCI FUNERAL SERVICES OF MARYLAND, INC, MEADOWRIDGE MEMORIAL PARK.
28. PRIVATE TRASH REMOVAL SERVICES WILL BE PROVIDED BY THE DEVELOPER.
29. STORM DRAINS ARE PRIVATE.
30. EXISTING UTILITIES ARE BASED ON SDP 08-082 AND PUBLIC WATER AND SEWER CONTRACT NO. 14-4576-D.
31. THE TRAFFIC STUDY WAS PREPARED BY THE TRAFFIC GROUP DATED 11/7/2017 AND WAS REVIEWED BY MSHA AS PART OF THE ACCESS PERMIT APPROVAL (08-AP-HO-006-18 DATED 01/05/18).
32. MAINTENANCE OF THE STORMWATER MANAGEMENT FACILITIES AND RETAINING WALLS WILL BE PRIVATELY MAINTAINED BY THE DEVELOPER.
33. PRIOR TO GRADING PERMIT APPLICATION, A BGE EASEMENT AGREEMENT SHALL BE OBTAINED BY THE DEVELOPER FROM BGE ACKNOWLEDGING ACTIVITIES PROPOSED WITHIN THE EXISTING BGE EASEMENT. A BGE EASEMENT WAS OBTAINED BY THE DEVELOPER ON SEPTEMBER 25, 2018. THIS AGREEMENT ACKNOWLEDGES AND PERMITS THE ACTIVITIES PROPOSED WITHIN THE EXISTING BGE EASEMENT.

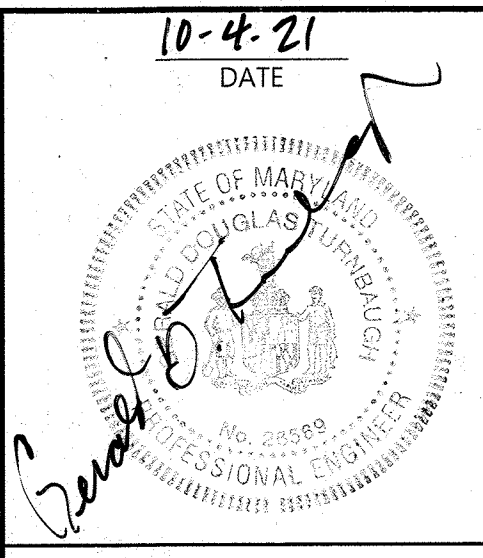
34. A BGE EASEMENT AGREEMENT, DATED 9-25-18 AND EXECUTED BY THE OWNER ON 9-25-18, DESCRIBING APPROVED CONSTRUCTION AND INSTALLATION OF THE SHEPPARD PRATT FACILITIES WITHIN THE BGE EASEMENT AREA HAS BEEN ISSUED. BGE APPROVED CONSTRUCTION ACTIVITIES WITHIN THE BGE EASEMENT ARE LIMITED TO THE ACTIVITIES AND CONDITIONS AS DESCRIBED WITHIN THE AGREEMENT.
35. THE EXISTING SITE WITHIN THE LIMITS OF WORK IS CURRENTLY VACANT.
36. HEALTH DEPARTMENT APPROVAL OF THIS SITE DEVELOPMENT PLAN 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.
37. PROPOSED IMPROVEMENTS ASSOCIATED WITH THIS SDP OCCUR WITHIN CORRIDOR 95 BUSINESS PARK.
38. THERE ARE WETLANDS ON SITE. ECO-SCIENCE PROFESSIONALS WAS RESPONSIBLE FOR THE ENVIRONMENTAL SITE INVESTIGATION DATE OF INVESTIGATION (FEBRUARY 27, 2009). MDE / CORPS OF ENGINEERS PERMIT TRACKING # 08-NI-3066 / 2008080826. THE PERMIT WAS RE-AUTHORIZED BY DMW AS AN MDRP-F-V (03/26/17). A PERMIT MODIFICATION FOR MEADOWRIDGE ROAD IMPROVEMENTS WAS AUTHORIZED ON 11/07/17. A MODIFICATION TO THE BEHAVIORAL HEALTH FACILITY WAS AUTHORIZED ON 04/24/18 FOR A WETLAND RE-DELINEATION AND STREAM IMPACTS TO SUPPORT FOUR STORMWATER MANAGEMENT OUTFALLS TRACKING # 08-NI-3066 / 200808042.
39. ON FEBRUARY 5, 2018 THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING GRANTED A REDUCTION TO SECTION 133.03.07.C, INSTITUTIONAL AND OTHER USES-HOSPITALS, FOR THE REQUIRED RATIO OF PARKING PER BED FROM 7 TO 9 DUE TO THE NON-ACUTE CARE NATURE OF THE PROPOSED MENTAL HEALTH HOSPITAL. THE COUNTY RESERVES THE RIGHT TO REQUEST A NEW, UPDATED PARKING NEEDS STUDY FOR ANY FUTURE EXPANSION OF THE SHEPPARD PRATT FACILITY.
40. POSTING OF SURETY FOR REQUIRED LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE LANDSCAPE MANUAL IN THE AMOUNT OF \$8,100 FOR 22 SHADE TREES, 10 EVERGREENS, 0 SHRUBS AND 0 LINEAR FEET OF FENCING. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT.
41. BA-17-040V - A VARIANCE TO REDUCE THE 30-FOOT PARKING USE SETBACK FROM AN EXTERNAL PUBLIC STREET RIGHT-OF-WAY TO 14 FEET FOR 33 PARKING SPACES, PURSUANT TO SECTION 122.02.2A OF THE ZONING REGULATIONS COUNTY OF HOWARD MARYLAND, WAS APPROVED BY THE HEARING EXAMINER ON MARCH 26, 2018 WITH THE FOLLOWING CONDITIONS:
 1. THE VARIANCE SHALL APPLY ONLY TO THE USES AND STRUCTURES AS DESCRIBED IN THE PETITION AND PLAN, AS REVISED, AND NOT TO ANY OTHER ACTIVITIES, USES, STRUCTURES, OR ADDITIONS ON THE PROPERTY.
 2. PETITIONER SHALL OBTAIN ALL REQUIRED PERMITS.
 3. PETITIONER SHALL COMPLY WITH ALL STATE AND LOCAL LAWS AND REGULATIONS.
42. HOWARD COUNTY DESIGN MANUAL WAIVER DMV2-18-015, DATED 7-25-18, HAS BEEN GRANTED FOR THE RELIEF OF THE HOWARD COUNTY WATER AND SEWER DESIGN MANUAL, VOLUME II, SECTION 5.4 CROSSING AND CLEARANCES. PARAGRAPH 5.5 REQUIREMENT OF A MINIMUM TEN (10) FOOT HORIZONTAL CLEARANCE BETWEEN ANY PERMANENT STRUCTURE AND EDGE OF THE PUBLIC UTILITY EASEMENT. REFER TO PUBLIC WATER AND SEWER CONTRACT 14-5048-D DRAWINGS FOR PLAN LIMITS AND CONDITIONS ASSOCIATED WITH THIS WAIVER.

FILE NUMBER:

F-06-09, F-10-013,
WF-05-084, WF-08-084,
WF-09-212, SDP-08-082,
14-4576-D, ECF-17-064

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 26569. EXPIRATION DATE: 07/31/2023.



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

[Signature] 11-23-21
DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 12/10/21
DATE

CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 12-10-21
DATE

DIRECTOR

Date	No.	Revision Description
08-16-21	1	REDLINE REV. #2 - UPDATE SHEET INDEX & ADD PURPOSE STATEMENT
02-25-19	1	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC 4 UTILITY PLANS

**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**

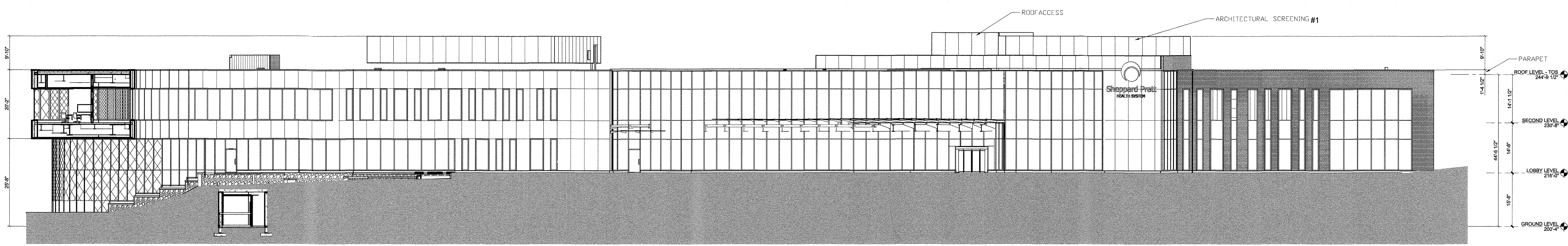
ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE

OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242

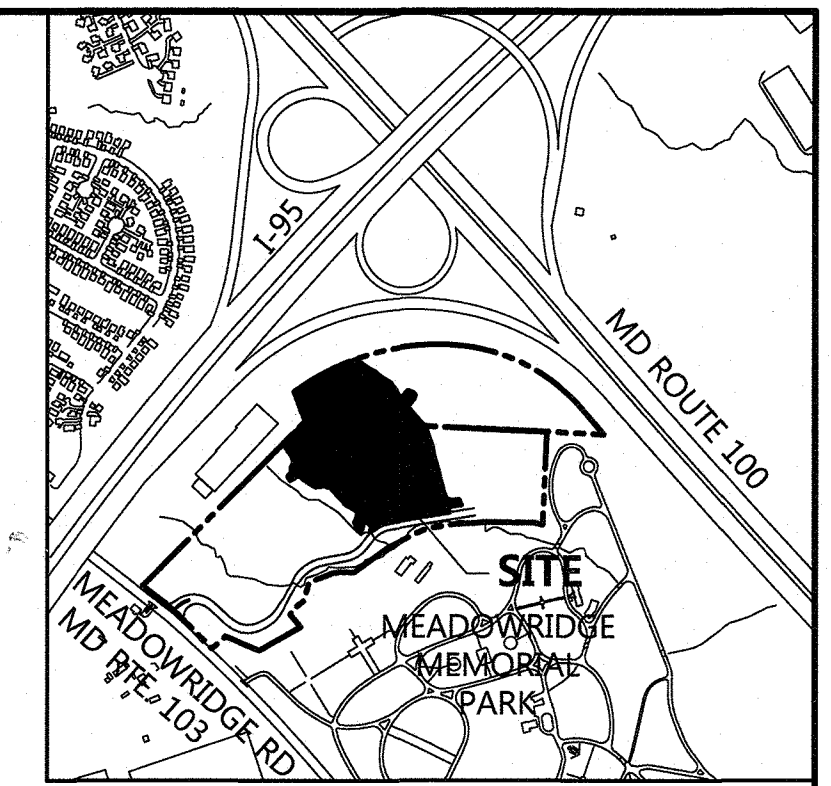


501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM	
SUBDIVISION NAME CORRIDOR 95 BUSINESS PARK	SECTION/AREA 756 (PARCEL A&B)
PLAT OR L.P. 24679-24695	TAX ZONE/MAP/GRID M-1 3716423
WATER CODE B-02	SEWER CODE 4020000
STAGE 6012.03	
TITLE REVISED SITE DEVELOPMENT PLAN COVER SHEET	
Des. By GDT/KMAJ/PL	SCALE AS SHOWN
Dwn. By DPS/AJ/PL	Date 08/16/2021
Chk. By GDT/KMAJ/PL	Approved MCK/MA
Proj. No. 10015.00	
01 of 51	

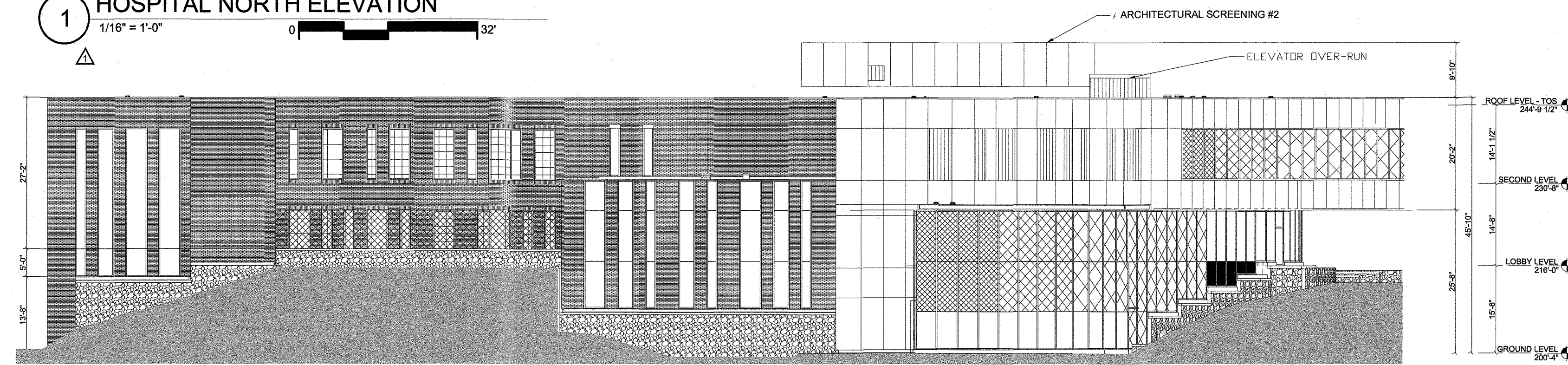
SDP-18-033



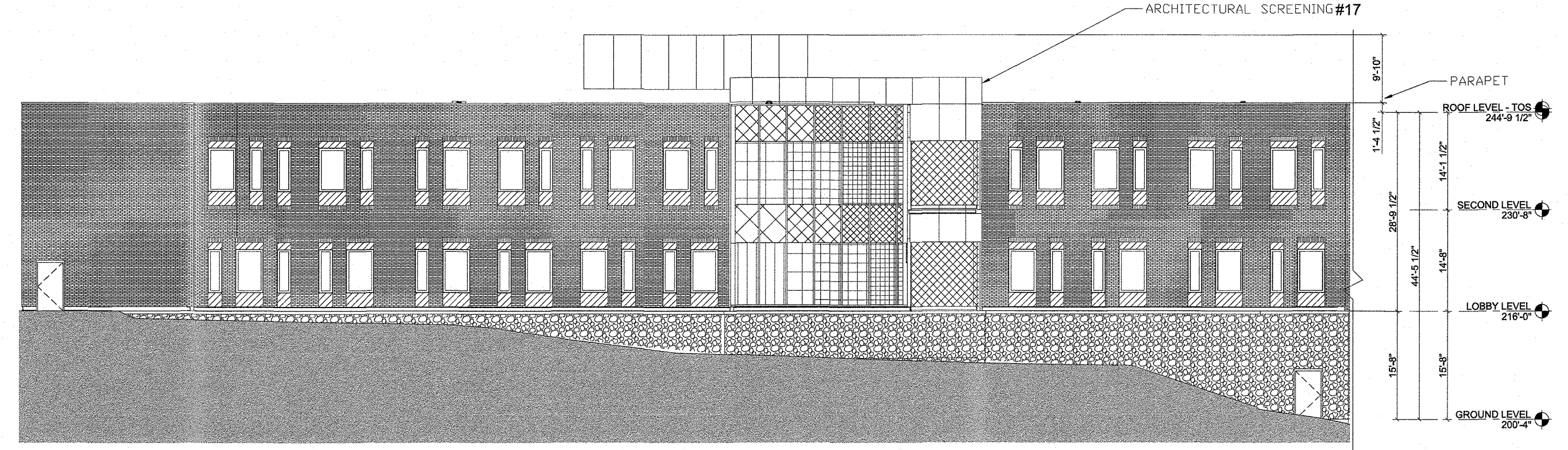
1 HOSPITAL NORTH ELEVATION
1/16" = 1'-0"



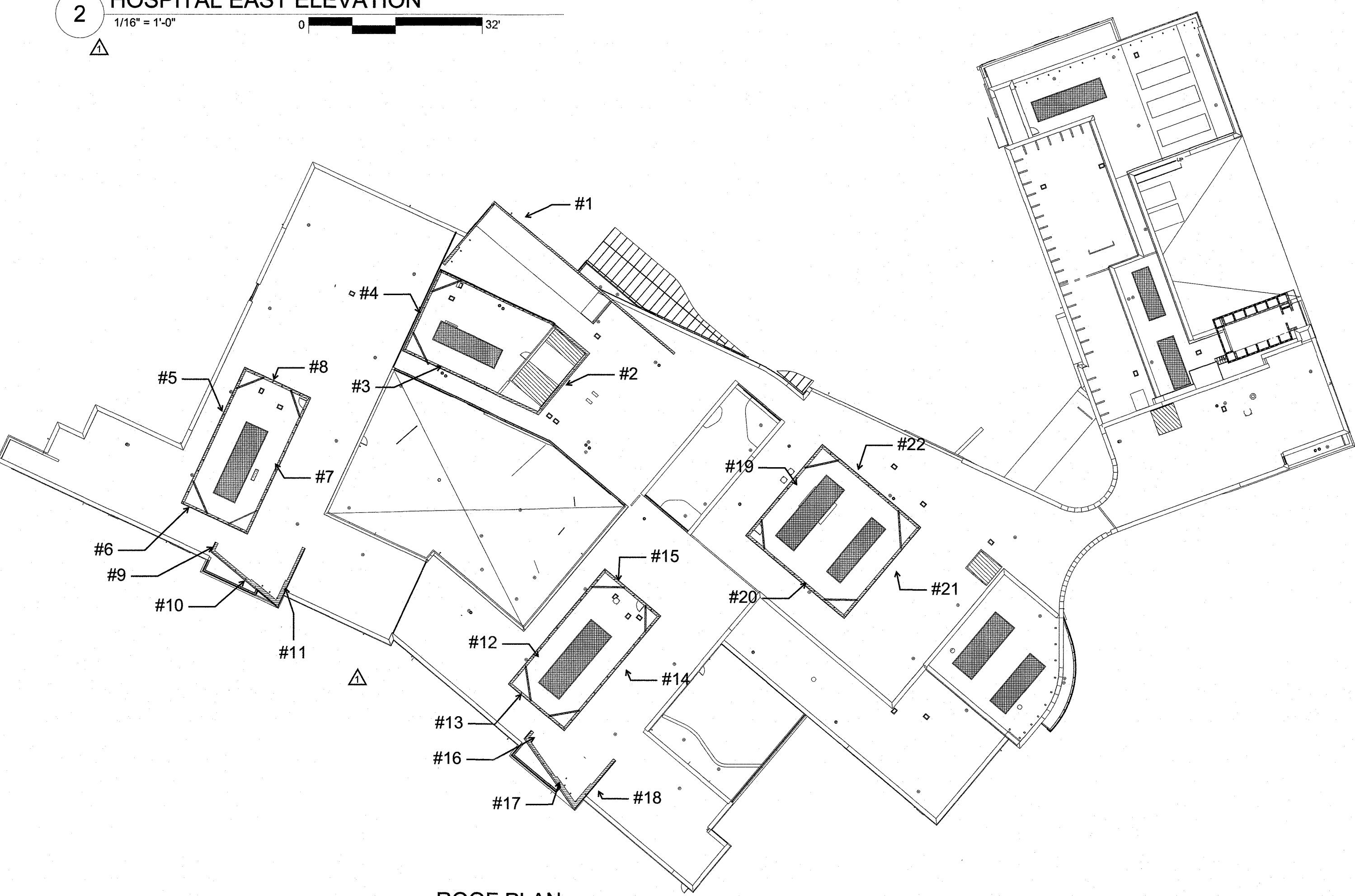
HOWARD COUNTY ADC MAP
NUMBER 17, GRID NO. A10



2 HOSPITAL EAST ELEVATION
1/16" = 1'-0"



4 HOSPITAL SOUTH ELEVATION 2
1/16" = 1'-0"

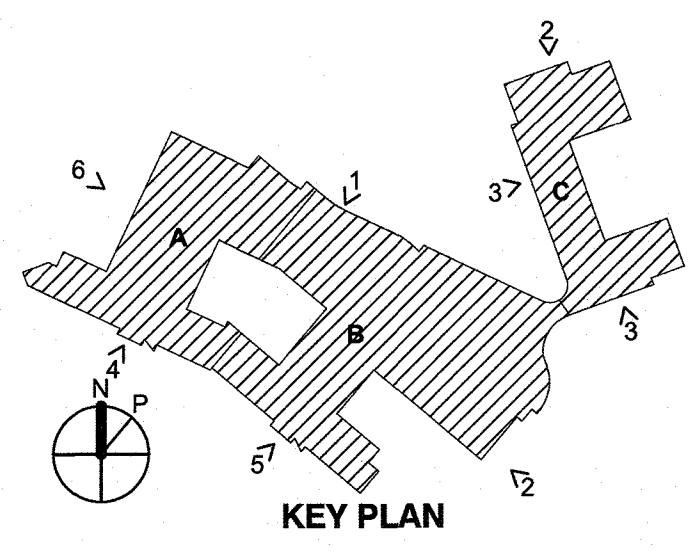


ROOF PLAN
NOT TO SCALE

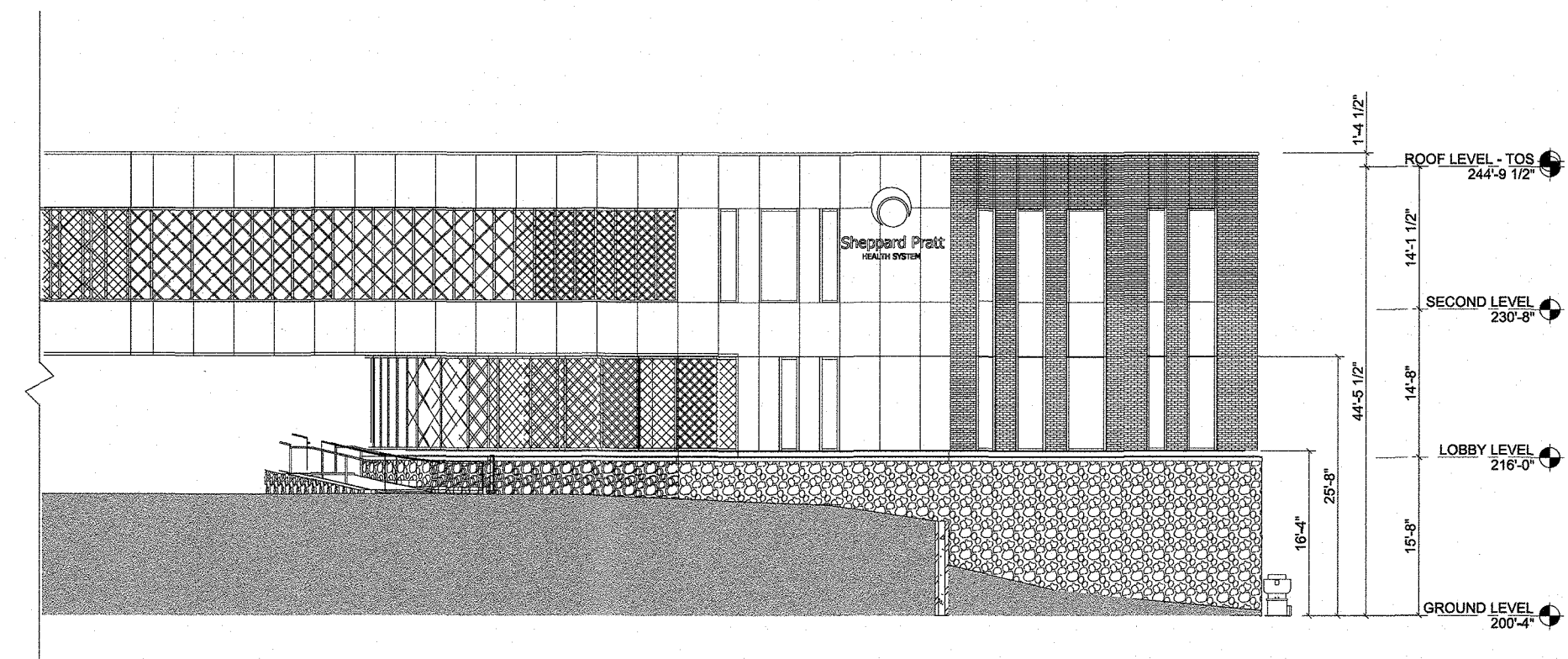
- ARCHITECTURAL SCREENING: 1272.04 SF
- MECHANICAL UNITS: 2955.16 SF
- ELEVATOR OVERRUNS: 542.29 SF
- ENCAPSSES ABOVE FEATURES
- TOTAL SCREEN WALL COVERAGE: 10465.8 SF
- TOTAL ROOF AREA: 75,815.7 SF
- TOTAL COVERAGE IS 13.80% OF TOTAL ROOF AREA



5 HOSPITAL SOUTH ELEVATION 1
1/16" = 1'-0"



KEY PLAN



3 SUPPORT SERVICES EAST ELEVATION
1/16" = 1'-0"

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15906, EXPIRATION DATE: 08/14/2021.



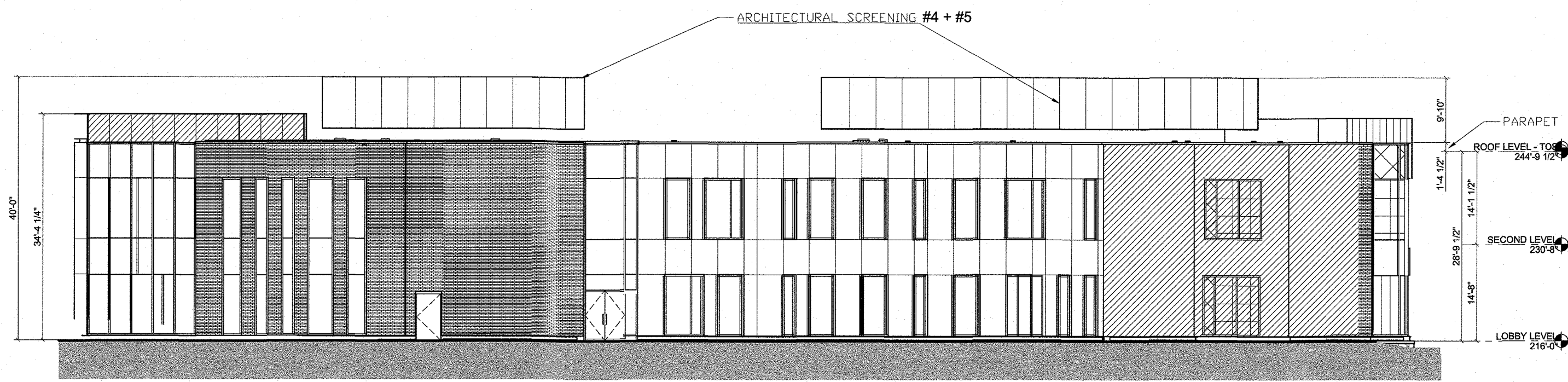
Date	No.	Revision Description
02-25-19	1	REDLINE REV. #1 - UPDATE ELEVATIONS

**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**
ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242

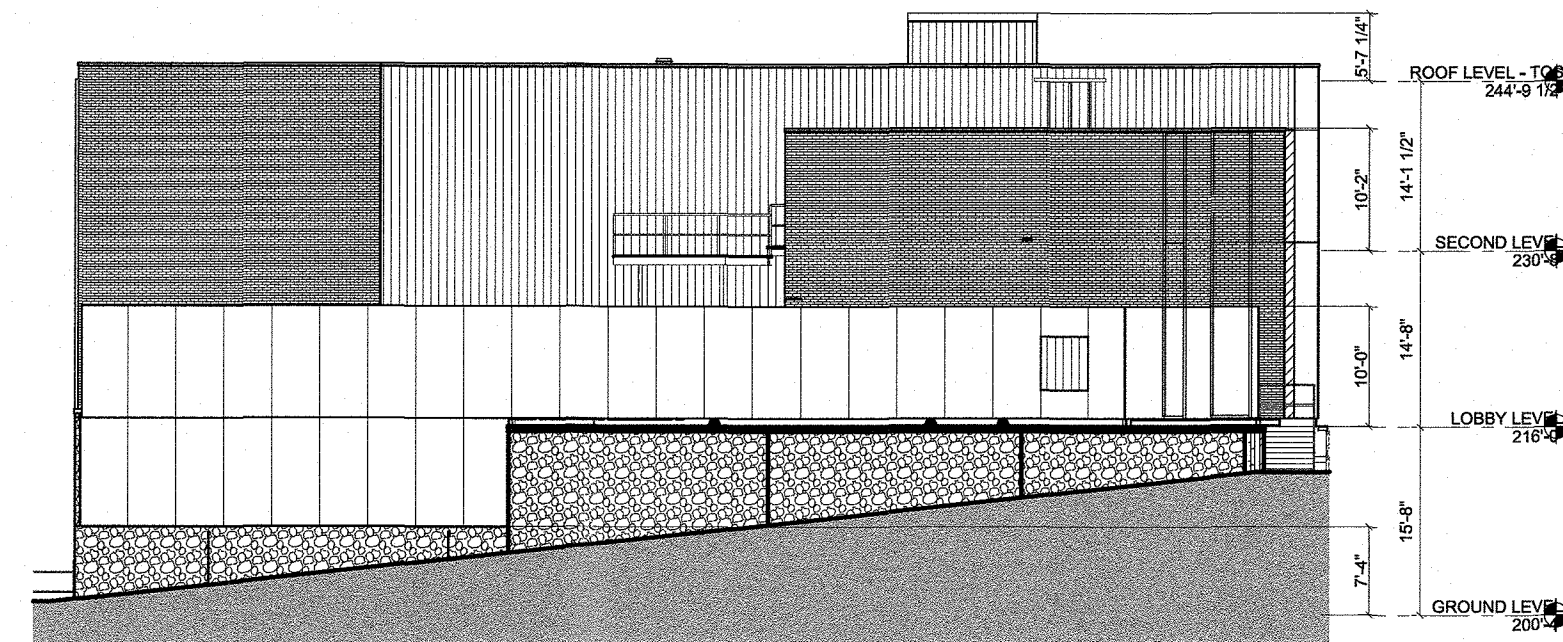
CANNONDESIGN

250 WEST PRATT STREET, SUITE 2100, BALTIMORE, MD 21201 P: 410 234 1155 WWW.CANNONDESIGN.COM		LOT/PARCEL # 756 (PARCEL A&B)
SUBDIVISION NAME CORRIDOR 95 BUSINESS PARK	SECTION/AREA 1200E	TAX ZONE/MAP/GRID 37/16&23
PLAT OR L/F 22384 & 22388-B9 M-1	ELECT. DIST 1	CENSUS TRACT 6012.03
WATER CODE B-02	SEWER CODE 4020000	STAGE
TITLE REPLACEMENT SHEET BUILDING ELEVATIONS -1		
Des. By BW/JM/KM	SCALE AS SHOWN	Proj. No. 10015.00
Drn. By KM	Date 07/12/2018	
Chk. By SW	Approved MCB	02 of 51

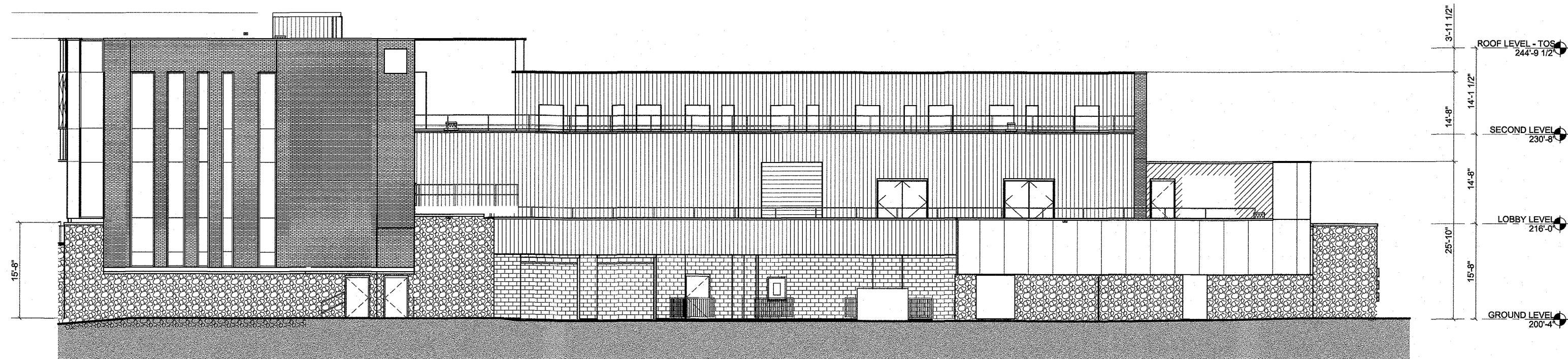
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Chad Elmer 9-30-19
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Kent Shealovich 10-2-19
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
Nadine Zolner 10-2-19
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE



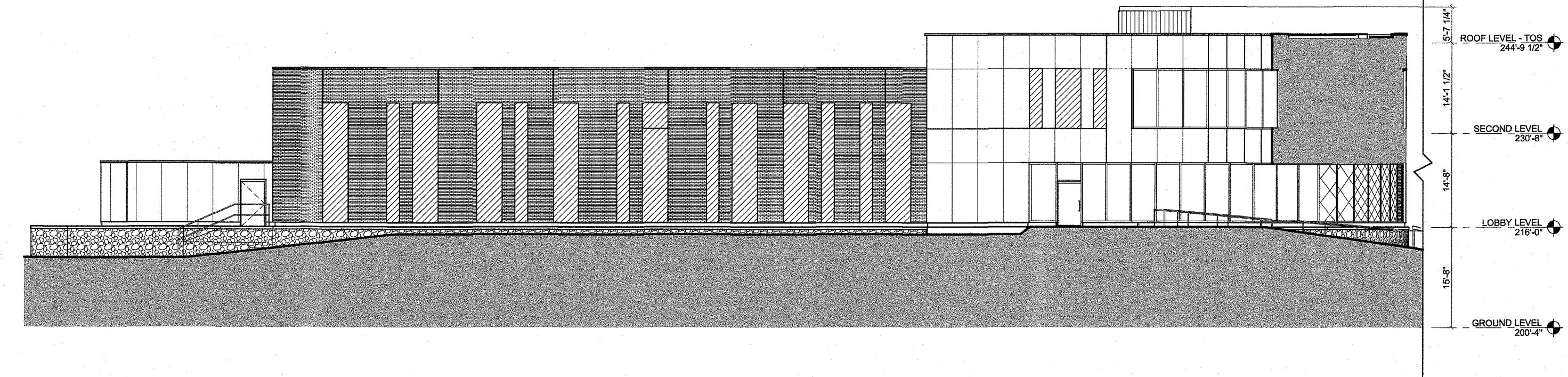
6 HOSPITAL WEST ELEVATION
1/16" = 1'-0"
0 32'



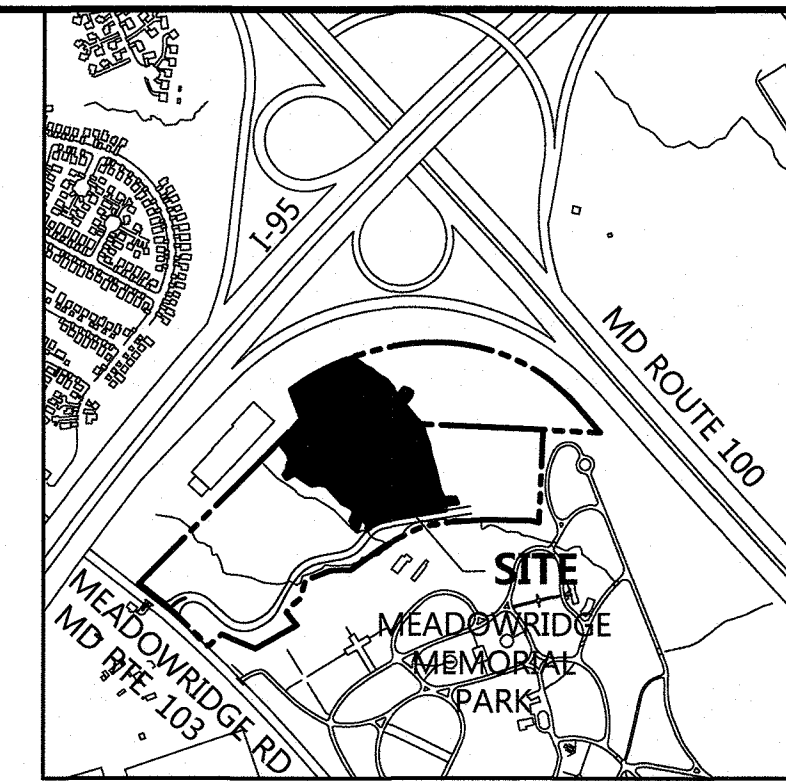
8 SUPPORT SERVICES WEST ELEVATION
1/16" = 1'-0"
0 32'



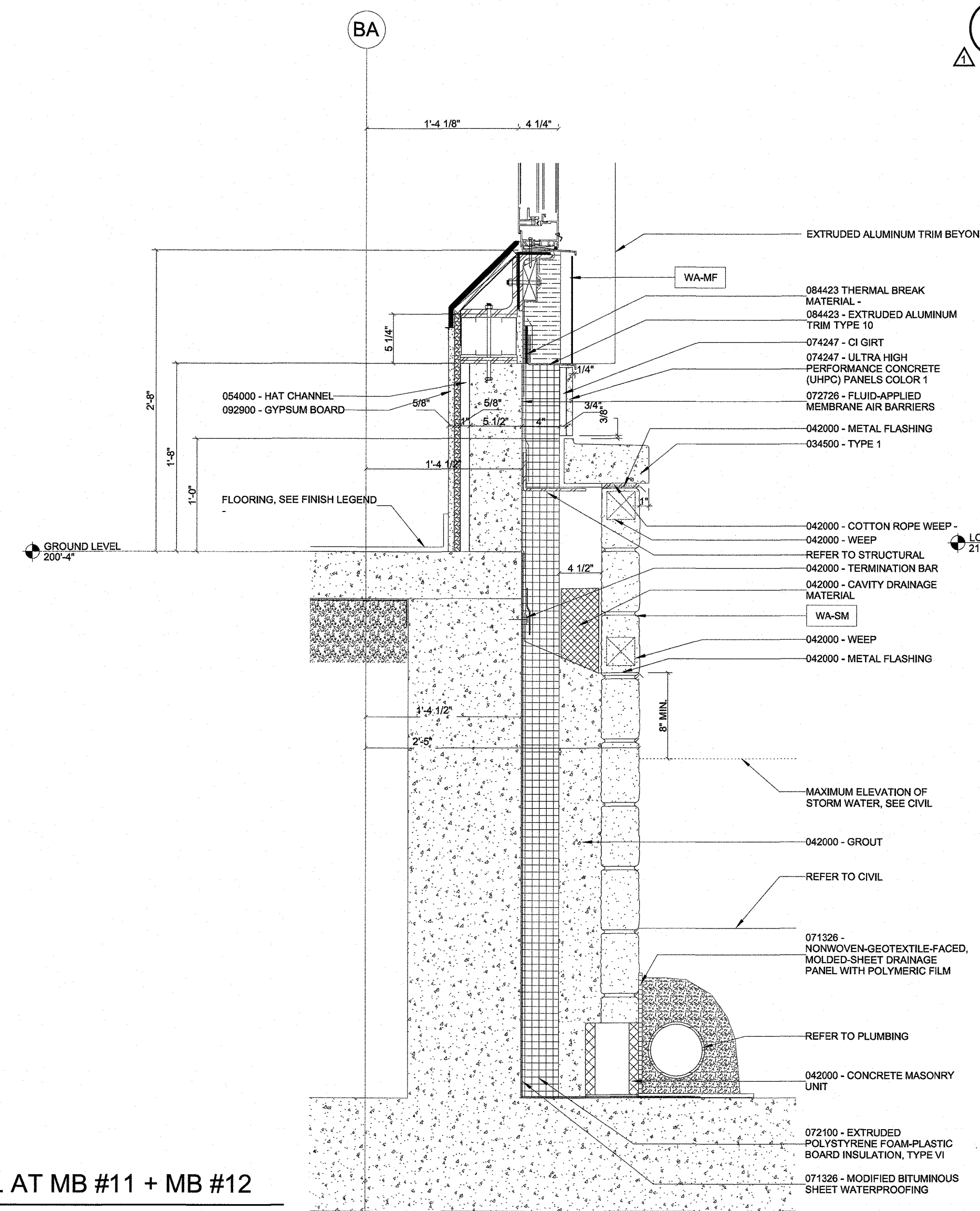
7 SUPPORT SERVICES NORTH ELEVATION
1/16" = 1'-0"
0 32'



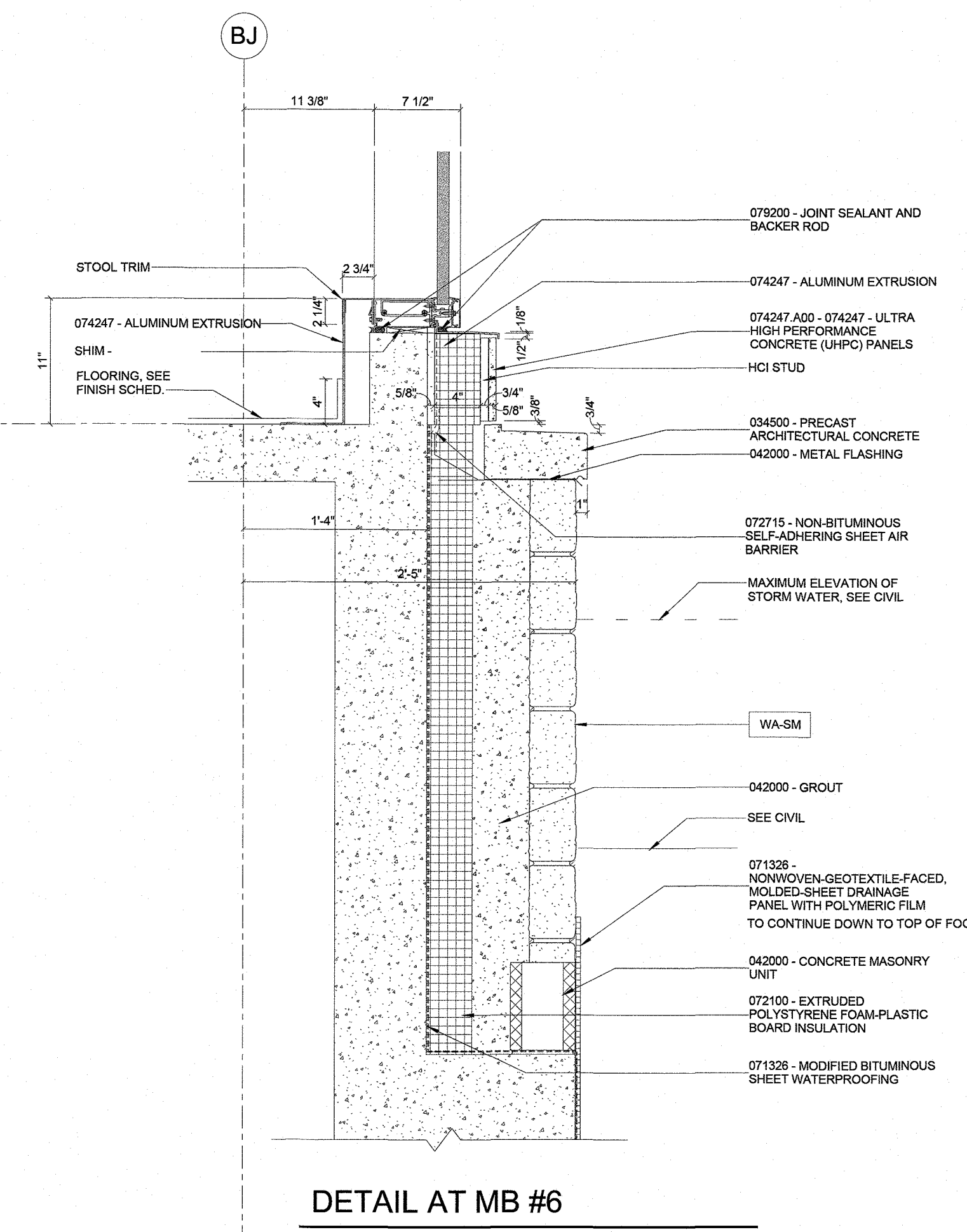
9 SUPPORT SERVICES SOUTH ELEVATION
1/16" = 1'-0"
0 32'



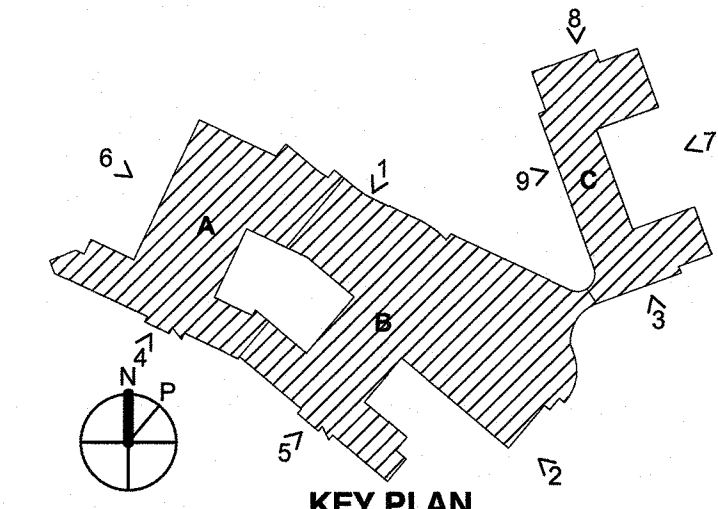
HOWARD COUNTY ADC MAP
NUMBER 17, GRID NO. A10



DETAIL AT MB #11 + MB #12
NOT TO SCALE



DETAIL AT MB #6
NOT TO SCALE



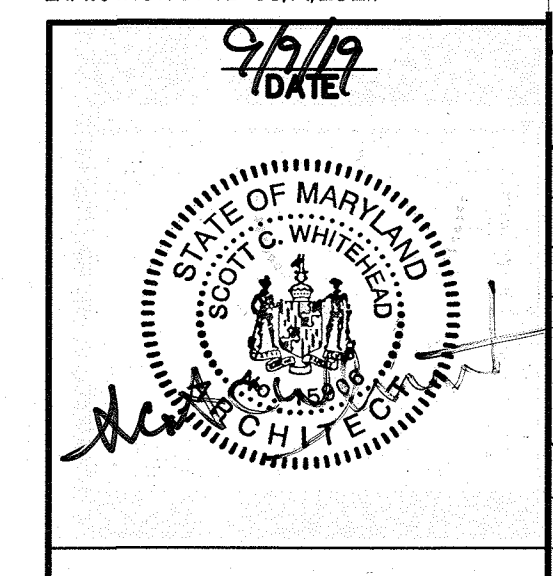
KEY PLAN

TOTAL COVERAGE IS 13.80% OF TOTAL ROOF AREA
NOTE: SEE SHEET 02 FOR ROOF COVERAGE PLAN

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Del Edwards 9-30-19
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Kurt Kaulbach 10-2-19
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
Valma Jelic 10-2-19
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15906, EXPIRATION DATE: 08/14/2021.



Date	No.	Revision Description
02-25-19	1	REDLINE REV. #1 - UPDATE ELEVATIONS

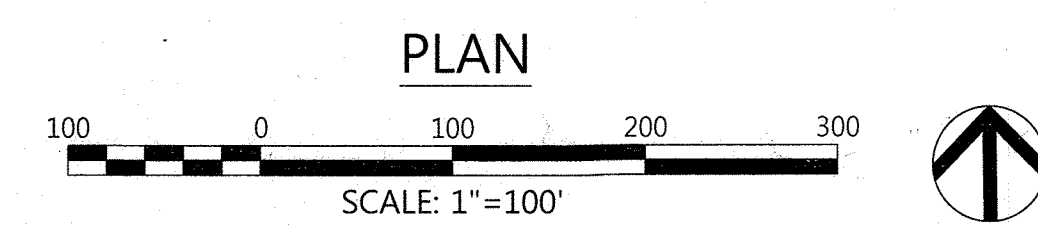
SHEPPARD PRATT HEALTH SYSTEM ELKRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY
 ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
 HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
 OWNER / DEVELOPER:
 SHEPPARD PRATT HEALTH SYSTEM INC.
 6501 N. CHARLES ST
 BALTIMORE, MD 21285-6815
 410-936-3242

CANNONDESIGN

250 WEST PRATT STREET, SUITE 2100, BALTIMORE, MD 21201 P. 410 234 1155 WWW.CANNONDESIGN.COM	
SUBDIVISION NAME CORRIDOR 96 BUSINESS PARK	SECTION/AREA 756 (PARCEL A&B)
PLAT OR LIT 22384 & 22388-89 M-1	TAX ZONE/MAP/GRID 37/16&23
WATER CODE B-02	SEWER CODE 4020000
STAGE 6012.03	
TITLE REPLACEMENT SHEET BUILDING ELEVATIONS -2	
Des. By BW/JM/KM	SCALE AS SHOWN
Drn. By KM	Date 07/12/2018
Chk. By SW	Approved MCB
Proj. No. 10015.00	03 of 51

LEGEND

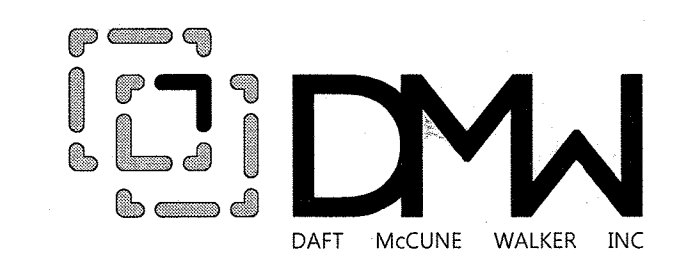
	PROPERTY LINE
	EX. TREE LINE
	SOILS
	EX. EASEMENT
	EX. STREAM
	EX. WETLANDS BUFFER
	EX. WETLANDS
	EX. STREAM BUFFER
	EX. FLOODPLAIN
	PROP. EASEMENT
	PROP. BUILDING
	PROP. BUILDING OVERHEAD
	FUTURE BUILDING EXPANSION
	PROP. UNDERGROUND TUNNEL
	PROP. CURB
	PROP. ROLLED CURB
	PROP. SIDEWALK
	PROP. RETAINING WALL
	PROP. FIRE LANE
	PROP. TREE LINE
	FOREST CONSERVATION BUFFER



08-16-21	RR#2 - UPDATE SITE FEATURES	
02-25-19	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS	
Date	No.	Revision Description

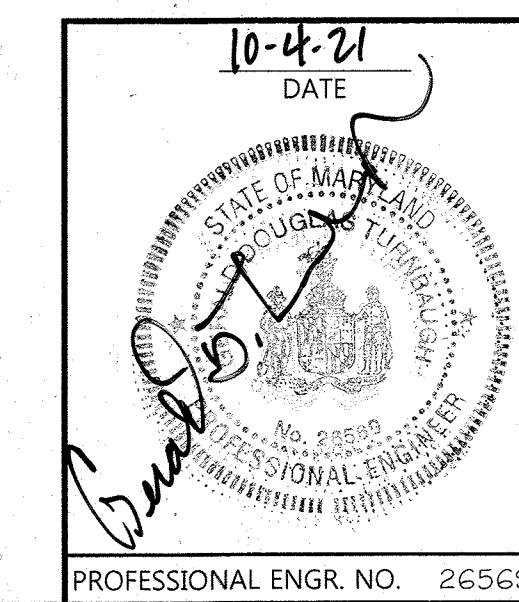
**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**
 ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
 HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
 OWNER / DEVELOPER:
 SHEPPARD PRATT HEALTH SYSTEM INC.
 6501 N. CHARLES ST
 BALTIMORE, MD 21285-6815
 410-938-3242

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26569, EXPIRATION DATE: 07/18/2023.



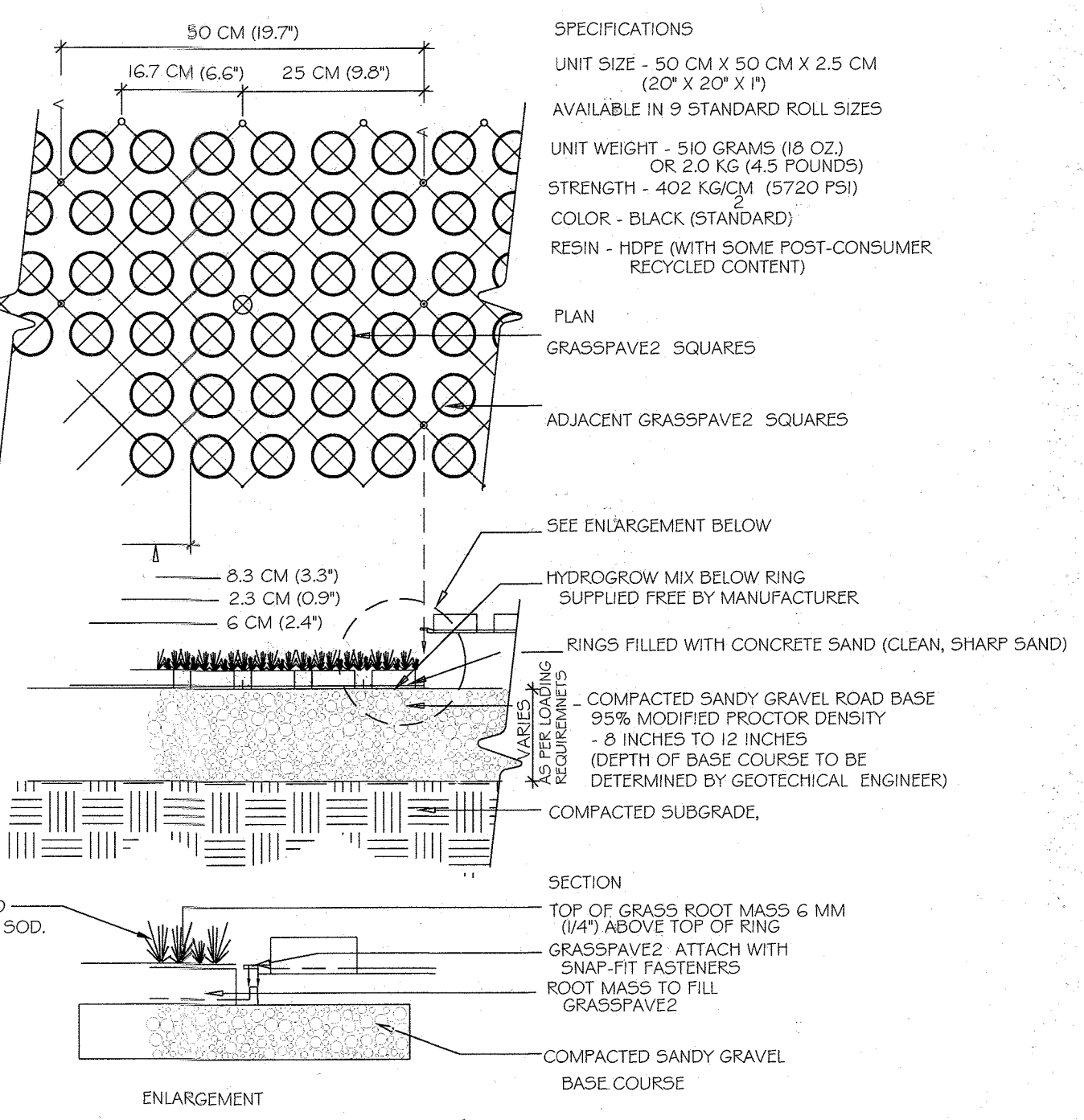
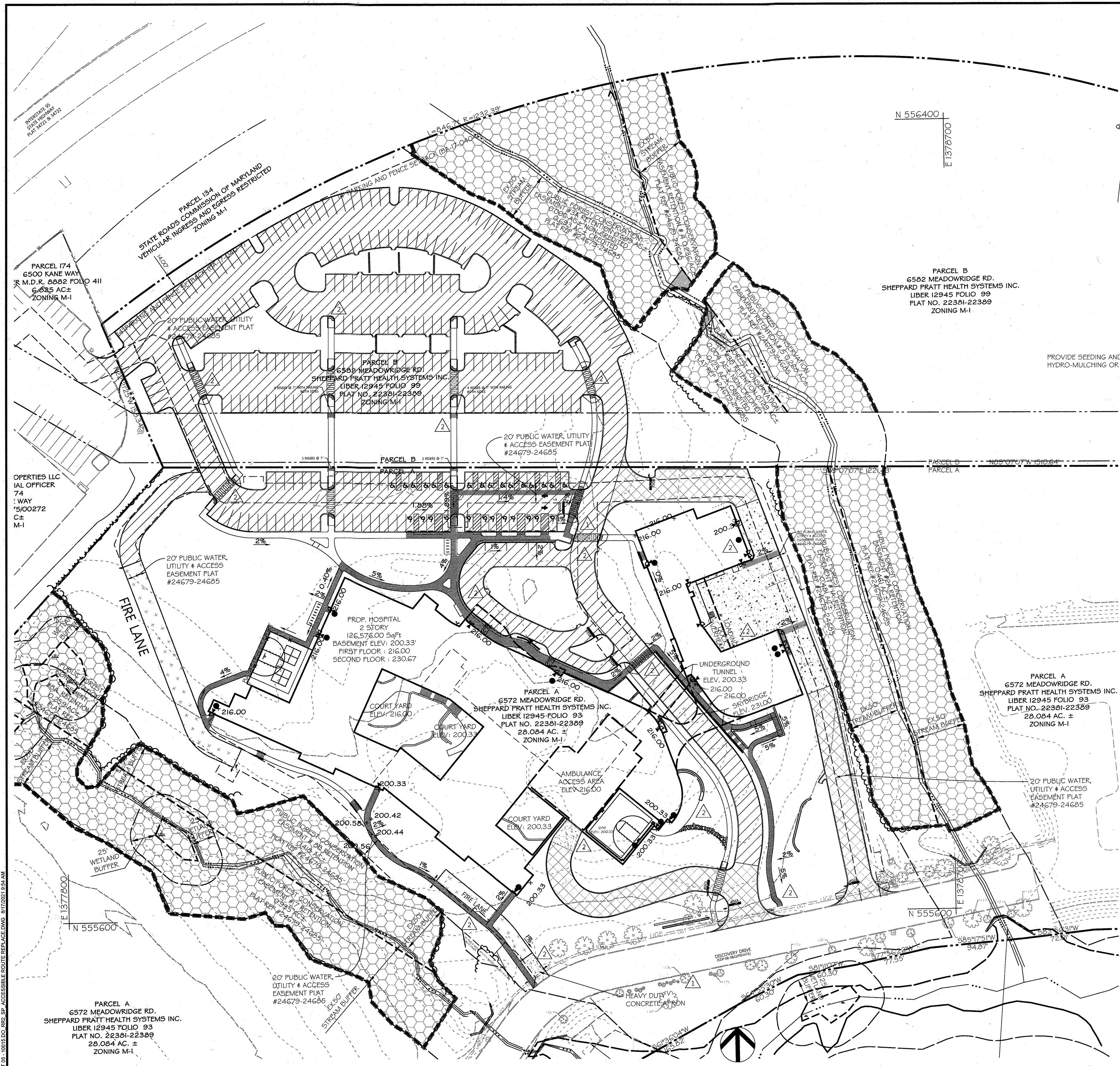
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL
CORRIDOR 95 BUSINESS PARK	756 (PARCEL A&B)	
PLAT OR REF	TAX ZONE/MAP/GRID	ELECT. DIST./CENSUS TRACT
24679-24605	M-1 3716423	I 6012.03
WATER CODE	SEWER CODE	STAGE
B-02	4020000	
TITLE	REVISED SITE DEVELOPMENT PLAN & LOCATION PLAN	
Des. By	GDT/SLAJ/PM	SCALE AS SHOWN
Dwn. By	DP/SLAJ/PM	Date 08/16/2021
Chk. By	GDT/RM/PLM	Approved MCB/KMA



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

	11-23-21
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
	12/16/21
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
	12-10-21
DIRECTOR	DATE



NOTE:
 1. GRASS/PLANT TYPES SHALL BE SPECIFIED BY A LANDSCAPE ARCHITECT OR LANDSCAPE DESIGNER.
 2. OWNER IS REQUIRED TO MAINTAIN THE FIRE LANE AND PROVIDE SNOW REMOVAL.

TYPICAL GRASSPAVE2 FIRE LANE DETAIL
 CHOOSE THIS PRODUCT FOR REINFORCING GRASS WEARING SURFACES

1600 Jackson St., Ste. 310
 GOLDEN, COLORADO 80401
 800-233-1510 OR
 303-233-8383
 FAX: 800-233-1522 OR
 303-233-8282
 www.metalstructures.com
 rev. 10/05

MAINTENANCE AND OPERATION
 GRASS PAVE² MAINTENANCE

1.0 MAINTENANCE SERVICE

NOTES: ONCE HEALTHY TURF HAS BEEN ESTABLISHED, THE CELL WALL STRUCTURE WILL HAVE MINIMAL VISIBILITY WHEN PROPER TURF MAINTENANCE PRACTICES ARE FOLLOWED.

A. INSTALLER RESPONSIBLE FOR MAINTENANCE OF GRASS PLANTS - WATER/IRRIGATION, FERTILIZING, MOWING - FOR ONE GROWING SEASON. **DO NOT AERATE**. SEE GRASSPAVE² MAINTENANCE GUIDE FOR VISIBLE STRUCTURES.

B. SYSTEM TO BE MAINTAINED BY OWNER, AFTER ONE GROWING SEASON.

2.0 PROJECT CONDITIONS

A. MAINTAIN ENVIRONMENTAL CONDITIONS WITHIN LIMITS RECOMMENDED BY MANUFACTURER FOR OPTIMUM RESULTS. DO NOT INSTALL PRODUCTS UNDER ENVIRONMENTAL CONDITIONS OUTSIDE MANUFACTURER'S ABSOLUTE LIMITS.

B. DO NOT BEGIN INSTALLATION OF POROUS PAVEMENTS UNTIL ALL HARD SURFACE PAVING ADJACENT TO POROUS PAVEMENT AREAS, INCLUDING CONCRETE WALKS AND ASPHALT PAVING, IS COMPLETED.

C. INSTALL TURF WHEN AMBIENT AIR TEMPERATURE IS AT LEAST 55 DEGREES F (13 DEGREES C).

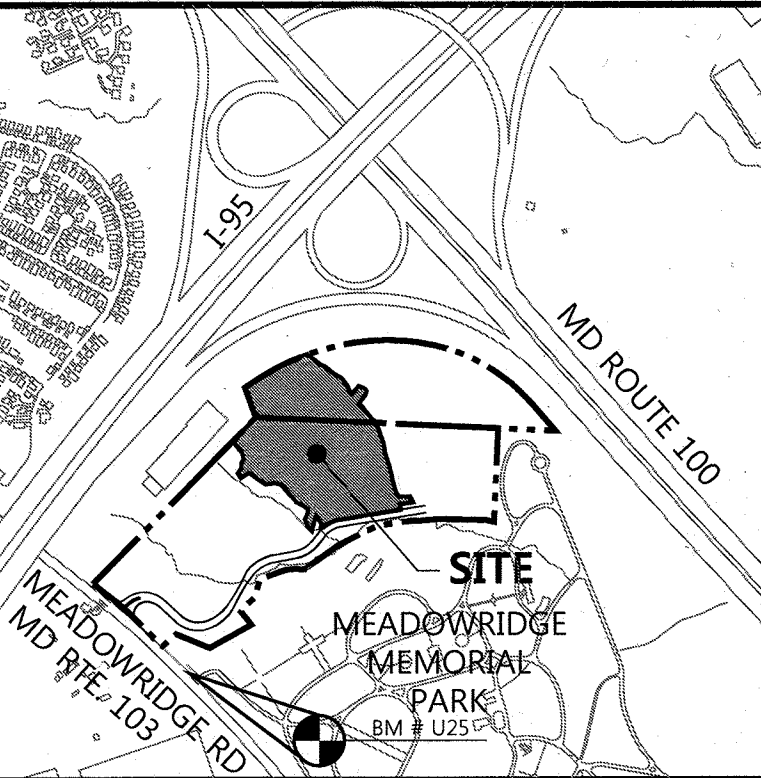
D. IN COLD WEATHER, DO NOT USE FROZEN MATERIALS OR MATERIALS MIX OR COATED WITH ICE OR FROST, AND DO NOT BUILD ON FROZEN BASE OR WET, SATURATED OR MUDDY SUBGRADE.

E. PROTECT PARTIALLY COMPLETED PAVING AGAINST DAMAGE FROM OTHER CONSTRUCTION TRAFFIC WHEN WORK IS IN PROCESS.

F. ADEQUATELY WATER SOD OR GRASS SEED TO ASSURE GERMINATION OF SEED AND GROWTH OF ROOT SYSTEM.

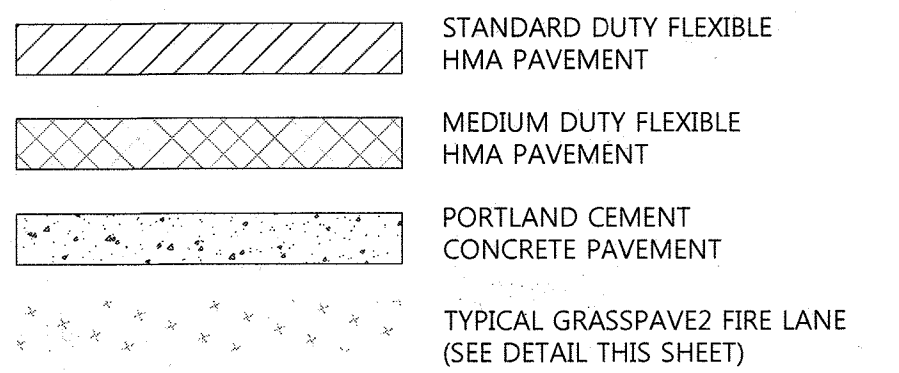
G. GRASS COVERAGE ON THE SAND-FILLED GRASSPAVE² RINGS MUST BE COMPLETE WITHIN ONE WEEK; SEE PART 3 EXECUTION.

H. DO NOT DRIVE, PARK ON, OR USE GRASSPAVE² SYSTEM FOR TWO OR THREE MOWING CYCLES UNTIL GRASS ROOT SYSTEM HAS MATURED ABOUT 3 TO 4 WEEKS FOR SOD OR 6 TO 8 WEEKS FOR SEED. ANY BARRICADES CONSTRUCTED MUST STILL BE ACCESSIBLE BY EMERGENCY AND FIRE EQUIPMENT DURING AND AFTER INSTALLATION.

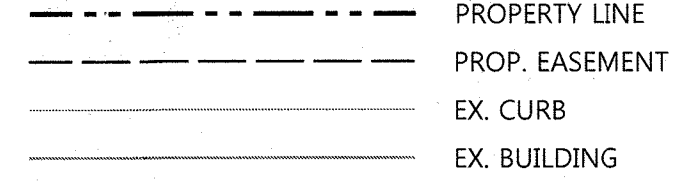


VICINITY MAP
 SCALE: 1"=1000'
 HOWARD COUNTY ADC MAP
 NUMBER 17, GRID NO. A10

PAVING LEGEND



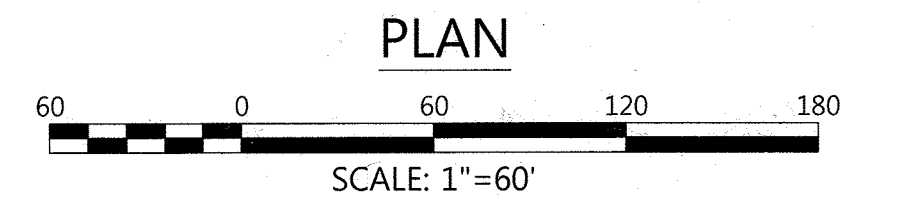
SITE LEGEND



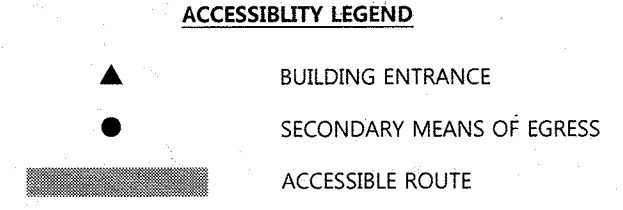
PAVING DETAILS

TYPES	DESCRIPTION	COMPACTED MATERIAL THICKNESS*
STANDARD DUTY PAVEMENT (16,000 ESALS)	PARKING, DROP-OFF, DRIVE AISLES, AND LIGHT TRAFFIC	1.5" SURFACE COURSE ASPHALT - HMA SUPERPAVE - 9.5 MM** 3.0" BASE COURSE ASPHALT - HMA SUPERPAVE - 12.5 MM** 6.0" GRADED AGGREGATE BASE - GAB
MEDIUM DUTY PAVEMENT (55,000 ESALS)	HEAVY TRUCK TRAFFIC	1.5" SURFACE COURSE ASPHALT - HMA SUPERPAVE - 9.5 MM** 4.0" BASE COURSE ASPHALT - HMA SUPERPAVE - 12.5 MM** 6.0" GRADED AGGREGATE BASE - GAB
PORTLAND CEMENT CONCRETE PAVEMENT	LOADING AREA, DUMPSTER & STORAGE AREA	6" THICK PORTLAND CEMENT CONCRETE MIN. 28-DAY COMP. STRENGTH OF 4000 (PSI) 6" OF COMPACTED DENSE GRADED AGGREGATE SUBBASE (CR-6 OR GAB5)

* COMPACTION: LEVEL 1 (50 GRAYATIONS)
 ** BINDER TYPE: PG64-22



PLAN



NOTES:

1. THE CROSS SLOPE SHALL NOT EXCEED 2.0%. 5X5 LEVEL LANDINGS AND ENTRANCE AND EXIT DOORS, THE SLOPE IN THE LINE OF TRAVEL SHALL NOT BE 5% OR MORE UNLESS RAMPS ARE PROVIDED.

2. WHEN BUILDING IS REQUIRED TO HAVE A SECOND MEANS OF EGRESS, THIS SECOND MEANS OF EGRESS SHALL BE HANDICAP ACCESSIBLE TO THE PUBLIC WAY.

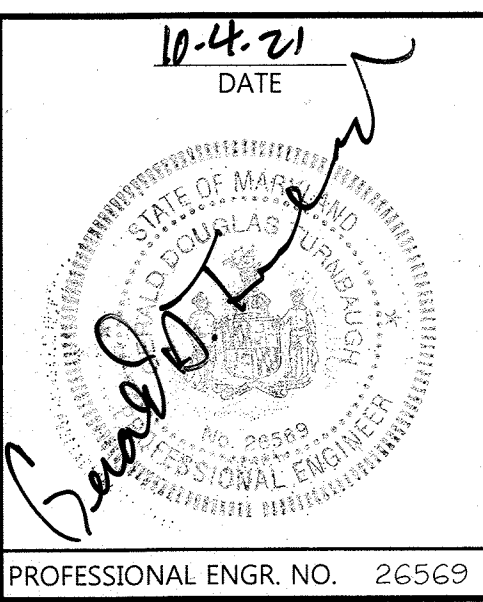
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 11-23-21
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 12/10/21
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

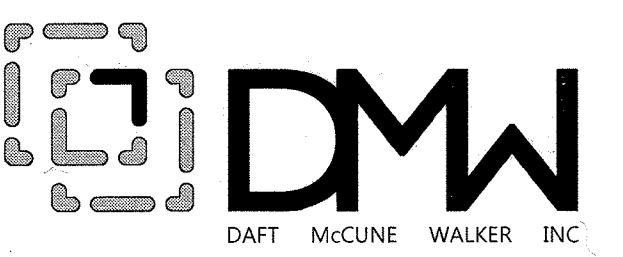
[Signature] 12-10-21
 DIRECTOR DATE

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26569, EXPIRATION DATE: 07/31/2023.



Date	No.	Revision Description
08-16-21	1	RR #2 - UPDATE SITE FEATURES
02-25-19	1	REDLINE REV. #1 - UPDATE SWA, SITE, GRADING, SEC 4 UTILITY PLANS

**SHEPPARD PRATT HEALTH SYSTEM
 ELKBRIDGE CAMPUS
 BEHAVIORAL HEALTH FACILITY**
 ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
 HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
 OWNER / DEVELOPER:
 SHEPPARD PRATT HEALTH SYSTEM INC.
 6501 N. CHARLES ST
 BALTIMORE, MD 21285-6815
 410-938-3242



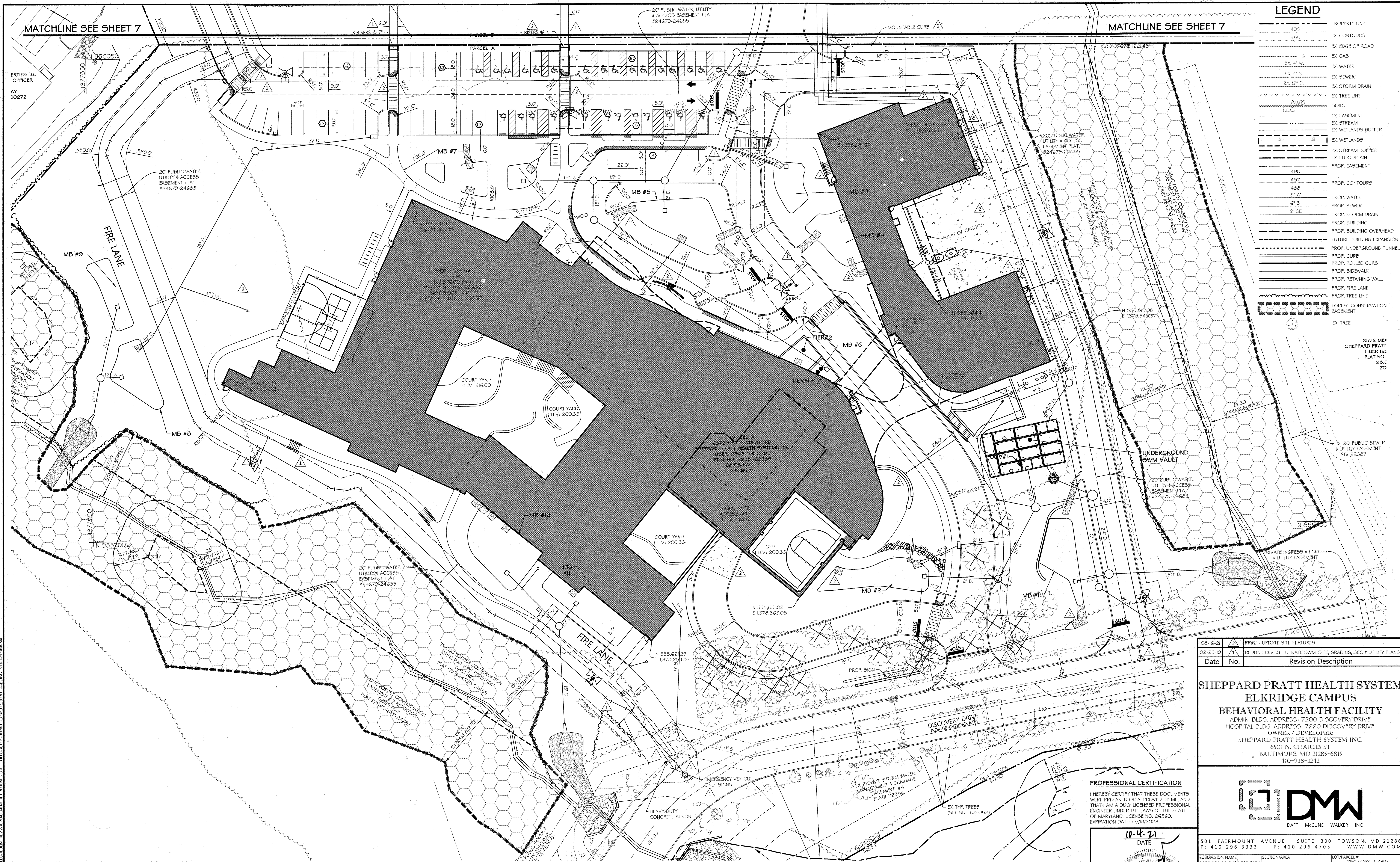
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM
SUBDIVISION NAME: CONKOR 95 BUSINESS PARK SECTION/AREA: 756 (PARCEL A4B) LOT/PARCEL #
PLAT# OR L.P.: 24679-24605 ZONE: M-1 TAX ZONE/MAP/GRID: 371/6423 ELECT. DIST: I CENSUS TRACT: 6012.03
WATER CODE: B-02 SEWER CODE: 4020000 STAGE: 1
TITLE REVISED SITE DEVELOPMENT PLAN ACCESSIBLE ROUTE AND PAVING PLAN
Des. By: GDT/SLAJ/PM SCALE: AS SHOWN Proj. No.: J0015.D0
Dwn. By: DP/SLAJ/PM Date: 08/16/2021
PROFESSIONAL ENGR. NO. 26569 Chk. By: GDT/KMA/PL Approved: MCK/MA 05 of 51

MATCHLINE SEE SHEET 7

MATCHLINE SEE SHEET 7

LEGEND

- PROPERTY LINE
- EX. CONTOURS
- EX. EDGE OF ROAD
- EX. GAS
- EX. WATER
- EX. SEWER
- EX. STORM DRAIN
- EX. TREE LINE
- EX. STREAM
- EX. WETLANDS BUFFER
- EX. WETLANDS
- EX. STREAM BUFFER
- EX. FLOODPLAIN
- PROP. EASEMENT
- PROP. CONTOURS
- PROP. WATER
- PROP. SEWER
- PROP. STORM DRAIN
- PROP. BUILDING
- PROP. BUILDING OVERHEAD
- FUTURE BUILDING EXPANSION
- PROP. UNDERGROUND TUNNEL
- PROP. CURB
- PROP. ROLLED CURB
- PROP. SIDEWALK
- PROP. RETAINING WALL
- PROP. FIRE LANE
- PROP. TREE LINE
- FOREST CONSERVATION EASEMENT
- EX. TREE

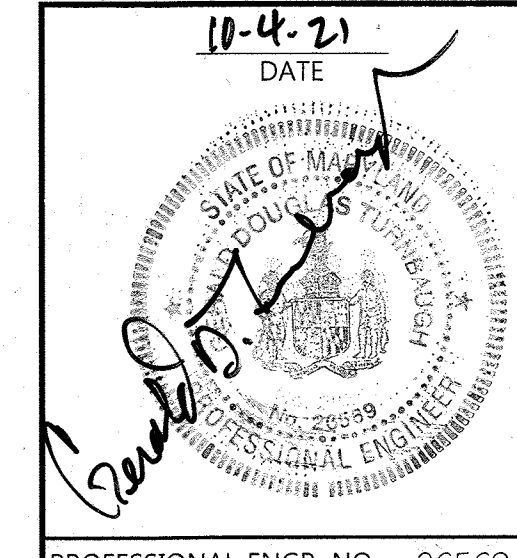


Date	No.	Revision Description
00-10-21	1	RR#2 - UPDATE SITE FEATURES
02-25-19	2	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC 4 UTILITY PLANS

**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**
 ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
 HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
 OWNER / DEVELOPER:
 SHEPPARD PRATT HEALTH SYSTEM INC.
 6501 N. CHARLES ST
 BALTIMORE, MD 21285-6815
 410-938-3242



PROFESSIONAL CERTIFICATION
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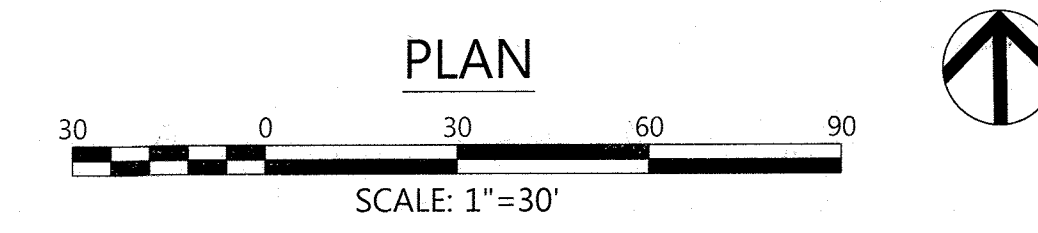


501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM
SUBDIVISION NAME: CORRIDOR 95 BUSINESS PARK LOT/PARCEL #: 75G (PARCEL A&B)
PLAT OR L.P.: 24679-24695 ZONE: M-1 TAX ZONE/MAP/GRID: 3716/23 ELECT. DIST: 1 CENSUS TRACT: 6012.03
WATER CODE: B-02 SEWER CODE: 4020000 STAGE: 1
TITLE: REVISED SITE DEVELOPMENT PLAN SITE PLAN - 1
Des. By: GDT/SLA/JPM SCALE: AS SHOWN Proj. No.: 10015.DD
Drn. By: DP/SLA/JPM Date: 08/16/2021
Chk. By: GDT/SLA/JPM Approved: MCB/SLA

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 [Signature] 11-25-21
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

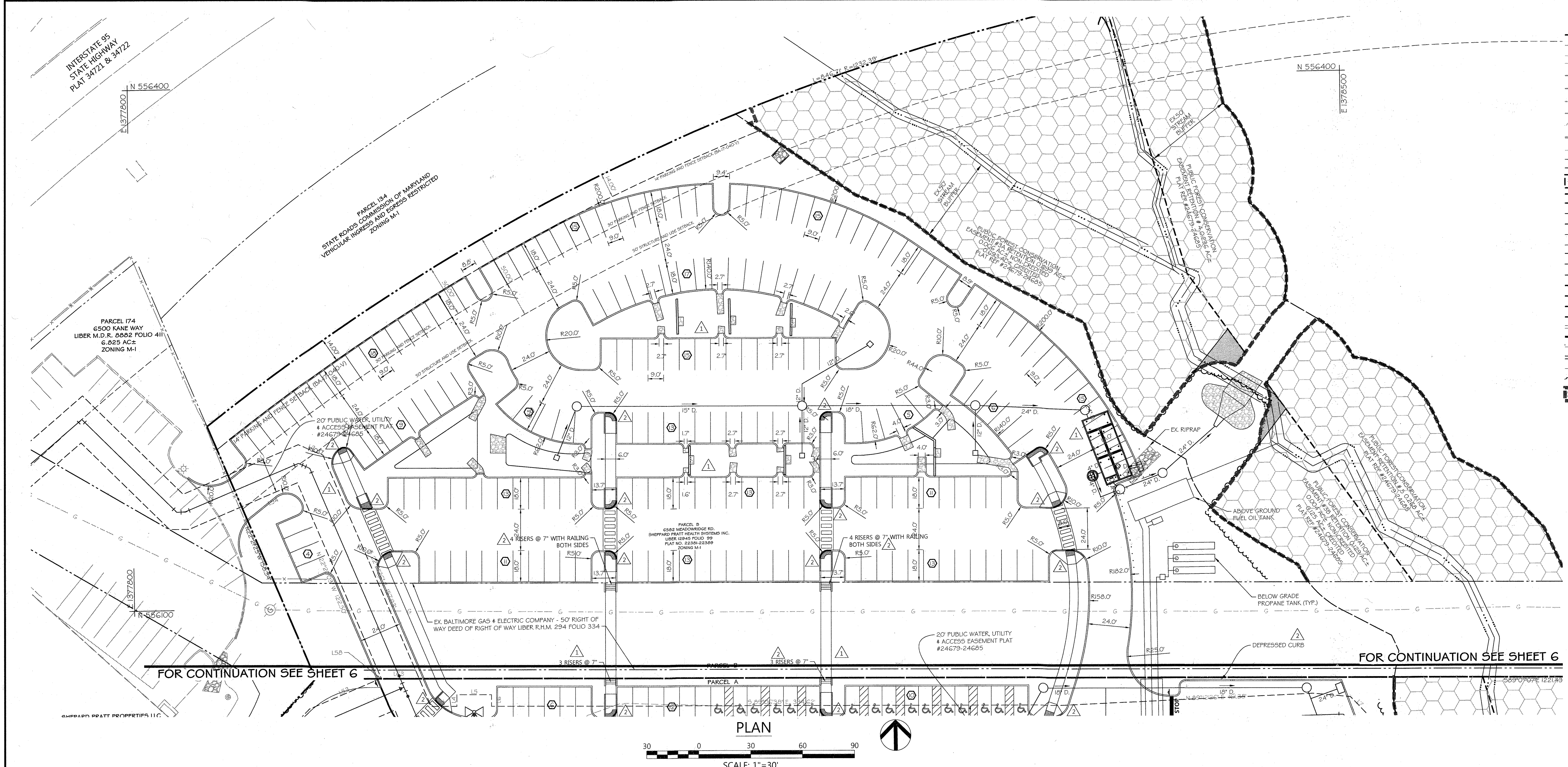
[Signature] 08/16/21
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 10-10-21
 DIRECTOR DATE



- LEGEND
- PROP. PAVING (HMA)
- PROP. CONC.

A:\PROJECTS\2024\SDP-18-033\SDP-18-033.DWG, 10/10/2024, 10:58 AM

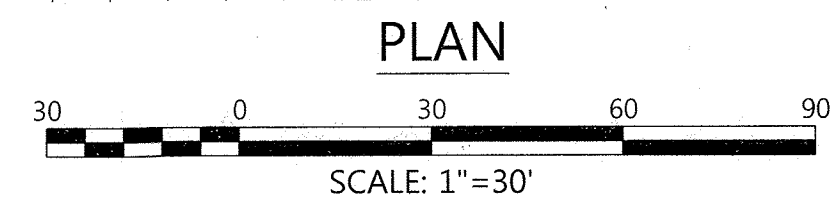


LEGEND

---	PROPERTY LINE
---	EX. CONTOURS
---	EX. EDGE OF ROAD
---	EX. GAS
---	EX. 4" W. WATER
---	EX. 4" S. SEWER
---	EX. 12" D. STORM DRAIN
---	EX. TREE LINE
---	EX. SOILS
---	EX. EASEMENT
---	EX. STREAM
---	EX. WETLANDS BUFFER
---	EX. WETLANDS
---	EX. STREAM BUFFER
---	EX. FLOODPLAIN
---	PROP. EASEMENT
---	PROP. CONTOURS
---	PROP. WATER
---	PROP. 8" W. SEWER
---	PROP. 6" S. STORM DRAIN
---	PROP. 12" SD
---	PROP. BUILDING
---	PROP. BUILDING OVERHEAD
---	PROP. FUTURE BUILDING EXPANSION
---	PROP. UNDERGROUND TUNNEL
---	PROP. CURB
---	PROP. ROLLED CURB
---	PROP. SIDEWALK
---	PROP. RETAINING WALL
---	PROP. FIRE LANE
---	PROP. TREE LINE
---	FOREST CONSERVATION EASEMENT

FOR CONTINUATION SEE SHEET 6

FOR CONTINUATION SEE SHEET 6



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Chief, Development Engineering Division: *[Signature]* 11-23-21 DATE

Chief, Division of Land Development: *[Signature]* 12/16/21 DATE

Director: *[Signature]* 12-16-21 DATE

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26569, EXPIRATION DATE: 07/18/2023.

10-4-21 DATE

[Signature]

PROFESSIONAL ENGR. NO. 26569

08-16-21	2	PROP. - UPDATE ASU WALL AND ECOLANDS ABOVE FUEL TANK, DEPRESSURE CURB FOR PROPANE TANK ACCESS, UPDATE WALK RISERS
02-25-19	1	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC 4 UTILITY PLANS
Date	No.	Revision Description
SHEPPARD PRATT HEALTH SYSTEM ELKBRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY		
ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N. CHARLES ST BALTIMORE, MD 21285-6815 410-938-3242		
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM		
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
CORRIDOR 95 BUSINESS PARK		756 (PARCEL A4B)
PLAT OR L.P.	ZONE	TAX ZONE/MAP/GRID
24679-24685	M-1	3716423
WATER CODE	SEWER CODE	ELECT. DIST.
B-02	4020000	6012.03
TITLE: REVISED SITE DEVELOPMENT PLAN		
SITE PLAN - 2		
Des. By	GDT/SLAJJPM	SCALE AS SHOWN
Drn. By	DP/SLAJJPM	Date 08/16/2021
Chk. By	GDT/KMAPLPH	Approved MCB/KMA
Proj. No. 10015.00		07 of 51

FOR CONTINUATION SEE SHEET 9

FOR CONTINUATION SEE SHEET 9

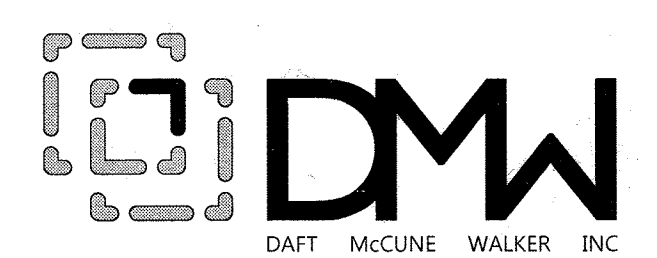
IT PROPERTIES LLC
MANUAL OFFICER
CEL 174
KANE WAY
17875/00272
25 AC ±
HNG M-1

LEGEND	
---	PROPERTY LINE
---	EX. CONTOURS
---	EX. EDGE OF ROAD
---	EX. GAS
---	EX. WATER
---	EX. SEWER
---	EX. STORM DRAIN
---	EX. TREE LINE
---	SOILS
---	EX. EASEMENT
---	EX. STREAM
---	EX. WETLANDS BUFFER
---	EX. WETLANDS
---	EX. STREAM BUFFER
---	EX. FLOODPLAIN
---	PROP. EASEMENT
---	PROP. CONTOURS
---	PROP. WATER
---	PROP. SEWER
---	PROP. STORM DRAIN
---	PROP. BUILDING
---	PROP. BUILDING OVERHEAD
---	FUTURE BUILDING EXPANSION
---	PROP. UNDERGROUND TUNNEL
---	PROP. CURB
---	PROP. ROLLED CURB
---	PROP. SIDEWALK
---	PROP. RETAINING WALL
---	PROP. FIRE LANE
---	PROP. TREE LINE
---	FOREST CONSERVATION EASEMENT



Date	No.	Revision Description
00-16-21	1	RR#2 - UPDATE GRADING & SITE FEATURES
02-25-19	2	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS

**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**
ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242



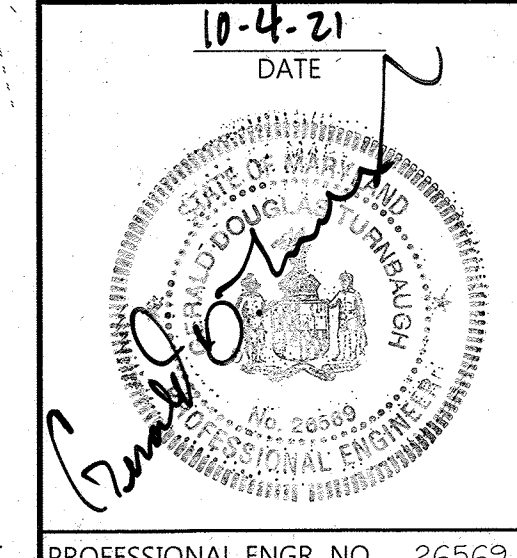
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBMISSION NAME	SECTION/AREA	LOT/PARCEL #
CORRIDOR 95 BUSINESS PARK		75G (PARCEL A&B)
PLAT OR L.P.	ZONE	TAX ZONE/APP/GRID
24679-24685	M-1	1
WATER CODE	SEWER CODE	ELECT. DIST.
B-02	4020000	6012.03
		STAGE
		4020000

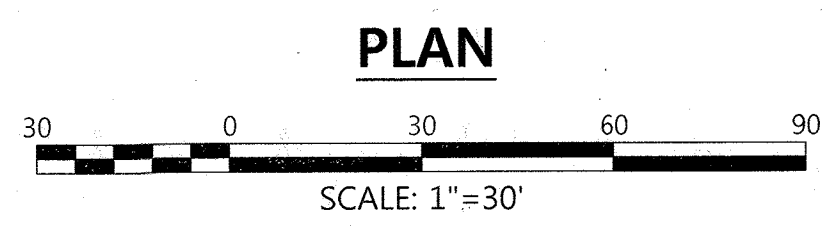
TITLE: REVISED SITE DEVELOPMENT PLAN
GRADING PLAN - 1

Des. By	GDT/SLA/JPM	SCALE	AS SHOWN	Proj. No.	10015.00
Drn. By	DP/SLA/JPM	Date	08/16/2021		
Chk. By	GDT/KM/PH	Approved	MCB/KMA	08 of 51	

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26569, EXPIRATION DATE: 07/28/2023.



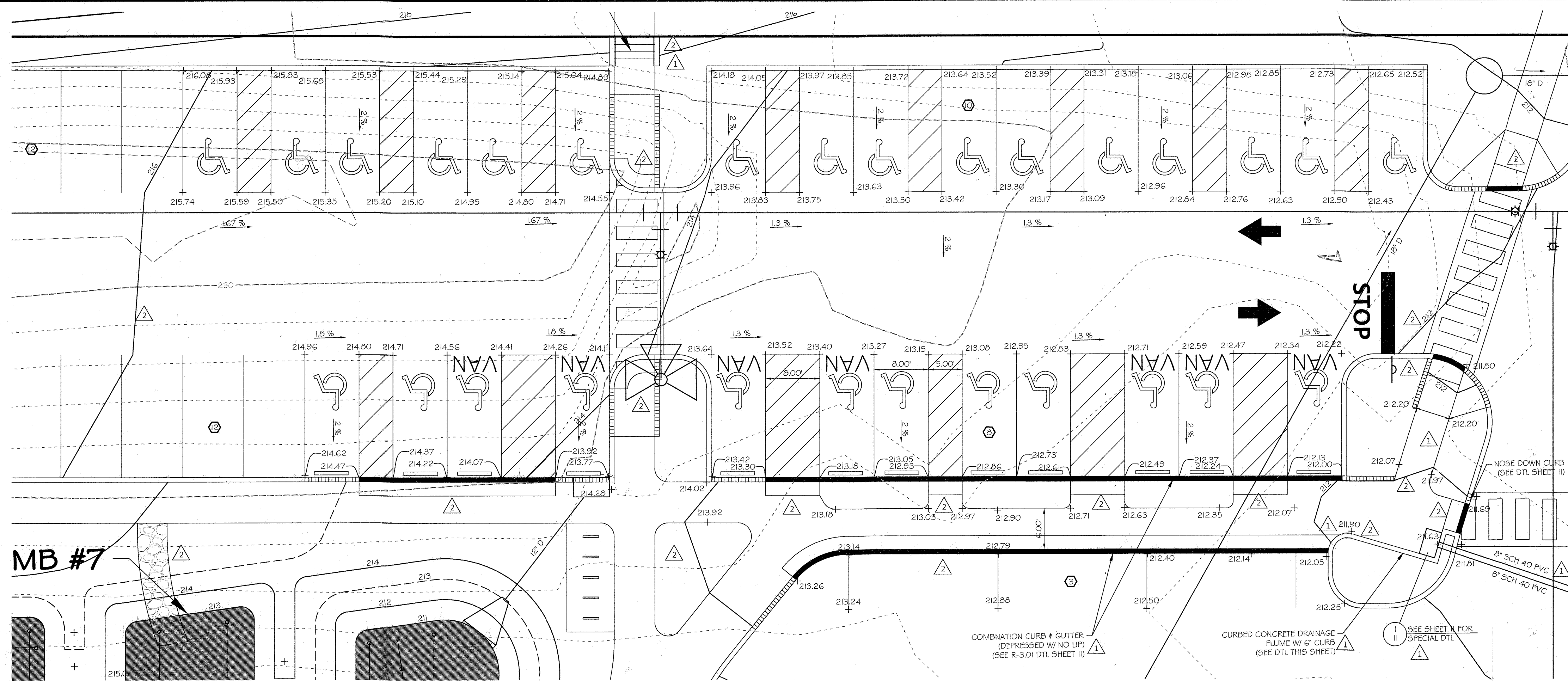
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 Chief, Development Engineering Division: [Signature] 11-23-21
 Chief, Division of Land Development: [Signature] 11/16/21
 Director: [Signature] 12-10-21



NOTE: ROOF DRAIN DISCHARGE TO BE ACCOMPLISHED BY BOTH PIPE CONVEYANCE AND DIRECT DISCHARGE INTO SWM FACILITIES.

NOTE: SEE SHEET II FOR HC PARKING DETAIL

PROFESSIONAL ENGR. NO. 26569

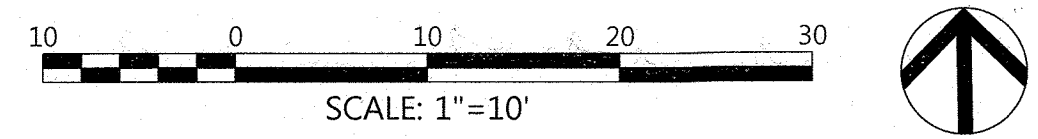


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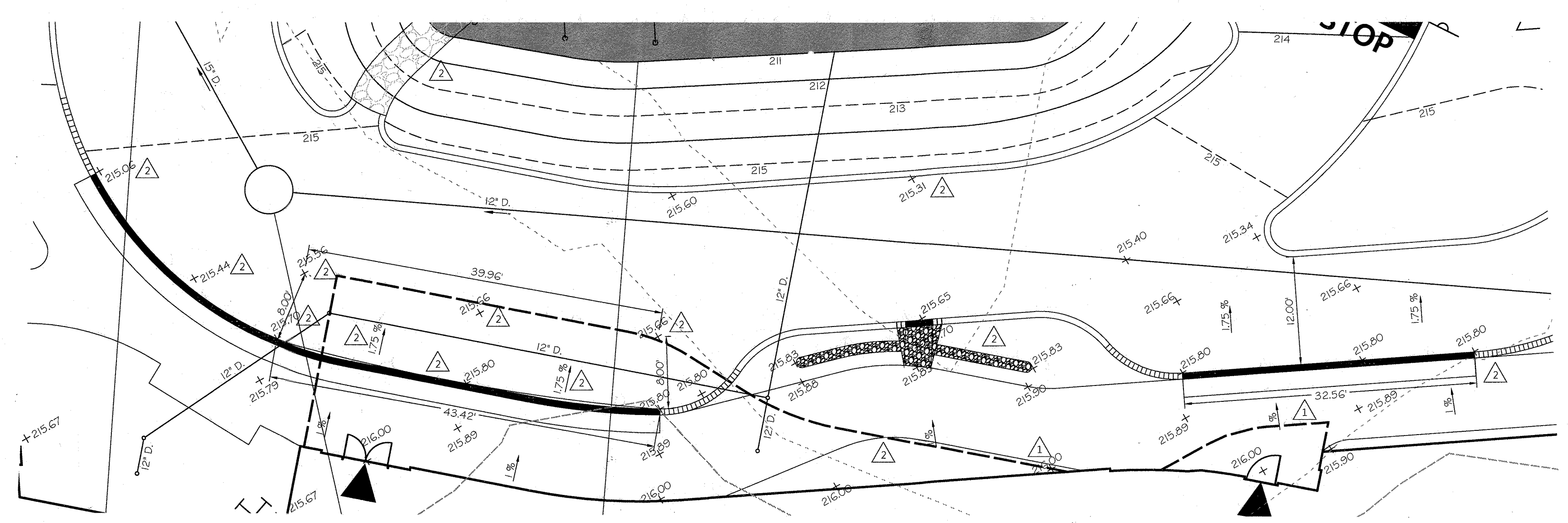
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---	EX. CONTOURS
---	EX. EDGE OF ROAD
---	EX. GAS
---	EX. WATER
---	EX. SEWER
---	EX. STORM DRAIN
---	EX. EASEMENT
---	SOILS
---	EX. STREAM
---	EX. WETLANDS BUFFER
---	EX. WETLANDS
---	EX. FOREST CONSERVATION
---	EX. STREAM BUFFER
---	EX. FLOODPLAIN
---	PROP. EASEMENT
---	PROP. CONTOURS
---	PROP. WATER
---	PROP. SEWER
---	PROP. STORM DRAIN
---	PROP. BUILDING
---	PROP. CURB
---	PROP. SIDEWALK
---	PROP. RETAINING WALL
---	LIMIT OF DISTURBANCE
---	DIVERSION FENCE
---	SUPER SILT FENCE
○	INLET
○	MANHOLE
△	PIPE END SECTION

MB #7

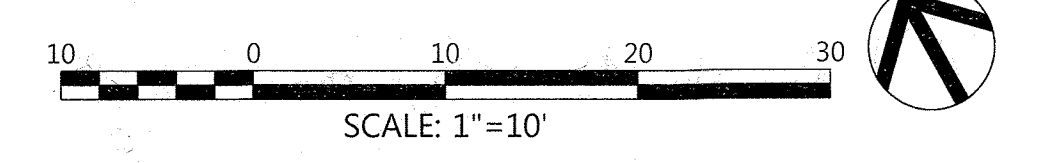
DETAIL A



NOTE:
 SEE SHEET 8 FOR HC PARKING LOCATIONS
 SEE SHEET 11 FOR HC PARKING, STRIPING AND SIGNAGE DETAILS.



DETAIL B



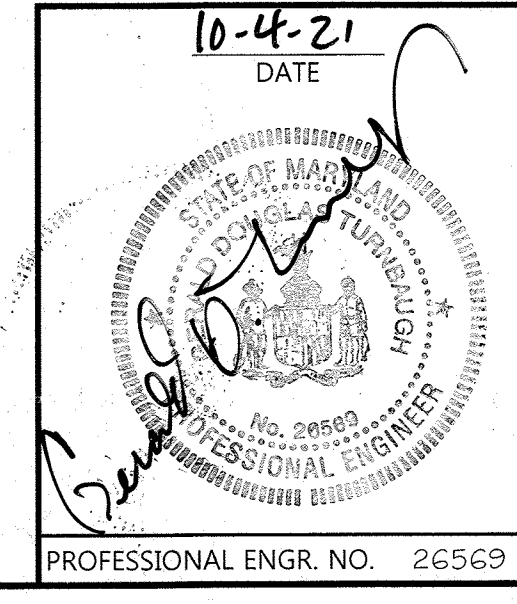
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING


[Signature] 11-23-21
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

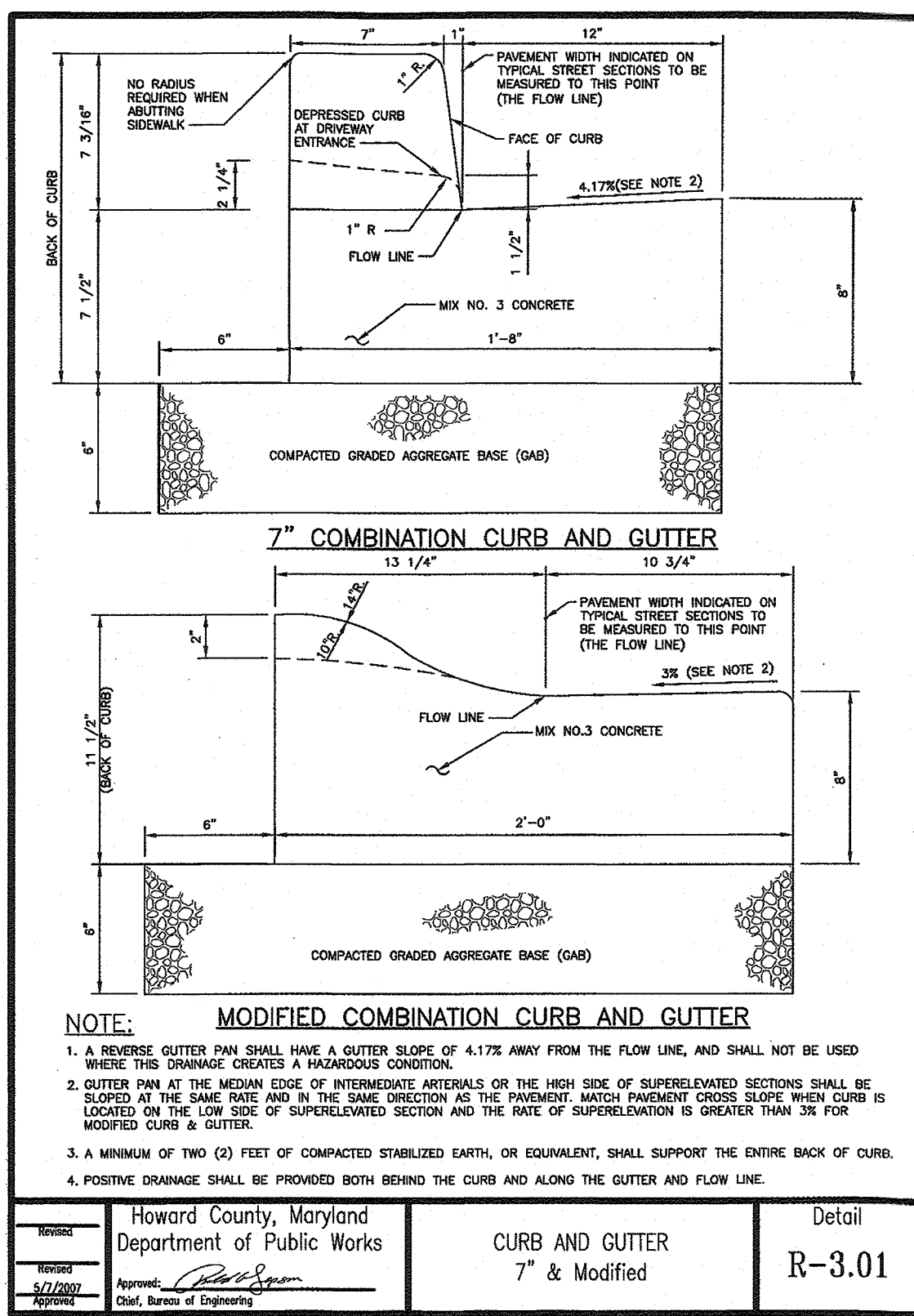
[Signature] 12/14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12-10-21
 DIRECTOR DATE

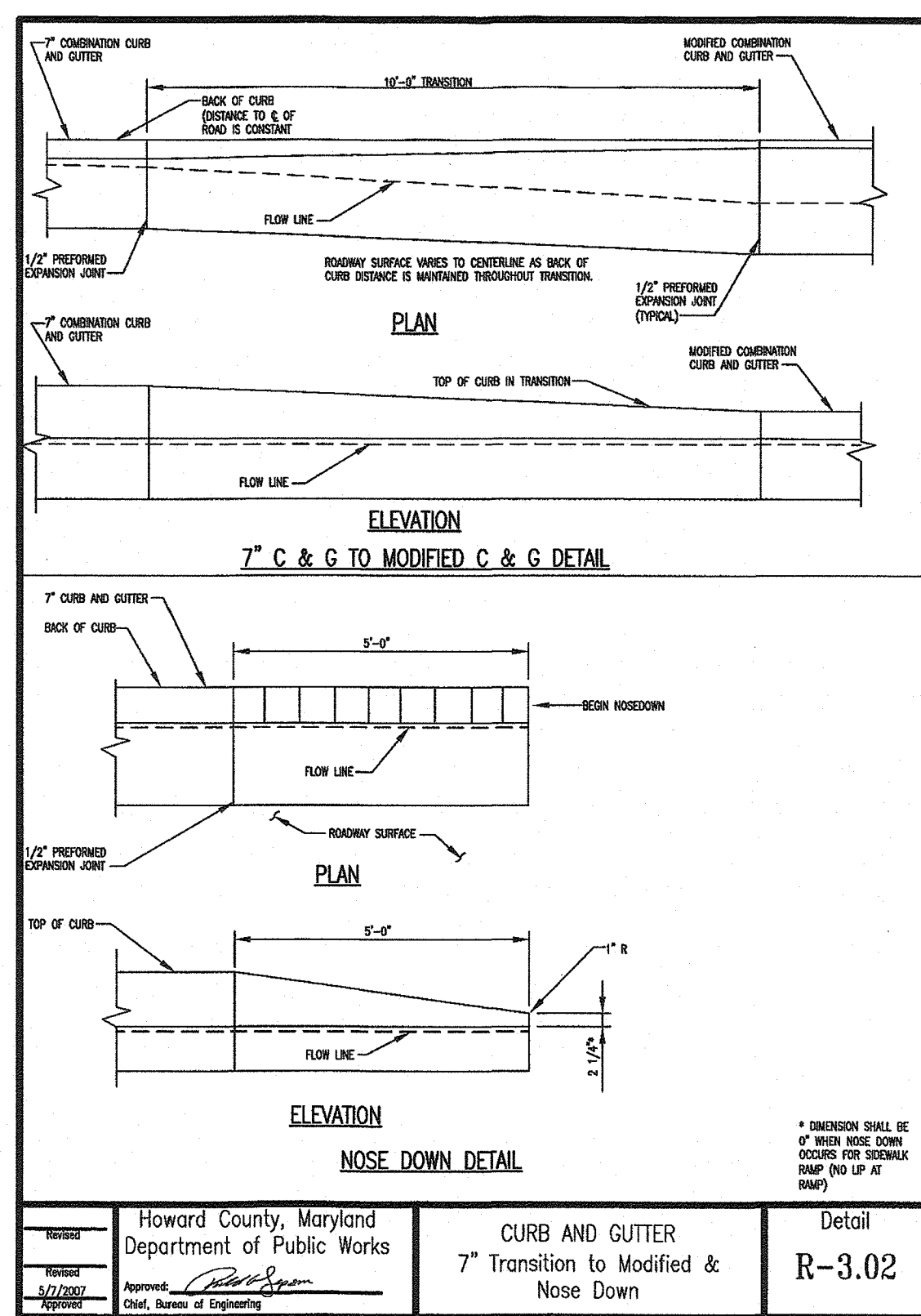
PROFESSIONAL CERTIFICATION
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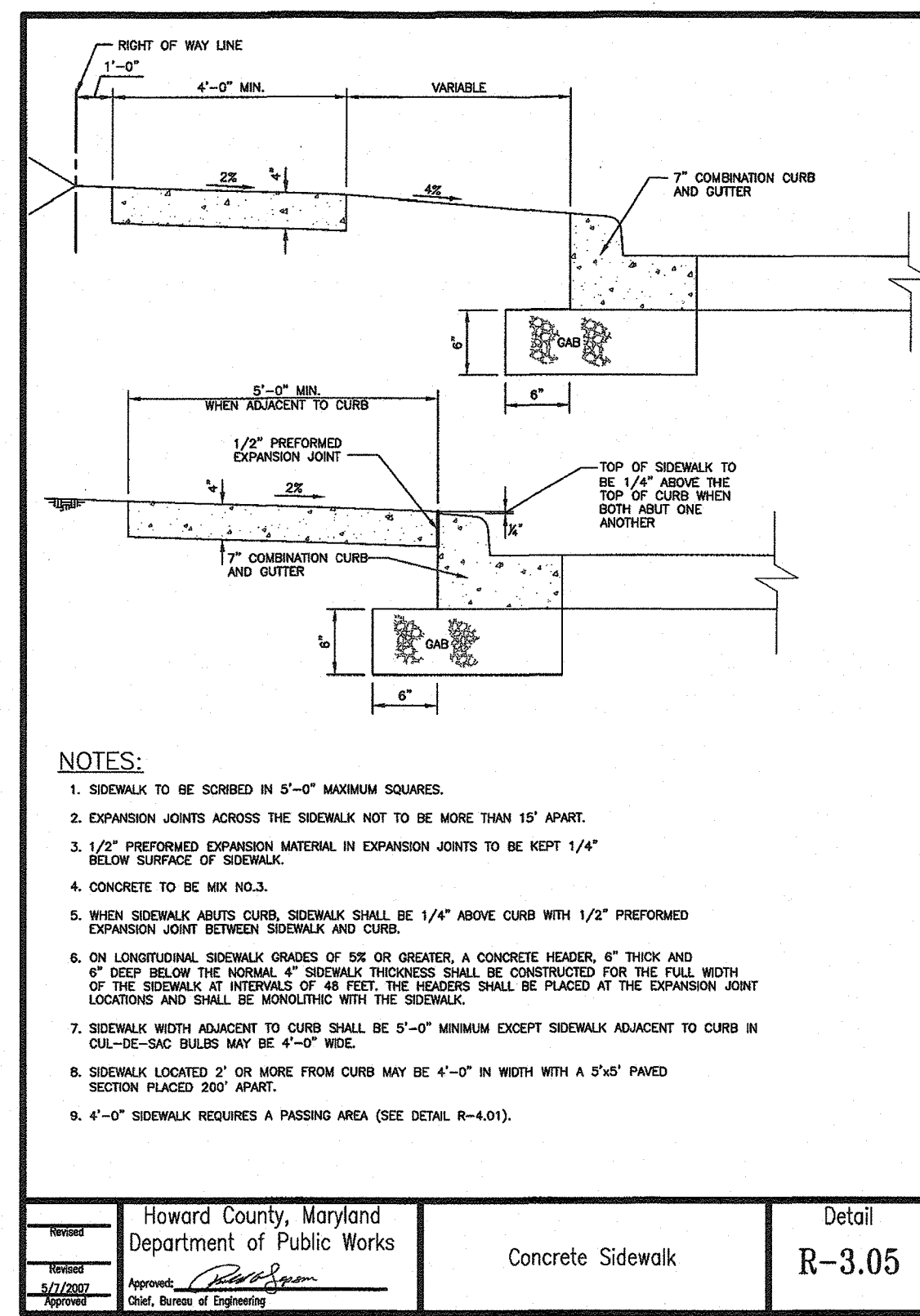
08-16-21	RR#2 - UPDATE SITE FEATURES & REMOVE DETAIL
02-25-19	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC 4 UTILITY PLANS
Date	Revision Description
SHEPPARD PRATT HEALTH SYSTEM ELKBRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N. CHARLES ST BALTIMORE, MD 21285-6815 410-938-3242	
 DAFT McCUNE WALKER INC	
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM	
SUBDIVISION NAME	SECTION/AREA
KORRIDOR 55 BUSINESS PARK	75G (PARCEL A4B)
PLAT# OR L/P	ZONE
24C79-24605	M-1
WATER CODE	TAX ZONE/ANX/GRID
B-02	3716423
	ELECT. DIST.
	6012.03
	SEWER CODE
	4020000
	STAGE
TITLE REVISED SITE DEVELOPMENT PLAN GRADING PLAN - 3	
Des. By	SCALE
GDT/SLAJ/PM	AS SHOWN
Proj. No.	10015.00
Dwn. By	Date
OP/SLAJ/PM	08/16/2021
Chk. By	Approved
GDT/KM/PLH	MCB/KMA
PROFESSIONAL ENGR. NO. 26569	10 of 51



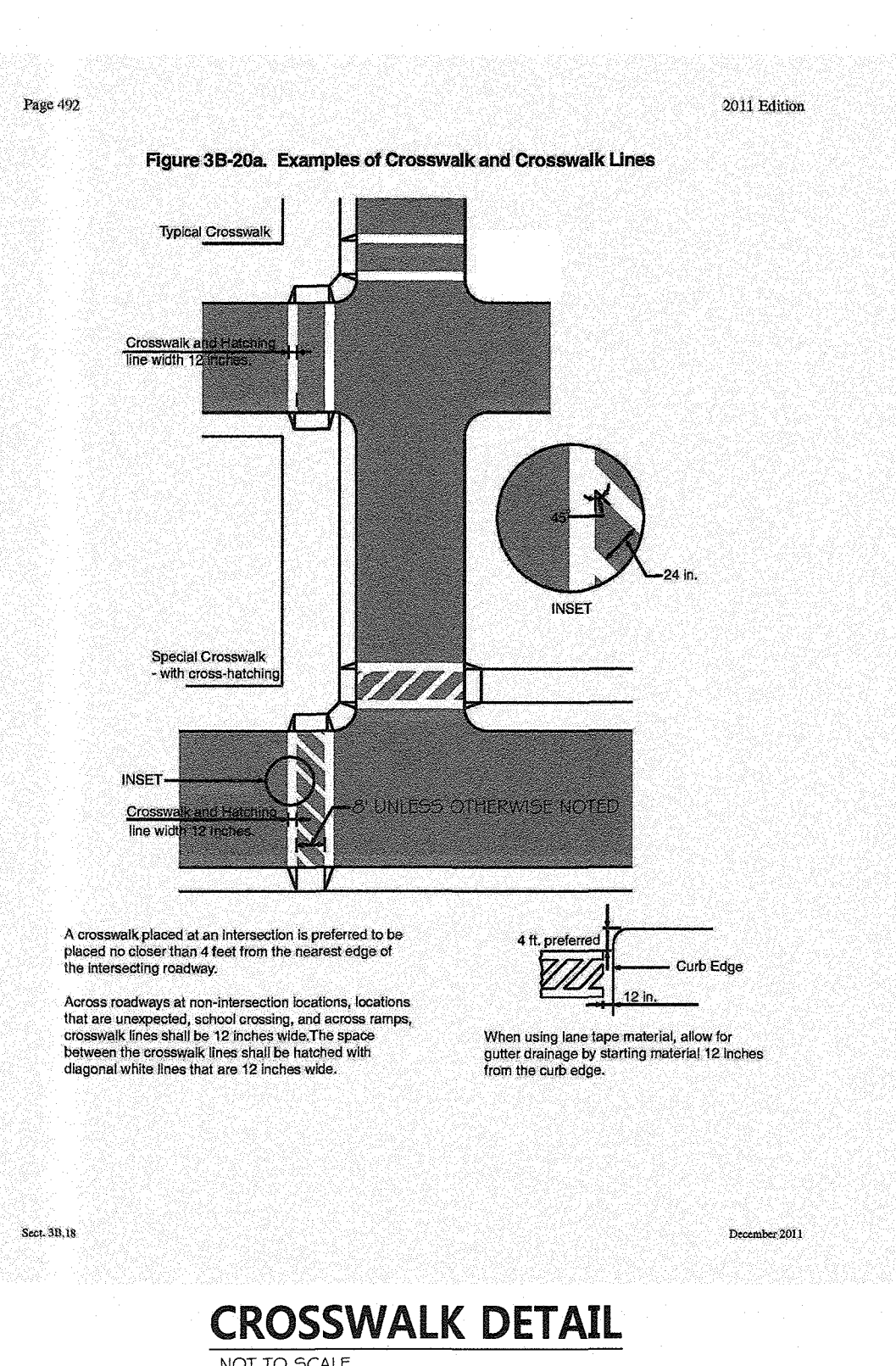
Project: Howard County, Maryland Department of Public Works	Detail: CURB AND GUTTER 7" & Modified	Revision: R-3.01
Approved: [Signature]	Checked: [Signature]	



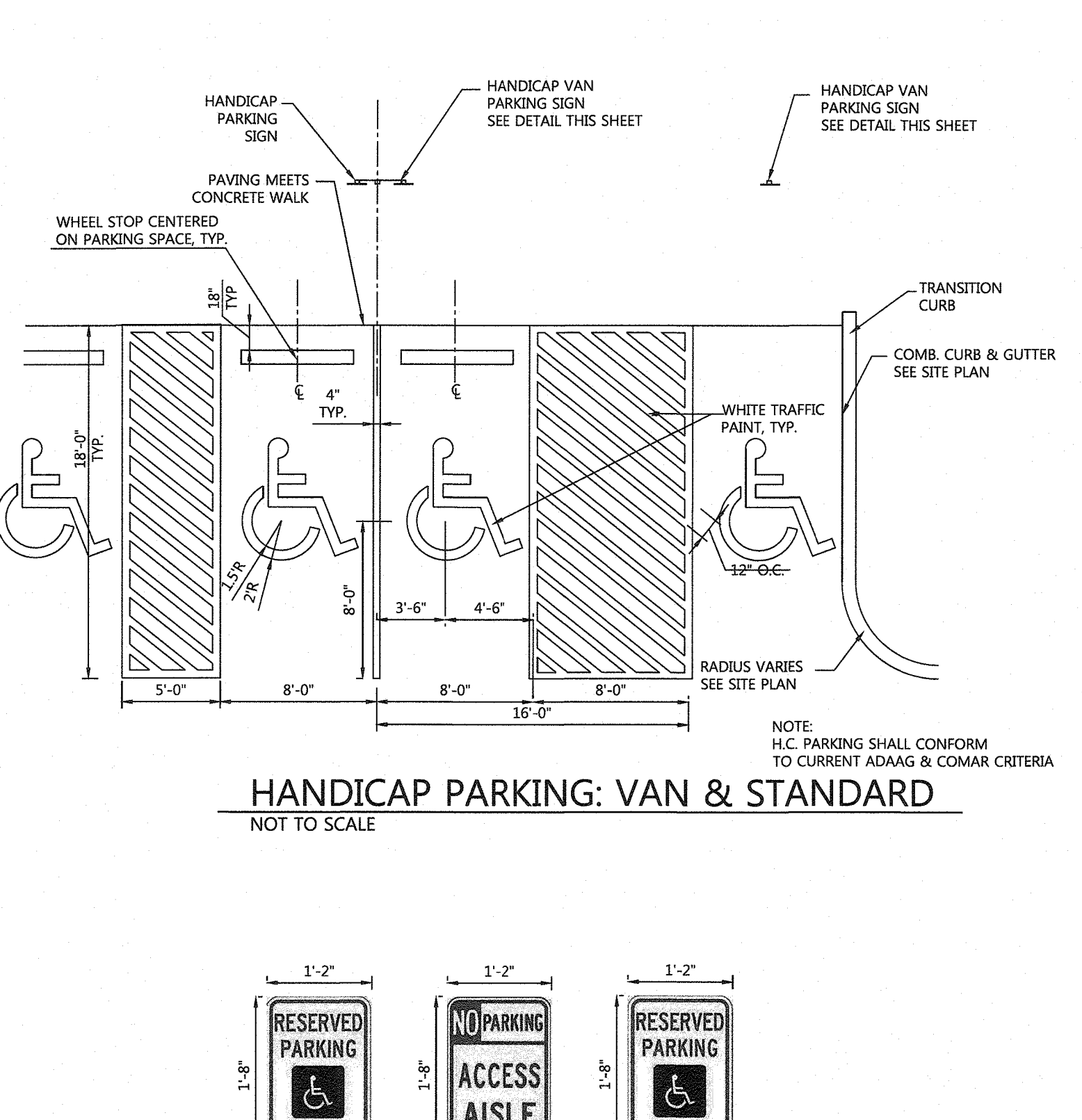
Project: Howard County, Maryland Department of Public Works	Detail: CURB AND GUTTER 7" Transition to Modified & Nose Down	Revision: R-3.02
Approved: [Signature]	Checked: [Signature]	



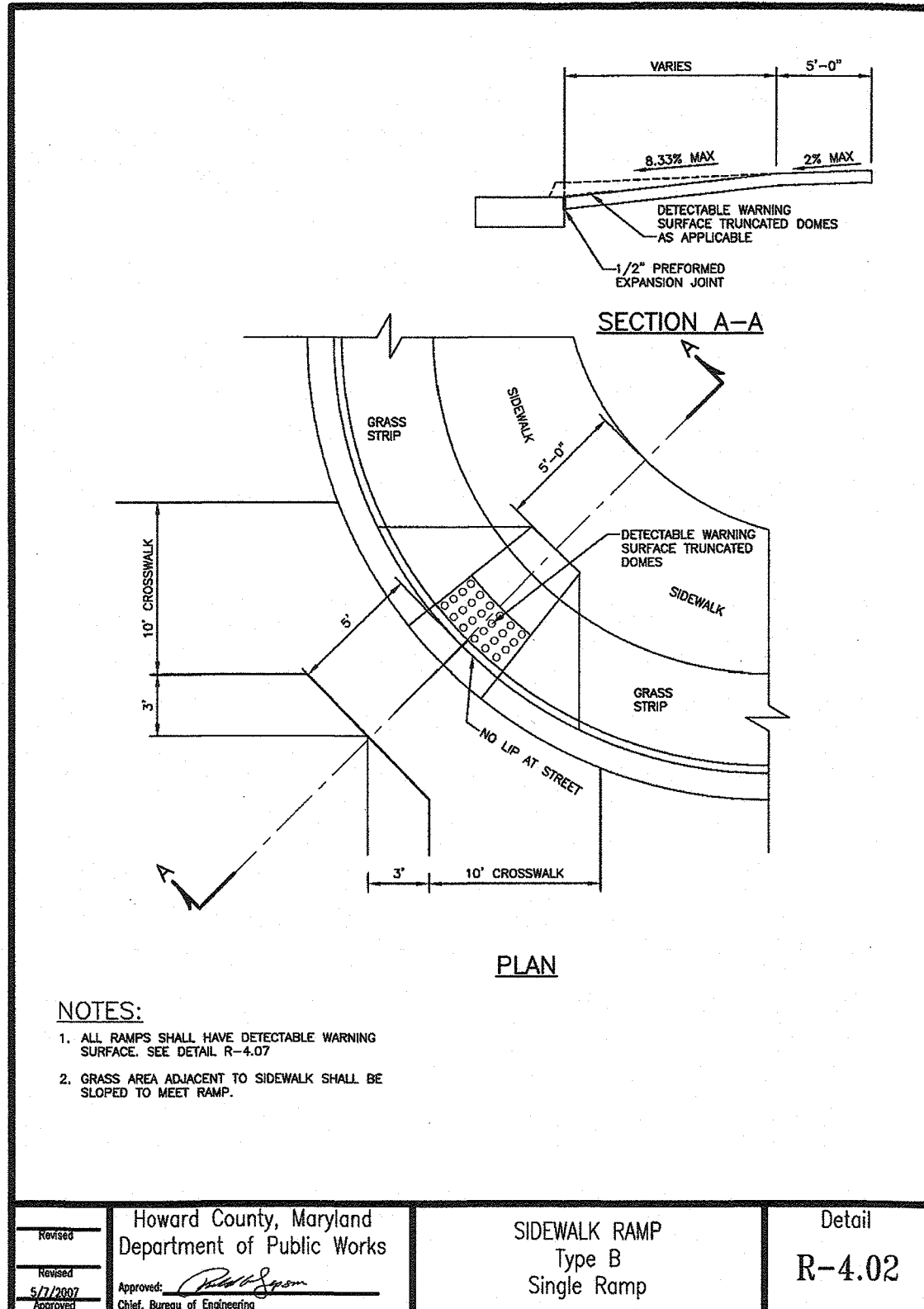
Project: Howard County, Maryland Department of Public Works	Detail: Concrete Sidewalk	Revision: R-3.05
Approved: [Signature]	Checked: [Signature]	



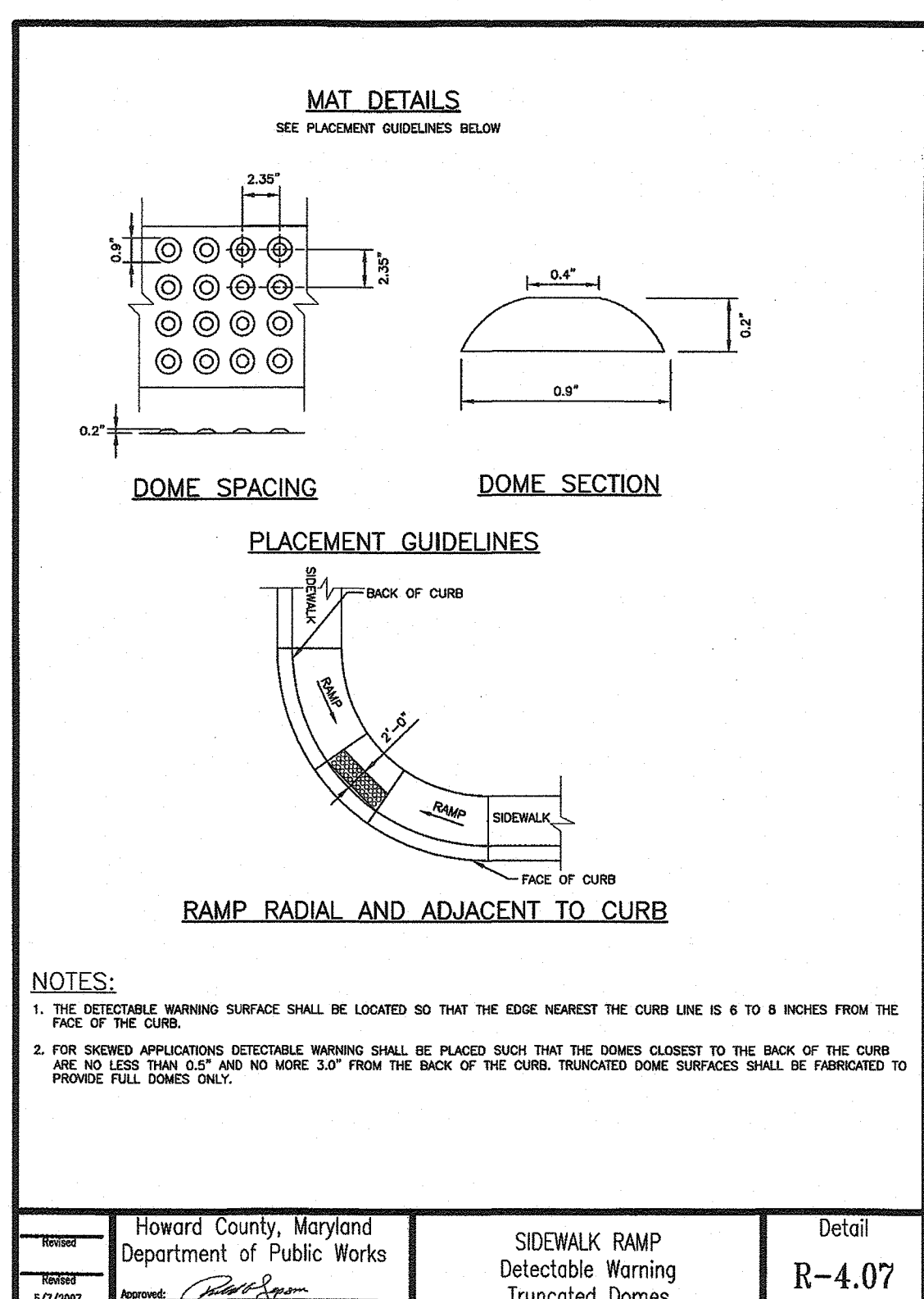
Project: Howard County, Maryland Department of Public Works	Detail: CROSSWALK DETAIL	Revision: R-3.06
Approved: [Signature]	Checked: [Signature]	



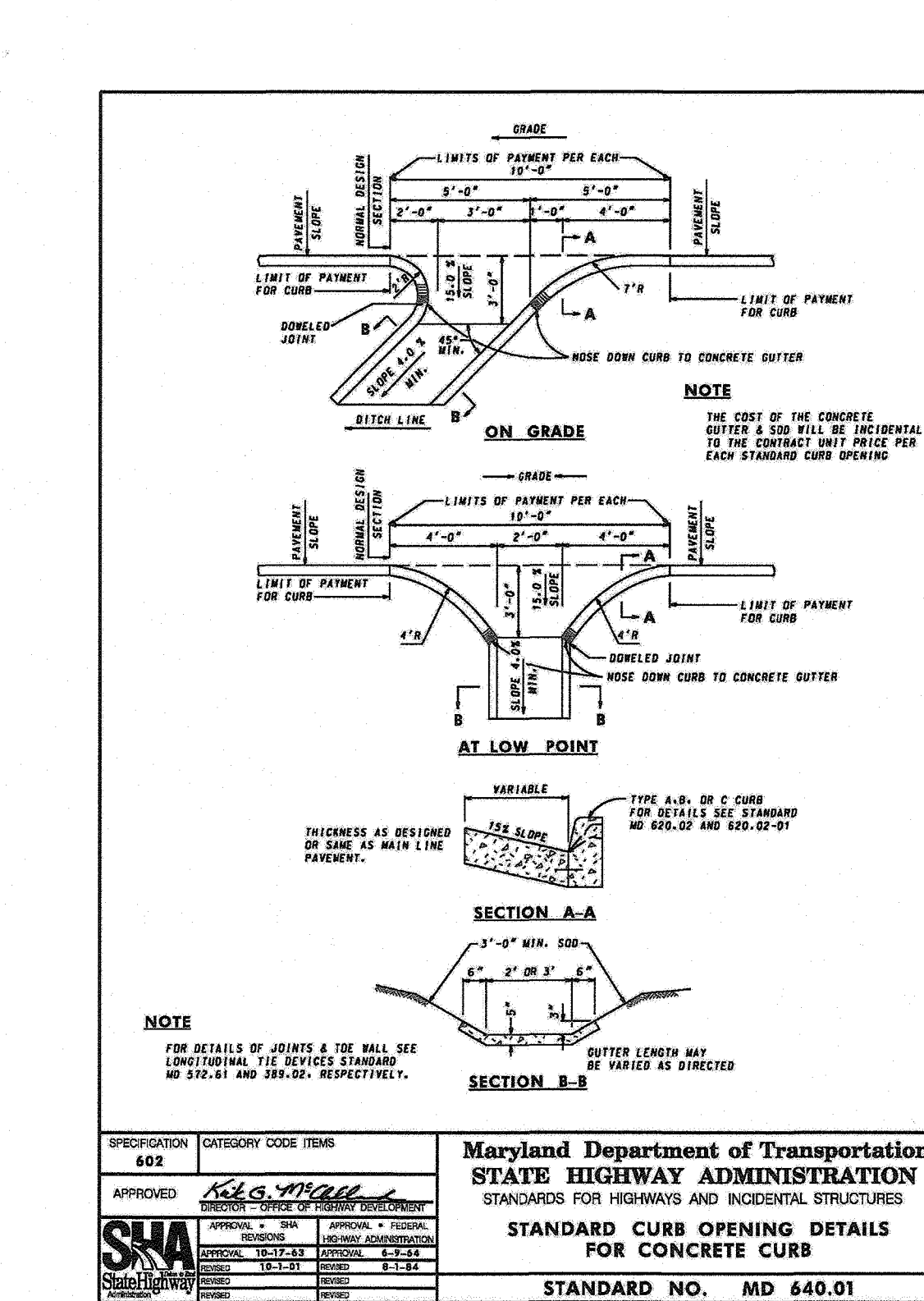
Project: Howard County, Maryland Department of Public Works	Detail: HANDICAP PARKING SIGN DETAILS	Revision: R-3.07
Approved: [Signature]	Checked: [Signature]	



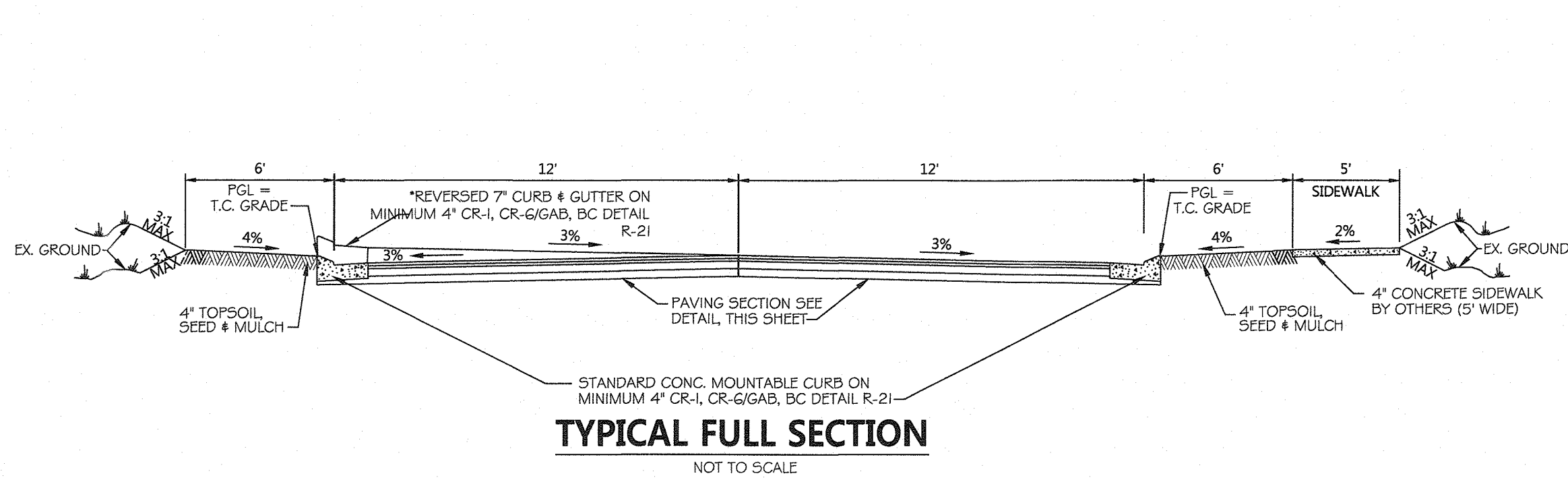
Project: Howard County, Maryland Department of Public Works	Detail: SIDEWALK RAMP Type B Single Ramp	Revision: R-4.02
Approved: [Signature]	Checked: [Signature]	



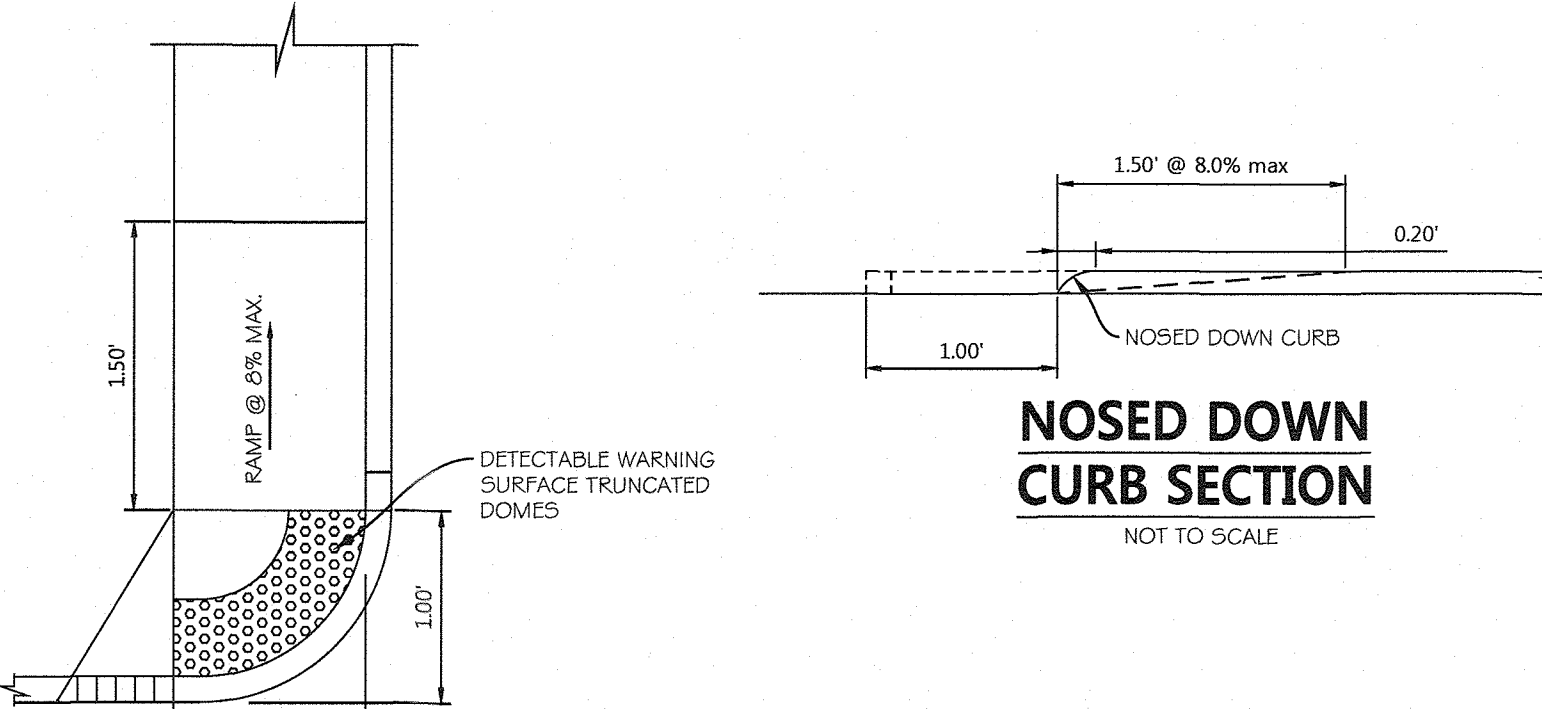
Project: Howard County, Maryland Department of Public Works	Detail: SIDEWALK RAMP Detectable Warning Truncated Domes	Revision: R-4.07
Approved: [Signature]	Checked: [Signature]	



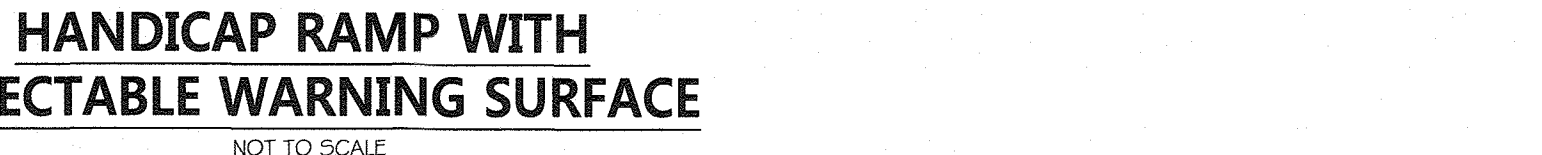
Project: Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION	Detail: STANDARD CURB OPENING DETAILS FOR CONCRETE CURB	Revision: STANDARD NO. MD 640.01
Approved: [Signature]	Checked: [Signature]	



Project: Howard County, Maryland Department of Public Works	Detail: TYPICAL FULL SECTION	Revision: R-4.08
Approved: [Signature]	Checked: [Signature]	

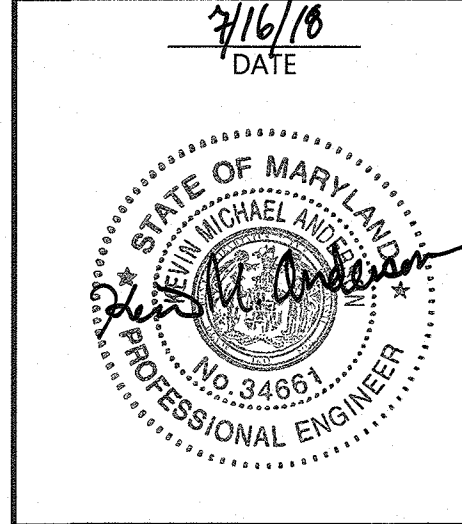


Project: Howard County, Maryland Department of Public Works	Detail: NOSED DOWN CURB SECTION	Revision: R-4.09
Approved: [Signature]	Checked: [Signature]	



Project: Howard County, Maryland Department of Public Works	Detail: HANDICAP RAMP WITH DETECTABLE WARNING SURFACE	Revision: R-4.10
Approved: [Signature]	Checked: [Signature]	

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 34861. EXPIRATION DATE: 07/01/2019.



Date	No.	Revision Description

**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**
ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242

DW
DAFT MCCUNE WALKER INC.

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: CONRODOR #5 BUSINESS PARK	SECTION/AREA: 756 (PARCEL A48)
PLAT OR LOT: 22304 & 22300-091 M-1	TAX ZONE/MAP/GRID: 371G423
WATER CODE: B-02	SEWER CODE: 4020000
STAGE: 6012.03	

SITE DETAILS

Des. By: GDT/SLA/JPM	SCALE: AS SHOWN	Proj. No.: 10015.00
Drn. By: DP/SLA/JPM	Date: 07/12/2018	
Chk. By: GDT/SLA/JPM	Approved: MCR/KMA	11 of 50

PROFESSIONAL ENGR. NO. 34861

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
[Signature] 11-19-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION

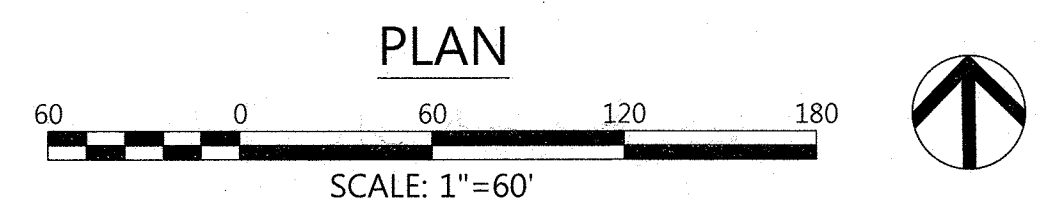
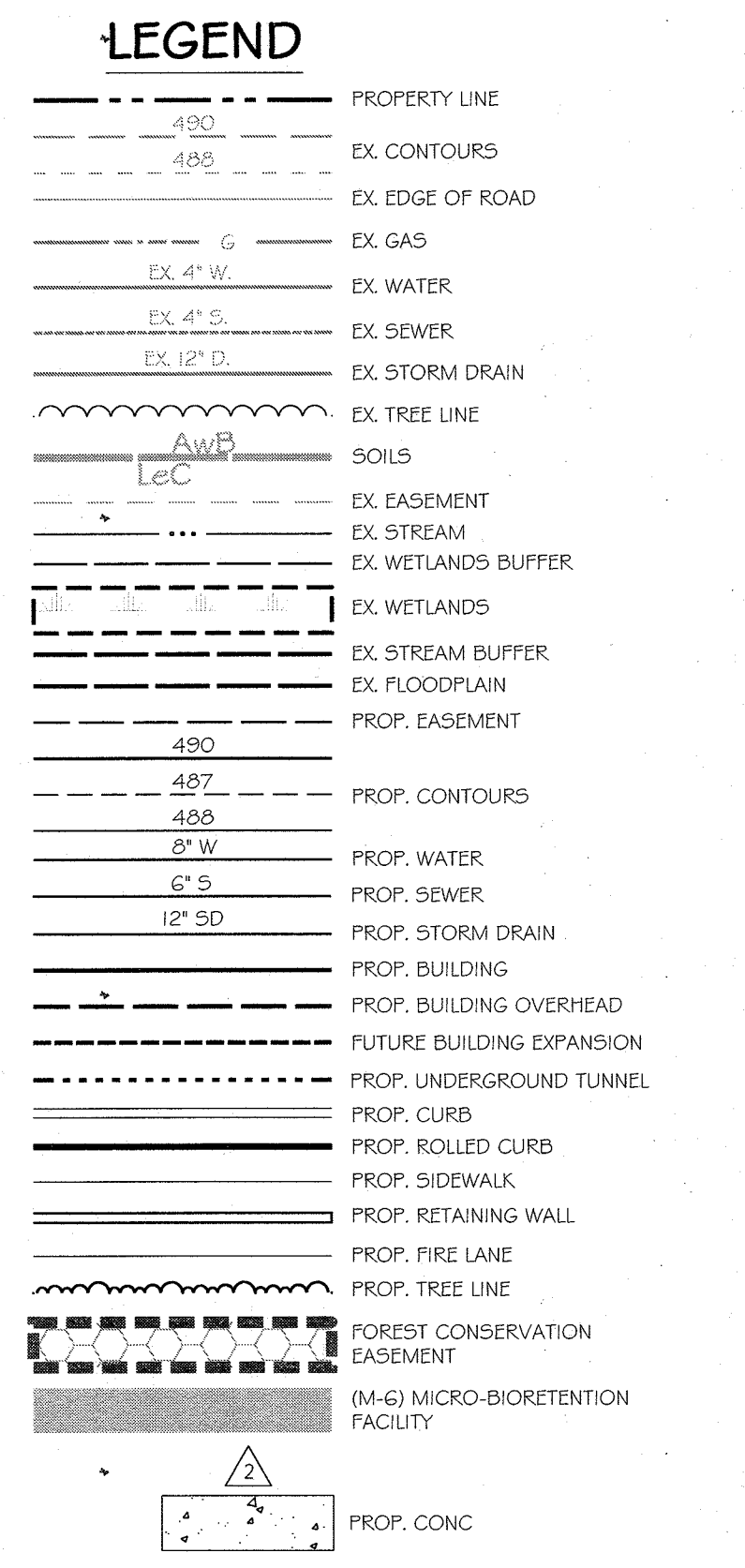
[Signature] 10-30-18
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 12-3-18
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING



AREA TABLE

DA	AREA (SF)	AREA (AC)	INLET NO.
A	7583.58 SF	0.17 AC	I-10
B	7392.84 SF	0.17 AC	I-13
C	13163.99 SF	0.30 AC	I-9
D	24616.32 SF	0.57 AC	I-3
E	23876.12 SF	0.55 AC	I-14
G	13607.52 SF	0.31 AC	I-11
H	4265.24 SF	0.10 AC	I-1
I	22277.98 SF	0.51 AC	I-2
J	22139.33 SF	0.51 AC	I-4
K	3343.52 SF	0.08 AC	I-7
L	4396.35 SF	0.10 AC	I-6
M	24997.69 SF	0.57 AC	I-5
N	25419.77 SF	0.58 AC	I-23
O	10938.33 SF	0.27 AC	I-22
P	28232.59 SF	0.65 AC	I-16
Q	14851.61 SF	0.34 AC	I-15
R	10241.90 SF	0.24 AC	I-20
S	24246.97 SF	0.56 AC	I-18
SS	4505.86 SF	0.10 AC	JB-1
U	22025.55 SF	0.51 AC	I-17
V	37348.98 SF	0.86 AC	CHANNEL
W	27600.57 SF	0.63 AC	I-25
X	19204.08 SF	0.44 AC	I-24
Y	22087.05 SF	0.51 AC	I-26
Z	14231.70 SF	0.33 AC	TDS



PARCEL A
6572 MEADOWRIDGE RD.
SHEPPARD PRATT HEALTH SYSTEMS INC.
LIBER 12945 FOLIO 93
PLAT NO. 22301-22309
28.084 AC. ±
ZONING M-1

PRATT PROPERTIES LLC
FINANCIAL OFFICER
PARCEL 174
500 KANE WAY
REF: 17975/00272
6.825 AC. ±
ZONING M-1

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* 11/29/21 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT *[Signature]* 12/10/21 DATE

DIRECTOR *[Signature]* 12-10-21 DATE

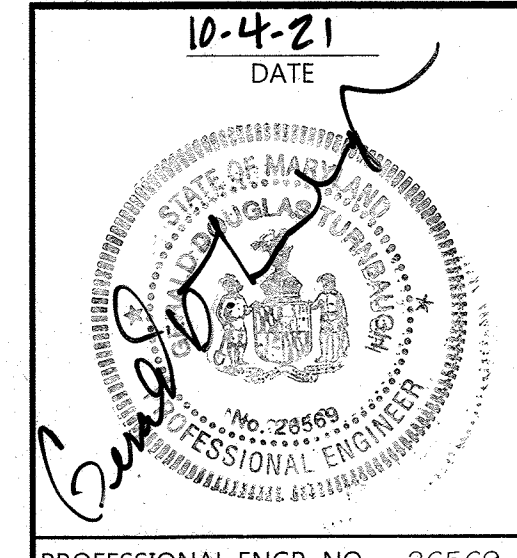
HYDROLOGIC SOIL GROUP - SUMMARY BY MAP UNIT - HOWARD COUNTY MARYLAND

MAP UNIT SYMBOL	MAP UNIT NAME	HYDROLOGIC GROUP	K VALUE (Kw)
AwB	ALLOWAY SILT LOAM, 2 TO 5% SLOPES	D	0.43
Fa	FALLSINGTON SANDY LOAM, 0 TO 2% SLOPES	D	0.02
LeC	LEIGORE SILT LOAM, 8 TO 15% SLOPES	C	0.25

USDA NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY 2.0 NATIONAL COOPERATIVE SOIL SURVEY 11/26/2007 HOWARD COUNTY SOIL MAP #18

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26569, EXPIRATION DATE: 07/18/2023.



08-16-21
02-25-19
Date No. Revision Description

**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**
ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242



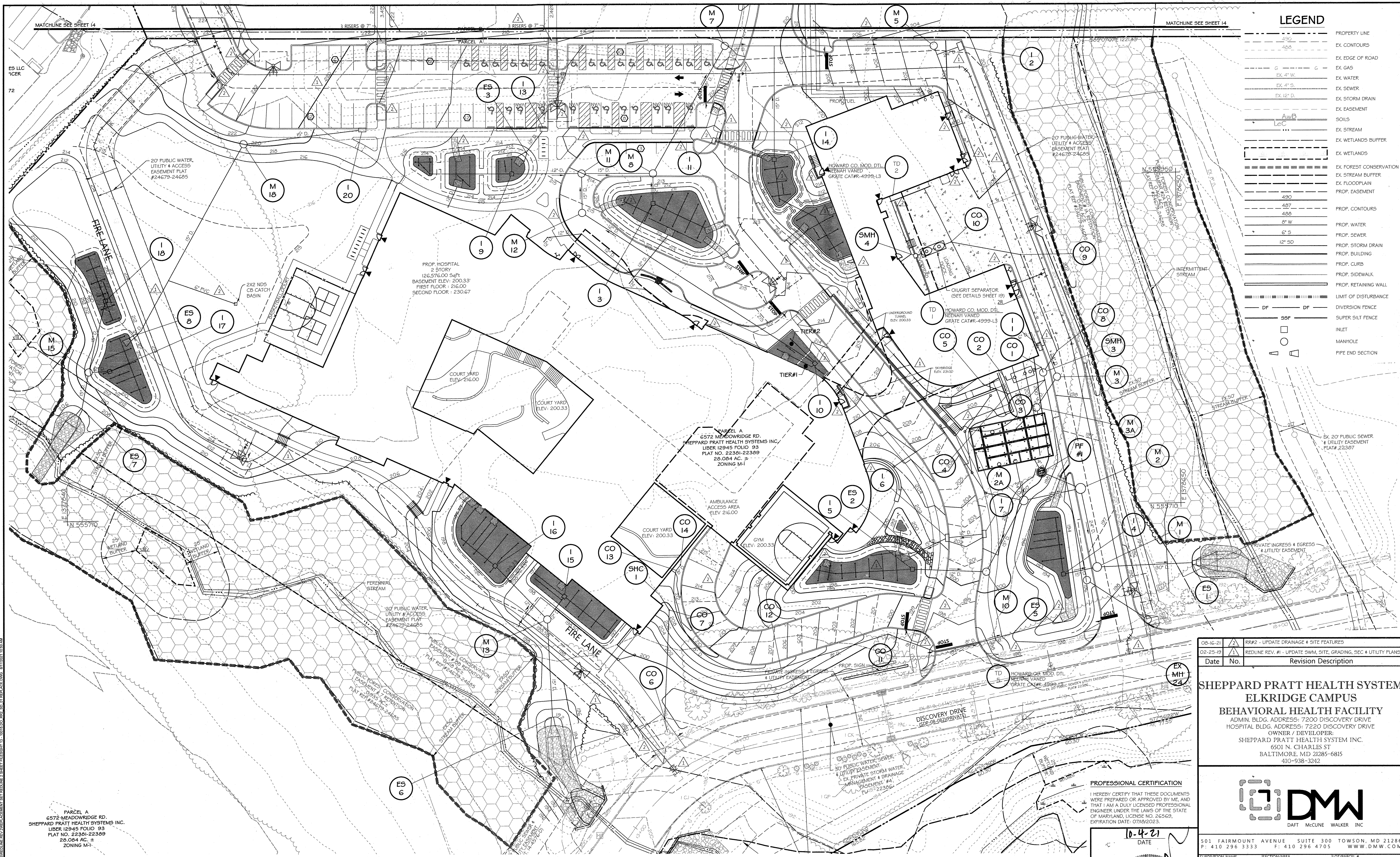
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410.296.3333 F: 410.296.4705 WWW.DMW.COM

SUBDIVISION NAME: CORRIDOR 95 BUSINESS PARK SECTION/AREA: 756 (PARCEL A#B)
PLAT# OR L/P: 24679-24685 ZONE: M-1 TAX ZONE/MAP/GRID: 3716423 ELECT. DIST./CENSUS TRACT: 60/2.03
WATER CODE: B-02 SEWER CODE: 4020000 STAGE:

TITLE
REVISED SITE DEVELOPMENT PLAN
STORM DRAIN DRAINAGE AREA MAP

Des. By: GDT/SLA/JFM SCALE: AS SHOWN Proj. No.: J0015.D0
Dwn. By: DP/SLA/JFM Date: 08/16/2021
Chk. By: GDT/KMA/PLH Approved: MCB/KMA

PROFESSIONAL ENGR. NO. 26569



LEGEND

- PROPERTY LINE
- - - EX. CONTOURS
- - - EX. EDGE OF ROAD
- - - EX. GAS
- - - EX. WATER
- - - EX. 4" S.
- - - EX. SEWER
- - - EX. 12" D.
- - - EX. STORM DRAIN
- - - EX. EASEMENT
- - - SOILS
- - - EX. STREAM
- - - EX. WETLANDS BUFFER
- - - EX. WETLANDS
- - - EX. FOREST CONSERVATION
- - - EX. STREAM BUFFER
- - - EX. FLOODPLAIN
- - - PROP. EASEMENT
- - - PROP. CONTOURS
- - - PROP. WATER
- - - PROP. SEWER
- - - PROP. STORM DRAIN
- - - PROP. BUILDING
- - - PROP. CURB
- - - PROP. SIDEWALK
- - - PROP. RETAINING WALL
- - - LIMIT OF DISTURBANCE
- - - DIVERSION FENCE
- - - SUPER SILT FENCE
- INLET
- MANHOLE
- △ PIPE END SECTION

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 11-23-21
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

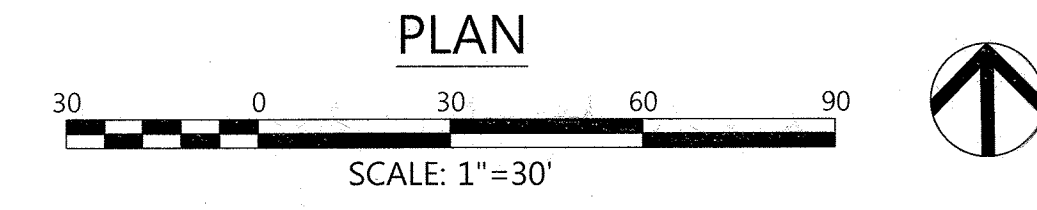
[Signature] 12/10/21
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12-10-21
 DIRECTOR DATE

LEGEND

PROP. PAVING (HMA)

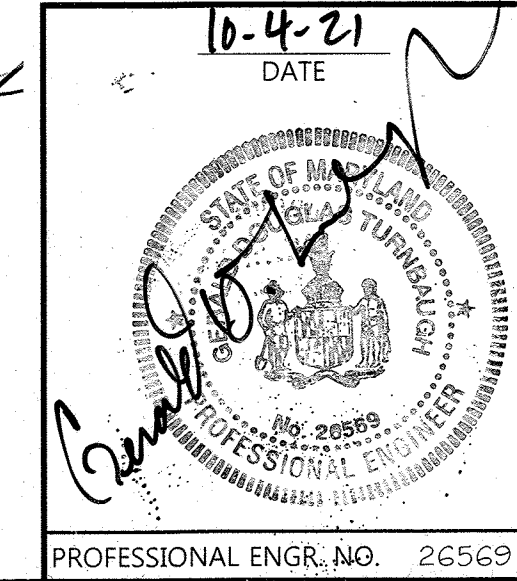
PROP. CONC.



NOTE:
 ROOF DRAIN DISCHARGES TO BE
 ACCOMPLISHED BY BOTH PIPE CONVEYANCE
 AND DIRECT DISCHARGE INTO SWM FACILITIES.

PROFESSIONAL CERTIFICATION

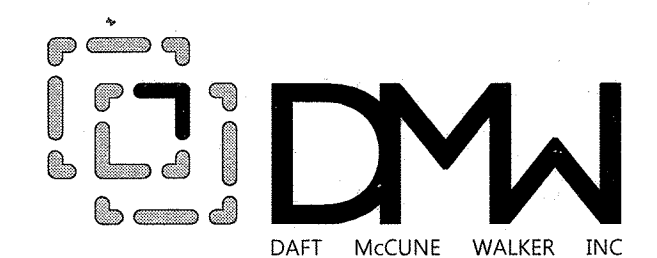
I HEREBY CERTIFY THAT THESE DOCUMENTS
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 OF MARYLAND, LICENSE NO. 26569,
 EXPIRATION DATE: 07/19/2023.



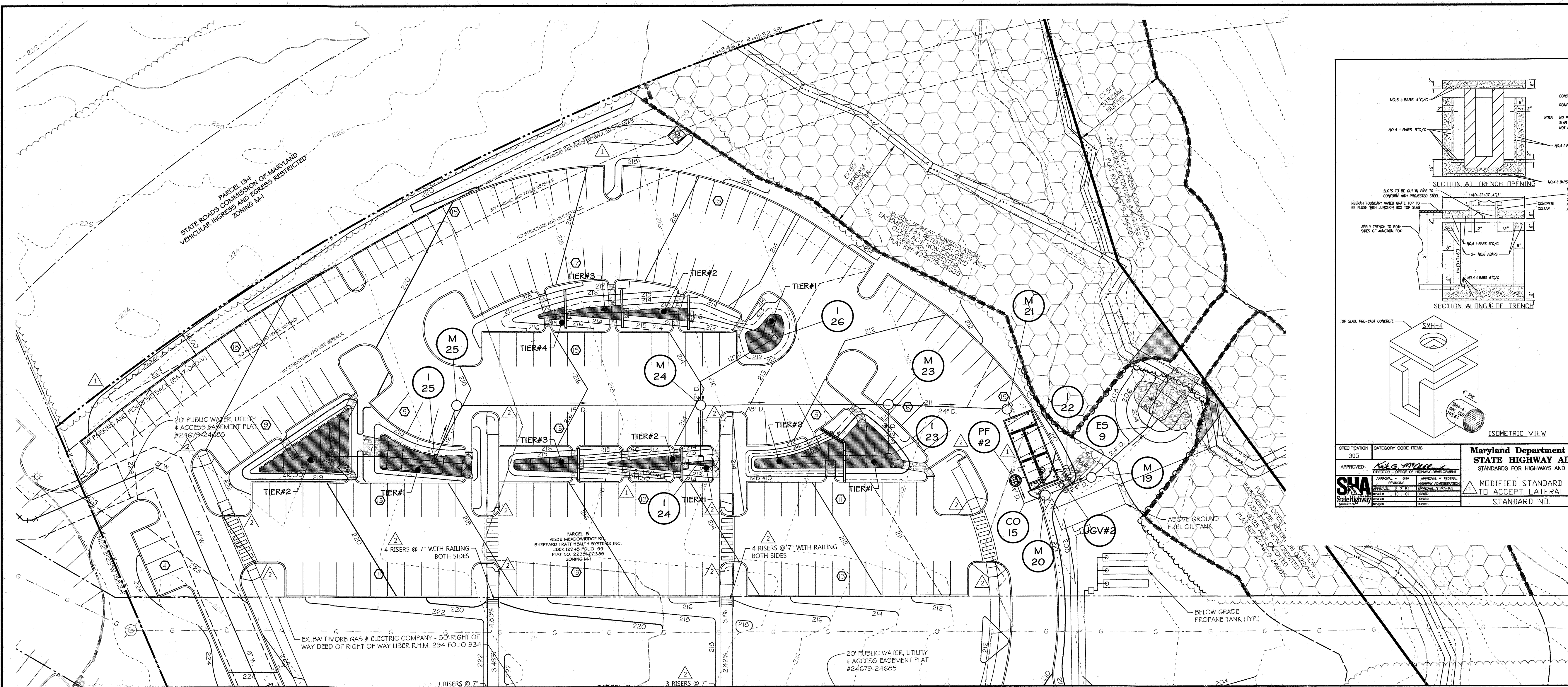
Date	No.	Revision Description
00-16-21	1	RR#2 - UPDATE DRAINAGE & SITE FEATURES
02-25-19	2	REDUNE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS

**SHEPPARD PRATT HEALTH SYSTEM
 ELKRIDGE CAMPUS
 BEHAVIORAL HEALTH FACILITY**

ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
 HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
 OWNER / DEVELOPER:
 SHEPPARD PRATT HEALTH SYSTEM INC.
 6501 N. CHARLES ST
 BALTIMORE, MD 21285-6815
 410-938-3242

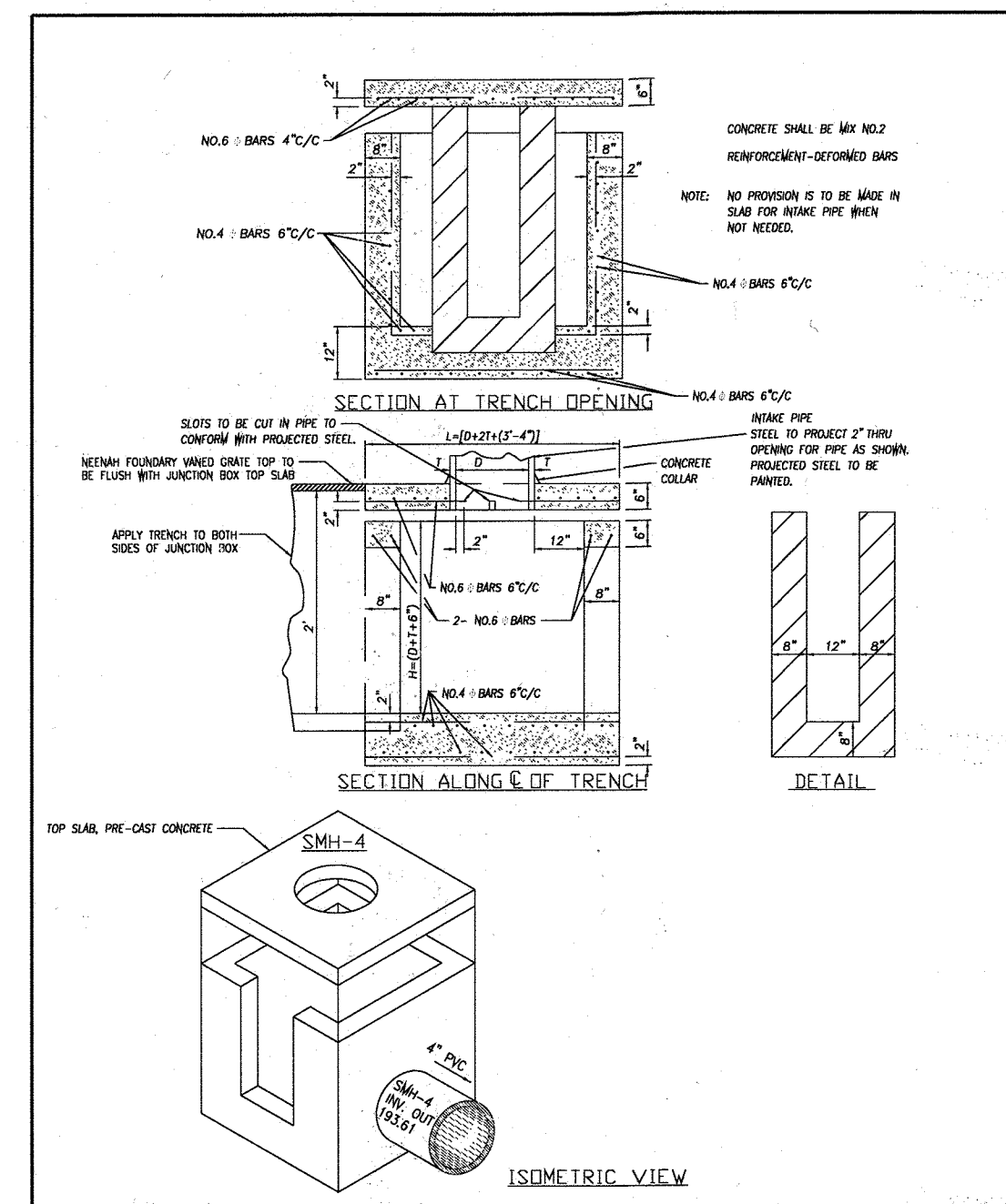


501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM	
SUBDIVISION NAME CORRIDOR 95 BUSINESS PARK	SECTION/PARCEL 756 (PARCEL A4B)
PLAT OR LIT 24679-24685	TAX ZONE/MAP/GRID 3716/23
WATER CODE B-02	SEWER CODE 4020000
STAGE 1	CENSUS TRACT 6012.03
TITLE REVISED SITE DEVELOPMENT PLAN	
UTILITY PLAN - 1	
Des. By GDT/SLA/JPM	SCALE AS SHOWN
Proj. No. 10015.D0	
Drn. By DPS/SLA/JPM	Date 08/16/2021
Chk. By GDT/KMA/PLH	Approved MCK/MMA
PROFESSIONAL ENGR. NO. 26569	13 of 51



LEGEND

---	PROPERTY LINE
---	EX. CONTOURS
---	EX. EDGE OF ROAD
---	EX. GAS
---	EX. WATER
---	EX. SEWER
---	EX. STORM DRAIN
---	EX. EASEMENT
---	SOILS
---	EX. STREAM
---	EX. WETLANDS BUFFER
---	EX. WETLANDS
---	EX. FOREST CONSERVATION
---	EX. STREAM BUFFER
---	EX. FLOODPLAIN
---	PROP. EASEMENT
---	PROP. CONTOURS
---	PROP. WATER
---	PROP. SEWER
---	PROP. STORM DRAIN
---	PROP. BUILDING
---	PROP. CURB
---	PROP. SIDEWALK
---	PROP. RETAINING WALL
□	INLET
○	MANHOLE
— —	PIPE END SECTION

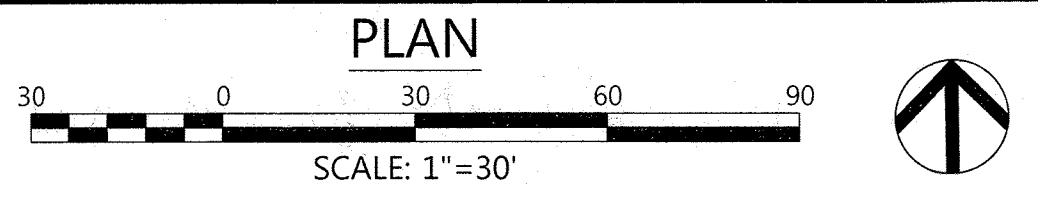


Specification

305	CATEGORY CODE ITEM
APPROVED	DATE: 11/23/21
SMH-4	MODIFIED STANDARD JUNCTION BOX TO ACCEPT LATERAL TRENCH DRAIN
	STANDARD NO. MD 386.11

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

MATCHLINE SEE SHEET I3



MATCHLINE SEE SHEET I3

STORM INLET SCHEDULE

NO.	TYPE	Q	STD. NO.	INV. OUT	TOP ELEV.
I 1	TYPE A-5 INLET - PRECAST	0.60	D-4.02	195.00	198.45
I 2	DOUBLE WR INLET - PRECAST	2.60	D-4.31	195.92	199.41
I 3	TYPE 'D' INLET - PRECAST	3.40	D-4.10	207.00	212.00
I 4	TYPE 'D' INLET - PRECAST	4.25	D-4.10	188.30	194.00
I 5	TYPE 'D' INLET - PRECAST	4.42	D-4.10	194.00	199.00
I 6	TYPE A-5 INLET - PRECAST	1.11	D-4.02	199.00	202.96
I 7	TYPE A-5 INLET - PRECAST	0.51	D-4.02	199.22	202.77
I 9	TYPE 'D' INLET - PRECAST	2.55	D-4.10	207.00	212.00
I 10	TYPE 'D' INLET - PRECAST	1.19	D-4.10	208.00	213.20
I 11	SPECIAL STRUCTURE	2.10	SEE DETAIL	210.20	211.63
I 13	TYPE A-5 INLET - PRECAST	1.10	D-4.02	211.4	214.44
I 14	TYPE 'D' INLET - PRECAST	3.06	D-4.10	203.00	210.67
I 15	TYPE 'D' INLET - PRECAST	2.03	D-4.10	193.25	198.00
I 16	TYPE 'D' INLET - PRECAST	4.07	D-4.10	191.58	196.33
I 17	TYPE 'D' INLET - PRECAST	2.89	D-4.10	206.00	211.00
I 18	TYPE 'D' INLET - PRECAST	1.10	D-4.10	206.00	211.00
I 20	TYPE A-5 INLET - PRECAST	1.36	D-4.02	215.20	218.89
I 22	TYPE A-5 INLET - PRECAST	2.38	D-4.02	206.00	210.35
I 23	TYPE 'D' INLET - PRECAST	2.97	D-4.10	205.00	212.24
I 24	TYPE 'D' INLET - PRECAST	3.23	D-4.10	207.00	213.00
I 25	TYPE 'D' INLET - PRECAST	3.65	D-4.10	213.00	219.06
I 26	TYPE 'D' INLET - PRECAST	1.84	D-4.10	207.58	214.03
SMH 4	MCD. STD. JUNCTION BOX SHA	0.85	D-4.14	193.61	196.33

NOTE: FOR TYPE 'D' INLETS, TOP ELEV. = THROAT OPENING.
THROAT - OPENING ON ALL 4 SIDES

STORM MANHOLE SCHEDULE

NO.	TYPE	SIZE	STD. NO.	INV. OUT	TOP ELEV.
CO II	PVC	4"	PVC	195.26	200.83
CO 12	PVC	4"	PVC	196.08	206.21
CO 13	PVC	4"	PVC	197.35	214.13
CO 14	PVC	4"	PVC	197.40	214.50
CO 15	PVC	4"	PVC	202.60	210.14
HORZ BEND	ADS 45° BEND	12"	N/A	210.10	211.55
M 1	Precast Standard Manhole	60"	G-5.13	187.36	197.35
M 2A	Precast Standard Manhole	72"	G-5.15	188.16	196.24
M 3	Precast Standard Manhole	48"	G-5.12	188.68	199.36
M 3A	Precast Standard Manhole	48"	G-5.12	189.90	201.7
M 5	Precast Standard Manhole	48"	G-5.12	195.88	200.51
M 7	Precast Standard Manhole	48"	G-5.12	203.50	212.84
M 8	Precast Standard Manhole	48"	G-5.12	205.06	213.16
M 10	Precast Standard Manhole	48"	G-5.12	193.63	200.82
M 11	Precast Standard Manhole	48"	G-5.12	206.64	214.03
M 12	Precast Standard Manhole	48"	G-5.12	206.88	215.16
M 13	Precast Standard Manhole	48"	G-5.12	190.95	198.55
M 15	Precast Standard Manhole	48"	G-5.12	204.43	211.68
M 18	Precast Standard Manhole	48"	G-5.12	213.41	221.62
M 19	Precast Standard Manhole	48"	G-5.12	202.21	208.94
M 20	Precast Standard Manhole	48"	G-5.12	202.44	210.52
M 21	Precast Standard Manhole	48"	G-5.12	203.92	210.84
M 23	Precast Standard Manhole	48"	G-5.12	204.34	211.31
M 24	Precast Standard Manhole	48"	G-5.12	205.34	213.86
M 25	Precast Standard Manhole	48"	G-5.12	212.59	218.03
PF #1	Oldcaste Precast Manhole	72"	N/A	188.33	200.47
TEE 1	HDPE - 24" x 24" x 12"	-	N/A	193.47	195.75
TEE 2	HDPE - 24" x 24" x 24"	-	N/A	195.81	198.09
TEE 3	HDPE - 18" x 18" x 15"	-	N/A	201.81	203.57

STRUCTURE SCHEDULE

NO.	TYPE	SIZE	STD. NO.	INV. OUT
ES 1	STD. CONC. END SECTION - ROUND	30"	MD 368.01	187.00
ES 2	STD. CONC. END SECTION - ROUND	15"	MD 368.01	198.20
ES 3	STD. CONC. END SECTION - ROUND	12"	MD 368.01	211.03
ES 5	STD. CONC. END SECTION - ROUND	12"	MD 368.01	194.00
ES 6	STD. CONC. END SECTION - ROUND	15"	MD 368.01	190.57
ES 7	STD. CONC. END SECTION - ROUND	15"	MD 368.01	204.10
ES 8	STD. CONC. END SECTION - ROUND	15"	MD 368.01	210.00
ES 9	STD. CONC. END SECTION - ROUND	24"	MD 368.01	202.00

STORM MANHOLE LOCATION SCHEDULE

NO.	NORTHING	EASTING
CO II	555,618.29	1,378,435.36
CO 12	555,594.78	1,378,357.14
CO 13	555,667.10	1,378,282.26
CO 14	555,670.93	1,378,285.47
CO 15	556,572.22	1,378,358.54
HORZ BEND	555,848.05	1,377,895.66
M 1	555,664.37	1,378,586.45
M 2	555,721.69	1,378,577.37
M 2A	555,713.68	1,378,535.91
M 3	555,803.45	1,378,561.56
M 3A	555,781.42	1,378,546.24
M 5	556,045.12	1,378,475.76
M 7	556,047.46	1,378,323.64
M 8	555,955.73	1,378,270.02
M 10	555,662.27	1,378,507.79
M 11	555,956.53	1,378,218.00
M 12	555,927.91	1,378,218.00
M 13	555,633.21	1,378,187.86
M 15	555,818.60	1,377,857.23
M 18	555,982.12	1,377,972.42
M 19	556,170.42	1,378,394.46
M 20	556,161.36	1,378,369.80
M 21	556,207.50	1,378,350.27
M 23	556,211.04	1,378,287.05
M 24	556,212.58	1,378,187.06
M 25	556,214.58	1,378,057.04
PF #1	555,734.10	1,378,549.27
TEE 1	555,826.91	1,378,553.23
TEE 2	556,038.68	1,378,477.98
TEE 3	556,046.91	1,378,359.60

STORM INLET LOCATION SCHEDULE

NO.	NORTHING	EASTING
CO II	555,825.50	1,378,549.61
CO 12	556,044.52	1,378,495.07
CO 13	555,933.86	1,378,269.69
CO 14	555,659.62	1,378,563.90
CO 15	555,665.06	1,378,454.03
HORZ BEND	555,687.48	1,378,479.89
M 1	555,689.80	1,378,506.66
M 2	555,957.31	1,378,672.23
M 2A	555,816.09	1,378,385.57
M 3	555,989.08	1,378,910.1
M 3A	555,964.17	1,378,358.33
M 5	555,649.59	1,378,200.47
M 7	555,672.84	1,378,150.55
M 8	555,819.05	1,377,872.44
M 10	555,870.10	1,377,870.25
M 11	555,991.11	1,378,059.03
M 12	556,174.30	1,378,381.44
M 13	556,183.56	1,378,286.63
M 15	556,183.84	1,378,186.62
M 18	556,185.10	1,378,044.91
M 19	556,247.26	1,378,226.84
M 20	555,713.68	1,378,535.9
SMH 4	555,892.85	1,378,460.01

STRUCTURE LOCATION SCHEDULE

NO.	NORTHING	EASTING
ES 1	555,666.23	1,378,657.36
ES 2	555,677.25	1,378,457.46
ES 3	555,972.81	1,378,178.00
ES 5	555,624.99	1,378,556.12
ES 6	555,562.13	1,378,190.39
ES 7	555,792.10	1,377,851.89
ES 8	555,845.48	1,377,892.68
ES 9	556,186.90	1,378,425.24

STRUCTURE SCHEDULE

NO.	TYPE	SIZE	STD. NO.	INV. IN	INV. OUT	NOTES
TD 1	TYPE 'C' INLET - TRENCH DRAIN	8"	D-4.15	--	--	C.I.P.
TD 2	TYPE 'C' INLET - TRENCH DRAIN	8"	D-4.15	--	--	C.I.P.
TD 5	TYPE 'C' INLET - TRENCH DRAIN	8"	D-4.15	--	--	C.I.P.

C.I.P. = CAST IN PLACE

NOTE: ALL TRENCH GRATES TO BE NEENAH
FOUNDRY VAINED GRATE NO. 49999-13.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Howard County
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 11-23-21

Howard County
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 12-10-21

Howard County
DIRECTOR
DATE: 12-10-21

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26569, EXPIRATION DATE: 07/18/2023.

10-4-21
DATE

David J. Walker
PROFESSIONAL ENGR. NO. 26569

08-16-21
02-25-19

Date	No.	Revision Description
08-16-21	1	RR#2 - UPDATE INLET, MANHOLE SCHEDULES AND WALK RISERS
02-25-19	2	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC 4 UTILITY PLANS

**SHEPPARD PRATT HEALTH SYSTEM
ELKCRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**

ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242

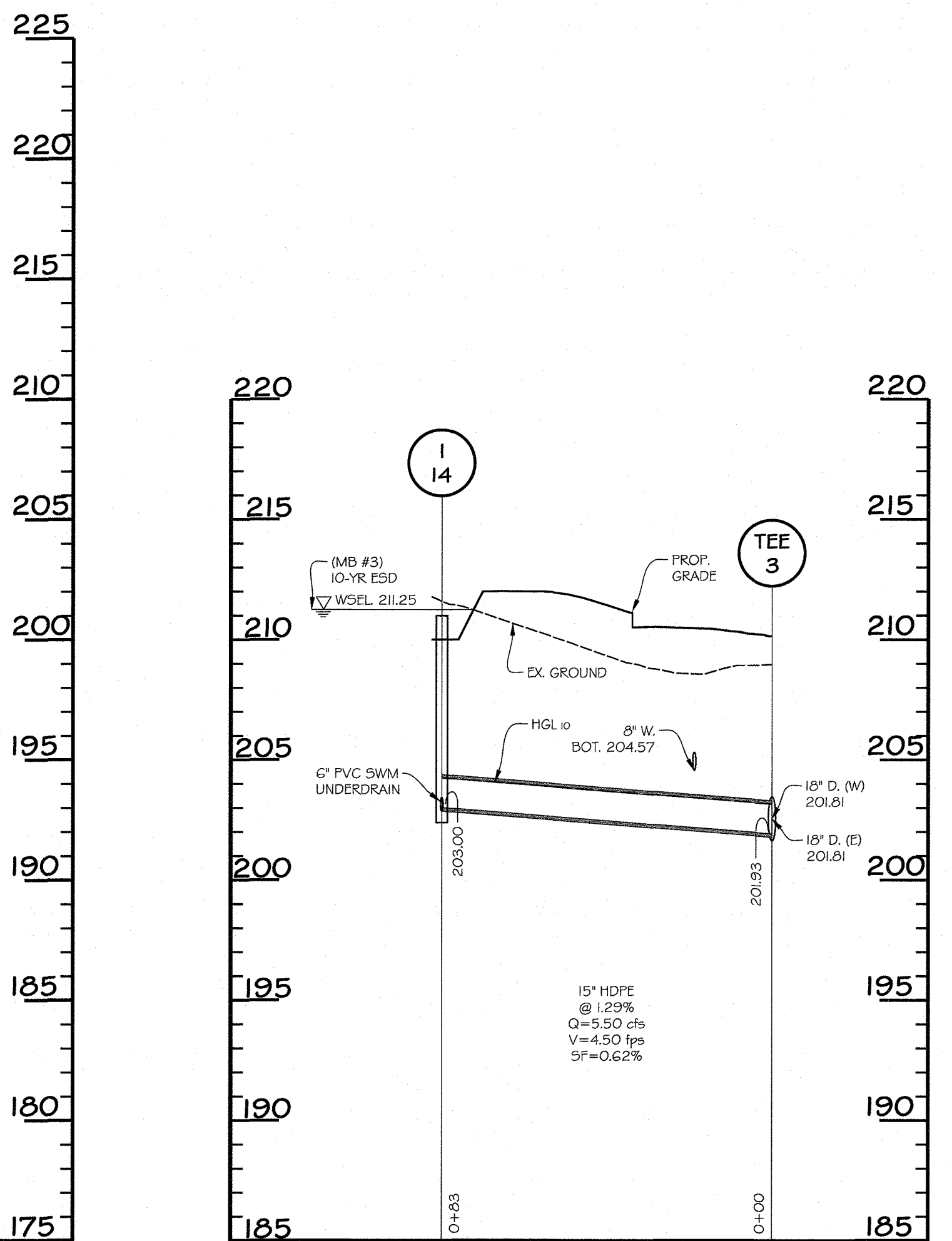
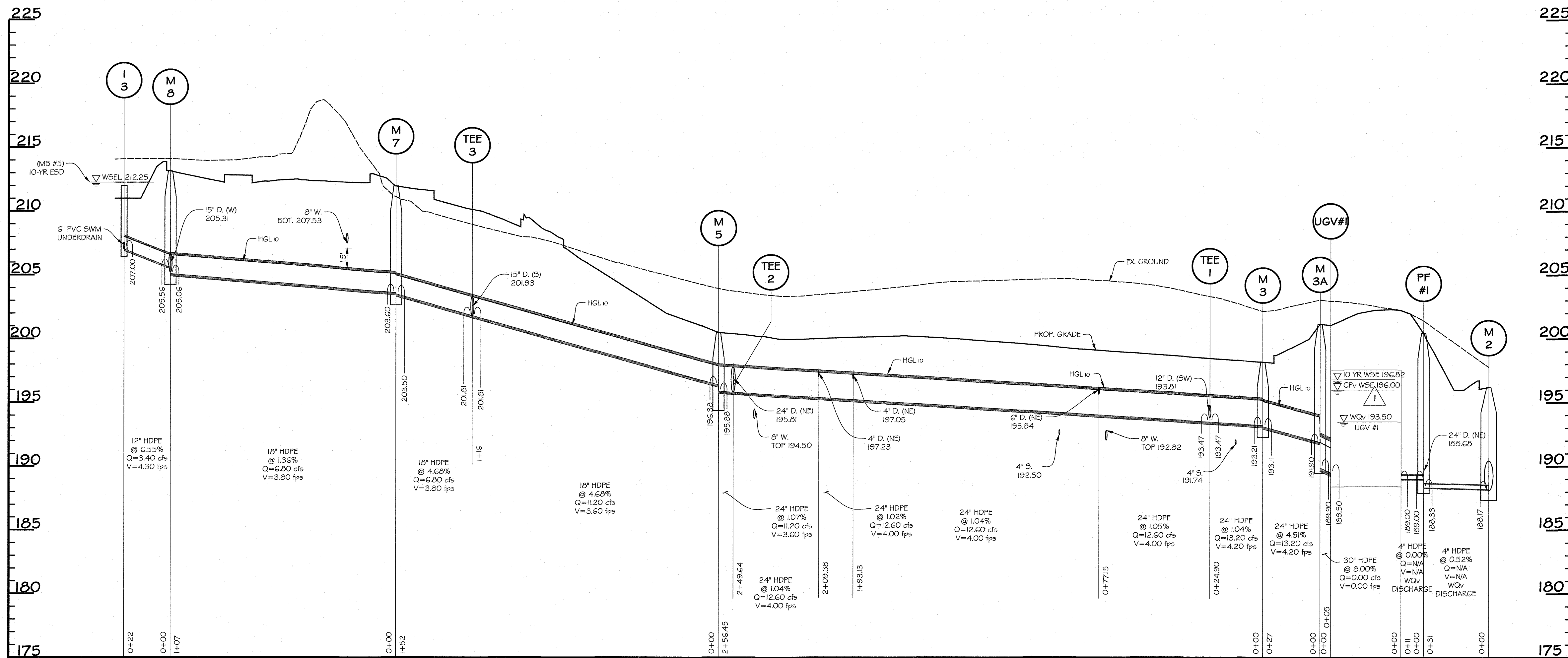
DW
DAFT MCCLINE WALKER INC.

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME	CORRIDOR 85 BUSINESS PARK	SECTION/AREA	756 (PARCEL A#8)
PLAT/ OR LIT	24679-24685	ZONE	M-1
WATER CODE	B-02	SEWER CODE	4020000
TITLE	REVISED SITE DEVELOPMENT PLAN		
Des. By	GDT/SLAJ/PM	SCALE	AS SHOWN
Dwn. By	DP/SLAJ/PM	Date	08/16/2021
Chk. By	GDT/KM/PLH	Approved	MCB/KMA

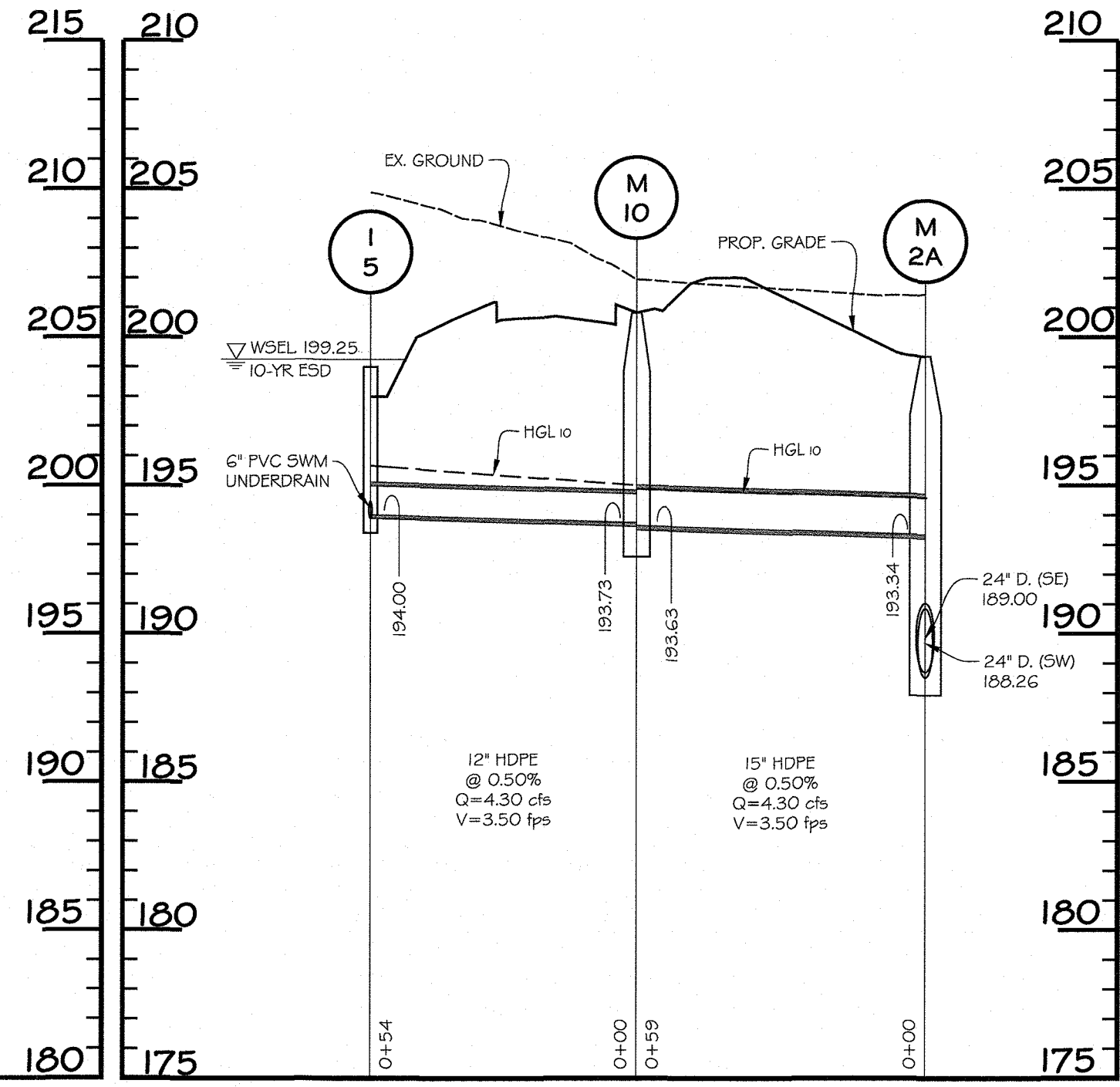
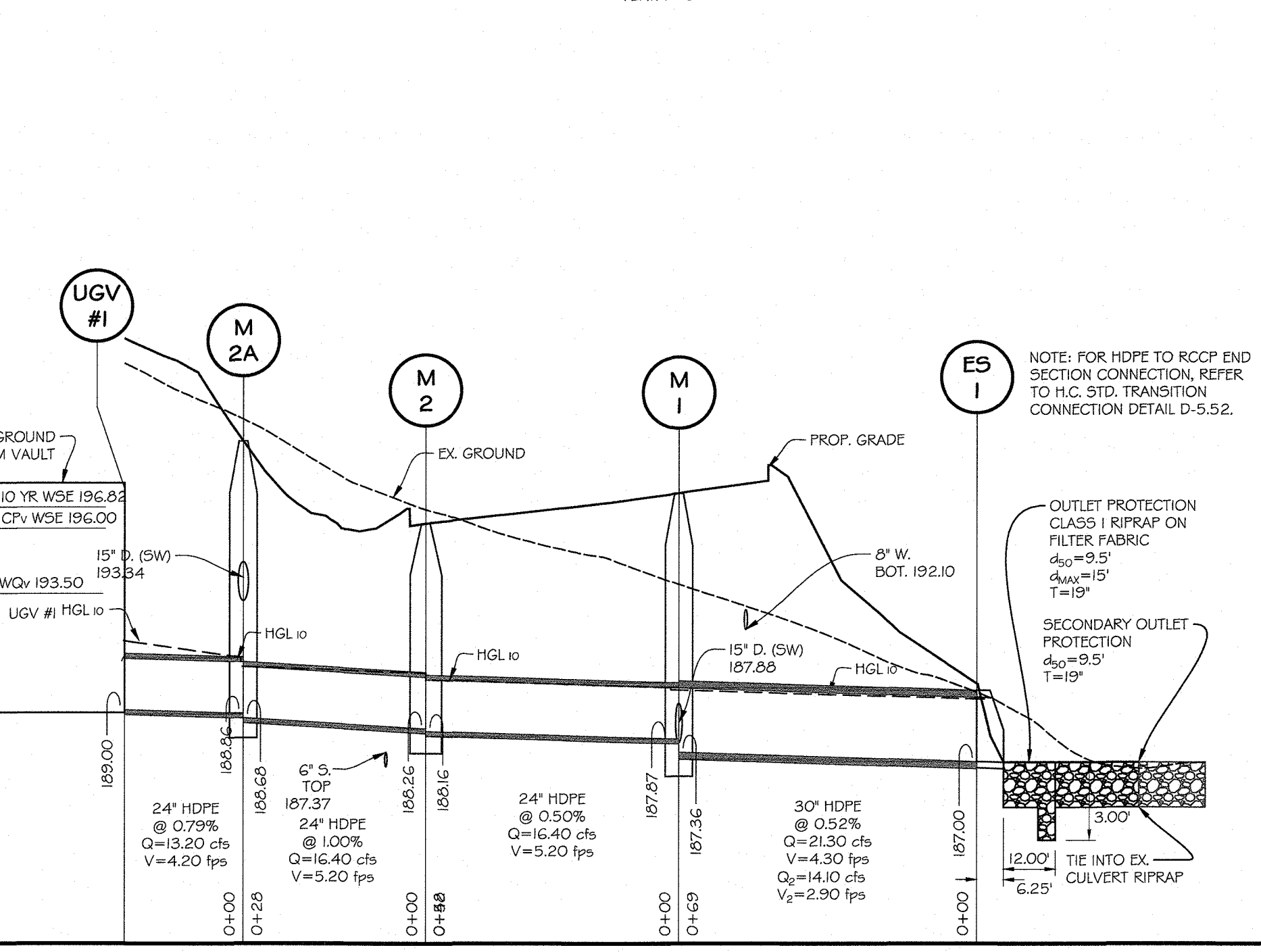
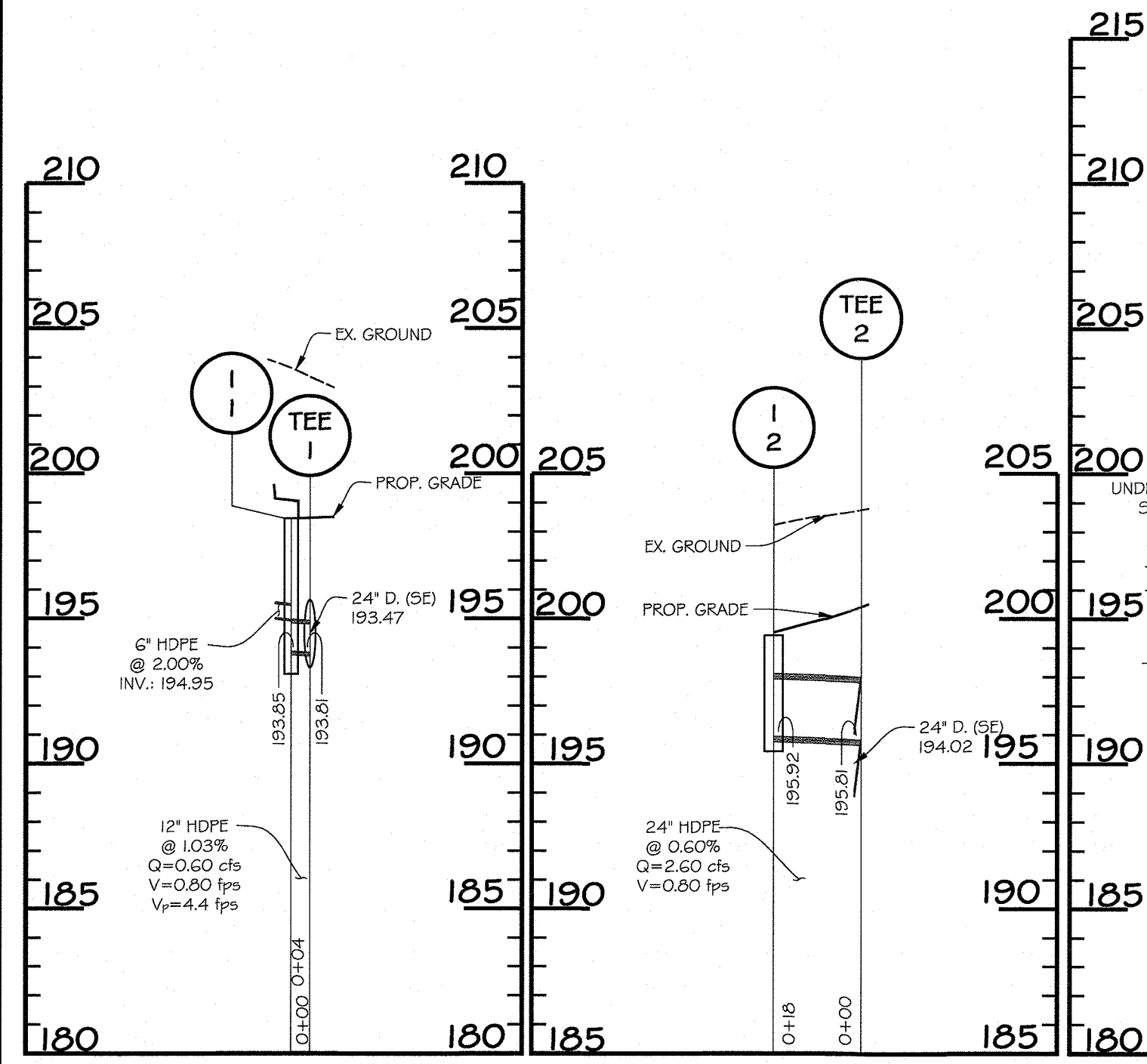
14 of 51

SDP-18-033



PROFILE
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VERT. 1"=5'

PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=5'



PROFILE
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VERT. 1"=5'

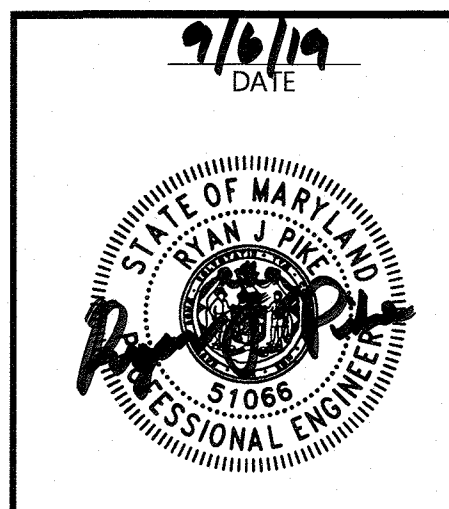
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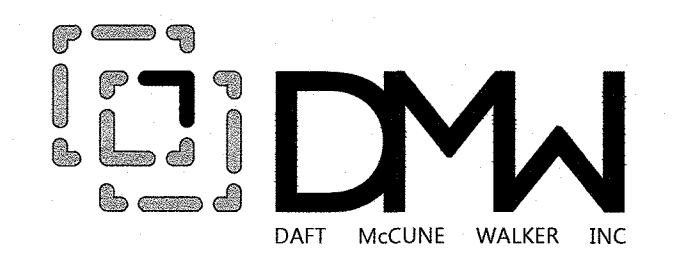
NOTE: WHERE HGL IS 2 FEET OR GREATER ABOVE THE CROWN OF PIPE, ALL PIPE JOINTS AND CONNECTIONS WITHIN THIS HGL RANGE SHALL HAVE A RUBBER GASKET.

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. S10666, EXPIRATION DATE: 06/07/2021.



Date	No.	Revision Description
02-25-19	1	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC 4 UTILITY PLANS

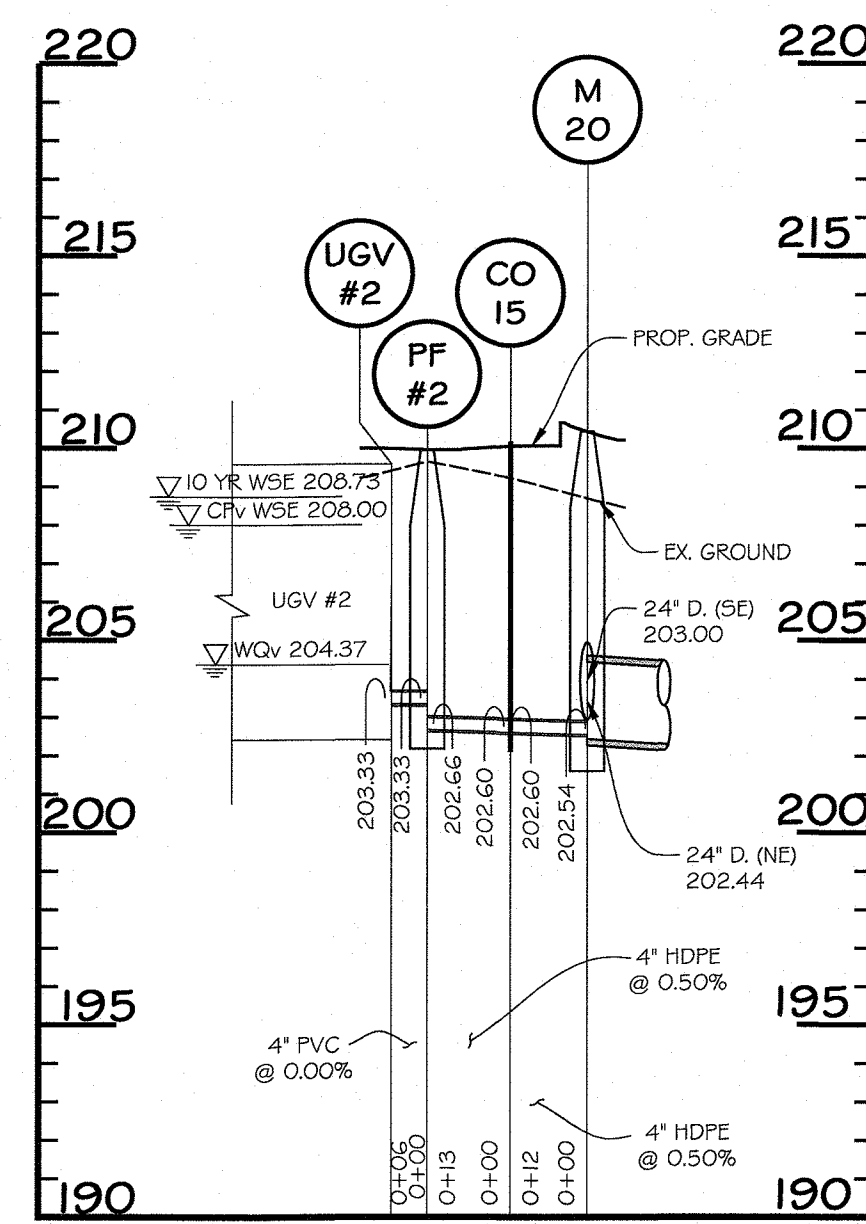
**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**
ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242



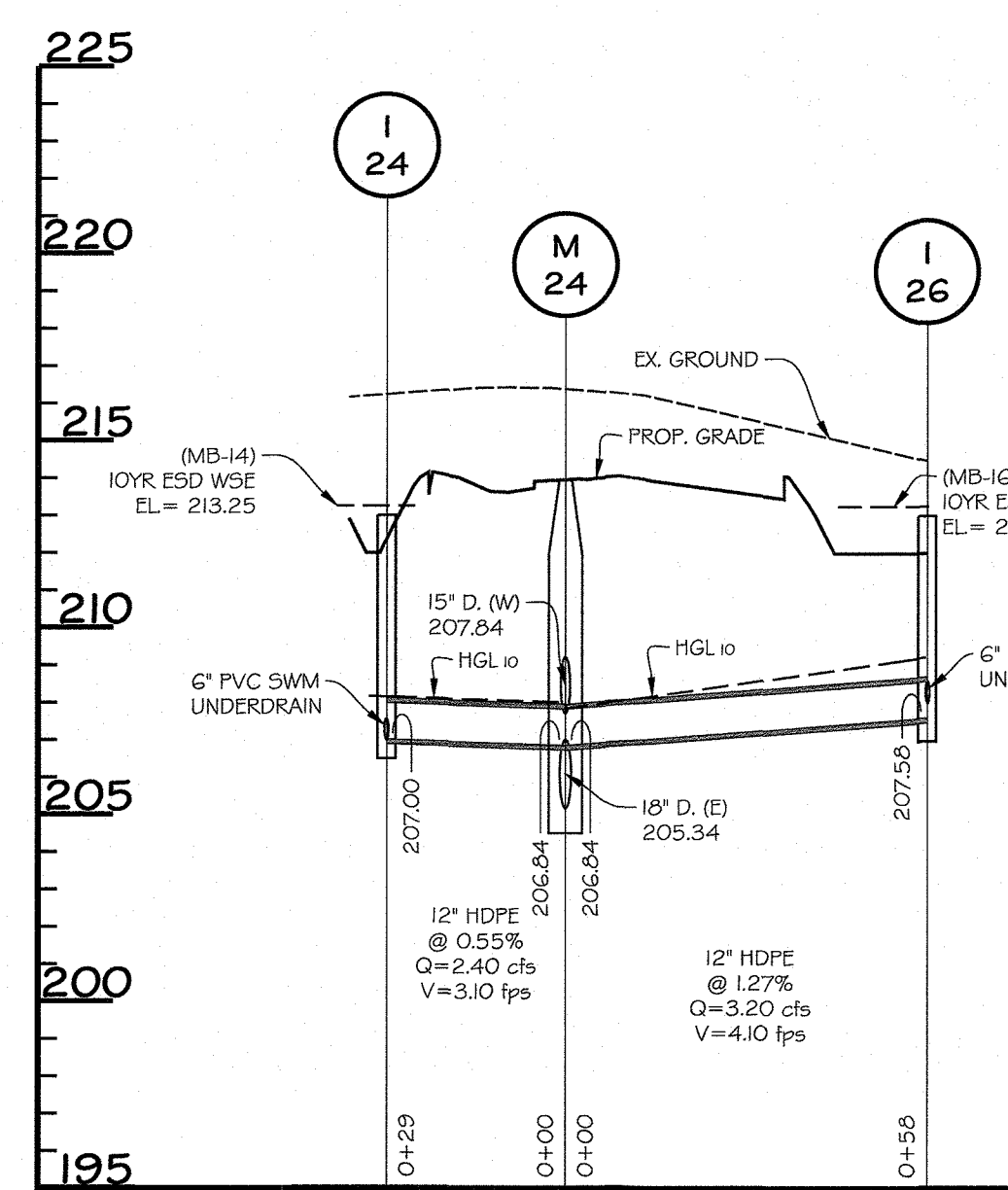
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM	
SUBDIVISION NAME CORRIDOR 83 BUSINESS PARK	SECTION/AREA 756 (PARCEL 4B)
PLAT# OR LOT 24679-24685	TAX ZONE/MAP/GRID M-1 3716423
WATER CODE 5-02	ELECT. DIST. CENSUS TRACT 4020000 6012.03
TITLE REPLACEMENT SHEET STORM DRAIN PROFILES - 1	
Des. By GDT/SLA/JPM	SCALE AS SHOWN
Drn. By DP/SLA/JPM	Date 07/12/2018
Chk. By GDT/KM/PLH	Approved MCD/KMA

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

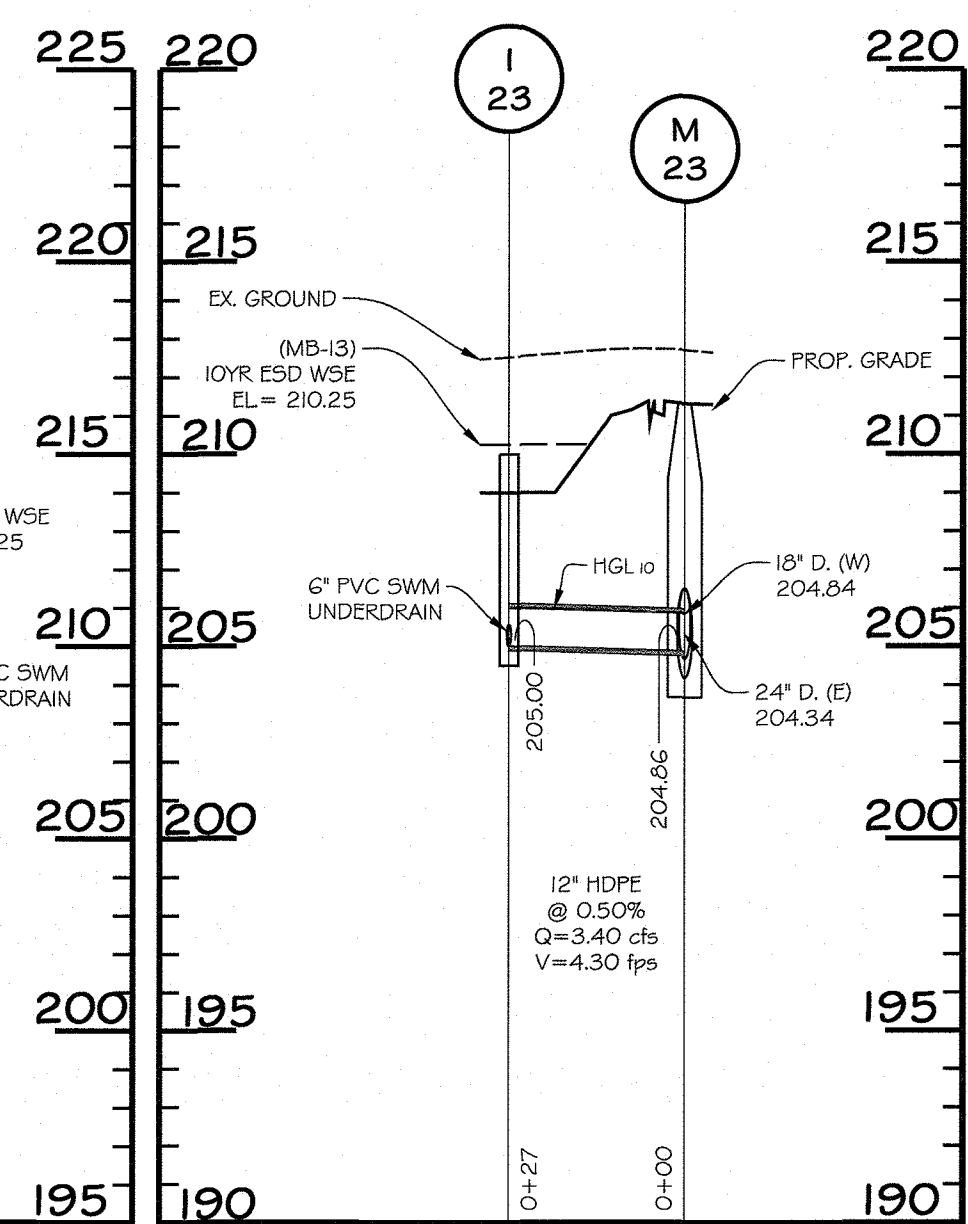
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 9-30-19
 DATE: 10-2-19
 DATE: 10-2-19



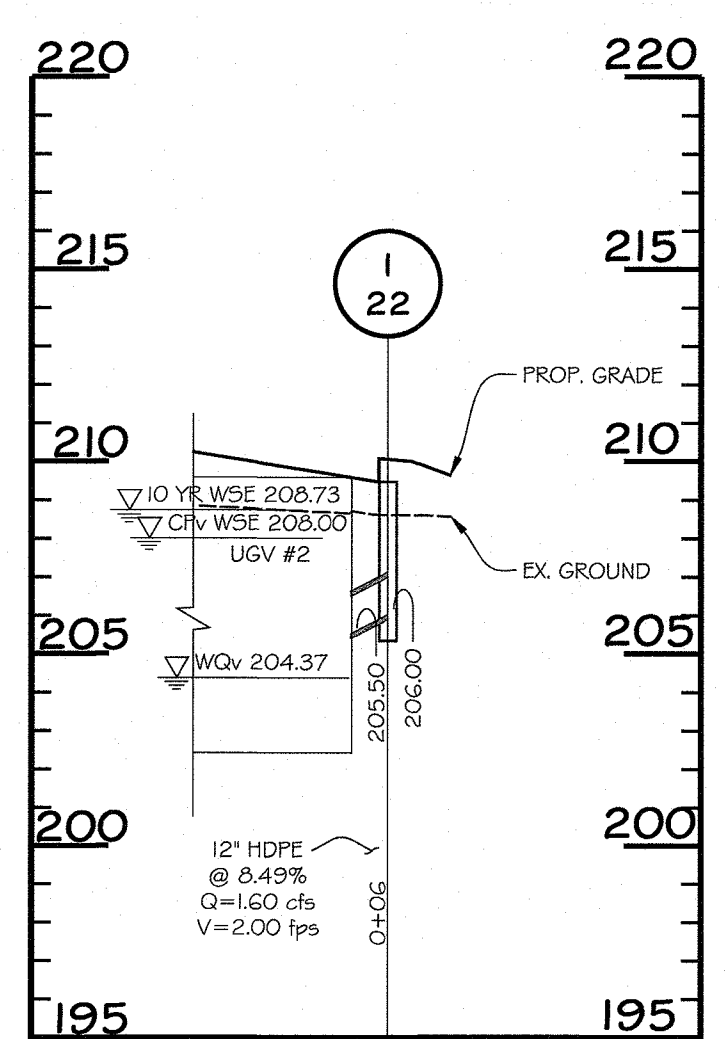
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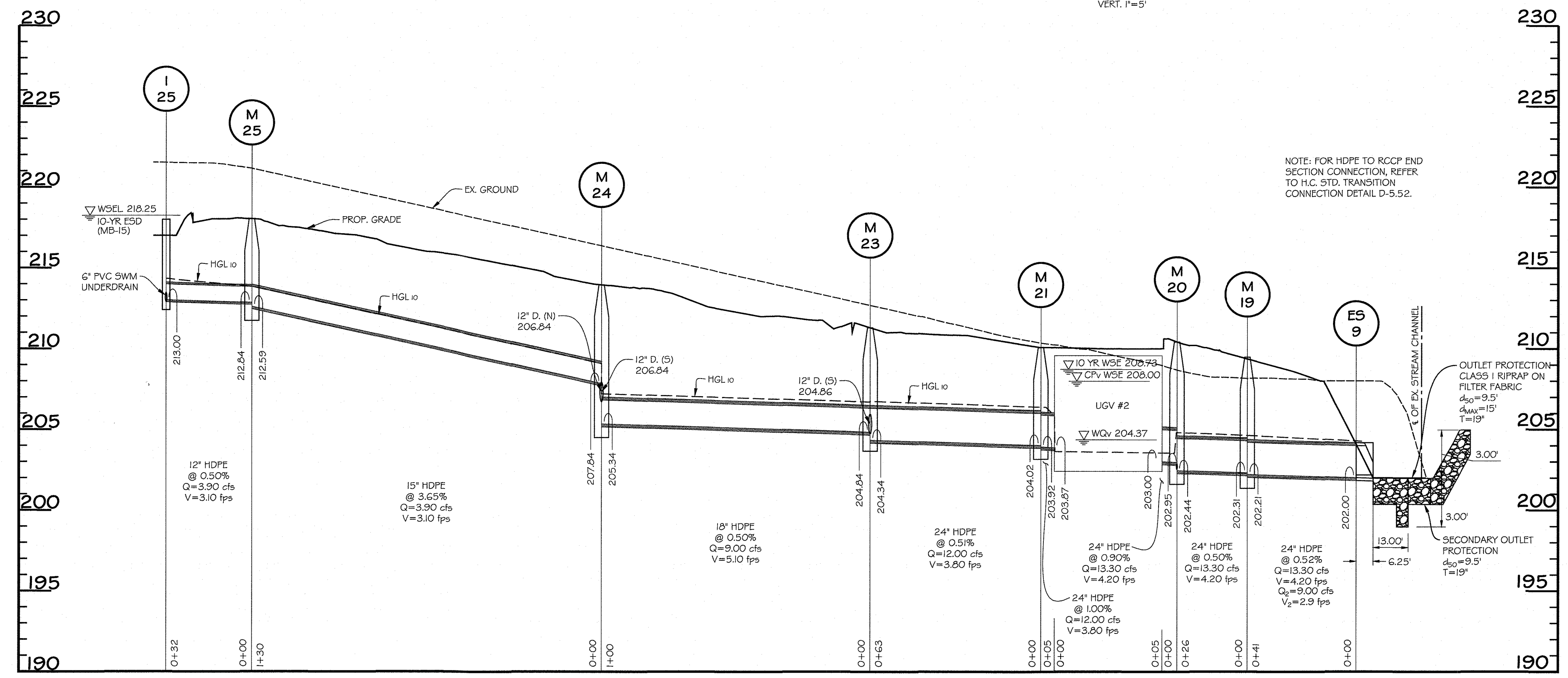
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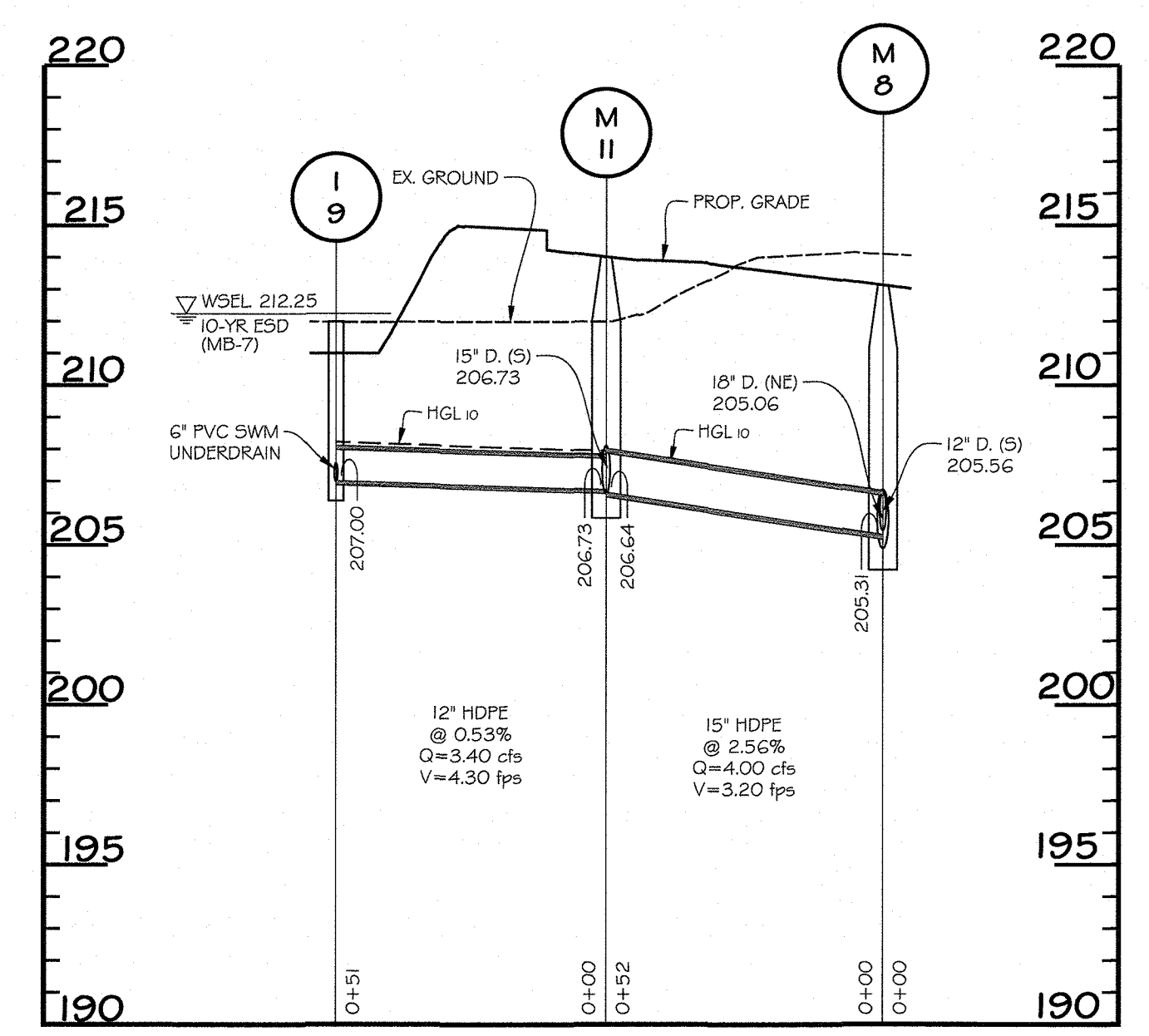


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VERT. 1"=5'



PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=5'


NOTE: WHERE HGL IS 2 FEET OR GREATER ABOVE THE CROWN OF PIPE, ALL PIPE JOINTS AND CONNECTIONS WITHIN THIS HGL RANGE SHALL HAVE A RUBBER GASKET.

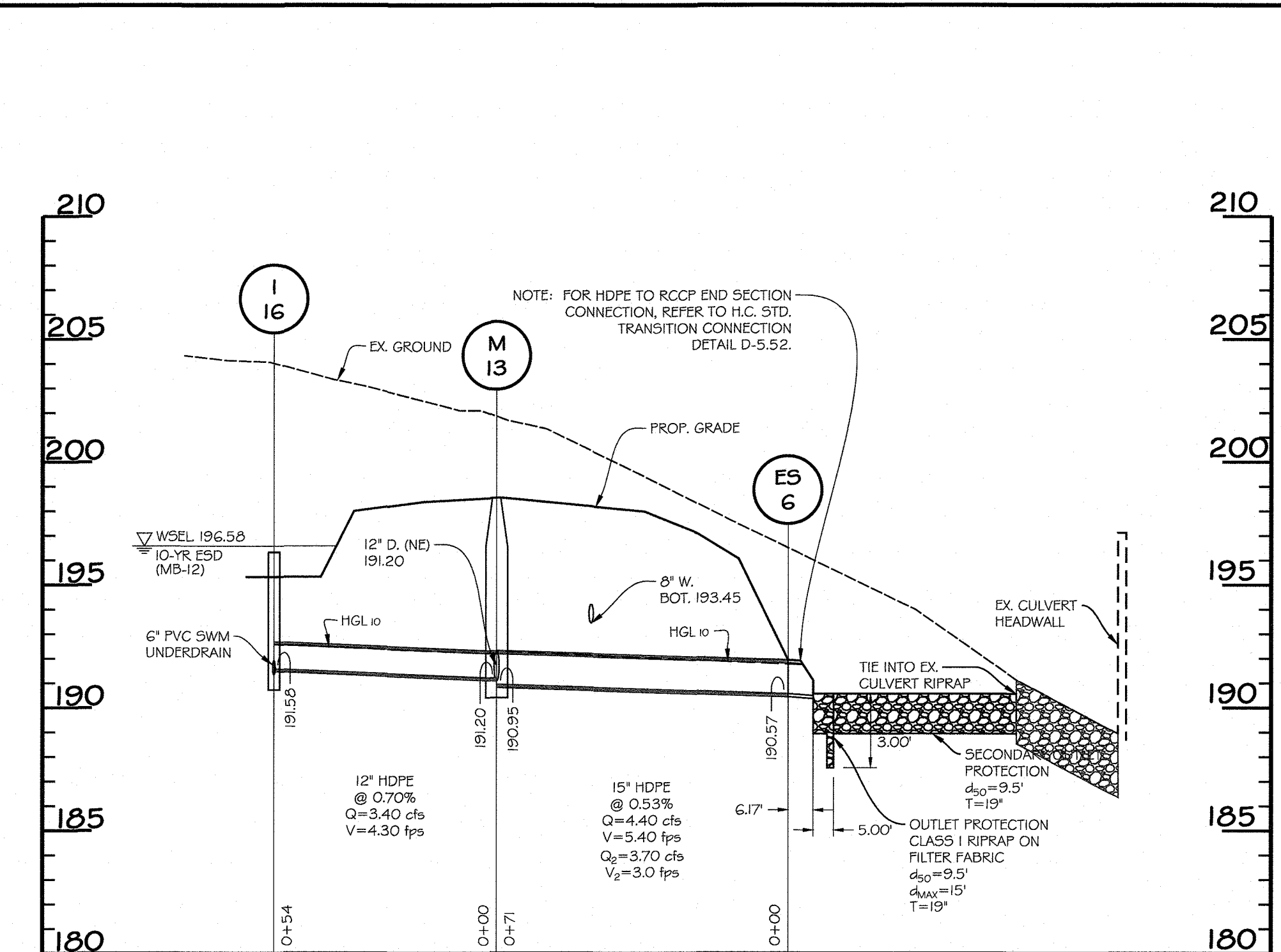
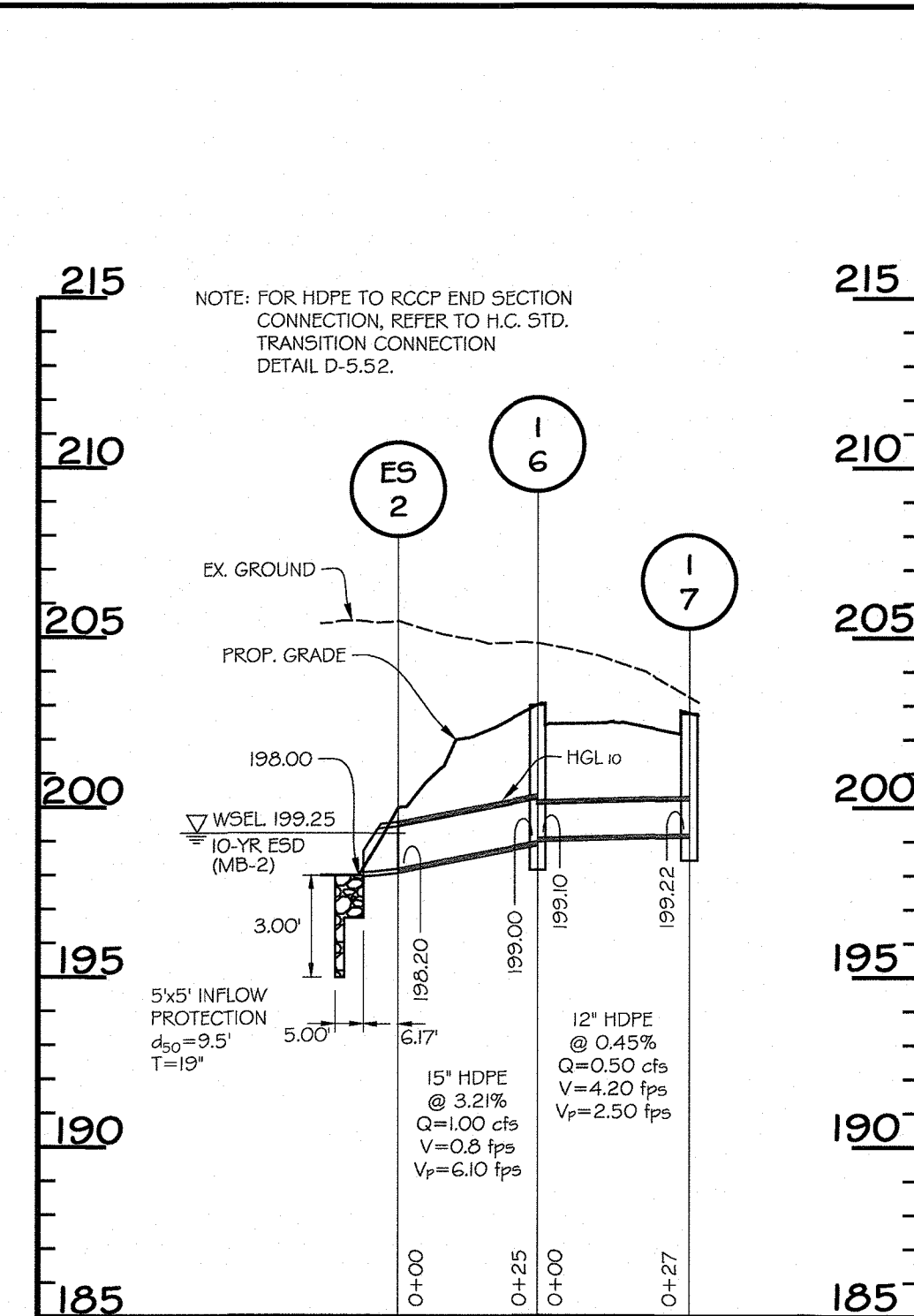
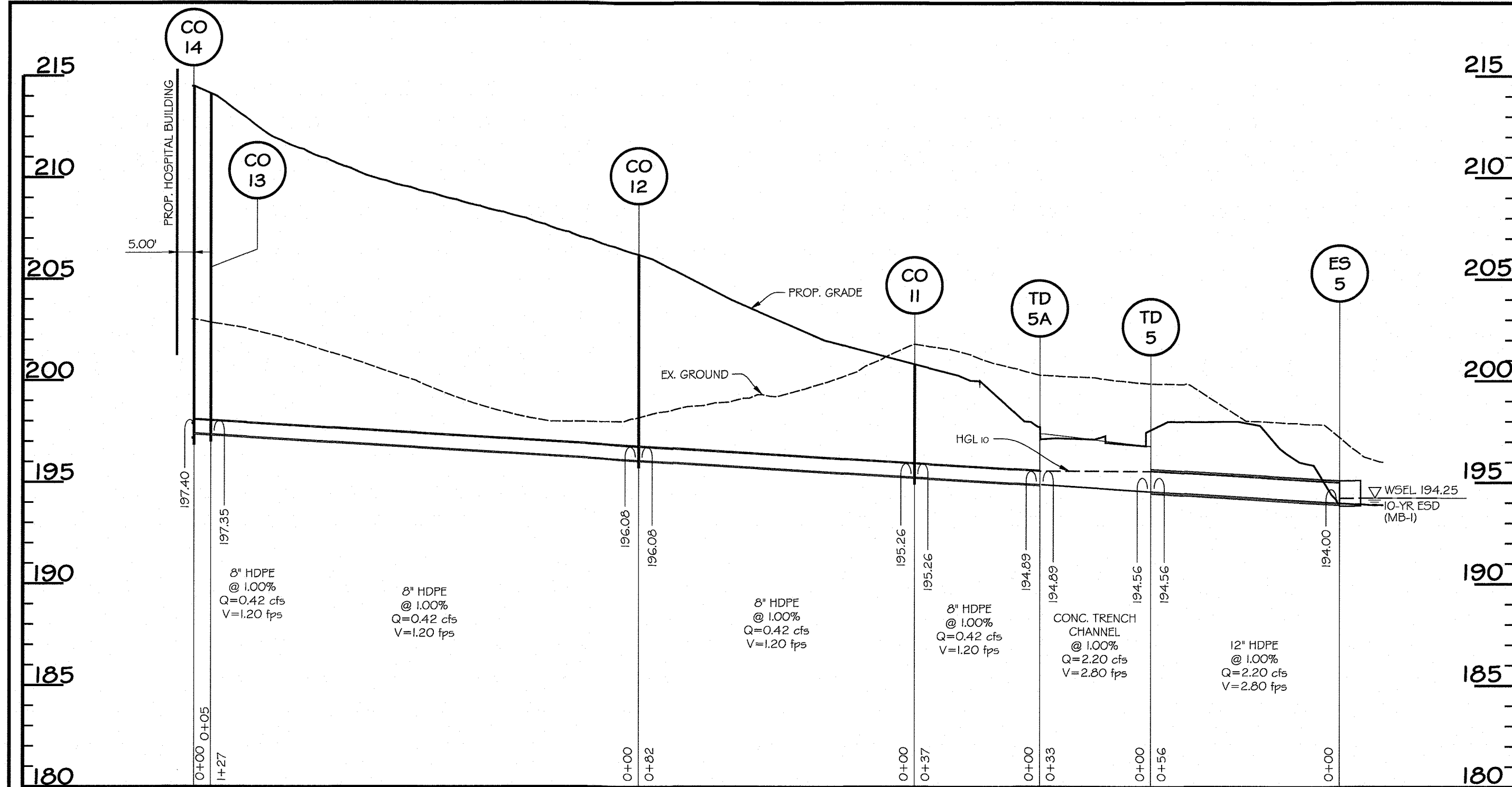


PROFILE
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VERT. 1"=5'

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 [Signature] 9-30-19
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 10-2-19
 CHIEF, DIVISION OF LAND DEVELOPMENT KB for TKM
 [Signature] 10-2-19
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. S1066, EXPIRATION DATE: 06/07/2021.
 DATE: 9/6/19
 PROFESSIONAL ENGR. NO. S1066

02-25-19	REVISION REV. #1 - UPDATE SWM, SITE, GRADING, SEC # UTILITY PLANS	
Date	Revision Description	
SHEPPARD PRATT HEALTH SYSTEM ELKCRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N. CHARLES ST BALTIMORE, MD 21285-6815 410-938-3212		
 DAFT McCUNE WALKER INC.		
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM		
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
CORRIDOR 99 BUSINESS PARK	756	756 (PARCEL 4MB)
PLAT# OR L.P.	TAX ZONE/MAP/GRID	ELECT. DIST.
24679-24685	37/6423	I
WATER CODE	SEWER CODE	STAGE
B-02	4020000	6012.03
TITLE: REPLACEMENT SHEET STORM DRAIN PROFILES - 2		
Des. By	SCALE	Proj. No.
GDT/SLAJ/PM	AS SHOWN	10015.00
Drn. By	Date	
DP/SLAJ/PM	07/12/2018	
Chk. By	Approved	
GDT/SLAJ/PM	MCB/MA	



PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=5'

NOTE: WHERE HGL IS 2 FEET OR GREATER ABOVE THE CROWN OF PIPE, ALL PIPE JOINTS AND CONNECTIONS WITHIN THIS HGL RANGE SHALL HAVE A RUBBER GASKET.

PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=5'

PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=5'

R-4999 Vaned Type L Series BOLTED TRANSVERSE DRAINAGE STRUCTURE

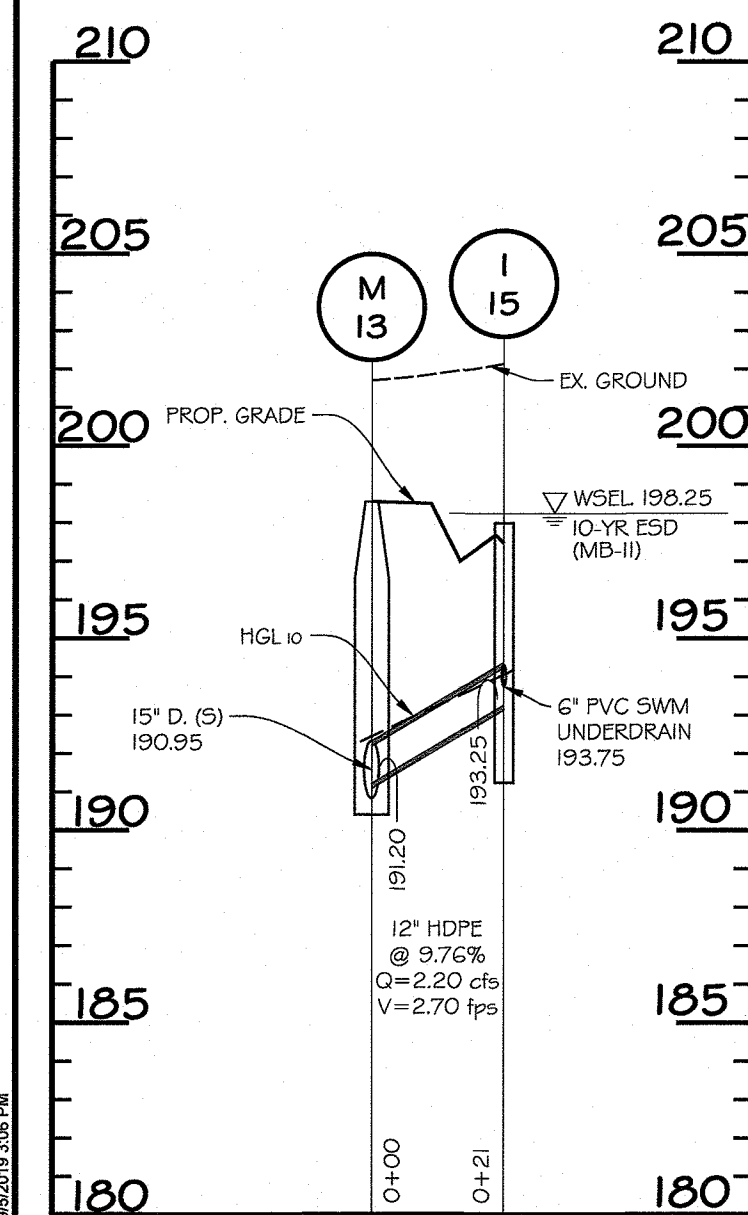
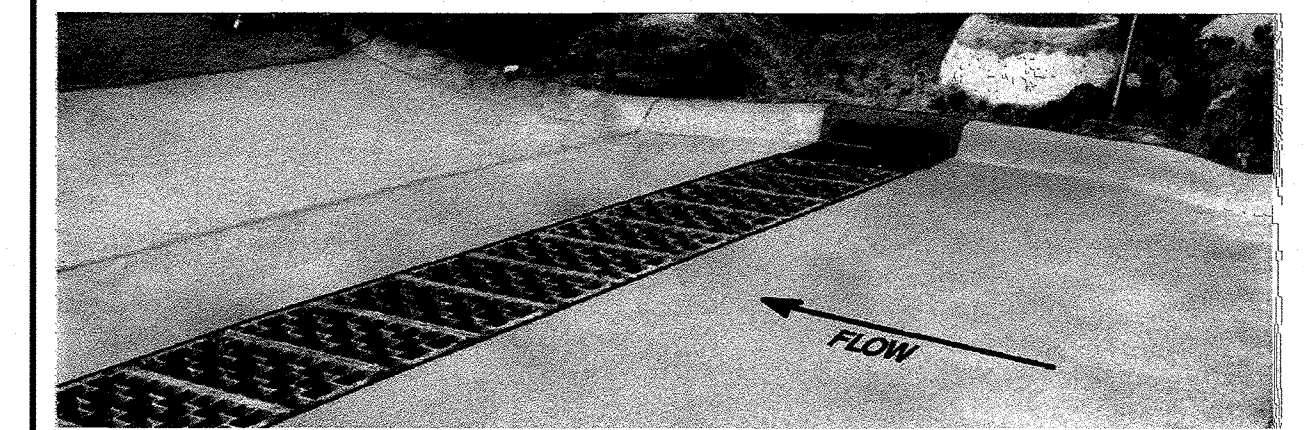
Heavy Duty

This trench grate series represents Neenah's best hydraulic performance.

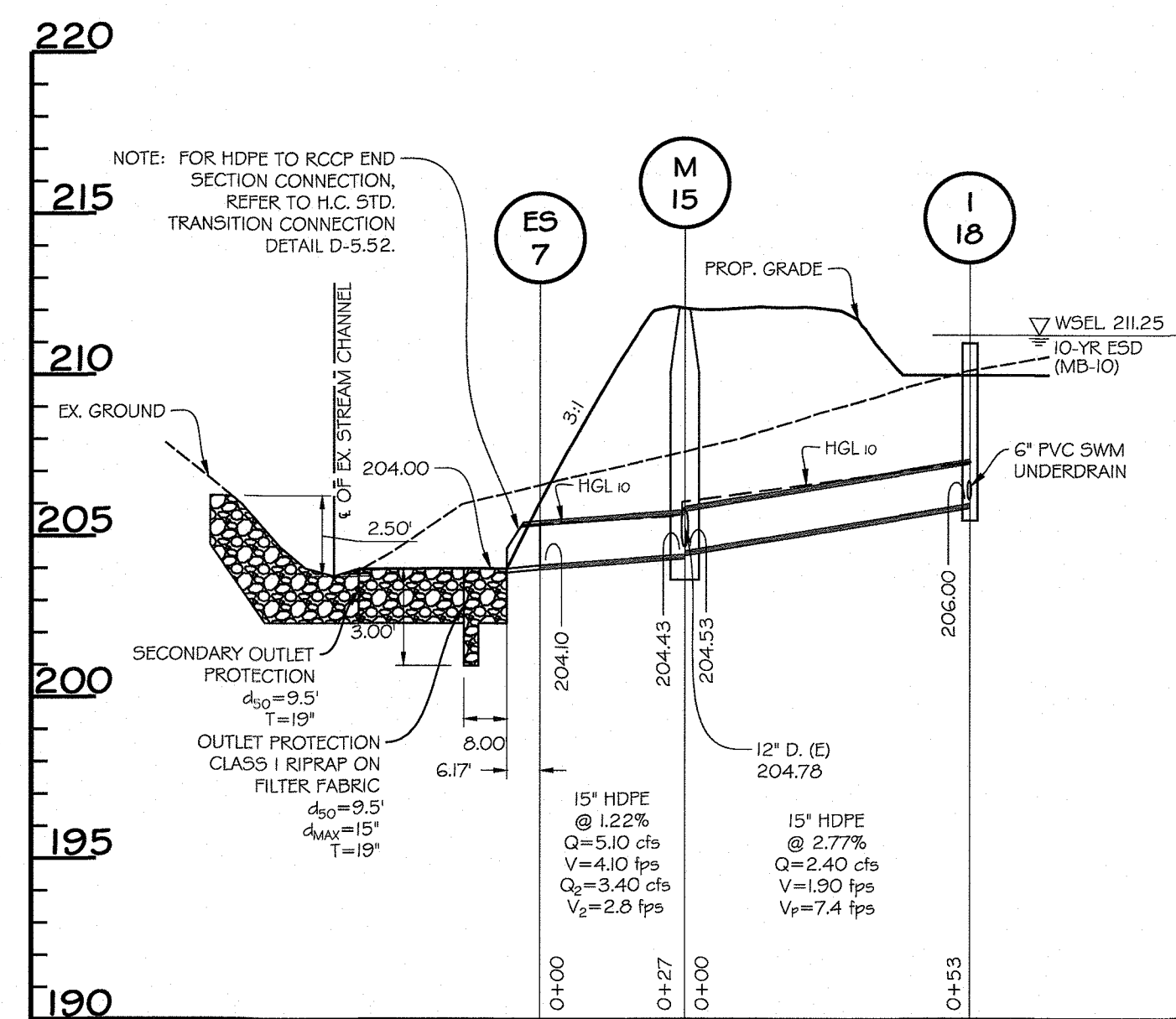
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R-4999-L3**	12	1 1/2	10
R-4999-L3*	14	1 1/2	12
R-4999-L6**	23 7/8	2	21 7/8
R-4999-L7**	28 5/8	2	24 5/8
R-4999-L9**	29 3/4	2 1/2	26 3/4

* Furnished in 24" sections.
** Furnished in 12" or 24" sections.
*** Furnished in 18" or 30" sections.

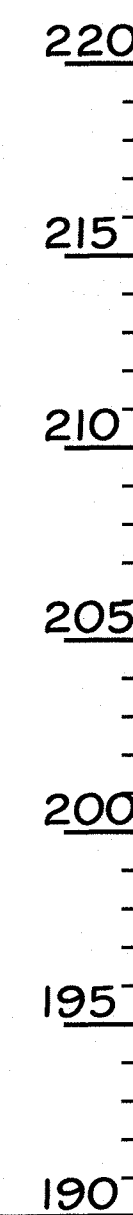
Type L vane shaped grates have the ability to remove significant amounts of sheet flow from streets, parking lots and industrial lots. For detailed hydraulic information, visit our website at www.neenahfoundry.com and select "Hydraulic Calculator" or contact Neenah Product Engineering. See R-4994 trench forming instructions on page 285.



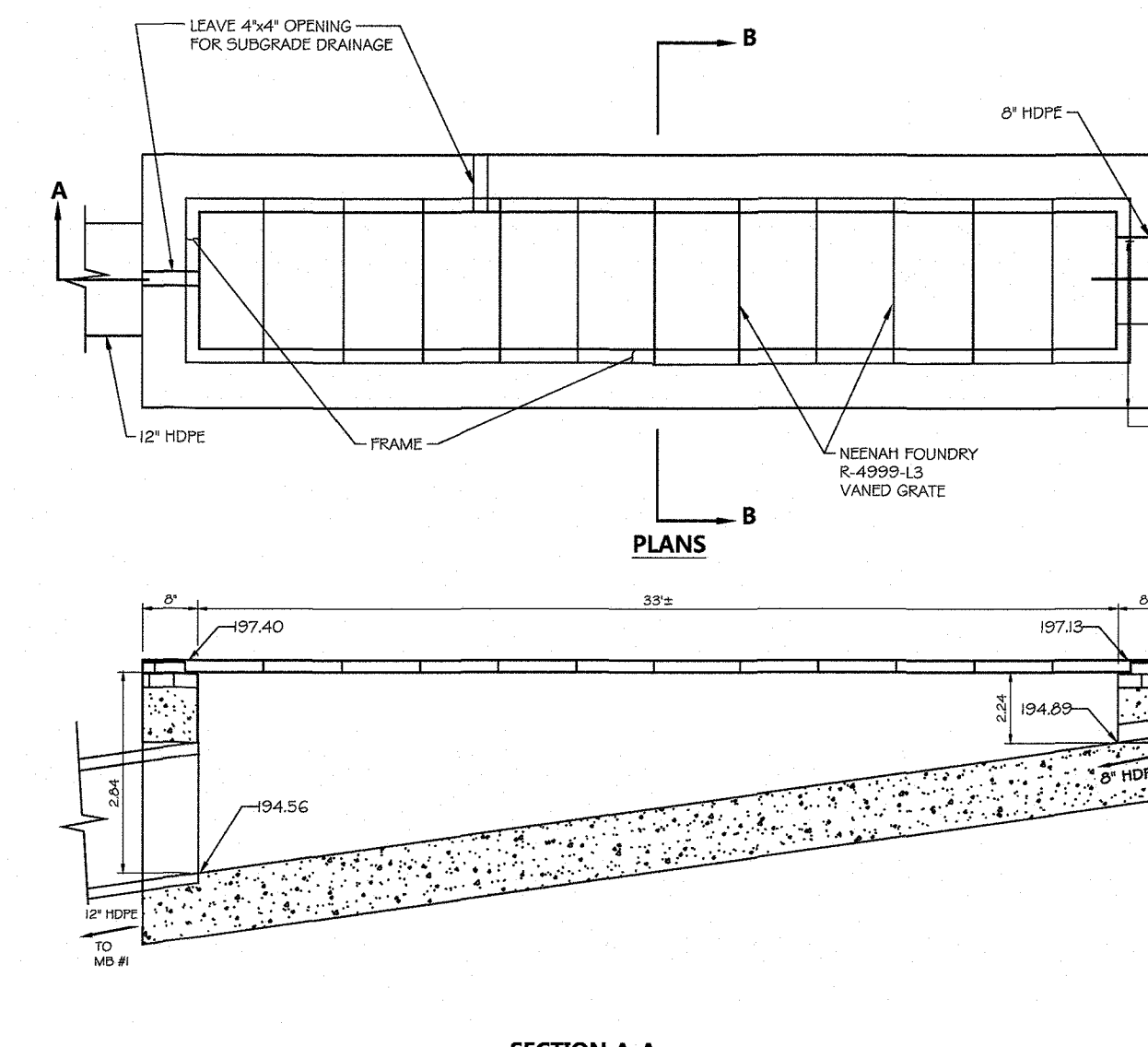
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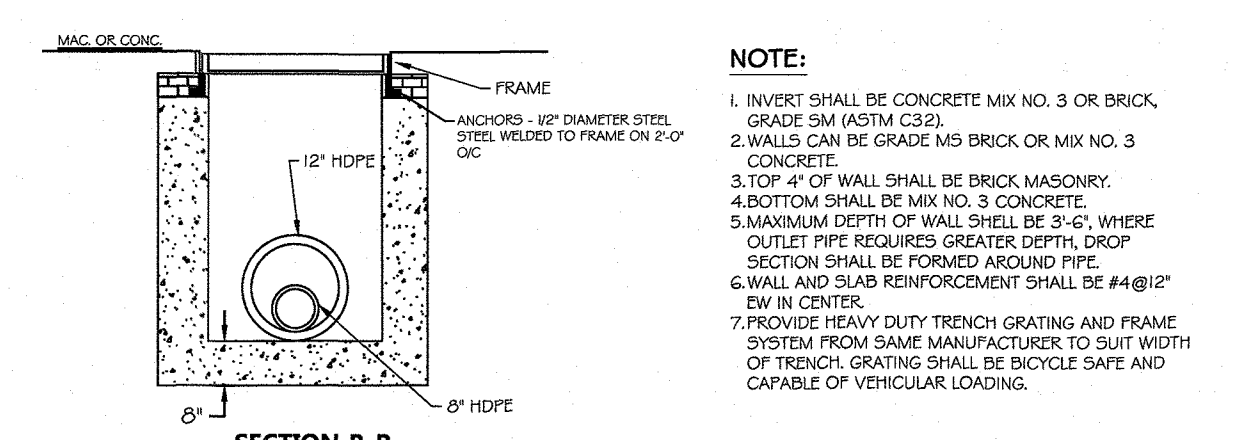
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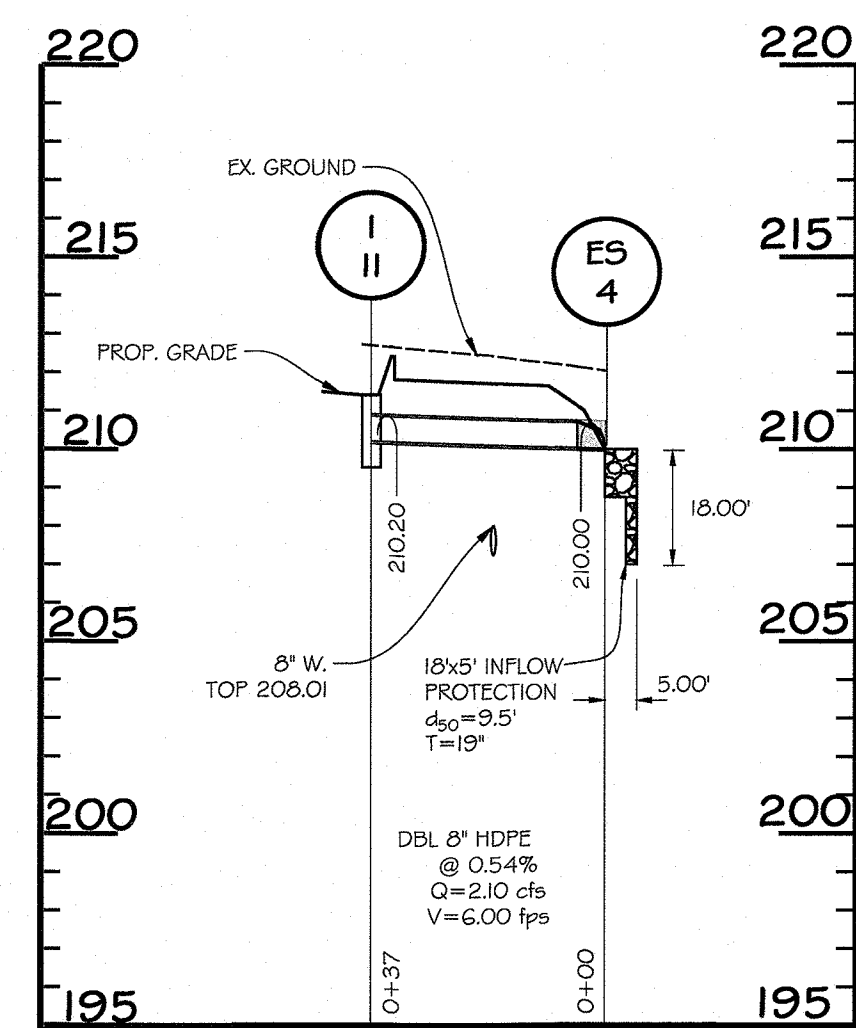
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SECTION A-A



TD5-TRENCH DRAIN DETAIL NTS

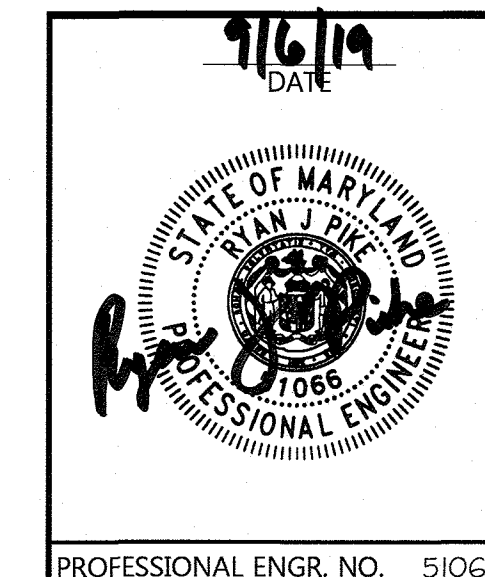


PROFILE
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VERT. 1"=5'

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 [Signature] 9-30-19
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 10-2-19
 CHIEF, DIVISION OF LAND DEVELOPMENT KB for TKM
 [Signature] 10-2-19
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 51066, EXPIRATION DATE: 06/07/2021.

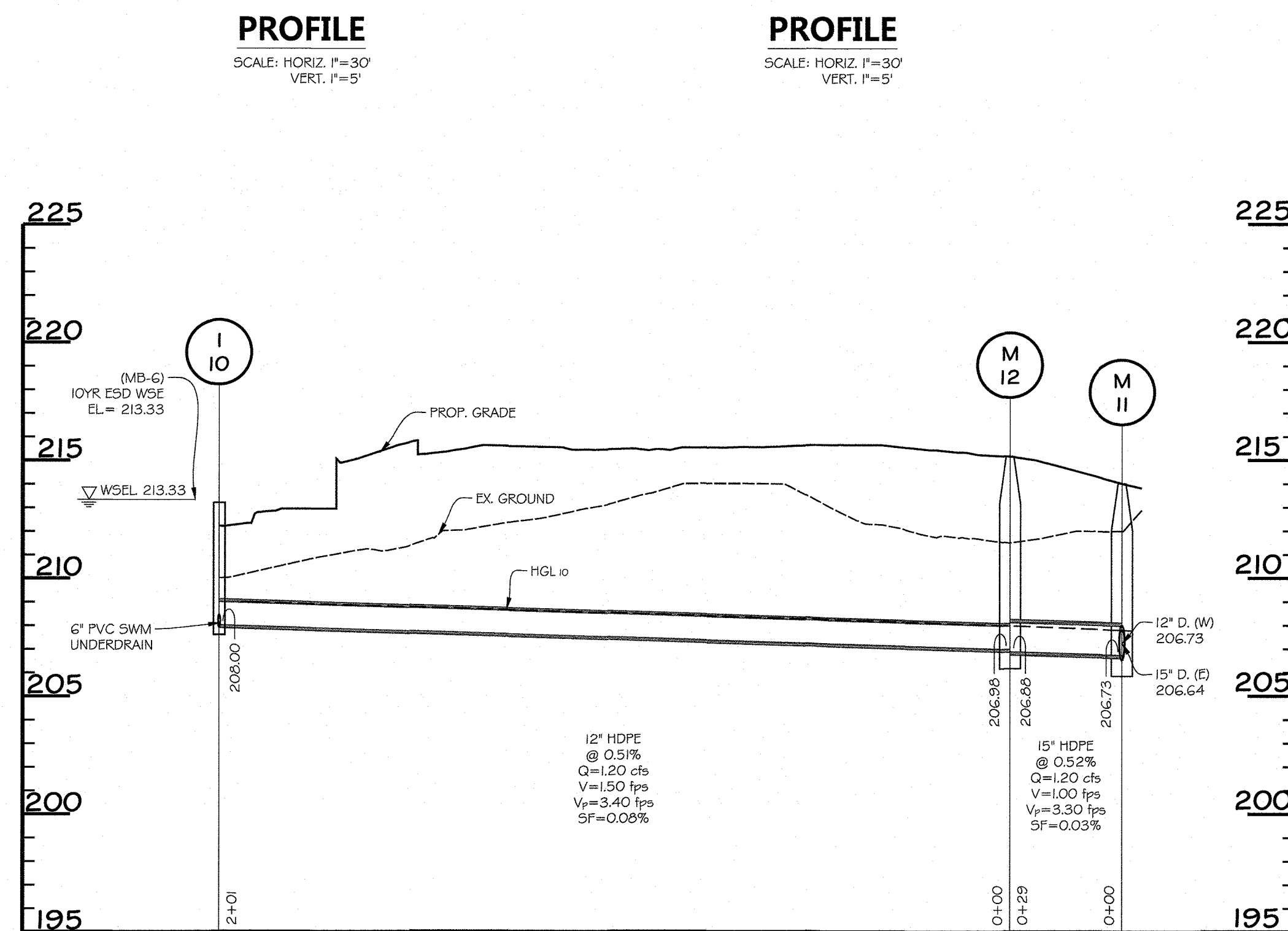
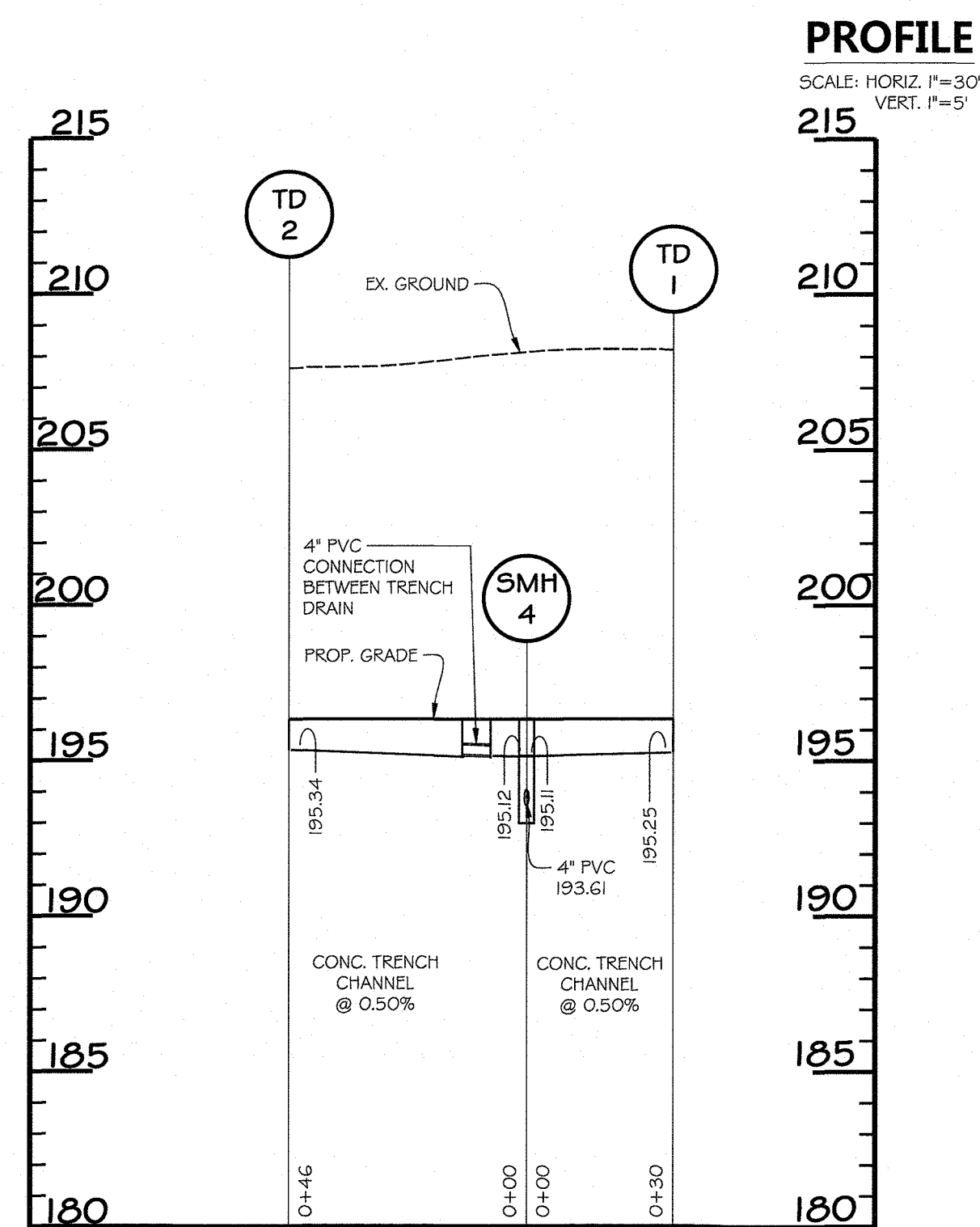
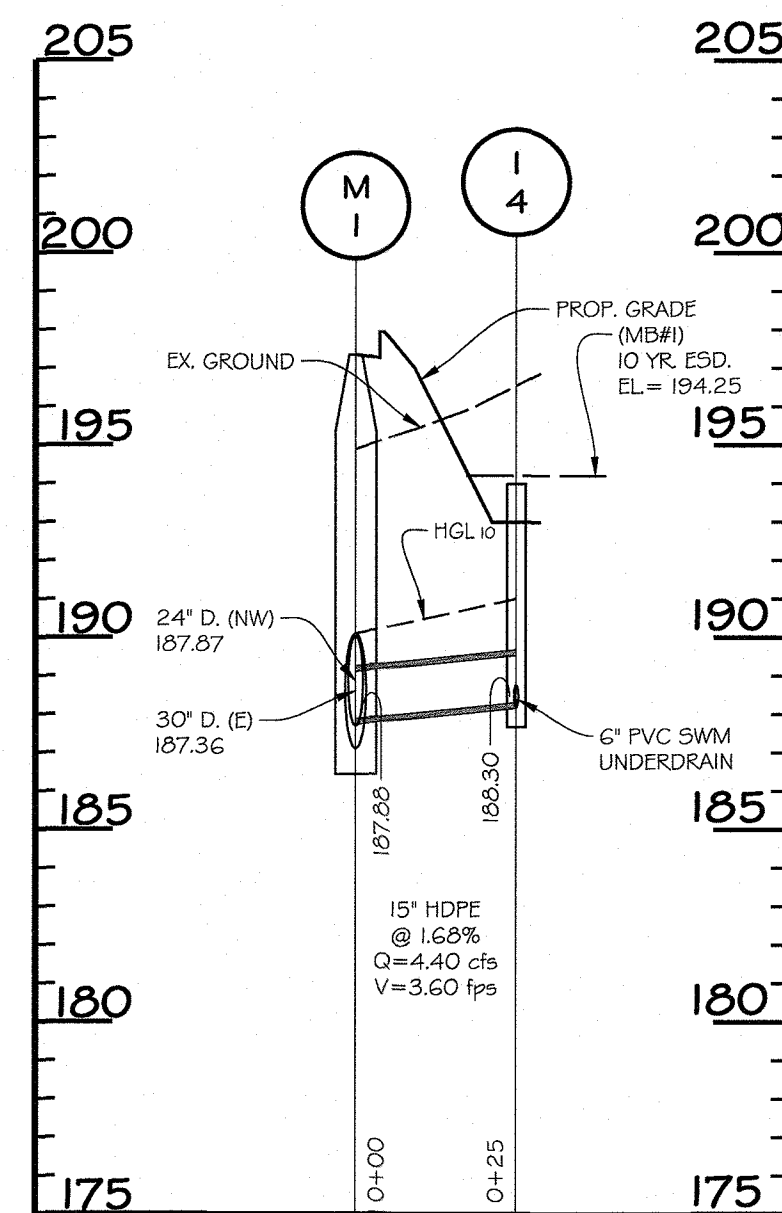
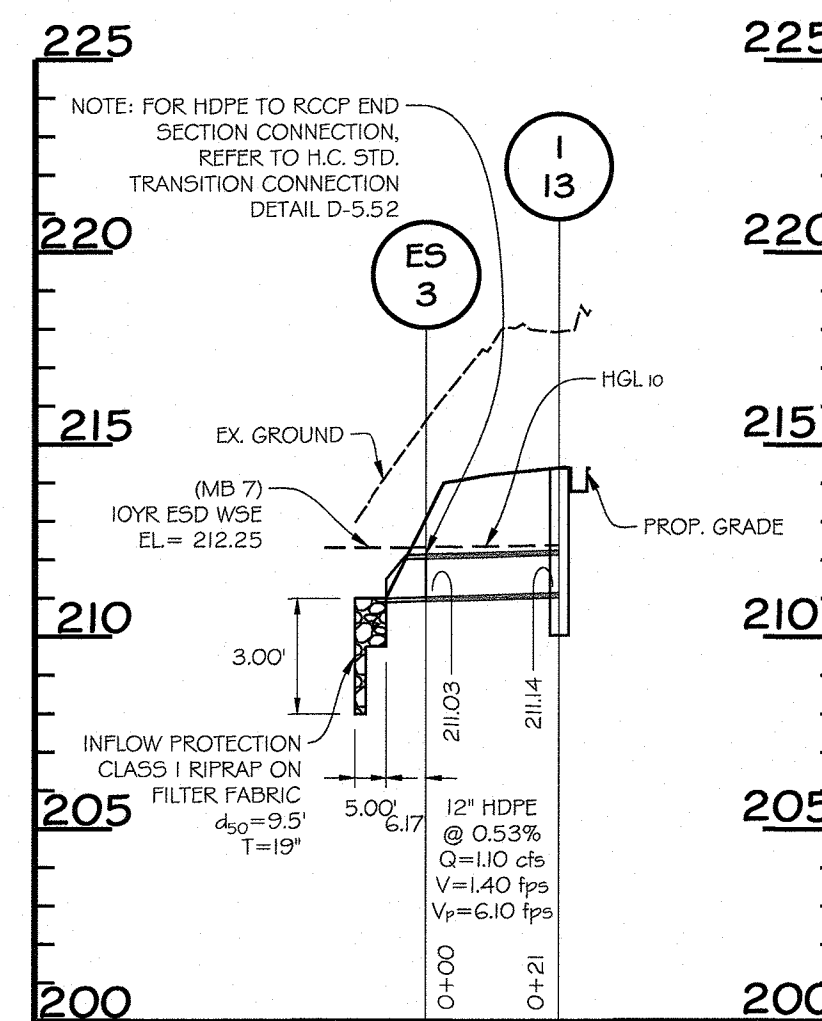
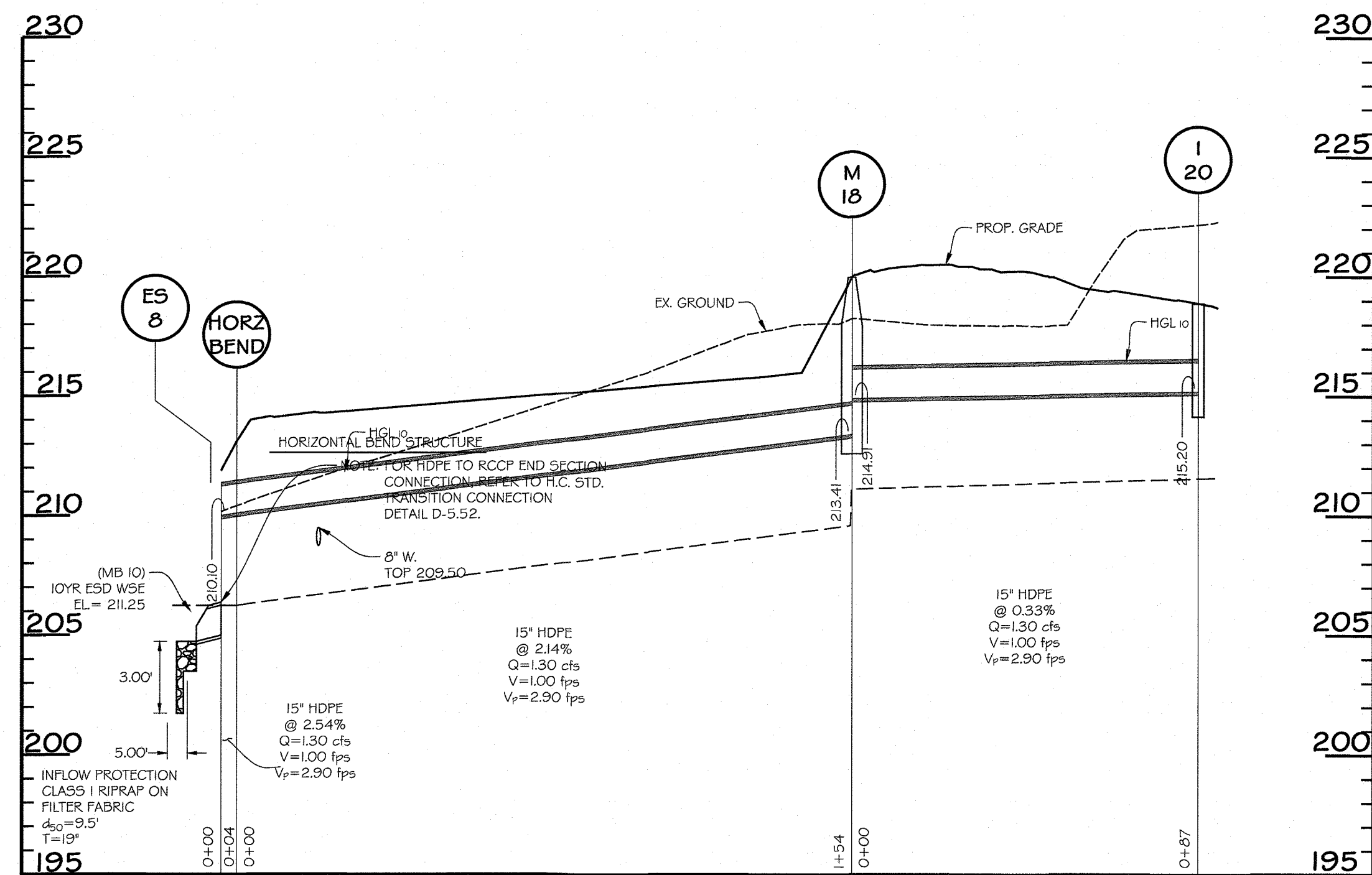


Date	No.	Revision Description
02-25-19	1	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC 4 UTILITY PLANS

SHEPPARD PRATT HEALTH SYSTEM ELKCRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY
 ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
 HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
 OWNER / DEVELOPER:
 SHEPPARD PRATT HEALTH SYSTEM INC.
 6501 N. CHARLES ST
 BALTIMORE, MD 21285-6815
 410-938-3242



501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM
SUBDIVISION NAME: GORHAM #3 BUSINESS PARK SECTION/VARIA: 756 (PARCEL 4B) LOT/PARCEL #
PLATE OR L.P.: 24679-24685 ZONE: M-1 TAX ZONE/MAP/GRID: 3716423 ELECT. DIST: 6012.03
WATER CODE: 5-02 SEWER CODE: 4020000 STAGE: 6012.03
TITLE: REPLACEMENT SHEET STORM DRAIN PROFILES - 3
Des. By: GDT/BLA/JPM SCALE: AS SHOWN Proj. No.: 10015.DD.
Drn. By: DP/BLA/JPM Date: 07/12/2016
Chk. By: GDT/MAP/L Approved: MCB/KMA 17 of 51

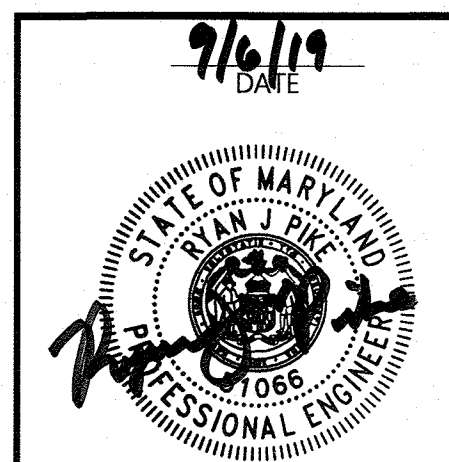



NOTE: WHERE HGL IS 2 FEET OR GREATER ABOVE THE CROWN OF PIPE, ALL PIPE JOINTS AND CONNECTIONS WITHIN THIS HGL RANGE SHALL HAVE A RUBBER GASKET.

PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=5'

PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=5'

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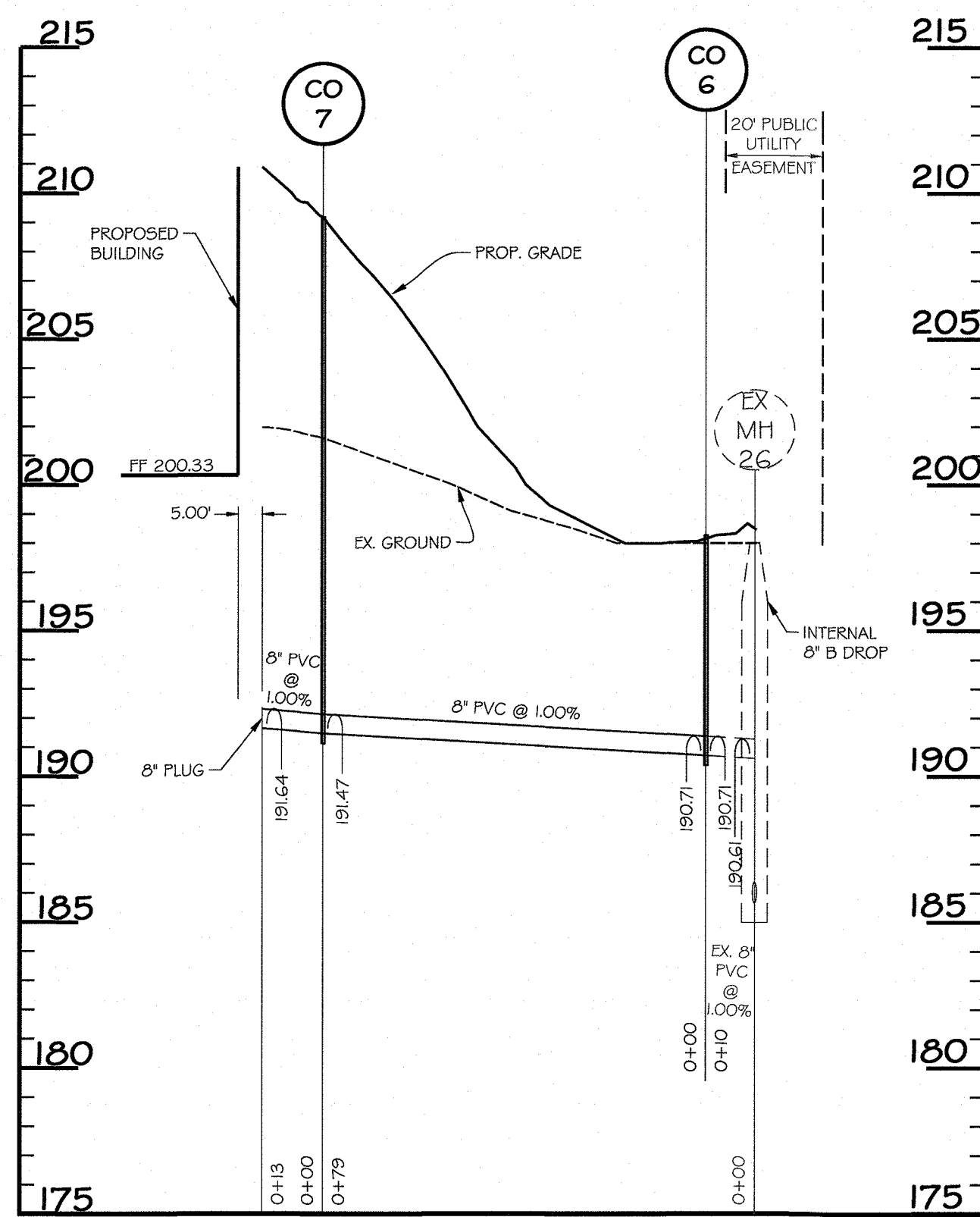
02-25-19	REDLINE REV. # - UPDATE SWM, SITE, GRADING, SEC # UTILITY PLANS	
Date	No. Revision Description	
SHEPPARD PRATT HEALTH SYSTEM ELKRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N. CHARLES ST BALTIMORE, MD 21285-6815 410-938-3242		
 DAFT MCCUNE WALKER INC		
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM		
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
24679-24685	M-1	756 (PARCEL 4B)
PLAT OR LOT	TAX ZONE/MAP/GRID	ELECT. DIST. CENSUS TRACT
24679-24685	M-1	3716423
WATER CODE	SEWER CODE	STAGE
8-02	4020000	6012.03
TITLE REPLACEMENT SHEET STORM DRAIN PROFILES - 4		
Des. By	SCALE	Proj. No.
DP/SLA/JPM	AS SHOWN	10015.D0
Drn. By	Date	
DP/SLA/JPM	07/12/2018	
Chk. By	Approved	
DP/SLA/JPM	MCR/KMA	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

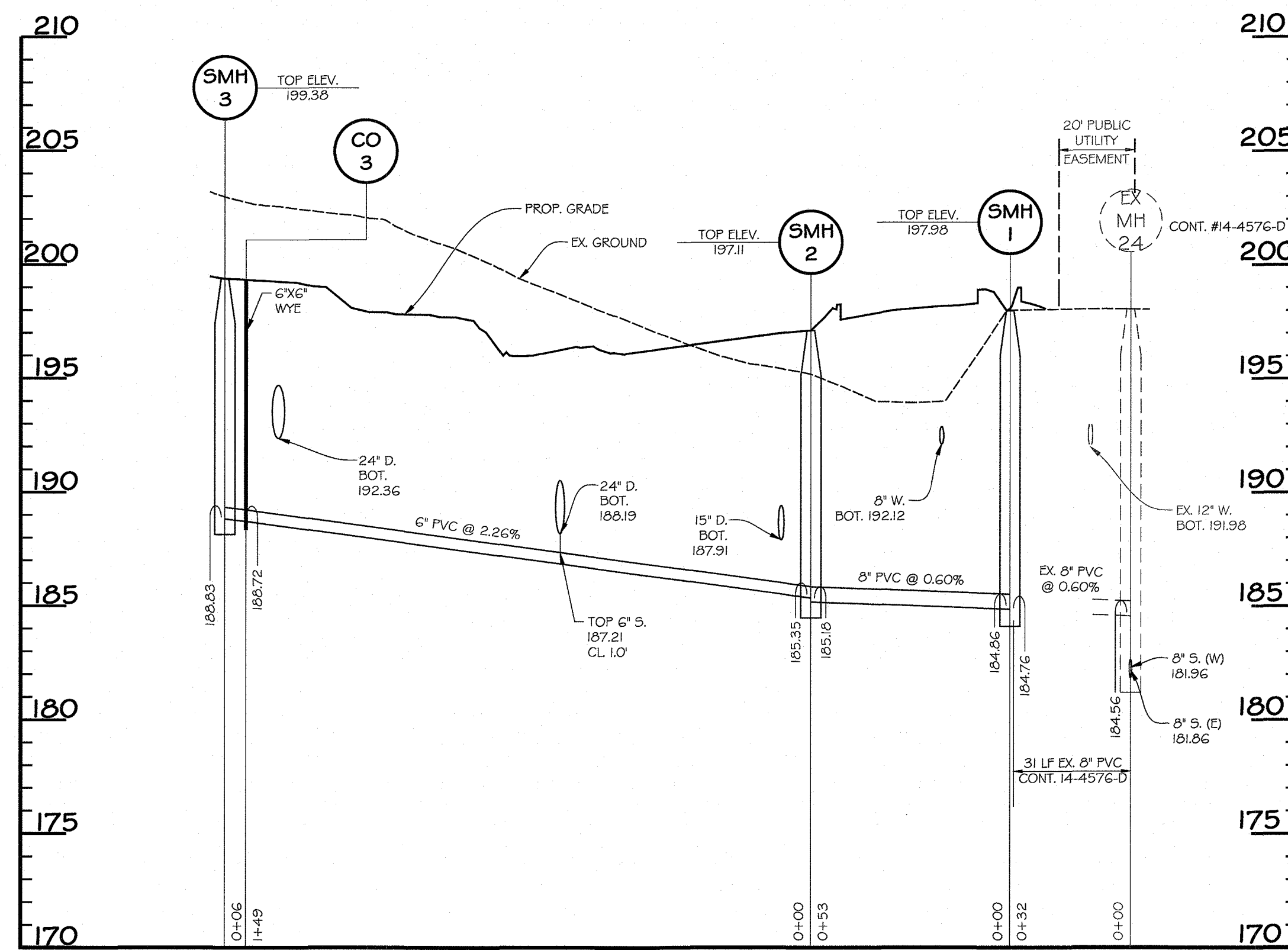
Howard County Seal
 CHIEF, DEVELOPMENT ENGINEERING DIVISION **9-30-19** DATE

Kent S. Walker
 CHIEF, DIVISION OF LAND DEVELOPMENT **10-2-19** DATE

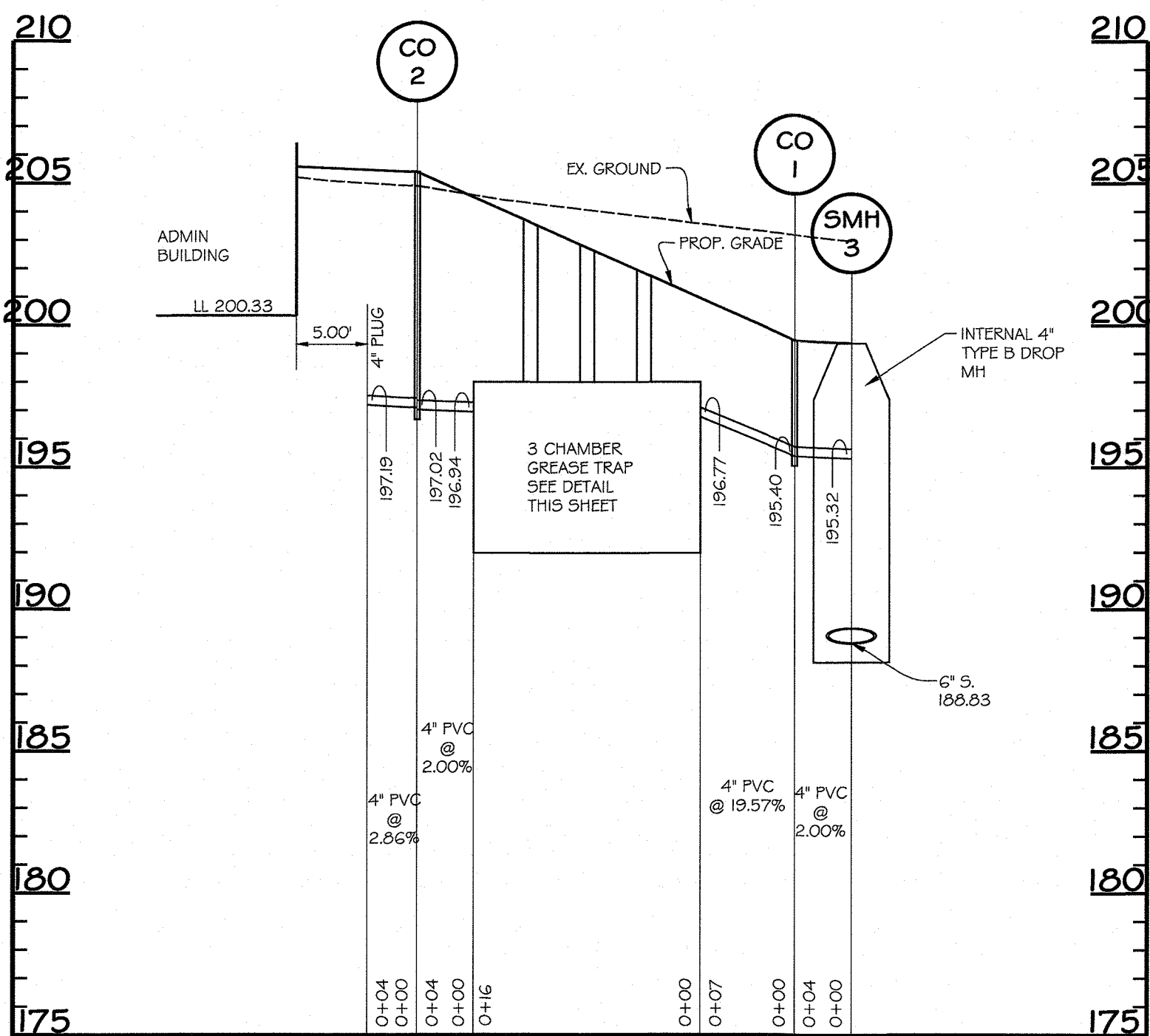
Valerie J. P...
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING **10-2-19** DATE



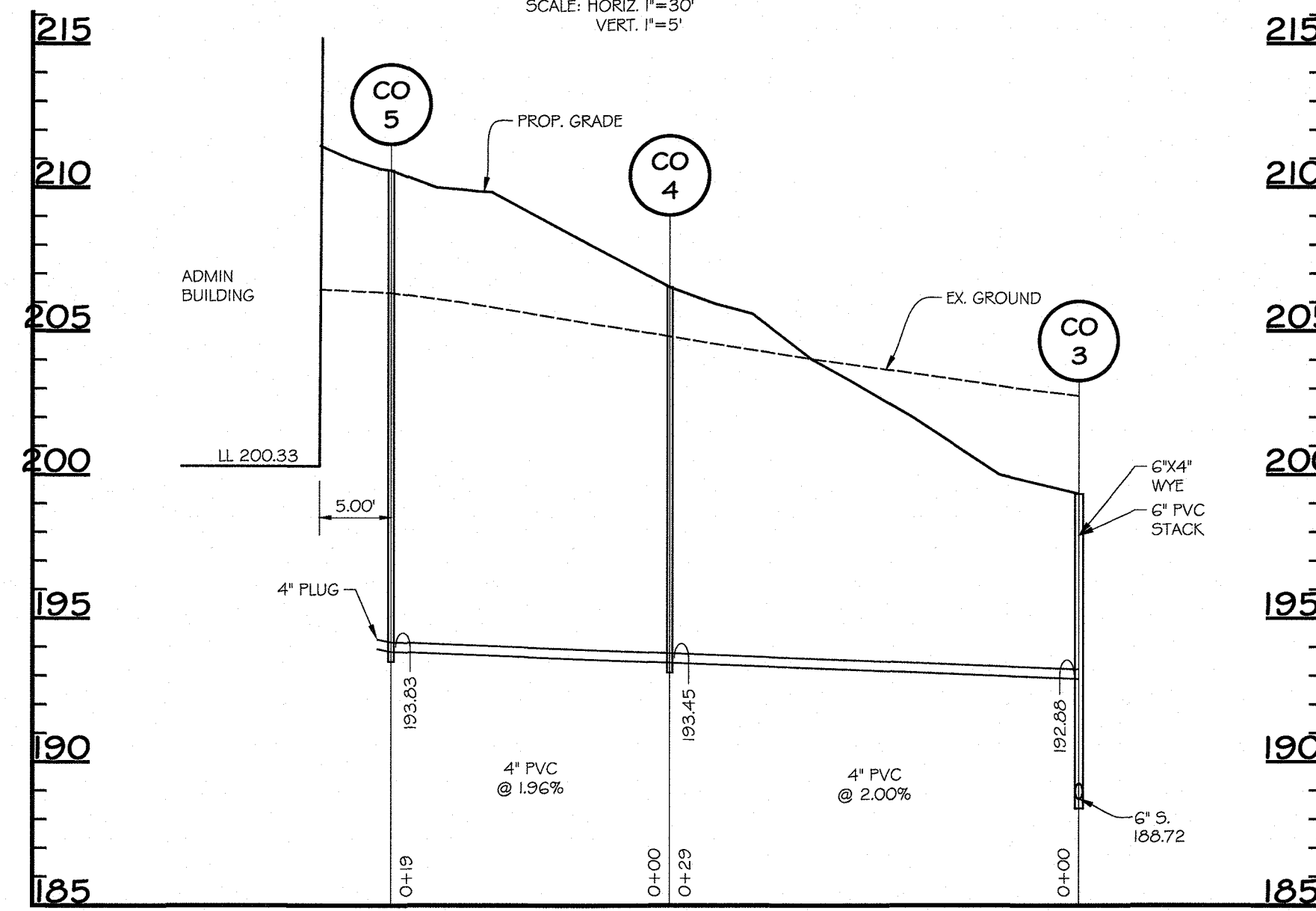
PRIVATE SANITARY PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=5'



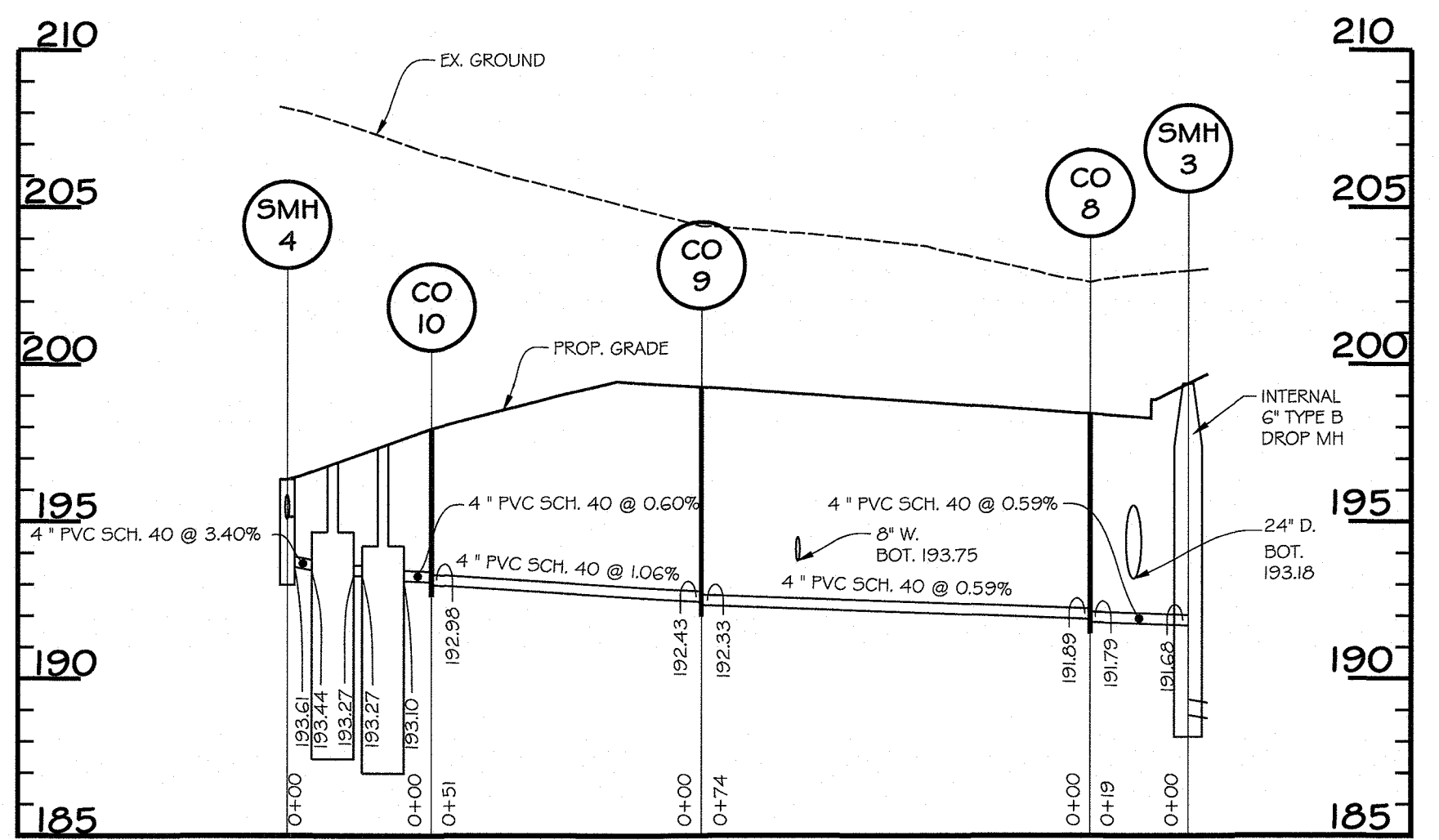
PRIVATE SANITARY PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=5'



PRIVATE SANITARY PROFILE
SCALE: HORIZ. 1"=10'
VERT. 1"=5'



PRIVATE SANITARY PROFILE
SCALE: HORIZ. 1"=10'
VERT. 1"=5'



PRIVATE SANITARY PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=5'

NOTES:

- FOR GRAVITY APPLICATIONS ONLY.
- ALL PROCEPTOR TANKS ARE MANUFACTURED WITH FIBROGLASS REINFORCED PLASTIC. PHYSICAL CHARACTERISTICS AND TENSILE STRENGTHS ARE LISTED IN THE PRODUCT LITERATURE.
- MINIMUM THICKNESS 1/4" WALL AND 3/8" TOP AND BOTTOM BOWLS.
- ALL PROCEPTOR TANKS ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- STANDARD 1500 GPM TANKS (UNLESS OTHERWISE SPECIFIED) SHALL BE 48" DIA. WITH 24" DIA. TANKS AVAILABLE ON REQUEST.
- EXTENSION COLLARS TO BE PROVIDED TO ALLOW FOR TANKS TO BE ADJUSTED TO THE EXISTING GRADE.
- CONNECTIONS TO EXISTING TANKS SHALL BE MADE BY CONTRACTOR FOR WATERPROOF SEAL.
- COVERS AVAILABLE FOR THE TANKS: CONCRETE, CAST IRON, OR STEEL. OTHER OPTIONS AVAILABLE ON REQUEST.
- COVERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- COVERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- COVERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

INSTALLATION: BURIED
ACCESSWAY SIZE: 24 INCHES

OPTIONS:

SECTION A-A

Proceptor ZURN

TITLE: PROCEPTOR TANK SEPARATORS
CNC 2600(2)

PROJECT: WO:

DATE: 07/12/2016

SCALE: 1"=10' SCALE DRAWING SHEET 1 OF 1

SEWER MANHOLE SCHEDULE

NO.	TYPE	SIZE	STD. NO.	INV. OUT	TOP ELEV.
SMH 1	PRECAST STANDARD MANHOLE	48"	G-5.12	184.76	197.98
SMH 2	PRECAST STANDARD MANHOLE	48"	G-5.12	185.18	197.11
SMH 3	PRECAST STANDARD MANHOLE	48"	G-5.12	188.83	199.36
SMH 4	MOD. STD. JUNCTION BOX	CUST.	D-4.14	193.61	196.33

SEWER CLEANOUT SCHEDULE

NO.	TYPE	SIZE	STD. NO.	INV. OUT	TOP ELEV.
CO 1	SEWER HOUSE CONNECTION - CLEANOUT	4"	S-2.22	195.40	199.48
CO 2	SEWER HOUSE CONNECTION - CLEANOUT	4"	S-2.22	197.02	205.39
CO 3	SEWER HOUSE CONNECTION - CLEANOUT	6"	S-2.22	188.72	199.33
CO 4	SEWER HOUSE CONNECTION - CLEANOUT	4"	S-2.22	193.45	206.52
CO 5	SEWER HOUSE CONNECTION - CLEANOUT	4"	S-2.22	193.83	210.59
CO 6	SEWER HOUSE CONNECTION - CLEANOUT	8"	S-2.22	190.71	198.27
CO 7	SEWER HOUSE CONNECTION - CLEANOUT	8"	S-2.22	191.47	209.18
CO 8	SEWER HOUSE CONNECTION - CLEANOUT	6"	S-2.22	191.79	198.43
CO 9	SEWER HOUSE CONNECTION - CLEANOUT	6"	S-2.22	192.33	199.27
CO 10	SEWER HOUSE CONNECTION - CLEANOUT	6"	S-2.22	192.98	197.94

NOTES:

- CONCRETE TO BE 28 DAY COMPRESSIVE STRENGTH TO 4000 PSI.
- GRADE 60 STEEL PER ASTM A615.
- CONNECTED WITH WIRE.
- REBAR TO BE 2" FROM FACE OF CONCRETE.
- REBAR SPACING 12" GRID, 4" SPACING AROUND ACCESS OPENINGS.
- ALL PENETRATIONS TO BE SLEEVED OR HAVE SLIP CONNECTIONS.
- MINIMUM 18" FROM TOP OF SLAB TO TOP OF TANK.
- EXTEND COMPACTED BACKFILL A MINIMUM 3 FT. BEYOND ALL SIDES OF TANK.

2 1/2" MIN. FROM BAR TO FACE OF CONCRETE

266" ± DISTANCE BETWEEN TANKS (A)

12" TYP.

REBAR

REINFORCED CONCRETE SLAB

TANKS 2 x 62" x 96"

ACCESSWAYS (ONE PER TANK)

4 1/2" REBAR

CAST IRON FRAMES AND COVERS (2)

CLEANOUT CAPS (4)

FINISHED GRADE

BACKFILL

EXTENSION COLLARS (2) MADE TO TANKS

DETAIL "A"

1" GAP CAST IRON FRAME AND CENTERED OVER COLLAR

WATERTIGHT SEAL WITH SIKAFLEX CAULK

TANK MODELS

- GMC/OMC 1000(2)
- GMC/OMC 1500(2)
- GMC/OMC 2000
- GMC/OMC 2600
- GMC/OMC 3000

greenturtle

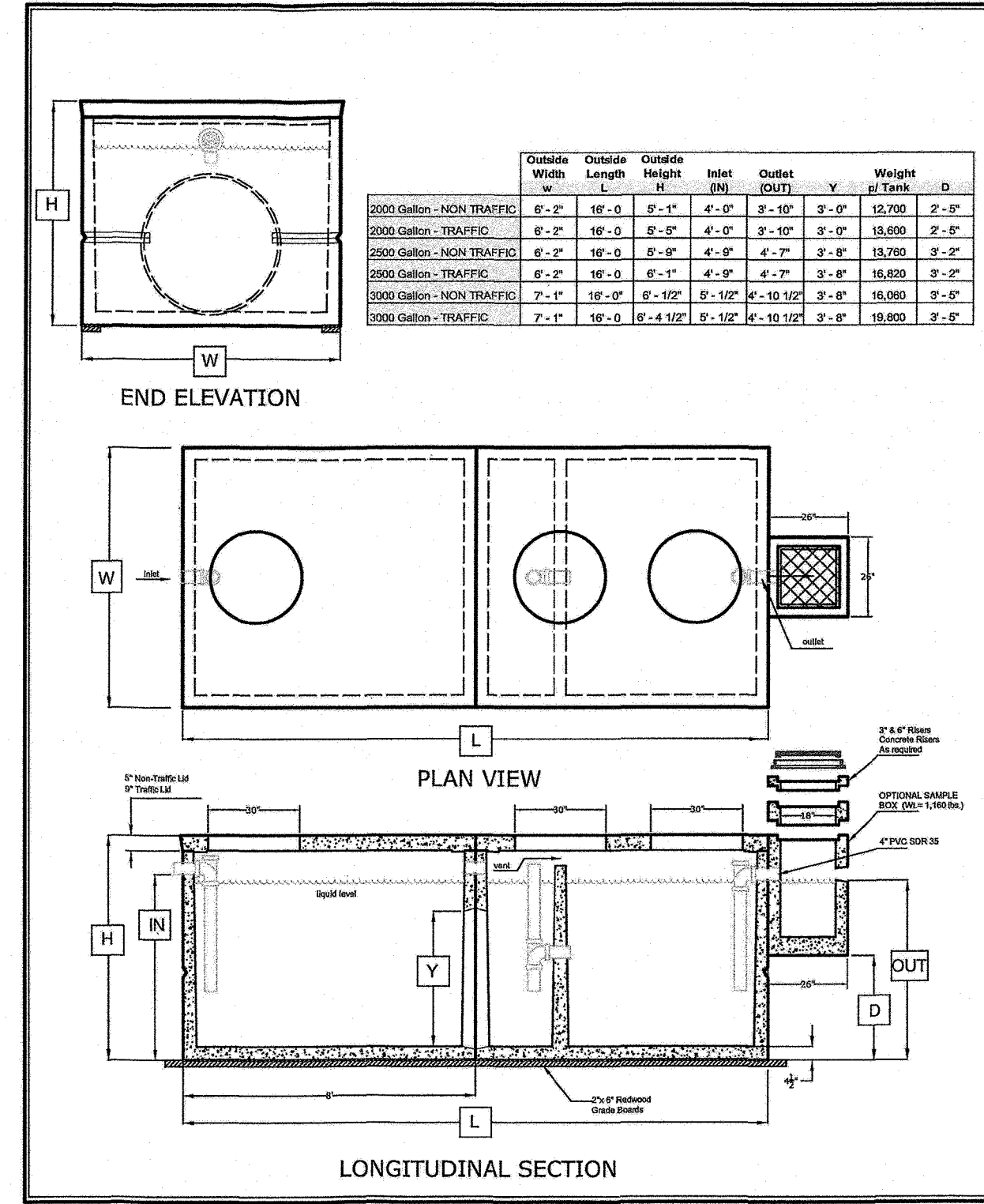
US 877 438 8187 CAN 877 866 8444
www.greenturtletech.com

TITLE: H20 TRAFFIC LOADING SLAB FOR DUAL ELLIPTICAL TANKS
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

PROJECT: WO:

DATE: 07/12/2016

SCALE: 1"=10' SCALE DRAWING SHEET 2 OF 2



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9/6/19
DATE

STATE OF MARYLAND
PROFESSIONAL ENGINEER

51066

02-25-19
Date No. Revision Description

SHEPPARD PRATT HEALTH SYSTEM ELKRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY

ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE

OWNER / DEVELOPER:
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BALTIMORE, MD 21285-6815
410-938-3242

DW
DAFT MCCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME: GORDON ST BUSINESS PARK SECTION/AREA: 756 (PARCEL A-B)
PLAT# OR L.P.: 24679-24605 ZONE: M-1 TAX ZONE/MAP/GRID: 3716423 ELECT. DIST./CENSUS TRACT: 6012.03
WATER CODE: SEWER CODE: 4020000 STAGE: G012.03

TITLE: REPLACEMENT SHEET PRIVATE UTILITY PROFILES

Des. By: GDT/LAJ/PM SCALE: AS SHOWN Proj. No.: 10015.DD
Dwn. By: DP/LAJ/PM Date: 07/12/2016
Chk. By: GDT/KM/PLH Approved: MCB/KMA

PROFESSIONAL ENGR. NO. 51066

19 of 51

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Howard County Seal

9-30-19 DATE

10-2-19 DATE

10-2-19 DATE

2000, 2500, & 3000 gal GREASE INTERCEPTORS

CONCRETE PRODUCTS

ESD (M-6) Treatment Summary

Facility: MB #1	Drainage Area 'A' =	34,777 s.f. Provided
	ESDv =	1,786 c.f. Provided
	Impervious Area Treated =	18,799 s.f. Provided
Facility: MB #2	Drainage Area 'B' =	35,087 s.f. Provided
	ESDv =	2,215 c.f. Provided
	Impervious Area Treated =	26,717 s.f. Provided
Facility: MB #3	Drainage Area 'C' =	16,567 s.f. Provided
	ESDv =	1,105 c.f. Provided
	Impervious Area Treated =	12,099 s.f. Provided
Facility: MB #4	Drainage Area 'D' =	19,937 s.f. Provided
	ESDv =	1,533 c.f. Provided
	Impervious Area Treated =	15,873 s.f. Provided
Facility: MB #5	Drainage Area 'E' =	24,656 s.f. Provided
	ESDv =	2,799 c.f. Provided
	Impervious Area Treated =	14,932 s.f. Provided
Facility: MB #6	Drainage Area 'F' =	7,656 s.f. Provided
	ESDv =	760 c.f. Provided
	Impervious Area Treated =	7,115 s.f. Provided
Facility: MB #7	Drainage Area 'G' =	23,602 s.f. Provided
	ESDv =	1,796 c.f. Provided
	Impervious Area Treated =	14,755 s.f. Provided
Facility: MB #8	Drainage Area 'H' =	25,289 s.f. Provided
	ESDv =	1,746 c.f. Provided
	Impervious Area Treated =	10,466 s.f. Provided
Facility: MB #9	Drainage Area 'I' =	25,523 s.f. Provided
	ESDv =	802 c.f. Provided
	Impervious Area Treated =	3,626 s.f. Provided
Facility: MB #11	Drainage Area 'K' =	12,156 s.f. Provided
	ESDv =	1,559 c.f. Provided
	Impervious Area Treated =	10,556 s.f. Provided
Facility: MB #12	Drainage Area 'L' =	29,337 s.f. Provided
	ESDv =	2,536 c.f. Provided
	Impervious Area Treated =	23,056 s.f. Provided
Facility: MB #13	Drainage Area 'M' =	25,760 s.f. Provided
	ESDv =	1,659 c.f. Provided
	Impervious Area Treated =	19,653 s.f. Provided
Facility: MB #14	Drainage Area 'N' =	21,210 s.f. Provided
	ESDv =	1,032 c.f. Provided
	Impervious Area Treated =	12,520 s.f. Provided
Facility: MB #15	Drainage Area 'O' =	25,216 s.f. Provided
	ESDv =	2,437 c.f. Provided
	Impervious Area Treated =	18,754 s.f. Provided
Facility: MB #16	Drainage Area 'P' =	19,825 s.f. Provided
	ESDv =	1,407 c.f. Provided
	Impervious Area Treated =	16,089 s.f. Provided
Total M-6 Drainage Area = 347,198 s.f. Provided		
Total M-6 ESDv = 25,173 c.f. Provided		
Total M-6 Impervious Area Treated = 225,214 s.f. Provided		
Total M-6 ESDv = 11,059 c.f. Provided		
Facility: UGV#1 - Underground WQV Vault #4 CPV Extended Detention	Drainage Area 'R' =	31,206 s.f. Provided
	ESDv =	1,690 c.f. Provided
	Impervious Area Treated =	20,748 s.f. Provided
	CPV =	6,654 c.f. Provided
Facility: UGV#2 - Underground WQV Vault	Drainage Area 'Q' =	12,252 s.f. Provided
	ESDv =	704 c.f. Provided
	Impervious Area Treated =	6,678 s.f. Provided
Total Underground Drainage Area = 43,460 s.f. Provided		
Total Underground ESDv = 2,394 c.f. Provided		
Total Underground Impervious Area Treated = 29,426 s.f. Provided		
Total Underground CPV = 11,059 c.f. Provided		
Unified Stormwater Sizing Criteria		
Sizing Criteria	Required	Provided
Water Quality Volume (WQV) (cft)		
Recharge Volume (ReV) (cft)	37,903	36,626
Channel Protection Volume (CpV)		
Overbank Flood Protection Volume (Op)	NA	NA
Extreme Flood Volume (Ef)	NA	NA

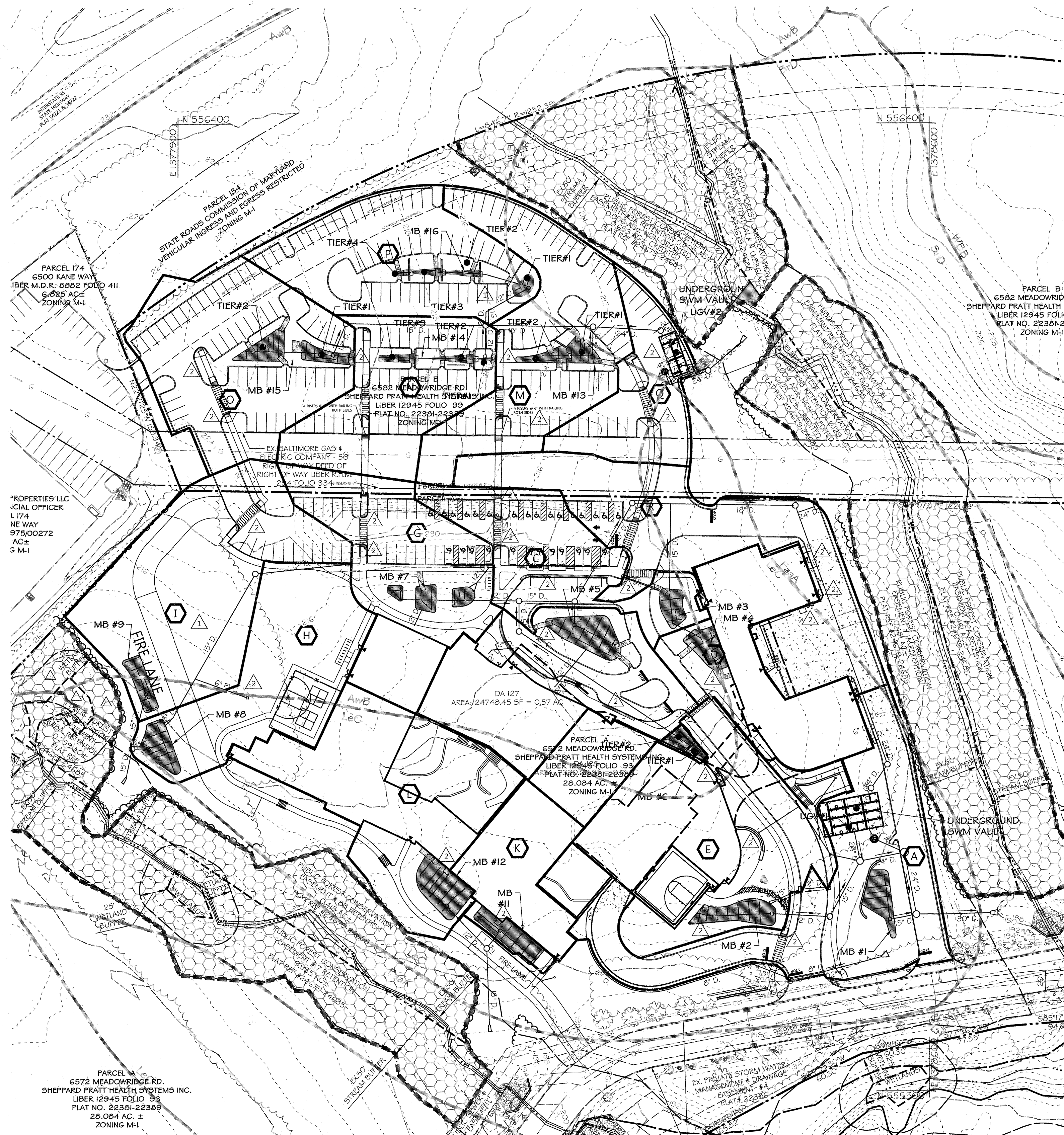
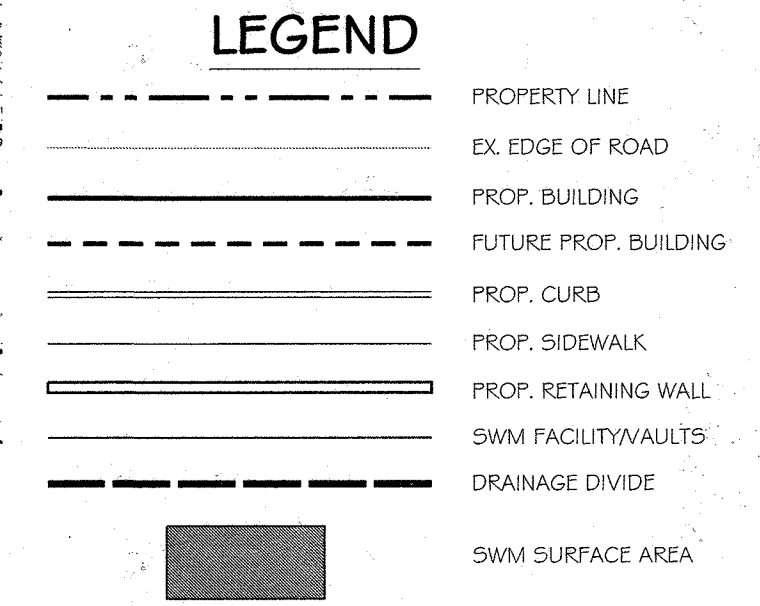


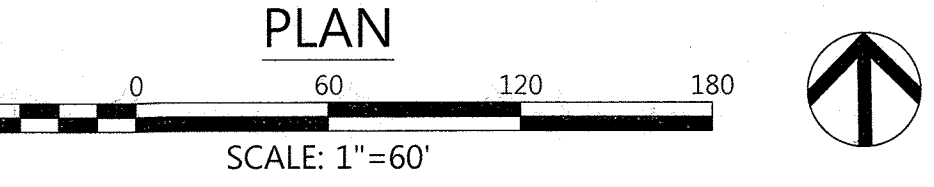
TABLE B.4.1 MATERIALS SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDENS & LANDSCAPE INFILTRATION

MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE APPENDIX A, TABLE A.4	N/A	PLANTINGS ARE SITE-SPECIFIC
PLANTING SOIL [2' TO 4' DEEP]	LOAMY SAND (60 - 65%) & COMPOST (35 - 40%) OR SANDY LOAM (30%), COARSE SAND (30%) & COMPOST (40%)	N/A	
ORGANIC CONTENT	MIN. 10% BY DRY WEIGHT (ASTM D 2974)		
MULCH	SHREDDED HARDWOOD		AGED 6 MONTHS, MINIMUM; NO PINE OR WOOD CHIPS
PEA GRAVEL DIAPHRAGM	PEA GRAVEL: ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
CURTAIN DRAIN	ORNAMENTAL STONE: WASHED COBBLES	STONE: 2" TO 5"	
GEOTEXTILE		N/A	PE TYPE 1 NONWOVEN
GRAVEL (UNDERDRAINS AND INFILTRATION BERMS)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" TO 3/4")	
UNDERDRAIN PIPING	F 758, TYPE PS 28 OR AASHTO M-278	4" TO 8" RIGID SCHEDULE 40 PVC OR SDR35	SLOTTED OR PERFORATED PIPE: 3/8" PERF. @ 6" ON CENTER, 4 HOLES PER ROW; MINIMUM OF 3" OF GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES. PERFORATED PIPE SHALL BE WRAPPED WITH 1/4-INCH GALVANIZED HARDWARE CLOTH
POURED IN PLACE CONCRETE (IF REQUIRED)	MSHA MIX NO. 3; F'c = 3500 PSI @ 28 DAYS, NORMAL WEIGHT, AIR-ENTRAINED; REINFORCING TO MEET ASTM-615-60	N/A	ON-SITE TESTING OF POURED-IN-PLACE CONCRETE REQUIRED: 28 DAY STRENGTH AND SLUMP TEST; ALL CONCRETE DESIGN (CAST-IN-PLACE OR PRE-CAST) NOT USING PREVIOUSLY APPROVED STATE OR LOCAL STANDARDS REQUIRES DESIGN DRAWINGS SEALED AND APPROVED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MARYLAND - DESIGN TO INCLUDE MEETING ACI CODE 350.8/89: VERTICAL LOADING (H-10 OR H-20); ALLOWABLE HORIZONTAL LOADING (BASED ON SOIL PRESSURES); AND ANALYSIS OF POTENTIAL CRACKING
SAND	AASHTO-M-6 OR ASTM-C-33	0.02" TO 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE (AASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATE OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND.



(M-6) MICRO-BIORETENTION SEQUENCE OF CONSTRUCTION

- ONCE CONTRIBUTING DRAINAGE AREAS TO FACILITIES HAVE BEEN STABILIZED, EXCAVATE TO SUB-GRADE. SPECIAL CARE SHOULD BE TAKEN NOT TO DAMAGE THE NEWLY CONSTRUCTED STORM DRAIN OVERFLOW INLET AND ASSOCIATED OUTFALL PIPES. INSTALL PE TYPE 1 NON WOVEN TEXTILE ON SIDES ONLY OF EXCAVATION PRIOR TO THE INSTALLATION OF (M-6) MATERIALS.
- ONCE VERIFIED SUB-GRADES HAVE BEEN ESTABLISHED, PLACE REQUIRED DEPTH OF GRAVEL JACKET OF NO. 57 OR NO. 6 AGGREGATE IN BOTTOM OF EXCAVATION UP TO INVERT OF UNDERDRAIN & OVERFLOW PIPES.
- INSTALL UNDERDRAIN COLLECTION SYSTEM TO THE PRESCRIBED INVERT ELEVATION AND CONNECT TO OVERFLOW INLET AS DESIGNED.
- PLACE REMAINDER (7") OF THE 9" GRAVEL JACKET. CHECK FOR LEVELNESS.
- PLACE 3" PEA GRAVEL LAYER OVER GRAVEL JACKET.
- BACKFILL TOPSOIL FILTER MEDIA (TOTAL 24") IN LIFTS OF 12" TO 18". DO NOT COMPACT. INSTALL LANDSCAPE PLANTINGS.
- INSTALL RIP RAP INFLOW PROTECTION AT ALL CURB OPENING INFLOW POINTS.
- INSTALL (M-6) PLANTINGS. REFER TO APPROVED LANDSCAPE PLANS FOR (M-6) PLANTING SECTIONS.
- SEED OR SOD 3:1 SIDE SLOPES. ADD 3" MULCH LAYER.



MAINTENANCE CRITERIA

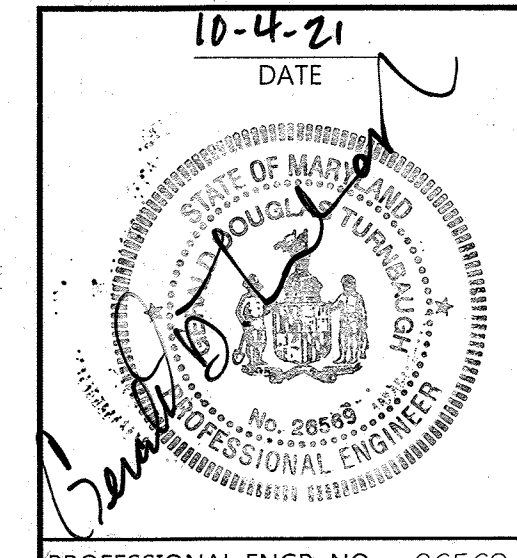
- PERIODICALLY REMOVE TRASH & DEBRIS AS IT ACCUMULATES.
- REMOVE AND REPLACE TOP FEW INCHES OF FILTER MEDIA WHEN WATER PONDS FOR MORE THAN 48 HOURS.
- PRUNE AND REPLACE DEAD VEGETATION AS NECESSARY.
- WATER VEGETATION DURING DRY PERIODS.

OPERATION AND MAINTENANCE SCHEDULE

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

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26569, EXPIRATION DATE: 07/18/2023.



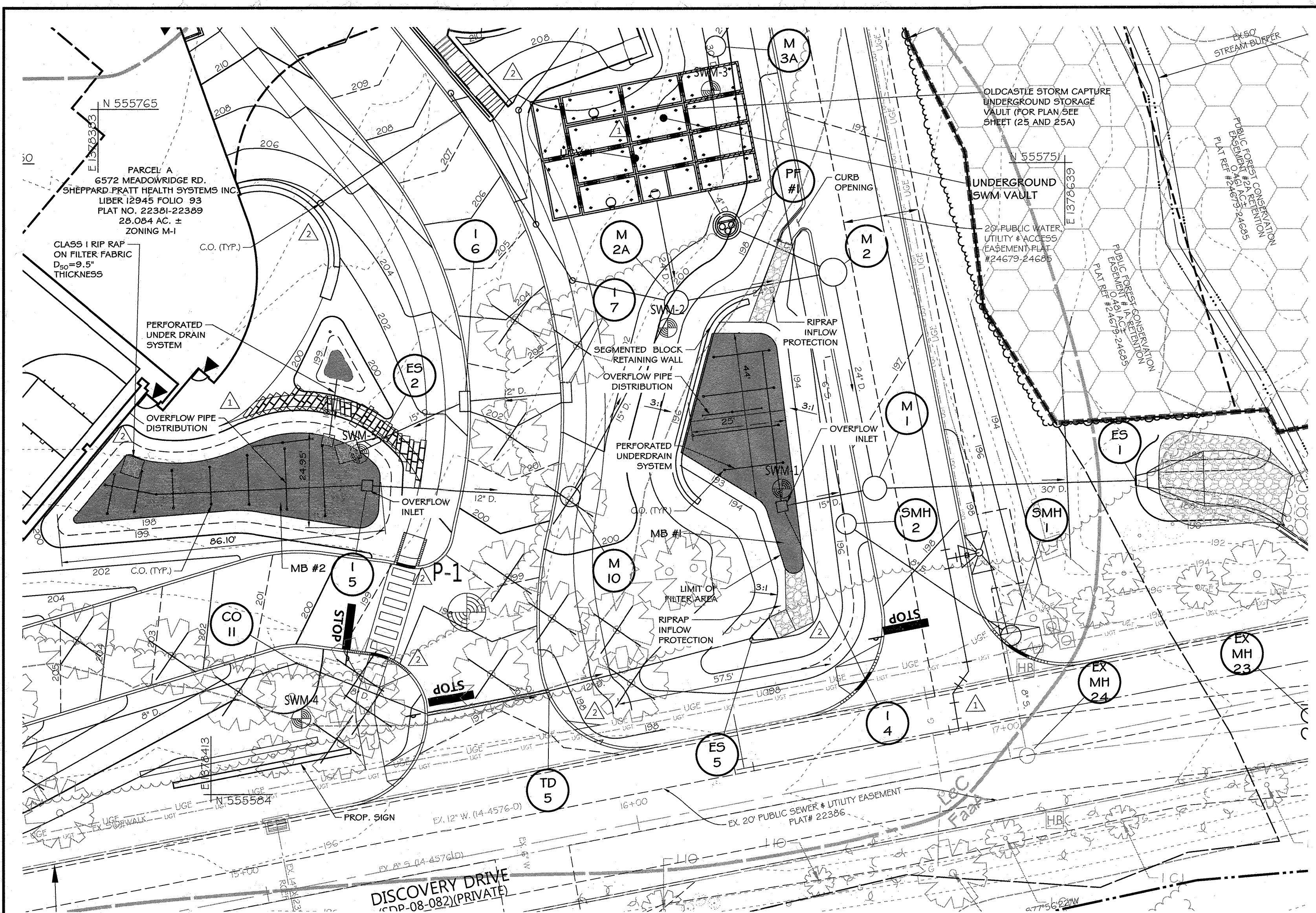
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 [Signature] 1/23/21 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 12/10/21 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 12-10-21 DATE
 DIRECTOR

08-16-21 RR#2 - UPDATE SITE FEATURES AND ADD DEWATERING PIPE
 02-25-19 REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC # UTILITY PLANS
 Date No. Revision Description

**SHEPPARD PRATT HEALTH SYSTEM
 ELKBRIDGE CAMPUS
 BEHAVIORAL HEALTH FACILITY**
 ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
 HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
 OWNER / DEVELOPER:
 SHEPPARD PRATT HEALTH SYSTEM INC.
 6501 N. CHARLES ST.
 BALTIMORE, MD 21285-6815
 410-938-3242

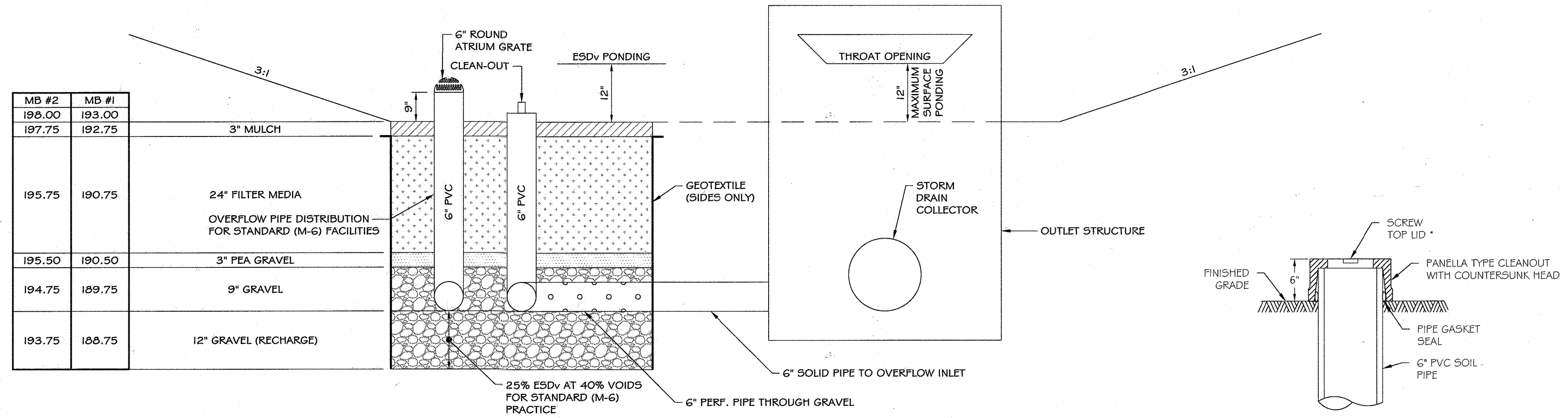
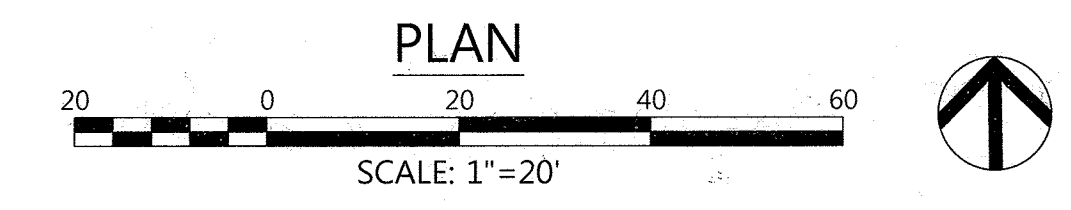


501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM
SUBDIVISION NAME: CORRIDOR 95 BUSINESS PARK SECTION/AREA: 75G (PARCEL 4A8) PLAT OR L.P. NO.: 24679-24605 ZONE: M-1 TAX ZONE/APP/GRID: ELECT. DIST. CENSUS TRACT: 6012.03 WATER CODE: B-02 SEWER CODE: 4020000 STAGE: 6012.03
TITLE: REVISED SITE DEVELOPMENT PLAN STORMWATER MANAGEMENT DRAINAGE AREA MAP
Des. By: GDT/SLAJ/PM SCALE: AS SHOWN Proj. No.: 10015.00 Dwn. By: DPS/SLAJ/PM Date: 08/16/2021 Chk. By: GDT/MAP/PLH Approved: MCB/MMA

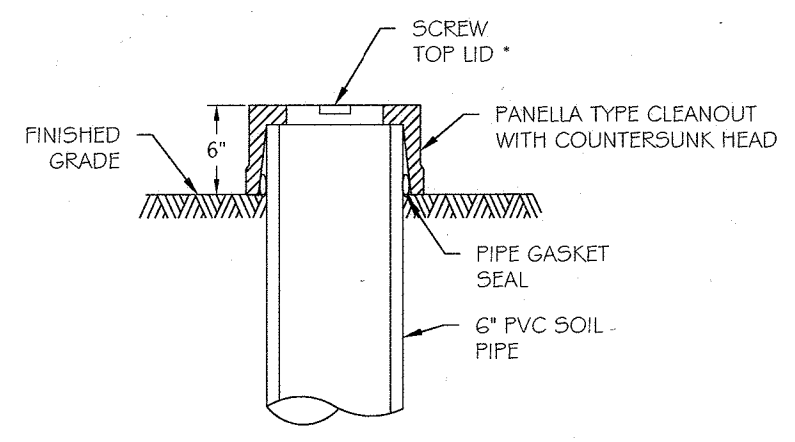


LEGEND

	PROPERTY LINE
	EX CONTOURS
	EX EDGE OF ROAD
	EX GAS
	EX WATER
	EX SEWER
	EX STORM DRAIN
	EX TREE LINE
	SOILS
	EX EASEMENT
	EX STREAM
	EX WETLANDS BUFFER
	EX WETLANDS
	EX STREAM BUFFER
	EX FLOODPLAIN
	PROP. EASEMENT
	PROP. CONTOURS
	PROP. WATER
	PROP. SEWER
	PROP. STORM DRAIN
	PROP. BUILDING
	PROP. BUILDING OVERHEAD
	FUTURE BUILDING EXPANSION
	PROP. UNDERGROUND TUNNEL
	PROP. CURB
	PROP. ROLLED CURB
	PROP. SIDEWALK
	PROP. RETAINING WALL
	PROP. FIRE LANE
	PROP. TREE LINE
	FOREST CONSERVATION BUFFER
	(M-6) MICRO-BIORETENTION FACILITY SURFACE AREA
	STORMWATER MANAGEMENT BORING
	STORMWATER MANAGEMENT ESD FACILITY NUMBER



TYPICAL CROSS-SECTION (M-6) MICRO-BIORETENTION FACILITY
SCALE: NOT TO SCALE



EACH CLEANOUT SHALL INCLUDE THE FOLLOWING

- FOR AN UNDERGROUND FLUSH MOUNTED CLEANOUT, PROVIDE A TUBE MADE OF NON-CORROSIVE MATERIAL, SCHEDULE 40 OR EQUAL, AT LEAST 3-FEET LONG WITH AN INSIDE DIAMETER OF AT LEAST 6-INCHES.
- THE TUBE SHALL HAVE A FACTORY ATTACHED CAST IRON OR HIGH IMPACT PLASTIC COLLAR WITH RIBS TO PREVENT ROTATION WHEN REMOVING SCREW TOP LID. THE SCREW TOP LID SHALL BE CAST IRON OR HIGH IMPACT PLASTIC THAT WILL WITHSTAND ULTRA-VIOLET RAYS.

* ABOVE DETAIL PROVIDED AS SCHEMATIC SCREW TOP PVC CLEAN OUT CAP ONLY

CLEAN OUT DETAIL
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

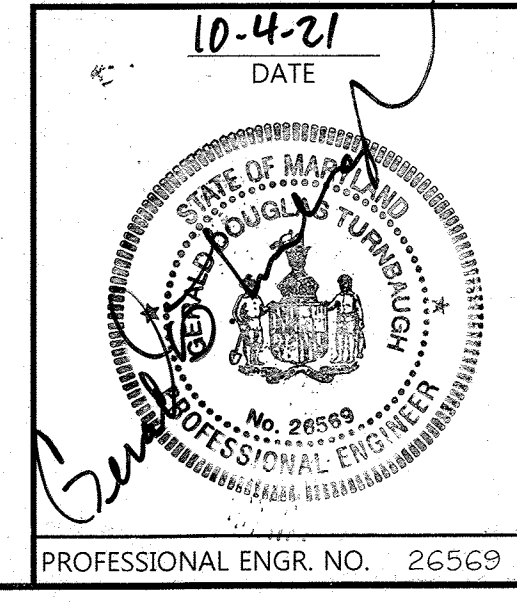
[Signature] 11-23-21
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 12/1/21
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

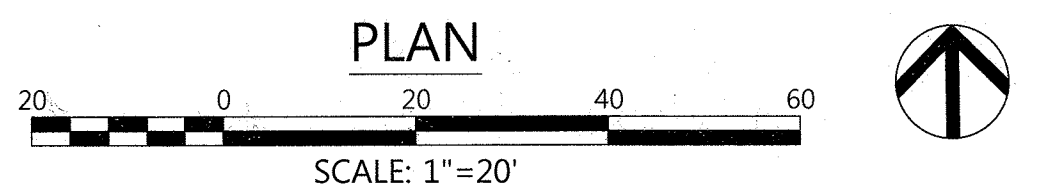
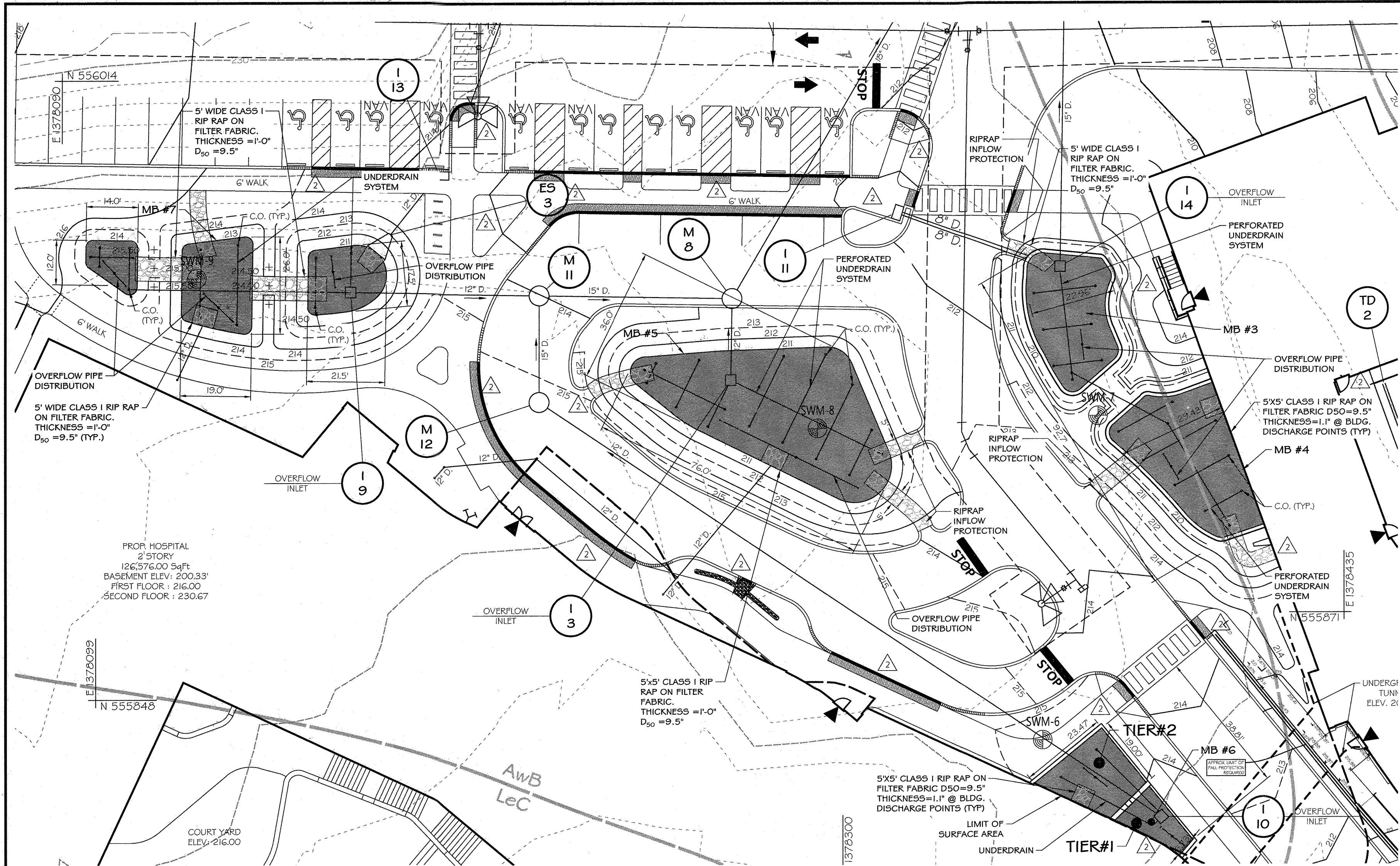
[Signature] 12-11-21
DIRECTOR DATE

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26569, EXPIRATION DATE: 07/31/2023.

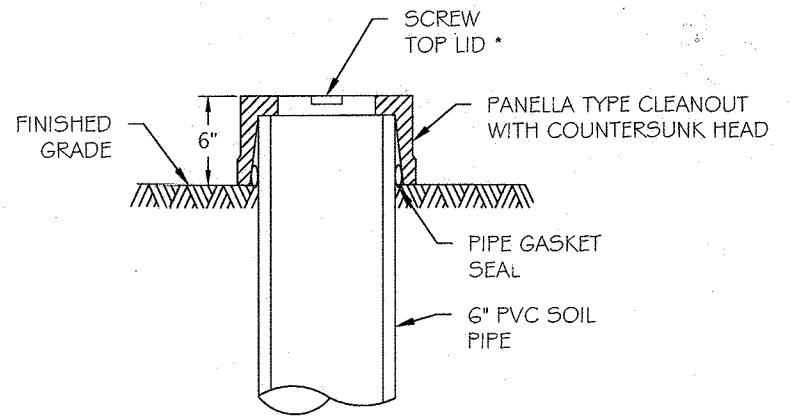


08-16-21	RR#1 - UPDATE SITE FEATURES AND RIPRAP	
02-25-19	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS	
Date	No.	Revision Description
<p>SHEPPARD PRATT HEALTH SYSTEM ELKRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY</p> <p>ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE</p> <p>OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N. CHARLES ST BALTIMORE, MD 21285-6815 410-938-3242</p>		
<p>501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410.296.3333 F: 410.296.4705 WWW.DMW.COM</p>		
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
KORRIDOR 88 BUSINESS PARK		756 (PARCEL A&B)
PLAT OR L/E	ZONE	TAX ZONE/MAR/GRID
24679-24685	M-1	3716423
WATER CODE	SEWER CODE	ELECT. DIST.
B-02	4020000	6012.03
<p>TITLE: REVISED SITE DEVELOPMENT PLAN (M-6) STORMWATER MANAGEMENT PLAN - I</p>		
Des. By	SCALE	AS SHOWN
Drn. By	Date	08/16/2021
Chk. By	Approved	MCB/KMA
PROFESSIONAL ENGR. NO. 26569	Proj. No.	10015.DD
		21 of 51



LEGEND

---	PROPERTY LINE
---	EX. CONTOURS
---	EX. EDGE OF ROAD
---	EX. GAS
---	EX. WATER
---	EX. SEWER
---	EX. STORM DRAIN
---	EX. EASEMENT
---	EX. SOILS
---	EX. STREAM
---	EX. WETLANDS BUFFER
---	EX. WETLANDS
---	EX. FOREST CONSERVATION
---	EX. STREAM BUFFER
---	EX. FLOODPLAIN
---	PROP. EASEMENT
---	PROP. CONTOURS
---	PROP. WATER
---	PROP. SEWER
---	PROP. STORM DRAIN
---	PROP. BUILDING
---	FUTURE PROP. BUILDING
---	PROP. CURB
---	PROP. SIDEWALK
---	PROP. RETAINING WALL
---	(M-6) MICRO-BIORETENTION FACILITY SURFACE AREA
---	STORMWATER MANAGEMENT BORING
---	STORMWATER MANAGEMENT ESD FACILITY NUMBER

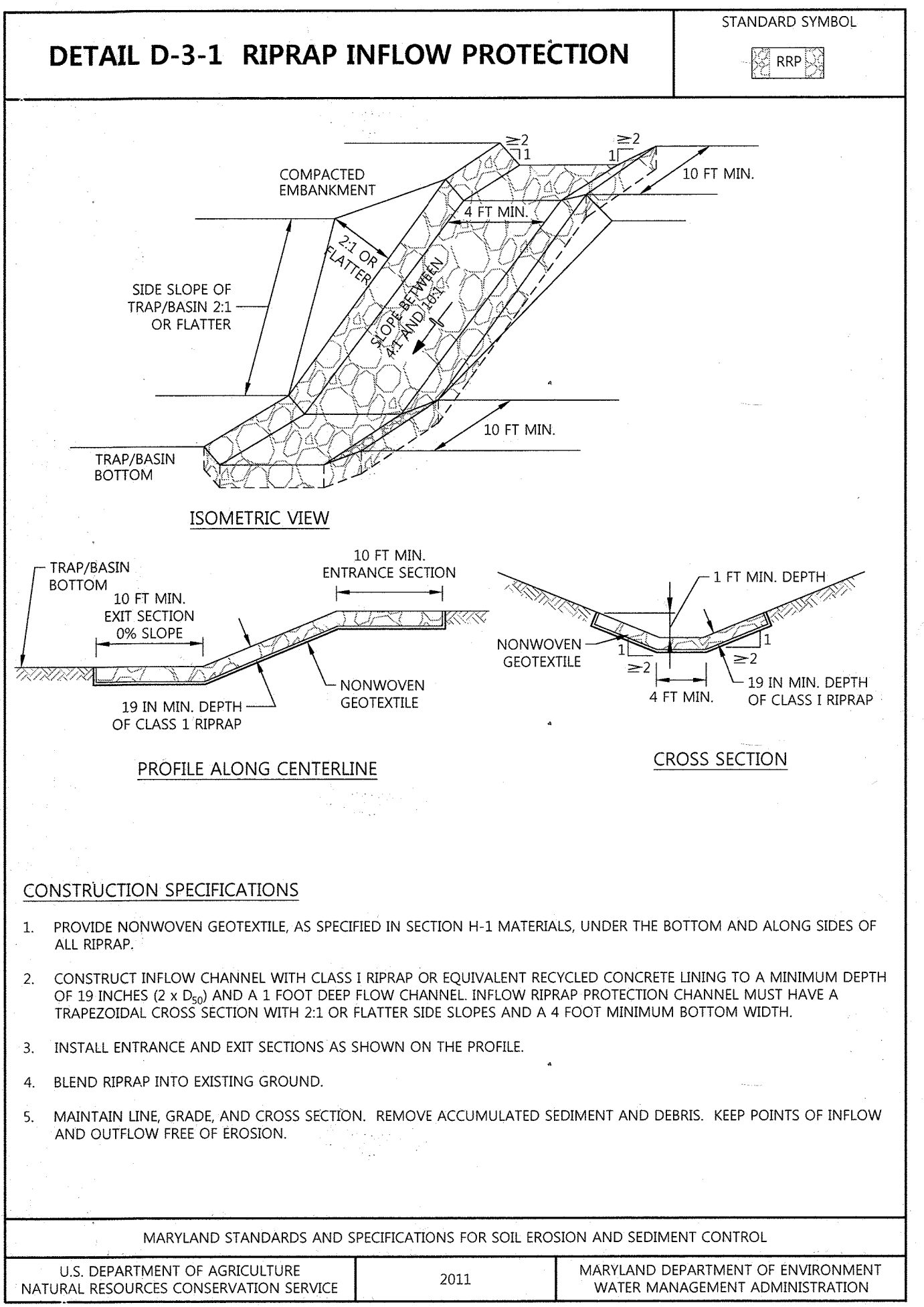


EACH CLEANOUT SHALL INCLUDE THE FOLLOWING

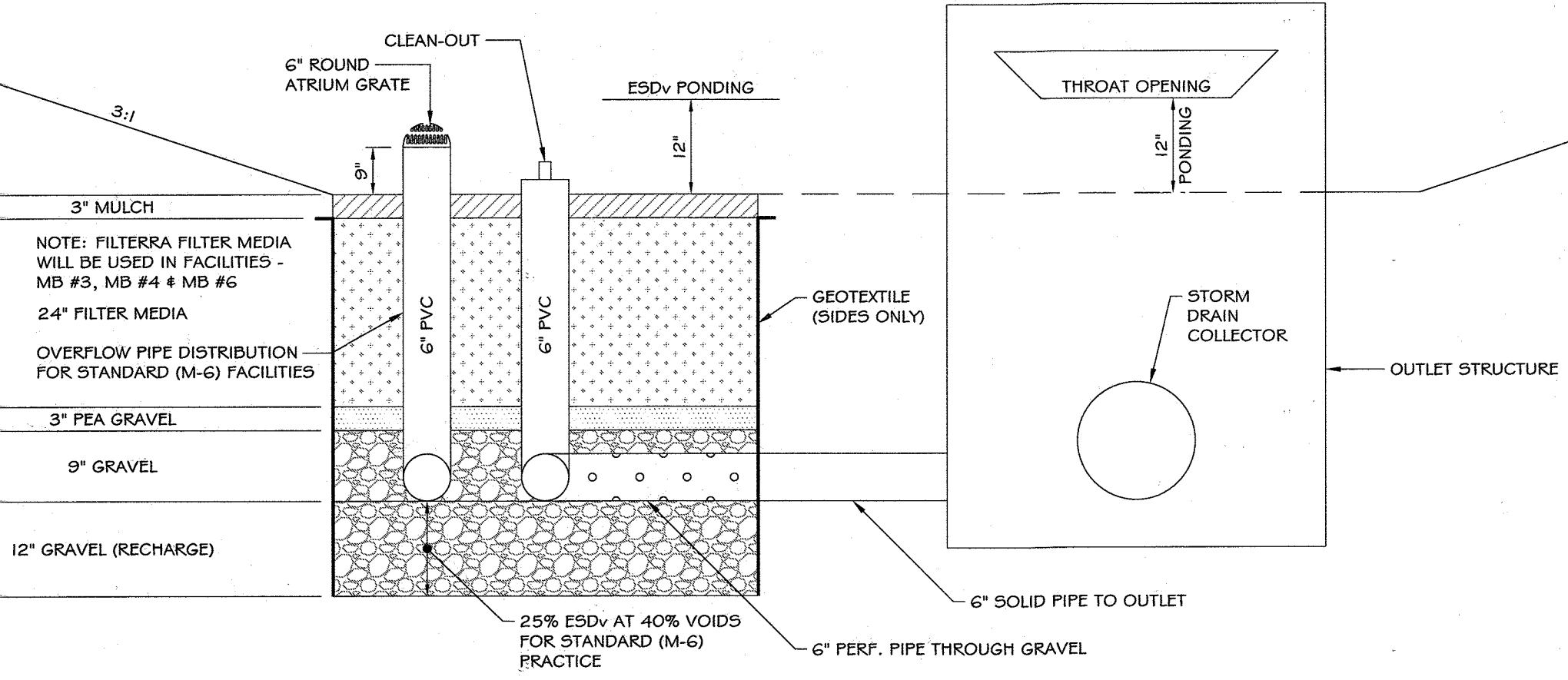
- FOR AN UNDERGROUND FLUSH MOUNTED CLEANOUT, PROVIDE A TUBE MADE OF NON-CORROSIVE MATERIAL, SCHEDULE 40 OR EQUAL, AT LEAST 3 FEET LONG WITH AN INSIDE DIAMETER OF AT LEAST 6 INCHES.
- THE TUBE SHALL HAVE A FACTORY ATTACHED CAST IRON OR HIGH IMPACT PLASTIC COLLAR WITH RIBS TO PREVENT ROTATION WHEN REMOVING SCREW TOP LID. THE SCREW TOP LID SHALL BE CAST IRON OR HIGH IMPACT PLASTIC THAT WILL WITHSTAND ULTRA-VIOLET RAYS.

* ABOVE DETAIL PROVIDED AS SCHEMATIC DRAWING FOR P.V.C. CLEAN OUT CAP ONLY

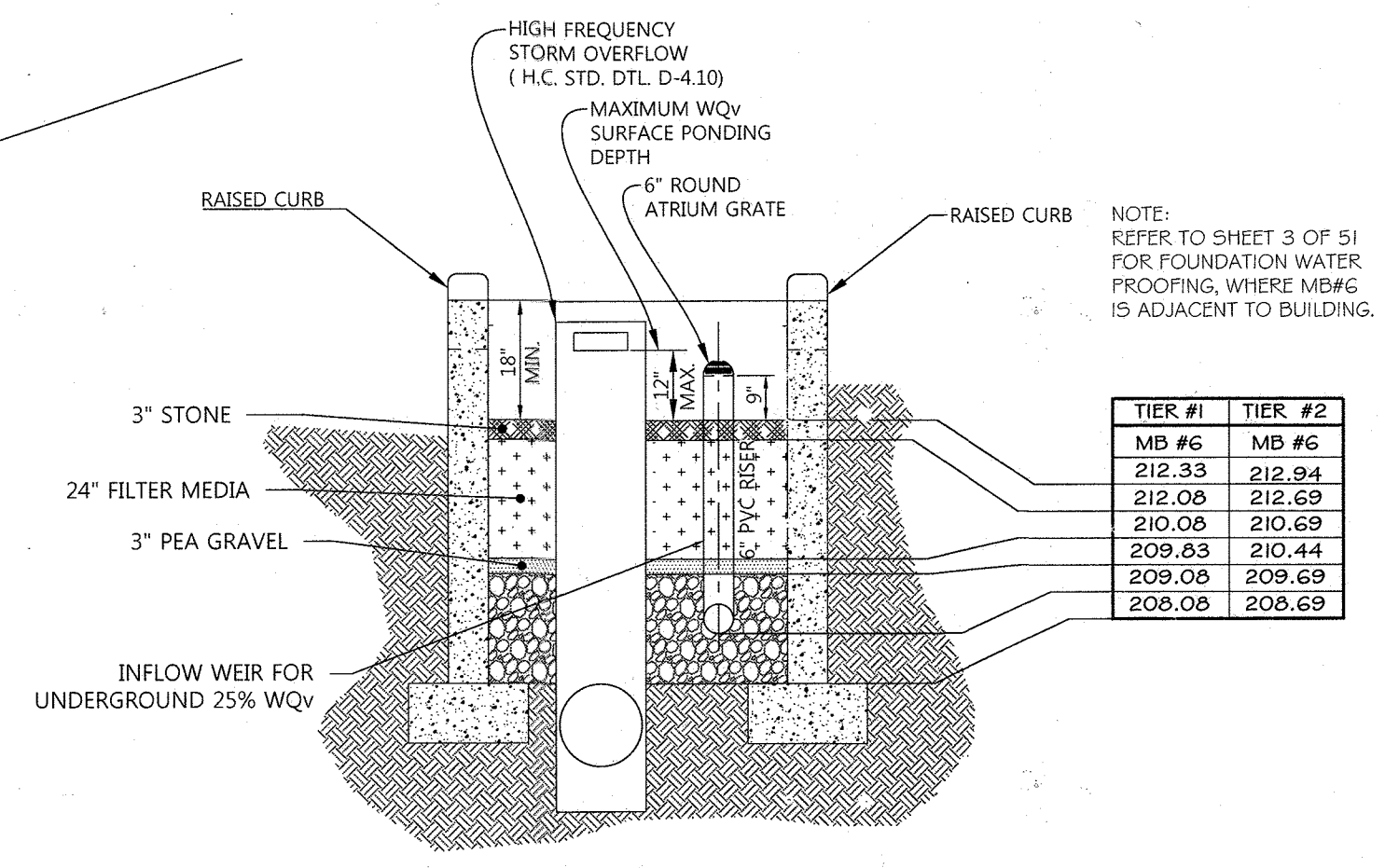
CLEAN OUT DETAIL
NOT TO SCALE



MB #3	MB #4	MB #5	TIER 1	TIER 2	TIER 3
210.00	210.00	211.00	211.00	213.00	214.00
209.75	209.75	210.75	210.75	212.75	213.75
207.75	207.75	208.75	208.75	210.75	211.75
207.50	207.50	208.50	208.50	210.50	211.50
206.75	206.75	207.75	207.75	209.75	210.75
205.75	205.75	206.75	206.75	208.75	209.75



TYPICAL CROSS-SECTION (M-6) MICRO-BIORETENTION FACILITY
SCALE: NOT TO SCALE



TYPICAL CROSS-SECTION MODULAR (M-6) MICRO-BIORETENTION FACILITY
SCALE: NOT TO SCALE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Chief, Development Engineering Division: *[Signature]* 11-27-21 DATE

Chief, Division of Land Development: *[Signature]* 12/14/21 DATE

Director: *[Signature]* 12-16-21 DATE

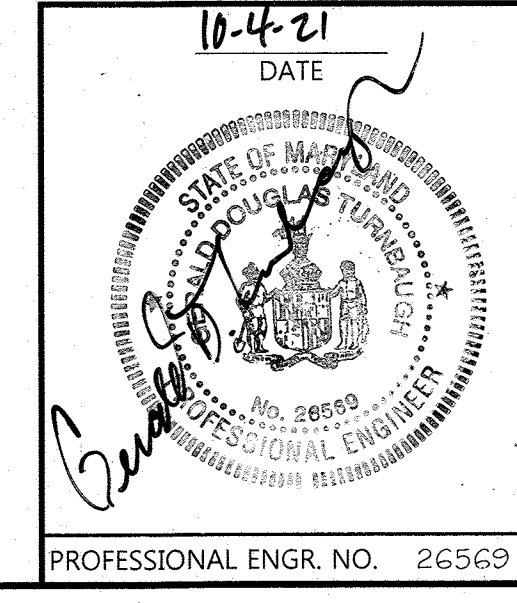
Date	No.	Revision Description
08-16-21	2	RR#2 - UPDATE SITE FEATURES, RIPRAP & CURB CUTS
02-25-19	1	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS

**SHEPPARD PRATT HEALTH SYSTEM
ELKBRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**

ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST.
BALTIMORE, MD 21285-6815
410-938-3242

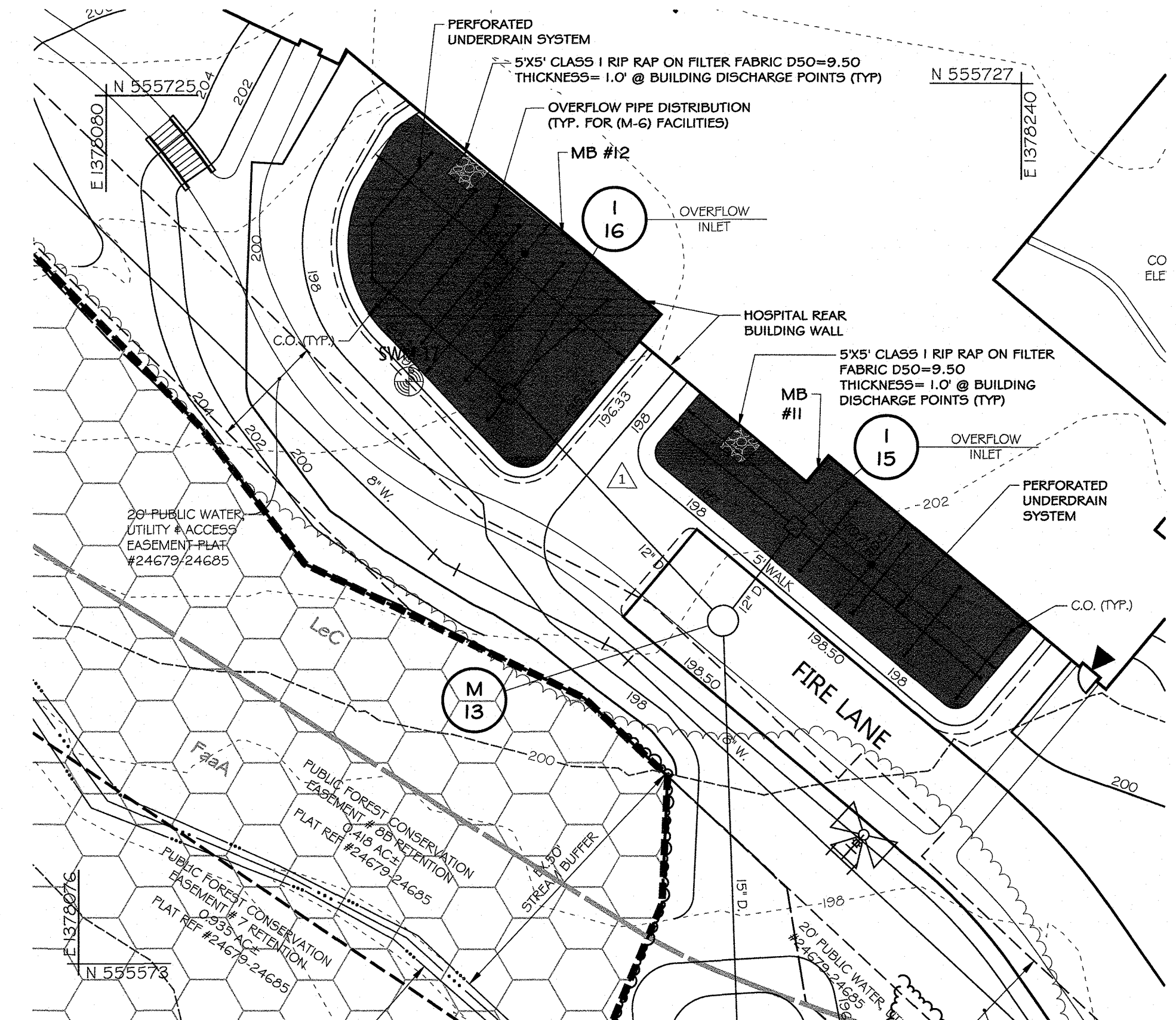
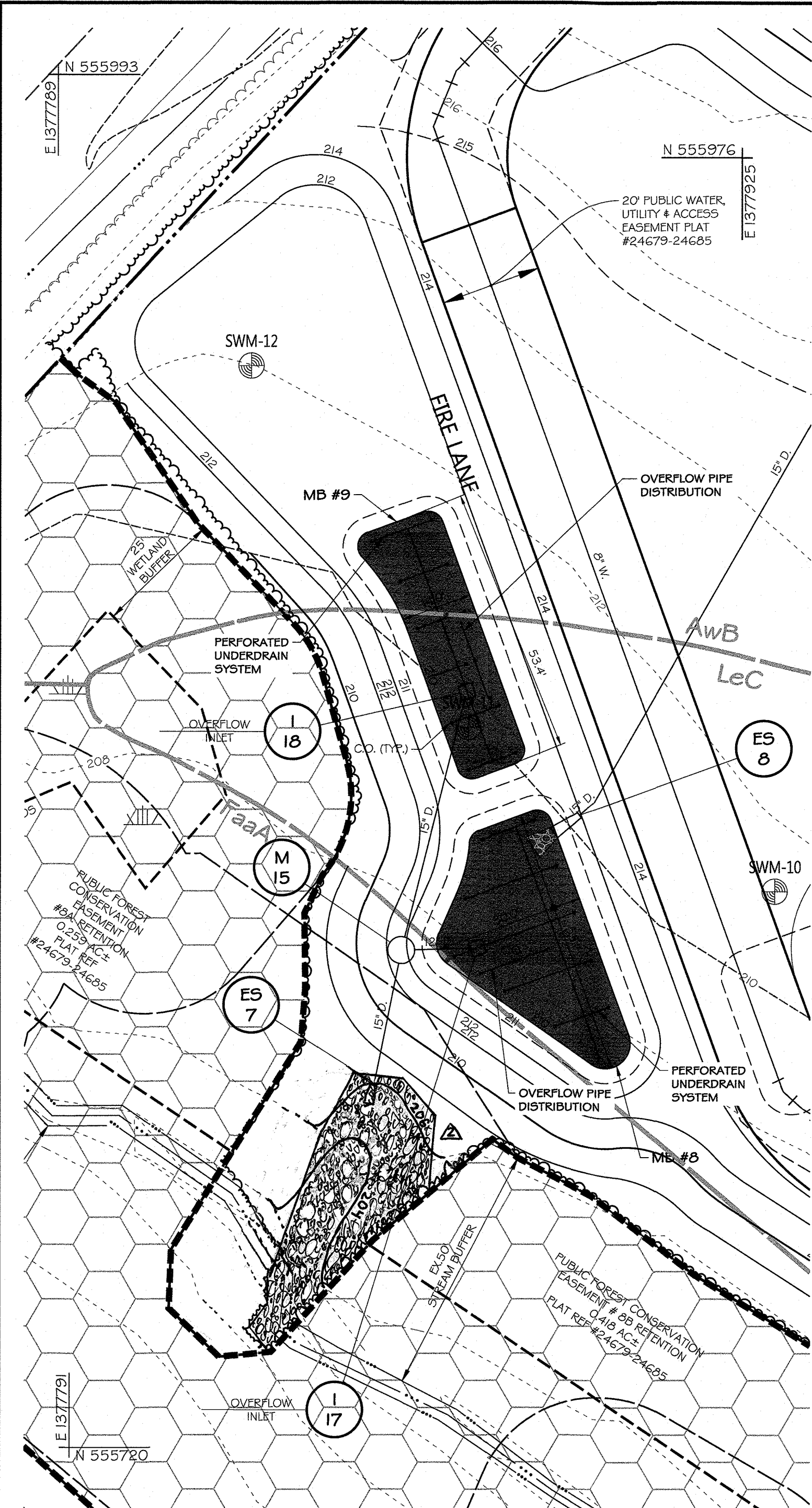
PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26569, EXPIRATION DATE: 07/18/2023.



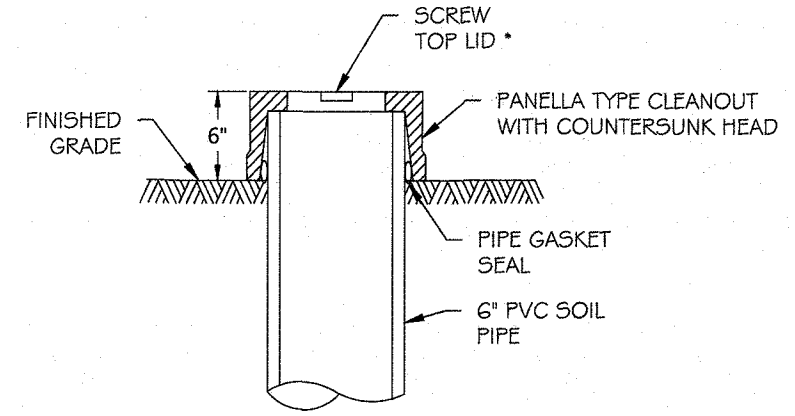
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM	SECTION/AREA CORRIDOR 95 BUSINESS PARK 756 (PARCEL A&B)	LOT/PARCEL # 3716423	CENSUS TRACT 6012.03
DATE 10-14-21	SCALE AS SHOWN	Proj. No. 10015.00	22 of 51

DESIGNED BY: GDT/KMA/PLM
DRAWN BY: DPL/SLA/JUPM
CHECKED BY: GDT/KMA/PLM
DATE: 08/16/2021
APPROVED: MCB/KMA



LEGEND

---	PROPERTY LINE
---	EX. CONTOURS
---	EX. EDGE OF ROAD
---	EX. GAS
---	EX. WATER
---	EX. 4" W. SEWER
---	EX. 12" D. STORM DRAIN
---	EX. TREE LINE
---	SOILS
---	EX. EASEMENT
---	EX. STREAM
---	EX. WETLANDS BUFFER
---	EX. WETLANDS
---	EX. STREAM BUFFER
---	EX. FLOODPLAIN
---	PROP. EASEMENT
---	PROP. CONTOURS
---	PROP. WATER
---	PROP. SEWER
---	PROP. STORM DRAIN
---	PROP. BUILDING
---	PROP. BUILDING OVERHEAD
---	PROP. UNDERGROUND TUNNEL
---	PROP. CURB
---	PROP. ROLLED CURB
---	PROP. SIDEWALK
---	PROP. RETAINING WALL
---	PROP. FIRE LANE
---	PROP. TREE LINE
---	FOREST CONSERVATION EASEMENT
---	(M-6) MICRO-BIORETENTION FACILITY SURFACE AREA
---	STORMWATER MANAGEMENT BORING
---	STORMWATER MANAGEMENT ESD FACILITY NUMBER

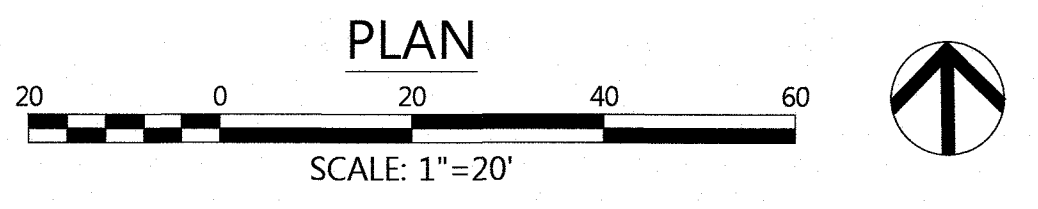


- EACH CLEANOUT SHALL INCLUDE THE FOLLOWING
- FOR AN UNDERGROUND FLUSH MOUNTED CLEANOUT, PROVIDE A TUBE MADE OF NON-CORROSIVE MATERIAL, SCHEDULE 40 OR EQUAL, AT LEAST 3-FEET LONG WITH AN INSIDE DIAMETER OF AT LEAST 6-INCHES.
 - THE TUBE SHALL HAVE A FACTORY ATTACHED CAST IRON OR HIGH IMPACT PLASTIC COLLAR WITH RIBS TO PREVENT ROTATION WHEN REMOVING SCREW TOP LID. THE SCREW TOP LID SHALL BE CAST IRON OR HIGH IMPACT PLASTIC THAT WILL WITHSTAND ULTRA-VIOLET RAYS.
- * ABOVE DETAIL PROVIDED AS SCHEMATIC SCREW TOP PVC CLEAN OUT CAP ONLY

CLEAN OUT DETAIL

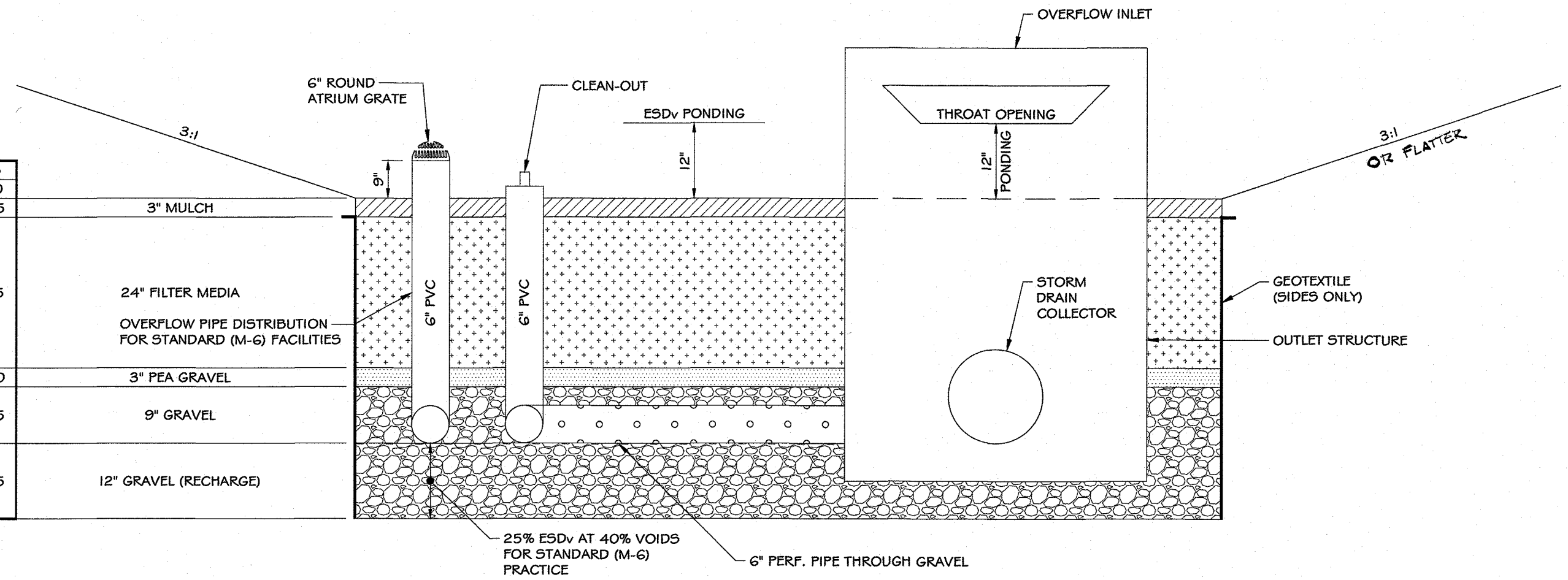
NOT TO SCALE

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 26569, Expiration Date: 7-10-23



NOTE: REFER TO SHEET 3 OF 51 FOR FOUNDATION WATER PROOFING. DETAIL WHERE MB11 AND MB12 ARE ADJACENT TO BUILDING.

MB #12	MB #11	MB #9	MB #8
195.33	197.00	210.00	210.00
195.08	196.75	209.75	209.75
193.08	194.75	207.75	207.75
192.83	194.50	207.50	207.50
192.08	193.75	206.75	206.75
191.08	192.75	205.75	205.75



TYPICAL CROSS-SECTION (M-6) MICRO-BIORETENTION FACILITY

SCALE: NOT TO SCALE

FOR REDLINE REVISION NO.2 ONLY

10-4-21
DATE

PROFESSIONAL ENGR. NO. 26569

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 51066, EXPIRATION DATE: 06/07/2021

9/6/19
DATE

PROFESSIONAL ENGR. NO. 51066

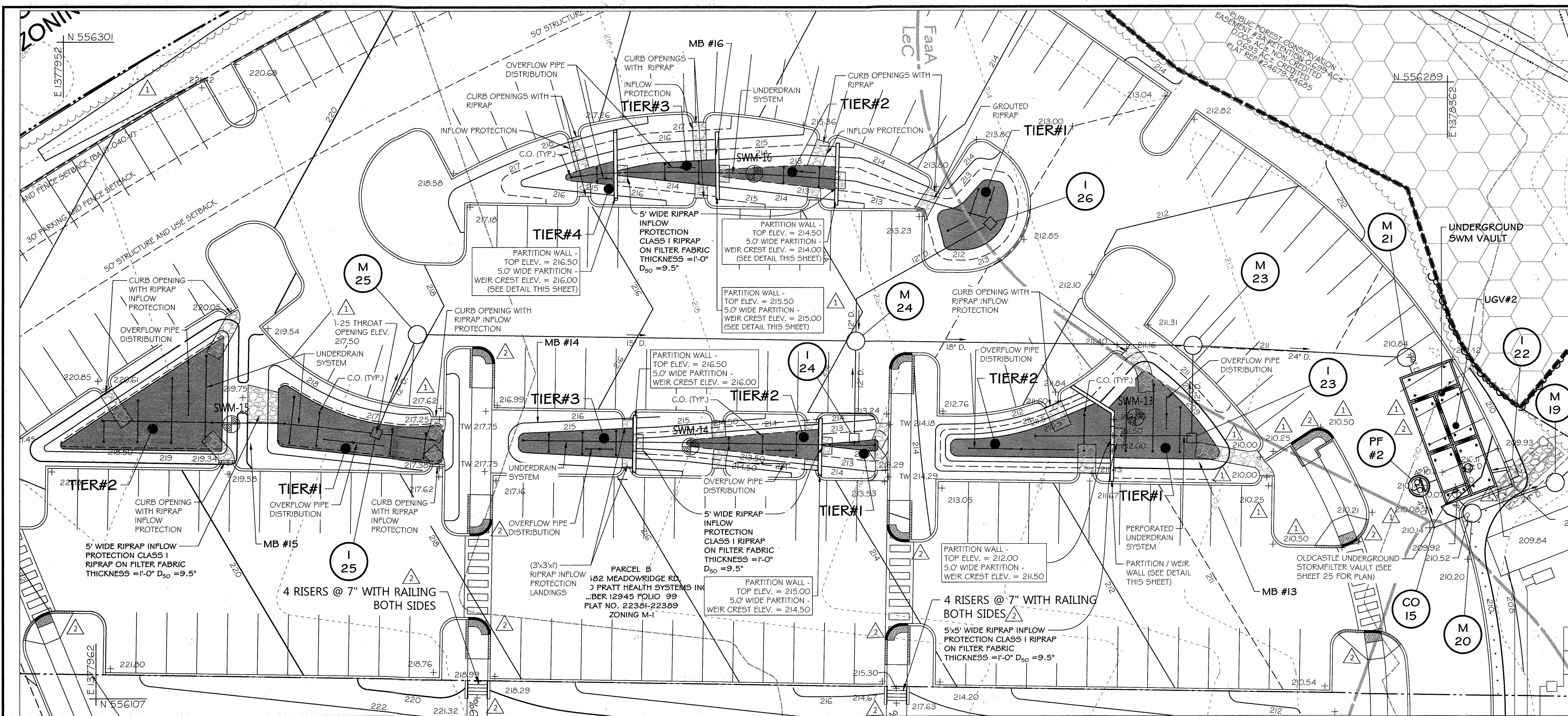
8-16-2021	RR H2-UPDATE SWM ESD 8+9 RIP RAP DUGLET
02-25-19	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC # UTILITY PLANS
Date	Revision Description
SHEPPARD PRATT HEALTH SYSTEM ELKRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N. CHARLES ST BALTIMORE, MD 21285-6815 410-938-3212	
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM	
SUBDIVISION NAME	SECTION/AREA
CORRIDOR 89 BUSINESS PARK	756 (PARCEL 4B)
PLAT # OR L.P.	TAX ZONE/MAP/GRID
24679-24685	377/6423
WATER CODE	SEWER CODE
9-02	4020000
TITLE: REPLACEMENT SHEET STORMWATER MANAGEMENT PLAN - 3	
Des. By	SCALE AS SHOWN
Drn. By	Date
Chk. By	Approved
GOTBLA/JPM	07/12/2019
DPYLA/JPM	MCBK/M
GOTBLA/JPM	23 of 51

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Howard County Seal
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 9-30-19

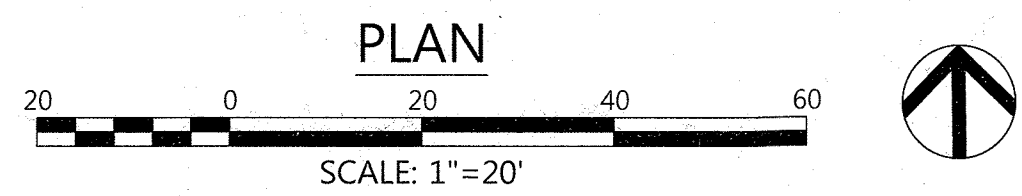
Kurt G. D... Seal
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 10-2-19

Natalie J. ... Seal
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING
 DATE: 10-2-19

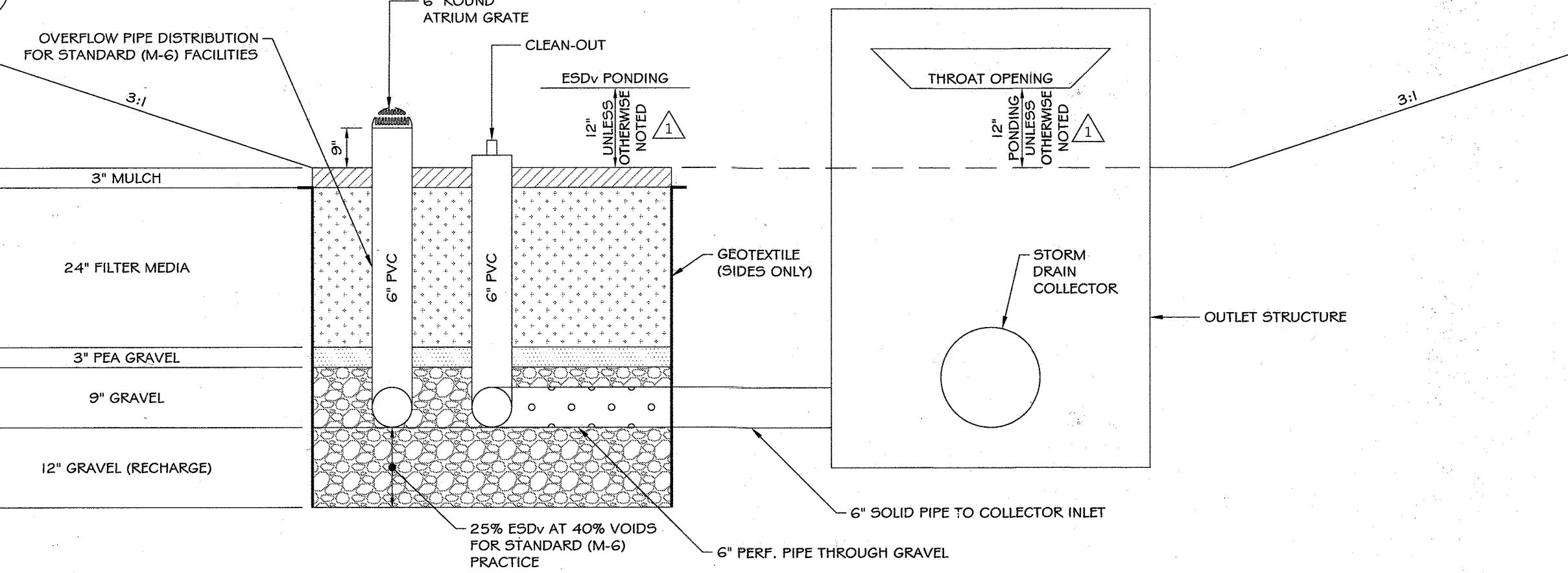


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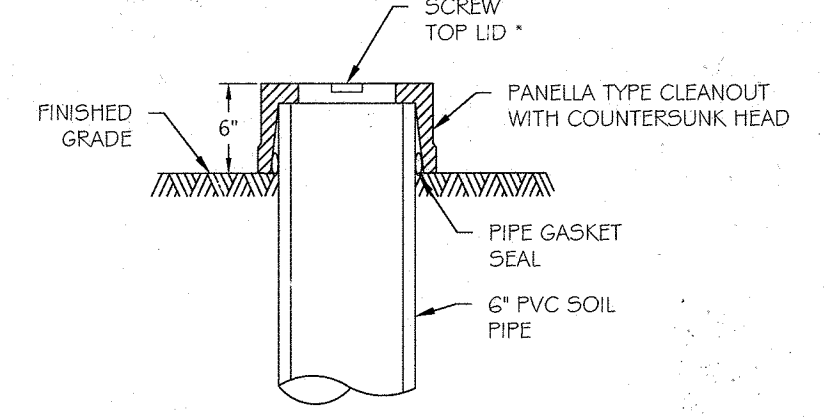
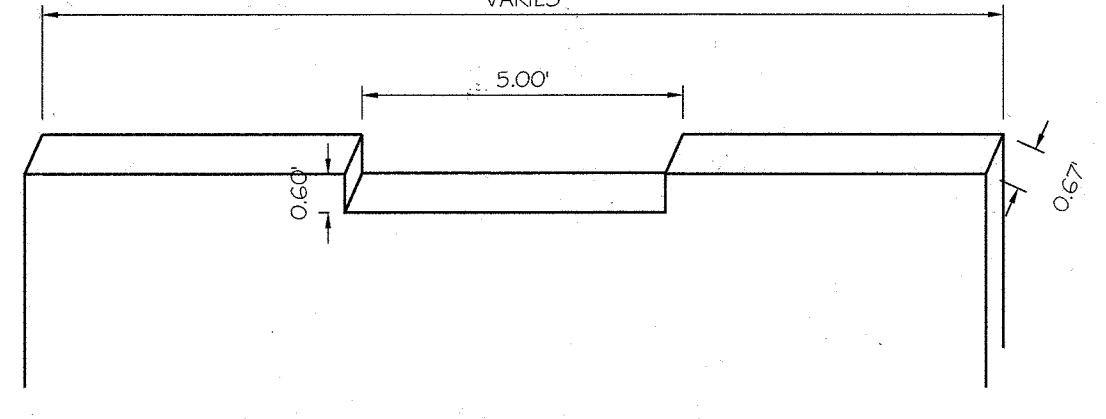
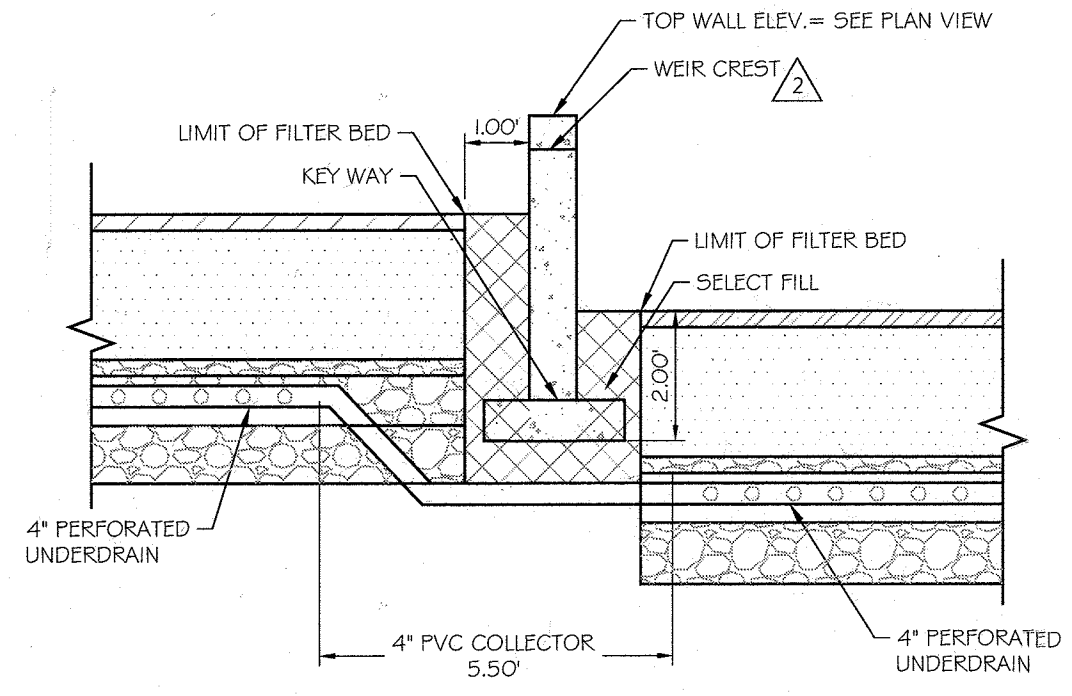
---	PROPERTY LINE
- - - -	EX. CONTOURS
- - - -	EX. EDGE OF ROAD
- - - -	EX. GAS
- - - -	EX. WATER
- - - -	EX. SEWER
- - - -	EX. STORM DRAIN
- - - -	EX. TREE LINE
- - - -	SOILS
- - - -	EX. EASEMENT
- - - -	EX. STREAM
- - - -	EX. WETLANDS BUFFER
- - - -	EX. WETLANDS
- - - -	EX. STREAM BUFFER
- - - -	EX. FLOODPLAIN
- - - -	PROP. EASEMENT
- - - -	PROP. CONTOURS
- - - -	PROP. WATER
- - - -	PROP. SEWER
- - - -	PROP. STORM DRAIN
- - - -	PROP. BUILDING
- - - -	PROP. BUILDING OVERHEAD
- - - -	FUTURE BUILDING EXPANSION
- - - -	PROP. UNDERGROUND TUNNEL
- - - -	PROP. CURB
- - - -	PROP. ROLLED CURB
- - - -	PROP. SIDEWALK
- - - -	PROP. RETAINING WALL
- - - -	PROP. FIRE LANE
- - - -	PROP. TREE LINE
- - - -	FOREST CONSERVATION BUFFER
- - - -	(M-6) MICRO-BIORETENTION FACILITY SURFACE AREA
○	STORMWATER MANAGEMENT BORING
○	STORMWATER MANAGEMENT ESD FACILITY NUMBER



(TIER 1)	(TIER 2)	(TIER 1)	(TIER 2)	(TIER 3)	(TIER 1)	(TIER 2)	(TIER 1)	(TIER 2)	(TIER 3)	(TIER 4)
209.00	210.50	212.00	213.50	215.00	217.00	218.50	212.00	213.00	214.00	215.00
208.75	210.25	211.75	213.25	214.75	216.75	218.25	211.75	212.75	213.75	214.75
206.75	208.25	209.75	211.25	212.50	214.75	216.25	209.75	210.75	211.75	212.75
206.50	208.00	209.50	211.00	212.50	214.50	216.00	209.50	210.50	211.50	212.50
205.75	207.25	208.75	210.25	211.75	213.75	215.25	208.75	209.75	210.75	211.75
204.75	206.25	207.75	209.25	210.75	212.75	214.25	207.75	208.75	209.75	210.75



- NOTES:**
- REFER TO "MRA" - LANDSCAPE PLANS FOR (M-6) MICRO-BIORETENTION PLANTING PLANS AND PLANT SCHEDULES, (SHEETS 38-45).
 - REFER TO STRUCTURAL PLANS FOR MODULAR (M-6) FACILITY STRUCTURAL DETAILS.



- EACH CLEANOUT SHALL INCLUDE THE FOLLOWING
- FOR AN UNDERGROUND FLUSH MOUNTED CLEANOUT, PROVIDE A TUBE MADE OF NON-CORROSIVE MATERIAL, SCHEDULE 40 OR EQUAL, AT LEAST 3'-FEET LONG WITH AN INSIDE DIAMETER OF AT LEAST 6-INCHES.
 - THE TUBE SHALL HAVE A FACTORY ATTACHED CAST IRON OR HIGH IMPACT PLASTIC COLLAR WITH RIBS TO PREVENT ROTATION WHEN REMOVING SCREW TOP LID. THE SCREW TOP LID SHALL BE CAST IRON OR HIGH IMPACT PLASTIC THAT WILL WITHSTAND ULTRA-VIOLET RAYS. * ABOVE DETAIL PROVIDED AS SCHEMATIC. SCREW TOP PVC CLEAN OUT CAP ONLY.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Chief, Development Engineering Division: *[Signature]* DATE: 11/23/21

Chief, Division of Land Development: *[Signature]* DATE: 12/16/21

Director: *[Signature]* DATE: 12-18-21

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26569, EXPIRATION DATE: 07/18/2023.

10-4-21 DATE

PROFESSIONAL ENGR. NO. 26569

08-16-21	2	RR#2 - UPDATE SITE FEATURES
02-25-19	1	REDLINE REV. #1 - UPDATE SWM SITE GRADING, SEC 4 UTILITY PLANS
Date	No.	Revision Description

SHEPPARD PRATT HEALTH SYSTEM ELKBRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY

ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE

OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242

DMW
DAFT MCCUNE WALKER INC.

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

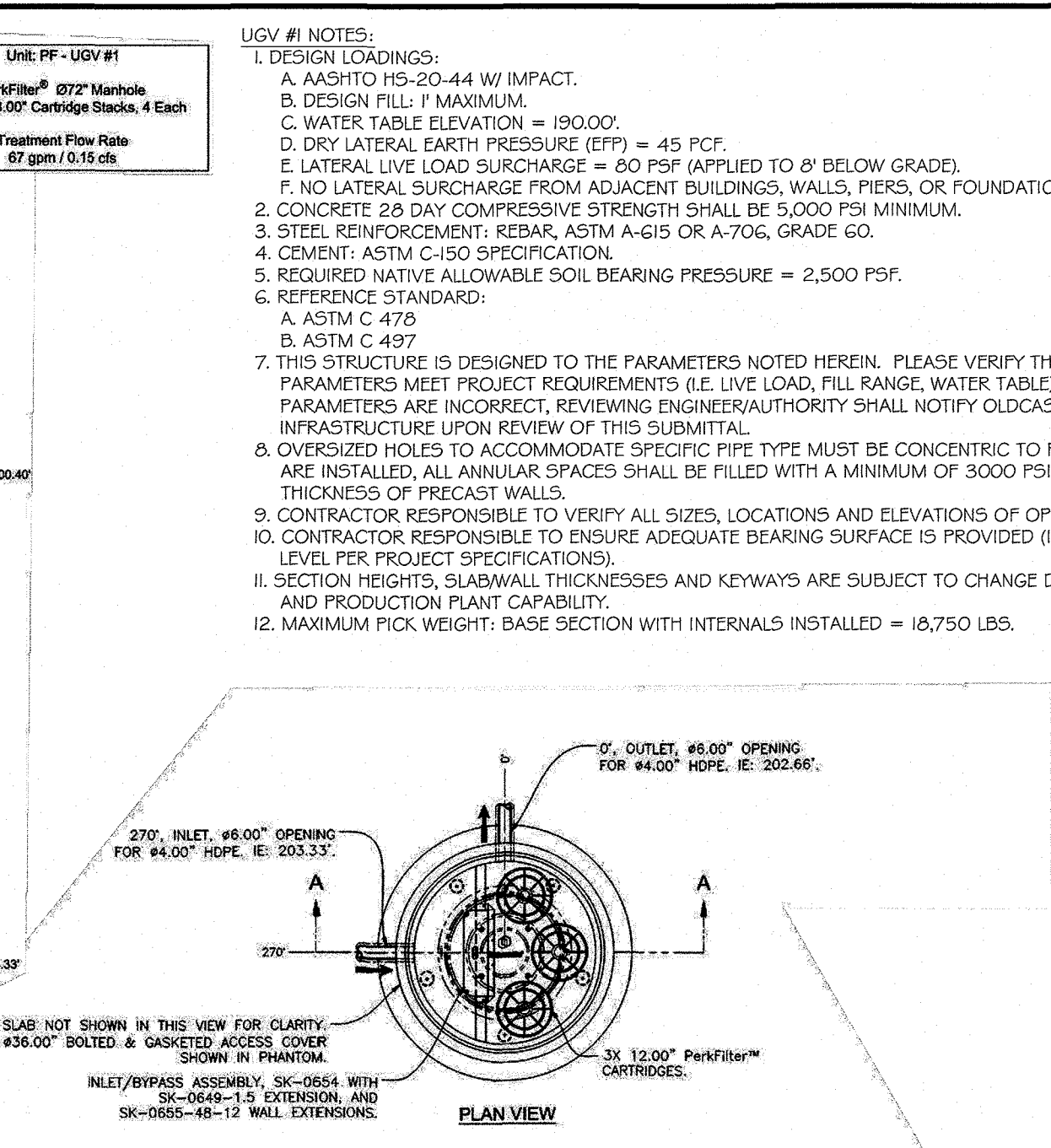
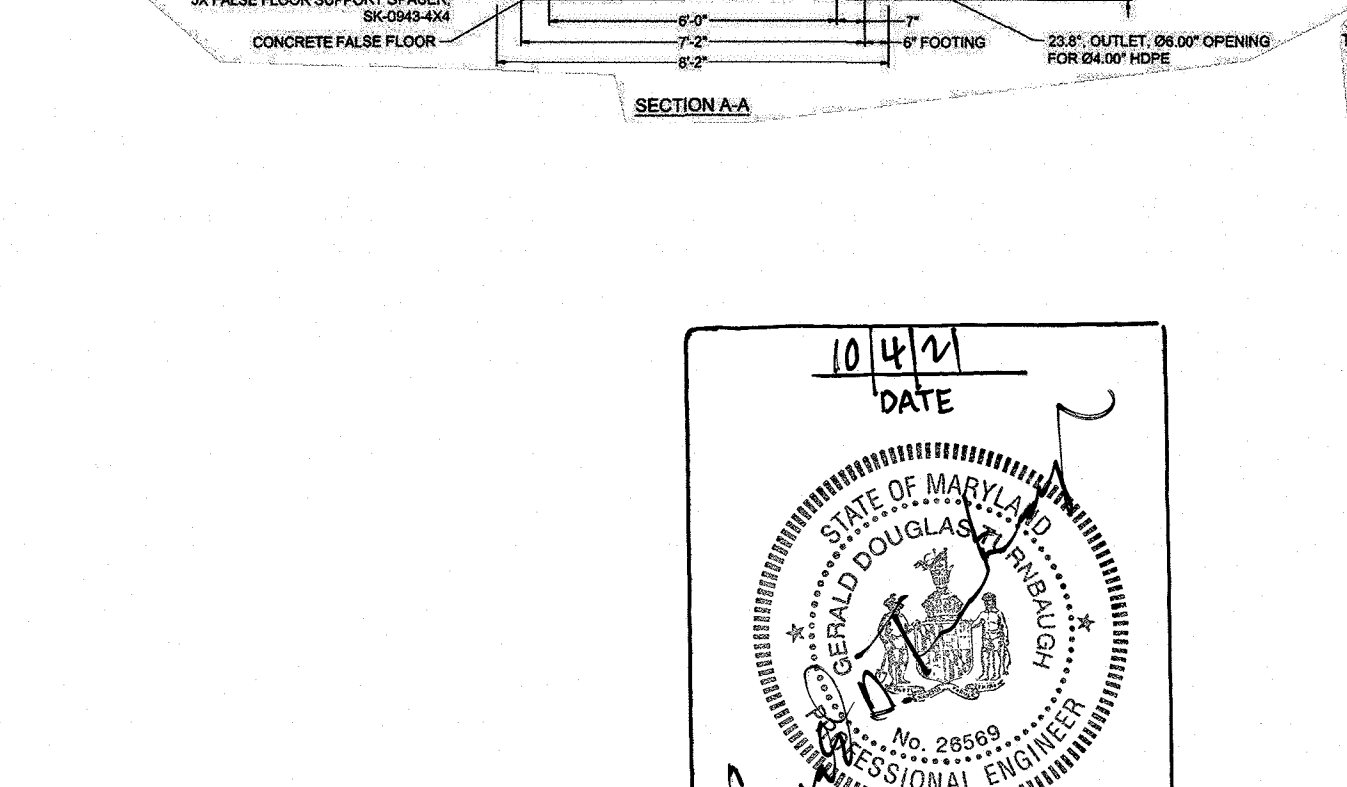
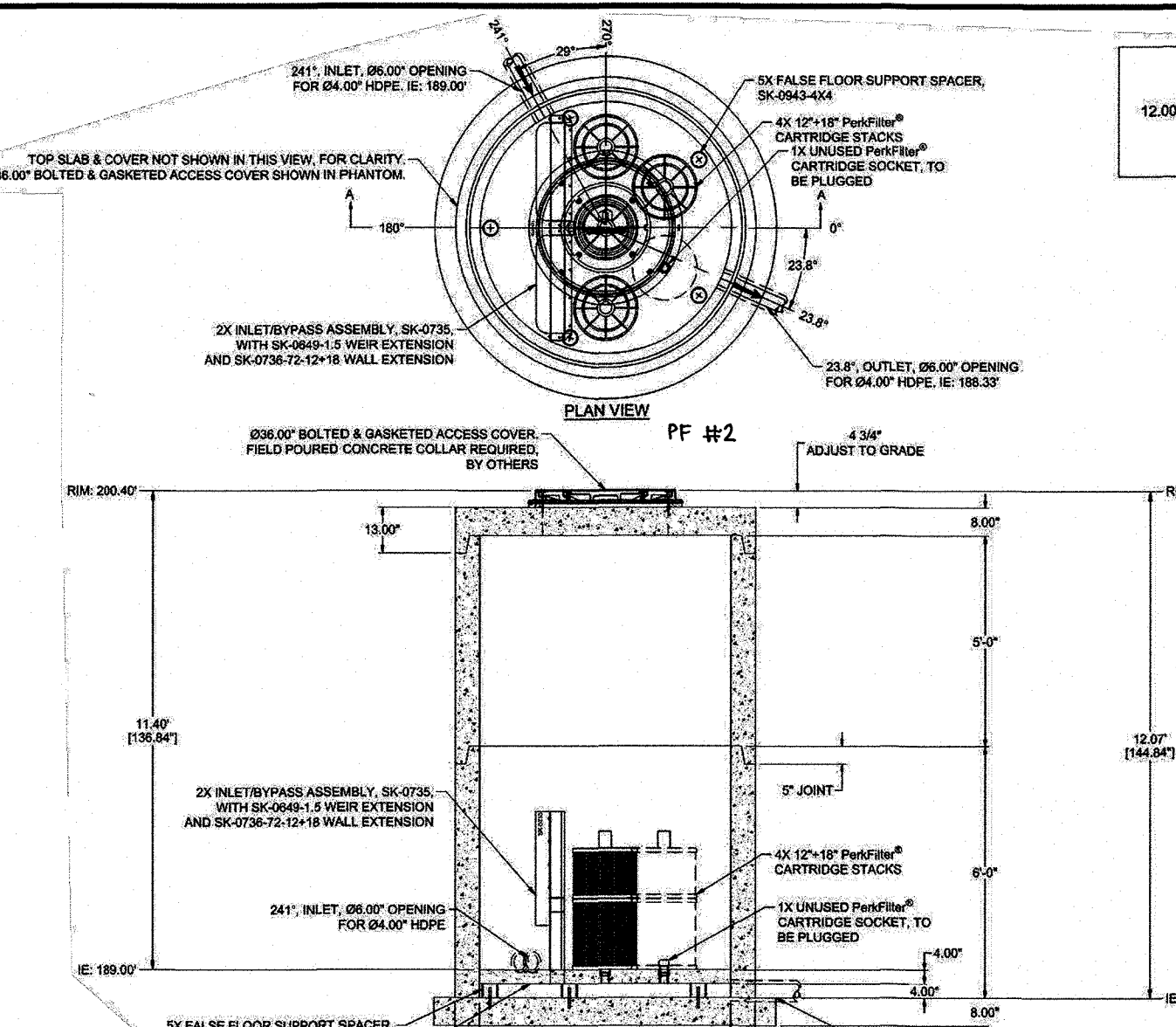
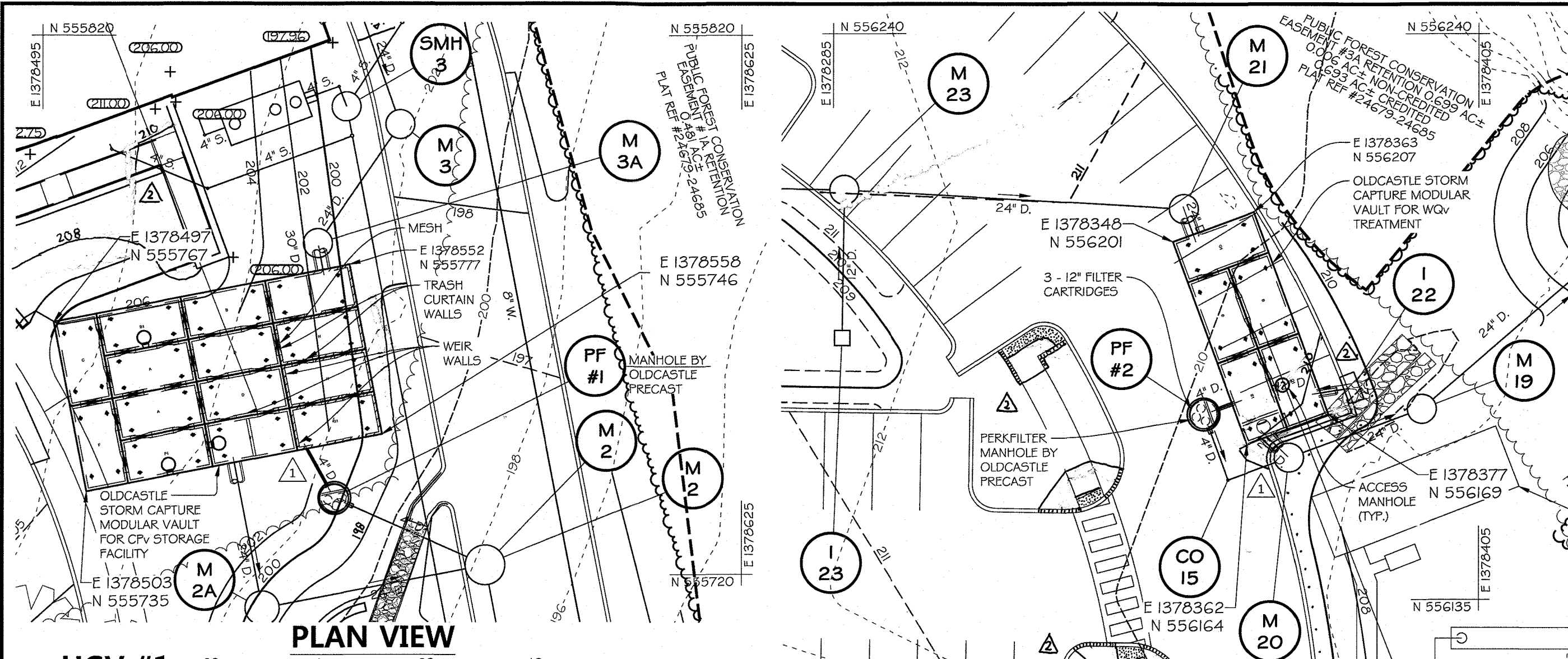
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
CORRIDOR 95 BUSINESS PARK		75G (PARCEL 44B)
PLAT OR L.P.	ZONE	TAX ZONE/MAP/GRID
24679-24605	M-1	3716423
WATER CODE	SEWER CODE	STAGE
B-02	4020000	

TITLE REVISED SITE DEVELOPMENT PLAN (M-6) STORMWATER MANAGEMENT PLAN - 4

Des. By	GDT/SLAJFM	SCALE	AS SHOWN	Proj. No.	10015.00
Drn. By	DP/SLAJFM	Date	08/16/2021		
Chk. By	GDT/MAP/PLH	Approved	MCB/MMA		

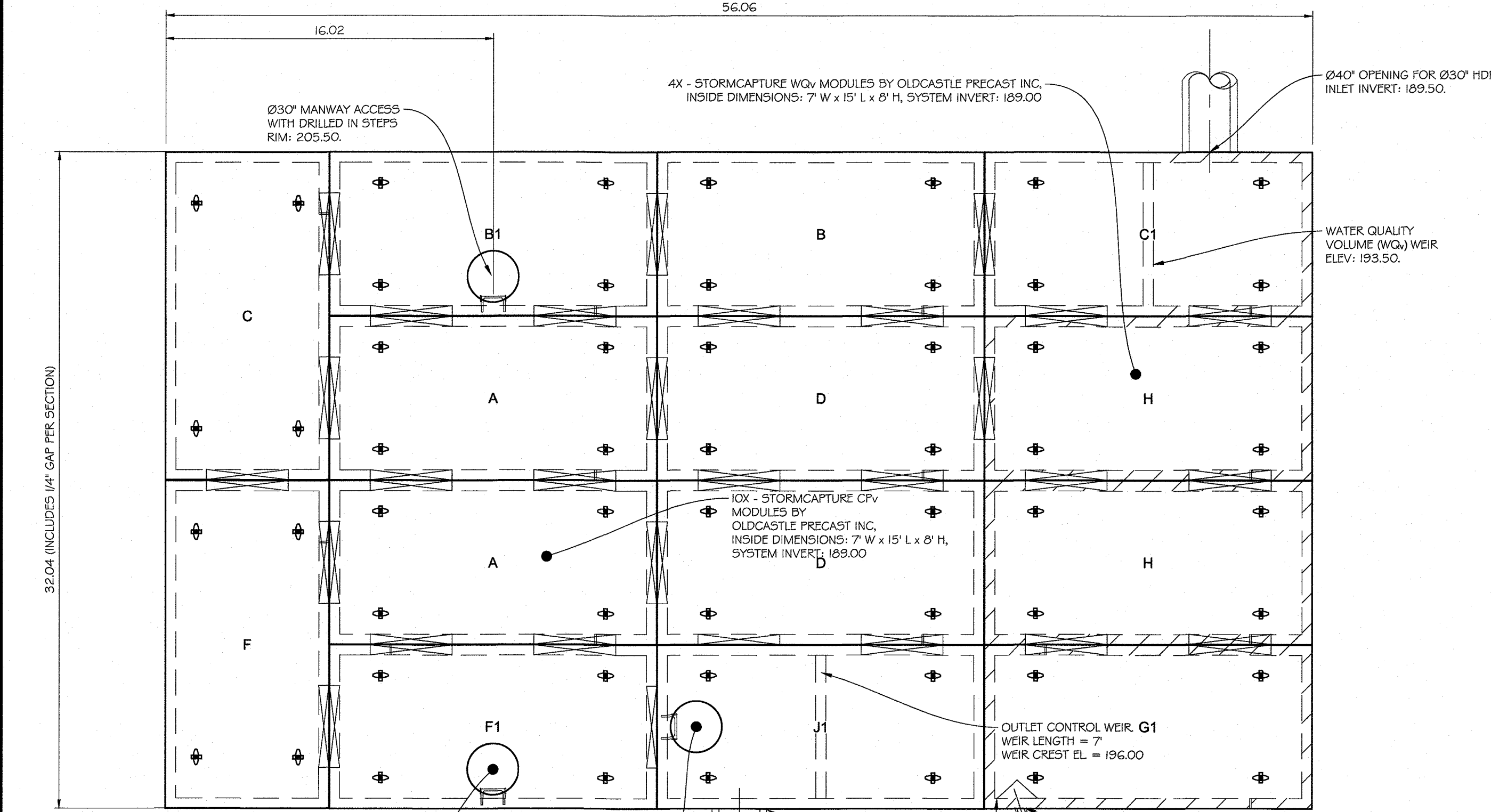
24 of 51

SDP-18-033

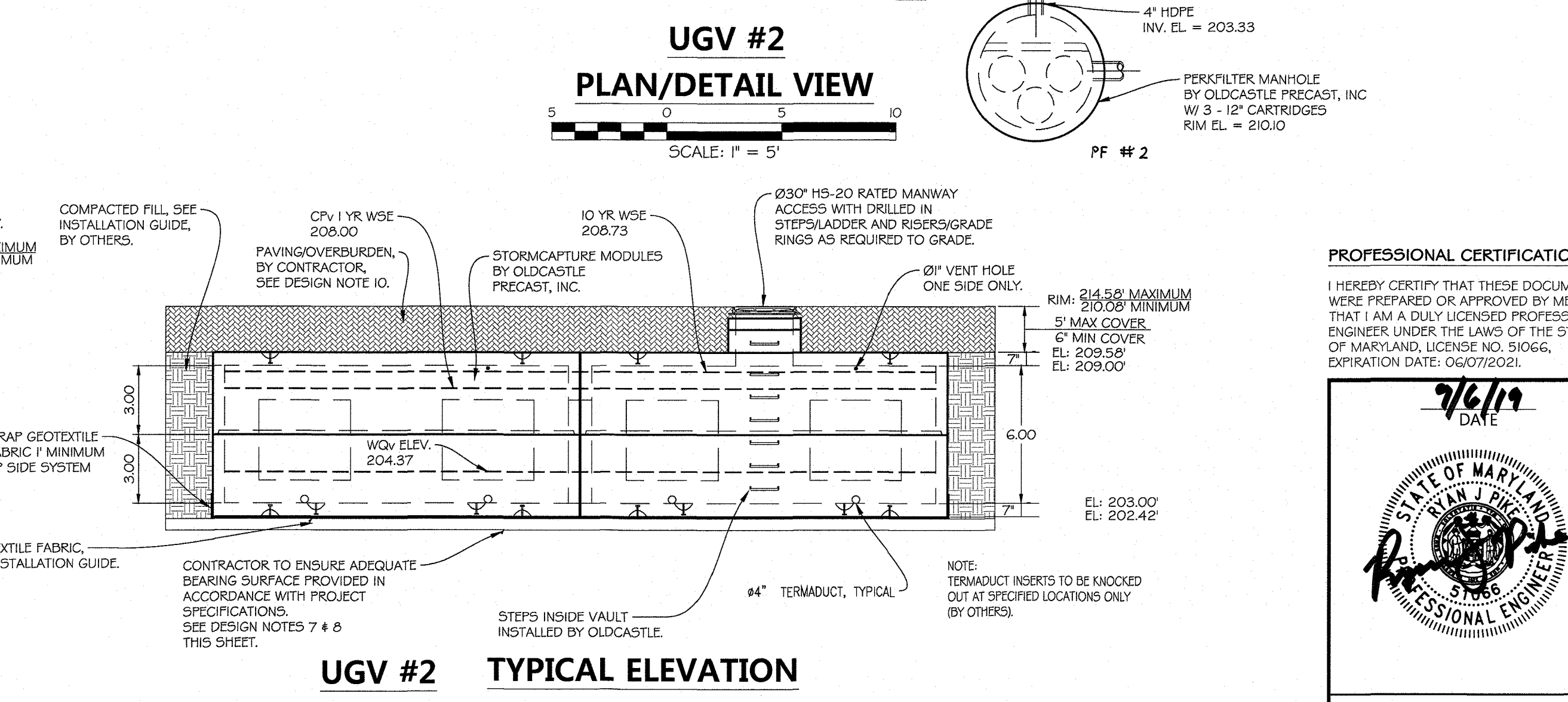
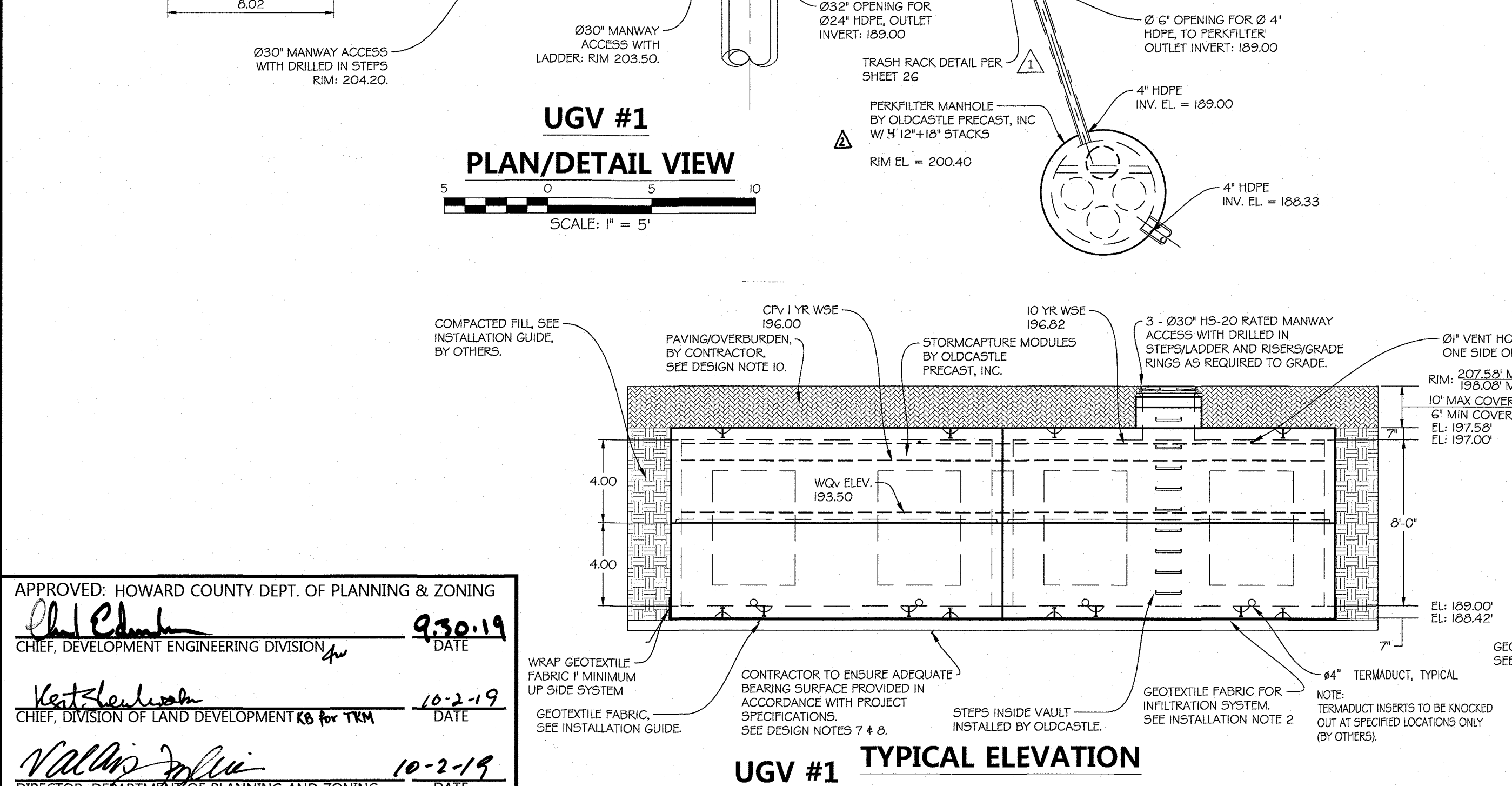
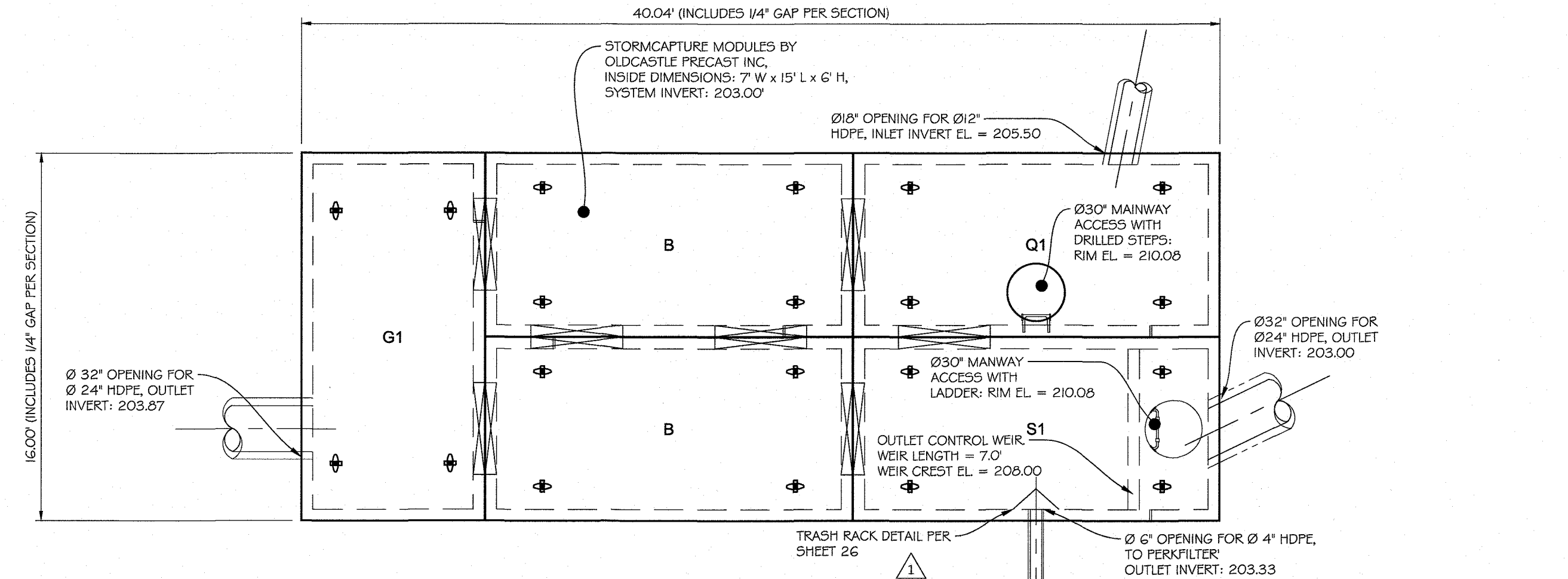
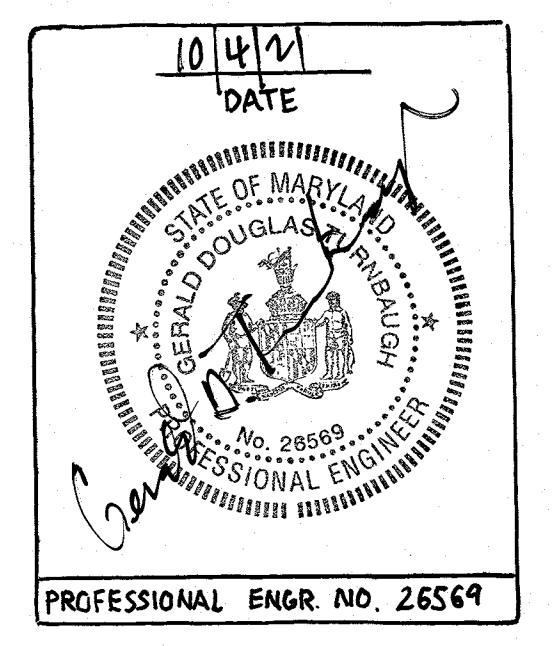


LEGEND

---	PROPERTY LINE
---	EX. CONTOURS
---	EX. EDGE OF ROAD
---	EX. GAS
---	EX. 4" W. EX. WATER
---	EX. 4" S. EX. SEWER
---	EX. 12" D. EX. STORM DRAIN
---	EX. TREE LINE
---	EX. SOILS
---	EX. EASEMENT
---	EX. STREAM
---	EX. WETLANDS BUFFER
---	EX. WETLANDS
---	EX. STREAM BUFFER
---	EX. FLOODPLAIN
---	PROP. EASEMENT
---	490
---	497
---	498
---	PROP. WATER
---	PROP. SEWER
---	PROP. STORM DRAIN
---	PROP. BUILDING
---	PROP. BUILDING OVERHEAD
---	FUTURE BUILDING EXPANSION
---	PROP. UNDERGROUND TUNNEL
---	PROP. CURB
---	PROP. ROLLED CURB
---	PROP. SIDEWALK
---	PROP. RETAINING WALL
---	PROP. FIRE LANE
---	PROP. TREE LINE
---	FOREST CONSERVATION EASEMENT
---	(M-G) MICRO-BIORETENTION FACILITY



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26569, EXPIRATION DATE: 07/18/2023.



UGV #2 NOTES:
 1. DESIGN LOADINGS:
 A. ASHTO H5-20-44 W/ IMPACT.
 B. DESIGN FILL: F MAXIMUM.
 C. ASSUMED WATER TABLE = BELOW INVERT.
 D. DRY LATERAL EARTH PRESSURE (EPP) = 45 PCF.
 E. LATERAL LIVE LOAD SURCHARGE = 60 PSF (APPLIED TO & BELOW GRADE).
 F. NO LATERAL SURCHARGE FROM ADJACENT BUILDINGS, WALLS, PIERS, OR FOUNDATIONS.
 2. CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE 5,000 PSI MINIMUM.
 3. STEEL REINFORCEMENT: REBAR, ASTM A-615 OR A-706, GRADE 60.
 4. CEMENT: ASTM C-150 SPECIFICATION.
 5. REQUIRED NATIVE ALLOWABLE SOIL BEARING PRESSURE = 2,500 PSF.
 6. REFERENCE STANDARD:
 A. ASTM C 478
 B. ASTM C 497
 7. THIS STRUCTURE IS DESIGNED TO THE PARAMETERS NOTED HEREIN. PLEASE VERIFY THAT THESE PARAMETERS MEET PROJECT REQUIREMENTS (I.E. LIVE LOAD, FILL RANGE, WATER TABLE). IF DESIGN PARAMETERS ARE INCORRECT, REVIEWING ENGINEER/AUTHORITY SHALL NOTIFY OLDCASTLE PRECAST UPON REVIEW OF THIS SUBMITTAL.
 8. OVERSIZED HOLES TO ACCOMMODATE SPECIFIC PIPE TYPE MUST BE CONCENTRIC TO PIPE ID. AFTER PIPES ARE INSTALLED, ALL ANNUAL SPACES SHALL BE FILLED WITH A MINIMUM OF 3000 PSI CONCRETE FOR FULL THICKNESS OF PRECAST WALLS.
 9. CONTRACTOR RESPONSIBLE TO VERIFY ALL SIZES, LOCATIONS AND ELEVATIONS OF OPENINGS.
 10. CONTRACTOR RESPONSIBLE TO ENSURE ADEQUATE BEARING SURFACE IS PROVIDED (I.E. COMPACTED AND LEVEL PER PROJECT SPECIFICATIONS).
 11. SECTION HEIGHTS, SLAB WALL THICKNESSES AND KEYWAYS ARE SUBJECT TO CHANGE DUE TO AVAILABILITY AND PRODUCTION PLANT CAPABILITY.
 12. MAXIMUM PICK WEIGHT: SECTION #1 WITH INTERNALS INSTALLED = 13,250 LBS.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 [Signature] 9-30-19 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 10-2-19 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING
 [Signature] 10-2-19 DATE
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 51066, EXPIRATION DATE: 06/07/2021.

7/6/19 DATE
 [Signature] PROFESSIONAL ENGR. NO. 51066

08-16-21	RR H2: UPDATE SITE FEATURES, GRADING + CARTRIDGES	
02-25-19	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC 4 UTILITY PLANS	
Date	No.	Revision Description
SHEPPARD PRATT HEALTH SYSTEM ELKRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N. CHARLES ST BALTIMORE, MD 21285-6815 410-938-3242		
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM		
SUBDIVISION NAME SECTION/AREA LOT/PARCEL #	ZONING TAX ZONE/MAP/GRID ELEC. DIST. CENSUS TRACT	LOT/PARCEL # 756 (PARCEL A4B) 3716423 6012.03
TITLE REPLACEMENT SHEET STORMWATER MANAGEMENT STORMFILTERER WQV PLAN	SCALE AS SHOWN	Proj. No. 10051.00
Des. By GDT/LAW/JPM	Date 08/16/2021	25 of 51
Drn. By DP/LAW/JPM	Approved MCB/KMA	SDP-18-033

PERKFILTER

INSPECTION AND MAINTENANCE GUIDE

MAINTENANCE OVERVIEW

STATE AND LOCAL REGULATIONS REQUIRE ALL STORMWATER MANAGEMENT SYSTEMS TO BE INSPECTED AND MAINTAINED AS NECESSARY TO ENSURE PERFORMANCE. PROTECTING DOWNSTREAM RECEIVING WATERS. MAINTENANCE PREVENTS EXCESSIVE POLLUTANT BUILDUP THAT CAN LIMIT SYSTEM PERFORMANCE BY REDUCING THE OPERATING CAPACITY AND INCREASING THE POTENTIAL FOR SCOURING OF POLLUTANTS DURING PERIODS OF HIGH FLOW.

INSPECTION AND MAINTENANCE FREQUENCY

THE PERKFILTER SHOULD BE INSPECTED TWICE PER YEAR AND MAINTAINED AS REQUIRED. INSPECTIONS OF THE SYSTEM, FOR THE FIRST YEAR, SHOULD BE CONDUCTED EVERY THREE MONTHS TO HELP ESTABLISH AN APPROPRIATE SITE-SPECIFIC INSPECTION FREQUENCY. THE MAINTENANCE FREQUENCY WILL BE DETERMINED BY THE AMOUNT OF RUNOFF AND POLLUTANT LOADING ENCOUNTERED BY A GIVEN SYSTEM. AT THE VERY LEAST, MAINTENANCE SHOULD BE PERFORMED ON THE SYSTEM ONCE EVERY THREE YEARS. INSPECTION AND MAINTENANCE ACTIVITIES SHOULD BE PERFORMED ONLY DURING DRY WEATHER PERIODS.

INSPECTION EQUIPMENT

THE FOLLOWING EQUIPMENT IS HELPFUL WHEN CONDUCTING PERKFILTER INSPECTIONS:

- RECORDING DEVICE (PEN AND PAPER FORM, VOICE RECORDER, IPAD, ETC.)
- SUITABLE CLOTHING (APPROPRIATE FOOTWEAR, GLOVES, HARDHAT, SAFETY GLASSES, ETC.)
- TRAFFIC CONTROL EQUIPMENT (CONES, BARRICADES, SIGNAGE, FLAGGING, ETC.)
- SOCKET AND WRENCH FOR BOLT-DOWN ACCESS COVERS
- MANHOLE HOOK OR PRY BAR
- FLASHLIGHT
- TAPE MEASURE
- MEASURING STICK OR SLUDGE SAMPLER
- LONG-HANDLED NET (OPTIONAL)

INSPECTION PROCEDURES

PERKFILTER INSPECTIONS ARE VISUAL AND MAY BE CONDUCTED FROM THE GROUND SURFACE WITHOUT ENTERING THE UNIT. TO COMPLETE AN INSPECTION, SAFETY MEASURES INCLUDING TRAFFIC CONTROL SHOULD BE DEPLOYED BEFORE THE ACCESS COVERS ARE REMOVED. ONCE THE COVERS HAVE BEEN REMOVED, THE FOLLOWING ITEMS SHOULD BE CHECKED AND RECORDED (SEE FORM PROVIDED AT THE END OF THIS DOCUMENT) TO DETERMINE WHETHER MAINTENANCE IS REQUIRED:

- INSPECT THE INTERNAL COMPONENTS AND NOTE WHETHER THERE ARE ANY BROKEN OR MISSING PARTS. IN THE UNLIKELY EVENT THAT INTERNAL PARTS ARE BROKEN OR MISSING, CONTACT OLDCASTLE STORMWATER AT (800) 579-8819 TO DETERMINE APPROPRIATE CORRECTIVE ACTION.
- NOTE WHETHER THE INLET PIPE IS BLOCKED OR OBSTRUCTED. THE OUTLET PIPE IS COVERED BY A REMOVABLE OUTLET HOOD AND CANNOT BE OBSERVED WITHOUT ENTERING THE UNIT.
- OBSERVE, QUANTIFY AND RECORD THE ACCUMULATION OF FLOATING TRASH AND DEBRIS IN THE INLET CHAMBER. THE SIGNIFICANCE OF ACCUMULATED FLOATING TRASH AND DEBRIS IS A MATTER OF JUDGMENT. A LONG-HANDLED NET MAY BE USED TO RETRIEVE THE BULK OF TRASH AND DEBRIS AT THE TIME OF INSPECTION IF FULL MAINTENANCE DUE TO ACCUMULATION OF FLOATING OILS OR SETTLED SEDIMENT IS NOT YET WARRANTED.
- OBSERVE, QUANTIFY AND RECORD THE ACCUMULATION OF OILS IN THE INLET CHAMBER. THE SIGNIFICANCE OF ACCUMULATED FLOATING OILS IS A MATTER OF JUDGMENT. HOWEVER, IF THERE IS EVIDENCE OF AN OIL OR FUEL SPILL, IMMEDIATE MAINTENANCE BY APPROPRIATE CERTIFIED PERSONNEL IS WARRANTED.
- OBSERVE, QUANTIFY AND RECORD THE AVERAGE ACCUMULATION OF SEDIMENT IN THE INLET CHAMBER AND TREATMENT CHAMBER. A CALIBRATED DIPSTICK, TAPE MEASURE, OR SLUDGE SAMPLER MAY BE USED TO DETERMINE THE AMOUNT OF ACCUMULATED SEDIMENT IN EACH CHAMBER. THE DEPTH OF SEDIMENT MAY BE DETERMINED BY CALCULATING THE DIFFERENCE BETWEEN THE MEASUREMENT FROM THE RIM OF THE PERKFILTER TO THE TOP OF THE ACCUMULATED SEDIMENT AND THE MEASUREMENT FROM THE RIM OF THE PERKFILTER TO THE BOTTOM OF THE PERKFILTER STRUCTURE. THE TOP OF THE ACCUMULATED SEDIMENT BELOW STANDING WATER TAKES SOME PRACTICE AND A LIGHT TOUCH, BUT INCREASED RESISTANCE AS THE MEASURING DEVICE IS LOWERED TOWARD THE BOTTOM OF THE UNIT INDICATES THE TOP OF THE ACCUMULATED SEDIMENT.
- FINALLY, OBSERVE, QUANTIFY AND RECORD THE AMOUNT OF STANDING WATER IN THE TREATMENT CHAMBER AROUND THE CARTRIDGES. IF STANDING WATER IS PRESENT, DO NOT INCLUDE THE DEPTH OF SEDIMENT THAT MAY HAVE SETTLED OUT BELOW THE STANDING WATER IN THE MEASUREMENT.

MAINTENANCE TRIGGERS

MAINTENANCE SHOULD BE SCHEDULED IF ANY OF THE FOLLOWING CONDITIONS ARE IDENTIFIED DURING THE INSPECTION:

- INTERNAL COMPONENTS ARE BROKEN OR MISSING.
- INLET PIPING IS OBSTRUCTED.
- THE ACCUMULATION OF FLOATING TRASH AND DEBRIS THAT CANNOT BE RETRIEVED WITH A NET AND/OR OIL IN THE INLET CHAMBER IS SIGNIFICANT.
- THERE IS MORE THAN 6" OF ACCUMULATED SEDIMENT IN THE INLET CHAMBER.
- THERE IS MORE THAN 4" OF ACCUMULATED SEDIMENT IN THE TREATMENT CHAMBER.
- THERE IS MORE THAN 4" OF STANDING WATER IN THE TREATMENT CHAMBER MORE THAN 24 HOURS AFTER END OF RAIN EVENT.
- A HAZARDOUS MATERIAL RELEASE (E.G. AUTOMOTIVE FLUIDS) IS OBSERVED OR REPORTED.
- THE SYSTEM HAS NOT BEEN MAINTAINED FOR 3 YEARS (WET CLIMATES) TO 5 YEARS (DRY CLIMATES).

MAINTENANCE EQUIPMENT

THE FOLLOWING EQUIPMENT IS HELPFUL WHEN CONDUCTING PERKFILTER MAINTENANCE:

- SUITABLE CLOTHING (APPROPRIATE FOOTWEAR, GLOVES, HARDHAT, SAFETY GLASSES, ETC.)
- TRAFFIC CONTROL EQUIPMENT (CONES, BARRICADES, SIGNAGE, FLAGGING, ETC.)
- SOCKET AND WRENCH FOR BOLT-DOWN ACCESS COVERS
- MANHOLE HOOK OR PRY BAR
- CONFINED SPACE ENTRY EQUIPMENT, IF NEEDED
- FLASHLIGHT
- TAPE MEASURE
- 3/16" SOCKET AND WRENCH TO REMOVE HOLD-DOWN STRUTS AND FILTER CARTRIDGE TOPS
- REPLACEMENT FILTER CARTRIDGES
- VACUUM TRUCK WITH WATER SUPPLY AND WATER JET

CONTACT OLDCASTLE STORMWATER AT (800) 579-8819 FOR REPLACEMENT FILTER CARTRIDGES. A LEAD TIME OF FOUR WEEKS IS RECOMMENDED.

MAINTENANCE PROCEDURES

MAINTENANCE SHOULD BE CONDUCTED DURING DRY WEATHER WHEN NO FLOW IS ENTERING THE SYSTEM. CONFINED SPACE ENTRY IS NECESSARY TO MAINTAIN VAULT AND MANHOLE PERKFILTER CONFIGURATIONS. ONLY PERSONNEL THAT ARE OSHA CONFINED SPACE ENTRY TRAINED AND CERTIFIED MAY ENTER UNDERGROUND STRUCTURES. CONFINED SPACE ENTRY IS NOT REQUIRED FOR CATCH BASIN PERKFILTER CONFIGURATIONS. ONCE SAFETY MEASURES SUCH AS TRAFFIC CONTROL ARE DEPLOYED, THE ACCESS COVERS MAY BE REMOVED AND THE FOLLOWING ACTIVITIES MAY BE CONDUCTED TO COMPLETE MAINTENANCE:

- REMOVE FLOATING TRASH, DEBRIS AND OILS FROM THE WATER SURFACE IN THE INLET CHAMBER USING THE EXTENSION NOZZLE ON THE END OF THE BOOM HOSE OF THE VACUUM TRUCK. CONTINUE USING THE VACUUM TRUCK TO COMPLETELY DEWATER THE INLET CHAMBER AND EVACUATE ALL ACCUMULATED SEDIMENT FROM THE INLET CHAMBER. SOME JETTING MAY BE REQUIRED TO FULLY REMOVE SEDIMENT. THE INLET CHAMBER DOES NOT NEED TO BE REFILLED WITH WATER AFTER MAINTENANCE IS COMPLETE. THE SYSTEM WILL FILL WITH WATER WHEN THE NEXT STORM EVENT OCCURS.
- REMOVE THE HOLD-DOWN STRUT FROM EACH ROW OF FILTER CARTRIDGES AND THEN REMOVE THE TOP OF EACH CARTRIDGE (THE TOP IS HELD ON BY FOUR 3/16" BOLTS) AND USE THE VACUUM TRUCK TO EVACUATE THE SPENT MEDIA. WHEN EMPTY, THE SPENT CARTRIDGES MAY BE EASILY LIFTED OFF THEIR SLIP COUPLERS AND REMOVED FROM THE VAULT. THE COUPLERS MAY BE LEFT INSERTED INTO COUPLINGS CAST INTO THE FALSE FLOOR TO PREVENT SEDIMENT AND DEBRIS FROM BEING WASHED INTO THE OUTLET CHAMBER DURING WASHDOWN.
- ONCE ALL THE SPENT CARTRIDGES HAVE BEEN REMOVED FROM THE STRUCTURE, THE VACUUM TRUCK MAY BE USED TO EVACUATE ALL ACCUMULATED SEDIMENT FROM THE TREATMENT CHAMBER. SOME JETTING MAY BE REQUIRED TO FULLY REMOVE SEDIMENT. TAKE CARE NOT TO WASH SEDIMENT AND DEBRIS THROUGH THE OPENINGS IN THE FALSE FLOOR AND INTO THE OUTLET CHAMBER. ALL MATERIAL REMOVED FROM THE PERKFILTER DURING MAINTENANCE INCLUDING THE SPENT MEDIA MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND/OR FEDERAL REGULATIONS. IN MOST CASES, THE MATERIAL MAY BE HANDLED IN THE SAME MANNER AS DISPOSAL OF MATERIAL REMOVED FROM SLUMPED CATCH BASINS OR MANHOLES.
- PLACE A FRESH CARTRIDGE IN EACH CARTRIDGE POSITION USING THE EXISTING SLIP COUPLERS AND URETHANE BOTTOM CAPS. IF THE VAULT IS EQUIPPED WITH STACKED CARTRIDGES, THE EXISTING OUTER AND INNER INTERCONNECTOR COUPLERS MUST BE USED BETWEEN THE STACKED CARTRIDGES TO PROVIDE HYDRAULIC CONNECTION. TRANSFER THE EXISTING VENT TUBES FROM THE SPENT CARTRIDGES TO THE FRESH CARTRIDGES. FINALLY, REFIT THE STRUTS TO HOLD THE FRESH CARTRIDGES IN PLACE.
- SECURELY REPLACE ACCESS COVERS, AS APPROPRIATE.
- MAKE ARRANGEMENTS TO RETURN THE EMPTY SPENT CARTRIDGES TO OLDCASTLE STORMWATER.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Howard County Dept. of Planning & Zoning
 Chief, Development Engineering Division
 DATE: 9-30-19

Howard County Dept. of Planning & Zoning
 Chief, Division of Land Development
 DATE: 10-2-19

Howard County Dept. of Planning & Zoning
 Director, Department of Planning and Zoning
 DATE: 10-2-19

STORMCAPTURE

INSPECTION AND MAINTENANCE GUIDE

INSPECTION AND MAINTENANCE OVERVIEW

STATE AND LOCAL REGULATIONS REQUIRE ALL STORMWATER MANAGEMENT SYSTEMS TO BE INSPECTED MAINTAINED TO ENSURE PERFORMANCE AND PROTECT DOWNSTREAM RECEIVING WATERS. INSPECTIONS SHOULD BE USED TO EVALUATE THE CONDITIONS OF THE SYSTEM. BASED ON THESE INSPECTIONS, MAINTENANCE NEEDS CAN BE DETERMINED. MAINTENANCE NEEDS VARY BY SITE AND SYSTEM. USING THIS INSPECTION & MAINTENANCE GUIDE, QUALIFIED MAINTENANCE PERSONNEL SHOULD BE ABLE TO PROVIDE A RECOMMENDATION FOR MAINTENANCE NEEDS. REQUIREMENTS MAY RANGE FROM MINOR ACCESS ACTIVITIES SUCH AS REMOVING TRASH, DEBRIS OR PIPE BLOCKAGES TO MORE SUBSTANTIAL ACTIVITIES SUCH AS VACUUMING AND REMOVAL OF SEDIMENT AND/OR NON-DRAINING WATER. LONG-TERM MAINTENANCE IS IMPORTANT TO THE OPERATION OF THE SYSTEM SINCE IT PREVENTS EXCESSIVE POLLUTANT BUILDUP THAT MAY LIMIT SYSTEM PERFORMANCE BY REDUCING THE OPERATING CAPACITY AND INCREASING THE POTENTIAL FOR SCOURING OF POLLUTANTS DURING PERIODS OF HIGH FLOW.

ONLY AUTHORIZED PERSONNEL SHALL INSPECT AND/OR ENTER A STORMCAPTURE SYSTEM. PERSONNEL MUST BE PROPERLY TRAINED BEFORE ENTERING ANY UNDERGROUND OR CONFINED SPACE STRUCTURE. TRAINING INCLUDES FAMILIARITY WITH AND ADHERENCE TO ANY AND ALL LOCAL, STATE AND FEDERAL REGULATIONS GOVERNING CONFINED SPACE ACCESS AND THE OPERATION, INSPECTION, AND MAINTENANCE OF UNDERGROUND STRUCTURES.

INSPECTION AND MAINTENANCE FREQUENCY

THE STORMCAPTURE SYSTEM SHOULD BE INSPECTED TWICE PER YEAR AND MAINTAINED AS REQUIRED. THE MAINTENANCE FREQUENCY WILL BE DETERMINED BY THE AMOUNT OF TRASH AND DEBRIS THAT LOADING ENCOUNTERED BY A GIVEN SYSTEM. AT THE VERY LEAST, MAINTENANCE SHALL BE PERFORMED ON THE SYSTEM ONCE EVERY TWO YEARS. LOCAL JURISDICTIONS MAY ALSO DICTATE INSPECTION AND MAINTENANCE FREQUENCIES.

INSPECTION EQUIPMENT

THE FOLLOWING EQUIPMENT IS HELPFUL WHEN CONDUCTING STORMCAPTURE INSPECTIONS:

- RECORDING DEVICE (PEN AND PAPER FORM, VOICE RECORDER, IPAD, ETC.)
- SUITABLE CLOTHING (APPROPRIATE FOOTWEAR, GLOVES, HARDHAT, SAFETY GLASSES, ETC.)
- TRAFFIC CONTROL EQUIPMENT (CONES, BARRICADES, SIGNAGE, FLAGGING, ETC.)
- MANHOLE HOOK OR PRY BAR
- CONFINED SPACE ENTRY EQUIPMENT, IF NEEDED
- FLASHLIGHT
- TAPE MEASURE
- MEASURING STICK OR SLUDGE SAMPLER
- LONG-HANDLED NET (OPTIONAL)

INSPECTION PROCEDURES

A STORMCAPTURE SYSTEM PROVIDES STRATEGICALLY PLACED ACCESS POINTS THAT MAY BE USED FOR INSPECTION. STORMCAPTURE INSPECTIONS ARE CONDUCTED VISUALLY FROM THE GROUND SURFACE, WITHOUT ENTERING THE UNIT. THIS LIMITS ASSESSMENT OF SEDIMENT DEPTH, WATER DRAIN DOWN, AND GENERAL CONDITION OF THE MODULES AND COMPONENTS, BUT A MORE DETAILED ASSESSMENT OF STRUCTURAL CONDITION MAY BE CONDUCTED DURING A MAINTENANCE EVENT. TO COMPLETE AN INSPECTION, SAFETY MEASURES INCLUDING TRAFFIC CONTROL SHOULD BE DEPLOYED BEFORE THE ACCESS COVERS ARE REMOVED. ONCE THE COVERS HAVE BEEN REMOVED, THE FOLLOWING ITEMS SHOULD BE INSPECTED AND RECORDED (SEE FORM PROVIDED AT THE END OF THIS DOCUMENT) TO DETERMINE WHETHER MAINTENANCE IS REQUIRED:

- OBSERVE INLET AND OUTLET PIPE PENETRATIONS FOR BLOCKAGE OR OBSTRUCTION.
- IF POSSIBLE, OBSERVE INTERNAL LIFE SAFFLES, FLOW CONTROL WEIRS OR ORIFICES, AND STEPS OR LADDERS TO DETERMINE WHETHER THEY ARE BROKEN, MISSING, OR POSSIBLY OBSTRUCTED.
- OBSERVE, QUANTIFY, AND RECORD THE SEDIMENT DEPTHS WITHIN THE MODULES.
- RETRIEVE AS MUCH FLOATING TRASH AS POSSIBLE WITH A LONG-HANDLED NET. IF A SIGNIFICANT AMOUNT OF TRASH REMAINS, MAKE NOTE IN THE INSPECTION & MAINTENANCE LOG.
- FOR INFILTRATION SYSTEMS, LOCAL REGULATIONS MAY REQUIRE MONITORING OF THE SYSTEM TO ENSURE DRAIN DOWN IS OCCURRING WITHIN THE REQUIRED PERMIT TIME PERIOD (TYPICALLY 24 TO 72 HOURS). IF THIS IS THE CASE, REFER TO LOCAL REGULATIONS FOR PROPER INSPECTION PROCEDURE.

MAINTENANCE INDICATORS

MAINTENANCE SHOULD BE SCHEDULED IF ANY OF THE FOLLOWING CONDITIONS ARE IDENTIFIED DURING THE INSPECTION:

- INLET OR OUTLET PIPING IS BLOCKED OR OBSTRUCTED.
- INTERNAL COMPONENTS ARE BROKEN, MISSING, OR OBSTRUCTED.
- ACCUMULATION OF MORE THAN SIX INCHES OF SEDIMENT ON THE SYSTEM FLOOR OR IN THE SLUMP, IF APPLICABLE.
- SIGNIFICANT ACCUMULATION OF FLOATING TRASH AND DEBRIS THAT CANNOT BE RETRIEVED WITH A NET.
- THE SYSTEM HAS NOT DRAINED COMPLETELY AFTER IT HASN'T RAINED FOR ONE TO THREE DAYS, OR THE DRAIN DOWN DOES NOT MEET PERMIT REQUIREMENTS.
- ANY HAZARDOUS MATERIAL IS OBSERVED OR REPORTED.

MAINTENANCE EQUIPMENT

THE FOLLOWING EQUIPMENT IS HELPFUL WHEN CONDUCTING STORMCAPTURE MAINTENANCE:

- SUITABLE CLOTHING (APPROPRIATE FOOTWEAR, GLOVES, HARDHAT, SAFETY GLASSES, ETC.)
- TRAFFIC CONTROL EQUIPMENT (CONES, BARRICADES, SIGNAGE, FLAGGING, ETC.)
- MANHOLE HOOK OR PRY BAR
- CONFINED SPACE ENTRY EQUIPMENT, IF NEEDED
- FLASHLIGHT
- TAPE MEASURE
- VACUUM TRUCK

MAINTENANCE PROCEDURES

MAINTENANCE SHOULD BE CONDUCTED DURING DRY WEATHER WHEN NO FLOW IS ENTERING THE SYSTEM. CONFINED SPACE ENTRY IS NECESSARY TO MAINTAIN VAULT AND MANHOLE PERKFILTER CONFIGURATIONS. ONLY PERSONNEL THAT ARE OSHA CONFINED SPACE ENTRY TRAINED AND CERTIFIED MAY ENTER UNDERGROUND STRUCTURES. ONCE SAFETY MEASURES SUCH AS TRAFFIC CONTROL HAVE BEEN DEPLOYED, THE ACCESS COVERS MAY BE REMOVED AND THE FOLLOWING ACTIVITIES MAY BE CONDUCTED TO COMPLETE MAINTENANCE:

- REMOVE TRASH AND DEBRIS USING AN EXTENSION ON THE END OF THE BOOM HOSE OF THE VACUUM TRUCK. CONTINUE USING THE VACUUM TRUCK TO COMPLETELY REMOVE ACCUMULATED SEDIMENT. SOME JETTING MAY BE NECESSARY TO FULLY EVACUATE SEDIMENT FROM THE SYSTEM FLOOR OR SLUMP. JETTING IS ACCEPTABLE IN SYSTEMS WITH SOLID CONCRETE FLOORS (REFERRED TO AS CLOSED-BOTTOM SYSTEMS). HOWEVER, JETTING IS NOT RECOMMENDED FOR OPEN-BOTTOM SYSTEMS WITH A GRAVEL FOUNDATION SINCE IT MAY CAUSE BEDDING DISPLACEMENT, UNDERMINING OF THE FOUNDATION, OR INTERNAL DISTURBANCE.
- ALL MATERIAL REMOVED FROM THE SYSTEM DURING MAINTENANCE MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS. IN MOST CASES, THE MATERIAL MAY BE HANDLED IN THE SAME MANNER AS DISPOSAL OF MATERIAL REMOVED FROM SLUMPED CATCH BASINS OR MANHOLES.
- INSPECT INLET AND OUTLET PIPE PENETRATIONS FOR CRACKING AND OTHER SIGNS OF MOVEMENT THAT MAY CAUSE LEAKAGE.
- INSPECT THE CONCRETE SPLASH PADS (APPLICABLE FOR OPEN-BOTTOM SYSTEMS ONLY) FOR PROPER FUNCTION AND PLACEMENT.
- INSPECT THE SYSTEM FOR MOVEMENT OF MODULES. THERE SHOULD BE LESS THAN 3/4-INCH SPACING BETWEEN MODULES.
- INSPECT THE GENERAL INTERIOR CONDITION OF MODULES FOR CONCRETE CRACKING OR DETRIORATION. IF THE SYSTEM CONSISTS OF HORIZONTAL JOINTS AS PART OF THE MODULES, INSPECT THOSE JOINTS FOR LEAKAGE, DISPLACEMENT OR DETRIORATION.

BE SURE TO SECURELY REPLACE ALL ACCESS COVERS, AS APPROPRIATE, FOLLOWING INSPECTION AND/OR MAINTENANCE. IF THE STORMCAPTURE MODULES OR ANY OF THE SYSTEM COMPONENTS SHOW SIGNIFICANT SIGNS OF CRACKING, SPALLING, OR DETRIORATION, CONTACT OLDCASTLE STORMWATER AT (800) 579-8819.

STORMCAPTURE INSTALLATION NOTES

SITE PREPARATION

EXCAVATION AND SUBGRADE SHALL BE COMPLETED PRIOR TO STORMCAPTURE DELIVERY.

EXCAVATION

- CONCRETE INVERT: DEPTH OF FILL + MODULE OUTSIDE HEIGHT + 2" SUBGRADE DEPTH
- OPEN BOTTOM: DEPTH OF FILL + MODULE OUTSIDE HEIGHT + SUBGRADE DEPTH**
- ** 6" MINIMUM, 5' MAXIMUM, UNLESS OTHERWISE NOTED
- EXCAVATION SHALL BE LARGE ENOUGH TO ALLOW ACCESS AROUND STRUCTURE FOR BACKFILLING AND COMPACTION EQUIPMENT.
- TRENCH SLOPING SHALL FOLLOW OSHA REQUIREMENTS.
- TO PREVENT EXCESSIVE WATER PRESSURE BUILD UP ON THE OUTSIDE OF THE MODULES, THE SITE MUST BE PREPARED AND GRADED TO PROPER DRAINAGE AROUND THE STORMCAPTURE SYSTEM.
- DEWATERING IS REQUIRED WHEN WATER LEVEL IS ABOVE BOTTOM OF SUBGRADE.

SUBGRADE

- NATIVE SOIL SHALL BE LEVEL AND COMPACTED ADEQUATELY TO ALLOW FOR REQUIRED BEARING CAPACITY ON DESIGN DOCUMENT.
- ADD 2" OF SAND FOR LEVING PURPOSES.
- GEOTEXTILE FABRIC AND CONTAINMENT MEMBRANE LINER.
- AN 8 OZ. NON-WOVEN GEOTEXTILE FABRIC MUST BE USED AS A SEPARATION LAYER AROUND THE STORMCAPTURE SYSTEM.
- WHEN THE PROJECT REQUIRES A CONTAINMENT MEMBRANE LINER, A LAYER OF 8 OZ. NON-WOVEN GEOTEXTILE FABRIC MUST BE USED ON BOTH THE INSIDE AND OUTSIDE FACE OF THE LINER.
- INSTALL CONTAINMENT MEMBRANE LINER PER MANUFACTURER'S RECOMMENDATIONS.
- AGGREGATE BEARING LAYER
- OPEN-BOTTOM MODULES ONLY ARE REQUIRED TO BE PLACED ON A CRUSHED AGGREGATE BEARING LAYER TO A DEPTH IN ACCORDANCE WITH STORMCAPTURE TECH NOTE SC-01.
- AGGREGATE BEARING LAYER MUST BE LEVEL AND COMPACTED PRIOR TO MODULE PLACEMENT.
- BACKFILLING SHALL BE IN 1 FT LIFTS WITH PROPER COMPACTION BETWEEN LIFTS. TYPICAL BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY OR AS SPECIFIED.
- EXPANSIVE SOIL MATERIAL SHALL NOT BE USED AS BACKFILL AROUND THE STRUCTURE.
- AGGREGATE BEARING LAYER MUST BE LEVEL AND COMPACTED PRIOR TO MODULE PLACEMENT.
- AN 8 OZ. NON-WOVEN GEOTEXTILE FABRIC MUST BE USED AS A SEPARATION LAYER AROUND THE AGGREGATE MATERIAL AND STORMCAPTURE SYSTEM.

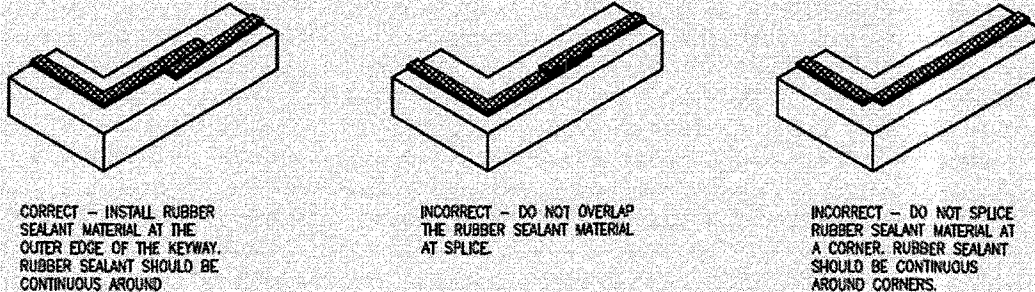
DELIVERY & INSTALLATION

STORMCAPTURE MODULES ARE TO BE INSTALLED IN ACCORDANCE WITH ASTM C891-90. INSTALLATION OF UNDERGROUND PRECAST UTILITY STRUCTURES, PROJECT PLAN AND SPECIFICATIONS MUST BE FOLLOWED ALONG WITH ANY APPLICABLE REGULATIONS.

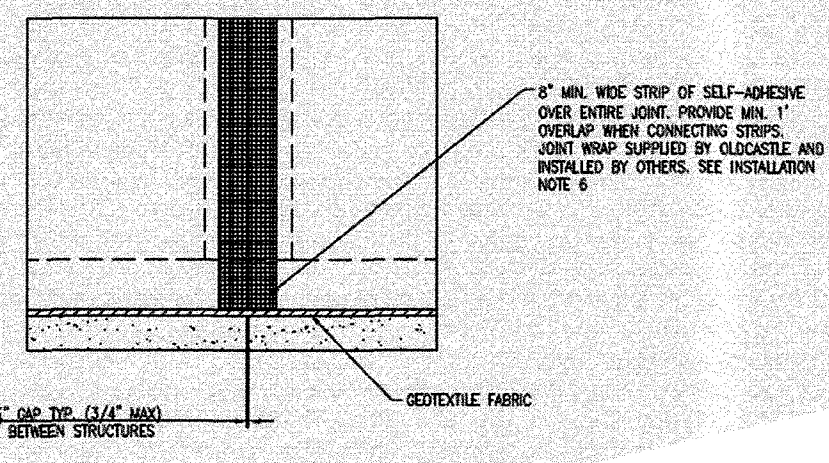
TIMING

- PLAN FOR FIRST DELIVERY OF STORMCAPTURE MODULES AFTER SITE PREPARATION IS COMPLETED.
- INDIVIDUAL PIECES CAN BE INSTALLED IN AS LITTLE AS 10 MINUTES.

KEYWAYS MUST BE FREE OF DIRT, ROCKS, AND WATER. ROCKS AND DIRT PREVENT THE VAULT SECTIONS FROM SEATING AND SEALING PROPERLY. REMOVE ALL OBSTRUCTIONS FROM RUBBER SEALANT MATERIAL. SPACE RUBBER SEALANT MATERIAL WITH A 3/16" BY 3/16" SECT. JOINT, AWAY FROM CORNERS. CORNER SPACING WILL NOT SEAL PROPERLY.



CONSEAL CS-102 BUTYL RUBBER SEALANT



MODULE JOINT DETAIL

STORMCAPTURE
 INSPECTION AND MAINTENANCE GUIDE

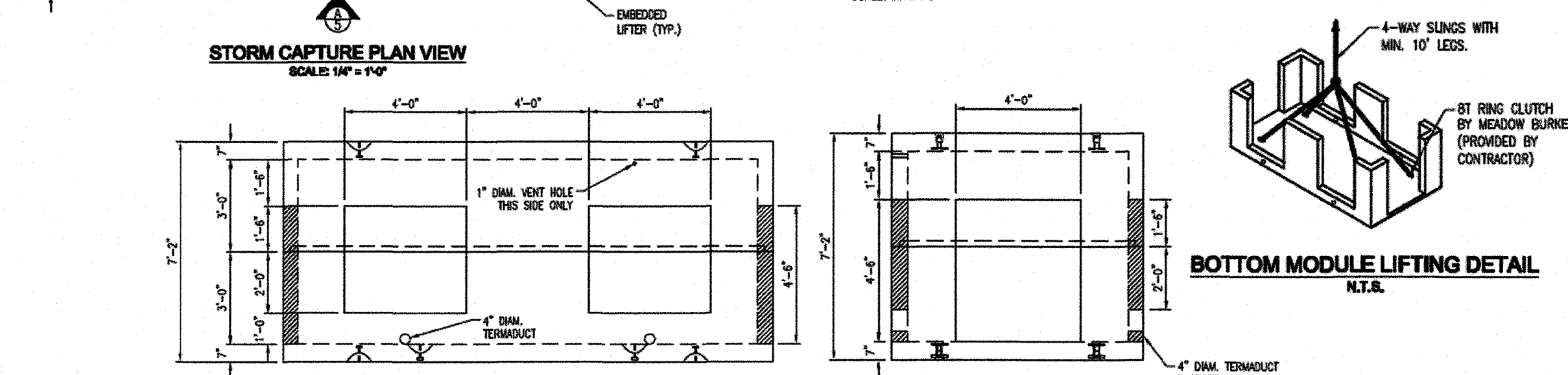
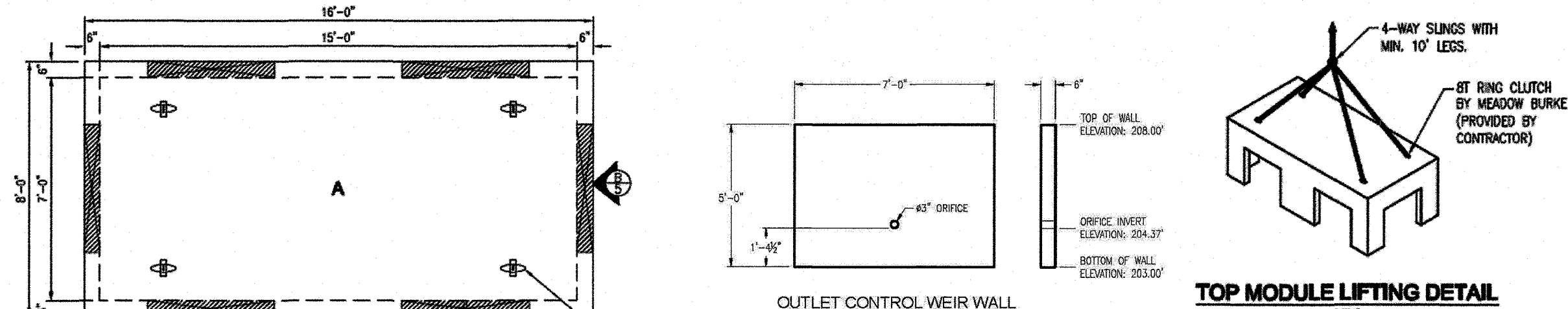
GENERAL NOTES:

THE STORMCAPTURE SYSTEM BY OLDCASTLE STORMWATER SOLUTIONS IS PART OF THE STORMWATER MANAGEMENT SYSTEM FOR THE RESPECTIVE SITE, AS PREPARED BY THE PROJECT DESIGN ENGINEER. IT IS THE RESPONSIBILITY OF THE DESIGN ENGINEER TO DETERMINE DESIGN FLOW RATES, PRE-TREATMENT AND POST-TREATMENT REQUIREMENTS, STORAGE VOLUME, AND ENSURE THE FINAL DESIGN MEETS ALL CONVEYANCE AND STORAGE REQUIREMENTS. SYSTEM DESIGN AND TYPE, SOIL ANALYSIS, LOADING REQUIREMENTS, COVER HEIGHT AND MODULE SIZE DETERMINE THE FOUNDATION TYPE AND REQUIREMENTS AS STATED HEREIN. ANY VARIATIONS FOUND DURING CONSTRUCTION FROM THE SITE AND SYSTEM ANALYSIS MUST BE REPORTED TO THE PROJECT DESIGN ENGINEER. THE PROJECT DESIGN ENGINEER IS RESPONSIBLE FOR OBTAINING A GEOTECHNICAL ENGINEERING REPORT VERIFYING THE BEARING CAPACITY STATED IN DESIGN NOTES.

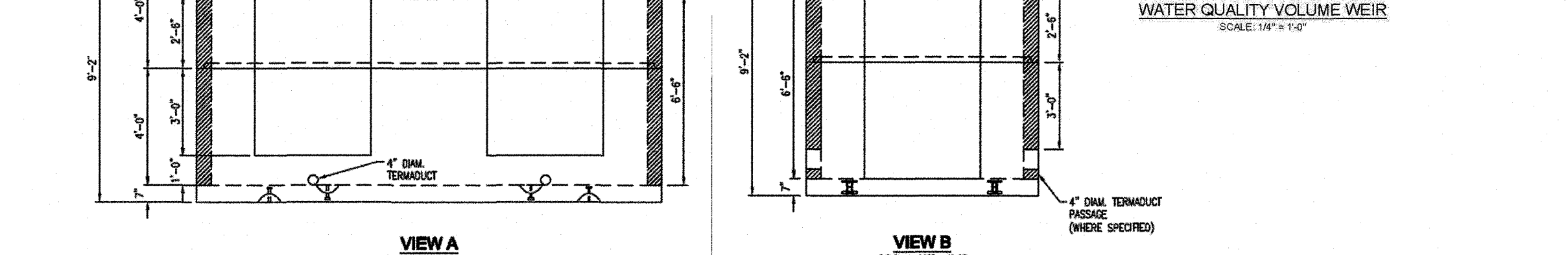
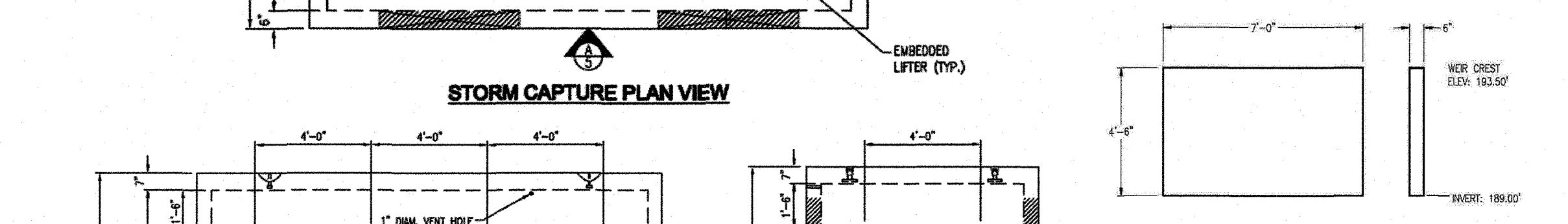
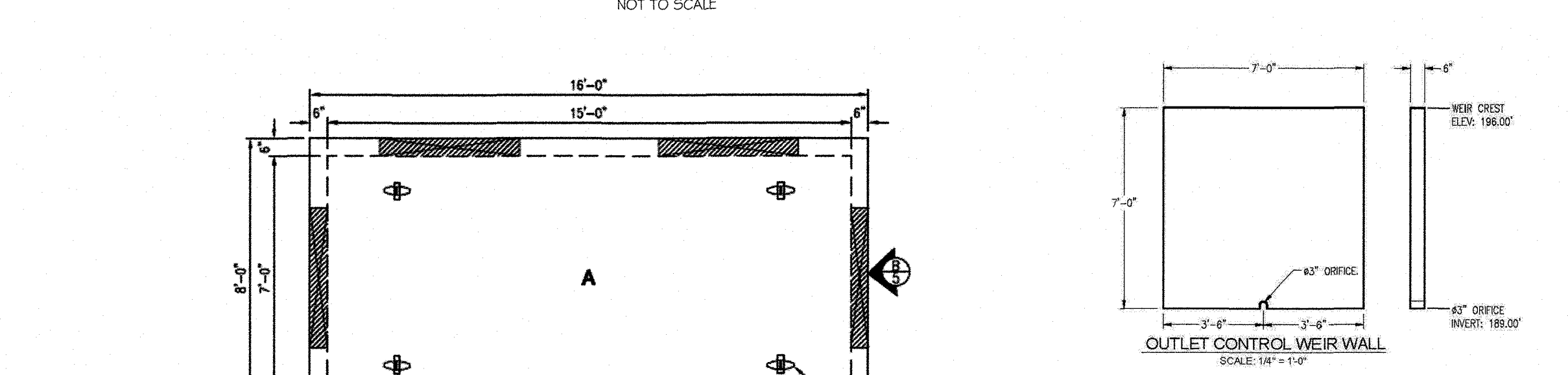
- DESIGN LOADINGS:**
- ASHTO H15-20-44 W/ IMPACT.
 - DEPTH OF COVER = 6" TO 5'-0".
 - ASSUMED WATER TABLE = BELOW BOTTOM.
 - EQUIVALENT FLUID PRESSURE = 45 PCF.
 - LATERAL LIVE LOAD SURCHARGE = 80 PSF.
 - NO LATERAL SURCHARGE FROM ADJACENT STRUCTURES.
- CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE 6,000 PSI.
 - STEEL REINFORCEMENT: REBAR, ASTM A-615, GRADE 60.
 - CEMENT: ASTM C-150 SPECIFICATION.
 - STORMCAPTURE MODULE TYPE = DETENTION.
 - REQUIRED BASE LAYER DEPTH = 2" SAND BEDDING LAYER.
 - REQUIRED NATIVE ALLOWABLE SOIL BEARING PRESSURE = 2,500 PSF.
- REFERENCE STANDARDS:**
- ASTM C 890
 - ASTM C 891
 - ASTM C 913
- LESS THAN 6" OR GREATER THAN 5'-0" OF COVER REQUIRES CUSTOM STRUCTURAL DESIGN AND MAY REQUIRE THICKER SUBGRADE.

INSTALLATION NOTES:

- STORMCAPTURE MODULES ARE TO BE INSTALLED IN ACCORDANCE WITH ASTM C891. INSTALLATION OF UNDERGROUND PRECAST UTILITY STRUCTURES, PROJECT PLAN AND SPECIFICATIONS MUST BE FOLLOWED ALONG WITH ANY APPLICABLE REGULATIONS.
- PLAN LINE, GRADE AND ELEVATIONS MUST BE FOLLOWED.
 - WHERE SPECIFIED, AN 8 OZ. NON-WOVEN GEOTEXTILE FABRIC MUST BE USED AS A SEPARATION LAYER AROUND THE STORMCAPTURE SYSTEM.
 - PENETRATIONS IN THE GEOTEXTILE MAY ONLY BE MADE WITH SMOOTH WALL PIPES. MAKE PENETRATIONS FOR ALL OUTLETS BEFORE MAKING PENETRATIONS FOR ANY INLETS.
 - SUBGRADE MATERIALS, IF SPECIFIED, SHALL BE CLEAN, DURABLE CRUSHED AGGREGATE COMPACTED AS DIRECTED BY THE ENGINEER. OLDCASTLE RECOMMENDS SIZE 5, 56, OR 57 (PER ASTM C33).
 - DESIGNATED EMBEDDED LIFTERS MUST BE USED. USE PROPER RIGGING TO ASSURE ALL LIFTERS ARE EQUALLY ENGAGED WITH A MINIMUM 60 DEGREE ANGLE ON SLINGS AS NOTED AND IN ACCORDANCE WITH OLDCASTLE LIFTING PROCEDURES.
 - MODULES MUST BE PLACED AS CLOSE TOGETHER AS POSSIBLE, AND GAPS SHALL NOT BE GREATER THAN 3/4" ALL EXTERIOR JOINTS SHALL BE COVERED WITH A MIN. 9" JOINT WRAP ON SIDES AND TOP (CS-212 CONSEAL OR EQUIVALENT) IN A CLAMSHHELL DESIGN. INSTALL ONE ROW CS-102 CONSEAL (OR EQUIVALENT) BETWEEN PRECAST PIECES.
 - AUTHORIZATION SHALL BE GIVEN BY THE PROJECT ENGINEER OR DESIGNATED PERSON PRIOR TO PLACEMENT ON BACKFILL FOR THE SYSTEM. CARE MUST BE TAKEN DURING PLACEMENT OF BACKFILL NOT TO DISPLACE MODULES OR JOINT WRAP. BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY OR AS SPECIFIED, AND SHALL NOT BE COMPACTED WITHIN 6" OF MODULE.
 - CONSTRUCTION EQUIPMENT EXCEEDING DESIGN LOADING SHALL NOT BE ALLOWED ON STRUCTURE.
 - TERMINOLOGY TO BE KNOCKED OUT AT SPECIFIED LOCATIONS IN FIELD BY OTHERS. SEE SITE LAYOUT FOR LOCATIONS.



UGV #2 - UNDERGROUND VAULT #2

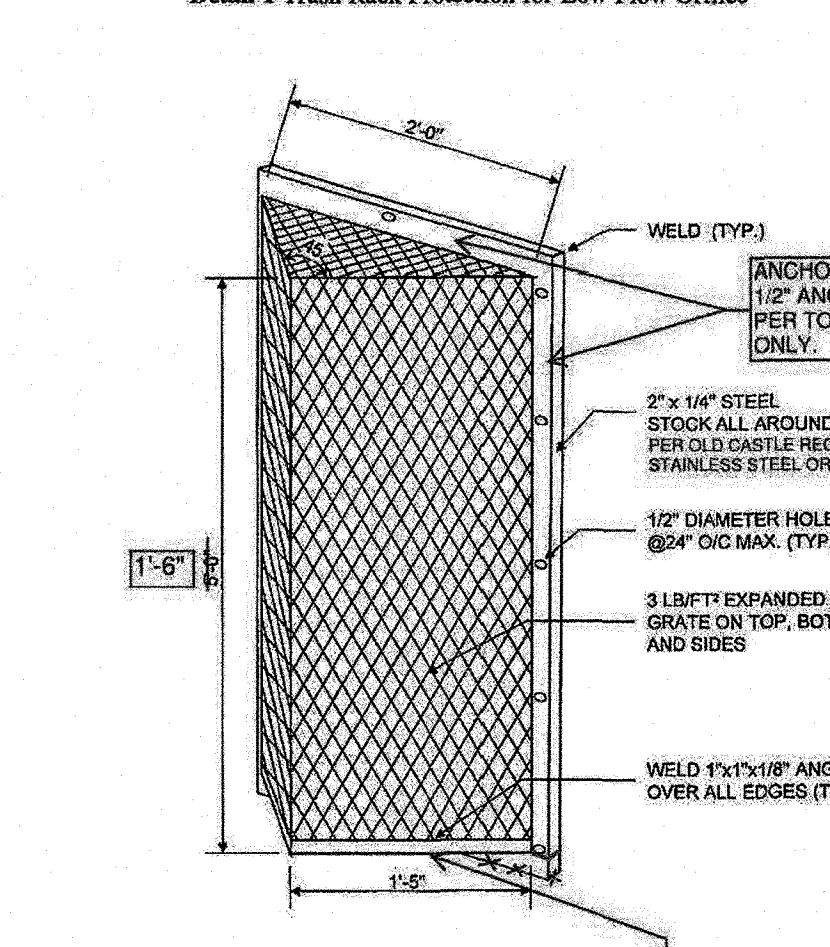


UNDERGROUND VAULT #1

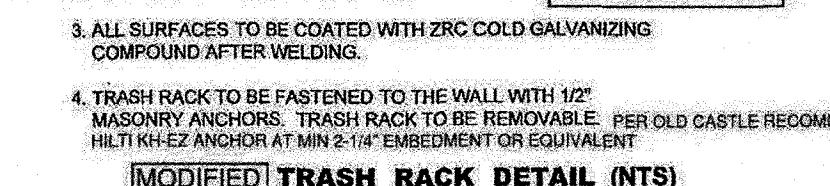


Appendix D.8. Miscellaneous Details for Compliance with Performance Criteria

Detail 1. Trash Rack Protection for Low Flow Orifice



- NOTES FOR TRASH RACK**
- TRASH RACK TO BE CENTERED OVER OPENING.
 - STEEL TO CONFORM TO ASTM A-36.
 - ALL SURFACES TO BE COATED WITH ZRC COLD GALVANIZING COMPOUND AFTER WELDING.
 - TRASH RACK TO BE FASTENED TO THE WALL WITH 1/2\"/>



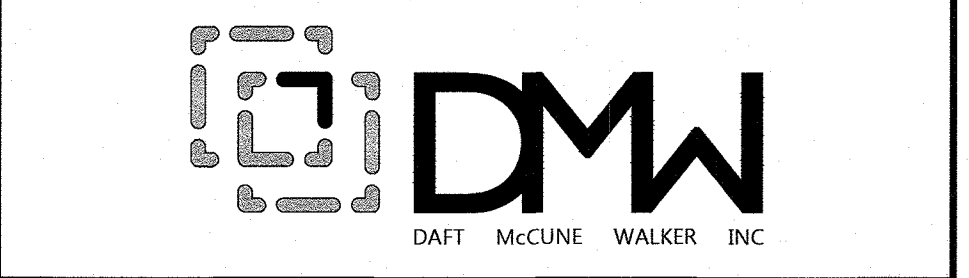
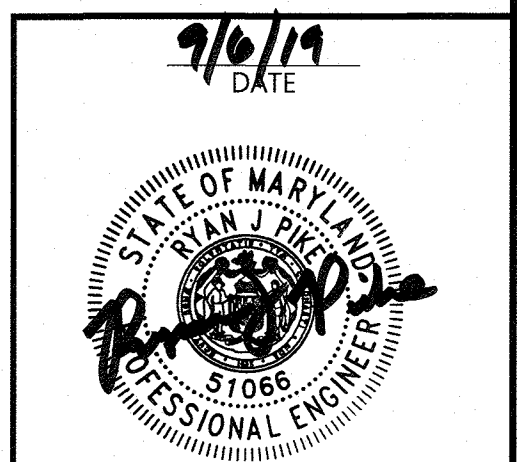
D.8.2

02-25-19	REDLINE REV. #1 - UPDATE SHM, SITE, GRADING, SEC 4 UTILITY PLANS
Date	Revision Description

SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY
 ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
 HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
 OWNER / DEVELOPER:
 SHEPPARD PRATT HEALTH SYSTEM INC.
 6501 N. CHARLES ST
 BALTIMORE, MD 21285-6815
 410-938-3242

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR DESIGNED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 51066, EXPIRATION DATE: 06/07/2021.



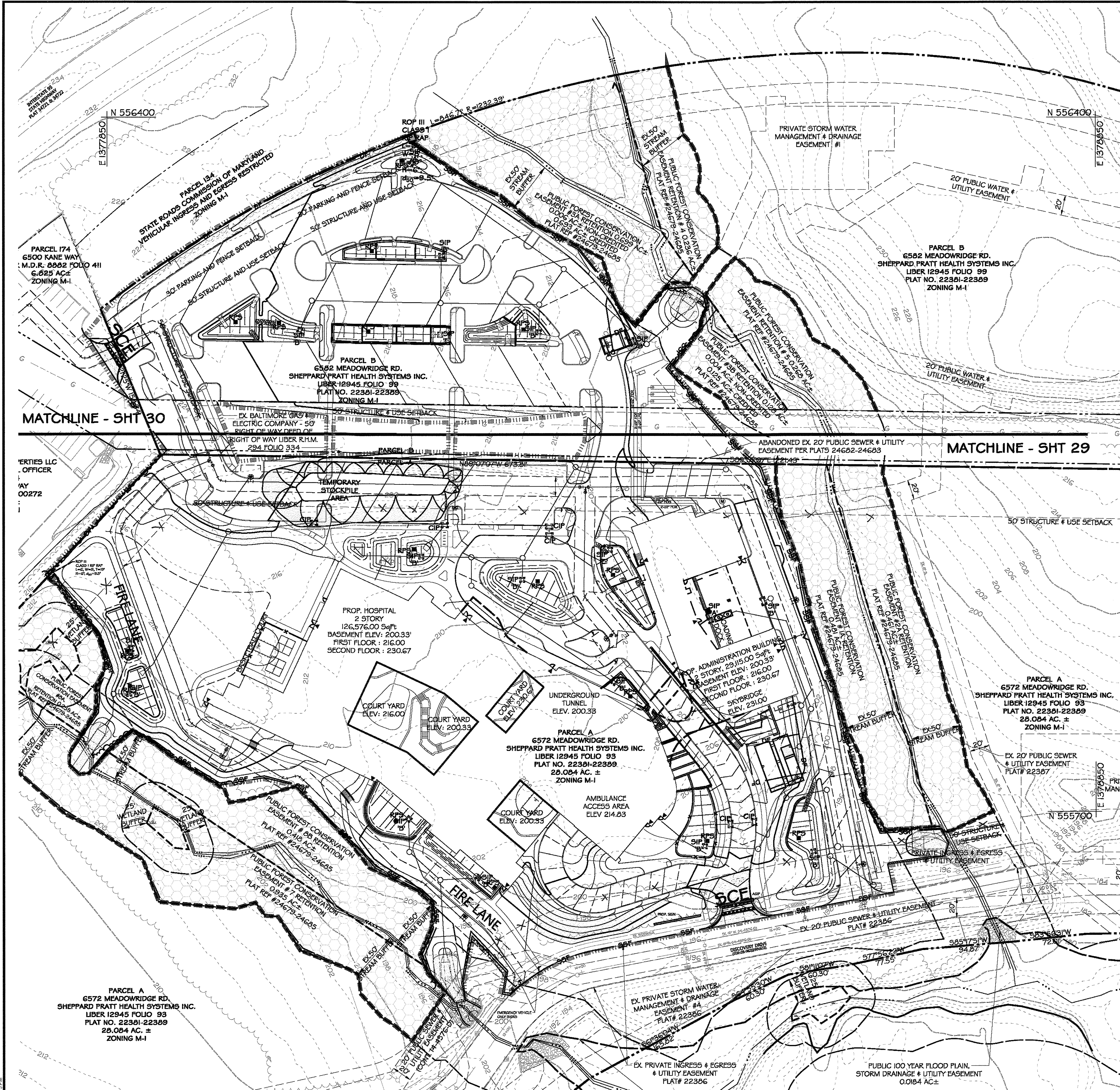
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
 PHONE: 410 296 3333 FAX: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
CONTRACT #5 BUSINESS PARK	756	(PARCEL 4B)
PLATE OR LOT	TAX ZONING/MAP/GRID	ELECT. DIST. CENSUS TRACT
24679-24625	371/6423	6012.03
WATER CODE	SEWER CODE	STAGE
5-02	020000	

TITLE REPLACEMENT SHEET
STORMWATER MANAGEMENT DETAILS AND INSPECTION & MAINTENANCE GUIDELINES

Des. By	GOT/JAW/JPM	SCALE	AS SHOWN	Proj. No.	10015.D0
Drn. By	DP/SLAJW/JPM	Date	07/12/2019		
Chk. By	GOT/JAW/JPM	Approved	MCR/KMA		26 of 51

SDP-18-033



SEQUENCE OF CONSTRUCTION

- OBTAIN A GRADING PERMIT FOR THE PROPOSED WORK.
- NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS AND LICENSES (DLP) AT LEAST 48 HOURS PRIOR TO BEGINNING WORK (2 DAYS).
- CLEAR AND GRUB FOR ALL THE EROSION AND SEDIMENT CONTROL DEVICES AND MEASURES ONLY.
- UPON APPROVAL BY THE SEDIMENT CONTROL INSPECTOR, BEGIN INSTALLATION OF THE FOLLOWING SEDIMENT CONTROL DEVICES AND MEASURES:
 - STABILIZED CONSTRUCTION ENTRANCES (SCE) WITH A MOUNTAINABLE BERM
 - SUPER SILT FENCE (SSF)
 - DIVERSION FENCE
 - ROCK OUTLET PROTECTION III

- NOTE: ENSURE ALL SEDIMENT CONTROL TRANSITIONS ARE SECURELY TIED IN TO PREVENT THE ESCAPE OF SEDIMENT. MAINTAIN POSITIVE DRAINAGE TO ALL SEDIMENT DEVICES DURING SITE CONSTRUCTION. (1 WEEK)
- ONCE PERIMETER CONTROLS ARE INSTALLED AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, MASS GRADE ALL AREAS WITHIN THE LIMIT OF DISTURBANCE.
 - WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, BEGIN CONSTRUCTION IMPROVEMENTS.
 - ROUGH-IN BUILDING PADS, BRING ROADS/DRIVE ISLES AND PARKING AREAS TO SUB-GRADE.
 - BEGIN CONSTRUCTION OF NEW BUILDINGS - HOSPITAL AND ADMINISTRATION BUILDING.
 - ROUGH GRADE 650 MICRO-BIORETENTION FACILITIES AND INSTALL STORM DRAIN UTILITIES PER SWM PLANS AND PERMANENTLY STABILIZE THE AREAS.
 - BEGIN CONSTRUCTION OF STORMWATER MANAGEMENT STORAGE/UNDERGROUND VAULT FACILITIES, TEMPORARILY BLOCK INFLOW/OUTFLOW OPENINGS AND ANY OTHER OPEN AREAS TO PREVENT SEDIMENT LOADED RUNOFF FROM ENTERING VAULTS UNTIL THE SITE HAS BEEN STABILIZED WITH ESTABLISHED VEGETATION AND/OR AS DEEMED STABILIZED PRIOR TO MAKING ACTIVE, PROVIDE DIVERSION FENCE (DF) AROUND NEWLY CONSTRUCTED STORAGE VAULTS.
 - INSTALL PROPOSED UTILITIES - STORMWATER DRAINS, SEWER AND WATER.
 - INSTALL STANDARD INLET PROTECTION, SIP, TYPE A & B AND CURB INLET PROTECTION, CIP, TO INLETS.
 - MAINTAIN POSITIVE DRAINAGE TO ALL SEDIMENT DEVICES DURING SITE CONSTRUCTION.
 - NO MASS GRADING WITHIN 10 FEET OF SEDIMENT CONTROL DEVICES.

- NOTE: DO NOT INSTALL FILTER MEDIA OR UNDERDRAINS IN MICRO-BIORETENTION FACILITY AT THIS TIME. USE REMOVABLE PUMPING STATION (RPS) AS NEEDED OR DIRECTED BY SEDIMENT CONTROL INSPECTOR. REMOVABLE PUMPING STATIONS ARE TO BE USED FOR DOWNSLOPING FACILITIES AFTER STORM EVENTS. DISCHARGE INTO EXISTING GRASSY AREAS.
- INSTALL SIDEWALKS, CURB AND GUTTER AND STONE SUB-BASE FOR ALL PAVED AREAS. PROVIDE CURB OPENINGS WHERE CALLED FOR.
 - FINE GRADE ALL OTHER DISTURBED AREAS NOT BEING PAVED AND PERMANENTLY STABILIZE THESE AREAS.
 - UPON STABILIZATION OF THE SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, FOR SWM AREAS INSTALL UNDERDRAINS, GRAVEL AND FILTER MEDIA IN MICRO-BIORETENTION FACILITY PER THE SWM PLANS. STABILIZE EACH FACILITY. MAKE ALL SWM FACILITIES ACTIVE.
 - UPON STABILIZATION OF THE SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS.

UTILITY NOTE

- CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH.
- PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
- ANY SEDIMENT DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

LEGEND

- PROPERTY LINE
- EX. CONTOURS
- EX. EDGE OF ROAD
- EX. GAS
- EX. WATER
- EX. SEWER
- EX. STORM DRAIN
- EX. EASEMENT
- SOILS
- EX. STREAM
- EX. WETLANDS BUFFER
- EX. WETLANDS
- EX. FOREST CONSERVATION
- PROP. FOREST CONSERVATION
- EX. STREAM BUFFER
- PROP. EASEMENT
- PROP. WATER
- PROP. SEWER
- PROP. STORM DRAIN
- PROP. TRENCH DRAIN
- PROP. BUILDING
- EX. TREE LINE
- PROP. TREE LINE
- FUTURE PROP. BUILDING
- PROP. SIDEWALK
- PROP. CURB
- PROP. RETAINING WALL
- LIMIT OF DISTURBANCE
- INLET
- MANHOLE
- PIPE END SECTION

SEC LEGEND

- DF DIVERSION FENCE
- SSF SUPER SILT FENCE
- CIP INLET PROTECTION
- AGIF REMOVABLE PUMPING STATION
- RPS ROCK OUTLET PROTECTION
- ROP III SOIL EROSION MATTING
- SCE STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTAINABLE BERM

HOWARD COUNTY SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1055 AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:
 - PRIOR TO THE START OF EARTH DISTURBANCE.
 - UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
 - PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT.
 - PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.
- OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE OBTAINED TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-4), AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-4) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15 FT. OF CUT AND/OR FILL STOCKPILES (SEC. B-4-5) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6).
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE CID.
- SITE ANALYSIS:

TOTAL AREA OF SITE	39.55 ACRES
TOTAL LIMIT OF DISTURBED AREA:	10.60 ACRES
AREA TO BE SCOOPED OR PAVED	6.16 ACRES
AREA TO BE VEGETATIVELY STABILIZED	4.44 ACRES
OFFSITE UTILITY CONSTRUCTION DISTURBED AREA	0.00 ACRES
OVERALL LIMITS OF DISTURBANCE	461,888 SQ FT / 10.60 AC ±
TOTAL CUT	33,479.99 CU YDS.
TOTAL FILL	17,306.37 CU YDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY, AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:
 - INSPECTION DATE
 - INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT)
 - NAME AND TITLE OF INSPECTOR
 - WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION)
 - BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES
 - EVIDENCE OF SEDIMENT DISCHARGES
 - IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE
 - IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS
 - COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS
 - PHOTOGRAPHS
 - MONITORING/SAMPLING
 - MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED
 - OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE).
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
- ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY BE ALLOWED BY THE CID PER THE LIST OF HSCD APPROVED FIELD CHANGES.
- DISTURBANCE SHALL NOT OCCUR OUTSIDE THE LOD. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE HSCD. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
- WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.
- TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.
- ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON THE-CONTOUR, AND BE IMBRICATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.
- STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE):
 - USE I AND IIP MARCH 1 - JUNE 15
 - USE III AND IIP OCTOBER 1 - APRIL 30
 - USE IV MARCH 1 - MAY 31
- A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.

LIMIT OF DISTURBANCE: 461,888 SF = 10.60 ACRES

PLAN

SCALE: 1" = 60'

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 11-19-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 11-30-18
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 12-3-18
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

OWNER/DEVELOPER CERTIFICATION:

"I HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

[Signature] 11/2/2018
OWNER'S / DEVELOPER'S SIGNATURE DATE

HARSH TRUPOI MD MBA PRESIDENT & CEO
PRINTED NAME & TITLE

DESIGN CERTIFICATION:

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

[Signature] 11/05/18
DESIGNER'S SIGNATURE DATE

Kevin M. Anderson
PRINTED NAME

NO REGISTRATION NO. 34661
R.L.S. OR R.L.A. (CIRCLE ONE)

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

[Signature] 11/16/18
HOWARD SOIL CONSERVATION DISTRICT DATE

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34661, EXPIRATION DATE: 07/02/2019.

11/05/18 DATE

[Signature]
PROFESSIONAL ENGR. NO. 34661

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286	756 (PARCEL A+B)
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM	
SUBDIVISION NAME SECTION/AREA LOT/PARCEL #	
CORRIDOR 99 BUSINESS MARK SECTION/AREA LOT/PARCEL #	
22304 & 22305-05 M-1 3716423 I 6012.03	
WATER CODE SEWER CODE STAGE	
B-02 4020000	

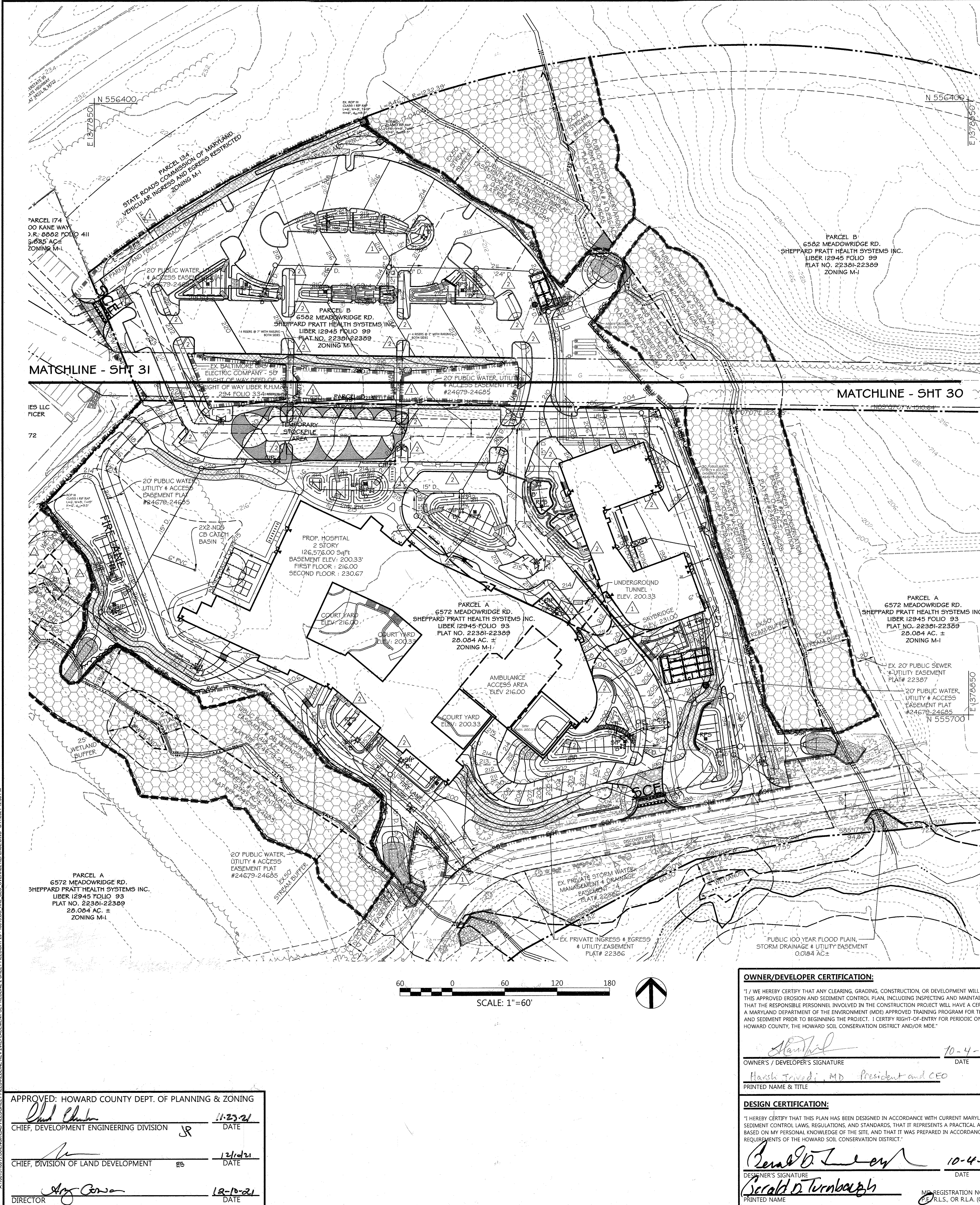
TITLE

SEDIMENT AND EROSION CONTROL OVERALL

Des. By GUTKIN/APM SCALE AS SHOWN Proj. No. 10015.DD

Drn. By DP/PLA/APM Date 07/12/2018

Chk. By GUTKIN/APM Approved MCB/KMA 28 of 50



SEQUENCE OF CONSTRUCTION

- PHASE I**
- OBTAIN A GRADING PERMIT FOR THE PROPOSED WORK.
 - NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS AND LICENSES (DPL) AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. (2 DAYS)
 - CLEAR AND GRUB FOR ALL THE EROSION AND SEDIMENT CONTROL DEVICES AND MEASURES ONLY.
 - UPON APPROVAL BY THE SEDIMENT CONTROL INSPECTOR, BEGIN INSTALLATION OF THE FOLLOWING SEDIMENT CONTROL DEVICES AND MEASURES:
 - STABILIZED CONSTRUCTION ENTRANCES (SCE) WITH A MOUNTABLE BERM
 - SUPER SILT FENCE (SSF)
 - DIVERSION FENCE
 - ROCK OUTLET PROTECTION III
 - DOUBLE ROW SUPER SILT FENCE ALONG STREAM BUFFER
- NOTE: ENSURE ALL SEDIMENT CONTROL TRANSITIONS ARE SECURELY TIED IN TO PREVENT THE ESCAPE OF SEDIMENT. MAINTAIN POSITIVE DRAINAGE TO ALL SEDIMENT DEVICES DURING SITE CONSTRUCTION. (1 WEEK)
- PHASE II**
- WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, BEGIN CONSTRUCTION IMPROVEMENTS.
 - ROUGH-IN BUILDING PADS, BRING ROADS/DRIVE LINES AND PARKING AREAS TO SUB-GRADE
 - BEGIN CONSTRUCTION OF NEW BUILDINGS - HOSPITAL AND ADMINISTRATION BUILDING.
 - ROUGH GRADE EXISTING MICRO-BIORETENTION FACILITIES AND INSTALL STORM DRAIN UTILITIES PER SWM PLANS AND PERMANENTLY STABILIZE THE AREAS.
 - BEGIN CONSTRUCTION OF STORMWATER MANAGEMENT STORAGE/UNDERGROUND VAULT FACILITIES. TEMPORARILY BLOCK INFLOW/OUTFLOW OPENINGS AND ANY OTHER OPEN AREAS TO PREVENT SEDIMENT LOADIN RUNOFF FROM ENTERING VAULTS UNTIL THE SITE HAS BEEN STABILIZED WITH ESTABLISHED VEGETATION AND/OR AS DEEMED STABILIZED PRIOR TO MAKING ACTIVE. PROVIDE DIVERSION FENCE (DF) AROUND NEWLY CONSTRUCTED STORAGE VAULTS.
 - INSTALL PROPOSED UTILITIES - STORMWATER DRAINS, SEWER AND WATER.
 - INSTALL STANDARD INLET PROTECTION, SIP, TYPE A & B AND CURB INLET PROTECTION, CIP, TO INLETS.
 - MAINTAIN POSITIVE DRAINAGE TO ALL SEDIMENT DEVICES DURING SITE CONSTRUCTION.
 - NO MASS GRADING WITHIN 10 FEET OF SEDIMENT CONTROL DEVICES.
- NOTE: DO NOT INSTALL FILTER MEDIA OR UNDERDRAINS IN MICRO-BIORETENTION FACILITY AT THIS TIME. USE REMOVABLE PUMPING STATION (RPS) AS NEEDED OR DIRECTED BY SEDIMENT CONTROL INSPECTOR. REMOVABLE PUMPING STATIONS ARE TO BE USED FOR DEWATERING FACILITIES AFTER STORM EVENTS. DISCHARGE INTO EXISTING GRASSY AREAS.
- INSTALL SIDEWALKS, CURB AND GUTTER AND STONE SUB-BASE FOR ALL PAVED AREAS. PROVIDE CURB OPENINGS WHERE CALLED FOR.
 - FINE GRADE ALL OTHER DISTURBED AREAS NOT BEING PAVED AND PERMANENTLY STABILIZE THESE AREAS. SEEDING AND/OR STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR THE TIME FRAMES SET FORTH IN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
 - UPON STABILIZATION OF THE SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, FOR SWM AREAS INSTALL UNDERDRAINS, GRAVEL AND FILTER MEDIA IN MICRO-BIORETENTION FACILITY PER THE SWM PLANS. STABILIZE EACH FACILITY. MAKE ALL SWM FACILITIES ACTIVE (ALLOW RUNOFF TO ENTER FACILITIES).
 - UPON STABILIZATION OF THE SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS.

UTILITY NOTE

- CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE) OF THE TRENCH.
- PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
- ANY SEDIMENT DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

LEGEND

- PROPERTY LINE
- EX. CONTOURS
- EX. EDGE OF ROAD
- EX. GAS
- EX. WATER
- EX. SEWER
- EX. STORM DRAIN
- EX. EASEMENT
- SOILS
- EX. STREAM
- EX. WETLANDS BUFFER
- EX. WETLANDS
- EX. FOREST CONSERVATION
- PROP. FOREST CONSERVATION
- EX. STREAM BUFFER
- PROP. EASEMENT
- PROP. CONTOURS
- PROP. WATER
- PROP. SEWER
- PROP. STORM DRAIN
- PROP. TRENCH DRAIN
- PROP. BUILDING
- EX. TREE LINE
- PROP. TREE LINE
- FUTURE PROP. BUILDING
- PROP. SIDEWALK
- PROP. CURB
- PROP. RETAINING WALL
- LIMIT OF DISTURBANCE
- INLET
- MANHOLE
- PIPE END SECTION

SEC LEGEND

- DF DIVERSION FENCE
 - SIP SUPER SILT FENCE
 - CIP INLET PROTECTION
 - RPS REMOVABLE PUMPING STATION
 - ROP III ROCK OUTLET PROTECTION
 - SOIL EROSION MATTING T= 2.25 LB/SF
 - STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM
- B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA**
- DEFINITION
A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.
- TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGES TO DRAINAGE PATTERNS.
- CONDITIONS WHERE PRACTICE APPLIES
STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE.
- CRITERIA
- THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
 - THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NO STEEPER THAN 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.
 - RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.
 - ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE.
 - CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.
 - WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.
 - STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.
 - IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHOULD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST BE COVERED WITH IMPERMEABLE SHEETING.
- MAINTENANCE
THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN A 2:1 RATIO. THE STOCKPILE AREA MUST BE KEPT FREE OF EROSION. IF THE VERTICAL HEIGHT OF A STOCKPILE EXCEEDS 20 FEET FOR 2:1 SLOPES, 30 FEET FOR 3:1 SLOPES, OR 40 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

OWNER/DEVELOPER CERTIFICATION:

"I/ WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

March Tvede 7-0-4-21
 OWNER'S / DEVELOPER'S SIGNATURE DATE
 PRINTED NAME & TITLE
 March Tvede, MD, President and CEO

DESIGN CERTIFICATION:

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

Serald D. Turnboagh 10-4-21
 DESIGNER'S SIGNATURE DATE
 PRINTED NAME
 Serald D. Turnboagh
 M.D. REGISTRATION NO. 26569
 (E, R.L.S., OR R.L.A. (CIRCLE ONE))

HOWARD COUNTY SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:
 - PRIOR TO THE START OF EARTH DISTURBANCE.
 - UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
 - PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT.
 - PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.
- OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE APPLIED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
 - FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
 - ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15 FT. OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-6) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6).
 - ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE CID.
- SITE ANALYSIS:**
- | | |
|---|----------------------------------|
| TOTAL AREA OF SITE | 39.55 ACRES |
| TOTAL LIMIT OF DISTURBANCE AREA | 10.60 ACRES |
| AREA TO BE ROOFED OR PAVED | 6.16 ACRES |
| AREA TO BE VEGETATIVELY STABILIZED | 4.44 ACRES |
| OFFSITE UTILITY CONSTRUCTION DISTURBED AREA | 0.00 ACRES |
| OVERALL LIMITS OF DISTURBANCE | 461,888 SF / 10.60 AC ± |
| TOTAL CUT | 33,479.99 CU. YDS. |
| TOTAL FILL | 17,306.37 CU. YDS. |
| OFFSITE WASTE/BORROW AREA LOCATION | NA - (AS NOTED ON APPROVED PLAN) |
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES WILL BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 - ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY, AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:
 - INSPECTION DATE
 - INSPECTION TYPE (ROUTINE, PRE-Storm Event, DURING RAIN Event)
 - NAME AND TITLE OF INSPECTOR
 - WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION)
 - BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G. PERCENT COMPLETED) AND/OR CURRENT ACTIVITIES
 - EVIDENCE OF SEDIMENT DISCHARGES
 - IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE
 - IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS
 - COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS
 - PHOTOGRAPHS
 - MONITORING/SAMPLING
 - MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED
 - OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE).
 - TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
 - ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY BE ALLOWED BY THE CID PER THE LIST OF HSCD APPROVED FIELD CHANGES.
 - DISTURBANCE SHALL NOT OCCUR OUTSIDE THE LOD. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE HSCD. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
 - WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.
 - TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.
 - ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBRICATED AT 25' MINIMUM INTERVALS WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.
 - STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE):
 - USE I AND IF MARCH 1 - JUNE 15
 - USE II AND IF OCTOBER 1 - APRIL 30
 - USE IV MARCH 1 - MAY 31
 - A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.

LIMIT OF DISTURBANCE: 461,888 SF = 10.60 ACRES

Date	No.	Revision Description
08-16-21	1	RR#2 - UPDATE SITE FEATURES & GRADING
02-25-19	1	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS

**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**
 ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
 HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
 OWNER / DEVELOPER:
 SHEPPARD PRATT HEALTH SYSTEM INC.
 6501 N. CHARLES ST.
 BALTIMORE, MD 21285-6815
 410-938-3242



501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
CORRIDOR 95 BUSINESS PARK		756 (PARCEL A&B)
PLAT OR LOT #	ZONE	TAX ZONE/PARAGRAPH
24679-24665	M-1	1
WATER CODE	SEWER CODE	ELECT. DIST. CENSUS TRACT
B-02	4020000	6012.03
		STAGE

TITLE: REVISED SITE DEVELOPMENT PLAN &&&
 SEDIMENT AND EROSION CONTROL OVERALL

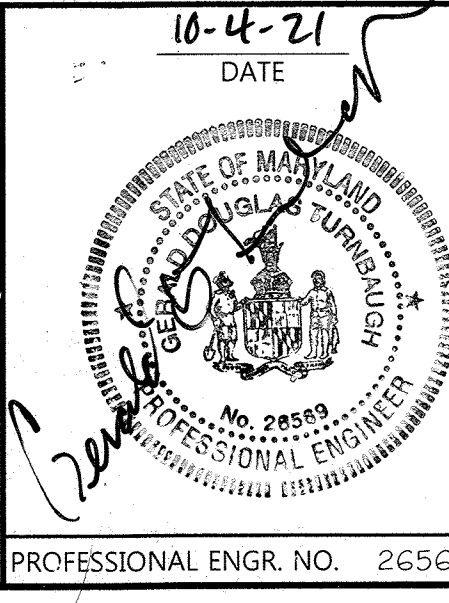
Des. By	GDT/SLAJJPM	SCALE	AS SHOWN	Proj. No.	10015.00
Drn. By	DP/SLAJJPM	Date	08/06/2021		
Chk. By	GDT/KM/FLM	Approved	MCB/MMA	29 of 51	

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
David Clark 11-23-21
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Greg 12/16/21
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Alex Benson 12-10-21
 DIRECTOR DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
Phil Roberts 11/3/21
 HOWARD SOIL CONSERVATION DISTRICT DATE



MATCHLINE - SHT 30

MATCHLINE - SHT 30

LEGEND

- PROPERTY LINE
- EX. CONTOURS
- EX. EDGE OF ROAD
- EX. GAS
- EX. WATER
- EX. SEWER
- EX. STORM DRAIN
- EX. EASEMENT
- SOILS
- EX. STREAM
- EX. WETLANDS BUFFER
- EX. WETLANDS
- EX. FOREST CONSERVATION
- PROP. FOREST CONSERVATION
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- EX. TREE LINE
- PROP. TREE LINE
- FUTURE PROP. BUILDING
- PROP. SIDEWALK
- PROP. CURB
- PROP. RETAINING WALL
- LIMIT OF DISTURBANCE
- INLET
- MANHOLE
- PIPE END SECTION

PROPERTIES LLC
 NANCY OFFICER
 EL 174
 ANE WAY
 7975X00272
 5 AC±
 ZONING M-1

ROP III
 CLASS I RIP RAIF
 L=6', W=9', T=18"
 H=6', d₅₀=9.5"

MB #9

MB #8

MB #7

MB #6

MB #5

MB #4

MB #3

MB #2

MB #1

MB #12

OWNER/DEVELOPER CERTIFICATION:
 I, THE UNDERSIGNED, HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERSONS ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

[Signature] 10-11-21
 DATE
 OWNER'S / DEVELOPER'S SIGNATURE
 PRINTED NAME & TITLE
 Presh Trivedi, President and CEO

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

[Signature] 10-4-21
 DATE
 DESIGNER'S SIGNATURE
 PRINTED NAME
 Gerald D. Turnbaugh, MD REGISTRATION NO. 26569
 (R.L.S., OR R.L.A. (CIRCLE ONE))

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
[Signature] 11-23-21
 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 12/16/21
 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 12-10-21
 DATE
 DIRECTOR

SEC LEGEND

- DF DIVERSION FENCE
- SIF SUPER SILT FENCE
- CIP INLET PROTECTION
- RPS REMOVABLE PUMPING STATION
- ROP III ROCK OUTLET PROTECTION
- SOIL EROSION MATTING T ≥ 2.25 LB/SF
- STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM

NOTE:
 CONTROL DEVICES INTERRUPTED BY STORM DRAIN INSTALLATION TO BE REPAIRED OR REPLACED AT THE END OF EACH WORKING DAY.

SCALE: 1" = 30'



- PROP. CONC
- PROP. PAVING (HMA)

LIMIT OF DISTURBANCE = 461,196 SF / 10.59 AC ±

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
[Signature] 11/3/21
 DATE
 HOWARD SOIL CONSERVATION DISTRICT

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26569, EXPIRATION DATE: 07/15/2023.

[Signature] 10-4-21
 DATE
 PROFESSIONAL ENGR. NO. 26569

Date	No.	Revision Description
08-16-21	1	RR#2 - UPDATE SITE FEATURES & GRADING
02-25-19	1	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS

**SHEPPARD PRATT HEALTH SYSTEM
 ELKBRIDGE CAMPUS
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 ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
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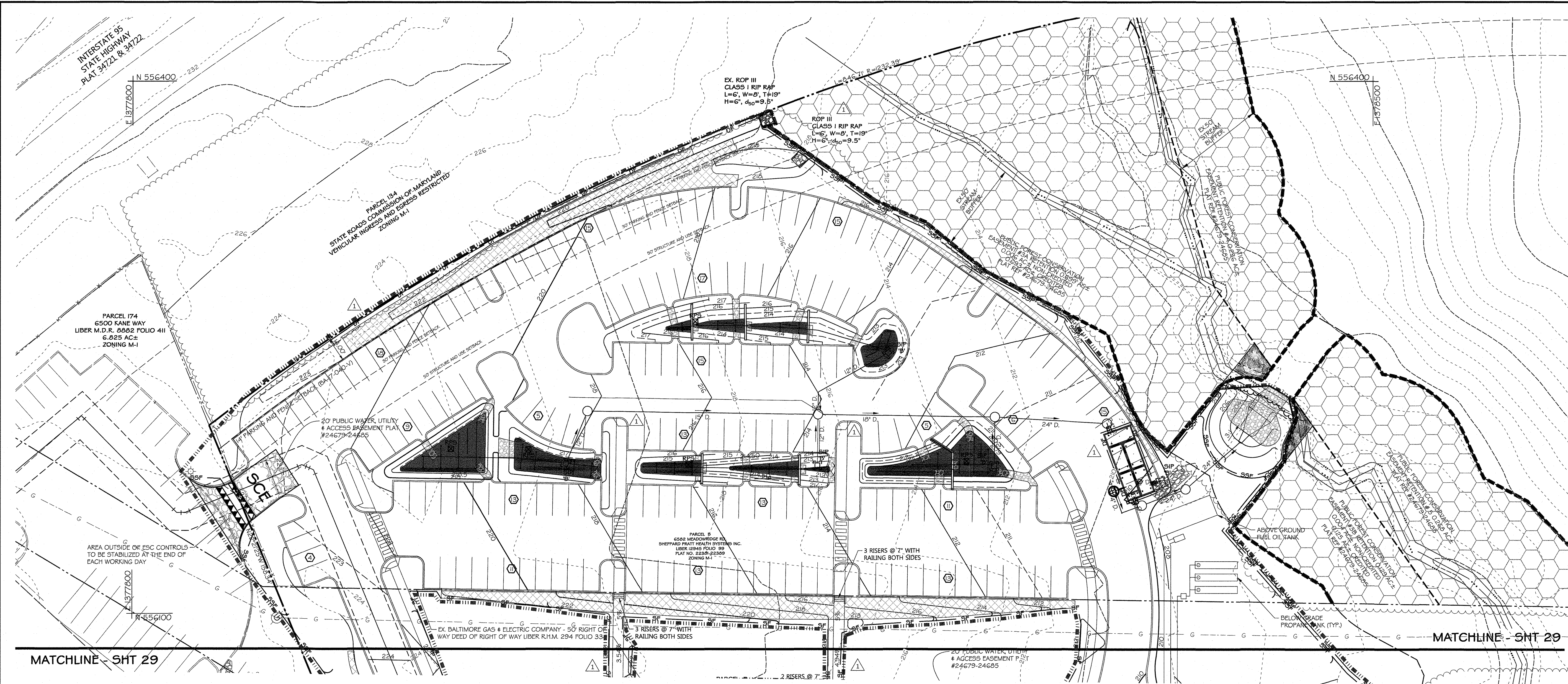
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
 P: 410.296.3333 F: 410.296.4705 WWW.DMW.COM

SUBDIVISION NAME: CORRIDOR 95 BUSINESS PARK
 SECTION/AREA: 756 (PARCEL A#8)
 LOT/PARCEL #:
 PLAT OR LIF: 24679-24685
 ZONE: M-1
 TAX ZONE/MAP/GRID: 3716423
 ELECT. DIST: 6012.03
 WATER CODE: B-02
 SEWER CODE: 4020000
 STAGE: 6012.03

TITLE: REVISED SITE DEVELOPMENT PLAN AND EROSION CONTROL PLAN - I

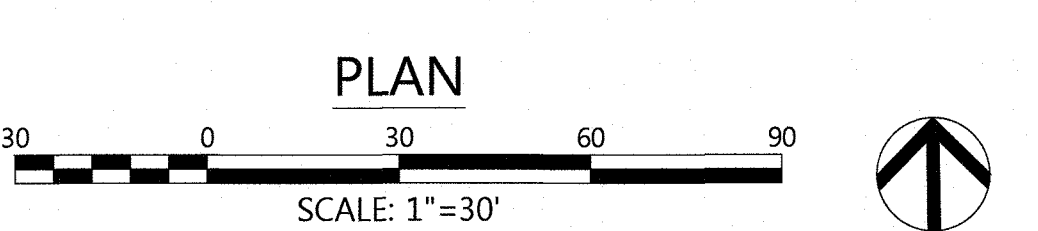
Des. By: GDT/SLA/JFM SCALE: AS SHOWN Proj. No.: J0015.D0
 Drn. By: OPA/SLA/JFM Date: 08/16/2021
 Chk. By: GDT/MA/PHL Approved: MCK/RMA 30 of 51

SDP-18-033



- LEGEND**
- PROPERTY LINE
 - 490- EX. CONTOURS
 - 488- EX. EDGE OF ROAD
 - 2'-4" W- EX. GAS
 - EX. 4" S- EX. WATER
 - EX. 12" D- EX. SEWER
 - EX. 12" D- EX. STORM DRAIN
 - EX. EASEMENT
 - AWB SOILS
 - L&C EX. STREAM
 - EX. WETLANDS BUFFER
 - EX. WETLANDS
 - EX. FOREST CONSERVATION
 - PROP. FOREST CONSERVATION
 - EX. STREAM BUFFER
 - PROP. EASEMENT
 - 490- PROP. CONTOURS
 - 488- PROP. WATER
 - 2' W- PROP. SEWER
 - 12" SD- PROP. STORM DRAIN
 - @ TD- PROP. TRENCH DRAIN
 - PROP. BUILDING
 - EX. TREE LINE
 - PROP. TREE LINE
 - FUTURE PROP. BUILDING
 - PROP. SIDEWALK
 - PROP. CURB
 - PROP. RETAINING WALL
 - LIMIT OF DISTURBANCE
 - INLET
 - MANHOLE
 - PIPE END SECTION
- SEC LEGEND**
- DF DIVERSION FENCE
 - S5F SUPER SILT FENCE
 - [] SIP [] SIP INLET PROTECTION
 - [] RPS [] RPS REMOVABLE PUMPING STATION
 - [] ROP III [] ROP III ROCK OUTLET PROTECTION
 - [] SEIL SOIL EROSION MATTING
 - [] T=2.25 LB/5F T=2.25 LB/5F
 - [] STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM

NOTE:
CONTROL DEVICES INTERRUPTED BY STORM DRAIN INSTALLATION TO BE REPAIRED OR REPLACED AT THE END OF EACH WORKING DAY.



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Chad Edmonson 8-30-19
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Neil Bellon 10-2-19
CHIEF, DIVISION OF LAND DEVELOPMENT FOR TRM DATE

William J. Blair 10-2-19
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

OWNERS/DEVELOPER CERTIFICATION:

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHTS-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

Thomas D. Hess 9/9/19
OWNER'S/DEVELOPER'S SIGNATURE DATE
THOMAS D. HESS, CHIEF OF STAFF

DESIGN CERTIFICATION:

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

Ryan J. Pike 9/6/19
DESIGNER'S SIGNATURE DATE
RYAN J. PIKE 51066
PRINTED NAME # TITLE
REGISTRATION NO. 51066 (L.S. OR R.L.A. (CIRCLE ONE))

John R. Roberts 9/24/19
HOWARD SOIL CONSERVATION DISTRICT DATE

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 51066, EXPIRATION DATE: 06/07/2021.

9/6/19 DATE

PROFESSIONAL ENGR. NO. 51066

Date	No.	Revision Description
02-25-19	1	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC 4 UTILITY PLANS

**SHEPPARD PRATT HEALTH SYSTEM
ELKCRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**

ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3212

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
CORRIDOR 99 BUSINESS PARK	756 (PARCEL A4B)	
PLATE OR L.P.	TAX ZONE/MAP/GRID	ELECT. DIST. CENSUS TRACT
24679-24685	M-1 3716423	1 6D12.03
WATER CODE	SEWER CODE	STAGE
9-02	4020000	

TITLE: REPLACEMENT SHEET
SEDIMENT AND EROSION CONTROL PLAN - 2

Des. By	SCALE	AS SHOWN	Proj. No.	10015.DD
Des. By: GDT/SLA/JPM	SCALE: AS SHOWN		Proj. No. 10015.DD	
Drn. By: DP/SLA/JPM	Date: 07/12/2016			
Chk. By: GDT/KM/PLH	Approved: MCB/KMA			

31 of 51

SDP-18-033



DA	AREA (AC)	DEVICE
A	0.75 AC	DF
AA	0.86 AC	SIP 'B'
B	0.10 AC	SIP 'A'
BB	0.57 AC	SIP 'B'
C	0.08 AC	DF
CC	0.10 AC	CIP
D	0.08 AC	SSP
DD	0.08 AC	CIP
E	0.63 AC	SIP 'B'
F	0.57 AC	SIP 'B'
G	0.31 AC	SIP 'B'
H	0.53 AC	SIP 'B'
I	0.39 AC	SIP 'B'
J	0.49 AC	SSP
K	0.29 AC	SIP 'B'
L	0.24 AC	CIP
M	0.17 AC	CIP
N	0.20 AC	CIP
O	0.61 AC	SIP 'B'
P	0.26 AC	SIP 'B'
Q	0.51 AC	SIP 'B'
R	0.30 AC	SIP 'B'
S	0.10 AC	CIP
T	0.71 AC	SSP
U	0.65 AC	SIP 'B'
V	0.57 AC	SIP 'B'
W	0.55 AC	SIP 'B'
X	0.10 AC	SIP 'A'
Y	0.34 AC	SIP 'B'
Z	0.17 AC	SIP 'A'

LEGEND

- PROPERTY LINE
- EX. CONTOURS
- EX. EDGE OF ROAD
- EX. GAS
- EX. WATER
- EX. 2" W
- EX. 4" S
- EX. 12" D
- EX. STORM DRAIN
- EX. EASEMENT
- SOILS
- EX. STREAM
- EX. WETLANDS BUFFER
- EX. WETLANDS
- EX. FOREST CONSERVATION
- PROP. FOREST CONSERVATION
- EX. STREAM BUFFER
- PROP. EASEMENT
- PROP. CONTOURS
- PROP. WATER
- PROP. SEWER
- PROP. STORM DRAIN
- PROP. TRENCH DRAIN
- PROP. BUILDING
- EX. TREE LINE
- PROP. TREE LINE
- PROP. SIDEWALK
- PROP. CURB
- PROP. RETAINING WALL
- LIMIT OF DISTURBANCE
- INLET
- MANHOLE
- FIRE END SECTION
- DRAINAGE DIVIDE

SEC LEGEND

- DF DIVERSION FENCE
- SSP SUPER SILT FENCE
- SIP INLET PROTECTION
- AGIP
- RPS REMOVABLE PUMPING STATION
- RCP III
- ROCK OUTLET PROTECTION
- SOIL EROSION MATTING
- STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM

PLAN
 SCALE: 1" = 60'
 0 60 120 180

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Chad Phillips 11-19-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Krista Lynch 11-30-18
 CHIEF, DIVISION OF LAND DEVELOPMENT

William J. Jolic 12-3-18
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34661, EXPIRATION DATE: 07/02/2019.

11/25/18
 DATE

**SHEPPARD PRATT HEALTH SYSTEM
 ELKRIDGE CAMPUS
 BEHAVIORAL HEALTH FACILITY**
 ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
 HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
 OWNER / DEVELOPER:
 SHEPPARD PRATT HEALTH SYSTEM INC.
 6501 N. CHARLES ST
 BALTIMORE, MD 21285-6815
 410-938-3242

Date	No.	Revision Description

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

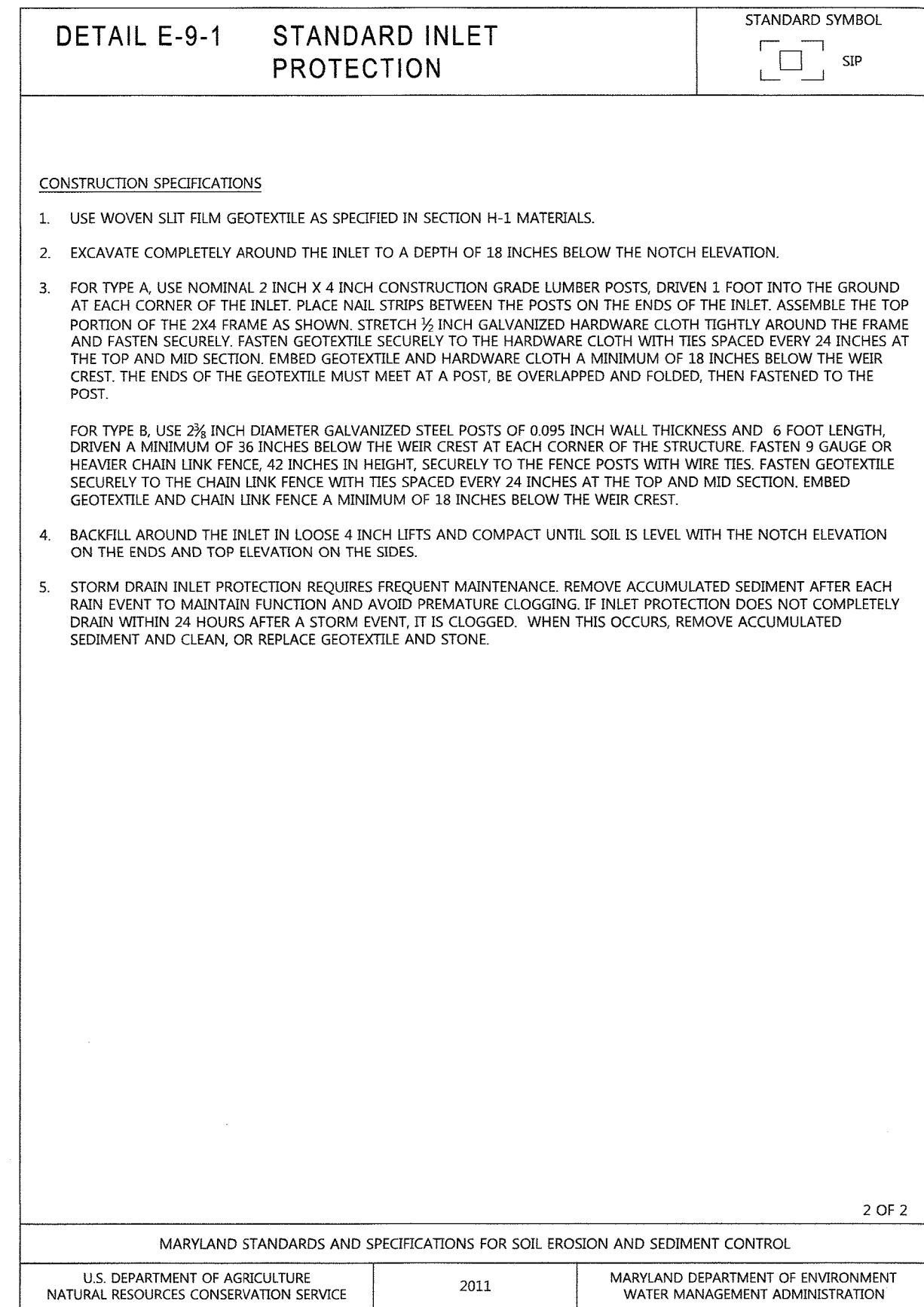
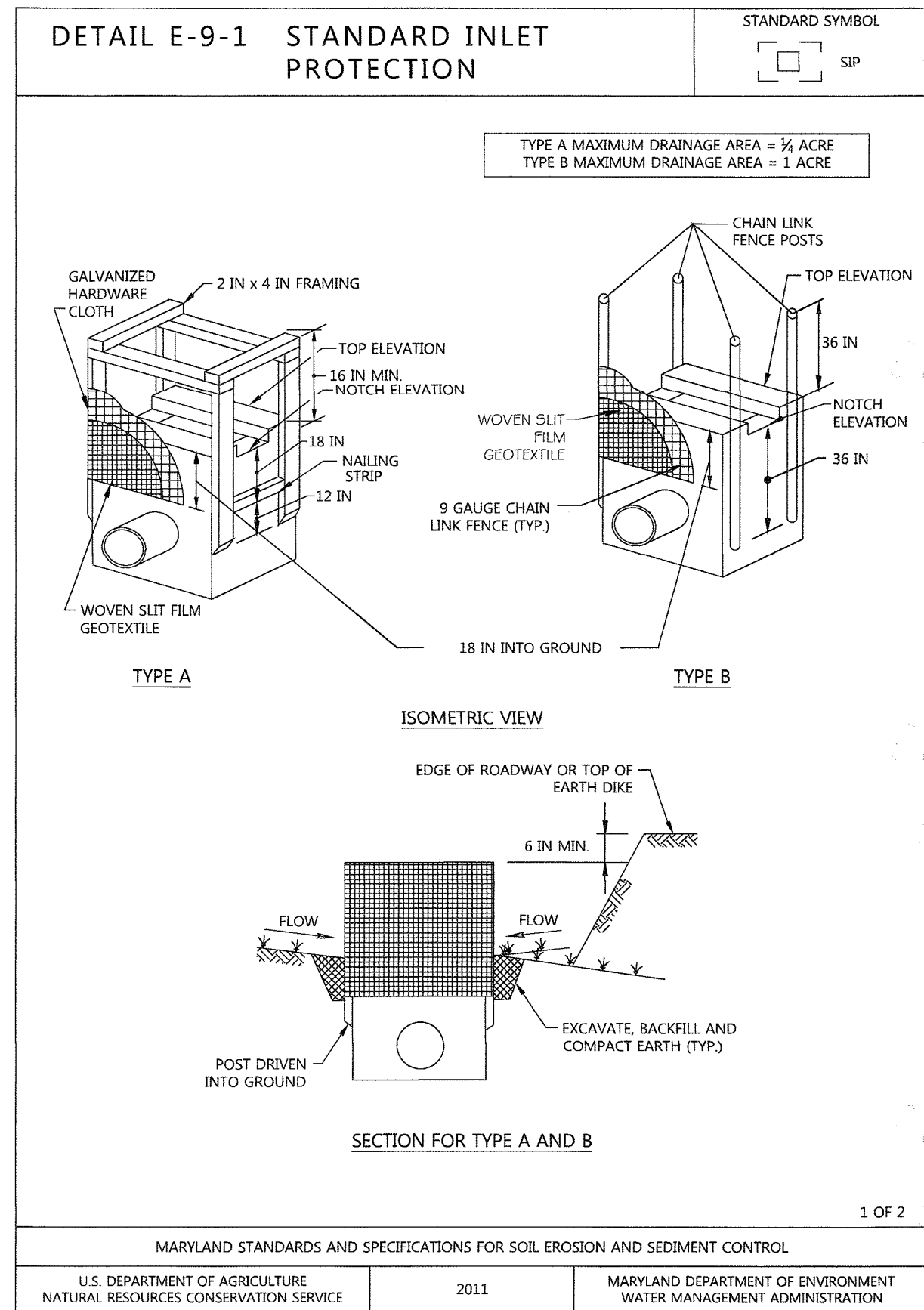
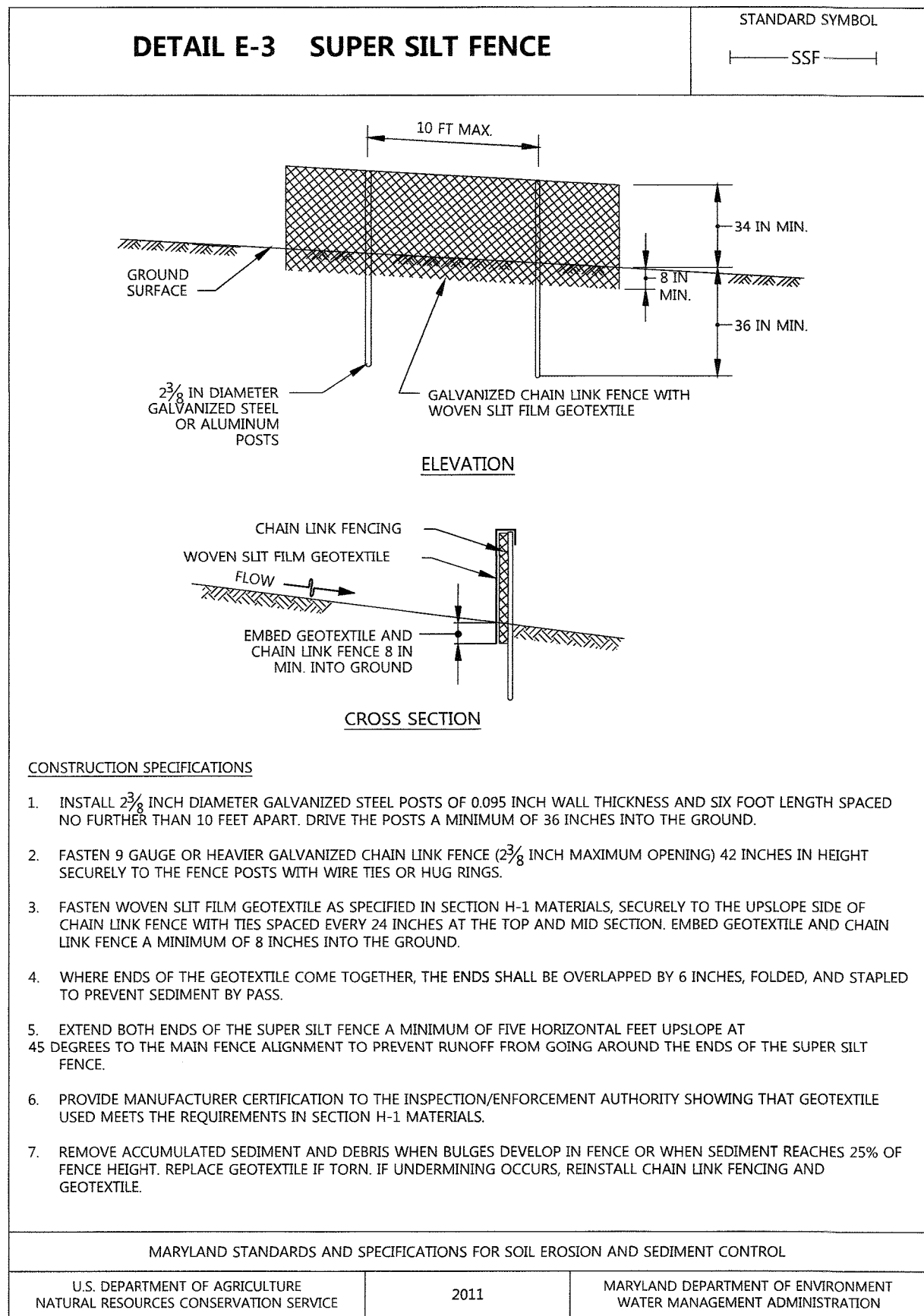
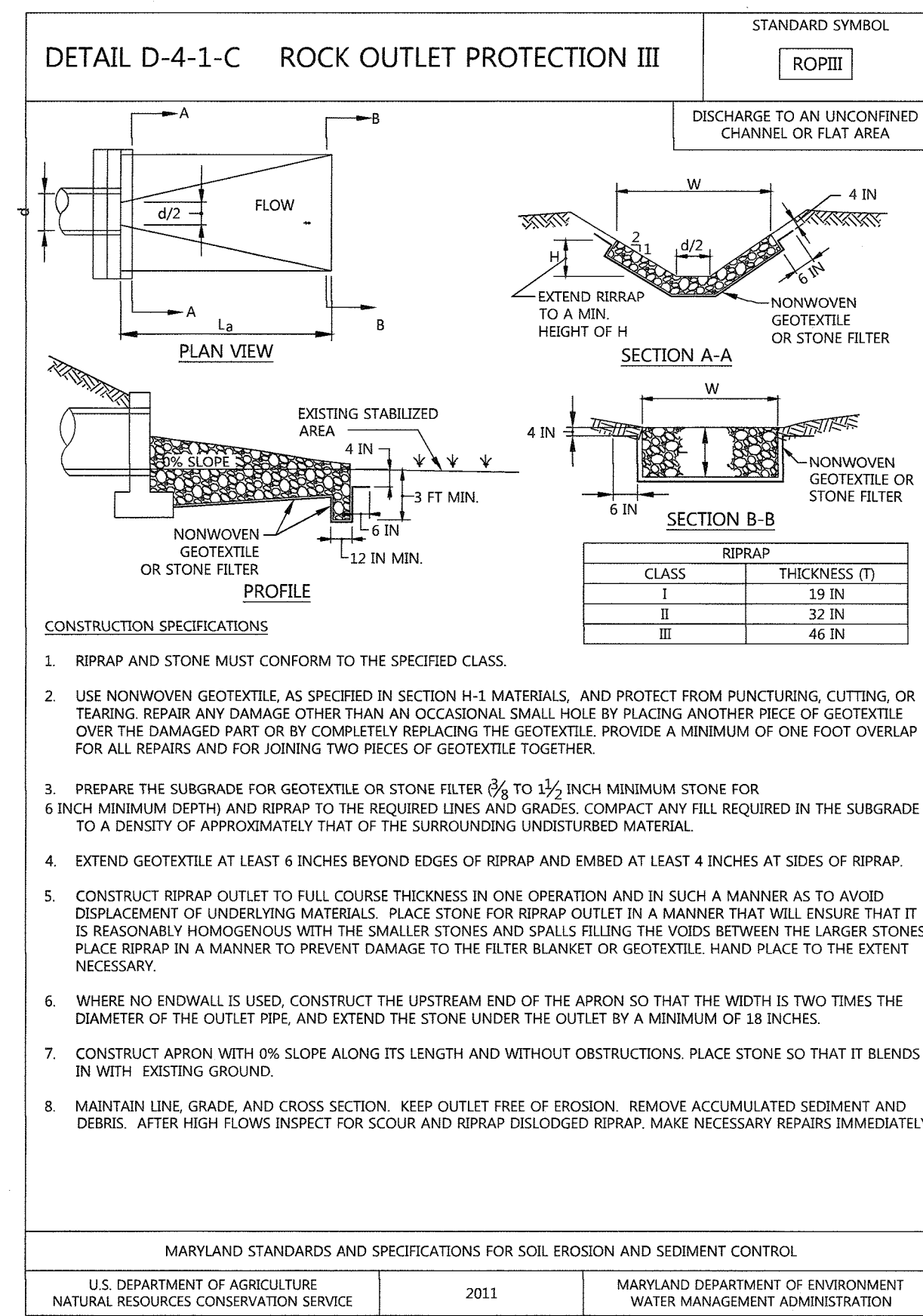
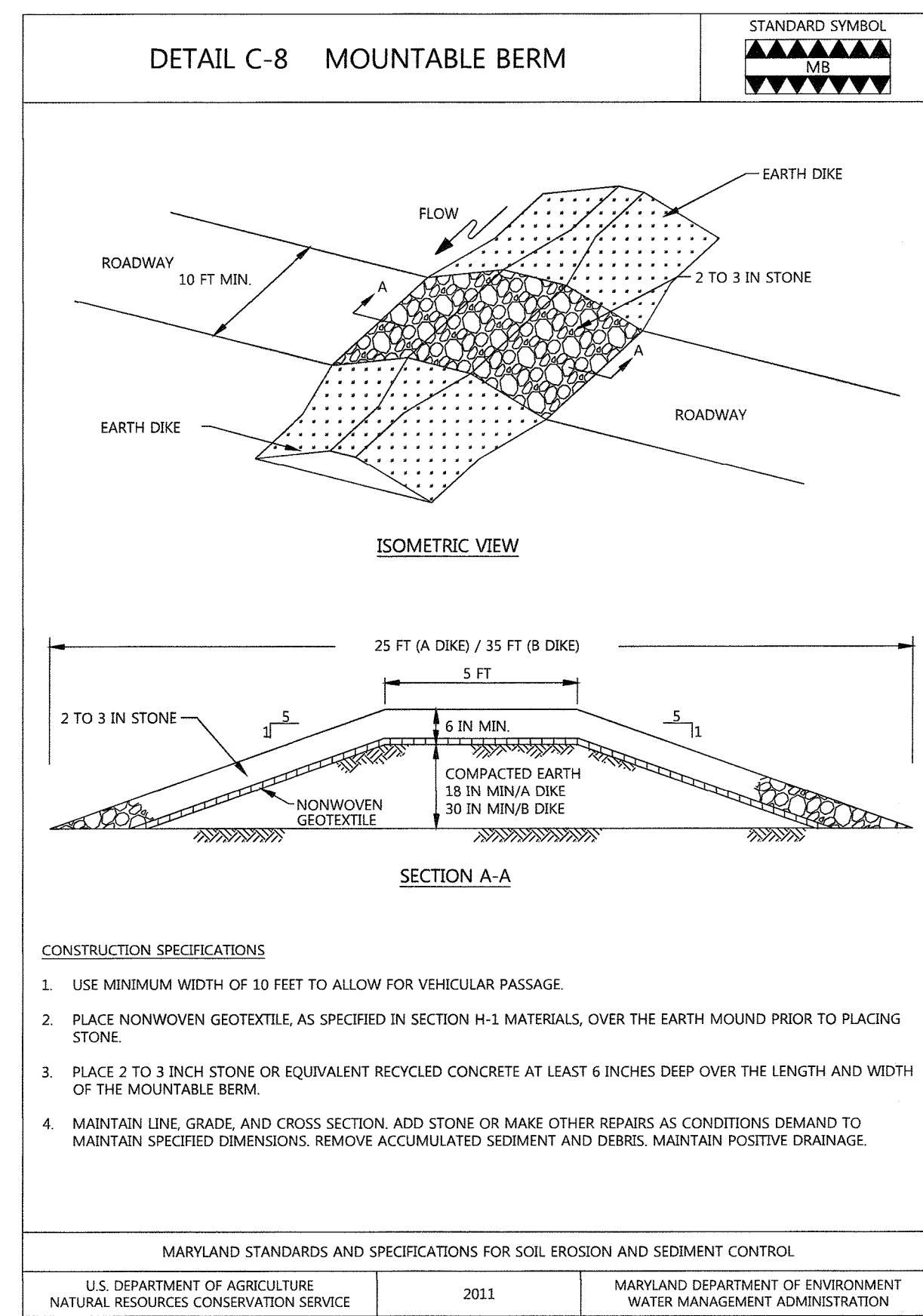
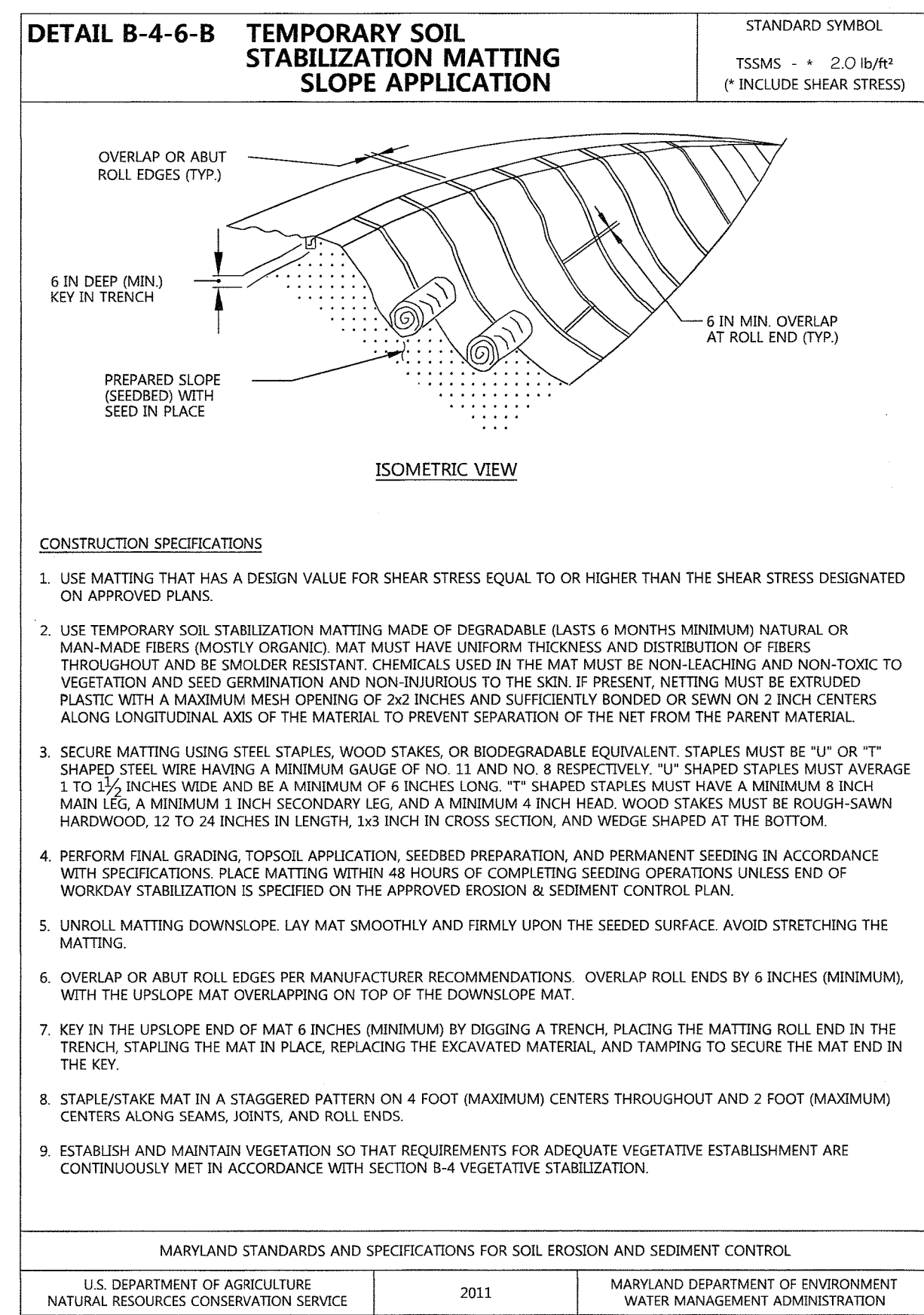
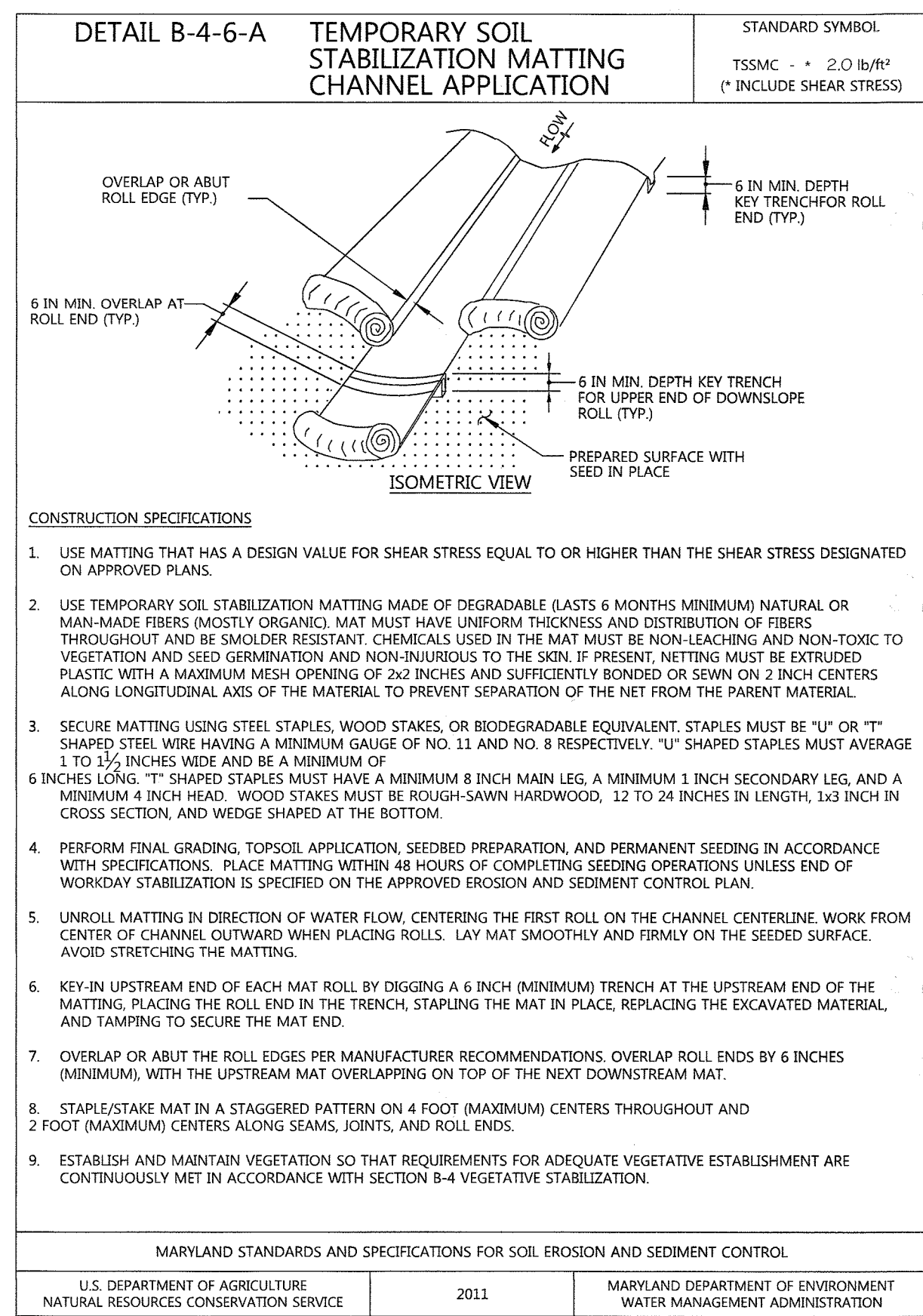
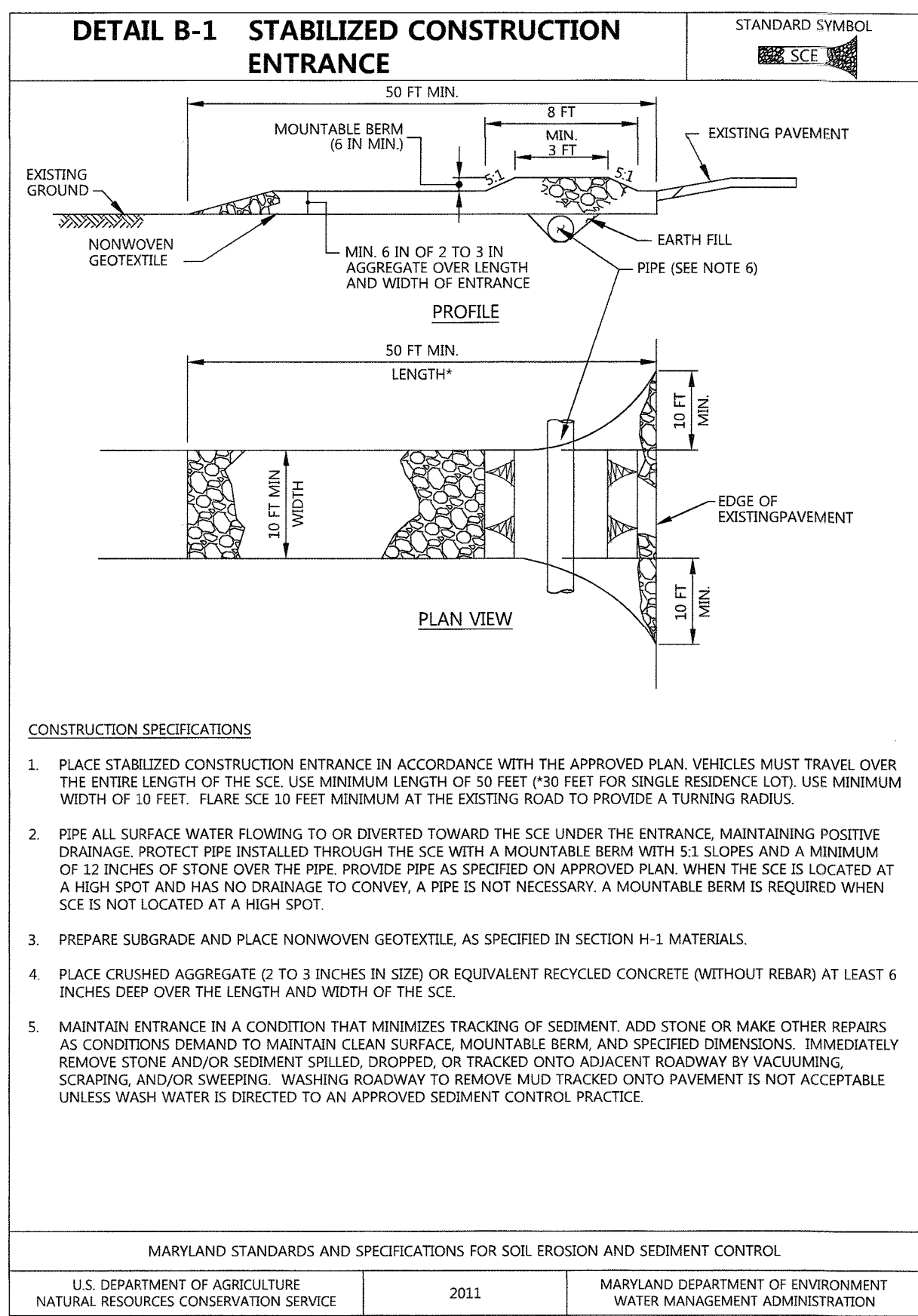
SUBDIVISION NAME: 2107075 SECTION/AREA: 756 (PARCEL A#2)
 CORRIDOR 95 BUSINESS PARK
 PLAT # OR L.P. 22304 TAX ZONE/MAP/PERD: M-1 3716#23 ELEC. DIST./CENSUS TRACT: I 6012.03
 22304 # 22300-03 WATER CODE: B-02 SEWER CODE: 4020000 STAGE:

TITLE
 SEDIMENT AND EROSION CONTROL PROPOSED CONDITIONS DA MAP

Des. By: GOT/SLAJ/JP SCALE: AS SHOWN Proj. No.: 10015.D0
 Drn. By: DP/SLAJ/JP Date: 07/12/2018
 Chk. By: GDT/KM/PLH Approved: MCB/KMA 32 of 50

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY INSURANCE DISTRICT

John E. P. 11/16/18
 DATE



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

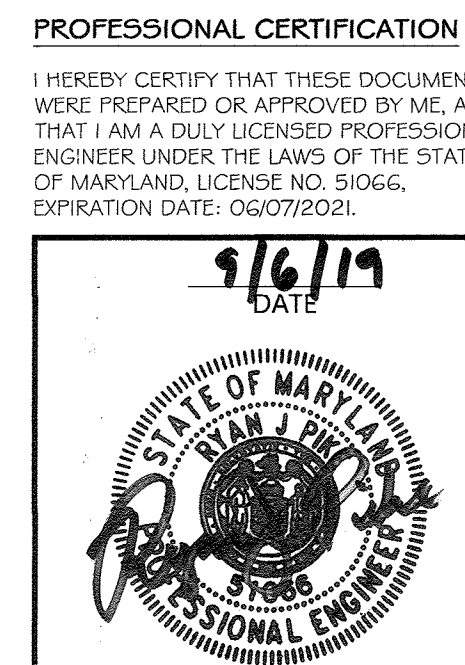
[Signature] 9-30-19
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 10-2-19
CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING DATE

[Signature] 10-2-19
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

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

Approved: *[Signature]*
Howard SCD
9/24/19



Date	No.	Revision Description
02-25-19		REDLINE REV. # - UPDATE SWA, SITE, GRADING, SEC 4 UTILITY PLANS

SHEPPARD PRATT HEALTH SYSTEM ELKRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY

ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242

REPLACEMENT SHEET
SEDIMENT AND EROSION CONTROL DETAILS

Des. By	GOTSLAUJPM	SCALE	AS SHOWN	Proj. No.	10015.D0
Drn. By	DPSLAUJPM	Date	07/12/2016		
Chk. By	GOTSLAUJPM	Approved	MCKRMA		34 of 51

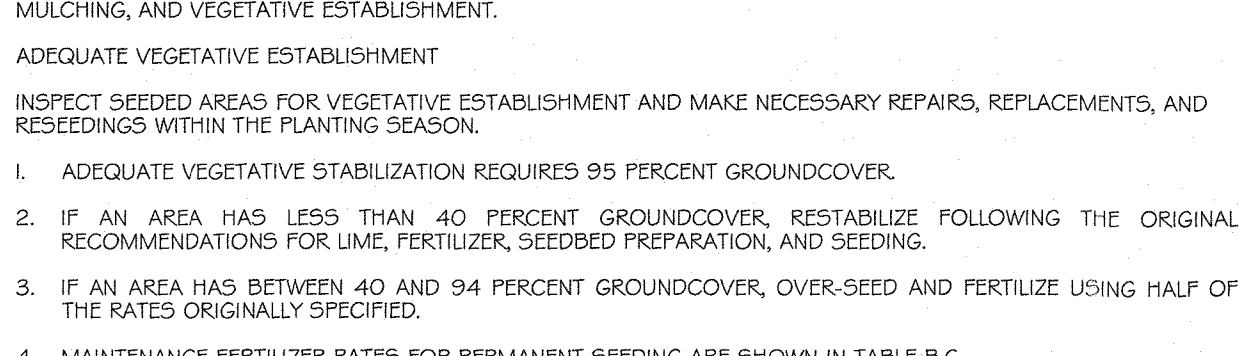
PROFESSIONAL ENGR. NO. 51066

SDP-18-033

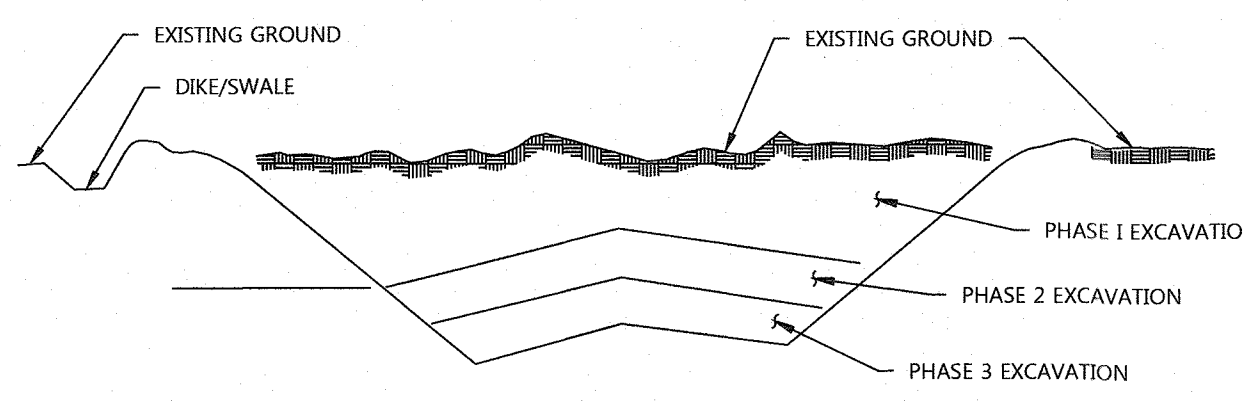
STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

DEFINITION
 USING VEGETATION AS COVER TO PROTECT EXPOSED SOIL FROM EROSION.
PURPOSE
 TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL.
CONDITIONS WHERE PRACTICE APPLIES
 ON ALL DISTURBED AREAS NOT STABILIZED BY OTHER METHODS. THIS SPECIFICATION IS DIVIDED INTO SECTIONS ON INCREMENTAL STABILIZATION; SOIL PREPARATION, SOIL AMENDMENTS AND TOPSOILING; SEEDING AND MULCHING; TEMPORARY STABILIZATION; AND PERMANENT STABILIZATION.
EFFECTS ON WATER QUALITY AND QUANTITY
 STABILIZATION PRACTICES ARE USED TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL WHEN SOIL IS LESS LIKELY TO ERODE AND MORE LIKELY TO ALLOW INFILTRATION OF RAINFALL, THEREBY REDUCING SEDIMENT LOADS AND RUNOFF TO DOWNSTREAM AREAS.
PLANTING VEGETATION IN DISTURBED AREAS WILL HAVE AN EFFECT ON THE WATER BUDGET, ESPECIALLY ON VOLUMES AND RATES OF RUNOFF, INFILTRATION, EVAPORATION, TRANSPIRATION, PERCOLATION, AND GROUNDWATER RECHARGE. OVER TIME, VEGETATION WILL INCREASE ORGANIC MATTER CONTENT AND IMPROVE THE WATER HOLDING CAPACITY OF THE SOIL AND SUBSEQUENT PLANT GROWTH.
 VEGETATION WILL HELP REDUCE THE MOVEMENT OF SEDIMENT, NUTRIENTS, AND OTHER CHEMICALS CARRIED BY RUNOFF TO RECEIVING WATERS. PLANTS WILL ALSO HELP PROTECT GROUNDWATER SUPPLIES BY ASSIMILATING THOSE SUBSTANCES PRESENT WITHIN THE ROOT ZONE.
SEDIMENT CONTROL PRACTICES MUST REMAIN IN PLACE DURING GRADING, SEEDBED PREPARATION, SEEDING, MULCHING, AND VEGETATIVE ESTABLISHMENT.
ADEQUATE VEGETATIVE ESTABLISHMENT
 INSPECT SEEDED AREAS FOR VEGETATIVE ESTABLISHMENT AND MAKE NECESSARY REPAIRS, REPLACEMENTS, AND RESEEDINGS WITHIN THE PLANTING SEASON.
1. ADEQUATE VEGETATIVE STABILIZATION REQUIRES 95 PERCENT GROUND COVER.
 2. IF AN AREA HAS LESS THAN 40 PERCENT GROUND COVER, REESTABLISH FOLLOWING THE ORIGINAL RECOMMENDATIONS FOR LIME, FERTILIZER, SEEDBED PREPARATION, AND SEEDING.
 3. IF AN AREA HAS BETWEEN 40 AND 94 PERCENT GROUND COVER, OVER-SEED AND FERTILIZE USING HALF OF THE RATES ORIGINALLY SPECIFIED.
 4. MAINTENANCE FERTILIZER RATES FOR PERMANENT SEEDING ARE SHOWN IN TABLE B.6.

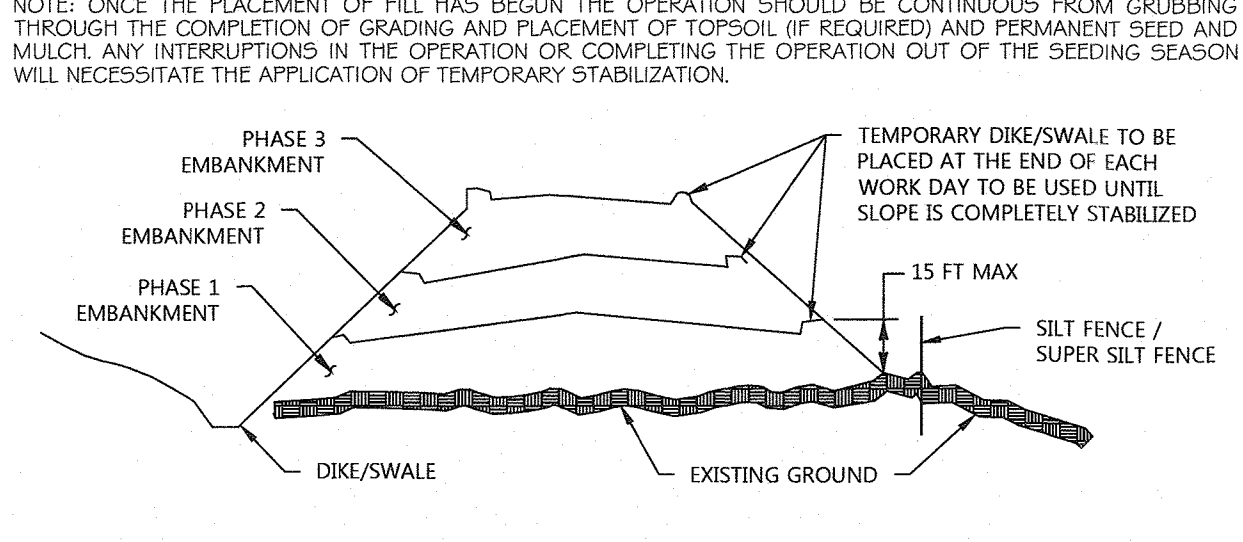
(B-4-1) SECTION 1 - INCREMENTAL STABILIZATION
A. INCREMENTAL STABILIZATION - CUT SLOPES
 1. EXCAVATE AND STABILIZE CUT SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDBED AND APPLY SEED AND MULCH ON ALL CUT SLOPES AS THE WORK PROGRESSES.
2. CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.1):
 a. CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO CONVEY RUNOFF AROUND THE EXCAVATION.
 b. PERFORM PHASE 1 EXCAVATION, PREPARE SEEDBED, AND STABILIZE.
 c. PERFORM PHASE 2 EXCAVATION, PREPARE SEEDBED, AND STABILIZE. OVERSEED PHASE 1 AREAS AS NECESSARY.
 d. PERFORM FINAL PHASE EXCAVATION, PREPARE SEEDBED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDED AREAS AS NECESSARY.
NOTE: ONCE EXCAVATION HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.



B. INCREMENTAL STABILIZATION - FILL SLOPES
 1. CONSTRUCT AND STABILIZE FILL SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDBED AND APPLY SEED AND MULCH ON ALL SLOPES AS THE WORK PROGRESSES.
 2. STABILIZE SLOPES IMMEDIATELY WHEN THE VERTICAL HEIGHT OF A LIFT REACHES 15 FEET, OR WHEN THE GRADING OPERATION CEASES AS PRESCRIBED IN THE PLANS.
 3. AT THE END OF EACH DAY, INSTALL TEMPORARY WATER CONVEYANCE PRACTICES, AS NECESSARY, TO INTERCEPT SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER.
4. CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.2):
 a. CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO DIVERT RUNOFF AROUND THE FILL. CONSTRUCT SILT FENCE ON LOW SIDE OF FILL UNLESS OTHER METHODS SHOWN ON PLANS ADDRESS THIS AREA.
 b. AT THE END OF EACH DAY, INSTALL TEMPORARY WATER CONVEYANCE PRACTICES, AS NECESSARY, TO INTERCEPT SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER.
 c. PLACE PHASE 1 FILL, PREPARE SEEDBED, AND STABILIZE.
 d. PLACE PHASE 2 FILL, PREPARE SEEDBED, AND STABILIZE.
 e. PLACE FINAL PHASE FILL, PREPARE SEEDBED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDED AREAS AS NECESSARY.
NOTE: ONCE THE PLACEMENT OF FILL HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.



(B-4-2) SECTION 2 - SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS
A. SOIL PREPARATION
 1. TEMPORARY STABILIZATION
 a. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONEHEADS. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
 b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
 c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
2. PERMANENT STABILIZATION
 a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
 i. SOIL PH BETWEEN 6.0 AND 7.0.
 ii. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
 iii. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE (AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE).
 iv. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
 v. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
 b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
 c. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
 d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
 e. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE. REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRAGILE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.
B. TOPSOILING
 1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
 2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
 3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIME/STON IS NOT FEASIBLE.
 4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
 5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
 a. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SILTY LOAM, LOAMY SAND, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDER, STONES, SLAG, GOMMAGE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DIAMETER.
 b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 c. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
6. TOPSOIL APPLICATION
 a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
 b. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SEEDING IS TO BE PERFORMED IN SUCH A MANNER THAT SOODING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 c. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
 c. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
 1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
 2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FINE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
 3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 30 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
 4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
 5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 10 TONS/ACRE 200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.



(B-4-3) SECTION 3 - SEEDING AND MULCHING
A. SEEDING
 1. SPECIFICATIONS
 a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEEDS USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SEEDING. SUCH TESTING ON ANY PROJECT REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY THE TYPE OF SEED AND SEEDING RATE.
 b. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.
 c. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING.
NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
 d. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
2. APPLICATION
 a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
 b. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.
 iii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
 iv. DRILL OR CULTRIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
 v. CULTRIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVER. SEEDBED MUST BE FIRM AFTER PLANTING.
 vi. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
 c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
 d. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P2O5 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.
 iii. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS PER ACRE SHOULD BE APPLIED BY ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
 iii. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
 iv. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.
B. MULCHING
 1. MULCH MATERIALS (IN ORDER OF PREFERENCE)

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 Chief, Development Engineering Division **11-19-18** DATE
 Chief, Division of Land Development **11-30-18** DATE
 Director, Department of Planning and Zoning **12-3-18** DATE

ii. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLLY, GAYED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
 b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
 i. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
 ii. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
 iii. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MUST FORM A BUTTER-LIKE GROUND COVER ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
 iv. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
 v. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.

2. APPLICATION
 a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
 b. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
 c. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
3. ANCHORING
 a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:
 i. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
 ii. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 iii. SYNTHETIC BINDERS SUCH AS ACRYLIC DUE (DUR-O-TACK), DCA-70, PETROSEED, TERRA TACK I, TERRA TACK OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND WATERS MULCH, SUCH AS IN VALLEYS AND ON CRISTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
 iv. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

(B-4-4) SECTION 4 - TEMPORARY STABILIZATION
 EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS, FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.
CRITERIA:
 1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
 2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
 3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

Seed Mixture (Hardiness Zone 7A)					Fertilizer Rate (10-20-20)	Lime Rate
Season	Species	Application Rate (Lb./Ac.)	Seeding Dates	Seeding Depths		
Cool	Annual Ryegrass	40	2/15-4/30 8/15-11/30	1/2"	436 Lbs./Ac. (10 Lbs./1000 Sq.Ft.)	2 Tons/Ac. (90 Lbs./1000 Sq.Ft.)
Warm	Foxtail Millet	30	5/1-8/14	1/2"		

1. SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHOULD BE ADJUSTED TO REFLECT SEED PURIFICATION AND PURITY, AS TESTED. ADJUSTMENTS ARE USUALLY NOT NEEDED FOR THE COOL-SEASON GRASSES.
 SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDINGS, WHEN PLANTED ALONE. WHEN PLANTED AS A NURSE CROP WITH PERMANENT SEED MIXES, USE 1/3 OF THE SEEDING RATE LISTED ABOVE FOR BARLEY, OATS, AND WHEAT. FOR SMALLER-SEEDED GRASSES (ANNUAL RYEGRASS, PEARL MILLET, FOXTAIL MILLET), DO NOT EXCEED MORE THAN 5% (BY WEIGHT) OF THE OVERALL PERMANENT SEEDING MIX. GENERAL NOTE: SEEDS SHOULD NOT BE USED AS A NURSE CROP UNLESS PLANTING WILL OCCUR IN VERY LATE FALL. FOLLOW THE SEEDING DATES FOR OTHER TEMPORARY SEEDINGS. GENERAL NOTE: ALLOPATHIC PROPERTIES THAT INHIBIT THE GERMINATION AND GROWTH OF OTHER PLANTS. IF IT MUST BE USED AS A NURSE CROP, SEED AT 1/3 OF THE RATE LISTED ABOVE.
 OATS ARE THE RECOMMENDED NURSE CROP FOR WARM-SEASON GRASSES.
 2. FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.
 3. THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE AND MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.

(B-4-5) SECTION 5 - PERMANENT STABILIZATION
 EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.
 A. SEED MIXTURES
 1. GENERAL USE
 a. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2, ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 b. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 34.2 - CRITICAL AREA PLANTING.
 c. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
 d. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY USE FORM FERTILIZER (46-0-0) AT 3 1/2 POUNDS PER 100 SQUARE FEET (60 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.
2. TURFGRASS MIXTURES
 a. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
 b. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 i. KENTUCKY BLUEGRASS: FULL SUN MIXTURE. FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT, IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 15 TO 2.0 POUNDS PER 1,000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 ii. KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE. FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE INTENSIVE MANAGEMENT. RECOMMENDED CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1,000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 iii. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE. FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 5 TO 5 PERCENT. SEEDING RATE: 5 TO 6 POUNDS PER 1,000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
 iv. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE. FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND GO TO 70 PERCENT. SEEDING RATE: 1 1/2 TO 3 POUNDS PER 1,000 SQUARE FEET.
NOTE: SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, TURFGRASS CULTIVARS FOR MARYLAND. CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.

3. ANCHORING
 a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:
 i. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
 ii. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 iii. SYNTHETIC BINDERS SUCH AS ACRYLIC DUE (DUR-O-TACK), DCA-70, PETROSEED, TERRA TACK I, TERRA TACK OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND WATERS MULCH, SUCH AS IN VALLEYS AND ON CRISTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
 iv. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

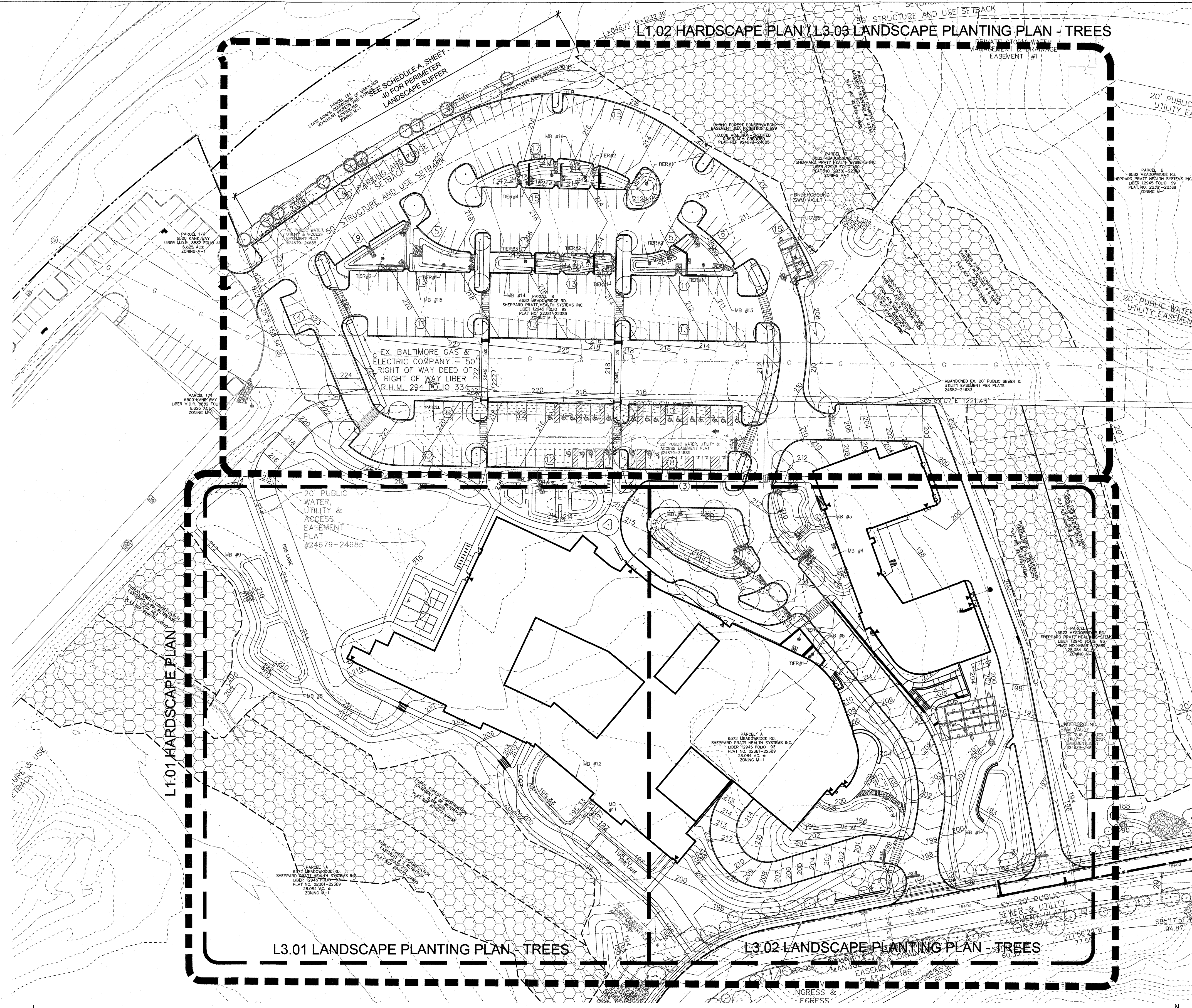
c. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES
 WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO 1 OCTOBER 1 (HARDINESS ZONES: 5B, 6A)
 CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B)
 SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7B)
 d. TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES. LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1/2 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.
 e. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL PLANTS ARE ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

Seed Mixture No. 9 (Hardiness Zone 7A)				Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (Lb./Ac.)	Seeding Dates	Seeding Depths	N	P ₂ O ₅	K ₂ O
9	*Tall Fescue	60			45 Lb./Ac. (1 Lb./1000 Sq.Ft.)	90 Lb./Ac. (2 Lb./1000 Sq.Ft.)	90 Lb./Ac. (2 Lb./1000 Sq.Ft.)
	*Kentucky Bluegrass	40	2/15-4/30 8/15-10/31	1/2"-1"			2 Tons/Ac. (90 Lb./1000 Sq.Ft.)
	Perennial Ryegrass	20					

** BLEND 3 CULTIVARS OF ANY CULTIVAR LISTED ON PAGE B.32 OF THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 ** AT TIME OF FINE GRADING, FERTILIZER AND LIME RATES WILL BE BASED ON SOIL TEST RESULTS. (SEE SECTION 2.C) COPY OF RECOMMENDED RATES TO BE SUPPLIED TO THE SEDIMENT CONTROL INSPECTOR.
 *** FOR SEEDING DATES 5/1-8/14 ADD 6 LBAAC OF EITHER FOXTAIL MILLET OR PEARL MILLET TO PERMANENT SEED MIXTURE #9 ABOVE.
 NOTE: ALL SEED MUST COMPLY WITH THE MARYLAND STATE SEED LAW. SEED MUST BE FREE OF PROHIBITED OR RESTRICTED NOXIOUS WEEDS, AS CURRENTLY LISTED BY THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION.
 B. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).
 1. GENERAL SPECIFICATIONS
 a. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.
 b. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS 1/4 INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS MUST INCLUDE TOP GROWTH AND THAT CHIPPED PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
 c. STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
 d. SOD MUST NOT BE HARVESTED OR TRANSPORTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
 e. SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPORTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.
 2. SOD INSTALLATION
 a. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
 b. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOIL IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRINKING OF THE ROOTS.
 c. WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. ROLL AND TAMP PER OR OTHERWISE SECURE THE SOD TO PREVENT SURFACE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.
 d. WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS.

PROPERTY	TEST METHOD	MINIMUM AVERAGE ROLL VALUE ¹			
		WOVEN SILT FILM GEOTEXTILE	WOVEN MONOFILAMENT GEOTEXTILE	NONWOVEN GEOTEXTILE	CD
Grab Tensile Strength	ASTM D-4632	200 lb	200 lb	370 lb	250 lb
Grab Tensile Elongation	ASTM D-4632	15%	10%	15%	50%
Trapezoidal Tear Strength	ASTM D-4533	75 lb	75 lb	100 lb	60 lb
Puncture Strength	ASTM D-6241	450 lb		900 lb	450 lb
Apparent Opening Size ²	ASTM D-4751	U.S. Sieve 30 (0.59 mm)	U.S. Sieve 70 (0.21 mm)	U.S. Sieve 70 (0.21 mm)	
Permittivity	ASTM D-4491	0.05 sec -1	0.28 sec -1	1.1 sec -1	
Ultraviolet Resistance Retained at 500 hours	ASTM D-				

L1.02 HARDSCAPE PLAN / L3.03 LANDSCAPE PLANTING PLAN - TREES



COUNTY SHEET #	DRAWING #	DRAWING TITLE
36	L0.00	LANDSCAPING & HARDSCAPE KEY SHEET
37	L1.01	HARDSCAPE PLAN
38	L1.02	HARDSCAPE PLAN
39	L2.00	HARDSCAPE DETAILS
40	L2.01	HARDSCAPE DETAILS
41	L3.01	LANDSCAPE PLANTING PLAN - TREES
42	L3.02	LANDSCAPE PLANTING PLAN - TREES
43	L3.03	LANDSCAPE PLANTING PLAN - TREES
44	L3.04	LANDSCAPE ENLARGEMENT PLANS - UNDERSTORY
45	L3.05	LANDSCAPE ENLARGEMENT PLANS - UNDERSTORY
46	L3.06	LANDSCAPE ENLARGEMENT PLANS - UNDERSTORY
47	L3.07	LANDSCAPE ENLARGEMENT PLANS - UNDERSTORY
48	L4.00	LANDSCAPE PLANTING DETAILS



VICINITY MAP
SCALE: 1"=100'
HOWARD COUNTY ADC MAP
NUMBER 17, GRID NO. A10

LANDSCAPE SURETY QUANTITIES

SHADE TREES 22
ORNAMENTAL TREES 0
EVERGREEN TREES 10
SHRUBS 0

FINANCIAL SURETY FOR REQUIRED PLANTING HAS BEEN POSTED IN THE AMOUNT OF \$ 8,100. FOR THE 22 SHADE TREES (\$300 EA.), 10 ORNAMENTAL/EVERGREEN TREES (\$150 EA.), AND 0 SHRUBS (\$30).

- LANDSCAPE REQUIREMENT NOTES:**
- THE EAST, SOUTH, AND WEST PERIMETERS OF THE PROJECT SITE ARE PART OF THE SAME PROPERTY UNDER OWNERSHIP OF THE PROJECT OWNER, THUS EXEMPT FROM THE PERIMETER LANDSCAPE EDGE REQUIREMENTS AS OUTLINED ON PAGE 17, CHAPTER 4 OF THE HOWARD COUNTY LANDSCAPE MANUAL.
 - THE SITE IS CURRENTLY ZONED AS M-1, MANUFACTURING LIGHT DISTRICT, AND THEREFORE EXEMPT FROM THE STORMWATER MANAGEMENT AREA LANDSCAPING REQUIREMENTS AS OUTLINED ON PAGE 30, CHAPTER 4 OF THE HOWARD COUNTY LANDSCAPE MANUAL.
 - SHOULD ANY TREE DESIGNATED FOR PRESERVATION FOR WHICH LANDSCAPING CREDIT IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD, AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE HOWARD COUNTY LANDSCAPE MANUAL.
 - POSTING OF SURETY FOR REQUIRED LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE LANDSCAPE MANUAL IN THE AMOUNT OF \$8,100 FOR 22 SHADE TREES, 10 EVERGREENS, 0 SHRUBS, AND 0 LINEAR FEET OF FENCING. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE GRADING PERMIT.
 - THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS, AND BERMS, FENCES, AND WALLS. ALL PLANT MATERIALS SHALL BE WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND WHEN NECESSARY, REPAIRED OR REPLACED.
 - AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS CERTIFICATES.

CERTIFICATION NOTE:

1. I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

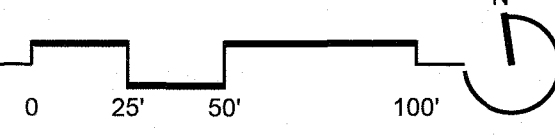
NAME *Scott King*
DATE 9.9.19

L1.01 HARDSCAPE PLAN

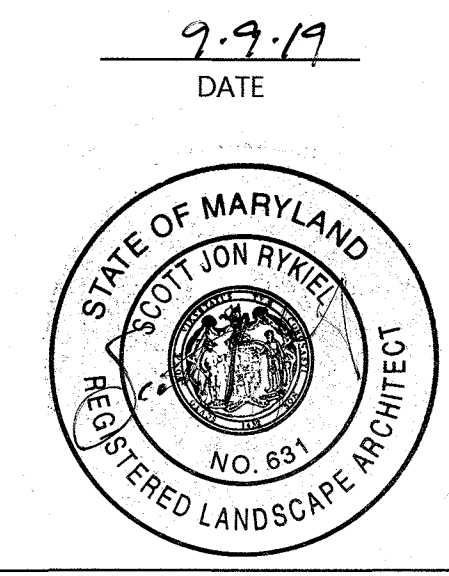
L3.01 LANDSCAPE PLANTING PLAN - TREES

L3.02 LANDSCAPE PLANTING PLAN - TREES

1 SITE KEY PLAN
1"=50'-0"



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 631, EXPIRATION DATE: 09/29/2019.



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Chad Edwards 9.30.19
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Kevin Schuchman 10.2.19
CHIEF, DIVISION OF LAND DEVELOPMENT KB for TRM DATE

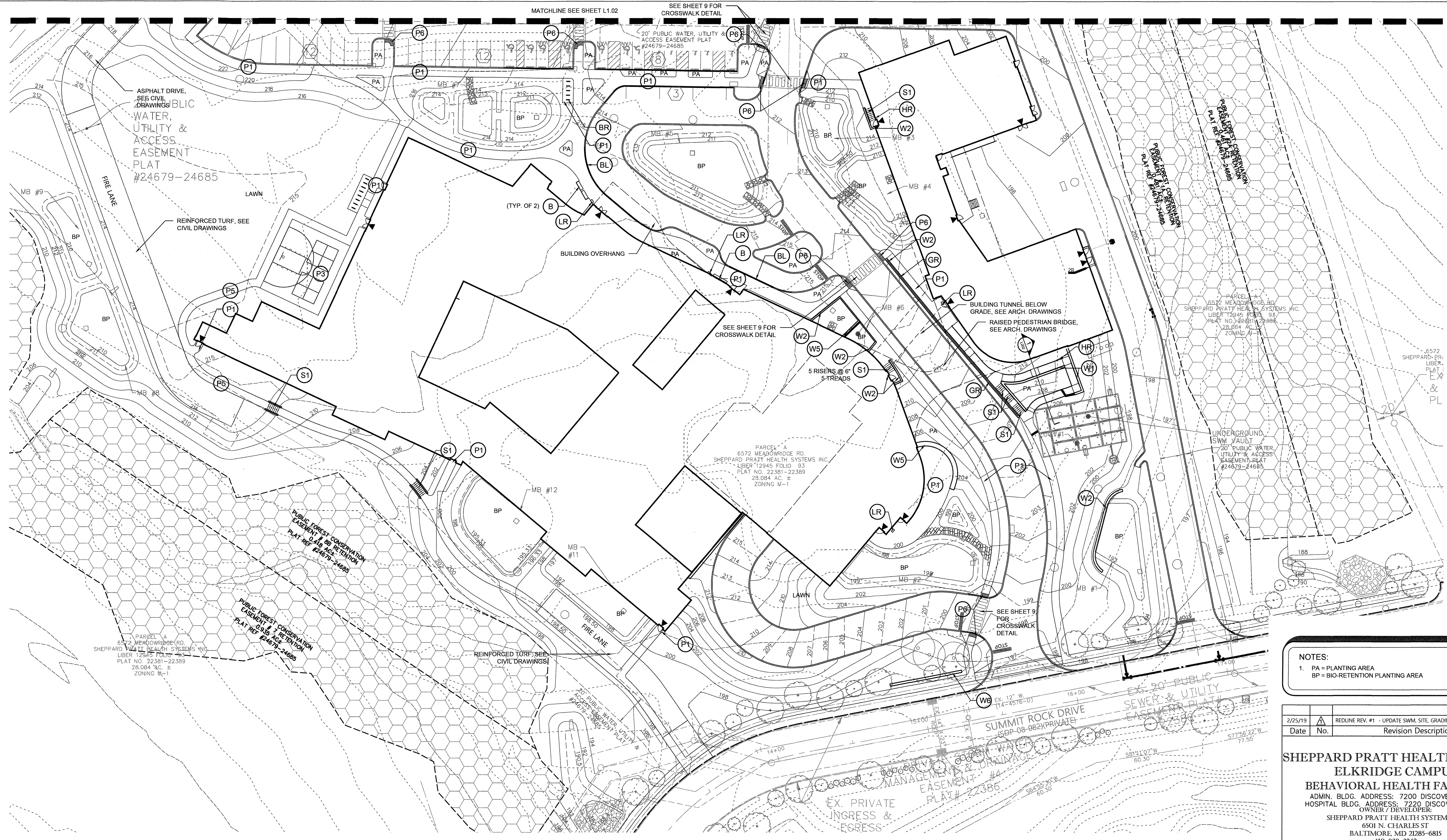
William J. Davis 10.2.19
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

Date	No.	Revision Description
2/25/19	1	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS

**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**
ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242

MAHAN RYKIEL ASSOCIATES INC
Whitehall Mill 3300 Clipper Mill Road
Suite 200 Baltimore, MD 21211 410.235.6001

SUBDIVISION NAME CORRIDOR 98 BUSINESS PARK	SECTION/AREA 756 (PARCEL A&B)	LOT/PARCEL # 756 (PARCEL A&B)
PLAT# OR LOT # 24679-24685	ZONE M-1	SELECT. DIST. CENSUS TRACT 37/16&23
WATER CODE B-02	SEWER CODE 4020000	STAGE 6012.03
TITLE REPLACEMENT SHEET 1.00 - LANDSCAPING & HARDSCAPE KEY SHEET		
Des. By SK	SCALE AS SHOWN	Proj. No. 10015.00
Drn. By JS	Date 07/12/2018	37 of 51
Chk. By RC	Approved MCB	



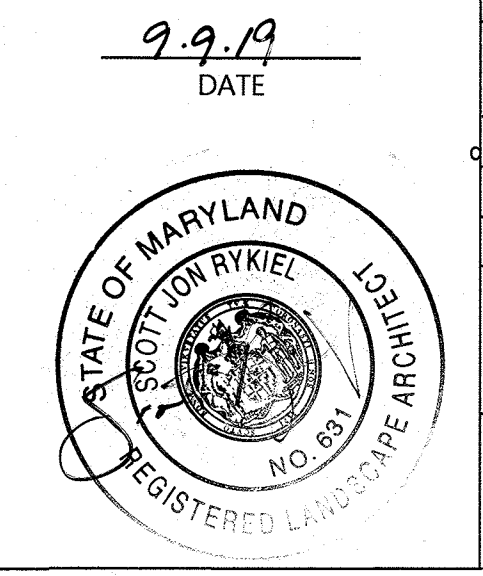
NOTES:
 1. PA = PLANTING AREA
 BP = BIO-RETENTION PLANTING AREA

Date	No.	Revision Description
2/25/19	1	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS

**SHEPPARD PRATT HEALTH SYSTEM
 ELKRIDGE CAMPUS
 BEHAVIORAL HEALTH FACILITY**
 ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
 HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
 OWNER / DEVELOPER:
 SHEPPARD PRATT HEALTH SYSTEM INC.
 6501 N. CHARLES ST
 BALTIMORE, MD 21285-6815
 410-938-3242

**MAHAN RYKIEL
 ASSOCIATES INC**
 Whitehall Mill 3300 Clipper Mill Road
 Suite 200 Baltimore, MD 21211 410.235.6001

PROFESSIONAL CERTIFICATION
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1 SOUTHERN HARDSCAPE MATERIALS PLAN
 1"=30'-0"

HARDSCAPE KEY

- PAVING**
- P1 (1/12.00) CONCRETE PAVEMENT (PEDESTRIAN)
 - P2 (5/12.00) STEPPING STONES
 - P3 (6/12.01) ASPHALT COURT SURFACE
 - P5 (4/12.06) ASPHALT PAVING (PEDESTRIAN)
 - P6 (3/12.00) DETECTABLE WARNING PAVERS

- SITE AMENITIES**
- B (1/12.01) BENCH
 - BL (9/12.00) DROP-OFF BOLLARD
 - BR (2/12.01) BIKE RACKS
 - BV (4/12.01) DROP-OFF BOLLARD
 - LR (3/12.01) LITTER/RECYCLING RECEPTACLE

- STAIRS, RAILING, & WALLS**
- GR (10/12.01) GUARD RAIL
 - HR (9/12.01) RAMP HANDRAIL
 - S1 (11/12.00) C.I.P. CONCRETE STAIR AND HANDRAIL
 - W1 (7/12.00) STONE RETAINING WALL (LESS THAN 3'-0")
 - W2 (8/12.00) STONE RETAINING WALL (3'-0" - 5'-0" TALL)
 - W5 (9/12.00) FLOW THROUGH PLANTER WALL

- W6 (7/12.01) STONE SIGN WALL

PLANTING LEGEND

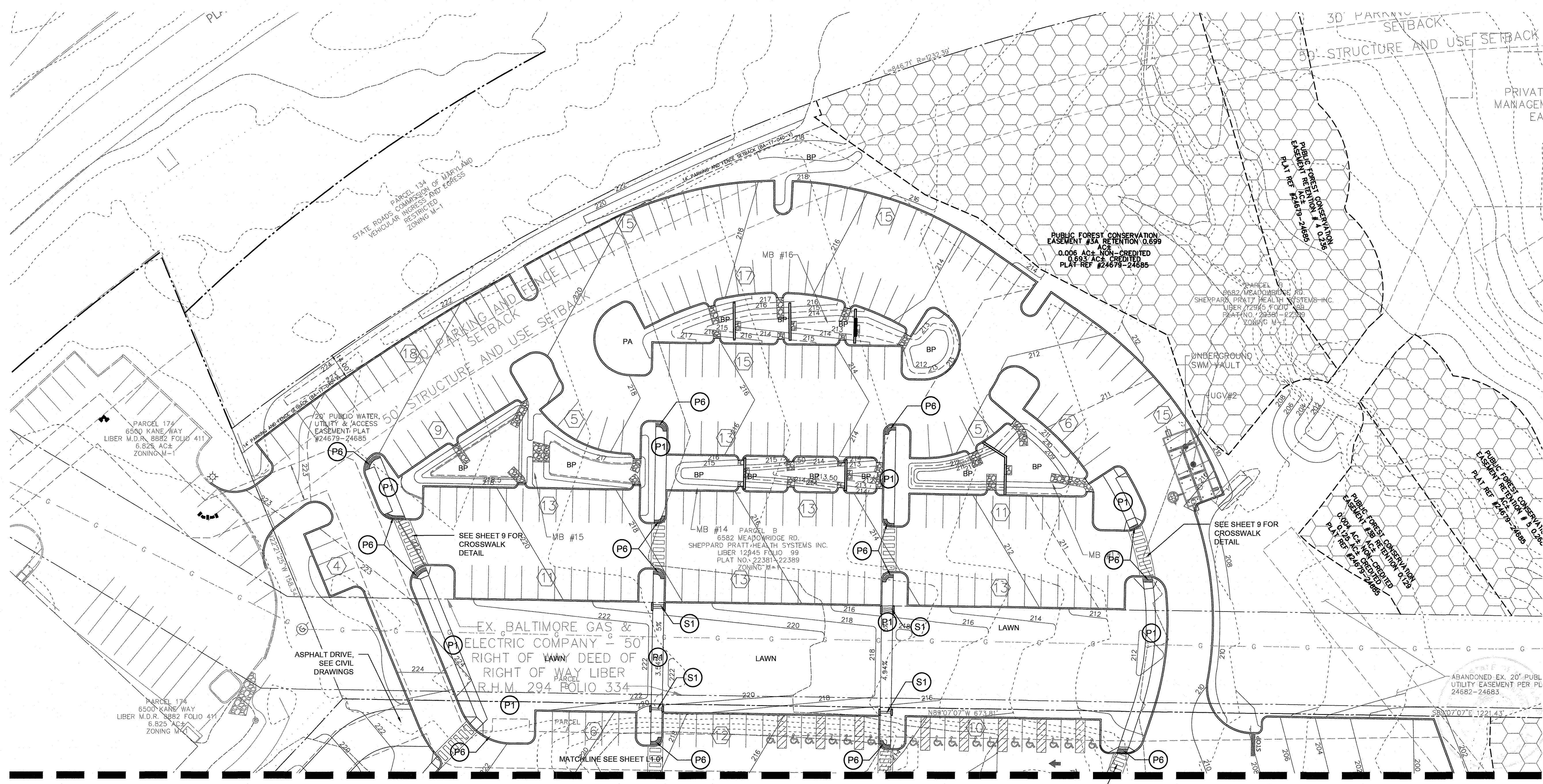
- (+ in circle) DECIDUOUS SHADE TREE 2.5" CALIPER
- (• in circle) EXISTING TREE TO REMAIN
- (• in circle with dashed outline) EXISTING TREE TO REMAIN EXISTING LANDSCAPE APPROVED UNDER FILE SDP-08-082

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 9.30.19

CHIEF, DIVISION OF LAND DEVELOPMENT KB for TKM
 DATE: 10.2.19

DIRECTOR, DEPARTMENT OF PLANNING AND ZONING
 DATE: 10.2.19

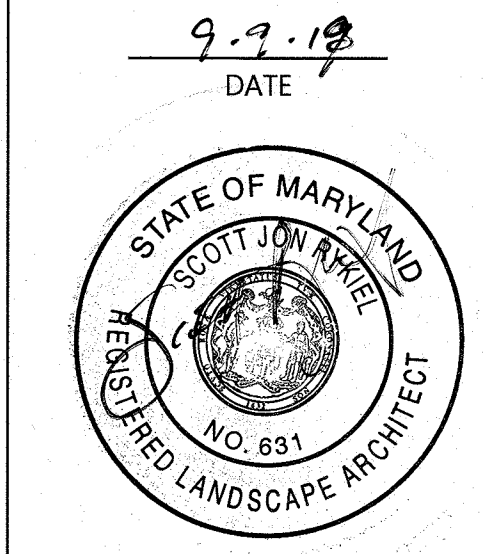
SUBDIVISION NAME CORRIDOR 95 BUSINESS PARK	SECTION/AREA 24679-24685	LOT/PARCEL # 756 (PARCEL A&B)
PLAT OR L.P. 24679-24685	ZONE M-1	ELECT. DIST. 37/16&23
WATER CODE B-02	SEWER CODE 4020000	STAGE 6012.03
TITLE REPLACEMENT SHEET 11.01 - HARDSCAPE PLAN		
Des. By SK	SCALE AS SHOWN	Proj. No. 10015.00
Drn. By JS	Date 07/12/2018	38 of 51
Chk. By RC	Approved MCB	



1 NORTHERN HARDSCAPE MATERIALS PLAN
1"=30'-0"

- HARDSCAPE KEY**
- | | |
|---|--|
| PAVING | SITE AMENITIES |
| P1 (1/12.00) CONCRETE PAVEMENT (PEDESTRIAN) | BL (5/12.00) FIRELANE BOLLARD |
| P6 (3/12.00) DETECTABLE WARNING PAVERS | S1 (11/12.00) C.I.P. CONCRETE STAIR AND HANDRAIL |

PROFESSIONAL CERTIFICATION
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2/25/19	REDEFINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS
Date	Revision Description

**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**
ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242

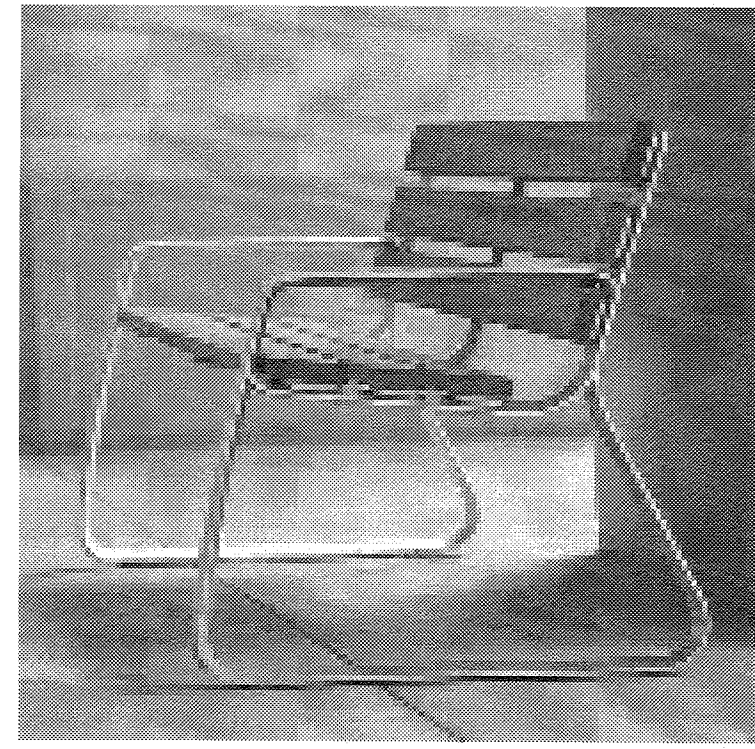
MAHAN RYKIEL ASSOCIATES INC
Whitehall Mill 3300 Clipper Mill Road
Suite 200 Baltimore, MD 21211 410.235.6001

SUBDIVISION NAME CORRIDOR 95 BUSINESS PARK	SECTION/AREA M-1	LOT/PARCEL # 756 (PARCEL A&B)
PLAT OR L.P. 24679-24685	TAX ZONE/MAP/GRID 37/16&23	ELECT. DIST. CENSUS TRACT 1 6012.03
WATER CODE B-02	SEWER CODE 4020000	STAGE
TITLE REPLACEMENT SHEET L1.02 - HARDSCAPE PLAN		
Des. By SK	SCALE AS SHOWN	Proj. No. 10015.00
Drn. By JS	Date 07/12/2018	39 of 51
Chk. By RC	Approved Mcb	

SDP PROJECT: 10015 SHEPPARD PRATT HOSPITAL, ELKRIDGE CAMPUS; 10015 HARDSCAPE PLAN; 08/29/2019

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

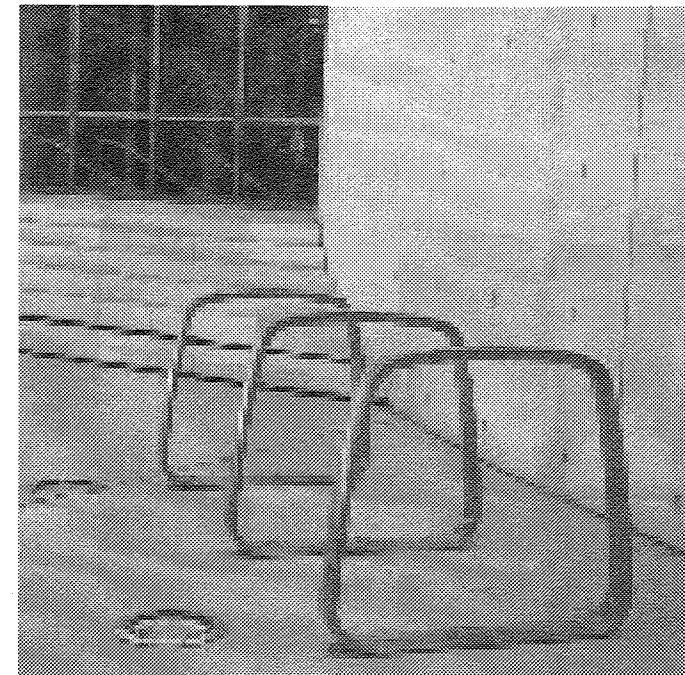
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 9-30-19
 DATE: 10-2-19
 DATE: 10-2-19



LANDSCAPE FORMS, INC.
7800 E. MICHIGAN AVE.
KALAMAZOO, MI 49048
P: 800.430.6209
F: 269.381.3455
W: WWW.LANDSCAPEFORMS.COM

MODEL: FGP BACKED 70° AND 120°
MATERIALS/FINISH: WOOD & ANODIZED ALUMINUM
INSTALLATION: LOCATIONS DRAWN IN BASE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

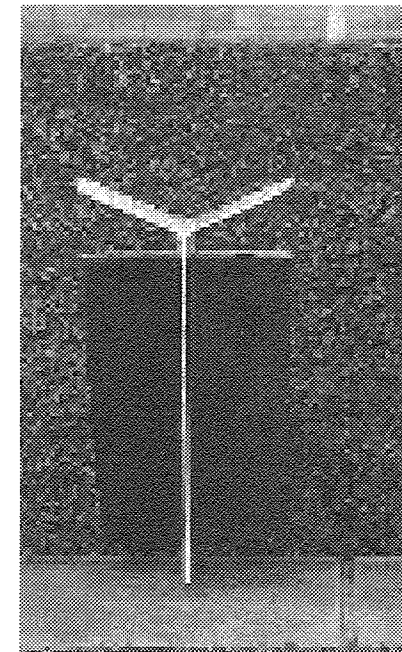
1 BENCH
N.T.S.



LANDSCAPE FORMS, INC.
7800 E. MICHIGAN AVE.
KALAMAZOO, MI 49048
P: 800.430.6209
F: 269.381.3455
W: WWW.LANDSCAPEFORMS.COM

MODEL: RIDE BIKE RACK
MATERIALS/FINISH: POWDER COATED ALUMINUM
INSTALLATION: EMBED PER MANUFACTURER RECOMMENDATIONS

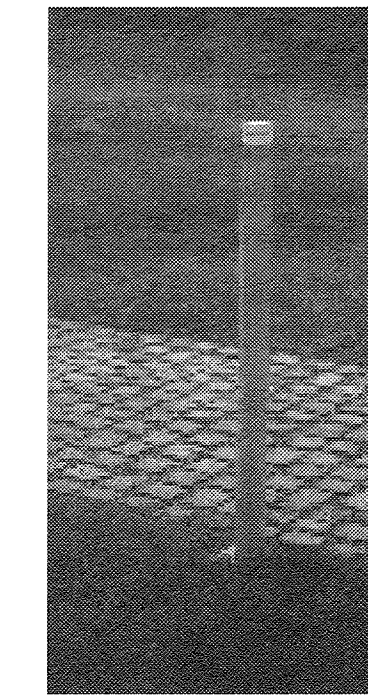
2 BIKE RACK
N.T.S.



LANDSCAPE FORMS, INC.
7800 E. MICHIGAN AVE.
KALAMAZOO, MI 49048
P: 800.430.6209
F: 269.381.3455
W: WWW.LANDSCAPEFORMS.COM

MODEL: MULTIPLICITY DOUBLE EMBED
MATERIALS/FINISH: ANODIZED ALUMINUM
INSTALLATION: SURFACE MOUNT PER MANUFACTURER RECOMMENDATIONS

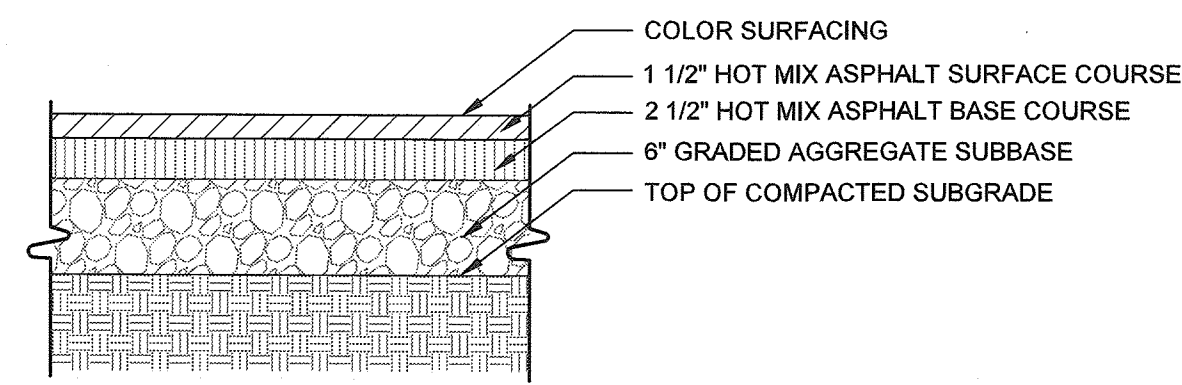
3 LITTER / RECYCLING RECEPTACLE
N.T.S.



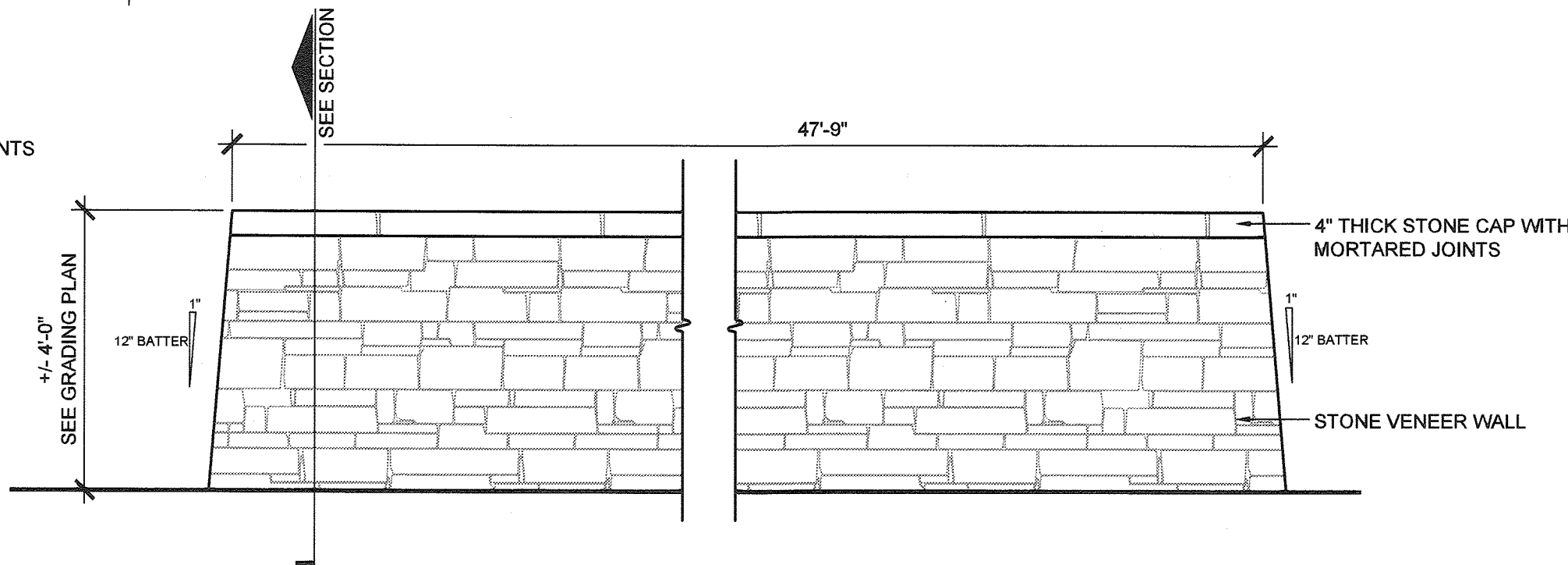
MODERN DESIGN SITE FURNISHINGS
700 GOLDMAN DRIVE
CREAM RIDGE, NEW JERSEY 08514
P: 609.751.0383
W: WWW.MDSFCO.COM

MODEL: DOE200
MATERIALS/FINISH: STEEL WITH ALUMINUM ALLOY HEAD
INSTALLATION: SURFACE MOUNT PER MANUFACTURER'S INSTRUCTIONS

4 DROP-OFF BOLLARD
N.T.S.

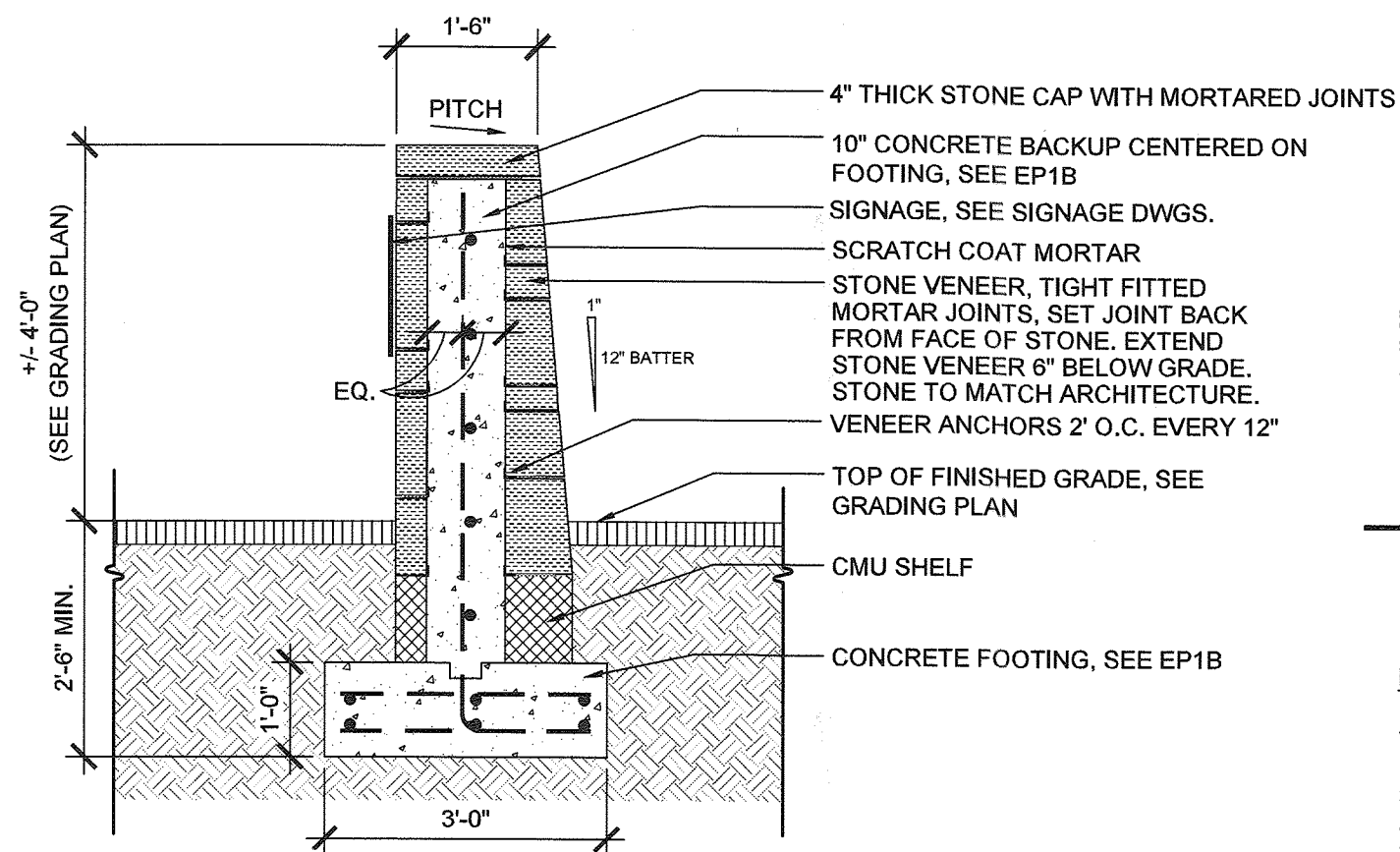


6 ASPHALT SPORTS COURT
1"=1'-0"



NOTES:
1. SEE GRADING PLAN FOR ELEVATIONS ADJACENT TO WALLS.
2. STONE VENEER TO CONTINUE MINIMUM 6" BELOW ADJACENT SOIL ELEVATION.
3. STRUCTURAL DESIGN PROVIDED BY COLUMBIA ENGINEERING, INC. ON 6/18/18
4. CONTRACTOR TO PROVIDE SHOP DWGS. FOR WALLS AND CAPS FOR REVIEW PRIOR TO CONSTRUCTION

5 NOT USED



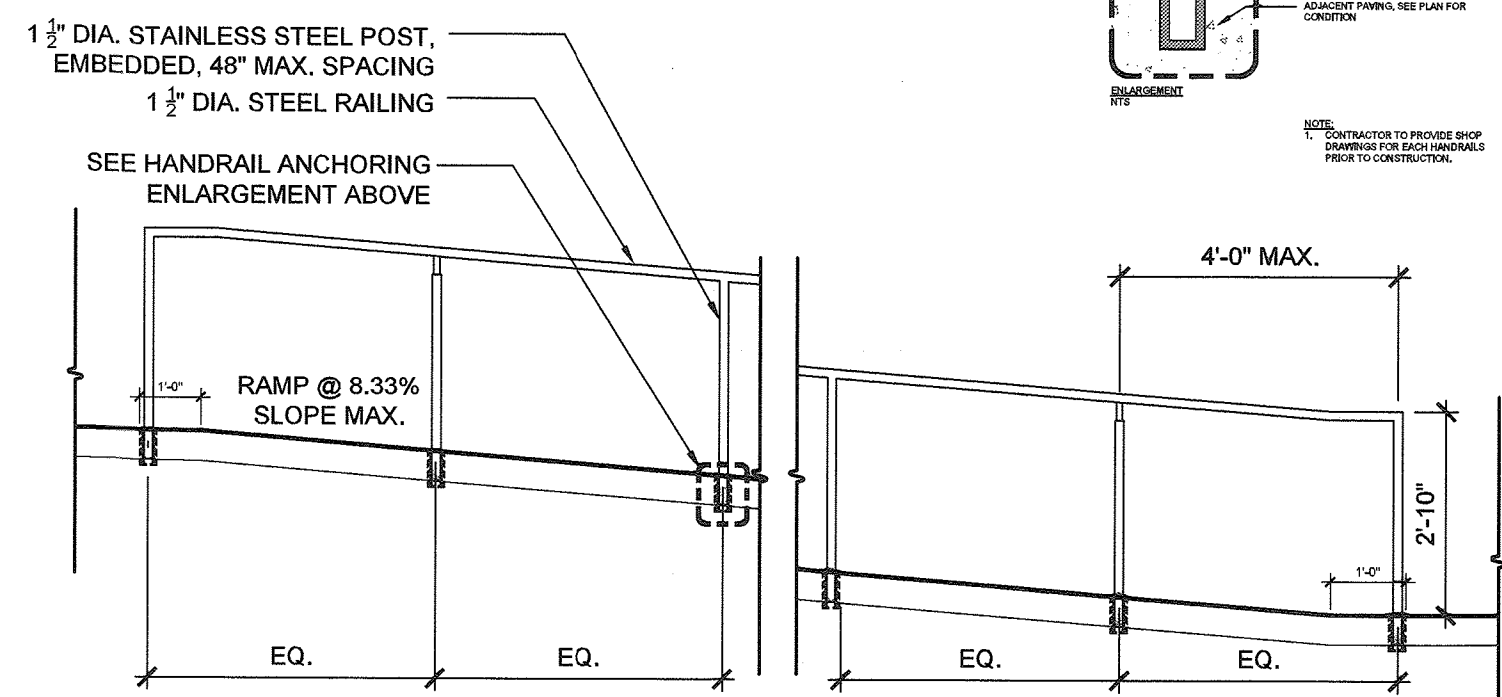
7 SIGN WALL
1/2"=1'-0"

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Howard County
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 12-12-18

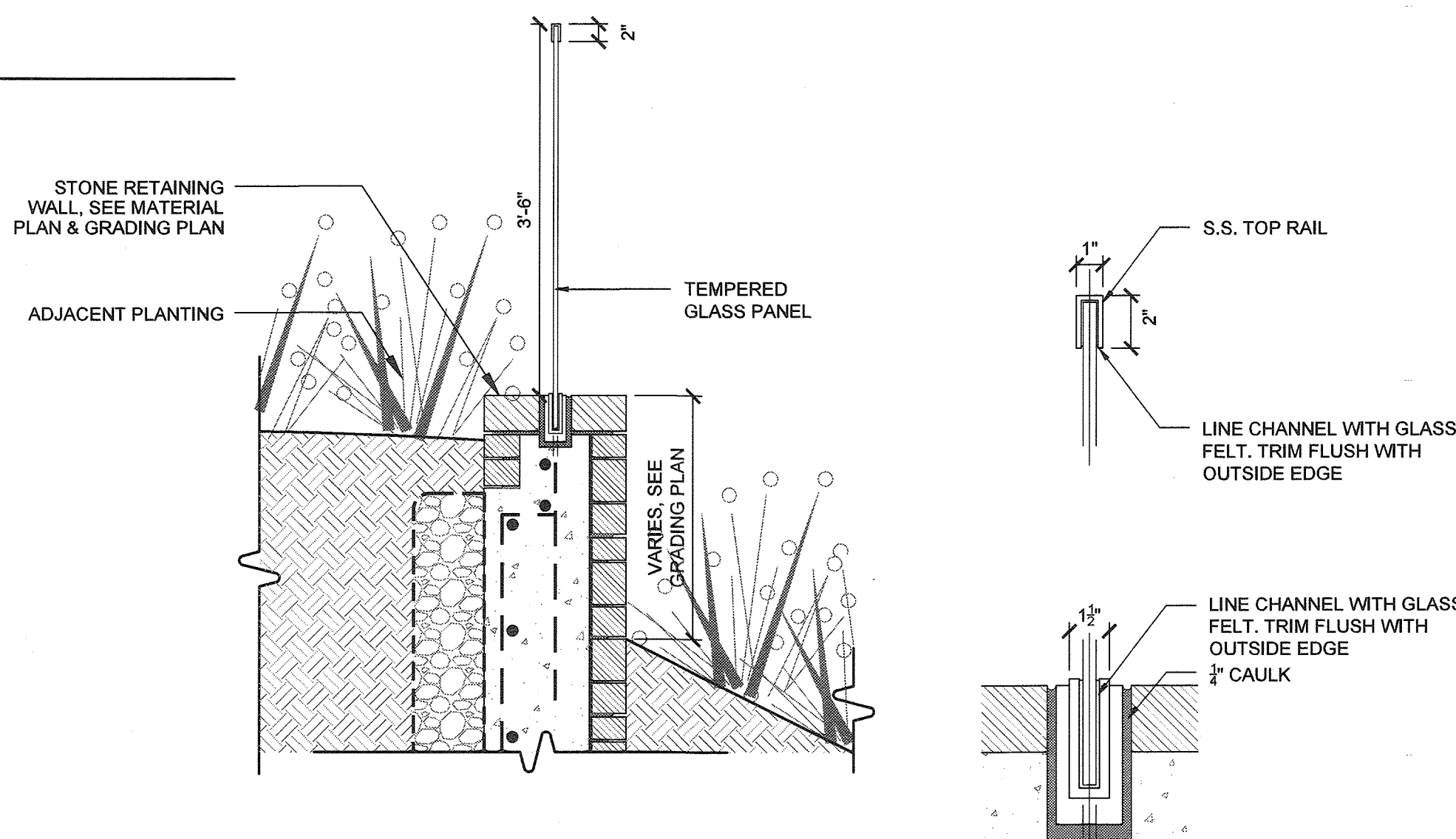
Kurt Z. O'Neil
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 12-13-18

N. Williams
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING
DATE: 12-13-18

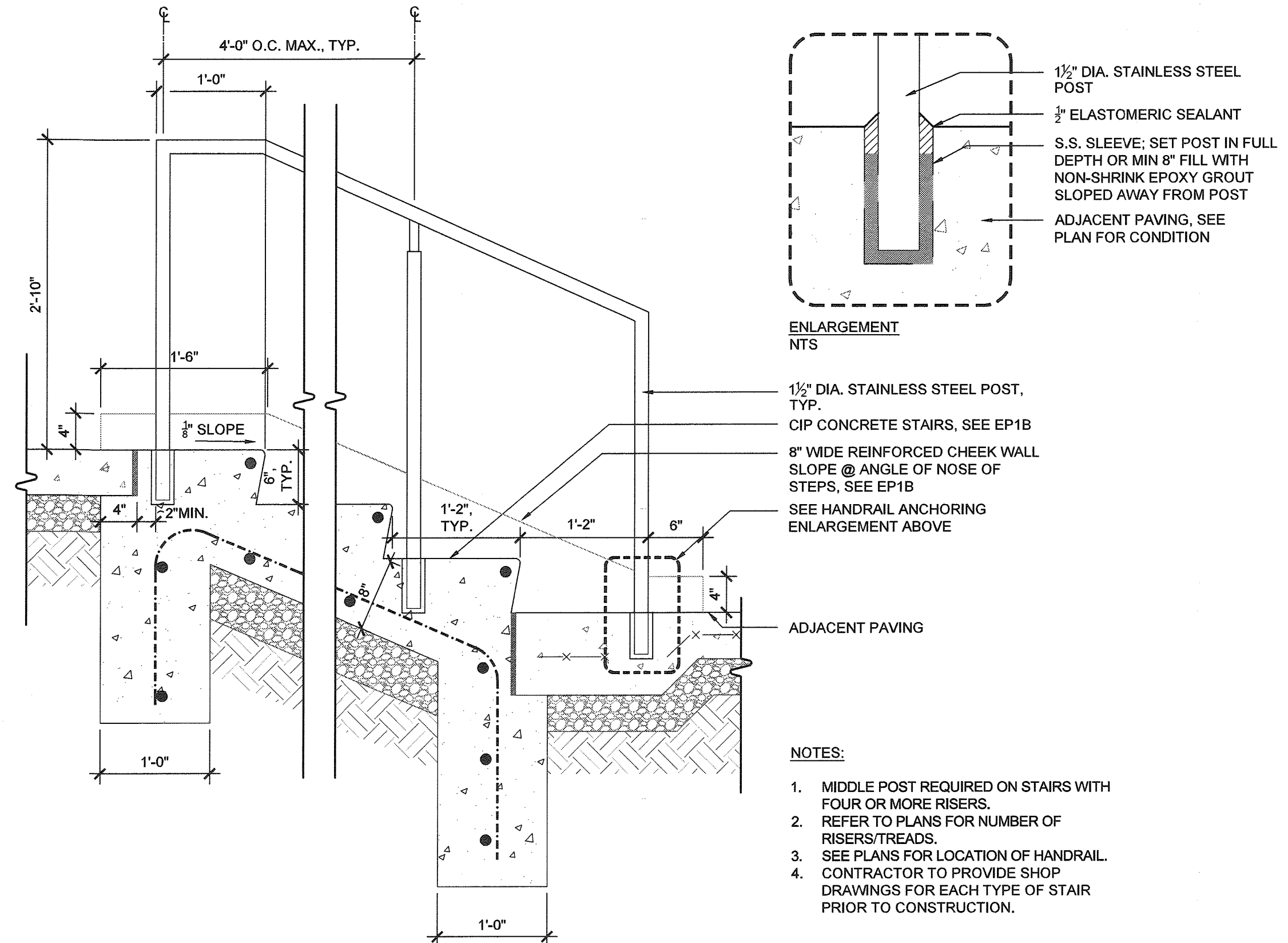
9 HANDRAIL @ RAMP
3/8"=1'-0"



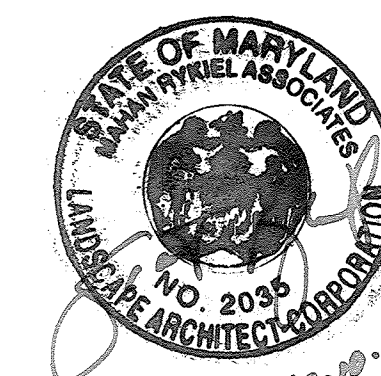
10 GUARDRAIL
3/8"=1'-0"



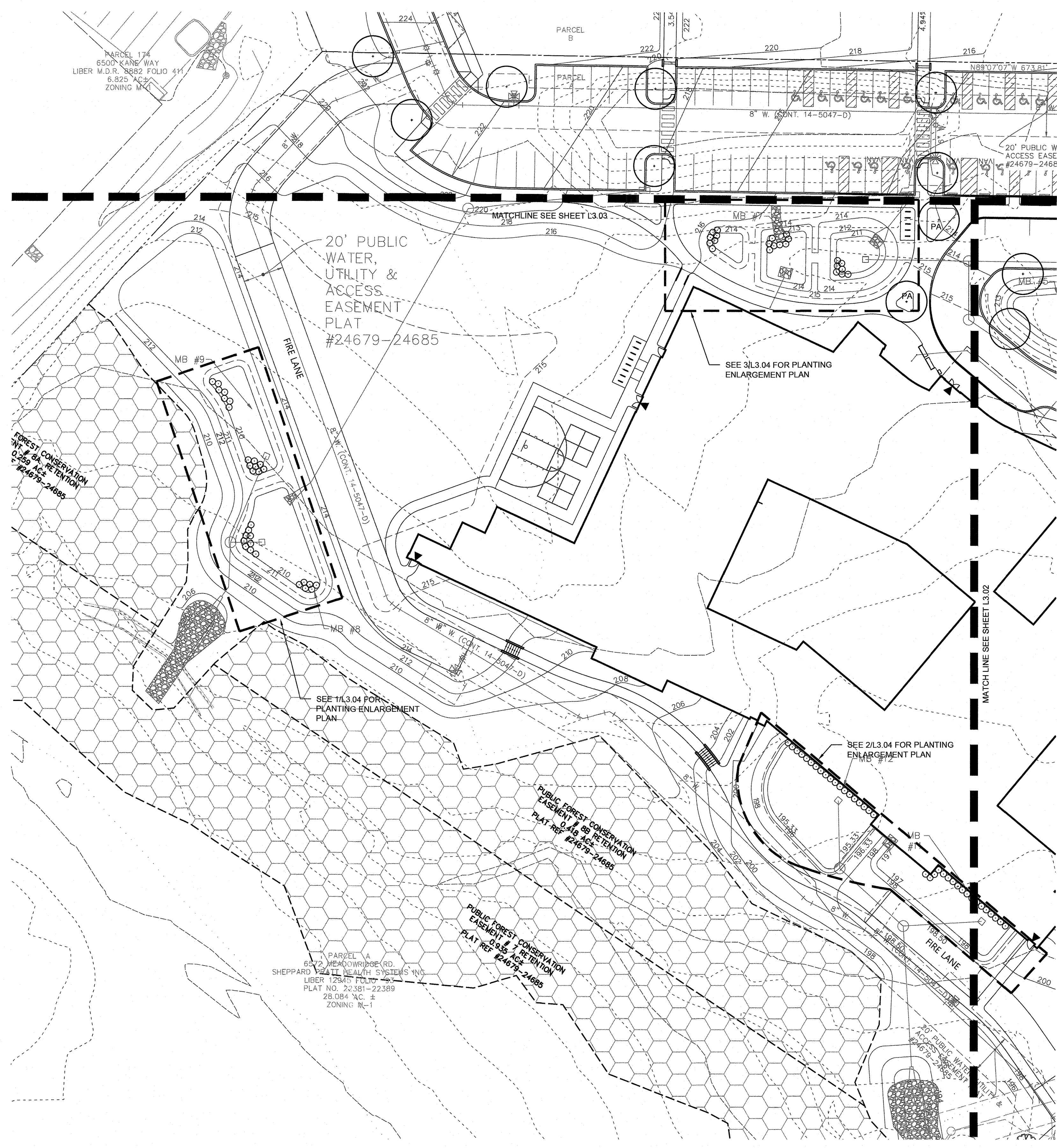
8 CIP CONC. STAIR AND HANDRAIL
1"=1'-0"



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 631, EXPIRATION DATE: 09/29/2019.

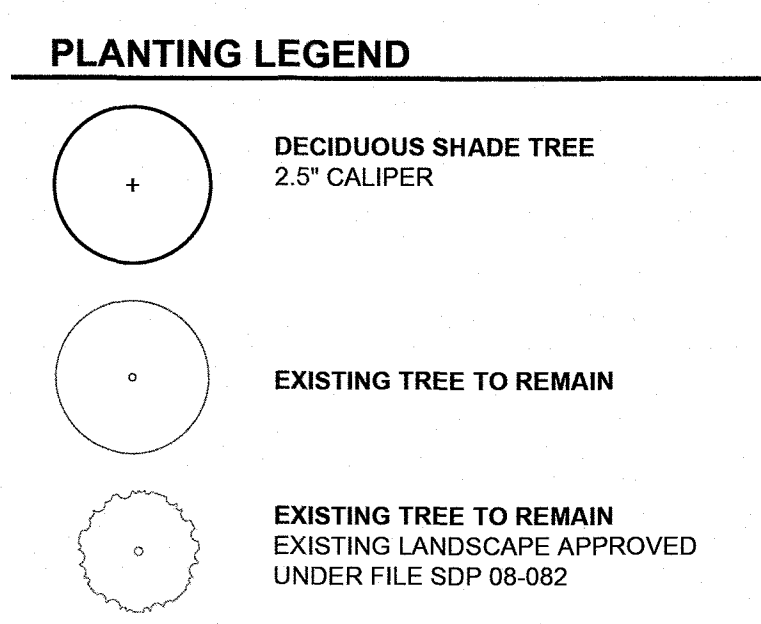


Date	No.	Revision Description
<p>SHEPPARD PRATT HEALTH SYSTEM ELKRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N. CHARLES ST BALTIMORE, MD 21285-6815 410-938-3242</p>		
<p>MAHAN RYKIEL ASSOCIATES INC Whitehall Mill 3300 Clipper Mill Road Suite 200 Baltimore, MD 21211 410.235.6001</p>		
<p>PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 631, EXPIRATION DATE: 09/29/2019.</p>		
<p>STATE OF MARYLAND LANDSCAPE ARCHITECT ASSOCIATION LICENSE NO. 20348 12-10-18</p>		
<p>SUBDIVISION NAME: CORRIDOR 95 BUSINESS PARK SECTION/AREA: 725 (PARCEL A&B) LOT/PARCEL # PLAT OR LOT: 24679-24685 ZONE: M-1 TAX ZONE/MAP/GRID: 37/16&23 ELECT. DIST: 1 CENSUS TRACT: 6012.03 WATER CODE: B-02 SEWER CODE: 4020000 STAGE: 6012.03</p>		
<p>TITLE: L2.01 - HARDSCAPE DETAILS</p>		
Des. By: SK	SCALE: AS SHOWN	Proj. No.: 10015.00
Drn. By: JS	Date: 07/12/2018	
Chk. By: RC	Approved: MCB	40 of 50



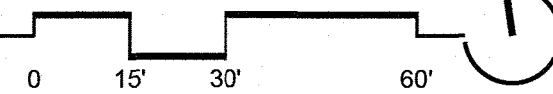
PLANT SCHEDULE (THIS SHEET ONLY)

QTY.	KEY	BOTANICAL/Common NAME	SIZE	ROOT	COMMENTS
		SHADE TREES			
2	PA	Platanus x acerifolia 'Morton Circle'	2.5" Cal.	B&B	Central Leader
		Exclamation Planetree			Full Crown



1 CANOPY PLANTING PLAN

1"=30'-0"



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

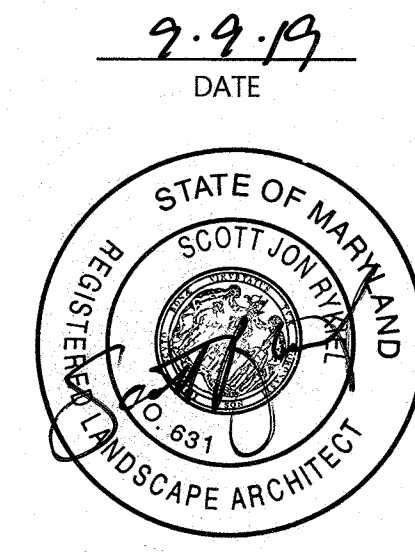
Chad Edwards 9-30-19
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Kate L. Jordan 10-2-19
CHIEF, DIVISION OF LAND DEVELOPMENT KB for TRM DATE

Michelle J. Davis 10-2-19
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

PROFESSIONAL CERTIFICATION

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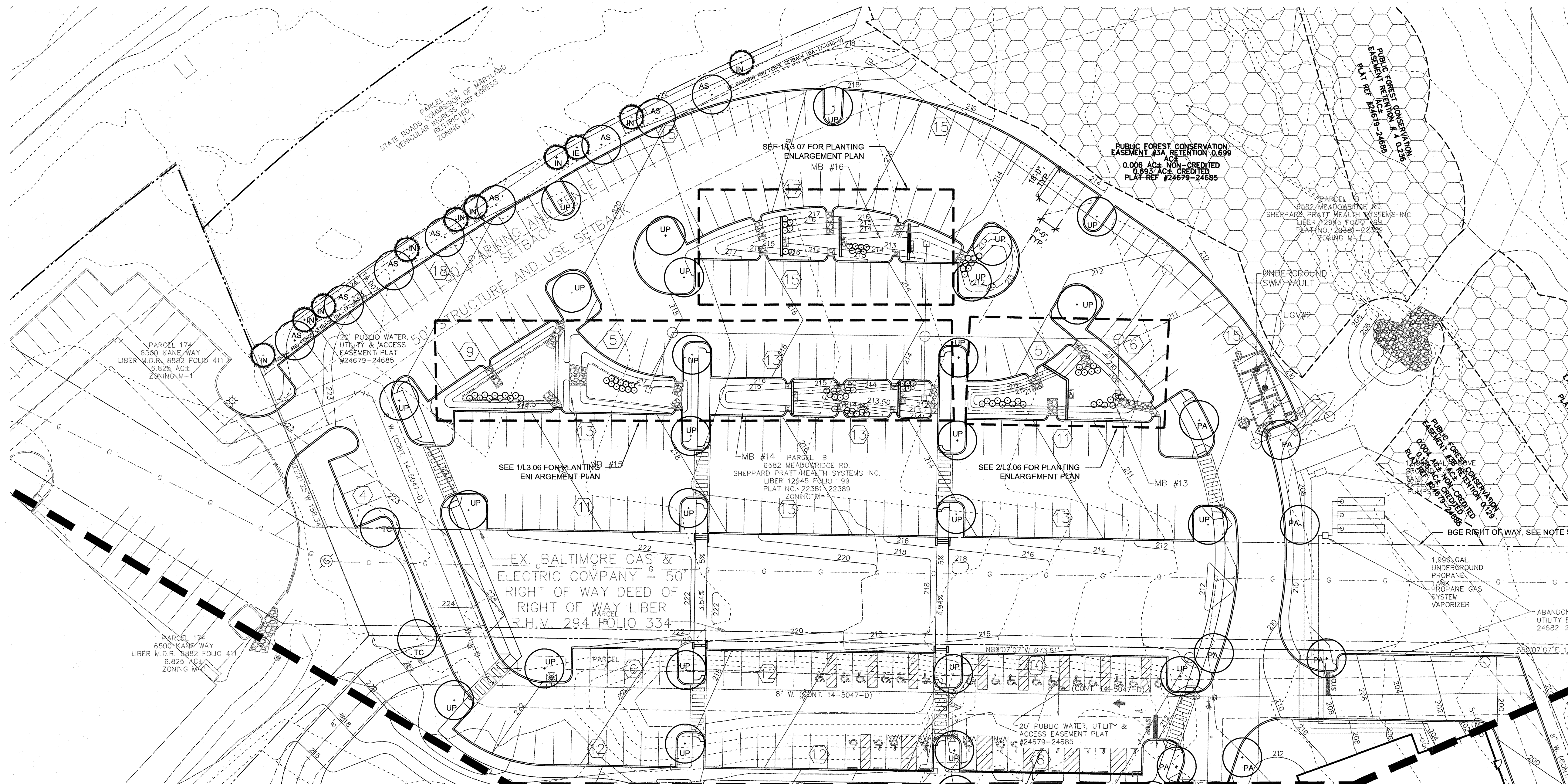
2/25/19	△	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC. & UTILITY PLANS
Date	No.	Revision Description

**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**

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HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
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6501 N. CHARLES ST
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410-938-3242

**MAHAN RYKIEL
ASSOCIATES INC**
Whitehall Mill 3300 Clipper Mill Road
Suite 200 Baltimore, MD 21211 410.235.6001

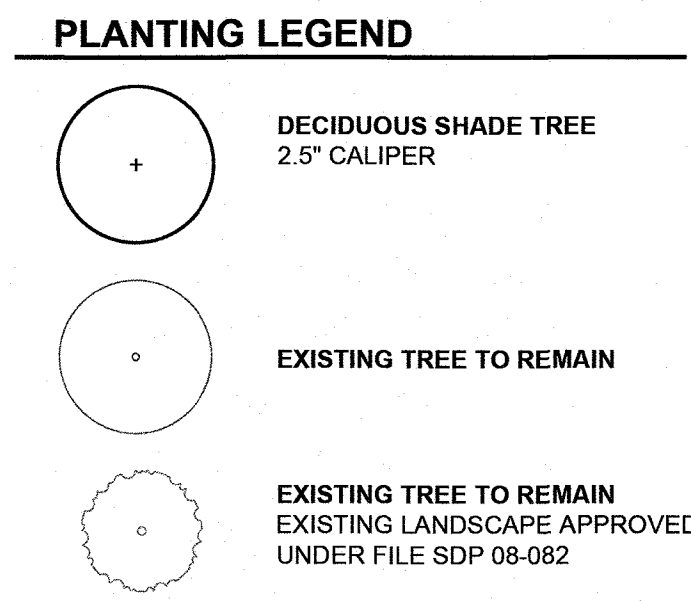
SUBDIVISION NAME CORRIDOR 95 BUSINESS PARK	SECTION/AREA W-1	LOT/PARCEL # 756 (PARCEL A&B)
PLAT OR L.P. 24679-24685	TAX ZONE/MAP/GRID 37/16&23	ELECT. DIST./CENSUS TRACT 1 6012.03
WATER CODE B-02	SEWER CODE 4020000	STAGE
TITLE REPLACEMENT SHEET △ I3.01 - LANDSCAPE PLANTING PLAN - TREES		
Des. By SK	SCALE AS SHOWN	Proj. No. 10015.D0
Drn. By JS	Date 07/12/2018	42 of 51 △
Chk. By RC	Approved MGB	



1 CANOPY PLANTING PLAN
1"=30'-0"

PLANT SCHEDULE (THIS SHEET ONLY)

QTY.	KEY	BOTANICAL/COMMON NAME	SIZE	ROOT	COMMENTS
SHADE TREES					
8	AS	Acer saccharum 'Green Mountain' Sugar Maple	2.5" Cal	B&B	Central Leader, Matched
7	PA	Platanus x acerifolia 'Morton Circle' Exclamation Planetree	2.5" Cal	B&B	Central Leader Full Crown
2	TC	Tilia cordata 'Greenspire' Greenspire Littleleaf Linden	2.5" Cal	B&B	Central Leader Full Crown
25	UP	Ulmus parviflora Chinese Elm	2.5" Cal	B&B	Central Leader, Matched No Fall Digging
EVERGREEN TREE					
10	IN	Ilex 'Nellie R. Stevens' Nellie Steven's Holly	10' Ht.	B&B	Full to Ground
1	IE	Ilex 'Edward J. Stevens' Edward Steven's Holly	10' Ht.	B&B	Full to Ground



SCHEDULE B - PARKING LOT INTERNAL LANDSCAPE

NUMBER OF PARKING SPACES	274
NUMBER OF TREES REQUIRED	14
NUMBER OF TREES PROVIDED	
SHADE TREES	25
OTHER TREES (2:1 SUBSTITUTION)	0

SCHEDULE A - PERIMETER LANDSCAPE EDGE

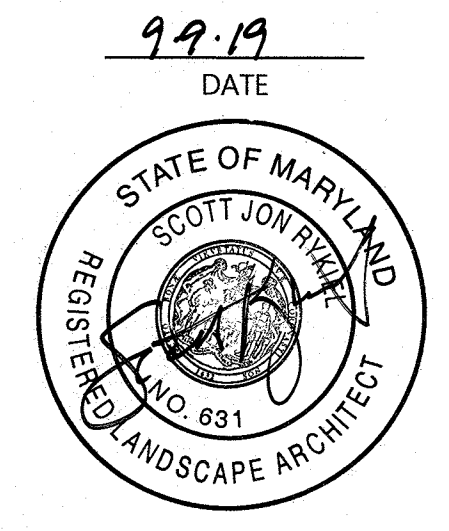
CATEGORY	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	B
LINEAR FEET OF PERIMETER	369 LF
CREDIT FOR EXISTING VEGETATION	NO, 369 LF
NUMBER OF PLANTS REQUIRED	
SHADE TREES	8
EVERGREEN TREES	10
SHRUBS	0
NUMBER OF PLANTS PROVIDED	
SHADE TREES	8
EVERGREEN TREES	10
OTHER TREES (2:1 SUBSTITUTION)	0
SHRUBS (10:1 SUBSTITUTION)	0

2/25/19	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS
Date	No. Revision Description

**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**
ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242

**MAHAN RYKIEL
ASSOCIATES INC**
Whitehall Mill 3300 Clipper Mill Road
Suite 200 Baltimore, MD 21211 410.235.6001

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS
WERE PREPARED OR APPROVED BY ME,
AND THAT I AM A DULY LICENSED
PROFESSIONAL LANDSCAPE ARCHITECT
UNDER THE LAWS OF THE STATE OF
MARYLAND, LICENSE NO. 631, EXPIRATION
DATE: 09/29/2019.



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Howard County Seal
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 9-30-19

Keith Selevan
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 10-2-19

William J. Jelinek
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING
DATE: 10-2-19

SUBDIVISION NAME CORRIDOR 95 BUSINESS PARK	SECTION/AREA PARK	LOT/PARCEL # 759 (PARCEL A&B)
PLAT OR L.P. 24679-24685	TAX ZONE/AD/GRID M-1 37/16&23	ELECT. DIST. CENSUS TRACT 1 6012.03
WATER CODE B-02	SEWER CODE 4020000	STAGE
TITLE REPLACEMENT SHEET L3.03 - LANDSCAPE PLANTING PLAN - TREES		
Des. By: SK	SCALE: AS SHOWN	Proj. No.: 10015.00
Drn. By: JS	Date: 07/12/2018	44 of 51
Chk. By: RC	Approved: MCB	

PLANT SCHEDULE (THIS SHEET ONLY)

LOWLAND MEADOW SEEDING (LMS)	0.20 AC.
UPLAND MEADOW SEEDING (UMS)	0.15 AC.
LOWLAND MEADOW SEED MIX	

FORBS	PURE LIVE SEED *		GRASSES, SEDGES and RUSHES	PURE LIVE SEED *	
	GRAM PER SY	LB PER ACRE		GRAM PER SY	LB PER ACRE
Select 8			Include All		
Common Boneset	0.019	0.2	Big Bluestem	0.188	2.0
Eastern Purple Coneflower	0.113	1.2	Gamagrass	0.188	2.0
Evening Primrose	0.019	0.2	Hard Fescue	1.876	20.0
Lanceleaf Tickseed	0.141	1.5	Indiangrass	0.188	2.0
Macmillan Sunflower	0.047	0.5	Kentucky Bluegrass	0.469	5.0
New England Aster	0.019	0.2	Sweetgum	0.094	1.0
New York Ironweed	0.019	0.2	Virginia Wildrye	0.047	0.5
Showy Tickseed	0.019	0.2			
Stiff Goldenrod	0.028	0.3			
Swamp Verbena	0.066	0.7			
Trumpetweed or Spotted Trumpetweed	0.019	0.2			

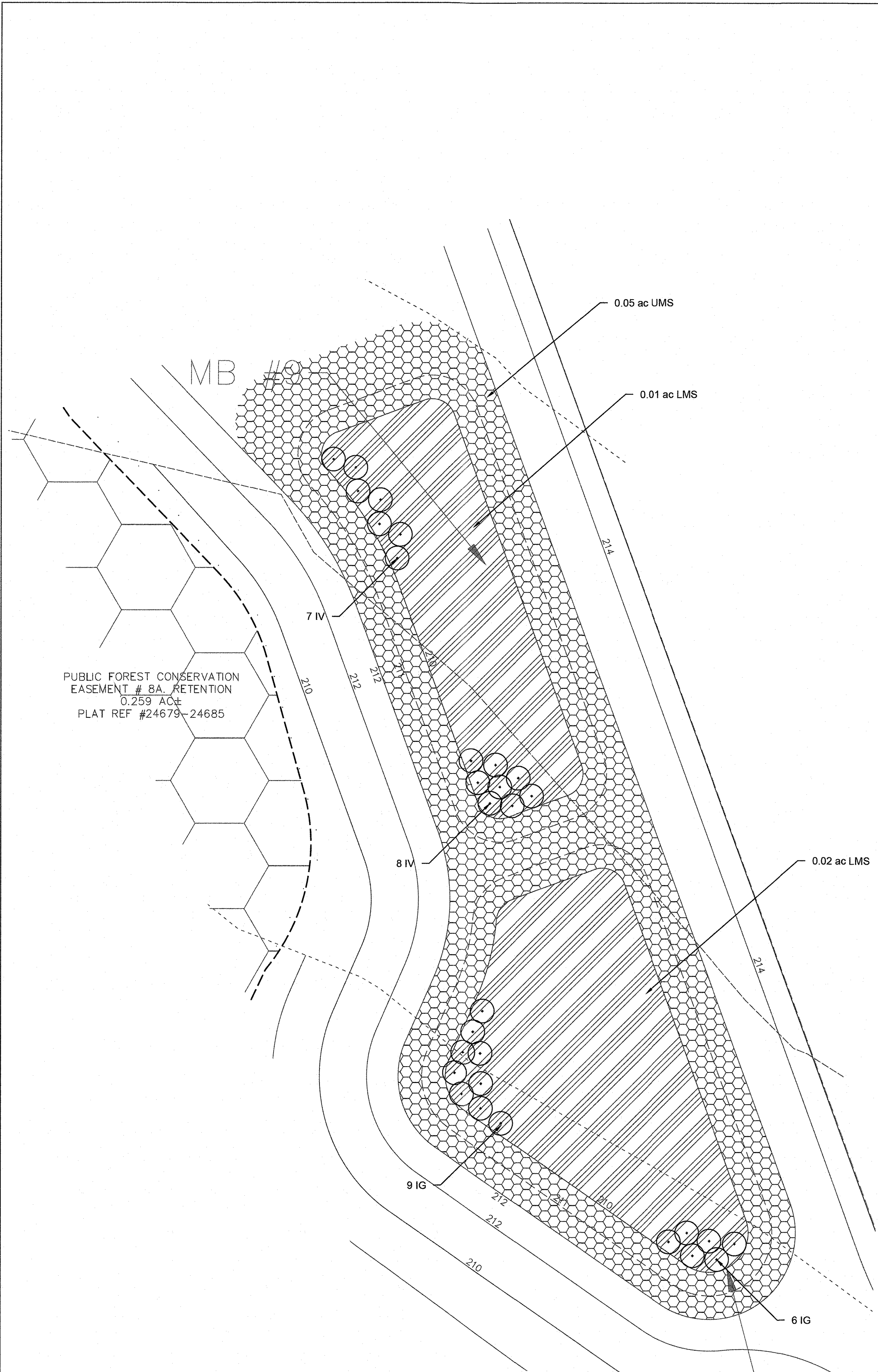
UPLAND MEADOW SEED MIX

% of Mix	Latin Name	Common Name	Cultivar/ Ecotype
96.0	<i>Bouteloua curtipendula</i>	Sideoats Grama	Any
40.0	<i>Schizachyrium scoparium</i>	Little Bluestem	AP8 (NY) or Camper
2.0	<i>Asclepias tuberosa</i>	Butterfly Milkweed	Any
0.5	<i>Aster divaricatus</i>	White Wood Aster	PA
1.2	<i>Aster laevis</i>	Smooth Aster	NY
0.3	<i>Aster praeanthoides</i>	Zig Zag Aster	PA
0.4	<i>Siphila tritoria</i>	Wild Indigo	PA
2.0	<i>Chamaecrista fasciculata</i>	Partridge Pea	PA
2.0	<i>Coreopsis lanceolata</i>	Lance Leaf Coreopsis	Any
0.3	<i>Coreopsis verticillata</i>	Threadleaf Coreopsis	VA or SC
1.0	<i>Eupatorium coelestinum</i>	Matflower	VA
0.7	<i>Lespedeza frutescens</i>	Shrubby Bushclover	MD
0.8	<i>Lespedeza virginica</i>	Slender Bushclover	VA
2.9	<i>Liatris squarrosa</i>	Scaly Blazing Star	VA
0.7	<i>Monarda punctata</i>	Dotted Mint	MD preferred
4.0	<i>Penstemon digitalis</i>	Tall White Beardtongue	PA or other
0.3	<i>Pycnanthemum tenuifolium</i>	Narrow Leaved Mtn. Mint	PA
0.5	<i>Rudbeckia fulgida</i>	Orange Coneflower	VA
2.5	<i>Rudbeckia hirta</i>	Black Eyed Susan	Any
0.3	<i>Solidago juncea</i>	Early Goldenrod	PA or VA
0.1	<i>Solidago nemoralis</i>	Gray Goldenrod	PA or VA
1.5	<i>Tradescantia virginiana</i>	Virginia Spiderwort	PA/VA
100	Total		

Apply this mix at 20 lbs/acre with 30 lbs/acre of a cover crop.
For a cover crop use either oats (1 Jan to 31 Aug) or grain rye (1 Sep to 31 Dec).
If a product is not available, add its % to *Bouteloua curtipendula* or *Schizachyrium scoparium*.

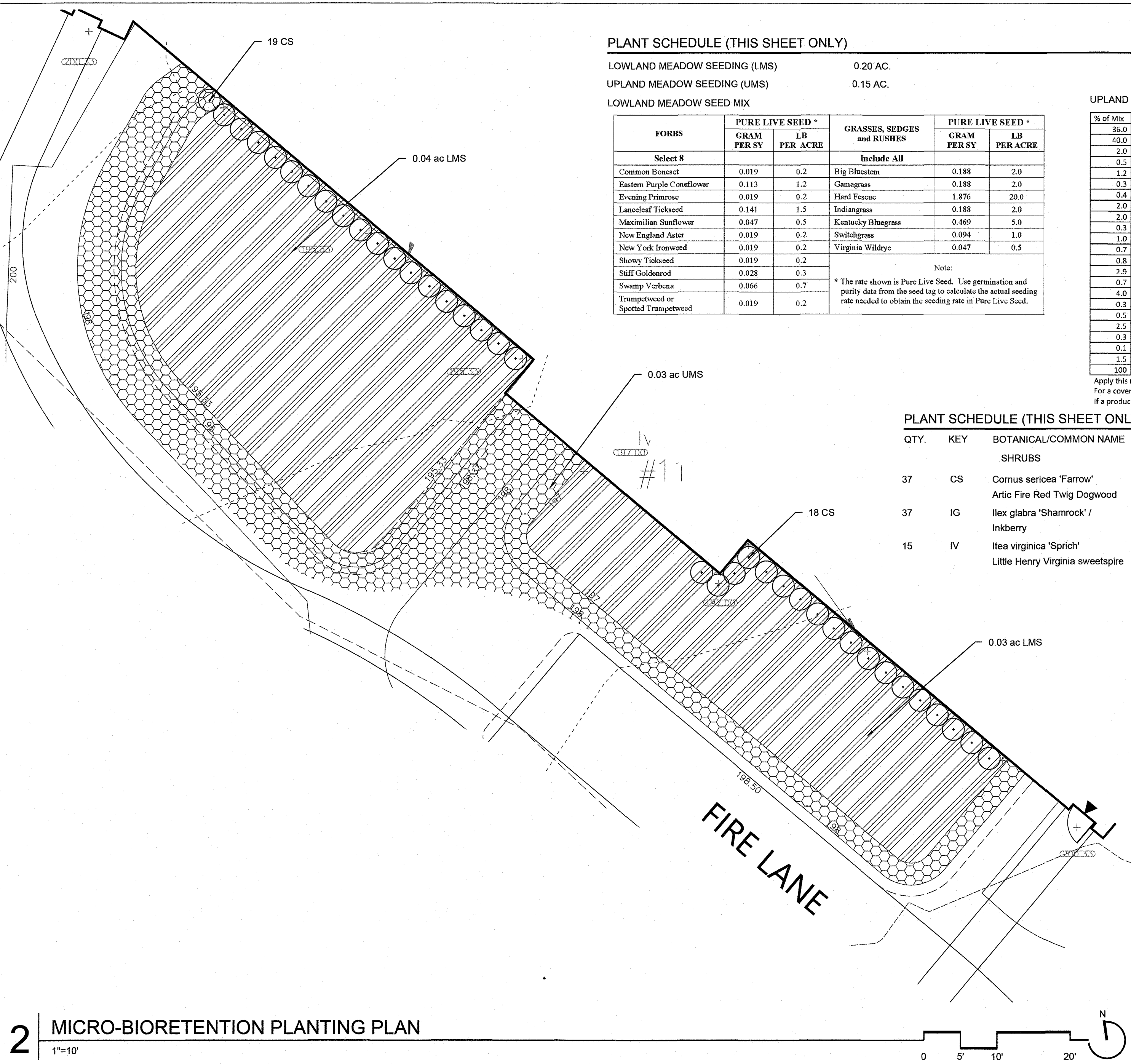
PLANT SCHEDULE (THIS SHEET ONLY)

QTY.	KEY	BOTANICAL/COMMON NAME	SIZE	ROOT	COMMENTS
SHRUBS					
37	CS	<i>Cornus sericea</i> 'Farrow'	#5	Cont.	24" Spd. Matched
37	IG	Artic Fire Red Twig Dogwood	#5	Cont.	24" Spd. Matched
15	IV	<i>Itea virginica</i> 'Sprich'	#5	Cont.	24" Spd. Matched



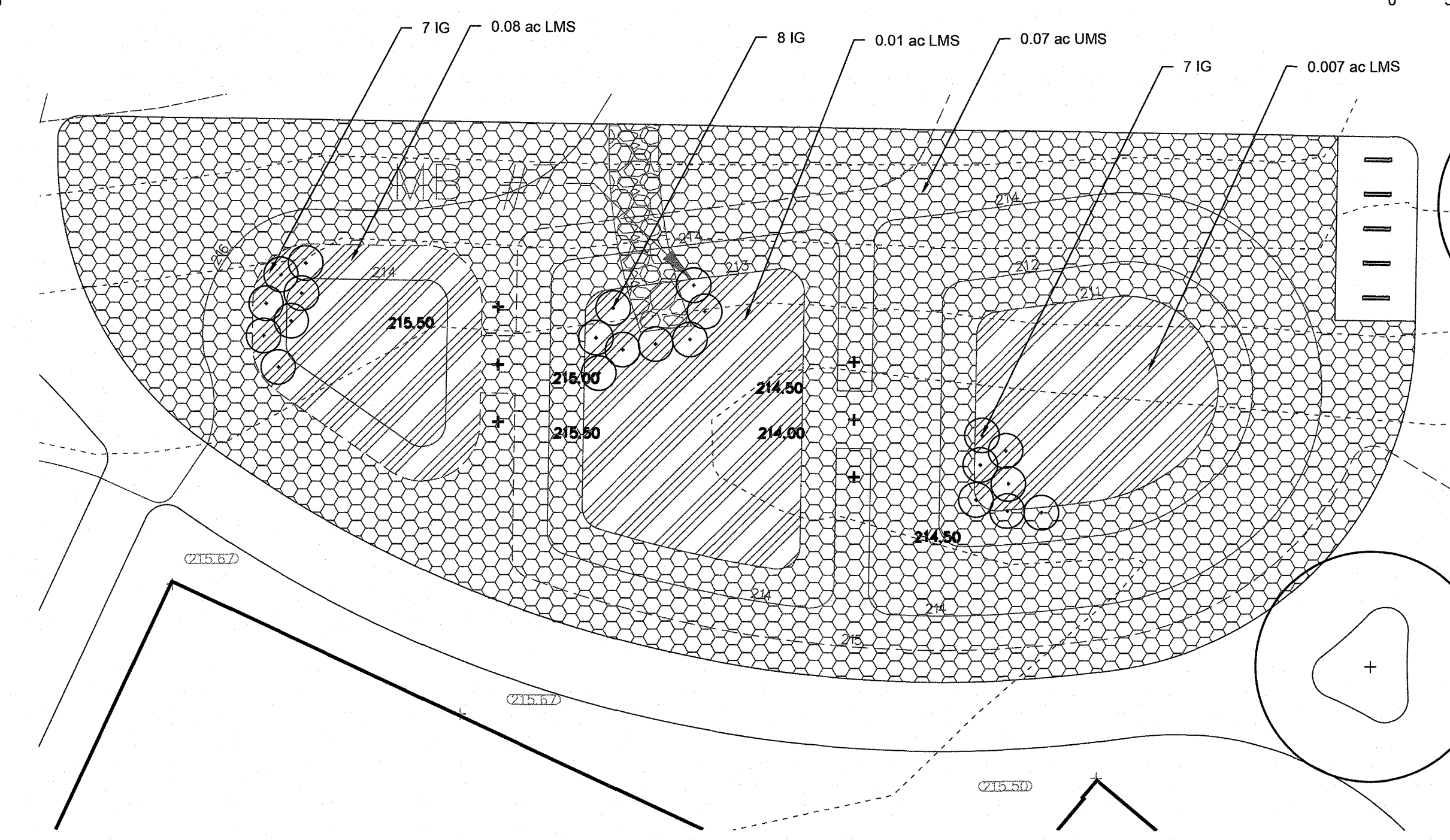
1 MICRO-BIORETENTION PLANTING PLAN

1"=10'



2 MICRO-BIORETENTION PLANTING PLAN

1"=10'



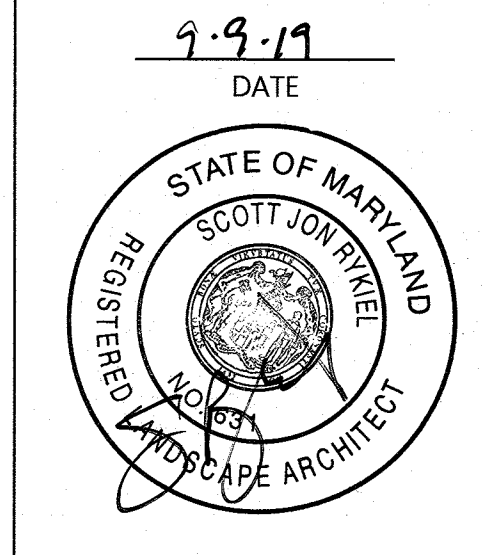
3 MICRO-BIORETENTION PLANTING PLAN

1"=10'

LANDSCAPE REQUIREMENT NOTES:

- THE SITE IS CURRENTLY ZONED AS M-1, MANUFACTURING, LIGHT DISTRICT, AND THEREFORE EXEMPT FROM THE STORMWATER MANAGEMENT AREA LANDSCAPING REQUIREMENTS AS OUTLINED ON PAGE 30, CHAPTER 4 OF THE HOWARD COUNTY LANDSCAPE MANUAL.
- SEE SHEET 20 FOR STORMWATER OPERATION & MAINTENANCE SCHEDULE.

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 631, EXPIRATION DATE: 09/29/2019.



2/25/19	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS
Date	Revision Description
<p>SHEPPARD PRATT HEALTH SYSTEM ELKRIDGE CAMPUS BEHAVIORAL HEALTH FACILITY ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N. CHARLES ST BALTIMORE, MD 21285-6815 410-938-3242</p>	
<p>MAHAN RYKIEL ASSOCIATES INC Whitehall Mill 3300 Clipper Mill Road Suite 200 Baltimore, MD 21211 410.235.6001</p>	
SUBDIVISION NAME	SECTION/AREA
CONDOM 95 BUSINESS PARK	756 (PARCEL A&B)
PLAT OR L.P.	TAX ZONE/MAP GRID
24679-24685	M-1 37/16&23
WATER CODE	ELECT. DIST
B-02	1
SEWER CODE	STAGE
4020000	6012.03
TITLE	
REPLACEMENT SHEET	
L3.04 - LANDSCAPE ENLARGEMENT PLANS - UNDERSTORY	
Des. By	SCALE AS SHOWN
Drn. By	Date
Chk. By	Approved
SK	07/12/2018
JS	MCB
RC	
Proj. No.	10015.00
45 of 51	

S:\PROJECTS\2019\SHEPPARD PRATT HOSPITAL - ELKRIDGE CAMPUS\LANDSCAPE ENLARGEMENT PLAN - UNDERSTORY.DWG: 08/01/19 9:59 AM

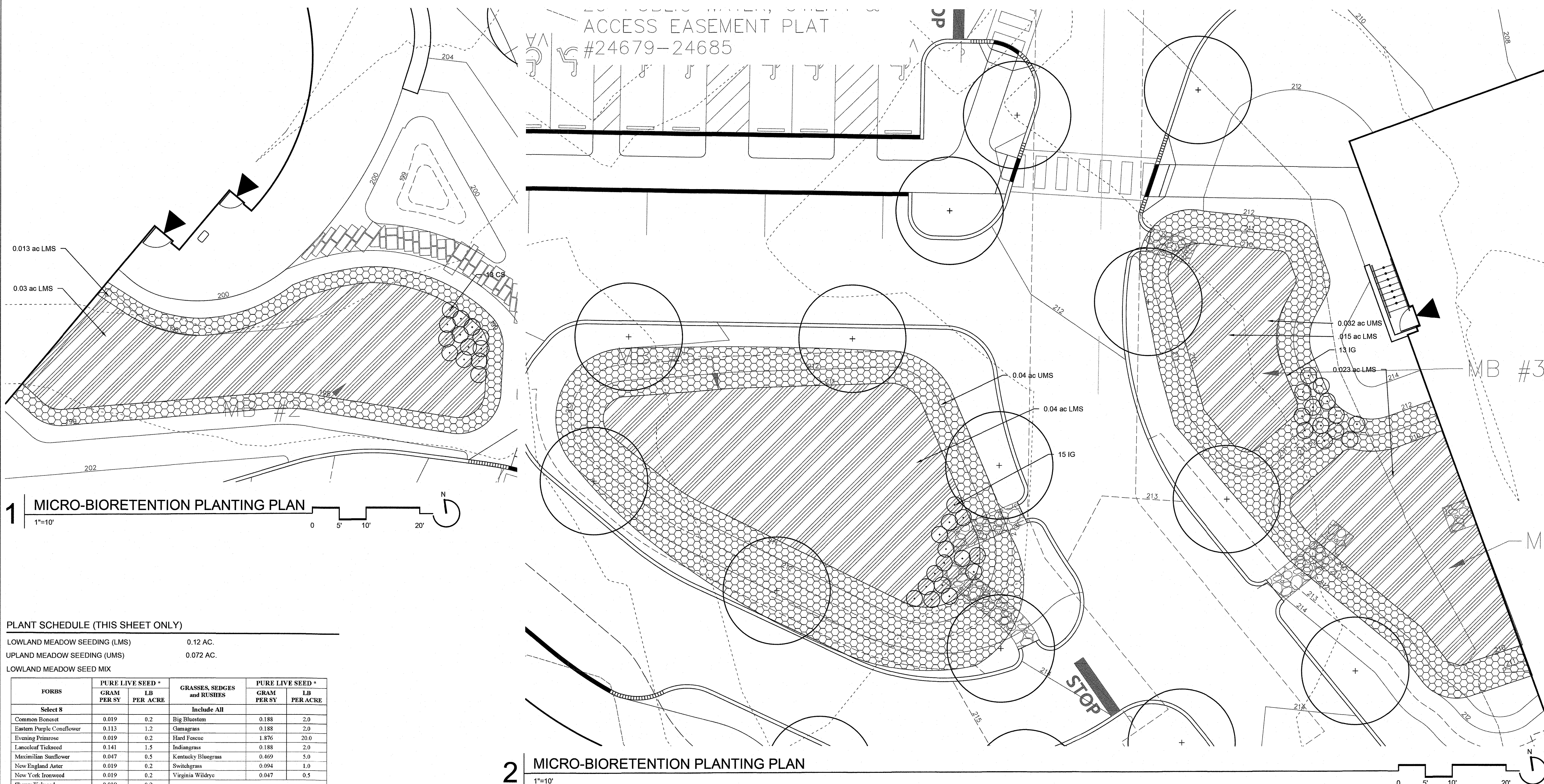
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Ed Edman 9-3-19
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Kent Sheppard 10-2-19
 CHIEF, DIVISION OF LAND DEVELOPMENT FOR TMA DATE

Nellis Felton 10-2-19
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

ACCESS EASEMENT PLAT
#24679-24685



1 MICRO-BIORETENTION PLANTING PLAN
1"=10'

2 MICRO-BIORETENTION PLANTING PLAN
1"=10'

PLANT SCHEDULE (THIS SHEET ONLY)

LOWLAND MEADOW SEEDING (LMS) 0.12 AC.
UPLAND MEADOW SEEDING (UMS) 0.072 AC.
LOWLAND MEADOW SEED MIX

FORBS	PURE LIVE SEED *		GRASSES, SEDGES and RUSHES	PURE LIVE SEED *	
	GRAM PER SY	LB PER ACRE		GRAM PER SY	LB PER ACRE
Select 8			Include All		
Common Boneset	0.019	0.2	Big Bluestem	0.188	2.0
Eastern Purple Coneflower	0.113	1.2	Gamagrass	0.188	2.0
Evening Primrose	0.019	0.2	Hard Fescue	1.876	20.0
Lanceleaf Tickseed	0.141	1.5	Indiangrass	0.188	2.0
Maximilian Sunflower	0.047	0.5	Kentucky Bluegrass	0.469	5.0
New England Aster	0.019	0.2	Switchgrass	0.094	1.0
New York Ironweed	0.019	0.2	Virginia Wildrye	0.047	0.5
Showy Tickseed	0.019	0.2			
Stiff Goldenrod	0.028	0.3			
Swamp Verbena	0.066	0.7			
Trumpetweed or Spotted Trumpetweed	0.019	0.2			

Note:
* The rate shown is Pure Live Seed. Use germination and purity data from the seed tag to calculate the actual seeding rate needed to obtain the seeding rate in Pure Live Seed.

UPLAND MEADOW SEED MIX

% of Mix	Latin Name	Common Name	Cultivar / Ecotype
36.0	<i>Bouteloua curtipendula</i>	Sideoats Grass	Any
40.0	<i>Schizachyrium scoparium</i>	Little Bluestem	APB (NY) or Camper
2.0	<i>Asclepias tuberosa</i>	Butterfly Milkweed	Any
0.5	<i>Aster divaricatus</i>	White Wood Aster	PA
1.2	<i>Aster laevis</i>	Smooth Aster	NY
0.3	<i>Aster prenanthoides</i>	Zig Zag Aster	PA
0.4	<i>Baptisia tinctoria</i>	Wild Indigo	PA
2.0	<i>Chamaecrista fasciculata</i>	Partridge Pea	PA
2.0	<i>Coreopsis lanceolata</i>	Lance Leaf Coreopsis	Any
0.3	<i>Coreopsis verticillata</i>	Threadleaf Coreopsis	VA or SC
1.0	<i>Eupatorium coelestinum</i>	Mistflower	VA
0.7	<i>Lespedeza frutescens</i>	Shrubby Bushclover	MD
0.8	<i>Lespedeza virginica</i>	Slender Bushclover	VA
2.9	<i>Liatris squarrosa</i>	Scaly Blazing Star	VA
0.7	<i>Monarda punctata</i>	Dotted Mint	MD preferred
4.0	<i>Penstemon digitalis</i>	Tall White Beardtongue	PA or other
0.3	<i>Pycnanthemum tenuifolium</i>	Narrow Leaved Mtn. Mint	PA
0.5	<i>Rudbeckia fulgida</i>	Orange Coneflower	VA
2.5	<i>Rudbeckia hirta</i>	Black Eyed Susan	Any
0.3	<i>Solidago juncea</i>	Early Goldenrod	PA or VA
0.1	<i>Solidago nemoralis</i>	Gray Goldenrod	PA or VA
1.5	<i>Tradescantia virginiana</i>	Virginia Spiderwort	PA/VA
100	Total		

Apply this mix at 20 lbs/acre with 30 lbs/acre of a cover crop.
For a cover crop use either oats (1 Jan to 31 Aug) or grain rye (1 Sep to 31 Dec).
If a product is not available, add its % to *Bouteloua curtipendula* or *Schizachyrium scoparium*.

PLANT SCHEDULE (THIS SHEET ONLY)

QTY.	KEY	BOTANICAL/Common Name	SIZE	ROOT	COMMENTS
		SHRUBS			
18	CS	<i>Cornus sericea</i> 'Farrow'	#5	Cont.	24" Spd.
		Artic Fire Red Twig Dogwood			Matched
28	IG	<i>Ilex glabra</i> 'Shamrock' / Inkberry	#5	Cont.	24" Spd.
					Matched

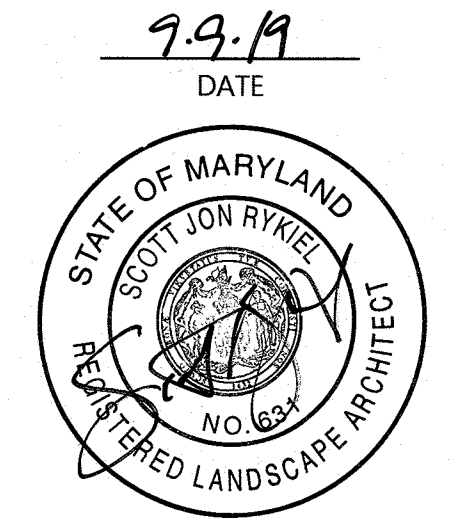
LANDSCAPE REQUIREMENT NOTES:
1. THE SITE IS CURRENTLY ZONED AS M-1, MANUFACTURING: LIGHT DISTRICT, AND THEREFORE EXEMPT FROM THE STORMWATER MANAGEMENT AREA LANDSCAPING REQUIREMENTS AS OUTLINED ON PAGE 30, CHAPTER 4 OF THE HOWARD COUNTY LANDSCAPE MANUAL.
2. SEE SHEET 20 FOR STORMWATER OPERATION & MAINTENANCE SCHEDULE.

2/25/19	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS
Date	Revision Description

SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY
ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242

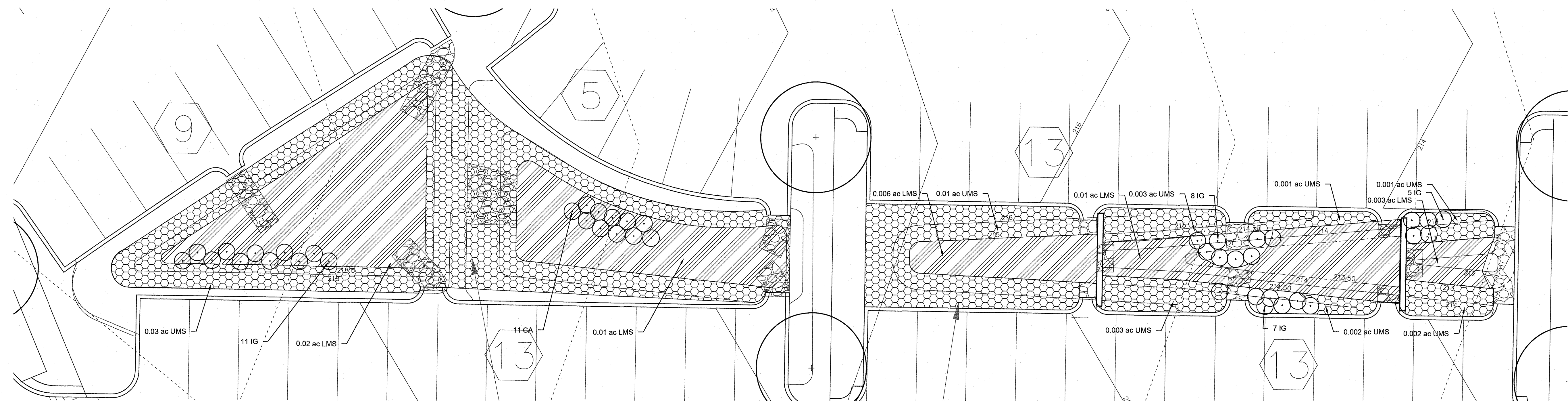
MAHAN RYKIEL
ASSOCIATES INC
Whitehall Mill 3300 Clipper Mill Road
Suite 200 Baltimore, MD 21211 410.235.6001

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 631, EXPIRATION DATE: 09/29/2019.

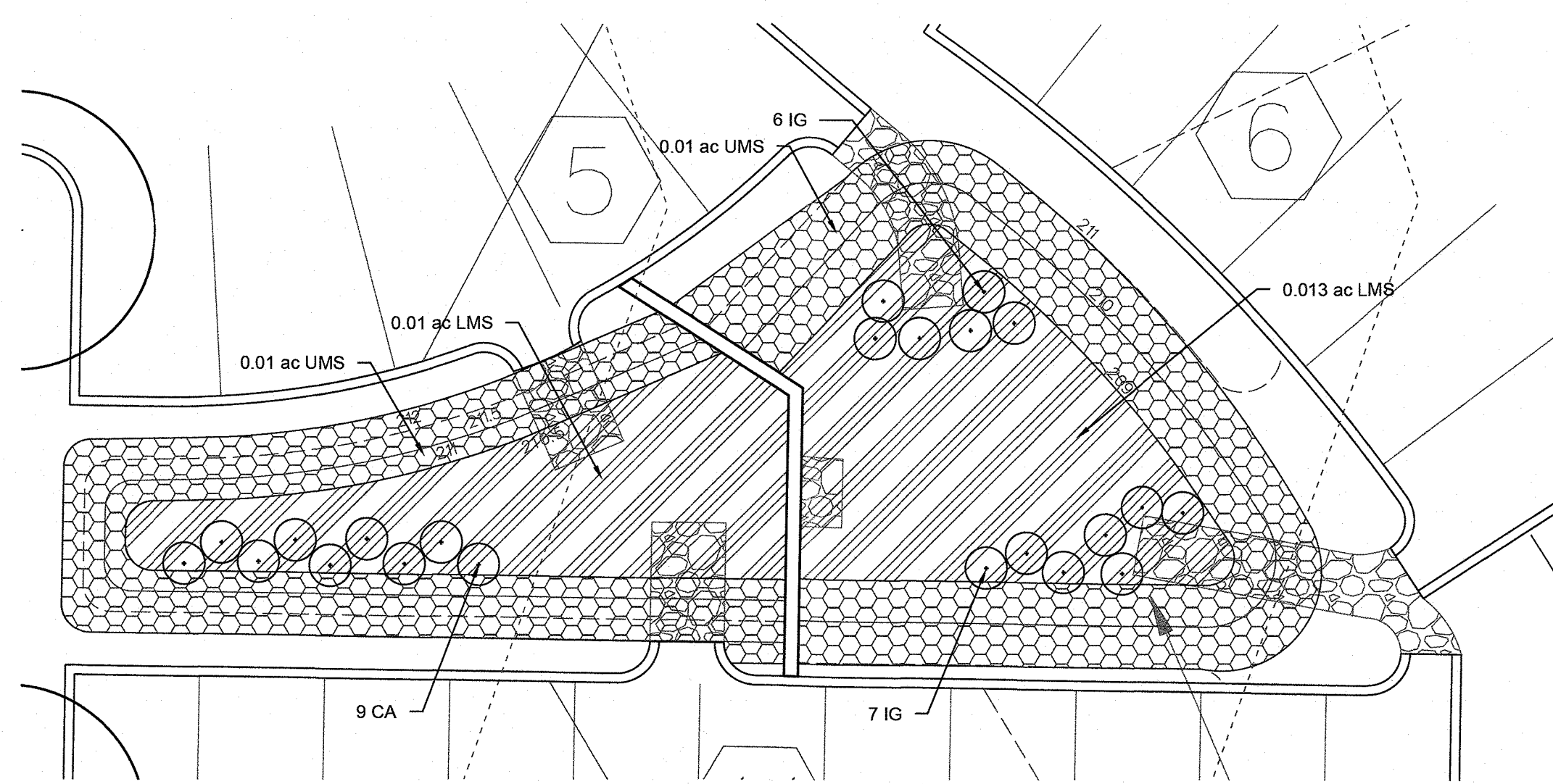
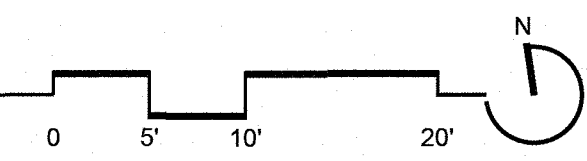


APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Chad Edwards 9-30-19
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Robert Seaman 10-2-19
CHIEF, DIVISION OF LAND DEVELOPMENT KB for TKM DATE
Nancy J. Quinn 10-2-19
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

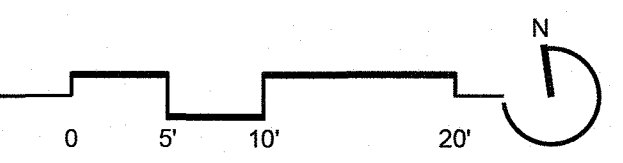
SUBDIVISION NAME GONNOR 95 BUSINESS PARK	SECTION/AREA 756 (PARCEL A&B)	LOT/PARCEL #
PLAT OR LP 24679-24685	ZONE M-1	TAX CODE/MD/GRID 37/16&23
WATER CODE B-02	SEWER CODE 4020000	ELECT. DIST 1
		CENSUS TRACT 6012.03
TITLE REPLACEMENT SHEET 1.3.05 - LANDSCAPE ENLARGEMENT PLANS - UNDERSTORY		
Des. By SK	SCALE AS SHOWN	Proj. No. 10015.00
Drn. By JS	Date 07/12/2018	
Chk. By RC	Approved MCB	46 of 51



1 MICRO-BIORETENTION PLANTING PLAN
1"=10'



2 MICRO-BIORETENTION PLANTING PLAN
1"=10'



PLANT SCHEDULE (THIS SHEET ONLY)

LOWLAND MEADOW SEEDING (LMS) 0.13 AC.
UPLAND MEADOW SEEDING (UMS) 0.07 AC.

LOWLAND MEADOW SEED MIX

FORBS	PURE LIVE SEED *		GRASSES, SEDGES and RUSHES	PURE LIVE SEED *	
	GRAM PER SY	LB PER ACRE		GRAM PER SY	LB PER ACRE
Select 8			Include All		
Common Boneset	0.019	0.2	Big Bluestem	0.188	2.0
Eastern Purple Coneflower	0.113	1.2	Gamagrass	0.188	2.0
Evening Primrose	0.019	0.2	Hard Fescue	1.876	20.0
Lanceleaf Tickseed	0.141	1.5	Indiangrass	0.188	2.0
Maximilian Sunflower	0.047	0.5	Kentucky Bluegrass	0.469	5.0
New England Aster	0.019	0.2	Switchgrass	0.094	1.0
New York Ironweed	0.019	0.2	Virginia Wildrye	0.047	0.5
Showy Tickseed	0.019	0.2			
Stiff Goldenrod	0.028	0.3			
Swamp Verbena	0.066	0.7			
Tramptweed or Spotted Tramptweed	0.019	0.2			

Note:
* The rate shown is Pure Live Seed. Use germination and purity data from the seed tag to calculate the actual seeding rate needed to obtain the seeding rate in Pure Live Seed.

UPLAND MEADOW SEED MIX

% of Mix	Latin Name	Common Name	Cultivar/ Ecotype
36.0	<i>Bouteloua curtipendula</i>	Sideoats Grama	Any
40.0	<i>Schizachyrium scoparium</i>	Little Bluestem	APB (NW) or Camper
2.0	<i>Asclepias tuberosa</i>	Butterfly Milkweed	Any
0.5	<i>Aster divaricatus</i>	White Wood Aster	PA
1.2	<i>Aster laevis</i>	Smooth Aster	NW
0.3	<i>Aster prenanthoides</i>	Zig Zag Aster	PA
0.4	<i>Baptisia tinctoria</i>	Wild Indigo	PA
2.0	<i>Chamaecrista fasciculata</i>	Partridge Pea	PA
2.0	<i>Coreopsis lanceolata</i>	Lance Leaf Coreopsis	Any
0.2	<i>Coreopsis verticillata</i>	Threadleaf Coreopsis	VA or SC
1.0	<i>Eragrostis ciliaris</i>	Mistflower	VA
0.7	<i>Lespedeza frutescens</i>	Shrubby Bushclover	MD
0.8	<i>Lespedeza virginica</i>	Slender Bushclover	VA
2.9	<i>Liatris squarrosa</i>	Scaly Blazing Star	VA
0.7	<i>Monarda punctata</i>	Dotted Mint	MD preferred
4.0	<i>Penstemon digitalis</i>	Tall White Beardtongue	PA or other
0.3	<i>Pycnanthemum tenuifolium</i>	Narrow Leaved Mtn. Mint	PA
0.5	<i>Rudbeckia fulgida</i>	Orange Coneflower	VA
2.5	<i>Rudbeckia hirta</i>	Black Eyed Susan	Any
0.3	<i>Solidago juncea</i>	Early Goldenrod	PA or VA
0.3	<i>Solidago nemoralis</i>	Gray Goldenrod	PA or VA
1.5	<i>Tradescantia virginiana</i>	Virginia Spiderwort	PA/VA
100	Total		

Apply this mix at 20 lbs/acre with 30 lbs/acre of a cover crop.
For a cover crop use either oats (1 Jan to 31 Aug) or rye (1 Sep to 31 Dec).
If a product is not available, add its % to *Bouteloua curtipendula* or *Schizachyrium scoparium*.

PLANT SCHEDULE (THIS SHEET ONLY)

QTY.	KEY	BOTANICAL/COMMON NAME	SIZE	ROOT	COMMENTS
		SHRUBS			
20	CA	<i>Clethra alnifolia</i> 'Sixteen Candles'/ Summersweet	#5	Cont.	24" Spd. Matched
44	IG	<i>Ilex glabra</i> 'Shamrock'/ Inkberry	#5	Cont.	24" Spd. Matched

LANDSCAPE REQUIREMENT NOTES:

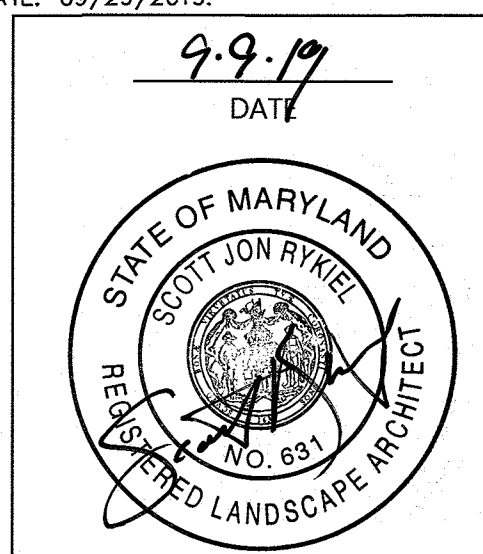
- THE SITE IS CURRENTLY ZONED AS M-1, MANUFACTURING, LIGHT DISTRICT, AND THEREFORE EXEMPT FROM THE STORMWATER MANAGEMENT AREA LANDSCAPING REQUIREMENTS AS OUTLINED ON PAGE 30, CHAPTER 4 OF THE HOWARD COUNTY LANDSCAPE MANUAL.
- SEE SHEET 20 FOR STORMWATER OPERATION & MAINTENANCE SCHEDULE.

2/25/19	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS
Date	Revision Description

**SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY**
ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242

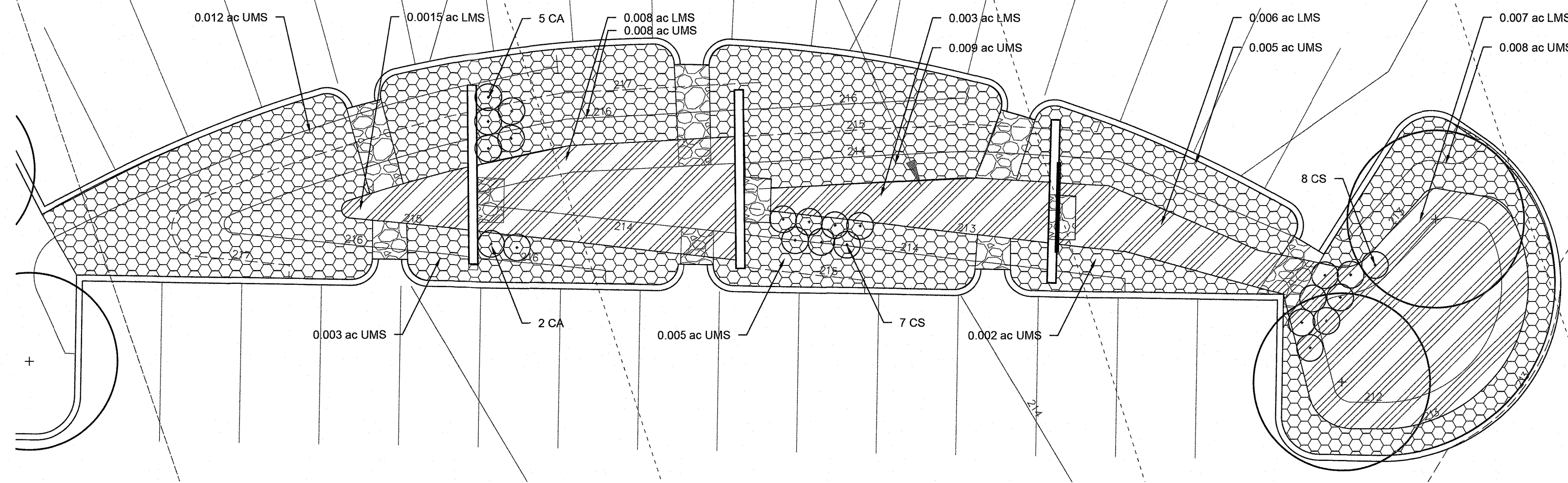
MAHAN RYKIEL ASSOCIATES INC
Whitehall Mill 3300 Clipper Mill Road
Suite 200 Baltimore, MD 21211 410.235.6001

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 631, EXPIRATION DATE: 09/29/2019.

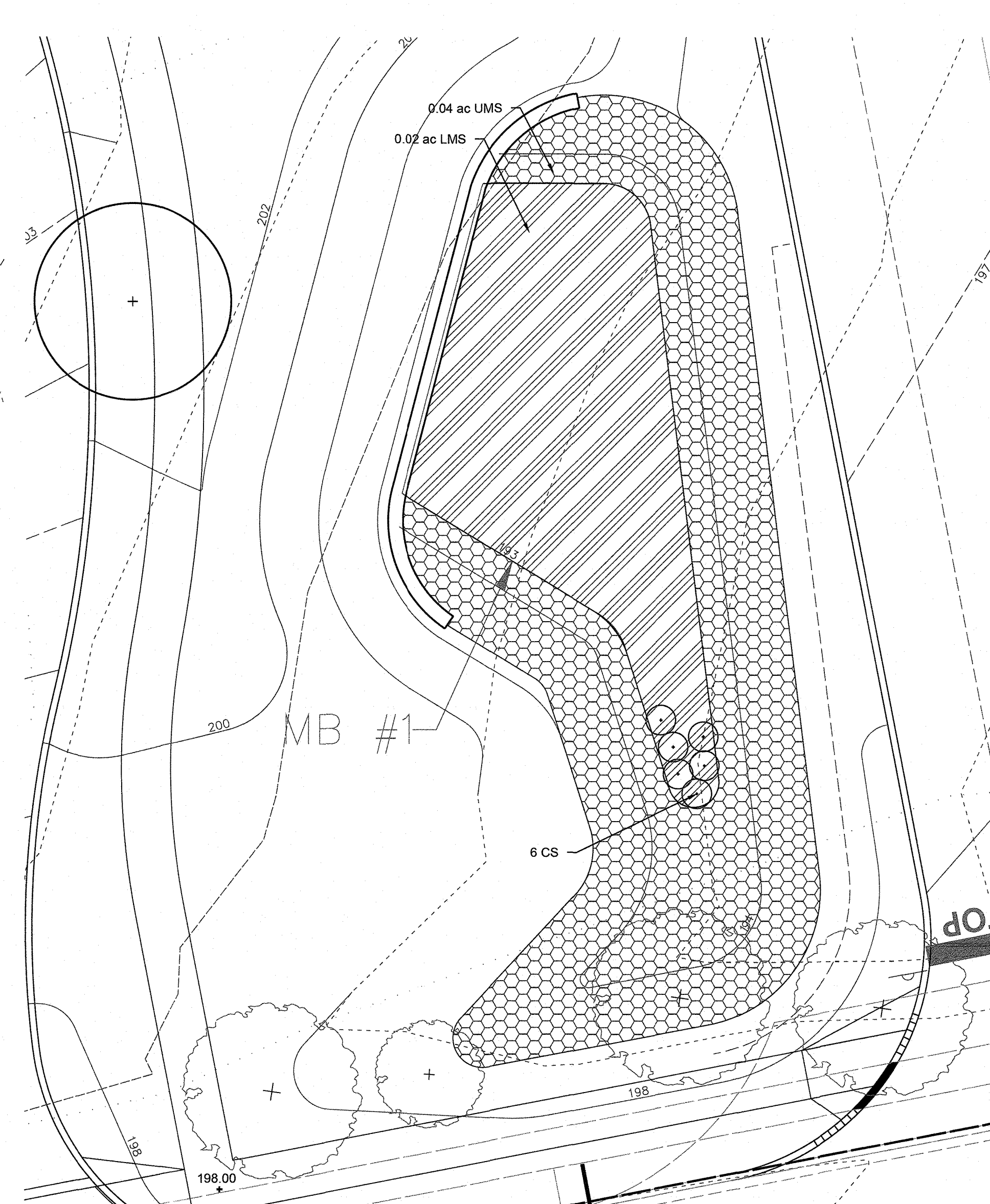


APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Chad Edelman 9.30.19
CHIEF, DEVELOPMENT ENGINEERING DIVISION
Robert Shulwood 10.2.19
CHIEF, DIVISION OF LAND DEVELOPMENT
Nancy J. Felt 10.2.19
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

SUBDIVISION NAME: GORNBOROUGH BUSINESS PARK	SECTION/AREA: 756 (PARCEL A&B)	LOT/PARCEL #
PLAT# OR LIT: 24679-24685	ZONE: U-1	TAX ZONE/MAP GRID: 37/16&23
WATER CODE: B-02	SEWER CODE: 4020000	ELECT. DIST. CENSUS TRACT: 1
TITLE: REPLACEMENT SHEET 13.06 - LANDSCAPE ENLARGEMENT PLANS - UNDERSTORY		CENSUS TRACT: 6012.03
Des. By: SK	SCALE: AS SHOWN	Proj. No.: 10015.00
Drn. By: JS	Date: 07/12/2018	47 of 51
Chk. By: RC	Approved: MCB	



1 MICRO-BIORETENTION PLANTING PLAN
1"=10'



3 MICRO-BIORETENTION PLANTING PLAN
1"=10'

2 NOT USED
1"=10'

PLANT SCHEDULE (THIS SHEET ONLY)

BOTANICAL/COMMON NAME	SIZE	QTY.	ROCKEY	COMMENTS
SHRUBS				
7 CA Clethra alnifolia 'Sixteen Candles'	#5	Cont.		24" Spd. Matched
21 CS Cornus sericea 'Farrow'	#5	Cont.		24" Spd. Matched
Arctic Fire Red Twig Dogwood				Matched

PLANT SCHEDULE (THIS SHEET ONLY)

LOWLAND MEADOW SEEDING (LMS) 0.046 AC.
UPLAND MEADOW SEEDING (UMS) 0.14 AC.

LOWLAND MEADOW SEED MIX

FORBS	PURE LIVE SEED *		GRASSES, SEDGES and RUSHES	PURE LIVE SEED *	
	GRAM PER SY	LB PER ACRE		GRAM PER SY	LB PER ACRE
Select 8			Include All		
Common Boneset	0.019	0.2	Big Bluestem	0.188	2.0
Eastern Purple Coneflower	0.113	1.2	Gamagrass	0.188	2.0
Evening Primrose	0.019	0.2	Hard Fescue	1.876	20.0
Lanceleaf Tickseed	0.141	1.5	Indiangrass	0.188	2.0
Maximilian Shafflower	0.047	0.5	Kentucky Bluegrass	0.469	5.0
New England Aster	0.019	0.2	Switchgrass	0.094	1.0
New York Ironweed	0.019	0.2	Virginia Wildrye	0.047	0.5
Showy Tickseed	0.019	0.2			
Stiff Goldenrod	0.028	0.3			
Swamp Verbena	0.066	0.7			
Trumpetweed or Spotted Trumpetweed	0.019	0.2			

Note: * The rate shown is Pure Live Seed. Use germination and purity data from the seed tag to calculate the actual seeding rate needed to obtain the seeding rate in Pure Live Seed.

UPLAND MEADOW SEED MIX

% of Mix	Latin Name	Common Name	Cultivar/ Ecotype
36.0	Bouteloua curtipendula	Sideoats Grama	Any
40.0	Schizachyrium scoparium	Little Bluestem	APB (NY) or Camper
2.0	Astilbe sp.	Butterfly Milkweed	Any
0.5	Aster divaricatus	White Wood Aster	PA
1.2	Aster laevis	Smooth Aster	NY
0.3	Aster prenanthoides	Zig Zag Aster	PA
0.4	Baptisia tinctoria	Wild Indigo	PA
2.0	Chamaecrista fasciculata	Partridge Pea	PA
2.0	Careopsis lanceolata	Lanceleaf Coreopsis	Any
0.3	Coreopsis verticillata	Threadleaf Coreopsis	VA or SC
1.0	Eupatorium coelestinum	Mistflower	VA
0.7	Lespedeza frutescens	Shrubby Bushclover	MD
0.8	Lespedeza virginica	Slender Bushclover	VA
2.0	Liatris squarrosa	Scaly Blazing Star	VA
0.7	Monarda punctata	Dotted Mint	MD preferred
4.0	Penstemon digitalis	Tall White Beardtongue	PA or other
0.3	Pycnanthemum tenuifolium	Narrow Leaved Mtn. Mint	PA
0.5	Rudbeckia fulgida	Orange Coneflower	VA
2.5	Rudbeckia hirta	Black Eyed Susan	Any
0.3	Solidago juncea	Early Goldenrod	PA or VA
0.1	Solidago nemoralis	Gray Goldenrod	PA or VA
1.5	Tradescantia virginiana	Virginia Spiderwort	PA/VA
100	Total		

Apply this mix at 20 lbs/acre with 30 lbs/acre of a cover crop.
For a cover crop use either oats (1 Jan to 31 Aug) or grain rye (1 Sep to 31 Dec).
If a product is not available, add its % to Bouteloua curtipendula or Schizachyrium scoparium.

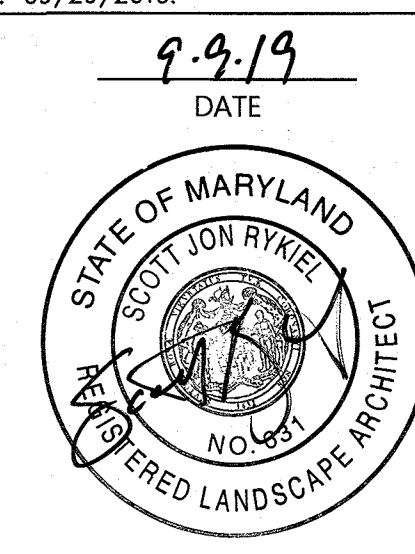
LANDSCAPE REQUIREMENT NOTES:
1. THE SITE IS CURRENTLY ZONED AS M-1, MANUFACTURING, LIGHT DISTRICT, AND THEREFORE EXEMPT FROM THE STORMWATER MANAGEMENT AREA LANDSCAPING REQUIREMENTS AS OUTLINED ON PAGE 30, CHAPTER 4 OF THE HOWARD COUNTY LANDSCAPE MANUAL.
2. SEE SHEET 20 FOR STORMWATER OPERATION & MAINTENANCE SCHEDULE.

Date	No.	Revision Description
2/25/19	A	REDLINE REV. #1 - UPDATE SWM, SITE, GRADING, SEC & UTILITY PLANS

SHEPPARD PRATT HEALTH SYSTEM
ELKRIDGE CAMPUS
BEHAVIORAL HEALTH FACILITY
ADMIN. BLDG. ADDRESS: 7200 DISCOVERY DRIVE
HOSPITAL BLDG. ADDRESS: 7220 DISCOVERY DRIVE
OWNER / DEVELOPER:
SHEPPARD PRATT HEALTH SYSTEM INC.
6501 N. CHARLES ST
BALTIMORE, MD 21285-6815
410-938-3242

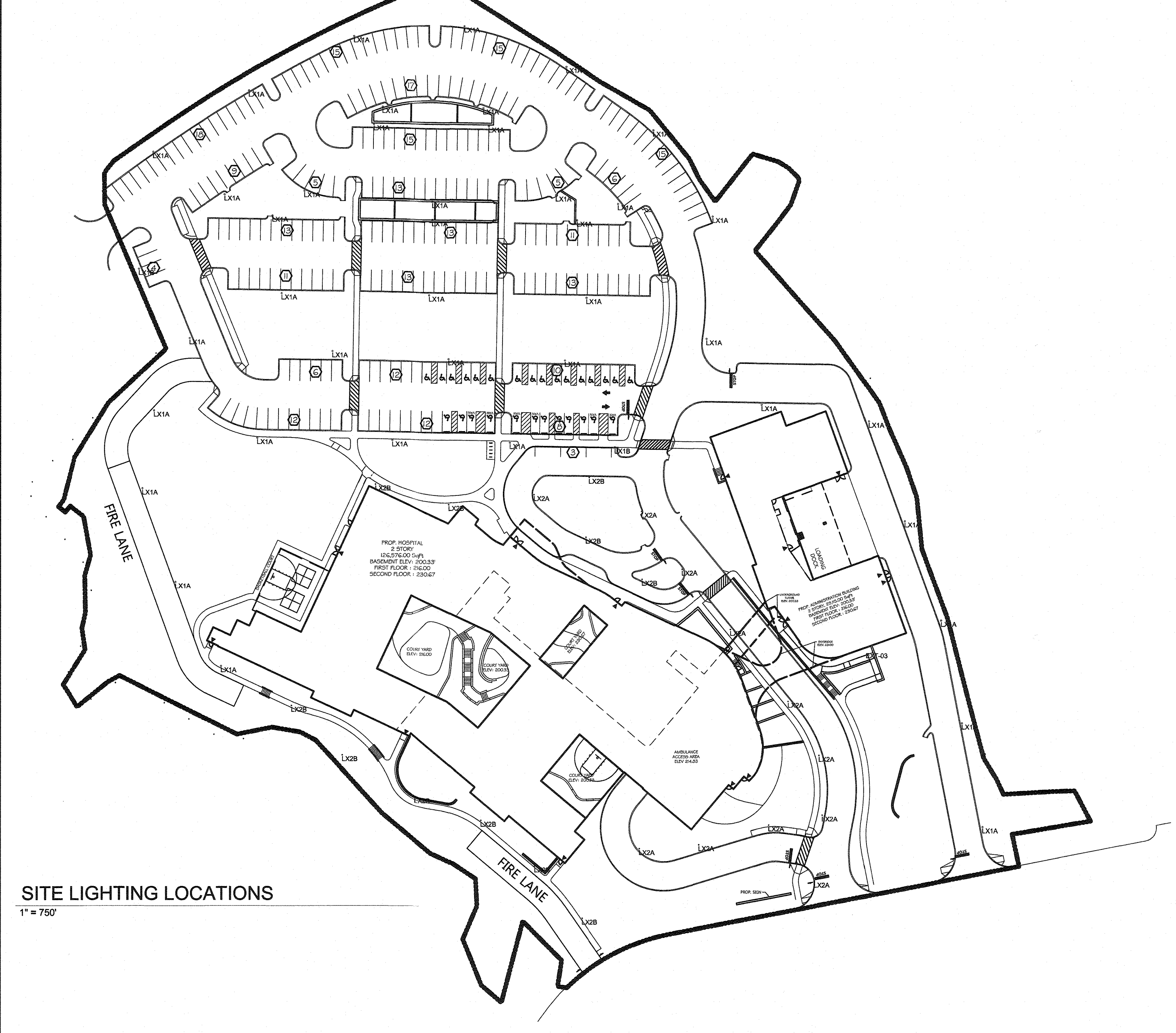
MAHAN RYKIEL
ASSOCIATES INC
Whitehall Mill 3300 Clipper Mill Road
Suite 200 Baltimore, MD 21211 410.235.6001

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APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Chad Edman 9-30-19
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Kentha Lumb 10-1-19
CHIEF, DIVISION OF LAND DEVELOPMENT KB for TKM DATE
Nellie J. Lee 10-2-19
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

DESIGNER	SCALE	AS SHOWN	PROJ. NO.
Des. By SK	SCALE AS SHOWN		Proj. No. 10015.00
Drn. By JS	Date 07/12/2018		48 of 51
Chk. By RC	Approved MCB		



SITE LIGHTING LOCATIONS
1" = 750'

LUMINAIRE SCHEDULE

TAG	DESCRIPTION	HEIGHT	DEPTH	LIGHT SOURCE SPEC.	QUANTITY	BALLAST/DRIVER	INPUT VOLT	MIN. WATT	EFF.	SHIELDING/OPTIONS	FEATURES/OPTIONS	REFERENCED PRODUCTS	NOTES
LX1A	20' PARKING POLE - TYPE 2	POLE MOUNTED	N/A	2873 LM 3000K 80 CRI LED 50,000+ HRS@L70	N/A	INTEGRAL 0-10V DIMMING DRIVER	UNV	25W	115 LMW	TYPE 2 DISTRIBUTION, FLAT GLASS LENS, CLEAR INJECTION MOLDED PMMA ACRYLIC OPTICAL LENSES, BACKLIGHT CONTROL ACCESSORY	ALUMINUM HOUSING, IP66 RATED, ALUMINUM LENS FRAME, POWDER COAT FINISH, AND 20' ALUMINUM POLE (BY OTHERS)	REM LIGHTING "OURO LED POST" TOP CONTROL OPTIONS-BC-CLR-CUR-CONTROL ACCESSORIES + 20' POLE (BY OTHERS)	1,2,5,6
LX1B	20' PARKING POLE - TYPE 3	POLE MOUNTED	N/A	2873 LM 3000K 80 CRI LED 50,000+ HRS@L70	N/A	INTEGRAL 0-10V DIMMING DRIVER	UNV	25W	117 LMW	TYPE 3 DISTRIBUTION, FLAT GLASS LENS, CLEAR INJECTION MOLDED PMMA ACRYLIC OPTICAL LENSES, BACKLIGHT CONTROL ACCESSORY	ALUMINUM HOUSING, IP66 RATED, ALUMINUM LENS FRAME, POWDER COAT FINISH, AND 20' ALUMINUM POLE (BY OTHERS)	REM LIGHTING "OURO LED POST" TOP CONTROL OPTIONS-BC-CLR-CUR-CONTROL ACCESSORIES + 20' POLE (BY OTHERS)	1,2,5,6
LX2A	14' PEDESTRIAN POLE - TYPE 3	POLE MOUNTED	N/A	3422 LM 3000K 80 CRI LED 73,000 HRS@L70	N/A	INTEGRAL DRIVER	27V	51W	87 LMW	TYPE 3 DISTRIBUTION, NO UPLIGHT FINISH, HOUSE SIDE SHIELD (180°)	ALUMINUM HOOD WITH WHITE PAINTED INTERIOR, ALUMINUM ARM SUPPORTS, POWDER COAT FINISH, 20" TALL x 3.5" D STRAIGHT ALUMINUM POLE, STANDARD BASE COVER	SELUX "S'ATURN CUTOFF LEAF" BRACL-R1-1-G4500-30-16 FINISH-277-09-48 + R433-14-FINISH-8C5 (POLE)	1,2,5,6
LX2B	14' PEDESTRIAN POLE - TYPE 1	POLE MOUNTED	N/A	3685 LM 3000K 80 CRI LED 73,000 HRS@L70	N/A	INTEGRAL LED DRIVER	27V	51W	72 LMW	TYPE 1 DISTRIBUTION, NO UPLIGHT FINISH, HOUSE SIDE SHIELD (180°)	ALUMINUM HOOD WITH WHITE PAINTED INTERIOR, ALUMINUM ARM SUPPORTS, POWDER COAT FINISH, 20" TALL x 3.5" D STRAIGHT ALUMINUM POLE, STANDARD BASE COVER	SELUX "S'ATURN CUTOFF LEAF" BRACL-R1-1-G4500-30-16 FINISH-277-09-48 + R433-14-FINISH-8C5 (POLE)	1,2,5,6
LX4	EGRESS DOOR WALLPACK	SURFACE MOUNTED	N/A	3000K 80 CRI LED 50,000+ HRS@L70	N/A	INTEGRAL 0-10V DIMMING DRIVER	27V	11.1W	53.5 LMW	ASYMMETRICAL LIGHT DISTRIBUTION	ALUMINUM HOUSING, ANODIZED ALUMINUM REFLECTOR, STIPPLED TEMPERED CLEAR GLASS LENS	BEGA "SM10" 53815-FINISH	1,2,3,6

GENERAL NOTES:

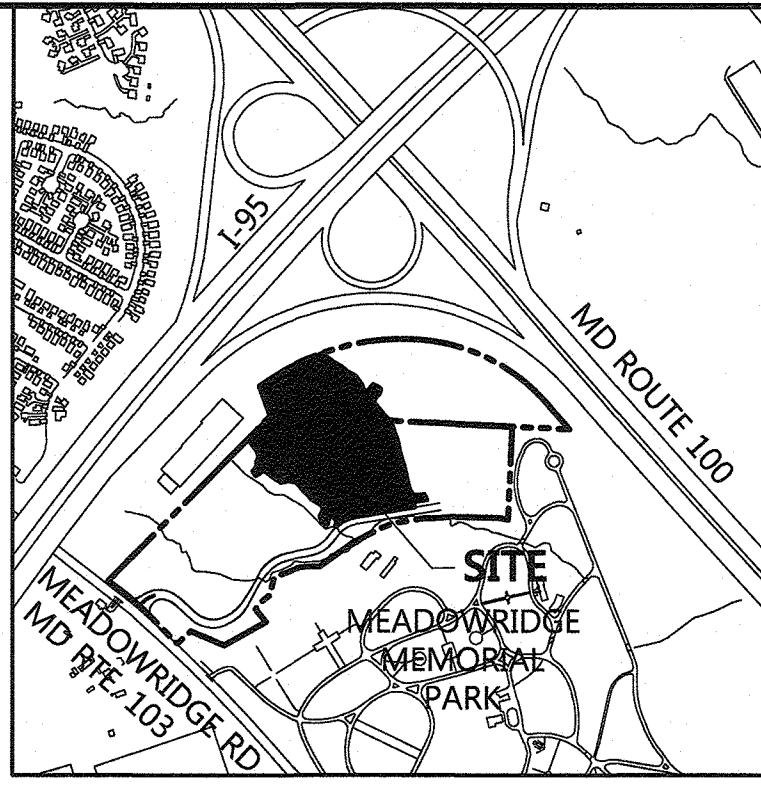
- REFERENCED PRODUCTS ARE INCLUDED HEREIN OF MANUFACTURERS & PRODUCTS, THAT GENERALLY CONFORM TO THE LUMINAIRE DESIGN INTENTS ESTABLISHED HEREIN, & IN THE PROJECT MANUAL. EQUIVALENT PRODUCTS BY OTHER MANUFACTURERS MAY BE CONSIDERED, PRIOR TO BID.
- DETERMINE SPECIFIC LUMINAIRE PART NUMBERS BASED ON THE REFERENCED PRODUCT SERIES, WRITTEN DESCRIPTIONS & PROJECT MANUAL SPECIFICATIONS.
- INCLUSION HEREIN OF MANUFACTURER SERIES OR MODEL NUMBERS DOES NOT IMPLY UNCONDITIONAL PRODUCT APPROVAL. MANUFACTURERS STANDARD PRODUCTS MAY REQUIRE CUSTOM MODIFICATIONS TO MEET THE REQUIREMENTS SPECIFIED HEREIN & IN THE PROJECT MANUAL.
- LISTED SIZES, LAMPING, & TYPES OF LUMINAIRES MAY NOT BE STANDARD PRODUCTS PRODUCED FROM ANY GIVEN MANUFACTURER OR SERIES LISTED. MANUFACTURERS STANDARD PRODUCTS MAY REQUIRE CUSTOM MODIFICATIONS TO MEET THE DESIGN CRITERIA, DESCRIPTIONS, & REQUIREMENTS SPECIFIED HEREIN & IN THE PROJECT MANUAL.
- ALERT ARCHITECT TO DISCREPANCIES PRIOR TO BID.

ABBREVIATIONS:

CONC	CONCRETE	EXP	EXPOSED	LMW	LUMENS PER WATT	PPC	POSTER PAPER COAT FINISH	SPFS	SEAM SPECULAR
DW	DRYWALL	LG	LAY-IN GRID	N/T	NARROW TEE GRID	PRISM	PRISMATIC	SS	STAINLESS STEEL
DIR	DIRECT/INDIRECT	LO-RI	LOW IRIDESCENT	PAF	PAINT AFTER FABRICATION	REFL	REFLECTOR REFLECTANCE	TB	TO BE SELECTED BY ARCH
DLC	DESIGN LIGHTS CONSORTIUM	LM	LUMENS	PARA	PARABOLIC	SPL	SPLINE CEILING SYSTEM	UNV	UNIVERSAL 120-277VAC
EFF	EFFICIENCY/CALCULATED	LMFT	LUMENS PER LINEAR FOOT	PLASTER	PLASTER	SPC	SPECULAR	WH	WHITE
ELBD	EMERG. LTG. BYPASS DEVICE			PKG	PACKAGE				

NOTES:

- ELECTRICAL ENGINEER SHALL VERIFY SUPPLY VOLTAGE.
- ARCHITECT SHALL VERIFY FIXTURE FINISH.
- CONTRACTOR SHALL PROVIDE ALL MOUNTING HARDWARE AS REQUIRED.
- LOCATE REMOTE POWER SUPPLIES IN AN ACCESSIBLE, SECURE, WELL VENTILATED LOCATION PER MANUFACTURERS RECOMMENDATIONS.
- PROVIDE BASE MOUNTING PER MANUFACTURERS INSTALLATION INSTRUCTIONS. COORDINATE WITH LANDSCAPE ARCHITECT/ON SITE ENGINEER.
- FIXTURE SHALL BE UL LISTED AND LABELED "SUITABLE FOR WET LOCATIONS".



VICINITY MAP
SCALE: 1" = 1000'
HOWARD COUNTY ADC MAP
NUMBER 17, GRID NO. A10

NOTE: EXCEPT FOR SPOTLIGHTS AND LOW INTENSITY LIGHTS AS DEFINED IN SECTION 134.0.C2 AND 134.0.C3, ALL LIGHT FIXTURES SHALL BE FULLY OR PARTIALLY SHIELDED

DENALI SERIES™ FLOODLIGHT

Constant Current Driver

CATALOG NUMBER LOGIC

Series: DE - Dual Lens - Floodlight
 Source: LED - 2" Module with Cool Propeller Technology
 LED TYPE: 10 - 10W LED
 Optics: 1 - Spot
 Finish: 1 - Clear Standard

Specifications:

Product Code	Series	Optics	Finish
10-10-1	DE	10	1

Specifications:

- 2" x 2" lens in steel, pole and wall mount
- High performance optics to 12,000 lumens
- Molded silicone gasket throughout insures the sealing between the two components and provides fog prevention
- Housing is designed with integral LED heat sink utilized for thermal transfer and for securing the location of each LED module.
- IP66 rated to protect the optical chamber from dust and water ingress.
- IP69K rated enclosure protects electrical equipment against external mechanical impacts.
- One-piece pole copper aluminum alloy die-cast is secured to housing with 6 screws.
- Optional Backlight Control on each LED module to completely control unwanted backlight.

Optical Module:

- Each MCRPC and optic shall be sealed to the optical housing and sealed with a continuous one piece injection molded silicone rubber gasket.
- IP66 rated to protect the optical chamber from dust and water ingress.
- IP69K rated enclosure protects electrical equipment against external mechanical impacts.
- One-piece pole copper aluminum alloy die-cast is secured to housing with 6 screws.
- Optional Backlight Control on each LED module to completely control unwanted backlight.

HP™ DRIVER HOUSING

Constant Current Driver

CATALOG NUMBER LOGIC

Series: HP - HP Housing
 Source: LED - 2" Module with Cool Propeller Technology
 LED TYPE: 10 - 10W LED
 Optics: 1 - Spot
 Finish: 1 - Clear Standard

Specifications:

- 2" x 2" lens in steel, pole and wall mount
- High performance optics to 12,000 lumens
- Molded silicone gasket throughout insures the sealing between the two components and provides fog prevention
- Housing is designed with integral LED heat sink utilized for thermal transfer and for securing the location of each LED module.
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- Optional Backlight Control on each LED module to completely control unwanted backlight.

DENALI SERIES™ FLOODLIGHT

Constant Current Driver

CATALOG NUMBER LOGIC

Series: DE - Dual Lens - Floodlight
 Source: LED - 2" Module with Cool Propeller Technology
 LED TYPE: 10 - 10W LED
 Optics: 1 - Spot
 Finish: 1 - Clear Standard

Specifications:

- 2" x 2" lens in steel, pole and wall mount
- High performance optics to 12,000 lumens
- Molded silicone gasket throughout insures the sealing between the two components and provides fog prevention
- Housing is designed with integral LED heat sink utilized for thermal transfer and for securing the location of each LED module.
- IP66 rated to protect the optical chamber from dust and water ingress.
- IP69K rated enclosure protects electrical equipment against external mechanical impacts.
- One-piece pole copper aluminum alloy die-cast is secured to housing with 6 screws.
- Optional Backlight Control on each LED module to completely control unwanted backlight.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 11-19-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 4
 DATE

[Signature] 11-30-18
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE

[Signature] 12-3-18
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING
 DATE

KIM LIGHTING

Ouro™ LED UR20

Specifications:

Series	Optics	Finish	Weight
UR20-10	10	1	1.2 lbs

Optical Module:

- Each MCRPC and optic shall be sealed to the optical housing and sealed with a continuous one piece injection molded silicone rubber gasket.
- IP66 rated to protect the optical chamber from dust and water ingress.
- IP69K rated enclosure protects electrical equipment against external mechanical impacts.
- One-piece pole copper aluminum alloy die-cast is secured to housing with 6 screws.
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SHEPPARD PRATT HEALTH SYSTEM ELKRIDGE CAMPUS

BEHAVIORAL HEALTH FACILITY
 ADMIN. BLDG. ADDRESS: 7200 SUMMIT ROCK DRIVE
 HOSPITAL BLDG. ADDRESS: 2000 SUMMIT ROCK DRIVE
 OWNER / DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC.
 6501 N. CHARLES ST
 BALTIMORE, MD 21285-6815
 410-938-3242

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15906, EXPIRATION DATE: 03/31/2019.

DATE: 07/12/18

250 WEST PRATT STREET, SUITE 2100, BALTIMORE, MD 21201
 P: 410 234 1115 WWW.CANNONDESIGN.COM

CANNONDESIGN

SITE LIGHTING PLAN

Des. By	BN	SCALE	AS SHOWN	Proj. No.	10015.DO
Drn. By	BN	Date	07/12/2018		
Chk. By	sw	Approved	MCB		49 of 50

PROFESSIONAL REG. NO. 15906

