

SHEET INDEX table with columns SHEET NO. and DESCRIPTION. Lists 22 sheets including Title Sheet, Demolition Plan, Site Development Plan, Sediment/Erosion Control Plan, Landscape Plan, etc.

SITE DEVELOPMENT PLAN AND FOREST CONSERVATION RETENTION BANK EMMANUEL UNITED METHODIST CHURCH ZONING: R-20 (RESIDENTIAL: SINGLE) DISTRICT TAX MAP No. 46 GRID No. 11 PARCEL No. 98

SITE ANALYSIS DATA CHART

- A. TOTAL AREA OF THIS SUBMISSION = 11.44 AC.
- B. LIMIT OF DISTURBED AREA = 74,415 SQ.FT. or 1.70 AC.
- C. PRESENT ZONING DESIGNATION = R-20 (PER 10/06/2013 COMPREHENSIVE ZONING PLAN).
- D. USE: EXISTING RELIGIOUS FACILITY, PRIVATE ACADEMIC SCHOOL AND PARKING LOT. PROPOSED: 2 STORY MULTI-PURPOSE BUILDING ADDITION WITH BASEMENT AND EXPANSION OF EXISTING PARKING LOT.
- E. TOTAL FLOOR SPACE OF PROPOSED ADDITION: 6,992 SQ.FT. FIRST FLOOR: 3,129 SQ.FT. SECOND FLOOR: 3,263 SQ.FT.
- F. PARKING REQUIRED: 1 SPACE PER 3 SEATS FOR RELIGIOUS FACILITY. 222 SEATS IN FACILITY REQUIRES 74 SPACES. 1 SPACE PER 6 STUDENTS FOR PRIVATE ACADEMIC SCHOOL. MAXIMUM TOTAL ENROLLMENT IS 275 STUDENTS. A MAXIMUM OF 92 STUDENTS ON SITE AT ANY TIME REQUIRING 16 SPACES. NOTE: AS THE RELIGIOUS FACILITY AND SCHOOL OPERATE AT DIFFERENT TIMES, THE GREATER NEED OF RELIGIOUS FACILITY PARKING IS USED TO DETERMINE THE REQUIRED PARKING.
- G. PARKING PROVIDED: 118 SPACES (111 STANDARD, 7 HANDICAP) SPACES ON PARCEL 98 (SITE): 90 SPACES (87 STANDARD, 3 HANDICAP) SPACES ON ADJOINING PARCEL 365: 28 SPACES (24 STANDARD, 4 HANDICAP)
- H. OPEN SPACE ON SITE: N/A
- I. RECREATIONAL AREA PROVIDED: N/A
- J. BUILDING COVERAGE ON SITE: EXISTING CHURCH/SCHOOL ON SITE (PARCEL 98) = 2,142 SQ.FT. EXISTING HOUSE/CARPORT ON SITE (PARCEL 98) = 1,710 SQ.FT. PROPOSED SCHOOL ADDITION = 3,107 SQ.FT. TOTAL: 6,959 SQ.FT. OR 1.43 AC.
- K. PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90-66E&V, S0P-92-027, ECP-13-093, & F-16-092
- L. TOTAL AREA OF FLOODPLAIN LOCATED ON SITE: 0.09 AC.
- M. TOTAL AREA OF SLOPES IN EXCESS OF 25% = 0.37 AC.
- N. NET TRACT AREA = 10.98 AC. (TOTAL SITE AREA - FLOODPLAIN - STEEP SLOPES AREA) (11.44 AC. - 0.09 AC. - 0.37 AC.)
- O. TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.00 AC.
- P. TOTAL AREA OF FOREST = 8.92 AC.
- Q. TOTAL GREEN OPEN AREA = 1.71 AC.
- R. TOTAL IMPERVIOUS AREA = 1.21 AC.
- S. ARIAL PHOTOGRAPHS = 0.94 AC.
- T. TOTAL AREA OF STREAM ON SITE = 0.04 AC.
- U. TOTAL AREA OF STREAM BUFFER ON SITE = 0.82 AC.

GENERAL NOTES CONTINUED:

26. HEALTH DEPARTMENT APPROVAL OF THIS SITE DEVELOPMENT PLAN DOES NOT ENSURE APPROVAL OF BUILDING PERMIT APPLICATIONS ASSOCIATED WITH THIS PLAN. PLANS FOR CERTAIN FACILITIES TO BE CONSTRUCTED WITHIN THE LIMITS DESCRIBED BY THIS PLAN WILL REQUIRE REVIEW AND APPROVAL BY THE HEALTH DEPARTMENT. SUCH FACILITIES MAY INCLUDE, BUT ARE NOT LIMITED TO, THOSE WHICH HAVE SWIMMING POOLS, OR THAT SELL PREPARED OR PACKAGED FOODS, OR THAT MAY HAVE EQUIPMENT THAT SPITS EXHAUSTION.

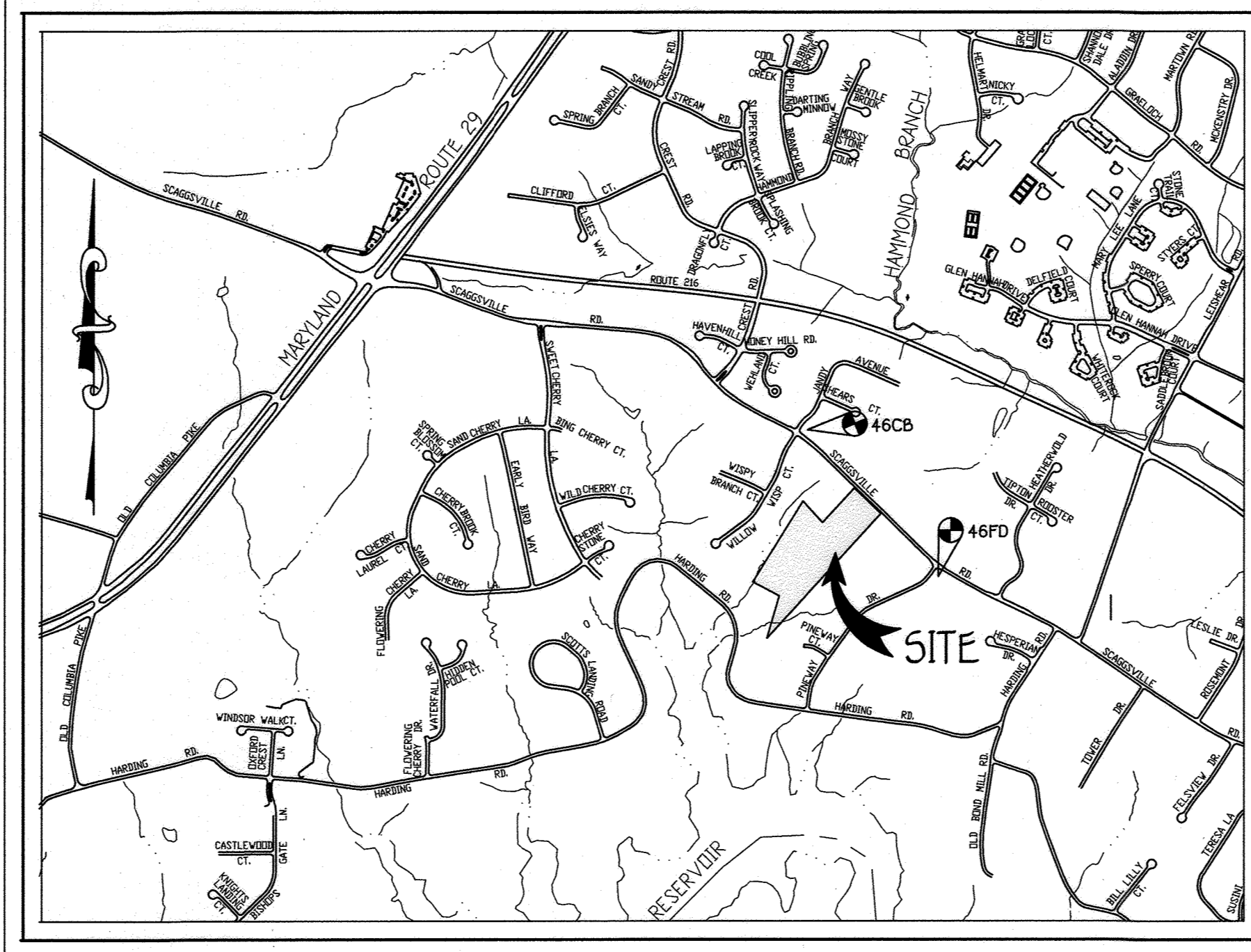
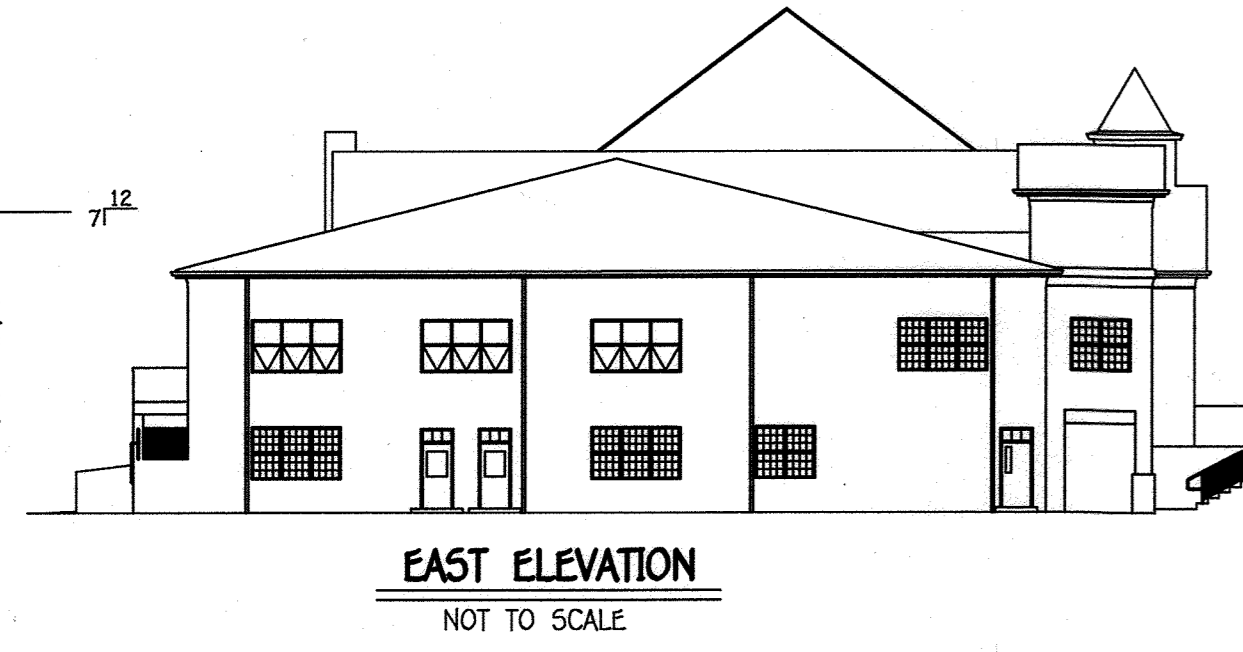
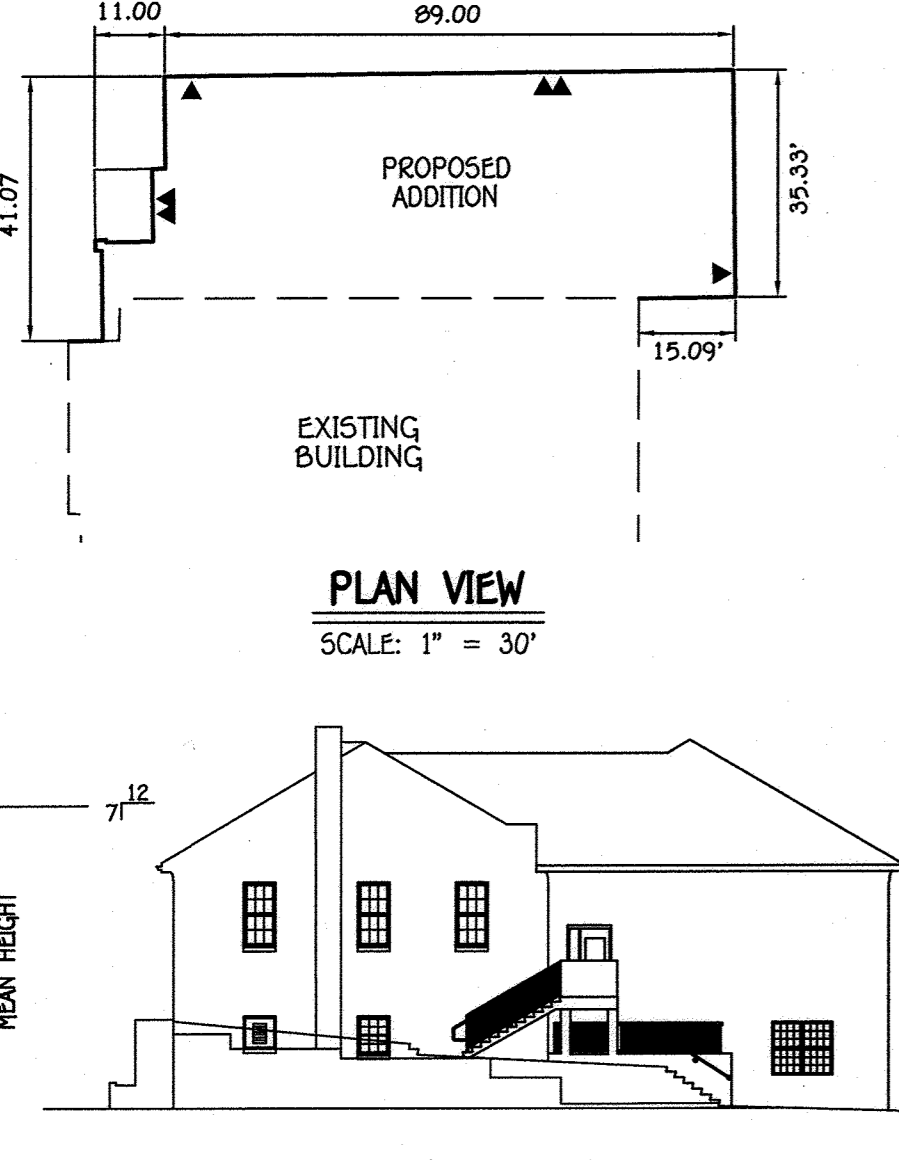
EMMANUEL UNITED METHODIST CHURCH SCHOOL BUILDING AND PARKING LOT ADDITION STORMWATER MANAGEMENT SUMMARY TABLE

Required (cf)	Provided (cf)	Required (cf)	Provided (cf)	Method
ESD, 1,820 *	2,125	356 *	485	BMP #1 Bioretention (F-6) BMP #2 Micro-Bioretention (M-6)
Re, 351	356	68	77	Storage in the aggregate below the underdrain

SUMMARY OF PEAK DISCHARGES
BMP #1: RCN = 77, tc = 0.1hr, DA = 0.89 Ac.; Imperv. Area = 0.38 Ac.
BMP #2: RCN = 75, tc = 0.1hr, DA = 0.19 Ac.; Imperv. Area = 0.07 Ac.

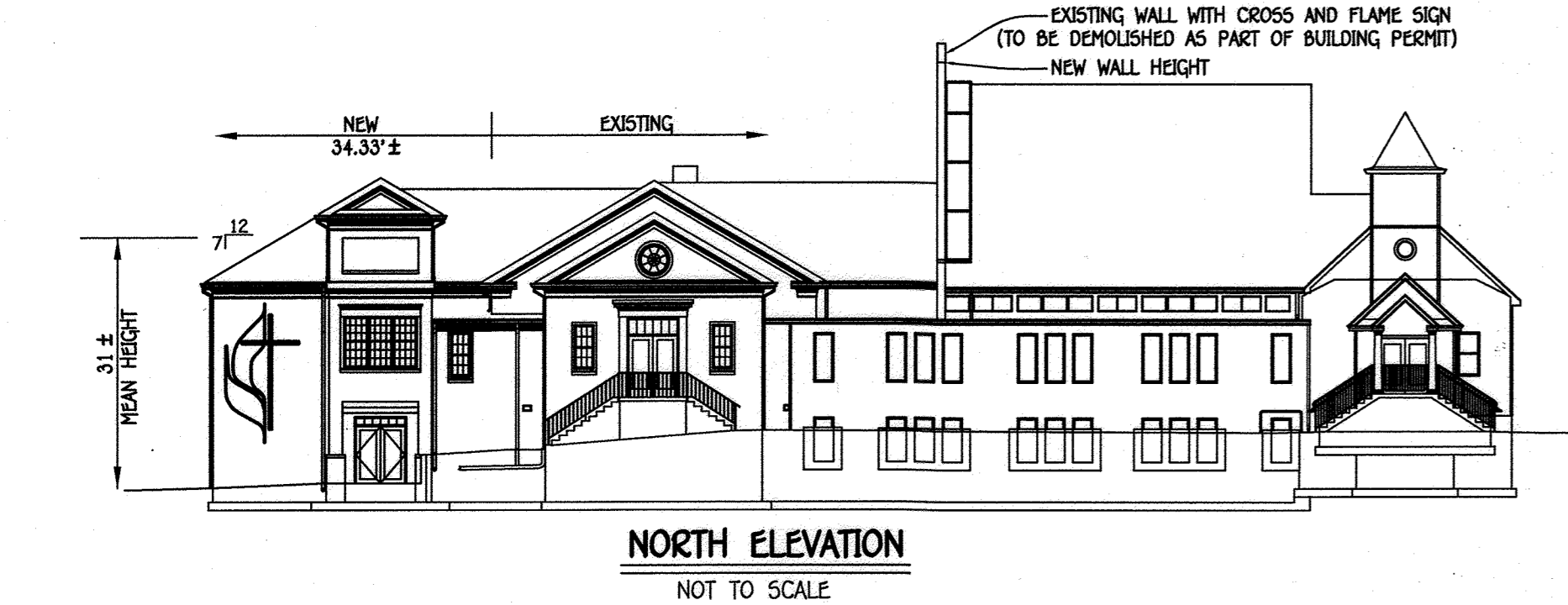
Q ₁₀	BMP #1	BMP #2
	2.7 cfs @ WSE 377.35	0.5 cfs @ WSE 382.15
Q ₁₀₀	5.4 cfs @ WSE 377.57	1.1 cfs @ WSE 382.26

* Value reflect the 75% of the calculated ESDV.



HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 46FD
N 535,892.911
E 1,345,540.016
ELEVATION: 380.053

HOWARD COUNTY GEODETIC SURVEY CONTROL NO. 46CB
N 537,123.036
E 1,344,291.370
ELEVATION: 394.768



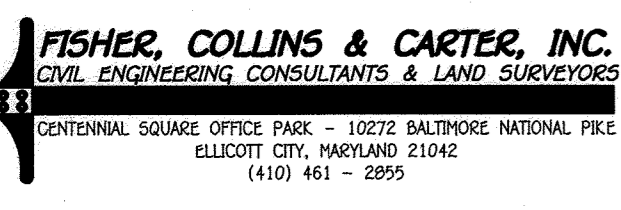
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ADDRESS CHART

PARCEL NUMBER	STREET ADDRESS
98	10755 SCAGGSVILLE ROAD

AS-BUILT CERTIFICATION for sheets 1,3,9,13-17
I hereby certify, by my seal, that the facilities shown on this plan were constructed as shown on this "AS-BUILT" plan and meet the Approved Plans and Specifications and is in accordance with the As-Built Report for BMPs #1 and #2 prepared by CIVIL DESIGN SERVICES, L.C., dated October 4, 2017. I have verified that the contributing drainage area is sufficiently stabilized to prevent clogging of the underground SWM facility.

Andrew A. Porter 11/13/17
Andrew A. Porter, PE #18888 (license expiration date 12/17/19)



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/17.

Signature of Professional Land Surveyors: [Signature]
DATE: 3/22/16

APPROVED: For Public Works and Public Services Systems.
Howard County Health Department

[Signature]
COUNTY HEALTH OFFICER

DATE: 6/7/2016

OWNER AND DEVELOPER
REVEREND STEPHANIE WADER
EMMANUEL UNITED METHODIST CHURCH
10755 SCAGGSVILLE ROAD
LAUREL, MD 20723
301-725-9200

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature]
Director - Department of Planning and Zoning
Date: 6-9-16

[Signature]
Chief, Division of Land Development
Date: 6-9-16

[Signature]
Chief, Development Engineering Division
Date: 6-12-16

PROJECT	SECTION	PARCEL NOS.
EMMANUEL UNITED METHODIST CHURCH	A	

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
23786 & 23787	11	R-20	46	SIXTH	6068.02

WATER CODE	SEWER CODE
E-18	7550000

TITLE SHEET

2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT. AND FOREST CONSERVATION RETENTION BANK EMMANUEL UNITED METHODIST CHURCH PARCEL 'A'

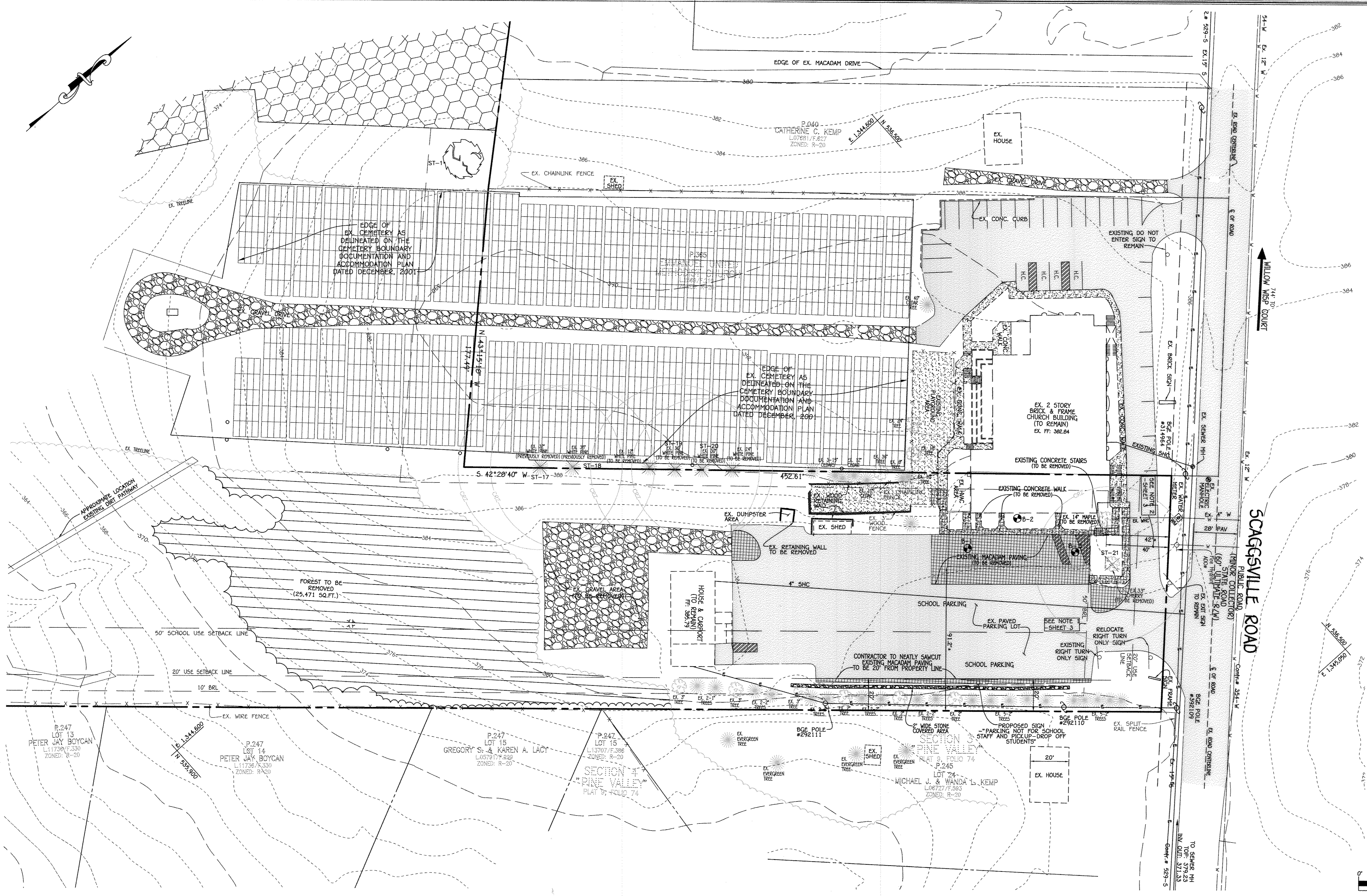
PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V S0P-92-027, ECP-13-053 & F-16-052

ZONED: R-20
TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 98
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MARCH 12, 2016
SHEET 1 OF 22

SDP-15-067

K:\Drawings\640169 Emanuel United Methodist Church\SDP-Folder\40169 SDP (SHEET).DWG 3/2/2016 8:53:35 AM, 11

LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
X X X	EXISTING CEMETERY
---	EXISTING TREE
---	EXISTING TREE (TO BE REMOVED)
---	PROPOSED TREE
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	BUILDING RESTRICTION LINE/USE SETBACK LINE
X	EXISTING CHAINLINK FENCE
---	EXISTING WOODEN FENCE
---	PROPOSED FENCE
---	PROPOSED CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
+	PROPOSED SPOT ELEVATION
---	PROPOSED CONCRETE WALK
---	PROPOSED MACADAM PAVING
---	DIVERSION FENCE
---	SUPER SILT FENCE
---	EXISTING CONCRETE WALK
---	EXISTING RETAINING WALL
X X X	EXISTING CEMETERY
---	PROPOSED LIGHT POLE
---	APPROXIMATE AREA OF DEMOLITION
---	15X-24.9% SLOPES
---	25X SLOPES OR GREATER
---	DENOTES PROPOSED RETAINING WALL
---	DENOTES EXISTING RETAINING WALL
---	FOREST EXISTING BOUNDARY
F-1	FOREST STAND LABEL
ST-1	SPECIMEN TREE

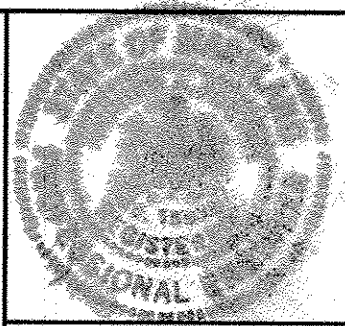


FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 451-2295

NO.	REVISION	DATE

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/17.


Andrew C. Porter, P.E.
 Signature of Professional Land Surveyor DATE: 11/13/17

OWNER AND DEVELOPER

REVEREND STEPHANIE VADER
 EMMANUEL UNITED
 METHODIST CHURCH
 10755 SCAGGSVILLE ROAD
 LAUREL, MD 20723
 301-725-5200

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Howard County Seal
 Director - Department of Planning and Zoning Date: 6-9-16
 Chief, Division of Land Development Date: 6-9-16
 Chief, Development Engineering Division Date: 5-12-16

PROJECT	SECTION	PARCEL NOS.			
EMMANUEL UNITED METHODIST CHURCH	-	A			
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
23-786-4	11	R-20	46	SIXTH	6068.02
WATER CODE	SEWER CODE				
E-18	7550000				

DEMOLITION PLAN

2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT.
 AND FOREST CONSERVATION RETENTION BANK
**EMMANUEL UNITED
 METHODIST CHURCH**
 PARCEL 'A'

PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
 SDP-92-027, ECP-13-053 & F-16-052

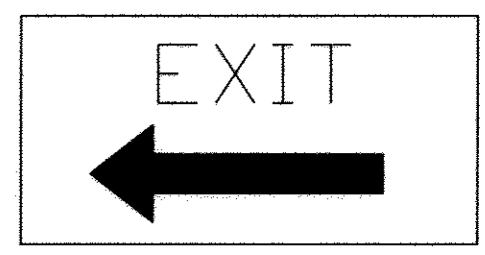
ZONED: R-20 PARCEL NO.: 98
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1"=30' DATE: MARCH 12, 2016

SHEET 2 OF 22 SDP-15-067

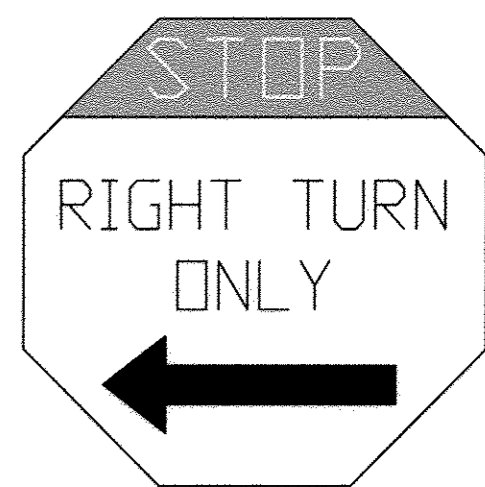
LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING CEMETERY
---	EXISTING TREE
---	PROPOSED TREE
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	BUILDING RESTRICTION LINE/USE SETBACK LINE
---	EXISTING CHAINLINK FENCE
---	EXISTING WOODEN FENCE
---	PROPOSED FENCE
---	PROPOSED CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
---	PROPOSED SPOT ELEVATION
---	PROPOSED CONCRETE WALK
---	PROPOSED MACADAM PAVING
---	DIVERSION FENCE
---	SUPER SILT FENCE
---	EXISTING CONCRETE WALK
---	EXISTING RETAINING WALL
---	EXISTING CEMETERY
---	PROPOSED LIGHT POLE
---	APPROXIMATE AREA OF DEMOLITION
---	15% - 24.9% SLOPES
---	25% SLOPES OR GREATER
---	DENOTES PROPOSED RETAINING WALL
---	DENOTES EXISTING RETAINING WALL
---	FOREST STAND BOUNDARY
---	FOREST STAND LABEL
---	SPECIMEN TREE

NOTES

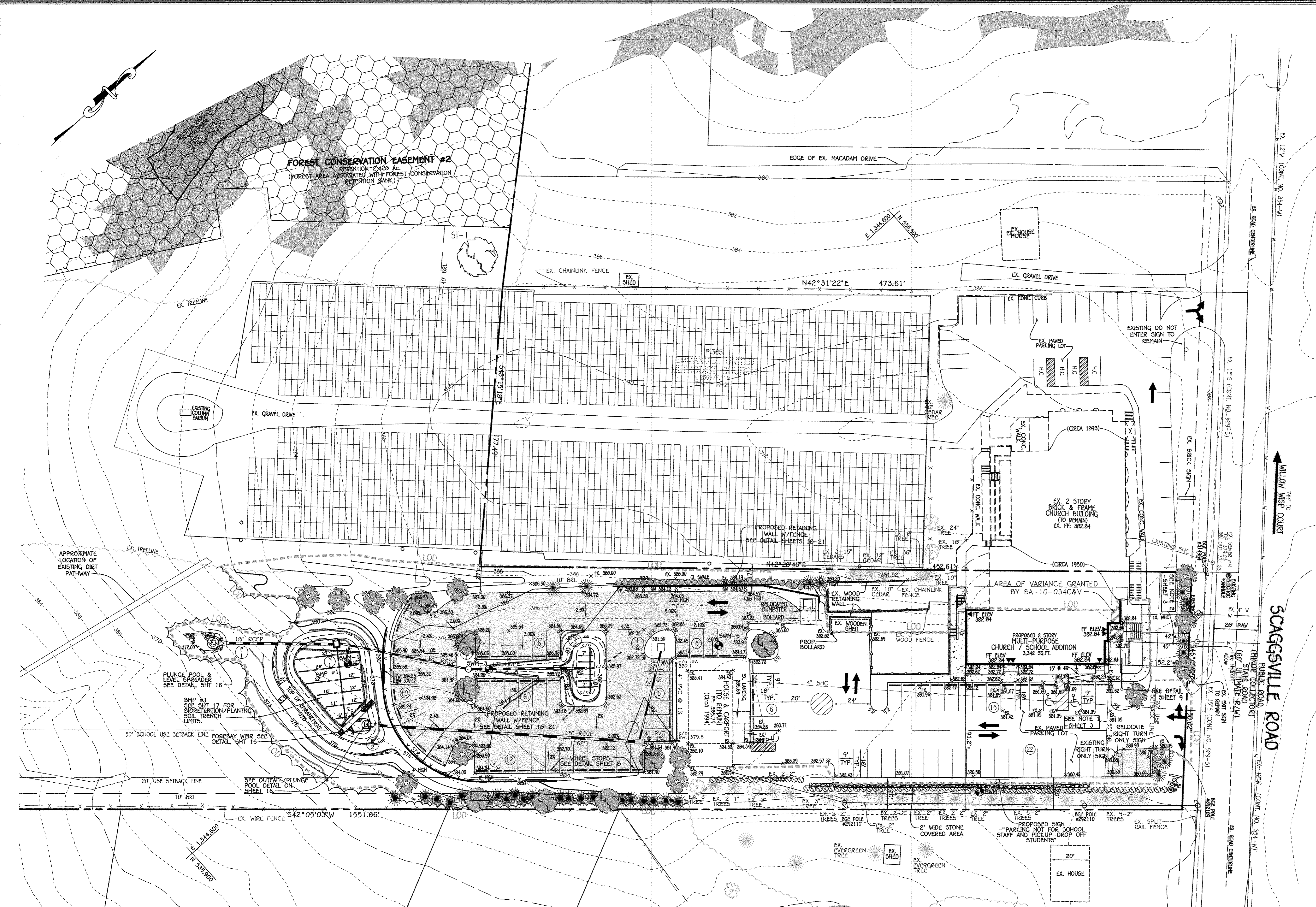
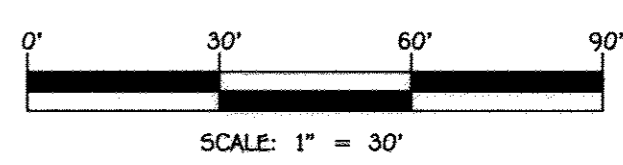
1. THE 50 FOOT SETBACK FROM SCAGGSVILLE ROAD (MAJOR COLLECTOR) EXTENDS ACROSS THE ENTIRE FRONTAGE OF PARCEL 9B.
2. THE 40 FOOT SETBACK APPROVED WITH BA-10-034 CAV IS FOR A REDUCTION OF THE FRONT 50 FOOT SETBACK ASSOCIATED ONLY WITH THE BUILDING ADDITION CLOSEST TO SCAGGSVILLE ROAD APPROVED WITH BA-10-034 CAV APPROVED ON JUNE 6, 2011 AND LISTED AS GENERAL NOTE NO. 18, BA-10-034CAV, ITEM NO.13.



EXISTING "EXIT" SIGN TO REMAIN



EXISTING "RIGHT TURN ONLY" SIGN TO REMAIN



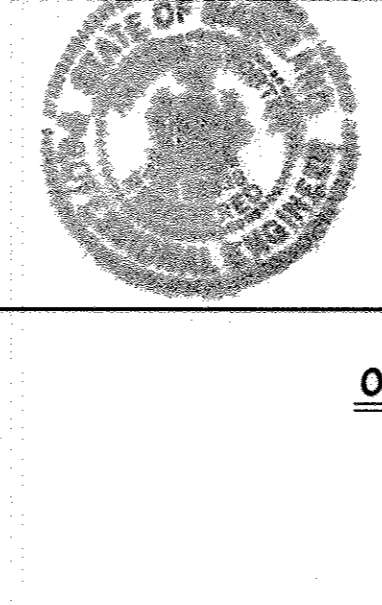
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLETTT CITY, MARYLAND 21042
 (410) 461-2895

NO.	REVISION	DATE



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/17.

Stephanie Vader 3/23/16
 Signature of Professional Land Surveyors DATE



SEE SHT 1 FOR AS-BUILT CERTIFICATION

Andrew G. Porter
 Director - Department of Planning and Zoning

OWNER AND DEVELOPER
 REVEREND STEPHANIE VADER
 EMMANUEL UNITED METHODIST CHURCH
 10755 SCAGGSVILLE ROAD
 LAUREL, MD 20723
 301-725-5200

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

N. Williams 6-9-16
 Director - Department of Planning and Zoning Date

K. Williams 6-9-16
 Chief, Division of Land Development Date

A. Williams 5-12-16
 Chief, Development Engineering Division Date

PROJECT	SECTION	PARCEL NOS.
EMMANUEL UNITED METHODIST CHURCH		A

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
23786	11	R-20	46	SIXTH	6068.02

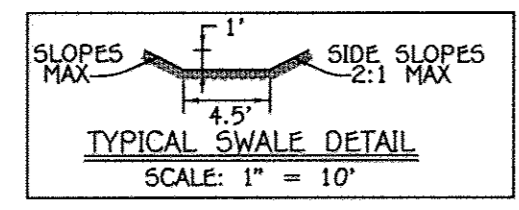
WATER CODE	SEWER CODE
E-10	7550000

SITE DEVELOPMENT PLAN

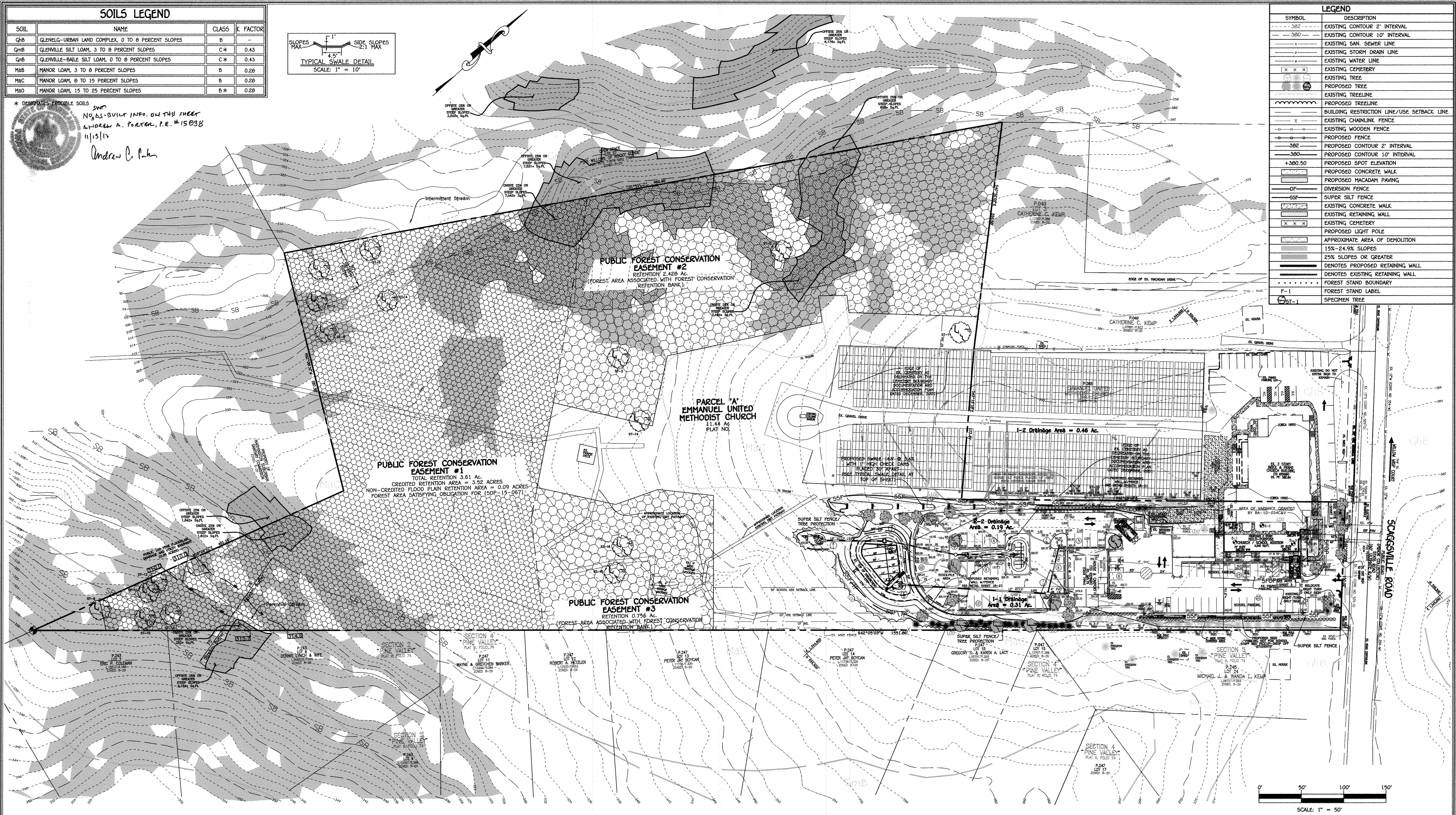
2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT. AND FOREST CONSERVATION RETENTION BANK
EMMANUEL UNITED METHODIST CHURCH
 PARCEL 'A'
 PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
 5DP-92-027, ECP-13-053 & F-16-052
 ZONED: R-20
 TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 9B
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1"=30' DATE: MARCH 12, 2016
 SHEET 3 OF 22 SDP-15-067

SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
GhB	GLENELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	B	-
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C-K	0.43
GhD	GLENVILLE-BALE SILT LOAM, 0 TO 8 PERCENT SLOPES	C-K	0.43
MdB	MANOR LOAM, 3 TO 8 PERCENT SLOPES	B	0.28
MbC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	0.28
MbD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B-K	0.28

* DESIGNATES POSSIBLE SOILS SWP
 NQAS-BUILT INFO. ON THIS SHEET
 BY HOWARD A. PORTER, P.E. #15038
 11/15/14
 Andrew C. Kemp



LEGEND	
SYMBOL	DESCRIPTION
--- 382 ---	EXISTING CONTOUR 2' INTERVAL
--- 380 ---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
X X X	EXISTING CEMETERY
○	EXISTING TREE
○	PROPOSED TREE
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	BUILDING RESTRICTION LINE/USE SETBACK LINE
X	EXISTING CHAINLINK FENCE
---	EXISTING WOODEN FENCE
---	PROPOSED FENCE
---	PROPOSED CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
+380.50	PROPOSED SPOT ELEVATION
---	PROPOSED CONCRETE WALK
---	PROPOSED MACADAM PAVING
---	DIVERSION FENCE
---	SUPER SILT FENCE
---	EXISTING CONCRETE WALK
---	EXISTING RETAINING WALL
X X X	EXISTING CEMETERY
---	PROPOSED LIGHT POLE
---	APPROXIMATE AREA OF DEMOLITION
---	15%-24.9% SLOPES
---	25% SLOPES OR GREATER
---	DENOTES PROPOSED RETAINING WALL
---	DENOTES EXISTING RETAINING WALL
---	FOREST STAND BOUNDARY
F-1	FOREST STAND LABEL
○-1	SPECIMEN TREE



NO.	REVISION	DATE

AS-BUILT	



PROFESSIONAL CERTIFICATE
 "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
 Signature of Professional: Frank John Manalansan II
 Date: 3/27/16

BUILDER'S CERTIFICATE
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, FOR SEDIMENT AND EROSION CONTROL AND THAT ANY 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 of Builder: Rev. Stephanie Vader
 Date: 3/24/16

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: John R. Roberts
 Date: 4/28/16
 HOWARD SCD

OWNER AND DEVELOPER
 REVEREND STEPHANIE VADER
 EMMANUEL UNITED METHODIST CHURCH
 10755 SCAGGSVILLE ROAD
 LAUREL, MD 20723
 301-725-5200

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Signature: William J. Miller
 Director - Department of Planning and Zoning
 Date: 6-9-16

Signature: [Signature]
 Chief, Division of Land Development
 Date: 6-9-16

Signature: [Signature]
 Chief, Development Engineering Division
 Date: 5-12-16

PROJECT	EMMANUEL UNITED METHODIST CHURCH	SECTION	-	PARCEL NOS.	A
PLAT	23786 & 23787	BLOCK NO.	11	ZONE	R-20
TAX/ZONE	46	ELEC. DIST.	SIXTH	CENSUS TR.	6068.02
WATER CODE	E-1B	SEWER CODE	7550000		

SEDIMENT/EROSION CONTROL PLAN AND SOILS MAP

2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT. AND FOREST CONSERVATION RETENTION BANK
EMMANUEL UNITED METHODIST CHURCH
 PARCEL 'A'

PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V 5DP-92-027, ECP-13-053 & F-16-052

ZONED: R-20
 TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 98
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1"=50'
 DATE: MARCH 12, 2016
 SHEET 4 OF 22

K:\Drawings-140169 Emanuel United Methodist Church\SDP Folder\410169 SDP SHEET4 SEC 9-26-14.dwg 3/27/2016 8:47:50 AM, 11

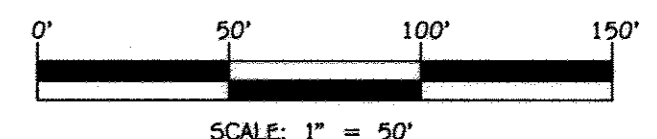
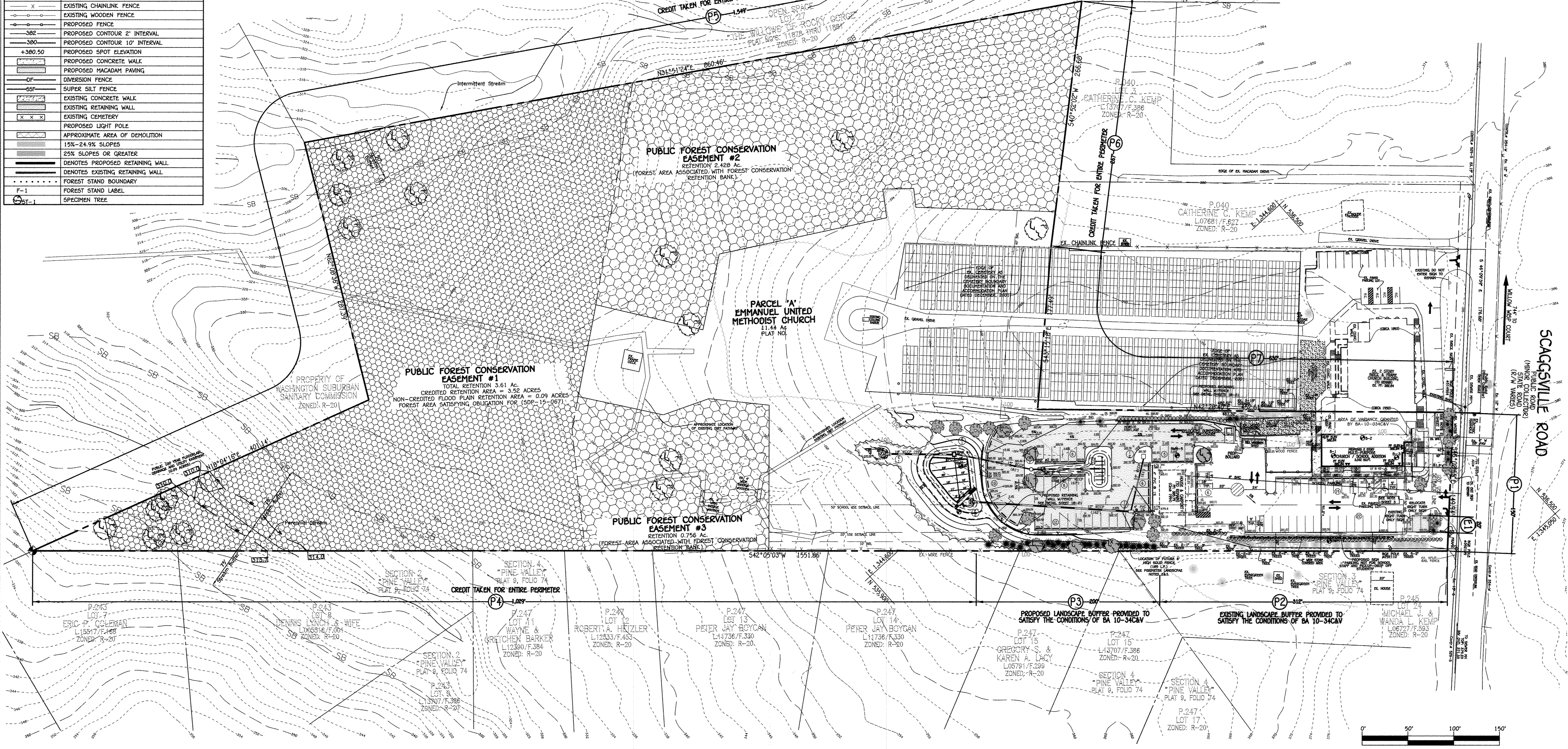
SYMBOL	DESCRIPTION
---382---	EXISTING CONTOUR 2' INTERVAL
---380---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
X X X	EXISTING CEMETERY
X X X	EXISTING TREE/SPECIMEN TREE
(X)	PROPOSED TREE
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	BUILDING RESTRICTION LINE/USE SETBACK LINE
X	EXISTING CHAINLINK FENCE
X	EXISTING WOODEN FENCE
---	PROPOSED FENCE
---382---	PROPOSED CONTOUR 2' INTERVAL
---380---	PROPOSED CONTOUR 10' INTERVAL
+380.50	PROPOSED SPOT ELEVATION
---	PROPOSED CONCRETE WALK
---	PROPOSED MACADAM PAVING
---	DIVERSION FENCE
---	SUPER SILT FENCE
---	EXISTING CONCRETE WALK
---	EXISTING RETAINING WALL
X X X	EXISTING CEMETERY
(X)	PROPOSED LIGHT POLE
---	APPROXIMATE AREA OF DEMOLITION
---	15%-24.9% SLOPES
---	25% SLOPES OR GREATER
---	DENOTES PROPOSED RETAINING WALL
---	DENOTES EXISTING RETAINING WALL
---	FOREST STAND BOUNDARY
F-1	FOREST STAND LABEL
ST-1	SPECIMEN TREE

LANDSCAPE DEVELOPER'S CERTIFICATE

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

Rev. *Stephanus Vaden* 3/24/16
 DEVELOPER DATE

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT.



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21142
 (410) 461 - 2895

NO.	REVISION	DATE



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/17.

Andrew C. Porter 3/24/16
 Signature Of Professional Land Surveyors DATE

NO SWM AS-BUILT INFO ON THIS SHEET
 ANDREW A. PORTER, P.E. #15838
 11/15/17

Andrew C. Porter

OWNER AND DEVELOPER
 REVEREND STEPHANUS VADEN
 EMMANUEL UNITED METHODIST CHURCH
 10755 SCAGGSVILLE ROAD
 LAUREL, MD 20723
 301-725-5200

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Valdis Jell 6-9-16
 Director - Department of Planning and Zoning Date

Kathleen 6-9-16
 Chief, Division of Land Development Date

W. J. ... 5-12-16
 Chief, Development Engineering Division Date

PROJECT	SECTION	PARCEL NOS.
EMMANUEL UNITED METHODIST CHURCH	-	A

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
2378	11	R-20	46	SIXTH	6068.02

WATER CODE	SEWER CODE
E-18	7550000

LANDSCAPE PLAN

2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT. AND FOREST CONSERVATION RETENTION BANK
EMMANUEL UNITED METHODIST CHURCH
 PARCEL 'A'

PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
 SDP-92-027, ECP-13-053 & F-16-052
 ZONED: R-20

TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 98
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1"=50' DATE: MARCH 12, 2016
 SHEET 6 OF 22 SOP-15-067

SCHEDULE A - PERIMETER LANDSCAPE EDGE

PERIMETER	P1	P2 - SEE NOTE #1	P3 SEE NOTE #2	P4	P5	P6	P7	E1
CATEGORY	ADJACENT TO ROADWAY (NON-RES TO ROW)	ADJACENT TO PERIMETER PROPERTIES (NON-RES TO RES)	ADJACENT TO PERIMETER PROPERTIES (NON-RES TO RES)	ADJACENT TO PERIMETER PROPERTIES (NON-RES TO RES)	ADJACENT TO PERIMETER PROPERTIES (NON-RES TO NON-RES)	ADJACENT TO PERIMETER PROPERTIES (NON-RES TO RES)	ADJACENT TO PERIMETER PROPERTIES (NON-RES TO NON-RES)	ADJACENT TO ADJACENT ROADWAY
LANDSCAPE TYPE	B	C - ENHANCED	D	B	A	B	A	E
LINEAR FEET OF PERIMETER	150 L.F.	312 L.F.	200 L.F.	1,029 L.F.	1,549 L.F.	267 L.F.	630 L.F.	20 L.F.
CREDIT FOR EXISTING VEGETATION LINEAR FEET (L.F.) OF CREDIT REMAINING PERIMETER (L.F.)	N/A	SEE NOTE 1	N/A	1,029 L.F. OF EX. TREES TO REMAIN	1,549 L.F. OF EX. TREES TO REMAIN	267 L.F. OF EX. TREES TO REMAIN	N/A	N/A
NUMBER OF PLANTS REQUIRED	7 (150/20 = 3)	24 (312/14 = 22.3 OR 23)	24 (200/8 = 25)	N/A	N/A	N/A	11 (630/60 = 10.5 OR 11)	1 (20/20 = 1)
SHADE TREES	0	6	3	0	0	0	3	0
EVERGREEN TREES	0	20	21	0	0	0	6	0
SHRUBS	0	74	74	0	0	0	0	0
CREDIT FOR EXISTING VEGETATION	0	YES	SEE GENERAL NOTE #3	0	0	0	YES	0
SHADE TREES	0	0	0	0	0	0	3	0
SMALL/MEDIUM DECIDUOUS OR EVERGREEN TREES (2:1 SUBSTITUTION)	0	0	0	0	0	0	6	0
NUMBER OF PLANTS PROVIDED	3	0	3	0	0	0	0	0
SHADE TREES	0	0	0	0	0	0	0	0
SMALL/MEDIUM DECIDUOUS OR EVERGREEN TREES (2:1 SUBSTITUTION)	0	0	0	0	0	0	0	0
SHRUBS (10:1 SUBSTITUTION)	0	0	0	0	0	0	0	0

PERIMETER LANDSCAPE NOTES:
 1. CREDIT FOR LANDSCAPE PERIMETER P-2 IS BEING TAKEN FOR THE "REPLACEMENT LANDSCAPING FOR SOP-92-027" TO MEET THE REQUIREMENTS OF BOA 10-034C&V. THIS ENHANCED BUFFER WAS PROVIDED TO PARTIALLY FULFILL LINNET PLANTING OBLIGATIONS GENERATED BY SOP-92-027 WITH THE ADDITION OF SHRUBS TO PROVIDE ENHANCED BUFFERING DUE TO REDUCED SETBACKS APPROVED UNDER BOA 10-034C&V.
 2. ACCORDANCE WITH BOA 10-034C&V, PERIMETER "P-3" HAS BEEN SPECIFIED AS A "10' BUFFER ALONG EXPECTED LOCATION OF FUTURE BUILDING TO PROVIDE ENHANCED BUFFERING WITH A SOLID FENCE REQUIRED FOR REDUCING THE LANDSCAPE BUFFER TO 10' WIDE.
 3. NO CREDIT REQUIRED FOR THE 10' BUFFER. A 195 L.F. FENCE WILL BE PROVIDED IN PHASE 2, IN ACCORDANCE WITH BOA 10-034C&V.
 4. AS A CONDITION OF APPROVAL WITH WP-16-033, TEN (10) ADDITIONAL TREES HAVE BEEN PROVIDED.

NOTES

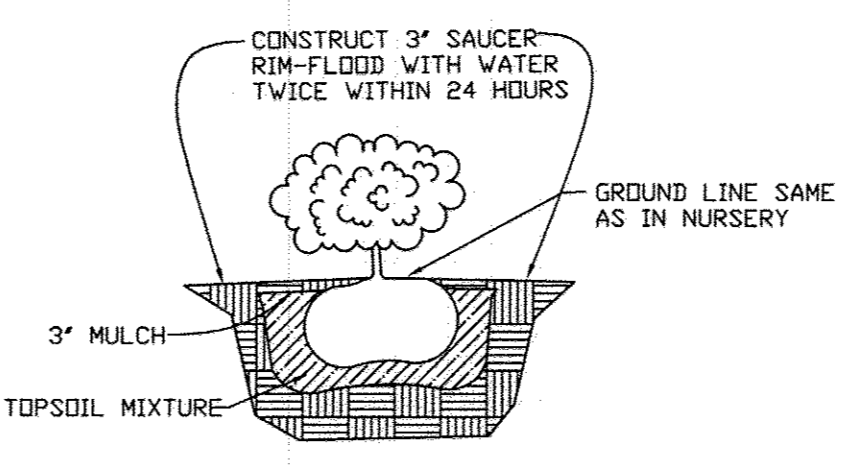
- THE PERIMETER LANDSCAPE OBLIGATION IS REQUIRED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A LANDSCAPE SURETY IN THE AMOUNT OF \$12,000.00 BASED ON (27) SHADE TREES @ \$300/SHADE TREE, (25) EVERGREEN TREES @ \$150/EVERGREEN TREE, AND (5) SHRUBS @ \$30/SHRUB SHALL BE BONDED AS PART OF THE DPW DEVELOPERS AGREEMENT. THIS SURVEY INCLUDES 10 ADDITIONAL TREES REQUIRED BY WP-16-033 AND F-16-052.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH 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.

LANDSCAPING PLANT LIST (SCHEDULE A, B & C)

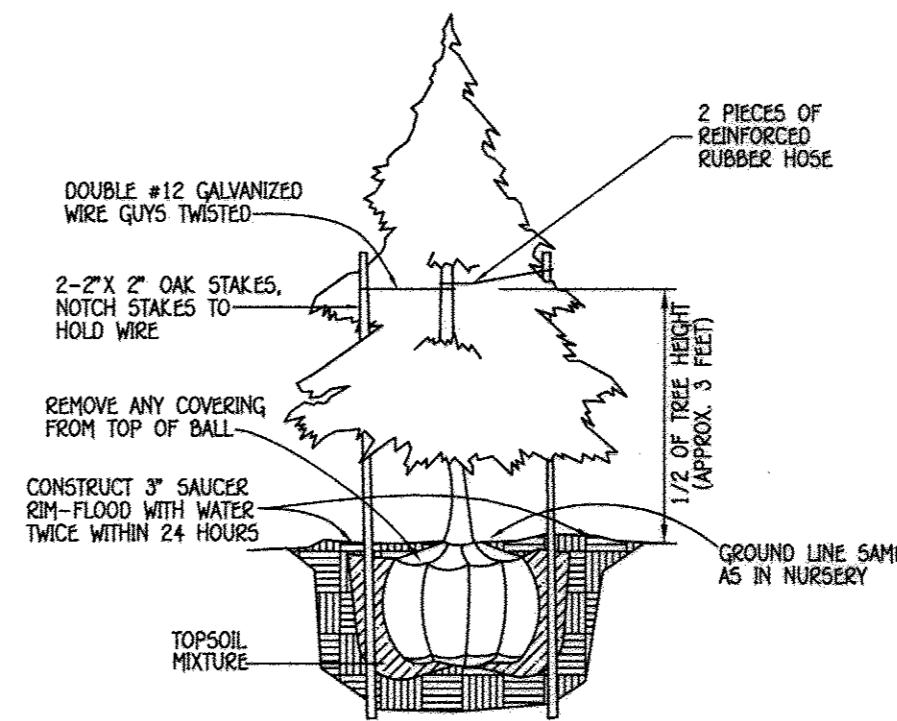
SYMBOL	QUANTITY	BOTANICAL AND COMMON NAME	SIZE	COMMENTS
	8	QUERCUS PALUSTRIS (PIN OAK)	2 - 2 1/2" CAL.	
	13	ACER GRISEUM PAPERBARK MAPLE	1 1/2" - 2" CAL.	TO BE PLANTED IN BGE "GREEN ZONE"
	21	THUJA PLICATA 'GREEN GIANT' GREEN GIANT ARBOREVITAE	6'-8' HT.	
	10	ILEX ATTENUATA 'FOSTERII' FOSTER HOLLY	5'-6' HT.	TO BE PLANTED IN BGE "GREEN ZONE" AND WITHIN 20' CEMETERY
	35	PRUNUS LAUROCERASUS 'OTTO LUYKEN' OTTO LUYKEN CHERRY LAUREL	1 - 1 1/2" CAL.	

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

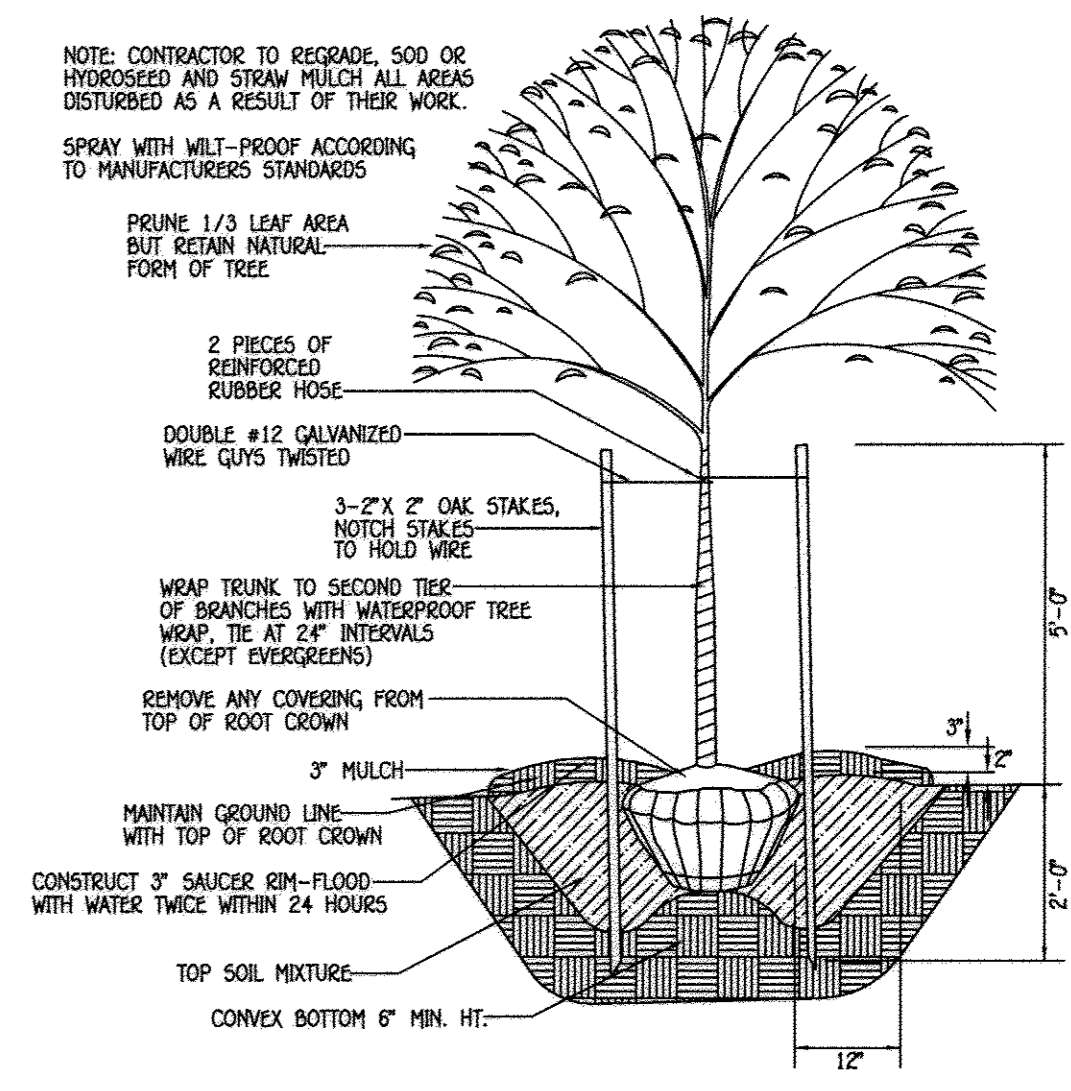
NUMBER OF NEW PARKING SPACES	45
NUMBER OF TREES REQUIRED (1:10)	4.5
NUMBER OF TREES PROVIDED	5
SHADE TREES	
OTHER TREES (2:1 SUBSTITUTE)	



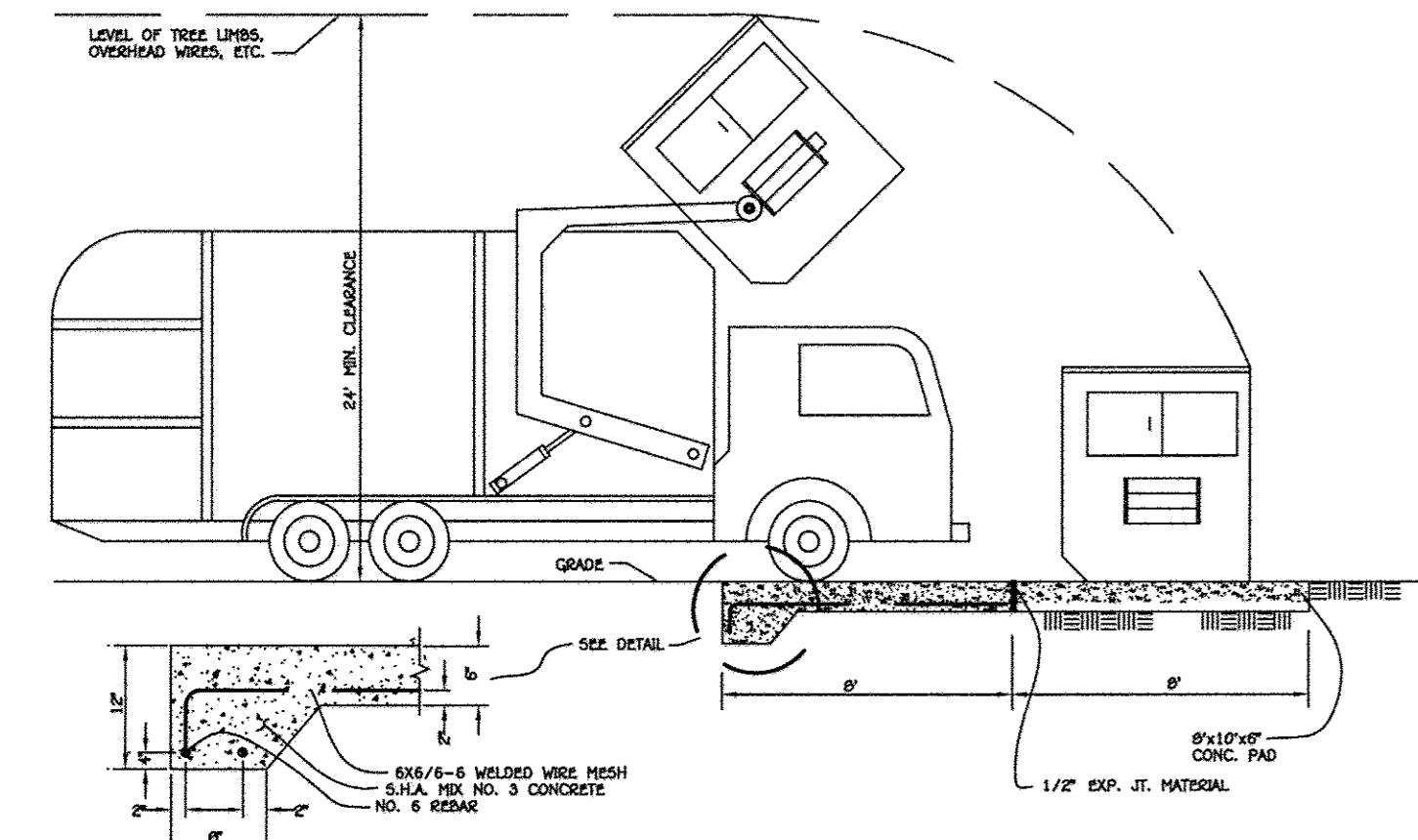
SHRUB PLANTING DETAIL
NOT TO SCALE



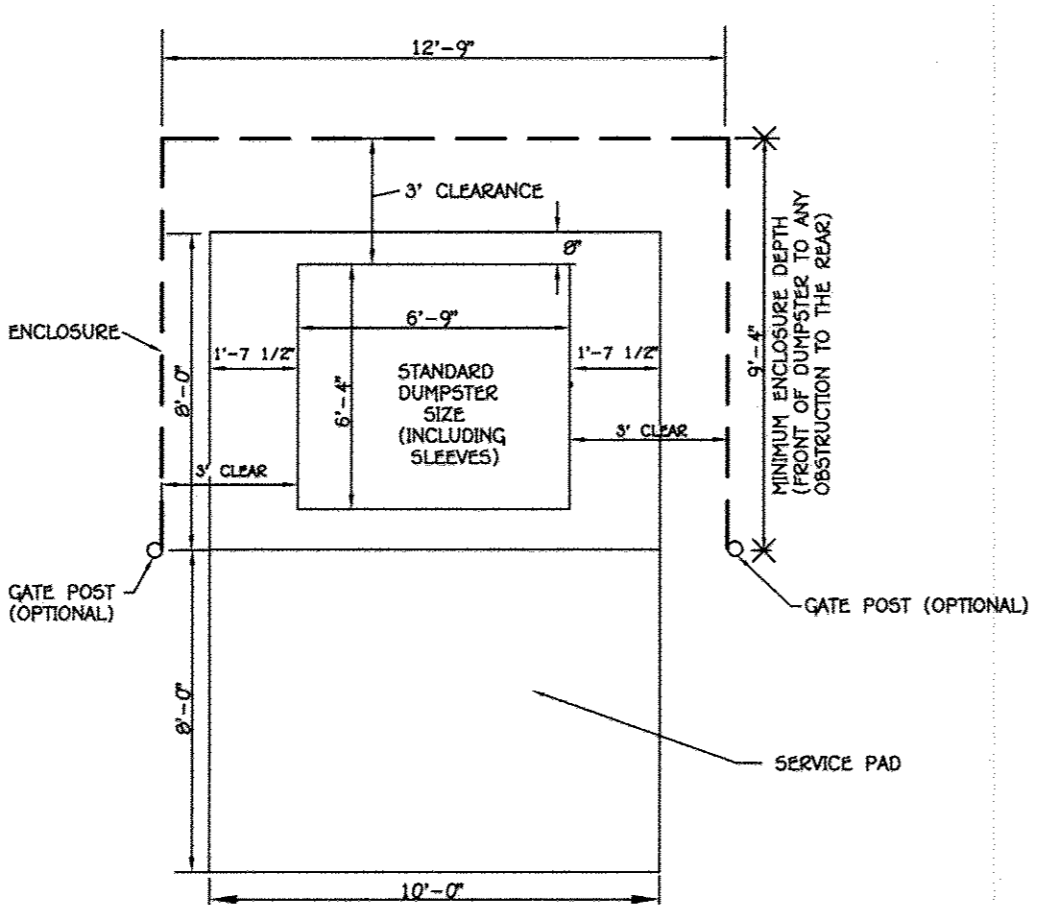
EVERGREEN PLANTING DETAIL
NOT TO SCALE



TREE PLANTING DETAIL
NOT TO SCALE



SOLID WASTE SERVICE PAD
NOT TO SCALE



SOLID WASTE CONTAINER ENCLOSURE
NOT TO SCALE

PLANTING SPECIFICATIONS

PLANTS, RELATED MATERIAL, AND OPERATIONS SHALL MEET THE DETAILED DESCRIPTION AS GIVEN ON THE PLANS AND AS DESCRIBED HEREIN.
 ALL PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE NURSERY GROWN, UNIFORMLY BRANCHED, HAVE A VIGOROUS ROOT SYSTEM, AND SHALL CONFORM TO THE SPECIES, SIZE, ROOT AND SHAPE SHOWN ON THE PLANT LIST AND THE AMERICAN ASSOCIATION OF NURSERMEN (AAN) STANDARDS. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISEASE, DISTURBED ROOTS, SUN SCALD INJURIES, ASSAULTS OF THE BARK, PLANT DISEASE, INSECT FEED DAMAGE, BOGERS AND ALL FORMS OF INSECT INFESTATIONS OR DIRECTIONABLE DEFOLIATIONS. PLANT MATERIAL THAT IS WEAKE, OR WHICH HAS BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED. TREES WITH FORKED LEADERS WILL NOT BE ACCEPTED. ALL PLANTS SHALL BE FRESHLY DUG; NO HEALED-IN PLANTS FROM COLD STORAGE WILL BE ACCEPTED.
 UNLESS OTHERWISE SPECIFIED, ALL GENERAL CONDITIONS, PLANTING OPERATIONS, DETAILS AND PLANTING SPECIFICATION SHALL CONFORM TO "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREA" (HEREINAFTER "LANDSCAPE GUIDELINES") APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE POTOMAC CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECT, LATEST EDITION, INCLUDING ALL AGENDA.
 CONTRACTOR SHALL BE REQUIRED TO GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE IN ACCORDANCE WITH THE APPROPRIATE SECTION OF THE LANDSCAPE GUIDELINES. CONTRACTOR'S ATTENTION IS DIRECTED TO THE MAINTENANCE REQUIREMENTS FOUND WITHIN THE ONE YEAR SPECIFICATIONS INCLUDING WATERING AND REPLACEMENT OF SPECIFIED PLANT MATERIAL.
 CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES, UTILITY CONTRACTORS AND "MIS UTILITY" A MINIMUM OF 48 HOURS PRIOR TO BEGINNING ANY WORK. CONTRACTOR MAY MAKE MINOR ADJUSTMENTS IN SPACING AND LOCATION OF PLANT MATERIAL TO AVOID CONFLICTS WITH UTILITIES. DAMAGE TO EXISTING STRUCTURE AND UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
 PROTECTION OF EXISTING VEGETATION TO REMAIN SHALL BE ACCOMPLISHED BY THE TEMPORARY INSTALLATION OF 4 FOOT HIGH SNOW FENCE OR BLAZE ORANGE SAFETY FENCE AT THE DRIP LINE.
 CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL MATERIAL IN THE PROPER PLANTING SEASON FOR EACH PLANT TYPE. ALL PLANTING IS TO BE COMPLETED WITHIN THE GROWING SEASON OF COMPLETION OF SITE CONSTRUCTION.
 BID SHALL BE BASED ON ACTUAL SITE CONDITIONS. NO EXTRA PAYMENT SHALL BE MADE FOR WORK ARISING FROM SITE CONDITIONS DIFFERING FROM THOSE INDICATED ON DRAWINGS AND SPECIFICATIONS.
 PLANT QUANTITIES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN TAKE PRECEDENCE.
 ALL SHRUBS SHALL BE PLANTED IN CONTINUOUS TRENCHES OR PREPARED PLANTING BEDS AND MULCHED WITH COMPOSTED HARDWOOD MULCH AS DETAILS AND SPECIFIED EXCEPT WHERE NOTED ON PLANS.
 POSITIVE DRAINAGE SHALL BE MAINTAINED IN PLANTING BEDS 2 PERCENT SLOPE.
 PLANTING MIX SHALL BE AS FOLLOWS: DECIDUOUS PLANTS - TWO PARTS TOPSOIL, ONE PART WELL-ROTTED COW OR HORSE MANURE, ADD 3 LBS. OF STANDARD FERTILIZER PER CUBIC YARD OF PLANTING MIX. EVERGREEN PLANTS - TWO PARTS TOPSOIL, ONE PART HUMUS OR OTHER APPROVED ORGANIC MATERIAL. ADD 3 LBS. OF EVERGREEN (ACIDIC) FERTILIZER PER CUBIC YARD OF PLANTING MIX. TOPSOIL SHALL CONFORM TO THE LANDSCAPE GUIDELINES.
 WEED CONTROL: INCORPORATE A PRE-EMERGENT HERBICIDE INTO THE PLANTING BED FOLLOWING RECOMMENDED RATES ON THE LABEL. CAUTION: BE SURE TO CAREFULLY CHECK THE CHEMICAL USED TO ASSURE ITS ADAPTABILITY TO THE SPECIFIC GROUND COVER TO BE TREATED.
 ALL AREAS WITHIN CONTRACT LIMITS DISTURBED DURING OR PRIOR TO CONSTRUCTION NOT DESIGNATED TO RECEIVE PLANTS AND MULCH SHALL BE FINE GRADED AND SEEDED.
 THIS PLAN IS INTENDED FOR LANDSCAPE USE ONLY. SEE OTHER PLAN SHEETS FOR MORE INFORMATION ON GRADING, SEDIMENT CONTROL, LAYOUT, ETC.

LANDSCAPE DEVELOPER'S CERTIFICATE

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

Rev. Stephanie Vader 3/24/16
 DEVELOPER DATE

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISION OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT.

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Frank A. Marbury Jr. 3/22/16
 Signature Of Professional Land Surveyors DATE



NO AS-BUILT INFO FOR SWM ON THIS SHEET
 ANDREW A. PORTTEL, P.E. #15638
 11/13/12

OWNER AND DEVELOPER
 REVEREND STEPHANIE VADER
 EMMANUEL UNITED METHODIST CHURCH
 10755 SCARSDVILLE ROAD
 LAUREL, MD 20723
 301-725-5200

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

William J. Jolin 6-9-16
 Director - Department of Planning and Zoning Date

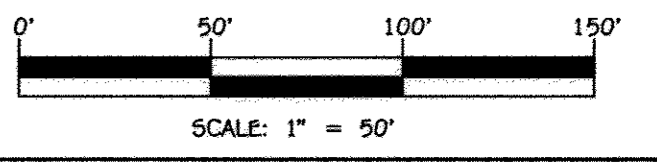
Vestil Johnson 6-9-16
 Chief, Division of Land Development Date

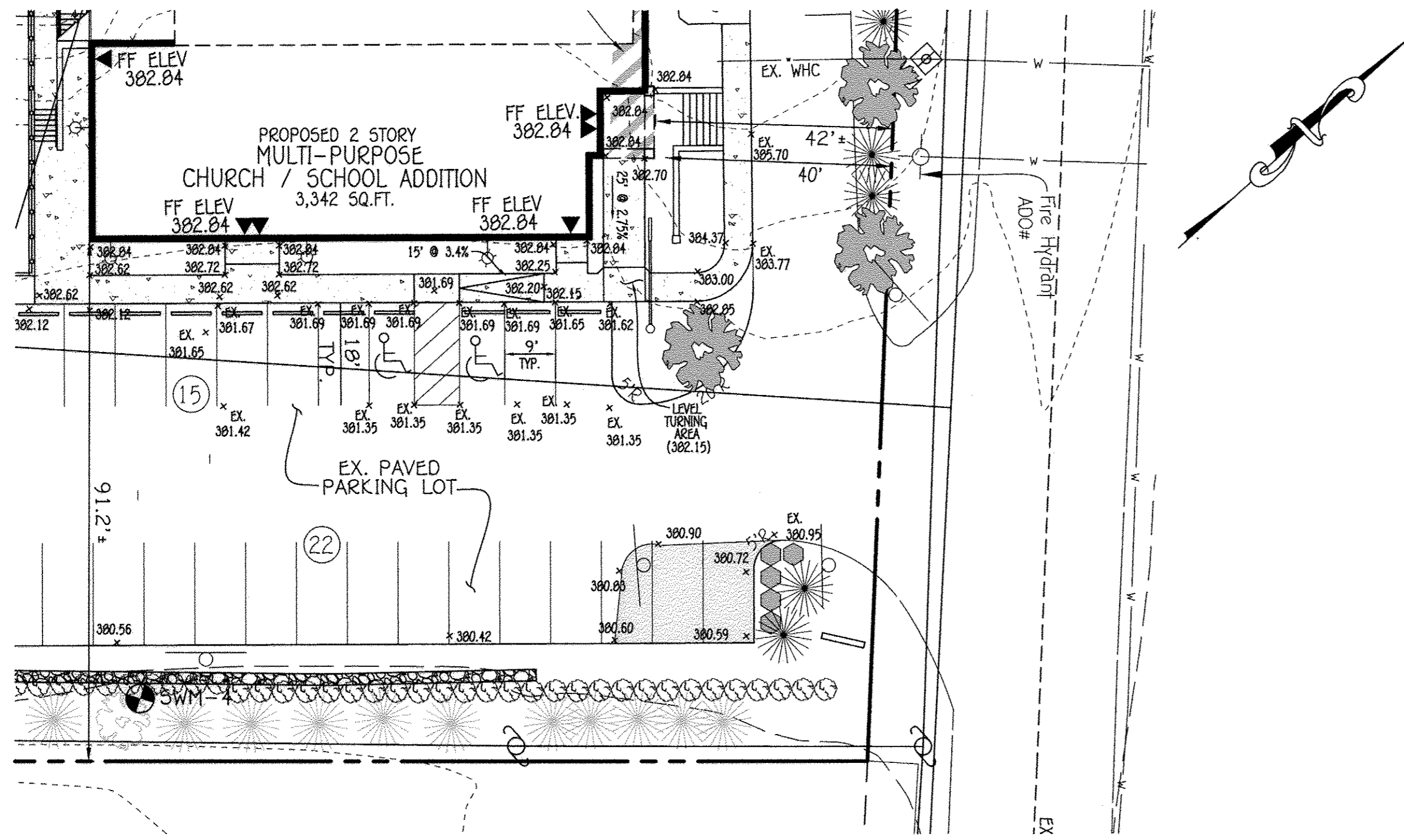
Andrew A. Portel 9-12-16
 Chief, Development Engineering Division Date

PROJECT	EMMANUEL UNITED METHODIST CHURCH	SECTION	A
PARCEL NOS.			
PLAT	23780 & 23787	BLOCK NO.	11
ZONE	R-20	TAX/ZONE	46
ELEC. DIST.	SIXTH	CENSUS TR.	6068.02
WATER CODE	E-18	SEWER CODE	7590000

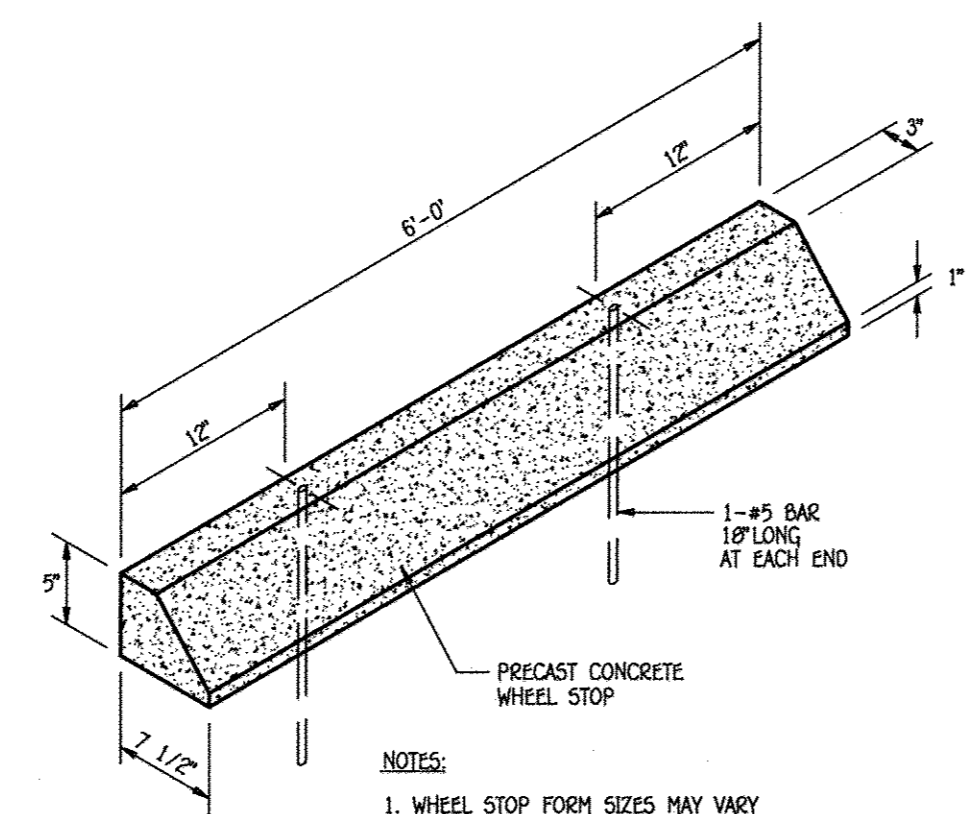
LANDSCAPE NOTES & DETAILS

2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT. AND FOREST CONSERVATION RETENTION BANK
EMMANUEL UNITED METHODIST CHURCH
 PARCEL 'A'
 PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
 SOP-92-027, ECP-13-053 & F-16-052
 ZONED: R-20
 TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 98
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1"=50' DATE: MARCH 12, 2016
 SHEET 7 OF 22

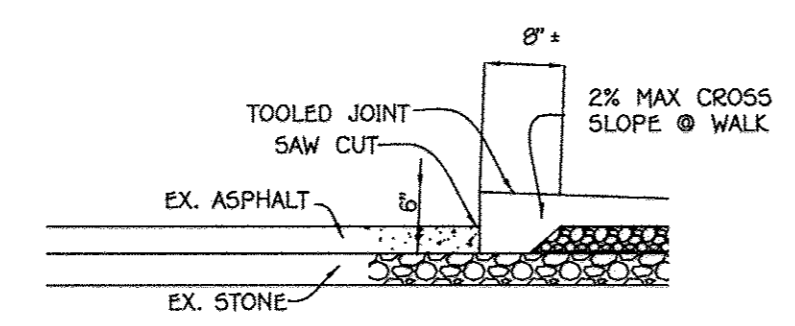




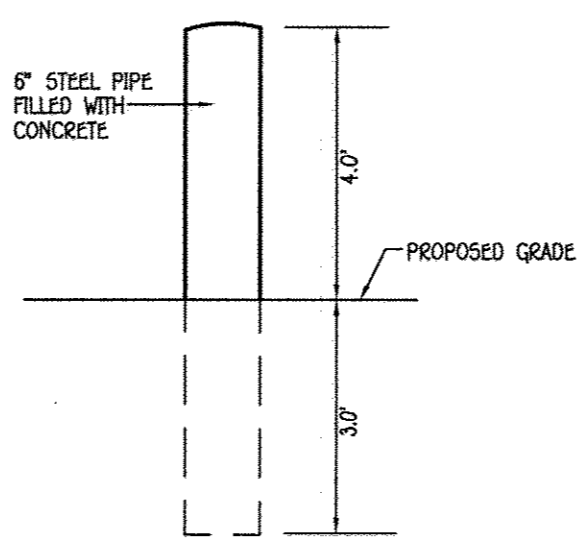
PLAN VIEW
SCALE: 1" = 20'



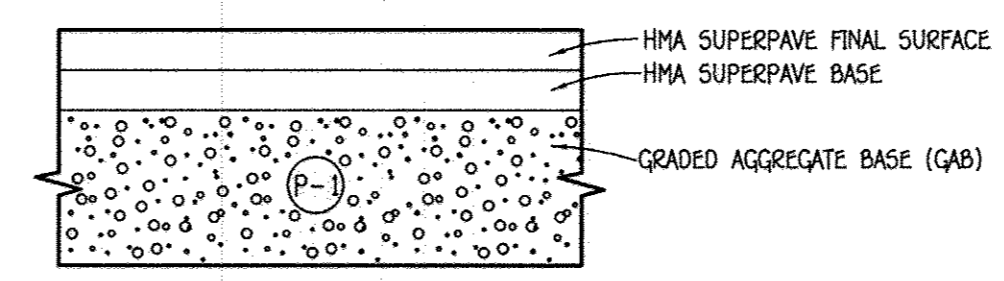
WHEEL STOP DETAIL
NOT TO SCALE



Proposed Turn-Down Sidewalk Detail
NOT TO SCALE

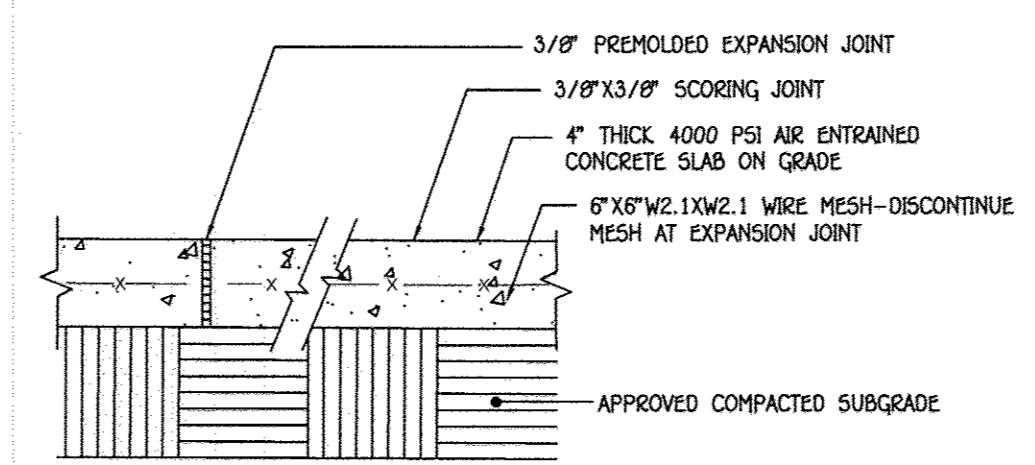


TYPICAL BOLLARD DETAIL
NOT TO SCALE

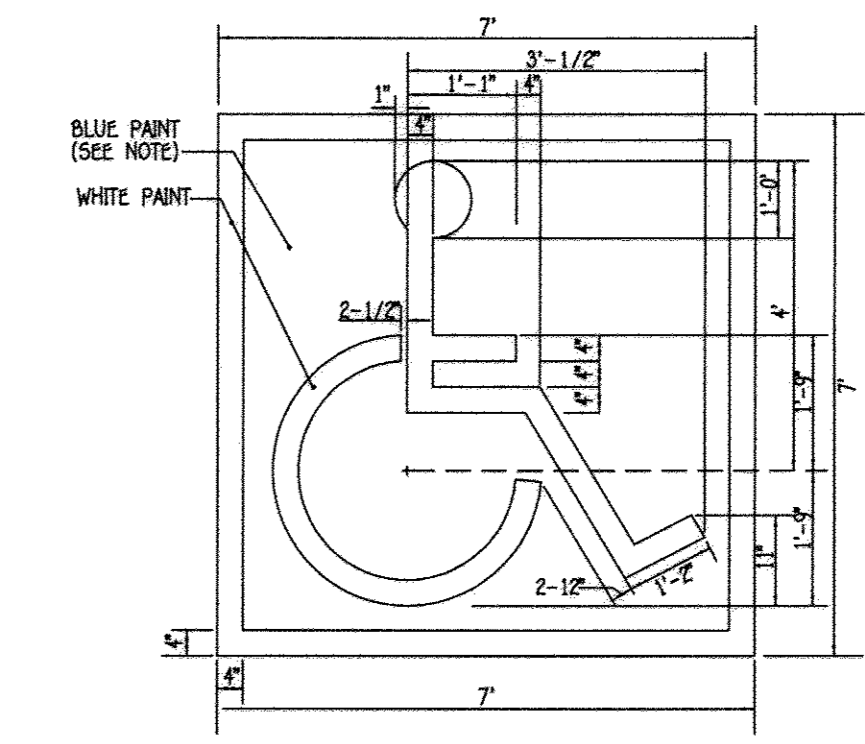


P-1 PAVING SECTION
NOT TO SCALE

PAVING SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR) 3 TO >5 5 TO <7 >7 3 TO >5 5 TO <7 >7						
		PAVEMENT MATERIAL (INCHES)	MIN. HMA WITH GAB	HMA WITH CONSTANT GAB	MIN. HMA WITH GAB	HMA WITH CONSTANT GAB	MIN. HMA WITH GAB	HMA WITH CONSTANT GAB
P-1	PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL	HMA SUPERPAVE FINAL SURFACE 9.5 MM PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
	PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5	3.0	2.5
		GRADED AGGREGATE BASE (GAB)	0.5	7.0	5.0	4.0	4.0	4.0



CONCRETE WALK DETAIL
HOWARD COUNTY DETAIL NOTED IS FOR REFERENCE ONLY
NOT TO SCALE

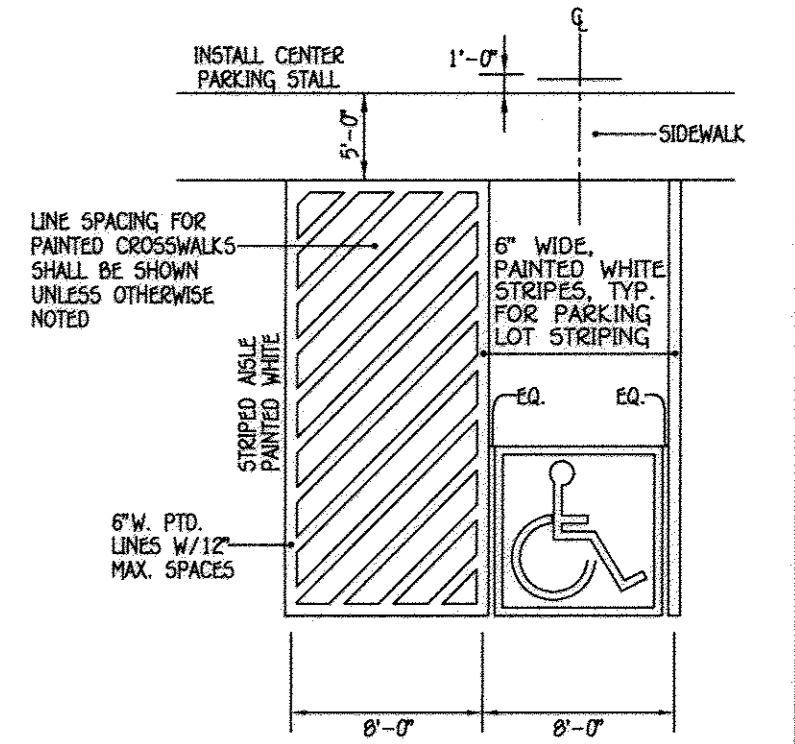


HANDICAP SPACE STENCIL LAYOUT
NOT TO SCALE

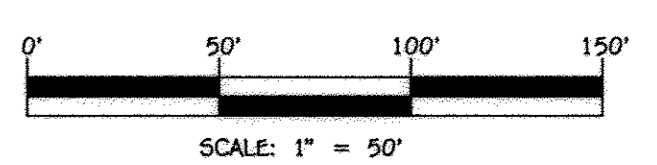


GENERAL NOTES:
1. SIGNS SHALL MEET DESIGN STANDARDS OF THE FEDERAL HIGHWAY ADMINISTRATION AND CONFORM TO THE STATE OF MARYLAND STANDARD HIGHWAY SIGN BOOKLET DETAIL 87-8.
2. ONE SIGN IS REQUIRED PER SPACE PLACED AS SHOWN ON SITE IMPROVEMENT PLAN.
3. SIGNS SHALL BE POLE MOUNTED WITH HOT DIP GALVANIZED COUNTY APPROVED PERFORATED CHANNEL POSTS W/TOP OF SIGNS 9'-1" ABOVE FINISHED GRADE OR AS INDICATED ON SITE DRAWINGS.
4. SIGN SHALL BE ATTACHED TO FLANGED SIDE OF POST. POST SHALL EXTEND INTO GROUND 2'-6" MIN.
5. COLORS: LEGEND AND BORDER-GREEN
SYMBOL-WHITE ON BLUE BACKGROUND
BACKGROUND-WHITE
6. CONTRACTOR SHALL COORDINATE ARROW DIRECTION WITH LOCATION OF ADJACENT AISLE.
7. SPACES INDICATED ON SITE DEVELOPMENT PLANS AS "VAN ACCESSIBLE" SHALL BE SIGNED ACCORDINGLY.

HANDICAP PARKING SIGN DETAIL
NOT TO SCALE



ACCESSIBLE SPACE LAYOUT
NOT TO SCALE



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALDOR NATIONAL PIKE
GLIOTTI CITY, MARYLAND 21084
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Signature of Professional Land Surveyors DATE: 3/27/16



NO SWN AS-BUILT INFO ON THIS SHEET
ANDREW A. PORTER, PE #15838
11/13/17

OWNER AND DEVELOPER
REVEREND STEPHANIE VADER
EMMANUEL UNITED
METHODIST CHURCH
10759 SCARSDALE ROAD
LAUREL, MD 20723
301-725-5200

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning
Chief, Division of Land Development
Chief, Development Engineering Division

PROJECT	SECTION	PARCEL NOS.
EMMANUEL UNITED METHODIST CHURCH		A
PLAT	BLOCK NO.	ZONE
23790-1	11	R-20
TAX/ZONE	ELEC. DIST.	CENSUS TR.
46	SIXTH	6068.02
WATER CODE	SEWER CODE	
E-10	7550000	

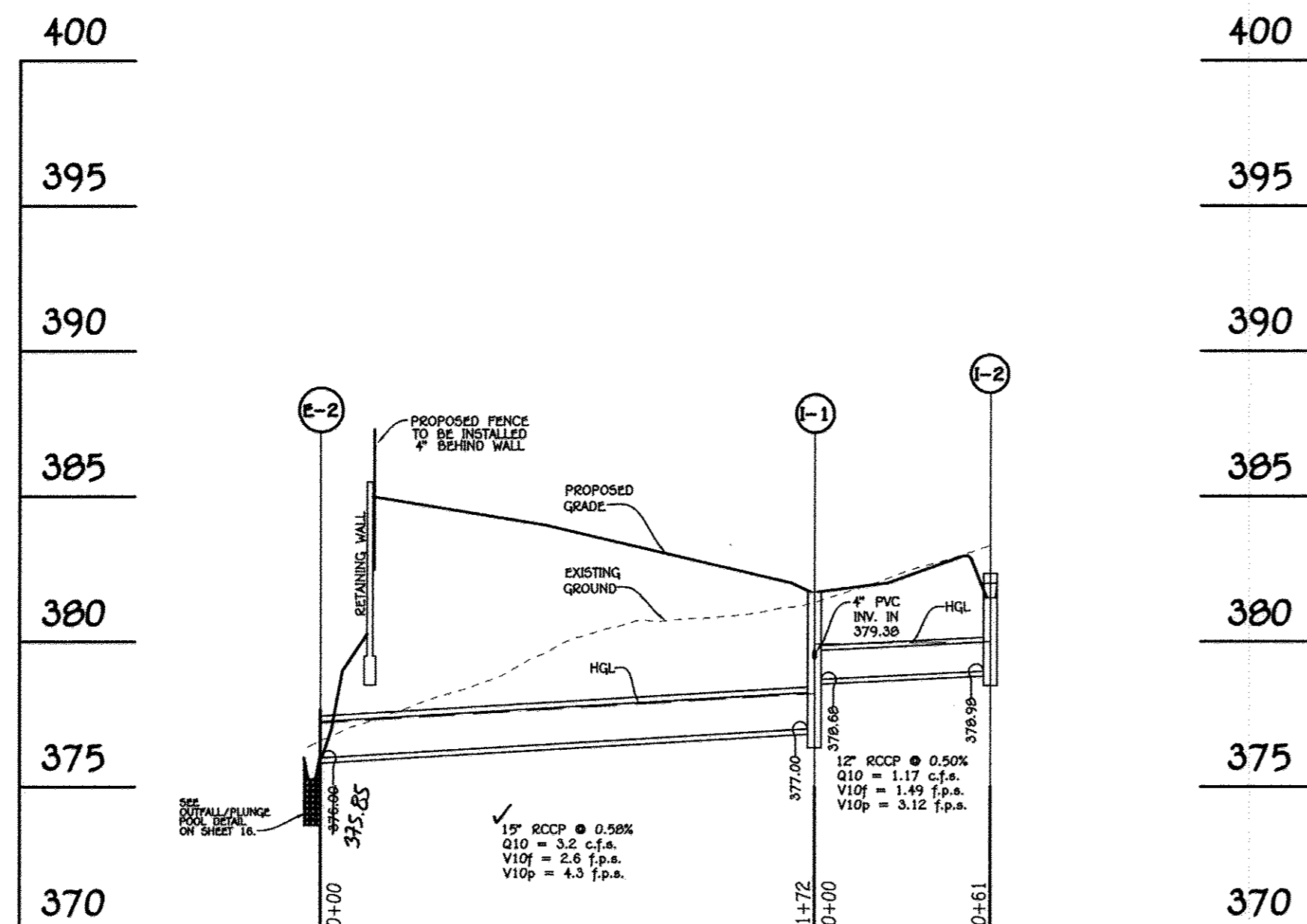
HANDICAP PARKING PLANS & DETAILS

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PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
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ZONED: R-20
TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 9B
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MARCH 12, 2016
SHEET 0 OF 22

SDP-15-067

SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING CEMETERY
---	EXISTING TREE/SPECIMEN TREE
---	PROPOSED TREE
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	BUILDING RESTRICTION LINE/USE SETBACK LINE
---	EXISTING CHAINLINK FENCE
---	EXISTING WOODEN FENCE
---	PROPOSED FENCE
---	PROPOSED CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
---	PROPOSED SPOT ELEVATION
---	PROPOSED CONCRETE WALK
---	PROPOSED MACADAM PAVING
---	DIVERSION FENCE
---	SUPER SILT FENCE
---	EXISTING CONCRETE WALK
---	EXISTING MACADAM PAVING
---	EXISTING CEMETERY
---	PROPOSED LIGHT POLE
---	APPROXIMATE AREA OF DEMOLITION

STRUCTURE NO.	AREA	'C'	ZONED	% IMP.
I-1	0.31 AC.	0.78	R-20	84%
I-2	0.46 AC.	0.00	R-20	21%



PROFILE STORMDRAIN 1
SCALE HORZ. 1" = 50'
VERT. 1" = 5'

STRUCTURE NO.	TOP ELEVATION	INV IN	INV OUT	COORDINATES	TYPE	REMARKS
I-1	381.70	378.68 (I-2) 12" 379.38 4" PVC	377.00 (S-1) 15"	N 536158.33 E 1344738.35	'S' INLET	D-4.22
I-2	381.50 *	-----	378.98 (I-1) 12"	N 536208.17 E 1344703.15	'D' INLET	D-4.10
I-3	382.30	-----	382.00 (E-3)	N 536419.24 E 1344906.35	CDS TRENCH DRAIN SYSTEM	SEE PROFILE THIS SHEET
M-1	384.50 ✓	375.56 (R-2) 12"	375.46 (R-1) 12"	N 536108.08 E 1344631.40	MANHOLE	G-5.12 ✓
R-1	377.00 ✓	372.90 (M-1) 12"	372.36 (E-1) 18"	N 536056.44 E 1344563.19	MODIFIED 'K' INLET	SEE SHEET 14 FOR DETAIL ✓
R-2	382.00 *	377.58 (BMP#2) 6"	377.48 (M-1) 12"	N 536163.79 E 1344680.92	NYLOPLAST RISER	SEE SHEET 16 FOR DETAIL ✓
E-1	373.92	372.00 (R-1) 18"	-----	N 536006.20 E 1344517.28	END SECTION	D-5.51 ✓
E-2	377.07	376.80 (I-1) 15"	-----	N 536038.29 E 1344615.87	END SECTION	D-5.51 ✓
E-3	381.50	379.00 (I-3)	381.50	N 536407.96 E 1344918.94	NYLOPLAST RISER	FOR DETAIL

* DENOTES THROAT OPENING

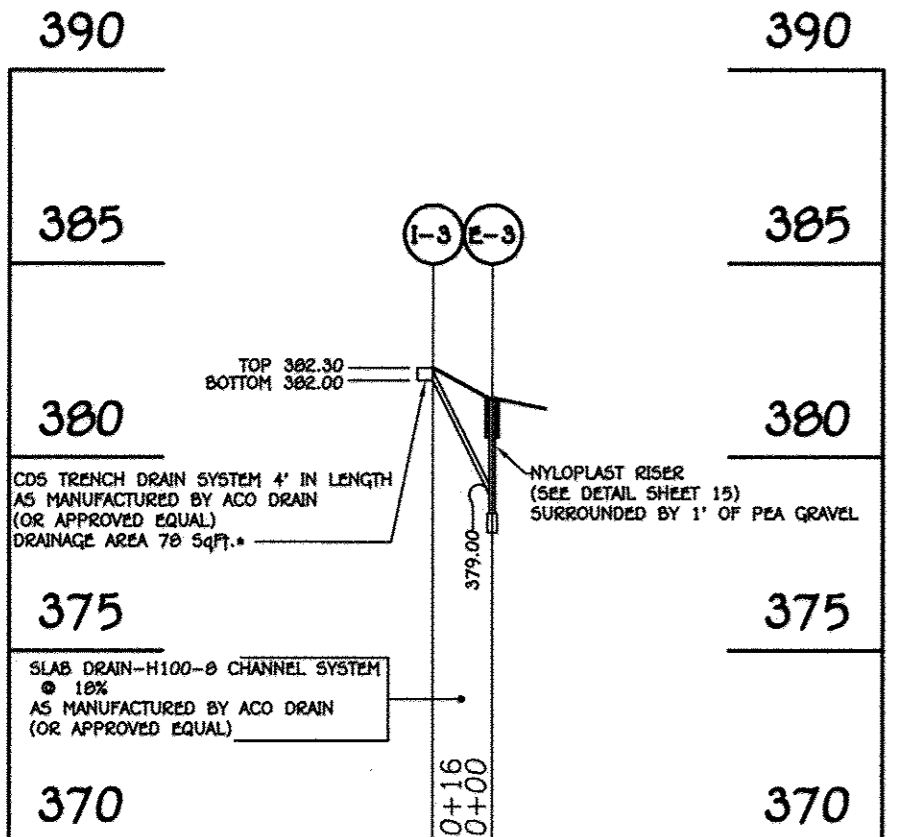
SOIL	NAME	CLASS
GhB	GLENELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	B
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C
GnB	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C
MaB	MANOR LOAM, 3 TO 8 PERCENT SLOPES	B
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B

NOTES:
* HYDRIC SOILS AND/OR CONTAINS HYDRIC INCLUSIONS
** MAY CONTAIN HYDRIC INCLUSIONS
+ GENERALLY ONLY WITHIN 100-YEAR FLOODPLAIN AREAS

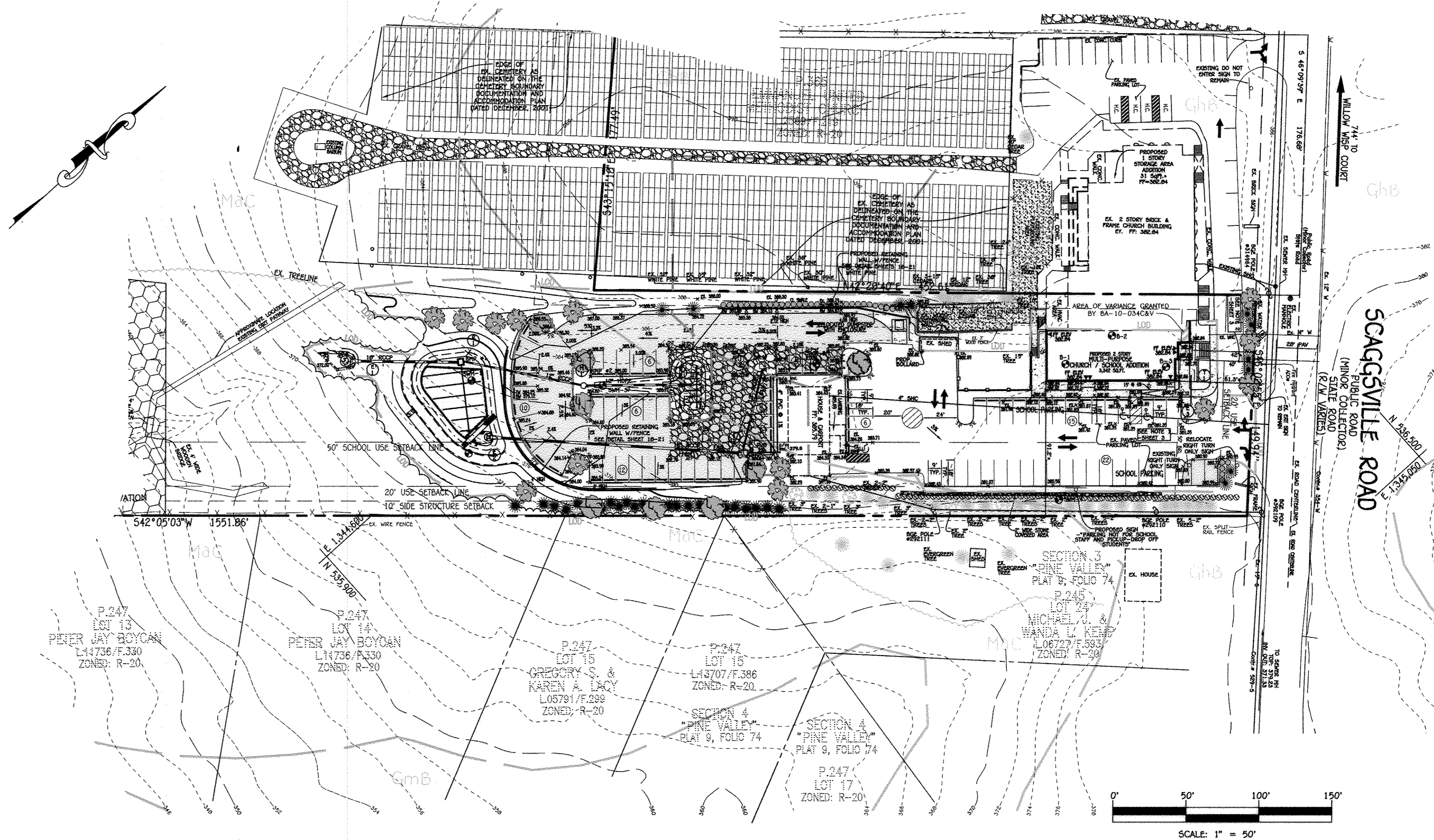
SIZE	CLASS	LENGTH
4"	PVC	71'
12"	HDPE	72'
12"	RCCP	143'
15"	RCCP	172'
18"	RCCP	67'

NOTE: INCLUDES UNDERDRAIN SYSTEM SEE SHEET 12

- NOTES**
- THE 50 FOOT SETBACK FROM SCAGGSVILLE ROAD (MAJOR COLLECTOR) EXTENDS ACROSS THE ENTIRE FRONTAGE OF PARCEL 98.
 - THE 40 FOOT SETBACK APPROVED WITH BA-10-034 C&V IS FOR A REDUCTION OF THE FRONT 50 FOOT SETBACK ASSOCIATED ONLY WITH THE BUILDING ADDITION CLOSEST TO SCAGGSVILLE ROAD APPROVED WITH BA-10-034 C&V APPROVED ON JUNE 6, 2011.



TRENCH DRAIN AND OUTLET
SCALE HORZ. 1" = 50'
VERT. 1" = 5'



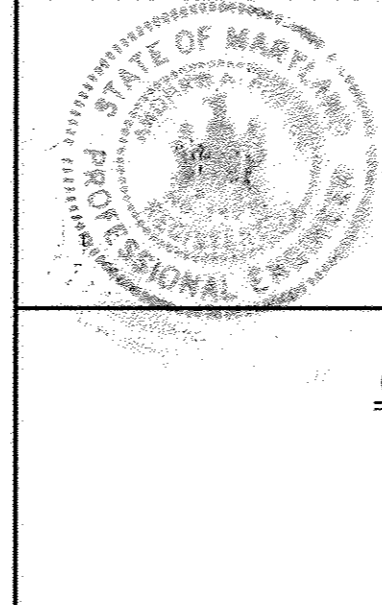
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 481-2895

NO.	REVISION	DATE



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/17.

Frank John Mendenhall 3/27/16
Signature Of Professional Land Surveyors DATE



SEE SH1 FOR AS-BUILT CERTIFICATION

Andrea G. Pro
Director - Department of Planning and Zoning

OWNER AND DEVELOPER
REVEREND STEPHANIE WADER
EMMANUEL UNITED METHODIST CHURCH
10755 SCAGGSVILLE ROAD
LAUREL, MD 20723
301-725-5200

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
237864	11	R-20	46	SIXTH	6068.02

WATER CODE: E-18
SEWER CODE: 7950000

STORM DRAIN DRAINAGE AREA MAP AND STORM DRAIN PROFILES
2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT. AND FOREST CONSERVATION RETENTION BANK
EMMANUEL UNITED METHODIST CHURCH
PARCEL 'A'
PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V SDP-92-027, ECP-13-053 & F-16-052
ZONED: R-20
TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 98
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 50' DATE: MARCH 12, 2016
SHEET 9 OF 22 SDP-15-067

BORING LOG
Boring: SWM-1 (1 of 1)

Project No: 75R3010 Elevation: 14.5'
Client: Emmanuel United Methodist Church Total Depth: 14.5'
Project: Emmanuel United Methodist Church Boring Location:
City/State: North Laurel, MD Driller: JSH/JA

Elevation	Depth	Description of Materials (Classification)	* Sample Blows	Sample Depth (feet)	N-Value (blows/ft)	Remarks
0.3	0.3	Surficial Soils Brown, moist, silty & CLAY, some of sand, trace rock fragments Soft ML Loam	7-10-15 REC-89%	3.0	25	
3.0	3.0	Brown, moist, micaceous clayey SILT, and of sand Very Stiff ML Loam	5-10-10 REC-72%	3.5	20	
6.0	6.0	Brown to brown-red, moist, micaceous mf SAND, some silt Medium Dense SM Sandy Loam	6-6-7 REC-83%	6.0	13	Nat. Moist. = 12.4% PL = NP / LL = NV <R200 = 32.6%
8.0	8.0	Brown to gray to tan, moist, micaceous mf SAND, little silt Medium Dense SM Loamy Sand	7-12-14 REC-72%	8.5	26	Nat. Moist. = 8.6% PL = NP / LL = NV <R200 = 16.7%
			50/1 REC-100%	13.5	100+	
14.5						Auger Refusal at 14.5 ft

*Number of blows required for a 140 lb hammer dropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments.
The sum of the second and third increments of penetration is termed the standard penetration resistance, N-Value.

BORING LOG
Boring: SWM-2 (1 of 1)

Project No: 75R3010 Elevation: 18.0'
Client: Emmanuel United Methodist Church Total Depth: 18.0'
Project: Emmanuel United Methodist Church Boring Location:
City/State: North Laurel, MD Driller: JSH/JA

Elevation	Depth	Description of Materials (Classification)	* Sample Blows	Sample Depth (feet)	N-Value (blows/ft)	Remarks
0.3	0.3	Surficial Soils Brown, moist, micaceous clayey SILT, and of sand, trace rock fragments Very Stiff ML Loam	6-3-9 REC-78%	1.0	18	
3.0	3.0	Brown, moist, micaceous of SAND, and silt Medium Dense SM Sandy Loam	6-3-9 REC-72%	3.5	17	
6.0	6.0	Brown to gray to tan-gray, moist, micaceous poorly graded of SAND, some rock fragments, few silt Medium Dense SP-SM Sand	9-14-15 REC-56%	6.0	29	Nat. Moist. = 3.7% PL = NP / LL = NV <R200 = 4.2%
8.0	8.0	Brown to gray, moist, micaceous well graded of SAND, little rock fragments, little to few silt Very Dense SM-SM Sand	20-30 REC-67%	8.5	50	Nat. Moist. = 3.6% PL = NP / LL = NV <R200 = 10.4%
			50/3 REC-100%	13.5	100+	
			50 REC-83%	16.5	0	
17.0						Bottom of Boring at 17 ft

*Number of blows required for a 140 lb hammer dropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments.
The sum of the second and third increments of penetration is termed the standard penetration resistance, N-Value.

BORING LOG
Boring: B-1 (1 of 1)

Project No: 75R3010 Elevation: 20.0'
Client: Emmanuel United Methodist Church Total Depth: 20.0'
Project: Emmanuel United Methodist Church Boring Location:
City/State: North Laurel, MD Driller: JSH/JA

Elevation	Depth	Description of Materials (Classification)	* Sample Blows	Sample Depth (feet)	N-Value (blows/ft)	Remarks
0.6	0.6	Pavement (3" Hot Mix Asphalt, 4" Stone Subbase) Brown to gray to tan-gray, moist, micaceous poorly graded of SAND, few silt, trace rock fragments Medium Dense to Dense SP-SM	4-8-8 REC-56%	1.0	16	
			5-7-11 REC-67%	2.5	18	
			12-16-15 REC-72%	6.0	31	Nat. Moist. = 5.7% PL = NP / LL = NV <R200 = 7.4%
			14-17-24 REC-67%	8.5	41	
			28-30/4 REC-100%	13.5	100+	Nat. Moist. = 8.5% PL = NP / LL = NV <R200 = 10.4%
			28-18-14 REC-56%	18.5	32	
20.0				20.0		Bottom of Boring at 20 ft

*Number of blows required for a 140 lb hammer dropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments.
The sum of the second and third increments of penetration is termed the standard penetration resistance, N-Value.

BORING LOG
Boring: B-2 (1 of 1)

Project No: 75R3010 Elevation: 20.0'
Client: Emmanuel United Methodist Church Total Depth: 20.0'
Project: Emmanuel United Methodist Church Boring Location:
City/State: North Laurel, MD Driller: JSH/JA

Elevation	Depth	Description of Materials (Classification)	* Sample Blows	Sample Depth (feet)	N-Value (blows/ft)	Remarks
0.6	0.6	Pavement (3" Hot Mix Asphalt, 4" Stone Subbase) Brown to gray to tan, moist, micaceous of SAND, little silt Loose to Very Dense SM	5-4-5 REC-78%	1.0	9	Nat. Moist. = 8.4% PL = NP / LL = NV <R200 = 12.9%
			8-16-19 REC-67%	2.5	35	
			9-20-25 REC-72%	6.0	45	
			20-30-28 REC-61%	8.5	58	
			41-50/4 REC-100%	13.5	100+	
			50/1	18.5	100+	
20.0				20.0		Bottom of Boring at 18.6 ft

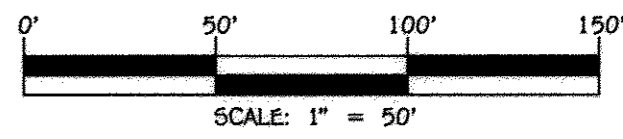
*Number of blows required for a 140 lb hammer dropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments.
The sum of the second and third increments of penetration is termed the standard penetration resistance, N-Value.

BORING LOG
Boring: B-3 (1 of 1)

Project No: 75R3010 Elevation: 20.0'
Client: Emmanuel United Methodist Church Total Depth: 20.0'
Project: Emmanuel United Methodist Church Boring Location:
City/State: North Laurel, MD Driller: JSH/JA

Elevation	Depth	Description of Materials (Classification)	* Sample Blows	Sample Depth (feet)	N-Value (blows/ft)	Remarks
0.8	0.8	Pavement (4.5" Hot Mix Asphalt, 4.5" Stone Subbase) Brown to gray to tan, moist, micaceous mf SAND, little silt Loose to Very Dense SM	8-3-8 REC-67%	1.0	17	
			3-3-3 REC-56%	2.5	6	
			5-8-10 REC-83%	6.0	18	
			14-25-22 REC-72%	8.5	57	Nat. Moist. = 8.7% PL = NP / LL = NV <R200 = 15.7%
			23-30/5 REC-73%	13.5	100+	
			50/2 REC-100%	18.5	100+	
20.0				20.0		Bottom of Boring at 18.7 ft

*Number of blows required for a 140 lb hammer dropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments.
The sum of the second and third increments of penetration is termed the standard penetration resistance, N-Value.



NO.	REVISION	DATE



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/17.
Stephanie Vader
Signature of Professional Land Surveyors DATE



NO SWM AS-BUILT INFO ON THIS SHEET
ANDREW A. PORTER, PE #15838
11/15/17
Andrew A. Porter
OWNER AND DEVELOPER
REVEREND STEPHANIE VADER
EMMANUEL UNITED
METHODIST CHURCH
10775 SCAGSVILLE ROAD
LAUREL, MD 20723
301-725-9200

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Valerie Blinn 6-9-16
Director - Department of Planning and Zoning Date
Vicki Linn 6-9-16
Chief, Division of Land Development Date
John Clark 5-12-16
Chief, Development Engineering Division Date

PROJECT	SECTION	PARCEL NOS.
EMMANUEL UNITED METHODIST CHURCH	-	A

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
2376c2	11	R-20	46	SIXTH	6068.02

WATER CODE	SEWER CODE
E-10	7550000

BORING LOGS
2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT.
AND FOREST CONSERVATION RETENTION BANK
**EMMANUEL UNITED
METHODIST CHURCH**
PARCEL 'A'
PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
SDP-92-027, ECP-13-053 & F-16-052
ZONED: R-20
TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 98
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MARCH 12, 2016
SHEET 10 OF 22

FCE/Bank Sales Acreage Chart FOREST CONSERVATION EASEMENT NO. 2 (3.64 ACRES)			
Sale	Retention Obligation	Project Name	Remaining Acreage
	0.4 Ac.	ROCKYRIP CHRISTIAN SCHOOL	3.244 Ac.
		Beginning Acreage	3.684 Ac.
		SDP-15-067	
		SOP-23-024	2.784 Ac.

NOTE: THE EXISTING CEMETERY HAS BEEN DELINEATED ON THE CEMETERY DOCUMENTATION AND ACCOMMODATION PLAN DATED DECEMBER, 2001.

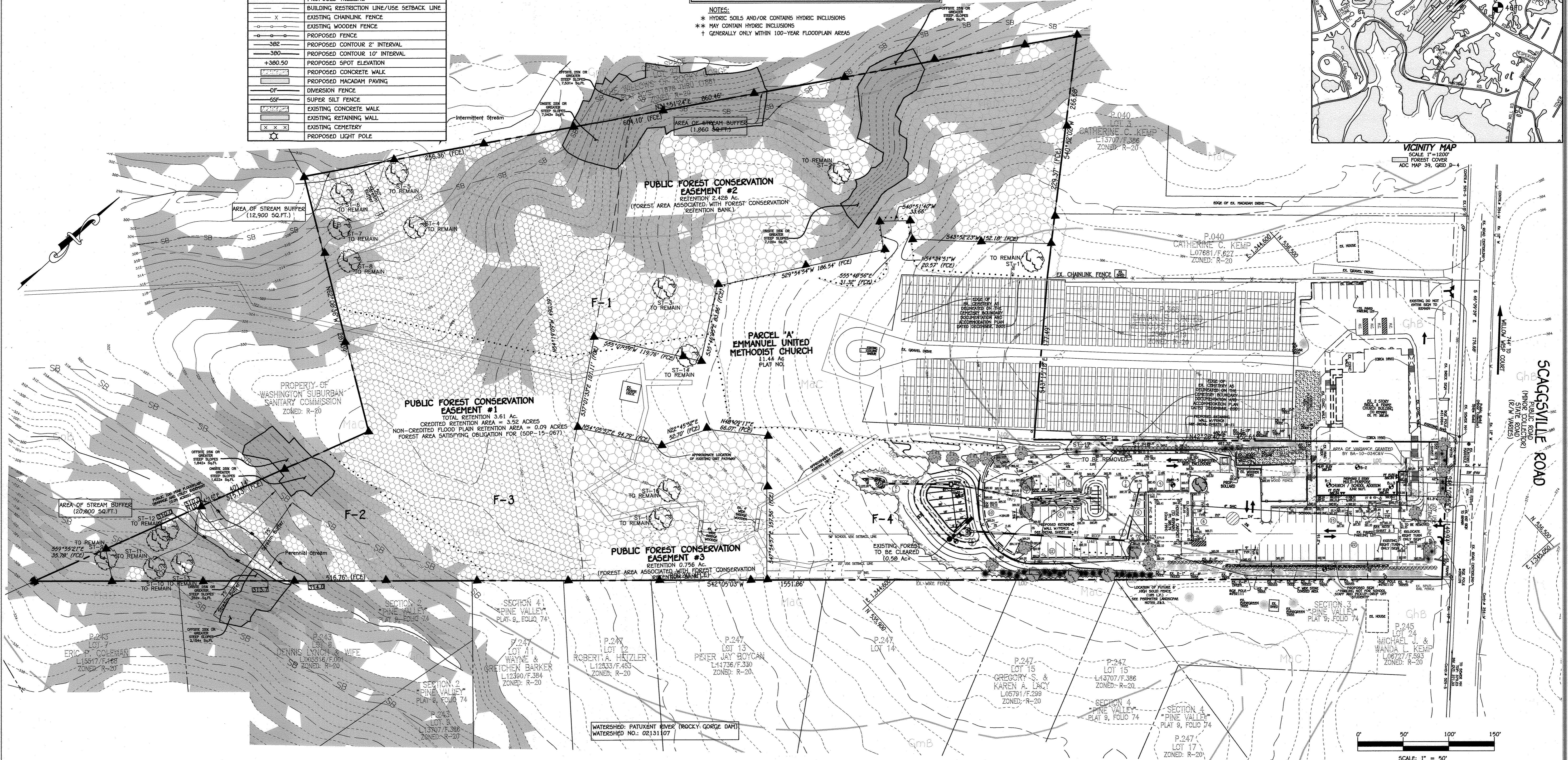
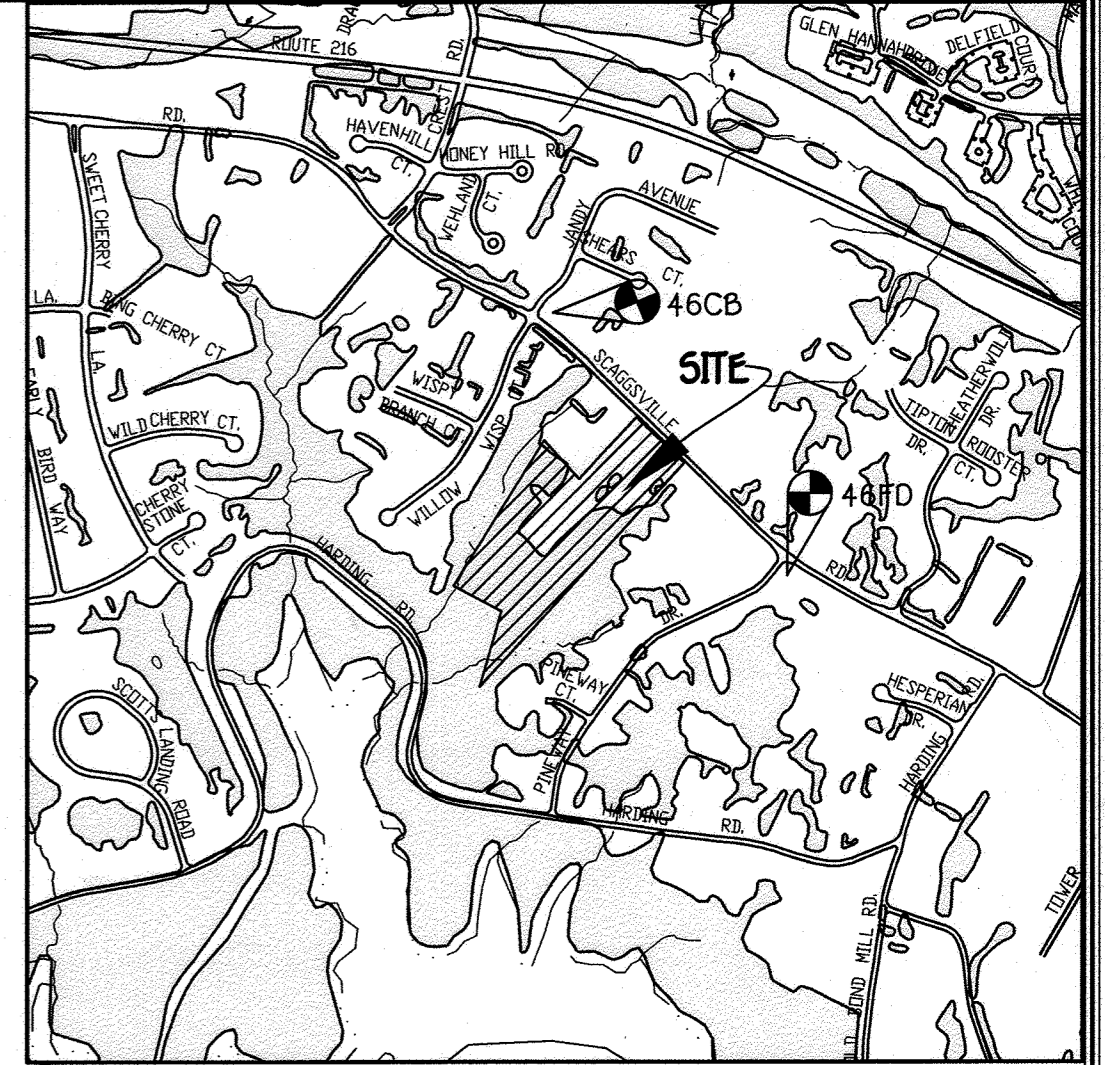
LEGEND	
SYMBOL	DESCRIPTION
--- 382 ---	EXISTING CONTOUR 2' INTERVAL
--- 380 ---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING CEMETERY
---	EXISTING TREE/SPECIMEN TREE
---	PROPOSED TREE
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	BUILDING RESTRICTION LINE/USE SETBACK LINE
---	EXISTING CHAINLINK FENCE
---	EXISTING WOODEN FENCE
---	PROPOSED FENCE
---	PROPOSED CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
---	PROPOSED SPOT ELEVATION
---	PROPOSED CONCRETE WALK
---	PROPOSED MACADAM PAVING
---	DIVERSION FENCE
---	SUPER SILT FENCE
---	EXISTING CONCRETE WALK
---	EXISTING RETAINING WALL
---	EXISTING CEMETERY
---	PROPOSED LIGHT POLE

LEGEND	
SYMBOL	DESCRIPTION
---	APPROXIMATE AREA OF DEMOLITION
---	15% - 24.9% SLOPES
---	25% SLOPES OR GREATER
---	DENOTES RETAINING WALL
---	FOREST STAND BOUNDARY
F-1	FOREST STAND LABEL
ST-1	SPECIMEN TREE
---	PUBLIC 100 YEAR FLOODPLAIN DRAINAGE AND UTILITY EASEMENT
---	ELEVATIONS 100 YEAR FLOOD PLAN

SOILS LEGEND		
SOIL	NAME	CLASS
GhB	GLENELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	B
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C
GnB	GLENVILLE-BALE SILT LOAM, 0 TO 8 PERCENT SLOPES	C
MdB	MANOR LOAM, 3 TO 8 PERCENT SLOPES	B
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B

NOTES:
 * HYDRIC SOILS AND/OR CONTAINS HYDRIC INCLUSIONS
 ** MAY CONTAIN HYDRIC INCLUSIONS
 † GENERALLY ONLY WITHIN 100-YEAR FLOODPLAIN AREAS

- NOTES**
- THE 50 FOOT SETBACK FROM SCAGGSVILLE ROAD (MAJOR COLLECTOR) EXTENDS ACROSS THE ENTIRE FRONTAGE OF PARCEL 9B.
 - THE 40 FOOT SETBACK APPROVED WITH BA-10-034 CAV IS FOR A REDUCTION OF THE FRONT 50 FOOT SETBACK ASSOCIATED ONLY WITH THE BUILDING ADDITION CLOSEST TO SCAGGSVILLE ROAD APPROVED WITH BA-10-034 CAV APPROVED ON JUNE 5, 2011.



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELKLOTT CITY, MARYLAND 21042
 (410) 461 - 2995

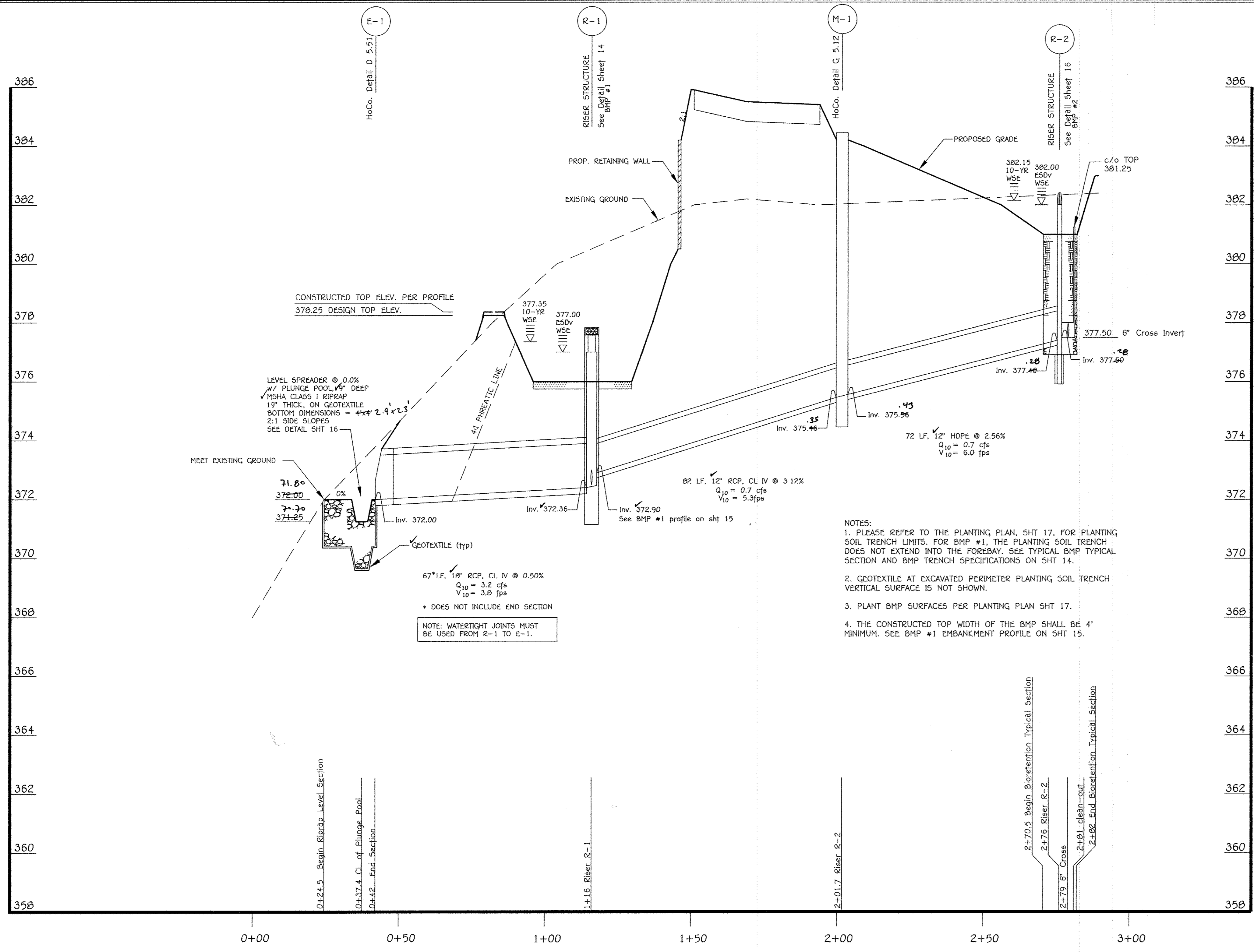
NO.	REVISION	DATE
1	AS-BUILT	3/21/23
2	SDP-23-024 IDENTIFY 0.4 ACRES OF FOREST RETENTION	3/21/23
3	F-19-077 IDENTIFY 0.4 AC. OF FOREST RETENTION	1/23/24

Eco-Science Professionals, Inc.
 CONSULTING ECOLOGISTS
 MD DNR Qualified Professional
 USACOE Wetland Delineator
 Certification # WDCP93R006100448
 John P. Canoles

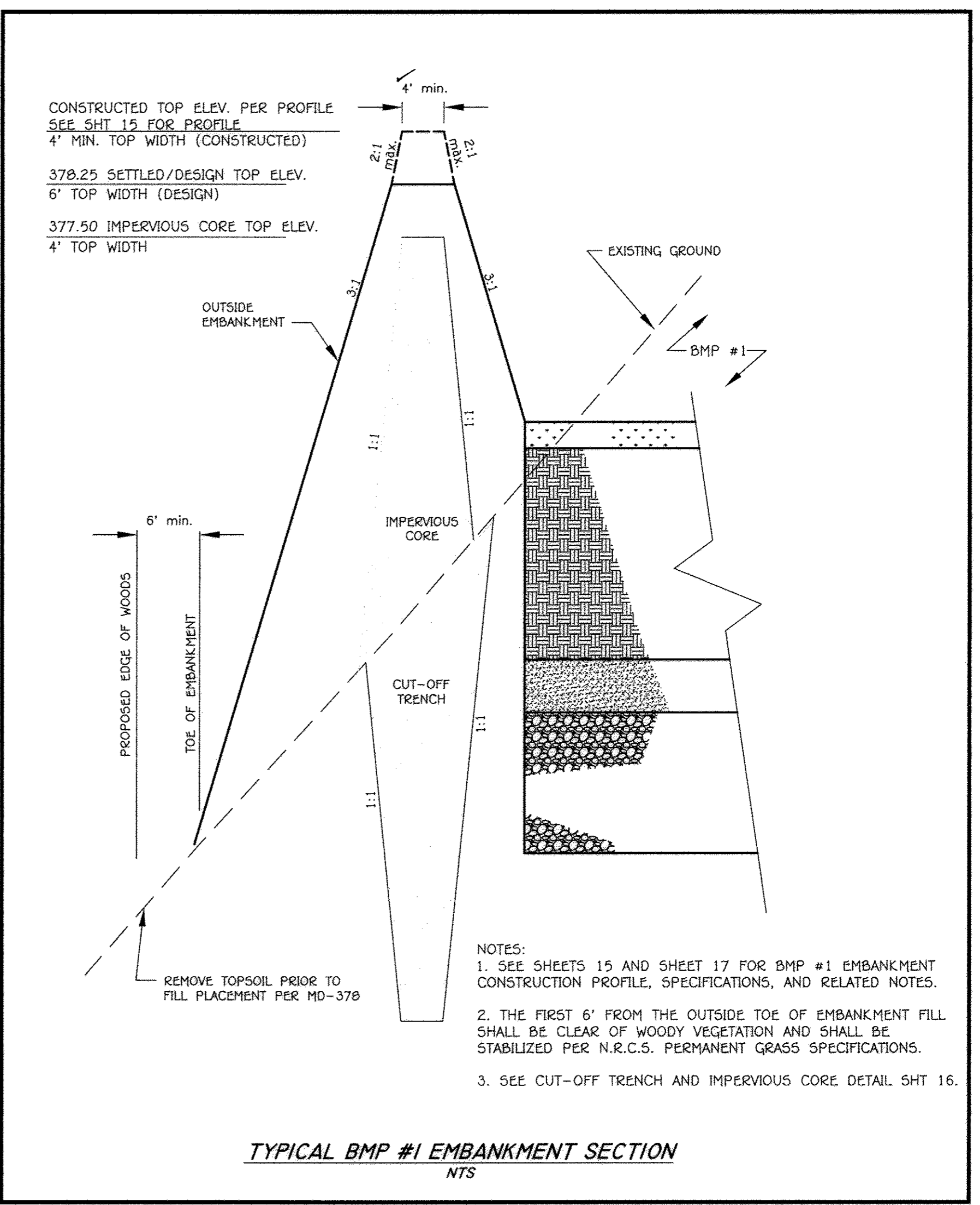
NO SWM AS-BUILT INFO ON THIS SHEET
 ANDREW A. FORBES, P.E. #15038
 11/13/17
 Andrew A. Forbes
 PROFESSIONAL ENGINEER
 STATE OF MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Director - Department of Planning and Zoning
 Chief, Division of Land Development
 Chief, Development Engineering Division
 PROJECT: EMMANUEL UNITED METHODIST CHURCH
 SECTION: -
 PARCEL NOS.: A

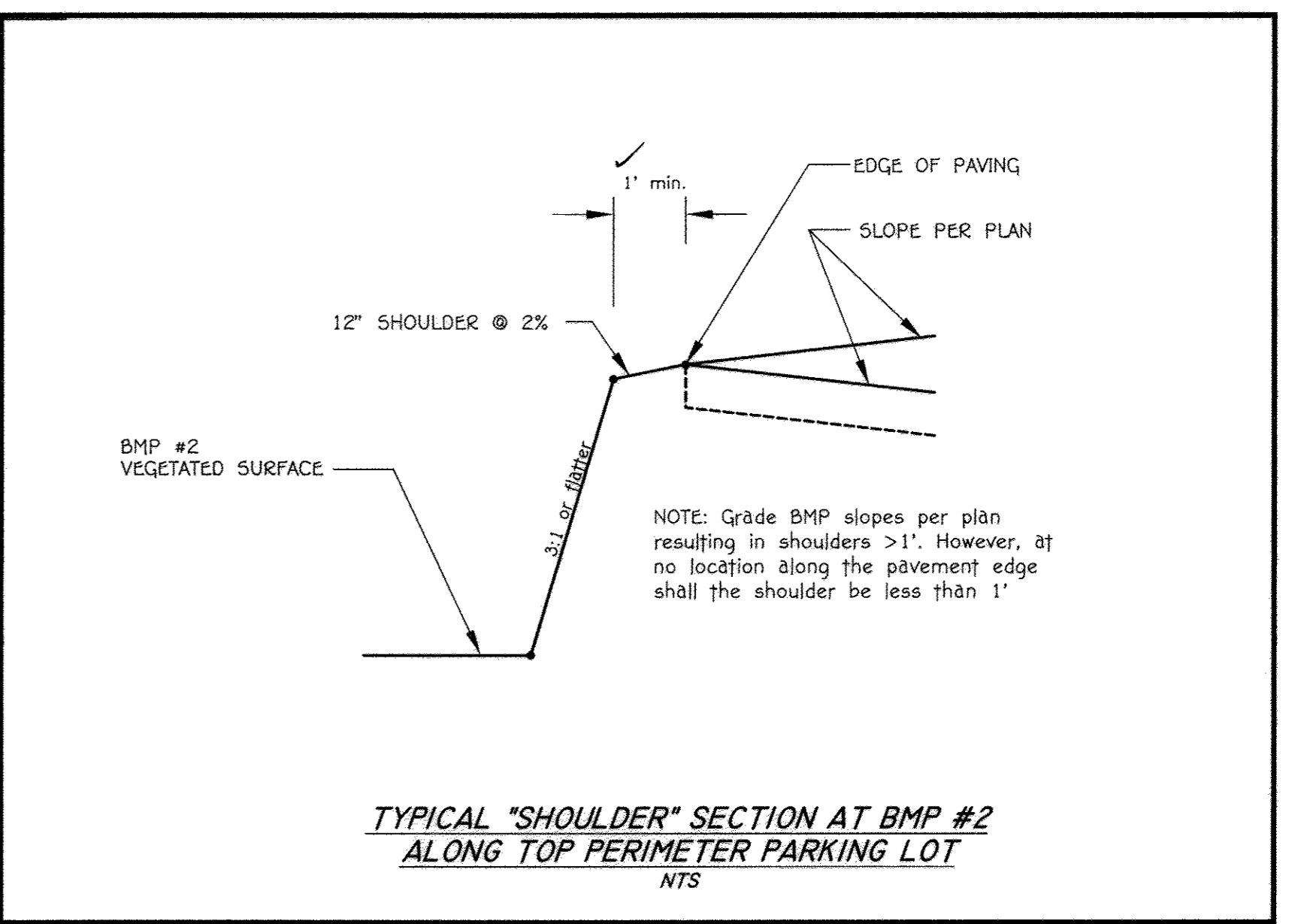
FOREST CONSERVATION PLAN
 2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT. AND FOREST CONSERVATION RETENTION BANK
EMMANUEL UNITED METHODIST CHURCH
 PARCEL 'A'
 PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
 SDP-92-027, ECP-13-053 & F-16-052
 ZONED: R-20
 TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 9B
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1"=50' DATE: MARCH 12, 2016
 SHEET 11 OF 22 SDP-15-067



BMP #1 AND #2 UNDERDRAIN PROFILE
SCALE:
HORIZ: 1" = 20'
VERT: 1" = 2'



TYPICAL BMP #1 EMBANKMENT SECTION
NTS



TYPICAL "SHOULDER" SECTION AT BMP #2 ALONG TOP PERIMETER PARKING LOT
NTS

FOR SWM ONLY:
CIVIL DESIGN SERVICES, LC
6123 Holly Ridge Court, Columbia, Maryland 21044
240.755.0380 cdesign@cds.com
civildesign@comcast.net

NO.	REVISION	DATE



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15838, EXPIRATION DATE: 12/17/17.
Andrew A. Porter 3/23/2016
Andrew A. Porter, P.E. DATE

OWNER AND DEVELOPER
REVEREND STEPHANIE VADER
EMMANUEL UNITED
METHODIST CHURCH
10755 SCAGGSVILLE ROAD
LAUREL, MD 20723
301-725-5200

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Valarian Jolin 6-9-16
Director - Department of Planning and Zoning Date

Robert S. ... 6-9-16
Chief, Division of Land Development Date

... 3-12-16
Chief, Development Engineering Division Date

PROJECT	SECTION	PARCEL NOS.
EMMANUEL UNITED METHODIST CHURCH	-	A

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
23766 & 23787	11	R-20	46	SIXTH	6068.02

WATER CODE	SEWER CODE
E-18	7550000

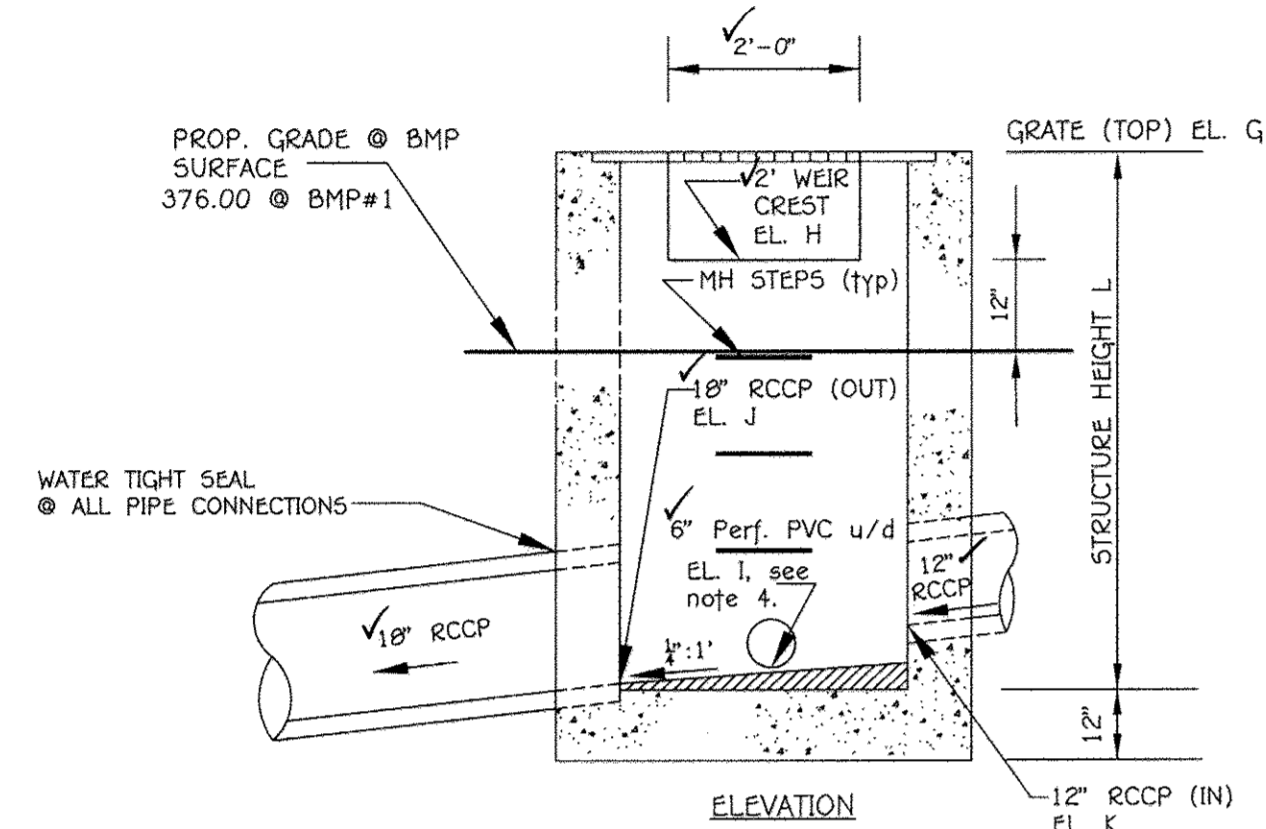
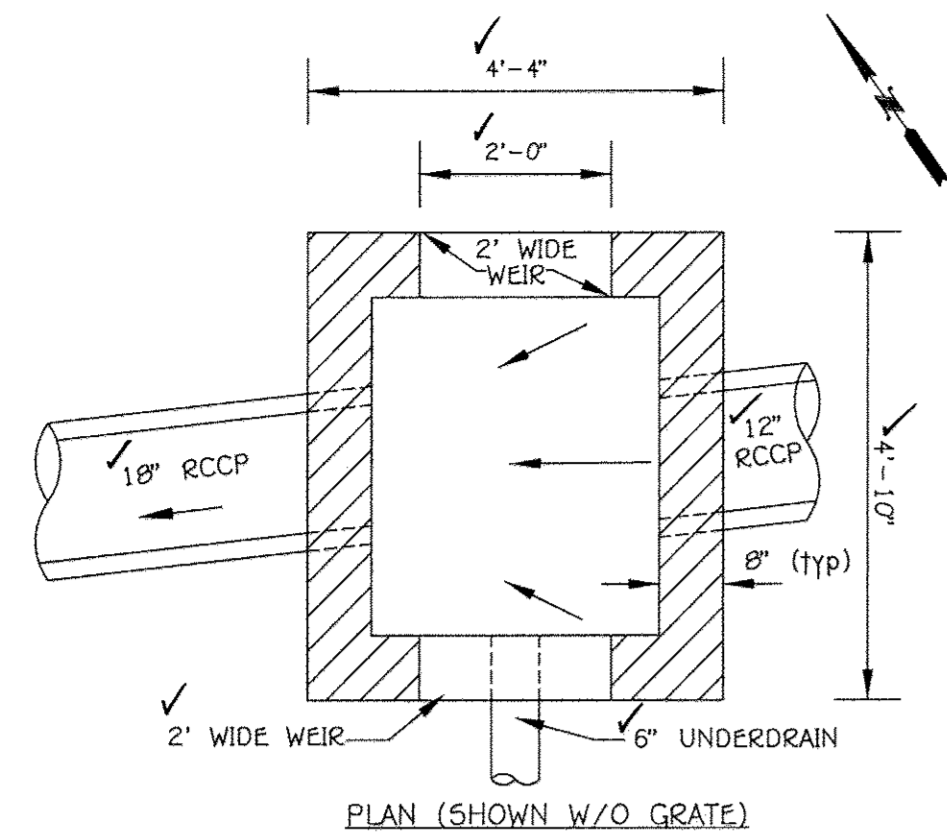
BMP#1 and #2 OUTFALL PROFILE

2 STORY MULTI-PURPOSE BLDG, EXT. & PARKING LOT EXT. AND FOREST CONSERVATION RETENTION BANK

EMMANUEL UNITED METHODIST CHURCH
PARCEL 'A'

PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66&E
SDP-92-027, ECP-13-053 & F-16-052

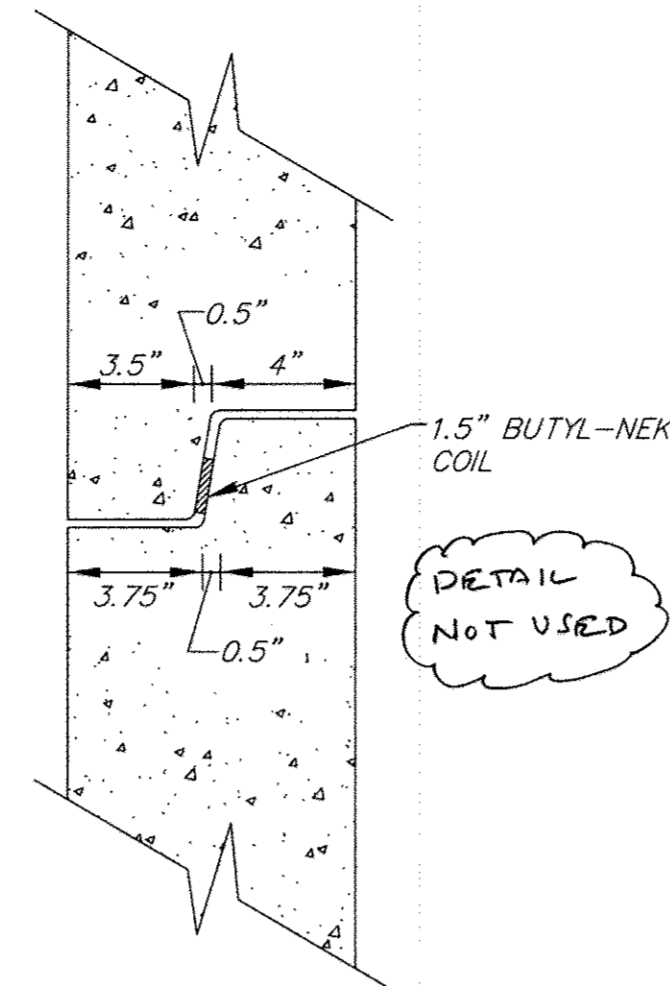
ZONED: R-20
GRID NO.: 11 PARCEL NO.: 98
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: DATE: MARCH 12, 2016
SHEET 13 OF 22



- NOTES:
- SEE MSHA STD DETAIL MD-378.11 FOR DETAILS NOT SHOWN ABOVE.
 - ALL STRUCTURAL REQUIREMENTS (INCLUDING WALLS) SHALL CONFORM TO THE D-INLET (DETAIL D-4.10) REQUIREMENTS DUE TO THE INCREASED INLET DEPTH.
 - USE DOUBLE OPENING WITH NO CONCRETE CUTTER APPROACHES.
 - PVC UNDERDRAIN MAY ENTER INLET AT AN ANGLE NEAR THE CENTER OF STRUCTURE AND BMP. SEE SITE DEVELOPMENT PLAN (SDP) FOR UNDERDRAIN ENTRANCE LOCATION IN RISER WALL.
 - SLOPE RISER INVERT 1/4" : 1' TOWARD RCCP OUTFALL.
 - PROVIDE STEPS PER HOCO STD. DETAIL G-5.2.1.
 - CHAMFER EXPOSED EDGES 1/4" x 1/4".

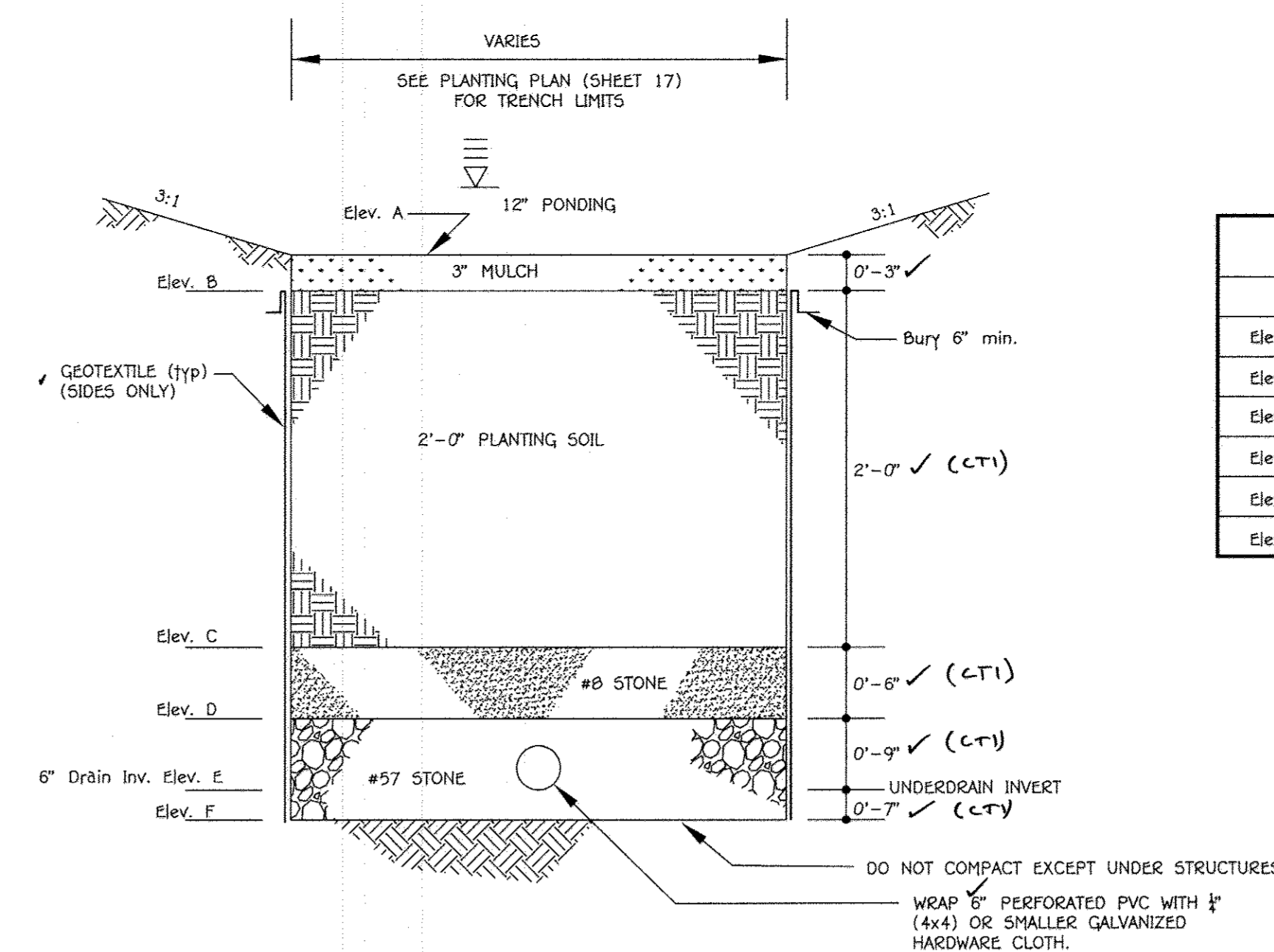
BMP RISER STRUCTURE ELEVATION TABLE		
	R-1 (BMP#1)	NOTES
ELEV. G	✓377.83	✓Top of Grate
ELEV. H	✓377.00	✓Two (2) 2' Weir Crests
ELEV. I	✓372.50	✓Inv. 6" Perfor. u/d
ELEV. J	✓372.36	✓12" RCCP Invert Out
ELEV. K	✓372.90	✓12" RCCP Invert In
HEIGHT L	5'-8"	Structure Height

**RISER STRUCTURE R-1
MODIFIED K-INLET TYPICAL SECTION**
NTS



- NOTES:
- Riser joints shall join evenly and be watertight. Parge joints after installation.
 - The referenced joint and joint sealant material is used by Frederick Precast, Inc. Similar joints may be used with shop drawing approval by the engineer.

**RISER JOINT DETAIL
NTS**



BMP BIORETENTION FACILITY ELEVATION TABLE		
	BMP #1	BMP #2
Elev. A	✓376.00	✓381.00
Elev. B	✓375.75	✓380.75
Elev. C	✓373.75 <T1	✓378.75 <T1
Elev. D	✓373.25	✓378.25
Elev. E	✓372.50	✓377.50
Elev. F	✓371.92	✓376.92

BMP BIORETENTION FACILITY NOTES AND SPECIFICATIONS

- THE LIMITS OF THE TYPICAL SECTION (i.e., PLANTING SOIL, SAND, ETC.) IS THE ENTIRE LEVEL SURFACE OF THE BIORETENTION FACILITIES EXCLUDING THE FOREBAY AREAS AND THE RIPRAP GABION APRONS.
- REFER TO THE 2000 MARYLAND SWM DESIGN MANUAL (AND/OR ONLINE A MDE'S WEB SITE) FOR BIORETENTION SPECIFICATIONS FOR INFORMATION NOT LISTED HEREIN.
- THE BIORETENTION BMP MATERIALS ARE AS FOLLOWS:
 - PLANTING SOIL: PER PLANTING SOIL SPECIFICATIONS OUTLINED IN MDE'S 2000 SWM MANUAL, APPENDIX B.4. DO NOT MECHANICALLY COMPACT PLANTING SOIL (EXCEPT WHERE INDICATED UNDER STRUCTURE R-2). THE PLANTING SOIL CAN BE "WATERED" TO FACILITATE SETTLING. SPECIFICALLY, THE PLANTING SOIL SHALL MEET THE FOLLOWING: LOAMY SAND @ 60-65% AND COMPOST 35-40%, OR, 30% SANDY LOAM, 30% COARSE SAND, & 40% COMPOST. SEE MDE APPENDICES A.2.3, B.4.7 AND TABLE A.3 FOR ADDITIONAL INFORMATION. IN ADDITION, THE PLANTING SOIL SHALL BE DESIGNED/MIXED/DESIGNED SO THAT ITS COEFFICIENT OF PERMEABILITY (k) IS BETWEEN 1.0 ft/day to 2 ft/day.
 - SEE PLANTING PLAN (SHT 17) FOR LIMITS OF PLANTING SOIL AND UNDERDRAIN/RECHARGE AGGREGATE.
 - PVC UNDERDRAIN PIPE: SCHEDULE 40, AND PERFORATED WITH 1/2" HOLES. WRAP UNDERDRAIN WITH GALVANIZED 1/4" HARDWARE CLOTH (WELDED WIRE MESH). PROVIDE 4 - 1/2" HOLES AROUND THE 6" UNDERDRAIN PIPE SPACED @ 90° ALONG THE CIRCUMFERENCE. SPACE PERFORATIONS ALONG PIPE AT 6" ON CENTER.
 - PERFORATIONS MUST TOTAL 1.5 sq. inch MIN. PER LF OF PIPE. ADJACENT SETS OF PERFORATIONS SHALL BE STAGGERED/OFFSET @ 45 DEGREES. SLOTTED PATTERNS MAY BE USED WITH ENGINEER'S WRITTEN AGREEMENT. UNDERDRAIN PIPE SHALL BE LEVEL (i.e., NO SLOPE, 0.0%).
 - STONE AGGREGATE: MSHA SPECIFICATIONS AS SHOWN ON TYPICAL SECTION; AGGREGATE MUST BE CLEAN AND WASHED AND BE FREE OF FINES, DIRT & DEBRIS.
 - GEOTEXTILE: PER MDE SWM MANUAL OR MIRAFT 140N.
 - MULCH: SHREDDED, WELL-AGED (6-12 MONTHS) HARDWOOD MULCH; NO WOOD CHIPS OR PINE MULCH.
- THE CONTRACTOR SHALL UNDER NO CIRCUMSTANCES ALLOW SURFACE DRAINAGE INTO THE BIORETENTION BMPs UNTIL ALL UPSTREAM AREAS HAVE BEEN STABILIZED (i.e., PAVED, OR HAVE WELL-ESTABLISHED VEGETATION).
- BOARDS SHALL NOT BE LEFT IN PLACE DURING THE CONSTRUCTION.
- GEOTEXTILE (FILTER FABRIC) SHALL BE PLACED AGAINST EXCAVATED VERTICAL SURFACES. SCARIFY EARTH PRIOR TO GEOTEXTILE INSTALLATION. INSTALL GEOTEXTILE PER MANUFACTURER'S SPECIFICATIONS/RECOMMENDATIONS; USE A 2 FT MINIMUM OVERLAP AND NOTCH ENDS WITH A 6" MINIMUM BURY OR EQUIVALENT ANCHORING METHOD.
- THE CONTRACTOR SHALL OBTAIN INDEPENDENT CERTIFICATION THAT THE SOILS AND OTHER MATERIALS MEET THE SPECIFICATIONS.
- THE BIORETENTION FACILITIES SHALL BE VEGETATED IN ACCORDANCE WITH THE PLANTING SCHEDULE/SPECIFICATIONS AND PER MDE SPECIFICATIONS IN THE 2000 SWM DESIGN MANUAL. CONTACT THE ENGINEER IF ANY DISCREPANCIES.
- USE PERFORATED PVC PIPE INSIDE THE BIORETENTION FACILITIES AND WRAP PERFORATED PIPE WITH 1/4" HARDWARE CLOTH TO PREVENT AGGREGATE FROM ENTERING THE PERFORATIONS.
- INSTALL CLEANOUTS/OBSERVATION WELLS (SOLID PVC PIPE) AS SHOWN. THE CLEANOUT/OBSERVATION WELL TOP SHALL EXTEND 3" ABOVE TOP OF MULCH.
- THE LIMIT OF THE TYPICAL SECTION (i.e., PLANTING SOIL, AGGREGATE, ETC.) IS DETAIL ON THE PLANTING PLAN ON SHEET 17. BASICALLY, THE PLANTING TRENCH AREA (i.e., TYPICAL SECTION ABOVE) IS THE ENTIRE LEVEL SURFACE OF THE BIORETENTION FACILITY EXCLUDING THE FOREBAY/GABION WEIR AND THE AREA NEAR THE RISER AND OVER CONNECTING STORM DRAINS.

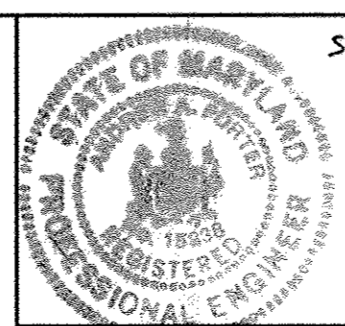
BMP BIORETENTION FACILITY TYPICAL SECTION
NTS

FOR SWM ONLY:
CIVIL DESIGN SERVICES, LC
6123 Holly Ridge Court, Columbia, Maryland 21044
240.755.0380
civildesign@comcast.net

NO.	REVISION	DATE



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15838, EXPIRATION DATE: 12/17/17.
Andrew A. Porter 3/23/2016
Andrew A. Porter, P.E. DATE



SEE SHT 1 FOR AS-BUILT CERTIFICATION
Andrew C. Porter
OWNER AND DEVELOPER
REVEREND STEPHANIE VADER
EMMANUEL UNITED
METHODIST CHURCH
10755 SCAGGSVILLE ROAD
LAUREL, MD 20723
301-725-5200

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Nathaniel J. Jellie 6-9-16
Director - Department of Planning and Zoning Date

Matthew J. Jellie 6-9-16
Chief, Division of Land Development Date

Matthew J. Jellie 5-12-16
Chief, Development Engineering Division Date

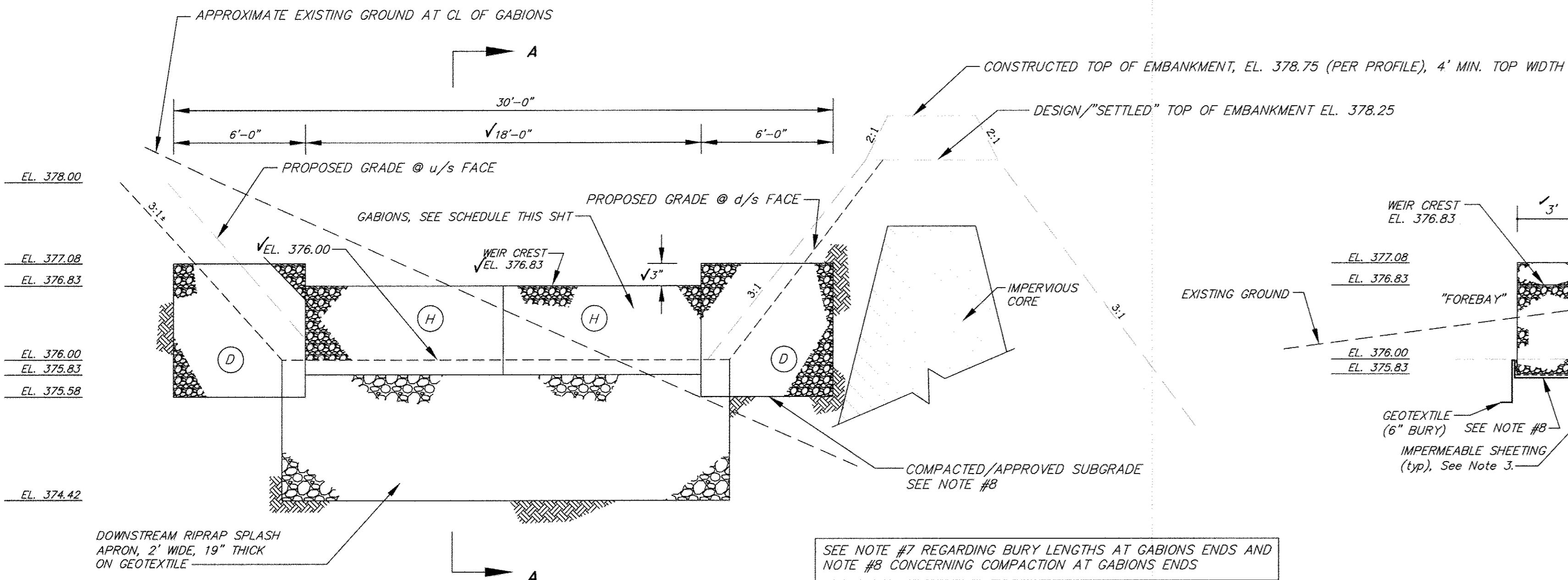
PROJECT	SECTION	PARCEL NOS.
EMMANUEL UNITED METHODIST CHURCH	-	A

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
23786.4	11	R-20	46	SIXTH	6068.02

WATER CODE	SEWER CODE
E-1B	7550000

**BMP #1 & #2 RISER DETAILS
AND BMP TYPICAL SECTION**

2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT.
AND FOREST CONSERVATION RETENTION BANK
**EMMANUEL UNITED
METHODIST CHURCH**
PARCEL 'A'
PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
SOP-92-027, ECP-13-053 & F-16-052
ZONED: R-20
TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 98
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: DATE: MARCH 12, 2016
SHEET 14 OF 22 50P-15-067

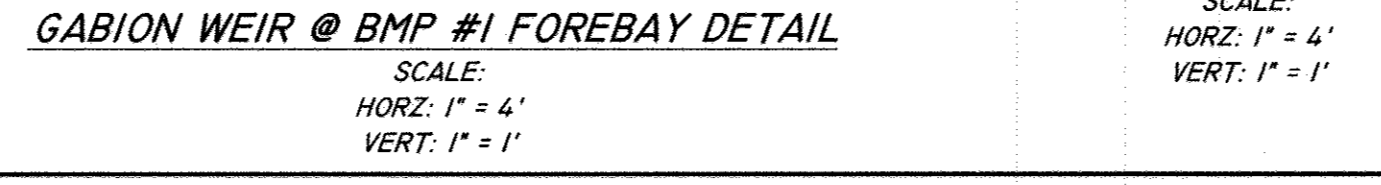
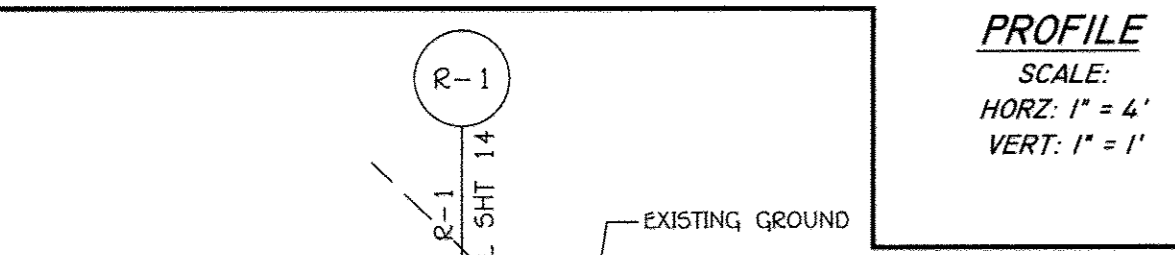


BMP #1 FOREBAY GABION WEIR SCHEDULE

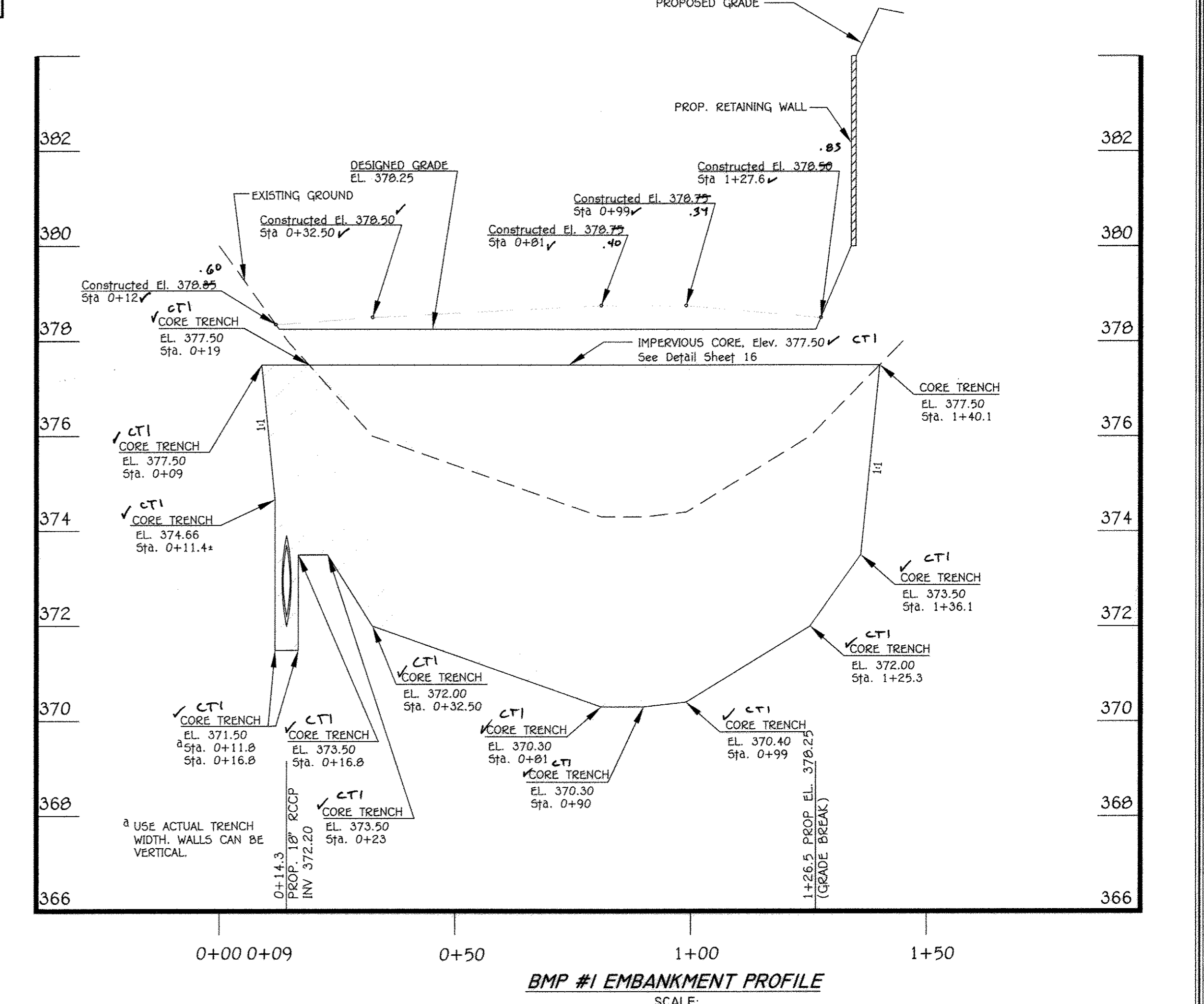
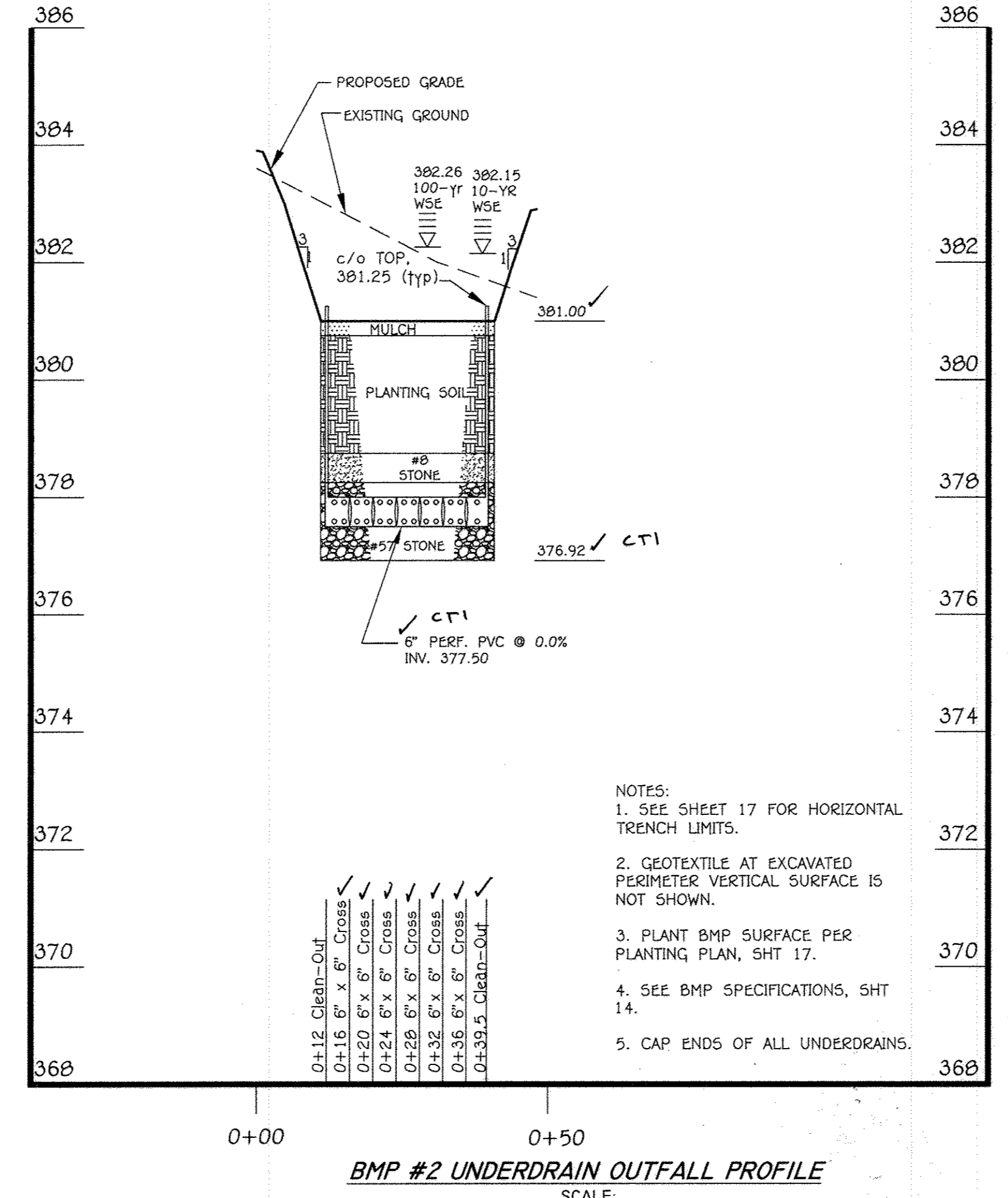
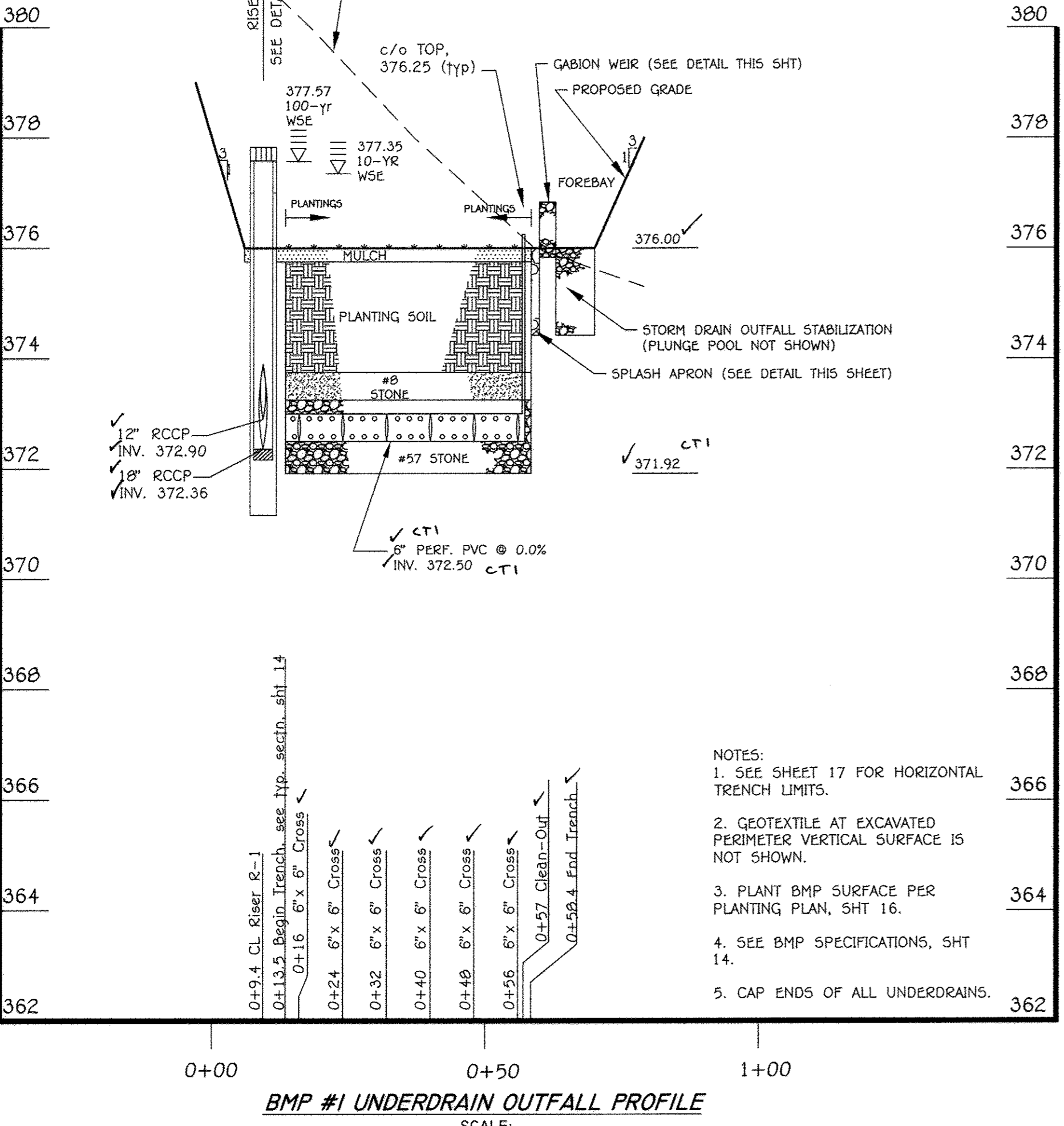
(Gabion Basket Quantities)

MANUFACTURER'S LETTER CODE/DIMENSIONS	QUANTITY
(D) 6'x3'x1.5'	2
(H) 9'x3'x1'	2

- #### BMP #1 FOREBAY GABION WEIR NOTES
- GABIONS SHALL BE MANUFACTURED BY MACCAFERRI GABIONS INC. THE INSTALLATION SHALL FOLLOW THE MANUFACTURER'S SPECIFICATIONS.
 - THE GABION BASKETS SHALL BE PVC COATED AND FILLED WITH CLEAN 4" - 7" STONE. THE GABION STONE SHALL BE CAREFULLY PLACED TO CREATE TIGHT, INTERLOCKING AGGREGATE WITH MINIMAL VOIDS.
 - TWO SHEETS OF IMPERVIOUS GEOTEXTILE OR 20 MIL VINYL/PLASTIC SHEETING SHALL BE PLACED ON THE BURIED UPSTREAM (FOREBAY SIDE) FACE OF THE BASKETS. USE 2 FT OVERLAP.
 - GABIONS SHALL BE PLACED ON GEOTEXTILE FABRIC (MIRAFI 600X OR APPROVED EQUAL) AT ALL SOIL/GABION INTERFACES.
 - GABIONS SHALL BE CAREFULLY PLACED WITH NO DAMAGED WIRE. EARTH FOUNDATION SHALL BE FIRM. SOIL AROUND GABIONS SHALL BE WELL-COMPACTED.
 - GABIONS SHALL BE FASTENED TOGETHER WITH MANUFACTURER-SPECIFIED WIRING.
 - GABION BURY LENGTHS (CONSTRUCTED DIMENSION TO BE WITHIN 1" OF DESIGN): UPSTREAM NORTH END: 2'-3"; UPSTREAM SOUTH END: 2'-3"; DOWNSTREAM NORTH END: 2'-0"; DOWNSTREAM SOUTH END: 2'-0"
 - THE CONTRACTOR SHALL WELL-COMPACT THE EMBANKMENT SOIL AT THE BURIED GABIONS ENDS. THE GABION FOUNDATION SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER. DO NOT COMPACT PLANTING SOIL AND/OR PLANTING SOIL FOUNDATION ADJACENT TO THE SPLASH APRON.



- #### BMP #1 CONSTRUCTION NOTES
- BIORETENTION FACILITY BMP #1 SHALL BE CONSTRUCTED TO THE LATEST EDITION OF NRCS'S POND STANDARD MD-378. THE EMBANKMENT CONSTRUCTION AND CORE TRENCH (I.E., MULCH, PLANTING SOIL, AGGREGATE, UNDERDRAIN) SHALL BE OBSERVED/APPROVED BY A GEOTECHNICAL ENGINEER. DUE TO THE SAND COMPONENT OF THE SOIL BORINGS, THE CONTRACTOR SHALL OBTAIN APPROVAL THAT THE SOILS MEET THE MD-378 EARTH FILL CRITERIA.
 - BIORETENTION FACILITY BMP #1 SHALL BE CONVERTED TO A SWM FACILITY AFTER ALL UPSTREAM AREAS HAVE BEEN STABILIZED (I.E., ESTABLISHED VEGETATION OR PAVED) INCLUDING THE POND SLOPES.
 - CORE TRENCH: IF UNSUITABLE (PERVIOUS) MATERIAL IS ENCOUNTERED GREATER THAN 4 FT, THE CUT-OFF TRENCH SHALL BE EXTENDED UNTIL SUITABLE MATERIAL IS ENCOUNTERED AS DETERMINED BY A GEOTECHNICAL ENGINEER. CUT-OFF TRENCH FILL MATERIAL SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH, OR CL. OTHER SOILS TYPES MAY BE USED IF APPROVED BY THE GEOTECHNICAL ENGINEER AND CONSTRUCTION IS SUPERVISED BY THE GEOTECHNICAL ENGINEER.
 - THE AREA OF THE PROPOSED SWM POND SHOULD BE STRIPPED OF TOPSOIL AND ANY OTHER UNSUITABLE MATERIALS FROM THE EMBANKMENT OR STRUCTURE AREA IN ACCORDANCE WITH SOIL CONSERVATION GUIDELINES. AFTER STRIPPING OPERATIONS HAVE BEEN COMPLETED, THE EXPOSED SUBGRADE MATERIALS SHOULD BE PROOF-ROLLED WITH A LOADED DUMP TRUCK OR SIMILAR EQUIPMENT IN THE PRESENCE OF A GEOTECHNICAL ENGINEER OR REPRESENTATIVE USING A DYNAMIC CONE PENETROMETER. ANY EXCESSIVELY SOFT OR LOOSE MATERIALS IDENTIFIED BY PROFILING OR PENETROMETER TESTING SHOULD BE EXCAVATED TO SUITABLE FIRM SOIL, AND THEN GRADES RE-ESTABLISHED BY BACKFILLING WITH SUITABLE SOIL. A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER SHALL BE PRESENT TO MONITOR PLACEMENT AND COMPACTION OF FILL FOR THE EMBANKMENT AND CUT-OFF TRENCH. IN ACCORDANCE WITH MARYLAND SOIL CONSERVATION SPECIFICATION 378 SOILS CONSIDERED SUITABLE FOR THE CENTER OF EMBANKMENT SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH, OR CL.



FOR SWM ONLY:
CIVIL DESIGN SERVICES, LC
 6123 Holly Ridge Court, Columbia, Maryland 21044
 240.755.0380 phone/fax
 civildesign@comcast.net



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15838, EXPIRATION DATE: 12/17/17.
 Andrew A. Porter, P.E. 3/23/2016 DATE

SEE SHT 1 FOR AS-BUILT CERTIFICATION

OWNER AND DEVELOPER
 REVEREND STEPHANIE VADER
 EMMANUEL UNITED METHODIST CHURCH
 10775 SCAGSVILLE ROAD
 LAUREL, MD 20723
 301-725-5200

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Waldis J. J. J. 6-9-16
 Director - Department of Planning and Zoning Date

Waldis J. J. J. 6-9-16
 Chief, Division of Land Development Date

Waldis J. J. J. 6-12-16
 Chief, Development Engineering Division Date

PROJECT	SECTION	PARCEL NOS.
EMMANUEL UNITED METHODIST CHURCH	-	A

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
23786-1	11	R-20	46	SIXTH	606B.02

WATER CODE	SEWER CODE
E-18	7550000

STORMWATER MANAGEMENT DETAILS I

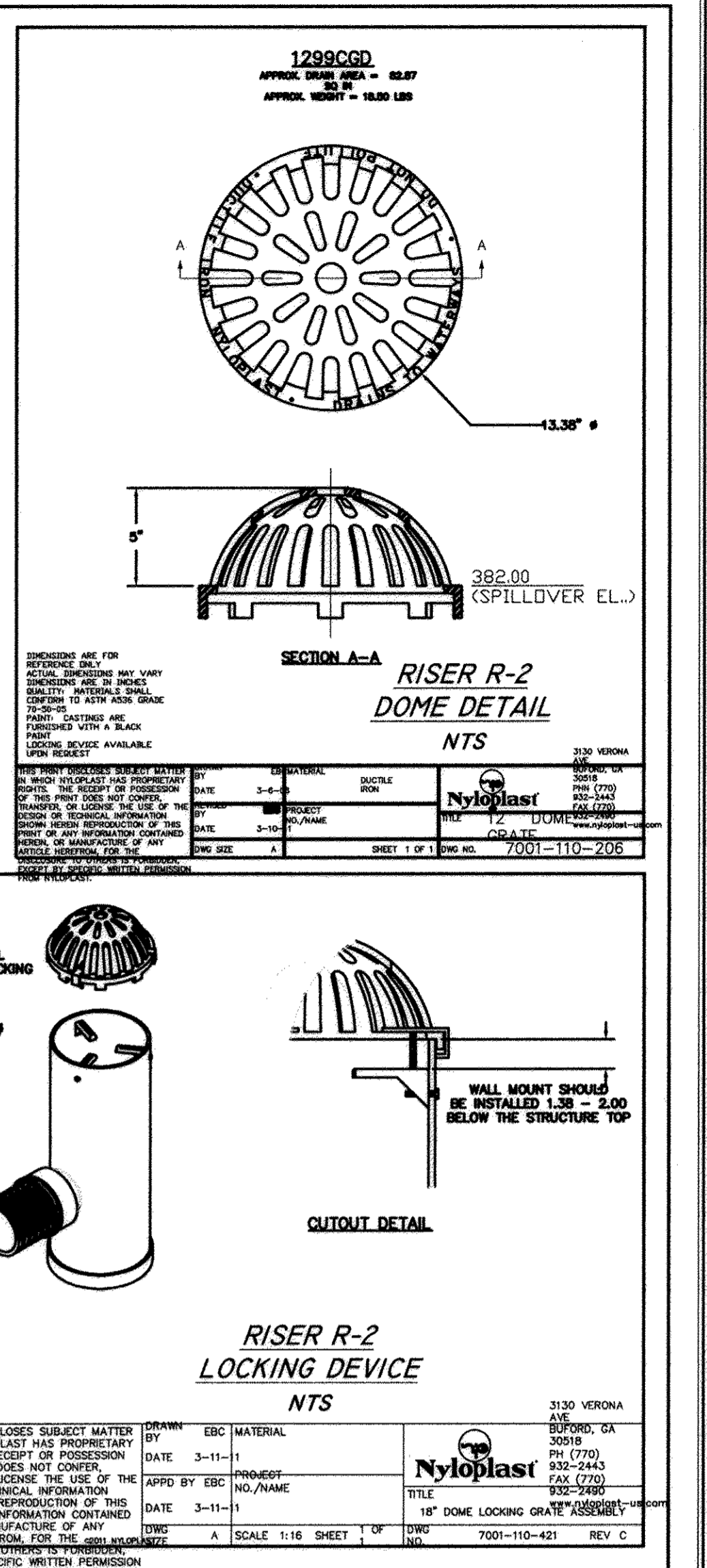
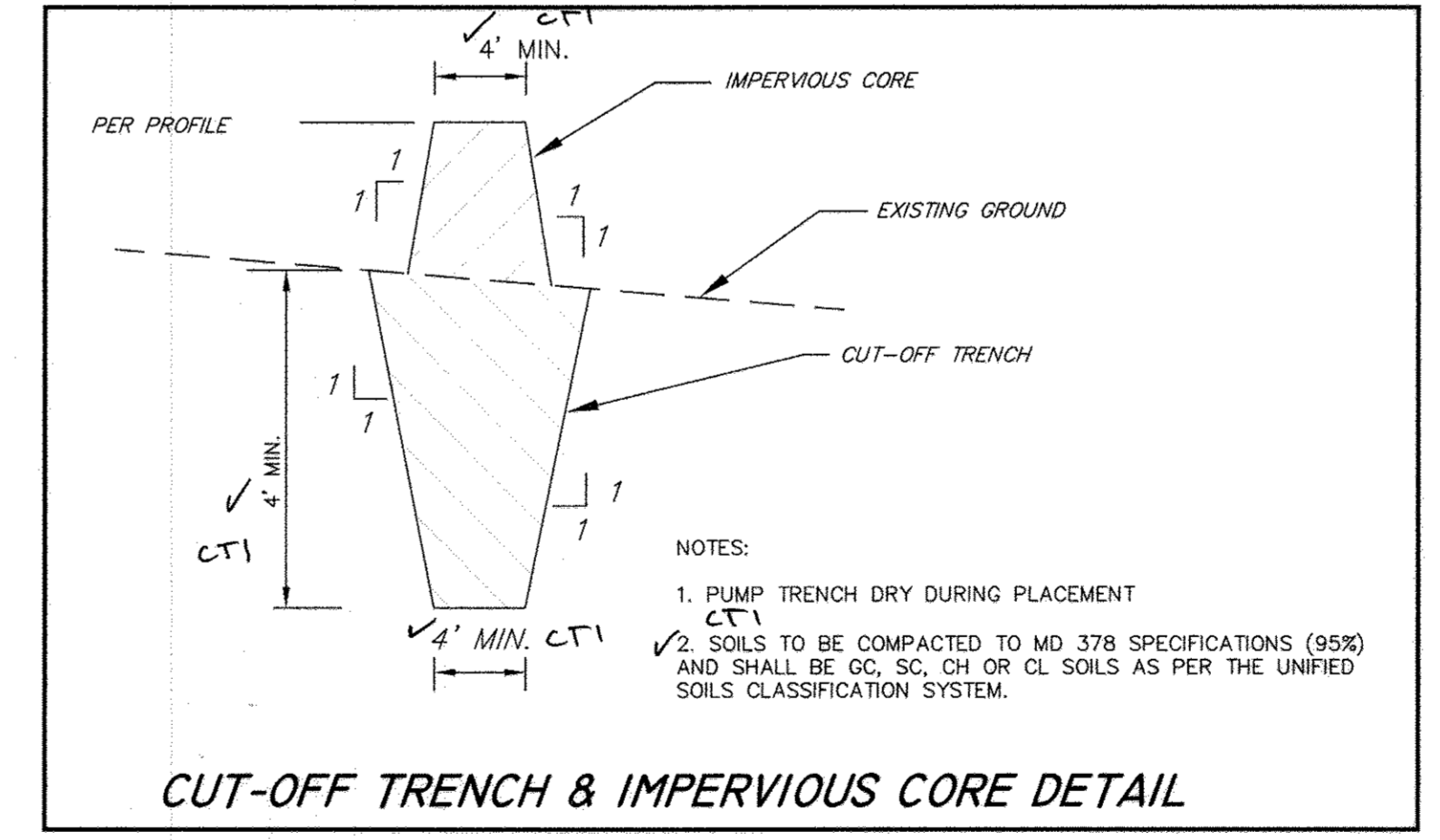
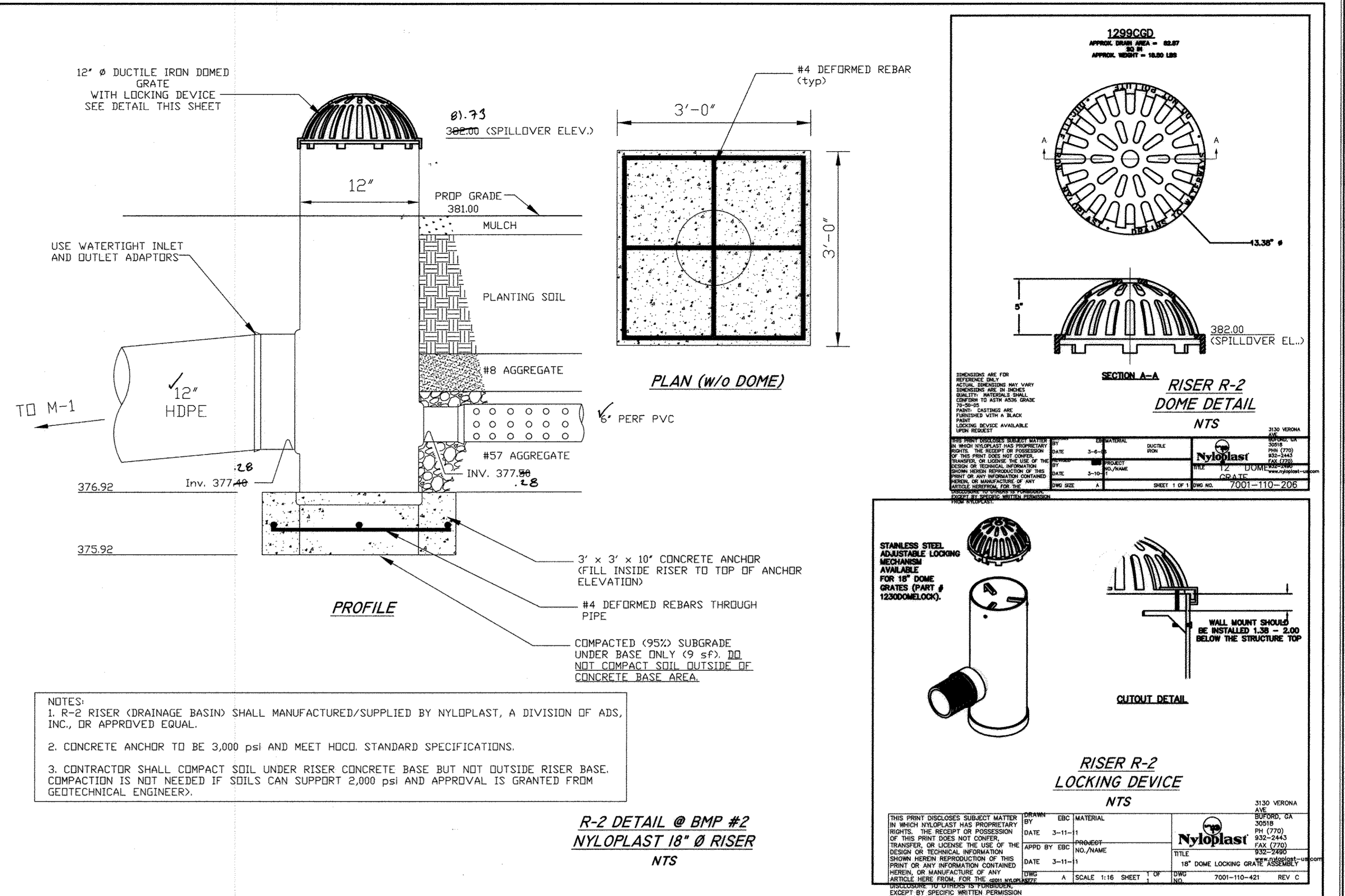
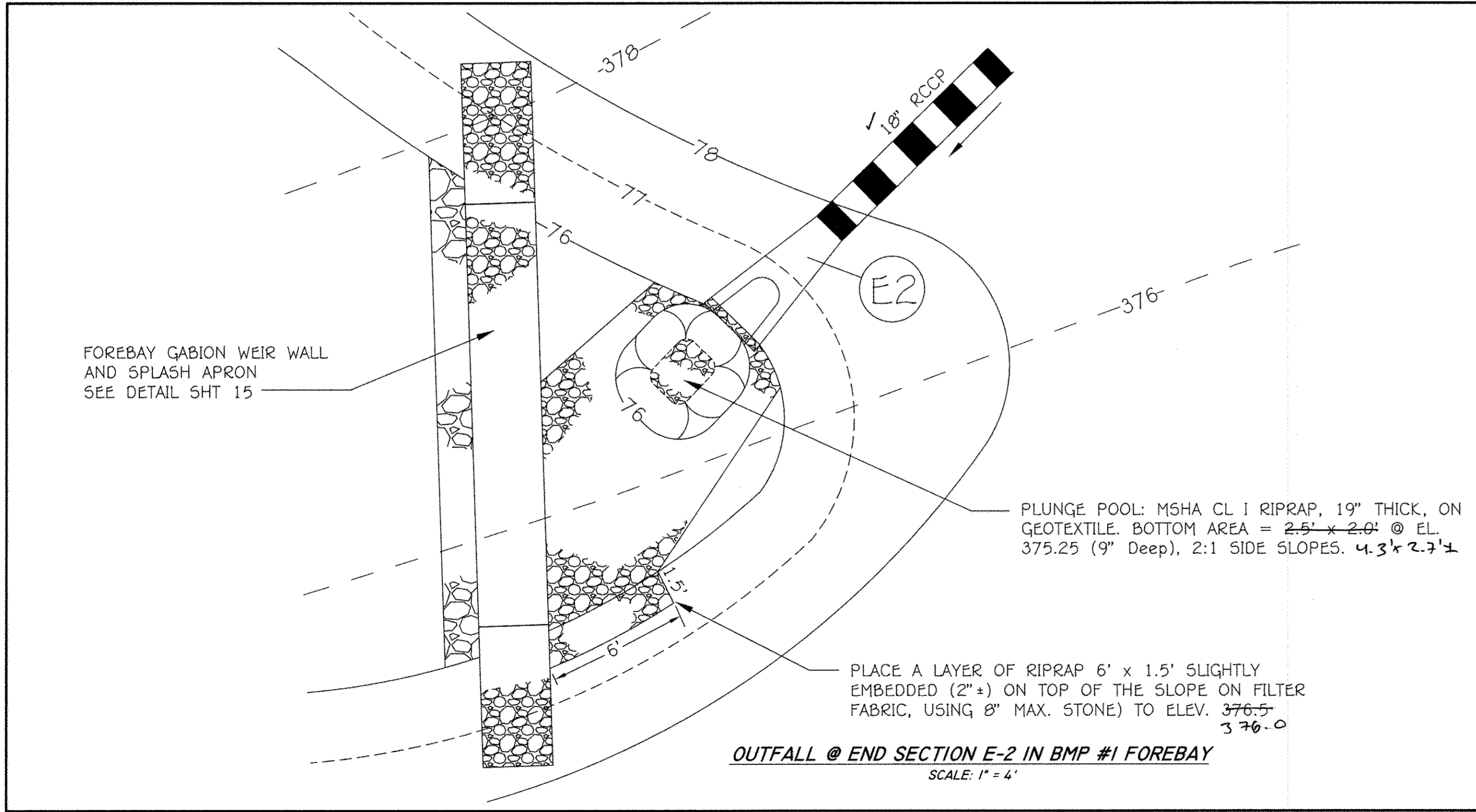
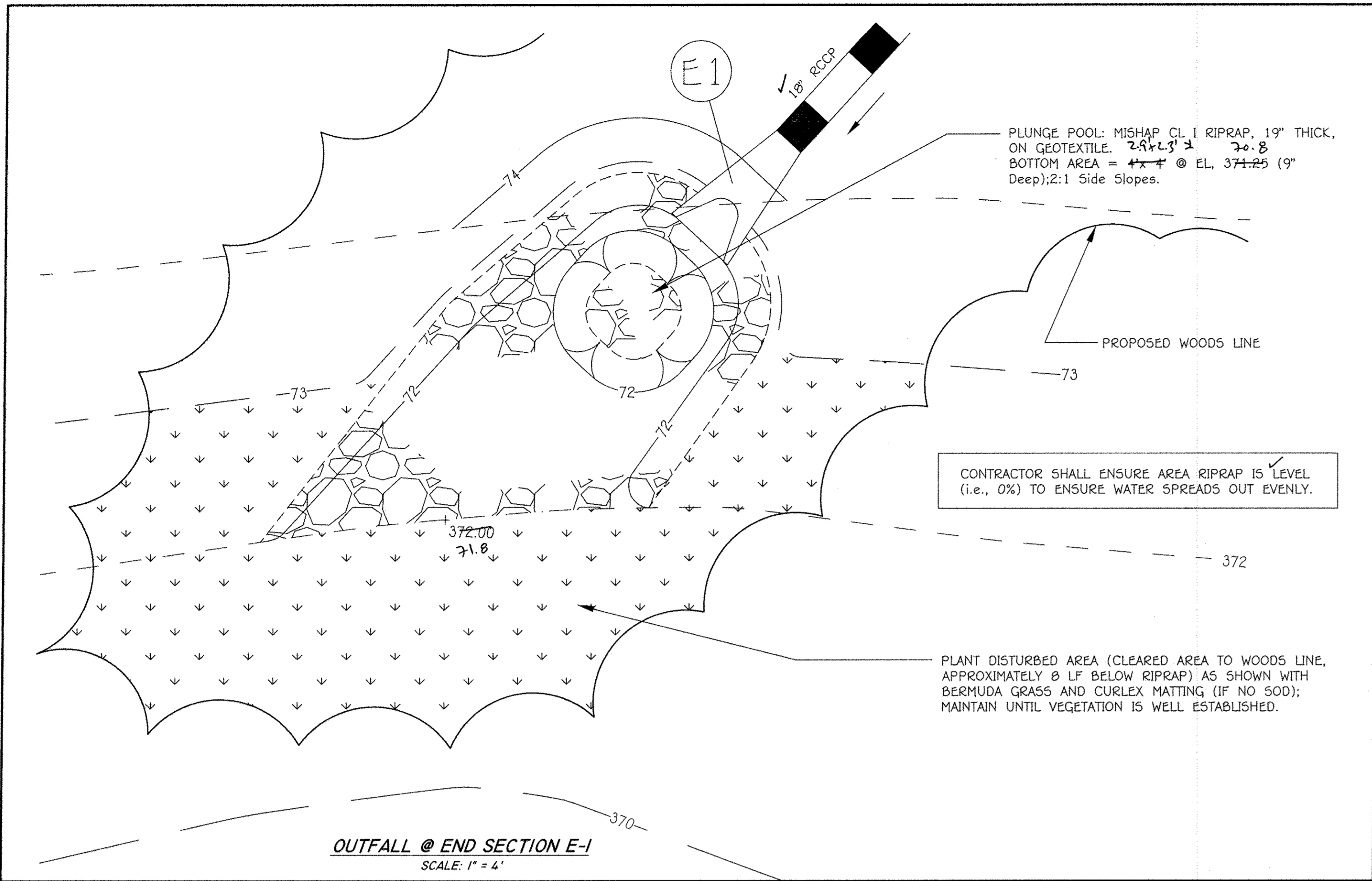
2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT. AND FOREST CONSERVATION RETENTION BANK

EMMANUEL UNITED METHODIST CHURCH
 PARCEL 'A'

PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
 S0P-92-027, ECP-13-053 & F-16-052

ZONED: R-20
 TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 98
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: DATE: MARCH 12, 2016

SHEET 15 OF 22 S0P-15-067



NO.	REVISION	DATE

4/15/17	AS-BUILT	



PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15938, EXPIRATION DATE: 12/17/17.

Andrew A. Porter
Andrew A. Porter, P.E.
3/23/2016
DATE

SEE SHT 1 FOR AS-BUILT CERTIFICATION

Andrew G. Porter

OWNER AND DEVELOPER

REVEREND STEPHANIE VADER
EMMANUEL UNITED
METHODIST CHURCH
10755 SCAGSVILLE ROAD
LAUREL, MD 20723
301-725-5200

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Valerie J. Miller
Director - Department of Planning and Zoning
Date: 6-9-16

Chief of Land Development
Date: 6-9-16

Chief, Development Engineering Division
Date: 5-12-16

PROJECT	EMMANUEL UNITED METHODIST CHURCH	SECTION	A	PARCEL NOS.	
PLAT	23707	BLOCK NO.	11	ZONE	R-20
TAX / ZONE	46	ELEC. DIST.	SIXTH	CENSUS TR.	606B.02
WATER CODE	E-1B	SEWER CODE	7550000		

STORMWATER MANAGEMENT DETAILS II

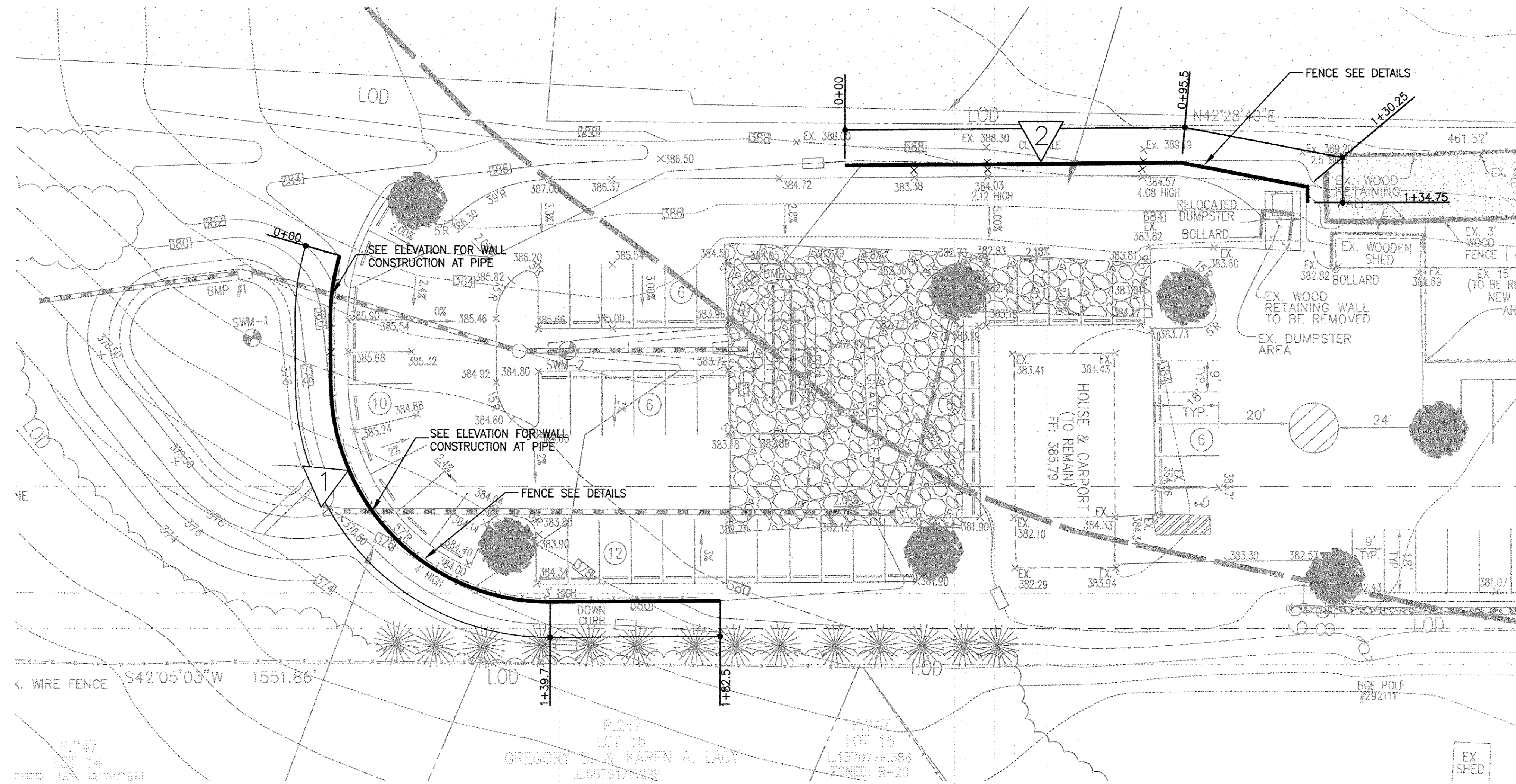
2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT. AND FOREST CONSERVATION RETENTION BANK

EMMANUEL UNITED METHODIST CHURCH
PARCEL A

PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
SDP-92-027, ECP-13-053 & F-16-052

ZONED: R-20
TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 98
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: DATE: MARCH 12, 2016

SHEET 16 OF 22
SDP-15-067



SITE RETAINING WALL LAYOUT
SCALE = 1:20

NOTES:

- FOR TOP AND BOTTOM OF KEYSTONE WALL ELEVATIONS SEE SEGMENTAL RETAINING WALL ELEVATIONS ON SHEET 19.
- NO TREE PLANTING WITHIN 10 FT BEHIND THE TOP OF WALLS.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2855

TEC
Tarantino Engineering Consultants, PC
7678 Midtown Rd.
Fulton, MD 20759
410-921-7678
www.tarantinoec.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. 24871, EXPIRATION DATE: 2/28/18.

NO SWM AS-BUILT INFO ON THIS SHEET
ANDREW A. PORTELLE #15838
11/13/12

Andrew A. Portelle

OWNER AND DEVELOPER
REVEREND STEPHANIE VADER
EMMANUEL UNITED
METHODIST CHURCH
10755 SCAGGSVILLE ROAD
LAUREL, MD 20723
301-498-2093

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

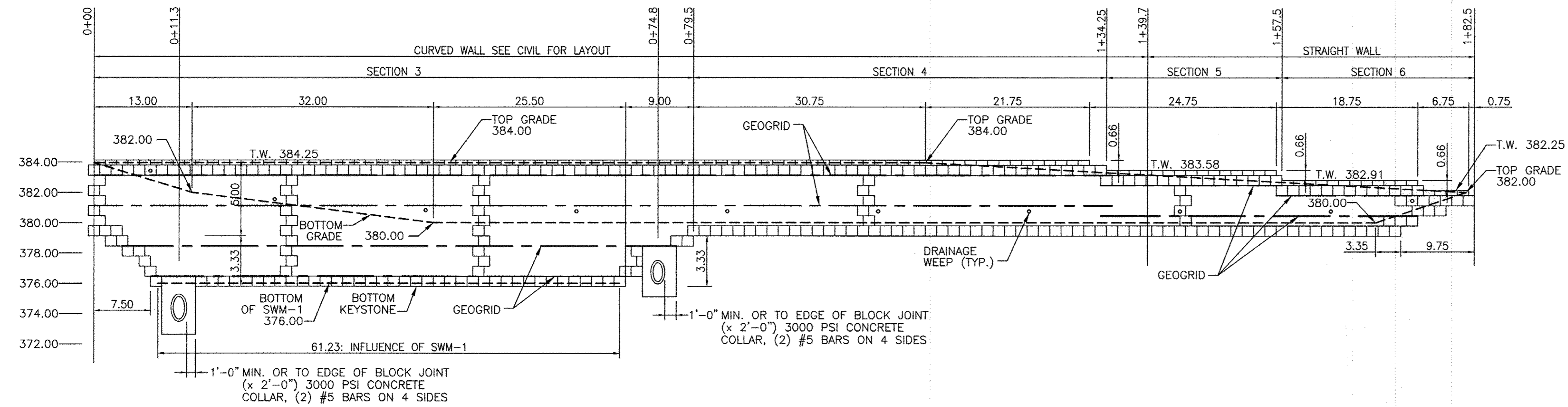
<i>Andrew A. Portelle</i>	6-9-16
Director - Department of Planning and Zoning	Date
<i>Andrew A. Portelle</i>	6-9-16
Chief, Division of Land Development	Date
<i>Andrew A. Portelle</i>	5-12-16
Chief, Development Engineering Division	Date

PROJECT EMMANUEL UNITED METHODIST CHURCH		SECTION -	PARCEL NOS. A
PLAT 23786 & 23787	BLOCK NO. 11	TAX/ZONE R-20	ELEC. DIST. 46
WATER CODE E-18		SEWER CODE 7550000	
CENSUS TR. 6088.02		SIXTH	

SITE WALL LAYOUT

2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT.
AND FOREST CONSERVATION RETENTION BANK
EMMANUEL UNITED
METHODIST CHURCH
PARCEL 'A'

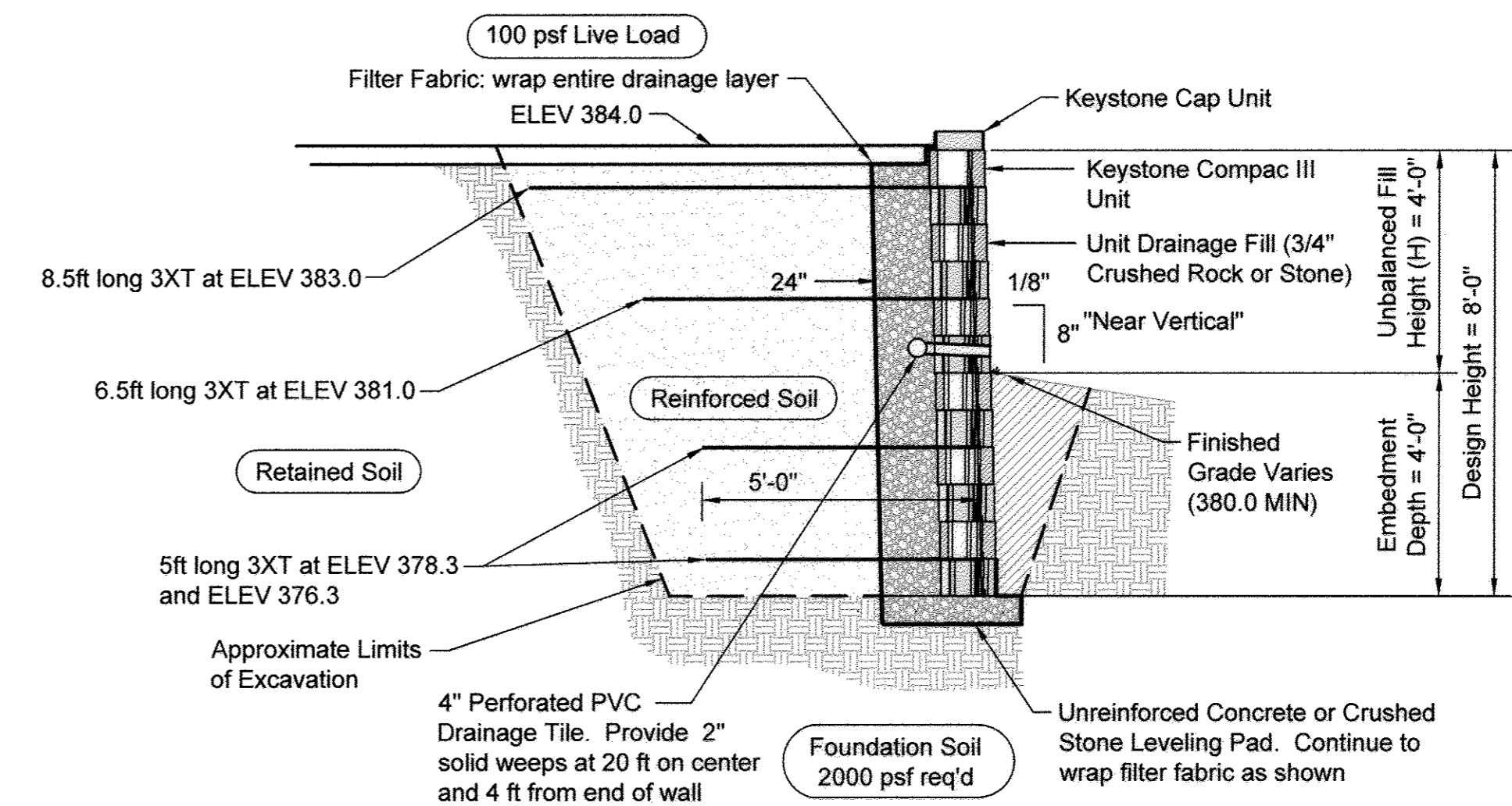
PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
SDP-92-027, ECP-13-053 & F-16-052
ZONED: R-20
TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 98
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE: DECEMBER 29, 2015
SCALE:



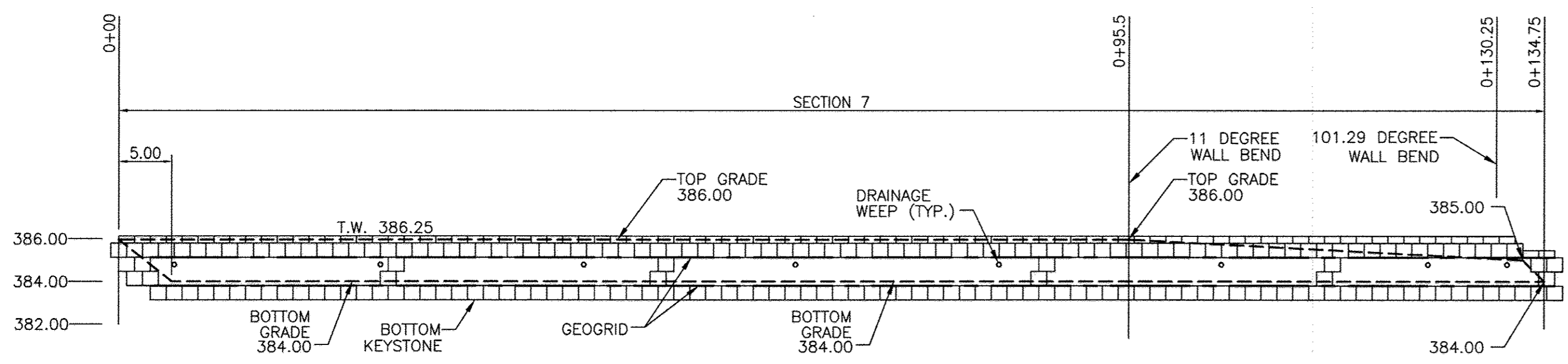
SEGMENTAL RETAINING WALL NOTES:

1. SEGMENTAL WALL SHALL BE KEYSTONE BRAND COMPAC III 12" STRAIGHT FACE OR APPROVED EQUAL. COLOR AND FINISHING CAP STYLE TO BE SELECTED/ APPROVED BY OWNER. GEOGRID SHALL CONFORM TO STRATAGRID 200 OR APPROVED EQUAL.
2. SEE GEOTECHNICAL REPORT BY HILLIS CARNES DATED MARCH 13, 2014 FOR SOIL PREPARATION AND REQUIREMENTS FOR BACKFILL AND LEVELING PAD. ANGLE OF INTERNAL FRICTION OF SOIL = 28 DEGREES MIN. DENSITY 120 PCF ASSUMED. ALLOWABLE BEARING PRESSURE = 2,900 PSF, WHERE SOFT OR LOOSE POCKETS ARE ENCOUNTERED THE UNSUITABLE MATERIALS SHOULD BE UNDERCUT AND REPLACED WITH NEW FILL PLACED AND COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
3. SEE TYPICAL WALL DETAIL ON THIS SHEET FOR ADDITIONAL INFORMATION.
4. FOR FENCE GUIDELINES SEE SHEET 21. SEE CIVIL DRAWINGS FOR FENCE LAYOUT.
5. FOR ADDITIONAL INFORMATION AND DETAILS ON THE KEYSTONE BRAND SYSTEM REFER TO SHEET 20.
6. WALL DESIGN PARAMETERS:
 - LIVE LOAD SURCHARGE = 100 PSF
 - F.S. 1.5 FOR MANUFACTURED BLOCK
 - F.S. 2.0 FOR OVERTURNING FAILURE
 - F.S. 2.0 FOR BEARING FAILURE
7. T.W. DENOTES TOP OF KEYSTONE WALL ELEVATION

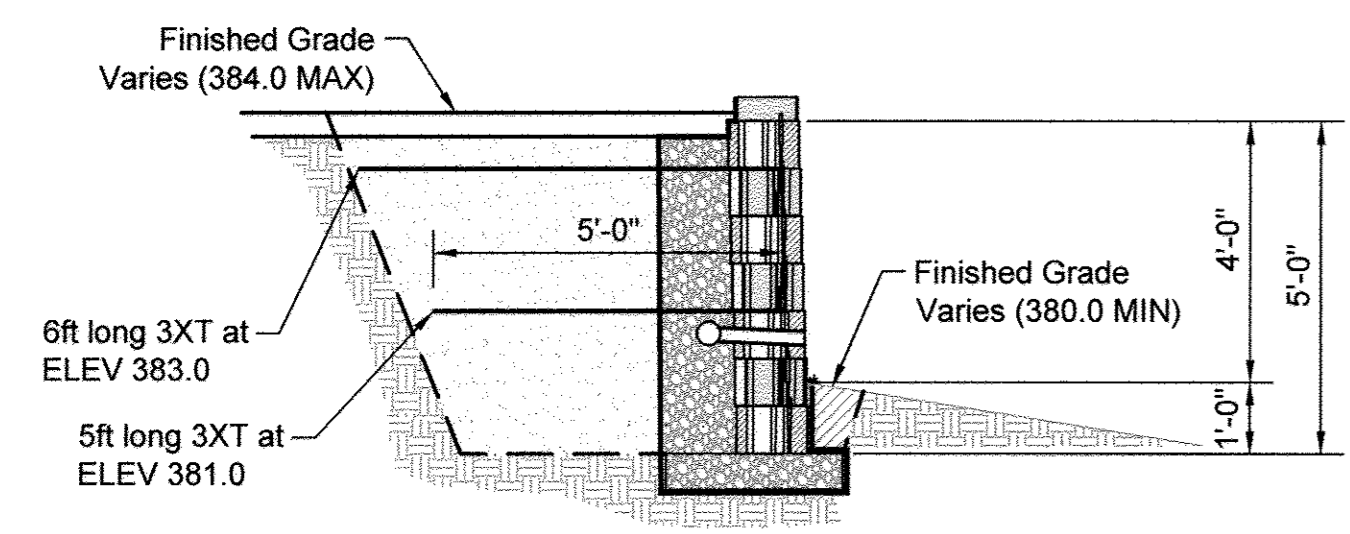
1
19
SEGMENTAL RETAINING WALL 1 ELEVATION
HORIZONTAL SCALE = 1"=10'
VERTICAL SCALE = 1"=2'



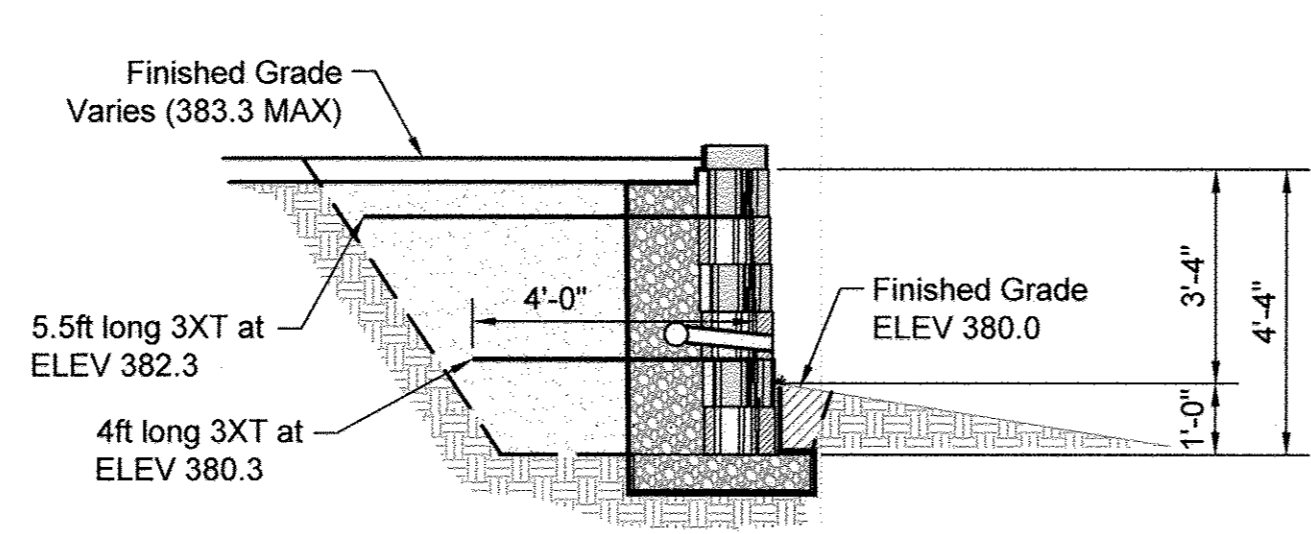
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19
SEGMENTAL RETAINING WALL 1 SECTION
STA. 0+00 TO 0+79.5
SCALE = 3/4" = 1'-0"



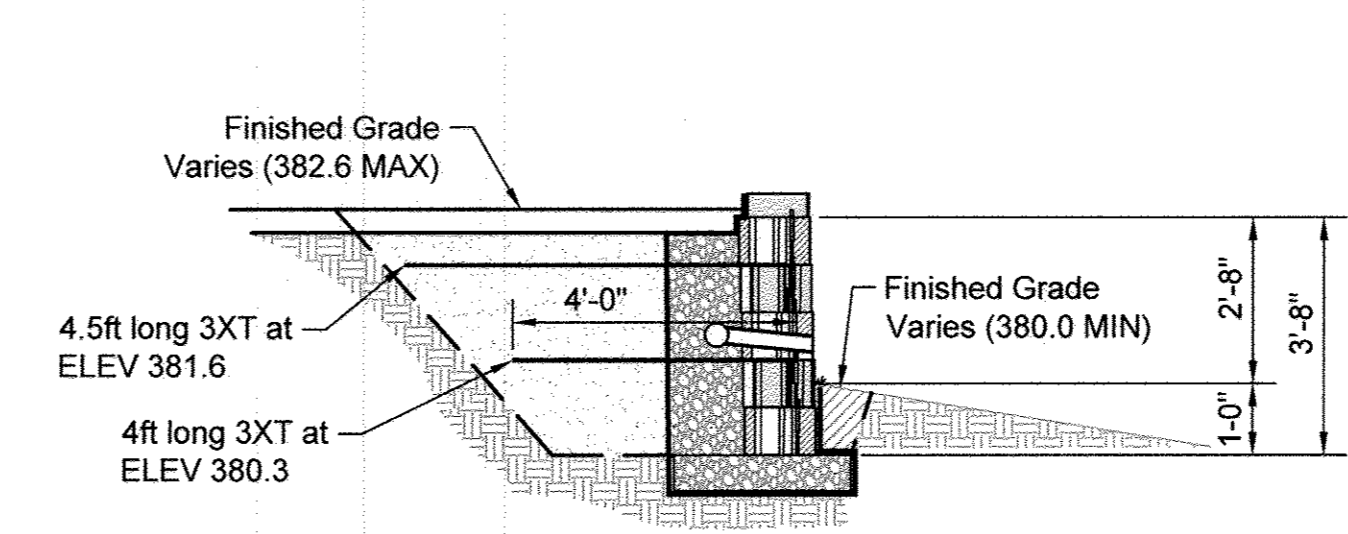
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HORIZONTAL SCALE = 1"=10'
VERTICAL SCALE = 1"=2'



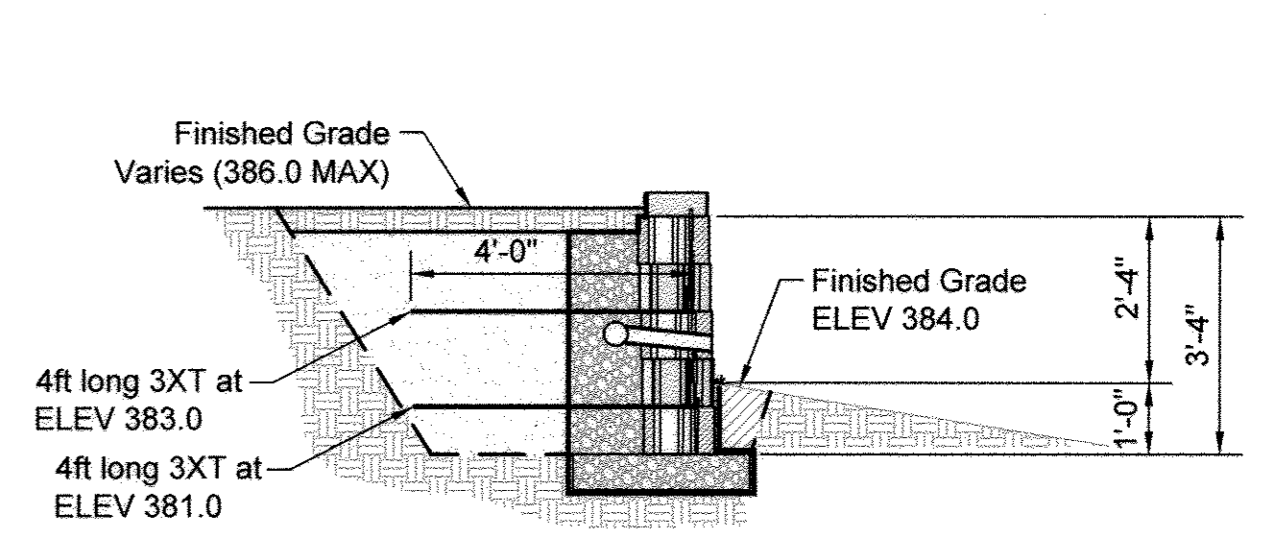
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19
SEGMENTAL RETAINING WALL 1 SECTION
STA. 0+79.5 TO 1+34.25
SCALE = 3/4" = 1'-0"



5
19
SEGMENTAL RETAINING WALL 1 SECTION
STA. 1+34.25 TO 1+57.5
SCALE = 3/4" = 1'-0"



6
19
SEGMENTAL RETAINING WALL 1 SECTION
STA. 1+57.5 TO 1+82.5
SCALE = 3/4" = 1'-0"



7
19
SEGMENTAL RETAINING WALL 2 SECTION
SCALE = 3/4" = 1'-0"

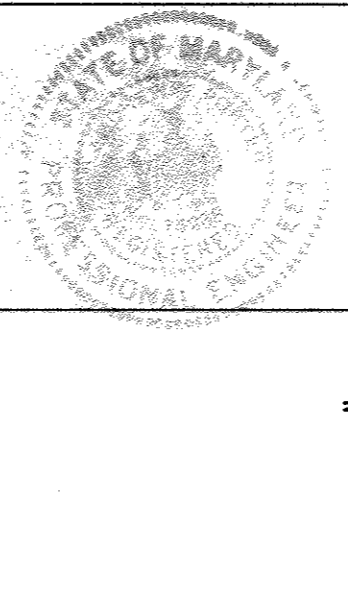
FISHER, COLLINS & CARTER, INC.
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 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2855

TEC
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 7678 Midtown Rd.
 Fulton, MD 20779
 410-921-7678
 www.tarantinoec.com

NO.	REVISION	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. 24871, EXPIRATION DATE: 2/28/18.



NO SIGN AS-BUILT INFO ON THIS SHEET
 ANDREW A. PORTER, P.E. #15838

Andrew C. Porter

OWNER AND DEVELOPER
 REVEREND STEPHANIE VADER
 EMMANUEL UNITED
 METHODIST CHURCH
 10755 SCAGGSVILLE ROAD
 LAUREL, MD 20723
 301-496-2093

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Valerie J. Jelinek 6-9-16
 Director - Department of Planning and Zoning Date

Kevin J. ... 6-9-16
 Chief, Division of Land Development Date

... 5-12-16
 Chief, Development Engineering Division Date

PROJECT	SECTION	PARCEL NOS.
EMMANUEL UNITED METHODIST CHURCH	-	A

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
23782-4 23787	11	R-20	46	SIXTH	6088.02

WATER CODE	SEWER CODE
E-18	7550000

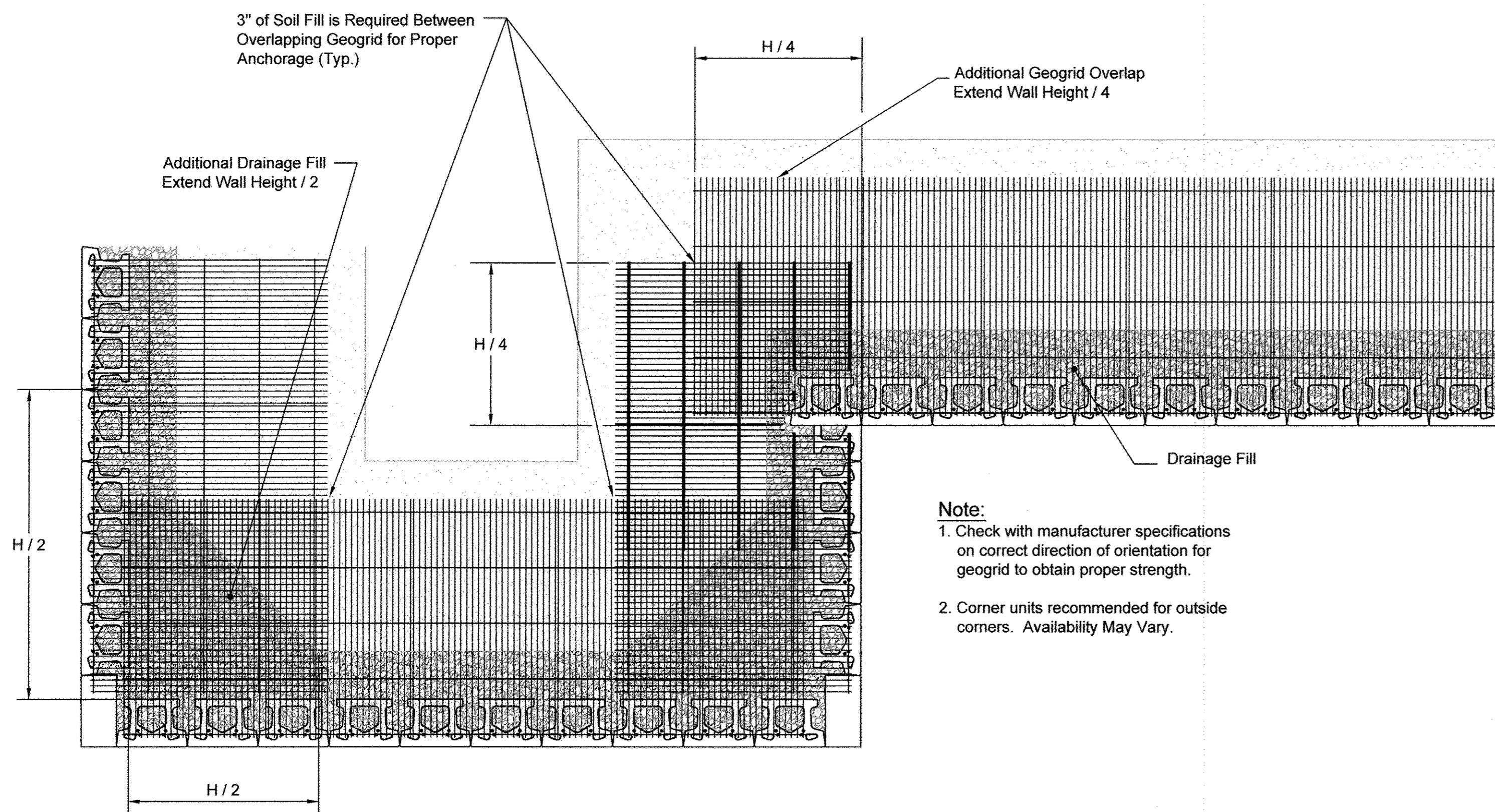
SITE WALL ELEVATIONS AND DETAILS

2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT. AND FOREST CONSERVATION RETENTION BANK
 EMMANUEL UNITED METHODIST CHURCH
 PARCEL 'A'

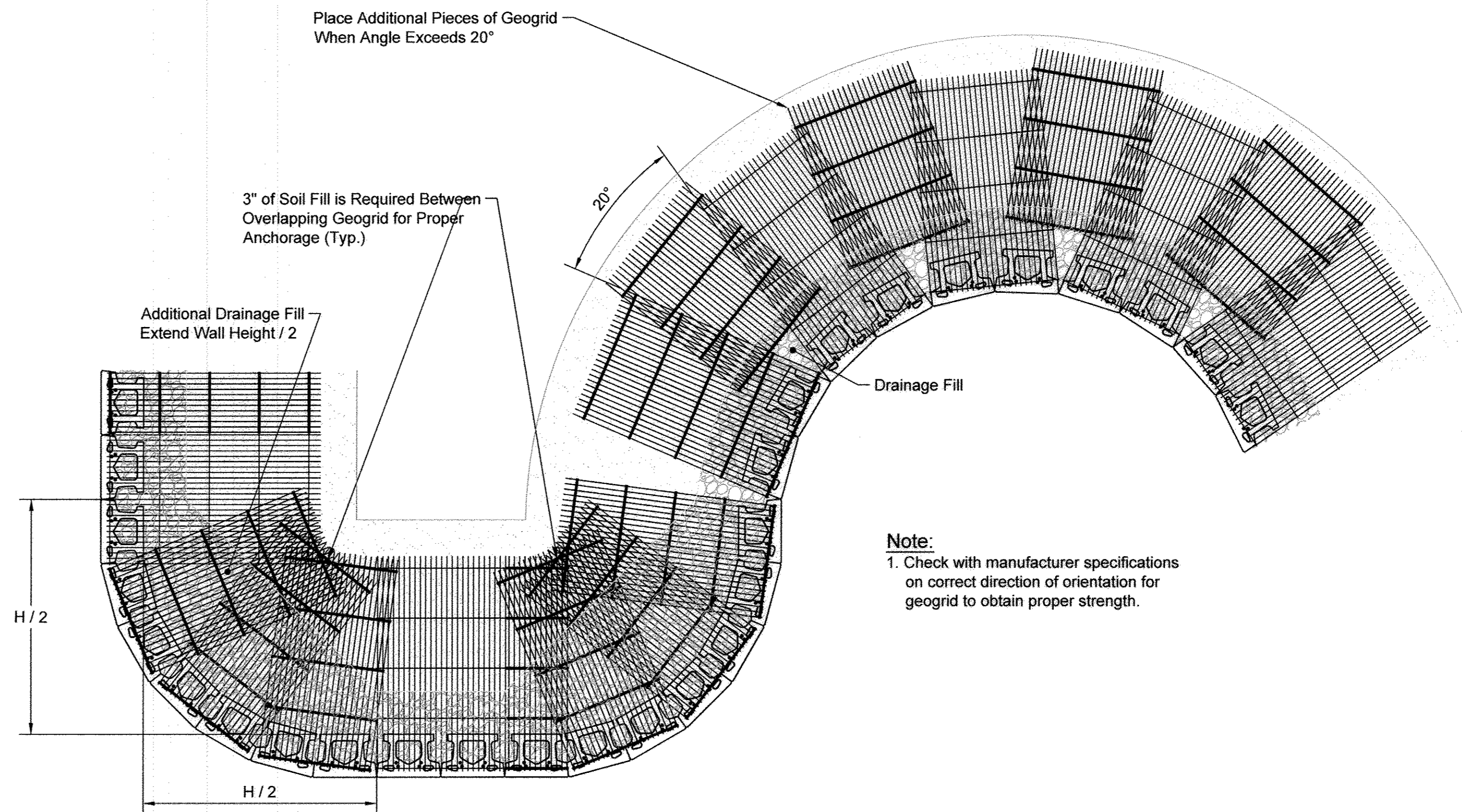
PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
 SDP-92-027, ECP-13-053 & F-16-052

TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 98
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: DATE: DECEMBER 29, 2015

SHEET 19 OF 22 SDP-15-067



Geogrid Installation at Corners



Geogrid Installation on Curves

Note:
 1. Check with manufacturer specifications on correct direction of orientation for geogrid to obtain proper strength.
 2. Corner units recommended for outside corners. Availability May Vary.

Note:
 1. Check with manufacturer specifications on correct direction of orientation for geogrid to obtain proper strength.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2855

TEC
 Tarantino Engineering Consultants, PC
 7678 Midtown Rd.
 Fittsboro, MD 20759
 410-921-7678
 www.tarantinoec.com

NO.	REVISION	DATE



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 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. 24871, EXPIRATION DATE: 2/28/18.



NO SWD A.S-BUILT INFO ON THIS SHEET
 ANDREW A. PORTER, PE #15836
 11/15/17

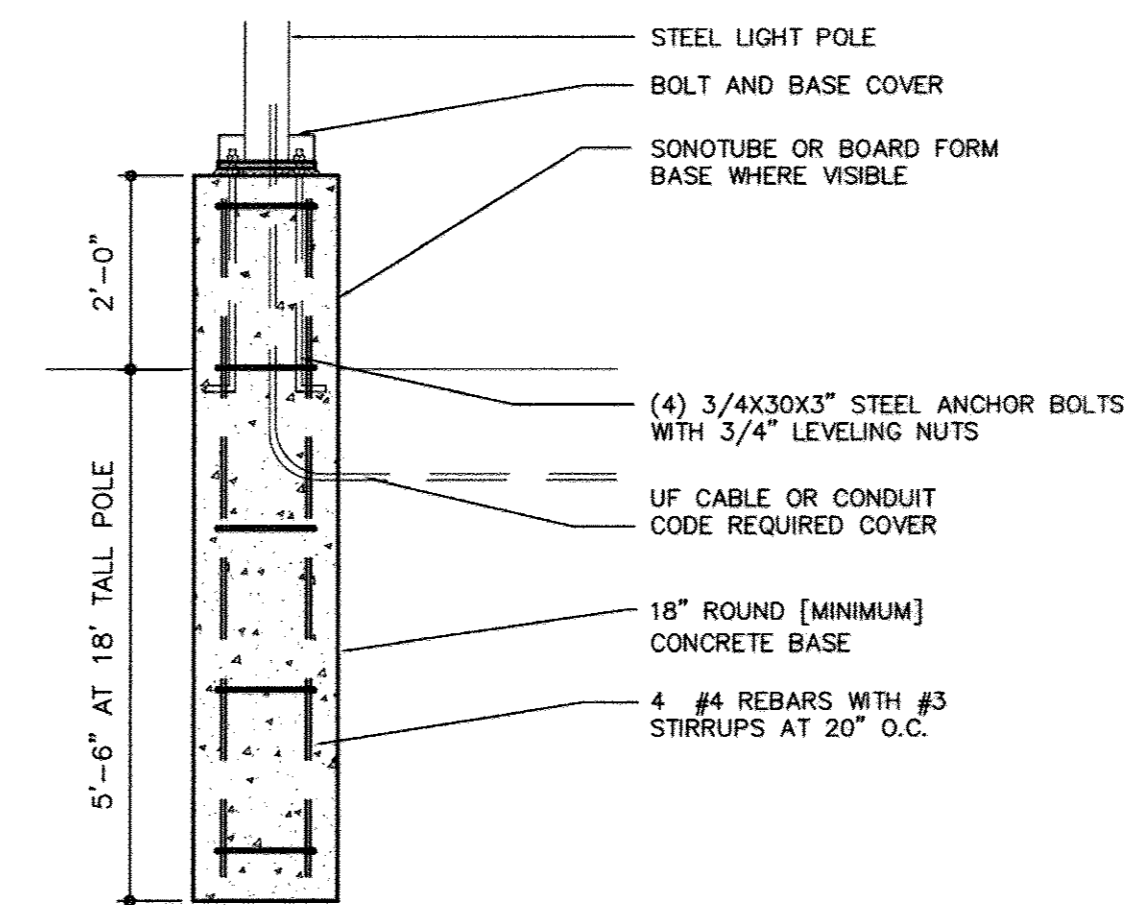
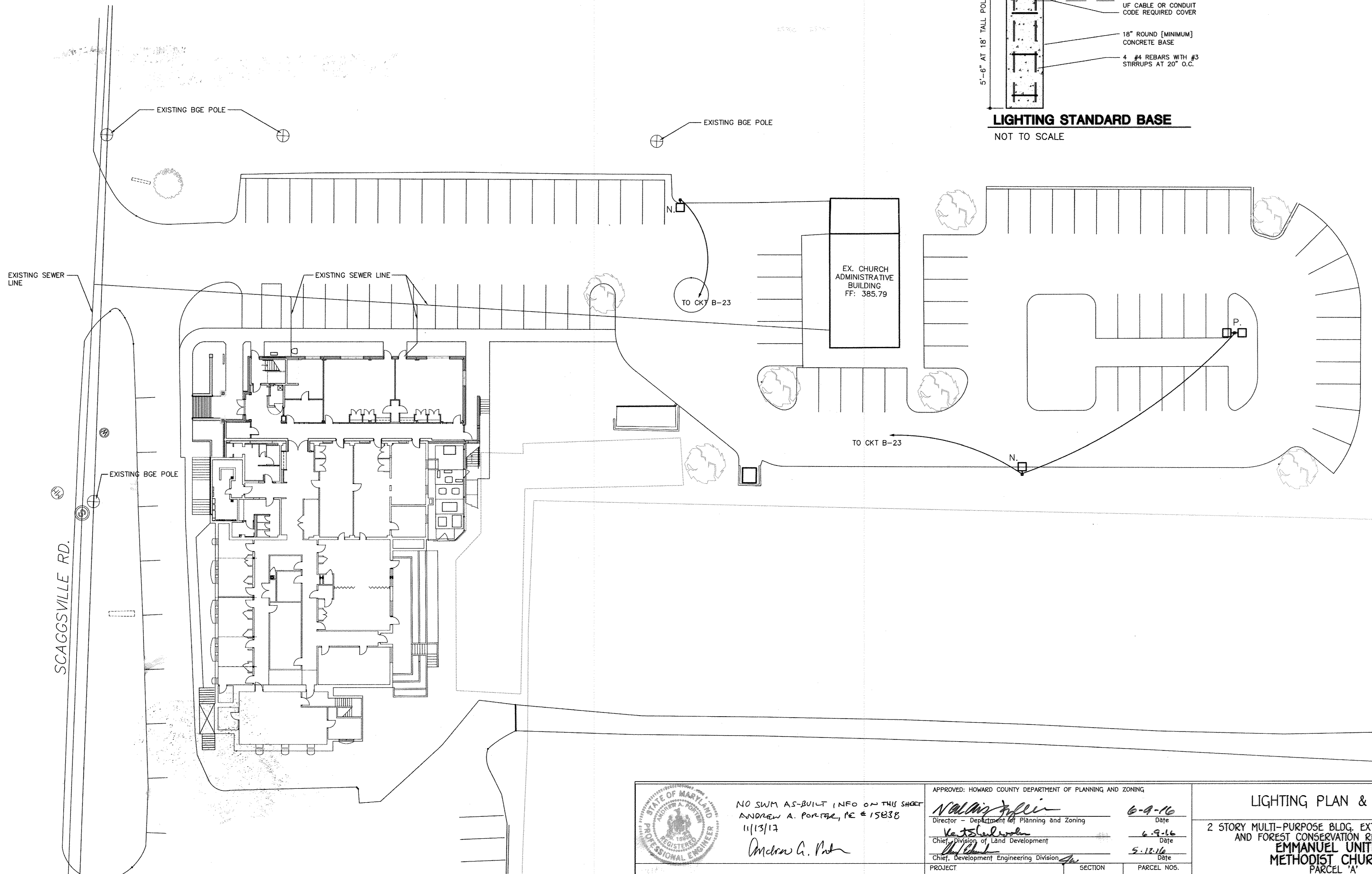
OWNER AND DEVELOPER
 REVEREND STEPHANIE VADER
 EMMANUEL UNITED
 METHODIST CHURCH
 10755 SCAGGSVILLE ROAD
 LAUREL, MD 20723
 301-498-2093

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Matthew J. Miller 6-9-16
 Director - Department of Planning and Zoning Date
Kurt S. Calverley 6-9-16
 Chief, Division of Land Development Date
Patricia A. ... 5-13-16
 Chief, Development Engineering Division Date

PROJECT		SECTION	PARCEL NOS.		
EMMANUEL UNITED METHODIST CHURCH		-	A		
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
23786 & 23787	11	R-20	46	SIXTH	6068.02
WATER CODE			SEWER CODE		
E-18			7550000		

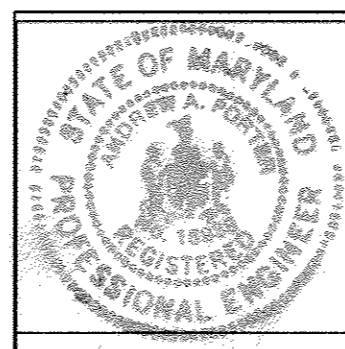
SITE WALL TYPICAL DETAILS
 2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT.
 AND FOREST CONSERVATION RETENTION BANK
 EMMANUEL UNITED
 METHODIST CHURCH
 PARCEL 'A'
 PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
 SDP-92-027, ECP-13-053 & F-16-052
 ZONED: R-20
 TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 98
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: DATE: DECEMBER 29, 2015
 SHEET 21 OF 22 SDP-15-067



LIGHTING STANDARD BASE

NOT TO SCALE

ELECTRICAL SITE PLAN
1"=20'
11/15/17 AS-BUILT



NO SWM AS-BUILT INFO ON THIS SHEET
ANDREW A. PORTER, PE #15838
11/15/17
Andrew A. Porter

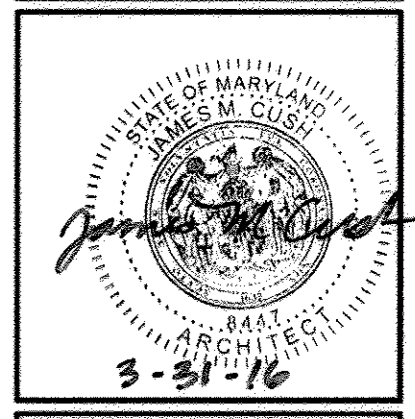
OWNER AND DEVELOPER
REVEREND STEPHANIE VADER
EMMANUEL UNITED
METHODIST CHURCH
10755 SCAGGSVILLE ROAD
LAUREL, MD 20723
301-725-5200

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING					
<i>N. Collins Miller</i>		6-9-16			
Director - Department of Planning and Zoning		Date			
<i>V. St. John</i>		6-9-16			
Chief, Division of Land Development		Date			
<i>W. Smith</i>		5-12-16			
Chief, Development Engineering Division		Date			
PROJECT	SECTION	PARCEL NOS.			
EMMANUEL UNITED METHODIST CHURCH	-	A			
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
23786 & 23787	11	R-20	46	SIXTH	6068.02
WATER CODE	SEWER CODE				
E-18	7550000				

LIGHTING PLAN & DETAILS
2 STORY MULTI-PURPOSE BLDG. EXT. & PARKING LOT EXT.
AND FOREST CONSERVATION RETENTION BANK
**EMMANUEL UNITED
METHODIST CHURCH**
PARCEL 'A'
PREVIOUS HOWARD COUNTY FILES: BA 10-034C&V, BA 90 66E&V
SDP-92-027, ECP-13-053 & F-16-052
ZONED: R-20
TAX MAP NO.: 46 GRID NO.: 11 PARCEL NO.: 98
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MARCH 30, 2016
SHEET 22 OF 22 SDP-15-067

CORKILL CUSH REEVES, P.A.
A R C H I T E C T S
10,111 M.L. King, Jr. Hwy., Suite 202, Bowie, MD 20720
architecture · planning · feasibility · landscape · interiors
PHONE: 301.577.2468 301.577.2469 FAX: 301.577.6102

EMMANUEL UNITED METHODIST CHURCH
ADDITION AND RENOVATION
10755 SCAGGSVILLE ROAD
LAUREL, MD 20723



Project No. -NA-
Date 9/2/15
Revisions
Project Architect -NA-
Drawn By -NA-
Checked By -NA-
Scale 1" = 20'
Area

XREF
File Name: E-site.dwg

Title ELECTRICAL
SITE PLAN

Dwg. No. **ES1**
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