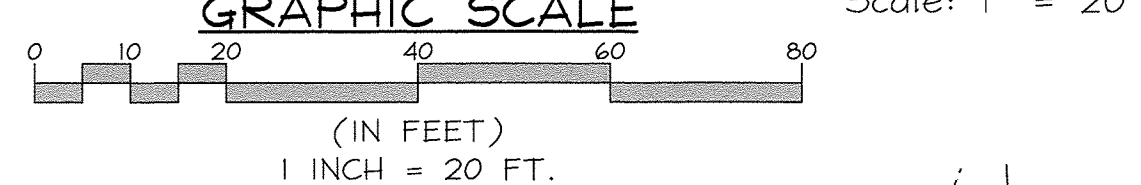
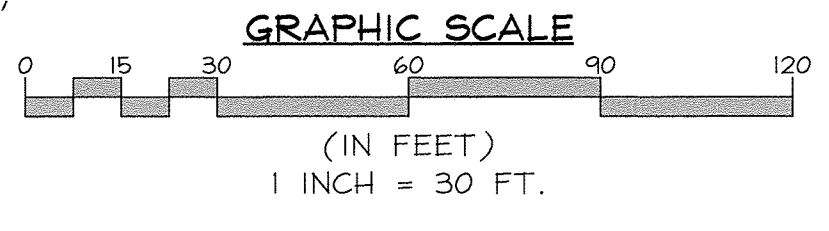


STONE/RIPRAP OUTLET SEDIMENT TRAP
 STA. SEE DETAIL SHEET 5.
 S.T.A. Ex. = 291.00 ±
 D.A. Prop. = 3.00 ac. ±
 Total Storage Req'd. = 10,800 cu.ft. ±
 Total Storage Prov'd. = 12,163 cu.ft. ±
 Wet Storage Req'd. = 5,400 cu.ft. ±
 Wet Storage Prov'd. = 5,400 cu.ft. ±
 Dry Storage Req'd. = 5,400 cu.ft. ±
 Dry Storage Prov'd. = 6,915 cu.ft. ±
 Ex. Ground Elev. @ Outlet = 351'
 Trap Bottom Elev. = 349'
 Trap Bottom/Dimensions = 35' x 37' ±
 Weir Length = 12'
 Weir Crest Elev. = 353'
 Cleanout Elev. = 350'
 Top of Embankment Elev. = 354'
 Side Slope = 2:1
 Embankment Top Width = 4'
 Outlet Protection Length = 13' ±
 Outlet Protection Depth = 19'

SEDIMENT TRAP ST II ENLARGEMENT PLAN



PLAN

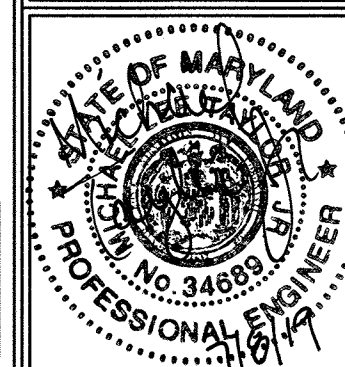


SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	SOIL GROUP	K _f FACTOR
LoC	Legare silt loam, 8 to 15 percent slopes	C	0.37
LoB	Legare-Montalto-Urban land complex, 0 to 8 percent slopes	C	0.37
RuC	Russett and Beltsville, 5 to 10 percent slopes	C	0.28
UcB	Urban land-Chillum-Beltsville complex, 0 to 5 percent slopes	C	0.43

**GRADING, SEDIMENT AND EROSION CONTROL PLAN
BRICKLEY MILLS**

TAX MAP 42 GRID 16 PARCEL 277
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



FSH Associates
 Engineers Planners Surveyors
 6339 Howard Lane, Elkridge, MD 21075
 Tel: 410-967-5200 Fax: 410-796-1562
 E-mail: info@fsheri.com

DESIGN BY: MLT
 DRAWN BY: MLT
 CHECKED BY: ZYF
 SCALE: 1" = 30'
 DATE: July 8, 2019
 H.O. No.: 3948
 SHEET No.: 3 OF 9

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 8-13-19
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 8/22/19
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEVELOPER'S CERTIFICATE

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

[Signature] 7-8-19
 SIGNATURE OF DEVELOPER DATE

ENGINEER'S CERTIFICATE

I 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.

[Signature] 7/8/19
 SIGNATURE OF ENGINEER DATE
 MICHAEL L. TAYLOR

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

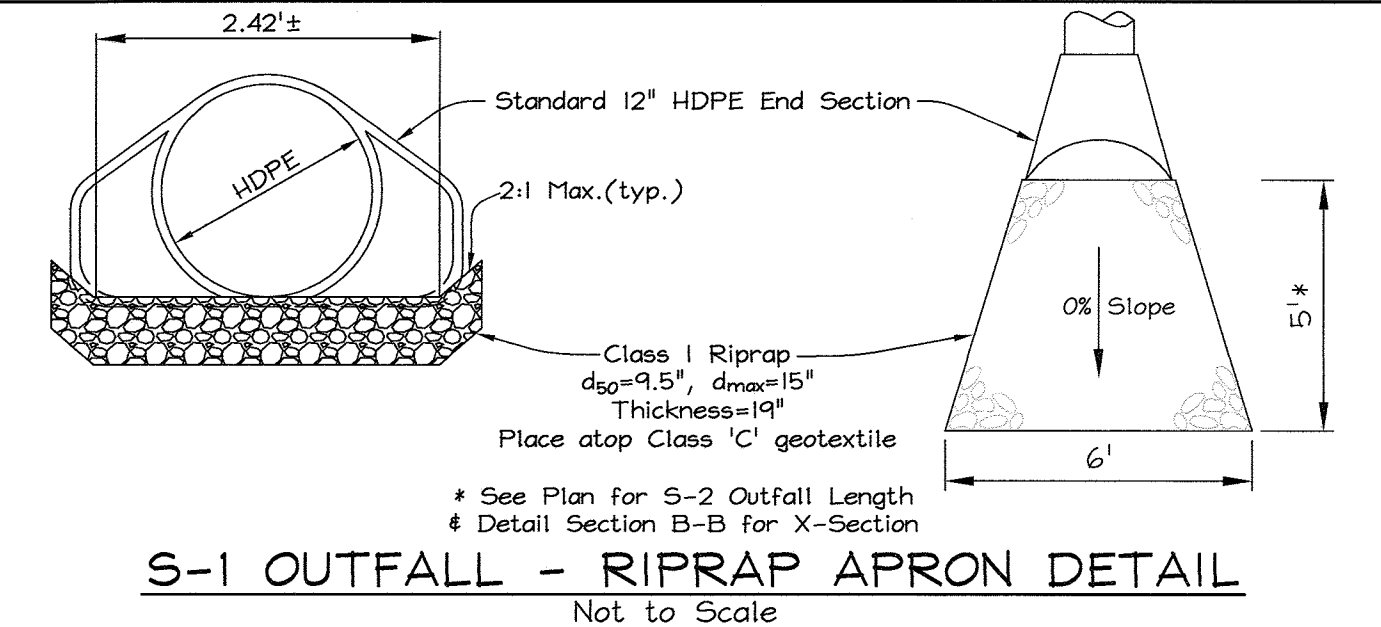
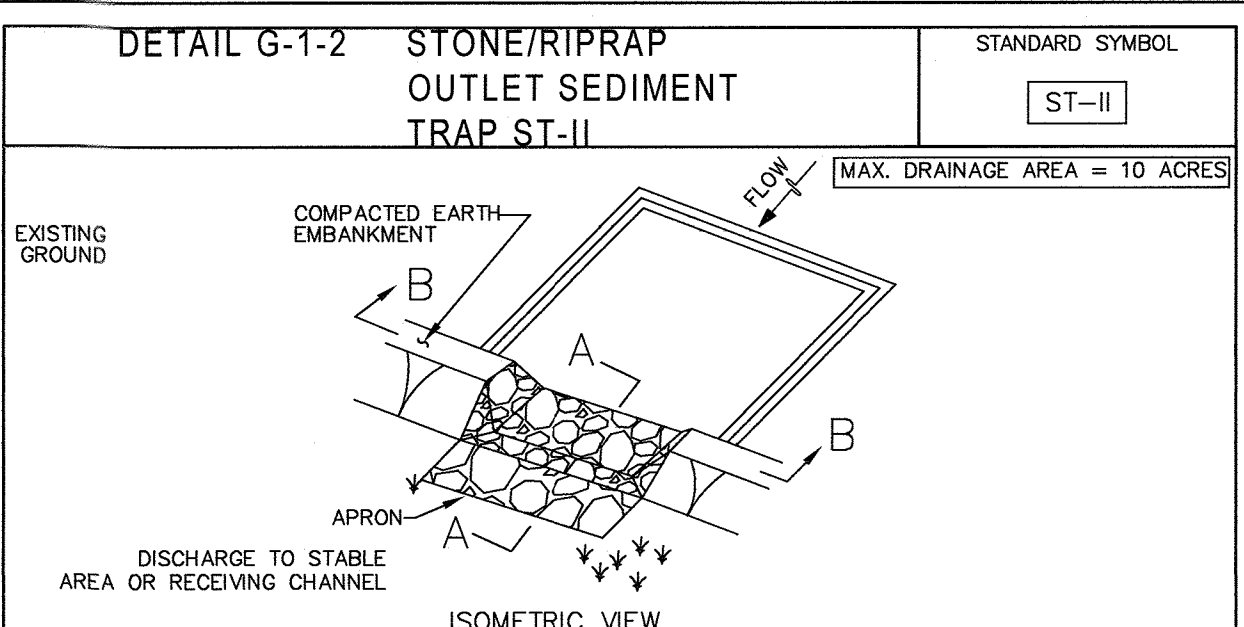
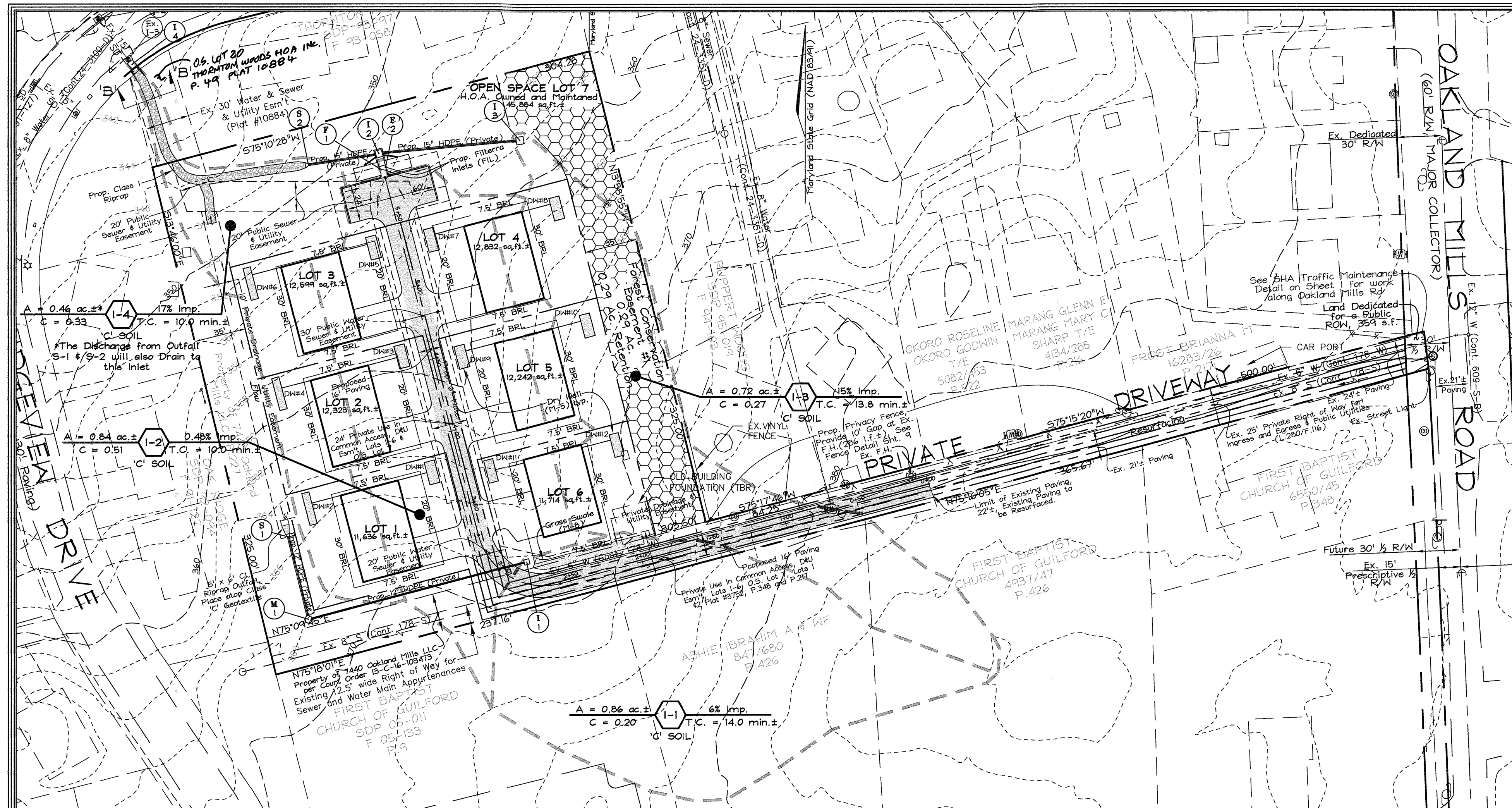
[Signature] 8/6/19
 HOWARD SCD DATE

OWNER/DEVELOPER
 7440 Oakland Mills Road, LLC
 c/o Mr. Joe Encarnacao
 19901 Belle Chase Drive
 Laytonsville, Maryland 20882
 Phone No. 301-252-2870

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. #34689, Expiration Date: 7/08/2021.

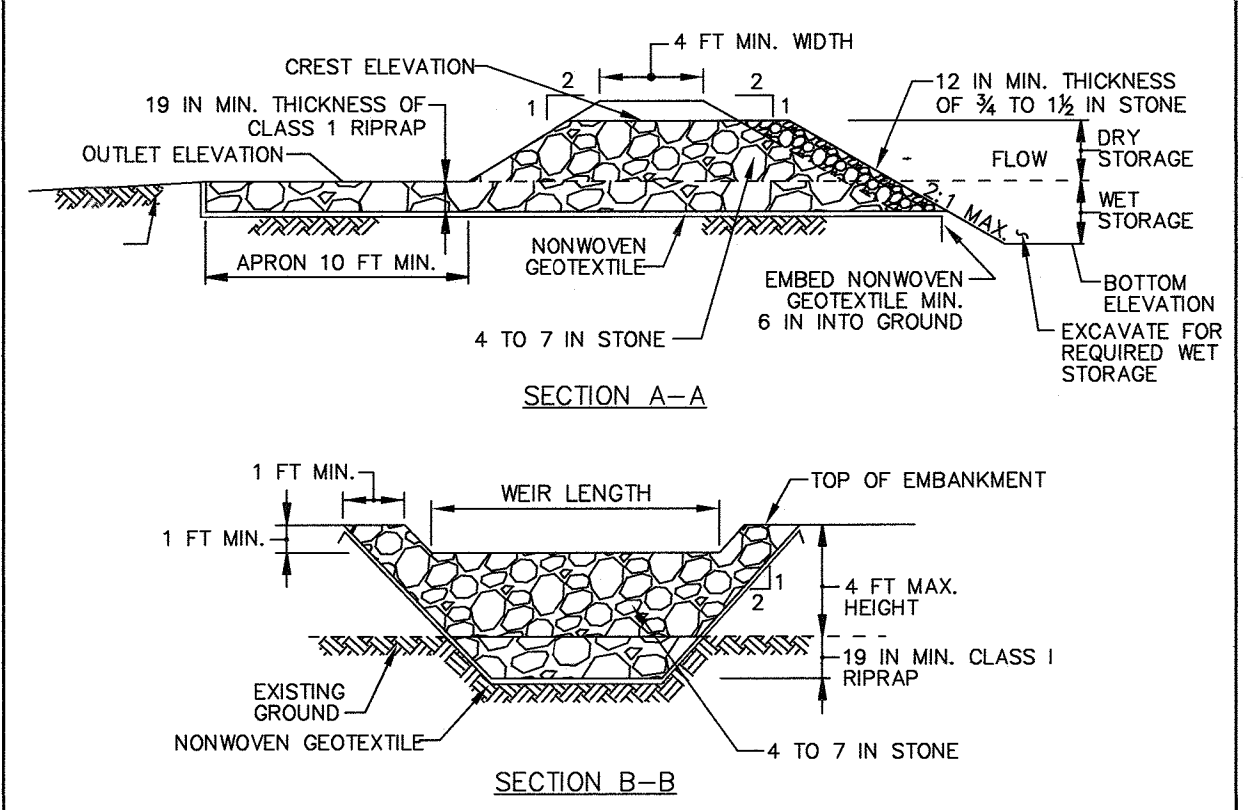
11/18/19 Owner/Developer Seal (7/10/19) Professional Engineer Seal (8/1/19) Howardscd Seal (8/1/19)



NO.	TYPE	LOCATION	TOP ELEV.	INT. IN.	INT. OUT.	REMARKS
I-1	Single Type 'S' Inlet	N 546,172.15 E 1,359,749.39	367.83	--	365.10	Detail D-4.22
I-2	Single Open End Grate Inlet	N 546,445.59 E 1,359,648.90	353.72	349.87	349.14	Detail D-4.36
I-3	Single Type 'S' Inlet	N 546,454.65 E 1,359,743.80	357.10	--	354.18	Detail D-4.22
I-4	Open End Grate Precast	N 546,505.22 E 1,359,492.43	340.00	--	336.88	Detail D-4.36
I-1-1	Shallow Precast MH	N 546,183.38 E 1,359,601.53	365.28	364.19	364.09	Detail G-5.12
S-1	HDPE End Section	N 546,188.72 E 1,359,587.88	--	363.75	--	12" HDPE End Sect.
S-2	HDPE End Section	N 546,438.27 E 1,359,601.46	--	348.56	--	15" HDPE End Sect.
F-1	Filterra Bioretention Struct.	N 546,495.44 E 1,359,649.31	354.46	--	--	FTSC 8'x8', Details Sht. 7
F-2	Filterra Bioretention Struct.	N 546,434.54 E 1,359,653.51	354.46	--	--	FTSC 8'x8', Details Sht. 7

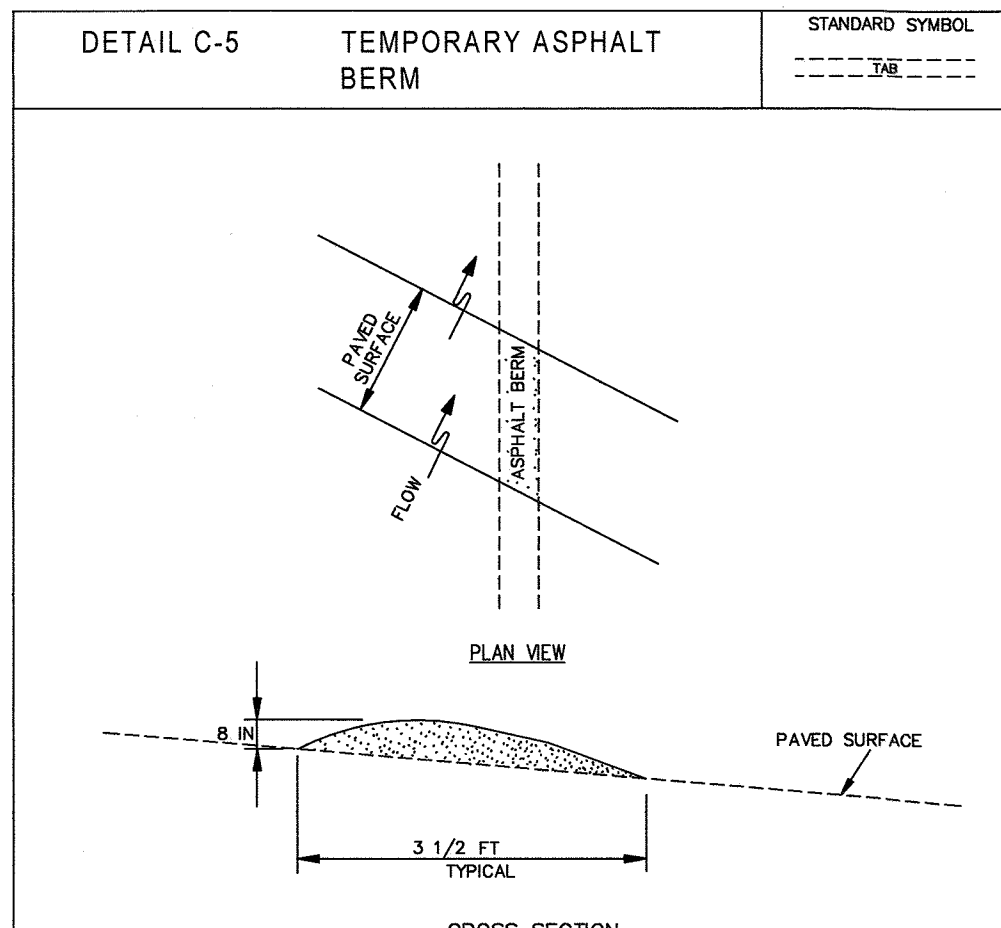
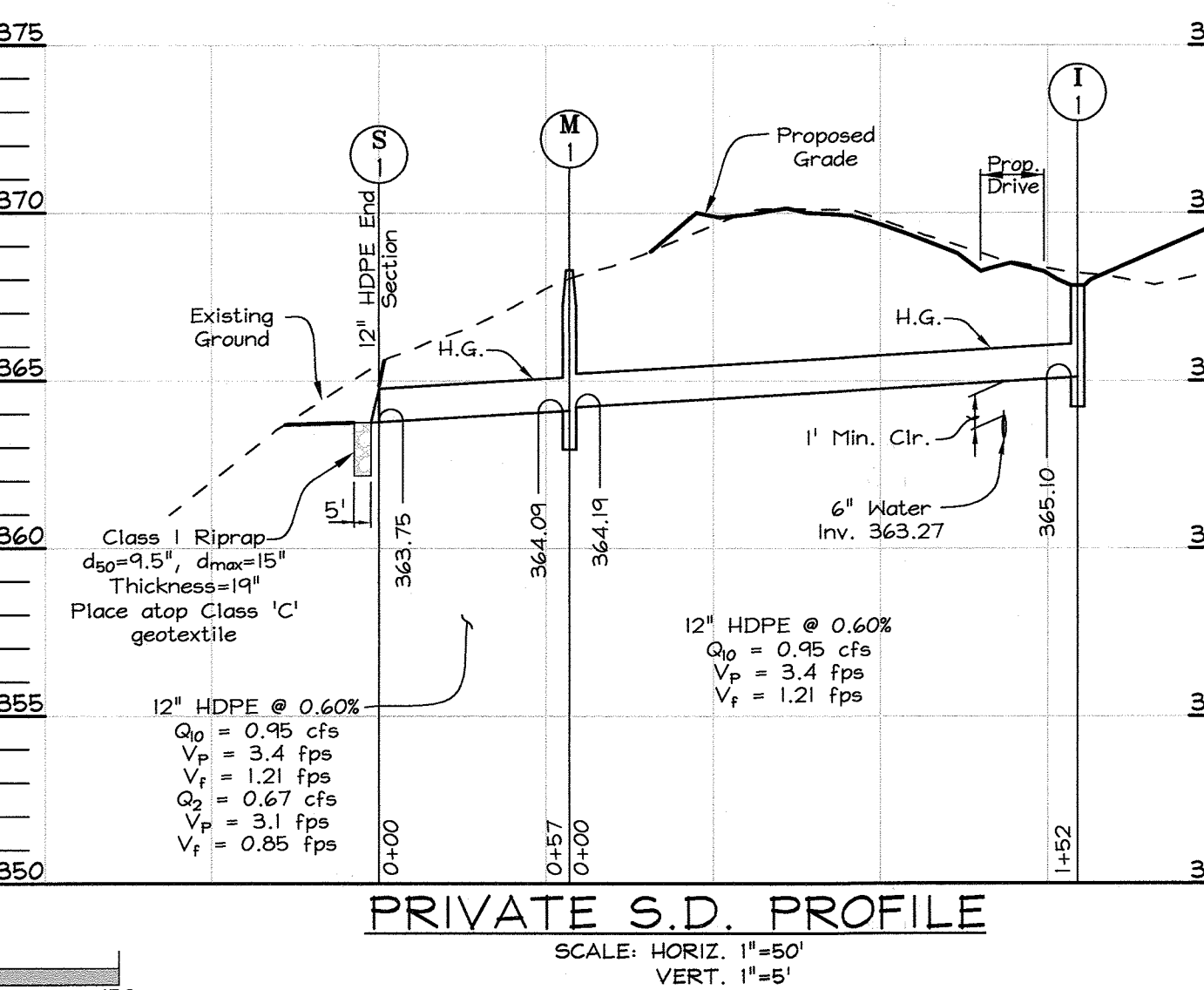
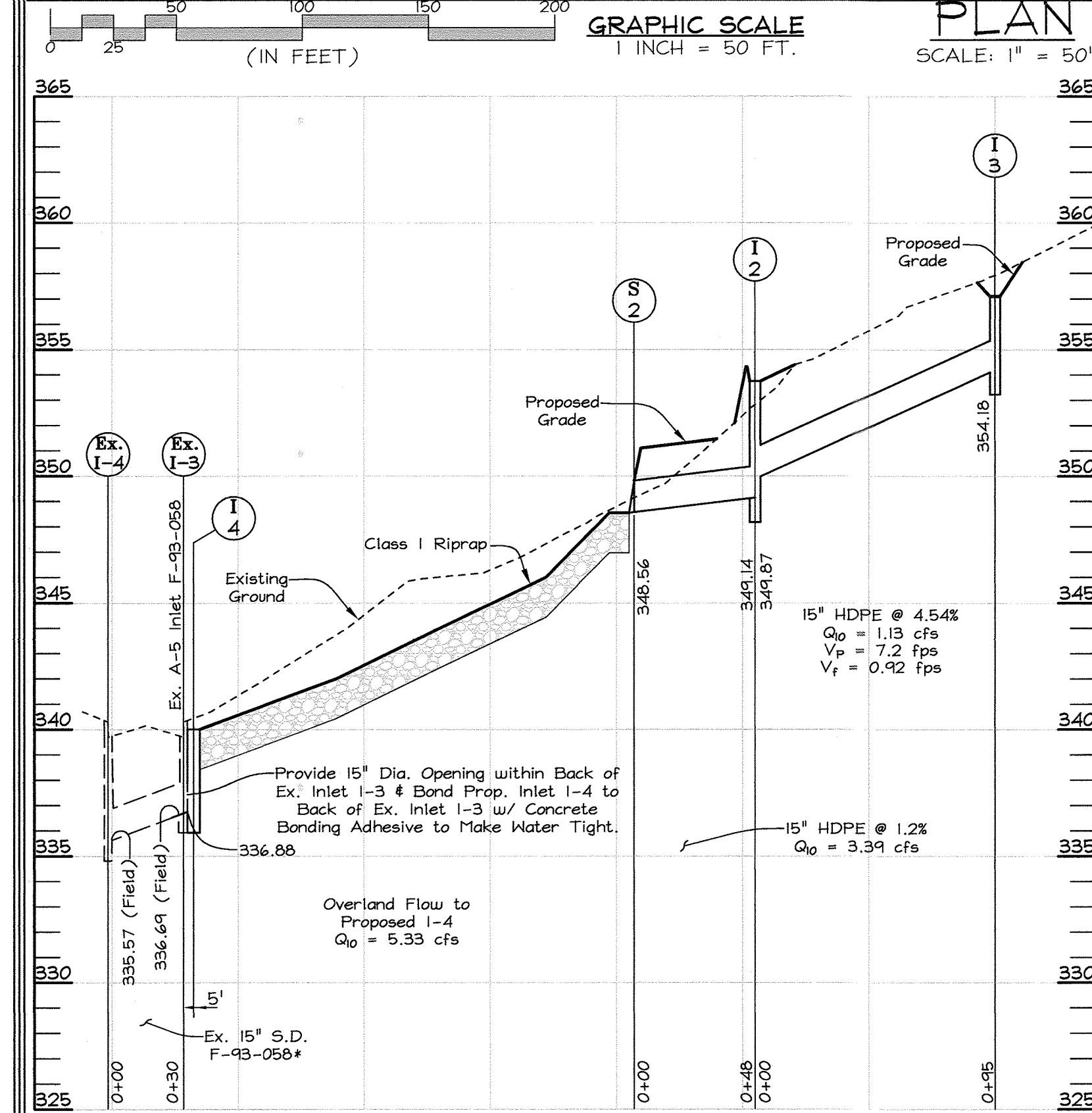
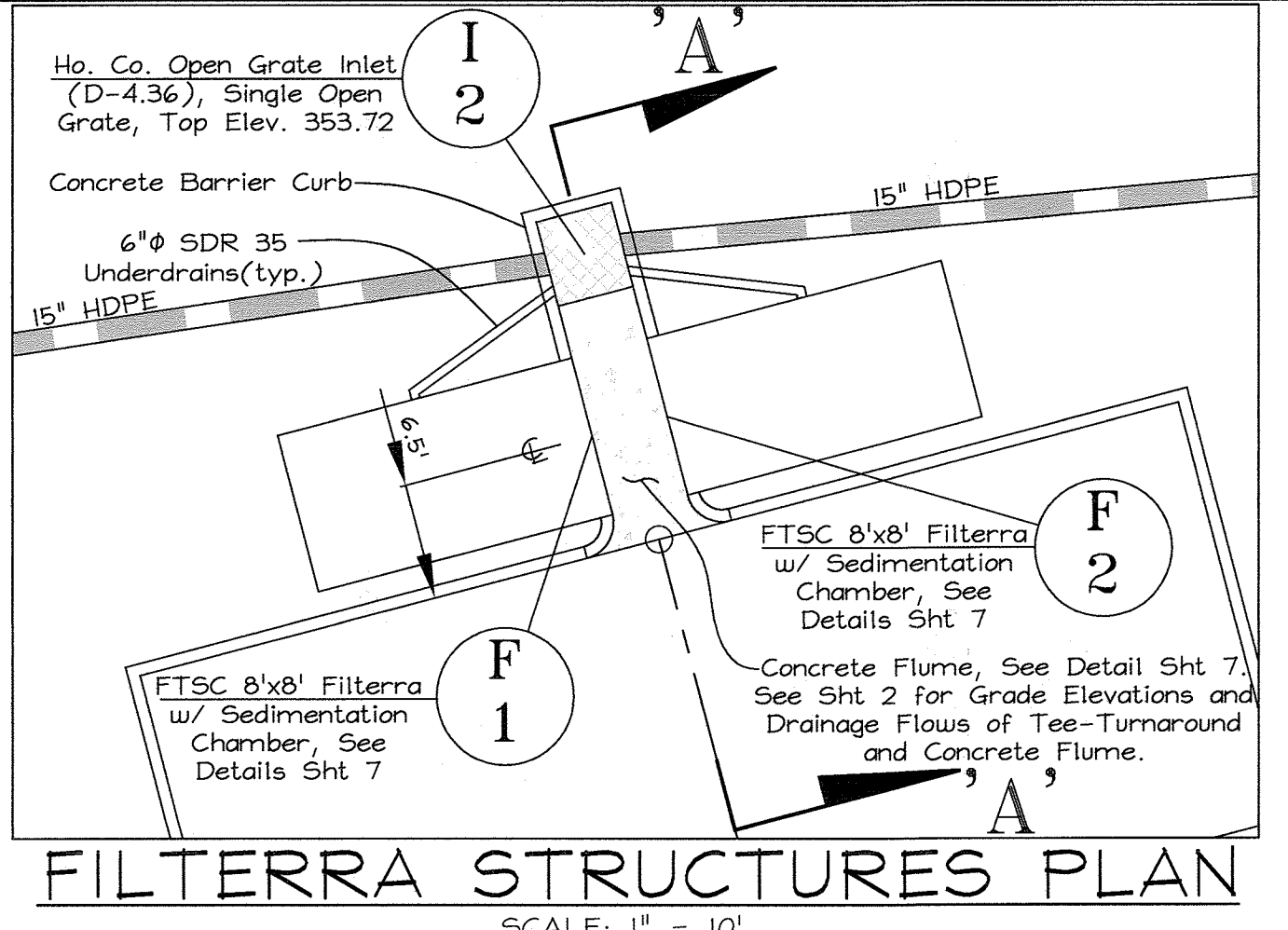
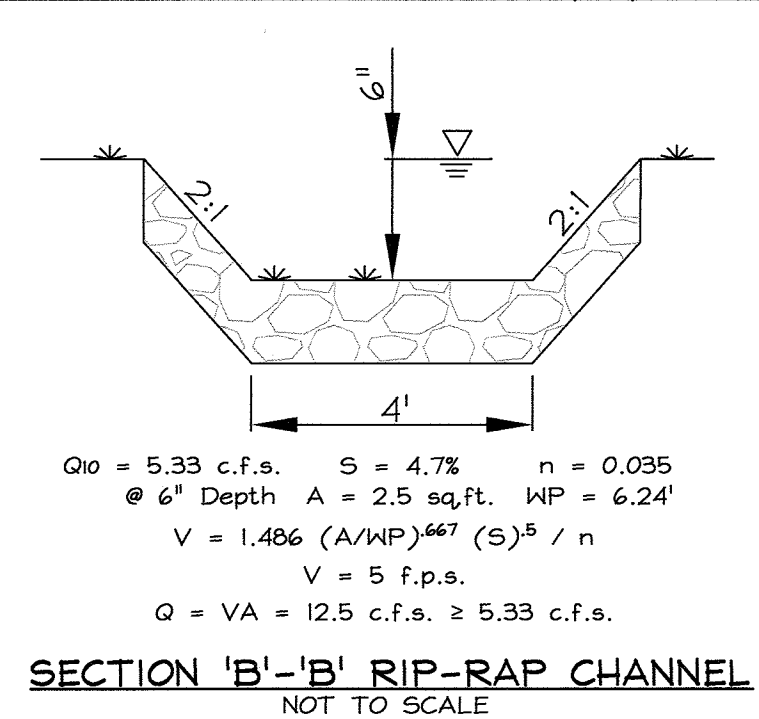
STRUCTURE SCHEDULE NOTES:
 1. The top elevations for all inlets are the top of the grate elevation.
 2. Top elevations for Manholes is to the center top of manhole cover.
 3. The top elevations for the Filterra Bioretention Structures are the top of conc. slab and tree grade.
 4. The coordinates shown for all manholes and inlets are to the center of structure. The coordinates shown for the Filterra structures are the point where the mid-point of structure width meets the face of curb.
 5. The End Section coordinate location corresponds to the point where the end section meets the center of incoming pipe.

SIZE	TYPE	LENGTH
12"	HDPE	209'
15"	HDPE	143'



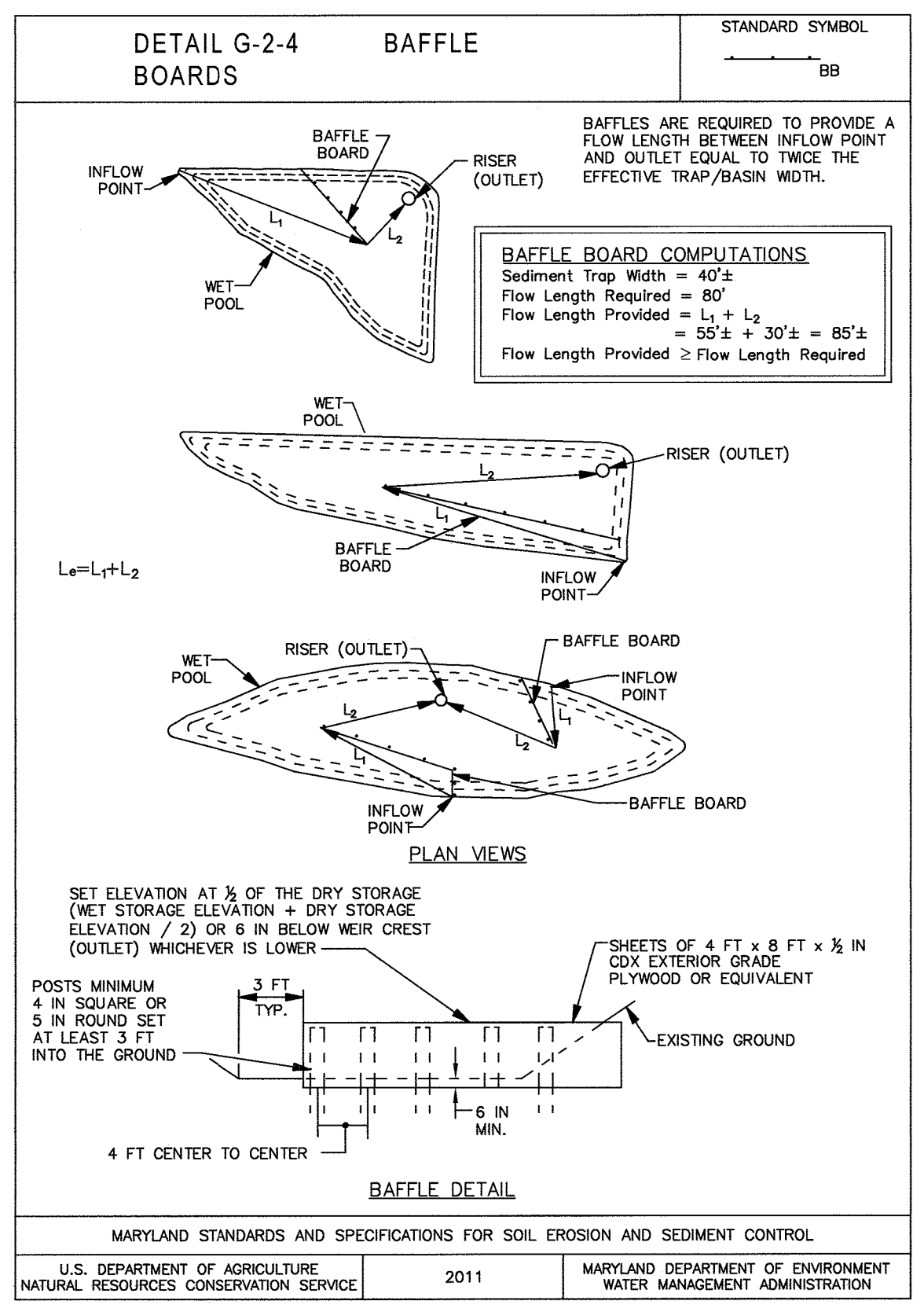
- CONSTRUCTION SPECIFICATIONS**
- CONSTRUCT TRAP IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE AVOIDED.
 - CLEAR, GRUB, AND STRIP ANY VEGETATION AND ROOT MAT FROM THE AREA UNDER THE EMBANKMENT AND TRAP BOTTOM.
 - USE FILL MATERIAL FREE OF ROOTS, WOODY VEGETATION, OVERSIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL FOR THE EMBANKMENT.
 - CONSTRUCT TOP OF EMBANKMENT 1 FOOT MINIMUM ABOVE WEIR CREST. COMPACT THE EMBANKMENT BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
 - MAKE ALL CUT AND FILL SLOPES 2:1 OR FLATTER.
 - PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE BOTTOM AND SIDES OF OUTLET AND APRON PRIOR TO PLACEMENT OF RIPRAP. OVERLAP SECTIONS OF GEOTEXTILE AT LEAST 1 FOOT WITH THE SECTION NEARER TO THE TRAP PLACED ON TOP. EMBED GEOTEXTILE AT LEAST 8 INCHES INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL.
 - USE CLEAN 4 TO 7 INCH RIPRAP TO CONSTRUCT THE WEIR. USE CLASS 1 RIPRAP FOR THE APRON. USE OF RECYCLED CONCRETE EQUIVALENT IS ACCEPTABLE.
 - PLACE 1 FOOT OF CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE ON THE UPSTREAM FACE OF THE WEIR.
 - CONSTRUCT AND MAINTAIN THE OUTLET ACCORDING TO APPROVED PLAN, AND IN SUCH A MANNER THAT EROSION AT OR BELOW THE OUTLET DOES NOT OCCUR.
 - STABILIZE THE EMBANKMENT AND INTERIOR SLOPES WITH SEED AND MULCH. STABILIZE POINTS OF CONCENTRATED INFLOW AS SHOWN ON APPROVED PLAN.
 - REMOVE SEDIMENT AND RESTORE TRAP TO ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO CLEANOUT ELEVATION (50% OF WET STORAGE DEPTH). DEPOSIT REMOVED SEDIMENT IN AN APPROVED AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. KEEP POINTS OF INFLOW AND OUTFLOW AS WELL AS INTERIOR OF THE TRAP FREE FROM EROSION, AND REMOVE ACCUMULATED DEBRIS. MAINTAIN EMBANKMENTS TO CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. REMOVE ANY TREES, BRUSH, OR OTHER WOODY VEGETATION GROWING ON EMBANKMENT OR NEAR PRINCIPAL SPILLWAY. MAINTAIN LINE, GRADE, AND CROSS SECTION.
 - WHEN DEWATERING TRAP, PASS REMOVED WATER THROUGH AN APPROVED SEDIMENT CONTROL PRACTICE.
 - UPON REMOVAL, GRADE AND STABILIZE THE AREA OCCUPIED BY TRAP.

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

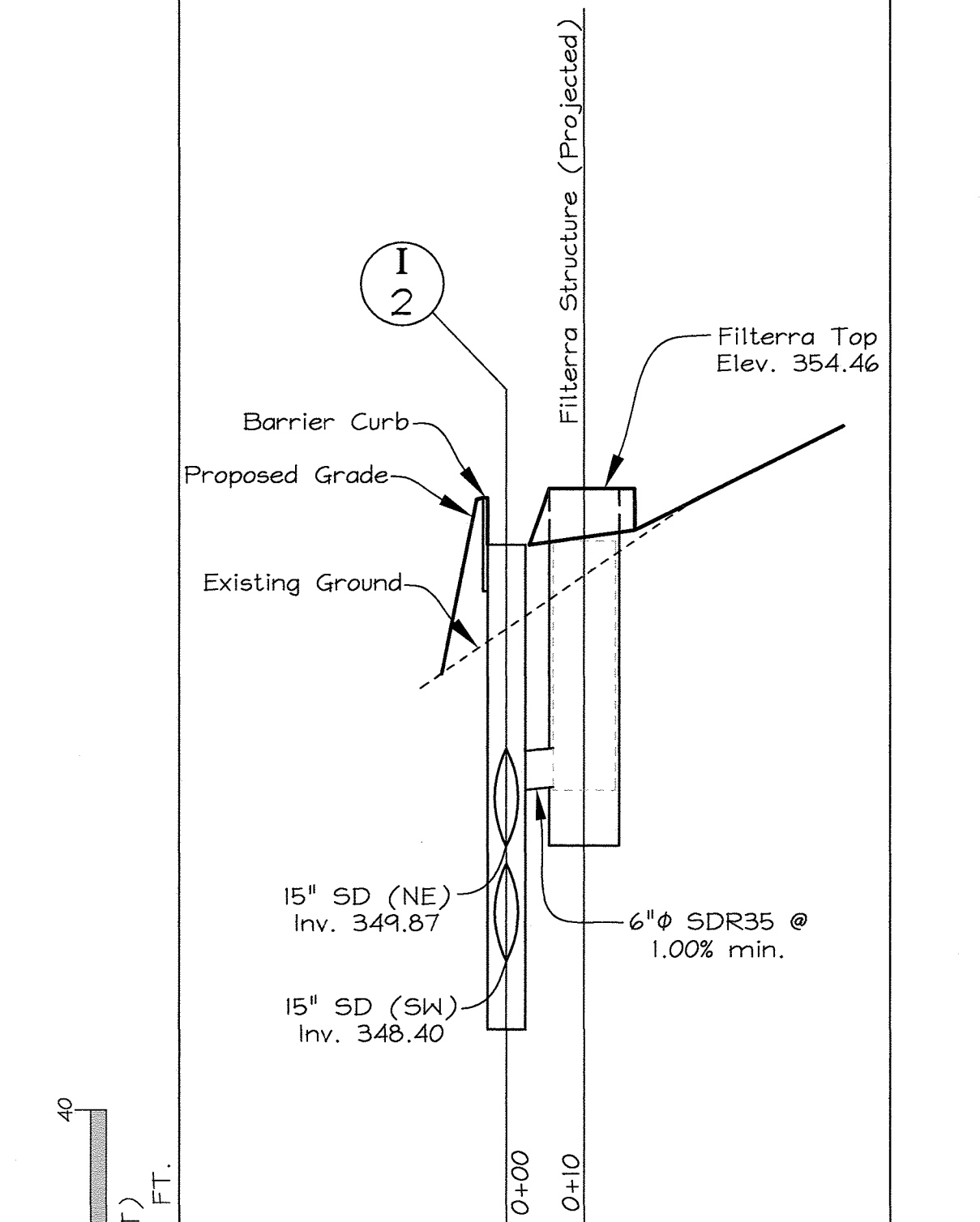


- CONSTRUCTION SPECIFICATIONS**
- CONSTRUCT BERM ON AN UNINTERRUPTED, CONTINUOUS GRADE.
 - INSTALL BERM TO CONFORM TO CROSS SECTION DIMENSIONS OF A UNIFORM HEIGHT OF 8 INCHES MINIMUM AND APPROXIMATE WIDTH OF 3 1/2 FEET.
 - PROVIDE OUTLET PROTECTION AS REQUIRED ON PLAN.
 - COMPACT ASPHALT BERM.
 - REPAIR DAMAGED ASPHALT. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE.
 - UPON REMOVAL OF ASPHALT BERM, RETURN TO ORIGINAL CONDITIONS OR AS SPECIFIED ON APPROVED PLAN.

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



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



OWNER/DEVELOPER	PROFESSIONAL CERTIFICATION
7440 Oakland Mills Road, LLC c/o Mr. Joe Encarnacao 19901 Belle Chase Drive Laytonsville, Maryland 20882 Phone No. 301-252-2870	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. 43466, Expiration Date: 7/08/2021.

STORM DRAIN DRAINAGE AREA MAP, PROFILES AND DETAILS BRICKLEY MILLS

TAX MAP 42 GRID 16 PARCEL 277
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FSH Associates
 Engineers Planners Surveyors
 6339 Howard Lane, Elkridge, MD 21075
 Tel: 410-567-5200 Fax: 410-796-1562
 E-mail: info@fshen.com

DESIGN BY: MLT
 DRAWN BY: MLT
 CHECKED BY: ZYF
 SCALE: As Shown
 DATE: July 8, 2019
 H.O. No.: 3948
 SHEET No.: 5 OF 9

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 8/13/19
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

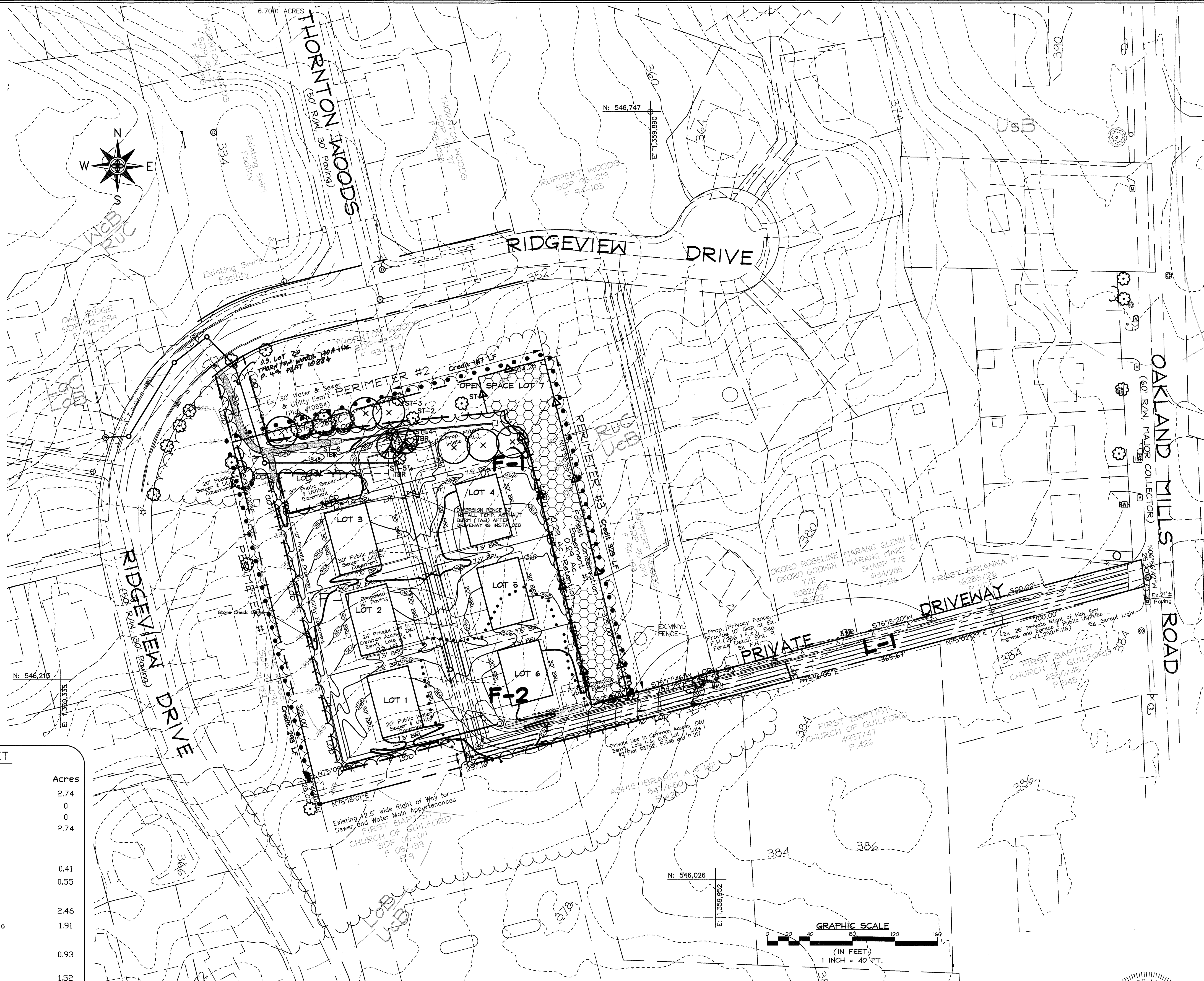
[Signature] 8/23/19
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DIRECTOR DATE

LEGEND

- - - - -140- - - - - Ex. 10' Contour Line
- - - - -138- - - - - Ex. 2' Contour Line
- ⊖(40) Prop. 10' Contour Line
- ⊖(38) Prop. 2' Contour Line
- Ex. Wood Fence
- ⊕ Ex. Chain Link Fence
- - - - - Property Line
- ⊖ Ex. Woods Line

- LeC Soil Line
- ⊕ Ex. Fire Hydrant
- ⊕ Ex. Water Valve
- ⊕ Ex. Sewer Manhole
- ⊕ Ex. Sewer Cleanout
- ⊕ Ex. Storm Drain Inlet
- ⋯ Forest Stand Boundary
- F-1** Forest Stand Label
- ⊕ ST-1 Specimen Tree
- - - - - Limit of Disturbance
- - - - - TPF Tree Protection Fence
- △ FCE Signage
- ⊖ Forest Conservation Esmt Retention Area



LANDSCAPE NOTES

- At the time of installation, all shrubs and other plantings hereunto listed and approved for this site, shall be of the proper height, requirements in accordance with the Howard County Landscaping Manual. In addition, no substitutions or relocation of required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviation from this approved Landscape Plan may result in denial or delay in the release of landscape surety until such time as all required materials are planted and/or revisions are made to applicable plans and certificates.
- The owner, tenant, and/or their agents shall be responsible for maintenance of the required landscaping, including both plant materials and berms, fences and walls. All plant materials shall be maintained in good growing condition, and when necessary, replaced with new materials to ensure continued compliance with applicable regulations. All other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.
- Financial surety for the required landscaping will be posted as part of the Developer's Agreement in the amount of \$3,300 (10 shade trees @ \$300.00 each and 2 ornamental trees @ \$150.00 each).

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTIES		
	A	2	3
Perimeter/Frontage Designation			
Linear Feet of Roadway	350'	304'	325'
Credit for Existing Vegetation (Yes, No, Linear Feet)	Yes* (233')	Yes* (147')	Yes* (325')
Remaining Perimeter Length (Yes, No, Linear Feet)	57'	157'	0'
Credit for Wall, Fence or Berm (Yes, No, Linear Feet)	No	No	No
Describe below if needed			
Number of Plants Required			
Shade Trees	1:60	1:60	3:160
Evergreen Trees	-	-	-
Shrubs	-	-	-
Number of Plants Provided			
Shade Trees	1	3	0
Evergreen Trees	-	-	-
Ornamental Trees	-	-	-
Shrubs	-	-	-

* Credit taken for existing trees to remain

LANDSCAPE PLANT LIST

KEY	QUAN	BOTANICAL/COMMON NAME	SIZE	NOTE
⊖	4	Nyssa sylvatica Black Gum	2 1/2"-3" Cal.	B # B
⊕	6*	Fagus granifolia American Beech	3 1/2"-4" Cal.	B # B
⊕	2**	Acer ginnola Amur Maple	2 1/2"-3" Cal.	B # B

* trees required per waiver WP-18-048 for removing 3 specimen trees
** trees placed as part of Filterra inlet system

FOREST CONSERVATION NARRATIVE

This Forest Conservation Plan has been developed in accordance with the Howard County Forest Conservation Act of 1991.

The total tract area consists of 2.74 acres of land. There is no floodplain on the site. The net tract is 2.74 acres.

Existing forest is 2.46 acres. There are 6 specimen trees within the property; 3 are slated to be removed as approved in waiver WP-18-048, and 3 will remain on-site pending assessment by a MD licensed tree expert.

There shall be one easement containing 0.29 acres of retained forest. Due to space limitations on site, we will request that the remainder of the forest planting obligations (1.00 acres, or 43,560 SF) be fulfilled with a fee-in-lieu payment of \$41,382.00 (\$95/sf for 43,560 sf).

FOREST CONSERVATION EASEMENT TABLE

EASEMENT	TYPE	AREA (ACRES)
I	RETENTION	0.29
TOTAL		0.29

The forest conservation easements have been established to fulfill the requirements of Section 16.1200 of the Howard County Code and the Forest Conservation Manual. No clearing, grading or construction is permitted within the forest conservation easements, however, forest management practices as defined in the Deed of Forest Conservation Easement are allowed.

FOREST CONSERVATION WORKSHEET

Item	Acres
Net Tract Area	
A. Total Tract Area	2.74
B. Area Within 100 Year Floodplain	0
C. Other deductions	0
D. Net Tract Area	2.74
Zoning Use Category: RESIDENTIAL-SUBURBAN	
Land Use Category	
E. Afforestation Minimum (15% x D)	0.41
F. Conservation Threshold (20% x D)	0.55
Existing Forest Cover	
G. Existing Forest on Net Tract Area	2.46
H. Forest Area Above Conservation Threshold	1.91
Breakeven Point	
I. Forest Retention Above Threshold with no Mitigation	0.93
J. Clearing Permitted without Mitigation	1.52
Proposed Forest Clearing	
K. Forest Areas to be Cleared	2.17
L. Forest Areas to be Retained	0.29
Planting Requirements	
M. Reforestation for Clearing Above Threshold	0.48
N. Reforestation for Clearing Below the Threshold	0.52
P. Credit for Retention Above Conservation Threshold	0
Q. Total Reforestation Required	1.00
R. Total Afforestation Required	1.00
S. Total Reforestation and Afforestation Requirement	1.00

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 8-13-19
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 8-20-19
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEVELOPER'S/BUILDER'S CERTIFICATE

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

[Signature] 7-8-19
SIGNATURE OF DEVELOPER DATE

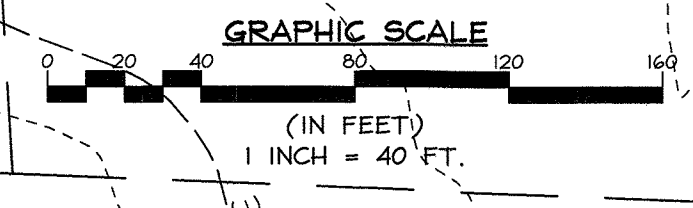
SPECIMEN TREE LIST

Number	Common name	Species	Condition	DBH	STATUS
ST-1	Tulip Poplar	Liriodendron tulipifera	Good	42"	RETAIN*
ST-2	Tulip Poplar	Liriodendron tulipifera	Good	30-37"	RETAIN*
ST-3	Tulip Poplar	Liriodendron tulipifera	Good	36"	RETAIN*
ST-4	Tulip Poplar	Liriodendron tulipifera	Good	37" x 28.5"	REMOVE**
ST-5	Tulip Poplar	Liriodendron tulipifera	Poor	43"	REMOVE**
ST-6	Tulip Poplar	Liriodendron tulipifera	Good	38.4"	REMOVE**

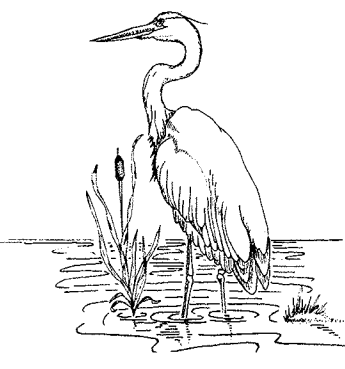
* Final determination regarding tree save status to be done by a MD Licensed Tree Expert. See Sheet 9, Management Note #6.
** Per approved waiver WP-18-048

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	SOIL GROUP	K' FACTOR
Lac	Legore silt loam, 8 to 15 percent slopes	C	0.37
Lob	Legore-Montalto-Urban land complex, 0 to 8 percent slopes	C	0.37
Ruc	Russell and Beltsville, 5 to 10 percent slopes	C	0.28
Ucb	Urban land-Chillum-Beltsville complex, 0 to 5 percent slopes	C	0.43



PLAN
Scale: 1" = 40'



Forest Conservation Plan by:
EXPLORATION RESEARCH, INC.
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS
6339 Howard Lane
Elkridge, MARYLAND 21075
Tel: 410-567-5200 Fax: 410-798-1582
E-mail: info@eshri.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. #34689, Expiration Date: 7/08/2021.

OWNER/DEVELOPER
7440 Oakland Mills Road, LLC
c/o Mr. Joe Encarnacao
19901 Belle Chase Drive
Laytonsville, Maryland 20882
Phone No. 301-252-2870

FOREST CONSERVATION AND LANDSCAPE PLAN BRICKLEY MILLS

TAX MAP 42 GRID 16
6TH ELECTION DISTRICT

PARCEL 277
HOWARD COUNTY, MARYLAND

DESIGN BY: SMH
DRAWN BY: SMH
CHECKED BY: SLH
SCALE: 1" = 40'
DATE: July 8, 2019
I.O. No.: 3948
SHEET No. 1 of 9

FSH Associates
Engineers Planners Surveyors
8339 Howard Lane, Elkridge, MD 21075
Tel: 410-567-5200 Fax: 410-798-1582
E-mail: info@fshri.com

