

GENERAL NOTES CONTINUED:

32. ALL ON-SITE WELLS AND SEPTIC SYSTEMS MUST BE PROPERLY ABANDONED AND PROVIDED NOTIFICATION TO THE HEALTH DEPARTMENT PRIOR TO THE FINAL PLAT.
33. USING THE NEIGHBORHOOD PRESERVATION DENSITY OPTION DESCRIBED IN SECTION 128.0.K OF THE ZONING REGULATIONS, THE DEVELOPMENT RIGHTS FOR 33 OF THE RESIDENTIAL APARTMENT UNITS HAVE BEEN TRANSFERRED FROM BELMONT MANOR AND HISTORIC PARK, TAX MAP 32, PARCEL 02 VIA SENDING PLAT F-17-022(51).
34. THE REQUIRED PERIMETER PLANTINGS ARE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 18.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$29,250.00 (\$18,900.00 FOR 63 SHADE TREES, \$10,350.00 FOR 69 EVERGREEN TREES). THE REQUIRED 55 STREET TREES WILL ALSO BE PART OF THE DED COST ESTIMATE IN THE AMOUNT OF \$16,500.00. PARKING LOT LANDSCAPING, UNIT LANDSCAPING AND MITIGATION LANDSCAPING FOR WP-15-083 (SPECIMEN TREE REMOVAL) WILL BE PROVIDED WITH THE SITE DEVELOPMENT PLAN.
35. ALL EXISTING STRUCTURES SHALL BE RAZED PRIOR TO RECOGNITION OF THIS PLAT.
36. THE 65 DBA NOISE CONTOUR LINE DRAWN ON THIS DEVELOPMENT PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992, AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 DBA NOISE EXPOSURE. THE 65 DBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.

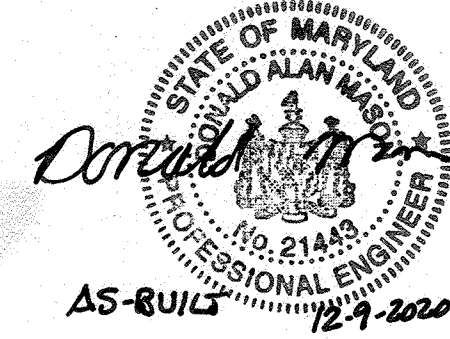
Lot/Parcel Number	Facility Name & Number	Practice Type (Quantity)	Public	Private	Private Maintenance	Misc.
Parcel A	SGW-5	ESD (Quality)		x	yes	
Parcel B	MB-4	ESD (Quality)		x	yes	
Parcel D	SGW-1	ESD (Quality)		x	yes	
R/W	Fil-1	ESD (Quality)		x	yes	
R/W	Fil-2	ESD (Quality)		x	yes	
R/W	Fil-3	ESD (Quality)		x	yes	
R/W	Fil-4	ESD (Quality)		x	yes	
Parcel D	UGSWM-1	Quantity (10-100)		x	yes	

"NO AS-BUILT INFORMATION" IS PROVIDED ON THIS SHEET

Drainage Area	Existing Condition	Proposed, Routed
	10-yr Q	100-yr Q
East Stream DA	36.75	66.68
	35.06	53.07

FINAL CONSTRUCTION PLANS THE WEXLEY AT 100

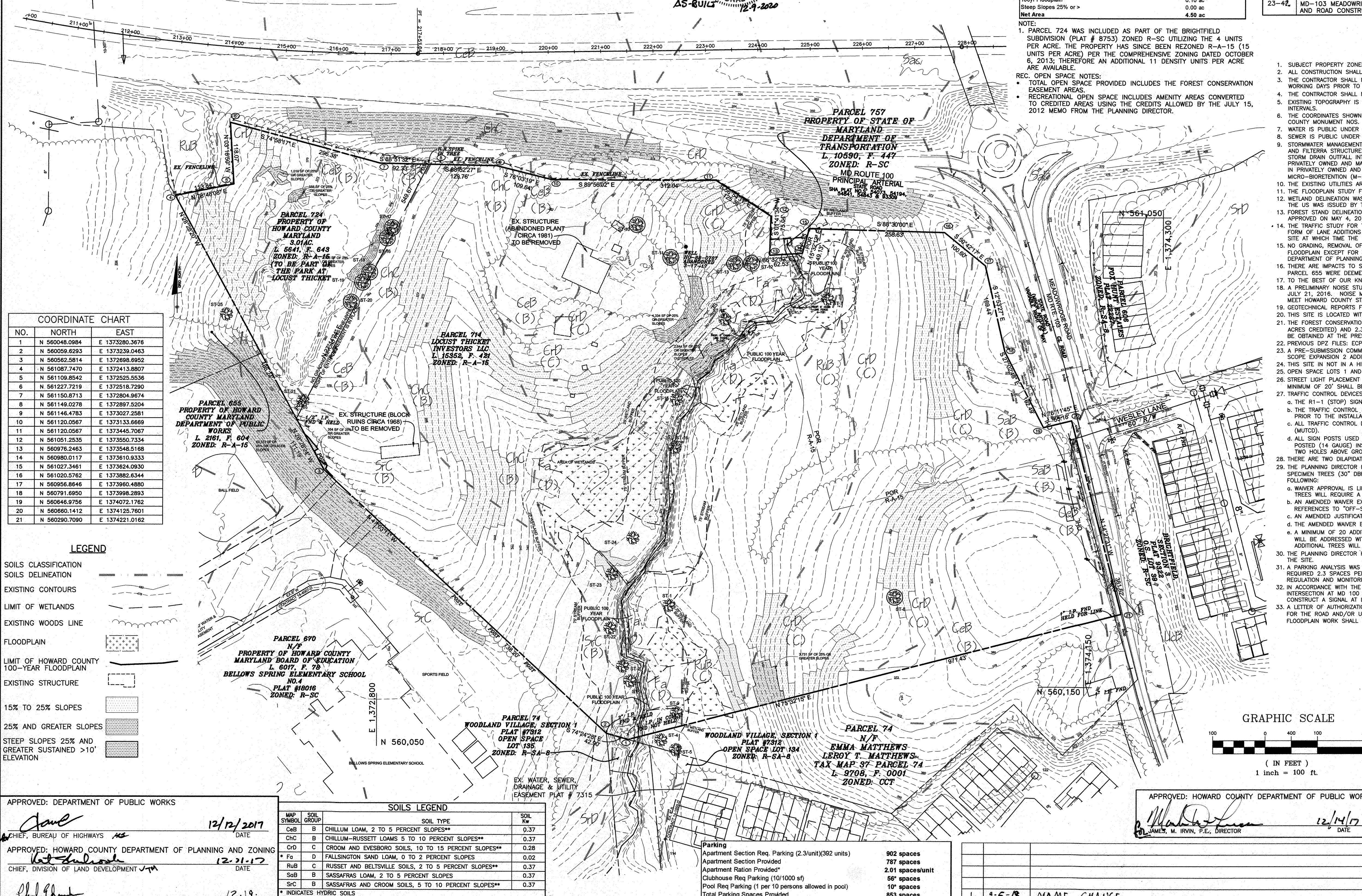
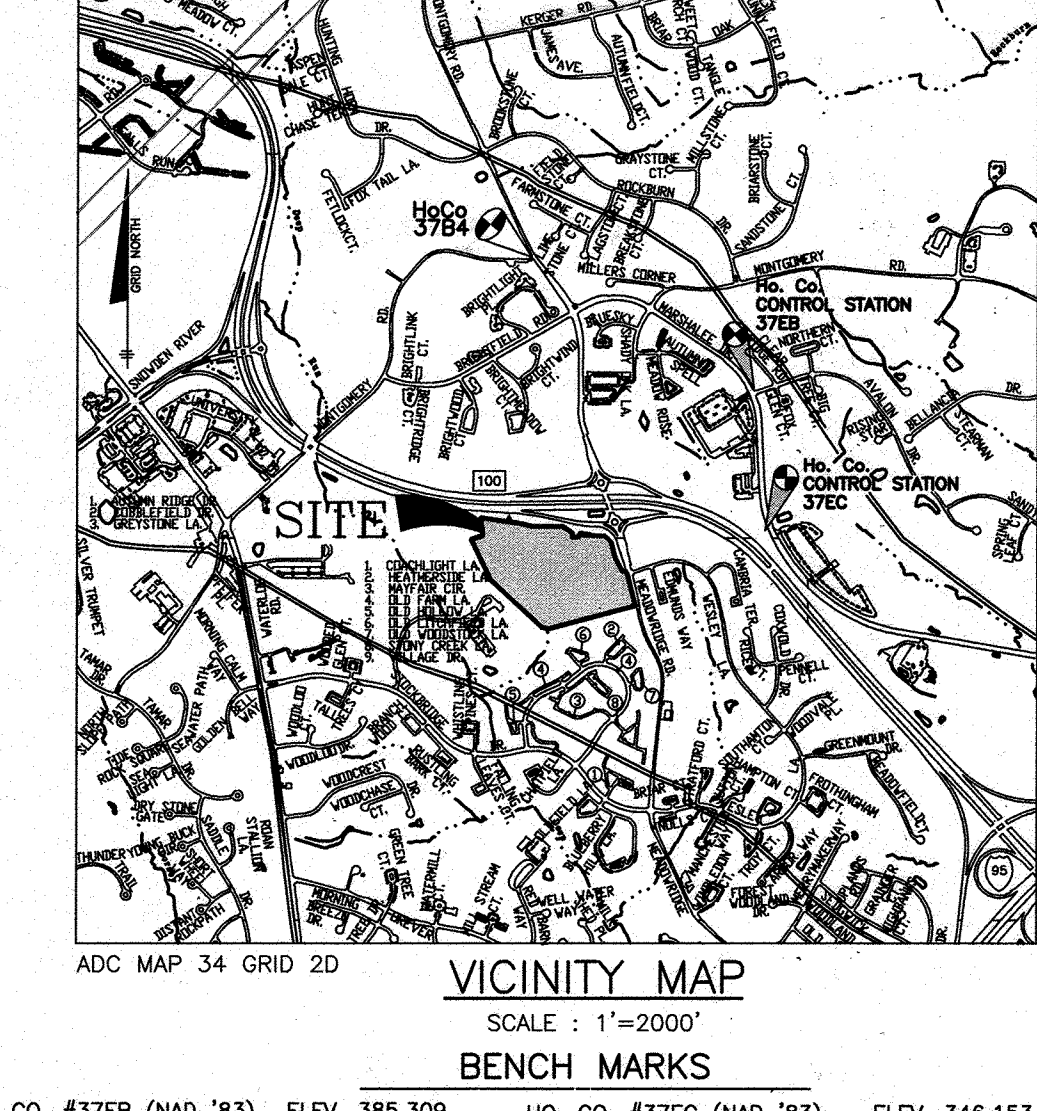
BUILDABLE BULK PARCELS A, B, C & D AND OPEN SPACE LOTS 1-2 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND



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. 21443 Expiration Date: 12-31-2022

Parcel 714	27.07 ac
Parcel 724	3.01 ac
Total Project Area	30.08 ac
Zoned: POR	4.60 ac
Zoned: R-A-15	25.48 ac
Gross Area R-A-15-Parcel 714	22.47 ac
100yr Floodplain	0.40 ac
Slope Slopes 25% or > (outside floodplain)	0.25 ac
Net Area	21.82 ac
Gross Area R-A-15-Parcel 724	3.01 ac
100yr Floodplain	0.00 ac
Slope Slopes 25% or >	0.10 ac
Net Area	2.91 ac
Proposed Right-of-Way Dedication	2.36 ac
Parcel 714 21.82 ac * 15	327 units
Parcel 724 (40% Density Used: 3.01ac * 11(See Note 1))	32 units
Bonus Density 10% Parcel 714	32 units (Belmont)
Bonus Density 10% Parcel 724	3 units (Belmont)
Total Units Allowed	394 units
Total Units Proposed	392 units
Phase I-Bldg's 4-8	225 units
Phase II-Bldg's 1-3 & 9	162 units
MHIU Required: 10% Parcel 714(351 units x 10%)	36 units
MHIU Required: 10% Parcel 724(30 units x 10%)	4 units
Total Required MHIU:	40 units
R-A-15 Open Space:	
Total Open Space Requirements (25%)	6.37 ac
Total Rec. Open Space Required (4000/Unit)	3.80 ac
Open Space Provided-Open Space Lots 1 & 2	6.63 ac
Rec Open Space Provided:	
- Recreation Area	0.70 ac
- Pool 1, 418 sf (400 sf credit/10sf)	1.09 ac
- Community Center 2, 400 sf (400 sf credit/10sf)	2.20 ac
- Tot Lot (2,000 sf):	2.20 ac
- Gasbedo (2,000 sf):	0.09 ac
Gross Area POR	4.60 ac
100yr Floodplain	0.10 ac
Slope Slopes 25% or >	4.00 ac
Net Area	4.50 ac

NO.	TITLE SHEET, EXISTING CONDITIONS AND SOILS MAP
1	TITLE SHEET, EXISTING CONDITIONS AND SOILS MAP
2	SUBDIVISION PLAN
3	SOIL BORINGS AND STORMWATER CONSTRUCTION SPECIFICATIONS
4	ROAD CONSTRUCTION PLAN AND PROFILE LOCUST THICKET WAY
5	ROAD CONSTRUCTION PLAN AND PROFILE OTTERBEIN LANE
6	SITE MASS GRADING AND SEDIMENT & EROSION CONTROL PLAN
7	SITE MASS GRADING AND SEDIMENT & EROSION CONTROL PLAN
8	SEDIMENT & EROSION CONTROL NOTES AND DETAILS
9	FINAL SITE GRADING PLAN
10	FINAL SITE GRADING PLAN
11	STORM DRAIN DRAINAGE AREA MAP
12	STORM DRAIN PROFILES
13	STORM DRAIN PROFILES AND UGWSM DETAILS
14	UNDERGROUND STORMWATER MANAGEMENT DETAILS
15	STORMWATER MANAGEMENT DETAILS
16	HEADWALL DETAILS
17	HEADWALL DETAILS
18	LANDSCAPE PLAN
19	LANDSCAPE PLAN
20	FOREST CONSERVATION PLAN
21	FOREST CONSERVATION PLAN
22	LANDSCAPE AND FOREST CONSERVATION DETAILS & NOTES
23-42	MD-103 MEADOWBRIDGE ROAD - SHA ACCESS PERMIT AND ROAD CONSTRUCTION PLANS



NO.	NORTH	EAST
1	N 560048.0984	E 1373280.3676
2	N 560059.6283	E 1373230.0463
3	N 560562.5814	E 1372698.6952
4	N 561087.7470	E 1372413.8807
5	N 561109.8542	E 1372525.5536
6	N 561227.7219	E 1372518.7290
7	N 561150.8713	E 1372804.9674
8	N 561142.0278	E 1372897.5204
9	N 561148.4783	E 1373027.2581
10	N 561120.0567	E 1373133.6669
11	N 561120.0567	E 1373445.7067
12	N 561051.2535	E 1373550.7334
13	N 560976.2463	E 1373548.5168
14	N 560980.0117	E 1373610.9333
15	N 561027.3461	E 1373624.0930
16	N 561020.5762	E 1373682.6344
17	N 560956.8946	E 1373690.4880
18	N 560791.6950	E 1373998.2893
19	N 560648.9756	E 1374072.1762
20	N 560680.1412	E 1374125.7601
21	N 560290.7090	E 1374221.0162

SOILS CLASSIFICATION	(Symbol)
SOILS DELINEATION	(Symbol)
EXISTING CONTOURS	(Symbol)
LIMIT OF WETLANDS	(Symbol)
EXISTING WOODS LINE	(Symbol)
FLOODPLAIN	(Symbol)
LIMIT OF HOWARD COUNTY 100-YEAR FLOODPLAIN	(Symbol)
EXISTING STRUCTURE	(Symbol)
15% TO 25% SLOPES	(Symbol)
25% AND GREATER SLOPES	(Symbol)
STEEP SLOPES 25% AND GREATER SUSTAINED >10' ELEVATION	(Symbol)

MAP SYMBOL	SOIL GROUP	SOIL TYPE	SOIL K _w
CeB	B	CHILLUM LOAM, 2 TO 5 PERCENT SLOPES**	0.37
CnC	B	CHILLUM-RUSSETT LOAMS S TO 10 PERCENT SLOPES**	0.37
CdD	C	CROOM AND EVERSBO SOILS, 10 TO 15 PERCENT SLOPES**	0.28
Fo	D	FALLSINGTON SAND LOAM, 0 TO 2 PERCENT SLOPES**	0.02
RuB	C	RUSSET AND BELTSVILLE SOILS, 2 TO 5 PERCENT SLOPES**	0.37
SaB	B	SASSAFRAS LOAM, 2 TO 5 PERCENT SLOPES**	0.37
SrC	B	SASSAFRAS AND CROOM SOILS, 5 TO 10 PERCENT SLOPES**	0.37

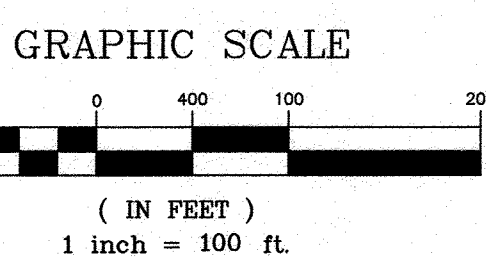
APPROVED: DEPARTMENT OF PUBLIC WORKS
James M. Irvin
12/12/2017 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
James M. Irvin
12-31-17 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
James M. Irvin
12-19- DATE

Apartment Section Req. Parking (2.3/unit)(392 units)	902 spaces
Apartment Section Provided	787 spaces
Apartment Section Provided*	2.01 spaces/unit
Clubhouse Req. Parking (10/1000 sf)	56 spaces
Pool Req. Parking (1 per 10 persons allowed in pool)	10 spaces
Total Parking Spaces Provided	853 spaces

NO.	DATE	REVISION
1	1-5-18	NAME CHANGE



BENCHMARK ENGINEERING, INC.
ENGINEERS & LAND SURVEYORS & PLANNERS
8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6844
WWW.BEI-CVLENGINEERING.COM

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. 28376, Expiration Date: 01-01-19.

OWNER: PARCEL 714
LOCUST THICKET INVESTORS LLC
588 MEADOWBRIDGE ROAD
ELKRDGE, MD 21075
410-465-4244

DEVELOPER: PARCEL 724
LOCUST THICKET INVESTORS LLC
P.O. BOX 417
ELLICOTT CITY, MD 21041
410-465-4244

DESIGN: AAM/JCO CHECKED: AAM

PROJECT: THE WEXLEY AT 100
BUILDABLE BULK PARCELS A, B, C & D
AND OPEN SPACE LOTS 1 & 2

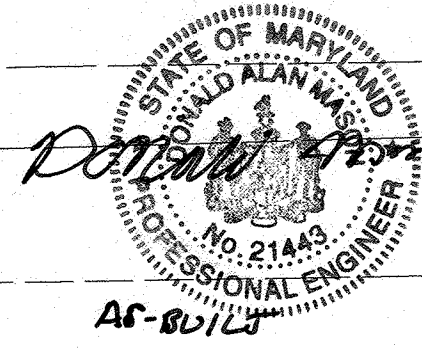
LOCATION: ZONED R-A-15 & POR
TAX MAP 37, GRID 9, PARCELS 714 & 724
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: FINAL ROAD CONSTRUCTION PLANS
TITLE SHEET, EXISTING CONDITIONS AND
SOILS MAP

DATE: NOVEMBER 2017 PROJECT NO. 0925
SCALE: AS SHOWN DRAWING 1 OF 42

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. 21443, Expiration Date: 2-21-2022

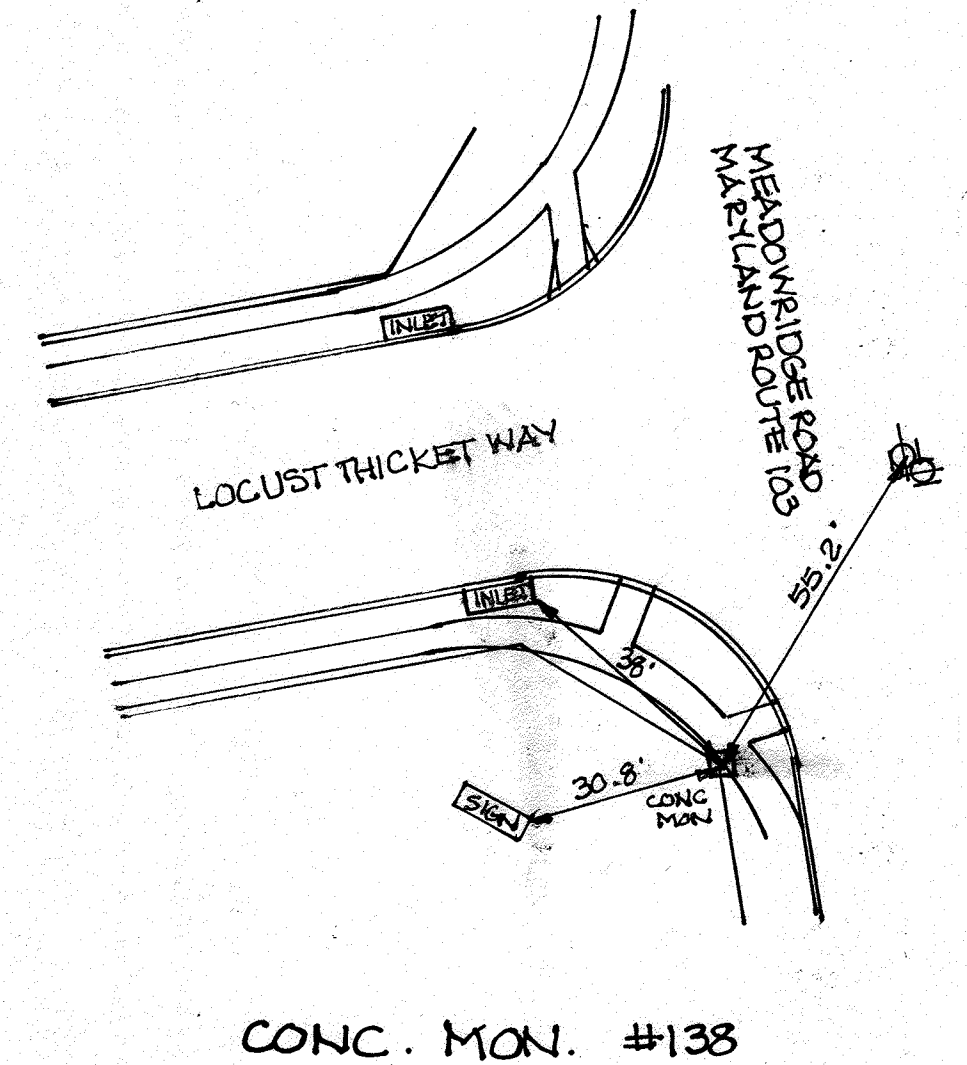
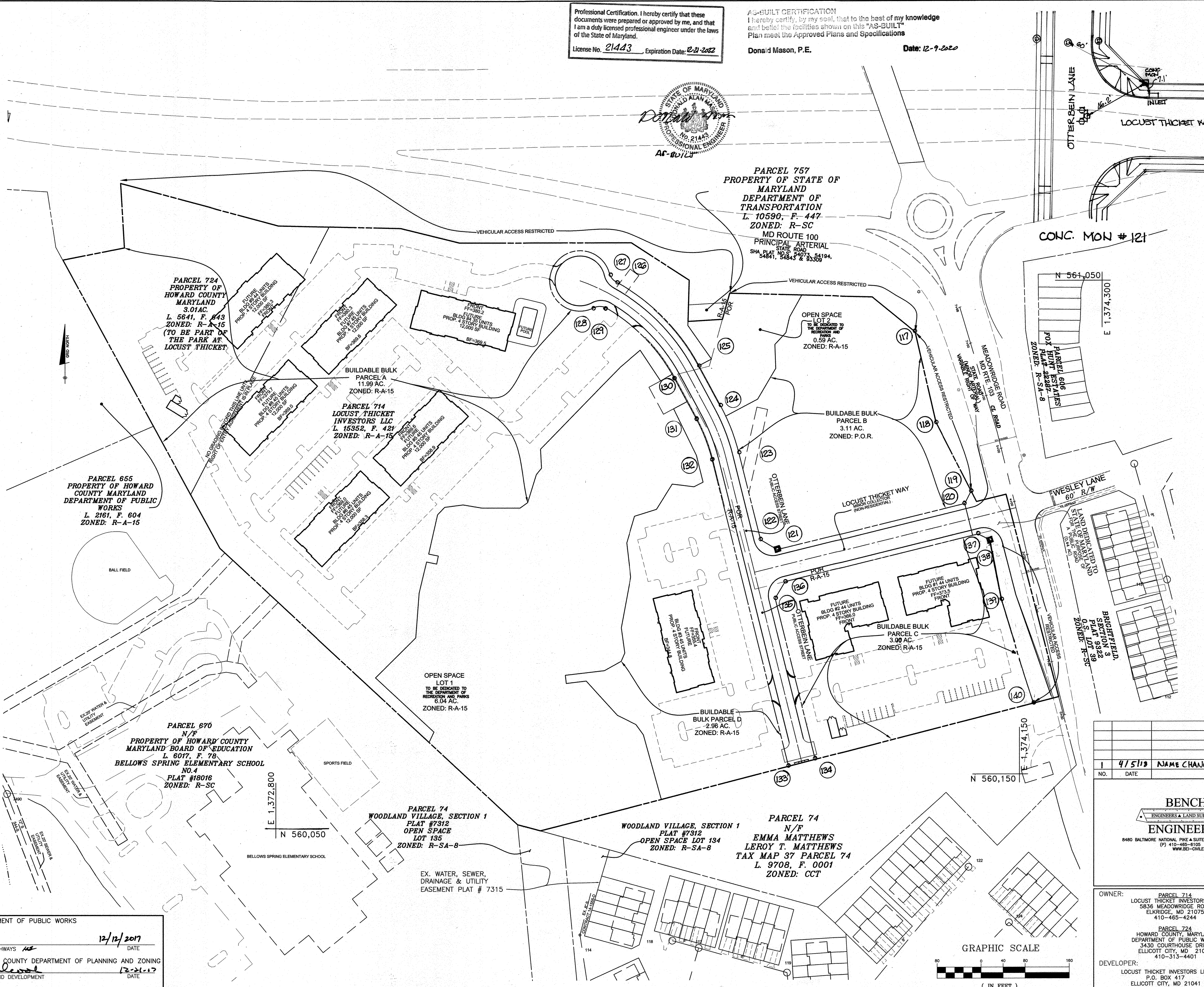
AS-BUILT CERTIFICATION
 I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications
 Donald Mason, P.E. Date: 12-9-2020



- AS-BUILT NOTES:
- HORIZONTAL AND VERTICAL DATUM FOR THIS AS-BUILT IS BASED ON THE MARYLAND STATE REFERENCE SYSTEM. NAD 83 / ADU C7AS PROJECTED FROM MD CO. GEODETIC CONTROL STATIONS 37EB AND 37EC.
 - THE INSTRUMENTS USED IN PERFORMING THE AS-BUILT WERE A 5" TOTAL STATION AND PRISM AND RTK-GPS.
 - THIS AS-BUILT WAS PERFORMED BY BENCHMARK ENGINEERING, INC.

RIGHT OF WAY ELEVATION CHART

R/W FT. NO.	DESCRIPTION	ELEVATION
117	REBAR & CAP	324.19'
118	REBAR & CAP	329.60'
119	REBAR & CAP	329.96'
120	X-CUT IN VALLEY	320.01'
121	MONUMENT	355.35'
122	REBAR & CAP	352.99'
123	REBAR & CAP	349.03'
124	REBAR & CAP	347.83'
125	REBAR & CAP	348.74'
126	REBAR & CAP	357.17'
127	REBAR & CAP	358.21'
128	REBAR & CAP	358.50'
129	REBAR & CAP	357.67'
130	REBAR & CAP	349.40'
131	REBAR & CAP	348.26'
132	REBAR & CAP	348.87'
133	REBAR & CAP	321.62'
134	REBAR & CAP	321.93'
135	REBAR & CAP	327.31'
136	REBAR & CAP	326.48'
137	X-CUT IN VALLEY	320.16'
138	MONUMENT	371.85'
139	REBAR & CAP	322.21'
140	REBAR & CAP	329.74'



NO.	DATE	REVISION
1	4/5/19	NAME CHANGE, SHARV CHANGE (PARCEL C)

BENCHMARK ENGINEERING, INC.
 ENGINEERS & LAND SURVEYORS & PLANNERS
 8480 BALTIMORE NATIONAL PIKE & SUITE 315 • ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-6105 (F) 410-465-8644
 WWW.BE-ENGINEERING.COM

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. 28378, Expiration Date: 01-01-19.

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 12/12/2017 DATE
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 12-21-17 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: [Signature] 12-19-17 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

OWNER: PARCEL 714
 LOCUST THICKET INVESTORS LLC
 5836 NEADWIDGE ROAD
 ELKCRIDGE, MD 21075
 410-465-4244

PARCEL 724
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 3430 COURTHOUSE DRIVE
 ELLICOTT CITY, MD 21043
 410-313-4401

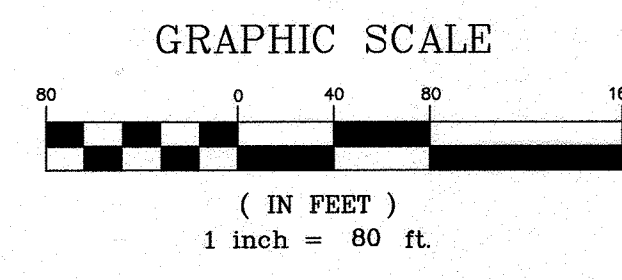
DEVELOPER:
 LOCUST THICKET INVESTORS LLC
 P.O. BOX 417
 ELLICOTT CITY, MD 21041
 410-465-4244

THE WEXLEY AT 100
 BUILDABLE BULK PARCELS A, B, C & D
 AND OPEN SPACE LOTS 1 & 2

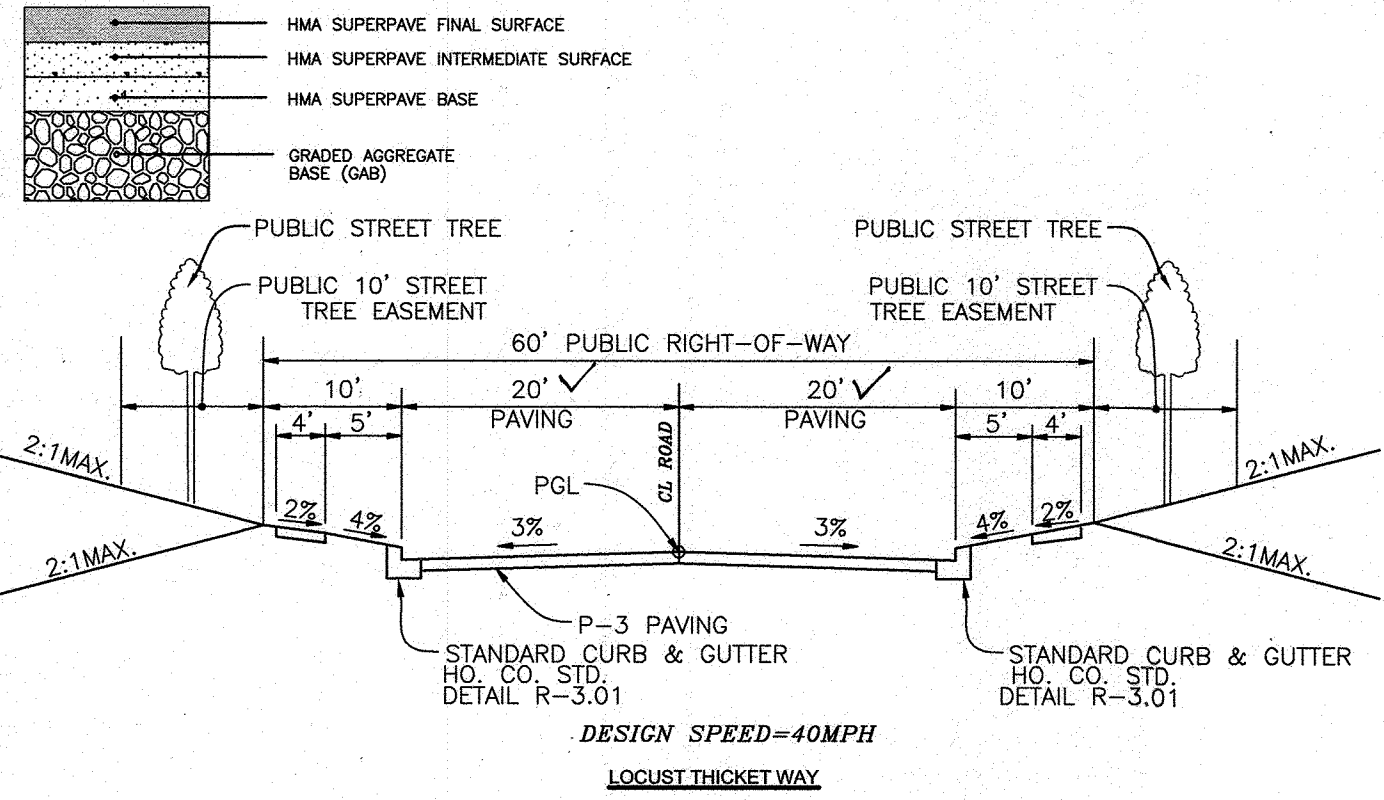
ZONED R-A-15 & POR
 TAX MAP 37, GRID 9, PARCELS 714 & 724
 1st ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

**FINAL ROAD CONSTRUCTION PLANS
 SUBDIVISION LAYOUT**

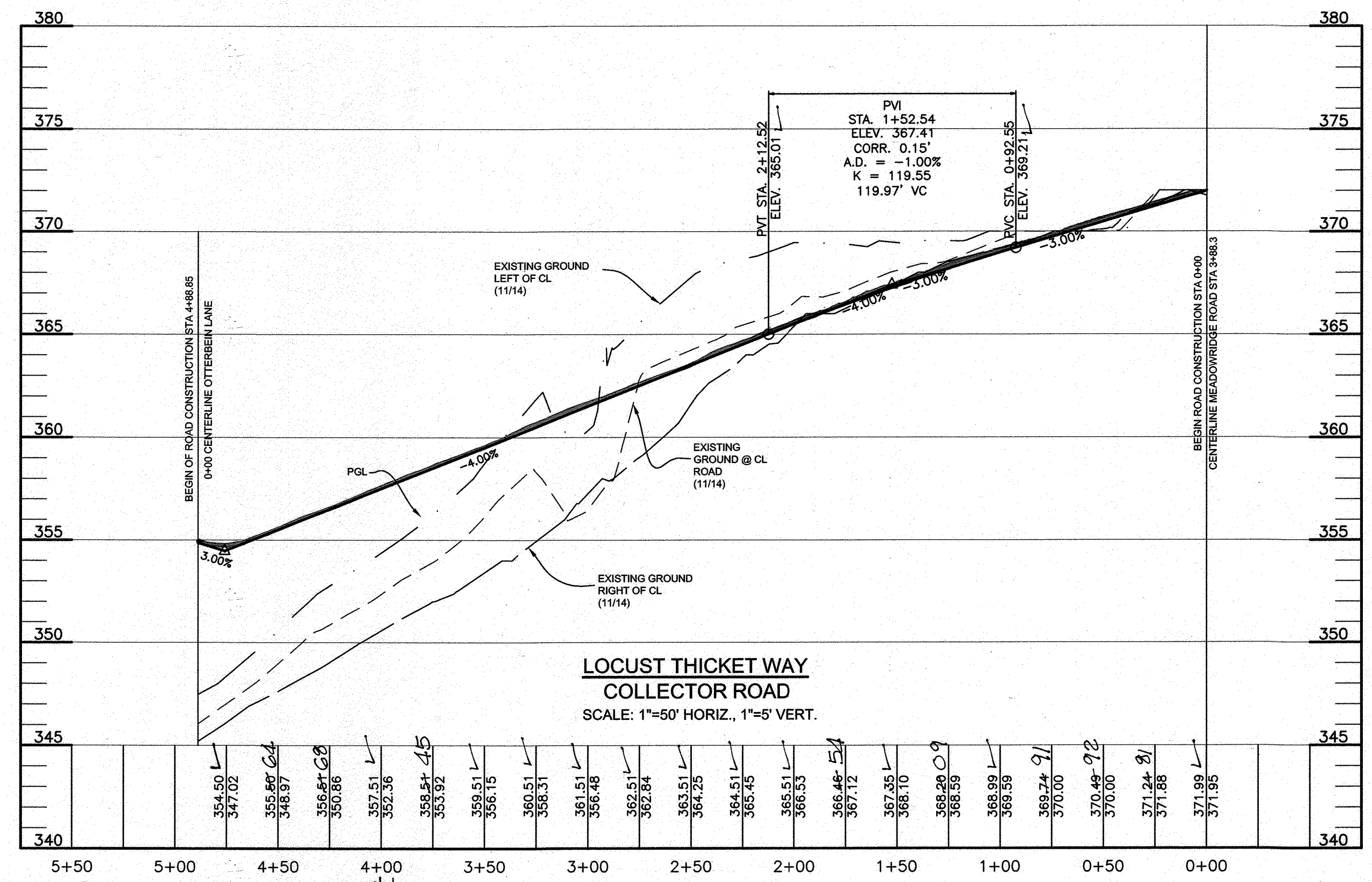
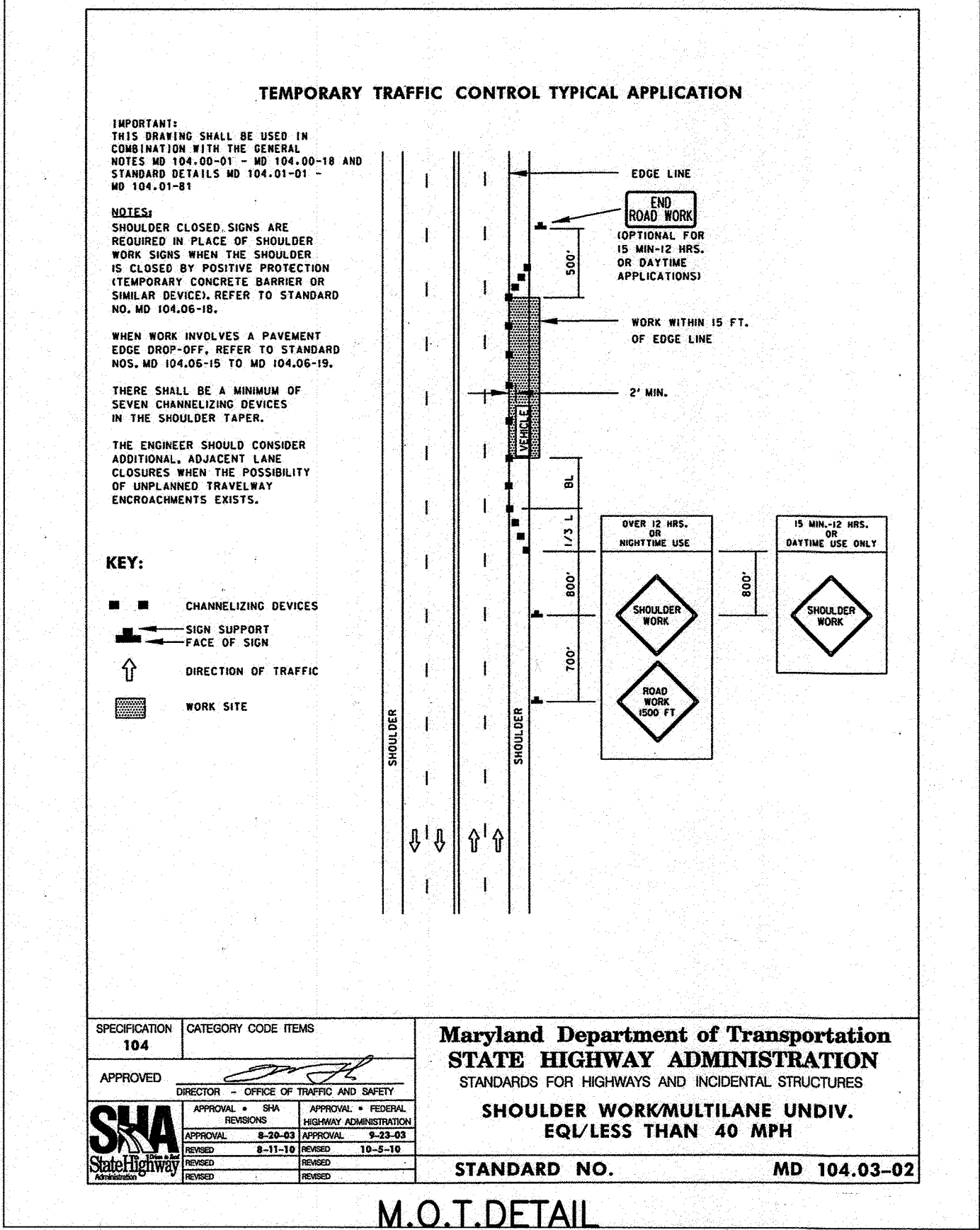
DATE: NOVEMBER 2017 PROJECT NO. 0925
 SCALE: AS SHOWN DRAWING 2 OF 42



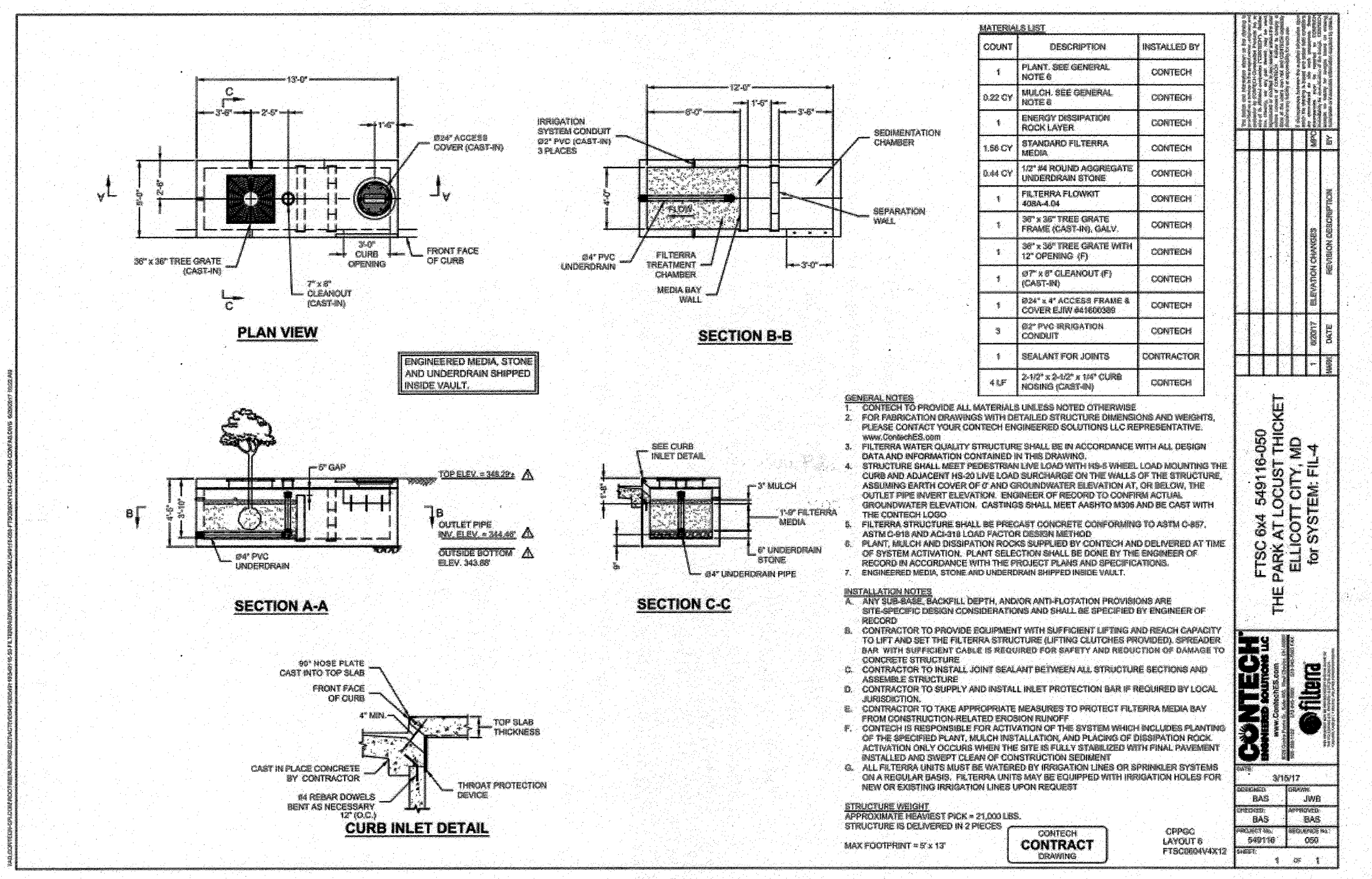
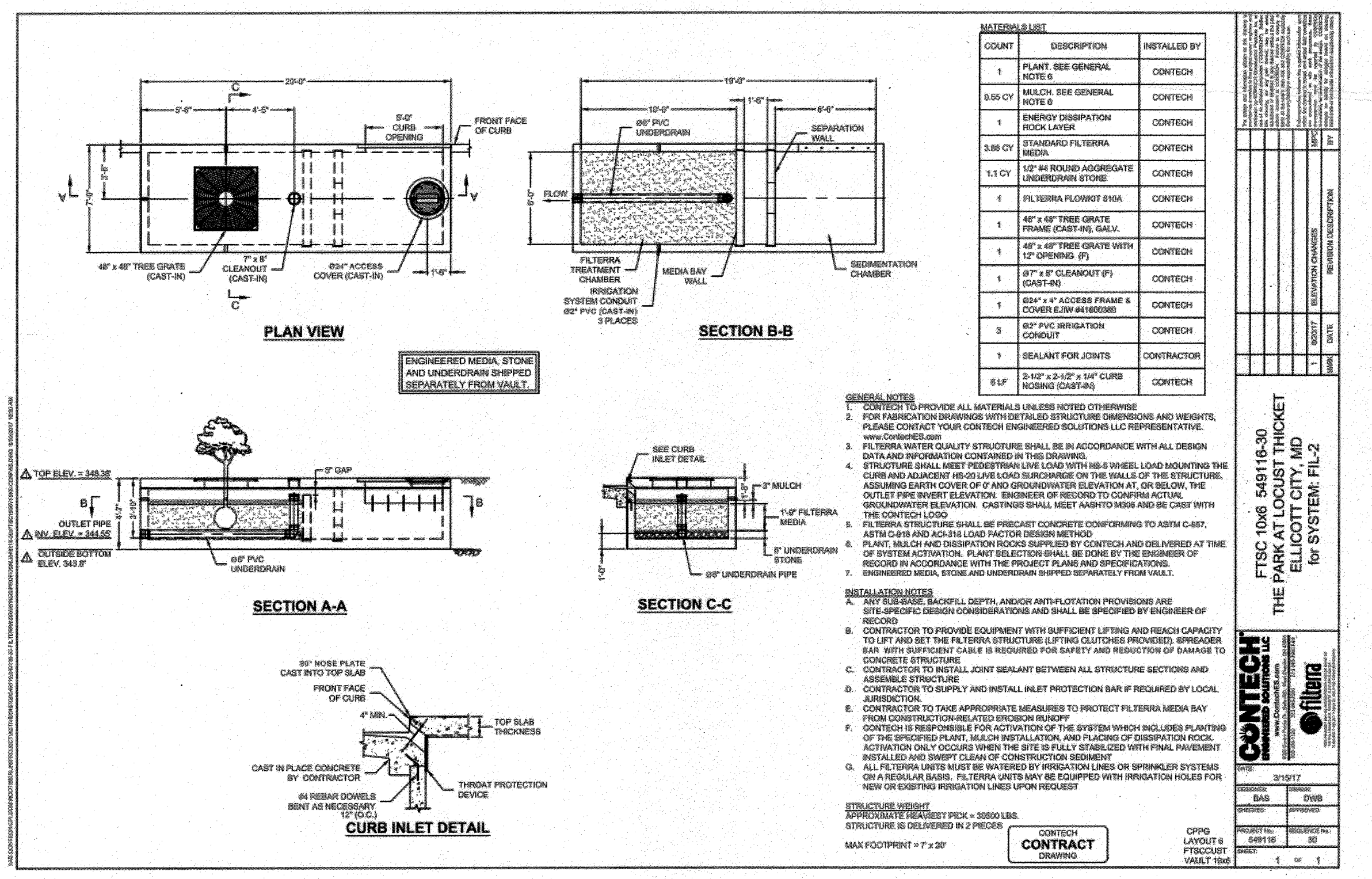
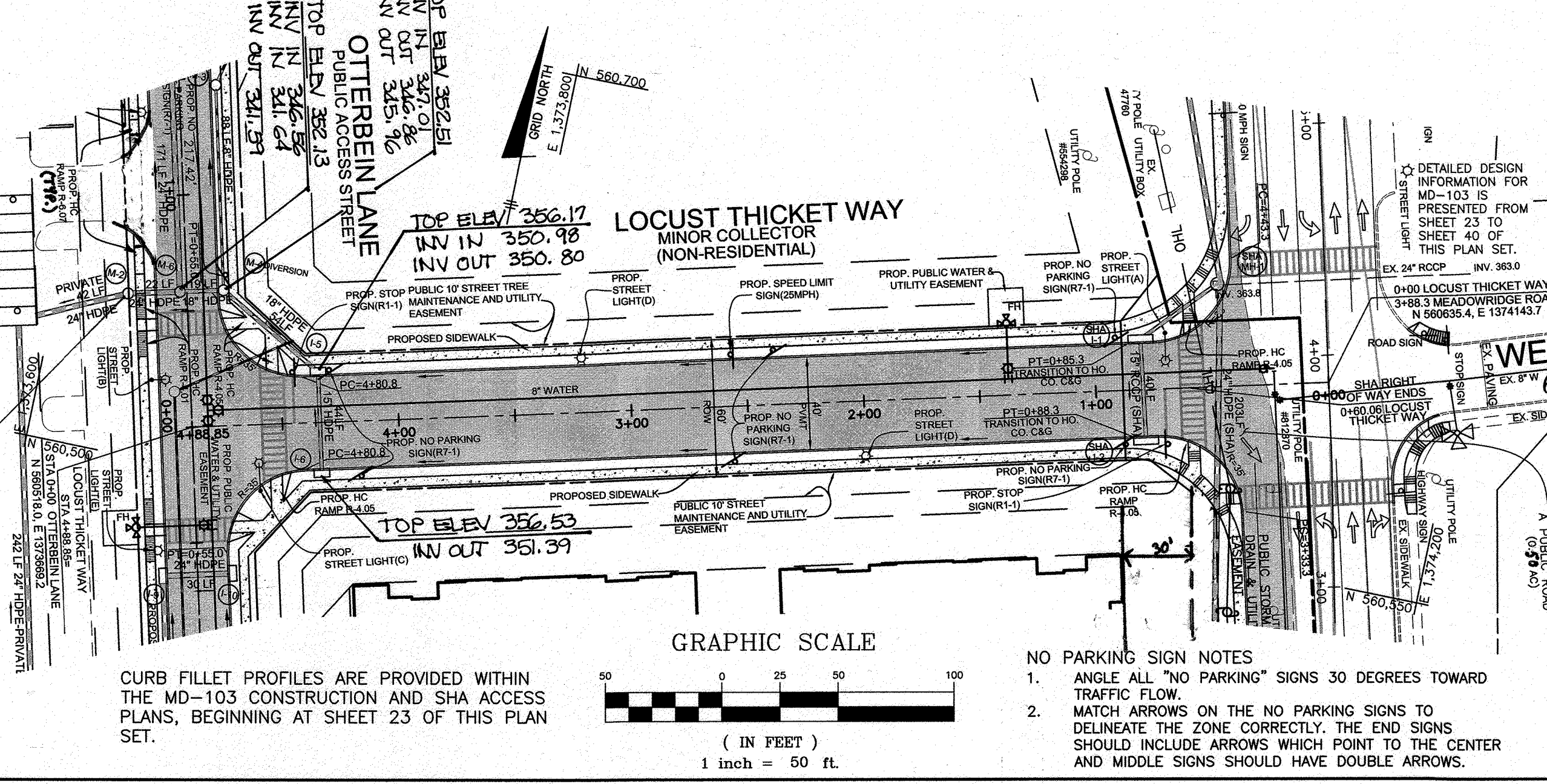
SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	3 TO <5			5 TO <7			7 TO <9		
			MIN	MMA WITH GAB	HMA WITH CONSTANT GAB	MIN	MMA WITH GAB	HMA WITH CONSTANT GAB	MIN	MMA WITH GAB	HMA WITH CONSTANT GAB
P-3	PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS: ACCESS PLACE, ACCESS STREET, SIDE-SIDE, NON-RESIDENTIAL MINOR COLLECTOR RESIDENTIAL	HMA SUPERPAVE FINAL SURFACE	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
		HMA SUPERPAVE BASE	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
		GRADED AGGREGATE BASE (GAB)	10.0	6.0	3.0	6.0	6.0	6.0	6.0	6.0	6.0



CURVE	LENGTH	RADIUS	TANGENT	CHORD LENGTH	CHORD BEARING	DELTA
C1	87.17'	350.00'	43.81'	86.94'	N21°02'09" W	14°16'09"
C2	286.00'	350.00'	138.79'	259.64'	N49°56'33" W	43°32'39"



TYPE	STATION	LOCATION	FIXTURE/POLE TYPE
A	CL STA 0+69.4	24.1' RT. LOCUST THICKET WAY	LED-250 WATT COBRA FIXTURE MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM.
B	CL STA 0+21.0 LP STA 1+19.0	16.7' LT. OTTERBEIN LANE 2.5' LT. OTTERBEIN LANE	LED-150 WATT COBRA FIXTURE MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM.
C	CL STA 4+60.5	28.5' LT. LOCUST THICKET WAY	LED-150 WATT COBRA FIXTURE MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM.
D	CL STA 2+00.0 CL STA 2+20.6	23.7' LT. LOCUST THICKET WAY 23.7' RT. LOCUST THICKET WAY	LED-150 WATT COLONIAL POST-TOP MOUNTED ON A 14' BLACK FIBERGLASS POLE.
E	CL STA 1+36.4 CL STA 2+36.7 CL STA 3+59.9 CL STA 4+81.3 CL STA 5+87.1 CL STA 0+52.7 CL STA 1+48.1 CL STA 3+11.9	16.7' LT. OTTERBEIN LANE 16.7' LT. OTTERBEIN LANE 16.7' LT. OTTERBEIN LANE 16.7' RT. OTTERBEIN LANE 16.7' RT. OTTERBEIN LANE 16.7' RT. OTTERBEIN LANE 16.7' LT. OTTERBEIN LANE	LED-100 WATT COLONIAL POST-TOP MOUNTED ON A 14' BLACK FIBERGLASS POLE.



APPROVED: DEPARTMENT OF PUBLIC WORKS
 12/12/2017
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 12-21-17
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: 12-19-17
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

AS-BUILT CERTIFICATION
 I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications

Donald Mason, P.E.
 Date: 12-9-2020

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. 21A03, Expiration Date: 12-21-2022

BENCHMARK ENGINEERING, INC.
 8480 BALTIMORE NATIONAL PIKE & SUITE 315 ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-6105 (F) 410-465-6644
 WWW.BE-ENGINEERING.COM

THE WEXLEY AT 100
 BUILDABLE BULK PARCELS A, B, C & D AND OPEN SPACE LOTS 1 & 2

OWNER: PARCEL 714 LOCUST THICKET INVESTORS LLC 5838 MEADOWCROCK ROAD ELKRIE, MD 21075 410-465-4244

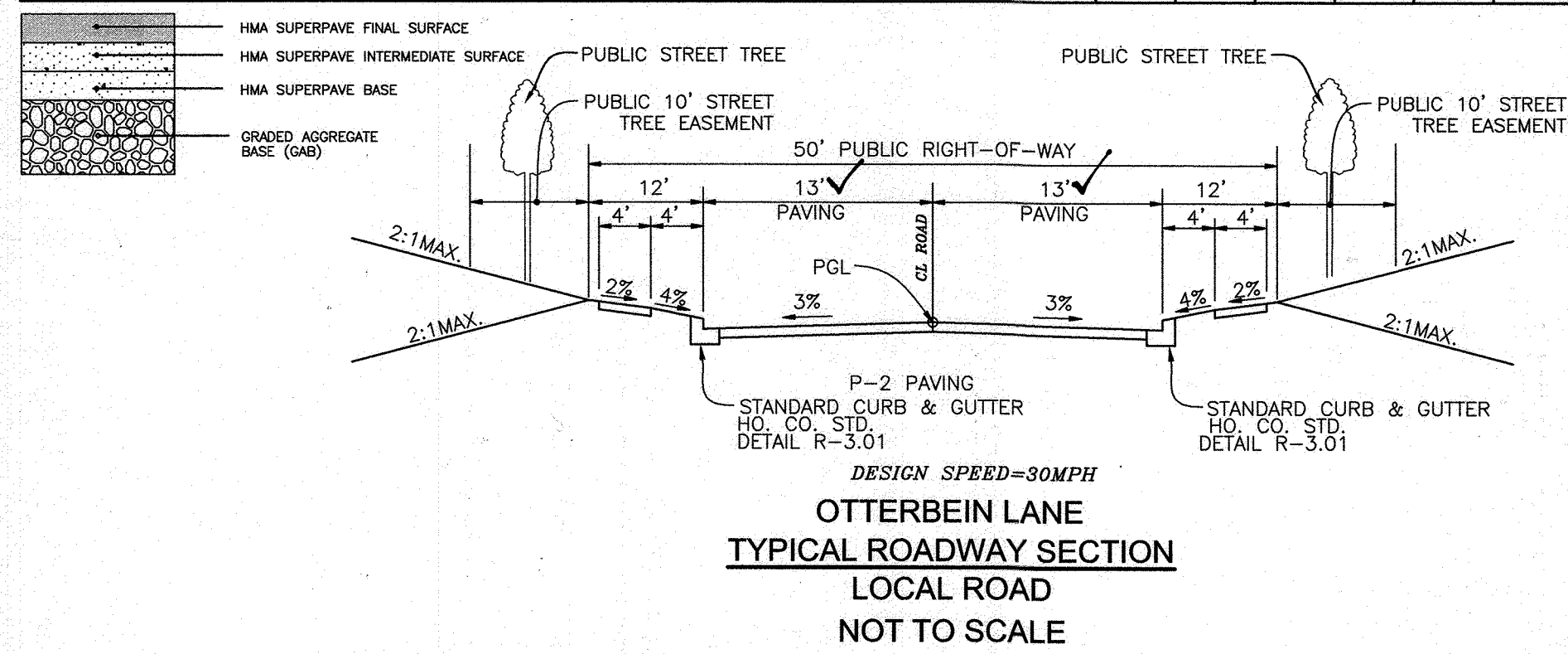
DEVELOPER: PARCEL 724 HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS 3430 COURTHOUSE DRIVE ELLICOTT CITY, MD 21043 410-313-4401

DESIGNER: AAM CHECKED: CAM

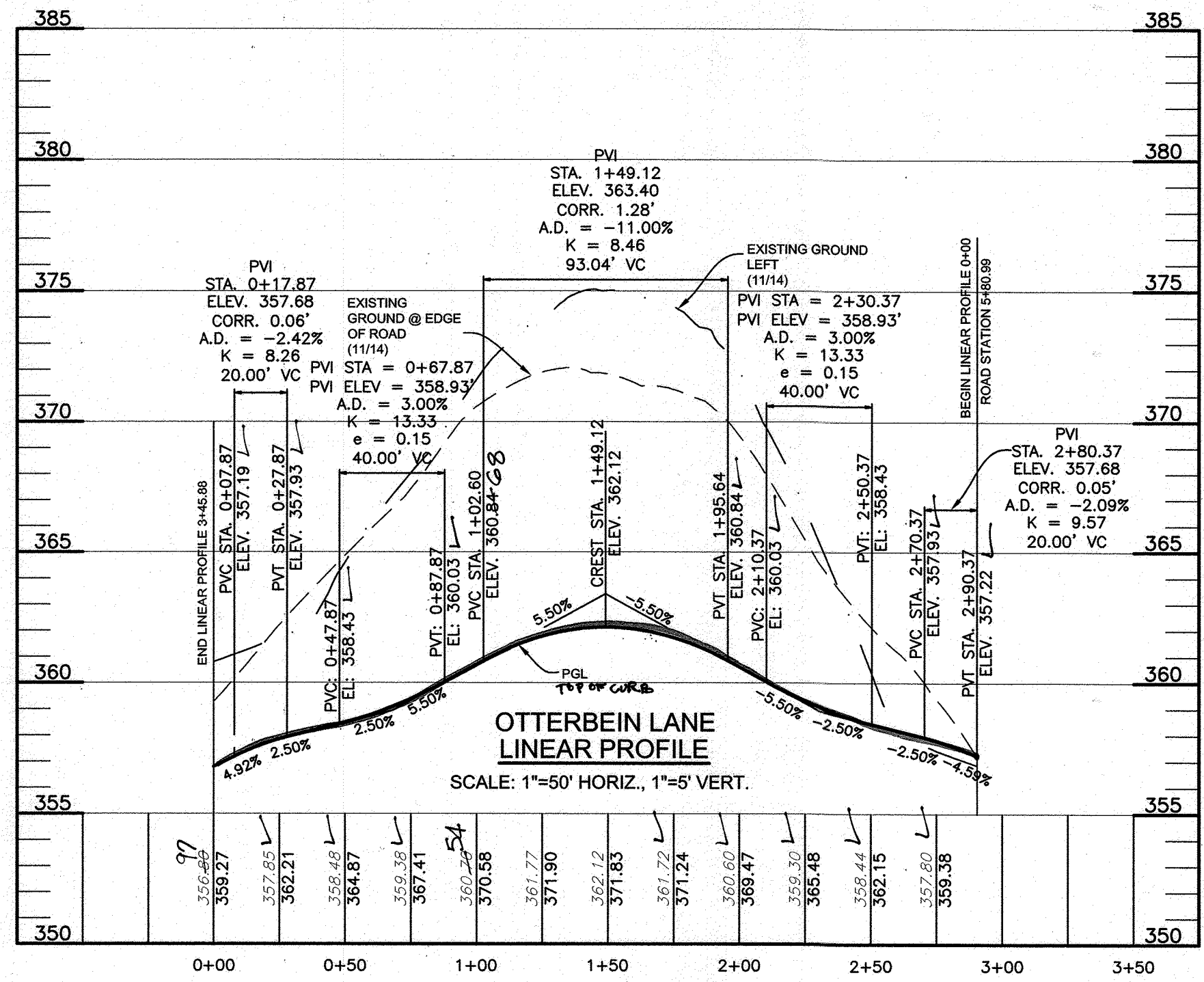
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 SCALE: AS SHOWN DRAWING 4 OF 42

AS-BUILT F-17-022

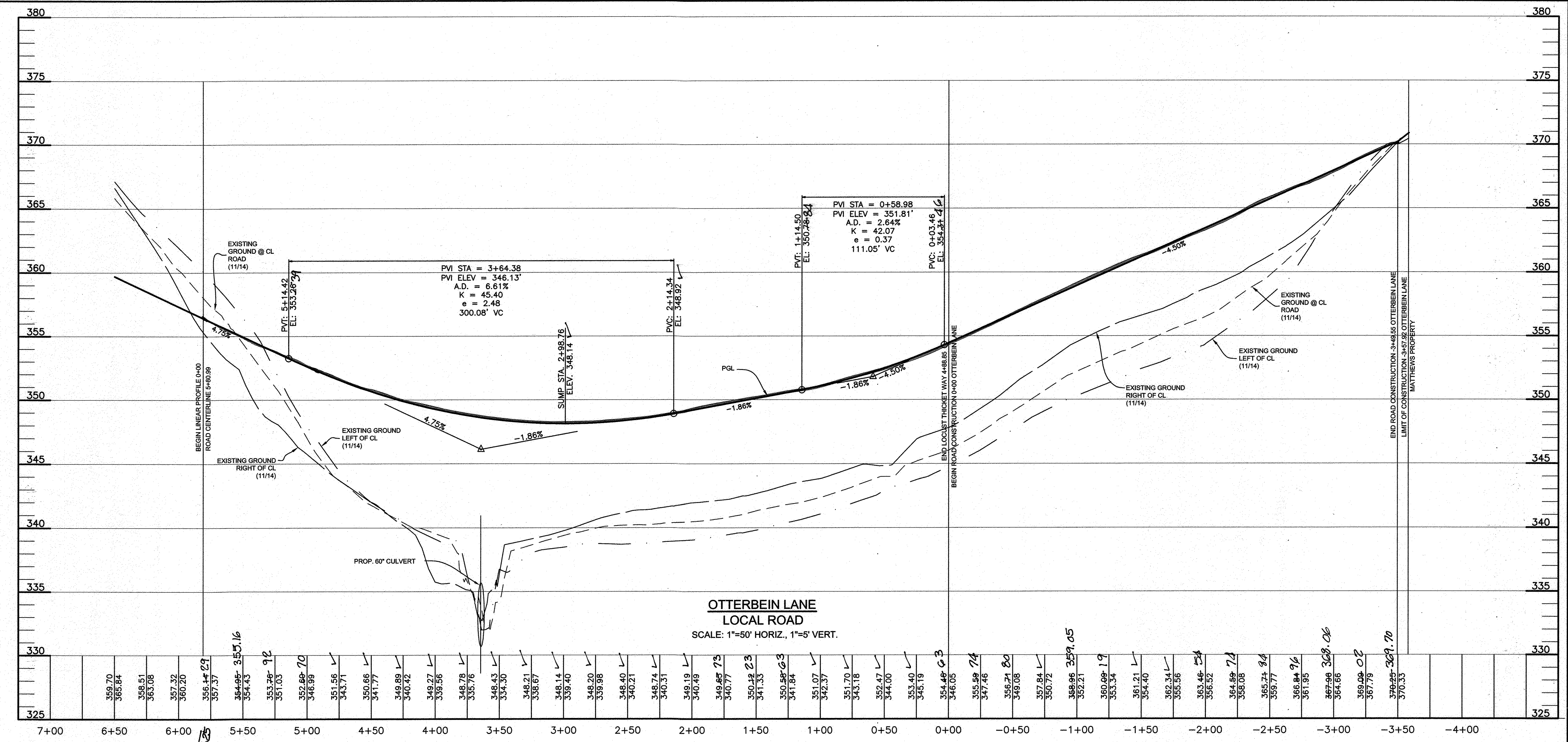
SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)					
		3 TO <5	5 TO <7	>7	3 TO <5	5 TO <7	>7
P-2	PARKING DRIVE AISLES, RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	1.5	1.5	1.5	1.5	1.5	1.5
	LOCAL ROADS: ACCESS PLACE, ACCESS STREET	1.5	1.5	1.5	1.5	1.5	1.5
	CUL-DE-SAC, RESIDENTIAL	2.0	2.0	2.0	3.5	2.0	2.0
	GRADED AGGREGATE BASE (GAB)	8.0	4.0	3.0	4.0	4.0	4.0



OTTERBEIN LANE
TYPICAL ROADWAY SECTION
LOCAL ROAD
NOT TO SCALE



OTTERBEIN LANE
LINEAR PROFILE
SCALE: 1"=50' HORIZ., 1"=5' VERT.



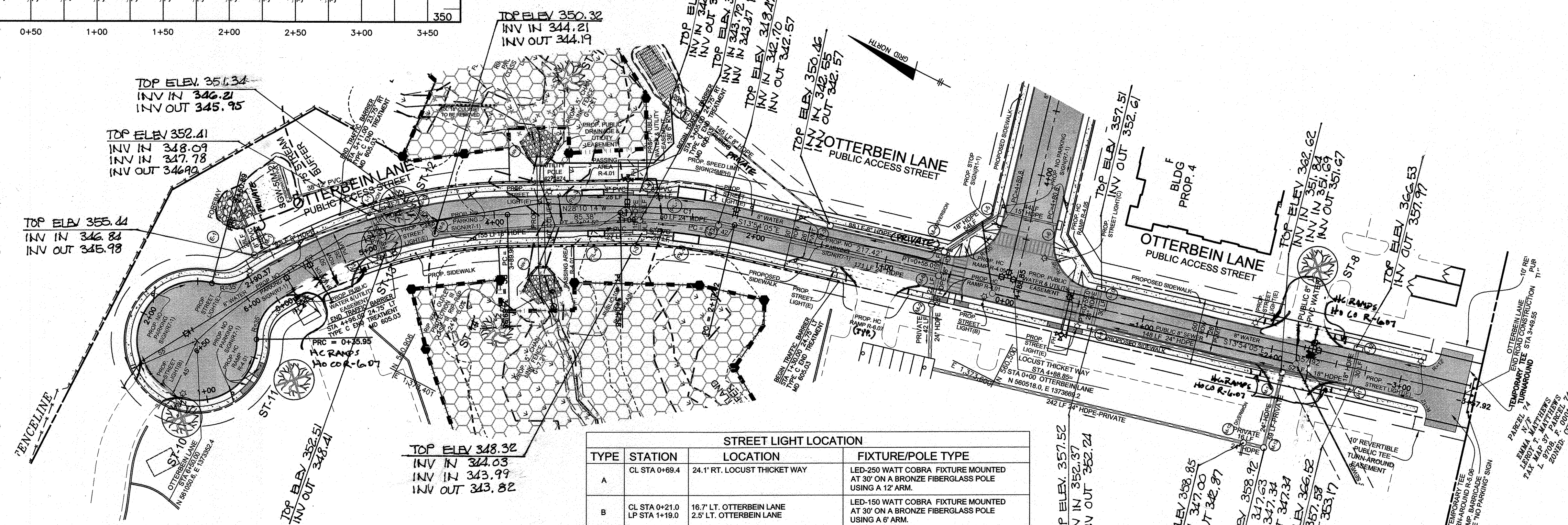
OTTERBEIN LANE
LOCAL ROAD
SCALE: 1"=50' HORIZ., 1"=5' VERT.

AS-BUILT CERTIFICATION
I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications
Date: 12-9-2020

Donald Mason, P.E.

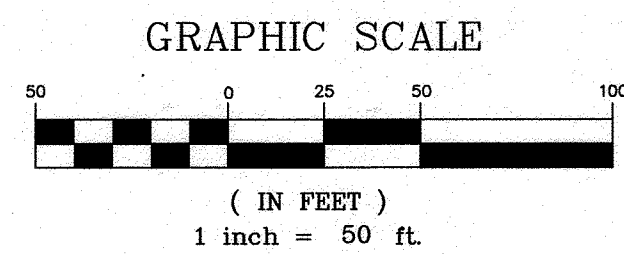


Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 21443, Expiration Date: 12-21-2022



STREET LIGHT LOCATION			
TYPE	STATION	LOCATION	FIXTURE/POLE TYPE
A	CL STA 0+69.4	24.1' RT. LOCUST THICKET WAY	LED-250 WATT COBRA FIXTURE MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12 ARM.
B	CL STA 0+210 LP STA 1+19.0	16.7' LT. OTTERBEIN LANE 2.5' LT. OTTERBEIN LANE	LED-150 WATT COBRA FIXTURE MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 6' ARM.
C	CL STA 4+60.5	28.5' LT. LOCUST THICKET WAY	LED-150 WATT COBRA FIXTURE MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12 ARM.
D	CL STA 2+00.0 CL STA 3+20.6	23.7' LT. LOCUST THICKET WAY 23.7' RT. LOCUST THICKET WAY	LED-150 WATT COLONIAL POST-TOP MOUNTED ON A 14' BLACK FIBERGLASS POLE.
E	CL STA 1+36.4 CL STA 2+36.7 CL STA 3+59.9 CL STA 4+81.3 CL STA 5+87.1 CL STA 0+52.7 CL STA 1+83.1 CL STA 3+11.9	16.7' LT. OTTERBEIN LANE 16.7' LT. OTTERBEIN LANE 16.7' LT. OTTERBEIN LANE 16.7' LT. OTTERBEIN LANE 16.7' RT. OTTERBEIN LANE 16.7' RT. OTTERBEIN LANE 16.7' LT. OTTERBEIN LANE 16.7' LT. OTTERBEIN LANE	LED-100 WATT COLONIAL POST-TOP MOUNTED ON A 14' BLACK FIBERGLASS POLE.

NO PARKING SIGN NOTES
1. ANGLE ALL "NO PARKING" SIGNS 30 DEGREES TOWARD TRAFFIC FLOW.
2. MATCH ARROWS ON THE NO PARKING SIGNS TO DELINEATE THE ZONE CORRECTLY. THE END SIGNS SHOULD INCLUDE ARROWS WHICH POINT TO THE CENTER AND MIDDLE SIGNS SHOULD HAVE DOUBLE ARROWS.



APPROVED: DEPARTMENT OF PUBLIC WORKS
12/12/2017
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
12-21-17
12-19-17

NO.	DATE	REVISION
1	4-5-19	NAME CHANGE, ADD DRIVEWAY FINETS, CORRECT PAVEMENT SECTIONS

BENCHMARK ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE SUITE 315 & ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6100 (F) 410-465-6644
WWW.BE-ONLINEENGINEERING.COM

THE WEXLEY AT 100
BUILDABLE BULK PARCELS A, B, C & D AND OPEN SPACE LOTS 1 & 2
ZONED R-A-15 & POR
TAX MAP 37, GRID 9, PARCELS 714 & 724
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
3430 COURTHOUSE DRIVE
ELLICOTT CITY, MD 21043
410-313-4401

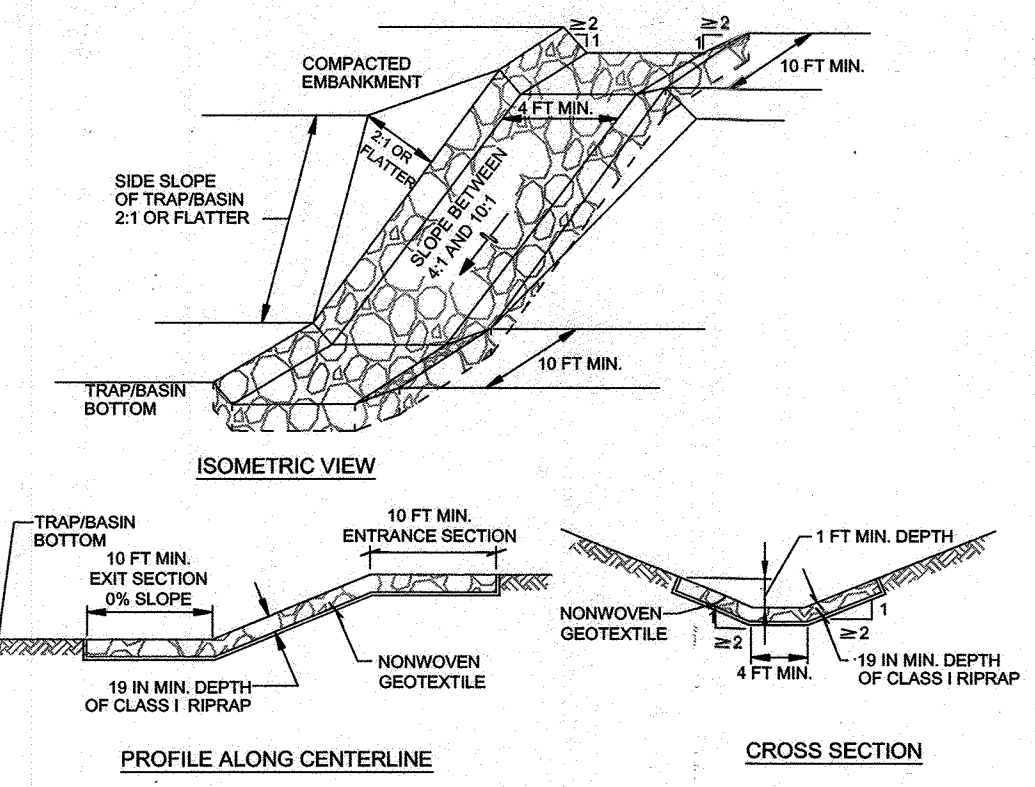
OWNER: PARCEL 714
LOCUST THICKET INVESTORS LLC
5816 MEADOWBRIDGE ROAD
ELKRIDGE, MD 21075
410-465-4244

DEVELOPER: PARCEL 724
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
3430 COURTHOUSE DRIVE
ELLICOTT CITY, MD 21043
410-313-4401

FINAL ROAD CONSTRUCTION PLANS
ROAD CONSTRUCTION PLAN AND PROFILE:
OTTERBEIN LANE

DATE: NOVEMBER 2017 PROJECT NO. 0925
SCALE: AS SHOWN DRAWING 5 OF 42

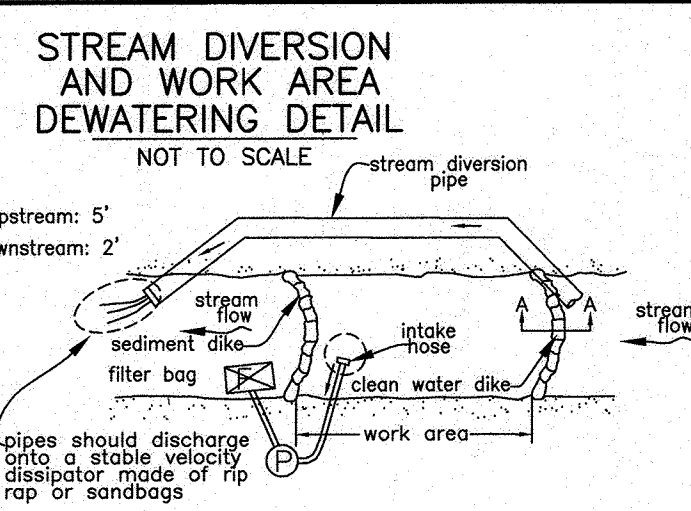
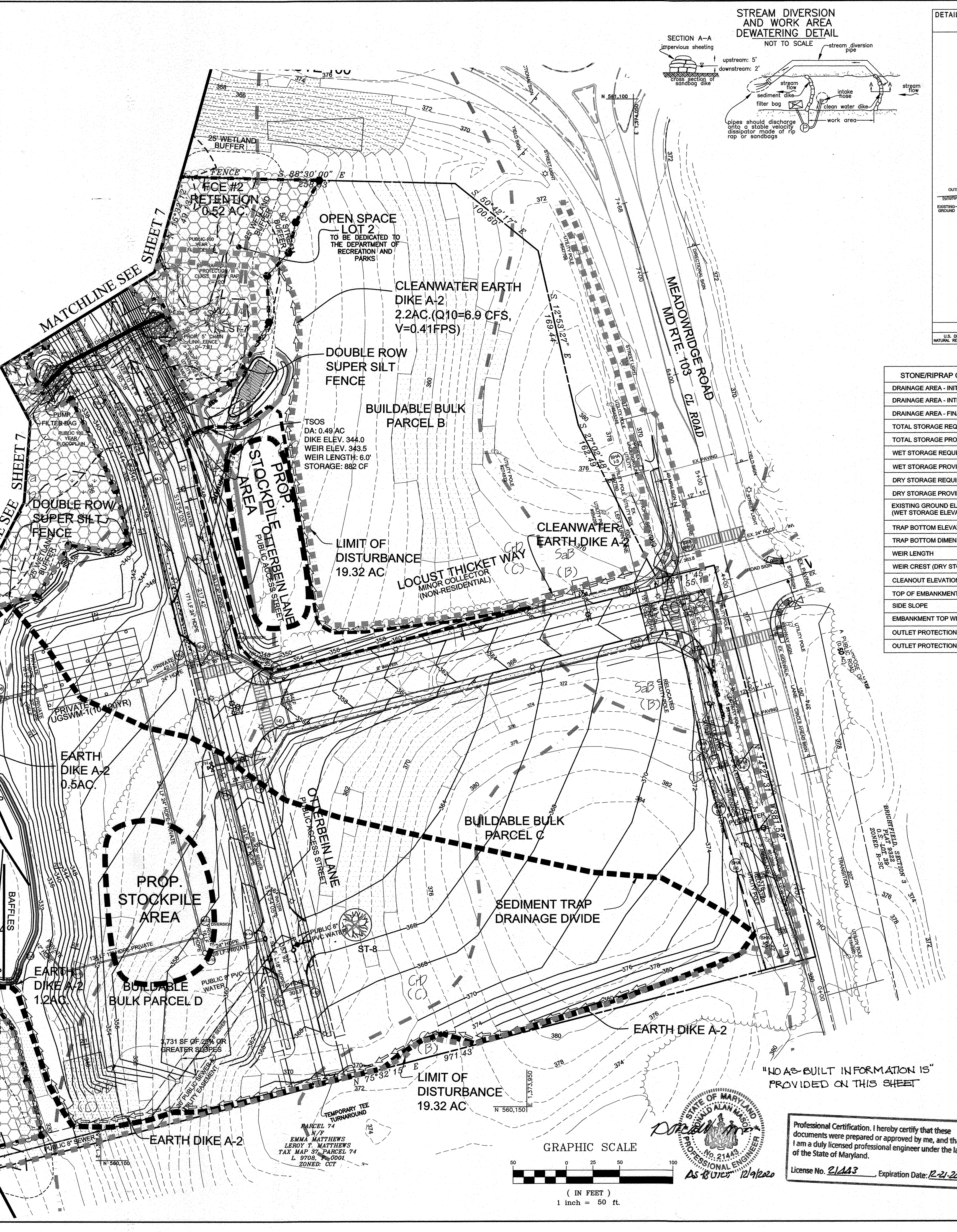
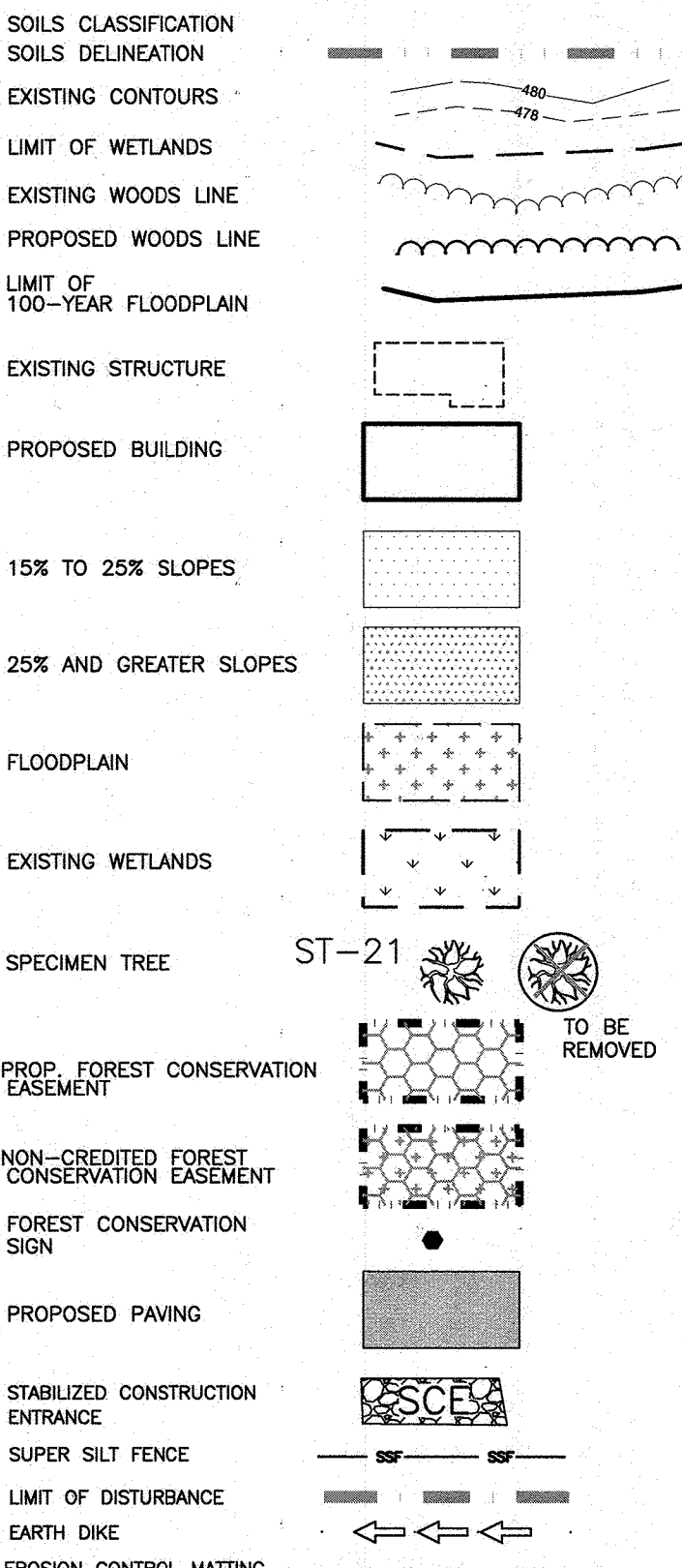
DETAIL D-3-1 RIPRAP INFLOW PROTECTION



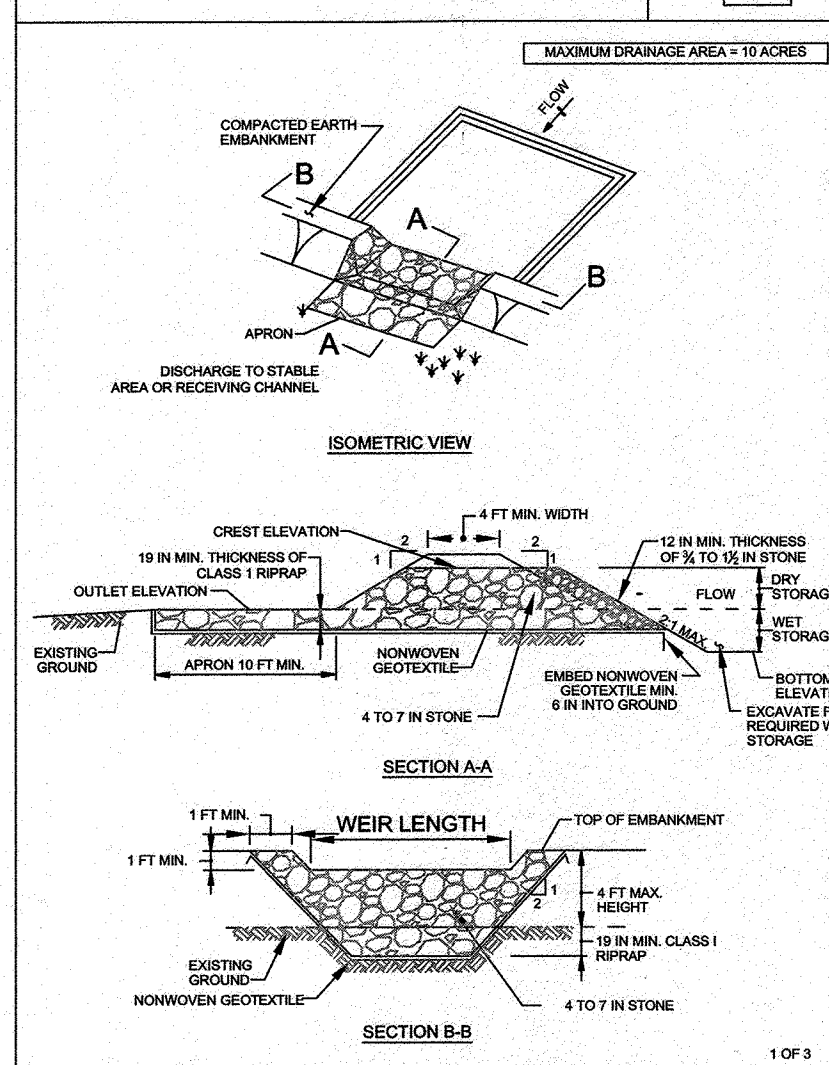
- CONSTRUCTION SPECIFICATIONS**
1. PROVIDE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND ALONG SIDES OF ALL RIPRAP.
 2. CONSTRUCT INFLOW CHANNEL WITH CLASS I RIPRAP OR EQUIVALENT RECYCLED CONCRETE LINING TO A MINIMUM DEPTH OF 18 INCHES (2 x D₅₀) AND A 1 FOOT DEEP FLOW CHANNEL. INFLOW RIPRAP PROTECTION CHANNEL MUST HAVE A TRIANGULAR CROSS SECTION WITH 2:1 OR FLATTER SIDE SLOPES AND A 4 FOOT MINIMUM BOTTOM WIDTH.
 3. INSTALL ENTRANCE AND EXIT SECTIONS AS SHOWN ON THE PROFILE.
 4. BLEND RIPRAP INTO EXISTING GROUND.
 5. MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. KEEP POINTS OF INFLOW AND OUTFLOW FREE OF EROSION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011

LEGEND



DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II



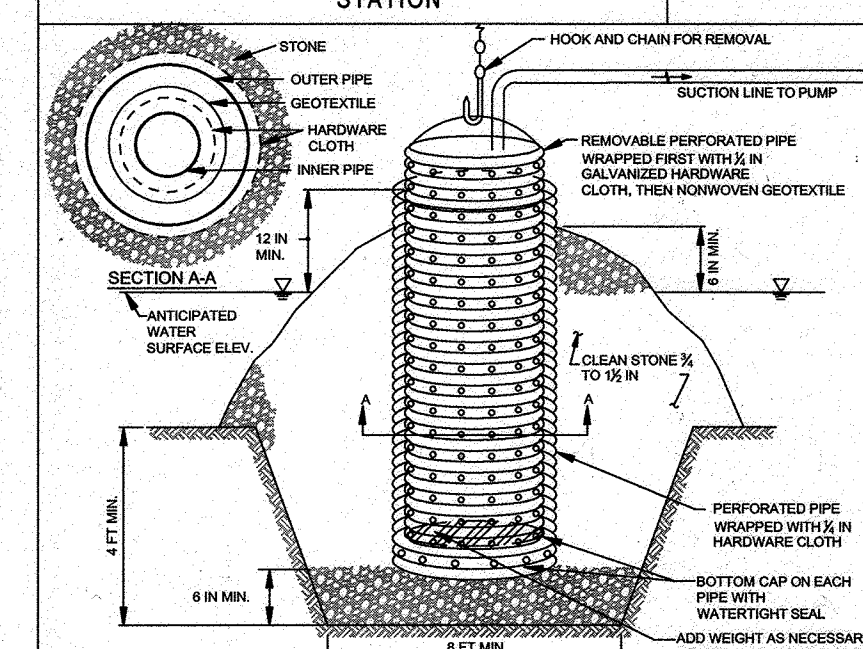
- CONSTRUCTION SPECIFICATIONS**
1. CONSTRUCT TRAP IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE AVOIDED.
 2. CLEAR GRUBS AND STRIP ANY VEGETATION AND ROOT MAT FROM THE AREA UNDER THE EMBANKMENT AND TRAP BOTTOM.
 3. USE FILL MATERIAL FREE OF ROOTS, WOODY VEGETATION, OVERGROWN STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBSTRUCTIVE MATERIAL FOR THE EMBANKMENT.
 4. CONSTRUCT TOP OF EMBANKMENT 1 FOOT MINIMUM ABOVE MEIR CREST. COMPACT THE EMBANKMENT BY TRAVELING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
 5. MAKE ALL CUT AND FILL SLOPES 2:1 OR FLATTER.
 6. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE BOTTOM AND SIDES OF CUTS AND ARCH PRIOR TO PLACEMENT OF RIPRAP. COVER ALL SECTIONS OF GEOTEXTILE AT LEAST 1 FOOT WITH SECTION H-1 MATERIALS. EMBED GEOTEXTILE AT LEAST 6 INCHES INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL.
 7. USE CLEAN 4 TO 7 RICH RIPRAP TO CONSTRUCT THE WEIR. USE CLASS I RIPRAP FOR THE APRON USE OF RECYCLED CONCRETE EQUIVALENT IS ACCEPTABLE.
 8. PLACE 1 FOOT OF CLEAN 1/2 TO 1/4 INCH STONE OR EQUIVALENT RECYCLED CONCRETE ON THE UPSTREAM FACE OF THE WEIR.
 9. CONSTRUCT AND MAINTAIN THE OUTLET ACCORDING TO APPROVED PLAN AND IN SUCH A MANNER THAT EROSION AT OR BELOW THE OUTLET DOES NOT OCCUR.
 10. STABILIZE THE EMBANKMENT AND INTERIOR SLOPES WITH SEED AND MULCH. STABILIZE POINTS OF CONCENTRATED FLOW AS BEING ON APPROVED PLAN.
 11. REMOVE SEDIMENT AND RESTORE TRAP TO ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO CLEANOUT ELEVATION (TOP OF WEIR ELEVATION). DEPOSIT EXCESS SEDIMENT IN AN APPROVED AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. KEEP POINTS OF FLOW AND OUTLET AS WELL AS WEIR TO CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION H-4 VEGETATIVE STABILIZATION. REMOVE ANY TREE BRUSH OR OTHER WOODY DEBRIS FROM THE WEIR OR EMBANKMENT OR NEAR PRINCIPAL SPILLWAY. MAINTAIN LINE, GRADE, AND ORDER SECTION GROWING ON EMBANKMENT OR NEAR PRINCIPAL SPILLWAY.
 12. WHEN DEWATERING TRAP, PASS REMOVED WATER THROUGH AN APPROVED SEDIMENT CONTROL PRACTICE.
 13. UPON REMOVAL, GRADE AND STABILIZE THE AREA OCCUPIED BY TRAP.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011

STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II, TRAP NO. 4

DRAINAGE AREA - INITIAL	4.0	ACRES
DRAINAGE AREA - INTERIM	4.0	ACRES
DRAINAGE AREA - FINAL	4.0	ACRES
TOTAL STORAGE REQUIRED	14,400	CF
TOTAL STORAGE PROVIDED	21,324	CF
WET STORAGE REQUIRED	7,200	CF
WET STORAGE PROVIDED	7,200	CF
DRY STORAGE REQUIRED	7,200	CF
DRY STORAGE PROVIDED	14,124	CF
EXISTING GROUND ELEVATION AT OUTLET (WET STORAGE ELEVATION)	327.8	FT
TRAP BOTTOM ELEVATION	327.0	FT
TRAP BOTTOM DIMENSIONS	SEE PAN	FT x FT
WEIR LENGTH	16	FT
WEIR CREST (DRY STORAGE) ELEVATION	329.4	FT
CLEANOUT ELEVATION	327.4	FT
TOP OF EMBANKMENT ELEVATION	330.4	FT
SIDE SLOPE	2:1	H:V RATIO
EMBANKMENT TOP WIDTH	4	FT
OUTLET PROTECTION - LENGTH	10	FT
OUTLET PROTECTION - DEPTH	19	IN

DETAIL F-1 REMOVABLE PUMPING STATION



- CONSTRUCTION SPECIFICATIONS**
1. USE CORRUGATED METAL OR PLASTIC PIPE WITH 1 1/2 INCH DIAMETER PERFORATIONS 6 INCHES ON CENTER.
 2. USE A MINIMUM 12 INCH DIAMETER INNER PIPE WITH AN OUTER PIPE A MINIMUM 1/2 INCHES LARGER IN DIAMETER. BOTTOM OF EACH PIPE MUST BE CAPPED WITH WATERPROOF SEAL.
 3. WHEN MADE FROM WHITE HIGH-DENSITY POLYETHYLENE (HDPE), ON INNER PIPE WRAP NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE HARDWARE CLOTH.
 4. EXCAVATE 6 FEET x 4 FEET x 4 FEET DEEP FOR PIPE PLACEMENT. PLACE CLEAN 1/2 TO 3/4 INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES IN DEPTH PRIOR TO PIPE PLACEMENT.
 5. SET TOP OF INNER AND OUTER PIPES MINIMUM 12 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION OR REWER CREST ELEVATION WHEN DEWATERING A BASIN.
 6. BACKFILL AROUND THE OUTER PIPE WITH 1/2 TO 3/4 INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE AND COVER WITH A MINIMUM OF 6 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
 7. DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.
 8. A REMOVABLE PUMPING STATION REQUIRES FREQUENT MAINTENANCE. A SYSTEM CLOGS, PULL OUT INNER PIPE AND REPLACE GEOTEXTILE. KEEP POINT OF DISCHARGE FREE OF EROSION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011

ENGINEER'S CERTIFICATE
I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Alice A. Miller, 11-20-17

DEVELOPER'S CERTIFICATE
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
Louise Thickett Investments LLC, 11/20/17

APPROVED: Howard County Department of Planning and Zoning
John R. Robertson, 11/29/17
Chief, Bureau of Highways
Vicki Schuler, 12-21-17
Chief, Division of Land Development
12-19-17
Chief, Development Engineering Division

1 9/17/16 NAME CHANGE, ADD DRIVEWAY FILTERS, REVISE WATER STUBS, SHA RW

BENCHMARK ENGINEERING, INC.
8490 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043
(P) 410-465-8105 (F) 410-465-8644
WWW.BE-ONLINEENGINEERING.COM

THE WEXLEY AT 100
BUILDABLE BULK PARCELS A, B, C & D AND OPEN SPACE LOTS 1 & 2
ZONED R-A-15 & FOR TAX MAP 37, GRID 9 PARCELS 714 & 724
ELECTION DISTRICT HOWARD COUNTY, MARYLAND

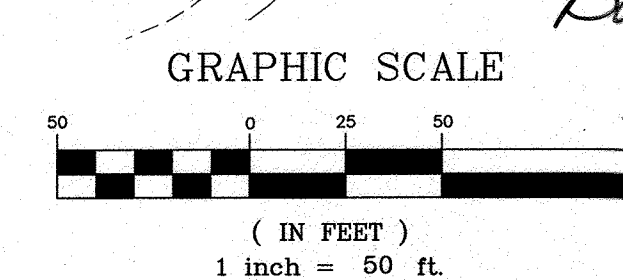
FINAL ROAD CONSTRUCTION PLANS
SITE MASS GRADING AND SEDIMENT & EROSION CONTROL PLAN

OWNER: PARCEL 714 LOCUST THICKET INVESTORS LLC 5836 MEADOWBRIDGE ROAD ELK RIDGE, MD 21075 410-465-4244
PARCEL 724 HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS 3430 COURTHOUSE DRIVE ELLICOTT CITY, MD 21043 410-313-4401

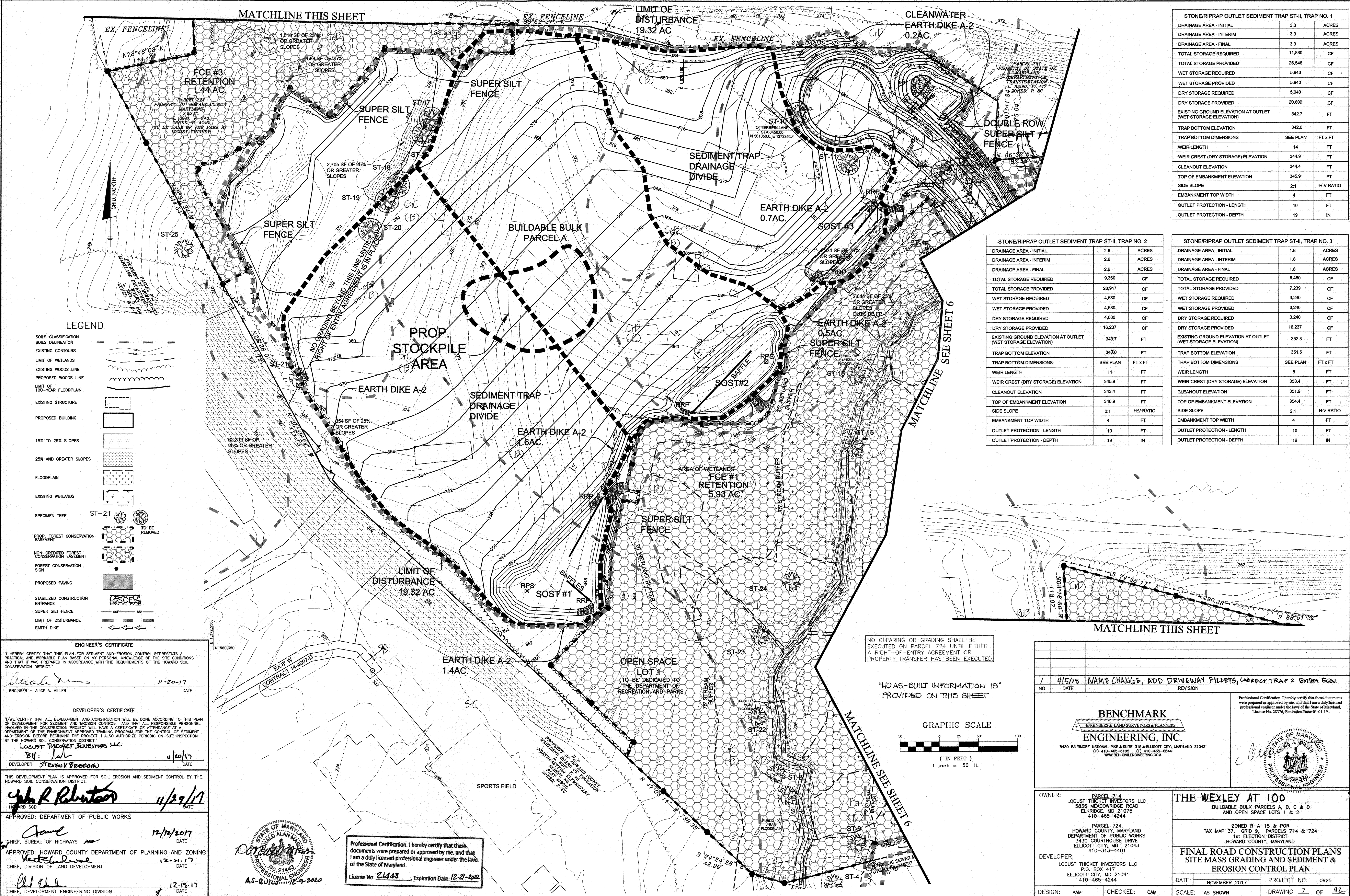
DEVELOPER: LOCUST THICKET INVESTORS LLC P.O. BOX 417 ELLICOTT CITY, MD 21041 410-465-4244

DESIGN: AAM CHECKED: CAM SCALE: AS SHOWN PROJECT NO. 0925 DRAWING 6 OF 42

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. 21443 Expiration Date: 12-21-2022



"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"



STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II, TRAP NO. 1		
DRAINAGE AREA - INITIAL	3.3	ACRES
DRAINAGE AREA - INTERIM	3.3	ACRES
DRAINAGE AREA - FINAL	3.3	ACRES
TOTAL STORAGE REQUIRED	11,880	CF
TOTAL STORAGE PROVIDED	26,546	CF
WET STORAGE REQUIRED	5,940	CF
WET STORAGE PROVIDED	5,940	CF
DRY STORAGE REQUIRED	5,940	CF
DRY STORAGE PROVIDED	20,606	CF
EXISTING GROUND ELEVATION AT OUTLET (WET STORAGE ELEVATION)	342.7	FT
TRAP BOTTOM ELEVATION	342.0	FT
TRAP BOTTOM DIMENSIONS	SEE PLAN	FT x FT
WEIR LENGTH	14	FT
WEIR CREST (DRY STORAGE) ELEVATION	344.9	FT
CLEANOUT ELEVATION	344.4	FT
TOP OF EMBANKMENT ELEVATION	345.9	FT
SIDE SLOPE	2:1	H:V RATIO
EMBANKMENT TOP WIDTH	4	FT
OUTLET PROTECTION - LENGTH	10	FT
OUTLET PROTECTION - DEPTH	19	IN

STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II, TRAP NO. 2		
DRAINAGE AREA - INITIAL	2.6	ACRES
DRAINAGE AREA - INTERIM	2.6	ACRES
DRAINAGE AREA - FINAL	2.6	ACRES
TOTAL STORAGE REQUIRED	9,360	CF
TOTAL STORAGE PROVIDED	20,917	CF
WET STORAGE REQUIRED	4,680	CF
WET STORAGE PROVIDED	4,680	CF
DRY STORAGE REQUIRED	4,680	CF
DRY STORAGE PROVIDED	16,237	CF
EXISTING GROUND ELEVATION AT OUTLET (WET STORAGE ELEVATION)	343.7	FT
TRAP BOTTOM ELEVATION	343.0	FT
TRAP BOTTOM DIMENSIONS	SEE PLAN	FT x FT
WEIR LENGTH	11	FT
WEIR CREST (DRY STORAGE) ELEVATION	345.9	FT
CLEANOUT ELEVATION	343.4	FT
TOP OF EMBANKMENT ELEVATION	346.9	FT
SIDE SLOPE	2:1	H:V RATIO
EMBANKMENT TOP WIDTH	4	FT
OUTLET PROTECTION - LENGTH	10	FT
OUTLET PROTECTION - DEPTH	19	IN

STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II, TRAP NO. 3		
DRAINAGE AREA - INITIAL	1.8	ACRES
DRAINAGE AREA - INTERIM	1.8	ACRES
DRAINAGE AREA - FINAL	1.8	ACRES
TOTAL STORAGE REQUIRED	6,480	CF
TOTAL STORAGE PROVIDED	7,239	CF
WET STORAGE REQUIRED	3,240	CF
WET STORAGE PROVIDED	3,240	CF
DRY STORAGE REQUIRED	3,240	CF
DRY STORAGE PROVIDED	16,237	CF
EXISTING GROUND ELEVATION AT OUTLET (WET STORAGE ELEVATION)	352.3	FT
TRAP BOTTOM ELEVATION	351.5	FT
TRAP BOTTOM DIMENSIONS	SEE PLAN	FT x FT
WEIR LENGTH	8	FT
WEIR CREST (DRY STORAGE) ELEVATION	353.4	FT
CLEANOUT ELEVATION	351.9	FT
TOP OF EMBANKMENT ELEVATION	354.4	FT
SIDE SLOPE	2:1	H:V RATIO
EMBANKMENT TOP WIDTH	4	FT
OUTLET PROTECTION - LENGTH	10	FT
OUTLET PROTECTION - DEPTH	19	IN

LEGEND

- SOILS CLASSIFICATION
- SOILS DELINEATION
- EXISTING CONTOURS
- LIMIT OF WETLANDS
- EXISTING WOODS LINE
- PROPOSED WOODS LINE
- LIMIT OF 100-YEAR FLOODPLAIN
- EXISTING STRUCTURE
- PROPOSED BUILDING
- 15% TO 25% SLOPES
- 25% AND GREATER SLOPES
- FLOODPLAIN
- EXISTING WETLANDS
- SPECIMEN TREE
- PROP. FOREST CONSERVATION EASEMENT
- NON-CREDITED FOREST CONSERVATION EASEMENT
- FOREST CONSERVATION SIGN
- PROPOSED PAVING
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- EARTH DIKE

ENGINEER'S CERTIFICATE
 I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 ALICE A. MILLER 11-20-17
 ENGINEER - ALICE A. MILLER DATE

DEVELOPER'S CERTIFICATE
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 STEVEN GREEN 11/20/17
 DEVELOPER STEVEN GREEN DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 JOHN R. ROBERTSON 11/29/17
 HOWARD SCD

APPROVED: DEPARTMENT OF PUBLIC WORKS
 JAMES 12/12/2017
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 VICTOR 12-21-17
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

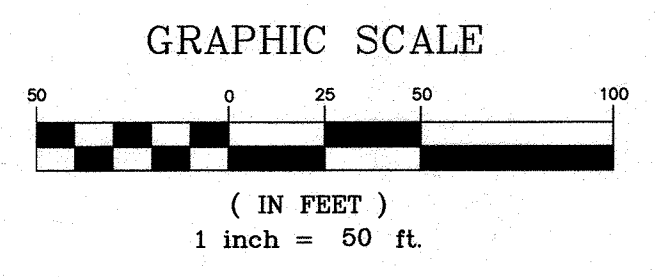
12-19-17
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

STATE OF MARYLAND
 HOWARD COUNTY
 HOWARD COUNTY PROFESSIONAL ENGINEER
 ALAN MANNING
 LICENSE NO. 21443
 EXPIRES 12-29-2020

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. 21443 Expiration Date: 12-21-2022

NO CLEARING OR GRADING SHALL BE EXECUTED ON PARCEL 724 UNTIL EITHER A RIGHT-OF-ENTRY AGREEMENT OR PROPERTY TRANSFER HAS BEEN EXECUTED.

"NO AS-BUILT INFORMATION IS" PROVIDED ON THIS SHEET



BENCHMARK ENGINEERING, INC.
 ENGINEERS & LAND SURVEYORS & PLANNERS
 8490 BALTIMORE NATIONAL PIKE & SUITE 315 A ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-6105 (F) 410-465-8644
 WWW.BE-ONLINEENGINEERING.COM

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. 28376, Expiration Date: 01-01-19.

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 ALICE A. MILLER
 LICENSE NO. 28376
 EXPIRES 01-01-19

OWNER: PARCEL 714
 LOCUST THicket INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKRIE, MD 21075
 410-465-4244

PARCEL 724
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 3430 COURTHOUSE DRIVE
 ELLICOTT CITY, MD 21043
 410-313-4401

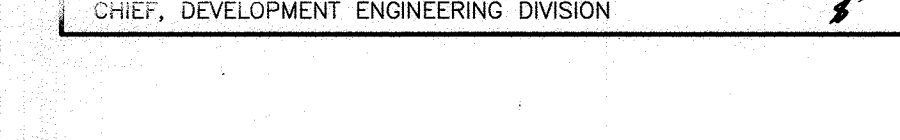
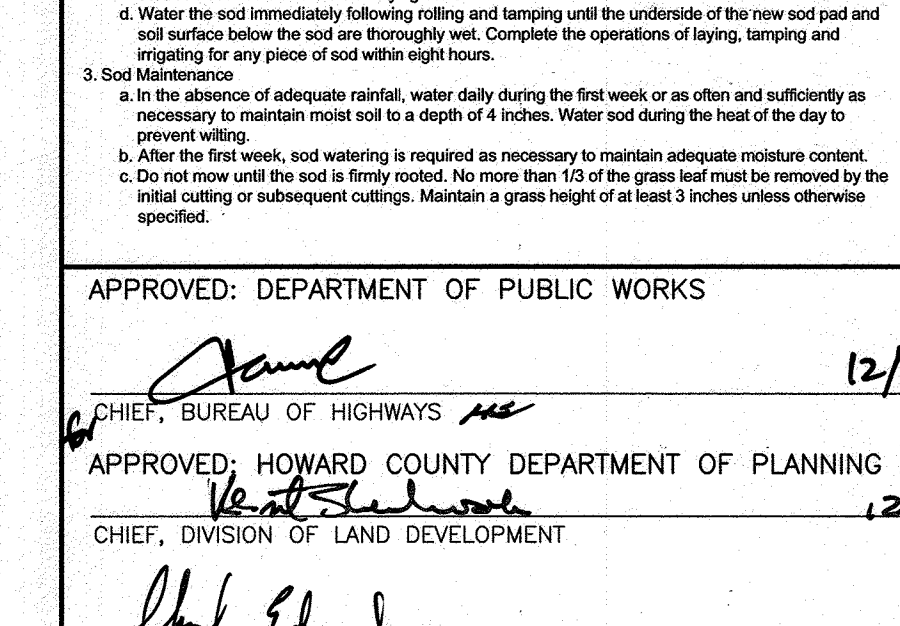
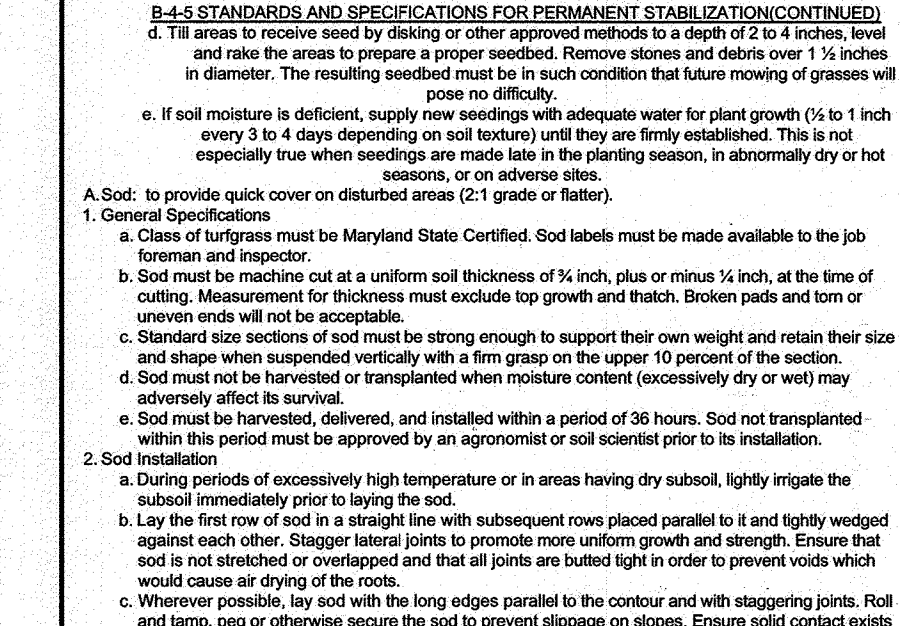
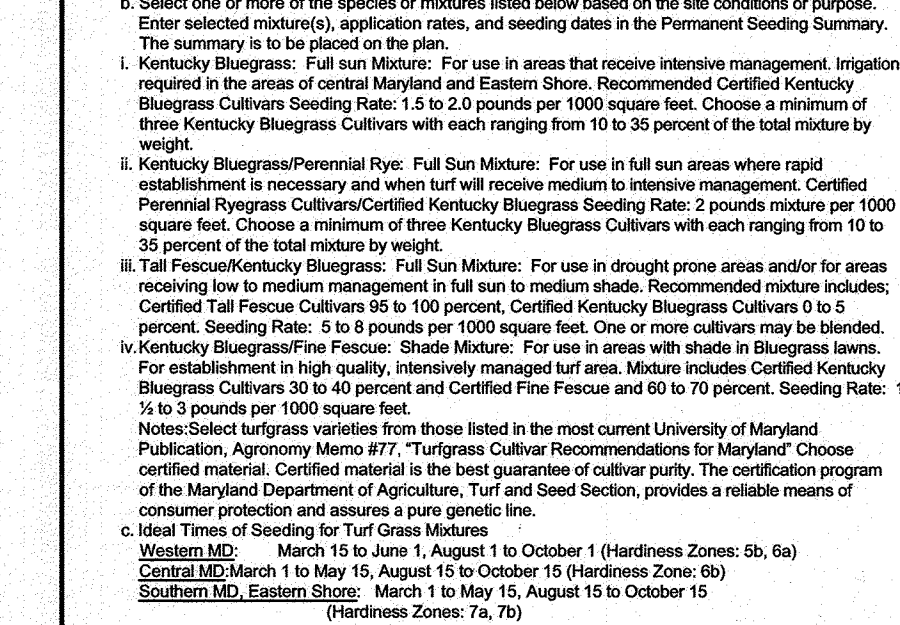
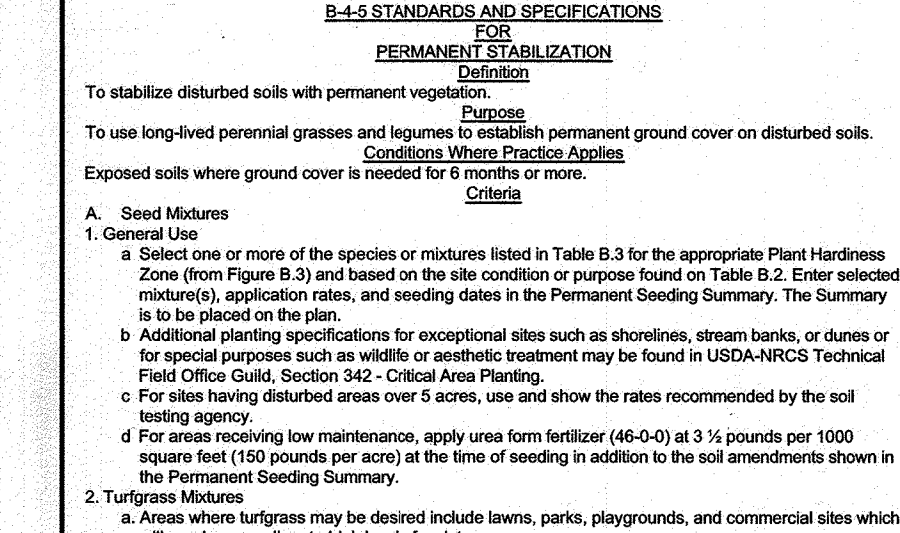
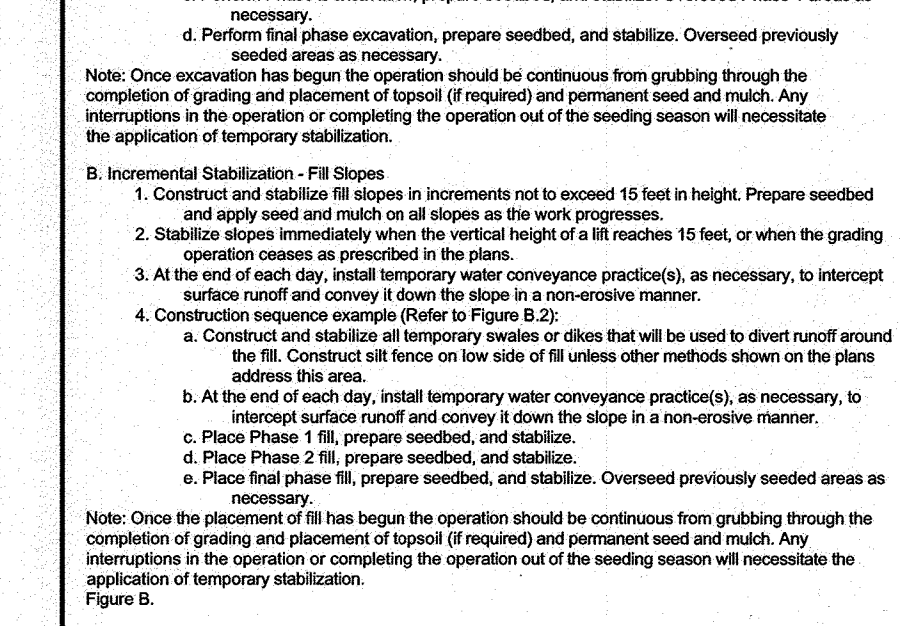
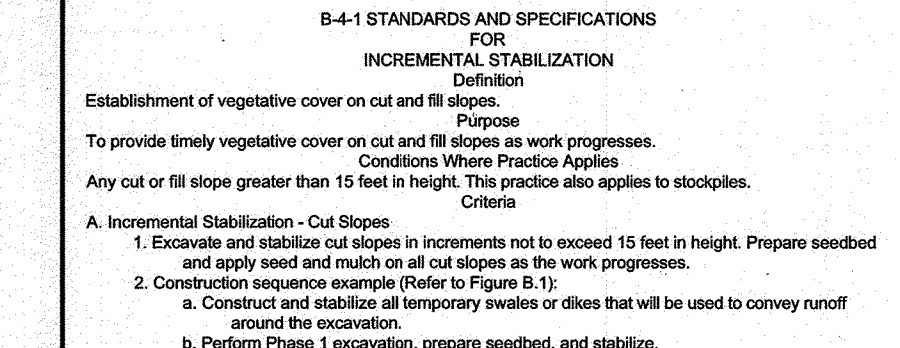
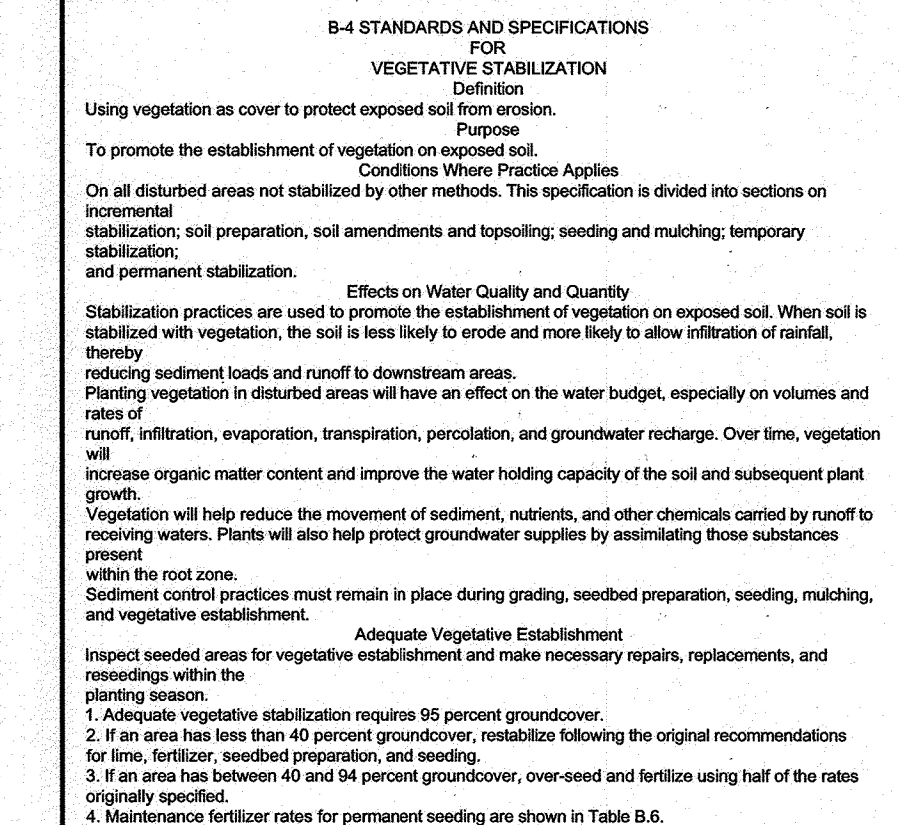
DEVELOPER:
 LOCUST THicket INVESTORS LLC
 P.O. BOX 417
 ELLICOTT CITY, MD 21041
 410-465-4244

THE WEXLEY AT 100
 BUILDABLE BULK PARCELS A, B, C & D
 AND OPEN SPACE LOTS 1 & 2

ZONED R-A-15 & POR
 TAX MAP 37, GRID 9, PARCELS 714 & 724
 1st ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

FINAL ROAD CONSTRUCTION PLANS
 SITE MASS GRADING AND SEDIMENT & EROSION CONTROL PLAN

DATE: NOVEMBER 2017 PROJECT NO. 0925
 DESIGN: AMM CHECKED: CAM SCALE: AS SHOWN DRAWING 7 OF 42



B-4 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

VEGETATIVE STABILIZATION

Using vegetation on a slope to protect exposed soil from erosion.

Purpose
To stabilize 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, 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 prevent the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is more likely to erode and more likely to allow infiltration of rainfall, thereby increasing sediment loads and runoff to downstream areas.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on annual, temporary, 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, seeded preparation, seeding, mulching, and vegetative establishment.

Adoptive 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 groundcover.
2. An area has less than 40 percent groundcover, reestablish following the original recommendations for seeding, mulching, and soil preparation.
3. If an area has less than 40 percent groundcover, over-seed and fertilize using half of the rates specified in this section.
4. Maintenance fertilizer rates for permanent seeding are shown in Table B.4.

B-4-1 STANDARDS AND SPECIFICATIONS FOR INCREMENTAL STABILIZATION

Definition
Establishment of vegetative cover on cut and fill slopes.

Purpose
To provide vegetative cover on cut and fill slopes as work progresses.

Conditions Where Practice Applies
Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

Incremental Stabilization - Cut Slopes
1. SEEDING: Seeding of 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. CONSTRUCTION: Construct and stabilize all temporary excavations or dikes that will be used to convey runoff around the excavation.
3. PERMANENT: Permanent seeding, seedbed, and stabilize.
4. PERFORM FINAL PHASE EXCAVATION, prepare seedbed, and stabilize. Overseed Previous areas as necessary.
5. Perform final phase excavation, prepare seedbed, and stabilize. Overseed Previous areas as necessary.

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of final 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.

Incremental Stabilization - Fill Slopes
1. SEEDING: Seeding of 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. CONSTRUCTION: Stabilize slopes immediately when the vertical height of a slope is 15 feet, or when the grading operation ceases and mulch is placed on the work.
3. IN PLACE: In place (in-situ) vegetative practices, as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
4. CONSTRUCTION: Excavation example (Figure B.2-2).
5. CONSTRUCTION: Active stabilization practices that will be used to divert runoff from the fill. Construct fill force on low side of the fill or other methods shown on the plans and approved by the engineer.

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.

a. Place Phase 1 fill, prepare seedbed, and stabilize.
b. Place Phase 2 fill, prepare seedbed, and stabilize.
c. Place Phase 3 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 final 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 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

Definition
To stabilize disturbed soils with permanent vegetative cover.

Conditions Where Practice Applies
Exposed soils where ground cover is needed for 6 months or more.

Seed Mixtures
1. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone. For areas based on the site location or zones found on Table B.3, Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plans.
2. For areas where the seed mixture is to be placed on a slope, enter the slope angle and the seed mixture to be placed on the slope in the Permanent Seeding Summary.
3. For areas where the seed mixture is to be placed on a slope, enter the slope angle and the seed mixture to be placed on the slope in the Permanent Seeding Summary.
4. For areas where the seed mixture is to be placed on a slope, enter the slope angle and the seed mixture to be placed on the slope in the Permanent Seeding Summary.

Additional planting specifications for exceptional sites such as shorelines, stream banks, or areas of special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Reference Manual, Section 342 - Critical Area Planting.

For sites having disturbed areas over 5 acres, use and show the rates recommended in the Permanent Seeding Summary.

Turfgrass
1. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a moderate to high level of maintenance.
2. 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 plans.
3. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive maintenance, irrigation required in the areas of high maintenance and summer months. Kentucky Bluegrass Seedling Rate: 1.5 to 2.0 pounds per 1000 square feet.
4. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive maintenance, irrigation required in the areas of high maintenance and summer months. Kentucky Bluegrass Seedling Rate: 1.5 to 2.0 pounds per 1000 square feet.
5. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive maintenance, irrigation required in the areas of high maintenance and summer months. Kentucky Bluegrass Seedling Rate: 1.5 to 2.0 pounds per 1000 square feet.

B-4-3 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

Definition
To stabilize disturbed soils with temporary vegetative cover.

Conditions Where Practice Applies
Exposed soils where ground cover is needed for 6 months or less.

Seed Mixtures
1. Select one or more of the species or seed mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone. For areas based on the site location or zones found on Table B.3, Enter selected mixture(s), application rates, and seeding dates in the Temporary Seeding Summary. The Summary is to be placed on the plans.
2. For areas where the seed mixture is to be placed on a slope, enter the slope angle and the seed mixture to be placed on the slope in the Temporary Seeding Summary.
3. For areas where the seed mixture is to be placed on a slope, enter the slope angle and the seed mixture to be placed on the slope in the Temporary Seeding Summary.
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Additional planting specifications for exceptional sites such as shorelines, stream banks, or areas of special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Reference Manual, Section 342 - Critical Area Planting.

For sites having disturbed areas over 5 acres, use and show the rates recommended in the Temporary Seeding Summary.

Turfgrass
1. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a moderate to high level of maintenance.
2. 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 Temporary Seeding Summary. The Summary is to be placed on the plans.
3. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive maintenance, irrigation required in the areas of high maintenance and summer months. Kentucky Bluegrass Seedling Rate: 1.5 to 2.0 pounds per 1000 square feet.
4. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive maintenance, irrigation required in the areas of high maintenance and summer months. Kentucky Bluegrass Seedling Rate: 1.5 to 2.0 pounds per 1000 square feet.
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B-4-4 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION (CONTINUED)

Definition
To stabilize disturbed soils with permanent vegetative cover.

Conditions Where Practice Applies
Exposed soils where ground cover is needed for 6 months or more.

Seed Mixtures
1. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone. For areas based on the site location or zones found on Table B.3, Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plans.
2. For areas where the seed mixture is to be placed on a slope, enter the slope angle and the seed mixture to be placed on the slope in the Permanent Seeding Summary.
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Additional planting specifications for exceptional sites such as shorelines, stream banks, or areas of special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Reference Manual, Section 342 - Critical Area Planting.

For sites having disturbed areas over 5 acres, use and show the rates recommended in the Permanent Seeding Summary.

Turfgrass
1. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a moderate to high level of maintenance.
2. 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 plans.
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B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION (CONTINUED)

Definition
To stabilize disturbed soils with permanent vegetative cover.

Conditions Where Practice Applies
Exposed soils where ground cover is needed for 6 months or more.

Seed Mixtures
1. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone. For areas based on the site location or zones found on Table B.3, Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plans.
2. For areas where the seed mixture is to be placed on a slope, enter the slope angle and the seed mixture to be placed on the slope in the Permanent Seeding Summary.
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B-4-6 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION (CONTINUED)

Definition
To stabilize disturbed soils with permanent vegetative cover.

Conditions Where Practice Applies
Exposed soils where ground cover is needed for 6 months or more.

Seed Mixtures
1. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone. For areas based on the site location or zones found on Table B.3, Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plans.
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B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

Definition
The application of seed and mulch to establish vegetative cover.

Conditions Where Practice Applies
To protect disturbed soils from erosion during and at the end of construction.

Seeding and Mulching
1. Seeding: The application of seed to establish vegetative cover. 2. Mulching: The application of mulch to establish vegetative cover.

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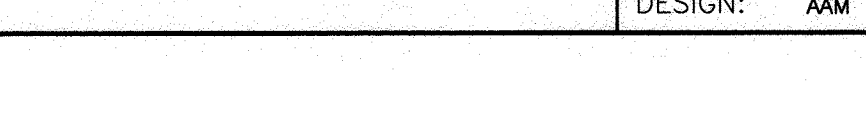
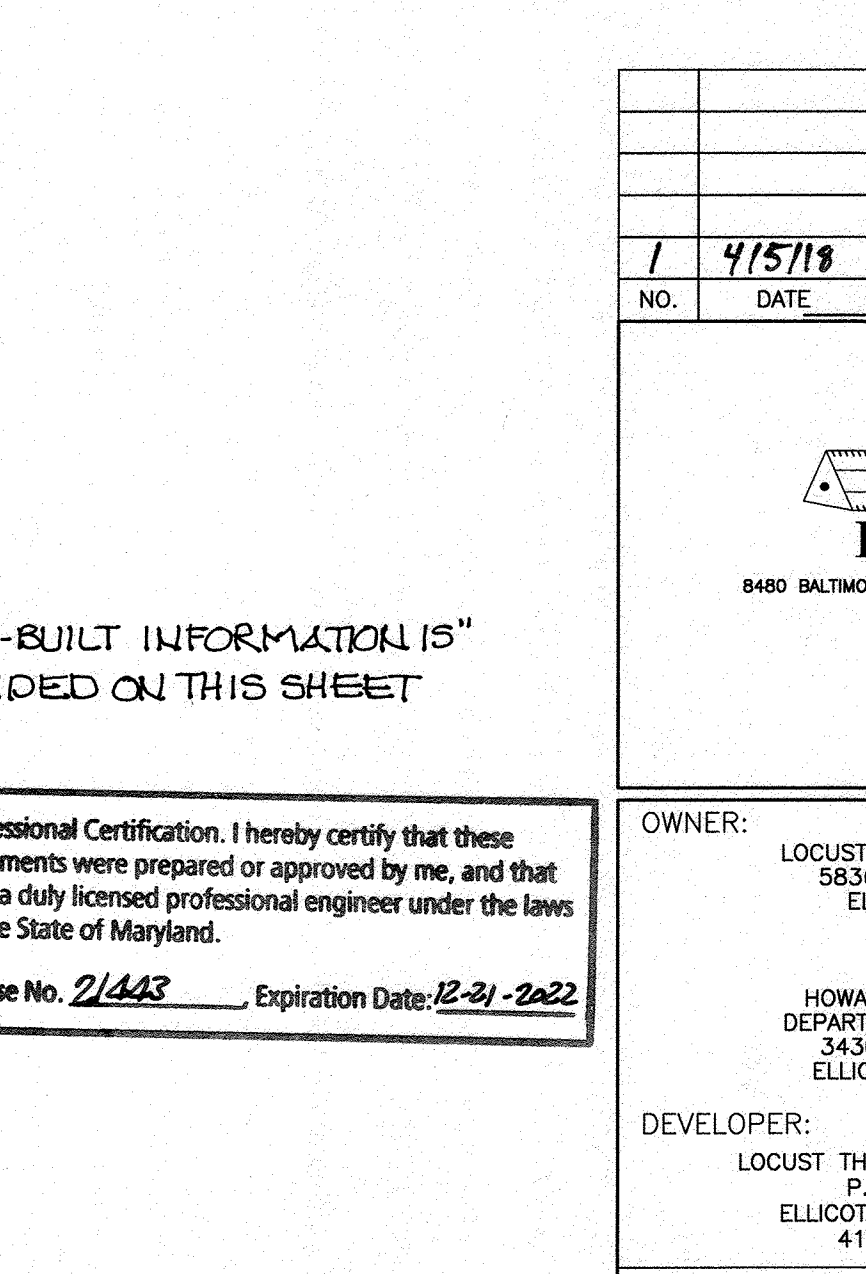
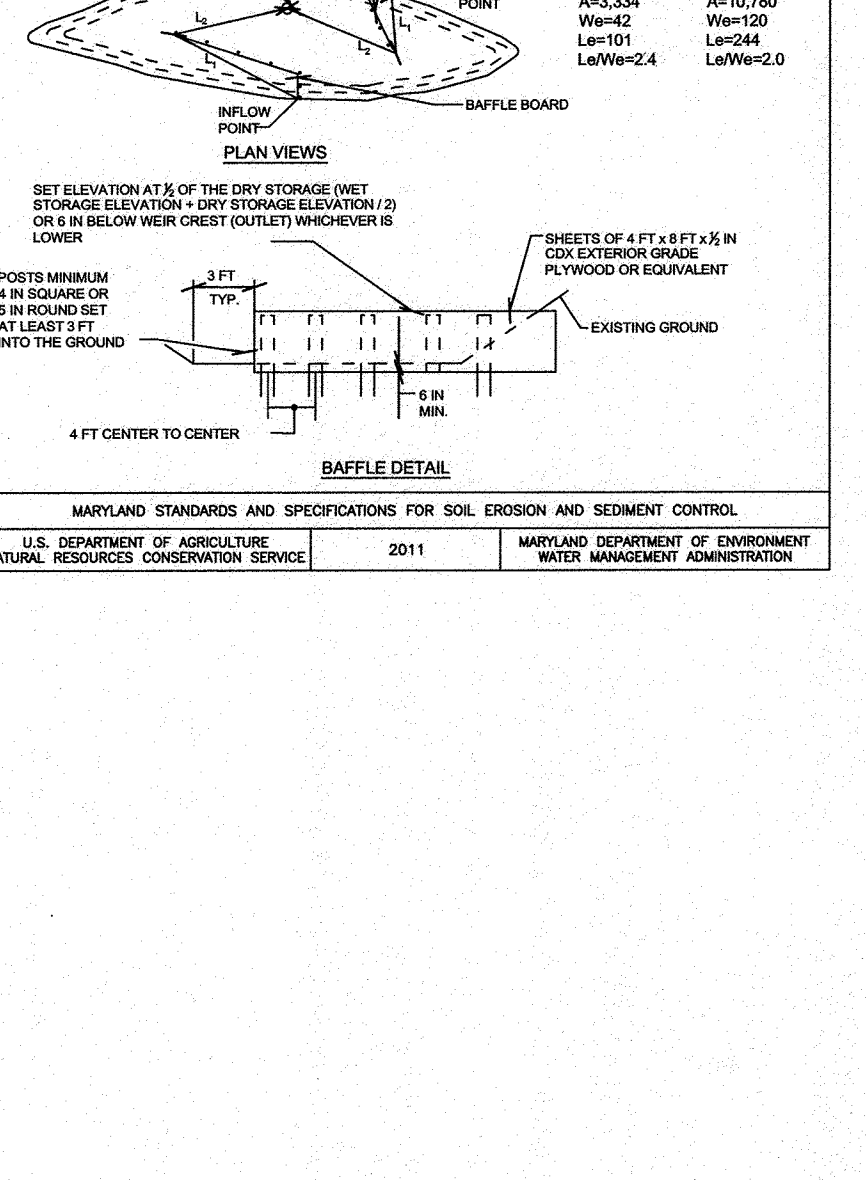
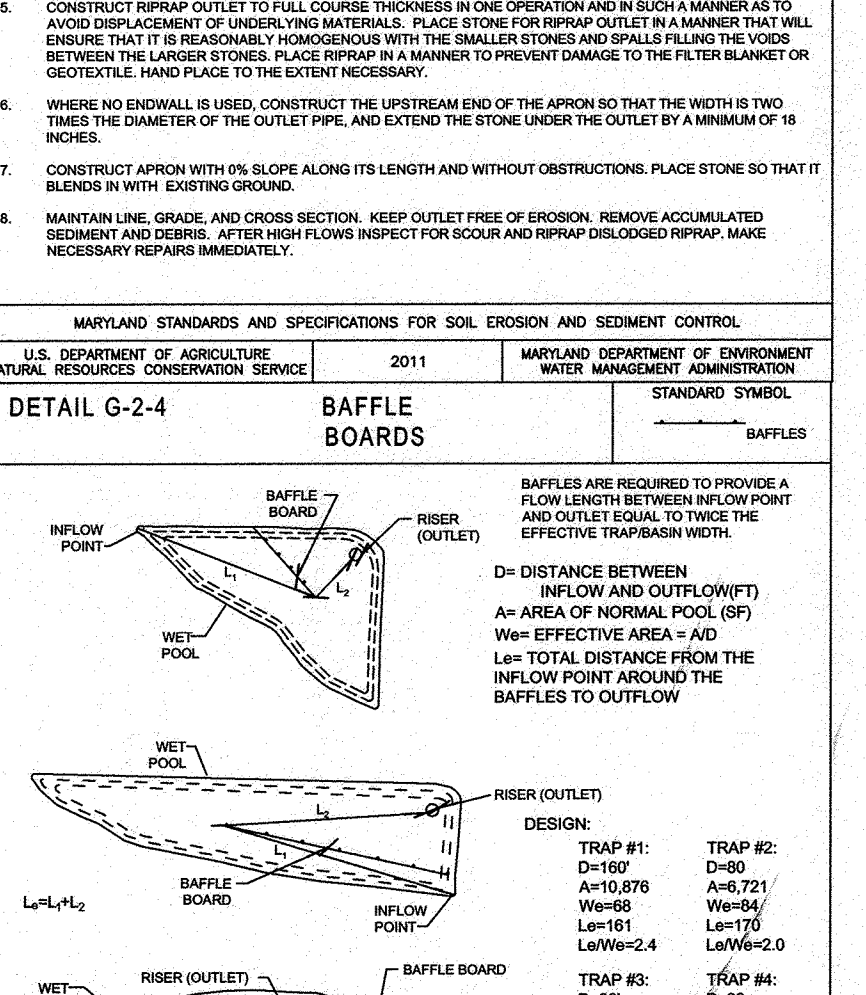
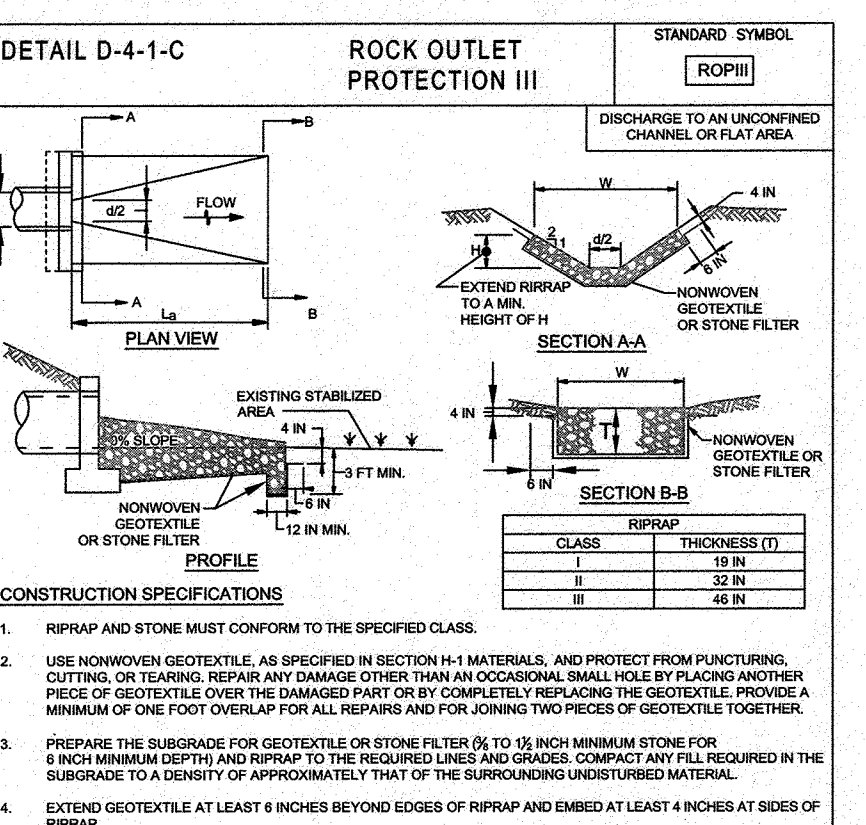
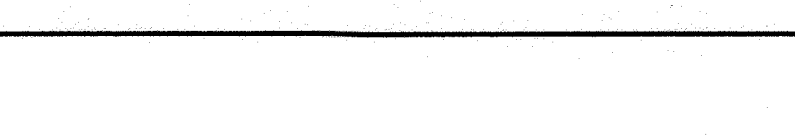
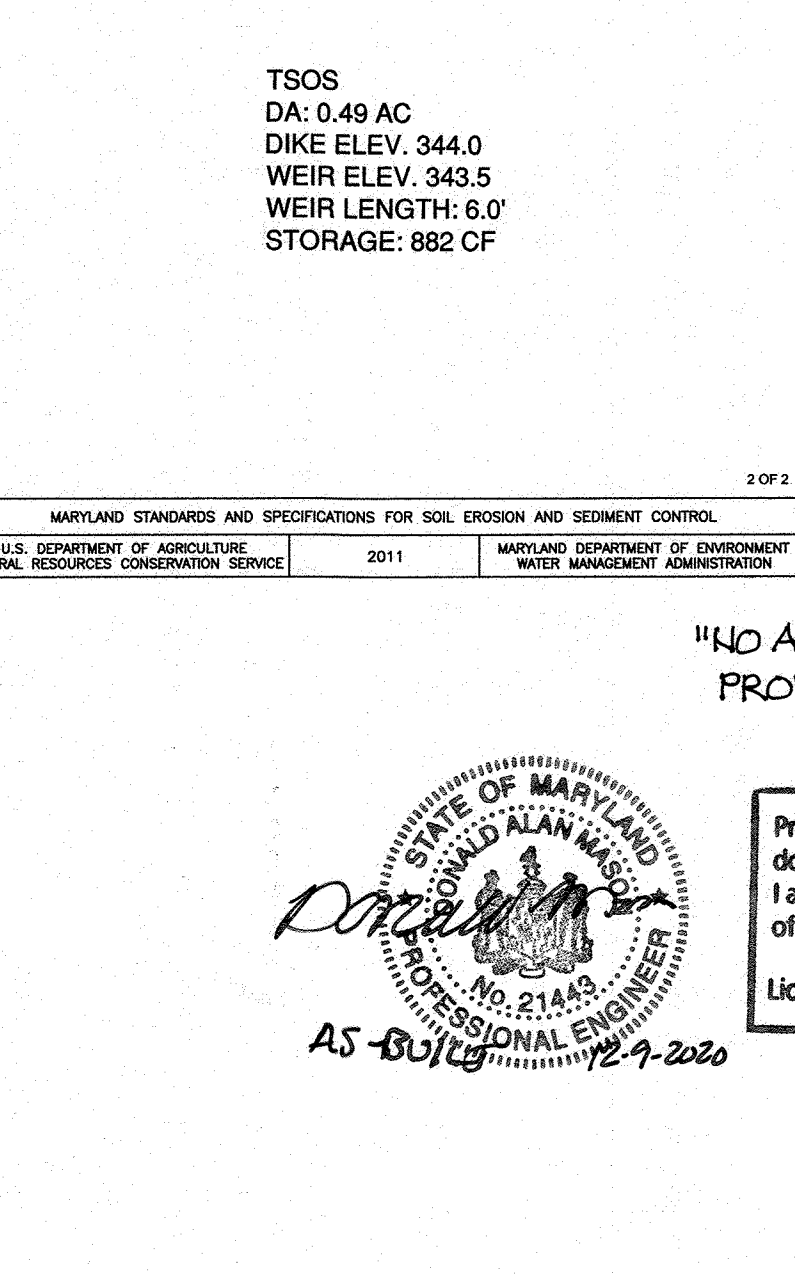
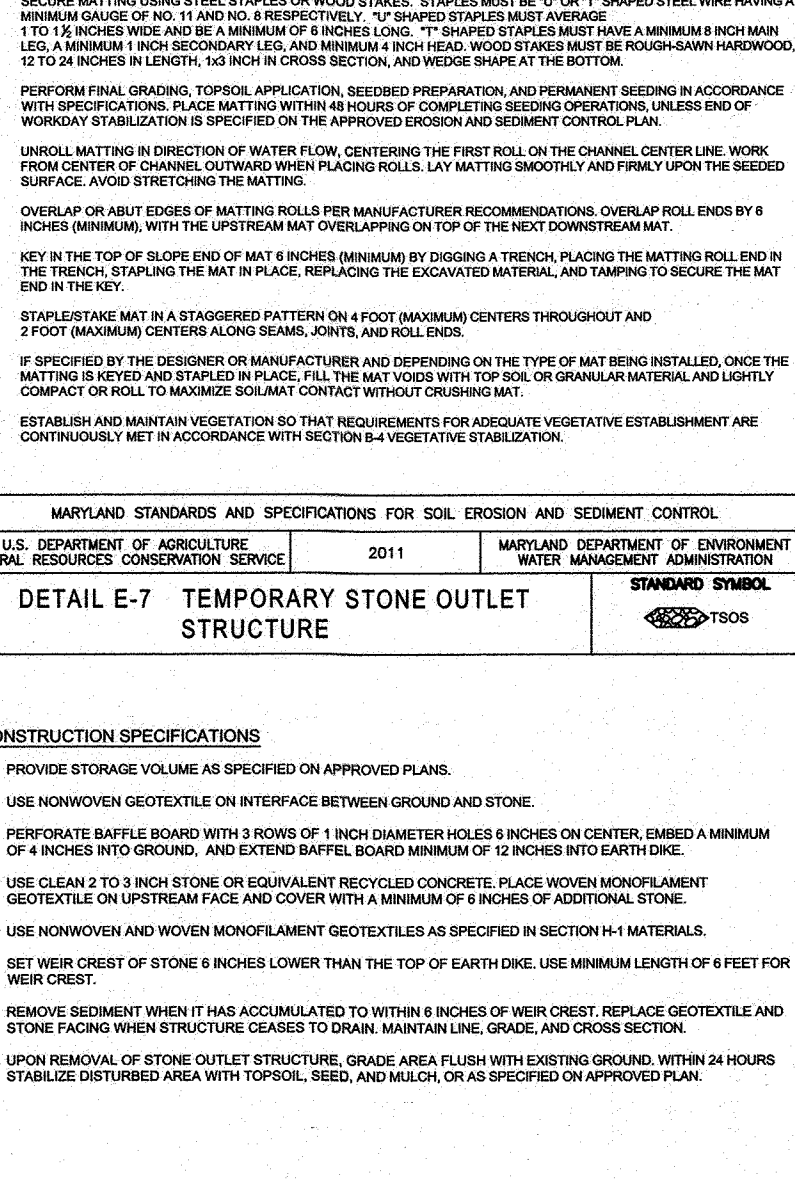
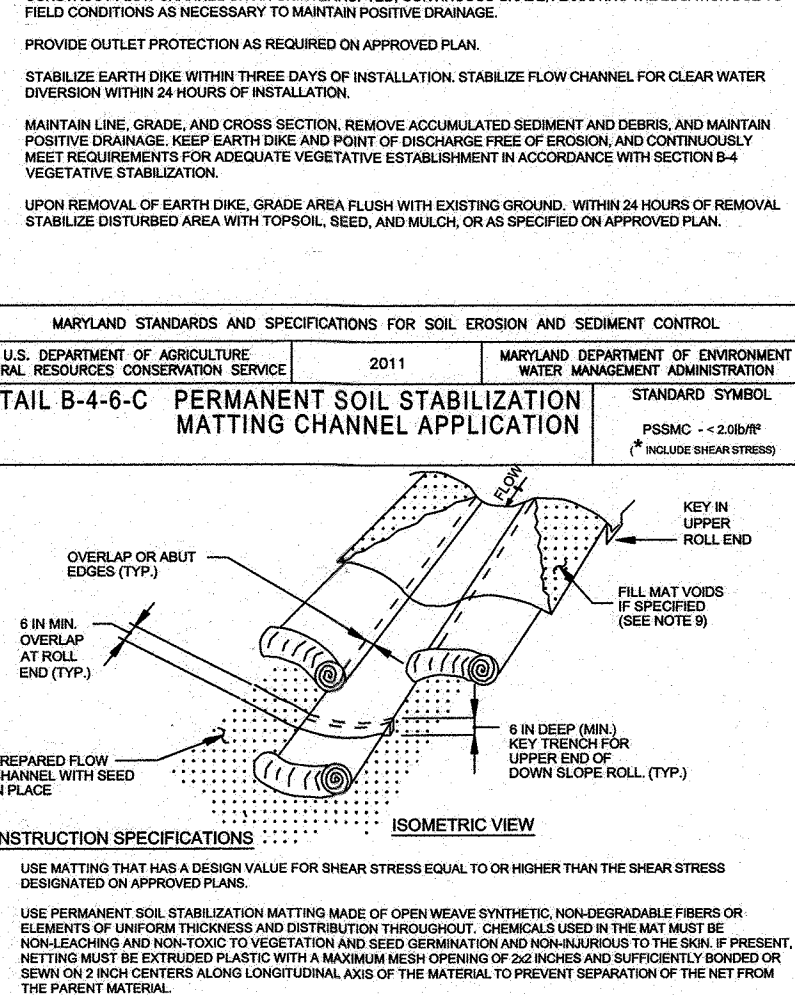
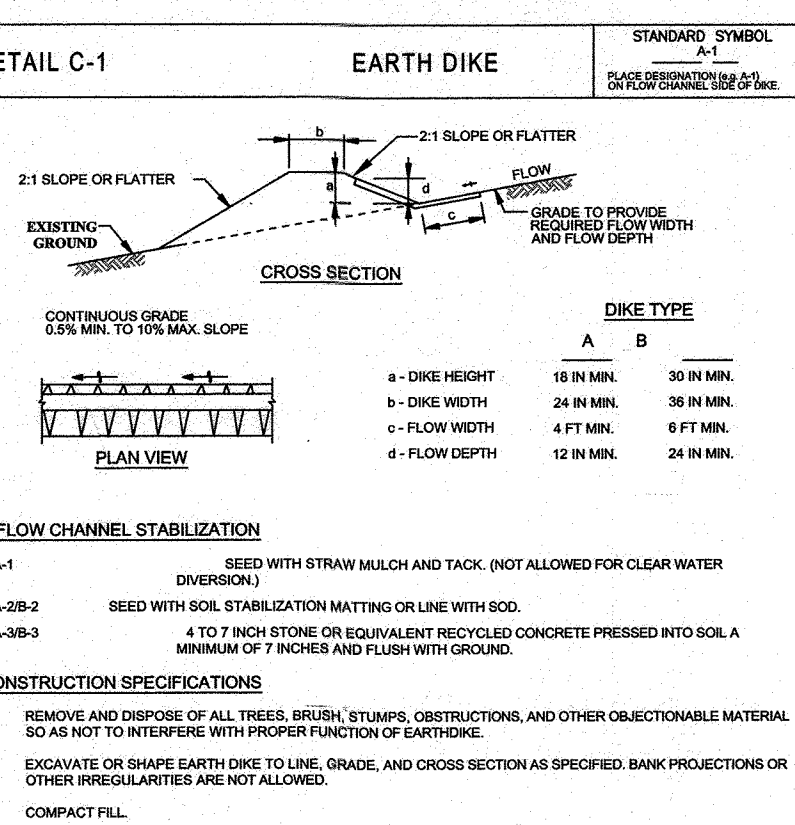
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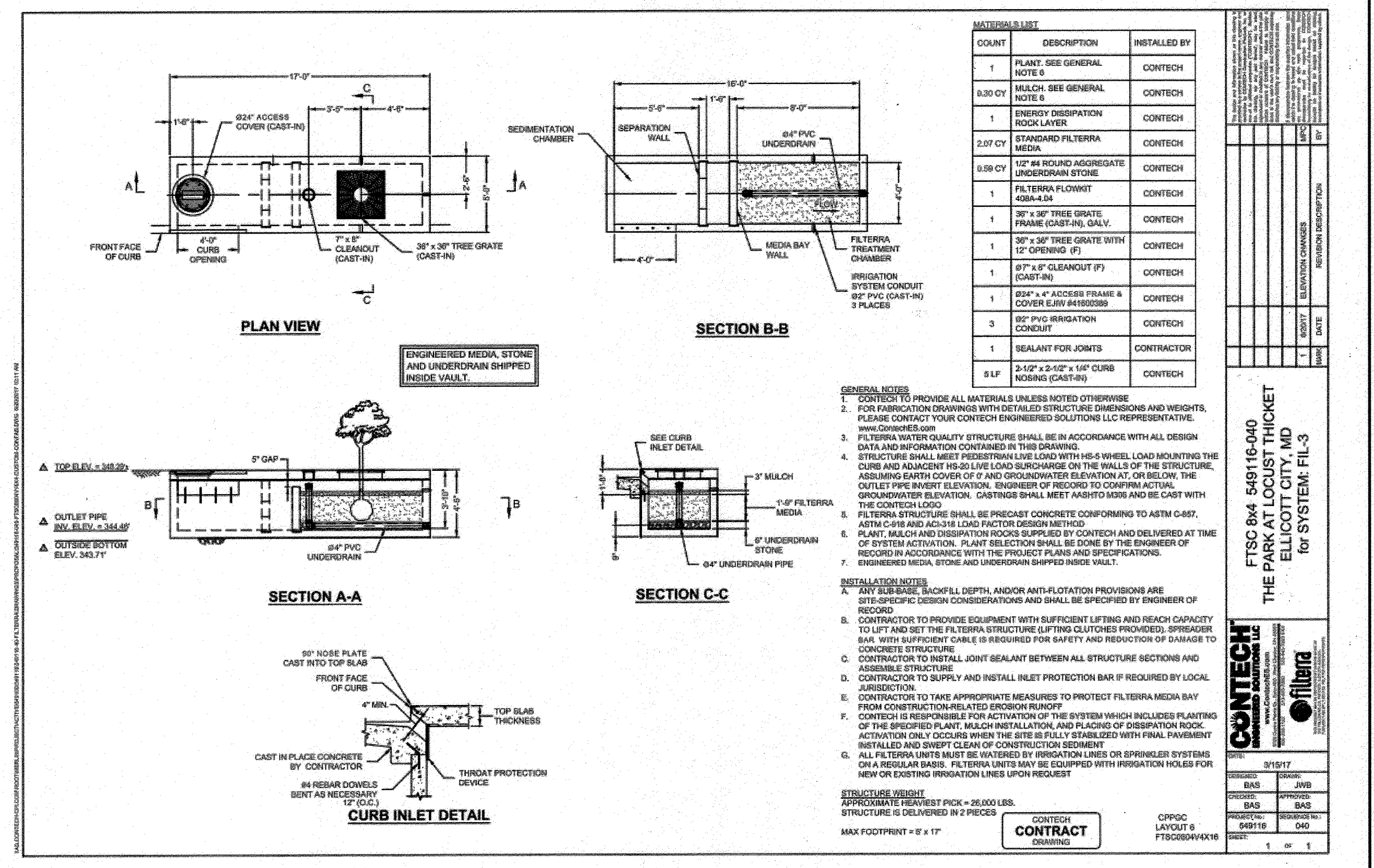
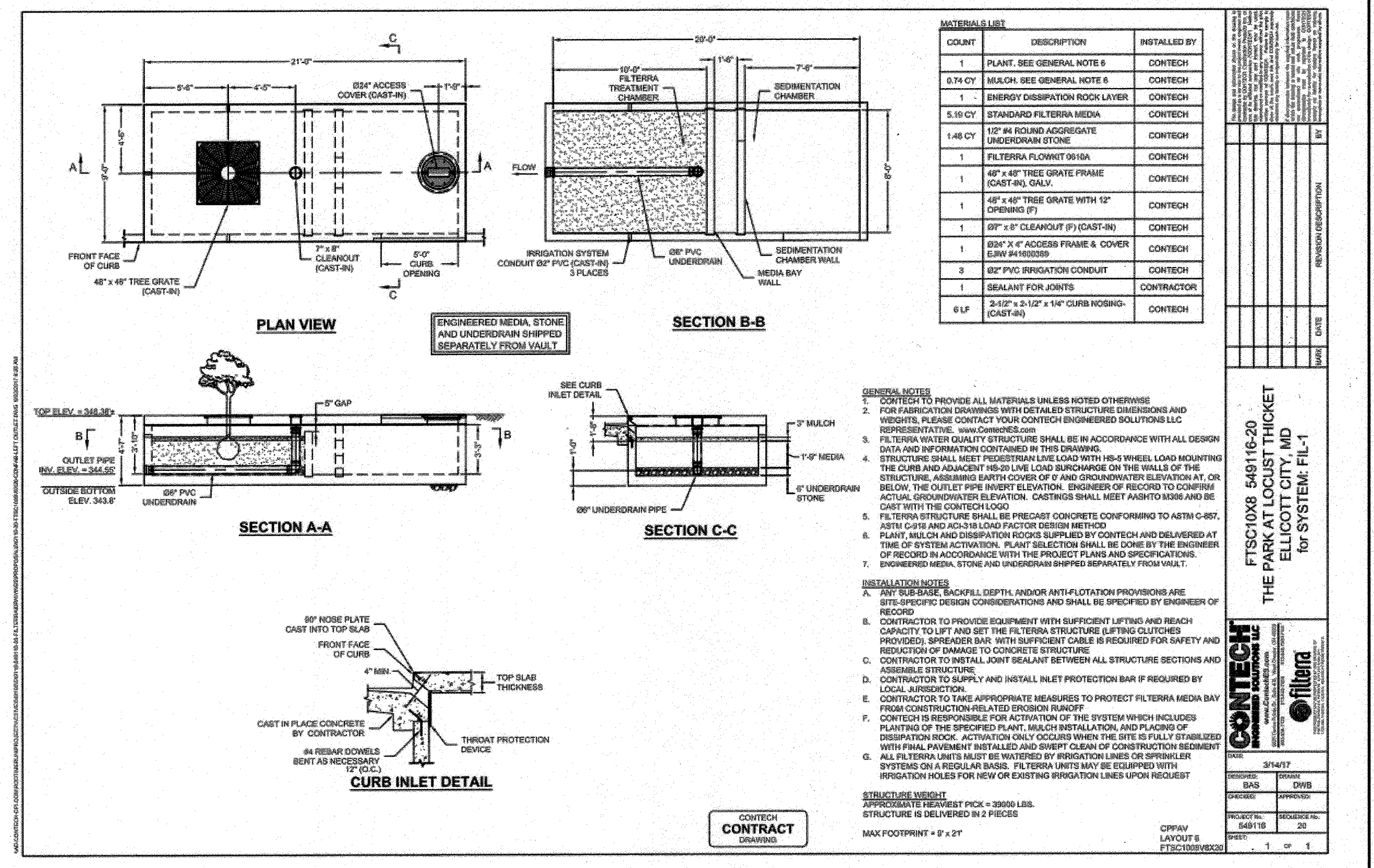


STANDARD SEDIMENT CONTROL NOTES

- A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 4110-313-1855 AFTER THE FUTURE LOD AND PROTECTED TO THE START OF EARTH DISTURBANCE. THIS MEETING MUST BE ATTENDED BY THE CONTRACTOR AND THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, THE CONTRACTOR SHALL CONTACT THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS TO OBTAIN APPROVAL OF ANOTHER GRADING UNIT.
- PRIOIR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. APPROVAL BY THE INSPECTION DIVISION IS MADE, OTHER RELATED STATE AND FEDERAL PERMITS MUST BE OBTAINED TO ENSURE COORDINATION AND COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND STANDARDS. 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 ALL SLOPES SHALL BE MAINTAINED AT A MINIMUM OF 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 OR CONSTRUCTION.
- 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. TEMPORARY STABILIZATION WITH MULCH ALONE AND PROTECTIVE COVERING SHALL BE USED TO STABILIZE AREAS WHERE THE DISTURBED AREA IS NOT TO BE REGRADED OR RECONSTRUCTED. MULCH SHALL BE APPLIED TO THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. TEMPORARY STABILIZATION SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. MULCH SHALL BE REPLACED AS NEEDED TO MAINTAIN A MINIMUM OF 3 HORIZONTAL TO 1 VERTICAL (3:1) SLOPES. MULCH SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. MULCH SHALL BE REPLACED AS NEEDED TO MAINTAIN A MINIMUM OF 3 HORIZONTAL TO 1 VERTICAL (3:1) SLOPES. MULCH SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. MULCH SHALL BE REPLACED AS NEEDED TO MAINTAIN A MINIMUM OF 3 HORIZONTAL TO 1 VERTICAL (3:1) SLOPES.
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LEGEND

- SOILS CLASSIFICATION
- SOILS DELINEATION
- EXISTING CONTOURS
- LIMIT OF WETLANDS
- EXISTING WOODS LINE
- PROPOSED WOODS LINE
- LIMIT OF 100-YEAR FLOODPLAIN
- EXISTING STRUCTURE
- PROPOSED BUILDING
- 15% TO 25% SLOPES
- 25% AND GREATER SLOPES
- FLOODPLAIN
- EXISTING WETLANDS
- SPECIMEN TREE
- PROP. FOREST CONSERVATION EASEMENT
- NON-CREDITED FOREST CONSERVATION EASEMENT
- FOREST CONSERVATION SIGN
- PROPOSED PAVING



AS-BUILT CERTIFICATION
I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications

Donald Mason, P.E. Date: 12-9-2020

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.

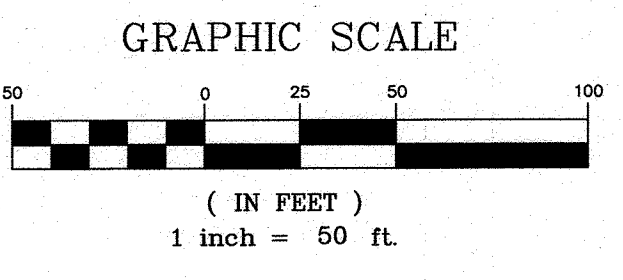
License No. 21443 Expiration Date: 12-21-2022

NO.	DATE	REVISION
1	4/5/18	NAME CHANGE, SG10-1 REVISED, SHA R/W, ADD D.W. FILLETS

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. 28376, Expiration Date: 01-01-19.

BENCHMARK ENGINEERS, INC.
8450 BALTIMORE NATIONAL PIKE & SUITE 315 4 ELLICOTT CITY, MARYLAND 21043
(P) 410-465-8105 (F) 410-465-8844
WWW.BE-CIVILENGINEERING.COM

APPROVED: DEPARTMENT OF PUBLIC WORKS
12/12/2017 DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
12/21/17 DATE
12-19-17 DATE



GRADING SHOWN ON THIS PLAN IS FUTURE GRADING AND IS PROVIDED FOR REFERENCE. FINAL GRADING FOR THIS PHASE OF THE PROJECT IS SHOWN ON SHEET 6.

OWNER: PARCEL 714 LOCUST THICKET INVESTORS LLC 5836 MEADOWRIDGE ROAD ELKDRIDGE, MD 21075 410-465-4244

PARCEL 724 HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS 3430 COURTHOUSE DRIVE ELLICOTT CITY, MD 21043 410-313-4401

DEVELOPER: LOCUST THICKET INVESTORS LLC P.O. BOX 417 ELLICOTT CITY, MD 21041 410-465-4244

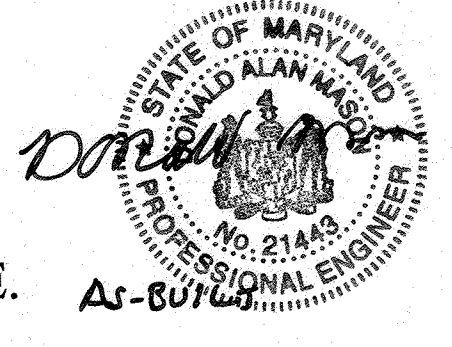
THE WEXLEY AT 100
BUILDABLE BULK PARCELS A, B, C, & D AND OPEN SPACE LOTS 1 & 2

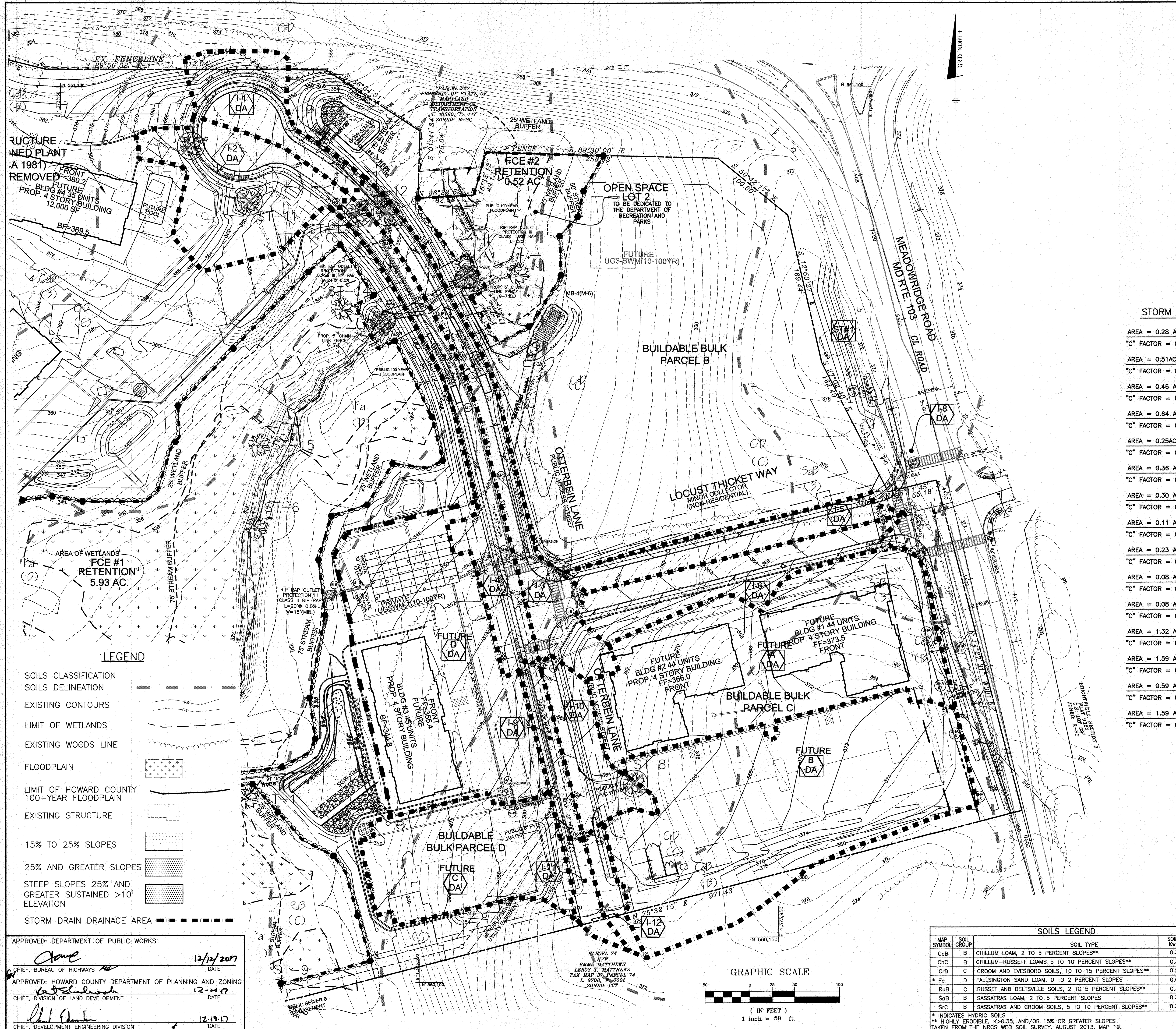
ZONED R-A-15 & POR 1st ELECTION DISTRICT 3430 COURTHOUSE DRIVE HOWARD COUNTY, MARYLAND TAX MAP 37, GRID 9, PARCELS 714 & 724

FINAL ROAD CONSTRUCTION PLANS
ULTIMATE SITE GRADING PLAN

DATE: NOVEMBER 2017 PROJECT NO. 0925

DESIGN: AMM CHECKED: CAM SCALE: AS SHOWN DRAWING 9 OF 42

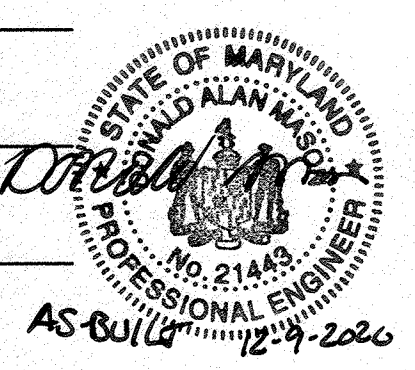




STORM DRAINAGE AREA DATA

AREA = 0.28 AC	1-1	ZONE = R-A-15
"C" FACTOR = 0.51		IMPERVIOUS = 48%
AREA = 0.51 AC	1-2	ZONE = R-A-15
"C" FACTOR = 0.51		IMPERVIOUS = 48%
AREA = 0.46 AC	1-3	ZONE = R-A-15
"C" FACTOR = 0.64		IMPERVIOUS = 67%
AREA = 0.64 AC	1-4	ZONE = R-A-15
"C" FACTOR = 0.71		IMPERVIOUS = 76%
AREA = 0.25 AC	1-5	ZONE = R-A-15
"C" FACTOR = 0.72		IMPERVIOUS = 79%
AREA = 0.36 AC	1-6	ZONE = R-A-15
"C" FACTOR = 0.64		IMPERVIOUS = 67%
AREA = 0.30 AC	1-7	ZONE = R-A-15
"C" FACTOR = 0.57		IMPERVIOUS = 57%
AREA = 0.11 AC	1-9	ZONE = R-A-15
"C" FACTOR = 0.71		IMPERVIOUS = 78%
AREA = 0.23 AC	1-10	ZONE = R-A-15
"C" FACTOR = 0.58		IMPERVIOUS = 57%
AREA = 0.08 AC	1-11	ZONE = R-A-15
"C" FACTOR = 0.55		IMPERVIOUS = 55%
AREA = 0.08 AC	1-12	ZONE = R-A-15
"C" FACTOR = 0.54		IMPERVIOUS = 54%
AREA = 1.32 AC	A	ZONE = R-A-15
"C" FACTOR = 0.49		IMPERVIOUS = 46%
AREA = 1.59 AC	B	ZONE = R-A-15
"C" FACTOR = 0.58		IMPERVIOUS = 60%
AREA = 0.59 AC	C	ZONE = R-A-15
"C" FACTOR = 0.79		IMPERVIOUS = 89%
AREA = 1.59 AC	D	ZONE = R-A-15
"C" FACTOR = 0.80		IMPERVIOUS = 92%

"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"



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. 21443 Expiration Date: 12-21-2022

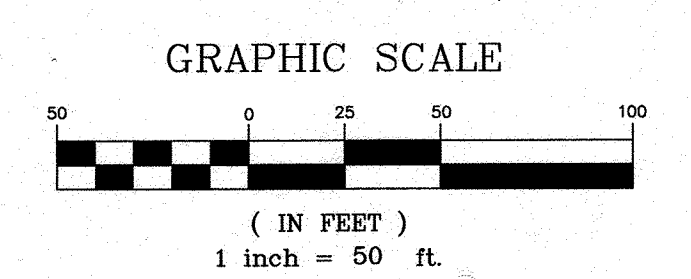
LEGEND

- SOILS CLASSIFICATION
- SOILS DELINEATION
- EXISTING CONTOURS
- LIMIT OF WETLANDS
- EXISTING WOODS LINE
- FLOODPLAIN
- LIMIT OF HOWARD COUNTY 100-YEAR FLOODPLAIN
- EXISTING STRUCTURE
- 15% TO 25% SLOPES
- 25% AND GREATER SLOPES
- STEEP SLOPES 25% AND GREATER SUSTAINED >10' ELEVATION
- STORM DRAIN DRAINAGE AREA

APPROVED: DEPARTMENT OF PUBLIC WORKS
 DATE: 12/12/2017
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DATE: 12-11-17
 CHIEF, DIVISION OF LAND DEVELOPMENT

DATE: 12-19-17
 CHIEF, DEVELOPMENT ENGINEERING DIVISION



MAP SYMBOL	SOIL GROUP	SOIL TYPE	SOIL KW
CeB	B	CHILLUM LOAM, 2 TO 5 PERCENT SLOPES**	0.37
ChC	B	CHILLUM-RUSSETT LOAMS 5 TO 10 PERCENT SLOPES**	0.37
CrD	C	CROOM AND EVESBORO SOILS, 10 TO 15 PERCENT SLOPES**	0.28
* Fo	D	FALLSINGTON SAND LOAM, 0 TO 2 PERCENT SLOPES	0.02
RuB	C	RUSSETT AND BELTSVILLE SOILS, 2 TO 5 PERCENT SLOPES**	0.37
SoB	B	SASSAFRAS LOAM, 2 TO 5 PERCENT SLOPES	0.37
SrC	B	SASSAFRAS AND CROOM SOILS, 5 TO 10 PERCENT SLOPES**	0.37

* INDICATES HYDRIC SOILS
 ** HIGHLY ERODIBLE, K>0.35, AND/OR 15% OR GREATER SLOPES
 TAKEN FROM THE NRCS WEB SOIL SURVEY, AUGUST 2013, MAP 19.

NO.	DATE	REVISION
1	9/15/19	NAME CHANGE, SGW1 REVISED, SHA ROW REVISED, REVISED O.W. FILLETS

BENCHMARK ENGINEERING, INC.
 ENGINEERS & LAND SURVEYORS & PLANNERS
 8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-6105 (F) 410-465-6844
 WWW.BE-CIVILENGINEERING.COM

THE WEXLEY AT 100
 BUILDABLE BULK PARCELS A, B, C & D AND OPEN SPACE LOTS 1 & 2

ZONED R-A-15 & POR
 TAX MAP 37, GRID 9, PARCELS 714 & 724
 1st ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

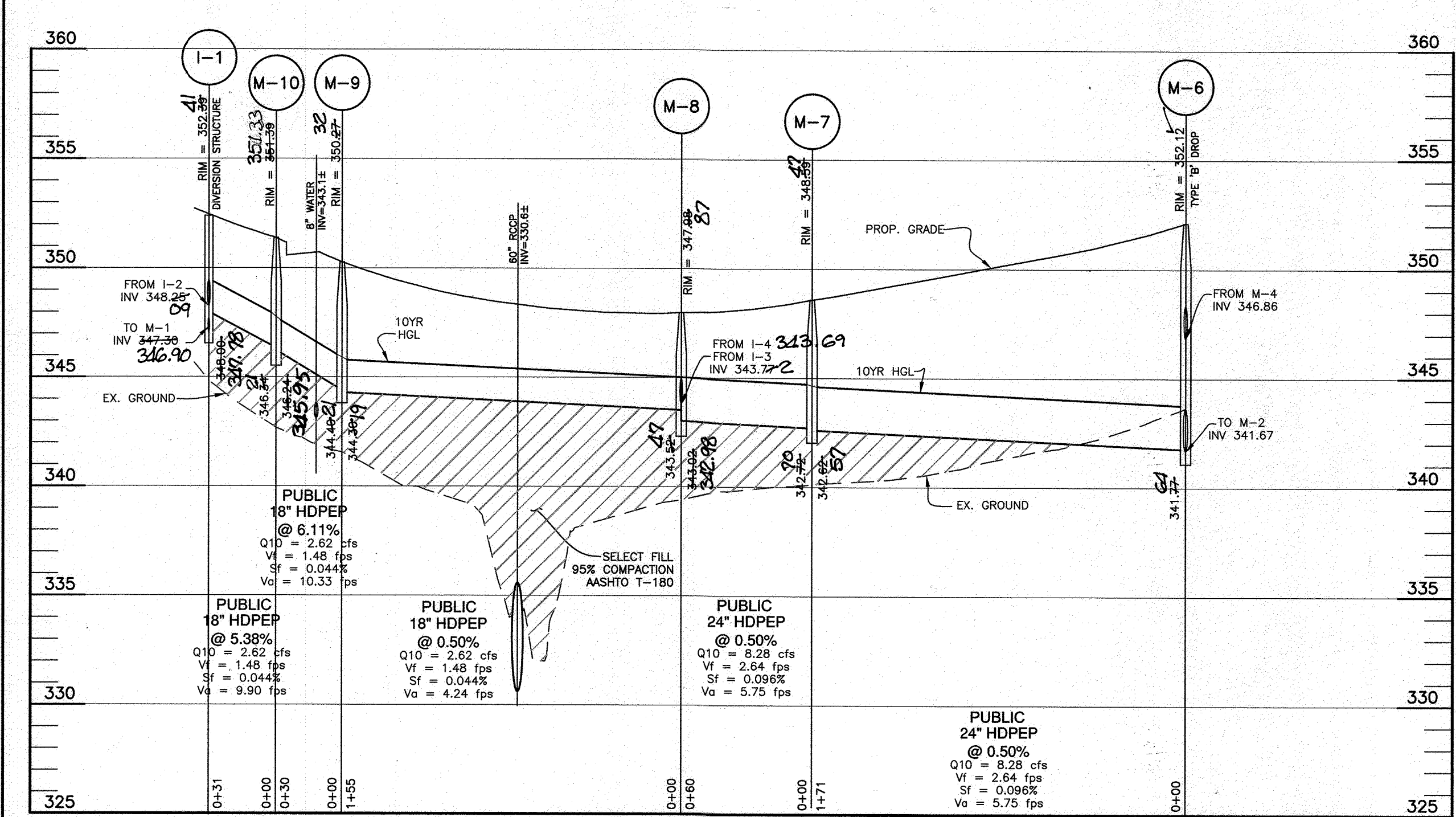
FINAL ROAD CONSTRUCTION PLANS
STORM DRAIN DRAINAGE AREA MAP

OWNER: PARCEL 714
 LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELK RIDGE, MD 21075
 410-465-4244

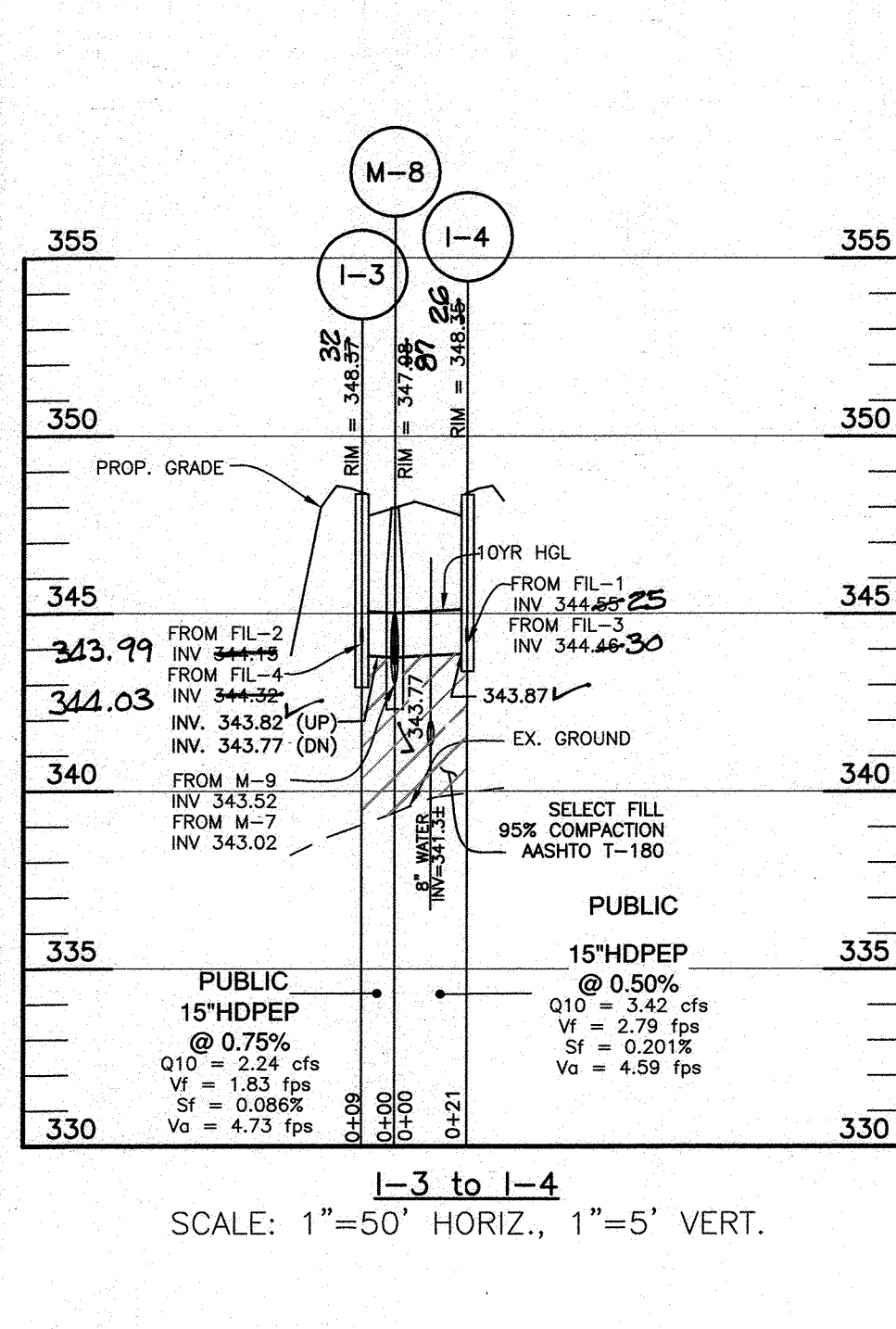
DEVELOPER: PARCEL 724
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 3430 COURTHOUSE DRIVE
 ELLICOTT CITY, MD 21043
 410-313-4401

LOCUST THICKET INVESTORS LLC
 P.O. BOX 417
 ELLICOTT CITY, MD 21041
 410-465-4244

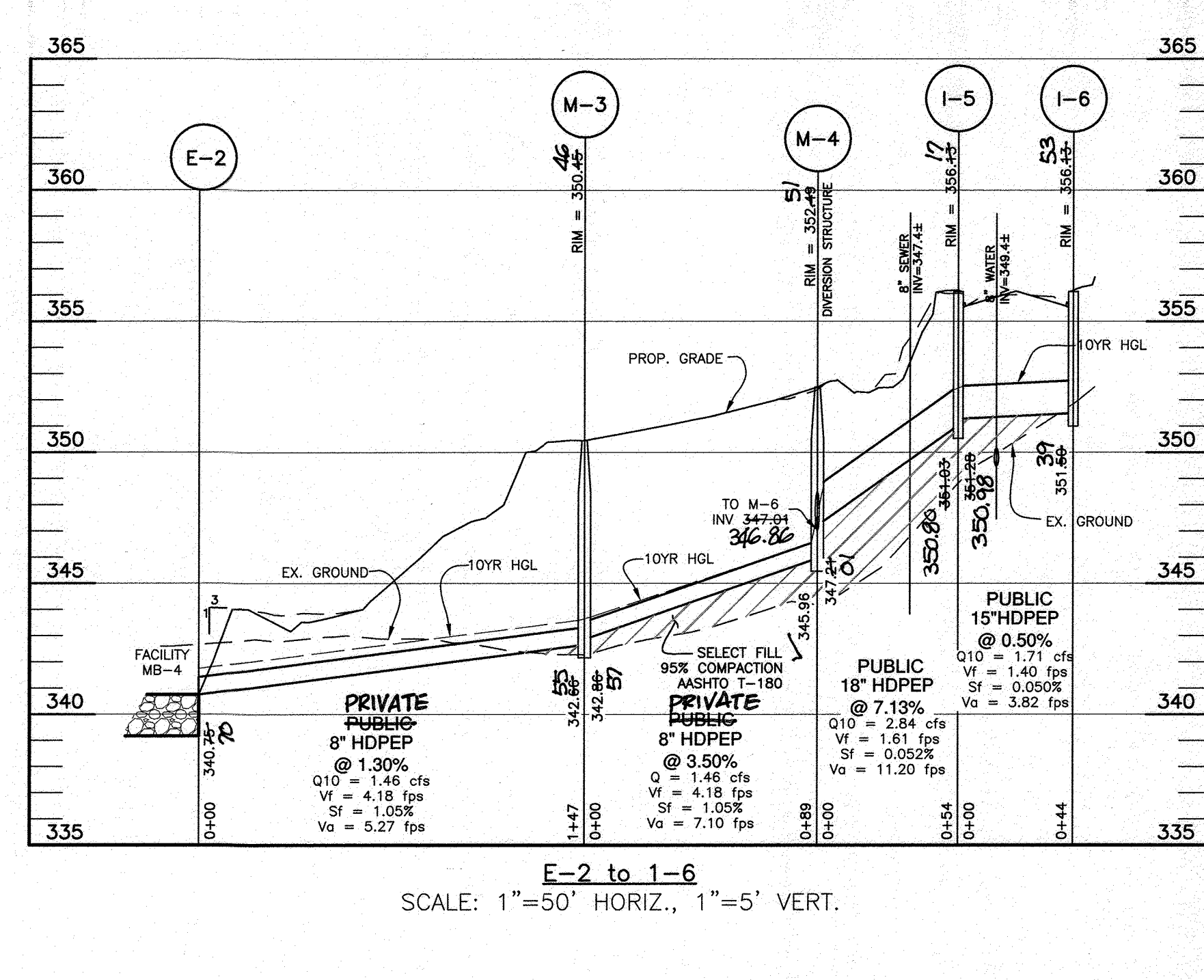
DESIGN: AAM CHECKED: CAM
 DATE: NOVEMBER 2017 PROJECT NO. 0925
 SCALE: AS SHOWN DRAWING 11 OF 12



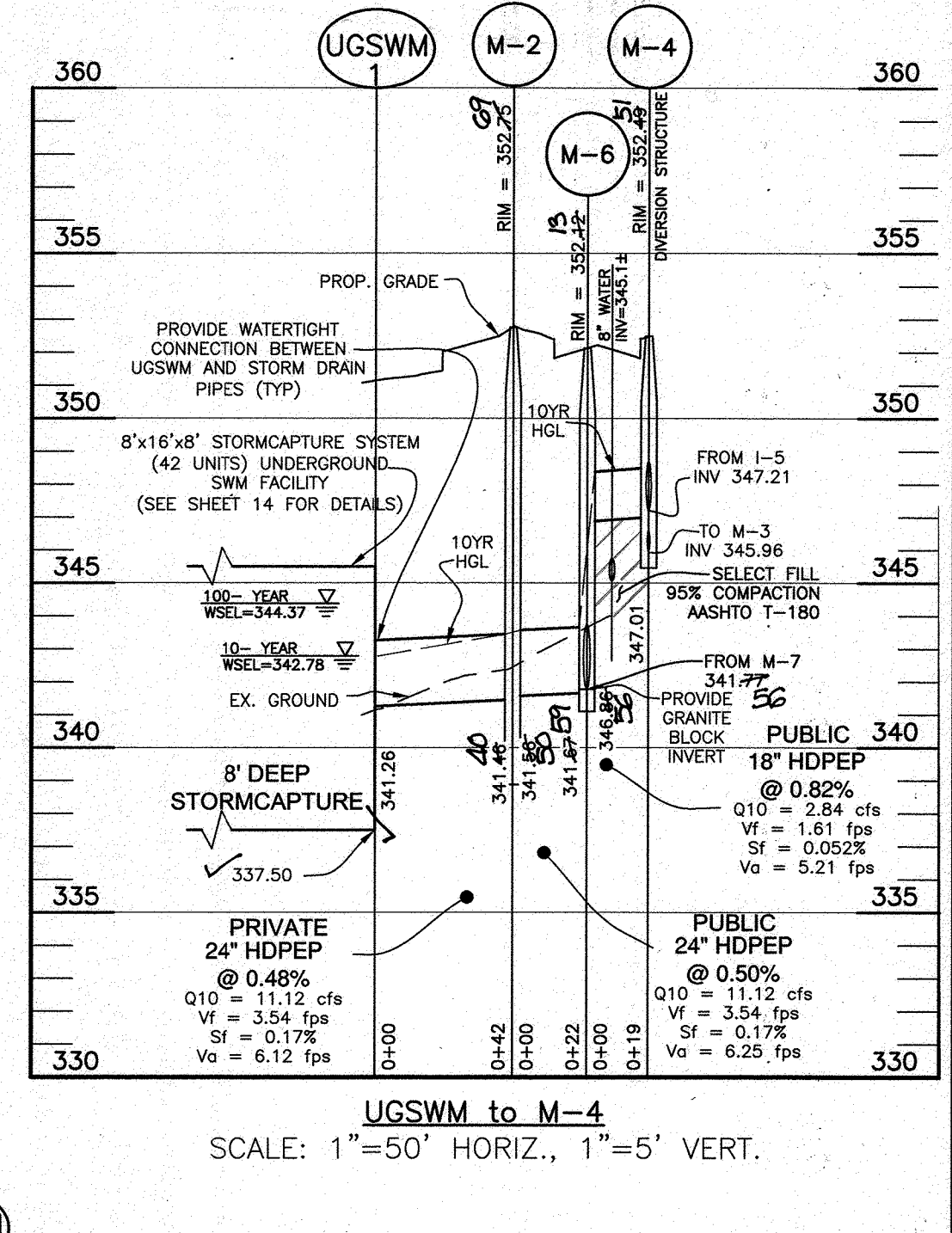
M-7 to I-1
SCALE: 1"=50' HORIZ., 1"=5' VERT.



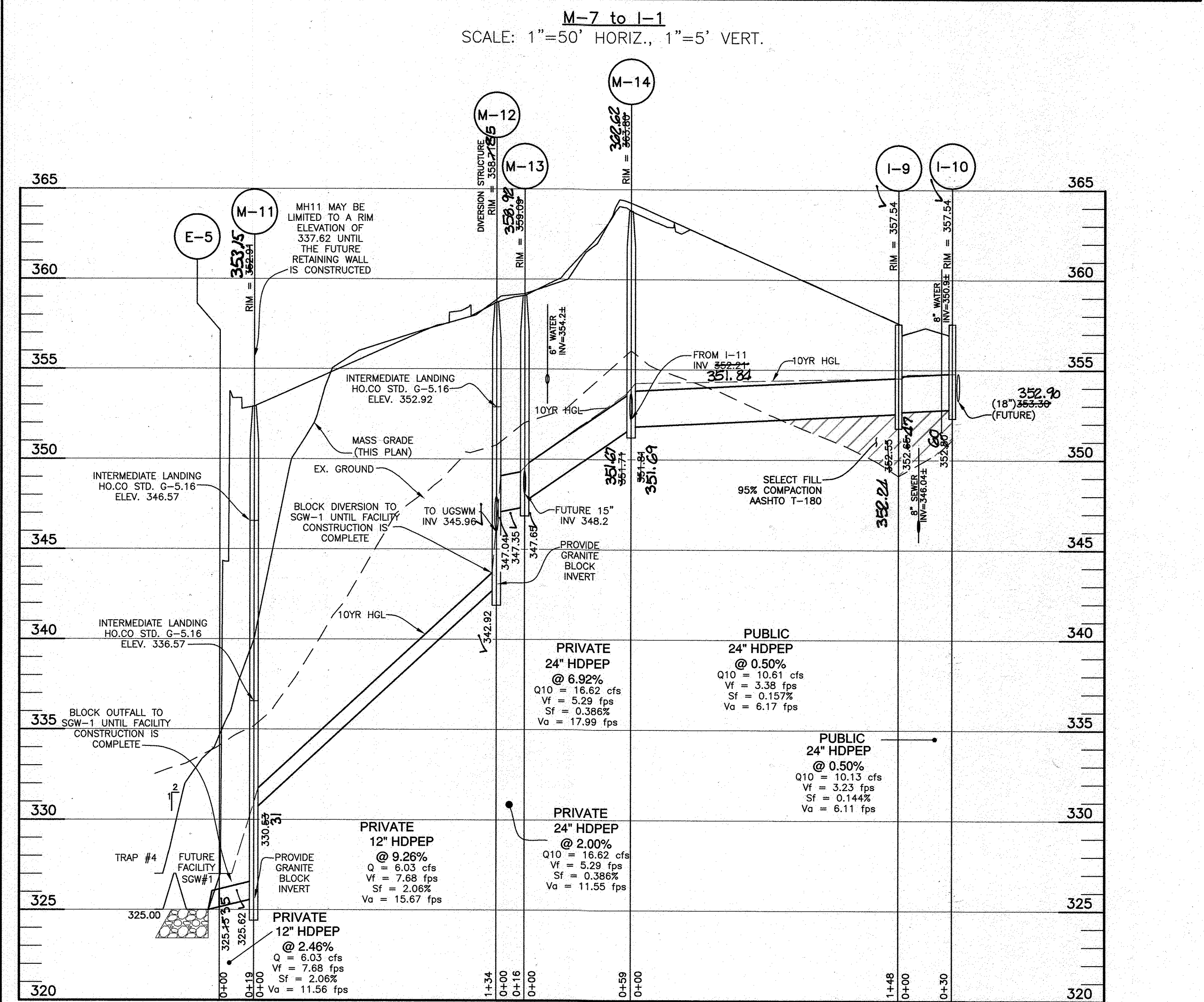
I-3 to I-4
SCALE: 1"=50' HORIZ., 1"=5' VERT.



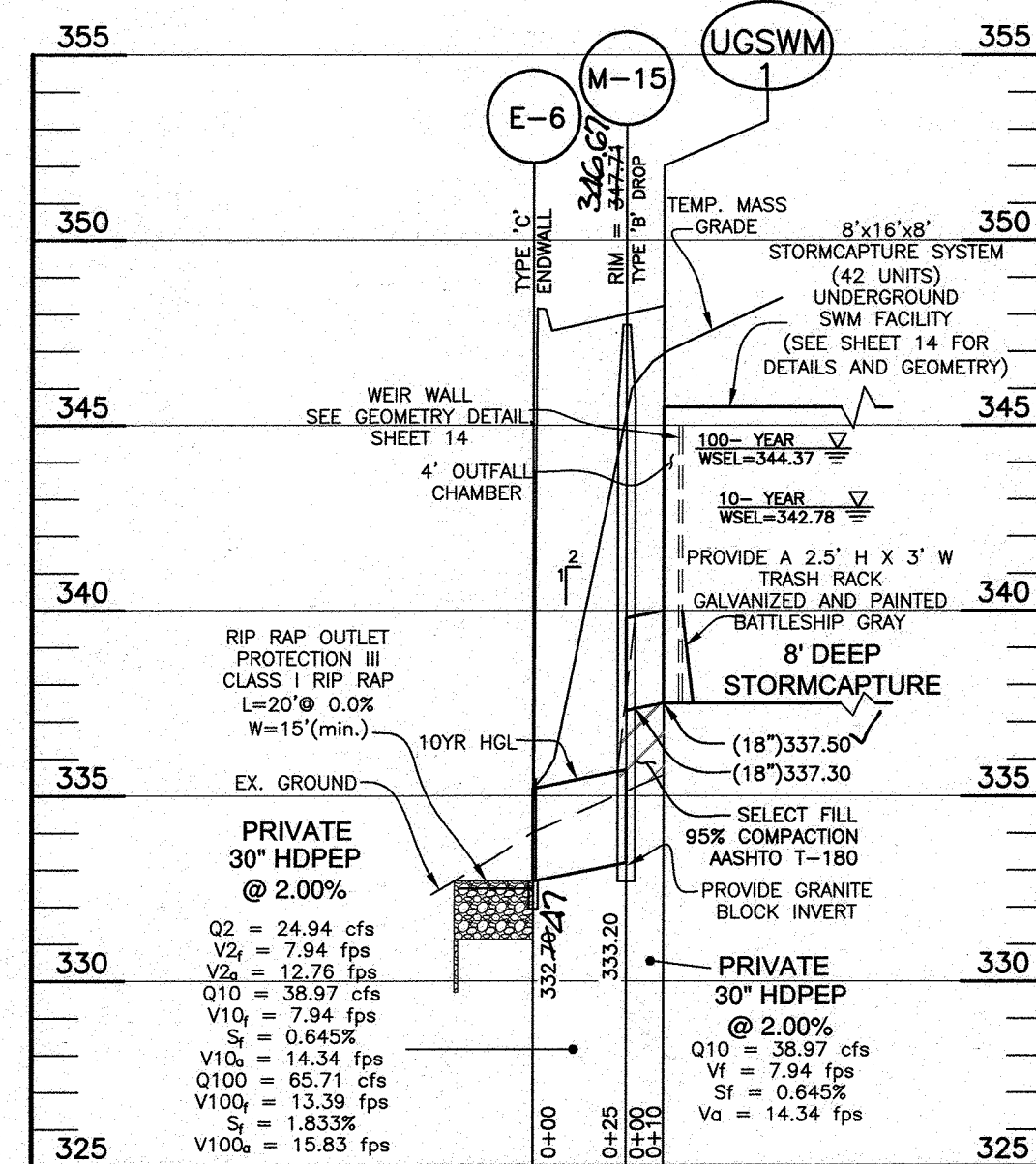
E-2 to I-6
SCALE: 1"=50' HORIZ., 1"=5' VERT.



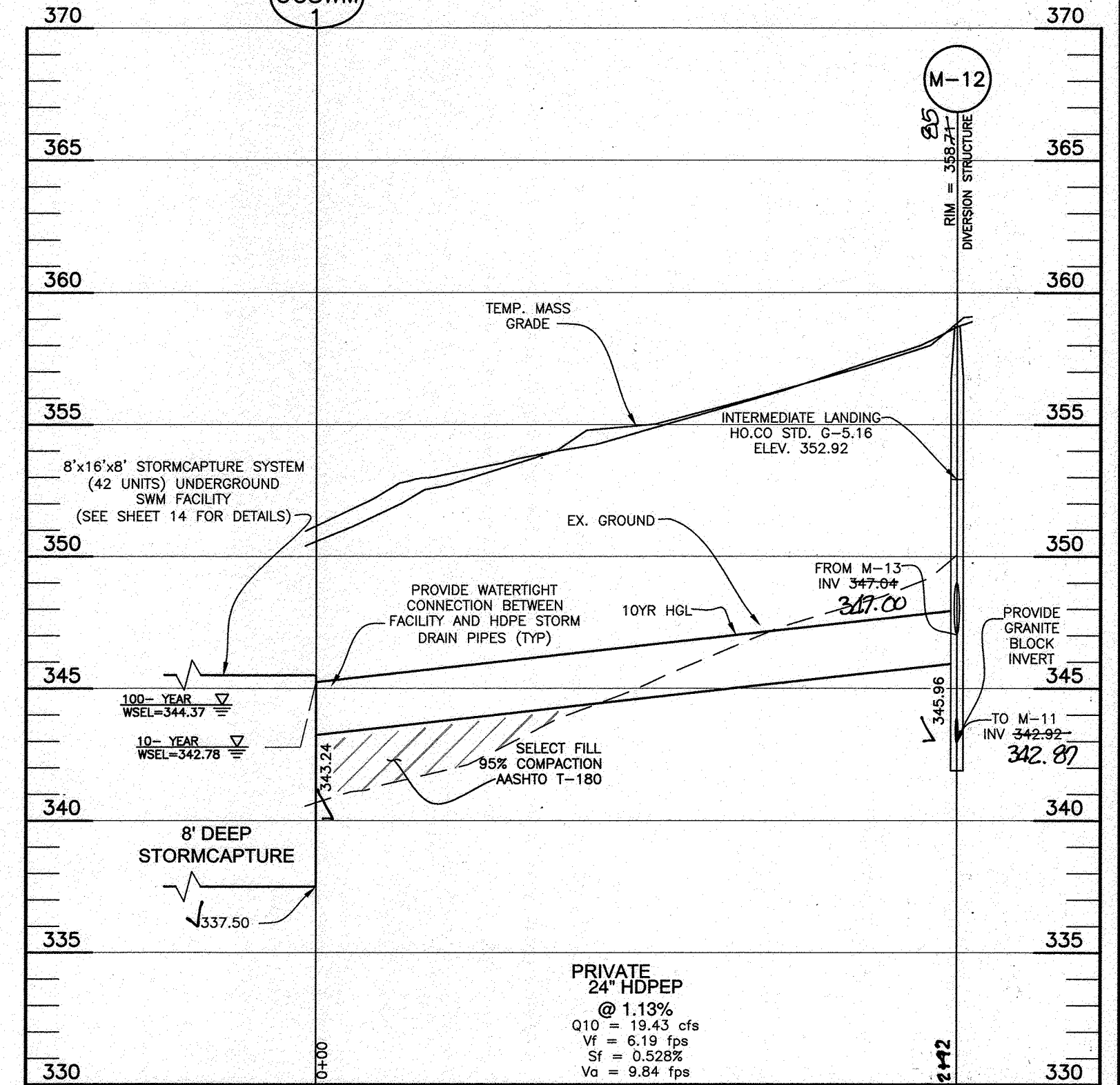
UGSWM to M-4
SCALE: 1"=50' HORIZ., 1"=5' VERT.



I-10 to E-5
SCALE: 1"=50' HORIZ., 1"=5' VERT.

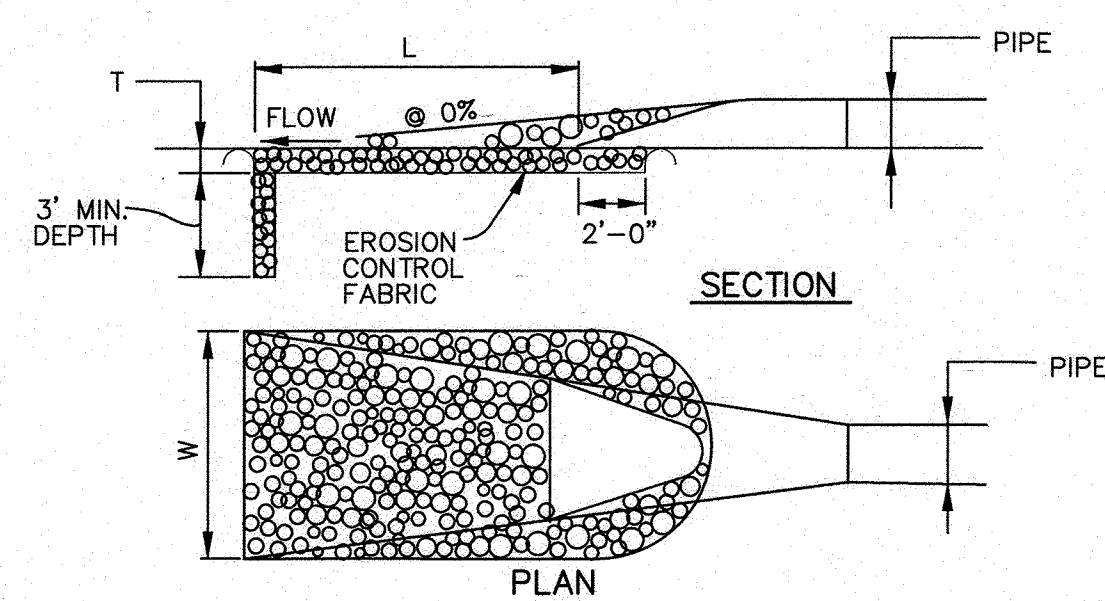


I-12 to M-14
SCALE: 1"=50' HORIZ., 1"=5' VERT.



M-12 to SWM
SCALE: 1"=50' HORIZ., 1"=5' VERT.

SWM OUTFALL
SCALE: 1"=50' HORIZ., 1"=5' VERT.



STRUCTURE	D-50	LENGTH (L)	WIDTH (W)	THICKNESS (T)	SHA CLASS
E-1	9.5"	12'	10'	19"	II
E-2	9.5"	12'	10'	19"	II
E-3	9.5"	12'	10'	19"	II
E-6	9.5"	20'	15'	19"	II
HW-1	9.5"	24'	SEE PLAN	32"	III
HW-2	9.5"	20'	SEE PLAN	32"	III

OUTLET PROTECTION DETAIL
NOT TO SCALE

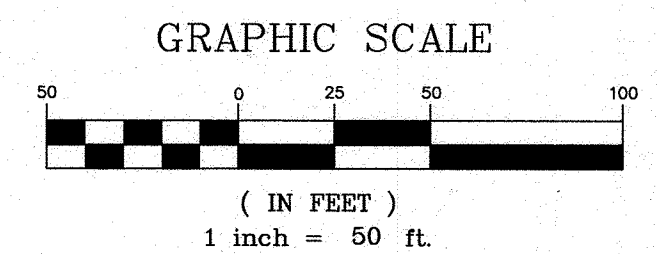
CONSTRUCTION SPECIFICATIONS

- THE SUBGRADE FOR THE FILTER, RIP-RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
- THE ROCK OR GRAVEL SHALL CONFORM TO THE SPECIFIED GRADING LIMITS WHEN INSTALLED RESPECTIVELY IN THE RIP-RAP OR FILTER.
- GEOTEXTILE CLASS C28 OR BETTER SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE PREPARED BY PLACING ANOTHER PIECE OF GEOTEXTILE FABRIC OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE FABRIC. ALL OVERLAPS WHETHER FOR REPAIRS OR FOR JOINING TWO PIECES OF GEOTEXTILE FABRIC SHALL BE A MINIMUM OF ONE FOOT.
- STONE FOR THE RIP-RAP OR GABION OUTLETS MAY BE PLACED BY EQUIPMENT. THEY SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE FOR THE RIP-RAP OR GABION OUTLETS SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. RIP-RAP SHALL BE PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE FABRIC. HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE PERMANENT WORKS.
- THE STONE SHALL BE PLACED SO THAT IT BLENDS IN WITH THE EXISTING GROUND. IF THE STONE IS PLACED TOO HIGH THEN THE FLOW WILL BE FORCED OUT OF THE CHANNEL AND SCOUR ADJACENT TO THE STONE WILL OCCUR.

AS-BUILT CERTIFICATION
I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications
Donald Mason, P.E. Date: 12-9-2020



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. 21443, Expiration Date: 12-21-2022



APPROVED: DEPARTMENT OF PUBLIC WORKS
12/13/2017
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
12-21-17
12-19-17

1 4/5/18 NAME CHANGE, STA CORRECTION @ M-12

NO. DATE REVISION

BENCHMARK ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-8644
WWW.BEI-CVLENGINEERING.COM

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. 28376, Expiration Date: 01-01-19.

THE WEXLEY AT 100
BUILDABLE BULK PARCELS A, B, C & D
AND OPEN SPACE LOTS 1 & 2

ZONED R-A-15 & POR
TAX MAP 37, GRID 9, PARCELS 714 & 724
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

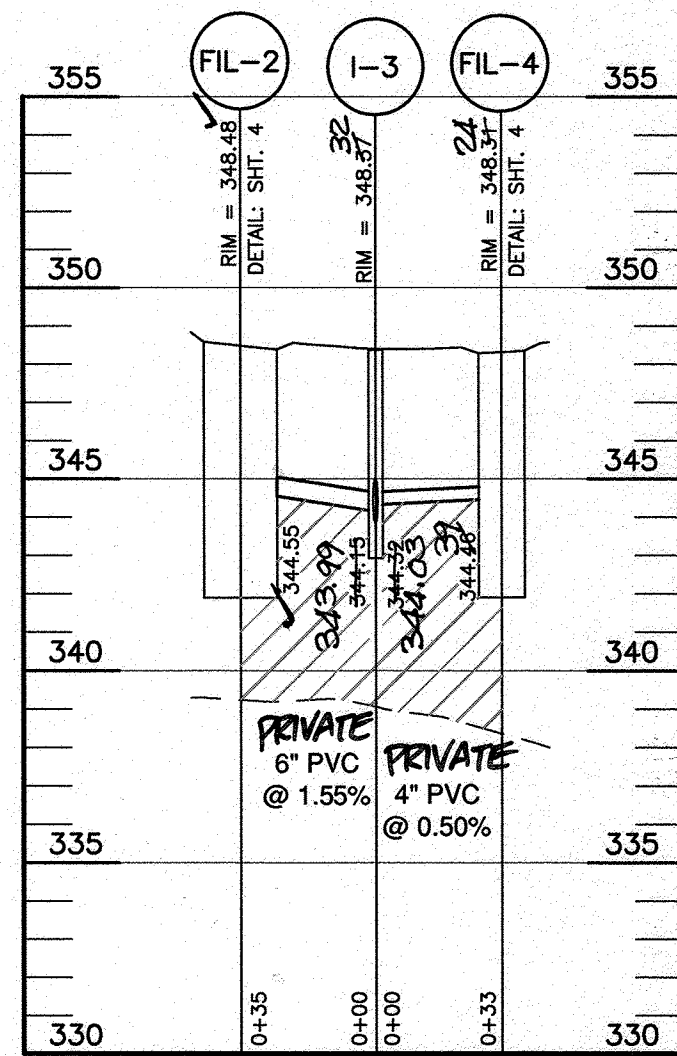
FINAL ROAD CONSTRUCTION PLANS
STORM DRAIN PROFILES

OWNER: PARCEL 714
LOCUST THicket INVESTORS LLC
5836 MEADOWBRIDGE ROAD
ELK RIDGE, MD 21075
410-465-4244

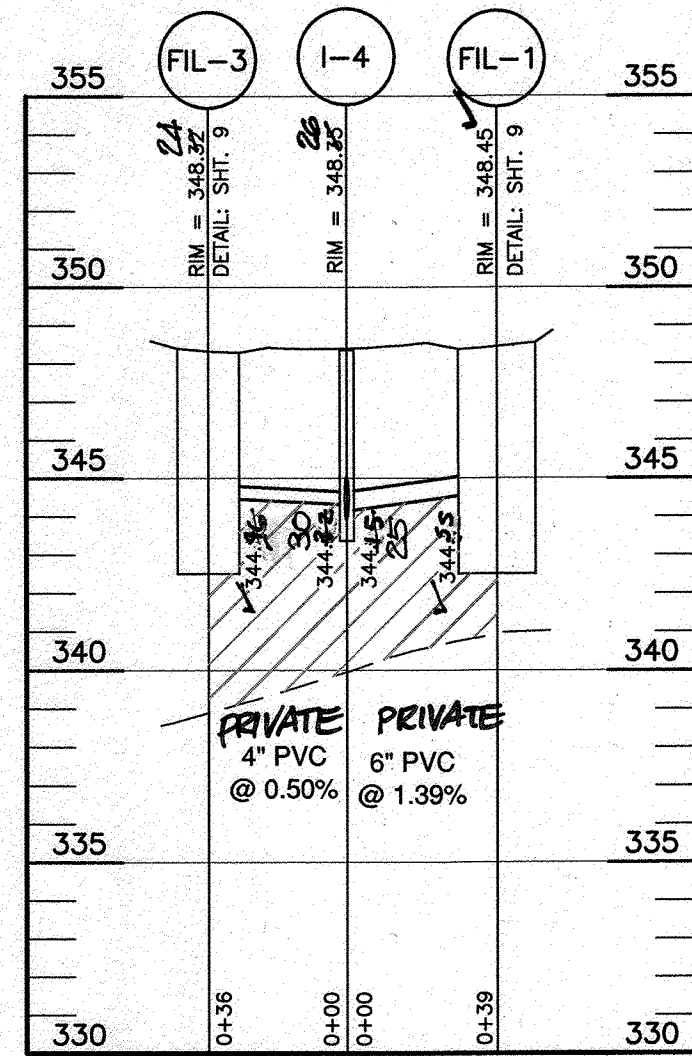
PARCEL 724
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3430 COURTHOUSE DRIVE
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DEVELOPER: LOCUST THicket INVESTORS LLC
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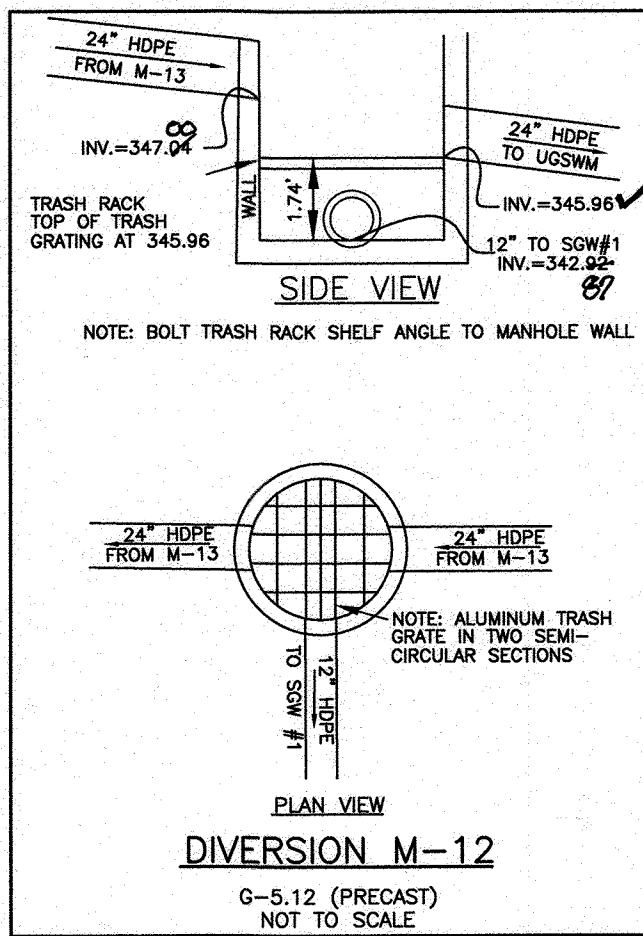
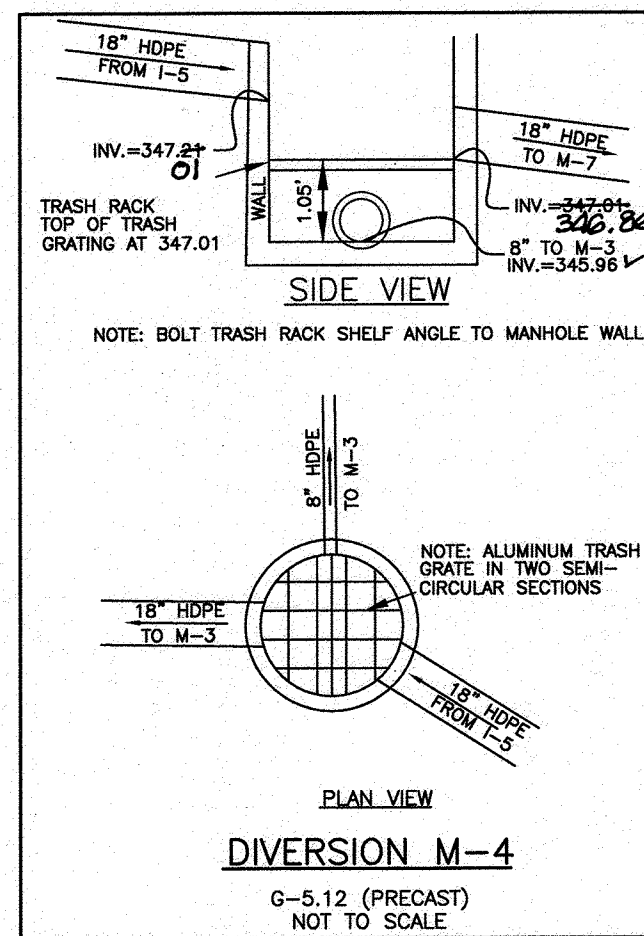
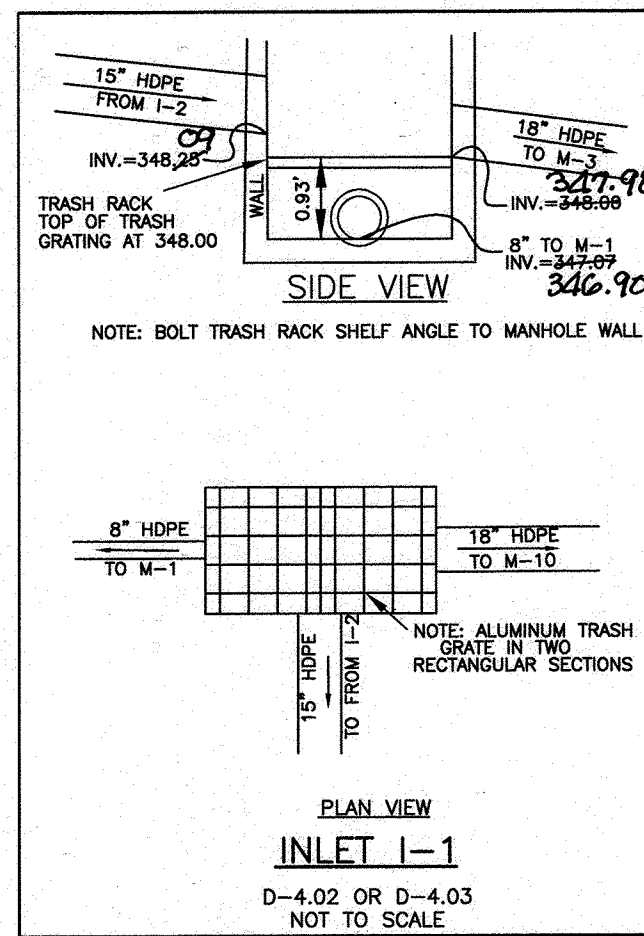
DATE: NOVEMBER 2017 PROJECT NO. 0925
DESIGN: AM CHECKED: CAM SCALE: AS SHOWN DRAWING 12 OF 42



FIL-2 TO FIL-3
SCALE: 1"=50' HORIZ., 1"=5' VERT.



FIL-1 TO FIL-3
SCALE: 1"=50' HORIZ., 1"=5' VERT.

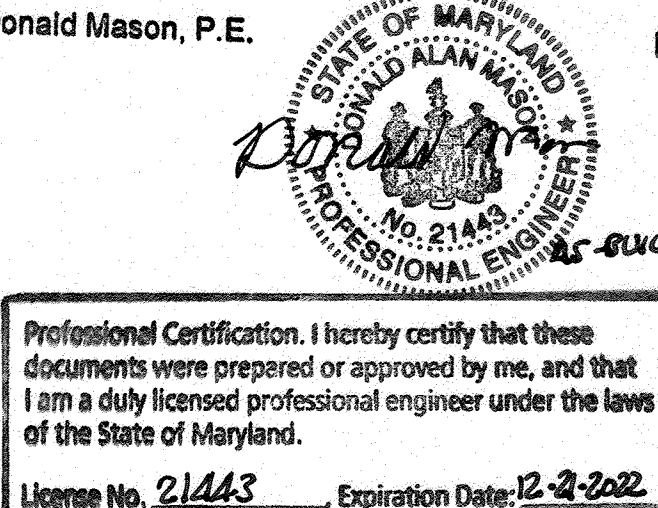


STRUCTURE TABLE										
NUMBER	TYPE	LOCATION	INVERT IN	INVERT OUT	TOP ELEV.	STD. DETAIL	OWNER	REMARKS		
FIL-1	8'x20' FILTERRA	CL STA. 2+52.84 CL OBL. OFFSET 13.00 RIGHT		344.15 (6")	348.45	FTSC10X8	PRIVATE	FILTERRA CURB HEIGHT = 6"		
FIL-2	6'x19' FILTERRA	CL STA. 2+52.63 CL OBL. OFFSET 13.00 LEFT		344.55 (6")	348.48	FTSC10X6	PRIVATE	FILTERRA CURB HEIGHT = 6"		
FIL-3	4'x18' FILTERRA	CL STA. 3+25.10 CL OBL. OFFSET 13.00 RIGHT		344.32 (4")	348.32	FTSC6X4	PRIVATE	FILTERRA CURB HEIGHT = 6"		
FIL-4	4'x12' FILTERRA	CL STA. 3+23.10 CL OBL. OFFSET 13.00 LEFT		344.15 (4")	348.32	FTSC6X4	PRIVATE	FILTERRA CURB HEIGHT = 6"		
HW-1	60" HEADWALL	CL STA. 3+64.59 CL OBL. OFFSET 41.18 LEFT				SEE DETAIL	PUBLIC			
HW-2	60" HEADWALL	CL STA. 3+64.59 CL OBL. OFFSET 37.82 RIGHT				SEE DETAIL	PUBLIC			
I-1	A-5	CL STA. 5+06.97 CL OBL. OFFSET 13.00 RIGHT	348.20 (15")	346.90 (6")	352.21	D-4.01	PUBLIC			
I-2	A-5	CL STA. 5+06.97 CL OBL. OFFSET 13.00 LEFT	348.20 (15")	346.90 (6")	352.21	D-4.02	PUBLIC			
I-3	A-10	CL STA. 2+89.57 CL OBL. OFFSET 13.00 LEFT	344.30 (15")	343.82 (15")	348.29	D-4.03	PUBLIC			
I-4	A-10	CL STA. 2+89.78 CL OBL. OFFSET 13.00 RIGHT	344.30 (15")	343.87 (15")	348.29	D-4.04	PUBLIC			
I-5	A-5	CL STA. 4+33.90 CL LTW. OFFSET 20.00 RIGHT	348.48 (15")	346.90 (18")	356.29	D-4.01	PUBLIC			
I-6	A-5	CL STA. 4+33.90 CL LTW. OFFSET 20.00 LEFT	348.48 (15")	346.90 (18")	356.29	D-4.02	PUBLIC			
I-9	A-5	CL STA. -0+63.73 CL OBL. OFFSET 13.00 RIGHT	352.48 (18")	352.48 (18")	357.54	D-4.01	PUBLIC			
I-10	A-5	CL STA. -0+63.73 CL OBL. OFFSET 13.00 LEFT	352.48 (18")	352.48 (18")	357.54	D-4.02	PUBLIC			
I-11	A-5	CL STA. -2+63.53 CL OBL. OFFSET 13.00 RIGHT	357.80 (18")	353.48 (18")	366.52	D-4.01	PUBLIC			
I-12	A-5	CL STA. -2+63.53 CL OBL. OFFSET 13.00 LEFT	357.80 (18")	353.48 (18")	366.52	D-4.02	PUBLIC			
M-1	48" MH	CL STA. 5+76.70 CL OBL. OFFSET 16.52 RIGHT	348.20 (18")	346.90 (18")	356.29	G-5.12	PUBLIC			
M-2	48" MH	CL STA. 0+58.45 CL OBL. OFFSET 25.34 LEFT	341.22 (24")	341.22 (24")	352.21	G-5.12	PUBLIC			
M-3	48" MH	CL STA. 1+46.90 CL OBL. OFFSET 15.67 RIGHT	342.22 (24")	342.22 (24")	350.46	G-5.12	PUBLIC			
M-4	48" MH	CL STA. 0+58.30 CL OBL. OFFSET 15.67 RIGHT	342.22 (24")	342.22 (24")	350.46	G-5.12	PUBLIC			
M-6	48" MH	CL STA. 0+58.30 CL OBL. OFFSET 3.0 LEFT	342.22 (24")	341.22 (24")	352.21	G-5.12	PUBLIC			
M-7	48" MH	CL STA. 2+29.40 CL OBL. OFFSET 2.72 LEFT	342.22 (24")	342.22 (24")	348.64	G-5.12	PUBLIC			
M-8	48" MH	CL STA. 2+89.74 CL OBL. OFFSET 5.69 LEFT	343.22 (15")	343.22 (15")	347.88	G-5.12	PUBLIC			
M-9	48" MH	CL STA. 4+46.53 CL OBL. OFFSET 9.13 LEFT	344.22 (15")	344.22 (15")	350.29	G-5.12	PUBLIC			
M-10	48" MH	CL STA. 4+61.27 CL OBL. OFFSET 16.51 RIGHT	348.22 (18")	348.22 (18")	348.22	G-5.12	PUBLIC			
M-14	48" MH	CL STA. -2+11.73 CL OBL. OFFSET 15.62 RIGHT	351.22 (24")	351.22 (24")	363.29	G-5.12	PUBLIC			

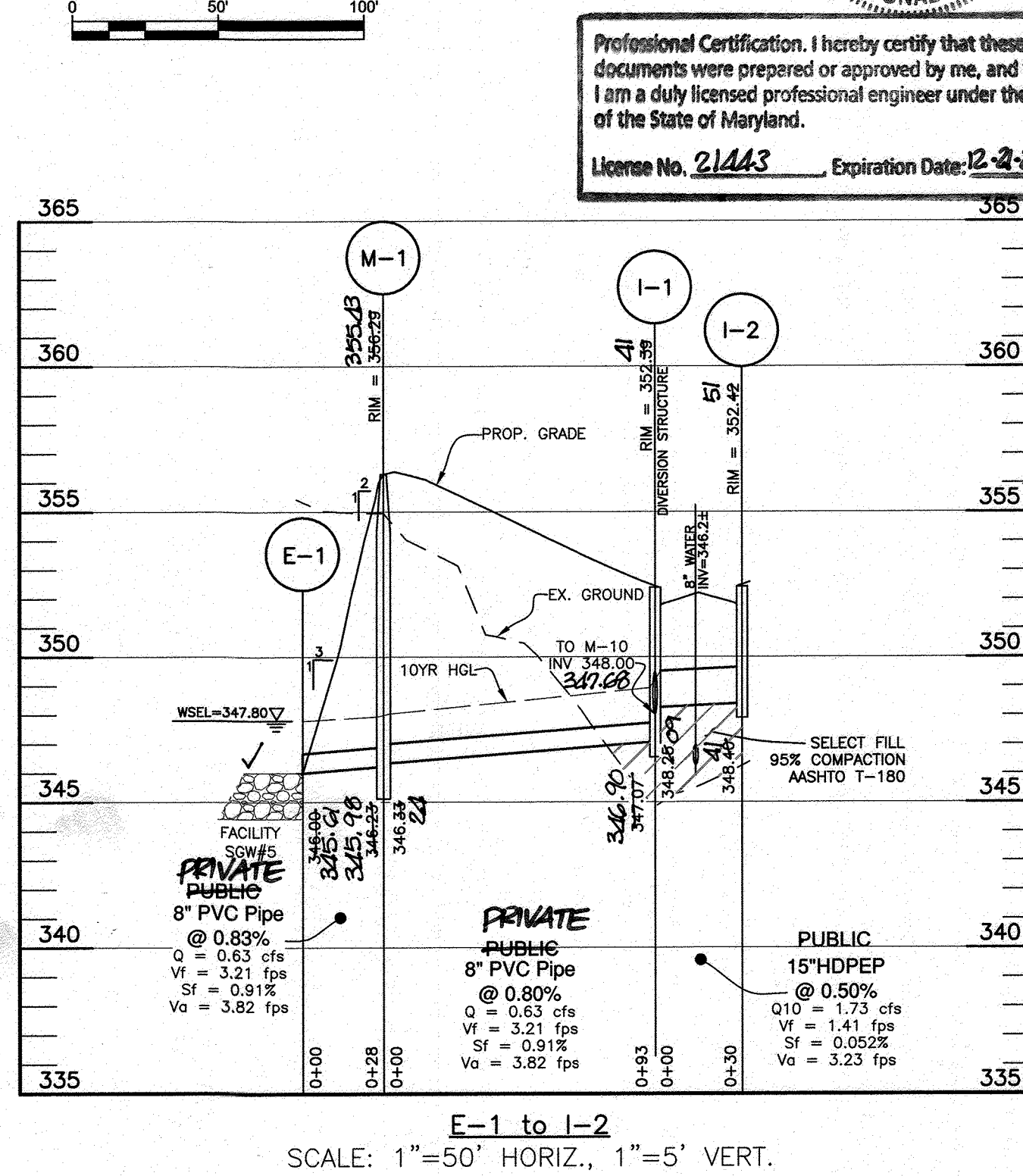
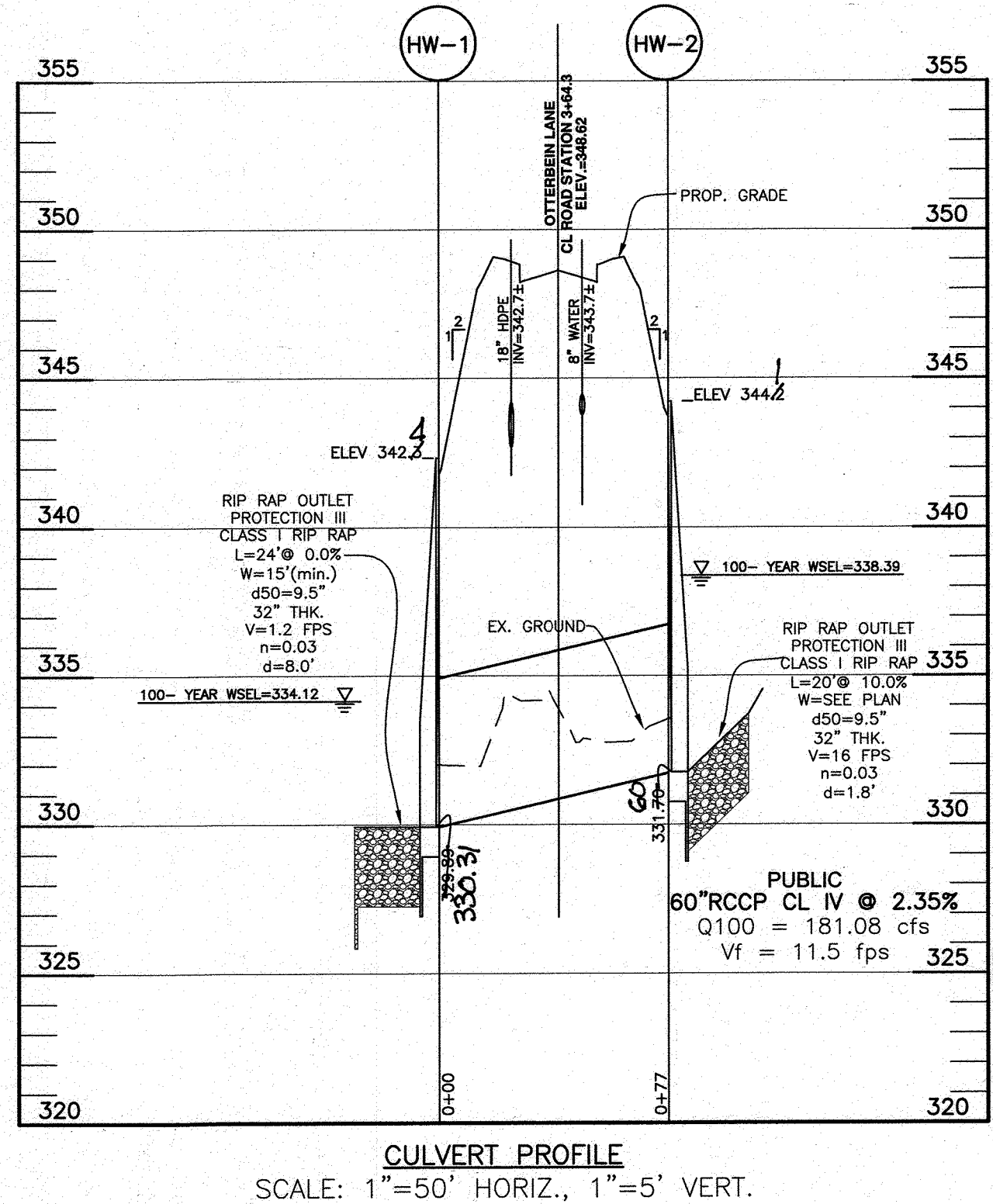
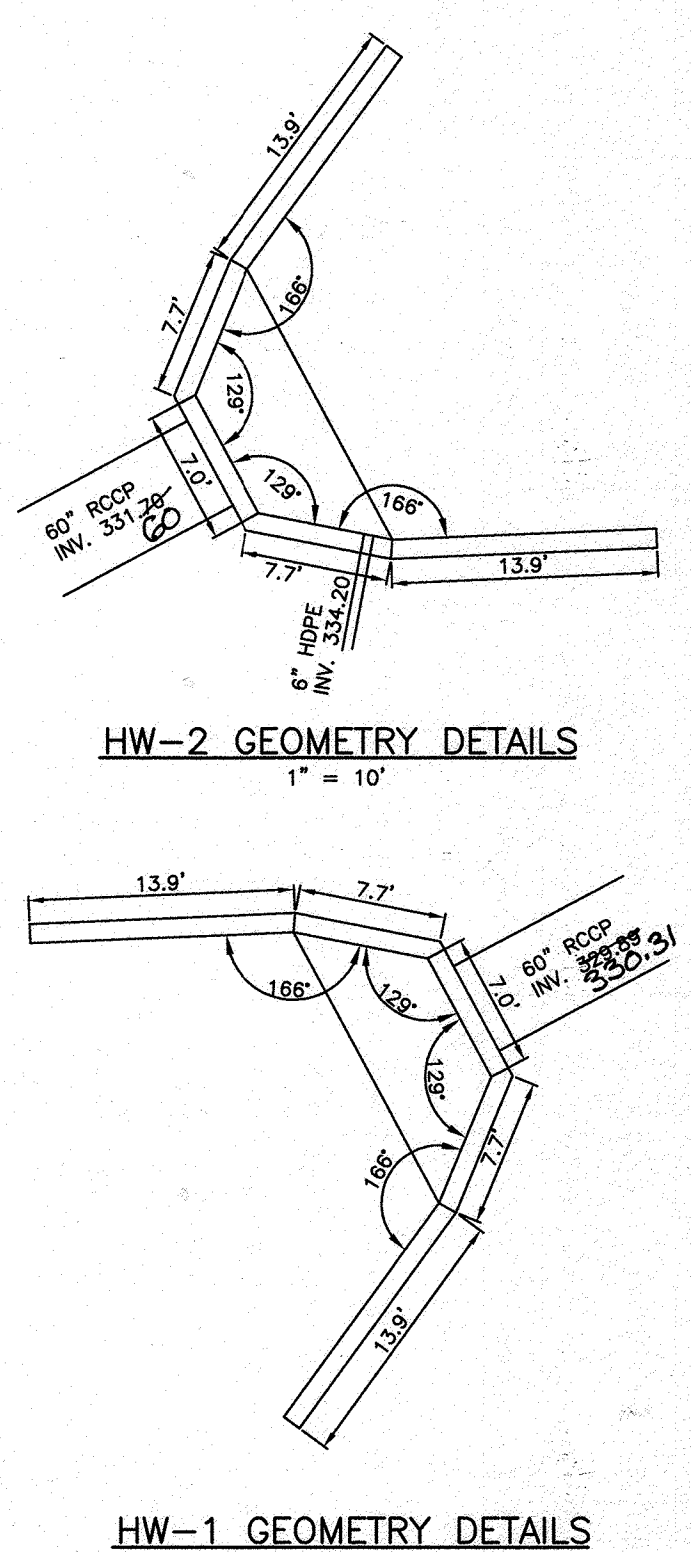
1) STRUCTURE LOCATION FOR MANHOLES IS AT THE CENTER OF THE MANHOLE.
 2) STRUCTURE LOCATION FOR INLETS IS AT THE CENTER OF STRUCTURE, FACE OF CURB.
 3) STRUCTURE LOCATION FOR HEADWALLS IS CENTER OF STRUCTURE, FACE OF WALL.
 4) STRUCTURE LOCATION FOR FILTERRAS IS AT THE CENTER OF STRUCTURE, FACE OF CURB. (FILTERRA CURB HEIGHT: 6")
 CHART LEGEND:
 LTW=LOCUST THICKET WAY
 OBL=OTTERBEIN LANE

STRUCTURE TABLE (COORDINATE DEPENDENT)										
NUMBER	TYPE	LOCATION	INVERT IN	INVERT OUT	TOP ELEV.	STD. DETAIL	OWNER	REMARKS		
E-1	PIPE OUTLET	N 561064.6176 E1373437.6576		346.00(6")		N/A	PRIVATE			
E-2	PIPE OUTLET	N 560805.5915 E1373674.9161		340.75(8")		N/A	PRIVATE			
E-5	12" END SECTION	N 560297.3180 E1373499.5105	325.24(12")	325.00(12")		D-5.51	PRIVATE			
E-6	30" END WALL	N 560546.3728 E1373459.7642		332.70(30")		D-5.21	PRIVATE			
M-11	48" MH	N 560285.0424 E1373508.9219	330.82(12")	325.62(12")	352.91	G-5.12	PRIVATE			
M-12	48" MH	N 560319.4380 E1373642.2975	347.04(24")	342.92(12")	358.22	G-5.12	PRIVATE			
M-13	48" MH	N 560295.3716 E1373647.7591	347.85(24")	348.20(18")	368.09	G-5.12	PRIVATE			
M-15	60" MH	N 560540.5073 E1373482.9415	337.30(30")	333.20(30")	347.71	G-5.13	PRIVATE			

1) STRUCTURE LOCATION FOR MANHOLES IS AT THE CENTER OF THE MANHOLE.
 2) STRUCTURE LOCATION FOR END SECTIONS IS AT THE PIPE INVERT.
AS-BUILT CERTIFICATION
 I hereby certify by my seal that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications
 Donald Mason, P.E.
 License No. 21463, Expiration Date: 12-3-2022



STORM DRAIN PIPE SCHEDULE			
PIPE SIZE	LENGTH	TYPE	OWNERSHIP
4"	55'±	PVC	PUBLIC
6"	171'±	PVC	PUBLIC
8"	236'±	HDPE	PRIVATE
12"	147'±	HDPE	PRIVATE
15"	104'±	HDPE	PUBLIC
18"	371'±	HDPE	PUBLIC
24"	359'±	HDPE	PRIVATE
24"	431'±	HDPE	PUBLIC
30"	35'±	HDPE	PRIVATE
60"	77'±	RCCP	PUBLIC



APPROVED: DEPARTMENT OF PUBLIC WORKS
 12/12/2017
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 12-21-17
 CHIEF, DIVISION OF LAND DEVELOPMENT
 12-19-17
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

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. 28376, Expiration Date: 01-01-19.

BENCHMARK ENGINEERING, INC.
 8480 BALTIMORE NATIONAL PIKE SUITE 315 ELLICOTT CITY, MARYLAND 21043
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 WWW.BE-CIVILENGINEERING.COM

THE WEXLEY AT 100
 BUILDABLE BULK PARCELS A, B, C & D AND OPEN SPACE LOTS 1 & 2
 ZONED R-A-15 & POR
 TAX MAP 37, GRID 9, PARCELS 714 & 724
 1st ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

**FINAL ROAD CONSTRUCTION PLANS
 STORM DRAIN PROFILES AND
 UGSWM DETAILS**

OWNER: PARCEL 714
 LOCUST THICKET INVESTORS LLC
 5835 MEADOWCROFT ROAD
 ELK RIDGE, MD 21075
 410-465-4244

DEVELOPER: PARCEL 724
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 3430 COURTHOUSE DRIVE
 ELLICOTT CITY, MD 21043
 410-313-4401

DESIGN: AMM CHECKED: CAM
 DATE: NOVEMBER 2017 PROJECT NO. 0925
 SCALE: AS SHOWN DRAWING 13 OF 42

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 DETERMINE 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 NOTES:

- DESIGN LOADINGS:
 - ASHTO H20-44 W/ IMPACT.
 - DEPTH OF COVER = 6" - 9" (1/8 PCF ASSUMED). (REFER TO LAYOUT AND SEE 10' TO 10' 1/2')
 - ASSUMED WATER TABLE = BELOW BOTTOM OF PRECAST.
 - DRY LATERAL EARTH PRESSURE (EP) = 45 PCF.
 - LATERAL LIVE LOAD SURCHARGE = 80 PSF APPLIED TO 6" BELOW GRADE.
 - NO LATERAL SURCHARGE FROM ADJACENT STRUCTURES.
 - CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE 4000 PSI.
 - STEEL REINFORCEMENT: REBAR, ASTM A-615 OR A-706, GRADE 60.
 - CEMENT: ASTM C-150 SPECIFICATION.
- STORMCAPTURE MODULE TYPE = DETENTION.
- REQUIRED BASE LAYER DEPTH = NOT APPLICABLE.
- REQUIRED NATIVE ALLOWABLE SOIL BEARING PRESSURE = 2,000 PSF.
- REFER TO: STANDARDS:
 - ASTM C 800
 - ASTM C 813
 - ASTM C 813
- ANY DESIGN CONSTRAINT DIFFERENT FROM ABOVE, REQUIRE CUSTOM STRUCTURAL DESIGN AND MAY REQUIRE THICKER SUBGRADE AND REVISED PRICING.

INSTALLATION NOTES:

- STORMCAPTURE MODULES ARE TO BE INSTALLED IN ACCORDANCE WITH ASTM C800. 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.
 - WHERE SPECIFIED, A CONTAINMENT MEMBRANE LINER WITH THE FOLLOWING REQUIREMENTS MUST BE USED: MIN. THICKNESS = 40 MILS; MIN. TENSILE STRENGTH = 500 LBS WORST DIRECTION (ASTM D6241); MIN. MULLEN BURSTING STRENGTH = 1,000 PSI (ASTM D2781); AND M.A. MANUFACTURER'S WARRANTY OF 20 YEARS. WHERE THE MEMBRANE IS USED AS A 6 OZ. NON-WOVEN GEOTEXTILE MUST BE PLACED ON BOTH THE INSIDE AND OUTSIDE OF THE ACTUAL CONTAINMENT MEMBRANE TO PREVENT PUNCTURES.
 - PENETRATIONS IN THE CONTAINMENT MEMBRANE MAY ONLY BE MADE WITH GROMMET 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 (IF AVAILABLE) DESIGNATED ENBEDDED LIFTERS MUST BE USED. USE PROPER RIGGING TO ASSURE ALL LIFTERS ARE EQUALLY ENGAGED WITH A MINIMUM 90 DEGREE ANGLE ON SLINGS AS NOTED AND IN ACCORDANCE WITH OSHA LIFTING PROCEDURES.
 - MODULES MUST BE PLACED AS CLOSE TOGETHER AS POSSIBLE AND GAPS SHALL NOT BE GREATER THAN 3/4". ALL EXTERIOR SYSTEM JOINTS SHALL BE COVERED WITH A MIN. 1/2" JOINT WRAP OR SIDES AND TOP (5/8" TO 1" CONCRETE OR EQUIVALENT) IN A CLAMSHELL DESIGN WITH ONE ROW CO-100 CONCRETE (OR EQUIVALENT) BETWEEN PRECAST PRECAST.
 - 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 90% STANDARD PROCTOR DENSITY OR AS SPECIFIED, AND SHALL NOT BE COMPACTED WITHIN 6" OF MODULE.
 - CONSTRUCTION EQUIPMENT EXCEEDING DESIGN LOADINGS SHALL NOT BE ALLOWED ON STRUCTURE.
 - TERMINOIDS TO BE KNOCKED OUT AT SPECIFIED LOCATIONS IN FIELD BY OTHERS. SEE SITE LAYOUT FOR LOCATIONS.

INLETS AND RISERS:

ALL PIPE INLETS SHALL EXTEND INSIDE MODULE A MINIMUM OF 4". PLACE A NON-SHRINK, NORM METALLIC GROUT, MIN. 3,000 PSI IN ANNUAL SURFACE TO ELIMINATE ALL VOID.

REVISION	DATE	SHEETS	DESCRIPTION OF REVISION

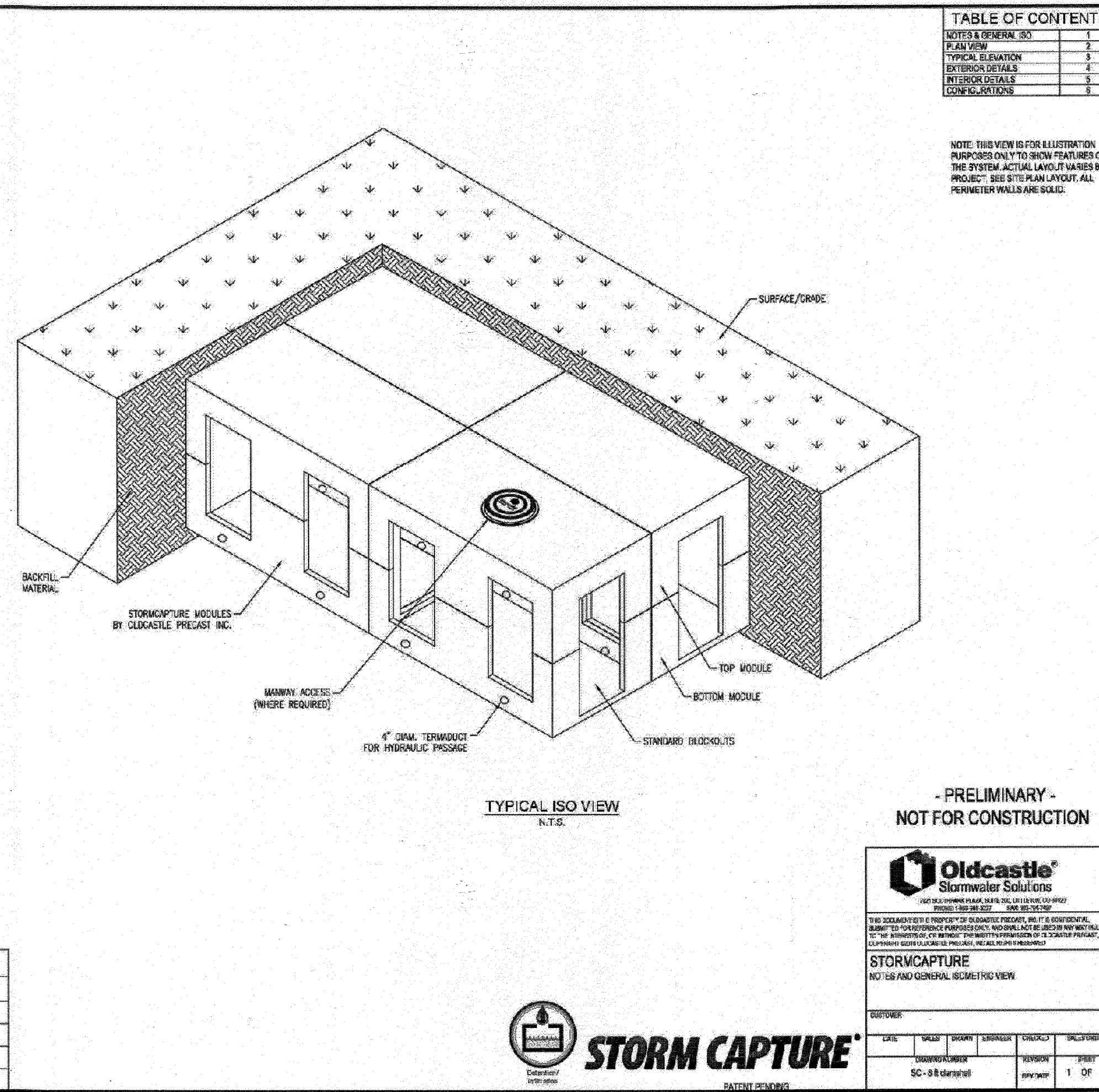


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NOTE: THIS VIEW IS FOR ILLUSTRATION PURPOSES ONLY TO SHOW THE GENERAL APPEARANCE OF THE SYSTEM. ACTUAL LAYOUT VARIES BY PROJECT. SEE LAYOUT FOR ALL DIMENSIONS AND DETAILS.

- PRELIMINARY -
NOT FOR CONSTRUCTION

Oldcastle Stormwater Solutions

STORMCAPTURE
SC2 DELATION SYSTEM

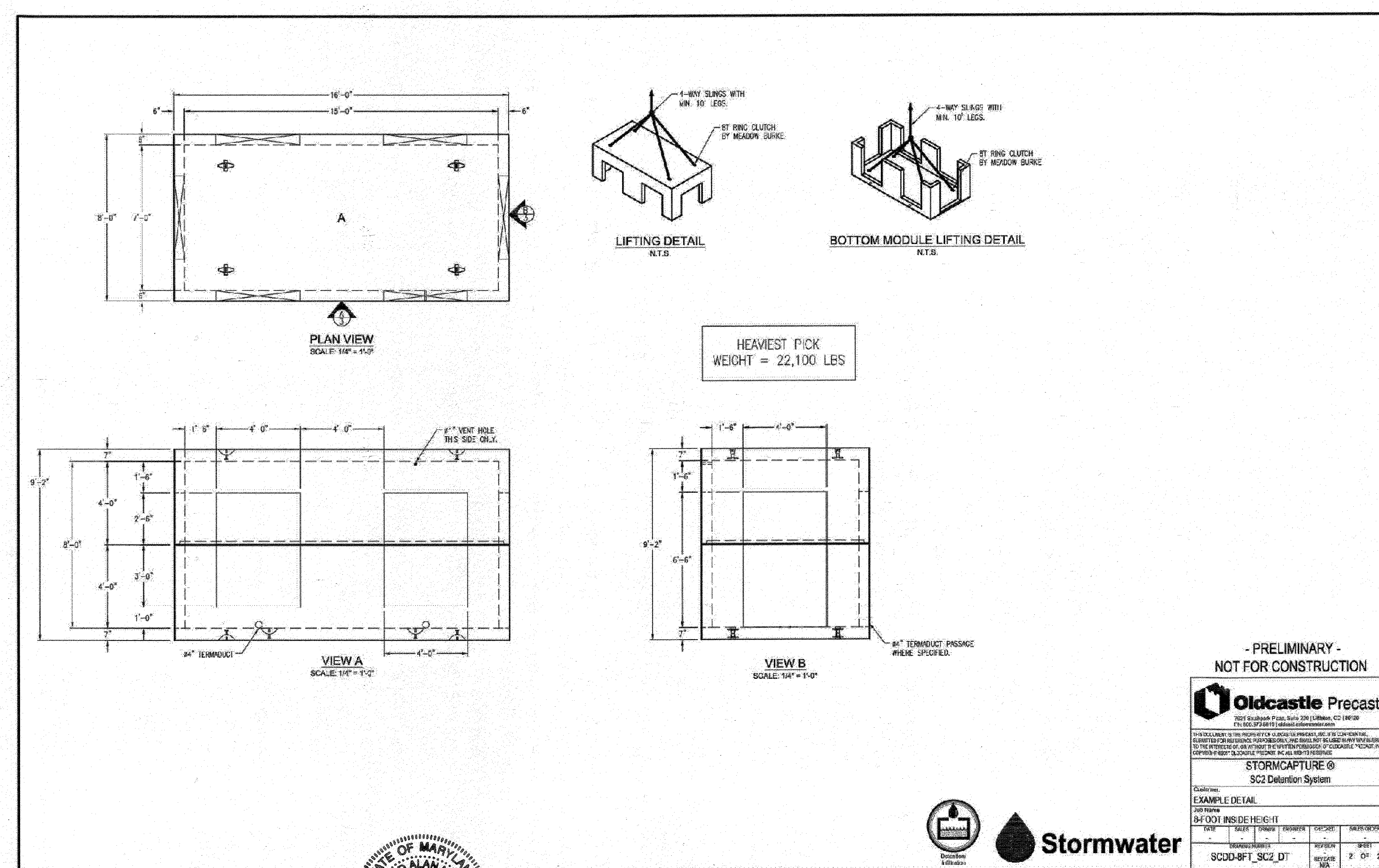
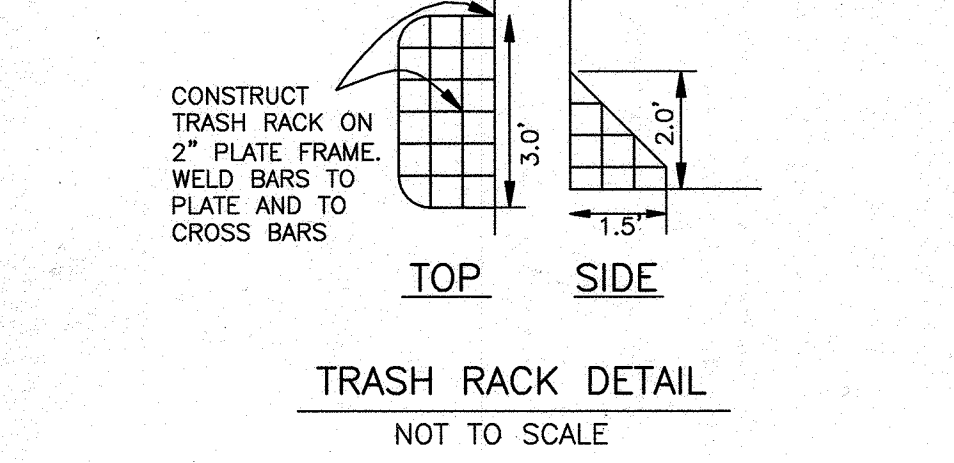
SCALE: 3/8" = 1'-0"

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED UNDERGROUND STORMWATER MANAGEMENT FACILITY UGSWM-1

- THE UNDERGROUND STORMWATER MANAGEMENT FACILITY IS PRIVATELY OWNED AND IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO PERIODICALLY INSPECT AND CLEAN THE FACILITY TO MAINTAIN ITS OPERATION AND FUNCTION.
- THE UNDERGROUND STORMWATER MANAGEMENT FACILITY SHALL BE INSPECTED BI-ANNUALLY AT A MINIMUM AND ADDITIONALLY AFTER ESPECIALLY SEVERE STORM EVENTS.
- WHEN SEDIMENT ACCUMULATION OF MORE THAN 6" IS OBSERVED IN THE INFLOW AREA OR 2" IN THE REMAINING STORAGE AREA, OR ANY DEBRIS THAT MIGHT OBSTRUCT THE OUTFALL IS OBSERVED, THE FACILITY SHALL BE CLEANED.
- THE FACILITY SHALL BE CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS. THE OWNER SHALL CONTACT THE APPROPRIATE REGULATORY AGENCIES NOTIFYING THEM OF THE SPILL AND CLEANUP OPERATION.
- THE SEDIMENT AND DEBRIS SHALL BE REMOVED FROM THE UNDERGROUND STORMWATER MANAGEMENT FACILITY BY VACUUM TRUCK OR OTHER MANUAL MEANS. THE OWNER SHALL FOLLOW PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIAL AND LIQUID.
- THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY OBSTRUCTIONS AT LEAST ONCE EVERY SIX (6) MONTHS. IF OBSTRUCTIONS ARE FOUND, THE OWNER SHALL HAVE THEM REMOVED AND DISPOSED OF PROPERLY.
- OUTFALL PROTECTION SHALL BE REPAIRED AT ANY TIME WHEN EROSION IS OBSERVED AT THE OUTFALL.
- ANY CHIPPING, CRACKING OR DELAMINATION OF THE CONCRETE STRUCTURE SHOULD BE REPAIRED WITH GUIDANCE FROM THE MANUFACTURER, OLDCASTLE STORMWATER SOLUTIONS 800-579-8819.

UNDERGROUND STORMWATER MANAGEMENT FACILITY NOTES:

- ALL PIPE CONNECTIONS SHALL BE WATERPROOF/GASKETED.
- CONTRACTOR SHALL ENSURE THAT DEBRIS SHALL BE KEPT FROM ENTERING THE SYSTEM DURING THE SITE CONSTRUCTION PERIOD.
- POST CONSTRUCTION, THE OWNER SHALL ENSURE THAT TRASH AND DEBRIS DOES NOT ENTER THE FACILITY.
- RISERS SHALL BE 36" DIAMETER AND ACCESS COVERS SHALL HAVE 30" COVERS.
- A TRASH RACK SHALL BE PROVIDED FOR THE "LOW FLOW" 18" PIPE. THE TRASH RACK SHALL BE 2' HIGH AND 3' WIDE, AND SHALL BE GALVANIZED AND PAINTED BATTLESHIP GRAY.

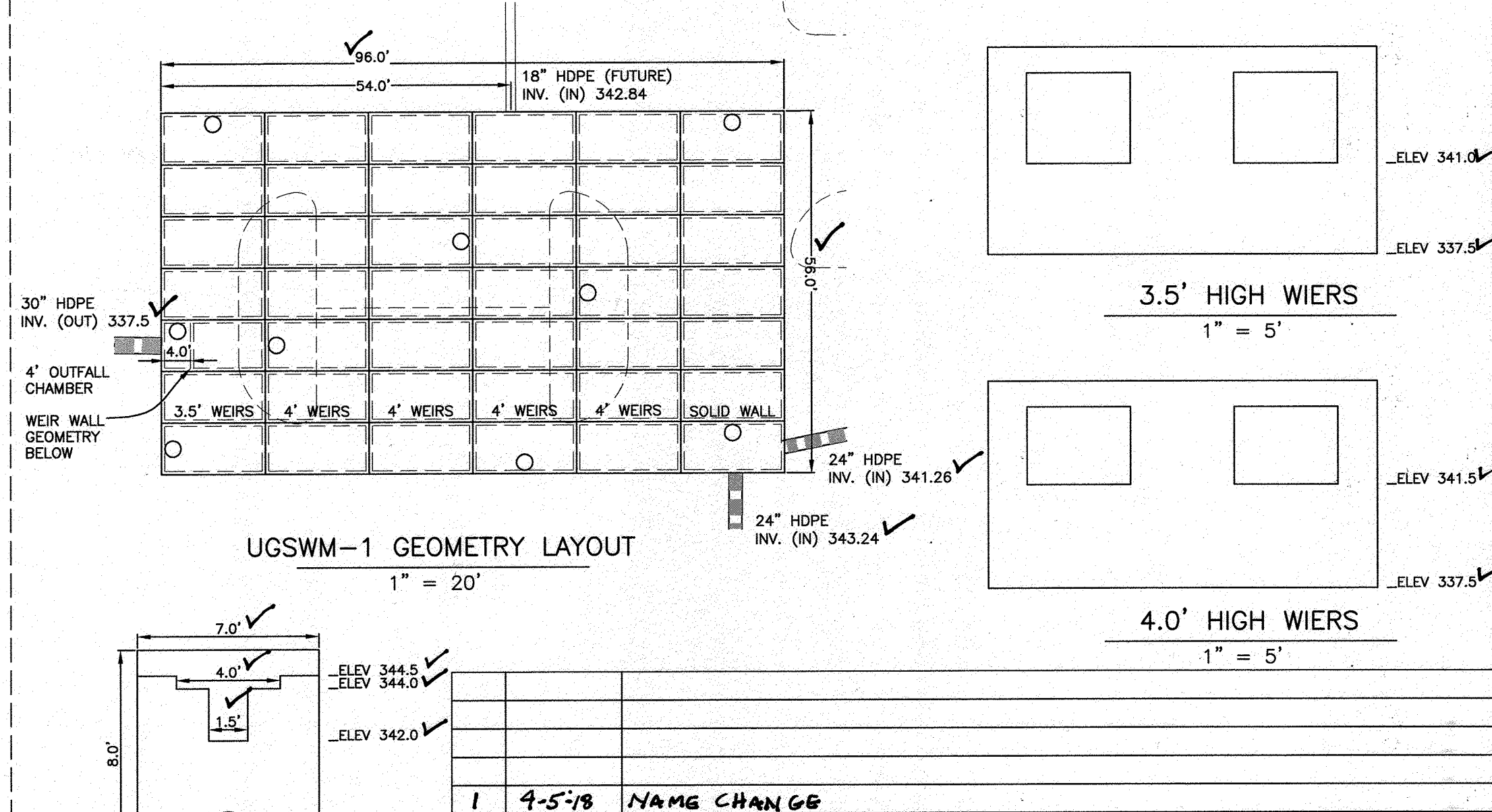


- PRELIMINARY -
NOT FOR CONSTRUCTION

Oldcastle Precast

STORMCAPTURE
SC2 DELATION SYSTEM

SCALE: 3/8" = 1'-0"



APPROVED: DEPARTMENT OF PUBLIC WORKS

James 12/12/2017
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Kevin 12-21-17
CHIEF, DIVISION OF LAND DEVELOPMENT

John 12-19-17
CHIEF, DEVELOPMENT ENGINEERING DIVISION

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. 21443, Expiration Date: 12/21-2022

AS-BUILT CERTIFICATION

I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications

Donald Mason, P.E.

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. 25376, Expiration Date: 01-01-19.

BENCHMARK ENGINEERING, INC.

6490 BALTIMORE NATIONAL PIKE & SUITE 315A ELLICOTT CITY, MARYLAND 21043
(P) 410-465-8105 (F) 410-465-8644
WWW.BE-ONLINEENGINEERING.COM

OWNER: PARCEL 714 LOCUST THICKET INVESTORS LLC 5636 MEADOWBRIDGE ROAD ELK RIDGE, MD 21075 410-465-4244

PARCEL 724 HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS 3430 COURTHOUSE DRIVE ELLICOTT CITY, MD 21043 410-313-4401

DEVELOPER: LOCUST THICKET INVESTORS LLC P.O. BOX 417 ELLICOTT CITY, MD 21041 410-465-4244

DESIGN: AAM CHECKED: CAM

DATE: NOVEMBER 2017 PROJECT NO. 0925

SCALE: AS SHOWN DRAWING 14 OF 42

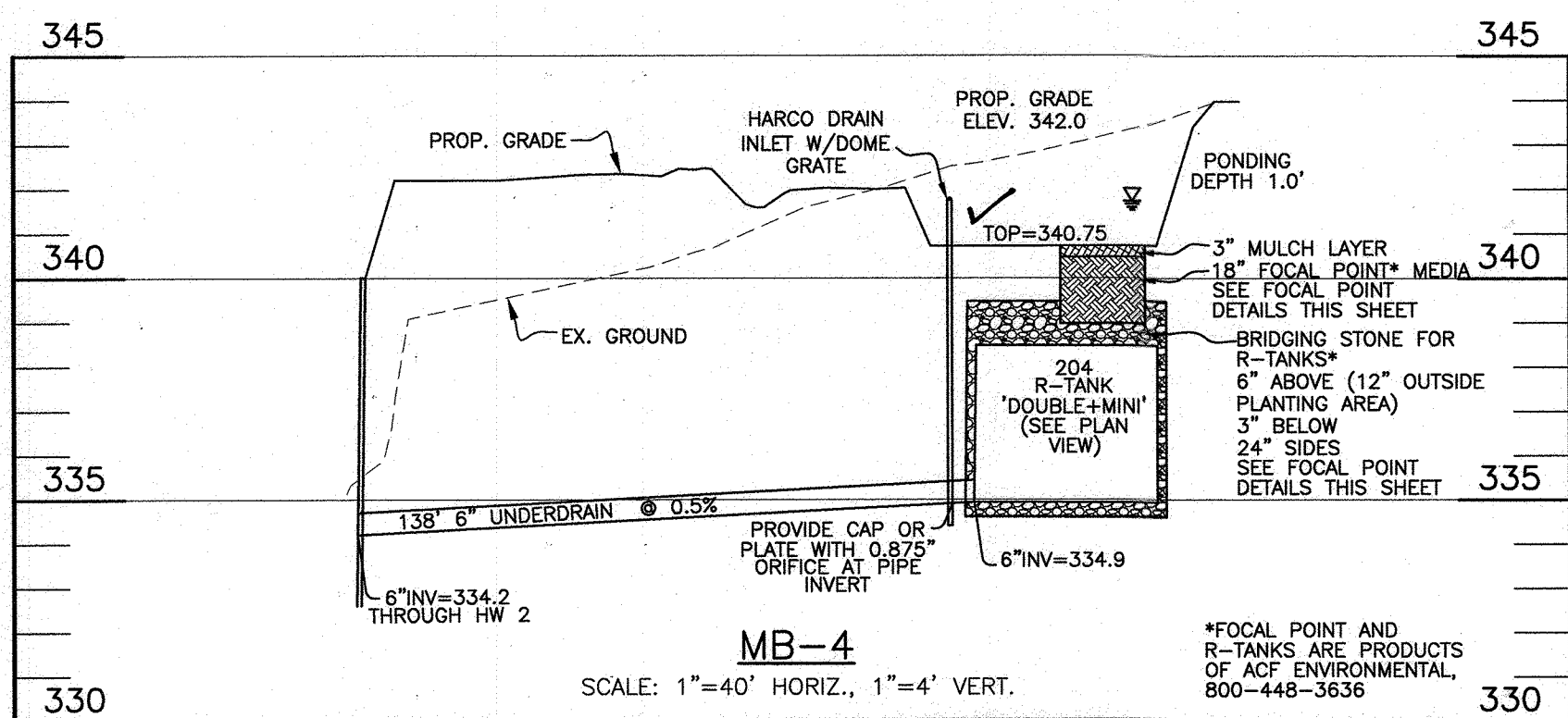
THE WEXLEY AT 100

BUILDABLE BULK PARCELS A, B, C & D AND OPEN SPACE LOTS 1 & 2

ZONED R-A-15 & POR TAX MAP 37, GRID 9, PARCELS 714 & 724 14TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FINAL ROUND CONSTRUCTION PLANS UNDERGROUND STORMWATER STORAGE DETAILS

AS-BUILT F-17-022



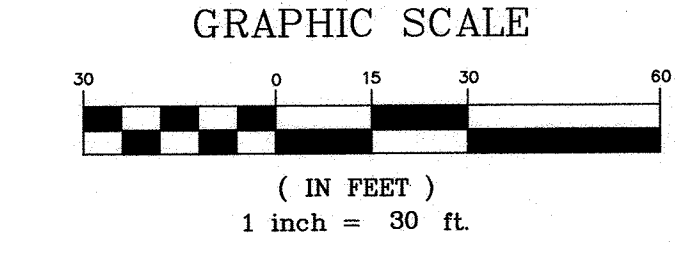
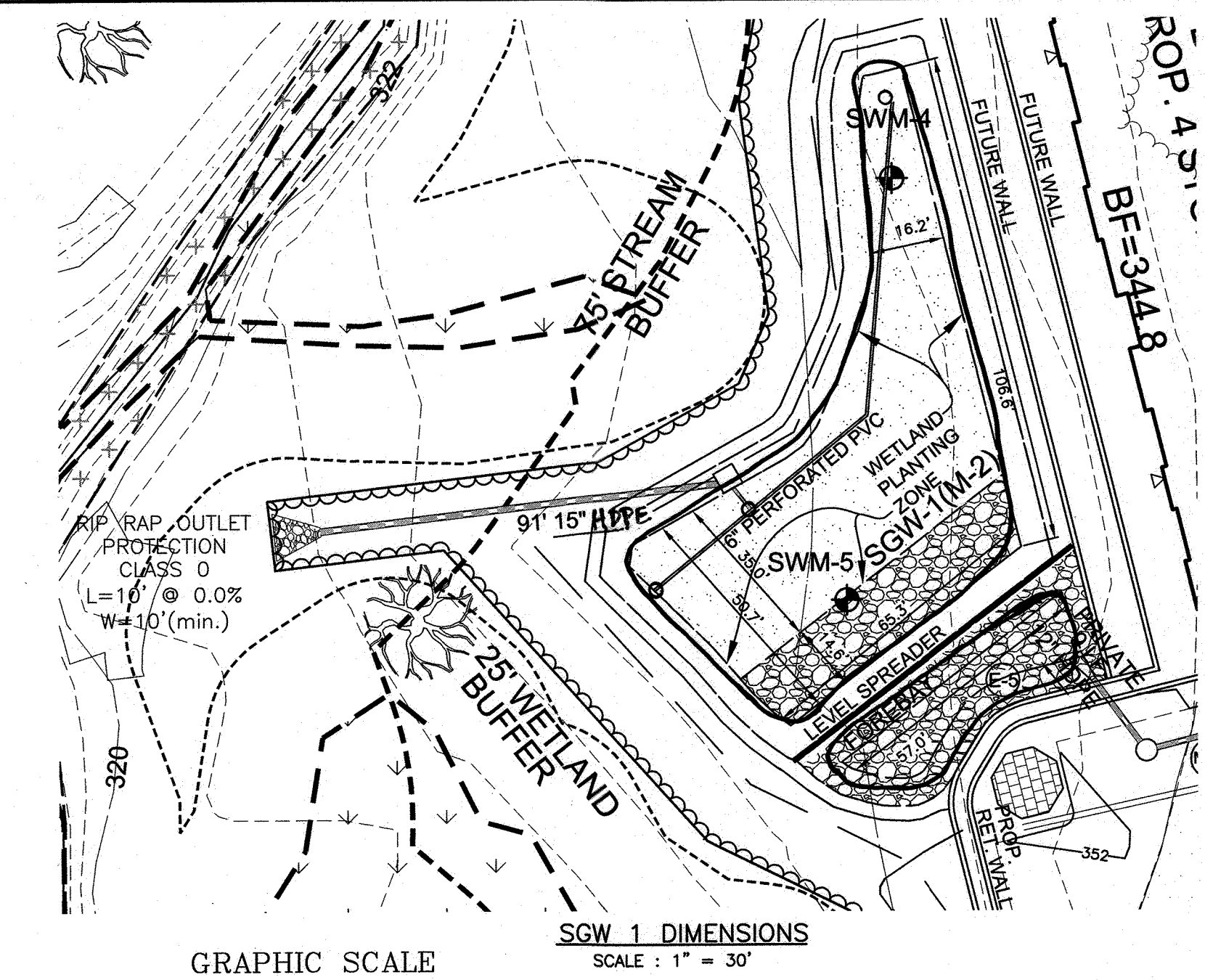
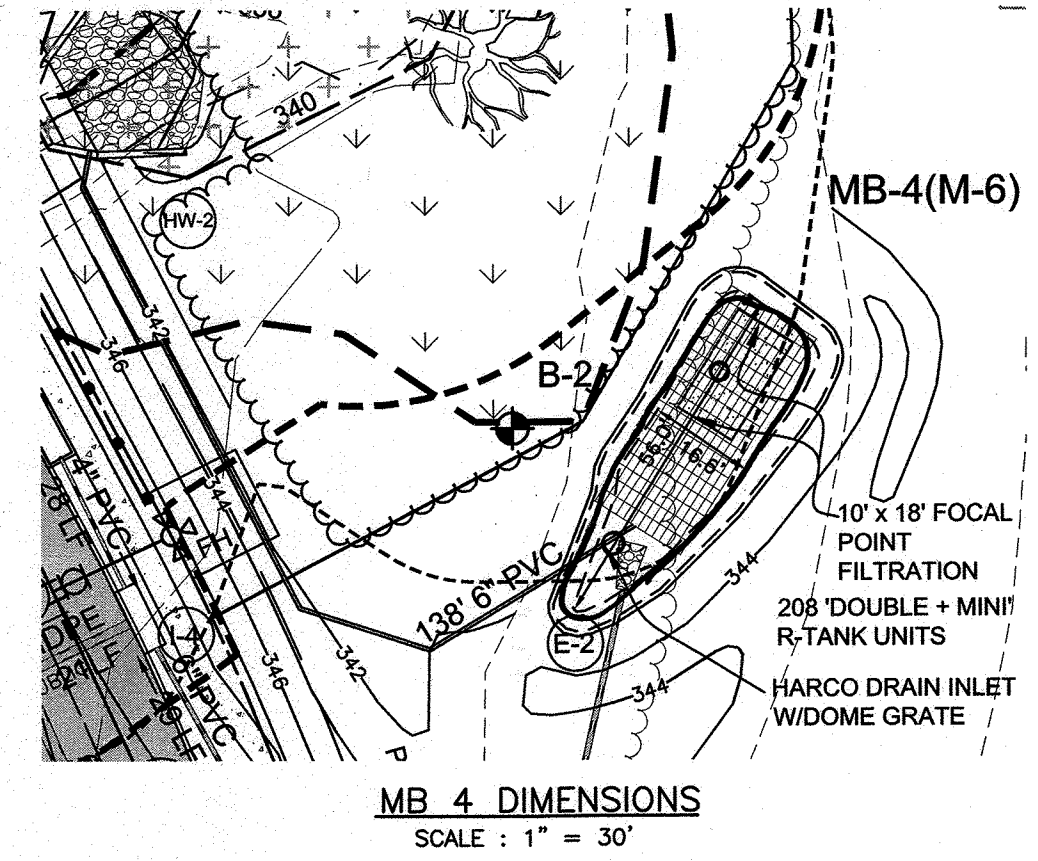
MB-4: Micro-Bioretentation (M-6)

Storage Computation	Elevation	Area	Average	Contour	Incremental	Total
Total Drainage Area:	38759 s.f.	(ft)	(sf)	(sf)	(ft)	(ft ³)
Impervious Area:	25039 s.f.	(ft)	(sf)	(sf)	(ft)	(ft ³)
Impervious:	65%	34075	775	985.5	1.00	985.5
Rv =	0.631					
ESDV =	3874.9 c.f.	34175	1198	985.5	1.00	985.5
25% Req'd Storage:	969 c.f.					
Focal Point Filtration:	176 sf	Provided: 10' x 18'	180 sf			
Focal Point storage volume:	162 sf					
Remaining Pe Storage:	2727 c.f. (in 208 'Double+Mini' R-tanks, below ponding)					

PLANTING LEGEND

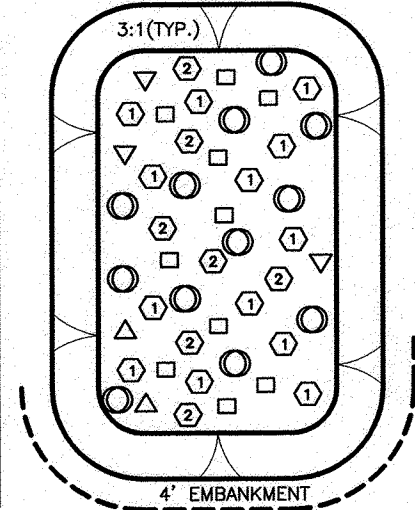
SYMBOL	NAME
①	12 ASTER LAEVIS BLUE BIRD ASTER
②	10 EUONYMUS AMERICANUS HEARTS-A-BURSTING
③	20 PANICUM VIRGATUM SWITCHGRASS
④	3 ARONIA ARBUTIFOLIA RED CHOKEBERRY

PLANTING DETAIL FOR MB-4 FOCAL POINT (M-6) MICRO-BIORETENTION
NOT TO SCALE



PLANTING LEGEND

SYMBOL	NAME
①	75 PERENNIAL SALTMARSH ASTOR ASTER TENUIFOLIUS
②	75 ALKALI BULRUSH SCIRPUS ROBUSTUS
③	75 PRAIRIE CORDGRASS SPARTINA PECTINATA
④	3 BLACK LOCUST ROBINIA PSEUDOACACIA
⑤	3 SWAMP WHITE OAK QUERCUS BICOLOR
⑥	20 YAUPON ILEX VOMITORIA



SGW-1: Submerged Gravel Wetland (M-2)

Storage Computation	Elevation	Area	Average	Contour	Incremental	Total
Total Drainage Area:	4.96 Ac.	(ft)	(sf)	(sf)	(ft)	(ft ³)
Impervious Area:	203135 s.f.	(ft)	(sf)	(sf)	(ft)	(ft ³)
Impervious:	55%	325.00	518	988.5	2.00	1977.0
Rv =	0.545					
ESDV =	17629.3 c.f.	327.00	1459	988.5	2.00	1977.0
75% Req'd Storage:	13221.975 c.f.					
10% Forebay Req'd:	1762.93 c.f.					
65% Above Stone:	11393.045 c.f.					
Depth of Stone:	2 ft.	(ft)	(sf)	(sf)	(ft)	(ft ³)
Stone Porosity:	0.40					
		326.00	4706	5841.5	2.00	11063.0
		328.00	6977	5841.5	2.00	11663.0
Total ESDV Stored:						13662 c.f.

Rev: 6977 x 2' x 0.4' = 5582 c.f.

STORMWATER MANAGEMENT PLANTING DATA

- PLANTINGS WITHIN THE PONDING AREA OF THE FACILITY ARE TO BE OF A MEDIUM TO HIGH WATER TOLERANCE.
- PLANTINGS ALONG THE PERIMETER (BERM) AREA OF THE MICRO-BIORETENTION FACILITY ARE TO BE OF A LOW TO MEDIUM WATER TOLERANCE.
- AVOID PLANTINGS WITH EXCESSIVE ROOT MASS IN POND AREA OF THE FACILITY NEAR O.B. PIPE AND UNDERDRAIN.

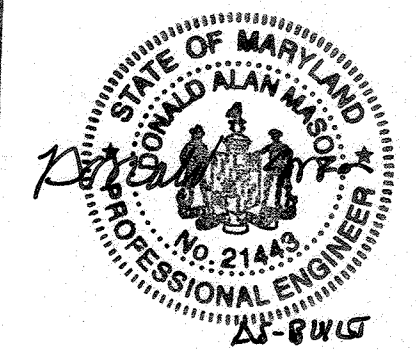
OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED SUBMERGED GRAVEL WETLANDS (M-2)

- DURING THE FIRST YEAR OF OPERATION, THE OWNER SHALL INSPECT THE FACILITY AFTER EVERY HEAVY STORM AND REPLACE VEGETATION AS NEEDED.
- THE OWNER SHALL REMOVE SEDIMENT ACCUMULATED IN THE PRETREATMENT AREAS AS NECESSARY.
- SIGNS OF UNEVEN FLOW WITHIN THE WETLAND MAY MEAN THAT THE GRAVEL OR UNDERDRAIN IS CLOGGED. THE GRAVEL OR UNDERDRAIN SHALL BE REMOVED, CLEANED, AND REPLACED, AS NEEDED.
- THE OWNER SHALL ENSURE A DENSE STAND OF WETLAND VEGETATION IS MAINTAINED THROUGH THE LIFE OF THE FACILITY AND REPLACE VEGETATION AS NEEDED.
- THE OWNER SHALL ENSURE THE INLETS AND OUTLETS TO EACH GRAVEL WETLAND CELL ARE FREE FROM DEBRIS.
- THE OWNER SHALL REPAIR EROSION AT INFLOW POINTS AND ENSURE FLOW SPLITTERS ARE FUNCTIONAL TO PREVENT STORM WATER FROM BYPASSING THE FACILITY.

OPERATION AND MAINTENANCE SCHEDULE FOR BIORETENTION (M-6)

- 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 WASHOUT. 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 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. 21443, Expiration Date: 12-21-2021



AS-BUILT CERTIFICATION: I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications

Donald Mason, P.E. Date: 12-10-2020

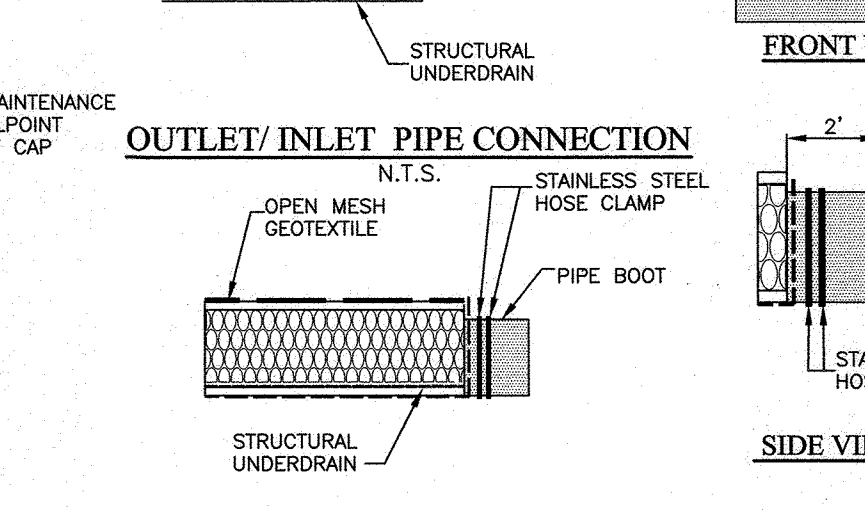
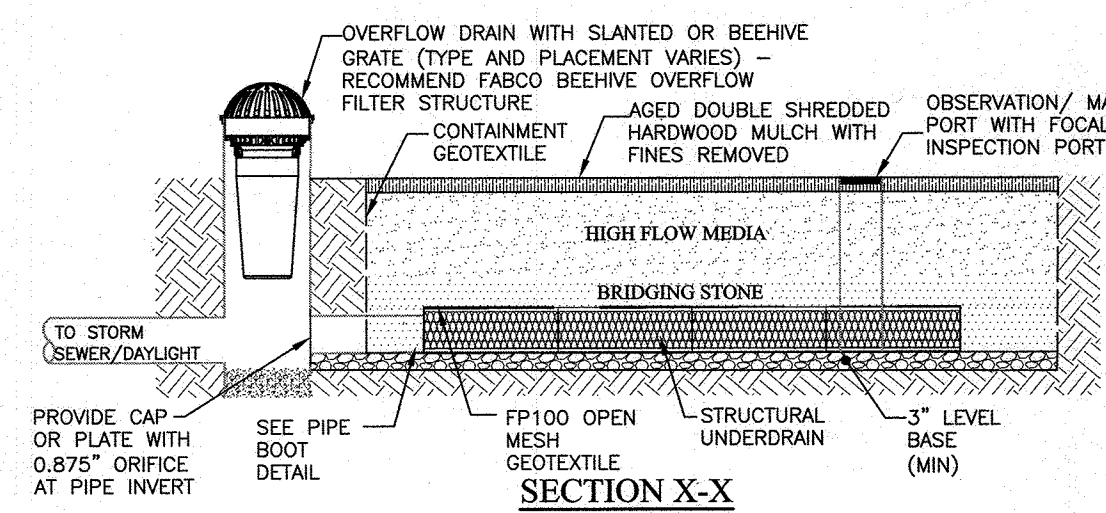
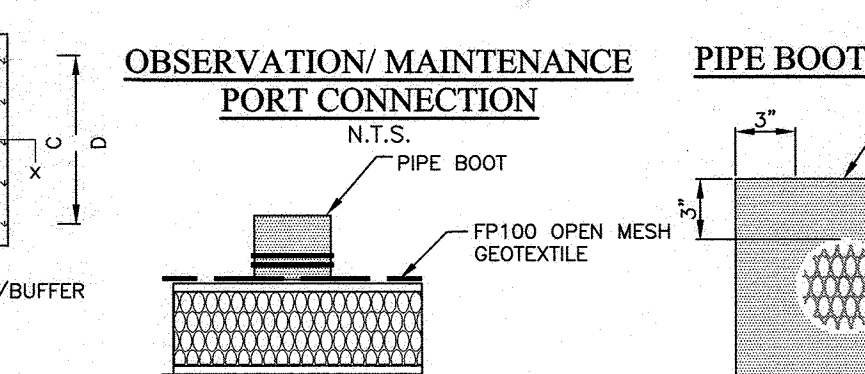
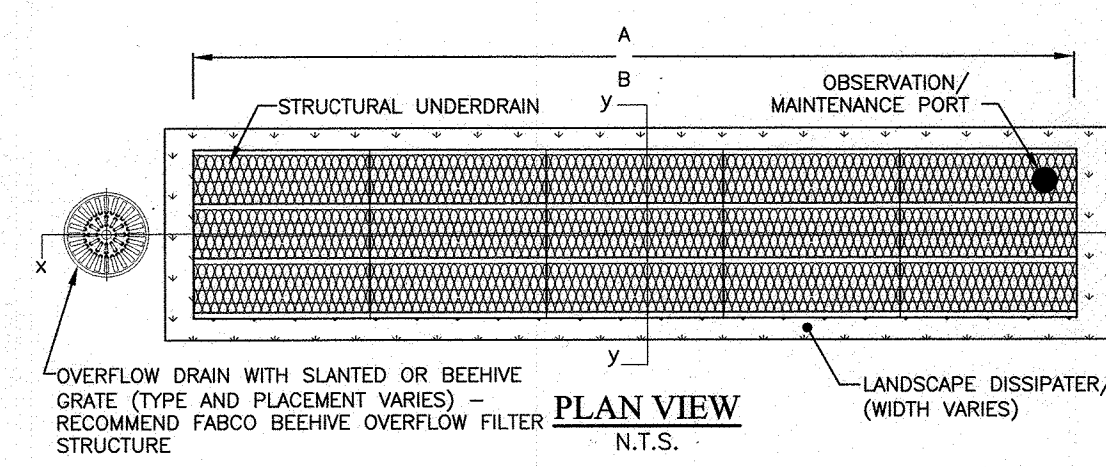
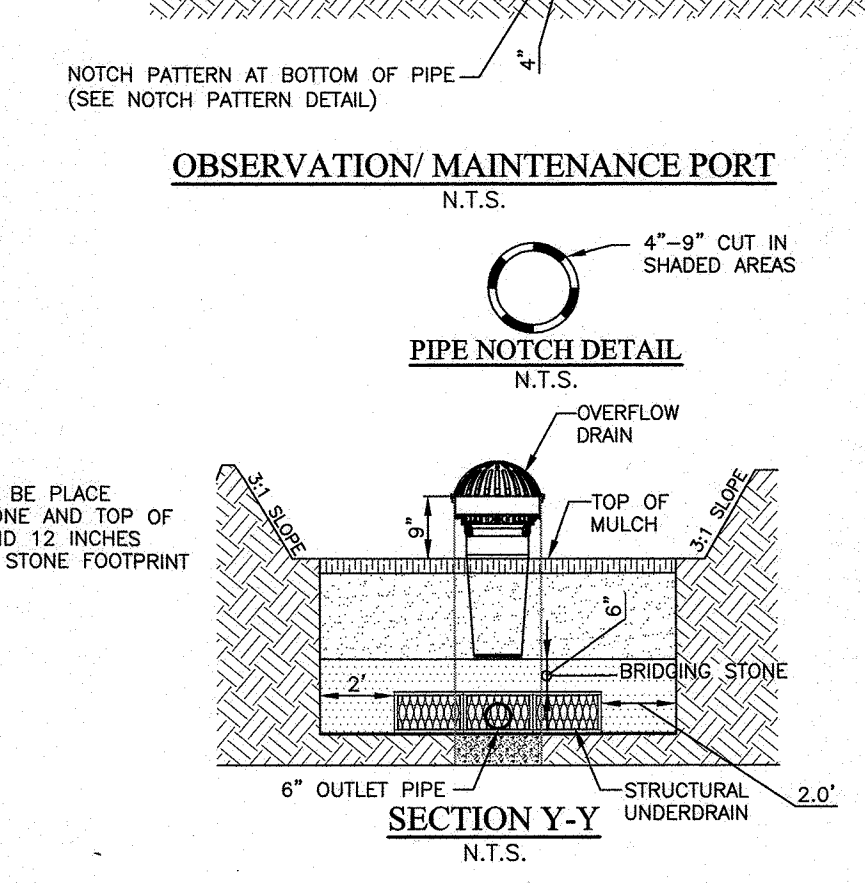
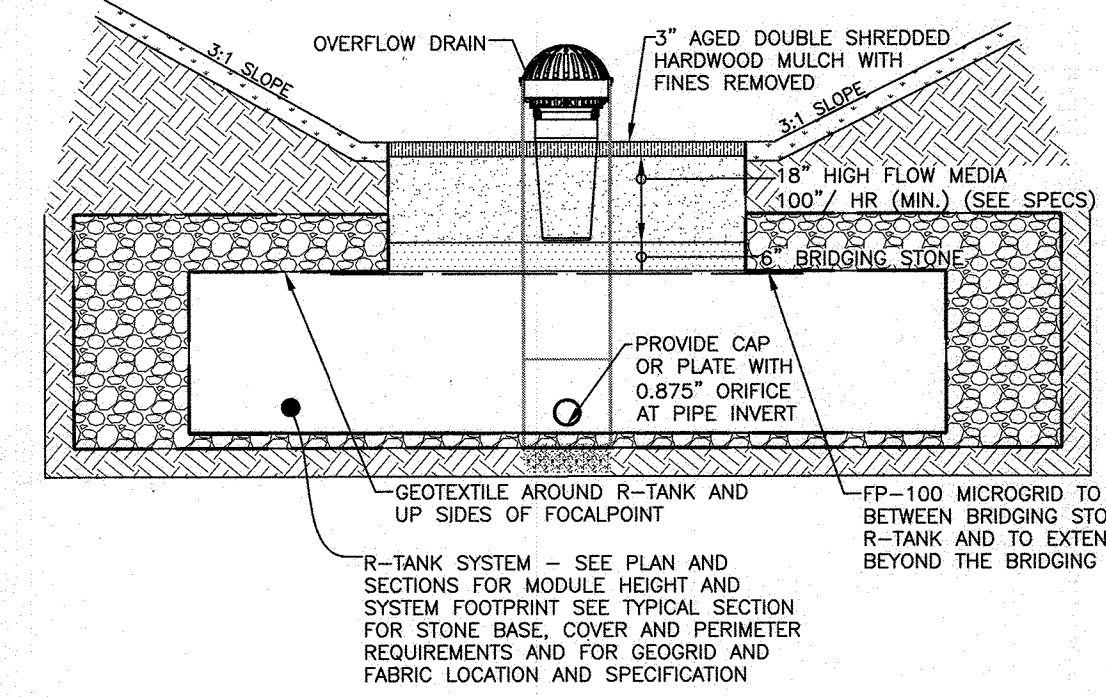
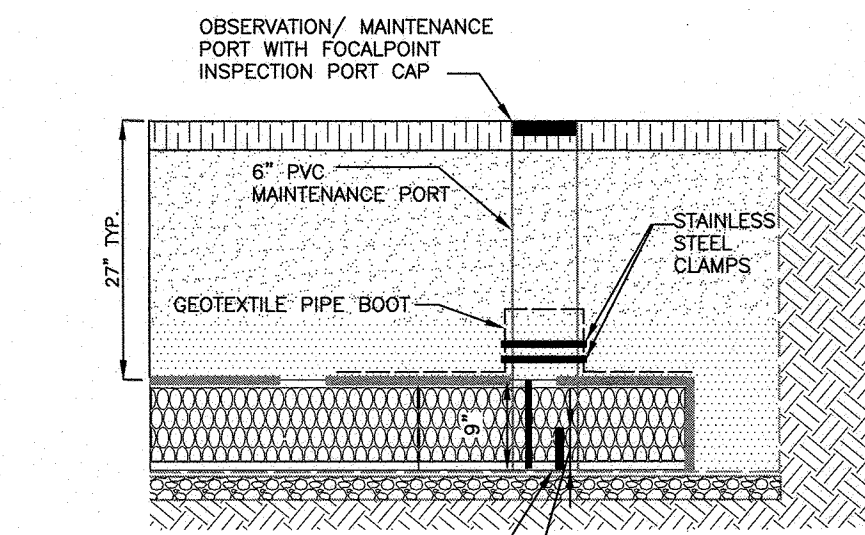
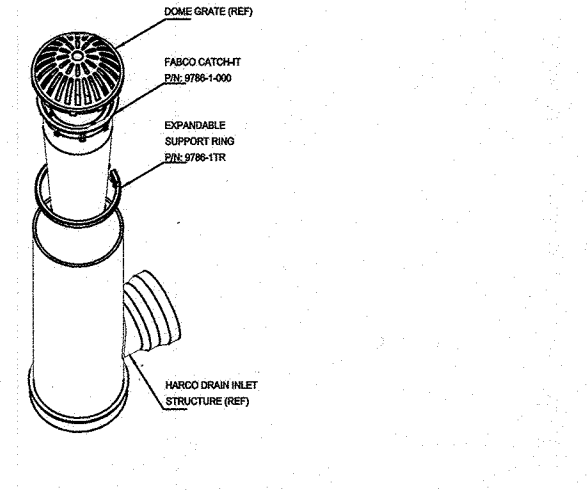
Focal Point CP/Low Flow Orifice Sizing

Depth (ft)	Surface Area (sq.ft)	Focalpoint size	Incremental Stage Volume (c.f.)	Cumulative Volume (c.f.)	Head (ft)	Orifice Flow (cfs)	Drawdown Time (secs)	Drawdown Time (hours)
6.79	Surface Ponding		986	3889.00	6.79	0.052	18,826.94	5.2
5.79	FocalPoint	180.00	162.00	2953.00	5.79	0.048	3,349.76	0.9
3.54	R-Tank Storage		2761.00	2761.00	3.54	0.039	72,484.50	20.1
TOTAL								26.3

CA (2gh)^{1/2} Orifice Diameter: 0.875 inch
Area: 0.0042 sq.ft
Head: 6.79 feet
g: 32.174 ft/s²
C: 0.6 Orifice/Grate

FOCAL POINT WITH EXPANDED R-TANK FOOTPRINT DATA

FOCAL POINT LENGTH	10'
FOCAL POINT WIDTH	10'
OVERFLOW RIM ELEV.	341.75
TOP OF MULCH ELEV.	340.75
TOP OF BRIDGING STONE ELEV.	339.00
TOP OF R-TANK ELEV.	338.00
BOTTOM OF R-TANK ELEV.	334.00
STONE BASE ELEV.	333.00
R-TANK FOOTPRINT	15.17 x 9.89



FOCAL POINT - MICRO-BIORETENTION DETAIL
N.T.S.

APPROVED: DEPARTMENT OF PUBLIC WORKS
[Signature] 11/20/18
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 7-5-18
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 7-3-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION

SGW-5: Submerged Gravel Wetland (M-2)

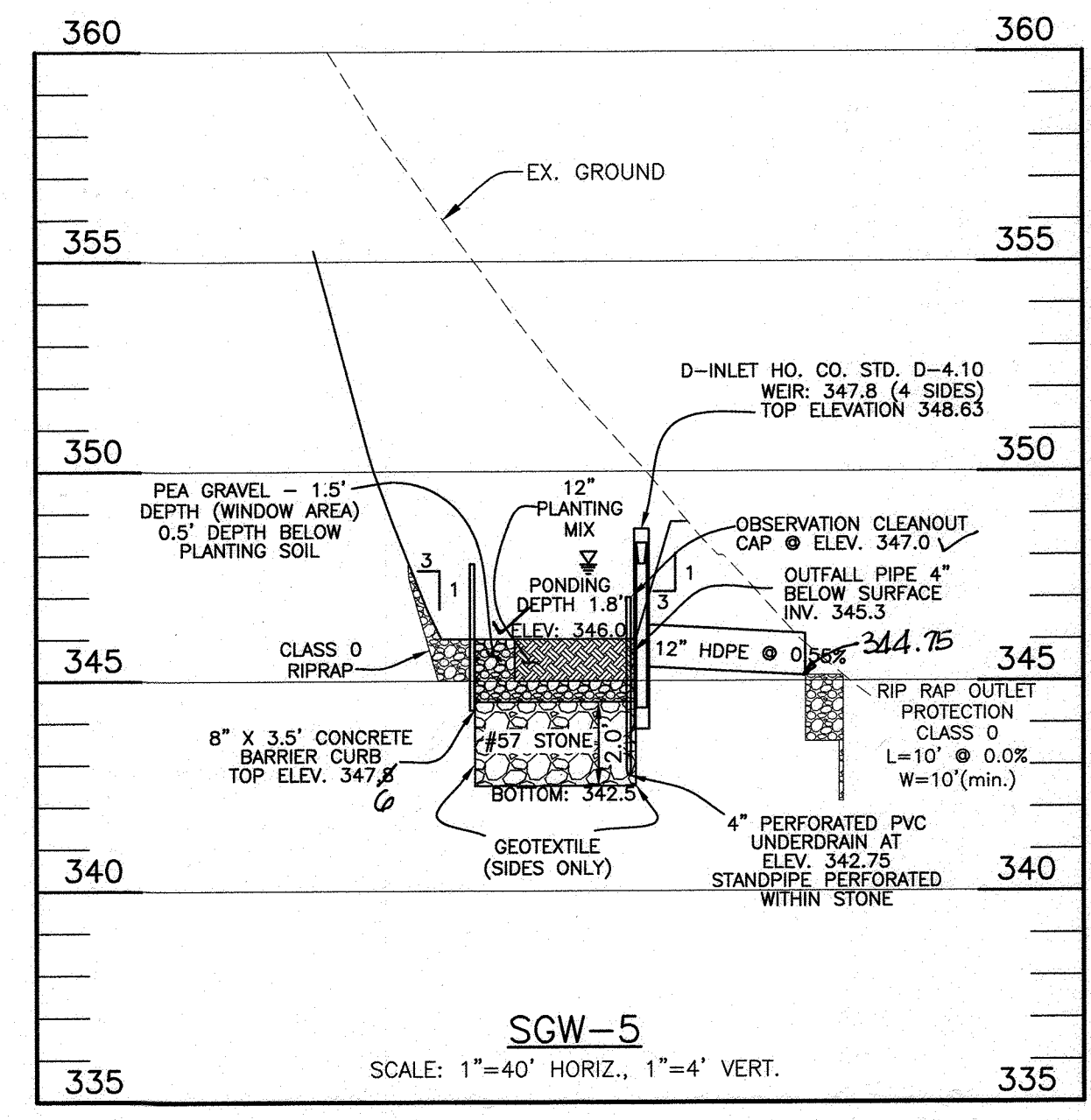
Storage Computation	Elevation	Area	Average	Contour	Incremental	Total
Total Drainage Area:	0.99 Ac.	(ft)	(sf)	(sf)	(ft)	(ft ³)
Impervious Area:	43178 s.f.	(ft)	(sf)	(sf)	(ft)	(ft ³)
Impervious:	52%	346.00	169	281.0	1.80	505.8
Rv =	0.518					
ESDV =	3541.1 c.f.	347.80	394	281.0	1.80	505.8
75% Req'd Storage:	2655.825 c.f.					
10% Forebay Req'd:	354.11 c.f.					
65% Above Stone:	2302.715 c.f.					
Depth of Stone:	2 ft.	(ft)	(sf)	(sf)	(ft)	(ft ³)
Stone Porosity:	0.40					
		346.00	991	1281.5	1.80	2306.7
		347.80	1602	1281.5	1.80	2306.7
Total ESDV Stored:						2813 c.f.

Rev: 1602 x 2' x 0.4' = 1282 c.f.

PLANTING LEGEND

SYMBOL	NAME
①	12 SALTMARSH ASTOR ASTER TENUIFOLIUS
②	12 ALKALI BULRUSH SCIRPUS ROBUSTUS
③	12 PRAIRIE CORDGRASS SPARTINA PECTINATA
④	1 BLACK LOCUST ROBINIA PSEUDOACACIA
⑤	1 SWAMP WHITE OAK QUERCUS BICOLOR
⑥	4 YAUPON ILEX VOMITORIA

PLANTING DETAIL FOR SGW5 SUBMERGED GRAVEL WETLAND AREA
NOT TO SCALE



1 5/23/18 REVISED BY SHEET SUBSTITUTION TO CHANGE NAME, CORRECT MISSING DATA AND MOVE SGW-1.

BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS
8460 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043
(7) 410-465-6100 (F) 410-465-6844
WWW.BE-CIVILENGINEERING.COM

THE WEXLEY AT 100
BUILDABLE BULK PARCELS A, B, C & D
AND OPEN SPACE LOTS 1 & 2

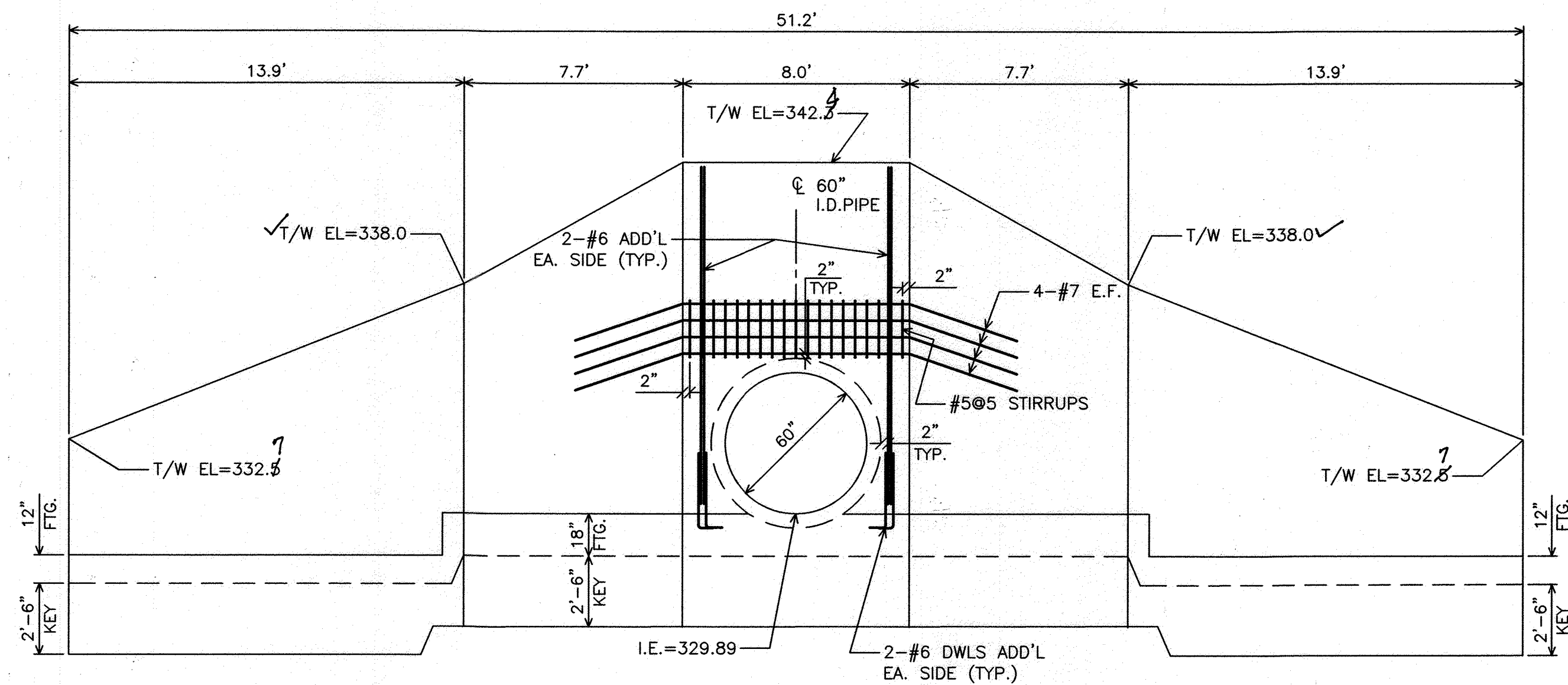
OWNER: PARCEL 714
LOCUST THICKET INVESTORS LLC
5836 MEADOWBRIDGE ROAD
ELKRIE, MD 21075
410-465-4244

DEVELOPER: PARCEL 724
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
3430 COURTHOUSE DRIVE
ELLICOTT CITY, MD 21043
410-313-4401

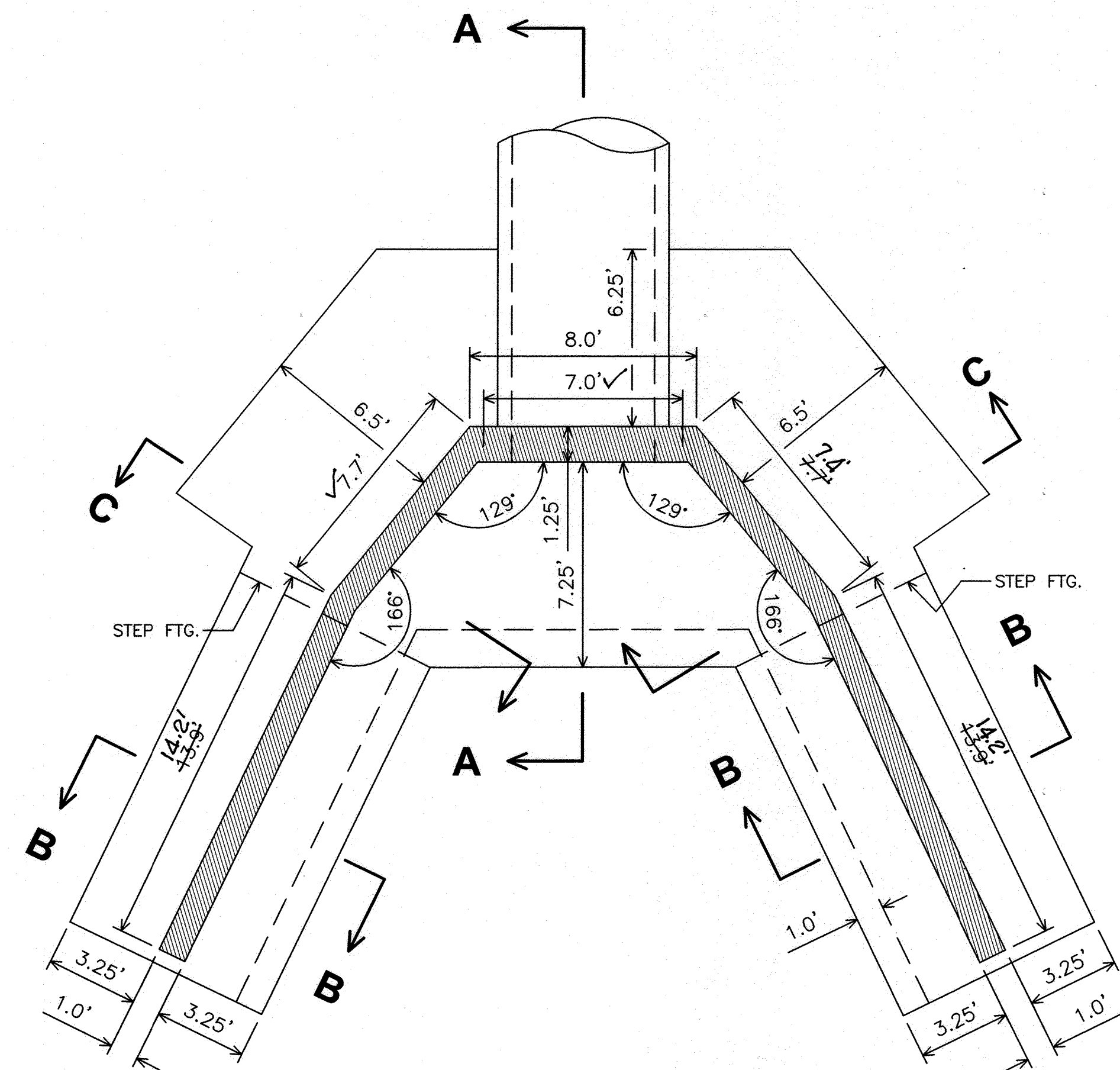
DESIGN: AAM CHECKED: CAM

DATE: NOVEMBER 2017 PROJECT NO. 0925
SCALE: AS SHOWN DRAWING 15 OF 42

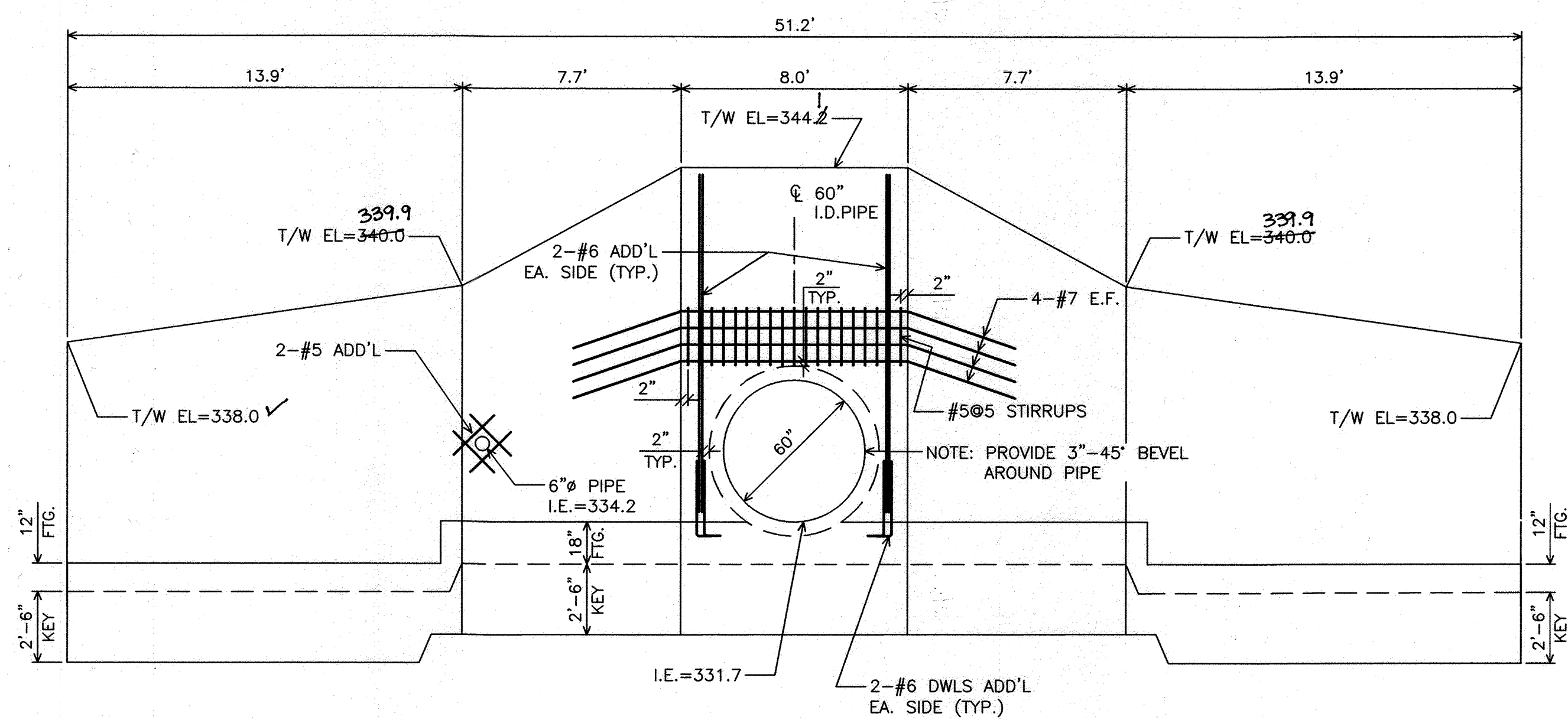
AS-BUILT F-17-022



STRUCTURE HW-1 ELEVATION
SCALE: 1/4" = 1'-0"

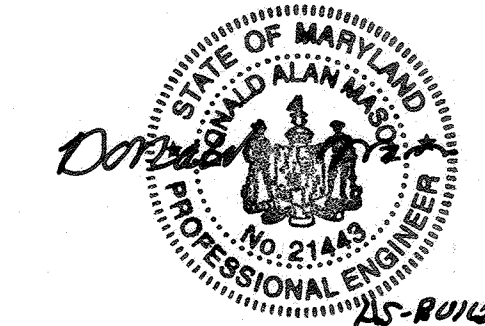


STRUCTURE HW-1 & HW-2 PLAN VIEW
SCALE: 1/4" = 1'-0"



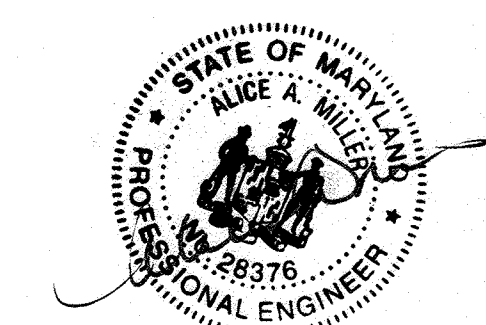
STRUCTURE HW-2 ELEVATION
SCALE: 1/4" = 1'-0"

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. 21443, Expiration Date: 12-21-22



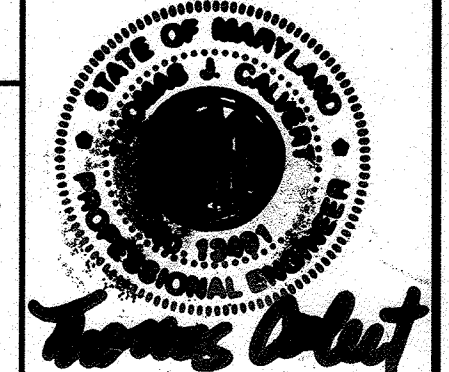
AS-BUILT CERTIFICATION
I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications
Donald Mason, P.E. Date: 12-10-2020

APPROVED: DEPARTMENT OF PUBLIC WORKS
12/14/2017
APPROVED: DEPARTMENT OF PLANNING AND ZONING
12-21-17
APPROVED: DEPARTMENT OF LAND DEVELOPMENT
12/17/17



FORNAME CHANGE 5/23/19
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. 28376, Expiration Date: 1-1-19

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 13491, EXPIRATION DATE: 08/18/19

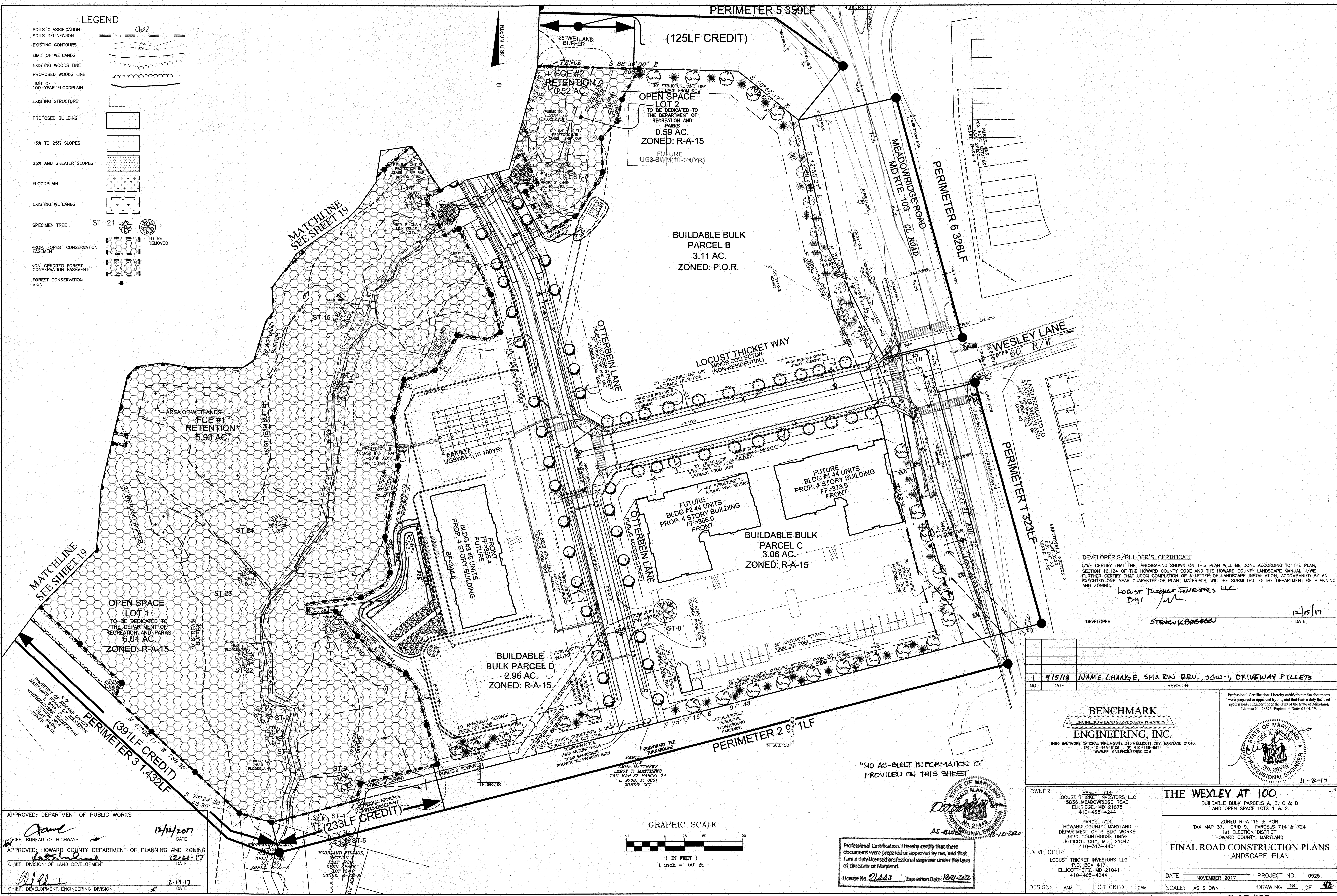


HILLIS-CARNES
ENGINEERING ASSOCIATES
10975 Guilford Road, Suite A Annapolis Junction, Maryland
(410) 890-4786 WWW.HCEA.COM Fax: (410) 890-4098

HW-1 & HW-2 HEADWALL STRUCTURE PLAN AND ELEVATIONS
THE WEXLEY AT 100
ELKRIDGE, MARYLAND

REVISION NO.	DESCRIPTION	DATE	JOB NUMBER:	DESIGNED BY:
1	NAME CHANGE SIDEWALK PILLETS, & HANDICAP RAMP REV.	4/5/18	17440A	TJC
			SCALE: AS SHOWN	DRAWN BY: AM
			DATE: 08/04/17	APPROVED BY: TJC

- LEGEND**
- SOILS CLASSIFICATION
 - SOILS DELINEATION
 - EXISTING CONTOURS
 - LIMIT OF WETLANDS
 - EXISTING WOODS LINE
 - PROPOSED WOODS LINE
 - LIMIT OF 100-YEAR FLOODPLAIN
 - EXISTING STRUCTURE
 - PROPOSED BUILDING
 - 15% TO 25% SLOPES
 - 25% AND GREATER SLOPES
 - FLOODPLAIN
 - EXISTING WETLANDS
 - SPECIMEN TREE ST-21
 - PROP. FOREST CONSERVATION EASEMENT
 - NON-CREDITED FOREST CONSERVATION EASEMENT
 - FOREST CONSERVATION SIGN



DEVELOPER'S/BUILDER'S CERTIFICATE
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF 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.
 LOUST THICKET INVESTORS LLC
 P91
 DATE: 12/15/17
 DEVELOPER: STEVEN K. BROSCH

NO.	DATE	REVISION
1	4/5/18	NAME CHANGE, SHA R/W REV., SGW-1, DRIVEWAY FILLETS

BENCHMARK ENGINEERING, INC.
 ENGINEERS & LAND SURVEYORS & PLANNERS
 8480 BALTIMORE NATIONAL PIKE & SUITE 315 • ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-8100 (F) 410-465-0844
 WWW.BEC-ENGINEERING.COM

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. 28376, Expiration Date: 01-01-19.

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 No. 28376
 11-20-17

THE WEXLEY AT 100
 BUILDABLE BULK PARCELS A, B, C & D AND OPEN SPACE LOTS 1 & 2

ZONED R-A-15 & POR
 TAX MAP 37, GRID 9, PARCELS 714 & 724
 1st ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

FINAL ROAD CONSTRUCTION PLANS
 LANDSCAPE PLAN

OWNER: PARCEL 714
 LOUST THICKET INVESTORS LLC
 5836 MEADOWDRIDGE ROAD
 ELKDRIDGE, MD 21075
 410-465-4244

PARCEL 724
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 3430 COURTHOUSE DRIVE
 ELLICOTT CITY, MD 21043
 410-313-4401

DEVELOPER: LOUST THICKET INVESTORS LLC
 P.O. BOX 417
 ELLICOTT CITY, MD 21041
 410-465-4244

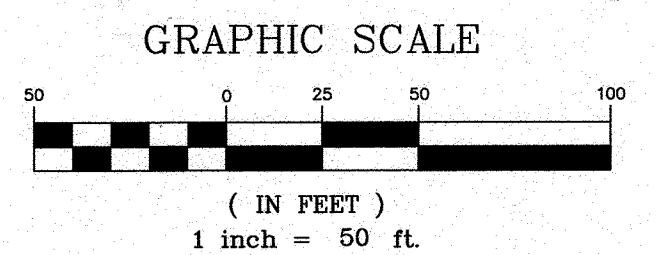
DESIGN: AAM CHECKED: CAM

DATE: NOVEMBER 2017 PROJECT NO. 0925
 SCALE: AS SHOWN DRAWING 18 OF 42

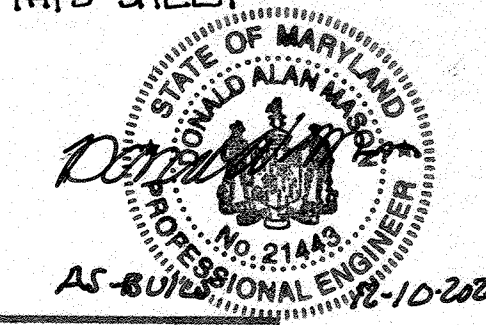
APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 12/12/2017 DATE
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 12-21-17 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

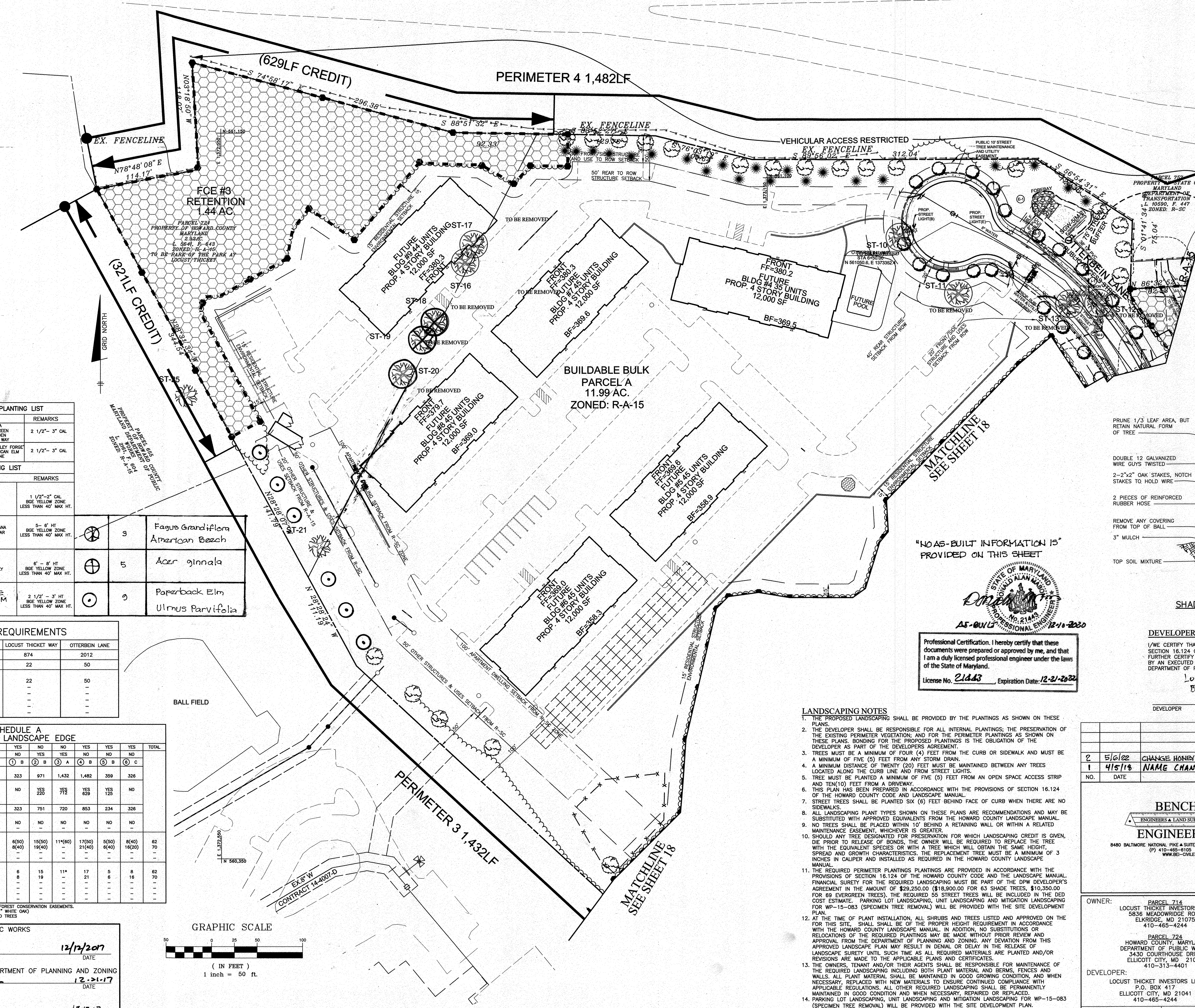
[Signature] 12-19-17 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION



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. 21143, Expiration Date: 12-21-2022



"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"



LEGEND

SOILS CLASSIFICATION	
SOILS DELINEATION	
EXISTING CONTOURS	
LIMIT OF WETLANDS	
EXISTING WOODS LINE	
PROPOSED WOODS LINE	
LIMIT OF 100-YEAR FLOODPLAIN	
EXISTING STRUCTURE	
PROPOSED BUILDING	
15% TO 25% SLOPES	
25% AND GREATER SLOPES	
FLOODPLAIN	
EXISTING WETLANDS	
SPECIMEN TREE	
PROP. FOREST CONSERVATION EASEMENT	
NON-CREDITED FOREST CONSERVATION EASEMENT	
FOREST CONSERVATION SIGN	

STREET TREE LANDSCAPE PLANTING LIST

SYMBOL	QUANTITY	NAME	REMARKS
	847LF/40	TILIA CORDATA 'GREENSPIRE' GREEN LITTLE LAF LINDEN LOCUST THICKET WAY	2 1/2" - 3" CAL
	2,012LF/40	ULMUS AMERICANA 'VALLEY FORGE' VALLEY FORGE AMERICAN ELM OTTERBEIN LANE	2 1/2" - 3" CAL

LANDSCAPE PLANTING LIST

SYMBOL	QUANTITY	NAME	REMARKS
	8	ACER CAMPESTRE REDDE MAPLE	1 1/2" - 2" CAL BGE YELLOW ZONE LESS THAN 40' MAX HT.
	24	JUNIPERUS VIRGINIANA EASTERN RED CEDAR	6" - 8" HT BGE YELLOW ZONE LESS THAN 40' MAX HT.
	85	ILEX OPACA AMERICAN HOLLY	6" - 8" HT BGE YELLOW ZONE LESS THAN 40' MAX HT.
	50	RED MAPLE ACER RUBRUM	2 1/2" - 3" HT BGE YELLOW ZONE LESS THAN 40' MAX HT.

STREET TREE REQUIREMENTS

ROADWAY NAME	LOCUST THICKET WAY	OTTERBEIN LANE
LINEAR FEET OF PERIMETER ROADWAY	874	2012
STREET TREES REQUIRED 1:40	22	50
NUMBER OF PLANTS PROVIDED:		
SHADE TREES	22	50
EVERGREEN TREES	-	-
OTHER TREES (≥1 SUBSTITUTE)	-	-
SHRUBS (10:1 SUBSTITUTE)	-	-
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	-	-

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAY	YES	NO	NO	YES	YES	YES	TOTAL
PERIMETER NO. / LANDSCAPE TYPE		1	2	3	4	5	6	C
LINEAR FEET OF PERIMETER (FRONTAGE/ROADWAY)		323	971	1,432	1,482	359	326	
CREDIT FOR EXISTING VEGETATION: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)		NO	YES	YES	YES	YES	NO	
LINEAR FEET OF REQUIRED PERIMETER LANDSCAPING		323	751	720	853	234	326	
CREDIT FOR WALL, FENCE OR BERM: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)		NO	NO	NO	NO	NO	NO	
NUMBER OF PLANTS PROVIDED:								
SHADE TREES	6(50)	15(50)	11*(60)	17(60)	5(50)	8(40)	62	
EVERGREEN TREES	8(40)	19(40)	-	21(40)	6(40)	16(20)	70	
OTHER TREES (≥1 SUBSTITUTE)	-	-	-	-	-	-	-	
SHRUBS	-	-	-	-	-	-	-	

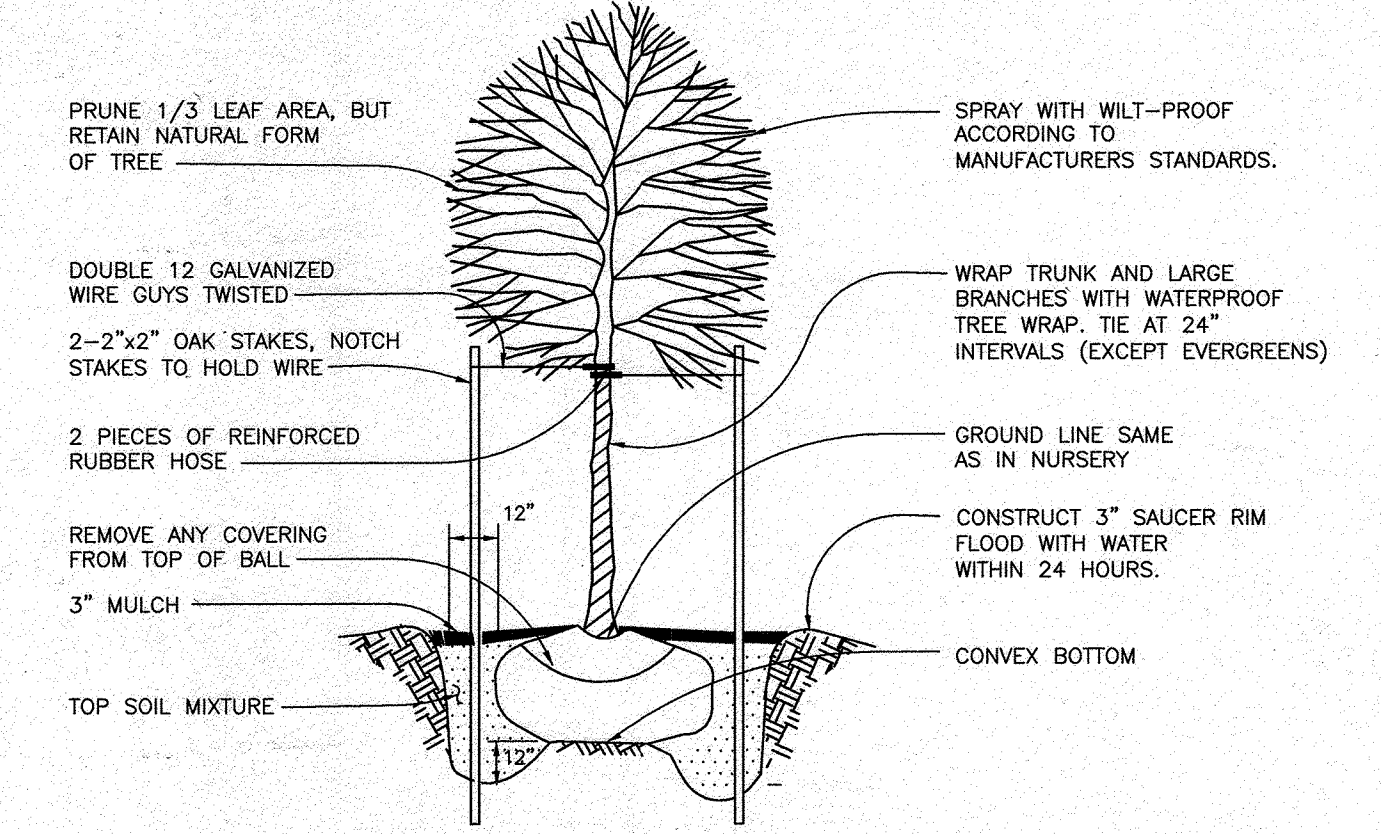
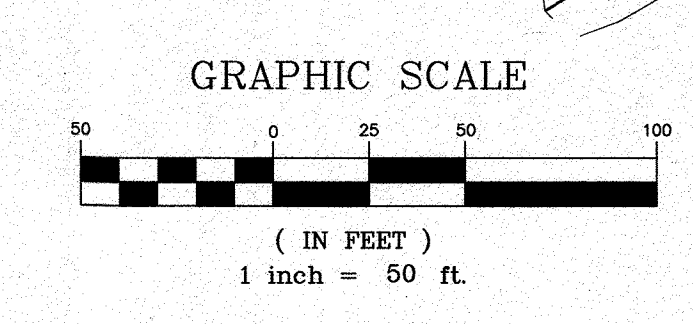
APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS *[Signature]* 12/17/2017 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING *[Signature]* 12-21-17 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT

CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* 12-19-17 DATE



"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"

STATE OF MARYLAND
DORIAN ALAN HARRIS
PROFESSIONAL ENGINEER
No. 21443
12-10-2020

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. 21443 Expiration Date: 12-21-2020

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF 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.

By: *[Signature]*
LOCUST THICKET INVESTORS LLC
STEVEN B. BROWN, MEMBER
11/20/17 DATE

- ### LANDSCAPING NOTES
- THE PROPOSED LANDSCAPING SHALL BE PROVIDED BY THE PLANTINGS AS SHOWN ON THESE PLANS.
 - THE DEVELOPER SHALL BE RESPONSIBLE FOR ALL INTERNAL PLANTINGS; THE PRESERVATION OF THE EXISTING PERIMETER VEGETATION; AND FOR THE PERIMETER PLANTINGS AS SHOWN ON THESE PLANS. BONDING FOR THE PROPOSED PLANTINGS IS THE OBLIGATION OF THE DEVELOPER AS PART OF THE DEVELOPER'S AGREEMENT.
 - TREES MUST BE A MINIMUM OF FOUR (4) FEET FROM THE CURB OR SIDEWALK AND MUST BE A MINIMUM OF FIVE (5) FEET FROM ANY STORM DRAIN.
 - A MINIMUM DISTANCE OF TWENTY (20) FEET MUST BE MAINTAINED BETWEEN ANY TREES LOCATED ALONG THE CURB LINE AND FROM STREET LIGHTS.
 - TREES MUST BE PLANTED A MINIMUM OF FIVE (5) FEET FROM AN OPEN SPACE ACCESS STRIP AND TEN (10) FEET FROM A DRIVEWAY.
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
 - STREET TREES SHALL BE PLANTED SIX (6) FEET BEHIND FACE OF CURB WHEN THERE ARE NO SIDEWALKS.
 - ALL LANDSCAPING PLANT TYPES SHOWN ON THESE PLANS ARE RECOMMENDATIONS AND MAY BE SUBSTITUTED WITH APPROVED EQUIVALENTS FROM THE HOWARD COUNTY LANDSCAPE MANUAL.
 - NO TREES SHALL BE PLACED WITHIN 10' BEHIND A RETAINING WALL OR WITHIN A RELATED MAINTENANCE EASEMENT, WHICHEVER IS GREATER.
 - 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.
 - THE REQUIRED PERIMETER PLANTINGS PLANTINGS ARE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$29,250.00 (\$18,900.00 FOR 63 SHADE TREES, \$10,350.00 FOR 69 EVERGREEN TREES). THE REQUIRED 55 STREET TREES WILL BE INCLUDED IN THE DED COST ESTIMATE. PARKING LOT LANDSCAPING, UNIT LANDSCAPING AND MITIGATION LANDSCAPING FOR WP-15-083 (SPECIMEN TREE REMOVAL) WILL BE PROVIDED WITH THE SITE DEVELOPMENT PLAN.
 - AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM 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 THE APPLICABLE PLANS AND CERTIFICATES.
 - THE OWNERS, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIAL AND BERMS, FENCES AND WALLS. ALL PLANT MATERIAL SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND WHEN NECESSARY, REPAIRED OR REPLACED.
 - PARKING LOT LANDSCAPING, UNIT LANDSCAPING AND MITIGATION LANDSCAPING FOR WP-15-083 (SPECIMEN TREE REMOVAL) WILL BE PROVIDED WITH THE SITE DEVELOPMENT PLAN.

NO.	DATE	REVISION
2	5/16/18	CHANGE HONEY LOCUST TO RED MAPLE AND UPDATE PLANT LIST PER AS-BUILT
1	4/15/18	NAME CHANGE, DRIVEWAY FILLETS, REMOVE GRADING RESTRICTION

BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE & SUITE 3154 ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-8844
WWW.BENCHKM-ENGINEERING.COM

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. 28576, Expiration Date: 01-01-19.

THE WEXLEY AT 100
BUILDABLE BULK PARCELS A, B, C & D AND OPEN SPACE LOTS 1 & 2

ZONED R-A-15 & POR
TAX MAP 37, GRID 9, PARCELS 714 & 724
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FINAL ROAD CONSTRUCTION PLANS
LANDSCAPE PLAN

OWNER: PARCEL 714
LOCUST THICKET INVESTORS LLC
5836 MEADOWBROOK ROAD
ELK RIDGE, MD 21075
410-465-4244

DEVELOPER: PARCEL 724
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
3430 COURTHOUSE DRIVE
ELLICOTT CITY, MD 21043
410-313-4401

DESIGN: AM CHECKED: CAM SCALE: AS SHOWN DRAWING 19 OF 42

DATE: NOVEMBER 2017 PROJECT NO. 0925

LEGEND

- SOILS CLASSIFICATION
- SOILS DELINEATION
- EXISTING CONTOURS
- LIMIT OF WETLANDS
- EXISTING WOODS LINE
- PROPOSED WOODS LINE
- LIMIT OF 100-YEAR FLOODPLAIN
- EXISTING STRUCTURE
- PROPOSED BUILDING
- 15% TO 25% SLOPES
- 25% AND GREATER SLOPES
- FLOODPLAIN
- EXISTING WETLANDS
- SPECIMEN TREE
- PROP. FOREST CONSERVATION EASEMENT
- NON-CREDITED FOREST CONSERVATION EASEMENT
- FOREST CONSERVATION SIGN

0.05 AC NON-CREDITED FOREST CONSERVATION EASEMENT
AREA OF CLEARING: 7.54±AC.

0.36 AC NON-CREDITED FOREST CONSERVATION EASEMENT

FCE #1 RETENTION
5.93 AC

OPEN SPACE LOT 1
 TO BE DEDICATED TO THE DEPARTMENT OF RECREATION AND PARKS
6.04 AC
ZONED: R-A-15

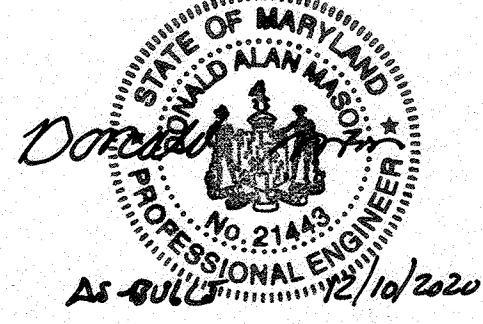
BUILDABLE BULK PARCEL D
2.96 AC
ZONED: R-A-15

BUILDABLE BULK PARCEL B
3.11 AC
ZONED: P.O.R.

BUILDABLE BULK PARCEL C
3.06 AC
ZONED: R-A-15

FCE #2 RETENTION
0.52 AC
OPEN SPACE LOT 2
 TO BE DEDICATED TO THE DEPARTMENT OF RECREATION AND PARKS
0.59 AC
ZONED: R-A-15
 (FUTURE UG3-SWM 10-100YR)

"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"



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. 21443 Expiration Date: 12-21-2022

NO.	DATE	REVISION
2	5/16/22	CHANGE HONEY LOCUST TO RED MAPLE AND UPDATE PLANT LIST PER AS-BUILT
1	4/5/18	NAME CHANGE, SHARROW RD, SSW-1 RBL, DRIVEWAY FILLETS

BENCHMARK
 ENGINEERS & LAND SURVEYORS & PLANNERS
ENGINEERING, INC.
 8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-8100 (F) 410-465-8644
 WWW.BE-CIVILENGINEERING.COM

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. 28376, Expiration Date: 01-01-19.

APPROVED: DEPARTMENT OF PUBLIC WORKS

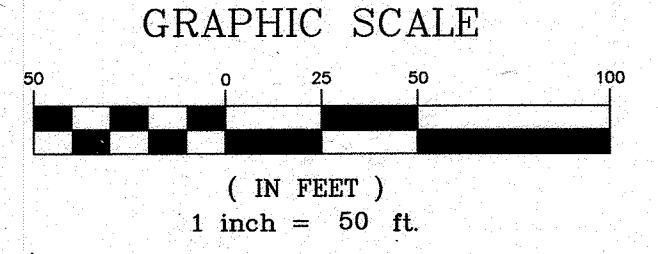
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 12/12/2017

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 12-13-17

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 12-13-17

J. CHRIS OGLE
 DNR QUALIFIED PROFESSIONAL



OWNER: PARCEL 714
 LOCUST THICKET INVESTORS LLC
 5816 MEADOWBRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244

PARCEL 724
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 3430 COURTHOUSE DRIVE
 ELLICOTT CITY, MD 21043
 410-313-4401

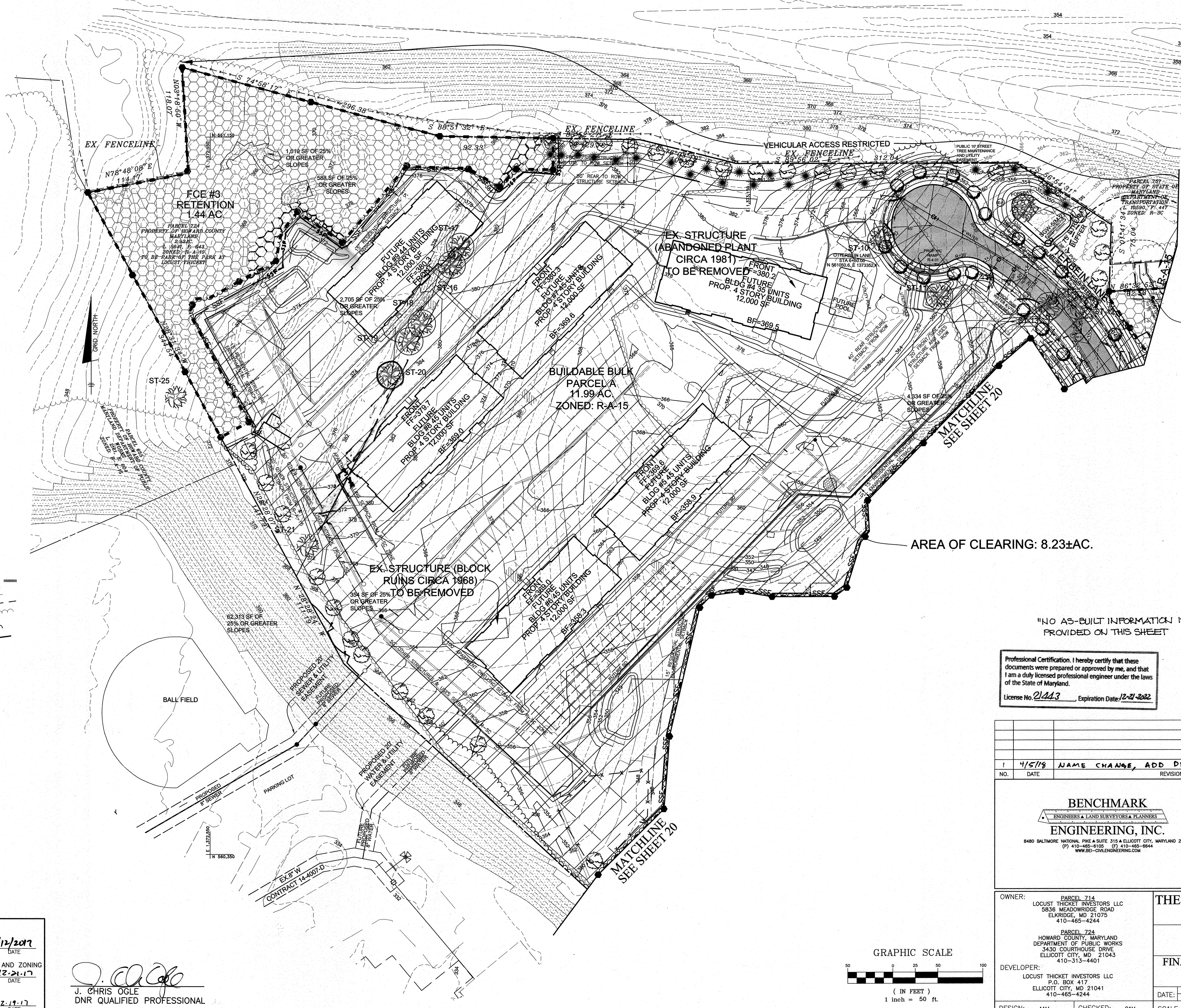
DEVELOPER:
 LOCUST THICKET INVESTORS LLC
 P.O. BOX 417
 ELLICOTT CITY, MD 21041
 410-465-4244

THE WEXLEY AT 100
 BUILDABLE BULK PARCELS A, B, C & D
 AND OPEN SPACE LOTS 1 & 2

ZONED R-A-15 & POR
 TAX MAP 37, GRID 9, PARCELS 714 & 724
 1st. ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

FINAL ROAD CONSTRUCTION PLANS
FOREST CONSERVATION PLAN

DATE: NOVEMBER 2017 PROJECT NO. 0925
 DESIGN: AAM CHECKED: CAM SCALE: AS SHOWN DRAWING 29 OF 42



0.02 AC. NON-CREDITED FOREST CONSERVATION EASEMENT

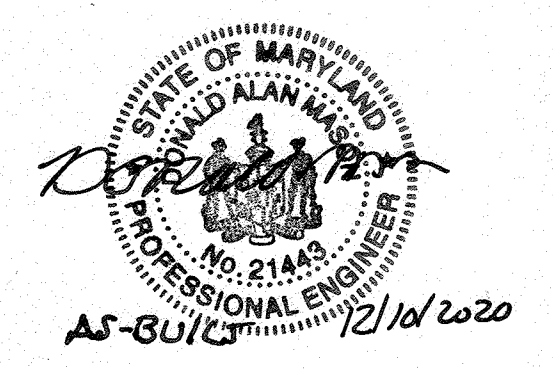
AREA OF CLEARING: 8.23±AC.

LEGEND

- SOILS CLASSIFICATION
- SOILS DELINEATION
- EXISTING CONTOURS
- LIMIT OF WETLANDS
- EXISTING WOODS LINE
- PROPOSED WOODS LINE
- LIMIT OF 100-YEAR FLOODPLAIN
- EXISTING STRUCTURE
- PROPOSED BUILDING
- 15% TO 25% SLOPES
- 25% AND GREATER SLOPES
- FLOODPLAIN
- EXISTING WETLANDS
- SPECIMEN TREE
- PROP. FOREST CONSERVATION EASEMENT
- NON-CREDITED FOREST CONSERVATION EASEMENT
- FOREST CONSERVATION SIGN

"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"

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. 21443 Expiration Date: 12-21-2022



NO.	DATE	REVISION
1	4/5/18	NAME CHANGE, ADD DRIVEWAY FILLETS

BENCHMARK ENGINEERING, INC.
 ENGINEERS & LAND SURVEYORS & PLANNERS
 8480 BALTIMORE NATIONAL PIKE & SUITE 315 A ELICOTT CITY, MARYLAND 21043
 (P) 410-465-6105 (F) 410-465-6644
 WWW.BE-CIVILENGINEERING.COM

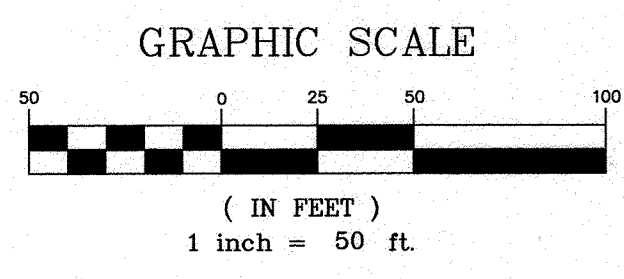
CHRIS OGLE
 PROFESSIONAL ENGINEER
 License No. 28376
 11-20-17
 DNR-QUALIFIED PROFESSIONAL

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 12/12/2017 DATE
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 12-21-17 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 12-19-17 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature]
J. CHRIS OGLE
 DNR QUALIFIED PROFESSIONAL



OWNER: PARCEL 714
 LOCUST THICKET INVESTORS LLC
 5836 MEADOWBRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244

PARCEL 724
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 3430 COURTHOUSE DRIVE
 ELICOTT CITY, MD 21043
 410-313-4401

DEVELOPER:
 LOCUST THICKET INVESTORS LLC
 P.O. BOX 417
 ELICOTT CITY, MD 21041
 410-465-4244

THE WEXLEY AT 100
 BUILDABLE BULK PARCELS A, B, C & D
 AND OPEN SPACE LOTS 1 & 2

ZONED R-A-15 & POR
 TAX MAP 37, GRID 9, PARCELS 714 & 724
 1st ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

FINAL ROAD CONSTRUCTION PLANS
FOREST CONSERVATION PLAN

DATE: NOVEMBER 2017 PROJECT NO. 0925
 DESIGN: AAM CHECKED: CAM SCALE: AS SHOWN DRAWING 21 OF 42

FOREST CONSERVATION NOTES:

- ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
- THE FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE, FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
- THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
- NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
- TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. THE FENCING SHALL BE PLACED ALONG ALL FCE BOUNDARIES WHICH OCCUR WITHIN 15 FEET OF THE PROPOSED LIMITS OF DISTURBANCE.
- PERMANENT SIGNAGE SHALL BE PLACED 50-100' APART ALONG THE BOUNDARIES OF ALL AREAS INCLUDED IN FOREST CONSERVATION EASEMENTS. THIS SIGNAGE SHALL STAY IN PERPETUITY.
- THE FOREST CONSERVATION OBLIGATION FOR THIS SITE SHALL BE MET BY THE ON-SITE RETENTION OF 7.88 ACRES OF FOREST RETENTION (0.43 ACRES NON-CREDITED AND 7.45 ACRES CREDITED) AND 2.34 ACRES OF AFFORESTATION IN AN OFF-SITE BANK. 1.65 ACRES WILL BE OBTAINED AT EDGEWOOD FARM PHASE 1, F-06-108 AND 0.69 ACRES WILL BE OBTAINED AT THE PRESERVE AT CLARKSVILLE, F-06-72.

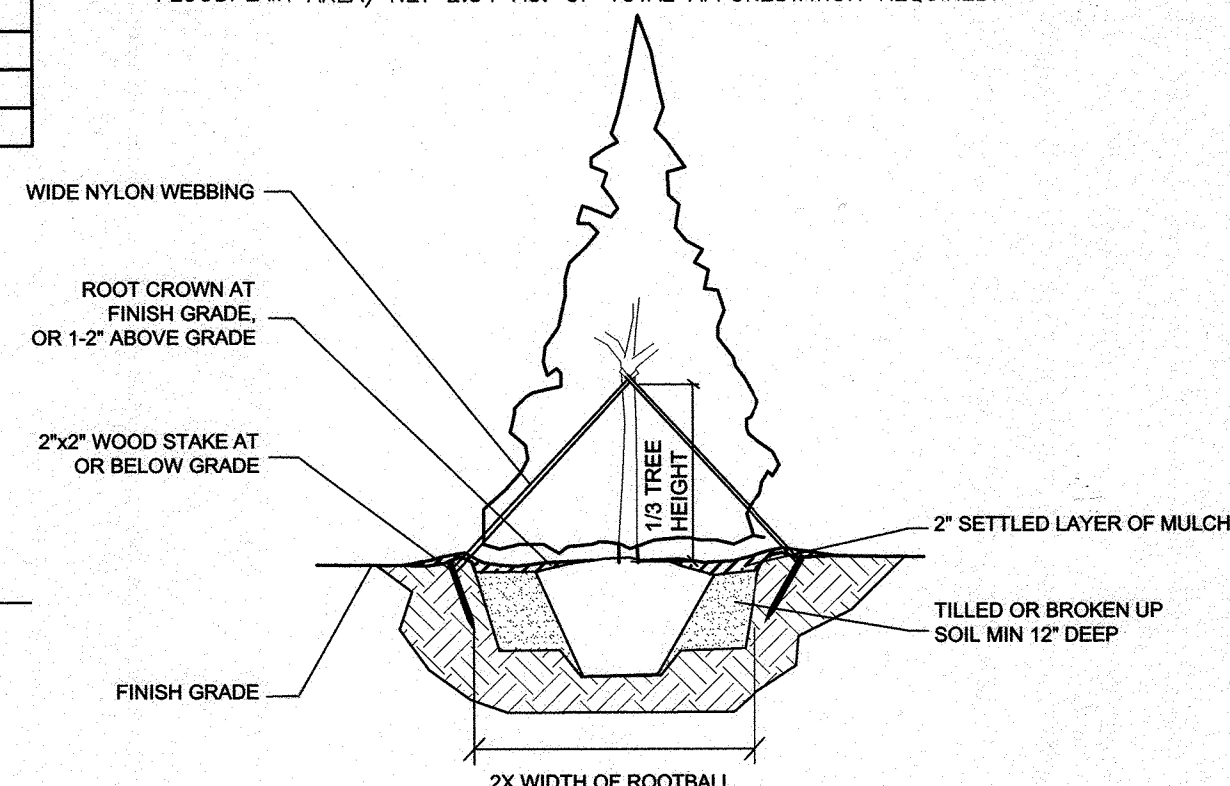
FOREST CONSERVATION WORKSHEET

NET TRACT AREA:		NET TRACT AREA:	
5-Aug-02	5-Aug-02	5-Aug-02	5-Aug-02
A. Total tract area ...	4.60	A. Total tract area ...	25.48
B. Land dedication areas (parks, county facility, etc.) ...	0.00	B. Land dedication areas (parks, county facility, etc.) ...	0.00
C. Land dedication for roads or utilities (not being constructed by this plan) ...	0.00	C. Land dedication for roads or utilities (not being constructed by this plan) ...	0.00
D. Area to remain in commercial agricultural production/use ...	0.00	D. Area to remain in commercial agricultural production/use ...	0.00
E. Other deductions (specify) ... FLOODPLAIN	0.08	E. Other deductions (specify) ... FLOODPLAIN	0.00
F. Net Tract Area	4.52	F. Net Tract Area	25.09

THE WATERSHED FOR THIS DRAINAGE AREA IS THE MIDDLE PATUXENT RIVER, DNR LISTING NUMBER 2111306.

FOREST CONSERVATION EASEMENT CHART

EASEMENT	AREA	TYPE	CREDITED AREA
FCE#1	5.92 AC.	RETENTION	5.56 AC.
FCE#2	0.52 AC.	RETENTION	0.45 AC.
FCE#3	1.44 AC.	RETENTION	1.44 AC.
TOTAL	7.88 AC.		7.45 AC.



FOREST STAND DELINEATION NOTES

SPECIMEN TREES

- ST-1 Liriodendron tulipifera 50" Poor-Triple Trunk
- ST-2 Acer rubrum 31" Good
- ST-3 Quercus alba 33" Fair
- ST-4 Quercus alba 32" Fair
- ST-5 Quercus alba 38" Fair
- ST-6 Liriodendron tulipifera 30" Fair
- ST-7 Acer rubrum 31" Good
- ST-8 Quercus prinus 30" Good
- ST-9 Acer rubrum 30" Fair
- ST-10 Quercus coccinea 44" Good
- ST-11 Quercus coccinea 45" Poor-Split
- ST-12 Quercus coccinea 31" Poor-Dying
- ST-13 Acer rubrum 33" Poor-Split
- ST-14 Acer rubrum 40" Poor-Split
- ST-15 Acer rubrum 50" Poor-Triple Trunk
- ST-16 Quercus alba 37" Fair
- ST-17 Quercus rubra 33" Fair
- ST-18 Quercus rubra 30" Good
- ST-19 Quercus alba 33" Fair
- ST-20 Quercus alba 32" Fair
- ST-21 Quercus alba 31" Good
- ST-22 Liriodendron tulipifera 30" Good
- ST-23 Quercus alba 30" Fair
- ST-24 Quercus palustris 32" Good
- ST-25 Quercus alba 33" Fair - Offsite

SITE STATISTICS

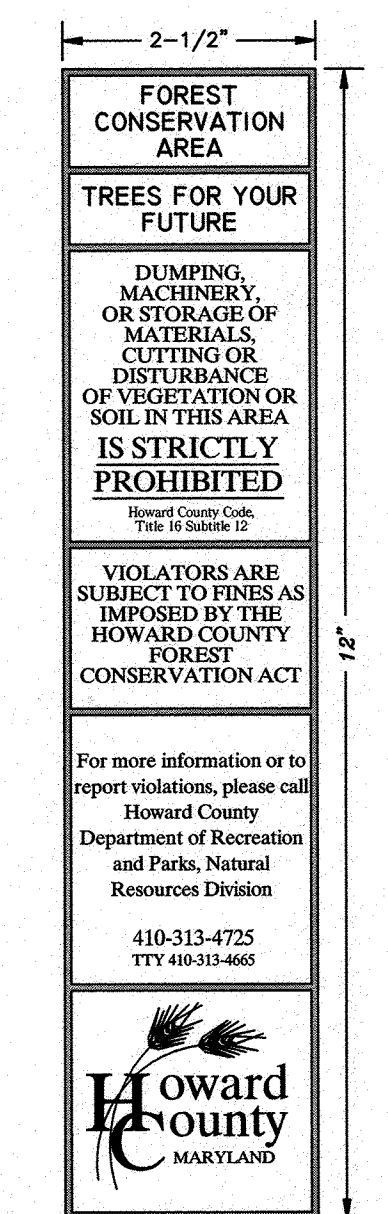
TOTAL SITE (Parcel 714 & 073)	30.08-acres
TOTAL FOREST ONSITE	23.63-acres
TOTAL FLOODPLAIN ONSITE	0.50-acres
TOTAL STEEP SLOPES (25% OR GREATER) ONSITE	0.38-acres
TOTAL NET TRACT AREA	29.20-acres

FOREST STANDS	DESCRIPTION	AREA
FOREST STAND #1	CHESTNUT OAK	235,466 sq. ft. (5.4 acres)
FOREST STAND #2	TULIP POPLAR/RED MAPLE	301,650 sq. ft. (6.9 acres)
FOREST STAND #3	RED MAPLE	76,443 sq. ft. (1.8 acres)
FOREST STAND #4	BLACK CHERRY/TREE OF HEAVEN	307,894 sq. ft. (7.1 acres)
FOREST STAND #5	MIXED HARDWOOD	75,464 sq. ft. (1.7 acres)
FOREST STAND #6	CHESTNUT OAK	32,572 sq. ft. (0.74 acres)

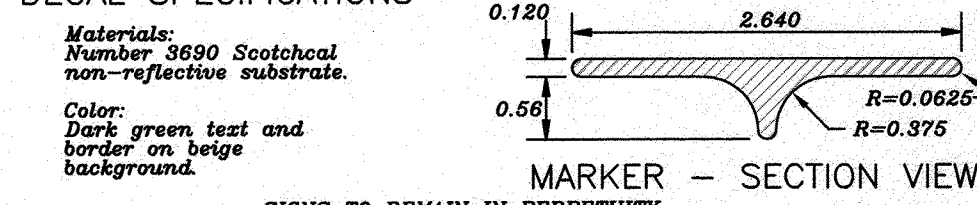
TOTAL AREA OF FOREST ONSITE 1,029,489 sq. ft. (23.6 acres)

DECAL SPECIFICATIONS

NOT TO SCALE



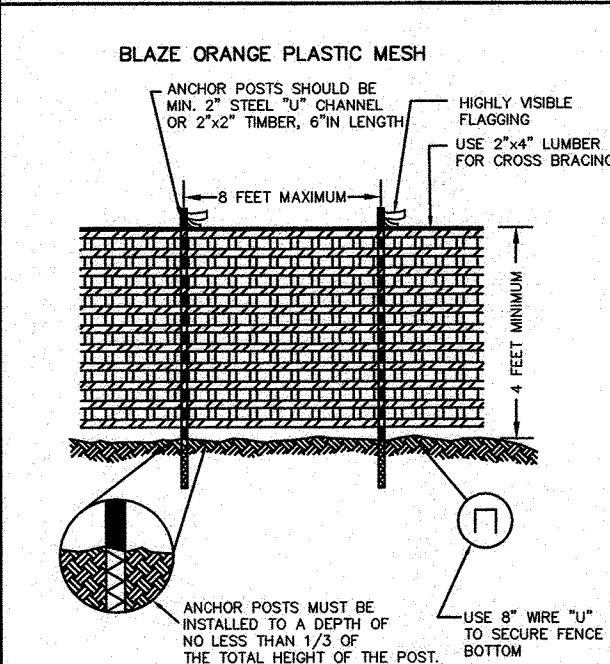
MARKER - SECTION VIEW



FCR CARSONITE MARKER

NOT TO SCALE

TREE PROTECTION FENCE



- NOTES:**
- FOREST PROTECTION DEVICE ONLY.
 - RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
 - BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICES.
 - AVOID ROOT DAMAGE WHEN PLACING ANCHOR POSTS.
 - DEVICES SHOULD BE PROPERLY MAINTAINED DURING CONSTRUCTION.
 - PROTECTIVE SIGNAGE IS ALSO REQUIRED.

FOREST CONSERVATION NARRATIVE

ENVIRONMENTAL FEATURES ON THIS SITE INCLUDE STEEP SLOPES, FORESTED AREAS, WETLANDS, STREAMS AND FLOODPLAIN. TO PROTECT NATURAL RESOURCES IT IS IMPORTANT TO MINIMIZE DEVELOPMENT IMPACTS TO THESE FEATURES. THE ENVIRONMENTAL DISTURBANCES ASSOCIATED WITH THE DEVELOPMENT OF THIS PROPERTY ARE DUE TO THE LOCATION OF THE EXISTING PERENNIAL STREAM WHICH BISECTS THE PROPERTY. EFFORTS WERE MADE TO REDUCE THE IMPACTS BY PLACING THE CROSSING IN THE NARROWEST AREA OF THE STREAM RELATED ENVIRONMENTAL FEATURES. THE ONSITE FORESTED AREA ON THIS SITE IS 23.63 ACRES. DEVELOPMENT OF THE PROPERTY WILL RETAIN APPROXIMATELY 7.88 ACRES. THE MAJORITY OF THE RETENTION AREAS ARE CONSIDERED HIGH PRIORITY AREAS BASED ON THE FOREST STAND DELINEATION.

FOREST PROTECTION PROCEDURES - Preconstruction Phase

- The edge of the woods to be protected will be marked (staked or flagged) in the field per the limits of forest conservation easement shown in the approved site development plan prior to the start of construction activity. All areas within protective easement are to be considered "off limits" to any construction activities. The optional protective fencing shall be installed at the outside edge of forested areas and should be combined with sediment control devices when possible. The limit of the critical root zone and therefore the location of the protective devices is to be determined as follows:

Edge of Forested Area - 1 foot of protective radius/inch of DBH or an eight foot protective radius, whichever is greater.

Critical Root Zone for the forest on this site is an average of 12 feet from the trunk of the tree.

- Construction activities expressly prohibited within the preservation areas are:

- Placing or stockpiling backfill or top soil in protected areas
- Felling trees into protected areas
- Driving construction equipment into or through protected areas
- Burning in or in close proximity to protected areas
- Stacking or storing supplies of any kind
- Concrete wash-off areas.
- Conducting trenching operations
- Grading beyond the limits of disturbance
- Parking vehicles or construction equipment
- Removal of root mat or topsoil
- Siting and construction of:
 - Utility lines
 - Access roads
 - Impervious surfaces
 - Stormwater management devices
 - Siting areas

- Protective fencing (see Figure "Protective Fencing") shall be the responsibility of the general contractor. The general contractor shall affix signs to the fencing at 25' minimum intervals indicating that these areas are "Forest Retention Area" (see Figure "Signage"). The general contractor shall take great care to assure the restricted areas are not violated and that root systems are protected from smothering, flooding, excessive wetting from dewatering operations, off-site runoff, spillage, and drainage or solutions containing materials hazardous to tree roots.

- The general contractor shall be responsible for any tree damaged or destroyed within the preservation areas whether caused by the contractor, his agents, employees, subcontractors, or licensees.

- Foot traffic shall be kept to a minimum in the protective areas.

- All trees which are not to be preserved within fifty feet of any tree preservation areas are to be removed in a manner that will not damage those trees that are designated for preservation. It is highly recommended that tree stumps within this fifty foot area be ground out with a stump grinding machine to minimize damage.

- The general contractor shall designate a "wash out" area onsite for concrete trucks which will not drain toward a protected area.

- A pre-construction meeting shall be held with local authorities before any disturbance has taken place on site.

FOREST PROTECTION PROCEDURES - Construction Phase

Forest and tree conditions should be monitored during construction and corrective measures taken when appropriate.

The following shall be monitored:

- Soil compaction
- Root injury - prune and monitor; consider crown reduction
- Limb injury - prune and monitor
- Flooded conditions - drain and monitor; correct problem
- Drought conditions - water and monitor; correct problem
- Other stress signs - determine reason, correct, and monitor

FOREST PROTECTION PROCEDURES - Post Construction Phase

The following measures shall be taken:

- Corrective measures if damages were incurred due to negligence:

- Stress reduction
- Removal of dead or dying trees. This may be done only if trees pose an immediate safety hazard.

- Removal of temporary structures:

- No burial of discarded materials will occur onsite within the conservation area.
- No open burning within 100 feet of a wooded area.
- All temporary forest protection structures will be removed after construction.
- Remove temporary roads by removing stone or broadcasting mulch; pre-construction elevation should be maintained.
- Aerate compacted soil.
- Replant disturbed sites with trees, shrubs and/or herbaceous plants.
- Retain signs for retention areas or specimen trees.
- A County official shall inspect the entire site.

- Future protection measures:

- Howard County and the developer shall arrange for the dedication of an appropriate forest conservation easement at a later date.

FOREST PROTECTION PROCEDURES - Preconstruction Phase

Stress Reduction and Protection of Specimen Trees Isolated from Forest Retention Areas and General Forest Retention Areas (as they may apply)

Isolated specimen trees that are to be preserved will be examined to determine if stress reduction techniques are needed. Protective measures and their evaluation criteria are provided on this plan only if they are employed herein.

Root Pruning
Evaluation Criteria
Will the critical root zone be affected by construction activities such as grade changes, digging for foundations and roads or utility installation?

Design Considerations

- Prune prior to construction as shown on the plan (see Figure "Pruning Detail.")
- Prune root with a clean cut using proper pruning equipment such as a vibratory knife.
- Exact location of pruning trench should be identified, and immediately backfilled to cover exposed roots after pruning with soil removed other topsoil, peat moss, or other suitable material or with other high organic soil.
- For trees over 15" in diameter, root pruning may be done up to one year in advance of construction.
- Tree(s) will be monitored for signs of stress.

Crown Reduction or Pruning

Evaluation Criteria
Has the root system been significantly reduced (>30%) or are there dead, damaged, or diseased limbs?

Design Considerations

- Reduce only at specified times of the year:
Flowering trees - only after flowering and before bud set
Non-Flowering trees - in late winter, early spring or mid summer
- No more than 1/3 of the crown should be removed at one time using acceptable pruning methods (see Figure "Crown Reduction Detail")
- Monitor for signs of stress

Watering

Evaluation Criteria
Will construction activities alter the hydrology of the site? Has or will root pruning occur?

Design Considerations

- Water only as necessary
- Monitor for signs of stress (see Figure "Tree Planting and Maintenance Calendar")

Fertilizing

Evaluation Criteria
Is or will be tree(s) be under stressful conditions? Has or will root pruning occur?

Design Considerations

- Use low nitrogen and slow release fertilizers.
- Apply in late fall or early spring (see Figure "Tree Planting and Maintenance Calendar")
- For small trees (<3" in diameter), use punch hole method or pressurized injection method (see Figure "Application of Fertilizers by Injection.")
- For larger trees (>3" diameter), use punch hole method or pressurized injection method (see Figure "Application of Fertilizers by Injection.")
- Do not apply fertilizer any closer than 3' from tree trunk for pressurized injection method.
- Monitor for signs of stress.

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. 21443 Expiration Date: 12-21-2022



NO.	DATE	NAME CHANGE	REVISION
1	4/5/19	NAME CHANGE	

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STATE OF MARYLAND PROFESSIONAL ENGINEER
No. 21443
AS-BUILT 12-21-2022

THE WEXLEY AT 100
BUILDABLE BULK PARCELS A, B, C & D AND OPEN SPACE LOTS 1 & 2

ZONED R-A-15 & POR
GRID 9 PARCELS 714 & 724
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

**FINAL ROAD CONSTRUCTION PLANS
LANDSCAPE AND FOREST CONSERVATION
DETAILS & NOTES**

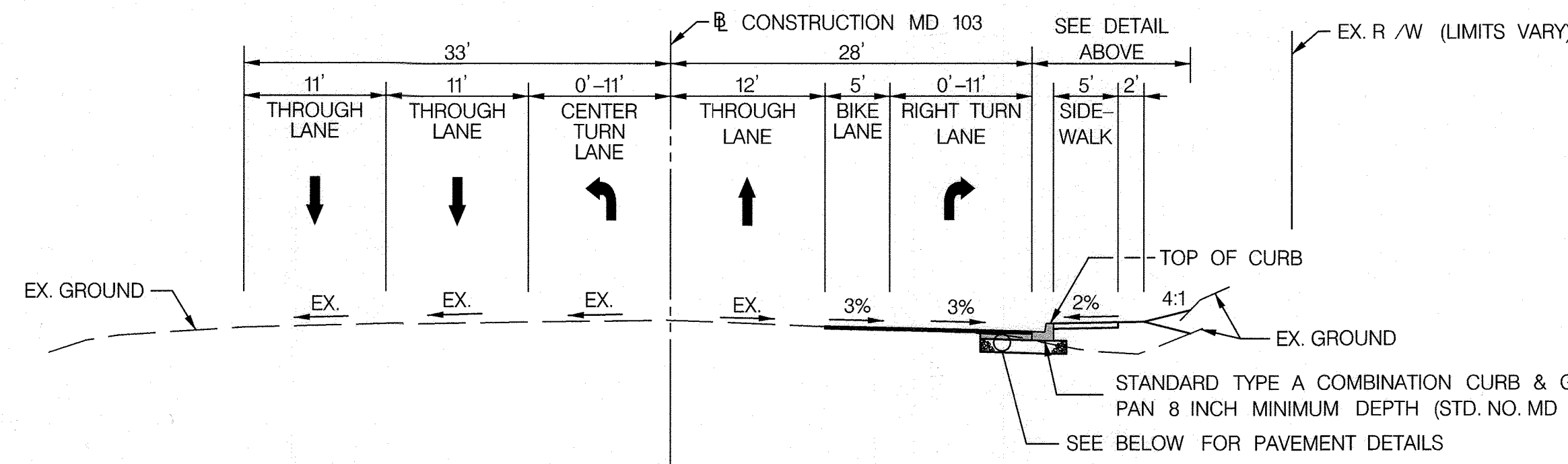
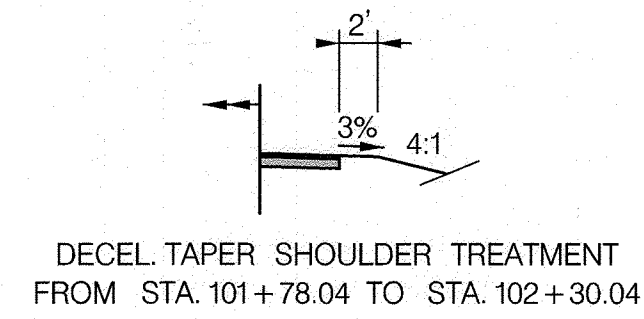
OWNER: PARCEL 714
LOCUST THicket INVESTORS LLC
5836 MEADOWRIDGE ROAD
ELKRIDGE, MD 21075
410-465-4244

DEVELOPER: PARCEL 724
HOWARD COUNTY LANDSCAPE ARCHITECTS
3430 COURTHOUSE DRIVE
ELLICOTT CITY, MD 21043
410-313-4401

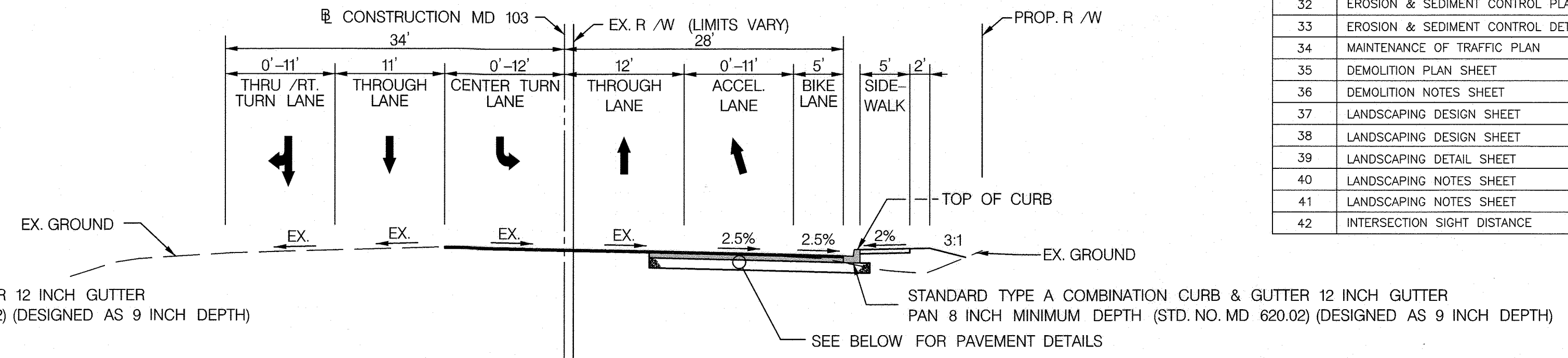
DESIGN: AAM CHECKED: CAM

DATE: NOVEMBER 2017 PROJECT NO. 0925
SCALE: AS SHOWN DRAWING 22 OF 42

SHEET INDEX	
NO.	DESCRIPTION
23	TYPICAL SECTIONS, PAVEMENT DETAILS
24	GEOMETRY SHEET
25	INTERSECTION DETAIL
26	ROADWAY PLAN SHEET
27	SWM AND STORM DRAIN PLAN
28	ESD FACILITY DETAILS
29	STORMWATER MANAGEMENT CERTIFICATION AND BMP CHECKLISTS
30	STORM DRAIN PROFILES & SCHEDULES
31	DRAINAGE AREA MAP
32	EROSION & SEDIMENT CONTROL PLAN
33	EROSION & SEDIMENT CONTROL DETAILS
34	MAINTENANCE OF TRAFFIC PLAN
35	DEMOLITION PLAN SHEET
36	DEMOLITION NOTES SHEET
37	LANDSCAPING DESIGN SHEET
38	LANDSCAPING DESIGN SHEET
39	LANDSCAPING DETAIL SHEET
40	LANDSCAPING NOTES SHEET
41	LANDSCAPING NOTES SHEET
42	INTERSECTION SIGHT DISTANCE



STA. 101+78.04 TO STA. 103+29.88
NORMAL SECTION
SCALE: 1" = 10'



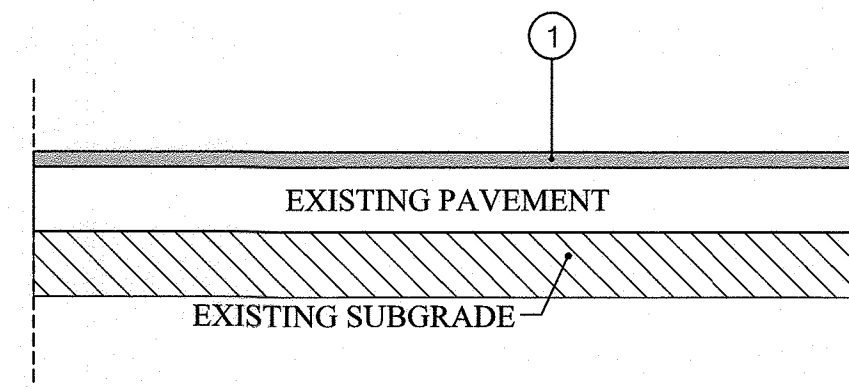
STA. 103+93.31 TO STA. 107+07.63
NORMAL SECTION
SCALE: 1" = 10'

NOTES:

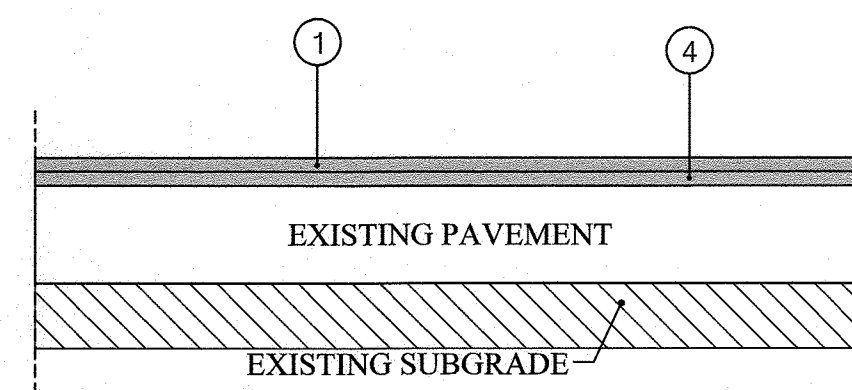
- REFER TO STORM DRAIN AND SWM PLAN SHEETS FOR ADDITIONAL INFORMATION.
- REFER TO INTERSECTION DETAIL SHEET AND ROADWAY PLAN SHEET FOR CONSTRUCTION BETWEEN STA. 103+29.88 TO STA. 103+93.31.
- REFER TO INTERSECTION DETAIL SHEET AND ROADWAY PLAN SHEET FOR LIMITS OF CURB & GUTTER AND SIDEWALK CONSTRUCTION.

- 2" SUPERPAVE ASPHALT MIX 12.5 mm FOR SURFACE, PG 64S-22, LEVEL 2
- 3.5" SUPERPAVE ASPHALT MIX 19.0 mm FOR BASE, PG 64S-22, LEVEL 2
- 6" GRADED AGGREGATE BASE COURSE
- MAX. 1.5" SUPERPAVE ASPHALT MIX 9.5 mm FOR WEDGE/LEVEL, PG 64S-22, LEVEL 2 (MAX. 3 LIFTS MAY BE USED)
- STANDARD TYPE A COMBINATION CURB & GUTTER 12 INCH GUTTER PAN 8 INCH MINIMUM DEPTH (STD. NO. MD 620.02) (DESIGNED AS 9 INCH DEPTH)

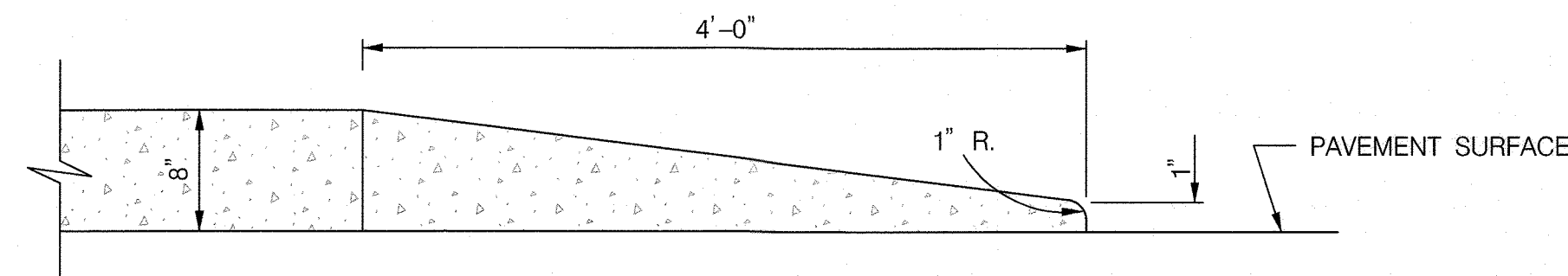
DETAIL A
GRINDING AND RESURFACING



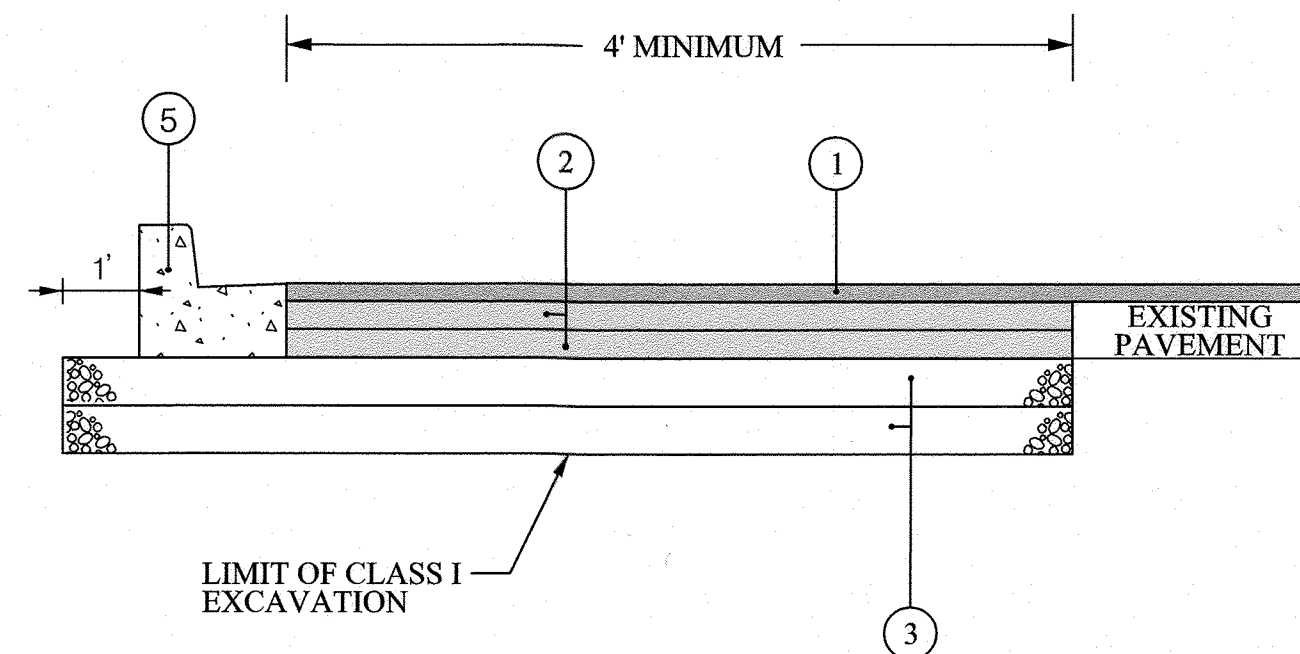
DETAIL B
GRINDING AND RESURFACING
(FOR AREAS WITH WEDGE/LEVEL)



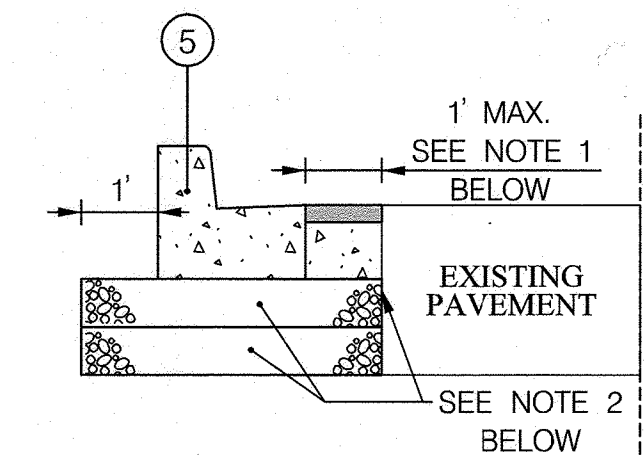
DETAIL E
CURB NOSE DOWN



DETAIL C - BASE WIDENING



DETAIL D
NEW CURB AND GUTTER CONSTRUCTION



NOTES

- THIS WORK IS TO BE DONE AT THE CONTRACTOR'S OPTION. THIS 1' WIDTH (MAXIMUM) EXCAVATION MAY BE USED FOR CURB AND GUTTER FORM PLACEMENT. THE ADDITIONAL EXCAVATION WIDTH IS TO BE FILLED WITH PCC MIX NO. 3 OR MIX 9 CONCRETE TO THE BOTTOM OF THE FINAL ASPHALT MIX COURSE. PAYMENT SHALL BE INCIDENTAL TO THE LINEAR FOOT ITEM FOR CURB AND GUTTER. JOINTS SHALL MATCH THOSE OF THE CURB AND GUTTER. NO DOWEL BARS ARE NEEDED.
- ALL COSTS FOR ITEMS, MATERIALS, TOOLS, AND LABOR FOR EXCAVATION, PCC MIX, GRADED AGGREGATE BASE, AND FULL DEPTH SAW CUT EXCEPT FOR ASPHALT MIX SURFACE SHALL BE INCIDENTAL AND INCLUDED IN THE PRICE OF THE LINEAR FOOT ITEM FOR CURB AND GUTTER.

AS BUILTS FOR THE ROUTE 103 IMPROVEMENTS WERE SUBMITTED TO SHA UNDER PERMIT NO. W-APHD-001-18

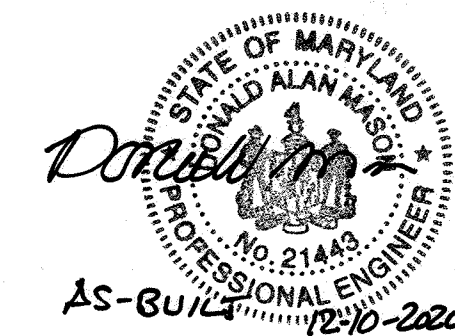
"NO AS-BUILT INFORMATION IS" PROVIDED ON THIS SHEET

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 6/15/2018
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 7-9-18
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 7-3-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

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 NUMBER: 30369 EXPIRATION DATE: 1/08/2020

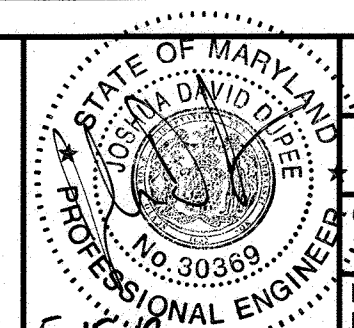


Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 21443 Expiration Date: 12-21-2022

OWNER
 LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 Director

CENTURY ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 Gilroy Road, Hunt Valley, MD 21031
 Phone: 443.589.2400 Fax: 443.589.2401



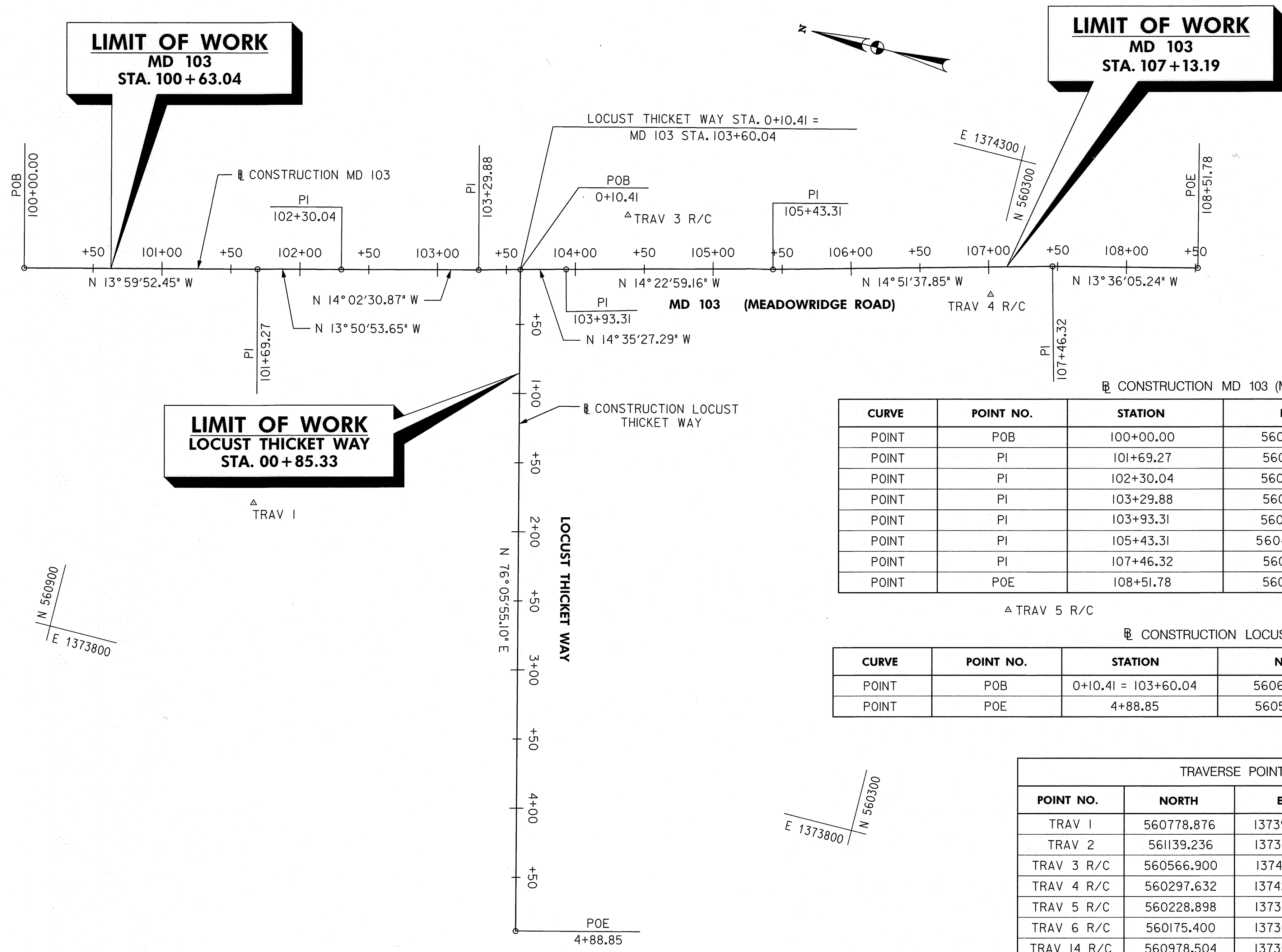
DESIGN BY:	KCS		
DRAWN BY:	KCS		
CHECKED BY:	JDD		
DATE:	MAY 2018		
BY	NO.	REVISION	DATE
		I NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18

DEVELOPER
 LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244

REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
 ZONED R-A-15 & POR
 TAX MAP: 37 PARCEL: 714 & 724 GRID: 9
 ELECTION DISTRICT 1 - HOWARD COUNTY, MD
 SHEET 23 OF 42

C.E.I. PROJECT NUMBER
161204.02

SCALE:
AS SHOWN



CURVE	POINT NO.	STATION	NORTH	EAST	BEARING
POINT	POB	100+00.00	560982.2380	1374046.3020	N 13°59'52.45"W
POINT	PI	101+69.27	560817.9990	1374087.2450	N 13°50'53.65"W
POINT	PI	102+30.04	560758.9906	1374101.7915	N 14°02'30.87"W
POINT	PI	103+29.88	560662.1385	1374126.0147	N 14°35'27.29"W
POINT	PI	103+93.31	560600.7473	1374141.9955	N 14°22'59.16"W
POINT	PI	105+43.31	560455.4488	1374179.2562	N 14°51'37.85"W
POINT	PI	107+46.32	560259.2318	1374231.3207	N 13°36'05.24"W
POINT	POE	108+51.78	560156.7270	1374256.1220	

CURVE	POINT NO.	STATION	NORTH	EAST	BEARING
POINT	POB	0+10.41 = 103+60.04	560632.9442	1374133.6143	N 76°05'55.10"E
POINT	POE	4+88.85	560517.9996	1373669.1921	

TRAVERSE POINTS			
POINT NO.	NORTH	EAST	ELEVATION
TRAV 1	560778.876	1373922.729	374.59
TRAV 2	561139.236	1373886.869	376.84
TRAV 3 R/C	560566.900	1374190.930	372.33
TRAV 4 R/C	560297.632	1374200.438	380.50
TRAV 5 R/C	560228.898	1373982.624	381.04
TRAV 6 R/C	560175.400	1373696.489	369.89
TRAV 14 R/C	560978.504	1373537.607	343.08

BENCH MARKS
 HO. CO. #37EB (NAD '83) ELEV. 385.309
 STANDARD DISC ON CONCRETE MONUMENT
 MARSHALEE RD NEAR LYNWOOD SHOPPING CTR.
 N 562552.4951 E 1375430.8059
 HO. CO. #37EC (NAD '83) ELEV. 346.153
 STANDARD DISC ON CONCRETE MONUMENT
 MARSHALEE RD NEAR LYNWOOD SHOPPING CTR.
 N 561099.8288 E 1375580.4112

"NO AS-BUILT INFORMATION IS"
 PROVIDED ON THIS SHEET

OWNER
LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELK RIDGE, MD 21075
 410-465-4244

DEVELOPER
LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELK RIDGE, MD 21075
 410-465-4244

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 NUMBER: 30369 EXPIRATION DATE: 1/06/2020

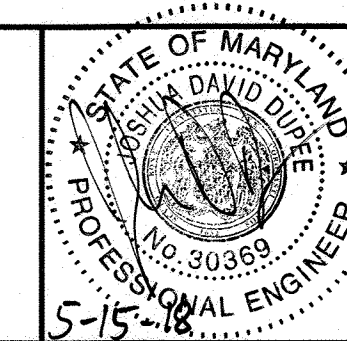
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 21443 Expiration Date: 12-21-2022



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] DATE: 6/15/2018
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE: 7-9-18
 CHIEF, DIVISION OF LAND DEVELOPMENT
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE: 7-3-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division Date
 Chief, Division of Land Development Date
 Director Date

CENTURY ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 Gilroy Road, Hunt Valley, MD 21031
 Phone: 443.589.2400 Fax: 443.589.2401



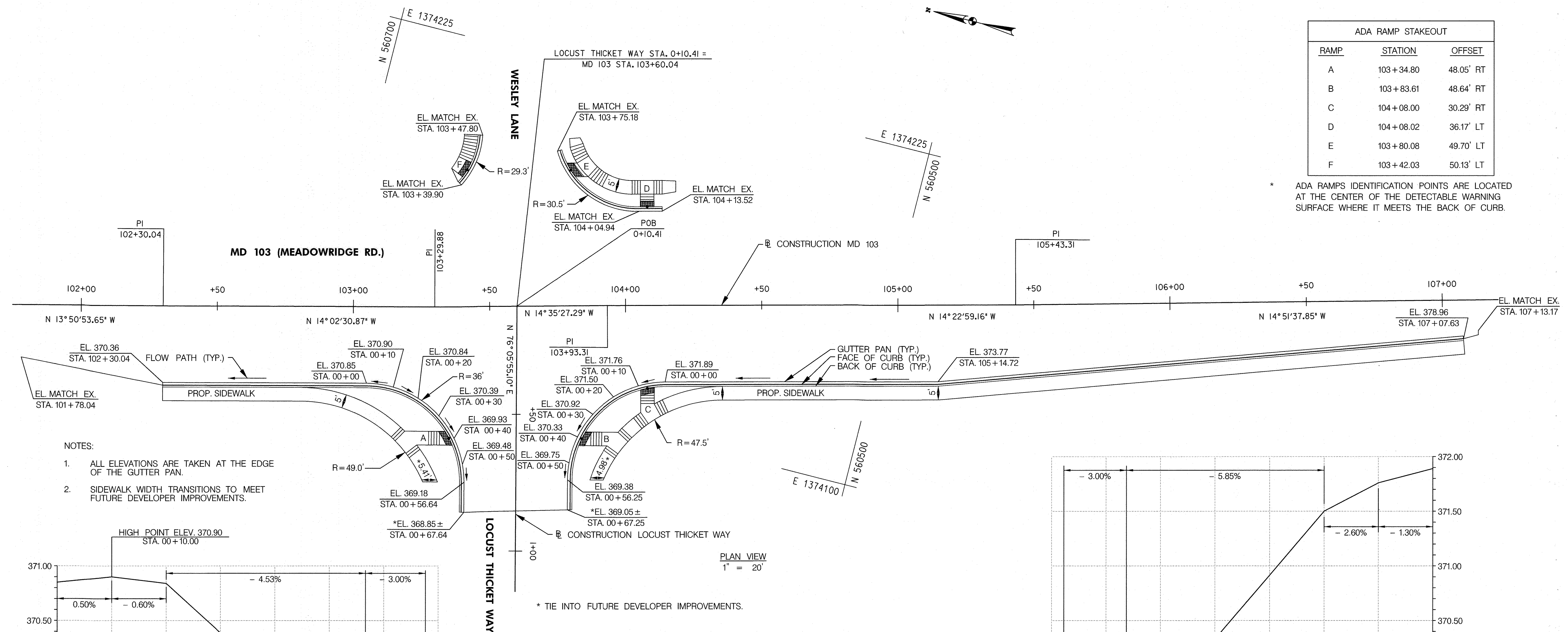
DESIGN BY:	KCS		
DRAWN BY:	KCS		
CHECKED BY:	JDD		
DATE:	MAY 2018		
BY	NO.	REVISION	DATE
		1 NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18

REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
 ZONED R-A-15 & POR
 TAX MAP: 57 PARCEL: 714 & 724 GRID: 9
 ELECTION DISTRICT: 1 HOWARD COUNTY, MD
 SHEET 24 OF 42

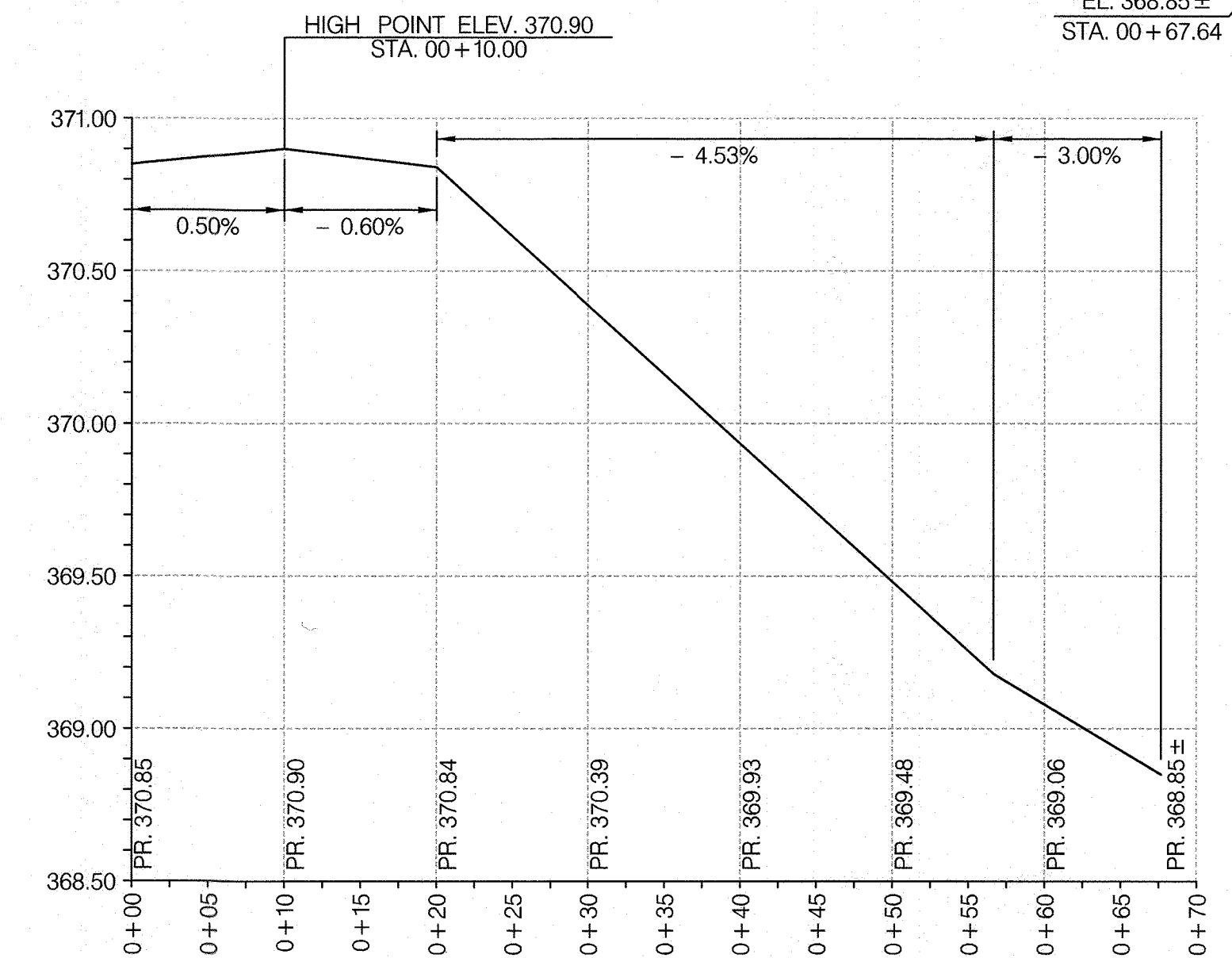
C.E.I. PROJECT NUMBER
 161204.02
 SCALE:
 1" = 50'

ADA RAMP STAKEOUT		
RAMP	STATION	OFFSET
A	103+34.80	48.05' RT
B	103+83.61	48.64' RT
C	104+08.00	30.29' RT
D	104+08.02	36.17' LT
E	103+80.08	49.70' LT
F	103+42.03	50.13' LT

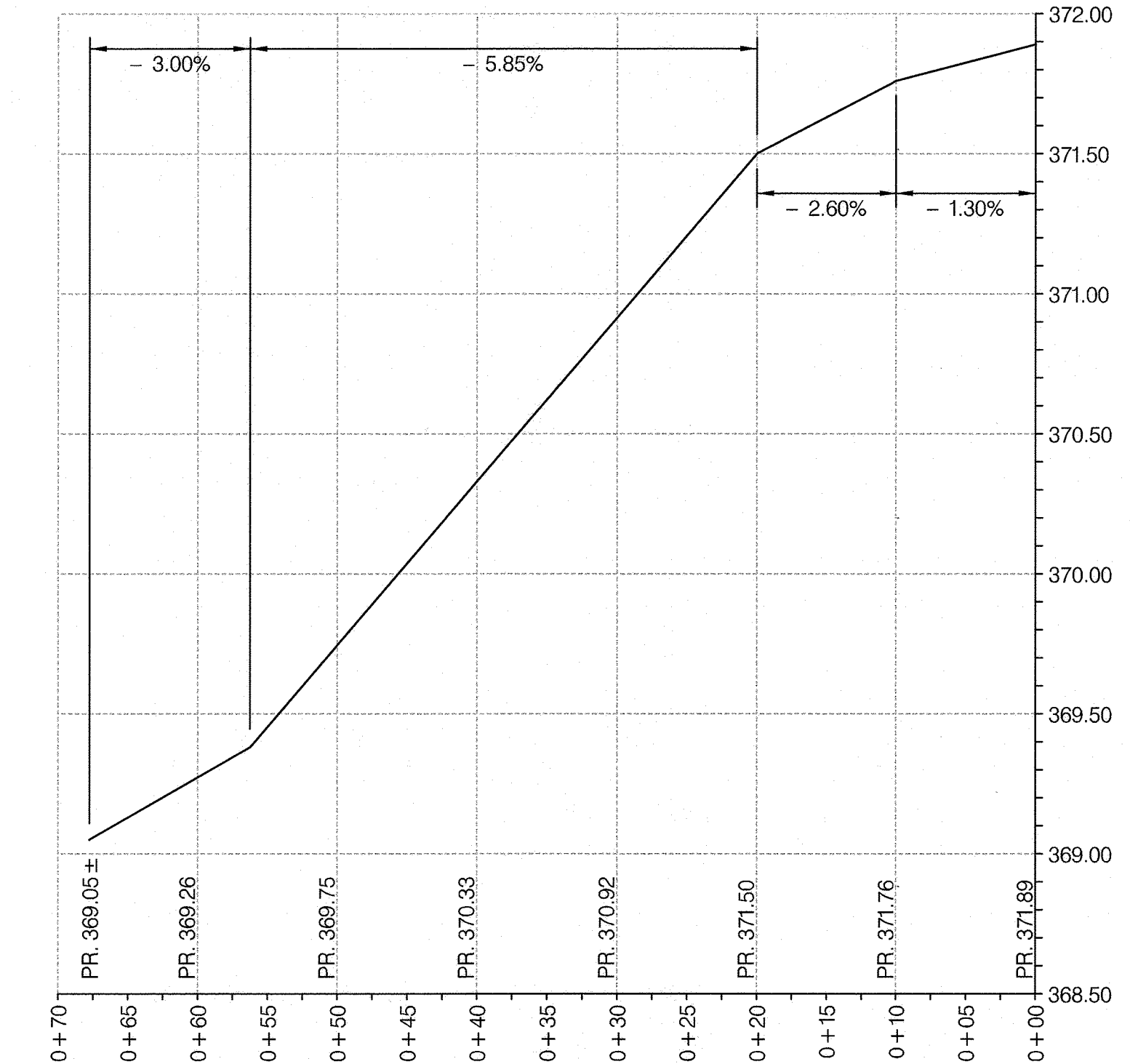
* ADA RAMP IDENTIFICATION POINTS ARE LOCATED AT THE CENTER OF THE DETECTABLE WARNING SURFACE WHERE IT MEETS THE BACK OF CURB.



- NOTES:
1. ALL ELEVATIONS ARE TAKEN AT THE EDGE OF THE GUTTER PAN.
 2. SIDEWALK WIDTH TRANSITIONS TO MEET FUTURE DEVELOPER IMPROVEMENTS.



NORTH CURB PROFILE
H: 1" = 10'
V: 1" = 0.5'



SOUTH CURB PROFILE
H: 1" = 10'
V: 1" = 0.5'

AS BUILT FOR THE ROUTE 103 IMPROVEMENTS WERE SUBMITTED TO SHA UNDER PERMIT NO. 14-APHO-001-12

"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Menni 6/15/2018
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Kent Swann 7-9-18
CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Shel Edwards 7-3-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION

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 NUMBER: 30389 EXPIRATION DATE: 1/06/2020

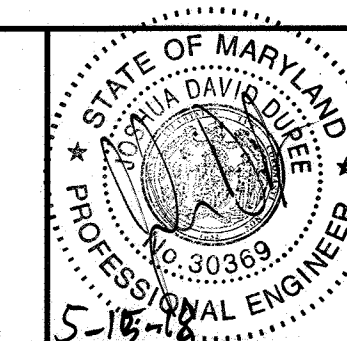
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 21443, Expiration Date: 12-21-2022



OWNER
LOCUST THICKET INVESTORS LLC
5836 MEADOWRIDGE ROAD
ELKRIDGE, MD 21075
410-465-4244

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division
Chief, Division of Land Development
Director

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 Gilroy Road, Hunt Valley, MD 21031
Phone: 443.589.2400 Fax: 443.589.2401

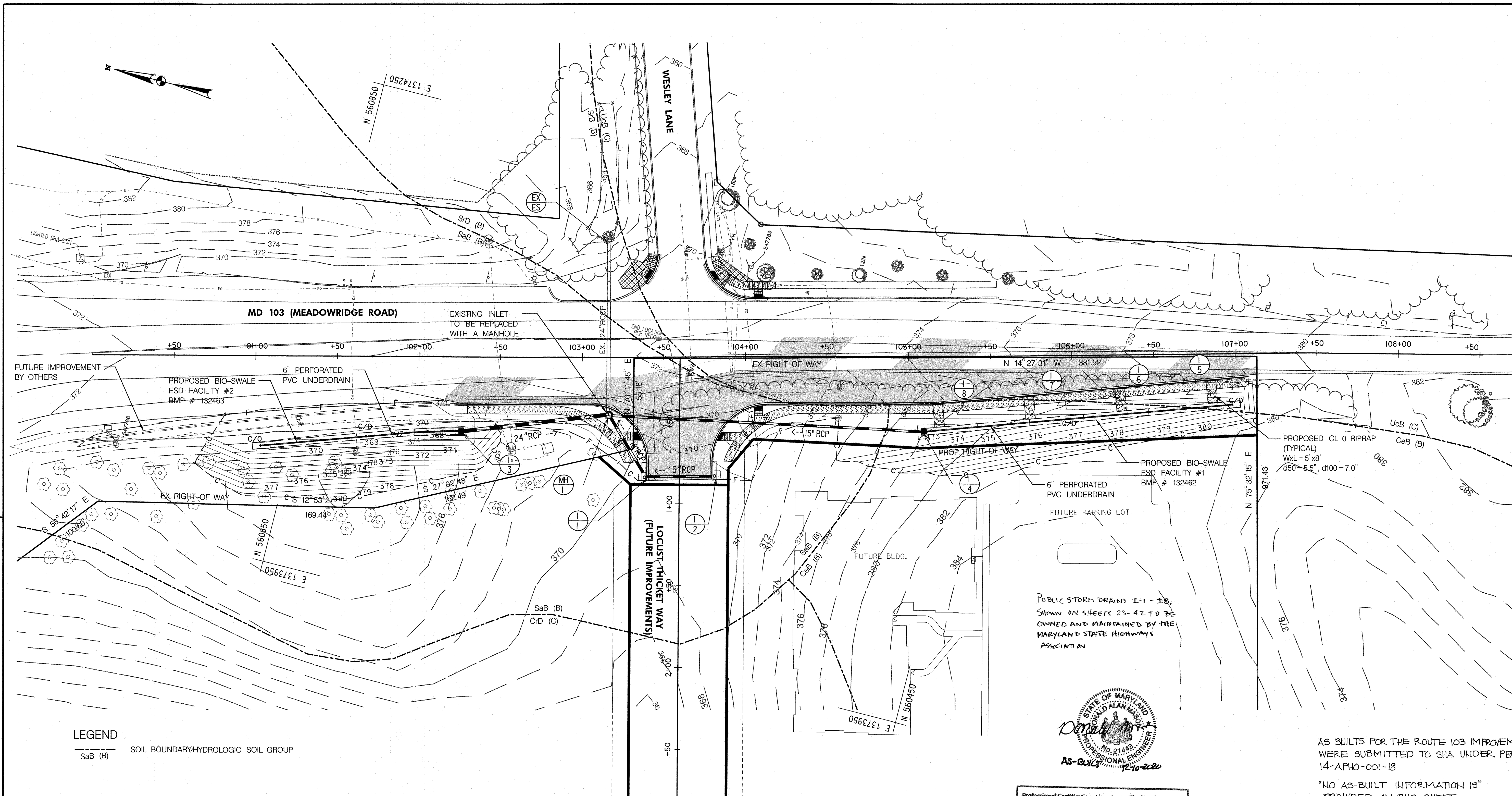


DESIGN BY:	KCS		
DRAWN BY:	KCS		
CHECKED BY:	JDD		
DATE:	MAY 2018	I	NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN 4/5/18
BY NO.			REVISION DATE

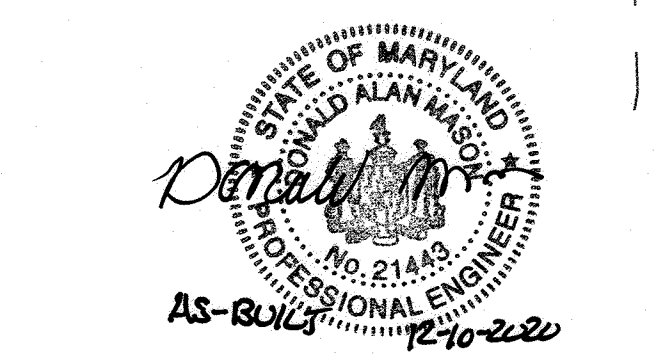
DEVELOPER
LOCUST THICKET INVESTORS LLC
5836 MEADOWRIDGE ROAD
ELKRIDGE, MD 21075
410-465-4244

REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
ZONED R-A-15 & POR
TAX MAP: 37 PARCEL: 714 & 724 GRID: 9
ELECTION DISTRICT 1 HOWARD COUNTY, MD
SHEET 25 OF 42

C.E.I. PROJECT NUMBER 161204.02
SCALE: AS SHOWN



LEGEND
 SaB (B) SOIL BOUNDARY/HYDROLOGIC SOIL GROUP



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. 21443 Expiration Date: 12-10-2022

AS BUILTS FOR THE ROUTE 103 IMPROVEMENTS WERE SUBMITTED TO SHA UNDER PERMIT NO. 14-APH0-001-18
 "NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"

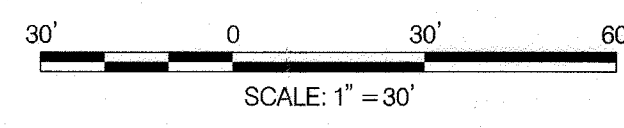
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] DATE: 6/15/2018
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE: 7-9-18
 CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] DATE: 7-3-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

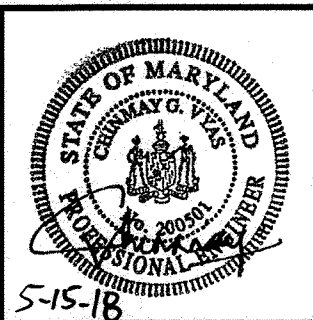
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NUMBER: 200501 EXPIRATION DATE: 09/01/2019

OWNER
 LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKCRIDGE, MD 21075
 410-465-4244



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division Date
 Chief, Division of Land Development Date
 Director Date

CV, INC.
 1395 Piccard Drive Suite 370, Rockville, MD 20850
 Phone: 301.637.2510 Fax: 240.252.5612

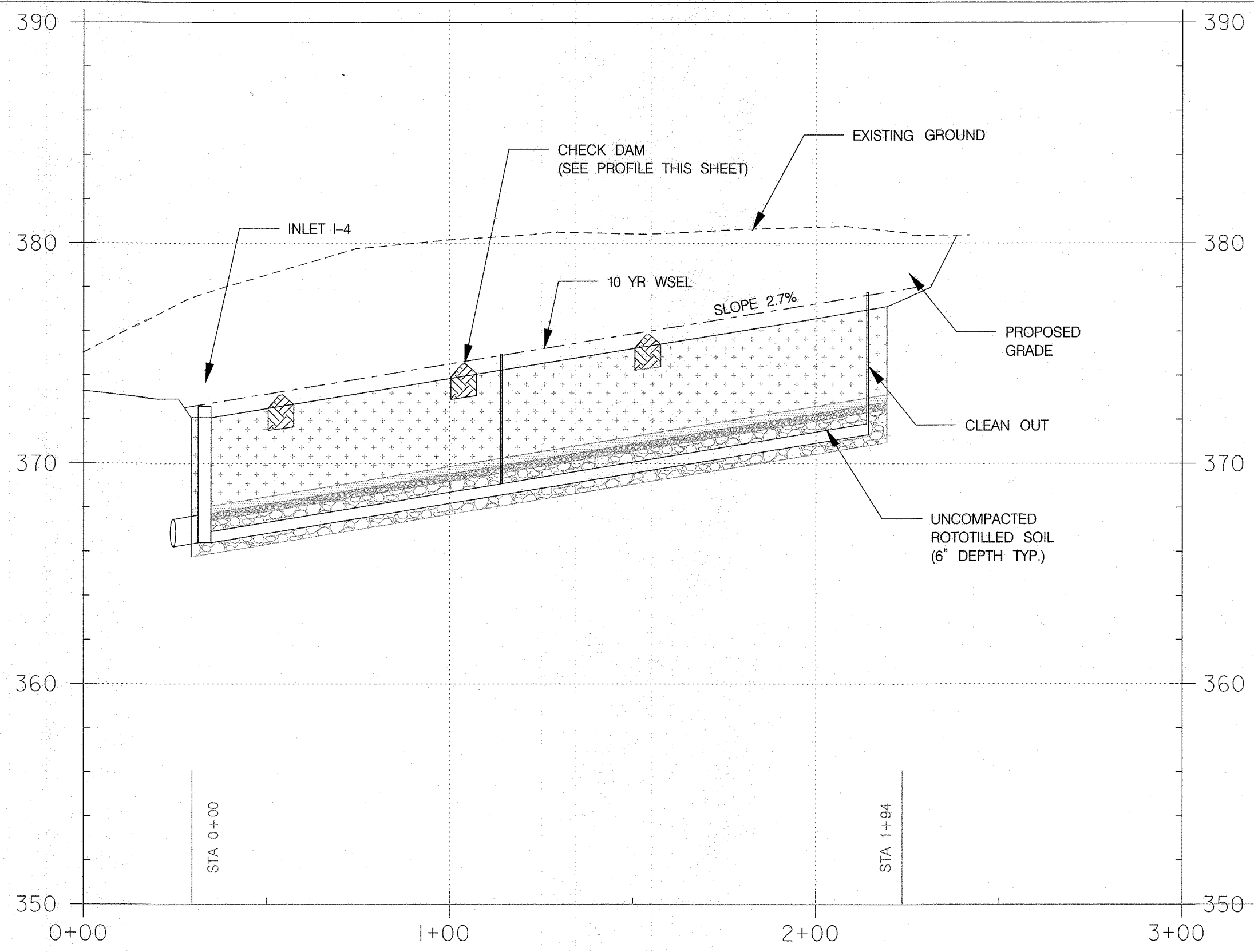


DESIGN BY:	AP		
DRAWN BY:	AG		
CHECKED BY:	CV		
DATE:	MAY 2018	1 NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18
BY NO.		REVISION	DATE

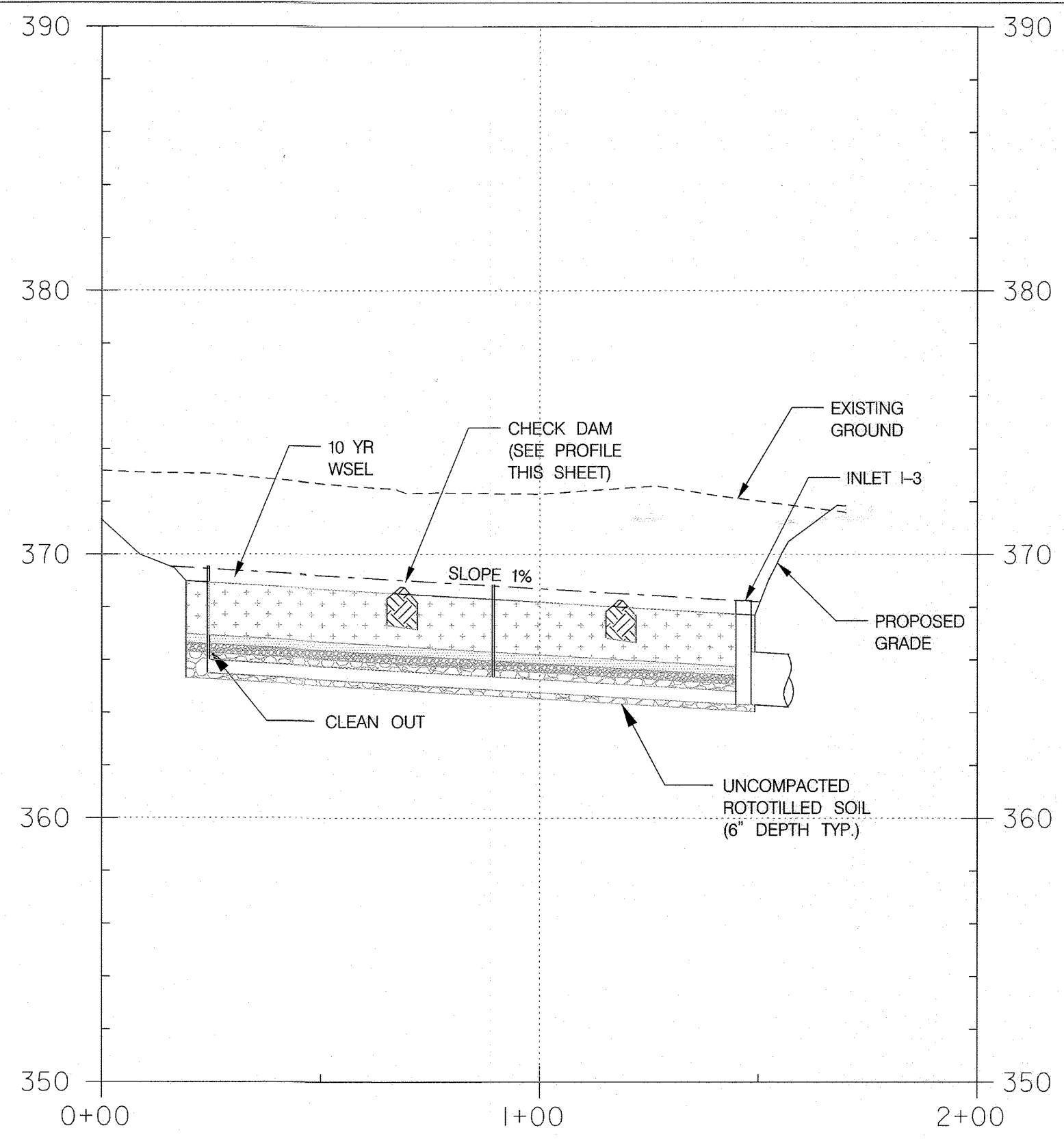
DEVELOPER
 LOCUST THICKET INVESTORS LLC
 P.O. BOX 417
 ELLICOTT CITY, MD 21041
 410-465-4244

REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
 ZONED R-A-15 & POR
 TAX MAP: 37 PARCEL: 714 & 724 GRID: 9
 ELECTION DISTRICT 1 - HOWARD COUNTY, MD
 SHEET 27 OF 42

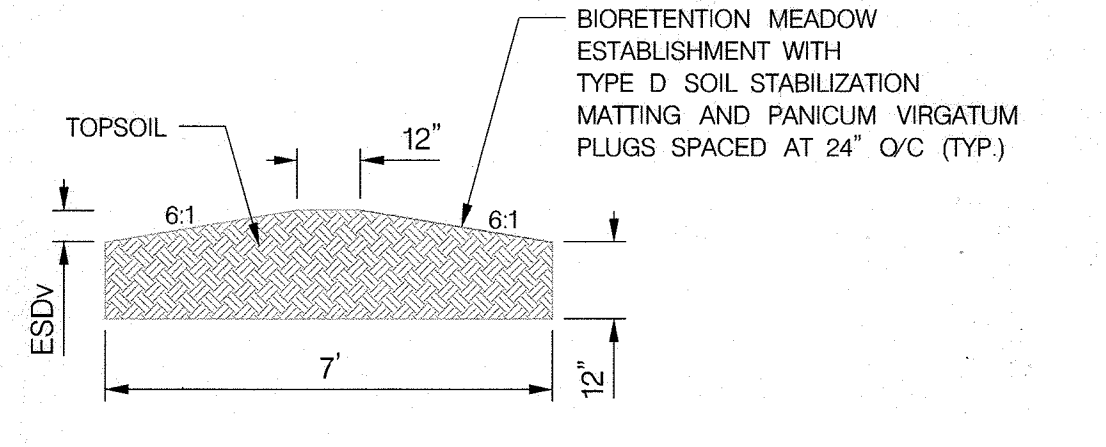
C.E.I. PROJECT NUMBER
 161204.02
 SCALE:
 1"=30'



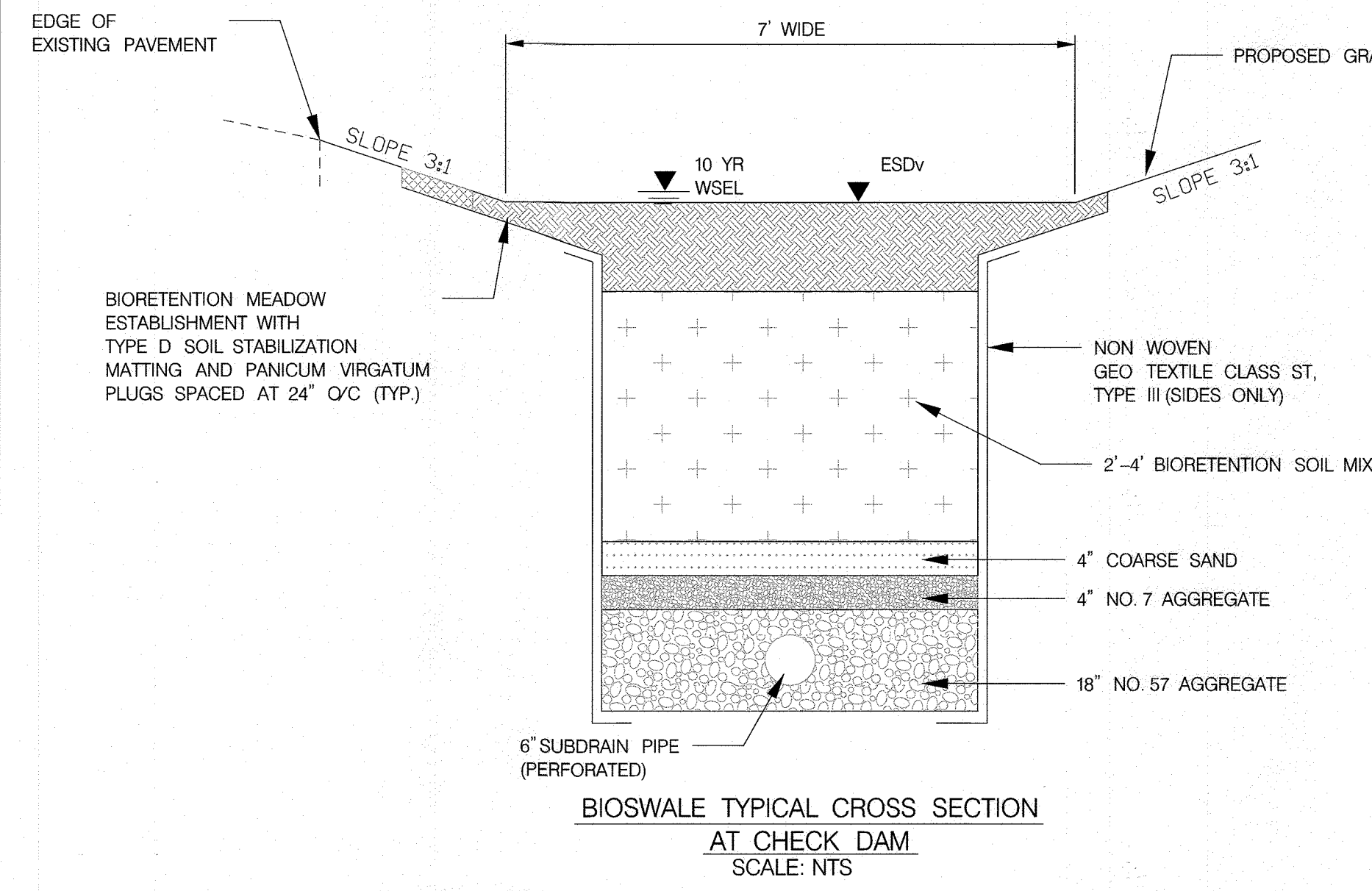
ESD FACILITY #1 - BIOSWALE
 HORZ SCALE: 1" = 30'
 VERT SCALE: 1" = 5'



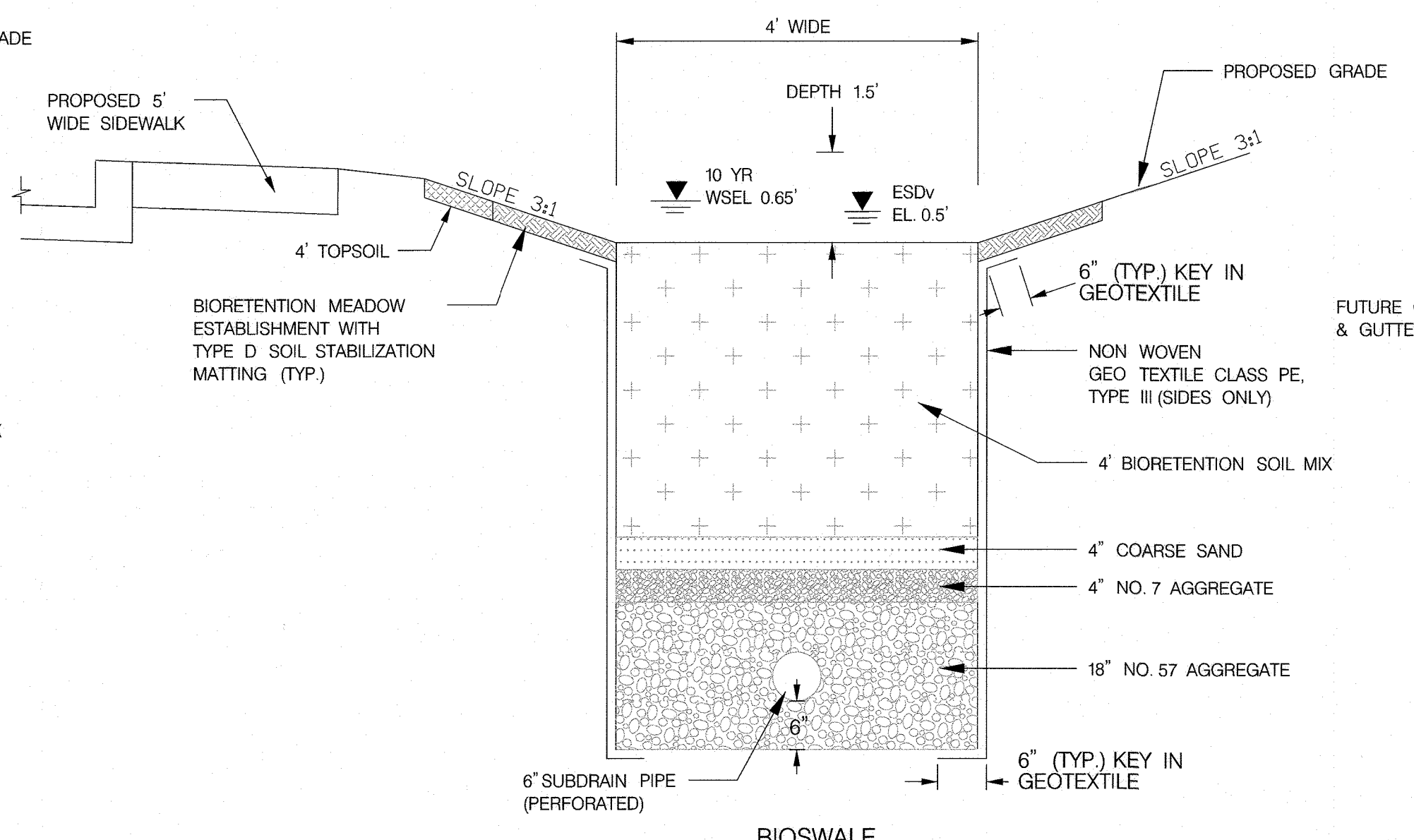
ESD FACILITY #2 - BIOSWALE
 HORZ SCALE: 1" = 30'
 VERT SCALE: 1" = 5'



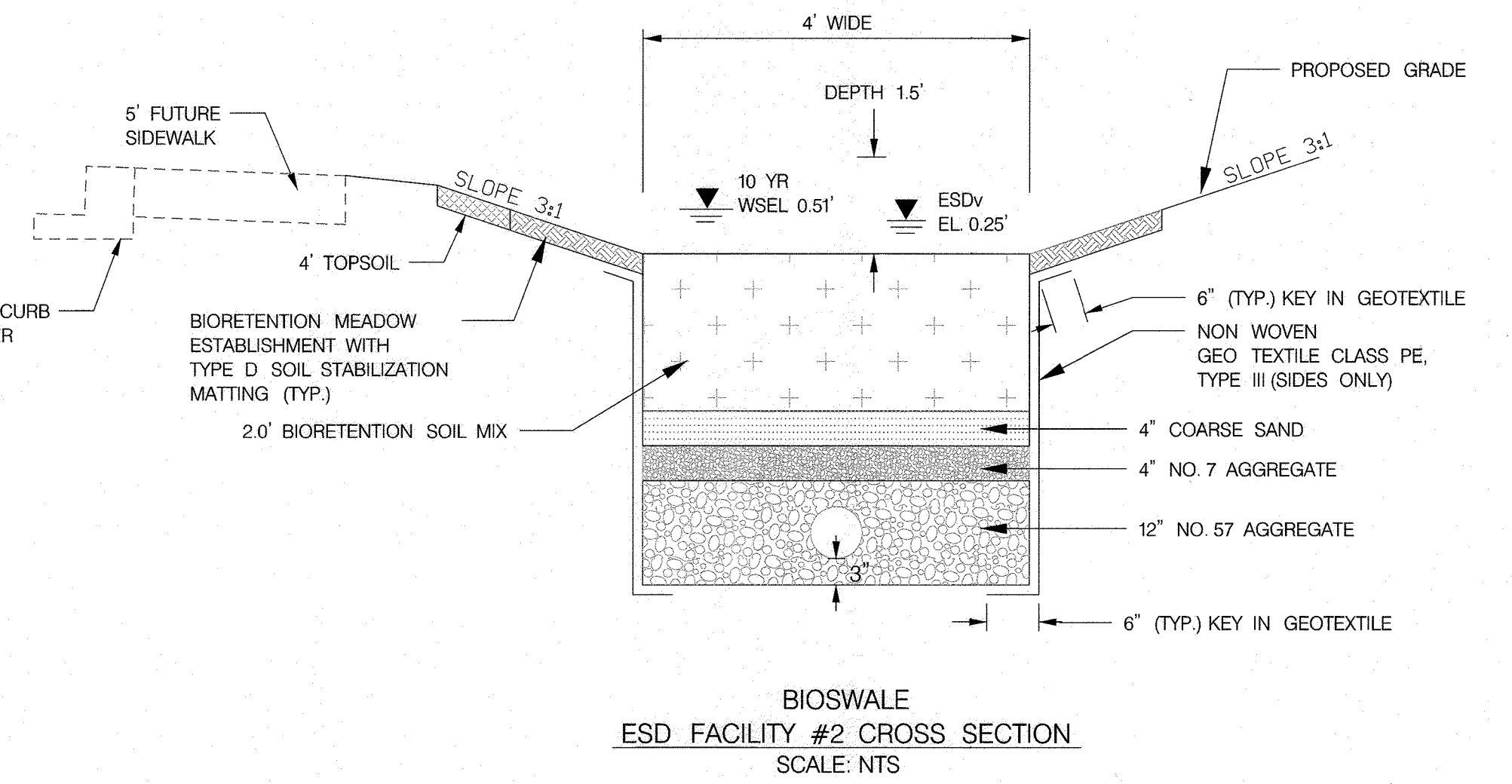
CHECK DAM PROFILE
 SCALE: NTS



BIOSWALE TYPICAL CROSS SECTION
 AT CHECK DAM
 SCALE: NTS



BIOSWALE
 ESD FACILITY #1 CROSS SECTION
 SCALE: NTS



BIOSWALE
 ESD FACILITY #2 CROSS SECTION
 SCALE: NTS

AS BUILTS FOR THE ROUTE 103 IMPROVEMENTS
 WERE SUBMITTED TO SHA UNDER PERMIT NO.
 14-APHO-001-18
 "NO AS-BUILT INFORMATION IS"
 PROVIDED ON THIS SHEET

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 6/15/2018
 CHIEF, BUREAU OF HIGHWAYS

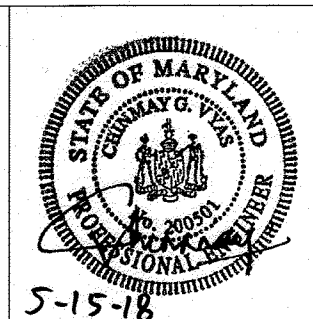
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 7-9-18
 CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 7-3-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 Director

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 NUMBER: 200501 EXPIRATION DATE: 09/01/2019

CV, INC.
 1395 Piccard Drive Suite 370, Rockville, MD 20850
 Phone: 301.637.2510 Fax: 240.252.5612



DESIGN BY:	AP		
DRAWN BY:	AG		
CHECKED BY:	CV		
DATE:	MAY 2018		
BY	NO.	REVISION	DATE
		1 NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18

OWNER
 LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244

DEVELOPER
 LOCUST THICKET INVESTORS LLC
 P.O. BOX 417
 ELLICOTT CITY, MD 21041
 410-465-4244

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. 21443, Expiration Date: 12-21-2022



REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
 ZONED R-A-15 & POR
 TAX MAP: 37 PARCEL: 714 & 724 GRID: 3
 ELECTION DISTRICT 1 HOWARD COUNTY, MD
 SHEET 28 OF 42
 C.E.I. PROJECT NUMBER 161204.02
 SCALE: N.T.S.

MAY ONLY BE CERTIFIED BY THE AS-BUILT (AB) INSPECTOR PER COMAR 26.17.02.10.		
SWM FACILITY NUMBER 132462	MDE/PRD NUMBER 00-XX-0000	SHA CONTRACT NUMBER XX0005000

ACTIVITY	SUPPORTING DOCUMENTATION AND INFORMATION (SUBMIT WITH SWM FACILITY AS-BUILT CERTIFICATION PACKAGE)	DATE(S) OF INSPECTION
PRIOR TO SWM FACILITY EXCAVATION, VERIFIED ESC MEASURES ARE INSTALLED AROUND THE FACILITY OR CONFIRMED SURROUNDING AREA IS STABILIZED, AND CONFIRMED FACILITY STAKEOUT	<input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> OTHER (LIST):	
OBSERVED EXCAVATION AND GRADING OF SWM FACILITY	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF GEOTEXTILE AND VERIFIED INSTALLATION PERFORMED AS SPECIFIED	<input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF NO. 57 AGGREGATE BEDDING FOR SUB-DRAIN	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF SUB-DRAIN, VERIFIED TYPE IS PPWP OR CPP-S AND HAS SLOTTED PERFORATIONS	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST): PIPE TYPE: <input type="checkbox"/> PPWP <input type="checkbox"/> CPP-S	
OBSERVED INSTALLATION OF NO. 57 AGGREGATE AROUND AND ABOVE SUB-DRAIN	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF NO. 7 AGGREGATE	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF COARSE SAND	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF APPROVED BIORETENTION SOIL MIX (BSM)	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> MATERIAL APPROVAL FORM(S) <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF CHECK DAMS	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF RELEASE STRUCTURE	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST): RELEASE STRUCTURE: <input type="checkbox"/> INLET <input type="checkbox"/> WEIR <input type="checkbox"/> CHECK DAM <input type="checkbox"/> OTHER (WRITE IN):	
11	<input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> OTHER (LIST):	

FEATURE	DESIGN	AS-BUILT	DIFFERENCE
BOTTOM WIDTH (FT.)	4		
TOTAL LENGTH (FT.)	194		
MAXIMUM CHANNEL SLOPE (FT./FT.) - CANNOT EXCEED 4%	2.7		
LEFT SIDE SLOPE (H:V) - CANNOT BE STEEPER THAN 3:1	3:1		
RIGHT SIDE SLOPE (H:V) - CANNOT BE STEEPER THAN 3:1	3:1		
THICKNESS OF NO. 57 AGGREGATE (IN.)	18		
THICKNESS OF NO. 7 AGGREGATE (IN.)	4		
THICKNESS OF COARSE SAND (IN.)	4		
THICKNESS OF BSM (IN.)	48		
SUB-DRAIN PIPE DIAMETER (IN.)	6		
SUB-DRAIN PIPE MATERIAL	PVC		
SUB-DRAIN OUTLET INVERT ELEVATION (FT.)	366.40		
NUMBER OF CHECK DAMS	3		
TYPICAL DISTANCE BETWEEN CHECK DAMS (FT.)	50		
TYPICAL CHECK DAM HEIGHT (FT.)	6		
ES&V DEPTH (IN.)	6		
10-YR. DEPTH (IN.)	7.8		
10-YR FREEBOARD (IN.) - CANNOT BE LESS THAN 9 IN.	10.2		

SWM FACILITY AS-BUILT CERTIFICATION ACCEPTANCE APPROVING AUTHORITY: MDE PRD
ACCEPTED BY: _____ (NAME) DATE: _____
REVISED 10-20-2017

SWM FACILITY AS-BUILT CERTIFICATION DATA TABLE FOR M-8 BIO-SWALES MAY ONLY BE CERTIFIED BY THE AS-BUILT (AB) INSPECTOR PER COMAR 26.17.02.10.		
SWM FACILITY NUMBER 132463	MDE/PRD NUMBER 00-XX-0000	SHA CONTRACT NUMBER XX0005000

ACTIVITY	SUPPORTING DOCUMENTATION AND INFORMATION (SUBMIT WITH SWM FACILITY AS-BUILT CERTIFICATION PACKAGE)	DATE(S) OF INSPECTION
PRIOR TO SWM FACILITY EXCAVATION, VERIFIED ESC MEASURES ARE INSTALLED AROUND THE FACILITY OR CONFIRMED SURROUNDING AREA IS STABILIZED, AND CONFIRMED FACILITY STAKEOUT	<input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> OTHER (LIST):	
OBSERVED EXCAVATION AND GRADING OF SWM FACILITY	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF GEOTEXTILE AND VERIFIED INSTALLATION PERFORMED AS SPECIFIED	<input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF NO. 57 AGGREGATE BEDDING FOR SUB-DRAIN	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF SUB-DRAIN, VERIFIED TYPE IS PPWP OR CPP-S AND HAS SLOTTED PERFORATIONS	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST): PIPE TYPE: <input type="checkbox"/> PPWP <input type="checkbox"/> CPP-S	
OBSERVED INSTALLATION OF NO. 57 AGGREGATE AROUND AND ABOVE SUB-DRAIN	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF NO. 7 AGGREGATE	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF COARSE SAND	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF APPROVED BIORETENTION SOIL MIX (BSM)	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> MATERIAL APPROVAL FORM(S) <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF CHECK DAMS	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF RELEASE STRUCTURE	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST): RELEASE STRUCTURE: <input type="checkbox"/> INLET <input type="checkbox"/> WEIR <input type="checkbox"/> CHECK DAM <input type="checkbox"/> OTHER (WRITE IN):	
OBSERVED INSTALLATION AND ESTABLISHMENT OF VEGETATION AND VERIFIED SPECIES SPECIFIED	<input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> OTHER (LIST):	

FEATURE	DESIGN	AS-BUILT	DIFFERENCE
BOTTOM WIDTH (FT.)	4		
TOTAL LENGTH (FT.)	190		
MAXIMUM CHANNEL SLOPE (FT./FT.) - CANNOT EXCEED 4%	1		
LEFT SIDE SLOPE (H:V) - CANNOT BE STEEPER THAN 3:1	3:1		
RIGHT SIDE SLOPE (H:V) - CANNOT BE STEEPER THAN 3:1	3:1		
THICKNESS OF NO. 57 AGGREGATE (IN.)	12		
THICKNESS OF NO. 7 AGGREGATE (IN.)	4		
THICKNESS OF COARSE SAND (IN.)	4		
THICKNESS OF BSM (IN.)	24		
SUB-DRAIN PIPE DIAMETER (IN.)	6		
SUB-DRAIN PIPE MATERIAL	PVC		
SUB-DRAIN OUTLET INVERT ELEVATION (FT.)	364.51		
NUMBER OF CHECK DAMS	2		
TYPICAL DISTANCE BETWEEN CHECK DAMS (FT.)	50		
TYPICAL CHECK DAM HEIGHT (FT.)	0.25		
ES&V DEPTH (IN.)	0.25		
10-YR. DEPTH (IN.)	6.12		
10-YR FREEBOARD (IN.) - CANNOT BE LESS THAN 9 IN.	11.88		

SWM FACILITY AS-BUILT CERTIFICATION ACCEPTANCE APPROVING AUTHORITY: MDE PRD
ACCEPTED BY: _____ (NAME) DATE: _____
REVISED 10-20-2017

SWM FACILITY AS-BUILT CERTIFICATION DATA TABLE FOR RELEASE STRUCTURES - INLETS MAY ONLY BE CERTIFIED BY THE AS-BUILT (AB) INSPECTOR AS REQUIRED BY COMAR 26.17.02.10.		
SWM FACILITY NUMBER 132463	MDE/PRD NUMBER 00-XX-0000	SHA CONTRACT NUMBER XX0005000

ACTIVITY	SUPPORTING DOCUMENTATION AND INFORMATION (SUBMIT WITH SWM FACILITY AS-BUILT CERTIFICATION PACKAGE)	DATE(S) OF INSPECTION
OBSERVED EXCAVATION FOR STRUCTURE	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF BEDDING	<input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF STRUCTURE	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED PLACEMENT OF BACKFILL AROUND STRUCTURE	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	

FEATURES FOR INLETS	DESIGN	AS-BUILT	DIFFERENCE
TOP ELEVATION (FT)	368.23		
INVERT IN ELEVATION (FT)	367.73		
INVERT OUT ELEVATION (FT)	364.31		
SUB-DRAIN INVERT IN ELEVATION (FT)	364.32		

SWM FACILITY AS-BUILT CERTIFICATION ACCEPTANCE APPROVING AUTHORITY: MDE PRD
ACCEPTED BY: _____ (NAME) DATE: _____
REVISED 07-21-2017

STORMWATER MANAGEMENT AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITY (FACILITIES) SHOWN ON THE PLANS AND INDIVIDUALLY IDENTIFIED BELOW HAS (HAVE) BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS INCLUDED UNDER THE STATE HIGHWAY ADMINISTRATION PLAN REVIEW DIVISION APPROVAL, NUMBER _____ - PR _____ EXCEPT AS NOTED IN GREEN ON THE "AS-BUILT" DRAWINGS. FURTHERMORE, THE GREEN-NOTED EXCEPTIONS DO NOT ADVERSELY AFFECT THE DESIGN AND/OR THE INTENDED PERFORMANCE OF THE FACILITY (FACILITIES).

EACH SWM FACILITY IS IDENTIFIED INDIVIDUALLY BY A UNIQUE SWM FACILITY NUMBER

Name (Printed) _____ Signature _____

Maryland Registration Number _____ 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. _____, EXPIRATION DATE _____"

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

NOTE: AS-BUILT CHECKLISTS CONTAINED IN THE CONTRACT DRAWINGS SHALL BE COMPLETED BY THE AS-BUILT INSPECTOR AND SUBMITTED TO THE SHA ALONG WITH THIS CERTIFICATION.

NOTE: THE CONSTRUCTION OF THE PROPOSED MDOT SHA BIO-SWALES WILL CONFORM TO THE 2017 MDOT SHA STANDARD SPECIFICATION 316 FOR "STORMWATER MANAGEMENT (SWM) FILTRATION FACILITIES." WHICH CAN BE FOUND AT THE FOLLOWING LINK:
[https://policymanual.mdot.maryland.gov/mediawiki/index.php?title=316_STORMWATER_MANAGEMENT_\(SWM\)_FILTRATION_FACILITIES](https://policymanual.mdot.maryland.gov/mediawiki/index.php?title=316_STORMWATER_MANAGEMENT_(SWM)_FILTRATION_FACILITIES).

SWM FACILITY AS-BUILT CERTIFICATION DATA TABLE FOR RELEASE STRUCTURES - INLETS MAY ONLY BE CERTIFIED BY THE AS-BUILT (AB) INSPECTOR AS REQUIRED BY COMAR 26.17.02.10.		
SWM FACILITY NUMBER 132463	MDE/PRD NUMBER 00-XX-0000	SHA CONTRACT NUMBER XX0005000

ACTIVITY	SUPPORTING DOCUMENTATION AND INFORMATION (SUBMIT WITH SWM FACILITY AS-BUILT CERTIFICATION PACKAGE)	DATE(S) OF INSPECTION
OBSERVED EXCAVATION FOR STRUCTURE	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF BEDDING	<input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> OTHER (LIST):	
OBSERVED INSTALLATION OF STRUCTURE	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	
OBSERVED PLACEMENT OF BACKFILL AROUND STRUCTURE	<input type="checkbox"/> PHOTOGRAPHS <input type="checkbox"/> INSPECTION REPORT <input type="checkbox"/> OTHER (LIST):	

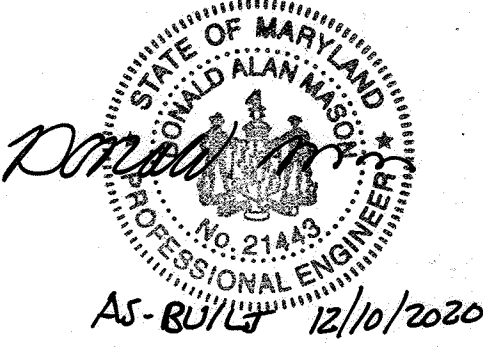
FEATURES FOR INLETS	DESIGN	AS-BUILT	DIFFERENCE
TOP ELEVATION (FT)	372.57		
INVERT IN ELEVATION (FT)	372.07		
INVERT OUT ELEVATION (FT)	366.40		
SUB-DRAIN INVERT IN ELEVATION (FT)	366.40		

SWM FACILITY AS-BUILT CERTIFICATION ACCEPTANCE APPROVING AUTHORITY: MDE PRD
ACCEPTED BY: _____ (NAME) DATE: _____
REVISED 07-21-2017

AS BUILT FOR THE ROUTE 103 IMPROVEMENTS WERE SUBMITTED TO SHA UNDER PERMIT NO. 14- APHO -001-18

"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"

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. 21443 Expiration Date 12-31-2022



OWNER
LOCUST THICKET INVESTORS LLC
5836 MEADOWRIDGE ROAD
ELKRIDGE, MD 21075
410-465-4244

DEVELOPER
LOCUST THICKET INVESTORS LLC
P.O. BOX 417
ELLCOTT CITY, MD 21041
410-465-4244

REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
ZONED R-A-15 & POR
TAX MAP: 37 PARCEL: 1714 & 724 GRID: 9
ELECTION DISTRICT 1 HOWARD COUNTY, MD
SHEET 29 OF 42

C.E.I. PROJECT NUMBER
181204.02
SCALE:
N.T.S.

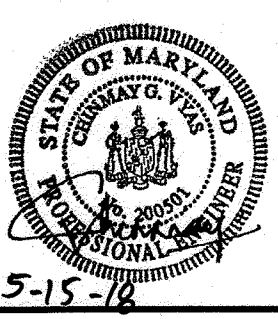
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
M. Meunier 6/15/2018
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
V. S. ... 7-9-18
CHIEF, DIVISION OF LAND DEVELOPMENT

Chad ... 7-3-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION

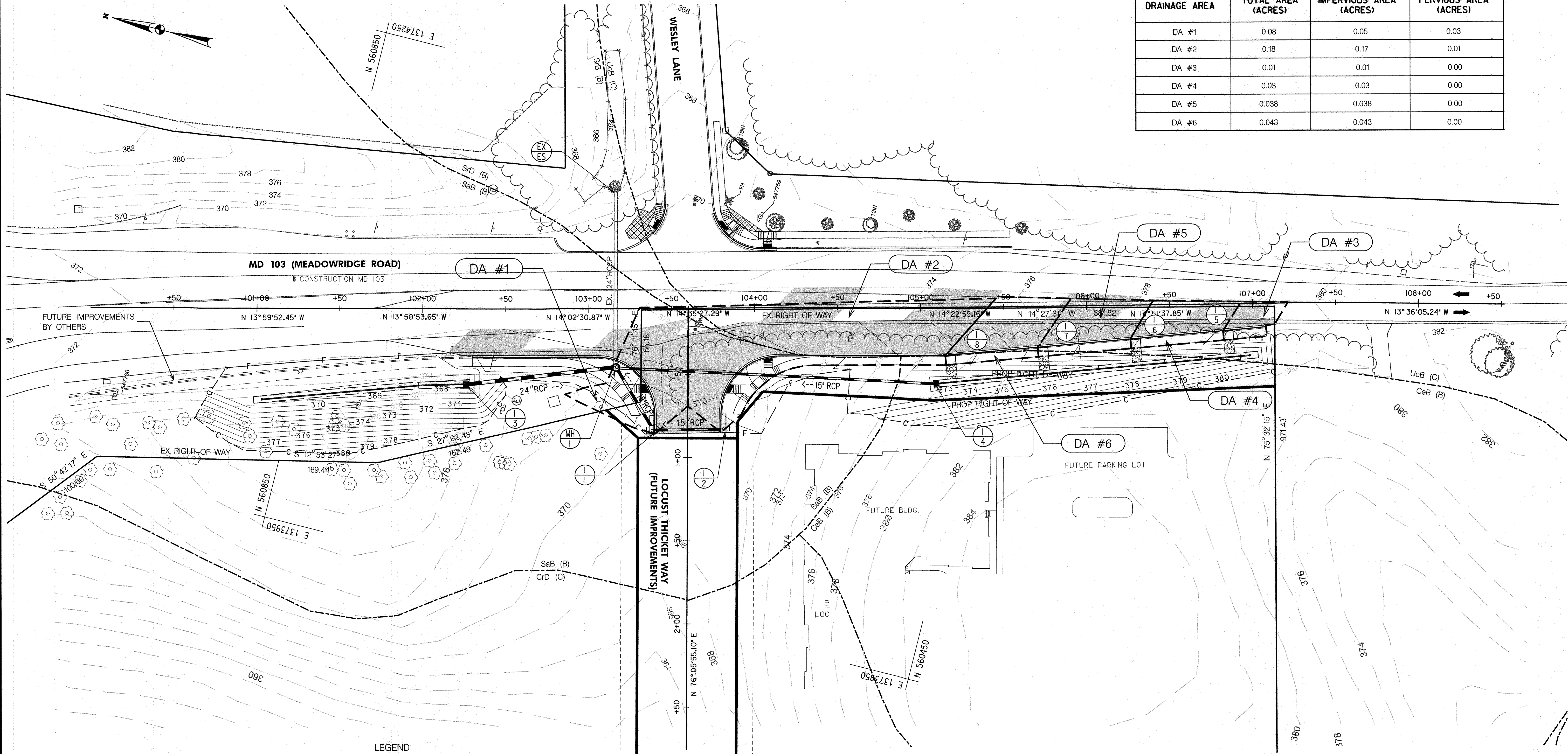
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NUMBER: 200501 EXPIRATION DATE: 09/01/2019

CV, INC.
1395 Piccard Drive Suite 370, Rockville, MD 20850
Phone: 301.637.2510 Fax: 240.252.5612



DESIGN BY:	AP		
DRAWN BY:	AG		
CHECKED BY:	CV		
DATE:	MAY 2018	NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18
BY NO.		REVISION	DATE

DRAINAGE AREA	TOTAL AREA (ACRES)	IMPERVIOUS AREA (ACRES)	PERVIOUS AREA (ACRES)
DA #1	0.08	0.05	0.03
DA #2	0.18	0.17	0.01
DA #3	0.01	0.01	0.00
DA #4	0.03	0.03	0.00
DA #5	0.038	0.038	0.00
DA #6	0.043	0.043	0.00



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
M. Meunier 6/5/2018
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
K. DeLoach 7-4-18
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad Edick 7-3-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

LEGEND
 --- DRAINAGE DIVIDE LINE
 --- CrD (C) SOIL BOUNDARY

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 NUMBER: 200501 EXPIRATION DATE: 09/01/2019

OWNER
 LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKBRIDGE, MD 21075
 410-465-4244

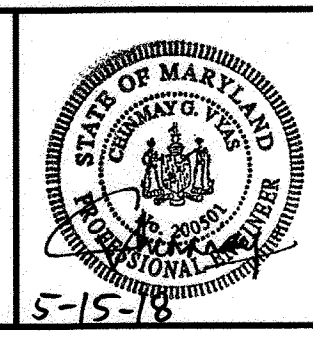
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 21443 Expiration Date: 12-21-2022



AS-BUILT'S FOR THE ROUTE 103 IMPROVEMENTS WERE SUBMITTED TO SHA UNDER PERMIT NO. 14-APHO-001-18.
 "NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division Date
 Chief, Division of Land Development Date
 Director Date

CV, INC.
 1395 Piccard Drive Suite 370, Rockville, MD 20850
 Phone: 301.637.2510 Fax: 240.252.5612

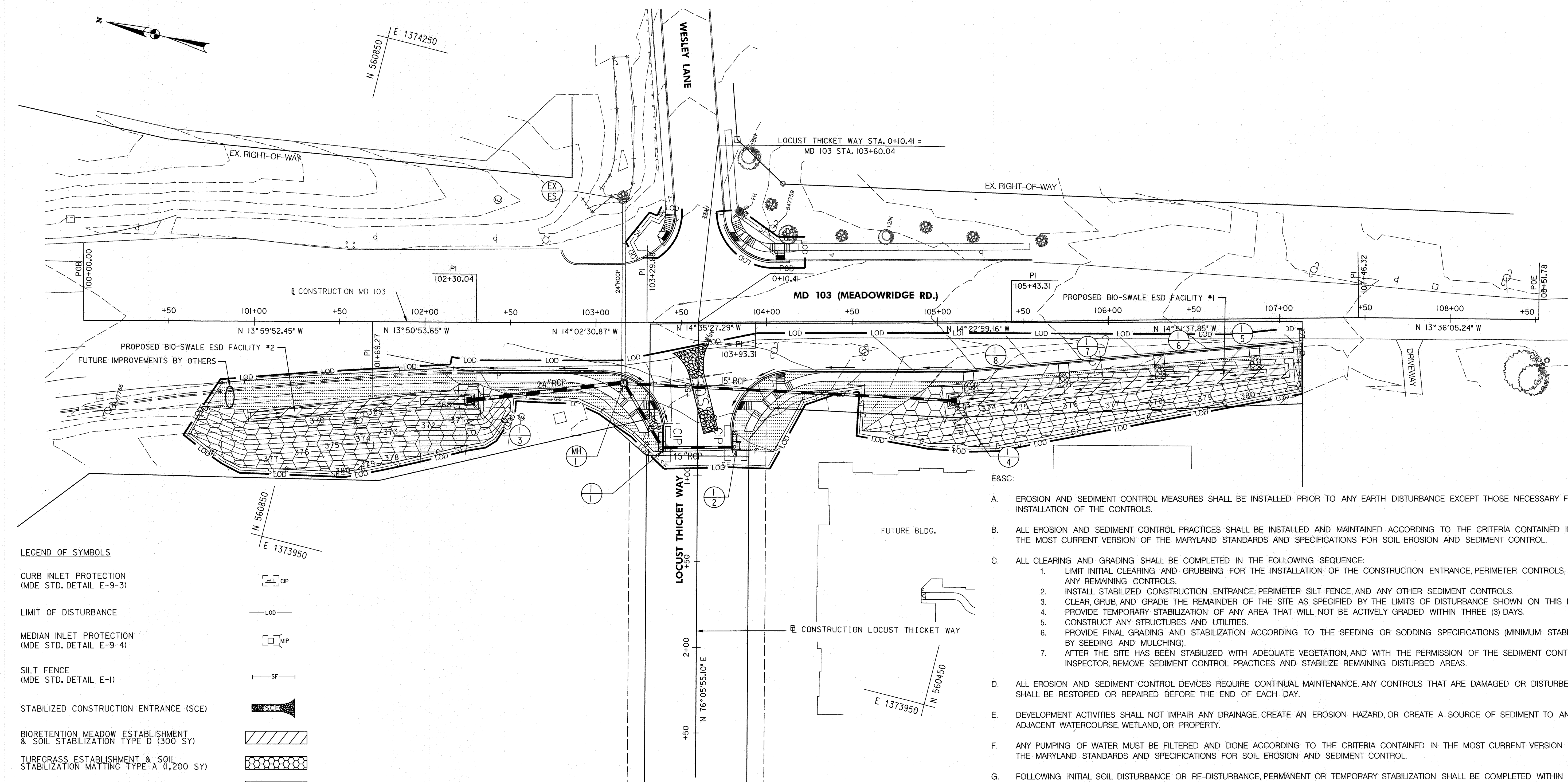


DESIGN BY:	AP
DRAWN BY:	AG
CHECKED BY:	CV
DATE:	MAY 2018
NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18
BY NO.	REVISION
	DATE

DEVELOPER
 LOCUST THICKET INVESTORS LLC
 P.O. BOX 417
 ELLICOTT CITY, MD 21041
 410-465-4244

REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
 ZONED R-A-15 & POR
 TAX MAP 37 PARCEL 714 & 724 GRID 9
 ELECTION DISTRICT 1 HOWARD COUNTY, MD
 SHEET 31 OF 42

C.E.I. PROJECT NUMBER 161204.02
 SCALE: 1"=30'



LEGEND OF SYMBOLS

CURB INLET PROTECTION (MDE STD. DETAIL E-9-3)	
LIMIT OF DISTURBANCE	
MEDIAN INLET PROTECTION (MDE STD. DETAIL E-9-4)	
SILT FENCE (MDE STD. DETAIL E-1)	
STABILIZED CONSTRUCTION ENTRANCE (SCE)	
BIORETENTION MEADOW ESTABLISHMENT & SOIL STABILIZATION TYPE D (300 SY)	
TURFGRASS ESTABLISHMENT & SOIL STABILIZATION MATTING TYPE A (1,200 SY)	
TURFGRASS ESTABLISHMENT (675 SY)	

- E&SC:**
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH DISTURBANCE EXCEPT THOSE NECESSARY FOR INSTALLATION OF THE CONTROLS.
 - ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED AND MAINTAINED ACCORDING TO THE CRITERIA CONTAINED IN THE MOST CURRENT VERSION OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 - ALL CLEARING AND GRADING SHALL BE COMPLETED IN THE FOLLOWING SEQUENCE:
 - LIMIT INITIAL CLEARING AND GRUBBING FOR THE INSTALLATION OF THE CONSTRUCTION ENTRANCE, PERIMETER CONTROLS, AND ANY REMAINING CONTROLS.
 - INSTALL STABILIZED CONSTRUCTION ENTRANCE, PERIMETER SILT FENCE, AND ANY OTHER SEDIMENT CONTROLS.
 - CLEAR, GRUB, AND GRADE THE REMAINDER OF THE SITE AS SPECIFIED BY THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN.
 - PROVIDE TEMPORARY STABILIZATION OF ANY AREA THAT WILL NOT BE ACTIVELY GRADED WITHIN THREE (3) DAYS.
 - CONSTRUCT ANY STRUCTURES AND UTILITIES.
 - PROVIDE FINAL GRADING AND STABILIZATION ACCORDING TO THE SEEDING OR SODDING SPECIFICATIONS (MINIMUM STABILIZATION BY SEEDING AND MULCHING).
 - AFTER THE SITE HAS BEEN STABILIZED WITH ADEQUATE VEGETATION, AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL PRACTICES AND STABILIZE REMAINING DISTURBED AREAS.
 - ALL EROSION AND SEDIMENT CONTROL DEVICES REQUIRE CONTINUAL MAINTENANCE. ANY CONTROLS THAT ARE DAMAGED OR DISTURBED SHALL BE RESTORED OR REPAIRED BEFORE THE END OF EACH DAY.
 - DEVELOPMENT ACTIVITIES SHALL NOT IMPAIR ANY DRAINAGE, CREATE AN EROSION HAZARD, OR CREATE A SOURCE OF SEDIMENT TO ANY ADJACENT WATERCOURSE, WETLAND, OR PROPERTY.
 - ANY PUMPING OF WATER MUST BE FILTERED AND DONE ACCORDING TO THE CRITERIA CONTAINED IN THE MOST CURRENT VERSION OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 - FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS FOR ALL SEDIMENT CONTROLS, STOCKPILES, AND 3:1 OR GREATER SLOPES; AND SEVEN (7) DAYS FOR ALL OTHER DISTURBED AREAS ON THE SITE NOT BEING ACTIVELY GRADED.
 - ADDITIONAL CURB INLET PROTECTION (2 EA) HAS BEEN PROVIDED AND SHALL BE USED AT THE DISCRETION OF THE ENGINEER.
 - WITHIN THE SHA RIGHT-OF-WAY, CONTRACTOR SHALL, BY THE END OF EACH WORKING DAY, FULLY STABILIZE ALL DISTURBED AREAS WHICH DO NOT DRAIN TO AN APPROVED SEDIMENT CONTROL DEVICE.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Howard County Seal
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 6/15/2018

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Howard County Seal
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 7-9-18

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 7-3-18

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.

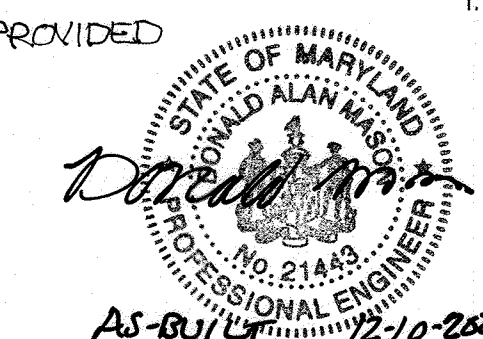
LICENSE NUMBER: 30369 EXPIRATION DATE: 1/06/2020

AS-BUILTS FOR THE ROUTE 103 IMPROVEMENTS WERE SUBMITTED TO SHA UNDER PERMIT No. 12-APHO-001-13

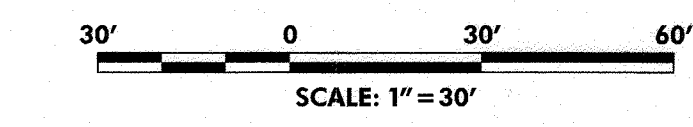
"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"

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. 21443 Expiration Date: 12-21-2022



OWNER
LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKCRIDGE, MD 21075
 410-465-4244



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 Director

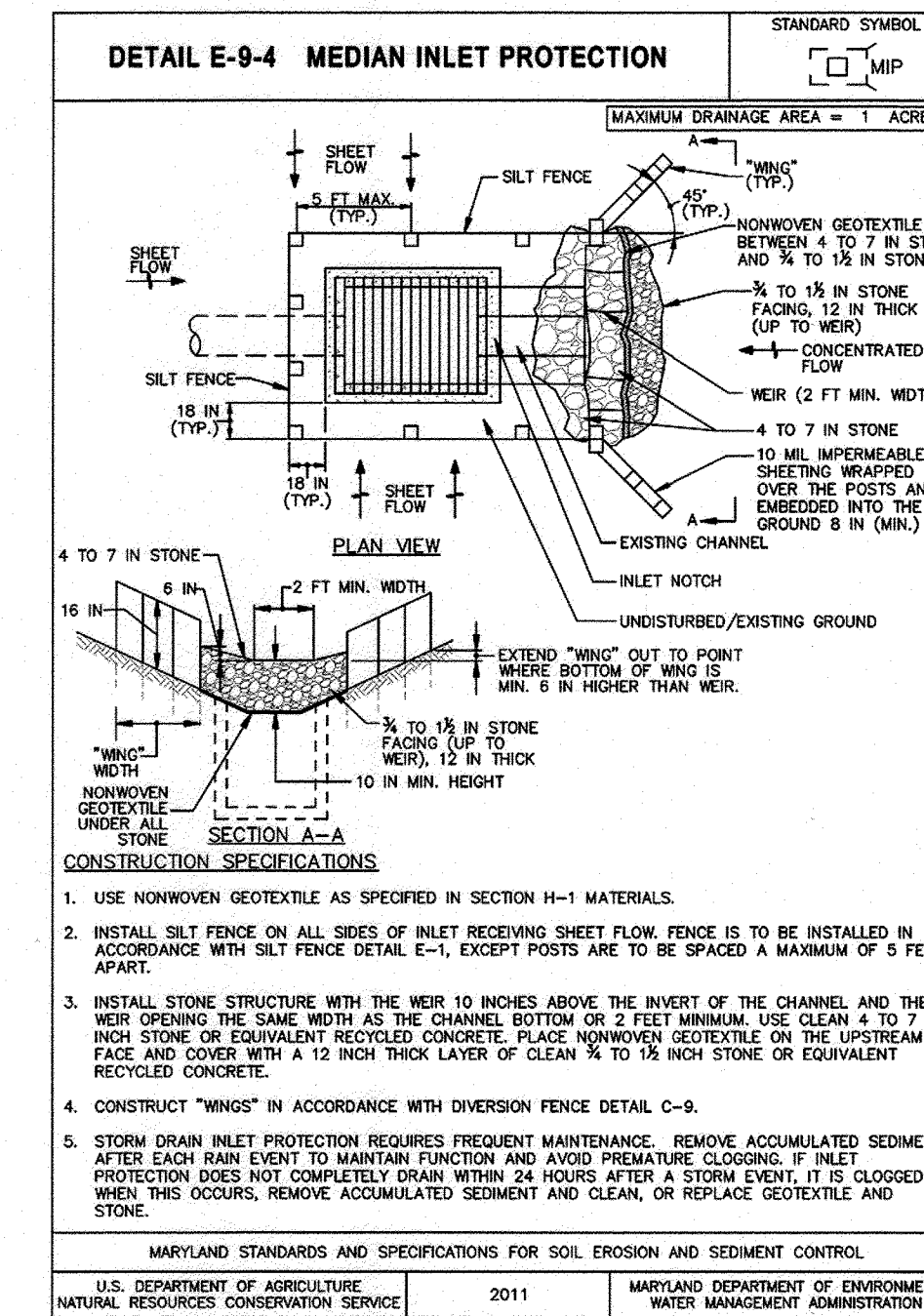
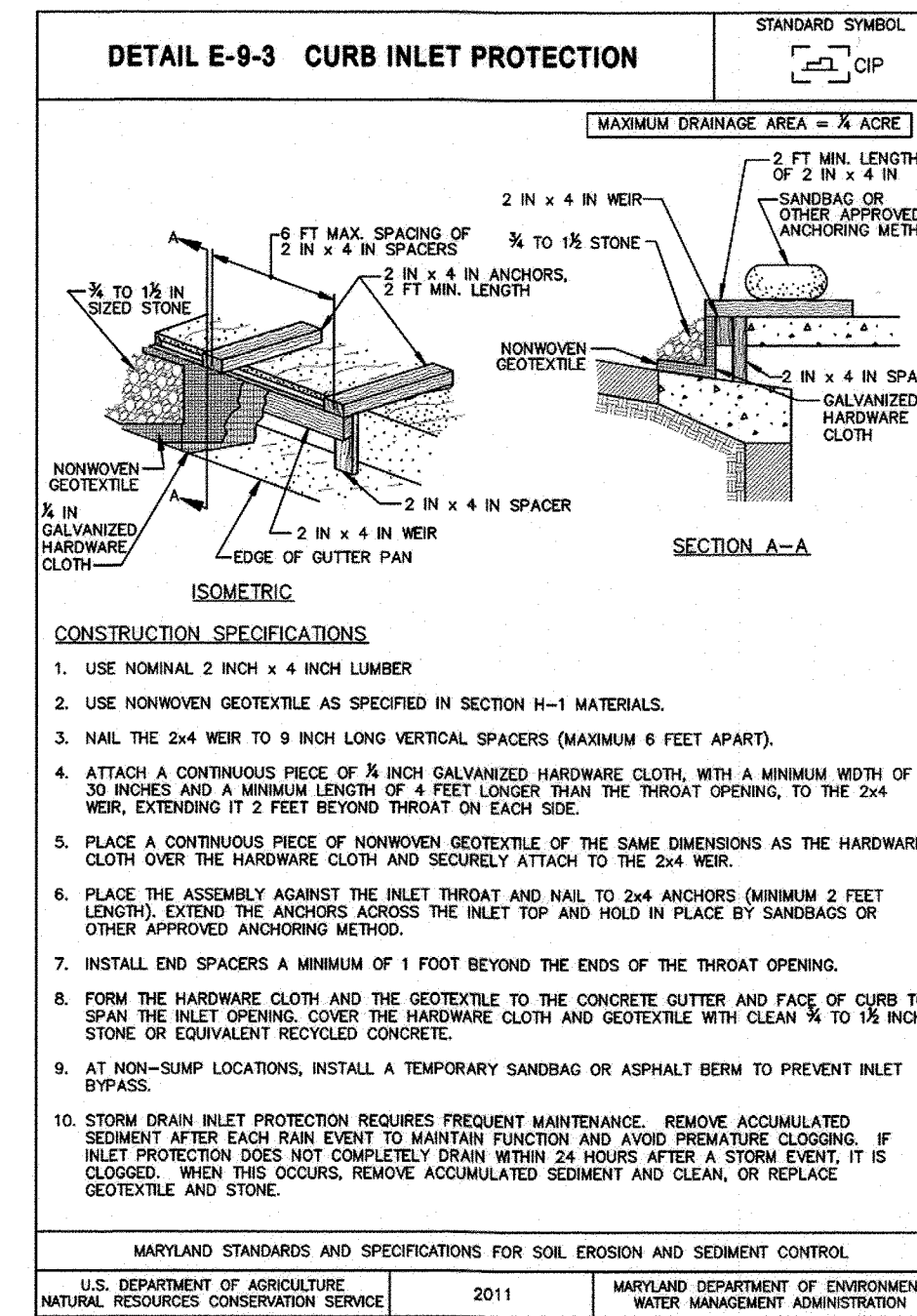
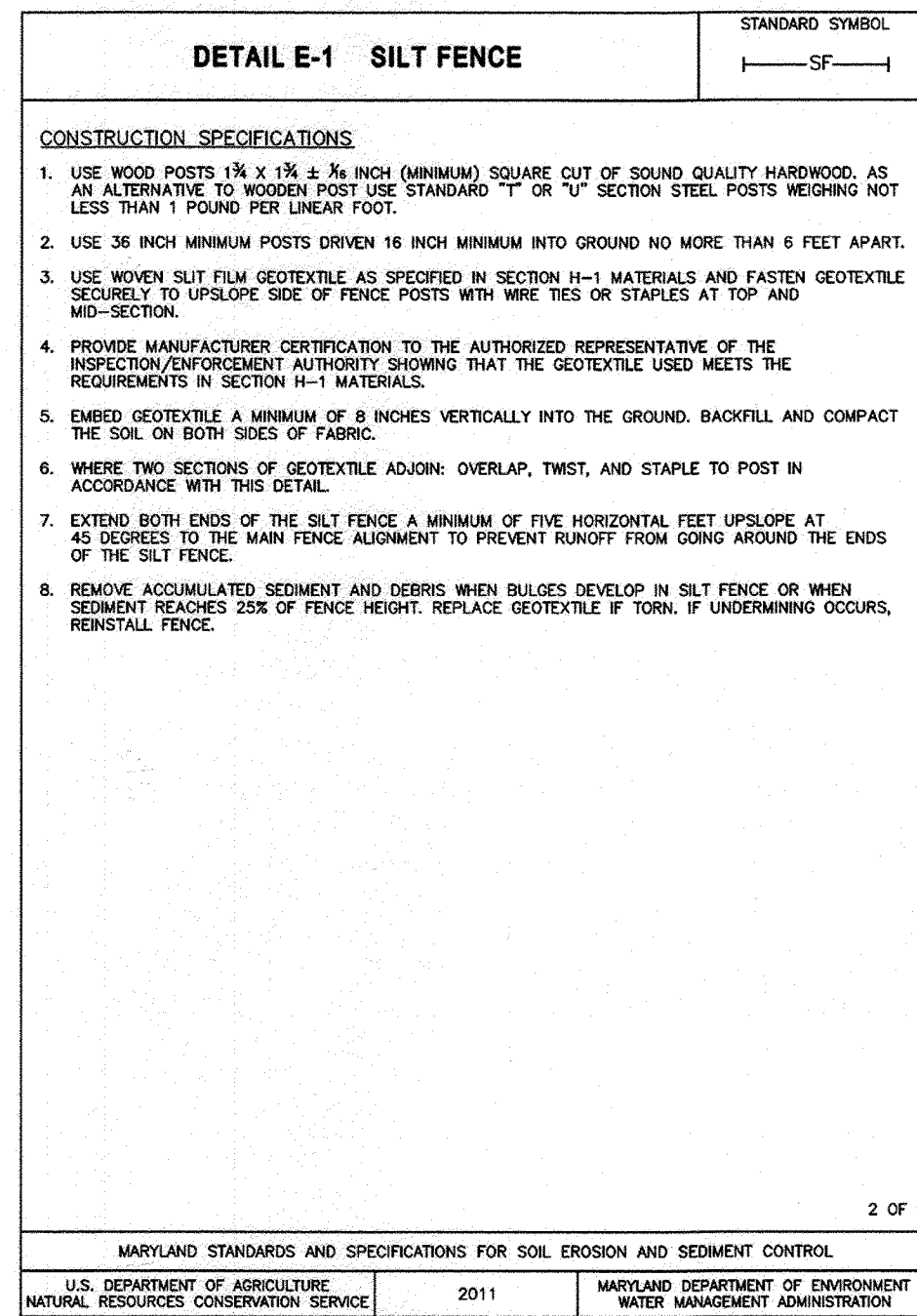
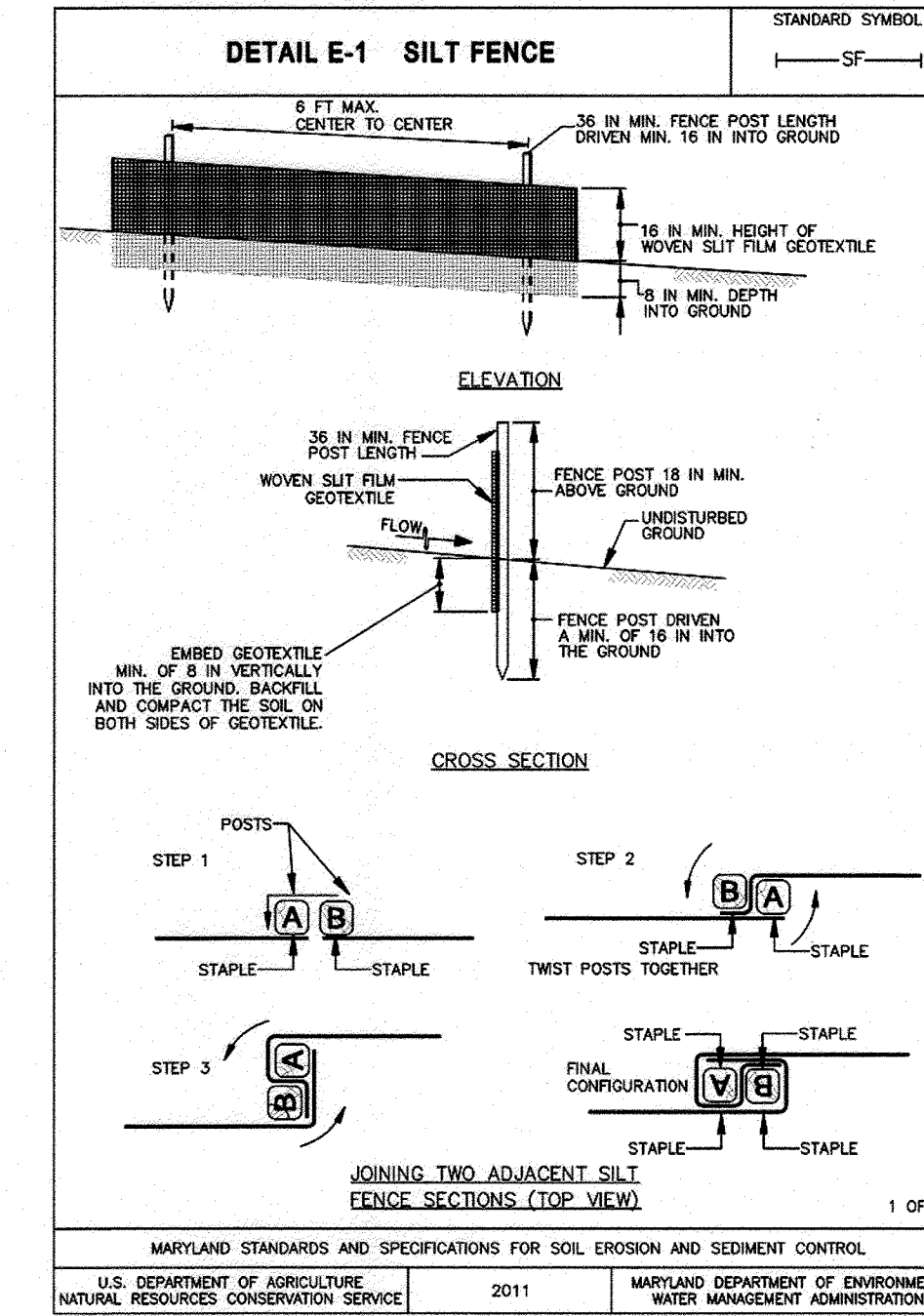
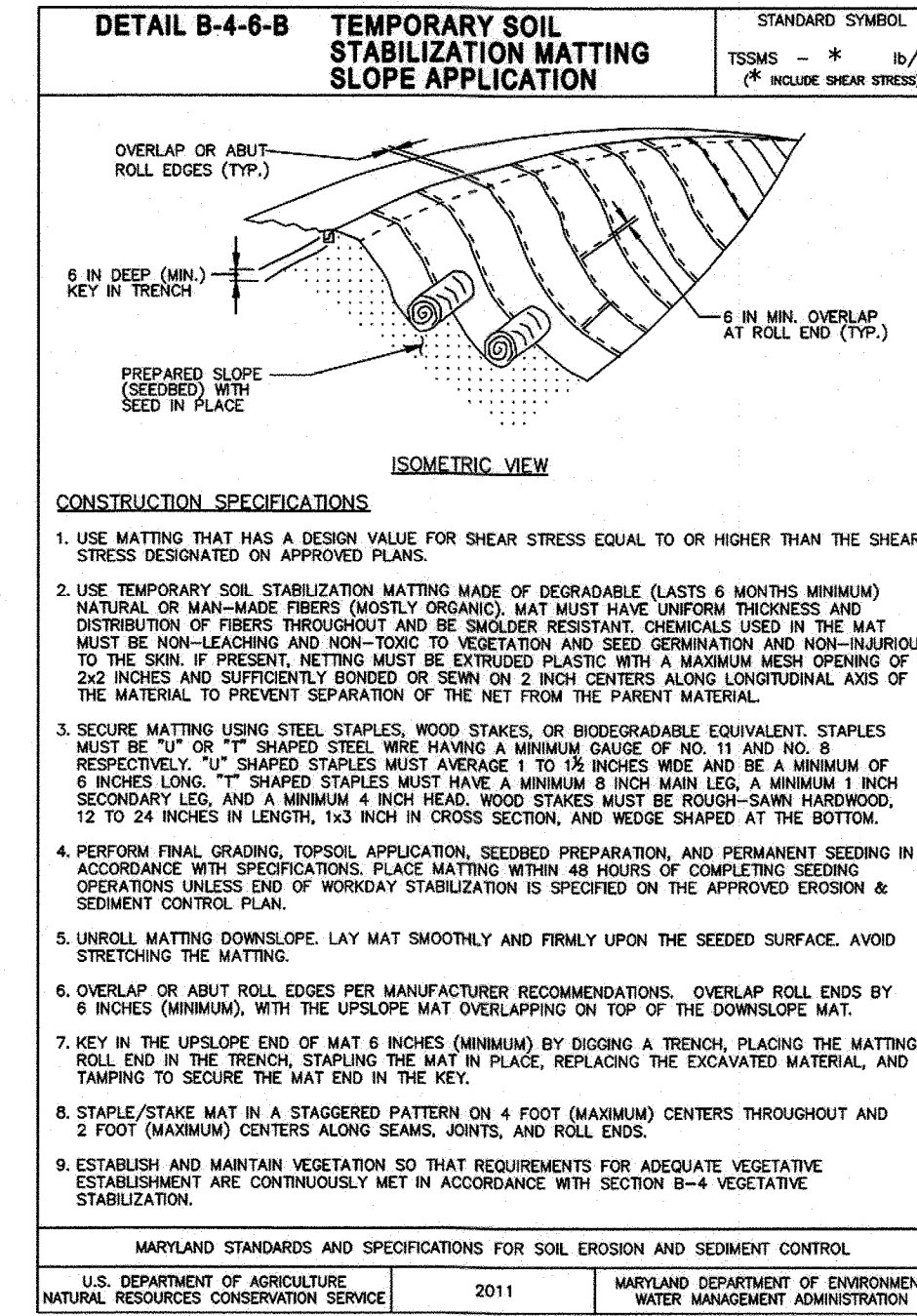
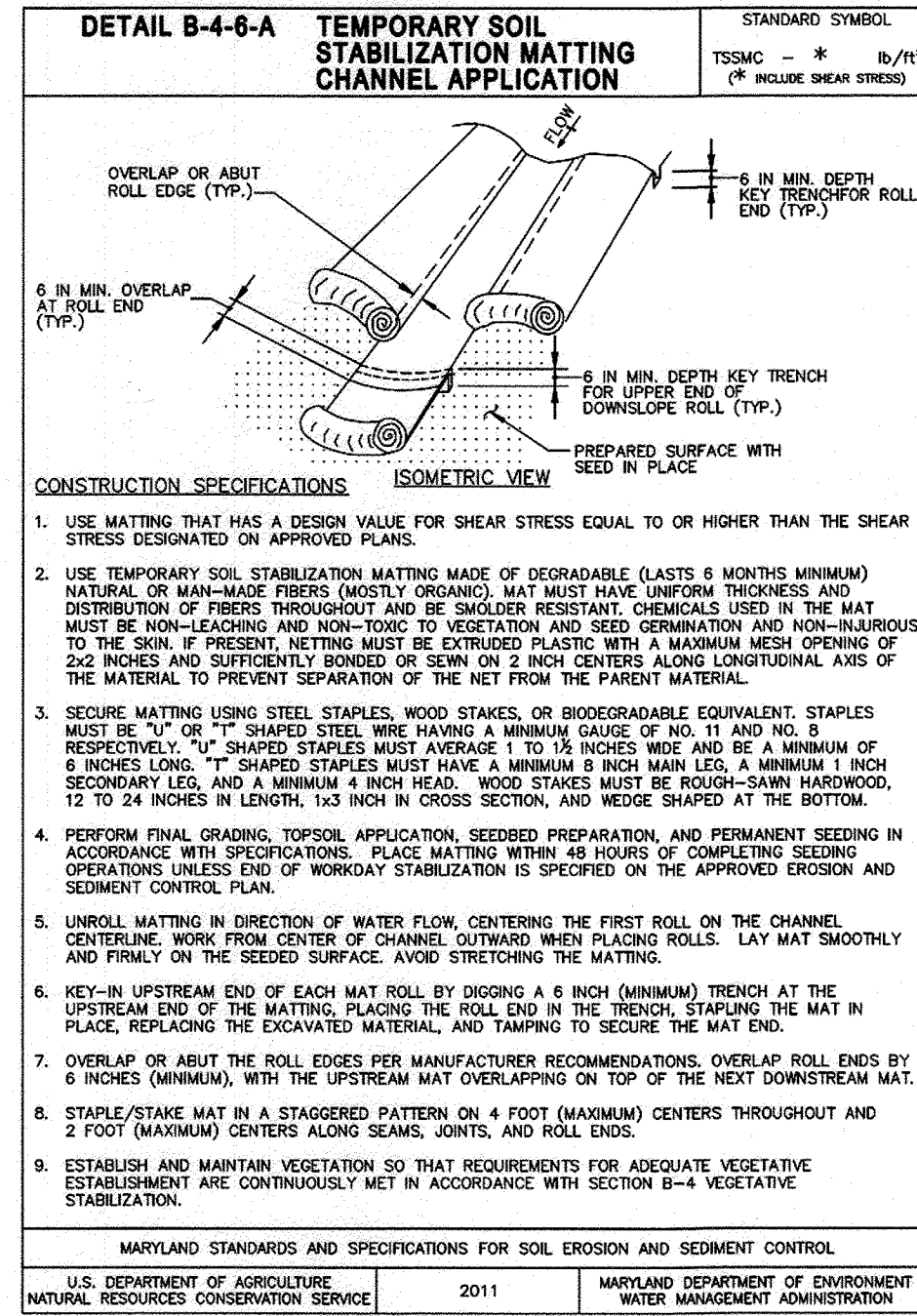
CENTURY ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 Gilroy Road, Hunt Valley, MD 21031
 Phone: 443.589.2400 Fax: 443.589.2401

DESIGN BY:	KCS
DRAWN BY:	KCS
CHECKED BY:	JDD
DATE:	MAY 2018
BY NO.	1
REVISION	NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN
DATE	4/5/18

DEVELOPER
LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKCRIDGE, MD 21075
 410-465-4244

REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
 ZONED R-A-15 & POR
 TAX MAP: 37 PARCEL: 714 & 724 GRID: 9
 ELECTION DISTRICT 1 HOWARD COUNTY, MD
 SHEET 32 OF 42

C.E.I. PROJECT NUMBER
 161204.02
 SCALE:
 1" = 30'



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

M. Meunier 6/15/2018
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

R. G. Johnson 7-9-18
CHIEF, DIVISION OF LAND DEVELOPMENT

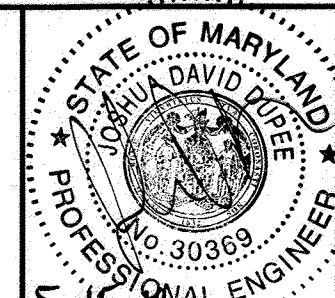
Chad Edwards 7-3-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION

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 NUMBER: 30369 EXPIRATION DATE: 1/06/2020

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 Gilroy Road, Hunt Valley, MD 21031
Phone: 443.589.2400 Fax: 443.589.2401

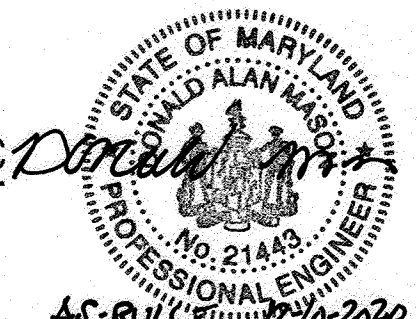


DESIGN BY:	KCS			
DRAWN BY:	KCS			
CHECKED BY:	JDD			
DATE:	MAY 2018			
BY	NO.	NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	DATE	
		REVISION		

OWNER
LOCUST THICKET INVESTORS LLC
5836 MEADOWRIDGE ROAD
ELKRIDGE, MD 21075
410-465-4244

DEVELOPER
LOCUST THICKET INVESTORS LLC
5836 MEADOWRIDGE ROAD
ELKRIDGE, MD 21075
410-465-4244

"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"



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.

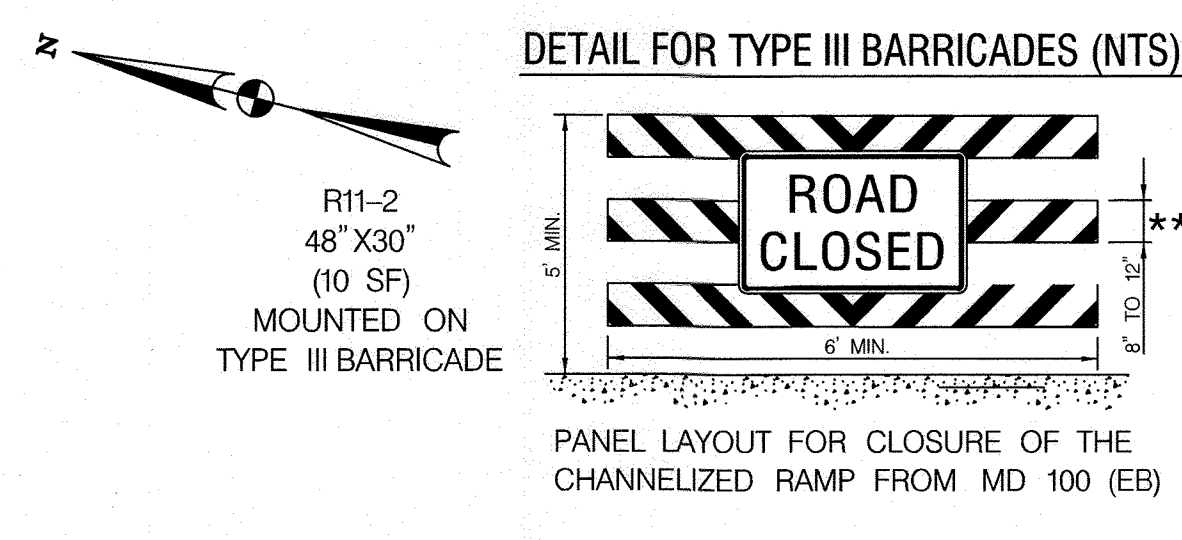
License No. 21443, Expiration Date: 12-2-2022

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division
Chief, Division of Land Development
Director

REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
ZONED R-A-15 & POR
TAX MAP 37 PARCEL 714 & 724 GRID: 9
ELECTION DISTRICT 1 HOWARD COUNTY, MD
SHEET 33 OF 42

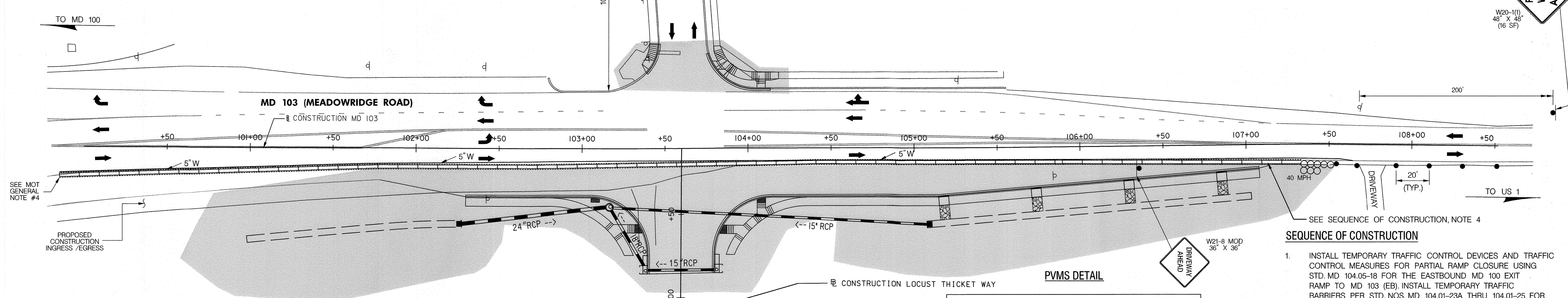
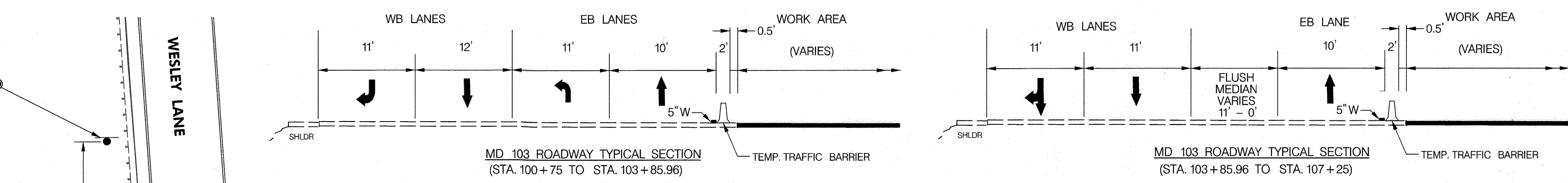
C.E.I. PROJECT NUMBER
161204.02
SCALE:
AS SHOWN



** NOMINAL LUMBER DIMENSIONS ARE SATISFACTORY FOR BARRICADE RAIL WIDTH DIMENSIONS.

RAIL STRIPE WIDTHS SHALL BE 6" EXCEPT THAT 4" WIDE STRIPES MAY BE USED IF RAIL LENGTHS ARE LESS THAN 36".

THE SIDES OF BARRICADES FACING TRAFFIC SHALL HAVE RETROREFLECTIVE RAIL FACES.

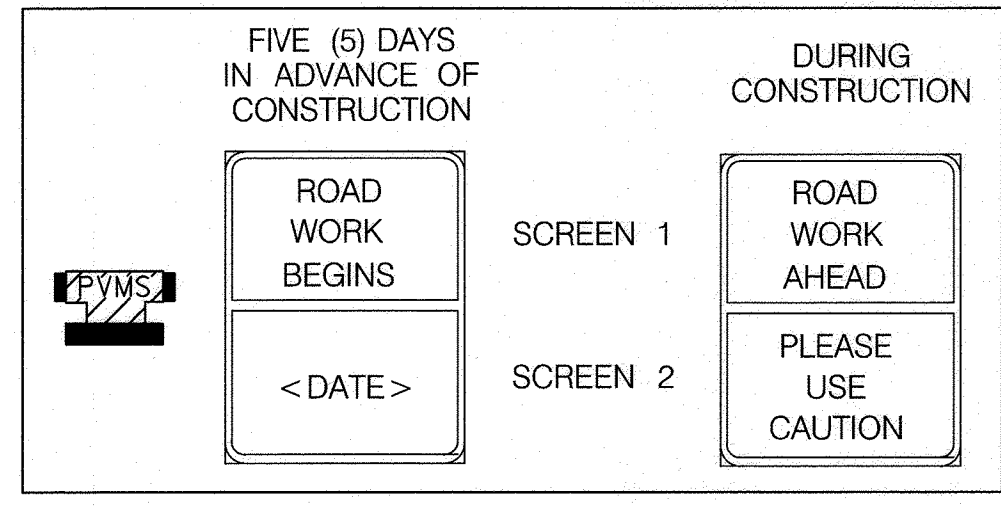


MAINTENANCE OF TRAFFIC (MOT) GENERAL NOTES

1. THE CONTRACTOR SHALL ADEHERE TO THESE PLANS FOR MAINTAINING TRAFFIC DURING CONSTRUCTION. ANY DEVIATION FROM THESE PLANS SHALL BE APPROVED BY THE ENGINEER.
2. ALL MAINTENANCE OF TRAFFIC (MOT) ACTIVITIES SHALL ADHERE TO THE MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION (SHA) "BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES". SIGNS, PAVEMENT MARKINGS, DRUMS, AND OTHER ITEMS USED FOR MOT SHALL BE USED IN COMBINATION WITH THE GENERAL NOTES AND STANDARDS PROVIDED IN CATEGORY "1" OF THE BOOK OF STANDARDS, MD 104.00-01 THRU MD 104.06-24, AND THE 2011 EDITION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MdMUTCD).
3. CRASH CUSHIONS SHALL BE USED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL REFER TO STANDARD NOS. MD 104.01-23B AND MD 104.01-71 THRU MD 104.01-73 FOR LAYOUT OF CRASH CUSHIONS.
4. TEMPORARY CONCRETE TRAFFIC BARRIER SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD NOS. MD 104.01-23A THROUGH MD 104.01-26. THE LEADING END OF THE TANGENT SECTION OF THE TEMPORARY CONCRETE TRAFFIC BARRIER SHALL START AT THE END OF THE CHANNELIZING ISLAND FOR THE MD 100 (EB) EXIT RAMP. THE TAPERED SECTION AND 40 MPH CRASH CUSHION SHALL BE INSTALLED PER STD. MD 104.01-23A. CRASH CUSHIONS SHALL BE INSTALLED TO ALLOW SITE ACCESS USING THE ROADWAY / SHOULDER AREA.
5. THE CONTRACTOR SHALL REFER TO STANDARD NO. MD 104.05-18 AND MD 104.02-02 FOR INSTALLATION OF PARTIAL RAMP CLOSURE FOR THE CHANNELIZED RIGHT-TURN EXIT RAMP FROM MD 100 (EB) TO MD 103 (EB) AND STANDARD NO. MD 104.06-18 ALONG MD 103 (EB) MAINLINE ROADWAY FOR THE SHOULDER CLOSURE. THE CONTRACTOR SHALL PLACE DRUMS AND A TYPE III BARRICADE WITH AN R11-2 (48' X 30') ON THE CLOSED CHANNELIZED RAMP FROM MD 100 (EB), WITHOUT BLOCKING CONSTRUCTION TRAFFIC FROM ENTERING THE STABILIZED CONSTRUCTION ENTRANCE.
6. USE STD. MD 104.02-10 FOR FLAGGING OPERATIONS ALONG MD 103 AS REQUIRED. THE CONTRACTOR SHALL MAINTAIN 10' (MIN.) LANES DURING CONSTRUCTION.
7. TEMPORARY AND PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE STANDARD NOS. MD 104.02-18 AND MD 104.03-18.
8. ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION UNLESS OTHERWISE DIRECTED BY THE TRAFFIC MANAGER.
9. PORTABLE VARIABLE MESSAGE SIGNS (PVMS) SHALL BE USED AS DIRECTED BY THE ENGINEER. PVMS MUST BE INSTALLED AT LEAST FIVE (5) DAYS PRIOR TO THE INSTALLATION OF THE MOT MEASURES FOR WHICH THEY APPLY. THE CONTRACTOR SHALL REFER TO STANDARD NOS. MD 104.00-08, MD 104.00-09, AND MD 104.01-22 FOR USE AND PLACEMENT OF THE PVMS.

SEQUENCE OF CONSTRUCTION

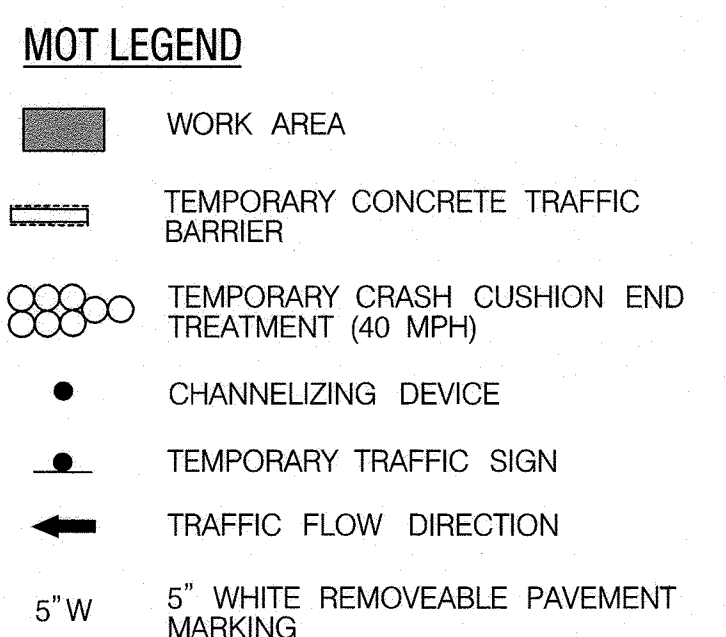
1. INSTALL TEMPORARY TRAFFIC CONTROL DEVICES AND TRAFFIC CONTROL MEASURES FOR PARTIAL RAMP CLOSURE USING STD. MD 104.05-18 FOR THE EASTBOUND MD 100 EXIT RAMP TO MD 103 (EB). INSTALL TEMPORARY TRAFFIC BARRIERS PER STD. NOS. MD 104.01-23A THRU 104.01-25 FOR WORK AREA PROTECTION; AND INSTALL STD. MD 104.06-18 ALONG MD 103 (EB) MAINLINE ROADWAY IN ADVANCE OF THE WORK AREA FOR THE MD 103 SHOULDER CLOSURE IN ADVANCE OF THE WORK AREA.
2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCT SIDEWALK AND ADA-COMPLIANT RAMPS ALONG WESLEY LANE (SEE MOT GENERAL NOTE 15).
3. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCT ROADWAY WIDENING AND FULL-DEPTH PAVEMENT ALONG MD 103 (EB) AND THE PROPOSED LOCUST THICKET WAY UP TO STA. 106+50. INSTALL STORM DRAIN PIPES, AND CONSTRUCT STORMWATER MANAGEMENT FACILITY, AND ADA-COMPLIANT RAMPS. INSTALL SIDEWALK UP TO STA. 106+50. REMOVE AND RESET TEMPORARY TRAFFIC BARRIERS AS NECESSARY.
4. REMOVE TEMPORARY TRAFFIC BARRIER AND CONSTRUCT REMAINING 65' (APPROXIMATE) OF ROADWAY WIDENING, SIDEWALK SEGMENT, AND FULL-DEPTH PAVEMENT WITH FLAGGING OPERATIONS (STD. MD 104.02-10).
5. REMOVE TEMPORARY TRAFFIC CONTROL DEVICES AND REINSTALL / UNCOVER ANY PERMANENT TRAFFIC CONTROL DEVICES REMOVED OR COVERED DURING CONSTRUCTION.
6. REMOVE EROSION AND SEDIMENT CONTROL MEASURES.
7. OPEN ROADWAY TO NORMAL TRAFFIC OPERATIONS.



MOT GENERAL NOTES (CONT'D.)

10. NO CONSTRUCTION VEHICLES SHALL ENTER THE RESIDENTIAL STREETS ADJACENT TO THE WORK ZONE.
 11. TEMPORARY TRAFFIC CONTROL SIGNS SHALL BE USED IN ACCORDANCE WITH STANDARD NO. MD 104.03-02. TEMPORARY SIGNS SHALL BE MOUNTED ON WOOD POSTS AND SHALL HAVE REFLECTIVE SHEETING.
 12. EXISTING SIGNS WITH MESSAGE(S) THAT CONFLICT WITH TEMPORARY TRAFFIC PATTERNS SHALL BE REMOVED OR COVERED. EXISTING SIGNS THAT ARE REMOVED OR COVERED DURING CONSTRUCTION SHALL BE REINSTALLED OR UNCOVERED PRIOR TO OPENING THE ROADWAY TO NORMAL TRAFFIC OPERATIONS.
 13. CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE STORED OFF THE TRAVEL LANES, AND BEHIND THE CONCRETE TRAFFIC BARRIER AT ALL TIMES, AS APPROVED BY THE ENGINEER.
 14. ALL ITEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSION OF THE REFERENCED STANDARDS AT TIME OF CONSTRUCTION.
 15. INSTALLATION OF THE TEMPORARY TRAFFIC BARRIER SHALL BE COMPLETED PER STANDARD NOS. MD 104.01-23A THRU MD 104.01-25.
- CONSTRUCTION OF LAST 65' OF ROADWAY WIDENING SHALL BE COMPLETED USING FLAGGING OPERATIONS PER STANDARD MD 104.02-10.
- CONSTRUCTION OF ADA-COMPLIANT RAMPS AND CURB ALONG WESLEY LANE SHALL BE COMPLETED PER STANDARD NOS. MD 104.02-14 AND MD 104.03-11. RAMPS SHALL NOT BE CONSTRUCTED CONCURRENTLY. WESLEY LANE CONSTRUCTION SHALL BE COMPLETED PRIOR TO ROADWAY WIDENING ALONG MD 103 (EB).

OWNER
LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELK RIDGE, MD 21075
 410-465-4244



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 4/5/2018
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 7-9-18
 CHIEF, DIVISION OF LAND DEVELOPMENT

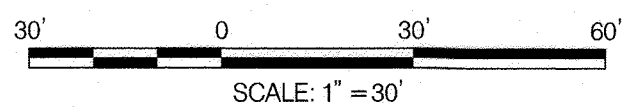
[Signature] 7-3-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

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 NUMBER: 30730 EXPIRATION DATE: 6/28/18

AS-BUILT
 PROFESSIONAL ENGINEER
 STATE OF MARYLAND
 [Signature] 2-10-2020
 NO. 21443
 LICENSE NO. 21443, EXPIRATION DATE: 12-21-2022

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. 21443, Expiration Date: 12-21-2022

"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 Director

CENTURY ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 Gilroy Road, Hunt Valley, MD 21031
 Phone: 443.589.2400 Fax: 443.589.2401

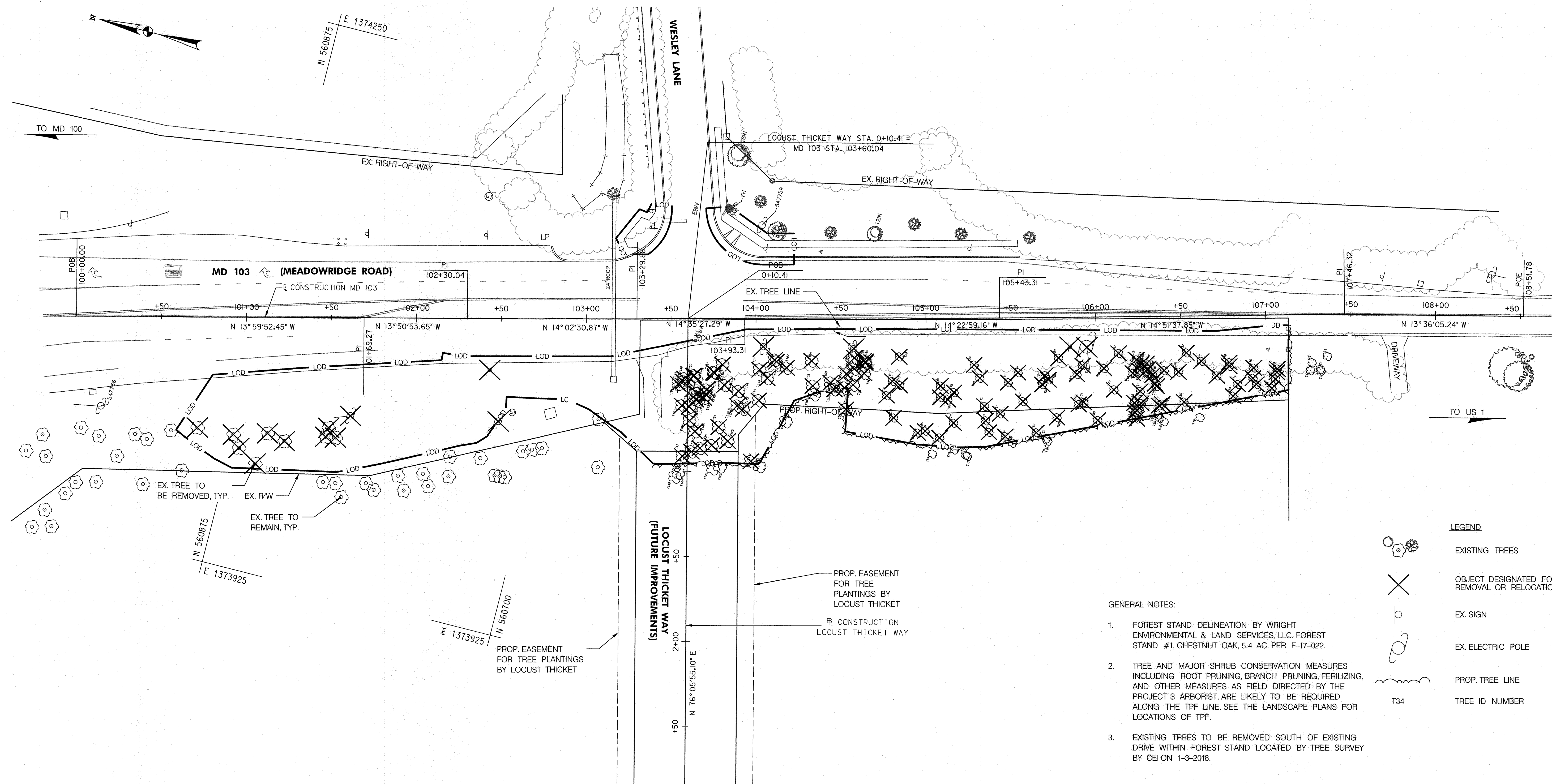
STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 [Signature] 5-19-18

DESIGN BY:	LTE / NMR		
DRAWN BY:	LTE		
CHECKED BY:	NMR		
DATE:	MAY 2018		
BY	NO.	REVISION	DATE
		I NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18

DEVELOPER
LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELK RIDGE, MD 21075
 410-465-4244

REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
 ZONED R-A-15 & POR
 TAX MAP 37 PARCEL 744 & 724 GRID: 9
 ELECTION DISTRICT 1 HOWARD COUNTY, MD
 SHEET 34 OF 42

C.E.I. PROJECT NUMBER
 161204.02
 SCALE:
 1" = 30'



- LEGEND**
- EXISTING TREES
 - OBJECT DESIGNATED FOR REMOVAL OR RELOCATION
 - EX. SIGN
 - EX. ELECTRIC POLE
 - PROP. TREE LINE
 - TREE ID NUMBER

- GENERAL NOTES:**
- FOREST STAND DELINEATION BY WRIGHT ENVIRONMENTAL & LAND SERVICES, LLC. FOREST STAND #1, CHESTNUT OAK, 5.4 AC. PER F-17-022.
 - TREE AND MAJOR SHRUB CONSERVATION MEASURES INCLUDING ROOT PRUNING, BRANCH PRUNING, FERTILIZING, AND OTHER MEASURES AS FIELD DIRECTED BY THE PROJECT'S ARBORIST, ARE LIKELY TO BE REQUIRED ALONG THE TPF LINE. SEE THE LANDSCAPE PLANS FOR LOCATIONS OF TPF.
 - EXISTING TREES TO BE REMOVED SOUTH OF EXISTING DRIVE WITHIN FOREST STAND LOCATED BY TREE SURVEY BY CEI ON 1-3-2018.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 6/15/2018
 CHIEF, BUREAU OF HIGHWAYS DATE:

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 7/9/18
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE:

[Signature] 7/3/18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE:

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 NUMBER: 1008 EXPIRATION DATE: 5/20/2018

OWNER
LOCUST THICKET INVESTORS LLC AS-BUILT
 5836 MEADOWRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244



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. 21443 Expiration Date: 12/10/2020

"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"

30' 0 30' 60'
 SCALE: 1" = 30'

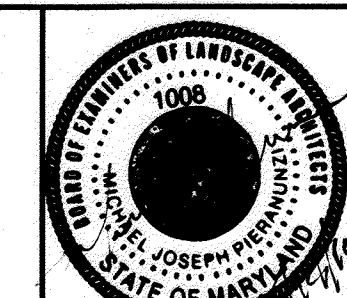
APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division _____ Date _____

Chief, Division of Land Development _____ Date _____

Director _____ Date _____

CENTURY ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 Gilroy Road, Hunt Valley, MD 21031
 Phone: 443.589.2400 Fax: 443.589.2401



DESIGN BY:	KCS		
DRAWN BY:	KCS		
CHECKED BY:	JDD		
DATE:	MAY 2018		
BY	NO.	REVISION	DATE
		1 NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18

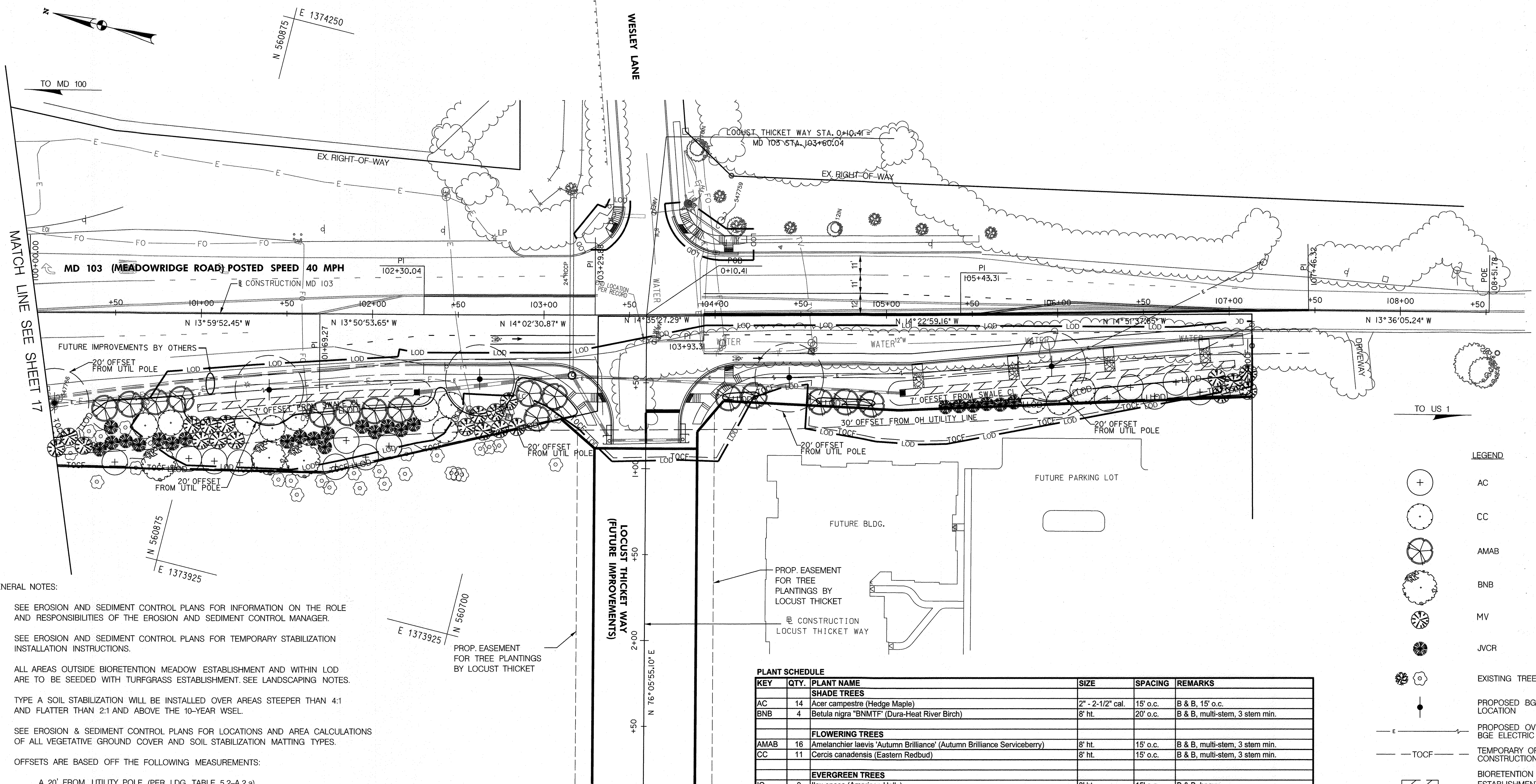
DEVELOPER
LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244

REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100

ZONED R-A-15 & POR
 TAX MAP: 37 PARCEL: 714 & 724 GRID: 9
 ELECTION DISTRICT 1 HOWARD COUNTY, MD
 SHEET 35 OF 42

C.E.I. PROJECT NUMBER
 161204.02

SCALE:
 1" = 30'



GENERAL NOTES:

- SEE EROSION AND SEDIMENT CONTROL PLANS FOR INFORMATION ON THE ROLE AND RESPONSIBILITIES OF THE EROSION AND SEDIMENT CONTROL MANAGER.
- SEE EROSION AND SEDIMENT CONTROL PLANS FOR TEMPORARY STABILIZATION INSTALLATION INSTRUCTIONS.
- ALL AREAS OUTSIDE BIORETENTION MEADOW ESTABLISHMENT AND WITHIN LOD ARE TO BE SEEDED WITH TURFGRASS ESTABLISHMENT. SEE LANDSCAPING NOTES.
- TYPE A SOIL STABILIZATION WILL BE INSTALLED OVER AREAS STEEPER THAN 4:1 AND FLATTER THAN 2:1 AND ABOVE THE 10-YEAR WSEL.
- SEE EROSION & SEDIMENT CONTROL PLANS FOR LOCATIONS AND AREA CALCULATIONS OF ALL VEGETATIVE GROUND COVER AND SOIL STABILIZATION MATTING TYPES.
- OFFSETS ARE BASED OFF THE FOLLOWING MEASUREMENTS:
 - A. 20' FROM UTILITY POLE (PER LDG TABLE 5.2-A.2.a)
 - B. 7' FROM CENTERLINE OF SWALE (PER LGD 9.4-D.3.b)
 - C. 14' FROM EDGE OF TRAVEL LANE
 - D. 30' FROM OVERHEAD UTILITY LINE (PER LDG TABLE 5.2-A.2.b)

GENERAL NOTES (CONT):

- TREE AND MAJOR SHRUB CONSERVATION MEASURES INCLUDING ROOT PRUNING, BRANCH PRUNING, FERTILIZING, AND OTHER MEASURES AS FIELD DIRECTED BY THE PROJECT'S ARBORIST, ARE LIKELY TO BE REQUIRED ALONG THE TOCF LINE.

LEGEND

- AC
- CC
- AMAB
- BNB
- MV
- JVCR
- EXISTING TREE
- PROPOSED BGE POLE LOCATION
- PROPOSED OVERHEAD BGE ELECTRIC LINE
- TOCF - TEMPORARY ORANGE CONSTRUCTION FENCE
- BIORETENTION MEADOW ESTABLISHMENT (SEE SHEET 20)
- OFFSET LINE
- LOD LINE
- LANDSCAPING LIMIT OF DISTURBANCE
- PROPERTY LINE

PLANT SCHEDULE

KEY	QTY.	PLANT NAME	SIZE	SPACING	REMARKS
SHADE TREES					
AC	14	Acer campestre (Hedge Maple)	2" - 2-1/2" cal.	15' o.c.	B & B, 15' o.c.
BNB	4	Betula nigra "BNMTF" (Dura-Heat River Birch)	8' ht.	20' o.c.	B & B, multi-stem, 3 stem min.
FLOWERING TREES					
AMAB	16	Amelanchier laevis 'Autumn Brilliance' (Autumn Brilliance Serviceberry)	8' ht.	15' o.c.	B & B, multi-stem, 3 stem min.
CC	11	Cercis canadensis (Eastern Redbud)	8' ht.	15' o.c.	B & B, multi-stem, 3 stem min.
EVERGREEN TREES					
IO	0	Ilex opaca (American Holly)	8' ht.	15' o.c.	B & B, heavy
JVCR	24	Juniperus virginiana 'Corcorcor' (Emerald Sentinel Eastern Redcedar)	8' ht.	8' o.c.	B & B, heavy
MV	21	Magnolia virginiana (Sweetbay Magnolia)	8' ht.	10' o.c.	B & B, heavy
SHRUBS, PERENNIALS, AND GROUNDCOVERS					
PV	40	Panicum virgatum (Switchgrass)	2.25" plug	24" o.c.	On check dams only

"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 6/15/2018
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 7-9-18
 CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 7-3-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

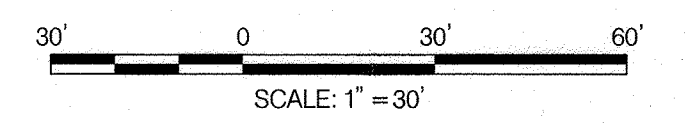
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LICENSE NUMBER: 1008 EXPIRATION DATE: 5/20/2018

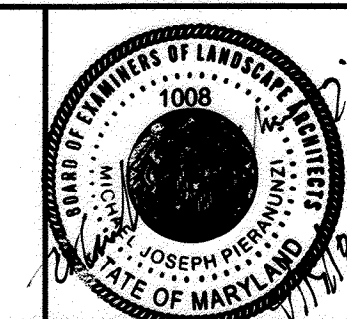
OWNER
 LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELK RIDGE, MD 21075
 410-465-4244

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. 21443, Expiration Date: 12-31-2022



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 Director

CENTURY ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 Gilroy Road, Hunt Valley, MD 21031
 Phone: 443.589.2400 Fax: 443.589.2401



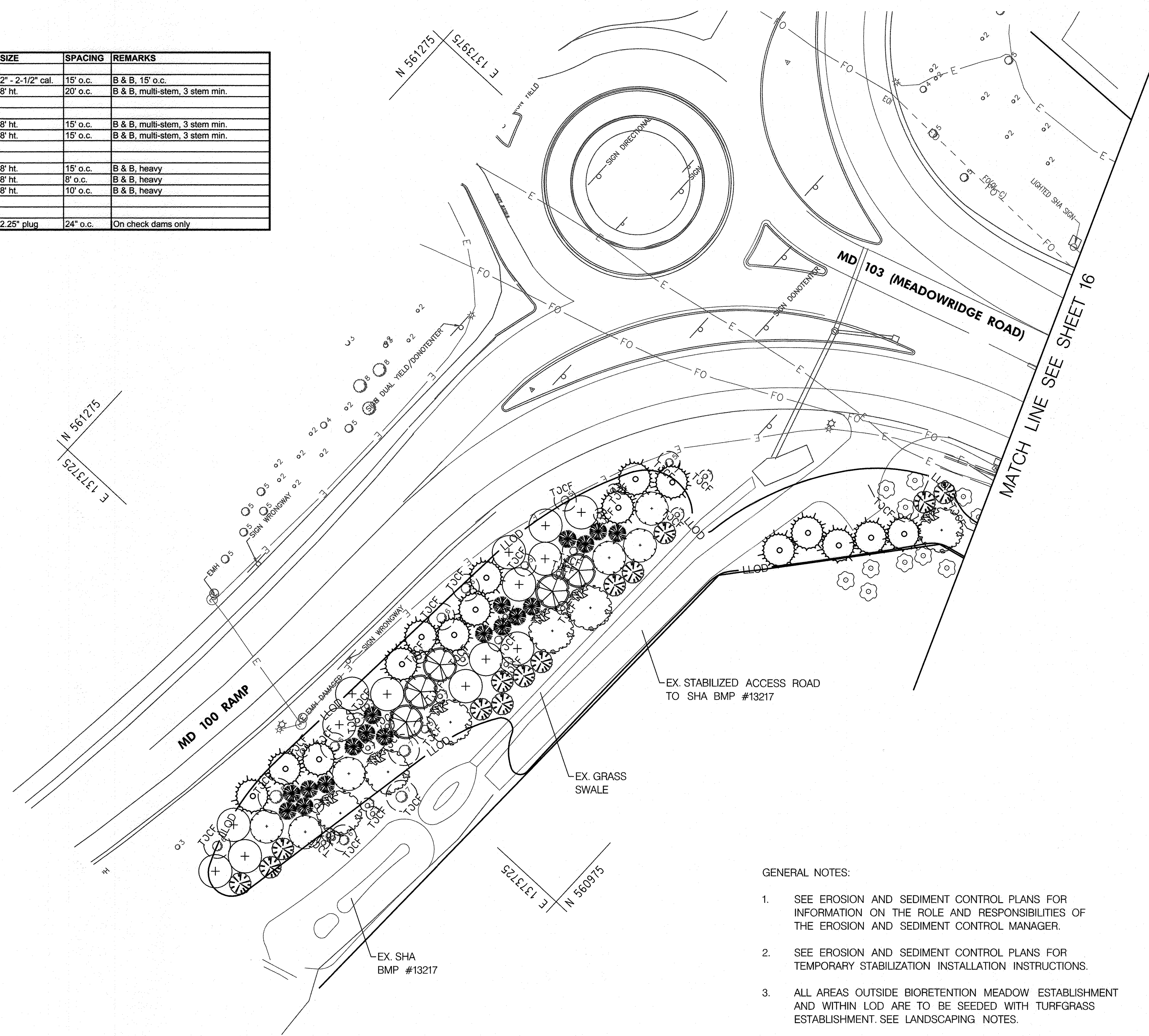
DESIGN BY:	KCS		
DRAWN BY:	KCS		
CHECKED BY:	JDD		
DATE:	MAY 2018	NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18
BY NO.		REVISION	DATE

DEVELOPER
 LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELK RIDGE, MD 21075
 410-465-4244

REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
 ZONED R-A-15 & POR
 TAX MAP: 37 PARCEL: 714 & 724 GRID: 9
 ELECTION DISTRICT 1 HOWARD COUNTY, MD
 SHEET 37 OF 42

C.E.I. PROJECT NUMBER: 161204.02
 SCALE: 1" = 30'

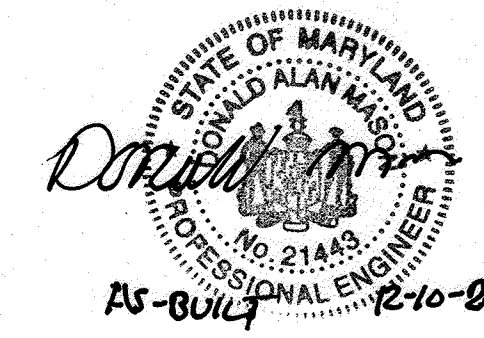
KEY	QTY.	PLANT NAME	SIZE	SPACING	REMARKS
SHADE TREES					
AC	14	Acer campestre (Hedge Maple)	2" - 2-1/2" cal.	15' o.c.	B & B, 15' o.c.
BNB	5	Betula nigra "BNMTF" (Dura-Heat River Birch)	8' ht.	20' o.c.	B & B, multi-stem, 3 stem min.
FLOWERING TREES					
AMAB	5	Amelanchier laevis 'Autumn Brilliance' (Autumn Brilliance Serviceberry)	8' ht.	15' o.c.	B & B, multi-stem, 3 stem min.
CC	6	Cercis canadensis (Eastern Redbud)	8' ht.	15' o.c.	B & B, multi-stem, 3 stem min.
EVERGREEN TREES					
IO	16	Ilex opaca (American Holly)	8' ht.	15' o.c.	B & B, heavy
JVCR	18	Juniperus virginiana 'Corcorcor' (Emerald Sentinel Eastern Redcedar)	8' ht.	8' o.c.	B & B, heavy
MV	13	Magnolia virginiana (Sweetbay Magnolia)	8' ht.	10' o.c.	B & B, heavy
SHRUBS, PERENNIALS, AND GROUNDCOVERS					
PV	0	Panicum virgatum (Switchgrass)	2.25" plug	24" o.c.	On check dams only



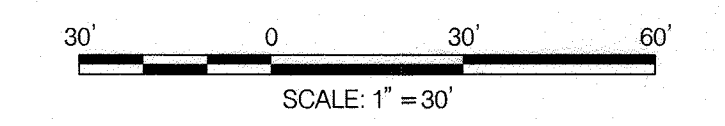
LEGEND

	IO
	AC
	CC
	AMAB
	BNB
	MV
	JVCR
	EXISTING TREES
	TEMPORARY ORANGE CONSTRUCTION FENCE
	LANDSCAPING LIMIT OF DISTURBANCE
	PROPERTY LINE

- GENERAL NOTES:**
- SEE EROSION AND SEDIMENT CONTROL PLANS FOR INFORMATION ON THE ROLE AND RESPONSIBILITIES OF THE EROSION AND SEDIMENT CONTROL MANAGER.
 - SEE EROSION AND SEDIMENT CONTROL PLANS FOR TEMPORARY STABILIZATION INSTALLATION INSTRUCTIONS.
 - ALL AREAS OUTSIDE BIORETENTION MEADOW ESTABLISHMENT AND WITHIN LOD ARE TO BE SEED WITH TURFGRASS ESTABLISHMENT. SEE LANDSCAPING NOTES.



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. 21443 Expiration Date: 12-10-2020



"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 6/15/2018
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 7-9-18
 CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 7-3-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

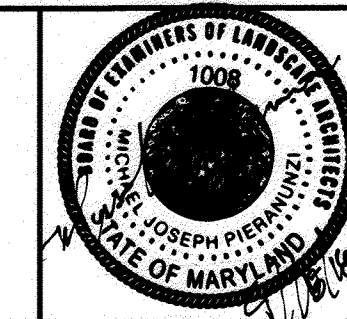
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NUMBER: 1008 EXPIRATION DATE: 5/20/2018

OWNER
 LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244

DEVELOPER
 LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 Director

CENTURY ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 Gilroy Road, Hunt Valley, MD 21031
 Phone: 443.589.2400 Fax: 443.589.2401

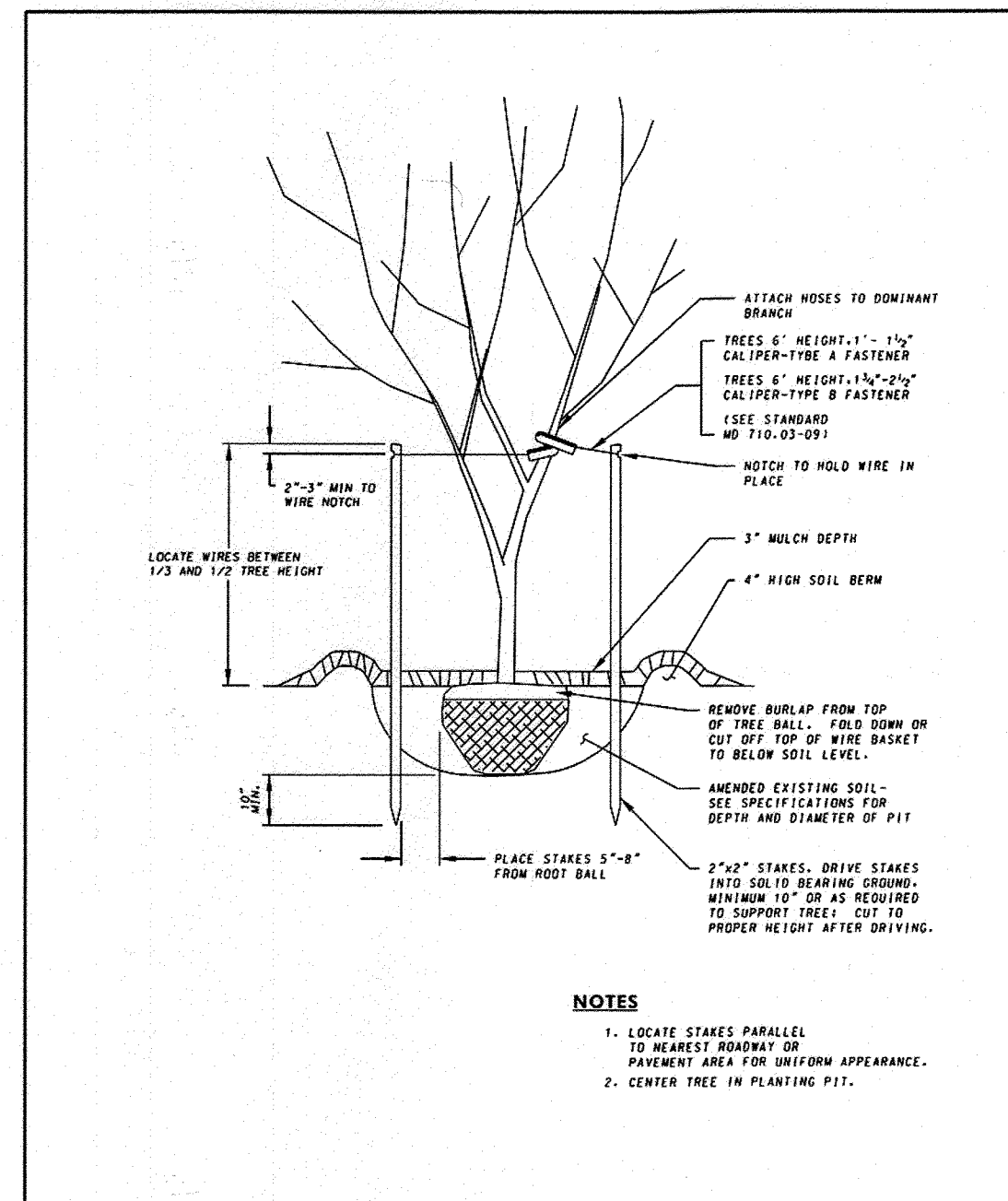


DESIGN BY:	KCS		
DRAWN BY:	KCS		
CHECKED BY:	JDD		
DATE:	MAY 2018		
BY	NO.	REVISION	DATE
		I NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18

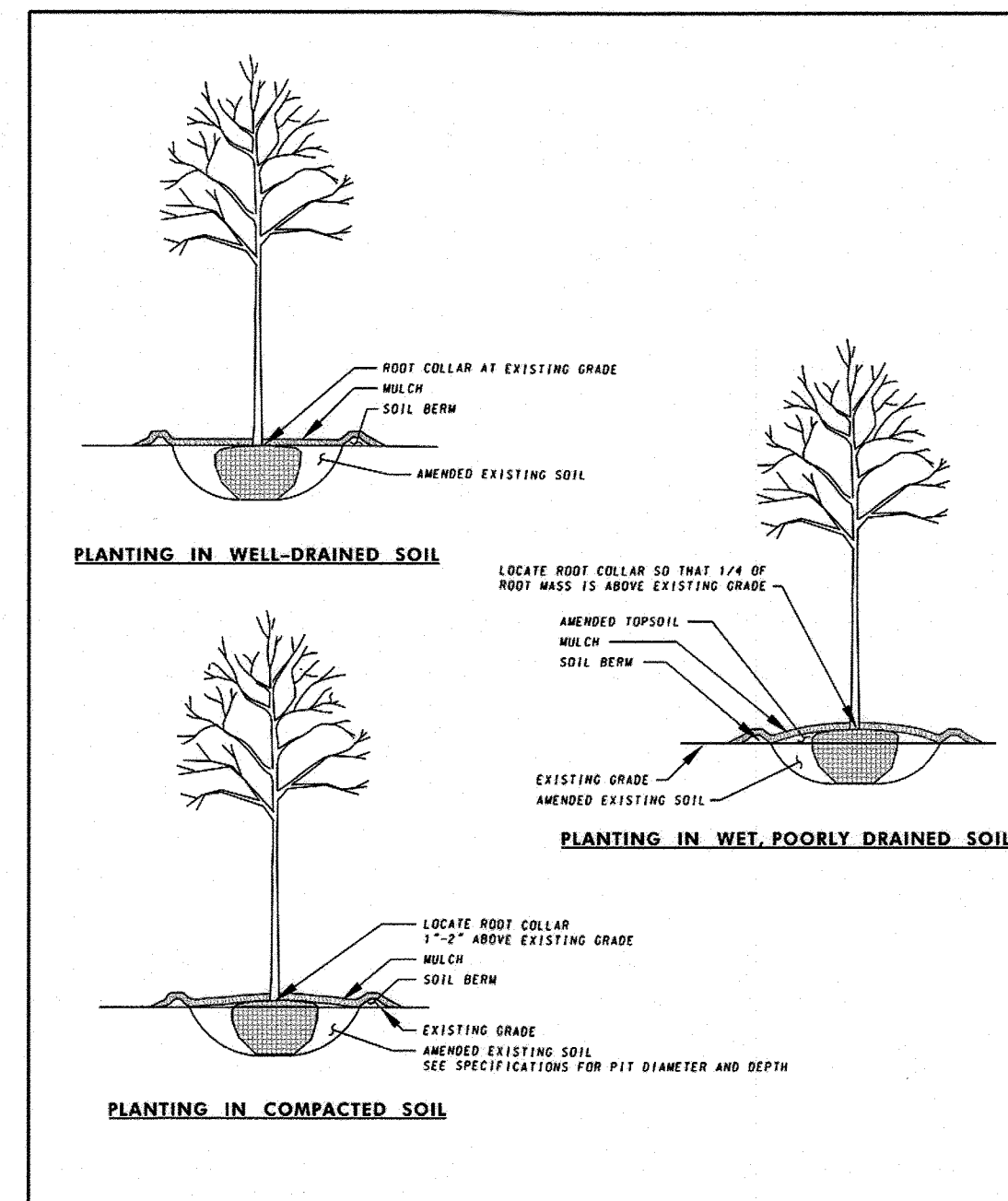
REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
 ZONED R-A-15 & POR
 TAX MAP: 37 PARCEL: 714 & 724 GRID: 9
 ELECTION DISTRICT 4 HOWARD COUNTY, MD
 SHEET 38 OF 42

C.E.I. PROJECT NUMBER
 161204.02

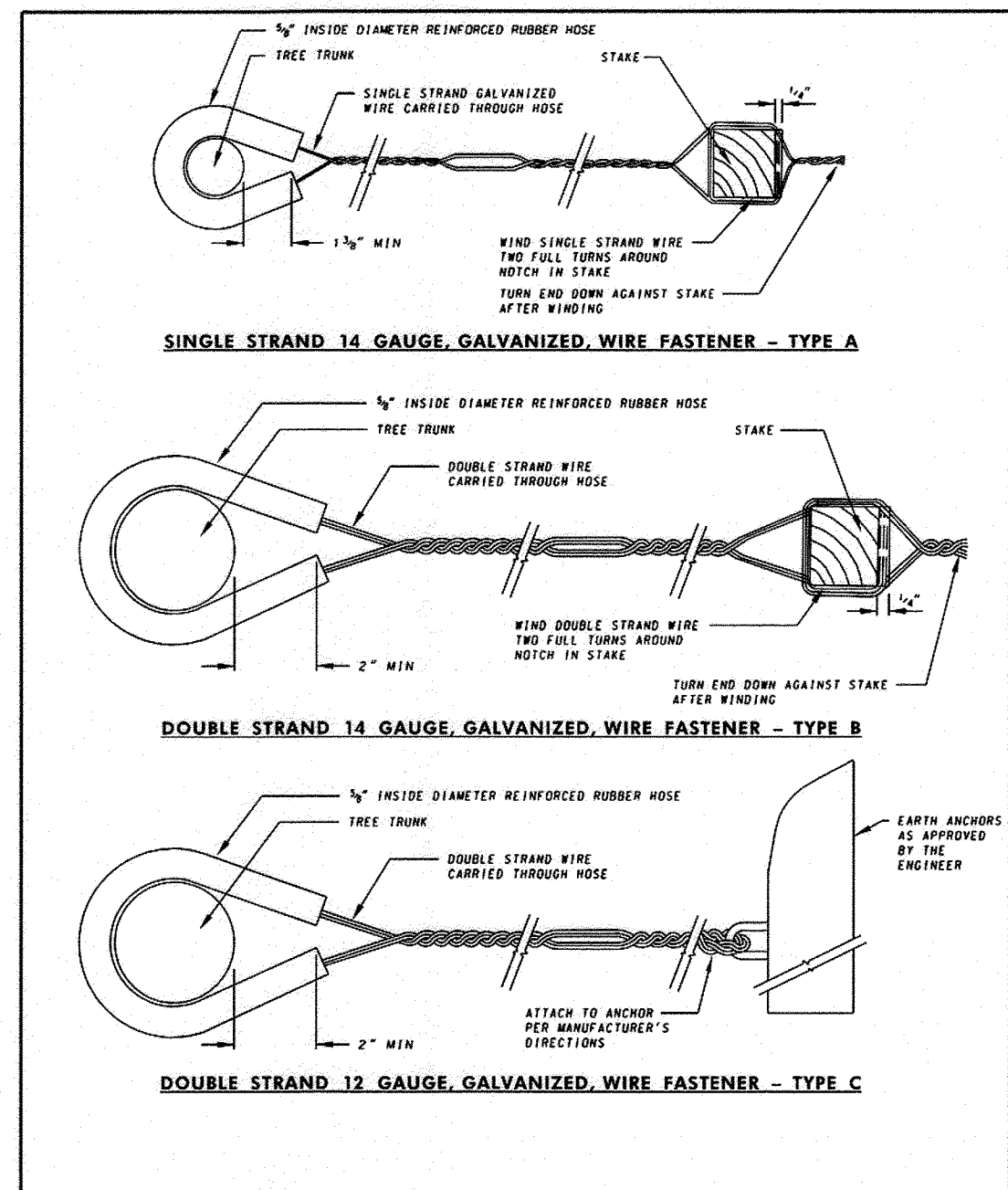
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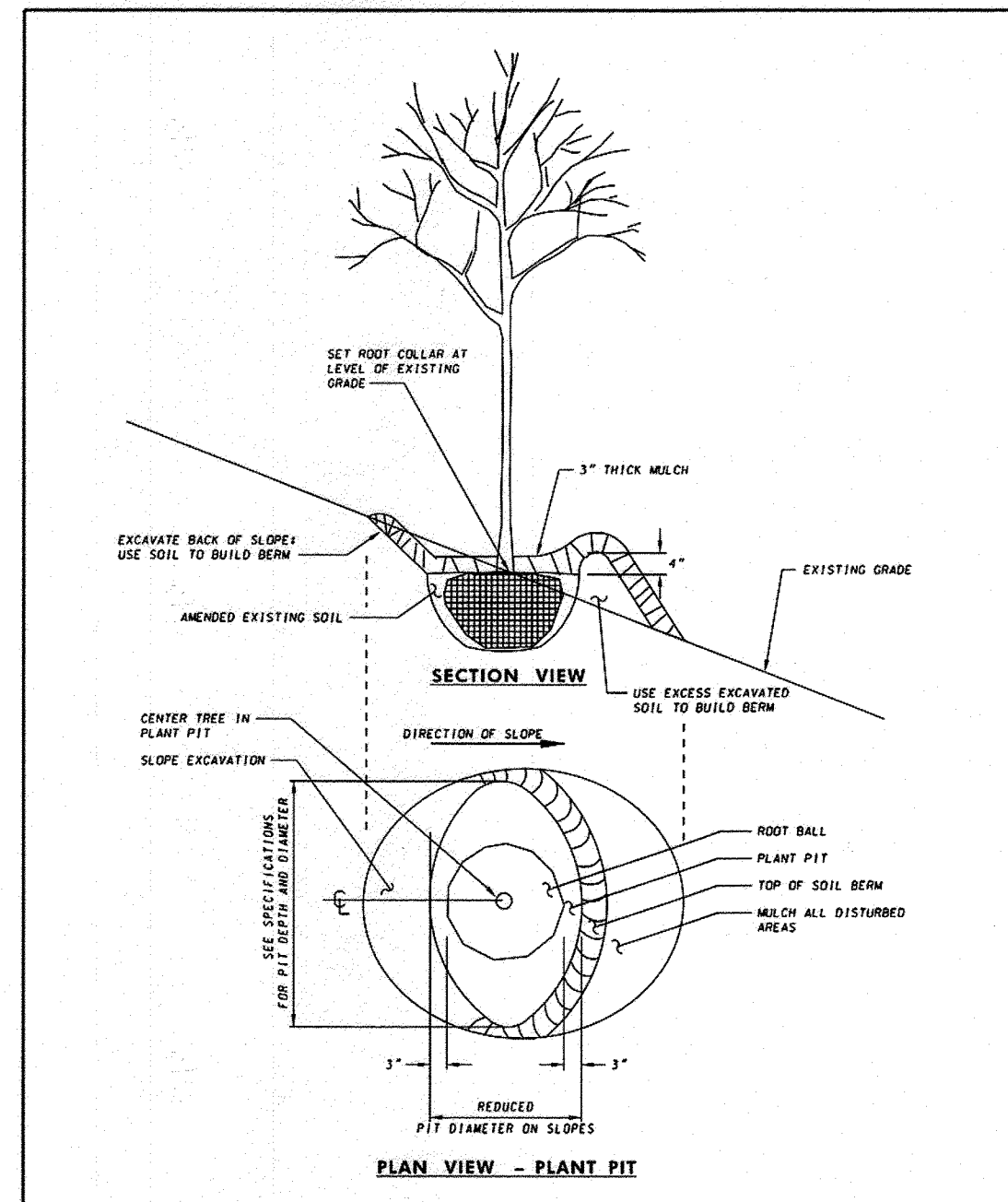
SPECIFICATION 710	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
APPROVED: <i>KLG, MAJALL</i>	DESIGNER - OFFICE OF HIGHWAY DESIGN	STAKING FLOWERING TREES 6 FEET HIGH TO 2 1/2 INCH CALIPER
SHA	DESIGNER - OFFICE OF HIGHWAY DESIGN	STANDARD NO. MD 710.03-04



SPECIFICATION 710	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
APPROVED: <i>KLG, MAJALL</i>	DESIGNER - OFFICE OF HIGHWAY DESIGN	ROOT COLLAR HEIGHTS FOR VARYING SOIL CONDITIONS
SHA	DESIGNER - OFFICE OF HIGHWAY DESIGN	STANDARD NO. MD 710.03-15



SPECIFICATION 710	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
APPROVED: <i>KLG, MAJALL</i>	DESIGNER - OFFICE OF HIGHWAY DESIGN	FASTENERS FOR TREE SUPPORT
SHA	DESIGNER - OFFICE OF HIGHWAY DESIGN	STANDARD NO. MD 710.03-09



SPECIFICATION 710	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
APPROVED: <i>KLG, MAJALL</i>	DESIGNER - OFFICE OF HIGHWAY DESIGN	PLANTING TREES ON SLOPES FROM 3:1 TO 2:1
SHA	DESIGNER - OFFICE OF HIGHWAY DESIGN	STANDARD NO. MD 710.03-14

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 NUMBER: 1008 EXPIRATION DATE: 5/20/2018



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. 21443 Expiration Date: 12-21-2022

KEY	QTY.	PLANT NAME	SIZE	SPACING	REMARKS
SHADE TREES					
AC	28	Acer campestre (Hedge Maple)	2" - 2-1/2" cal.	15' o.c.	B & B, 15' o.c.
BNB	9	Betula nigra "BNMTF" (Dura-Heat River Birch)	8' ht.	20' o.c.	B & B, multi-stem, 3 stem min.
FLOWERING TREES					
AMAB	21	Amelanchier laevis 'Autumn Brilliance' (Autumn Brilliance Serviceberry)	8' ht.	15' o.c.	B & B, multi-stem, 3 stem min.
CC	17	Cercis canadensis (Eastern Redbud)	8' ht.	15' o.c.	B & B, multi-stem, 3 stem min.
EVERGREEN TREES					
IO	16	Ilex opaca (American Holly)	8' ht.	15' o.c.	B & B, heavy
JVCR	42	Juniperus virginiana 'Corcoror' (Emerald Sentinel Eastern Redcedar)	8' ht.	8' o.c.	B & B, heavy
MV	34	Magnolia virginiana (Sweetbay Magnolia)	8' ht.	10' o.c.	B & B, heavy
SHRUBS, PERENNIALS, AND GROUNDCOVERS					
PV	40	Panicum virgatum (Switchgrass)	2.25" plug	24" o.c.	On check dams only

OWNER
LOCUST THICKET INVESTORS LLC
5836 MEADOWRIDGE ROAD
ELKRIDGE, MD 21075
410-465-4244

"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"

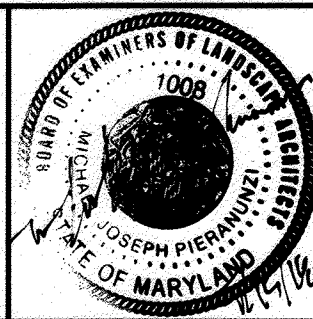
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 4/15/2018
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 7-9-18
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 7-5-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division
Chief, Division of Land Development
Director

CENTURY ENGINEERING
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DESIGN BY: KCS			
DRAWN BY: KCS			
CHECKED BY: JDD			
DATE: MAY 2018			
BY NO.	1	NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18
		REVISION	DATE

DEVELOPER
LOCUST THICKET INVESTORS LLC
5836 MEADOWRIDGE ROAD
ELKRIDGE, MD 21075
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REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
ZONED R-A-15 & POR
TAX MAP: 37 PARCEL: 714 & 724 GRID: 9
ELECTION DISTRICT 1 - HOWARD COUNTY, MD
SHEET 39 OF 42

C.E.I. PROJECT NUMBER 161204.02
SCALE: AS SHOWN

7.1 SHA LANDSCAPE NOTES. Landscape construction within rights of way of the Maryland State Highway Administration (SHA) and within SHA property, easement areas and lands to be conveyed to SHA shall conform to these Notes. For guidance regarding design modifications during construction, refer to SHA Landscape Design Guide, SHA Landscape Estimating Manual, and SHA Environmental Guide for Access and District Permit Applicants at <http://www.roads.maryland.gov/index.aspx?PageId=25>

7.2 SHA Standard Specifications. Landscape construction shall conform to Sections 701 through 716, and landscape materials shall conform to Section 920 of the most recent revision of SHA Standard Specifications for Construction and Materials, including all revisions and supplements, and as specified in these notes. These requirements shall supersede all other specifications for work on SHA property. All SHA specifications for landscaping and landscape materials published in 2008 have been replaced. Current Specifications are at <http://www.roads.maryland.gov/index.aspx?PageId=44>

7.3 Erosion and Sediment Control Manager (ESCM). Soil disturbance such as grading, excavation, soil placement or other activities that involve soil disturbance shall be supervised by an ESCM Manager with a valid "SHA Yellow Card" in conformance with SHA Standard Specifications and any applicable Erosion and Sediment Control Permit.

7.4 SHA Standard Details for Trees, Shrubs and Planting Beds. The installation of trees, shrubs, planting beds and other landscape construction related to Section 710 of the SHA Standard Specifications shall conform to the "SHA Book of Standards for Highway & Incidental Structures Category 7" at <http://apps.roads.maryland.gov/BusinessWithSHA/bizstdsSpecs/desManualStdPub/publicationsonline/ohd/bookstd/toccat7.asp>

7.5 Temporary Stabilization shall be installed in conformance with Section 704 to ensure that areas of soil disturbance are protected from wind, rainfall and flowing water until permanent stabilization is installed.

1. Temporary Mulch, either as temporary straw mulch or temporary matting mulch, shall be installed at the end of each working day to provide "same day stabilization" unless other approved stabilization is installed.
2. Temporary straw mulch shall be installed on areas and slopes flatter than 4:1; temporary matting mulch shall be applied on slopes 4:1 and steeper, and to areas within channels.
3. Temporary Seed shall be installed in lieu of Temporary Mulch when soil redisturbance is expected more than 30 days after soil disturbance. The required application rate shall be 100 lbs. per acre of 37-0-0 (SCU) fertilizer.

7.7 Excavation and Debris Removal. Debris related to the demolition of sidewalks, driveways, curbs, trees, stumps, roots, fencing, pipes, and other materials that may interfere with landscape installation or future maintenance shall be excavated as necessary for their complete removal and disposal.

7.8 Soil Restoration. Areas of pavement removal, excavation or drilling in landscaped areas shall remove excavated debris and restore the subgrade with approved subsoil and topsoil placed in conformance with Section 701 of the SHA Standard Specifications.

1. A layer of approved topsoil of at least a 4-inch depth shall be placed on all disturbed areas flatter than 2:1 and in all channels prior to seeding, sodding or other landscaping, unless otherwise specified.
2. A layer of approved topsoil of at least a 2-inch depth shall be placed on all disturbed areas 2:1 and steeper prior to seeding, sodding or other landscaping, unless otherwise specified.
3. Bioretention Soil Mix (BSM) and other materials installed in conjunction with SPI 316 Stormwater Filtration Facilities and SHA stormwater details shall be installed in conformance with SHA Landscape Notes and landscape plans. Plant materials and mulch shall be installed in BSM in conformance with stormwater details, Section 710 or other SHA Specifications.

7.10 Turfgrass Establishment shall be performed in all disturbed areas, or within the areas indicated in the plans, in conformance with Section 705 of the SHA Standard Specifications. The required application rate of 20-16-12 fertilizer shall be 200 lbs. per acre, and no fertilizer shall be applied from November 15 to March 1.

7.11 Soil Stabilization Matting shall be installed in conformance with Section 709 of the SHA Standard Specifications, in conjunction with Turfgrass Establishment per Section 705 or Meadow Establishment per Section 707 as follows:

1. Areas Flatter than 6:1. Type A or Type E matting may be installed in lieu of straw mulch and hydromulch binder in conjunction with Turfgrass Establishment.
2. Areas Steeper than 6:1 and Flatter than 4:1. Type A or Type E matting shall be installed in lieu of straw mulch and hydromulch binder in conjunction with Turfgrass Establishment, unless delineated and noted otherwise.
3. Channels, Stormwater Management Facilities, and Slopes 4:1 and Steeper. Type A Soil Stabilization Matting shall be installed in lieu of straw mulch and hydromulch binder in conjunction with Turfgrass Establishment, unless delineated and noted otherwise.
4. In areas of Meadow Establishment with Type D Soil Stabilization Matting, the matting shall be installed in lieu of straw mulch and hydromulch binder within the delineated areas.
5. In high velocity channels with Turfgrass Establishment, Type B Soil Stabilization Matting shall be installed in lieu of straw mulch and hydromulch binder within the delineated areas.

7.12 Meadow Establishment or Shrub Seeding Establishment shall be performed in areas as indicated in the plans, in conformance with Sections 706 and 707 of the SHA Standard Specifications. The required application rate of 20-16-12 fertilizer shall be 200 lbs. per acre.

7.13 Tree Preservation Areas. Temporary Orange Construction Fence (TOCF) shall be installed in locations delineated on the plans as Tree Preservation Areas (TPA) in conformance with Section 120 of the SHA Standard Specifications to protect existing trees and other vegetation during construction. Areas within TOCF shall be protected from all prohibited and restricted activities, per Section 120.

7.14 Roadside Tree Permit. Tree removal, tree installation, tree root and branch pruning, and other regulated impacts to trees in the SHA right of way shall conform to the requirements of the Roadside Tree Permit (RTP) issued by the Maryland Department of Natural Resources, or the approved Forest Conservation Plan (FCP) of the local authority.

1. A copy of the RTP or FCP shall be submitted to the SHA Office of Environmental Design before work is performed, and a copy of the RTP or FCP shall be reproduced in the plans or be in possession of the applicant at the project site when the permitted work is performed.
2. A Maryland Licensed Tree Expert shall perform the specified tree operations in conformance with the SHA Standard Specifications and ANSI A300 Standards for Tree Care Operations.

7.15 Trees and Other Plant Material Installation. Trees, shrubs, perennials, annuals, bulbs, landscape beds, bark mulch and similar materials shall be installed in conformance with Section 710 and 711 of the SHA Standard Specifications. Trees and shrubs shall be pruned at the time of installation to ensure sidewalk clearance for pedestrians is maintained to a height of 8 feet. No tree or shrub shall be installed within 3 feet of curbs, sidewalks, or pavement edges.

7.21 Tree Branch Pruning shall be performed or directly supervised by a Maryland Licensed Tree Expert in conformance with ANSI A300 standards per Section 712 as necessary for any of the following: To install Temporary Orange Construction Fence (TOCF) along delineations on plans; to perform Tree Root Pruning along delineations on plans; to provide 8-foot clearance above sidewalk pavements and 16-foot clearance above roadway pavements; to repair tree wounds; and to perform other recommended clearing, thinning, reducing, and pruning necessary to accommodate utilities. All debris shall be removed from SHA property.
Tree Branch Pruning shall be performed in conformance with Section 712 as follows: Applicant to explain goals and locations of pruning. All debris shall be removed from SHA property.

7.22 Tree Root Pruning shall be performed along the line shown on the plans in conformance with Section 715. Tree Root Pruning shall be completed before beginning excavation or construction adjacent to trees to be preserved.

7.23 Tree Fertilizing shall be performed in conformance with Operation 3 Broadcast Fertilizing per Section 716. 20-16-12 fertilizer shall be applied to the soil surface under the dripline of trees at the rate of 200 lbs. per acre.

PRODUCT SPECIFICATIONS

1. **FERTILIZER:** All fertilizer shall be granular, packet or pellet with 35 to 80% of the total nitrogen in a slow release form. For trees and shrubs fertilizer shall be a complete fertilizer with a minimum analysis of 10% nitrogen, 6% phosphorus, and 4% potassium. For use on specimen or significant trees, the fertilizer shall be high in phosphorus and low in nitrogen to promote root growth. A water-insoluble nitrogen, 2-year release fertilizer with a ratio of 20% nitrogen, 10% phosphorus and 5% potassium shall be used in wetland and riparian backfill mixtures. Fertilizer shall be added depending on the size of the plant and the manufacturer's recommended rate.
2. **ORGANIC MATTER:** Peat moss Type 1 sphagnum peat moss, finely divided with a pH of 3.1-5.0; or Sedge Peat Decomposed peat containing no identifiable fibers; or Sewage Sludge Approved, screened, polymer-dewatered sewage sludge with pH of 6.2-7.2.
3. **BACKFILL MIXTURE:** Backfill mixture for containerized trees shall be ½ existing soil mixed with ¼ organic material, plus granular fertilizer.
4. **MULCH:** Material shall be well aged, fine shredded hardwood, dark brown in color, or approved equal. Material shall be mulching grade, uniform in size and free of foreign matter.

PRE-PLANTING SPECIFICATIONS

1. Allow six (6) months in advance to order materials and plants.
2. See the "Planting Seasons" chart on this sheet for SHA approved planting seasons.
3. All planting areas shall be stabilized for sediment and erosion control. For Upland Meadow Establishment and Lowland Meadow Establishment refer to this plan and the SWM landscape plans. All other areas shall be stabilized with Turfgrass Establishment as indicated on the roadway typical sections.
4. Planting should occur within 24 hours of plant material delivery to the site. Plant materials left unplanted for more than 24 hours shall be protected from direct sun and weather and kept moist. Nursery stock shall not be left unplanted for more than 2 weeks.
5. The Landscape Contractor is responsible for the location of all existing underground utilities. The repair of utilities damaged during planting shall be at the Landscape Contractor's expense. Contact MISS Utility (1-800-257-7777) 72 hours prior to planting and seeding.
6. The Landscape Contractor is responsible for coordinating access to the SHA Right-of-way with SHA, per the requirements of the Access Permit.

PLANTING SPECIFICATIONS

1. Refer to the planting plan and plan schedule for plant material size, location, and spacing.
2. De-consolidate the soil within the tree planting areas 12" by discing or plowing.
3. Back-fill mixture for containerized trees shall be ½ existing soil mixed with ¼ organic material or if planted on fill material 12" of native stockpiled topsoil or other approved equal. Remove the tree from the container (if applicable) and gently loosen the roots from the soil. During the back-filling procedure, thoroughly water and soil around the root mass while tamping the back-filled mixture to eliminate any air-pockets. After back-filling is complete, and the top of the root mass and planting areas is mulched, water on the interior of the root mass until it is thoroughly saturated, even if it is raining.

4. Only the number of trees that can be planted in one day shall be taken to the field.
5. Plant according to the details on this sheet. Planting of trees shall be accomplished using manual methods of installation. The root collar should be set within 1" above the ground.
6. B&B trees shall not receive an amended back-fill mixture but shall be fertilized at the manufacturers recommended rate. Remove the trees from the containers and gently loosen the roots from the soil (if applicable). After back-filling tamp the back-fill to eliminate any air pockets. After back-filling is complete, and the top of the root mass and planting areas is mulched, water on the interior of the root mass until it is thoroughly saturated, even if it is raining.
7. Areas planted with trees shall be mulched after planting, as identified in the details on this sheet.
8. Remove all tags, labels, string, and wire from the planting material after planting.

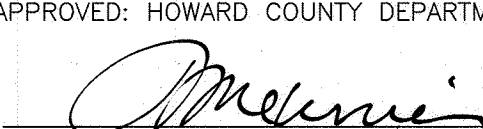
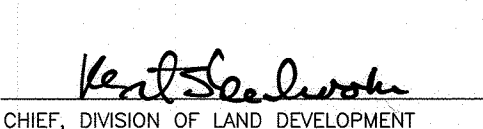
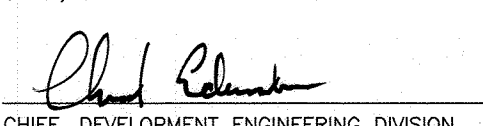
PLANTING SEASONS					
SEASON	DECIDUOUS TREES, SHRUBS, VINES		EVERGREEN TREES, SHRUBS, VINES		PERENNIALS, GRASSES
	Balled & Burlapped Bare Root	Container Grown	Balled & Burlapped Bare Root	Container Grown	Container Grown
Spring	3/15-4/30	3/1-6/15	3/15-4/30	3/15-6/15	4/15-6/30
Fall	10/15-12/15	9/15-12/15	9/1-11/15	8/15-11/15	9/1-10/30

GUARANTEE AND REPLACEMENT

1. All plant material shall be guaranteed by the landscape contractor to remain alive and in a healthy, vigorous condition for a period of one year following the planting.
2. At the end of the warranty period, inspection of the plant material will be made by a representative of SHA. Plant material which is dead or in an unhealthy condition shall be removed from the site and replaced at the expense of the landscape contractor.
3. A tree shall be considered dead when: 25% of the leaf area is dead or lost, bark wound of more than 15% of bark circumference or 2 inches in length, height dieback of 10% of leader height, or branch dieback of 6 inches on 75% of branches. Above is per SHA Standard Specifications for Construction and Materials (2008).
4. Plant material replacements shall be of the same type, size, and variety as specified in the plant legend or as approved for substitution by the SHA office of Environmental Design. Plants shall be furnished, planted, and mulched as specified herein and at the expense of the landscape contractor.

MISCELLANEOUS

1. A preconstruction meeting is to be arranged by the contractor two (2) weeks prior to the start of construction.
2. No unauthorized activities are to occur beyond the limit of disturbance. Unauthorized activities include, but are not limited to, concrete washout, soil stockpile area, equipment storage, fuel storage, refueling procedures, or any type of storage area. See sediment control plan for further details.
3. See Sediment Control Plans for additional tree protection measures and construction details.

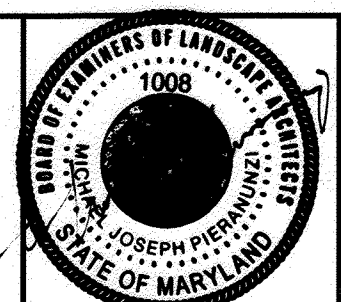
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 6/15/2018
 CHIEF, BUREAU OF HIGHWAYS DATE:
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 7-9-18
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE:
 7-3-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE:

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 NUMBER: 1008 EXPIRATION DATE: 5/20/2018

CENTURY ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 Gilroy Road, Hunt Valley, MD 21031
 Phone: 443.589.2400 Fax: 443.589.2401



DESIGN BY:	KCS			
DRAWN BY:	KCS			
CHECKED BY:	JDD			
DATE:	MAY 2018	1	NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18
BY	NO.		REVISION	DATE

OWNER
LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244

"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"

DEVELOPER
LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKRIDGE, MD 21075
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REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
 ZONED R-A-15 & POR
 TAX MAP: 37 PARCEL: 714 & 724 GRID: 9
 ELECTION DISTRICT: 1 HOWARD COUNTY, MD
 SHEET 40 OF 42

C.E.I. PROJECT NUMBER
 161204.02
 SCALE:
 NA

CATEGORY 700
 LANDSCAPING

BIORETENTION MEADOW ESTABLISHMENT

DESCRIPTION. Establish meadow in bioretention soil mix (BSM) to provide permanent vegetation groundcover. When it is not possible to perform Bioretention Meadow Establishment, refer to Section 704 and install Temporary Matting Mulch using Type A Soil Stabilization Matting, or as directed. Performance of Bioretention Meadow Establishment as specified herein complies with all requirements of the Maryland Department of the Environment for permanent seeding.

MATERIALS.

Limestone	920.02.01
Sulfur	920.02.02
Compost	920.02.05
Fertilizer	920.03.01
Soil Stabilization Matting (SSM)	920.05.01
Fasteners	920.05.02
Tall Fescue, Hard Fescue	920.06.06(a)
Common Oat	920.06.06(b)
Meadow Forb Seed	920.06.06(c)
Meadow Grass, Sedge and Rush Seed	920.06.06(d)
Wildflower Seed	920.06.06(e)
Water	920.09.01
Seed Carrier	920.09.02

CONSTRUCTION.

(a) **Regions.** Maryland is divided into Regions by counties as follows.

Region 1. Garrett, Allegany, and Washington, west of Clear Spring MD.

Region 2. Washington, east of Clear Spring, MD, Frederick, Carroll, Baltimore, Harford, Cecil, Howard, Montgomery, and Baltimore City.

Region 3. Anne Arundel, Prince George's, Calvert, Charles, St. Mary's, Kent, Queen Anne's, Talbot, Caroline, Dorchester, Wicomico, Worcester, and Somerset.

(b) **Seeding Seasons.** Perform operations according to Table 1 when soil moisture and weather conditions are suitable, when the temperature is above 32 F, and the soil is not frozen. Cease operations when conditions are unsuitable.

01-11-17

(c) **Pesticide Application.** The Contractor shall possess a Maryland Department of Agriculture Commercial Pesticide Business License and a Pesticide Applicator Certificate for the pertinent pesticide application Category: (2) Forest; (3A) Ornamental Plant Exterior; (3-C) Turf; (5) Aquatic; (6) Right-of-Way and Weed.

Apply pesticides in conformance with the Maryland Pesticide Applicator's Law, OSHA and MOSH regulations, and the manufacturer's label and Safety Data Sheets (SDS).

Ensure that pesticides are applied by a Maryland Certified Pesticide Applicator, or by a Registered Pesticide Applicator under the supervision of a Certified Pesticide Applicator.

(d) **Pesticide Application Reporting.** Record the location and details of pesticide applications on the Pesticide Application Reporting Form. Submit the Form within 24 hours after applying pesticides.

(e) **IPM Program and Establishment Schedule.** Refer to 701.03.01(c) and 920.01.01. Develop an IPM Program to control Prohibited Weeds that includes methods of pest monitoring for weed control, pesticide selection, application rates, and scheduling. Submit the IPM Program and Establishment Schedule when seeding operations are completed. The Program and Schedule will be forwarded to the Landscape Operations Division for review and comment before approval is granted.

(f) **Seeding Schedule.** Develop a Schedule that provides dates for completing seeding operations. Submit the written Schedule at least 14 days before beginning operations. The Schedule will be reviewed by the Engineer and Landscape Operations Division for completeness and feasibility, and will be approved or returned for correction.

BIORETENTION MEADOW ESTABLISHMENT TABLE 1 - SEEDING SEASONS AND SEED ADDITIVES						
REGION	SEEDING SEASON - MONTH/DAY					RATE
	Spring	Summer	Fall	Late Fall	Winter	
SHA Bioretention Meadow Seed						
1	3/1 to 6/14	6/15 to 7/31	8/1 to 9/30	10/1 to 11/30	12/1 to 2/29	
2	2/1 to 5/14	5/15 to 7/31	8/1 to 10/14	10/15 to 11/30	12/1 to 2/29	
3	2/1 to 4/30	5/1 to 7/31	8/1 to 10/31	11/1 to 11/30	12/1 to 2/29	
All Regions	Plus Additive A*	Plus Additive B*	Plus Additive B*	Plus Additive D*	Plus Additive A*	
Region	Plus Additive B*	Plus Additive C*	Plus Additive D*	Plus Additive E*	Plus Additive E*	
Seed Additive Notes *						
Additive A = Garden Cosmos		Additive C = Tall Fescue		Additive E = Common Oat		
Additive B = Plains Coreopsis		Additive D = Corn Poppy				

01-11-17

(g) **Nutrient Management Plan (NMP).** Soil testing will be performed and a NMP will be developed by the Administration. Conform to the application rates of the NMP and replace application rates of Table 2 in 707.03.03 as required by the NMP. When no NMP has been developed, apply 200 lb. per acre of 20-16-12 (83% UF with MAP & SOP) fertilizer as the NMP rate for initial fertilizer for Meadow Establishment.

(h) **Nutrient Management Reporting.** Record the location and details of soil amendment and fertilizer applications on the Nutrient Management Reporting Form. Submit the Form within 24 hours after applying soil amendments and fertilizer.

(i) **Modification Request.** Submit a written Modification Request to install other species; or to adjust seeding rates. The Engineer in consultation with the Landscape Operations Division will evaluate the Request. If granted, a notice of approved modification will be returned within 14 days after the request is received.

(j) **Application Rates.** Apply seed and other materials as specified in Table 1 - Seeding Seasons and Seed Additives, Table 2 - Application Rates, and Table 3 - Meadow Seed Species and Application Rates.

BIORETENTION MEADOW ESTABLISHMENT TABLE 2 - APPLICATION RATES		
MATERIAL	RATE	
	LB PER SY	LB PER ACRE
SOIL AMENDMENTS per Nutrient Management Plan for Bioretention Soil Mix ^{a,b}		
Compost	0 to 1.033	0 to 5,000
Gypsum	0 to 0.455	0 to 2,200
Limestone	0 to 0.930	0 to 4,500
Sulfur	0 to 0.052	0 to 250
FERTILIZER per Nutrient Management Plan ^{a,c,d}		
		RATE
		LB PER SY LB PER ACRE
20-16-12 (83% UF with MAP & SOP) or one or more of the following ^{e,f}	0 to 0.041	0 to 200
38-0-0 (UF)	0 to 0.021	0 to 100
11-52-0 (MAP)	0 to 0.036	0 to 175
0-0-50 (SOP)	0 to 0.041	0 to 200
MEADOW SEED SPECIES		
Bioretention Meadow Establishment		RATE
		GRAM PER SY LB PER ACRE
Refer to Table 3 of this Specification		
ADDITIVE SEED		
Per Table 1 of this Specification		RATE
		GRAM LB

01-11-17

	PER SY	PER ACRE
A = Garden Cosmos	0.028	0.3
B = Plains Coreopsis	0.028	0.3
C = Tall Fescue	2.345	25.0
D = Corn Poppy	0.028	0.3
E = Common Oat	4.690	50.0
OVERSEEDING		
		RATE
		GRAM PER SY LB PER ACRE
Tall Fescue per (j) of this Specification	18.76	200.0
TYPE D SOIL STABILIZATION MATTING		
Apply over the seeded area		

Notes:
 * Apply compost, gypsum, limestone, sulfur, and fertilizer at rates specified in the NMP.
 † For Bioretention Soil Mix (BSM) the application rates will be developed for the approved source of supply.
 ‡ When no NMP has been developed, apply 200 lb per acre of 20-16-12 fertilizer, and do not apply any soil amendments.
 § UF = Ureaform, MAP = Monoammonium Phosphate; SOP = Sulfate of Potash. When application rate of 20-16-12 fertilizer is below 200 lb. per acre, apply UF, MAP, and SOP per NMP.

BIORETENTION MEADOW ESTABLISHMENT TABLE 3 - MEADOW SEED SPECIES AND APPLICATION RATES					
FORBS	PURE LIVE SEED ^a		GRASSES	PURE LIVE SEED ^a	
	GRAM PER SY	LB PER ACRE		GRAM PER SY	LB PER ACRE
Blackeyed Susan	0.094	1.0	Switchgrass	0.188	2.0
Partridge Pea	0.188	2.0	Deerongue	0.188	2.0
Red Clover	0.188	2.0	Hard Fescue	0.938	10.0
Notes:			Albargrass	0.188	2.0
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.			Purpletop	0.188	2.0
			Virginia Wildrye	0.094	1.0

(k) **Preparing Soil.** Use rakes, soil rollers, and similar tools and equipment as necessary to ensure a firm and uniform soil surface in preparation for seeding.

(l) **Seed Delivery, Weighing, and Mixing.** Use spreaders, drills, or other approved machinery. Seeders shall be capable of uniformly placing seed and fertilizer at the specified rate. Calibrate equipment before application. Hydroseeders shall not be used to apply seed or fertilizer. Apply fertilizer and seed to the surface of Bioretention Soil Mix. Apply materials accurately and uniformly to avoid misses and overlaps. Do not operate machinery during windy weather that may interfere with uniform application.

01-11-17

(m) **Matting.** Apply Type D Soil Stabilization Matting and water over the seeded area according to 709.

(n) **Seeding Phase Acceptance.** Submit a request for Seeding Phase Acceptance when operations are completed. Inspection will be conducted to verify completion, and Seeding Phase Acceptance will be granted at that time.

(o) **Establishment Phase.** The Establishment Phase will begin upon Seeding Phase Acceptance.

Period of Maintenance. Maintain seeded areas for 12 months after Seeding Phase Acceptance.

Required Maintenance. Perform the following during the Establishment Phase.

Watering. Apply water to ensure survival of the seeded species as needed. Apply water to seeded and mulched areas with approved machinery. Do not allow water to cause erosion or to displace the mulch.

Weed Control. Refer to (c) of this Specification. Monitor and promptly implement the IPM Program to control weeds in conformance with the IPM Program as needed or as directed. Remove weeds over 18 in. tall. Remove noxious weeds such as Canada Thistle and Johnsongrass as needed or as directed.

(p) **Overseeding.** When living seedling groundcover is less than 70 percent, perform overseeding as directed. Overseeding consists of lifting or loosening soil stabilization matting, applying Tall Fescue seed at the rate of 200 pounds per acre, and restoring soil stabilization matting and applying water according to 709.

(q) **Partial Establishment Phase Inspection.** Seeded areas will be inspected 6 months after Seeding Phase Acceptance. The Inspection Report will include actions to perform before Partial Establishment Phase Acceptance is granted.

(r) **Final Acceptance.** The Engineer and the Landscape Operations Division will complete an Inspection Report of seedling height, color, and percent coverage. When it is not possible to perform the Inspection, Final Acceptance will be delayed until Inspection is possible. The Inspection Report will be included in the Punch List requirements for the project. Complete the Punch List requirements as directed. Final Acceptance will be granted after all operations have been completed, and when meadow seedlings and other permanent seeded species have grown at least 4 in. tall, exhibit dark green color, and are least 95 percent groundcover.

MEASUREMENT AND PAYMENT. Bioretention Meadow Establishment will be measured and paid for at the Contract unit price for one or more of the Specified items. The payment will be full compensation for all material, labor, equipment, tools, disposal fees and incidentals necessary to complete the work.

01-11-17

(a) **Payment Schedule.** Payments will be made according to Table 4 when construction requirements are met.

BIORETENTION MEADOW ESTABLISHMENT TABLE 4 - PAYMENT SCHEDULE		
CONSTRUCTION REQUIREMENTS	PERCENT OF TOTAL CONTRACT PRICE	PAYMENT FOR COMPLETED WORK
(a) thru General thru (n) Seeding Phase Acceptance	70	At Seeding Phase Acceptance
(o) Establishment Phase thru (q) Partial Establishment Phase Inspection	15	At Partial Establishment Phase Acceptance
(r) Establishment Phase and (p) Overseeding and (r) Final Acceptance	15	At Final Acceptance
Total Payment	100%	

(b) **Forfeiture.** Failure to complete operations as required or directed according to the Payment Schedule will result in forfeiture of that percentage of payment.

Bioretention Meadow Establishment. Bioretention Meadow Establishment, including preparing soil, applying fertilizer, soil amendments, meadow seed, seed additives, watering, weed control, and overseeding will be measured and paid for at the Contract unit price per square yard. The use of other materials in conformance with an approved Modification Request is incidental to the Contract unit price, and will not be measured or paid for.

Bioretention Soil Mix will be measured and paid for at the Contract unit price per cubic yard.

Temporary Mulch, including any Type A Soil Stabilization Matting used as Temporary Matting Mulch according to Section 704, will be measured and paid for at the Contract unit price per square yard.

Type D Soil Stabilization Matting will be measured and paid for at the Contract unit price per square yard.

01-11-17

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[Signature] 6/15/2018
 CHIEF, BUREAU OF HIGHWAYS DATE:

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 7-9-18
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE:

[Signature] 7-3-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE:

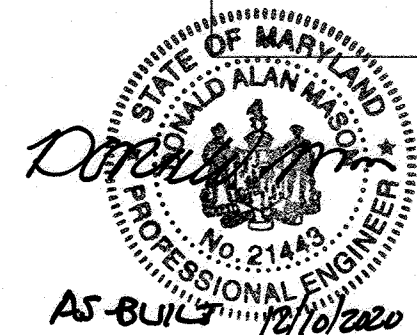
APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division Date
 Chief, Division of Land Development Date
 Director Date

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 NUMBER: 1008 EXPIRATION DATE: 5/20/2018

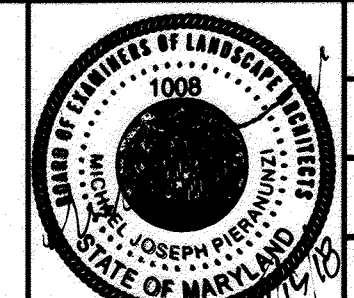


Professional Certification, I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 21443, Expiration Date 12-21-2022

OWNER
 LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244

"NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET"

CENTURY ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 Gilroy Road, Hunt Valley, MD 21031
 Phone: 443.589.2400 Fax: 443.589.2401

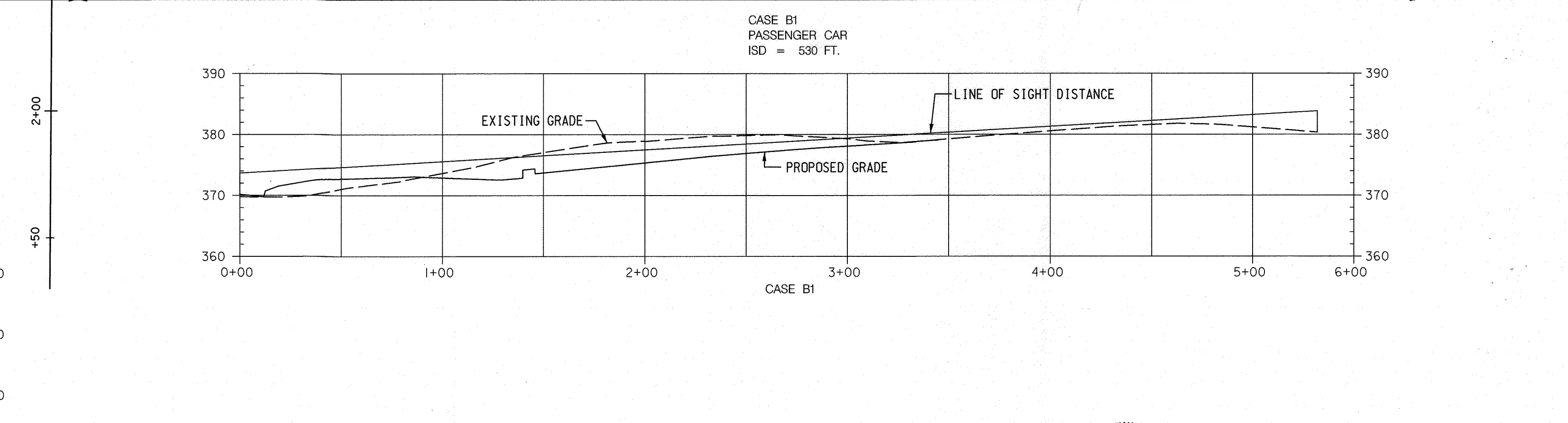
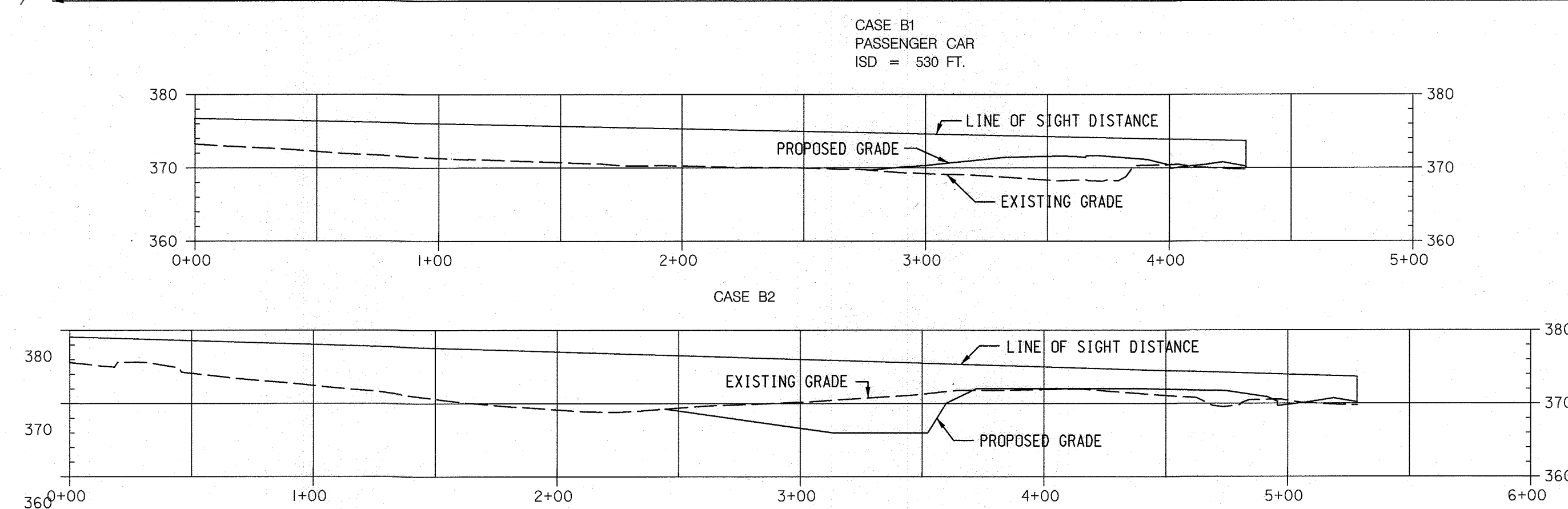
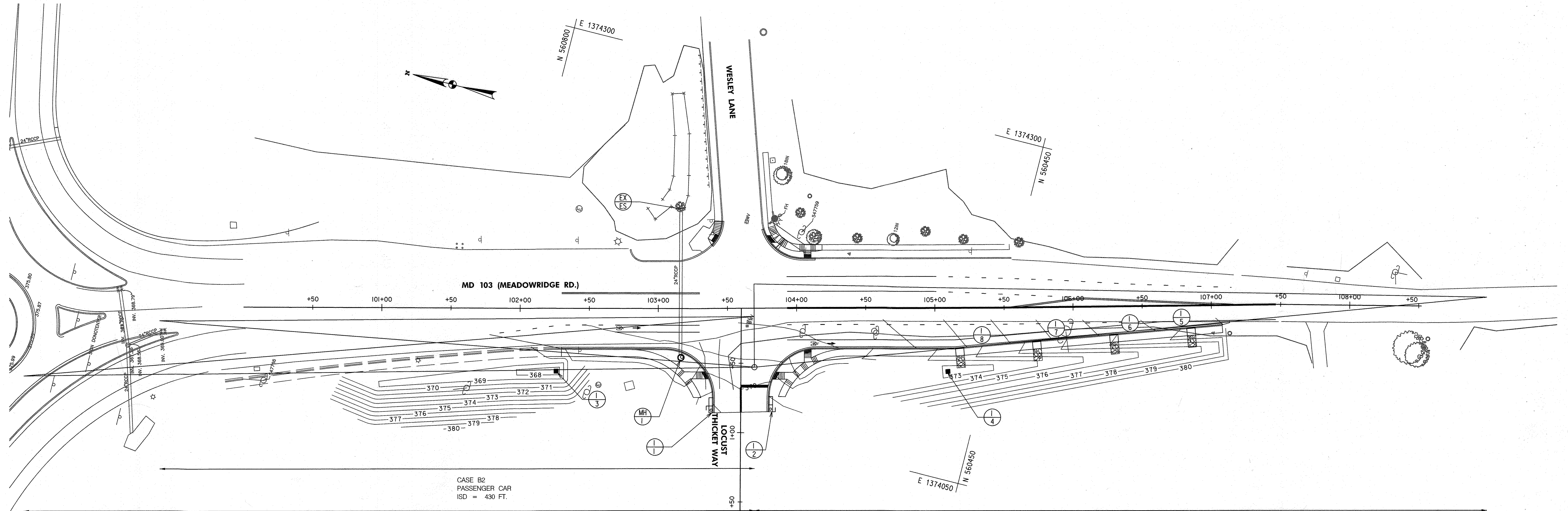


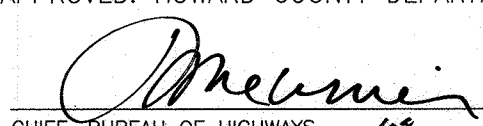
DESIGN BY:	KCS				
DRAWN BY:	KCS				
CHECKED BY:	JDD				
DATE:	MAY 2018				
BY	NO.				
		I	NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18	
			REVISION		DATE

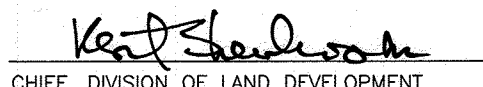
DEVELOPER
 LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244


REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
 ZONED R-A-15 & POR
 TAX MAP: 37 PARCEL: 714 & 724 GRID: 9
 ELECTION DISTRICT 1 HOWARD COUNTY, MD
 SHEET 41 OF 42

C.E.I. PROJECT NUMBER 161204.02
 SCALE: AS SHOWN



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 6/15/2018
 CHIEF, BUREAU OF HIGHWAYS DATE:

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 7-9-18
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE:

 7-3-18
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE:

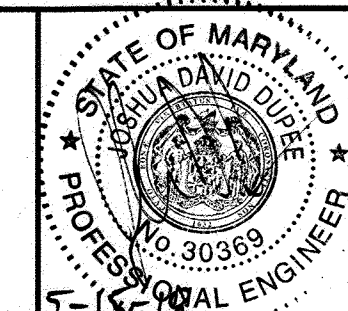
PROFESSIONAL CERTIFICATION

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 NUMBER: 30369 EXPIRATION DATE: 1/06/2020

~~APPROVED: DEPARTMENT OF PLANNING AND ZONING~~
 Chief, Development Engineering Division Date
 Chief, Division of Land Development Date
 Director Date

CENTURY ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 Gilroy Road, Hunt Valley, MD 21031
 Phone: 443.589.2400 Fax: 443.589.2401



DESIGN BY:	KCS		
DRAWN BY:	KCS		
CHECKED BY:	JDD		
DATE:	MAY 2018		
BY	NO.	REVISION	DATE
		NAME CHANGE, REVISIONS PER SHA ACCESS PERMIT PLAN	4/5/18

OWNER
LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244

DEVELOPER
LOCUST THICKET INVESTORS LLC
 5836 MEADOWRIDGE ROAD
 ELKRIDGE, MD 21075
 410-465-4244



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. 21443 Expiration Date: 12-31-2020

"NO AS-BUILT INFORMATION IS" PROVIDED ON THIS SHEET

REVISED FINAL ROADWAY CONSTRUCTION PLANS
THE WEXLEY AT 100
 ZONED R-A-15 & POR
 TAX MAP 37 PARCEL 714 & 724 GRID: 8
 ELECTION DISTRICT 1 HOWARD COUNTY, MD
 SHEET 42 OF 42

C.E.I. PROJECT NUMBER 161204.02
 SCALE: N/A